OKLAHOMA DEPARTMENT OF TRANSPORTATION		
DESCRIPTION	REVISIONS	DATE

STATIONING BASED ON "AS-BUILT" PLANS
FEDERAL AID PROJECT NO. I-244-2(115)096

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED

INTERSTATE HIGHWAY

PROJECT NO. ACNHPPI-4440-(002)SS
BRIDGE REHABILITATION
2ND STREET OVER I-444 AND
2ND STREET W-N RAMP OVER I-444

TULSA COUNTY

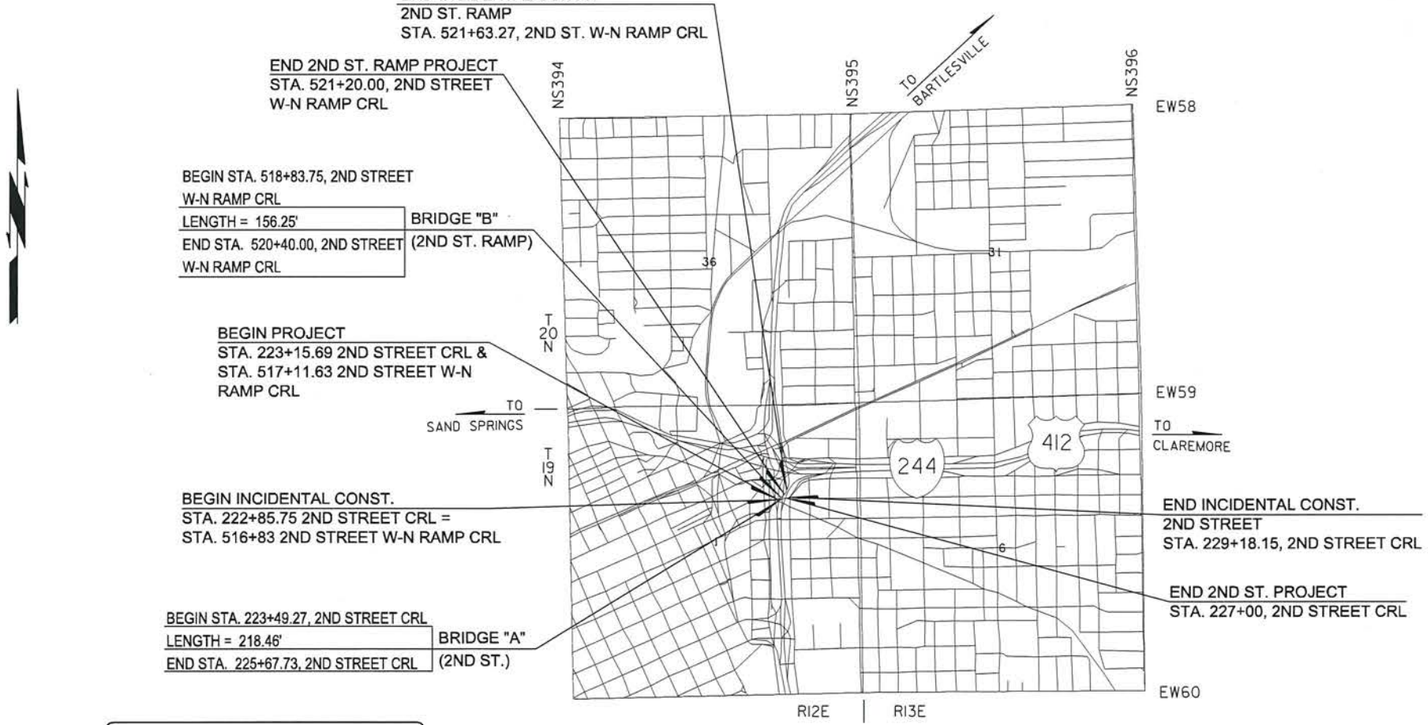
CONTROL SECTION NO. 11-72-90
STATE JOB NO. JP 28865(04)
BRIDGE "A" NBI NO. 18097, STRUCTURE NO. 7292 0106 X
BRIDGE "B" NBI NO. 29155, STRUCTURE NO. 7292 0107 XR

MANDATORY TIE
THIS PROJECT SHALL BE MANDITORILY TIED WITH TULSA COUNTY JOB PIECES: 28880(04), 28879(04), 28868(04) AND SHALL BE BID ACCORDINGLY.

FOR INDEX OF SHEETS AND STANDARDS SEE SHEET 2

END INCIDENTAL CONST.
2ND ST. RAMP
STA. 521+63.27, 2ND ST. W-N RAMP CRL

END 2ND ST. RAMP PROJECT
STA. 521+20.00, 2ND STREET
W-N RAMP CRL



BEGIN STA. 518+83.75, 2ND STREET W-N RAMP CRL
LENGTH = 156.25'
END STA. 520+40.00, 2ND STREET W-N RAMP CRL
BRIDGE "B" (2ND ST. RAMP)

BEGIN PROJECT
STA. 223+15.69 2ND STREET CRL &
STA. 517+11.63 2ND STREET W-N RAMP CRL

BEGIN INCIDENTAL CONST.
STA. 222+85.75 2ND STREET CRL =
STA. 516+83 2ND STREET W-N RAMP CRL

END INCIDENTAL CONST.
2ND STREET
STA. 229+18.15, 2ND STREET CRL

END 2ND ST. PROJECT
STA. 227+00, 2ND STREET CRL

BEGIN STA. 223+49.27, 2ND STREET CRL
LENGTH = 218.46'
END STA. 225+67.73, 2ND STREET CRL
BRIDGE "A" (2ND ST.)

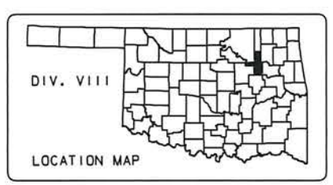
DESIGN DATA

ADT	2016	= 5,200
ADT	2036	= 7,700
T (% ADT)		= 5%
V		= 30MPH
20 YR FLEX ESALS		= 3.4M

SCALES	1"
PLAN	1" = 50'
PROFILE HOR.	1" = 50'
VER.	1" = 5'
LAYOUT MAP	1" = 5,280

CONVENTIONAL SYMBOLS

- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES
- TELEPHONE & TELEGRAPH
- POWER LINES
- BUILDINGS
- OILWELL
- DRAINAGE STRUCTURES - IN PLACE
- DRAINAGE STRUCTURES - NEW
- PRES. R/W — RIGHT-OF-WAY LINES - EXISTING
- R/W — RIGHT-OF-WAY LINES - NEW
- CONTROLLED ACCESS
- R/W — RIGHT-OF-WAY FENCE



NOTE: PROJECT LENGTH BASED ON 2ND STREET AND 2ND ST. W-N RAMP CRL STATIONING

ROADWAY LENGTH_____	245.85 FT.	0.047 MI.
BRIDGE LENGTH_____	374.71 FT.	0.071 MI.
PROJECT LENGTH_____		0.118 MI.

EQUATIONS : NONE
EXCEPTIONS : NONE

2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, JANUARY 4, 2010.

TETRA TECH
PREPARED BY: TETRA TECH FOR THE OKLAHOMA DEPARTMENT OF TRANSPORTATION

LICENSED PROFESSIONAL ENGINEER
John W. Barker
16541
OKLAHOMA

CA 2388 (EXP. 06-30-17)
DATE
JOHN W. BARKER, P.E.
OKLA. REG. NO. 16541

OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED	DATE APPROVED
BY	BY
CHIEF ENGINEER	DIVISION ADMINISTRATOR

PROJECT NO. ACNHPPI-4440(002)SS SHEET NO. 1

DESCRIPTION	REVISIONS	DATE

INDEX OF SHEETS

THE FOLLOWING STANDARD DRAWINGS SHALL BE REQUIRED FOR THIS PROJECT

BRIDGE	ROADWAY	TRAFFIC	
TR4-2-00E	SSS-1-1	TCS1-1-01	PM2-1-01
FSHP-42-2-00E	PED-3-2	TCS2-1-00	PM4-1-01
EJ-SQ-03E	LECS-4-1	TCS3-1-01	PM5-1-00
EJ-SK-03E	LTU-4-0	TCS4-1-01	PM6-1-00
B40-STL-BM-BRACING-00E	CI-1-2	TCS5-1-00	PM7-1-00
	SSIF-4-0	TCS6-1-02	RSD1-1-00
	SPB-1-4	TCS7-1-02	RSD2-1-00
	CLB-1-2	TCS8-1-00	WSD1-1-00
	DC-3-2	TCS9-1-01	WSD2-1-00
	CSCD-5-3	TCS10-1-00	WSD3-1-00
	CIG-3-0	TCS11-1-01	MSD1-1-00
	SP1-4-1	TCS12-1-00	MSD2-1-00
		TCS13-1-00	MSD3-1-01
		TCS14-1-00	MSD4-1-00
		TCS15-1-00	MSD5-1-00
		TCS16-1-00	GMS1-1-00
		TCS18-1-01	GMS2-1-00
		TCS19-1-01	SSP1-1-02
		TCS20-1-00	SSA1-1-00
		TCS21-1-02	SSA2-1-00
		TCS22-1-00	THRI-1-02
		TCS23-1-00	GA31-1-00
		TCS24-1-02	GHW1-1-00
		TCS25-1-00	GHW2-1-00

2ND STREET AND RAMP OVER I-444

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

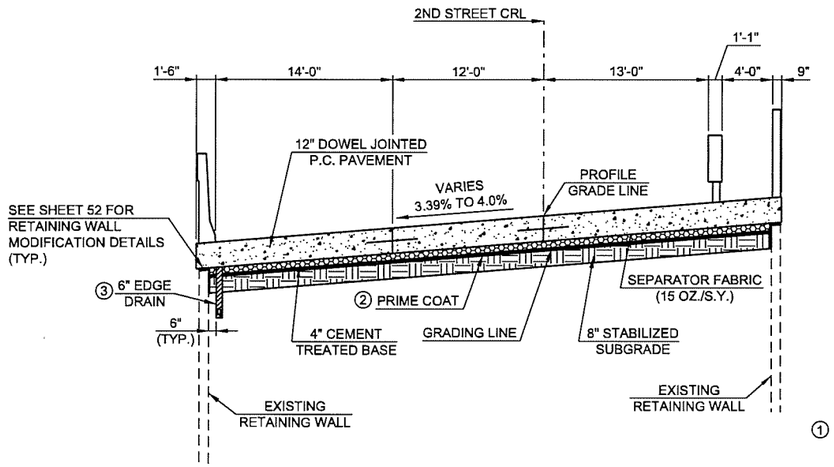
INDEX OF SHEETS AND STANDARDS

STATE JOB NO. 28865(04) SHEET NO. 2

TULSA CO. 2ND STREET

6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -02-GN-Sheet Index.dgn

DESCRIPTION	REVISIONS	DATE



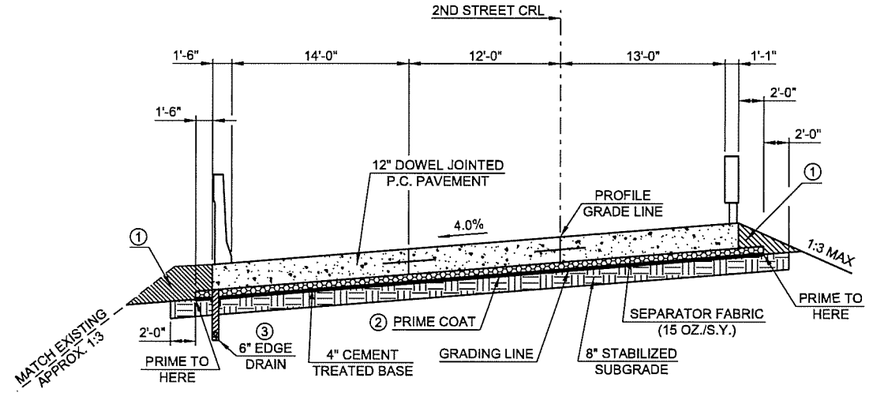
TYPICAL SECTION NO. 1
2ND STREET

STA. 226+23.68 TO 226+73, 2ND STREET CRL

① TO BE BACKFILLED AND COMPACTED AS PART OF THE FINISHING OPERATIONS. COST TO BE INCLUDED IN UNCLASSIFIED BORROW.

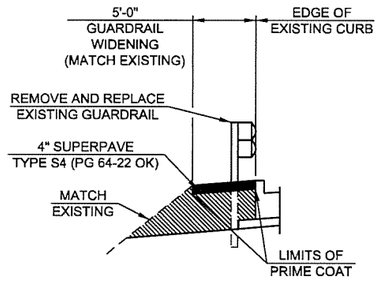
② PRIME COAT TO BE APPLIED TO FULL WIDTH OF TOP OF SUBGRADE (0.35 GAL/S.Y.)

③ SEE ODOT STD. DRAWING PED-3-2 FOR PAVEMENT EDGE DRAIN DETAILS.



TYPICAL SECTION NO. 3
2ND STREET

STA. 226+86 TO 227+00, 2ND STREET CRL

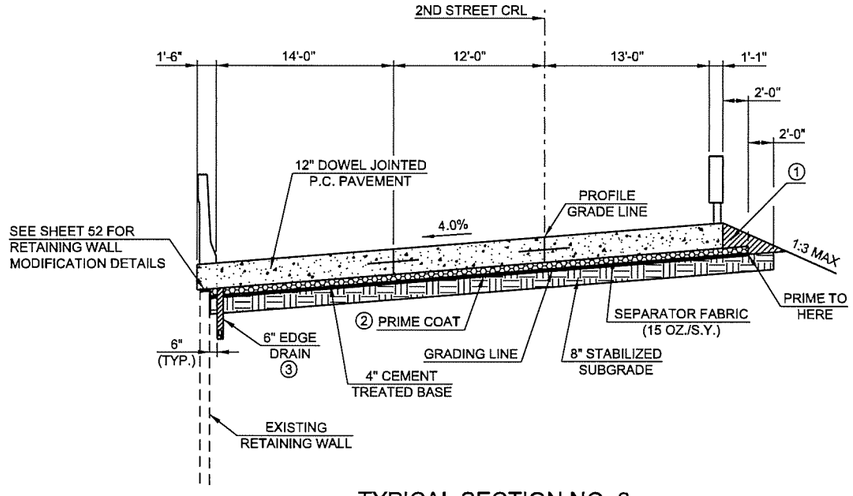


GUARDRAIL WIDENING
2ND STREET

STA. 227+00 RT. TO 228+43.15 RT., 2ND STREET CRL

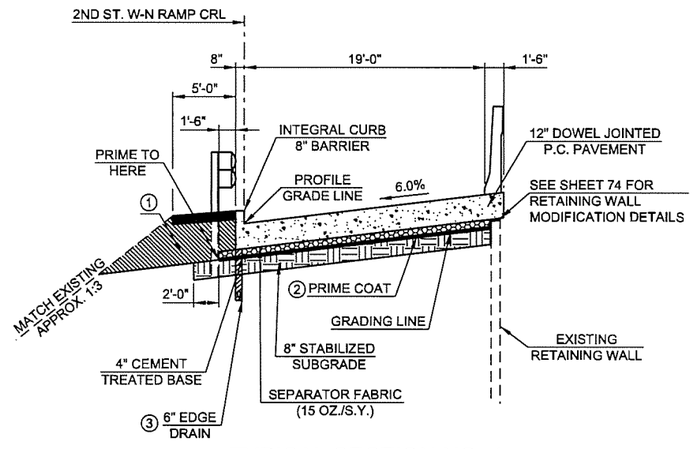
2ND STREET RAMP

STA. 520+70.12 LT. TO 521+63.27 LT., 2ND ST. W-N RAMP CRL
STA. 521+20 RT. TO 521+63.27 RT., 2ND ST. W-N RAMP CRL



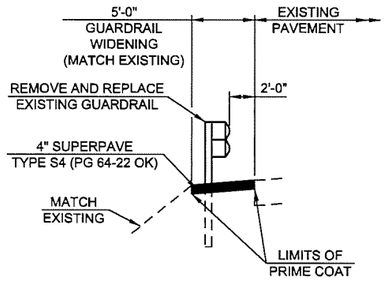
TYPICAL SECTION NO. 2
2ND STREET

STA. 226+73 TO 226+86, 2ND STREET CRL



TYPICAL SECTION NO. 4
2ND STREET RAMP

STA. 520+70.12 TO 521+20, 2ND ST. W-N RAMP CRL



GUARDRAIL WIDENING
2ND STREET

STA. 227+00 LT. TO 229+18.15 LT., 2ND STREET CRL

2ND STREET AND RAMP OVER I-444

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

STATE JOB NO. 28865(04) SHEET NO. 3

TULSA CO. 2ND STREET

6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -03-RD-Typical Sec.dgn

DESCRIPTION	REVISIONS	DATE

GENERAL CONSTRUCTION NOTES

ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, OKLAHOMA DEPARTMENT OF TRANSPORTATION, EXCEPT AS OTHERWISE NOTED ON THE DRAWINGS.

THE STATIONING SHOWN ON THE PLANS IS BASED ON THE STATIONING OF THE ORIGINAL CONSTRUCTION PLANS, F.A.P. I-244-2(115)096 THAT MAY BE OBTAINED FROM THE REPROFUCTION BRANCH OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION. THE CONTRACTOR IS RESPONSIBLE FOR REPRODUCING STATIONING IN THE FIELD AND SETTING SURVEY CONTROL POINTS.

IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT, THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

THE CONTRACTOR IS TO MAKE EVERY EFFORT TO LOCATE AND PROTECT ALL UTILITIES AND STRUCTURES, WHETHER SHOWN OR NOT, PRIOR TO ANY CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL SO CARRY ON CONSTRUCTION WITHOUT CAUSING DAMAGE TO ANY UTILITIES OR STRUCTURES REMAINING IN PLACE.

ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT TO THE RIGHT-OF-WAY LINE AT EACH STRUCTURE AND BRIDGE, IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK.

ANY SODDED AREAS DISTURBED OUTSIDE THE CONSTRUCTION LIMITS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

STANDARD PAY ITEM NOTES

(R-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY. SEE SECTION 109.01B OF THE STANDARD SPECIFICATIONS.

(R-3) ESTIMATED QUANTITY ONLY. TO BE USED IN A MANNER APPROVED BY THE ENGINEER.

(R-7) PRICE BID TO INCLUDE COST OF 180 POUNDS OF 10-20-10 FERTILIZER ESTIMATED AT 0.20 POUNDS PER SQUARE YARD.

(R-8) PRICE BID TO INCLUDE COST OF 36 M-GALLON WATER ESTIMATED AT 40 GALLONS PER SQUARE YARD.

(R-28) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. YD. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.

(R-30) PRICE BID TO INCLUDE COST OF TACK COAT, MEETING THE REQUIREMENTS OF SECTION 407 OF THE STANDARD SPECIFICATIONS.

(R-32) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.

(R-41) QUANTITY INCLUDES AN ESTIMATED 1 CY TO BE USED AS DIRECTED BY THE ENGINEER

(R-48) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.

(R-49) TO BECOME THE PROPERTY AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

(R-50) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.

PAY ITEM NOTES

1. TO BE USED AS DIRECTED BY THE ENGINEER.
2. PAY QUANTITY TO BE USED FOR SHAPING SLOPES AT GUARDRAIL WIDENING. COST TO INCLUDE GRADING AND COMPACTION.
3. PRICE TO INCLUDE SEDIMENT REMOVAL.
4. SEE SUMMARY OF DRAINAGE STRUCTURES
5. INCLUDES REMOVAL OF 5 CRASH BARRELS AT 2ND STREET STA. 227+00 RT., REMOVAL OF EXISTING STAIRS AND SIDEWALK AT HANDICAP RAMP AND MISCELLANEOUS REMOVALS AT INLET REPAIR. INCLUDES ITEMS AS DIRECTED BY ENGINEER AND NOT COVERED BY OTHER ITEMS OF WORK.
6. PAY ITEM "REMOVAL OF EXISTING STRUCTURES" SHALL INCLUDE REMOVAL OF TOP PORTION OF RETAINING WALLS TO THE ELEVATIONS AS SHOWN ON THE PLANS. SEE SHEETS 52 AND 74 FOR DETAILS. PRICE BID FOR THIS ITEM INCLUDES COST OF SAWCUTTING RETAINING WALLS. PRICE BID FOR THIS ITEM SHALL INCLUDE REMOVAL OF 10 FOOT SECTION OF PARAPET AT 2ND ST. RAMP N-W STA. 521+20 RT.
7. PAY ITEM "REMOVAL OF ASPHALT PAVEMENT" INCLUDES REMOVAL OF EXISTING ASPHALT GUARDRAIL WIDENINGS AS SHOWN ON THE PLANS. INCLUDES COST OF ALL SAWCUTTING OF EXISTING PAVEMENT AS NECESSARY.
8. PAY ITEM "SUPERPAVE, TYPE S4 (PG 64-22 OK)" IS TO BE USED FOR GUARDRAIL WIDENING AS SHOWN ON THE PLANS.
9. CLEARING AND GRUBBING SHALL OCCUR 20 FEET BEYOND THE LIMITS OF NEW ROADWAY CONCRETE AND APPROACH SLABS.
10. TO BE USED FOR CONSTRUCTION OF HANDICAP RAMP AND REPLACEMENT OF STAIRS AT 2ND STREET STATION 226+73 RT. REMAINDER AT GUARDRAIL WIDENING.
11. INCLUDES 142 SY FOR HANDICAP RAMP AND 12 SY AT INLET REPAIR AT 2ND STREET STA. 223+47, 50' LT. REMAINDER AT GUARDRAIL WIDENING.
12. INCLUDES 8 CY FOR INLET REPAIR AT 2ND STREET STA. 223+47, 50' LT.
13. INCLUDES 18 CY OF TYPE B BEDDING MATERIAL AND 41 CY OF TRENCH EXCAVATION.
14. INCLUDES 225 LF TO ACCOMMODATE GUARDRAIL REMOVAL AND REPLACEMENT ADJACENT TO PIERS 1, 2 AND 3 REPLACMENTS.
15. TRANSITION GUARDRAIL CURBING INTO EXISTING CURB.
16. INCLUDES 3 CY FOR INLET REPAIR AT 2ND STREET STA. 223+47, 50' LT AND 12.8 C.Y. AT STAIRS AND HANDICAP RAMP.
17. THE COST OF SR1 AND FS2 REINFORCING BARS FOR THE TRAFFIC RAILS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "P.C. CONCRETE FOR PAVEMENT".

JP 28865(04)

SUMMARY OF PAY QUANTITIES

0100 ROADWAY

ITEM NUMBER		DESCRIPTION		UNIT	TOTAL
201(A)	0102	CLEARING AND GRUBBING	(1)(9)	L.SUM	1
202(A)	0183	UNCLASSIFIED EXCAVATION	(R-1)	CY	350
202(D)	0184	UNCLASSIFIED BORROW	(1)(2)(R-3)	CY	128
202(H)	0185	EARTHWORK	(10)	LSUM	1
221(C)	2801	TEMPORARY SILT FENCE	(1)(3)(10)	LF	561
230(A)	2806	SOLID SLAB SODDING	(1)(R-7)(R-8)(11)	SY	900
307(K)	4300	STABILIZED SUBGRADE	(R-1)	SY	518
317	4270	CEMENT TREATED BASE	(R-1)	SY	498
325	5271	SEPARATOR FABRIC	(R-1)	SY	498
408	5774	PRIME COAT	(R-28)	GAL	286
411(C)	5960	SUPERPAVE, TYPE S4(PG 64-22 OK)	(8)(R-1)(R-30)(R-32)	TONS	71
414(B)	5725	DOWEL JOINTED P.C. CONCRETE PAVEMENT (PLACEMENT)	(R-1)	SY	501
414(G)	5275	P.C. CONCRETE FOR PAVEMENT	(R-1)(17)	CY	169
501(G)	6315	CLSM BACKFILL	(R-3)(12)	CY	10
504(D)	6245	CONCRETE RAIL (TR4)	(R-1)	LF	81
504(E)	1381	CONCRETE PARAPET	(R-1)	LF	53.4
504(E)	6190	42" F-SHAPED PARAPET	(R-1)	LF	119.8
509(B)	0321	CLASS A CONCRETE	(R-3)(16)	CY	15.8
510(D)	6341	MSE RETAINING WALL	(10)	SY	21.8
511(A)	0322	REINFORCING STEEL	(10)	LB	846
609(A)	0380	CONCRETE CURB (8" BARRIER-INTEGRAL)	(R-1)	LF	50
611(G)	5697	INLET - LONGITUDINAL BARRIER - TYPE I, DES.1	(4)	EA	1
611(H)	7126	ADD'L DPTH IN INLET MED.BAR.,TYP I, DES. 1	(4)	VF	1.25
611(I)	4488	REPLACEMENT OF INLET FRM&GRT (SSIF-FRM,CIG-GRT-VG-F)	(4)	EA	4
611(M)	4488	REPLACEMENT OF CAST IRON HOOD	(4)	EA	3
613(A)	0403	15" R.C. PIPE CLASS III	(13)	LF	48
613(J)	5915	EDGE DRAIN CONDUIT-PERFORATED	(R-1)	LF	127
613(K)	5916	EDGE DRAIN OUTLET LATERAL-NONPERFORATED	(R-1)	LF	36
613(Q)	5946	OUTLET LATERAL HEADWALL	(R-1)	EA	2
619(A)	0920	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	(5)(14)(R-48)(R-49)(R-50)	L.SUM	1
619(B)	4727	REMOVAL OF CONCRETE PAVEMENT	(R-49)(R-50)	SY	590
619(B)	4728	REMOVAL OF ASPHALT PAVEMENT	(7)(R-49)(R-50)	SY	280
619(B)	4778	REMOVAL OF EXISTING STRUCTURES	(6)(R-49)(R-50)	EA	1
619(B)	4780	REMOVAL OF GUARDRAIL	(14)	LF	726
619(B)	4792	REMOVAL OF SIDEWALK		SY	42
622(A)	4743	1 1/2" PIPE RAILING	(10)	LF	200.7
623	0100	(PL)GUARDRAIL CURBING	(15)	EA	4
623(A)	0932	BEAM GUARDRAIL W-BEAM SINGLE	(14)	LF	612.5
623(F)	8300	GUARDRAIL TRAIL END TURNDOWN (31")		EA	3
623(I)	8700	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")		EA	5

SUMMARY OF REMOVAL

LOCATION	619(B)	619(B)
	REMOVAL OF CONCRETE PAVEMENT	REMOVAL OF SIDEWALK
STATION	SY	SY
2ND STREET		
223+15.69 TO 223+29.27	82	7
226+02 TO 226+73	319	35
226+73 TO 227+00	77	
2ND ST. RAMP W-N		
520+70.12 TO 521+20	112	
TOTAL	590	42

SUMMARY OF SURFACING

LOCATION	307(K)	317	325	408	414(C)	414(G)	609(A)	613(J)	613(K)	613(Q)
	STABILIZED SUBGRADE	CEMENT TREATED BASE	SEPERATOR FABRIC	PRIME COAT	CONT. REINF. P.C.C. PAVEMENT (PLACEMENT)	P.C. CONCRETE FOR PAVEMENT	CONCRETE CURB (8" BARRIER-INTEGRAL)	EDGE DRAIN CONDUIT-PERFORATED	EDGE DRAIN OUTLET LATERAL-NONPERF.	OUTLET LATERAL HEADWALL
STATION	SY	SY	SY	GAL	SY	CY	LF	LF	LF	EA
2ND STREET										
226+23.68 TO 226+73	244	244	244	86	254	85		50		
226+73 TO 226+86	65	62	62	22	61	21		13		
226+86 TO 227+00	77	71	71	25	65	22		14	18	1
2ND ST. RAMP W-N										
520+70.12 TO 521+20	132	121	121	43	121	41	50	50	18	1
TOTAL	518	498	498	176	501	169	50	127	36	2

SUMMARY OF GUARDRAIL

LOCATION			408	411(C)	619(B)	619(B)	623	623(A)	623(F)	623(I)	853
			PRIME COAT	SUPERPAVE TYPE S4(PG 64-22 OK)	REMOVAL OF ASPHALT PAVEMENT	REMOVAL OF GUARDRIAL	(PL)GUARDRAIL CURBING	BEAM GUARDRAIL W-BEAM SINGLE	GUARDRAIL TRAIL END TURNDOWN (31")	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")	GUARDRAIL DELINEATORS (TYPE 1, CODE 1)
STATION	LT.	RT.	GAL	TON	SY	LF	EA	LF	EA	EA	EA
2ND STREET											
226+99.40 TO 229+18.15	X		43	28	122	210		175	1	1	4
226+99.40 TO 228+43.15		X	28	18	80	145	1	100	1	1	2
2ND ST. RAMP W-N											
516+83 TO 517+23.98	X		11	7			1	12.5	1	1	1
520+69.52 TO 521+63.27	X		19	12	53	103	1	75		1	2
521+19.40 TO 521+63.15		X	9	6	25	43	1	25		1	1
TOTAL			110	71	280	501	4	387.5	3	5	10

2ND STREET AND RAMP OVER I-444

DESIGN	JSH	11-15
DRAWN	MRM	11-15
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND SUMMARY OF PAY QUANTITES (ROADWAY)

STATE JOB NO. 28865(04) SHEET NO. 4

TULSA CO. 2ND STREET

6/6/2016 N:\113990200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -04-GN-Road.dgn

DESCRIPTION	REVISIONS	DATE

UNION PACIFIC RAILROAD COMPANY NOTES

NOTIFICATION OF WORK:
THE CONTRACTOR IS REQUIRED TO GIVE THE UNION PACIFIC RAILROAD COMPANY AT LEAST 10 WORKING DAYS ADVANCE NOTICE, IN WRITING, BEFORE ANY WORK IS STARTED ON THE SITE. TO AVOID HAZARDS, THE UNION PACIFIC RAILROAD COMPANY MAY HAVE A REPRESENTATIVE PRESENT, IF DEEMED NECESSARY, FOR THE PURPOSE OF INSPECTION AND THE ISSUANCE OF ANY APPROPRIATE INSTRUCTIONS FOR RAILROAD OPERATIONS DURING THE REHABILITATION OF 2ND STREET BRIDGE AND RAMP OVER I-444 IN TULSA COUNTY AS IT RELATES TO THE UNION PACIFIC RAILROAD COMPANY'S PROPERTY (AARDOT 413 294E, MILEPOST 278.56)

THE CONTRACTOR SHALL NOTIFY:

RYAN McDERMOTT
MANAGER OF TRACK MAINTENANCE
UNION PACIFIC RAILROAD COMPANY
2827 RAY DR.
DENISON, TX 75020
PHONE: 903-415-2485
EMAIL: RLMCDERM@UP.COM

MR. CLAY A. McMANAMAN
MANAGER OF INDUSTRY & PUBLIC PROJECTS
UNION PACIFIC RAILROAD COMPANY
P.O. BOX 1337
EL RENO, OKLAHOMA 73036
PHONE: 501-373-2927
EMAIL: CAMCMANA@UP.COM

FLAGGING AND INSURANCE:
FLAGGING AND INSURANCE SHALL BE PROVIDED AS SPECIFIED IN SECTION 107 OF THE STANDARD SPECIFICATIONS AND IN THE SPECIAL PROVISIONS FOR RAILROAD FLAGGING (SEE PROPOSAL OF SPECIAL PROVISIONS) AND WHAT IS STATED IN THE UNION PACIFIC RAILROAD COMPANY'S RIGHT OF ENTRY AGREEMENT. UNION PACIFIC RAILROAD COMPANY, AT THEIR DISCRETION, SHALL PROVIDE FLAGGING FOR THE RAILROAD DURING CONSTRUCTION OPERATIONS.

THE CONTRACTOR IS REQUIRED TO REIMBURSE UNION PACIFIC RAILROAD COMPANY FOR FLAGGING SERVICES PROVIDED.

THE CONTRACTOR SHALL ALSO FURNISH SATISFACTORY EVIDENCE TO THE STATE OF OKLAHOMA THAT THEY HAVE PROVIDED INSURANCE OF THE KINDS AND AMOUNTS AS SPECIFIED IN THE SPECIAL PROVISIONS FOR RAILROAD INSURANCE AND IN THE UNION PACIFIC COMPANY'S RIGHT OF ENTRY AGREEMENT.

THE CONTRACTOR WILL BE REQUIRED TO ENTER INTO A RIGHT OF ENTRY AGREEMENT WITH THE UNION PACIFIC RAILROAD COMPANY BEFORE THEY WILL BE ALLOWED ON THE RAILROAD'S RIGHT-OF-WAY.

PRE-WORK MEETING:
PRIOR TO WORKING ON THE UNION PACIFIC RAILROAD COMPANY'S RIGHT-OF-WAY OR IN THE VICINITY OF THEIR TRACKS, YOU **MUST** CONTACT THE LOCAL MANAGER OF TRACK MAINTENANCE FOR THE UNION PACIFIC RAILROAD COMPANY TO COORDINATE YOUR WORK. IT IS VITAL THAT YOU HAVE CONTACT WITH THE UNION PACIFIC RAILROAD COMPANY MANAGER OF TRACK MAINTENANCE PRIOR TO GETTING ON THE RAILROAD'S PROPERTY.

COORDINATION WITH RAILROAD:
THE CONTRACTOR SHALL CONDUCT CONSTRUCTION OPERATIONS IN A MANNER WHICH WILL NOT DELAY OR INTERFERE WITH TRAIN OPERATIONS. CONSTRUCTION ACTIVITY WITHIN 25 (TWENTY-FIVE) FEET OF ACTIVE TRACKS WILL REQUIRE A FLAGMAN TO BE PROVIDED BY THE UNION PACIFIC RAILROAD COMPANY AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE UNION PACIFIC RAILROAD COMPANY MANAGER OF TRACK MAINTENANCE, A MINIMUM OF 30 (THIRTY) CALENDAR DAYS IN ADVANCE OF WHEN FLAGGING IS REQUIRED.

SPECIAL PERMISSION MUST BE OBTAINED FROM THE UNION PACIFIC RAILROAD COMPANY BEFORE MOVING ANY EQUIPMENT OR OTHER OBJECT WHICH COULD MAKE THE TRACK IMPASSABLE IF IT FELL WITHIN THE AREA SHOWN ON THE CONSTRUCTION CLEARANCE DIAGRAM.

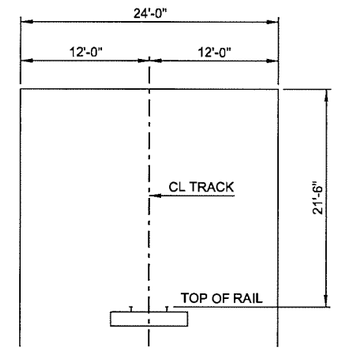
RAILROAD FLAGGERS, PROTECTIVE SERVICES, AND PROTECTIVE DEVICES WILL BE REQUIRED, BUT NOT LIMITED TO, EVENTS WHEN:

- THE CONTRACTOR WORK ACTIVITITES ARE WITHIN 25 (TWENTY-FIVE) FEET OF THE TRACK, MEASURED FROM THE TRACK CENTERLINE.
- ACTIVITIES ARE OVER OR UNDER THE TRACK.
- CRANES OR SIMILAR EQUIPMENT WILL BE POSITIONED WHERE THEY COULD FOUL THE TRACK IF THEY TIPPED OVER OR EXPERIENCED SOME OTHER CATASTROPHIC EVENT.
- IN THE OPINION OF THE UNION PACIFIC RAILROAD COMPANY REPRESENTATIVE:
  - IT IS NECESSARY TO SAFEGUARD THE UNION PACIFIC RAILROAD COMPANY PROPERTY, EMPLOYEES, TRAINS, ENGINES, AND FACILITIES.
  - WHEN ANY EXCAVATION IS PERFORMED BELOW THE BOTTOM OF THE ELEVATIONS AND TRACK OR OTHER UNION PACIFIC RAILROAD COMPANY FACILITIES MAY BE SUBJECT TO MOVEMENT OR SETTLEMENT.
  - WHEN WORK IN ANY WAY INTERFERES WITH SAFE OPERATION OF TRAINS AND TIMETABLE SPEEDS.
  - WHEN ANY HAZARD IS PRESENTED TO RAILROAD TRACK, SIGNALS, COMMUNICATIONS, ELECTRICAL, OR OTHER FACILITIES EITHER DUE TO PERSON, MATERIAL, EQUIPMENT, OR BLASTING IN THE AREA.

EROSION CONTROL AND DRAINAGE:
THE CONTRACTOR WILL INSTALL, MAINTAIN, AND REMOVE ALL EROSION CONTROL MEASURES DEEMED NECESSARY WITHIN THE RAILROAD RIGHT OF WAY.

THE CONTRACTOR WILL MAINTAIN THE RAILROAD DRAINAGE AT ALL TIMES WHEN WORKING WITHIN THE RAILROAD RIGHT OF WAY.

RAIL TRAFFIC:
THE UNION PACIFIC RAILROAD COMPANY HAS 4 TRAINS PER DAY AT 10 MPH, ON THE TULSA SUBDIVISION. RAIL TRAFFIC IS FOR INFORMATION PURPOSES ONLY. ACTUAL RAIL TRAFFIC MAY VARY.



FALSEWORK CLEARANCE DIAGRAM

CLEARANCE OF FALSEWORK REQUIRED BY R.R. FOR OPERATION DURING CONSTRUCTION.

HORIZONTAL DIMENSIONS SHOWN ARE MEASURED AT RIGHT ANGLES TO CL OF R.R.TRACK.

VERTICAL DIMENSION SHOWN IS PERPENDICULAR TO PLAN OF TOP OF RAILS.

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2ND STREET AND RAMP OVER I-444

DESIGN	JSH	5-16
DRAWN	MRM	5-16
CHECKED	JWB	5-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

RAILROAD NOTES

STATE JOB NO. 28865(04) SHEET NO. 4A

TULSA CO. 2ND STREET

DESCRIPTION	REVISIONS	DATE

GENERAL NOTES

SPECIFICATIONS:
COMPLY WITH THE REQUIREMENTS OF THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

DESCRIPTION OF WORK:
THIS PROJECT CONSISTS OF THE FOLLOWING WORK AS SHOWN IN THE PLANS:
REPLACEMENT OF BRIDGE DECK AND TRAFFIC RAILS
REPLACEMENT OF ALL BEARINGS
REPLACEMENT OF APPROACH SLABS
REPAIR OF CRACKS IN SUBSTRUCTURE
REPAIR OF SPALLING/DELAMINATION OF SUBSTRUCTURE
REPLACMENT OF PIER CAPS AND COLUMNS
REPAIR/REPLACEMENT OF SLOPE PAVEMENT

VERIFICATION OF EXISTING CONDITIONS:
ALL DIMENSIONS OF THE EXISTING BRIDGE COMPONENTS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO CONNECT TO THE NEW MATERIAL AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.

THE STATIONING ON THE PLANS IS BASED ON THE STATIONING ON THE EXISTING BRIDGE CONSTRUCTION PLANS. THE CONSTRUCTION PLANS FOR THE EXISTING BRIDGE STRUCTURE MAY BE OBTAINED FROM THE REPRODUCTION BRANCH OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, FEDERAL AID PROJECT NO. I-244-2(115)096.

BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH WORK WILL BE PREFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE OR ATTACHMENTS. ANY DAMAGE TO THE EXISTING BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

CLEANING OF DEBRIS:
THE CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE TOPS OF BRIDGE SEATS. ALL COST TO CLEAN THE DEBRIS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

EXPOSURE OF DETERIORATED STEEL:
IF ANY DETERIORATED STRUCTURAL STEEL IS EXPOSED DURING SAND BLASTING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEER WHO IN TURN SHALL NOTIFY THE BRIDGE ENGINEER AS TO THE EXTENT OF THE DAMAGE. THE BRIDGE ENGINEER SHALL DETERMINE IF ANY REPAIRS ARE NECESSARY AND IF SO, WHAT METHOD OF REPAIR SHALL BE USED.

CONCRETE:
PROVIDE ALL PEDESTAL CONCRETE EDGES WITH A 3/4" CHAMFER. PROVIDE ALL OTHER EXPOSED CONCRETE EDGES OF THE SUBSTRUCTURE WITH A 1 1/2" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. PROVIDE ALL EXPOSED CONCRETE EDGES OF THE SUPERSTRUCTURE WITH A 3/4" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. USE SIZED LUMBER FOR ALL CHAMFER STRIPS.

CONCRETE FOR SUPERSTRUCTURE INCLUDING PROPOSED DECK SLAB, APPROACH SLABS AND PARAPETS SHALL BE CLASS "AA", f'c = 4,000 PSI MINIMUM STRENGTH AT 28 DAYS. CONCRETE FOR PIER REPLACEMENTS AND SLOPEWALLS SHALL BE CLASS "A" CONCRETE, f'c = 3,000 PSI MINIMUM STRENGTH AT 28 DAYS. EQUIP CONCRETE VIBRATORS WITH A SHEATH DESIGNED TO PREVENT DAMAGE TO EPOXY COATINGS WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL.

ANCHORAGE INTO EXISTING CONCRETE:
FOR ALL REINFORCING TO BE ANCHORED INTO THE EXISTING ABUTMENTS, INCLUDING ANCHOR BOLTS FOR THE NEW BEARING ASSEMBLIES, THE CONTRACTOR SHALL USE AN ANCHORAGE SYSTEM THAT HAS BEEN APPROVED BY ODOT'S MATERIAL DIVISION. FOR EMBEDMENT OF REINFORCING STEEL THE ANCHORAGE SYSTEM SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE REINFORCING STEEL THAT IS TO BE ANCHORED. THE EMBEDMENT DEPTHS SHOWN ON THE PLANS ARE TO BE ADJUSTED TO MEET THE MANUFACTORER'S REQUIREMENTS. ANCHORAGES SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 509.04.D(3) OF THE STANDARD SPECIFICATIONS AND THE MANUFACTURE'S SPECIFICATIONS IN A MANNER APPROVED BY THE ENGINEER.

DRILLING INTO THE EXISTING CONCRETE TO INSTALL THE ANCHORAGES SHALL BE ACCOMPLISHED WITHOUT CUTTING THE EXISTING CONCRETE REINFORCING STEEL BARS. PRIOR TO DRILLING, THE CONTRACTOR SHALL LOCATE AND MARK THE EXISTING CONCRETE REINFORCING STEEL BARS WITH NONDESTRUCTIVE TOOLS, EQUIPMENT AND METHODS APPROVED BY THE ENGINEER. IF EXISTING REINFORCING BARS ARE ENCOUNTERED DURING DRILLING, THE DRILLING SHALL CEASE AND THE HOLE SHALL BE GROUTED. THE HOLE SHALL BE RELOCATED TO CLEAR THE EXISTING STEEL BARS. ANY ADJUSTMENT IN THE LOCATIONS OF THE NEW CONCRETE REINFORCING STEEL BARS FROM THE PLAN LOCATIONS SHOWN SHALL BE THE MINIMUM AMOUNT NECESSARY TO AVOID CUTTING THE EXISTING CONCRETE REINFORCING STEEL BARS AND SHALL BE APPROVED BY THE ENGINEER.

ALL COST TO ANCHOR THE NEW REINFORCING STEEL BARS INTO THE EXISTING BRIDGE AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF LOCATING THE EXISTING CONCRETE REINFORCING STEEL BARS, DRILLING, REPAIRING FLAWED DRILL HOLES, ADJUSTING THE LENGTH OF THE NEW REINFORCING STEEL ANCHORAGES AS PER THE ANCHORAGE MANUFACTURER OR THE STANDARD SPECIFICATIONS, ANCHORING INTO THE EXISTING CONCRETE, MATERIALS, LABOR, TOOLS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHOWN IN THE PLANS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

CONCRETE DECK FINISHING:
BRIDGE DECK FOR THIS PROJECT IS TO BE FINISHED WITH A MECHANICAL TYPE FINISHING MACHINE. OVERHANGS SHALL BE HAND FINISHED WITH SUPPORTS FOR FINISHING MACHINE PLACED OVER EXTERIOR BEAMS. OVERHANGING SLAB FORMS WILL BE REQUIRED TO BE OF SUFFICIENT STRENGTH TO SUPPORT THE WEIGHT OF THE FINISHING MACHINE AND FRESH CONCRETE WITHOUT TWISTING OR ROLLING THE BEAMS. CONTRACTOR SHALL ADEQUATELY BRACE THE BEAMS AND FORMS SUCH THAT ROTATION OF THE BEAMS AND FORMS IS PREVENTED BY USING SUCH MEANS AS TEMPORARY DIAPHRAGMS, BRACING THE OVERHANG FORMS TO THE BOTTOM FLANGE OF THE EXTERIOR GIRDER BRACED TO THE TOP FLANGE OF THE ADJACENT INTERIOR GIRDERS, OR ANY OTHER MEANS NECESSARY TO PROVIDE THE REQUIRED GRADE AND ALIGNMENT. PRIOR TO FINISHING OPERATIONS, A PROPOSAL STIPULATING THE TYPE OF FINISHING MACHINE, THE FINISHING PROCEDURES, AND BRACING DESIGN AND METHODS SHALL BE SUBMITTED TO THE ENGINEER. THIS PROPOSAL SHALL SET FORTH ANY AREAS IN WHICH A MECHANICAL FINISHER CANNOT BE USED AND THE METHODS FOR FINISHING THESES AREAS. NO DECK CONCRETE SHALL BE PLACED UNTIL THIS PROPOSAL IS APPROVED BY THE ENGINEER.

DECK SLAB:
EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS DECK FORM HANGERS, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES, THAT WILL REMAIN IN PLACE IN THE DECK SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.

IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC OR AS DIRECTED BY THE ENGINEER. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED DECK SLAB WITHIN 5' OF ANY CONSTRUCTION JOINT UNTIL CONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT.

SEAL ALL DECK SLAB TRANSVERSE AND LONGITUDINAL CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS EXCEPT FOR THE SAWED AND SEALED CONSTRUCTION JOINTS BETWEEN THE APPROACH SLABS AND DECK SLAB. INCLUDE ALL COST OF EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION". INCLUDE ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". THE DEPARTMENT WILL NOT MEASURE THE PREPARATION AND SEALER OF EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT

DECK HAUNCHES:
PLAN QUANTITY FOR CLASS AA CONCRETE INCLUDES 8.7 CUBIC YARDS FOR BRIDGE "A"AND 2.5 CUBIC YARDS FOR BRIDGE "B"HAUNCHES OVER STEEL BEAMS BETWEEN THE END DIAPHRAGMS.

CLSM BACKFILL:
CLSM BACKFILL SHALL BE PLACED BELOW THE PROPOSED APPROACH SLABS AS SHOWN ON THE PLANS. EXCAVATE 1'-0" BELOW THE BOTTOM OF THE PROPOSED APPROACH SLAB, AND COMPACT THE SUBGRADE TO THE SATISFACTION OF THE ENGINEER. PLACE CLSM BACKFILL IN THE EXCAVATION BEHIND THE ABUTMENTS TO THE BOTTOM OF THE PROPOSED APPROACH SLAB.

ALL COSTS OF EXCAVATION AT THE AREAS OF THE NEW APPROACH SLABS TO 1' BELOW THE BOTTOM OF THE NEW APPROACH SLABS, PLACING CLSM BACKFILL BELOW THE NEW APPROACH SLABS INCLUDING COMPACTION OF SUBGRADE, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD OF "CLSM BACKFILL".

SLOPE WALL (4"):
ITEM "SLOPE WALL (4")" INCLUDES REPLACING 90 SY OF SLOPE WALL AT THE BASE OF PIER NO. 1 OF BRIDGE "A" AND REPLACING 80 SY OF SLOPE WALL AT ABUTMENT NO. 3 OF BRIDGE "B". THE LIMITS AND EXTENTS OF SLOPE WALL TO BE REPLACED AT BOTH LOCATIONS SHALL BE DETERMINED BY THE ENGINEER. COSTS TO REMOVE AND DISPOSE THE EXISTING SLOPE WALLS AT AREAS WHERE THEY ARE TO BE REPLACED SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "SLOPE WALL (4")".

FALL PROTECTION SYSTEM:
THE CONTRACTOR IS REQUIRED TO PROVIDE A FALL PROTECTION SYSTEM TO PROTECT I-444 TRAFFIC FROM BRIDGE DECK DEBRIS DUE TO CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL SUBMIT DETAILS OF PROPOSED FALL PROTECTION SYSTEM FOR REVIEW AND ACCEPTANCE. ALL DETAILS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA. THE FALL PROTECTION SYSTEM SHALL BE DESIGNED SO AS NOT TO REDUCE THE EXISTING VERTICAL CLEARANCE MEASURED FROM THE BOTTOM CHORD OF THE EXISTING BEAMS TO THE SURFACE OF I-444. THE CONTRACTOR SHALL VERIFY THE EXISTING VERTICAL CLEARANCE PRIOR TO THE DESIGN AND SUBMITTAL OF THE FALL PROTECTION SYSTEM DETAILS. NO WORK ON THE BRIDGE DECK SHALL BEGIN UNTIL THE THE FALL PROTECTION SYSTEM IS INSTALLED ACCORDING TO THE APPROVED PLANS.

ALL COSTS INCLUDING DESIGN, MATERIALS, INSTALLATION, MAINTENANCE OF FALL PROTECTION SYSTEM DURING CONSTRUCTION OPERATIONS, REMOVAL OF FALL PROTECTION SYSTEM SUBSEQUENT TO DECK CONSTRUCTION OPERATIONS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD OF "CLASS AA CONCRETE".

PRICE BID PER CUBIC YARD OF "CLASS AA CONCRETE" SHALL INCLUDE TEMPORARY VERTICAL CLEARANCE SIGNAGE AS DIRECTED BY THE ENGINEER. THE TEMPORARY VERTICAL CLEARANCE SIGNS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL REMAIN IN PLACE UNTIL INSTALLATION OF THE PERMANENT VERTICAL CLEARANCE SIGNS BY ODOT.

FALSEWORK JACKING:
ITEM "(PL) FALSEWORK JACKING" SHALL CONSIST OF PROVIDING TEMPORARY SUPPORT OF THE EXISTING BEAMS FOR THE REPLACEMENT OF PIER CAPS, COLUMNS AND BEARING ASSEMBLIES. POSITIVE SUPPORT IS REQUIRED TO STABILIZE INDIVIDUAL ELEMENTS IN THE ASSEMBLY AS WELL AS STABILIZE THE ASSEMBLY AS A UNIT. THE CONTRACTOR IS TO PROVIDE AN ADEQUATE NUMBER OF JACKS IN THE JACKING ASSEMBLY TO PREVENT ANY DAMAGE FROM OCCURRING TO THE BRIDGE IN THE EVENT OF A FAILURE OF A SINGLE JACK.

JACKS SHALL HAVE A RATED CAPACITY OF AT LEAST ONE AND ONE-HALF TIMES THE CALCULATED LOAD. THE CONTRACTOR'S ENGINEER SHALL DETERMINE THE CALCULATED LOAD AND INCLUDE PROVISIONS FOR THE STRUCTURE SELF-WEIGHT AND HIGHWAY LOAD (IF APPLICABLE) INCLUDING IMPACT. ALL FALSEWORK TO BE USED FOR THIS PROJECT SHALL BE DESIGNED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN OKLAHOMA. THE SIGNED AND SEALED FALSEWORK DRAWINGS SHALL BE SUBMITTED TO THE STATE BRIDGE DIVISION FOR APPROVAL. FALSEWORK CONSTRUCTION MAY BEGIN ONLY AFTER THE BRIDGE DIVISION APPROVES OF THE WORKING DRAWINGS. ALL COSTS INCLUDING FALSEWORK DESIGN, SUBMITTAL OF WORKING DRAWINGS FOR APPROVAL, LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM "(PL)FALSEWORK JACKING".

REPAIR OF CRACKS:
THE EXISTING SUBSTRUCTURE UNITS HAVE APPROXIMATELY 107 L.F. OF CRACKS AS SHOWN ON THE PLANS THAT SHALL BE CLEANED AND INJECTED WITH EPOXY. AN ADDITIONAL 15 L.F. FOR BRIDGE "A" AND 10 L.F. FOR BRIDGE "B" HAS BEEN INCLUDED TO BE USED AS DIRECTED IN THE FIELD BY THE ENGINEER. THIS WORK SHALL BE IN ACCORDANCE WITH SECTION 520 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL COSTS INCLUDING LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "PREPARATION OF CRACKS ABOVE WATER" AND THE PRICE BID PER GALLON OF "EPOXY RESIN ABOVE WATER".

PNEUMATICALLY PLACED MORTAR:
ITEM "PNEUMATICALLY PLACED MORTAR" CONSISTS OF REPAIRING THE EXISTING BRIDGE SUBSTRUCTURE IN AREAS AS SHOWN IN THE PLANS AND AS DETERMINED BY THE ENGINEER AND IN ACCORDANCE WITH SECTION 521 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. AN ADDITIONAL 15 SY FOR BRIDGE "A"AND 5 SY FOR BRIDGE "B"HAS BEEN INCLUDED TO BE USED AS DIRECTED IN THE FIELD BY THE ENGINEER. SHOULD POWER TOOLS BE NECESSARY FOR REMOVAL OF LOOSE CONCRETE, POWER TOOLS SHALL BE OF SUCH SIZE THAT THEIR USE DOES NOT CAUSE DAMAGE TO THE SOUND CONCRETE. ANY DAMAGE DONE TO THE EXISTING REINFORCING STEEL DURING THE REMOVAL PROCESS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER. ANY DETERIORATED REINFORCING STEEL WITH A SECTION LOSS GREATER THAN 50%, AS DETERMINED BY THE ENGINEER, SHALL BE REPORTED TO THE BRIDGE ENGINEER FOR REMEDIAL ACTION. PRIOR TO MORTAR APPLICATION, BLAST CLEAN THE CONCRETE SURFACE AND REINFORCING STEEL FREE OF DEBRIS AND CORROSION. APPLY PNEUMATICALLY PLACED MORTAR TO REPLACE DETERIORATED CONCRETE. BUILD UP MORTAR TO MATCH THE ORIGINAL LINES AND GRADES OF THE SUBSTRUCTURE.

THE CONTRACTOR MAY PROPOSE AND USE AS AN ALTERNATE ONE OF THE FOLLOWING REPAIR METHODS:
(1) CAST-IN-PLACE CONCRETE
(2) PRE-PLACED AGGREGATE CONCRETE
(3) FORMED AND PUMPED CONCRETE AND MORTAR
(4) TROWELLING AND DRY-PACKING OF REPAIR MORTAR

THE CONTRACTOR SHALL SUBMIT A PROPOSED WORK PLAN OF THE REPAIR METHOD TO BE USED TO THE ENGINEER FOR HIS APPROVAL. THE WORK PLAN SHOULD INCLUDE SURFACE PREPARATION METHODS, PATCHING MATERIAL, BONDING AGENTS, MATERIAL PLACING METHODS, AND FINISHING METHODS. THE CONTRACTOR SHALL TEST REPAIR METHOD PRIOR TO COMMENCEMENT OF THE WORK. FAULTY REPAIRS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ALL COSTS INCLUDING LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "PNEUMATICALLY PLACED MORTAR".

(SP) CORROSION INHIBITOR (SURFACE APPLIED):
ITEM "(SP) CORROSION INHIBITOR" (SURFACE APPLIED)" CONSISTS OF APPLYING A CORROSION INHIBITOR TO SPALLED/DELAMINATED CONCRETE AREAS ON THE ABUTMENTS PRIOR TO PATCHING WITH PNEUMATICALLY PLACED MORTAR. CORROSION INHIBITOR SHALL BE APPLIED TO ALL SURFACE AREAS WITHIN ONE FOOT OF REPAIR AREAS AND SHALL BE COMPATIBLE WITH THE PROPOSED SPECIAL CONCRETE FINISH. AN ADDITIONAL 20 SY FOR BRIDGE "A" AND 5 SY FOR BRIDGE "B" HAS BEEN INCLUDED TO BE USED AS DIRECTED IN THE FIELD BY THE ENGINEER.

ALL COSTS FOR APPLICATION OF THE CORROSION INHIBITOR INCLUDING LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "(SP) CORROSION INHIBITOR (SURFACE APPLIED)".

PAINTING EXISTING STRUCTURES:
ALL OF THE FOLLOWING SURFACES OF THE EXISTING STRUCTURAL STEEL ON THE BRIDGE "A" AND "B" SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH SECTION 512 OF THE STANDARD SPECIFICATIONS USING CATEGORY "E" APPLICATION: TOP AND SIDES OF TOP FLANGE OF ALL BEAMS, DIAPHRAGMS AND LOCALIZED AREAS OF EXISTING BEAMS AND DIAPHRAGMS AS DIRECTED BY THE ENGINEER. SSPC QP-2 CERTIFICATION WILL NOT BE REQUIRED. THE EXISTING PAINT SYSTEMS OF THE BRIDGE MAY CONTAIN LED PAINT. THE CONTRACTOR NEED ONLY APPLY THE FIRST COAT OR PRIME COAT TO THE TOP FLANGE OF ALL BEAMS. IN ADDITION, THE CONTRACTOR, AT HIS OPTION, MAY USE A CATEGORY "O" PRIMER. ALL LOOSE MATERIAL AND RUST MUST FIRST BE REMOVED FROM THE TOP FLANGE AND PRIMER COAT MUST MEET OSHA SLIP REQUIREMENTS. THE COLOR OF THE PAINT SHALL MATCH THE COLOR OF THE PAINT ON THE EXISTING BRIDGE. ALL COSTS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LUMP SUM OF "PAINTING EXISTING STRUCTURES" PLUS THE UNIT PRICE BID PER LUMP SUM OF "COLLECTION AND HANDLING OF WASTE".

DESCRIPTION	REVISIONS	DATE
1 ADDED NOTES		7/29/16

GENERAL NOTES

PENETRATING WATER REPELLENT SURFACE TREATMENT:

A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE "A" AND "B":

1. EDGES AND UNDERSIDE OF THE OVERHANG PORTION OF THE BRIDGE DECK.
2. THE ROADWAY FACE, TOP, BACK FACE, AND OPENINGS OF THE F-SHAPED PARAPETS, TR4 TRAFFIC RAIL AND BRIDGE SIDEWALK PARAPETS.
3. SIDEWALK SURFACE ON BRIDGE DECK OF BRIDGE "A".
4. TOP, SIDES, AND ENDS OF PIER CAPS AND EXPOSED AREAS OF ALL COLUMNS.
5. FRONT FACE OF BACKWALL, TOP AND EXPOSED FRONT FACE OF BRIDGE SEAT INCLUDING ALL SURFACES OF PEDESTALS.

ALL COSTS ASSOCIATED WITH THE USE OF PENETRATING WATER REPELLENT SURFACE TREATMENT INCLUDING THE COST OF MATERIALS, LABOR AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF "WATER REPELLENT (VISUALLY INSPECTED)".

SEALED EXPANSION JOINT:

SEALED EXPANSION JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS. UNLESS OTHERWISE SHOWN ON THE SHOP DRAWINGS, REFER TO THE EXPANSION JOINT SETTING TABLES ON THE SHEETS 40 AND 70 FOR SETTING THE WIDTH OF THE JOINTS. PARAPET OPENINGS AT EACH EXPANSION JOINT LOCATION SHALL HAVE THE SAME OPENING DIMENSION AS THE EXPANSION DEVICE.

ALL COSTS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR AS SHOWN ON THE PLANS INCLUDING THE COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "SEALED EXPANSION JOINT".

WEATHERING STEEL FIXED BEARING ASSEMBLIES:

PROVIDE AND INSTALL FIXED BEARING ASSEMBLIES OF THE SIZE, SHAPE, AND LOCATION AS DETAILED IN THE PLANS. THERE IS AN ESTIMATED TOTAL OF 3770 POUNDS AT BRIDGE "A" AND 1575 POUNDS AT BRIDGE "B" OF WEATHERING STEEL FOR FIXED BEARING ASSEMBLIES. STRUCTURAL STEEL FOR ANCHOR PLATES AND ANCHOR BOLTS SHALL CONFORM TO AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). NUTS, WASHERS AND WELDING SHALL HVAE WEATHERING CHARACTERISTICS.

ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE FIXED BEARING ASSEMBLIES AS SHOWN IN THE PLANS INCLUDING ELASTOMERIC PADS, ANCHOR PLATES, ANCHOR BOLTS, DRILLING AND EMBEDDING ANCHOR BOLTS, NUTS, WASHERS, LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH "WEATHERING STEEL FIXED BEARING ASSEMBLY".

WEATHERING STEEL EXPANSION BEARING ASSEMBLIES:

PROVIDE AND INSTALL EXPANSION BEARING ASSEMBLIES OF THE SIZE, SHAPE, AND LOCATION AS DETAILED IN THE PLANS. THERE IS AN ESTIMATED TOTAL OF 3846 POUNDS AT BRIDGE "A" AND 1628 POUNDS AT BRIDGE "B" OF WEATHERING STEEL FOR EXPANSION BEARING ASSEMBLIES. STRUCTURAL STEEL FOR ANCHOR PLATES AND ANCHOR BOLTS SHALL CONFORM TO AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). NUTS, WASHERS AND WELDING SHALL HAVE WEATHERING CHARACTERISTICS.

ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE EXPANSION BEARING ASSEMBLIES AS SHOWN IN THE PLANS INCLUDING ELASTOMERIC PADS, ANCHOR PLATES, ANCHOR BOLTS, DRILLING AND EMBEDDING ANCHOR BOLTS, NUTS, WASHERS, LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH "WEATHERING STEEL EXPANSION BEARING ASSEMBLY".

STRUCTURAL STEEL:

ITEM "STRUCTURAL STEEL" CONSISTS OF THE FOLLOWING:

BRIDGE "A": 491 LBS FOR NEW DRAIN RECEPTACLE AND DRAIN PIPE AT ABUTMENT NO. 1
900 LBS FOR NEW BEARING STIFFENERS AT ABUTMENT NO. 2
1000 LBS FOR MISCELLANEOUS STEEL REPAIRS

BRIDGE "B": 1000 LBS FOR MISCELLANEOUS STEEL REPAIRS

ALL NEW STEEL USED FOR THE NEW BEARING STIFFENERS AND MISCELLANEOUS STEEL REPAIRS SHALL BE AASHTO M270 GRADE 36 OR HIGHER IN ACCORDANCE WITH SECTION 506 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. MISCELLANEOUS STEEL REPAIRS INCLUDES REPLACING DETERIORATED SECTIONS OF THE STEEL BEAMS AND DIAPHRAGMS AND/OR DIAPHRAGMS IN THEIR ENTIRETY AT THE DISCRETION OF THE ENGINEER. ALL MEANS AND METHODS FOR REPLACING THE DETERIORATED STEEL SECTIONS SHALL BE APPROVED BY THE ENGINEER. REPLACEMENT STEEL SHALL BE THE SAME SIZE AND DIMENSIONS AS THE EXISTING AS SHOWN ON THE PLANS. ALL NEW STRUCTURAL STEEL SHALL BE GIVEN ONE SHOP COAT OF INORGANIC ZINC PRIMER AND ONE FIELD COAT OF INORGANIC ZINC PRIMER. REPAIRED AREAS SHALL BE GIVEN ONE FRESH COAT OF PAINT TO CLOSELY MATCH THE EXISTING BEAMS. NEW BOLTS SHALL CONFORM TO AASHTO M164 (ASTM A325). PROVIDE ALL BOLTS, NUTS, WASHERS AND WELDING WITH WEATHERING CHARACTERISTICS. ALL REMOVED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF OFF SITE. ANY DAMAGE DONE TO EXISTING STRUCTURE AS A RESULT OF THE STEEL REPAIRS AND/OR REMOVAL AND REPLACEMENT OF DIAPHRAGMS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

ALL COSTS OF THE NEW BEARING STIFFENERS AND STEEL REPAIRS INCLUDING CUTTING AND REMOVING EXISTING STEEL BEAM SECTIONS, REMOVING OF EXISTING DIAPHRAGMS, STRUCTURAL STEEL, BOLTS, NUTS, WASHERS, WELDING, MATERIAL, LABOR, PAINT, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN AND NOTED SHALL BE INCLUDED IN THE PRICE BID PER POUND OF "STRUCTURAL STEEL".

ALL COSTS OF THE NEW DRAIN RECEPTACLE AT ABUTMENT NO. 1 OF BRIDGE "A", AS SHOWN ON THE PLANS, INCLUDING ALL MATERIALS AND LABOR TO INSTALL THE DRAIN SYSTEM, THE DRAIN RECEPTACLE, GROUT PAD, PIPE, FITTINGS AND CLAMPS AND ALL INCIDENTAL ITEMS SHALL BE INCLUDED IN THE PRICE BID PER POUND OF "STRUCTURAL STEEL".

APPROACH SLABS:

CLASS AA CONCRETE SHALL BE USED IN THE APPROACH SLABS OF THE BRIDGES. THE QUANTITIES GIVEN ARE BASED ON THE ACTUAL SQUARE YARDS OF THE APPROACH SLABS.

ALL COSTS TO CONSTRUCT THE APPROACH SLABS INCLUDING THE COST OF CONCRETE, EPOXY COATED REINFORCING STEEL, RAPID CURE JOINT SEALER, BACKER ROD, PREFORMED EXPANSION JOINT FILLER, POLYETHYLENE SHEETING, SAWING, GRINDING, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF "APPROACH SLAB".

CONCRETE PARAPET:

PAY ITEM "CONCRETE PARAPET" CONSISTS OF CONSTRUCTING A PARAPET AT THE SIDEWALK ALONG THE SOUTH SIDE OF BRIDGE "A" AS SHOWN ON THE PLANS. THE CONCRETE PARAPET SHALL BE CONSTRUCTED TO MEET THE REQUIREMENTS OF SECTION 504 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AS WELL AS THE REQUIREMENTS AS SHOWN ON THE PLANS. CLASS AA CONCRETE SHALL BE USED IN THE PARAPET.

ALL COSTS TO CONSTRUCT THE PARAPET AS SHOWN ON THE PLANS INCLUDING THE COST OF CONCRETE, EPOXY COATED REINFORCING STEEL, PREFORMED EXPANSION MATERIAL, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "CONCRETE PARAPET".

SPECIAL CONCRETE FINISH:

PAY ITEM "SPECIAL CONCRETE FINISH"CONSISTS OF PROVIDING A CLASS 6 MORTAR FINISH TO ALL EXPOSED AREAS ON THE EXISTING ABUTMENTS, WINGWALLS AND RETAINING WALLS. THE CONCRETE SURFACES SHALL BE FINISHED IN ACCORDANCE WITH SUBSECTION 509.04G OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
ALL COSTS OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NEEDED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE PER SQUARE YARD OF "SPECIAL CONCRETE FINISH".

REPAIR BRIDGE ITEM (TYPE A):

ITEM "REPAIR BRIDGE ITEM (TYPE A)" CONSISTS OF REPAIRING THE BACKWALL OF ABUTMENT NO. 2 OF BRIDGE "A" AS SHOWN ON THE PLANS. ALL COSTS TO REMOVE AND REPLACE THE PORTION OF BACKWALL AS DETAILED ON THE PLANS INCLUDING THE COST OF CLASS AA CONCRETE, EPOXY COATED REINFORCING STEEL, SAWCUTTING, DRILLING AND ANCHORING REINFORCING BARS INTO EXISTING CONCRETE, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LUMP SUM OF "REPAIR BRIDGE ITEM (TYPE A)".

REMOVAL OF BRIDGE ITEM (TYPE A):

ITEM "REMOVAL OF BRIDGE ITEM (TYPE A)" SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE FOLLOWING ITEMS TO BE REMOVED FROM THE EXISTING BRIDGES AS SPECIFIED OR SHOWN ON THE PLANS INCLUDING THE FOLLOWING:

BRIDGE "A":
1. DECK SLAB WITH ANY EXPANSION JOINT MATERIAL OR HARDWARE.
2. CONCRETE CURBS, SIDEWALK AND PARAPETS ON THE BRIDGE.
3. APPROACH SLABS AT ABUTMENTS NO. 1 AND 2 INCLUDING CONCRETE CURBS AND SIDEWALK ADJACENT TO THE EXISTING APPROACH SLABS.
4. TOP PORTIONS OF WING WALLS AND ABUTMENT BACKWALLS AS SHOWN ON THE PLANS
5. IMPACT ATTENUATOR LOCATED ON THE BRIDGE DECK

BRIDGE "B":
1. DECK SLAB WITH ANY EXPANSION JOINT MATERIAL OR HARDWARE.
2. CONCRETE CURBS AND PARAPETS ON THE BRIDGE.
3. APPROACH SLAB AT ABUTMENT NO. 3.
4. TOP PORTIONS OF WING WALLS AS SHOWN ON THE PLANS

WHEN REMOVING THE EXISTING BRIDGE DECK SLABS, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION NECESSARY TO PREVENT DAMAGING THE REMAINING COMPONENTS. EXTREME CARE MUST BE EXERCISED TO PROTECT ALL STRUCTURAL STEEL GIRDERS AND ATTACHED COMPONENTS, INCLUDING SHEAR CONNECTORS. ANY SHEAR CONNECTORS DAMAGED CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER. THE REMOVAL AND DISPOSAL SHALL BE IN ACCORDANCE WITH SECTION 619 OF THE STANDARD SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER.

REMOVAL OF BRIDGE ITEM (TYPE B):

ITEM "REMOVAL OF BRIDGE ITEM (TYPE B)"SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE FOLLOWING ITEMS TO BE REMOVED FROM THE EXISTING BRIDGES AS SPECIFIED OR SHOWN ON THE PLANS INCLUDING THE FOLLOWING:

BRIDGE "A": PIERS NO. 1 AND 2 PIER CAPS AND PIER COLUMNS INCLUDING PEDESTALS, BEARING ASSEMBLIES AND EXCAVATION OF EXISTING GROUND TO TOPS OF THE PIER FOOTINGS.

BRIDGE "B": PIERS NO. 3 THRU 5 PIER CAPS AND PIER COLUMNS INCLUDING PEDESTALS, BEARING ASSEMBLIES AND EXCAVATION OF EXISTING GROUND TO THE TOPS OF THE PIER FOOTINGS.

THE PIER CAPS AND PIER COLUMNS SHALL BE REMOVED IN THEIR ENTIRETY TO THE TOP OF THE EXISTING FOOTINGS. EXISTING REINFORCING BARS EXTENDING FROM THE TOP OF THE FOOTINGS INTO THE COLUMNS SHALL REMAIN. ANY REINFORCING BARS EXTENDING FROM THE TOP OF THE FOOTINGS DAMAGED AS A RESULT FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

ALL COSTS OF EXCAVATION OF EXISTING GROUND TO THE TOPS OF THE EXISTING FOOTINGS INCLUDING MATERIALS, LABOR, EQUIPMENT, TEMPORARY SHORING AS NECESSARY, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE OF "REMOVAL OF BRIDGE ITEM (TYPE B)".

COST TO REMOVE THE EXISTING SLOPE WALL AT THE BASE OF PIER NO. 1 OF BRIDGE "A" IS INCLUDED IN THE COST PER SY OF "SLOPE WALL (4")".

REMOVAL OF BRIDGE ITEM (TYPE C):

ITEM "REMOVAL OF BRIDGE ITEM (TYPE C)"SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE EXISTING BEARING ASSEMBLIES ON THE EXISTING ABUTMENTS. THE BEARING ASSEMBLIES TO BE REMOVED INCLUDE STEEL BEARING PLATES, ROLLERS, RAIL SECTIONS, KEEPER PLATES AND SOLE PLATES IN THEIR ENTIRETY.

REMOVAL OF BRIDGE ITEM (TYPE D):

ITEM "REMOVAL OF BRIDGE ITEM (TYPE D)" SHALL INCLUDE THE REMOVAL OF ANY EXISTING DIAPHRAGMS AS DETERMINED BY THE ENGINEER. AN EXTRA ITEM HAS BEEN INCLUDED ON BRIDGE "A" FOR THE REMOVAL OF THE EXISTING DIAPHRAGM AS SHOWN ON SHEET 29.

NEW STEEL FOR THE DIAPHRAGM REPLACEMENTS SHALL BE INCLUDED IN THE PRICE BID PER POUND OF "STRUCTURAL STEEL".

FENCE-STYLE CLF:

ITEM "FENCE-STYLE CLF (6' HIGH, CLASS A)" CONSISTS OF ATTACHING A 6'-0" THROW FENCE TO THE TOP OF THE NEW SIDEWALK PARAPET, 206'-0" LONG, ON THE SOUTH SIDE OF BRIDGE "A" AS DETAILED IN THE PLANS. ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE PAID FOR PER LINEAR FEET OF "FENCE-STYLE CLF (6' HIGH, CLASS A)".

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF CHAIN LINK FENCE DETAILS TO THE ENGINEER FOR REVIEW AND ACCEPTANCE.

STAY-IN-PLACE FORMS:

STAY-IN-PLACE STEEL DECK FORMS WILL NOT BE ALLOWED ON THIS PROJECT.

1 ENVIRONMENTAL MITIGATION NOTES:

SWALLOW NOTE:

MIGRATORY BIRDS ARE PROTECTED BY THE FEDERAL MIGRATORY BIRD TREATY ACT. THESE BIRDS COMMONLY USE BRIDGES AND CULVERTS FOR NESTING. THE NESTING SEASON FOR THE BIRDS RUNS FROM APRIL 1 TO AUGUST 31. ANY ACTIVITIES WHICH WOULD DESTROY ACTIVE NESTS OR HARM EGGS OR BIRDS WOULD VIOLATE THE MIGRATORY BIRD TREATY ACT. MIGRATORY BIRD USE OF BRIDGE NBI NO. 29155 & 18097 WAS NOT OBSERVED DURING THE INITIAL SURVEY CONDUCTED AS PART OF THE BIOLOGICAL STUDIES IN 2016. MIGRATORY BIRDS MAY OCCUPY THESE STRUCTURES IN THE FUTURE NESTING SEASONS. THE RESIDENT ENGINEER WILL EVALUATE THE CONTRACTOR'S PROPOSED WORK METHODS AND CONCLUDE WHETHER THE PROPOSED WORK WOULD POSE DISRUPTION TO ANY NESTING BIRDS BEFORE WORK NEAR THE STRUCTURE IS AUTHORIZED. IF THE PROPOSED WORK WILL HARM ANY NESTING BIRDS, THE BRIDGE MAY BE NETTED PRIOR TO APRIL 1 OR THE WORK DELAYED UNTIL THE NESTING SEASON IS COMPLETE. METHODS OTHER THAN NETTING MUST BE PRE-APPROVED BY THE ODOT BIOLOGIST.

DEQ NOTE:

IF THE CONTRACTOR ELECTS TO BUILD A WORK ROAD(S) TO PERFORM WORK, THE CONTRACTOR WILL BE RESPONSIBLE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH THE DEQ OKR10 GENERAL CONSTRUCTION REGULATIONS. IF THE AREA OF DISTURBANCE IS ONE (1) OR MORE ACRES AND IS NOT ALREADY COVERED BY A DEQ PERMIT, THE CONTRACTOR WILL BE REQUIRED TO OBTAIN A DEQ STORM WATER CONSTRUCTION PERMIT WHICH WILL INCLUDE AN APPLICATION (NOTICE OF INTENT) TO DEQ PRIOR TO EARTH DISTURBING ACTIVITIES, A STORM WATER POLLUTION PREVENTION PLAN AND THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS. IN ADDITION, THE CONTRACTOR WILL BE RESPONSIBLE FOR PERMANENT STABILIZATION MEASURES AFTER REMOVAL OF THE WORK ROAD(S). ALL COSTS ASSOCIATED WITH THE CONTRACTORS' WORK ROAD INCLUDING A DEQ PERMIT, EROSION AND SEDIMENT CONTROLS AND PERMANENT STABILIZATION, ETC. WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

LICENSED PROFESSIONAL ENGINEER
John W. Barker
16541
OKLAHOMA
7/29/16

2ND STREET AND RAMP OVER I-444

DESIGN	JSH	11-15
DRAWN	MRM	11-15
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND SUMMARY OF PAY QUANTITES (BRIDGE)

SHEET 2 OF 3

STATE JOB NO. 28865(04) SHEET NO. 6

TULSA CO. 2ND STREET

7/29/2016 N:\11399\200-11399-13001-05\CADD\SheetFiles\JP 28865 (04) -06-GN-Bridge 2.Rev 1.dgn

REVISIONS		
DESCRIPTION		DATE
1	REVISED NOTE	6/23/16

JP 28865(04)

SUMMARY OF PAY QUANTITIES

0200 BRIDGE A - NBI 18097 - 53.23'-71.25'-93.98' STEEL BEAM STRUCTURE VARYING ROADWAY WIDTH SKEW VARIES

ITEM NUMBER		DESCRIPTION		UNIT	TOTAL
501(G)	6309	CLSM BACKFILL	(BR-1)	CY	154.5
502(C)	6116	(PL)FALSEWORK JACKING		LSUM	1.0
504(A)	1304	APPROACH SLAB	(BR-1)	SY	480.0
504(B)	1305	SAW-CUT GROOVING	(BR-1)	SY	1645.0
504(C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	107.0
504(D)	6245	CONCRETE RAIL (TR4)	(BR-1)	LF	308.0
504(E)	6190	42" F-SHAPED PARAPET	(BR-1)	LF	321.8
504(E)	1381	CONCRETE PARPAPET	(BR-1)	LF	283.1
506(A)	1322	STRUCTURAL STEEL		LB	2391.0
507(A)	6172	WEATHERING STEEL FIXED BEARING ASSEMBLY	(BR-1)	EA	23.0
507(B)	6176	WEATHERING STEEL EXPANSION BEARING ASSEMBLY	(BR-1)	EA	23.0
509	6153	SPECIAL CONCRETE FINISH		LSUM	1.0
509(A)	1326	CLASS AA CONCRETE	(BR-1)	CY	232.7
509(B)	1328	CLASS A CONCRETE	(BR-1)	CY	87.2
510(C)	6137	SLOPE WALL (4")		SY	90.0
511(B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB	96,600.0
512(A)	1323	PAINTING EXISTING STRUCTURES		LSUM	1.0
512(B)	6303	COLLECTION AND HANDLING OF WASTE		LSUM	1.0
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	1,856.7
520(A)	6058	PREPARATION OF CRACKS, ABOVE WATER		LF	106.0
520(C)	6060	EPOXY RESIN, ABOVE WATER		GAL	2.0
521(A)	6210	PNEUMATICALLY PLACED MORTAR		SY	72.0
523(A)	6550	SEALER CRACK PREPARATION		LF	59.0
523(B)	6560	SEALER RESIN		GAL	1.0
535	6130	(SP)CORROSION INHIBITOR(SURFACE APPLIED)		SY	123.5
540	4510	(PL) REPAIR BRIDGE ITEM (TYPE A)		LSUM	1.0
609(A)	0380	CONCRETE CURB (6" BARRIER-INTEGRAL)		LF	39.0
619(B)	2510	REMOVAL OF BRIDGE ITEM (TYPE A)		LSUM	1.0
619(B)	2520	REMOVAL OF BRIDGE ITEM (TYPE B)		LSUM	1.0
619(B)	2535	REMOVAL OF BRIDGE ITEM (TYPE C)		EA	14.0
619(B)	2545	REMOVAL OF BRIDGE ITEM (TYPE D)		EA	4.0
624(E)	4292	FENCE-STYLE CLF (6' HIGH, CLASS A)		LF	205.0

(BR-1): PAYMENT FOR THIS ITEM WILL BE BASED ON THE PLAN QUANTITIES ONLY. SEE SECTION 109.01(b) OF THE STANDARD SPECIFICATIONS.

(1) CONTRACTOR SHALL DETERMINE AND RECORD THE EXISTING DECK ELEVATION OVER EACH BEAMLINE AT 10TH POINTS OF EACH SPAN PRIOR TO DECK REMOVAL AND SURVEY THE TOP OF BRIDGE BEAMS AFTER THE DECK IS REMOVED. CONTRACTOR SHALL ESTABLISH HAUNCH THICKNESS AND SUBMIT TO THE ENGINEER FOR APPROVAL. ALL COST OF SURVEY AND HAUNCH CALCULATIONS TO BE INCLUDED IN THE PAY ITEM "CONSTRUCTION STAKING". THIS ITEM INCLUDES DETERMINING THE PROFILE OF THE BOTTOM FLANGE OF ALL BEAMS AT THE FOLLOWING TIMES: PRIOR TO REMOVAL OF THE DECK, AFTER DECK REMOVAL AND AFTER DECK PLACEMENT. PROFILE SHALL INCLUDE, AT A MINIMUM, ELEVATIONS AT THE BEAM ENDS, QUARTER POINTS, AND CENTER LINE OF EACH SPAN.

AFTER EXPOSING THE EXISTING PIER FOOTINGS, THE CONTRACTOR SHALL DETERMINE THE ELEVATIONS OF TOPS OF FOOTINGS AND REPORT ANY DISCREPANCIES OF THE PLANS TO THE ENGINEER.

JP 28865(04)

SUMMARY OF PAY QUANTITIES

0201 BRIDGE B - NBI 29155 - 83.64'-23.61'-49' STEEL BEAM STRUCTURE VARYING ROADWAY WIDTH SKEW VARIES

ITEM NUMBER		DESCRIPTION		UNIT	TOTAL
501(G)	6309	CLSM BACKFILL	(BR-1)	CY	24.0
502(C)	6116	(PL)FALSEWORK JACKING		LSUM	1.0
504(A)	1304	APPROACH SLAB	(BR-1)	SY	75.5
504(B)	1305	SAW-CUT GROOVING	(BR-1)	SY	450.2
504(C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	54.0
504(E)	6190	42" F-SHAPED PARAPET	(BR-1)	LF	402.9
506(A)	1322	STRUCTURAL STEEL		LB	1,000.0
507(A)	6172	WEATHERING STEEL FIXED BEARING ASSEMBLY	(BR-1)	EA	9.0
507(B)	6176	WEATHERING STEEL EXPANSION BEARING ASSEMBLY	(BR-1)	EA	9.0
509	6153	SPECIAL CONCRETE FINISH		LSUM	1.0
509(A)	1326	CLASS AA CONCRETE	(BR-1)	CY	100.6
509(B)	1328	CLASS A CONCRETE	(BR-1)	CY	86.7
510(C)	6137	SLOPE WALL (4")		SY	80.0
511(B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB	43,330.0
512(A)	1323	PAINTING EXISTING STRUCTURES		LSUM	1.0
512(B)	6303	COLLECTION AND HANDLING OF WASTE		LSUM	1.0
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	747.0
520(A)	6058	PREPARATION OF CRACKS, ABOVE WATER		LF	26.0
520(C)	6060	EPOXY RESIN, ABOVE WATER		GAL	1.0
521(A)	6210	PNEUMATICALLY PLACED MORTAR		SY	7.0
523(A)	6550	SEALER CRACK PREPARATION		LF	39.0
523(B)	6560	SEALER RESIN		GAL	0.5
535	6130	(SP) CORROSION INHIBITOR(SURFACE APPLIED)		SY	12.0
619(B)	2510	REMOVAL OF BRIDGE ITEM (TYPE A)		LSUM	1.0
619(B)	2520	REMOVAL OF BRIDGE ITEM (TYPE B)		LSUM	1.0
619(B)	2535	REMOVAL OF BRIDGE ITEM (TYPE C)		EA	3.0
619(B)	2545	REMOVAL OF BRIDGE ITEM (TYPE D)		EA	3.0

JP 28865(04)

SUMMARY OF PAY QUANTITIES

0600 STAKING

ITEM NUMBER		DESCRIPTION		UNIT	TOTAL
642(B)	0095	CONSTRUCTION STAKING LEVEL II	(1)	LSUM	1.0

JP 28865(04)

SUMMARY OF PAY QUANTITIES

0640 CONSTRUCTION

ITEM NUMBER		DESCRIPTION	UNIT	TOTAL
641	1339	MOBILIZATION	LSUM	1.0

1 STAKING AND MOBILIZATION:
THIS PROJECT IS MANDATORILY TIED WITH TULSA COUNTY JP 28868(04), JP 28879(04) AND JP 28880(04). THE COST FOR "CONSTRUCTION STAKING LEVEL II" AND "MOBILIZATION" ON THE PROJECTS WITH TULSA COUNTY JP 28868(04), JP 28879(04), JP 28880(04) SHALL BE INCLUDED IN THE UNIT PRICE BID PER LUMP SUM OF "CONSTRUCTION STAKING LEVEL II" AND "MOBILIZATION" INCLUDED IN THIS PROJECT, STATE JOB PIECE 28865(04).

LICENSED PROFESSIONAL ENGINEER
John W. Barker
16541
OKLAHOMA

6/23/16

2ND STREET AND RAMP OVER I-444

DESIGN	JSH	11-15
DRAWN	WRM	11-15
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND SUMMARY OF PAY QUANTITES (BRIDGE)

SHEET 3 OF 3

STATE JOB NO. 28865(04) SHEET NO. 7

TULSA CO. 2ND STREET

6/23/2016 N:\113990300-113989-130901-05\CAD\Sheet Files\JP 28865 (04) -07-GN-Bridge-3 Rev 1.dgn

REVISIONS		
DESCRIPTION		DATE

TRAFFIC OPERATIONS GENERAL CONSTRUCTION NOTES

(C-1) ANY SIGNS AND/OR DELINEATORS WHICH ARE TO BE REMOVED DURING THIS PROJECT WILL BE STORED IN A PROTECTED AREA DESIGNATED BY THE RESIDENT ENGINEER, UNTIL SUCH A TIME THAT THEY ARE TO BE RESET BY THE CONTRACTOR. COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF WORK.

(C-2) EXISTING ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, AND SIGNING WITHIN THE LIMITS OF CONSTRUCTION. ALL CONSTRUCTION SIGNING WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS. CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE ODOT STANDARD DRAWINGS.

(C-3) THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING TRAFFIC ON CROSS STREETS. A MINIMUM OF ONE LANE IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES.

TRAFFIC CONSTRUCTION PAY QUANTITY NOTES

(TC-1) THE CONTRACTOR SHALL FURNISH AND INSTALL SUCH LIGHTS, SIGNS, BARRICADES, AND PROVIDE FLAGGERS NECESSARY FOR THE CONTROL, SAFETY, AND MAINTENANCE OF TRAFFIC WHEN INSTALLING, RELOCATING OR DELIVERING PORTABLE LONGITUDINAL BARRIER.

(TC-2) QUANTITY INCLUDES SUFFICIENT LENGTH OF PORTABLE LONGITUDINAL BARRIER TO PROVIDE FOR THE LONGEST SECTION SHOWN ON THE PLANS. THIS SAME BARRIER WILL BE USED ON OTHER DETOUR PHASES.

(TC-13) A PART, OR ALL, OF THIS ITEM IS INTENDED FOR REPLACEMENT OF REMOVED EXISTING CONFLICTING STRIPING.

(TC-14) SEE STANDARD DRAWING PM1-1, PM2-1, PM3-1, PM4-1, PM5-1, PM6-1, PM7-1, PM8-1 (LATEST REVISION). A PART, OR ALL, OF THE QUANTITY SHOWN IS TO BE USED AS FINAL PAVEMENT MARKING.

(TC-19) THIS ITEM INCLUDES AN ESTIMATED 420 L.F. (4" WIDE) WHITE AND 7085 L.F. (4" WIDE) YELLOW STRIPE. THE CONTRACTOR SHALL PROVIDE AND INSTALL AN ODOT APPROVED REMOVABLE PAVEMENT MARKING TAPE. COST FOR REMOVAL OF THIS TAPE SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NON-REMOVABLE MARKING TAPE (FOIL BACK) SHALL NOT BE CONSIDERED AN APPROVED EQUAL FOR THIS ITEM.

(TC-20) ALL STRIPING TO BE PLACED ON TEMPORARY SURFACES OR ON SURFACES SCHEDULED TO BE REMOVED SHALL BE DONE WITH PAINT UNLESS OTHERWISE NOTED ON THE PLANS OR STANDARD DRAWINGS. TEMPORARY PAVEMENT MARKINGS PLACED ON FINISHED PAVEMENT OR EXISTING PAVEMENT TO REMAIN IN PLACE SHALL USE ONE OF THE FOLLOWING METHODS:

- REMOVABLE PAVEMENT MARKING TAPE
- CLASS A PAVEMENT MARKERS

(TC-22) AMOUNT SHOWN IS AN APPROXIMATION AND THE ACTUAL AMOUNT OF REMOVAL, IF NECESSARY, SHALL BE DETERMINED BY THE ENGINEER. PRICE BID FOR PAVEMENT MARKING REMOVAL SHALL INCLUDE THE COST OF REMOVING STRIPE, ARROWS, WORDS AND SYMBOLS, AS SHOWN IN THE PLANS. THESE ITEMS MAY CONSIST OF PLASTIC, PAINT OR NON-REMOVABLE MARKING TAPE.

(TC-23) QUANTITY SHOWN FOR THIS ITEM INCLUDES THOSE SIGNS WHICH COMPRISE THE ROUTE MARKER ASSEMBLIES USED TO INDICATE THE DETOUR ROUTE.

(TC-26) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE ODOT STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES REQUIRED FOR COMPLETION OF THE PROJECT.

ALL SIGNS AND BARRICADES WHICH ARE SHOWN WITH TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.

(TC-28) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 0.00 S.F. AND 6.25 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-29) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 6.26 S.F. AND 15.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-30) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 16.00 S.F. AND 32.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-33) ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION)

THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH ODOT STANDARD SPECIFICATION (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.

(TC-52) ANY USED TRUCK MOUNTED ATTENUATOR, CHANGEABLE MESSAGE SIGN AND CONSTRUCTION ZONE IMPACT ATTENUATOR TO BE PLACED ON THIS PROJECT SHALL BE SUBJECT TO INSPECTION AND APPROVAL, BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, TO ASSURE THAT THEY ARE IN GOOD WORKING CONDITION, PRIOR TO PLACEMENT ON THE PROJECT.

(TC-61) ANY DAMAGE TO A FINISHED OR EXISTING SURFACE RESULTING FROM THE CONTRACTORS NEGLIGENCE IN THE REMOVAL OF CONSTRUCTION ZONE PAVEMENT MARKERS OR CHANNELIZING DEVICES AND THE BITUMINOUS ADHESIVE USED IN THEIR INSTALLATION, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.

(TC-70) THIS ITEM IS AN ESTIMATED QUANTITY TO BE USED AS DEEMED NECESSARY BY THE ENGINEER.

TRAFFIC CONSTRUCTION PAY QUANTITY NOTES (CONT'D)

(TC-75) TEMPORARY PAVEMENT MARKINGS SHALL BE IN PLACE THE SAME DAY THAT EXISTING PAVEMENT MARKINGS ARE REMOVED FROM ANY ROADWAY OPEN TO TRAFFIC. ALSO, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO THE INSTALLATION OF FINAL STRIPING.

(TC-77) TRUCK MOUNTED ATTENUATORS ARE TO BE INSTALLED ON NON-STATE OWNED TRUCKS HAVING A MINIMUM GROSS WEIGHT RATING OF 15,000 POUNDS. EACH OF THESE TRUCKS SHALL ALSO BE EQUIPPED WITH AN ARROW DISPLAY (TYPE B).

(TC-80) INCLUDED IN THIS ITEM SHALL BE ONE (1) ADDITIONAL UNIT TO BE USED AS A STAND-BY OR REPLACEMENT. THIS STAND-BY UNIT SHALL BE IMMEDIATELY ACCESSIBLE TO REPLACE A DAMAGED, STOLEN OR MALFUNCTIONING UNIT. THE AMOUNT OF TIME BETWEEN THE REMOVAL OF THE DAMAGED UNIT AND THE INSTALLATION OF THE STAND-BY UNIT SHALL BE NO MORE THAN TWENTY-FOUR (24) HOURS.

(TC-84) 90 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT ODOT STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.

(TC-85) THESE SIGNS MUST BE ON THE OKLAHOMA DEPARTMENT OF TRANSPORTATION LIST OF APPROVED CHANGEABLE MESSAGE SIGNS. FOR A LIST OF THE APPROVED SIGNS GO TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION WEBSITE AT:
http://www.okladot.state.ok.us/traffic/qpl/index.php

TRAFFIC SIGNING PAY QUANTITY NOTES

(TS-24) QUANTITY SHOWN INCLUDES 961 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 655 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.

(TS-26) QUANTITIY SHOWN INCLUDES 236 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 0 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF EIGHT INCH (8") WIDE TRAFFIC STRIPE.

PAY ITEM NOTES

1. INCLUDES ALL NEW WIRING CONNECTED TO AN EXISTING CIRCUIT. NEW WIRING SHALL BE ALUMINUM AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS. CONTACT MICHAEL WHITLACH, 918-597-2091, AT THE CITY OF TULSA FOR SPECIAL DECALS AND FURTHER INFORMATION.

2. POLE, MAST ARM AND LUMINAIRE TO RECEIVE SPECIAL AESTHETIC TREATMENT. SEE SPECIAL PROVISIONS FOR POWDER-COATING REQUIREMENTS. EXISTING POLE AND MAST ARM MAY BE USED, IF APPROVED BY ENGINEER, OR NEW MATERIAL.

3. INCLUDES 5 DELINEATORS TO ACCOMMODATE GUARDRAIL REMOVAL AND REPLACEMENT ADJACENT TO PIERS 1, 2 AND 3 REPLACEMENTS.

4. IMPACT ATTENUATORS SHALL MEET ALL THE CRITERIA OF NCHRP-350, TEST LEVEL 3 REQUIREMENTS, AND OKLAHOMA DEPARTMENT OF TRANSPORTATION IMPACT ATTENUATORS GUIDELINES MATRIX FOR REDIRECTIVE NON-GATING SYSTEMS. ALL COSTS OF MATERIALS AND LABOR, INCLUDING FASTENING THE IMPACT ATTENUATORS TO THE DECK AND F-SHAPED PARAPETS AND INCIDENTALS TO COMPLETE THE WORK, SHALL BE INCLUDED IN THE PRICE BID PER EACH "IMPACT ATTENUATOR".

   IMPACT ATTENUATOR SHALL BE TRINITY ENERGY ABSORPTION SYSTEMS QUADGUARD ELITE MODEL NO. QS9008E (5 BAY) OR APPROVED EQUAL.

5. FOR REMOVAL AND RESETTING EXISTING SIGN ON NORTH FASCIA OF BRIDGE A, AT APPROXIMATE STATION 223+75. COST TO INCLUDE SIGNS, SUPPORT FRAMES, LIGHTING, CONDUITS, PULL BOXES AND ASSOCIATED ITEMS TO COMPLETE THE WORK

6. GRINDING OF EXISTING PAVEMENT ACCEPTABLE ON PAVEMENT TO BE OBLITERATED.

(P-1) PULL BOXES SHALL BE PLASTIC (POLYMER CONCRETE) MEETING THE REQUIREMENTS OF THE WESTERN UNDERGROUND COMMITTEE AND ANSI/SCTE 77 2002, TIER 15, WITH MINIMUM VERTICAL TEST LOAD OF 20K LBS.

TRAFFIC LIGHTING GENERAL CONSTRUCTION NOTES

(C-152) ALL BROKEN CONCRETE, WASTE MATERIAL, AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.

(C-155) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC.... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:
THE "OKIE" NOTIFICATION CENTER 811 OR 1-800-522-6543 OR WWW.CALLOKIE.COM OR THE LOCAL COUNTY CLERK'S OFFICE.

DEPTH OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

(C-156) ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO MAKE THE ELECTRICAL CONNECTIONS TO THE EXISTING OVERHEAD SIGN STRUCTURES AND LIGHTS WILL BE PAID FOR AT THE UNIT PRICE BID FOR THE REQUIRED MATERIALS USED TO MAKE THE COMPLETED CONNECTIONS.

(C-158) THE CONTRACTOR SHALL CONTACT THE BRIDGE DIVISION OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION FOR QUESTIONS CONCERNING COMPLIANCE AND INTERPRETATIONS TO THE A.A.S.H.T.O. "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS."

(C-160) THE CONTRACTOR SHALL COOPERATE WITH THE ENGINEER, THE CITY AND THE LOCAL UTILITY CO. TO KEEP THE EXISTING LIGHTING SYSTEM IN SERVICE AS MUCH AS POSSIBLE WHILE DOING THE WORK SPECIFIED BY THIS CONTRACT. IF TEMPORARY CONNECTIONS ARE FEASIBLE AND JUSTIFIABLE, THE ENGINEER MAY REQUIRE THAT THE CONTRACTOR PROVIDE THESE TEMPORARY POWER CONNECTIONS. TEMPORARY CONNECTIONS WILL BE PAID FOR AT THE UNIT BID FOR THE MATERIALS USED.

(C-161) THE ITEMS THAT ARE TO BE REMOVED AND/OR RESET SHALL BE HANDLED WITH CARE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OCCURRING DURING THESE OPERATIONS.

(C-162) THE ANCHOR BOLTS SIZE AND CONFIGURATION SHALL BE VERIFIED BY THE CONTRACTOR SO THAT THE NEW LIGHT POLES BASE PLATES WILL BE BUILT TO FIT ANY EXISTING POLE FOOTING. IN THE EVENT ANY EXISTING POLE FOOTING REQUIRES MODIFICATION TO ACCOMMODATE THE NEW LIGHT POLE OR IF ANY LIGHT POLE BASE PLATE REQUIRES MODIFICATION, THE CONTRACTOR SHALL SUBMIT DRAWINGS OF THE MODIFICATIONS TO THE BRIDGE DIVISION FOR APPROVAL BEFORE PERFORMING THE MODIFICATIONS. ALL COST FOR THE MODIFICATIONS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

(C-163) THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A BOLT CIRCLE TEMPLATE(S). THE TEMPLATE(S) SHALL BE 1/4" THICK STEEL PLATE(S), AND BE PERMANENTLY LABELED WITH THE CONTRACTOR'S COMPANY NAME, BOLT CIRCLE DIAMETER AND THE ANCHOR BOLT DIAMETER. THE COST OF THE TEMPLATE(S) SHALL BE PAID FOR IN OTHER ITEMS OF WORK.

(C-165) PRIOR TO CONSTRUCTION OF FOOTINGS THE CONTRACTOR SHALL VISUALLY INSPECT THE PLAN LOCATION OF ALL HIGH MAST TOWERS AND CONVENTIONAL LIGHT POLES FOR PROPER OVERHEAD WIRE CLEARANCE. THESE CLEARANCES SHALL BE IN ACCORDANCE TO THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) SECTION 1910. THERE SHALL BE A MINIMUM RADII OF 10 FOOT CLEARANCE OF ANY OVERHEAD LINES FROM THE CLOSEST POINT ON THE LIGHT POLE. ANY NEW FOOTINGS PUT IN CLOSER THAN THIS 10 FOOT MINIMUM SHALL BE RELOCATED AT THE EXPENSE OF THE CONTRACTOR, INCLUDING REMOVAL OF THE FOOTING AND ALL MATERIALS TO CONSTRUCT THE NEW FOOTING.

DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN			
CHECKED			SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC) (SHEET 1 OF 2)
APPROVED			
CREW			STATE JOB NO. 28865(04) SHEET NO. 8

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -08-RD-Traffic Pay Quant-Notes_1.dgn

REVISIONS		
	DESCRIPTION	DATE
1	UPDATED QTYS	7/12/16
2	REVISED TABLES	7/27/16

JP 28865(04)

SUMMARY OF QUANTITIES 2

0300 TRAFFIC

DESCRIPTION		UNIT	JP 28865(04)
2" GALV. STEEL ELECTRICAL CONDUIT EXPOSED	(1)	LF	760.00
2" GALV. STEEL ELECTRICAL CONDUIT TRENCHED	(1)	LF	30.00
JUNCTION BOX(6" X 6" X 4")	(1)	EA	4.00
PULL BOX(SIZE I)	(1)(P-1)	EA	4.00
(PL)REMOVAL OF LIGHT POLE	(2)	EA	4.00
(PL)REMOVE & RESET EXISTING SIGNS	(5)	EA	1.00
POLE & 10' TS MST.ARM(G.STL)	(1)(2)	EA	4.00
ROADWAY LUMINAIRE	(1)	EA	4.00
UNDERPASS LUMINAIRE	(1)	EA	4.00
GUARDRAIL DELINEATORS(TYPE 1, CODE 1)	(3)	EA	15.00
TRAFFIC STRIPE(MULTI-POLYMER)(4" WIDE)	(TS-24)	LF	1616.00
TRAFFIC STRIPE(MULTI-POLY.)(8" WIDE)	(TS-26)	LF	236.00
REMOVABLE PAVEMENT MARKING TAPE(4" WIDE)	(TC-13,14,19,20,61,70,75)	LF	7505.00
PAVEMENT MARKING REMOVAL(TRAFFIC STRIPE)	(TC-22,61,70,75)(6)	LF	7505.00
(PL)CONSTRUCTION ZONE PAVEMENT MARKERS(FLEX TAB)TYPE 2-1		EA	600.00
(SP)IMPACT ATTENUATOR	(4)	EA	1.00
(SP)CONST.ZONE IMPACT ATTEN.	(TC-52,77,78,80,84)	SD	165.00
DELIVER PORTABLE LONGITUDINAL BARRIER	(TC-1,2)	LF	1780.00
RELOCATION OF PORTABLE LONGITUDINAL BARRIER	(TC-1,2)	LF	2490.00
ARROW DISPLAY(TYPE C)	(TC-84)	SD	45.00
CONSTRUCTION SIGNS 0 TO 6.25 SF	(TC-23,26,28,33,84)	SD	9090.00
CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	(TC-26,29,33,84)	SD	2760.00
CONSTRUCTION SIGNS 16 SF TO 32.99 SF	(TC-26,30,33,84)	SD	4200.00
CONSTRUCTION BARRICADES(TYPE III)	(TC-26,84)	SD	7170.00
WING BARRICADES	(TC-26,84)	SD	330.00
WARNING LIGHTS(TYPE A)	(TC-26,84)	SD	1800.00
DRUMS	(TC-26,84)	SD	7170.00
TUBE CHANNELIZERS		SD	4270.00
PORT.CHANGEABLE MESSAGE SIGN	(TC-52,70,84,85)	SD	190.00

NOTE:
PAY ITEM NOTES LISTED ONLY PRETAIN TO JP 28865(04) FOR ADDITIONAL PAY ITEM NOTES SPECIFIC TO EACH PROJECT REFER TO THE NECESSARY PLAN SHEET OF THE RESPECTIVE JOB PIECE NUMBER

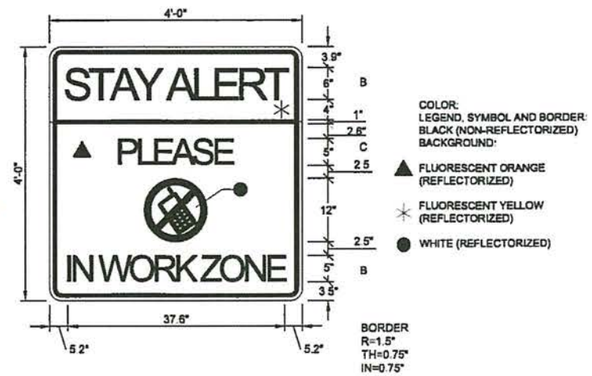
MANDATORY TIE

THIS PROJECT SHALL BE MANDITORILY TIED WITH TULSA COUNTY JOB PIECES: 28880(04), 28879(04), 28868(04) AND SHALL BE BID ACCORDINGLY.

SUMMARY OF PAY QUANTITIES 2

0300 TRAFFIC

ITEM NUMBER		DESCRIPTION	UNIT	TOTAL	
802(A)	8310	2" GALV. STEEL ELECTRICAL CONDUIT EXPOSED	LF	1140	
802(A)	8314	2" GALV. STEEL ELECTRICAL CONDUIT TRENCHED	LF	30	
802(E)	8370	JUNCTION BOX(6" X 6" X 4")	EA	6	
803(A)	8065	PULL BOX(SIZE I)	EA	6	
805(A)	8712	(PL)REMOVAL OF LIGHT POLE	EA	6	
805(B)	8732	(PL)RESET OF LIGHT POLE	EA	2	
805(D)	8756	(PL)REMOVE & RESET EXISTING SIGNS	EA	8	
806(A)	8720	POLE & 10' TS MST.ARM(G STL.)	EA	4	
809(A)	8090	ROADWAY LUMINAIRE	EA	6	
809(B)	8098	UNDERPASS LUMINAIRE	EA	4	
853	9066	GUARDRAIL DELINEATORS(TYPE 1, CODE 1)	EA	15	
1 ~~855(A)~~	~~8812~~	~~TRAFFIC STRIPE(PLASTIC)(4" WIDE)~~	~~LF~~	~~654~~	
856(A)	8530	TRAFFIC STRIPE(MULTI-POLYMER)(4" WIDE)	LF	2270	1
856(A)	8535	TRAFFIC STRIPE(MULTI-POLY.)(6" WIDE)	LF	1200	
856(A)	8540	TRAFFIC STRIPE(MULTI-POLY.)(8" WIDE)	LF	236	
857(C)	8851	REMOVABLE PAVEMENT MARKING TAPE(4" WIDE)	LF	10505	
857(F)	8006	PAVEMENT MARKING REMOVAL(TRAFFIC STRIPE)	LF	10679	
857(E)	8887	(PL)CONSTRUCTION ZONE PAVEMENT MARKERS(FLEX TAB)TYPE 2-1	EA	1200	
871(A)	8325	(SP)IMPACT ATTENUATOR	EA	1	
871(B)	8705	(SP)CONST.ZONE IMPACT ATTEN.	SD	165	
876(A)	8482	(PL)TRUCK MOUNTED ATTENUATOR	SD	28	
877(B)	8484	DELIVER PORTABLE LONGITUDINAL BARRIER	LF	1780	
877(C)	8486	RELOCATION OF PORTABLE LONGITUDINAL BARRIER	LF	2490	
880(A)	8812	ARROW DISPLAY(TYPE C)	SD	235	
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF	SD	23880	1
880(B)	8821	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	SD	14820	1
880(B)	8824	CONSTRUCTION SIGNS 16 SF TO 32.99 SF	SD	6535	1
880(C)	8842	CONSTRUCTION BARRICADES(TYPE III)	SD	12420	1
880(C)	8848	WING BARRICADES	SD	550	1
880(E)	8860	WARNING LIGHTS(TYPE A)	SD	10020	1
880(F)	8878	DRUMS	SD	18930	1
880(G)	8884	TUBE CHANNELIZERS	SD	9220	
1 880(G)	8890	CHANNELIZER CONES	SD	1540	
880(L)	8911	TRAFFIC SURVEILLANCE, POLICE	HOUR	87	
882(A)	8306	PORT.CHANGEABLE MESSAGE SIGN	SD	910	1



DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN			
CHECKED			SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC) (SHEET 2 OF 2)
APPROVED			
CREW			STATE JOB NO. 28865(04) SHEET NO. 9

7/27/2016 N:\113992000-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -09-RD-Traffic Pay Quant-Notes_2.Rev 2.dgn

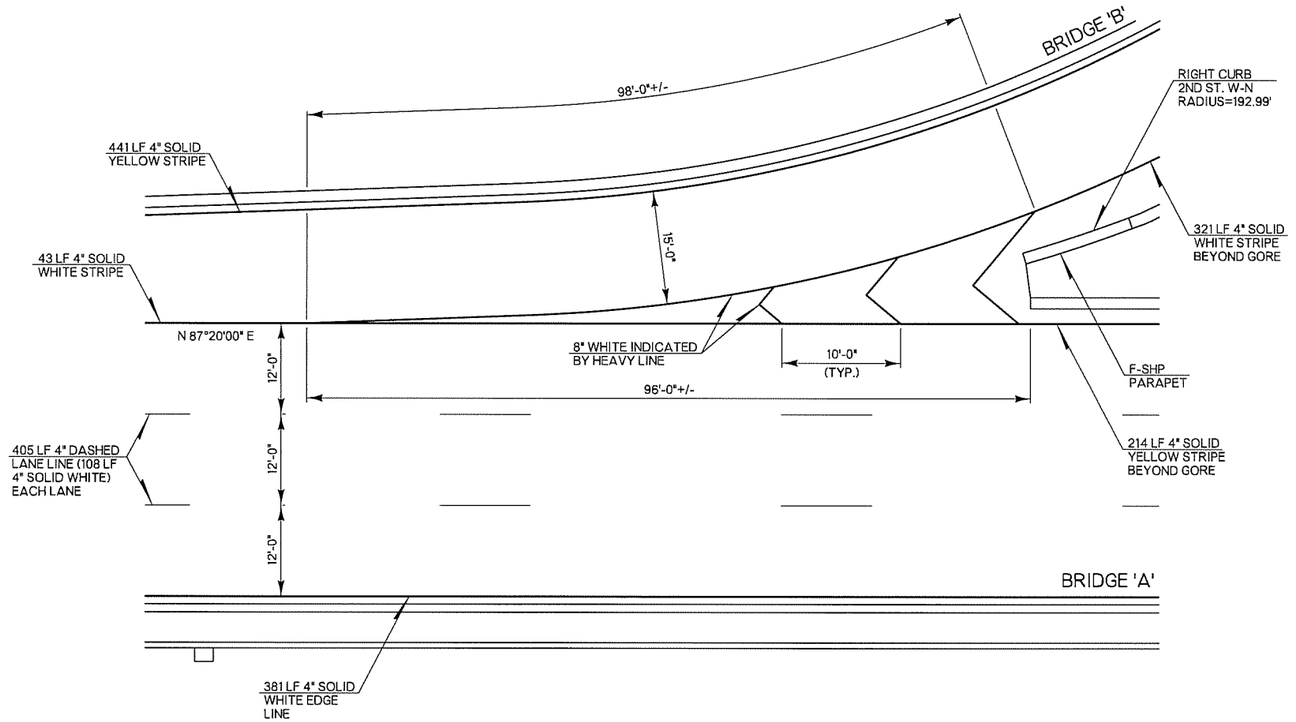
DESCRIPTION	REVISIONS	DATE

TRAFFIC CONTROL SUMMARY

DESCRIPTION	857(A) CONSTRUCTION TRAFF.STR.(PAINT) (4" WIDE)	857(F) PAVEMENT MRKNG.REMOVAL (TRAF.STRP)	871(B) (SP) CONST. ZONE IMPACT ATTENUATOR	877(B) DELIVER PORTABLE LONGITUDINAL BARRIER	877(C) RELOCATE PORTABLE LONGITUDINAL BARRIER	880(A) ARROW DISPLAY(TYPE C)	880(B) CONSTRUCTION SIGNS 0 TO 6.25 SF	880(B) CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	880(B) CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	880(C) CONSTRUCTION BARRICADES(TYPE III)	880(C) WING BARRICADES	880(E) WARNING LIGHTS(TYPE A)	880(F) DRUMS
	LF	LF	SD	LF	LF	SD	SD	SD	SD	SD	SD	SD	SD
2ND STREET RAMP AND BRIDGE CLOSURE			0	38		0	4,140	1,620	990	3,960	0	180	3,960
SB US-75 ENTRANCE RAMP SHIFT	1,182	1,182	15	622		0	165	75	240	435	30	120	435
SB US-75 INSIDE SHOULDER CLOSURE	3,190	3,190	45	243	529	0	495	180	810	1215	90	450	1,215
NB US-75 INSIDE LANE CLOSURE	1,061	1,061	45		650	45	720	495	990	945	90	450	945
NB US-75 OUTSIDE SHOULDER CLOSURE	0	0	45		813	0	720	270	900	450	90	450	450
NB US-75 PARTIAL EXIT RAMP CLOSURE	571	571	15	521		0	240	120	270	165	30	150	165
AS DIRECTED BY THE ENGINEER	1,501	1,501		356	498								
TOTAL	7,505	7,505	165	1,780	2,490	45	6,480	2,760	4,200	7,170	330	1,800	7,170

STRIPING SUMMARY

	STATION TO STATION			855(A) TRAFFIC STRIPE(PLASTIC) (4" WIDE) SOLID WHITE	855(A) TRAFFIC STRIPE(PLASTIC) (4" WIDE) SOLID YELLOW	855(A) TRAFFIC STRIPE(PLASTIC) (8" WIDE) SOLID WHITE
				LF	LF	LF
2ND STREET RAMPS TO EB I-244 AND NB US-75						
	223+29.27		227+00.00	597	214	138
	517+43.96		521+20.00	364	441	98
			SUB-TOTAL	961	655	236
			TOTAL	1,616		236



GORE AREA STRIPING DETAIL
SCALE: 1"=20'

DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN			TRAFFIC SUMMARIES
CHECKED			STATE JOB NO. 28865(04) SHEET NO. 10
APPROVED			TULSA CO. 2ND STREET
CREW			

6/6/2016 N:\11399\200-11399-13001-05\CADI\SheetFiles\JP 28865 (04) -10-RD-Traffic Summary 1.dgn

DESCRIPTION	REVISIONS	DATE

SUMMARY OF DRAINAGE STRUCTURES

						INLETS AND CURB OPENINGS				CONDUITS		
						611(G)	611(I)	611(M)	611(H)	613(A)	613(T)	613(V)
STR. NO.	ALIGN.	STATION	OFFSET	DESCRIPTION	DESIGN	INLET - LONGITUDINALBARRIER - TYPE DES. 1	REPLACEMENT OF INLET FRM&GRT (SSIF FRM, CIG-GRT-RVG-F)	REPLACEMENT OF CAST IRON HOOD	ADD'L DPTH IN INLET MED.BAR., TYPE I, DES. 1	REINFORCED CONCRETE PIPE (ROUND) 15 IN	STANDARD BEDDING MATERIAL, CLASS C	TRENCH EXCAVATION
						EA	EA	EA	VF	LF	CY	CY
CLOSED DRAINAGE												
1	2ND ST	222+97.39	LT	REPLACE INLET FRM, GRT & HOOD ON EXISTING INLET STRUCTURE AND REPLACE DAMAGED PORTIONS OF EXISTING 15" RCP AS NECESSARY UP TO 19 LF	CI-1, SSIF-4, CIG-3, SPI-4, FPI-3, SPB-1		2	2		19	7	16
2	2ND ST	223+15.94	LT	REPLACE DAMAGED PORTIONS OF EXISTING 15" RCP AS NECESSARY UP TO 29 LF	SPI-4, FPI-3, SPB-1					29	11	25
3	2ND ST	223+18.00	RT	REPLACE INLET FRM, GRT & HOOD ON EXISTING INLET STRUCTURE	CI-1, SSIF-4, CIG-3		1	1				
4	2ND ST	226+92.13	LT	CONST. INLET LONG. BARR. TYPE 1, DES. 1	CLB-1, SSIF-4, CIG-3	1	1		1.25			
				TOTAL		1	4	3	1.25	48	18	41

SUMMARY OF DITCH TREATMENT

LOCATION					DESCRIPTION	509(B) CONCRETE LINER				
						DESIGN NO.	LENGTH	BOTTOM WIDTH	CURTAIN WALLS	CLASS A CONCRETE
STATION	TO	STATION	LF	RT			L.F.	FT.	EA.	CY
					ENTIRE PROJECT	NO.1	14	2	4	3
223+45, 56' LT		223+47, 50' LT	X		DITCH NEAR DROP INLET		7		2	
223+47, 47' LT		223+48, 40' LT	X		DITCH BTWN INLET & ABUT.		7		2	

DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN			
CHECKED			SUMMARY OF DRAINAGE STRUCTURES
APPROVED			
CREW			STATE JOB NO. 28865(04) SHEET NO. 11
			TULSA CO. 2ND STREET

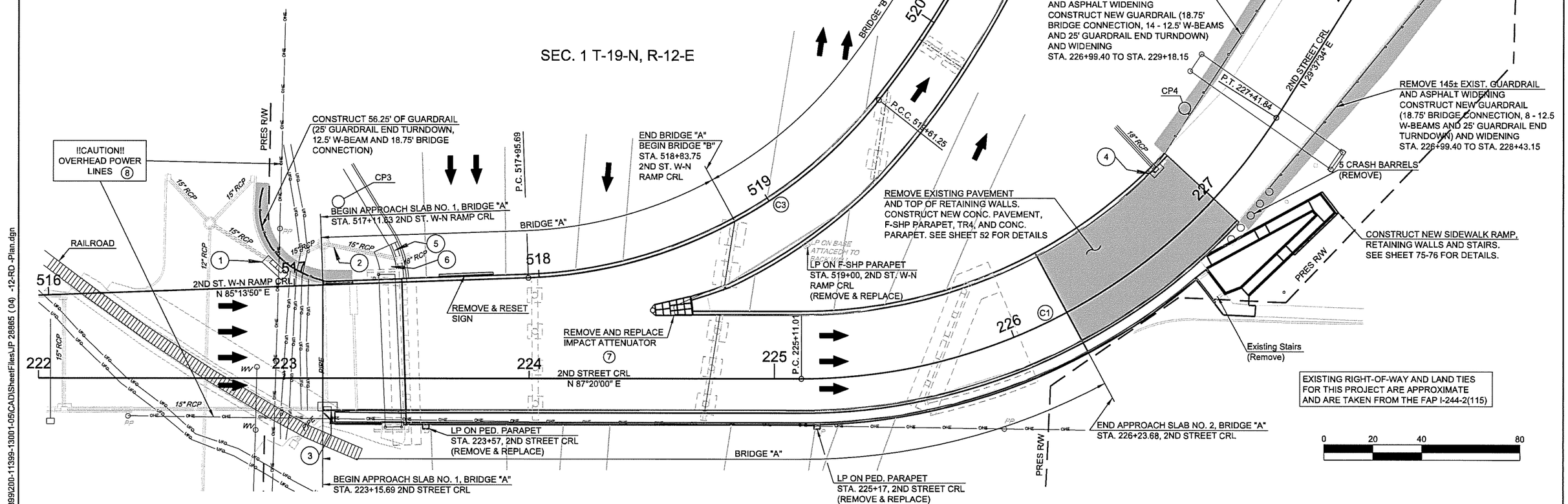
6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -11-RD-Drainage Summary.dgn

CURVE NO.	CURVE DATA							COORDINATES					
								P.I.		P.C.		P.T.	
	P.I. STA.	Δ	D	T	L	R	E	NORTH	EAST	NORTH	EAST	NORTH	EAST
C1	226+37.28	57° 42' 26"	25° 00'	126.27'	230.83'	229.18'	32.48'	426,630.22	2,564,854.78	427,624.35	2,564,728.65	427,739.98	2,564,917.20
C2	230+42.34	55° 26' 38"	18° 00'	167.27'	308.02'	318.31'	41.27'	428,001.20	2,565,065.75	427,855.80	2,564,983.06	428,015.58	2,565,232.40
C3	518+84.07	49° 40' 00"	30° 00'	88.38'	165.56'	190.99'	19.46'	427,667.52	2,564,703.60	427,660.17	2,564,615.53	427,739.41	2,564,755.00
C4	521+21.79	45° 35' 41"	15° 00'	160.54'	303.95'	381.97'	32.37'	427,870.01	2,564,848.37	427,739.41	2,564,755.00	428,028.09	2,564,820.41

CONTROL POINT	CONTROL POINTS AND BENCH MARKS			
	DESCRIPTION	NORTH	EAST	ELEVATION
CP1	COT PW008 ALUM CAP	427344.91	2563496.61	712.88
CP2	3/8" IRON PIN	427757.48	2564401.94	709.80
CP3	3/8" IRON PIN	427687.42	2564536.51	707.82
CP4	3/8" IRON PIN	427742.03	2564879.63	706.06
CP5	3/8" IRON PIN	427836.52	2564931.97	706.82
CP6	3/8" IRON PIN	427995.33	2564820.12	691.49

1. REPLACE INLET FRM, GRT & HOOD ON EXISTING INLET STRUCTURE ANDREPLACE DAMAGED PORTIONS OF EXISTING 15" RCP AS NECESSARY UP TO 19'
2. REPLACE DAMAGED PORTIONS OF EXISTING 15" RCP AS NECESSARY UP TO 29 LF
3. REPLACE INLET FRM, GRT & HOOD ON EXISTING INLET STRUCTURE
4. CONST. INLET LONG. BARR. TYPE 1, DES. 1
5. REMOVE AND REPLACE EXIST. DAMAGED PAVED DITCH STA 223+45, 56' LT TO STA 223+48, 40 LT WITH PAVED DITCH DESIGN NO. 1 INCLUDING 8 S.Y. OF CONC. PAVEMENT REMOVAL AND 2 C.Y. OF CLASS C CONCRETE
6. REPAIR DAMAGED SLOPE ADJACENT TO PAVED DITCH INCLUDING 8 C.Y. OF UNCLASSIFIED BORROW AND 12 S.Y. SOLID SLAB SODDING

SEC. 1 T-19-N, R-12-E



(7) IMPACT ATTENUATOR SHALL BE TRINITY ENERGY ABSORPTION SYSTEMS QUADGUARD ELITE MODEL NO QS9008E (5 BAY) OR APPROVED EQUAL.

(8) POWER LINES SHALL REMAIN IN PLACE AND THE CONTRACTOR SHALL TAKE EXTRA CARE TO WORK AROUND THE EXISTING POWER LINES.

2ND STREET AND RAMP OVER I-444

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

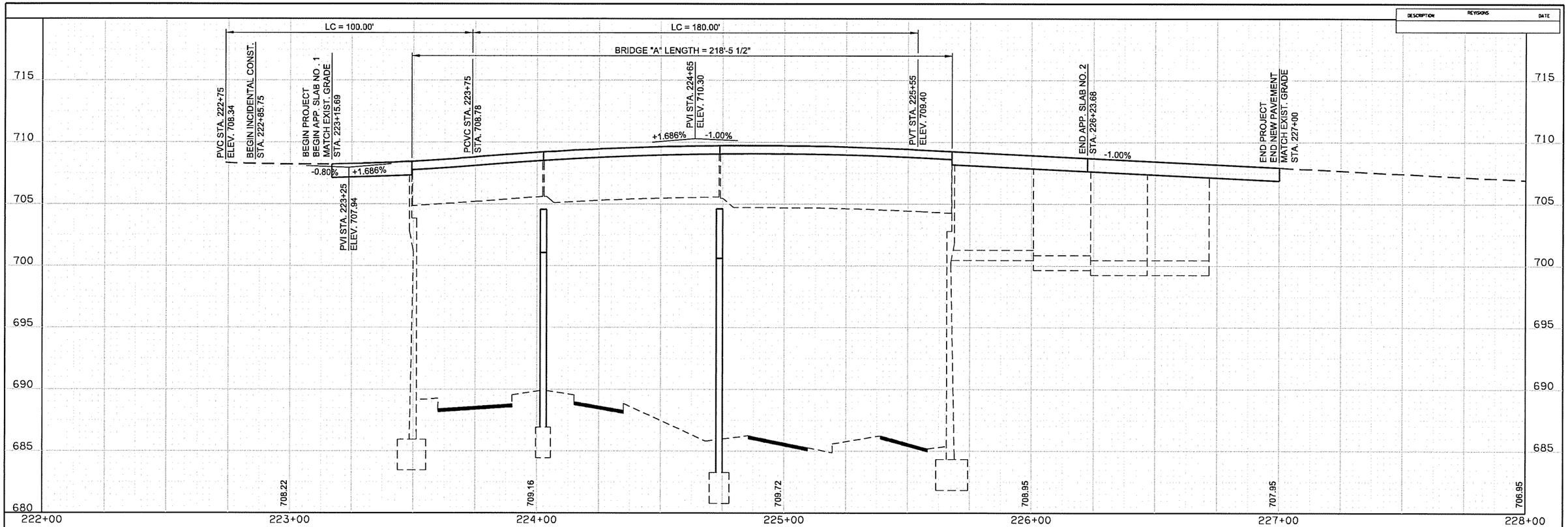
ROADWAY PLAN

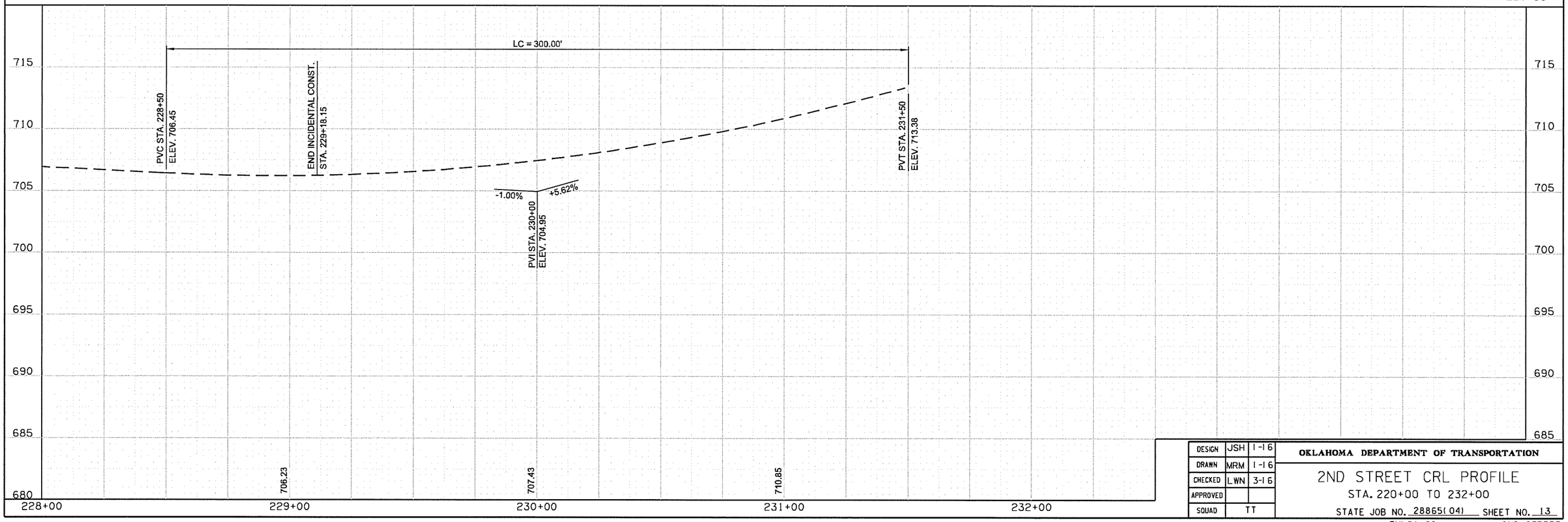
STATE JOB NO. 28865(04) SHEET NO. 12

TULSA CO. 2ND STREET

6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -12-RD-Plan.dgn

REVISIONS	
DESCRIPTION	DATE





DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

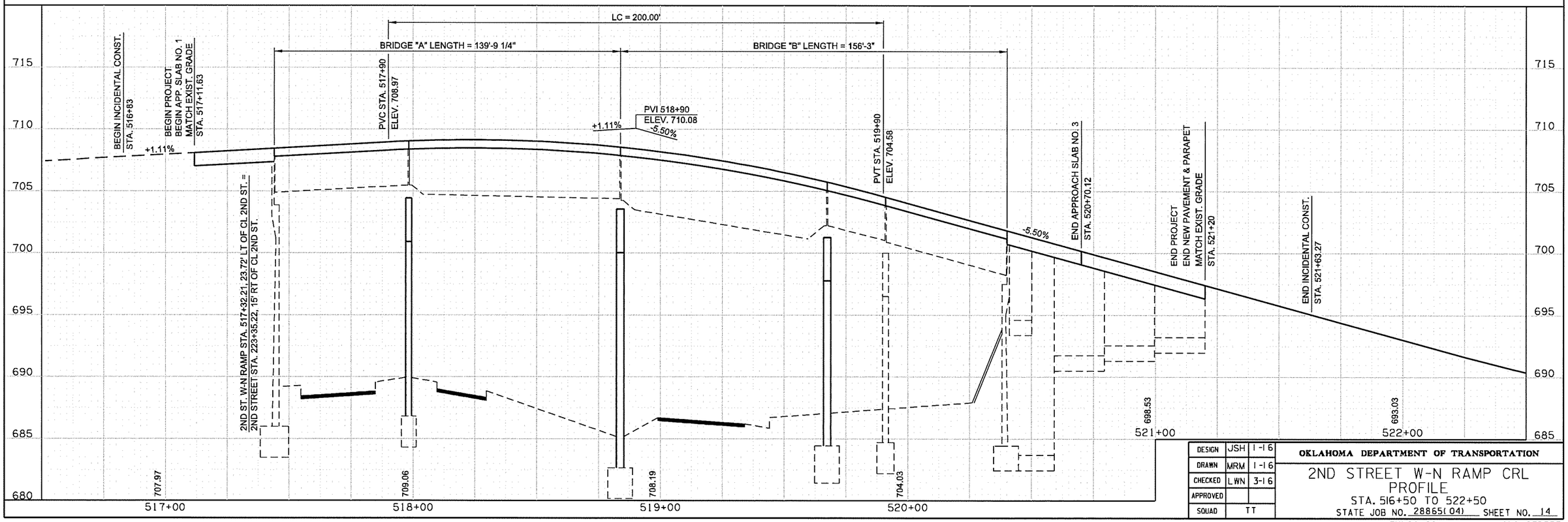
2ND STREET CRL PROFILE

STA. 220+00 TO 232+00

STATE JOB NO. 28865(04) SHEET NO. 13

TULSA CO. 2ND STREET

REVISIONS		
DESCRIPTION		DATE



DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

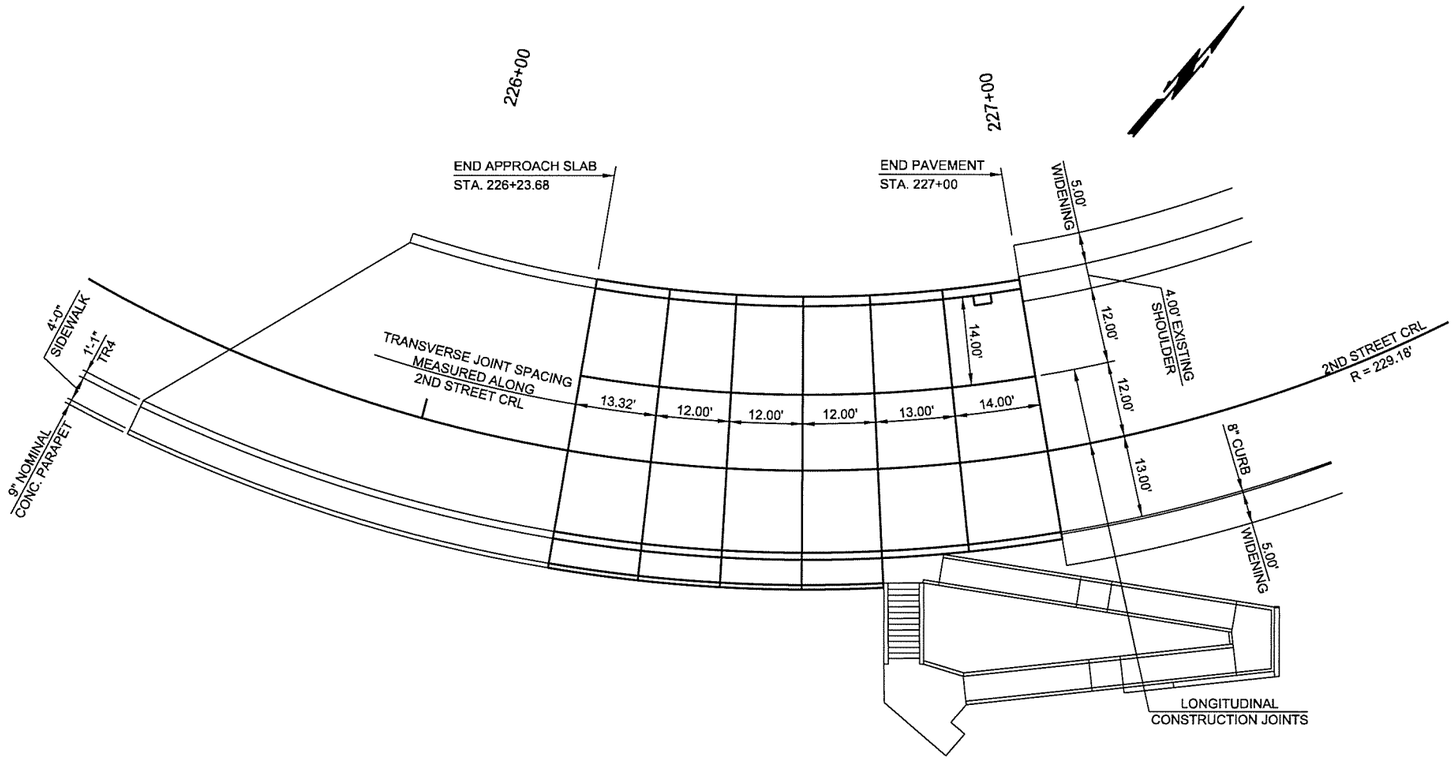
2ND STREET W-N RAMP CRL PROFILE

STA. 516+50 TO 522+50

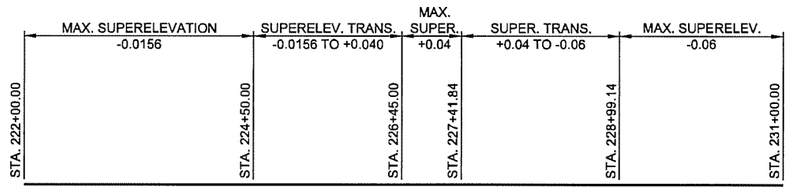
STATE JOB NO. 28865(04) SHEET NO. 14

TULSA CO. 2ND STREET

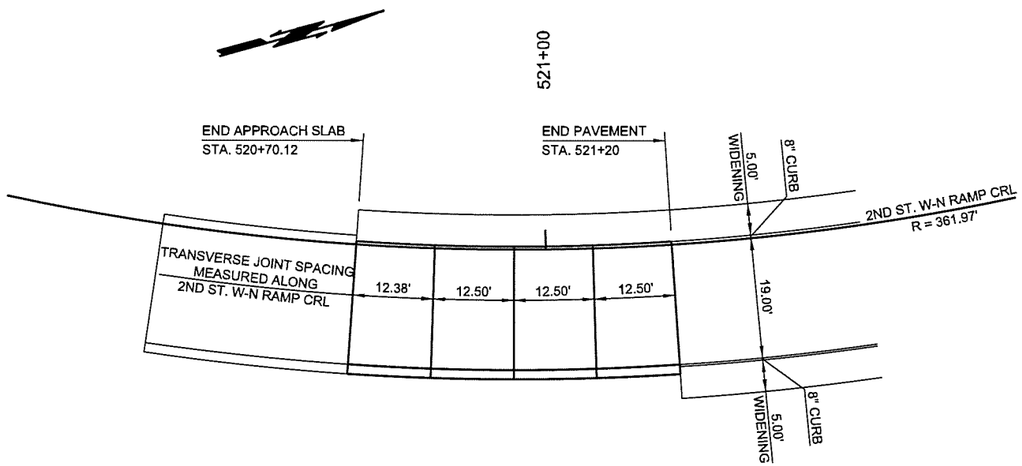
REVISIONS		
DESCRIPTION		DATE



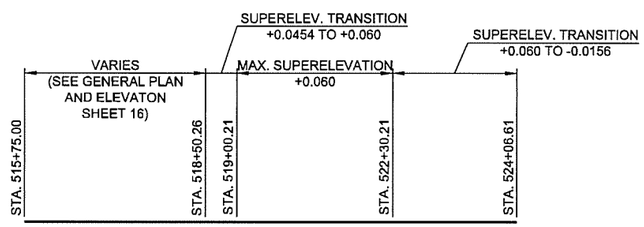
2ND STREET PAVEMENT JOINT LAYOUT



2ND STREET SUPERELEVATION



2ND STREET W-N RAMP PAVEMENT JOINT LAYOUT



2ND STREET W-N RAMP SUPERELEVATION

6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -15-RD-Joint Layout.dgn

2ND STREET AND RAMP OVER I-444

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

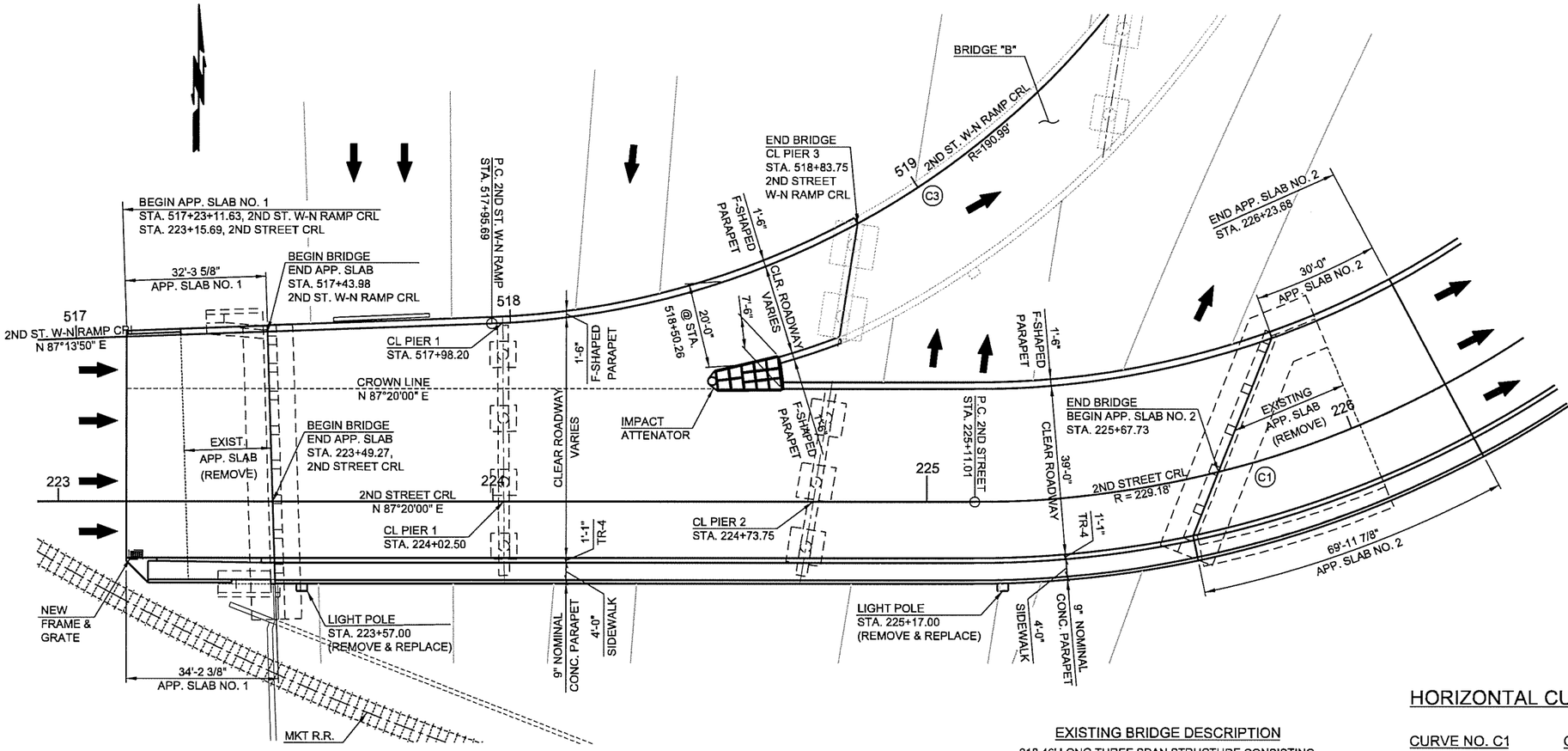
OKLAHOMA DEPARTMENT OF TRANSPORTATION

PAVEMENT JOINT LAYOUT AND SUPERELEVATION DETAILS

STATE JOB NO. 28865(04) SHEET NO. 15

TULSA CO. 2ND STREET

DESCRIPTION	REVISIONS	DATE



PLAN

SCALE: 1" = 15'

INDEX OF SHEETS

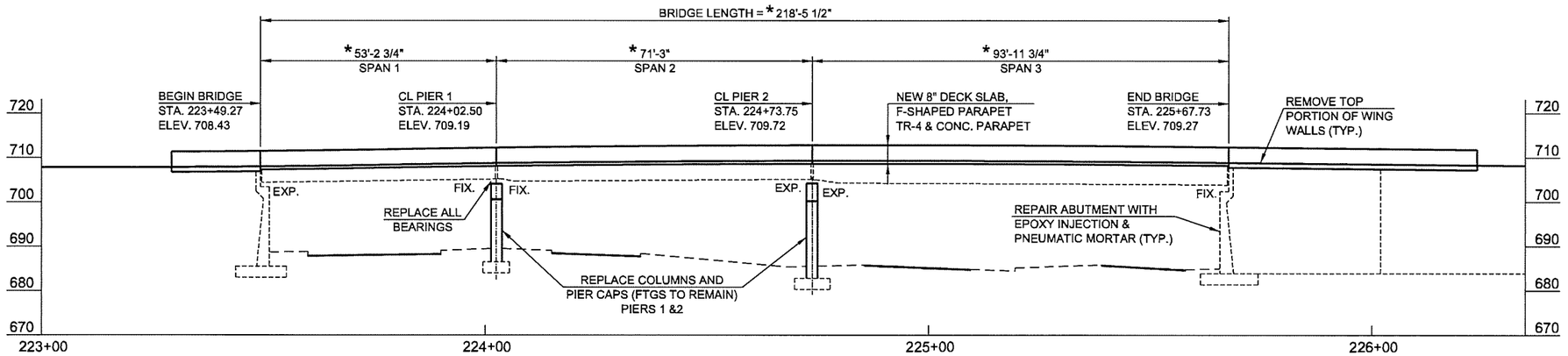
EXISTING BRIDGE DESCRIPTION

218.46' LONG THREE SPAN STRUCTURE CONSISTING OF 3 STEEL BEAM SPANS (53.23'-71.25'-93.98') WITH VARYING SKEWS AND VARING CLEAR ROADWAY WIDTHS ON SPAN 1 AND 2 AND 39'-0" CLEAR ROADWAY WIDTH ON SPAN 3.

HORIZONTAL CURVE DATA

CURVE NO. C1
PI STA. 226+37.28
Δ = 57°42'26"
D = 25°00'00"
R = 229.18'
T = 126.27'
L = 230.27'

CURVE NO. C3
PI STA. 518+84.07
Δ = 49°40'00"
D = 30°00'00"
R = 190.99
T = 88.38'
L = 165.56'



ELEVATION

SCALE: 1" = 15'

*MEASURED ALONG 2ND STREET CRL

REQUIRED STANDARD DRAWINGS

ROADWAY	BRIDGE
LECS-4-1	TR4-2-00E
CI-1-2	FSHP-42-2-00E
SSIF-4-0	EJ-SQ-03E
CIG-3-0	EJ-SK-03E
	B40-STL-BM-BRACING-00E

NOTE:
SEE SHEET 39 FOR
LOAD RATINGS

2ND STREET OVER I-444 - BRIDGE 'A'

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION - BRIDGE "A"
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 16

TULSA CO. 2ND STREET

N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -16-BR.A-P&E.dgn

6/6/2016

DESCRIPTION	REVISIONS	DATE

ORGINAL DESIGN DATA

(FOR INFORMATION ONLY)

CLASS "A" CONCRETE	1,000 P.S.I.
CLASS "AA" CONCRETE	1,200 P.S.I.
REINFORCING STEEL	20,000 P.S.I.
STRUCTURAL STEEL	20,000 P.S.I.
LOADING	HS 20-44 & PPM 20-4

MATERIALS
STRUCTURAL STEEL - A36
CONCRETE, SUPERSTRUCTURE - CLASS "AA(AE)"
SUBSTRUCTURE - CLASS "A"

APPROACH SLABS - CLASS "A(AE)"
REINFORCING STEEL - A.S.T.M., A-305
INTERMEDIATE GRADE

MAX. FOUNDATION PRESSURES

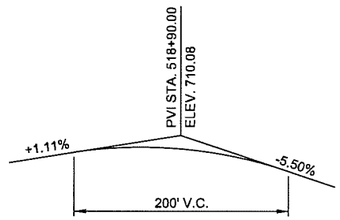
PIERS - COMB. LOADING	4.3 T-S.F.
DIRECT BRG.	4.3 T-S.F.
ABUT. - COMB. LOADING	3.3 T-S.F.

REHABILITATION DESIGN DATA

AASHTO SEVENTEENTH EDITION
STRENGTH DESIGN METHOD (LOAD FACTOR DESIGN)

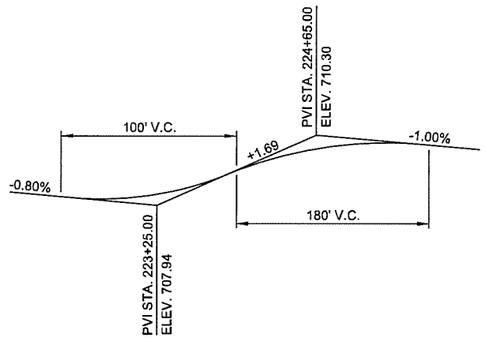
CONCRETE CLASS "A"	F'c = 3,000 P.S.I.
CONCRETE CLASS "AA"	F'c = 4,000 P.S.I.
STRUCTURAL STEEL M270 (GRADE 50W)	Fy = 50,000 P.S.I.
REINFORCING STEEL (GRADE 60)	Fy = 60,000 P.S.I.

LOADING HS20-44 PLUS 20 PSF FUTURE WEARING SURFACE



PROPOSED 2ND STREET W-N RAMP PROFILE

THE PROPOSED PROFILE GRADE IS THE PROFILE FROM THE AS-BUILT PLANS PLUS 0.45 FEET TO ACCOUNT FOR SURVEY ADJUSTMENTS.



PROPOSED 2ND STREET PROFILE

THE PROPOSED PROFILE GRADE IS THE PROFILE FROM THE AS-BUILT PLANS PLUS 0.45 FEET TO ACCOUNT FOR SURVEY ADJUSTMENTS.

SUMMARY OF QUANTITIES - BRIDGE "A"

DESCRIPTION	UNIT	ABUTMENTS	PIERS	SUPERSTRUCTURE	APPROACH SLABS	TOTAL
CLSM BACKFILL	CY				154.5	154.5
(PL)FALSEWORK JACKING	LSUM			1.0		1.0
APPROACH SLAB	SY				480.0	480.0
SAW-CUT GROOVING	SY			1,240.0	405.0	1,645.0
SEALED EXPANSION JOINT	LF			107.0		107.0
CONCRETE RAIL (TR4)	LF			212.3	95.7	308.0
42" F-SHAPED PARAPET	LF			271.8	50.0	321.8
CONCRETE PARPAPET	LF			213.1	70.0	283.1
STRUCTURAL STEEL	LB	491.0		1,900.0		2,391.0
WEATHERING STEEL FIXED BEARING ASSEMBLY	EA			23.0		23.0
WEATHERING STEEL EXPANSION BEARING ASSEMBLY	EA			23.0		23.0
SPECIAL CONCRETE FINISH	LSUM					1.0
CLASS AA CONCRETE	CY			232.7		232.7
CLASS A CONCRETE	CY	2.0	85.2			87.2
SLOPE WALL (4")	SY					90.0
EPOXY COATED REINFORCING STEEL	LB	400.0	15,050.0	81,150.0		96,600.0
PAINTING EXISTING STRUCTURES	LSUM			1.0		1.0
COLLECTION AND HANDLING OF WASTE	LSUM			1.0		1.0
WATER REPELLENT (VISUALLY INSPECTED)	SY	370.0	248.0	880.0	358.7	1,856.7
PREPARATION OF CRACKS, ABOVE WATER	LF	91.0				91.0
EPOXY RESIN, ABOVE WATER	GAL	2.0				2.0
PNEUMATICALLY PLACED MORTAR	SY	55.0			2.0	57.0
SEALER CRACK PREPARATION	LF			59.0		59.0
SEALER RESIN	GAL			1.0		1.0
(SP)CORROSION INHIBITOR(SURFACE APPLIED)	SY	99.0			4.5	103.5
(PL) REPAIR BRIDGE ITEM (TYPE A)	LSUM	1.0				1.0
CONCRETE CURB (8" BARRIER-INTEGRAL)	LF				39.0	39.0
REMOVAL OF BRIDGE ITEM (TYPE A)	LSUM	1.0		1.0		1.0
REMOVAL OF BRIDGE ITEM (TYPE B)	LSUM		1.0			1.0
REMOVAL OF BRIDGE ITEM (TYPE C)	EA	14.0				14.0
REMOVAL OF BRIDGE ITEM (TYPE D)	EA			4.0		4.0
FENCE-STYLE CLF (6' HIGH, CLASS A)	LF			206.0		206.0

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

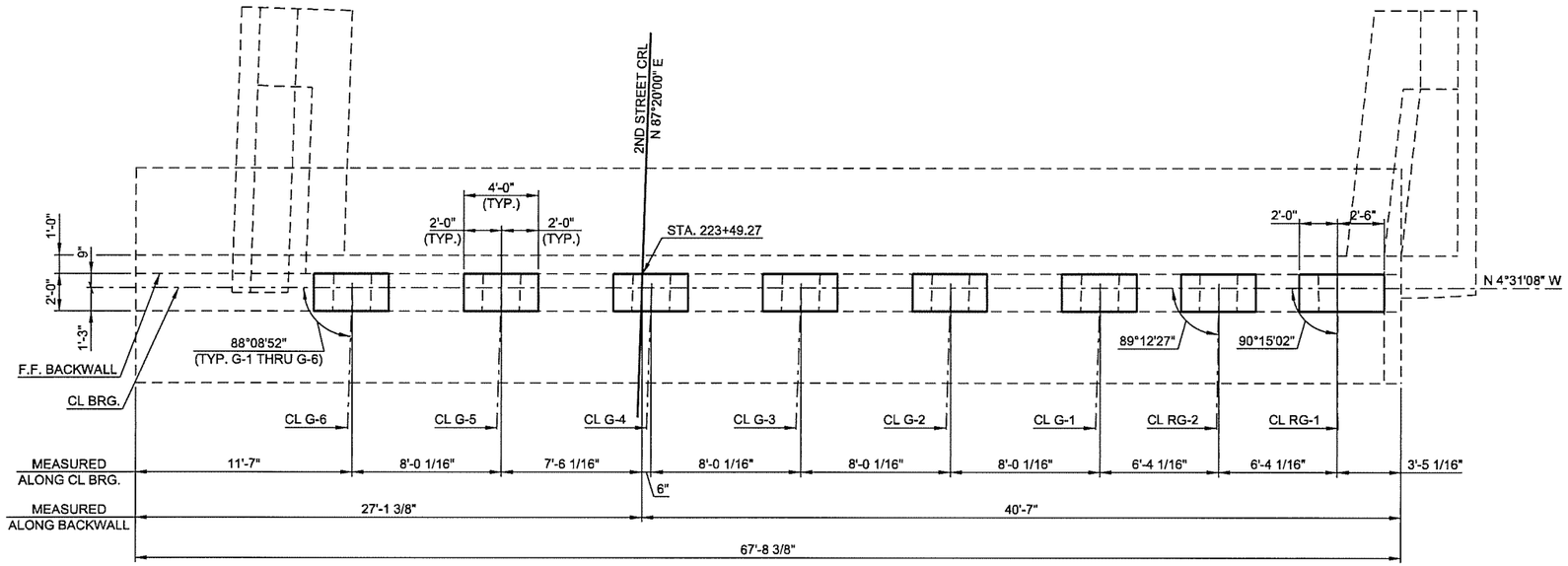
OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION - BRIDGE "A"
SHEET 2 OF 2
STATE JOB NO. 28865(04) SHEET NO. 17

TULSA CO. 2ND STREET

6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -17-BR.A-P&E.2.dgn

DESCRIPTION	REVISIONS	DATE

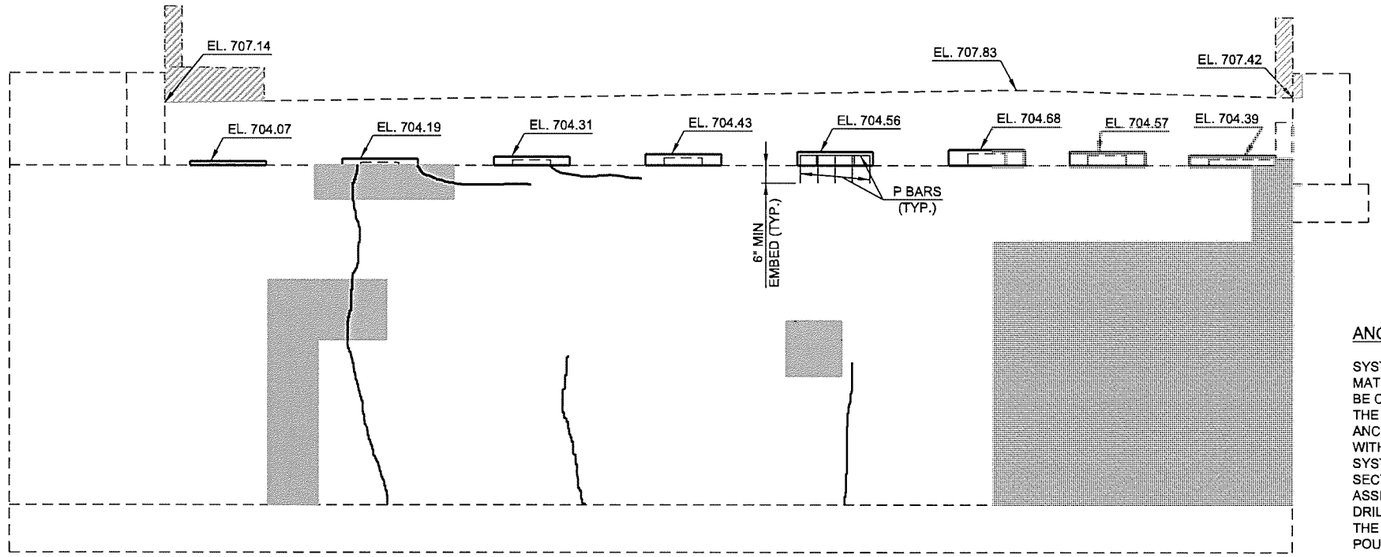


PLAN

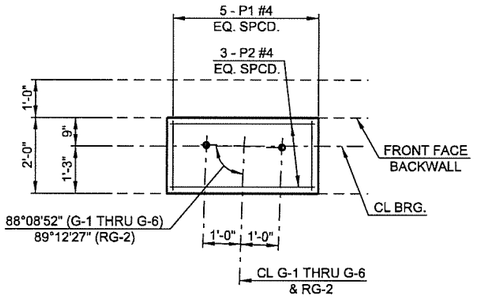
PNEUMATICALLY PLACED MORTAR

EPOXY INJECTION

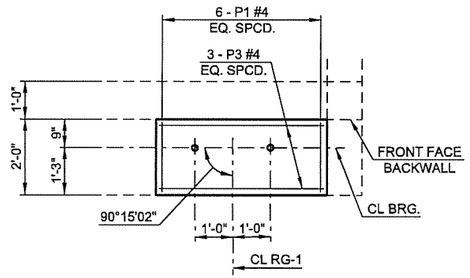
CONCRETE REMOVAL (FOR DETAILS SEE SHEET 19 & 47)



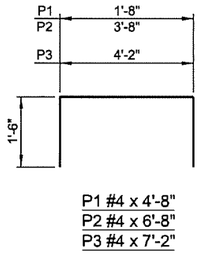
ELEVATION



PEDESTAL DETAIL PLAN
(G-1 THRU G-6 & RG-2)



PEDESTAL DETAIL PLAN
(RG-1)



P1 #4 x 4'-8"
P2 #4 x 6'-8"
P3 #4 x 7'-2"

ABUTMENT NO. 1 BAR LIST				
MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING BARS				
P1	#4	41	BNT	4'-8"
P2	#4	15	BNT	6'-8"
P3	#4	3	BNT	7'-2"

ANCHORAGE SYSTEM

THE CONTRACTOR SHALL USE AN ANCHORAGE SYSTEM THAT HAS BEEN APPROVED BY ODOT'S MATERIAL DIVISION. THE ANCHORAGE SYSTEM SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE REINFORCING STEEL THAT IS TO BE ANCHORED. ANCHORAGES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICAITONS FOR THE SYSTEM USED AND ODOT STANDARD SPECIFICATIONS SECTION 509.04(d)3. ALL COST OF ANCHORAGE ASSEMBLIES INCLUDING LABOR, MATERIALS, TOOLS, DRILLING AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID PER POUND OF "EPOXY COATED REINFORCING".

ABUTMENT NO. 1 QUANTITIES		
DESCRIPTION	UNIT	TOTAL
STRUCTURAL STEEL	LBS	491
CLASS A CONCRETE	CY	1.0
EPOXY COATED REINFORCING	LBS	210
WATER REPELLENT (VISUALLY INSPECTED)	SY	190
PREPARATION OF CRACKS ABOVE WATER	LF	48
EPOXY RESIN ABOVE WATER	GAL	1.0
PNEUMATICALLY PLACED MORTAR	SY	35
(SP) CORROSION INHIBITOR (SURFACE APPLIED)	SY	54
REMOVAL OF BRIDGE ITEM (TYPE A)	LSUM	1
REMOVAL OF BRIDGE ITEM (TYPE C)	EA	8

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1 REPAIRS

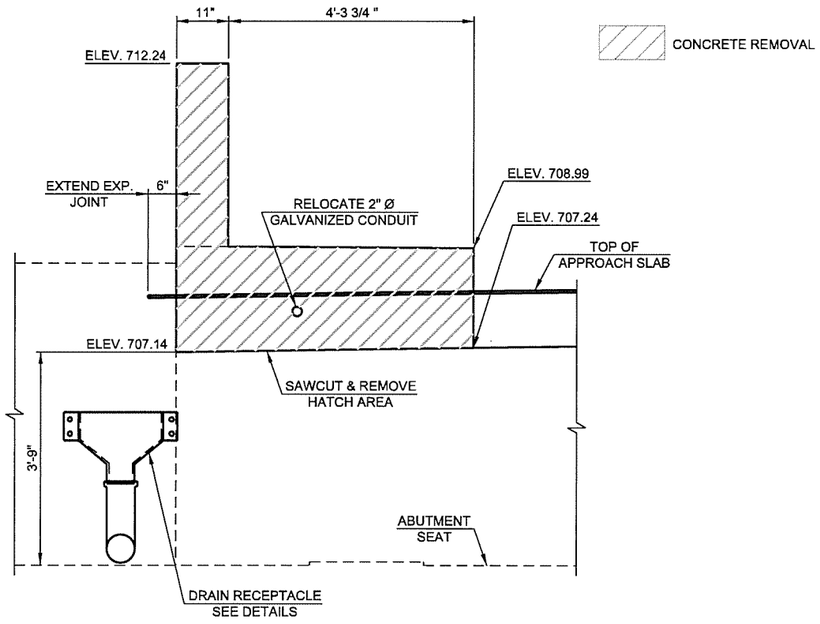
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 18

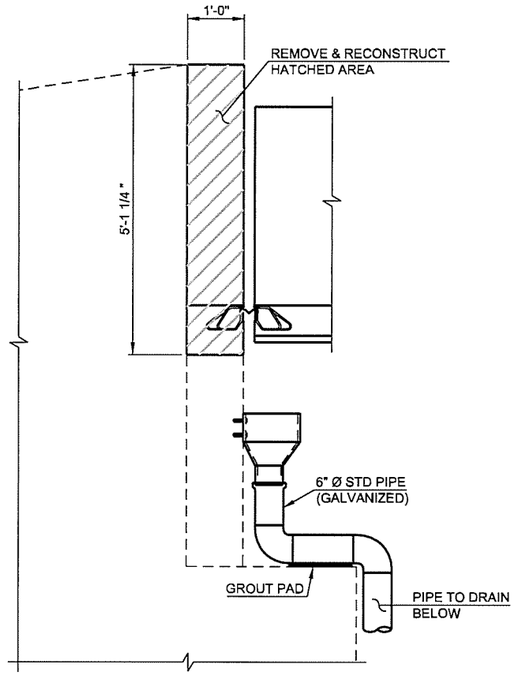
TULSA CO. 2ND STREET

6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -18-BR.A-Abut. 1.1.dgn

DESCRIPTION	REVISIONS	DATE



VIEW F-F
(FROM SHEET 47)

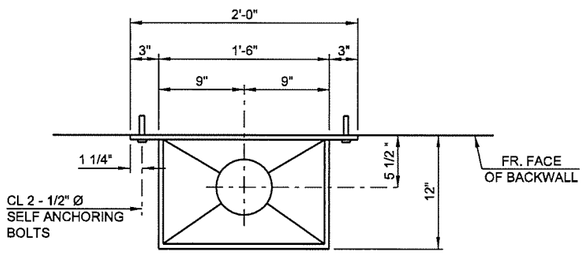


VIEW G-G
(FROM SHEET 47)

NOTE:
COSTS TO REMOVE CONCRETE AT ABUTMENT NO. 1 BACK WALL AND WING WALL TO BE INCLUDED WITH ITEM 619(B) REMOVAL OF BRIDGE ITEM (TYPE A).

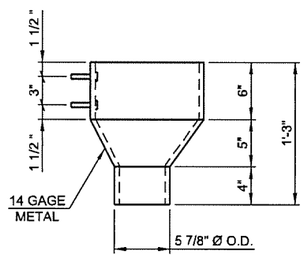
COSTS TO RECONSTRUCT PORTION OF SOUTH WING WALL TO BE INCLUDED WITH ITEM 504(A) APPROACH SLAB.

COSTS OF DRAIN RECEPTACLE, GROUT PAD, PIPE, FITTINGS AND CLAMPS TO BE INCLUDED WITH ITEM 506(A) STRUCTURAL STEEL. THERE IS AN ESTIMATED 491 LBS OF STRUCTURAL STEEL IN THE DRAIN RECEPTACLE, PIPE, FITTINGS AND CLAMPS.



PLAN

NOTE:
GALVANIZE RECEPTACLE AFTER FABRICATION



ELEVATION

DETAIL OF DRAIN RECEPTACLE AT ABUTMENT NO. 1

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JWB	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

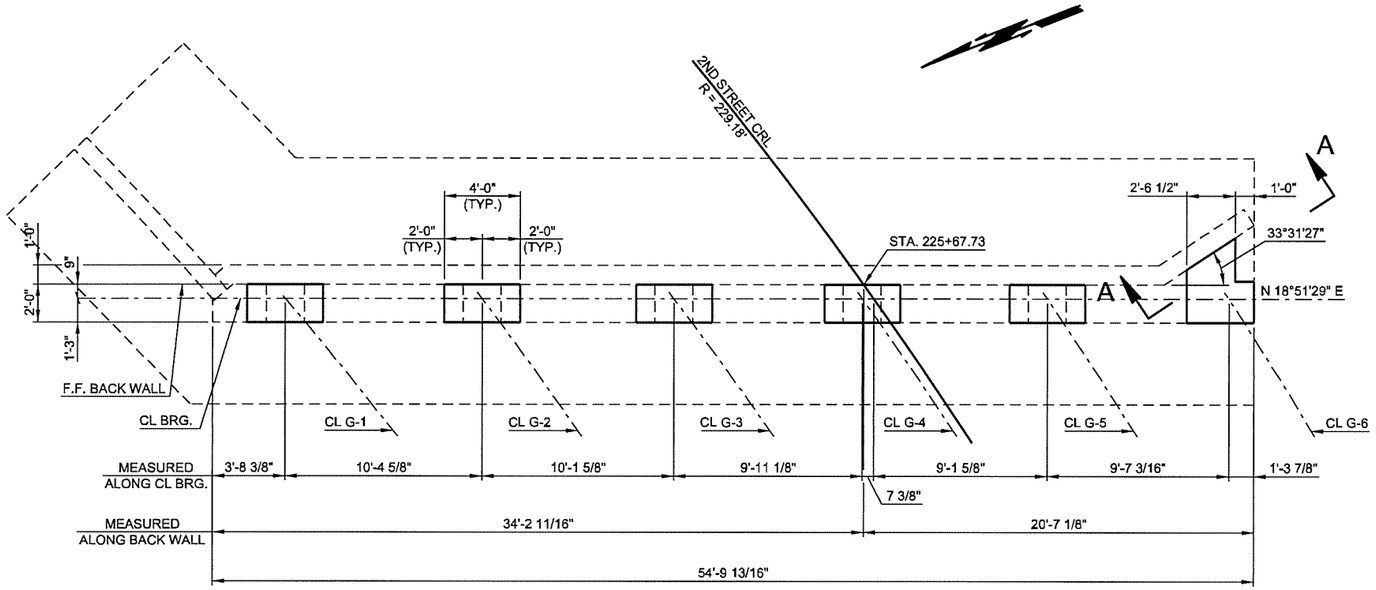
ABUTMENT NO. 1 REPAIRS
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 19

TULSA CO. 2ND STREET

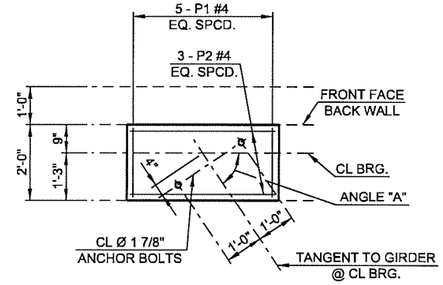
6/6/2016 N:\113990200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -19-BR.A-Abut. 1.2.dgn

DESCRIPTION	REVISIONS	DATE



PLAN

GIRDER	ANGLE "A"
G-1	49°28'21"
G-2	51°17'26"
G-3	52°56'11"
G-4	54°26'09"
G-5	55°48'32"



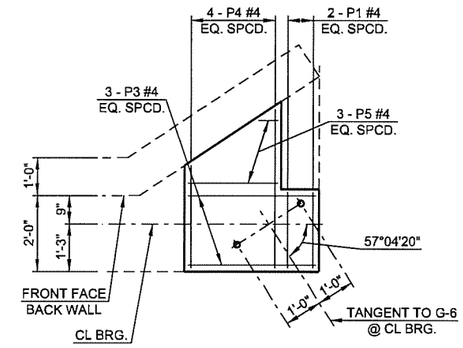
PEDESTAL DETAIL PLAN
(G-1 THRU G-5)

FOR SECTION A-A
SEE SHEET 21

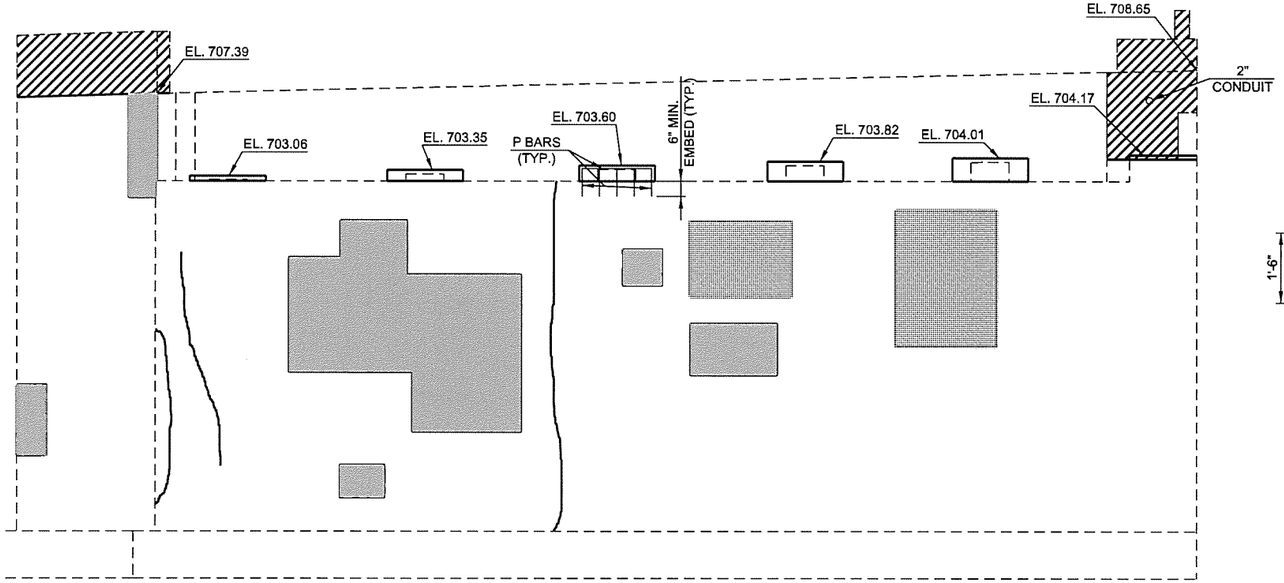
PNEUMATICALLY PLACED MORTAR

EPOXY INJECTION

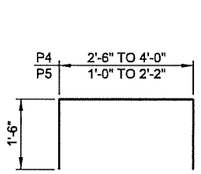
CONCRETE REMOVAL (FOR DETAILS SEE SHEET 21 & 52)



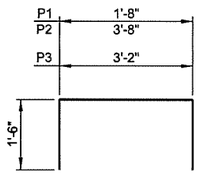
PEDESTAL DETAIL PLAN
(G-6)



ELEVATION



P4 #4 x 6'-3" AVG.
P5 #4 x 4'-7" AVG.



P1 #4 x 4'-8"
P2 #4 x 6'-8"
P3 #4 x 6'-2"

ABUTMENT NO. 2 BAR LIST

MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIES
EPOXY COATED REINFORCING BARS					
P1	#4	27	BNT	4'-8"	
P2	#4	15	BNT	6'-8"	
P3	#4	3	BNT	6'-2"	
P4	#4	4	BNT	6'-3" AVG.	5'-6" TO 7'-0"
P5	#4	3	BNT	4'-7" AVG.	4'-0" TO 5'-2"

ABUTMENT NO. 2 QUANTITIES

DESCRIPTION	UNIT	TOTAL
CLASS A CONCRETE	CY	1.0
EPOXY COATED REINFORCING	LBS	190
WATER REPELLENT (VISUALLY INSPECTED)	SY	180
PREPARATION OF CRACKS ABOVE WATER	LF	43
EPOXY RESIN ABOVE WATER	GAL	1.0
PNEUMATICALLY PLACED MORTAR	SY	20
(PL) REPAIR BRIDGE ITEM (TYPE A)	LSUM	1.0
(SP) CORROSION INHIBITOR (SURFACE APPLIED)	SY	45
REMOVAL OF BRIDGE ITEM (TYPE C)	EA	6

ANCHORAGE SYSTEM

THE CONTRACTOR SHALL USE AN ANCHORAGE SYSTEM THAT HAS BEEN APPROVED BY ODOT'S MATERIAL DIVISION. THE ANCHORAGE SYSTEM SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE REINFORCING STEEL THAT IS TO BE ANCHORED. ANCHORAGES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICAITONS FOR THE SYSTEM USED AND ODOT STANDARD SPECIFICATIONS SECTION 509.04(d)3. ALL COST OF ANCHORAGE ASSEMBLIES INCLUDING LABOR, MATERIALS, TOOLS, DRILLING AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID PER POUND OF "EPOXY COATED REINFORCING".

2ND STREET OVER I-444 - BRIDGE 'A'

DESIGN	JWB	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

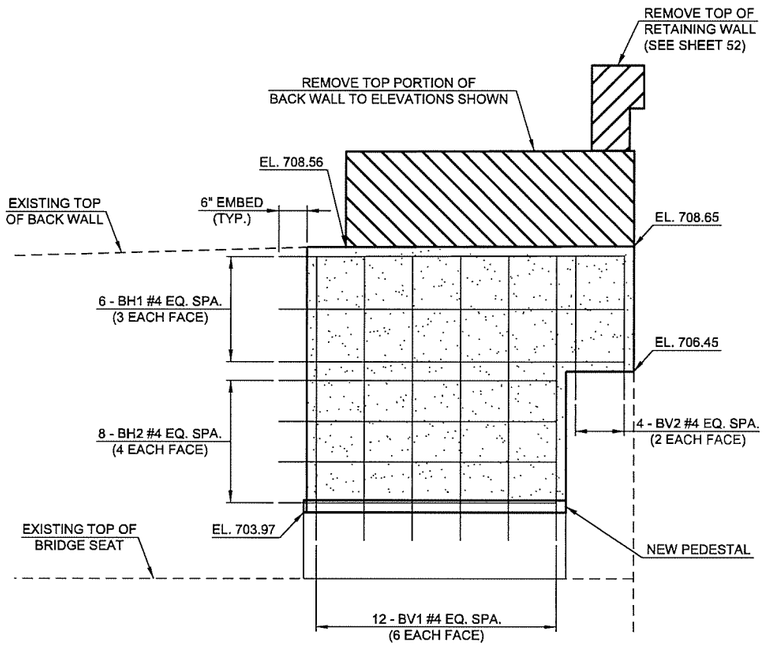
ABUTMENT NO. 2 REPAIRS
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 20

TULSA CO. 2ND STREET

6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -20-BR.A-Abut. 2.1.dgn

DESCRIPTION	REVISIONS	DATE



SECTION A-A

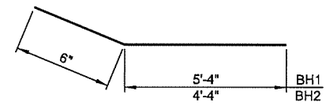
(FROM SHEET 20)
(REPAIR BRIDGE ITEM (TYPE A))

REPAIR BRIDGE ITEM (TYPE A)
BAR LIST

(FOR INFORMATION ONLY)

MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING BARS				
BH1	#4	6	BNT	5'-10"
BH2	#4	8	BNT	4'-10"
BV1	#4	12	STR	5'-0"
BV2	#4	4	STR	2'-6"

NOTE:
SEE ANCHORAGE SYSTEM NOTE
ON SHEET 20



BH1 #4 x 5'-10" (FOR INFORMATION ONLY)
BH2 #4 x 4'-10" (FOR INFORMATION ONLY)

6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -21-BR.A-Abut. 2.2.dgn

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

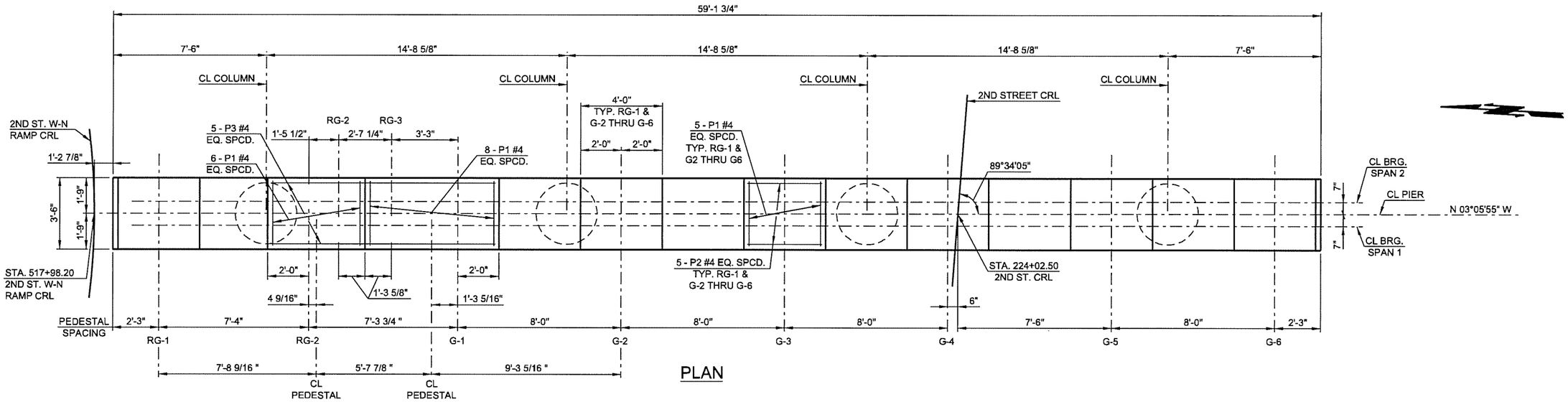
OKLAHOMA DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2 REPAIRS
SHEET 2 OF 2

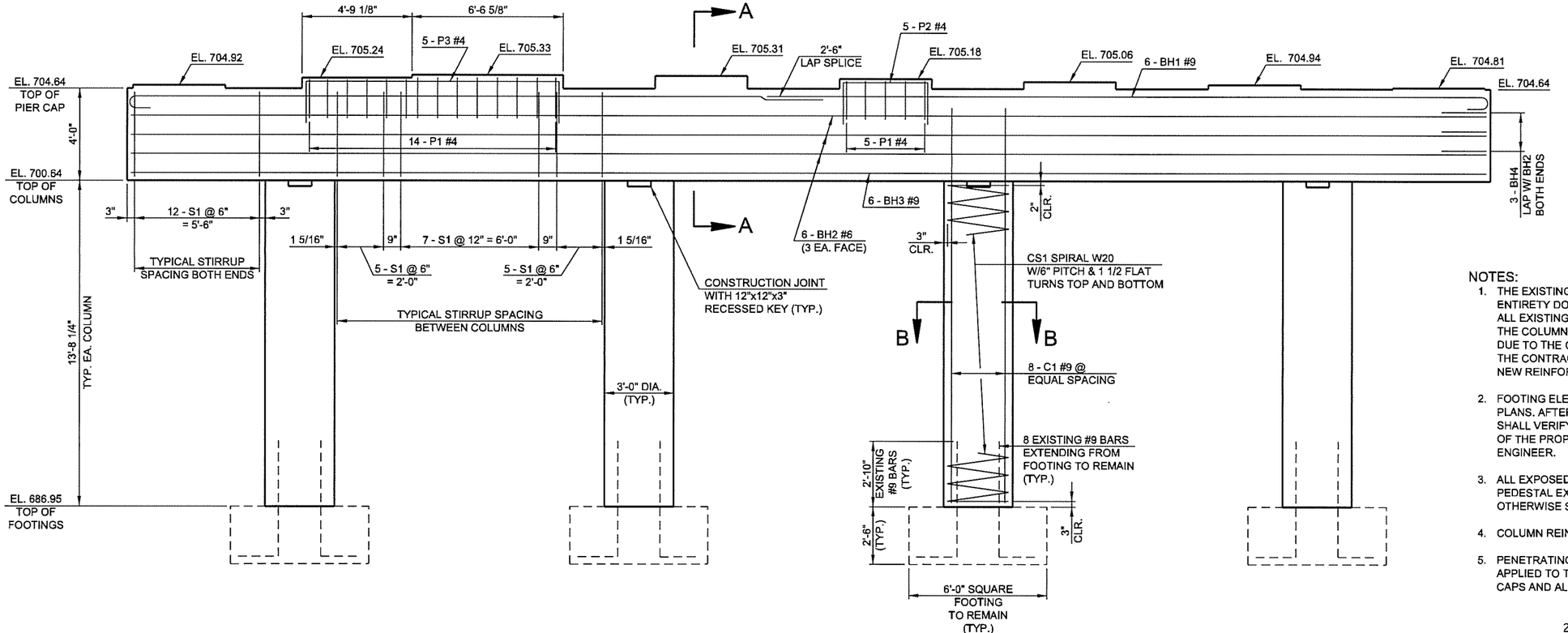
STATE JOB NO. 28865(04) SHEET NO. 21

TULSA CO. 2ND STREET

DESCRIPTION	REVISIONS	DATE



PLAN



ELEVATION

NOTES:

1. THE EXISTING PIER CAP AND COLUMNS SHALL BE REMOVED IN THEIR ENTIRETY DOWN TO THE TOP OF THE EXISTING FOOTINGS AS SHOWN. ALL EXISTING REINFORCING EXTENDING FROM THE FOOTINGS INTO THE COLUMNS SHALL REMAIN IN PLACE. ANY REINFORCING DAMAGED DUE TO THE CONTRACTORS OPERATIONS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE BY MEANS OF DRILLING AND EPOXY NEW REINFORCING BARS AS APPROVED BY THE ENGINEER.
2. FOOTING ELEVATIONS WERE OBTAINED FROM THE BRIDGE "AS-BUILT" PLANS. AFTER THE FOOTINGS ARE EXPOSED, THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF THE FOOTINGS AND DIMENSIONS OF THE PROPOSED PIER AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
3. ALL EXPOSED PIER CAP EDGES SHALL HAVE 1 1/2" CHAMFER AND ALL PEDESTAL EXPOSED EDGES SHALL HAVE 3/4" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED.
4. COLUMN REINFORCING SHOWN IS TYPICAL FOR ALL COLUMNS.
5. PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE TOP, SIDES, ENDS, AND PEDESTALS OF THE PIER CAPS AND ALL EXPOSED AREAS OF THE COLUMNS.

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	LWN	2-16
DRAWN	MRM	2-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PIER NO. 1 DETAILS

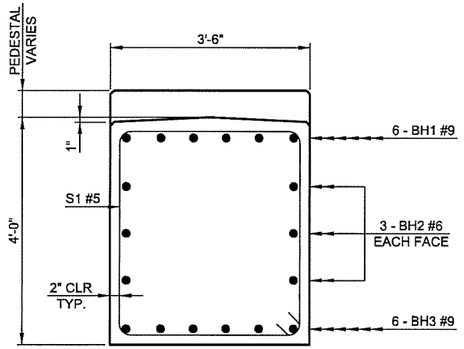
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 22

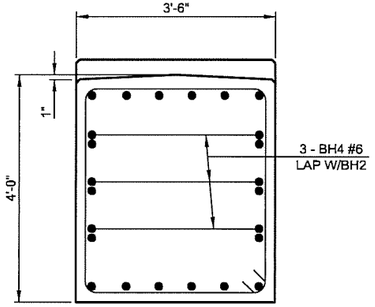
TULSA CO. 2ND STREET

6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -22-BR.A-Pier 1.1.dgn

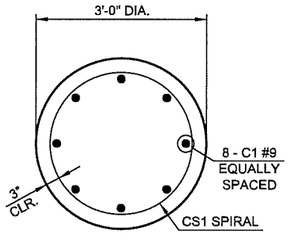
DESCRIPTION	REVISIONS	DATE



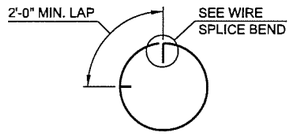
SECTION A-A



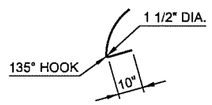
END SECTION



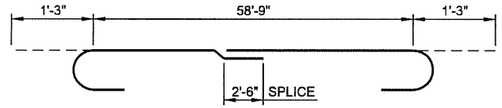
SECTION B-B



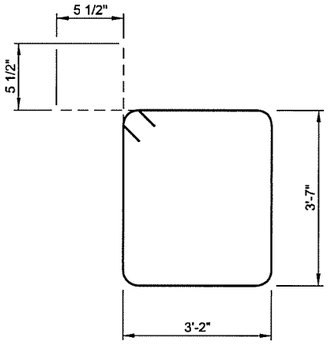
WIRE SPLICE WHEN REQ'D



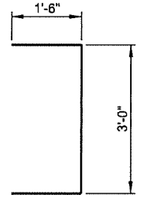
WIRE SPLICE BEND



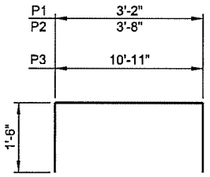
BH1 #9 x 63'-9"



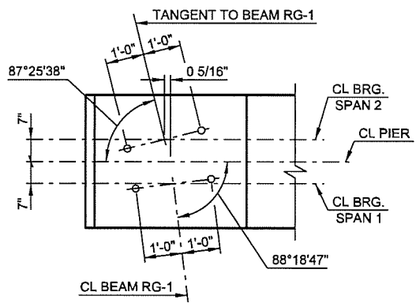
S1 #5 x 14'-5"



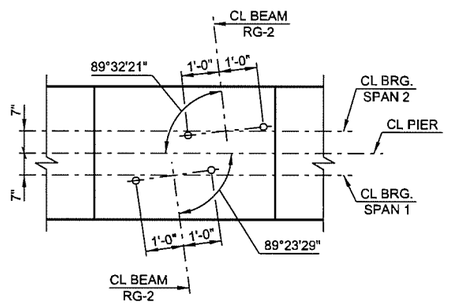
BH4 #6 x 6'-0"



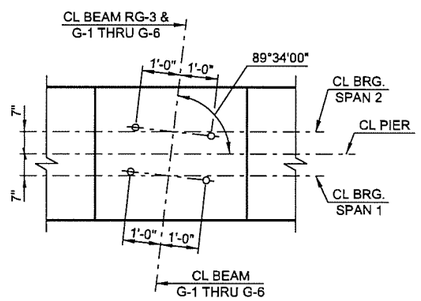
P1 #4 x 6'-2"
P2 #4 x 6'-8"
P3 #4 x 13'-11"



RG-1



RG-2



RG-3 & G-1 THRU G-6

ANCHOR BOLT LAYOUTS

PIER NO. 1 BAR LIST					
	MARK	SIZE	NO.	FORM	LENGTH
	EPOXY COATED REINFORCING BARS				
(1)	BH1	#9	6	BNT.	63'-9"
	BH2	#6	6	STR.	58'-9"
	BH3	#9	6	STR.	58'-9"
	BH4	#6	6	BNT.	6'-0"
	C1	#9	32	STR.	17'-1"
	CS1	W20	4	SPIRAL	233'-9"
	S1	#5	75	BNT.	14'-5"
	P1	#4	44	BNT.	6'-2"
	P2	#4	30	BNT.	6'-8"
	P3	#4	5	BNT.	13'-11"

(1) INCLUDES 2'-6" LAP

PIER NO. 1 SUMMARY OF QUANTITIES		
DESCRIPTION	UNIT	TOTAL
CLASS A CONCRETE	CY	47.2
EPOXY COATED REINFORCING STEEL	LB	7070.0
WATER REPELLENT (VISUALLY INSPECTED)	SY	136.0

2ND STREET OVER I-444 - BRIDGE 'A'

DESIGN	LWN	2-16
DRAWN	MRM	2-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

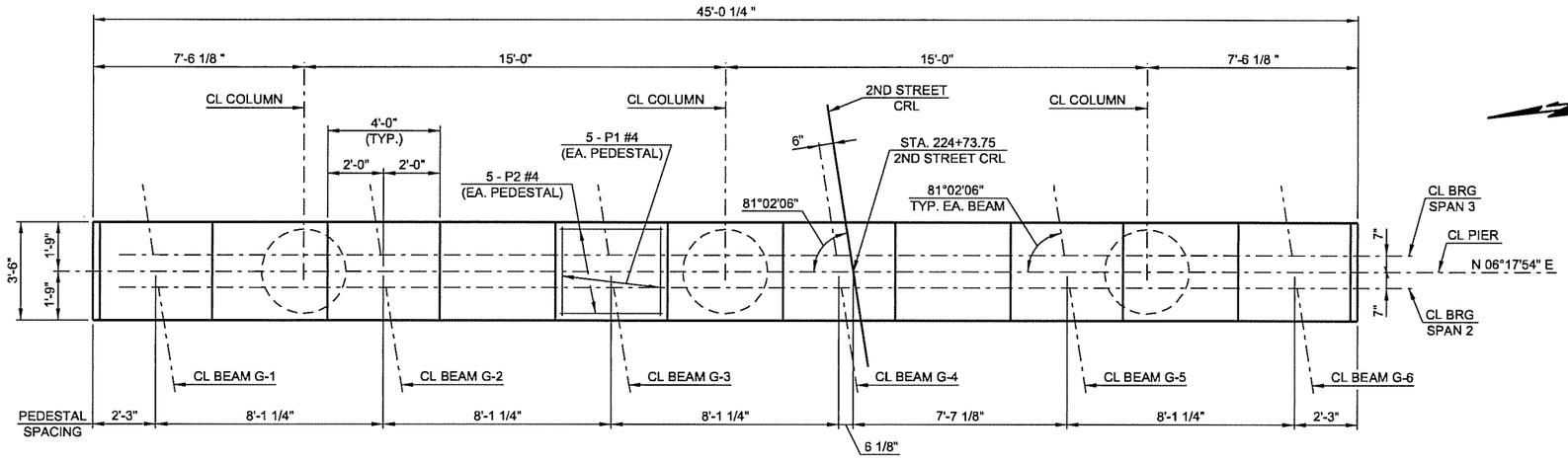
PIER NO. 1 DETAILS
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 23

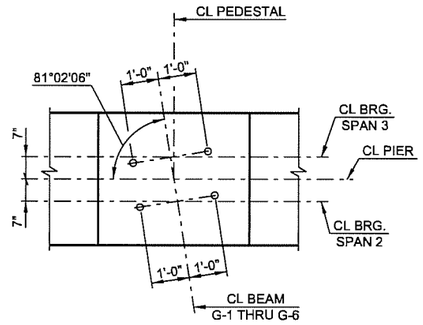
TULSA CO. 2ND STREET

6/6/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -23-BR.A-Pier 1.2.dgn

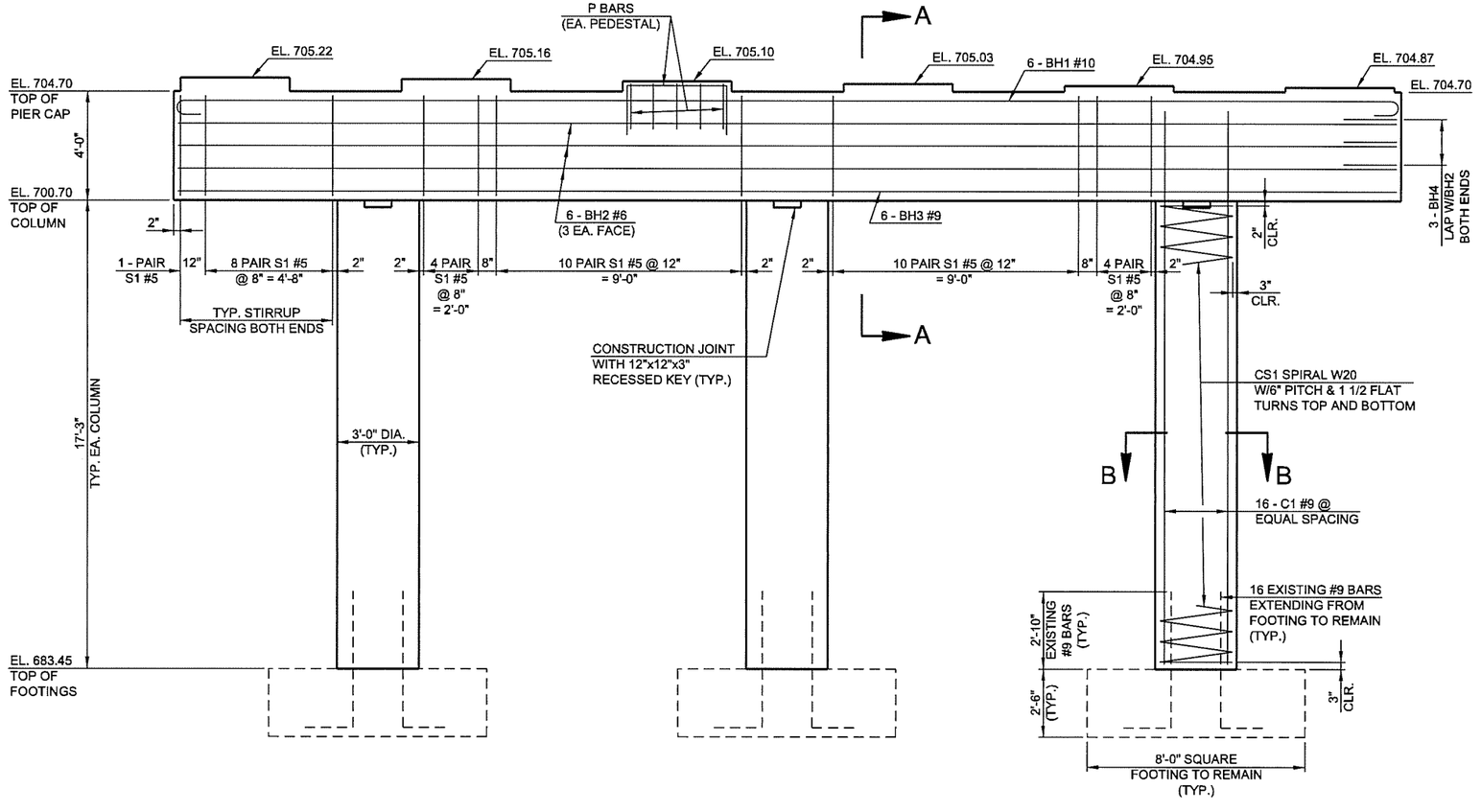
DESCRIPTION	REVISIONS	DATE



PLAN



ANCHOR BOLT LAYOUT



ELEVATION

NOTES:

1. THE EXISTING PIER CAP AND COLUMNS SHALL BE REMOVED IN THEIR ENTIRETY DOWN TO THE TOP OF THE EXISTING FOOTINGS AS SHOWN. ALL EXISTING REINFORCING EXTENDING FROM THE FOOTINGS INTO THE COLUMNS SHALL REMAIN IN PLACE. ANY REINFORCING DAMAGED DUE TO THE CONTRACTORS OPERATIONS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE BY MEANS OF DRILLING AND EPOXY NEW REINFORCING BARS AS APPROVED BY THE ENGINEER.
2. FOOTING ELEVATIONS WERE OBTAINED FROM THE BRIDGE "AS-BUILT" PLANS. AFTER THE FOOTINGS ARE EXPOSED, THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF THE FOOTINGS AND DIMENSIONS OF THE PROPOSED PIER AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
3. ALL EXPOSED PIER CAP EDGES SHALL HAVE 1 1/2" CHAMFER AND ALL PEDESTAL EXPOSED EDGES SHALL HAVE 3/4" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED.
4. COLUMN REINFORCING SHOWN IS TYPICAL FOR ALL COLUMNS.
5. PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE TOP, SIDES, ENDS, AND PEDESTALS OF THE PIER CAPS AND ALL EXPOSED AREAS OF THE COLUMNS.

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	LWN	2-16
DRAWN	MRM	2-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PIER NO. 2 DETAILS

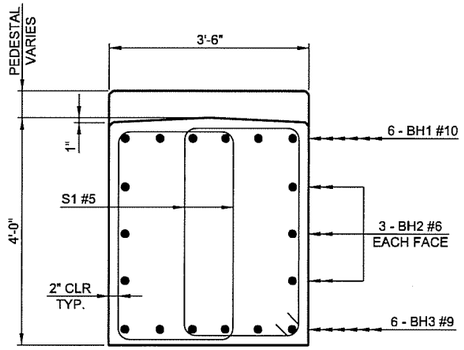
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 24

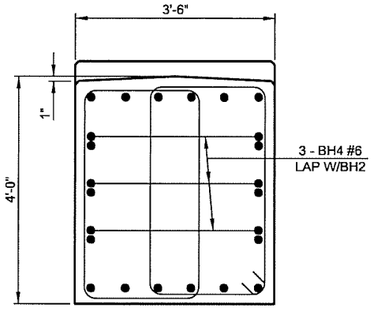
TULSA CO. 2ND STREET

6/7/2016 N:\113990200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -24-BR.A-Pier 2.1.dgn

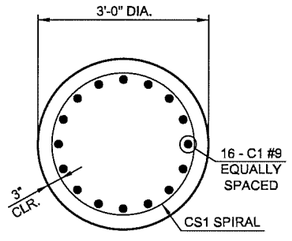
REVISIONS		
DESCRIPTION		DATE



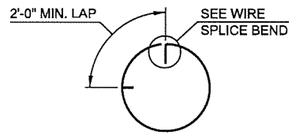
SECTION A-A



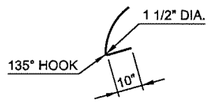
END SECTION



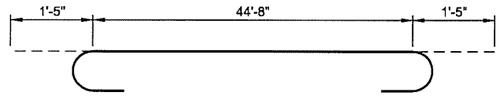
SECTION B-B



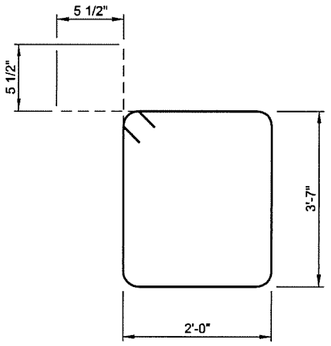
WIRE SPLICE WHEN REQ'D



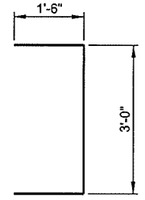
WIRE SPLICE BEND



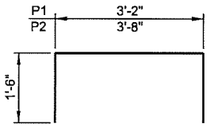
BH1 #10 x 47'-6"



S1 #5 x 12'-1"



BH4 #6 x 6'-0"



P1 #4 x 6'-2"
P2 #4 x 6'-8"

PIER NO. 2 BAR LIST

MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING BARS				
BH1	#10	6	BNT.	47'-6"
BH2	#6	6	STR.	44'-8"
BH3	#9	6	STR.	44'-8"
BH4	#6	6	BNT.	6'-0"
C1	#9	48	STR.	20'-8"
CS1	W20	3	SPIRAL	290'-2"
S1	#5	92	BNT.	12'-1"
P1	#4	30	BNT.	6'-2"
P2	#4	30	BNT.	6'-8"

PIER NO. 2 SUMMARY OF QUANTITIES

DESCRIPTION	UNIT	TOTAL
CLASS A CONCRETE	CY	38.0
EPOXY COATED REINFORCING STEEL	LB	7980.0
WATER REPELLENT (VISUALLY INSPECTED)	SY	112.0

2ND STREET OVER I-444 - BRIDGE 'A'

DESIGN	LWN	2-16
DRAWN	MRM	2-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PIER NO. 2 DETAILS

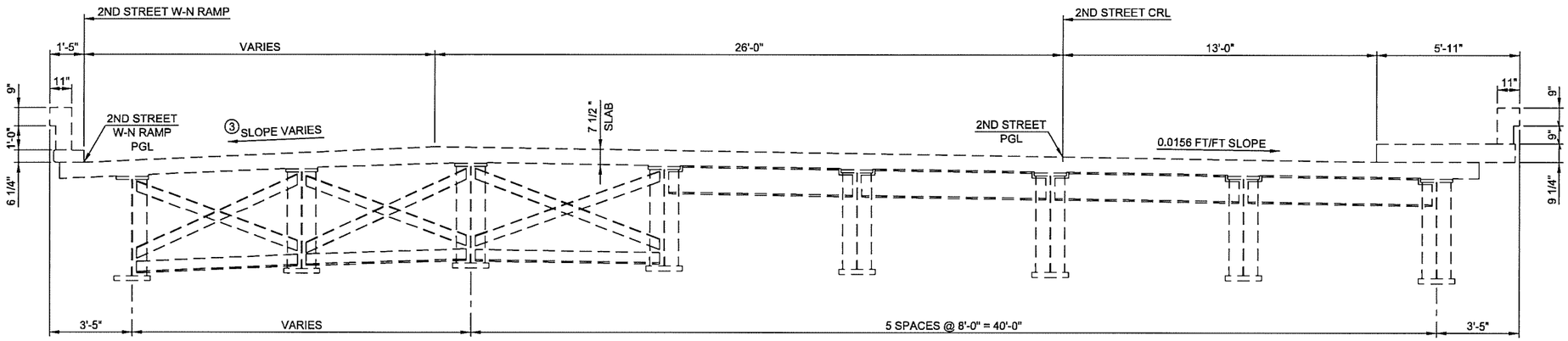
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 25

TULSA CO. 2ND STREET

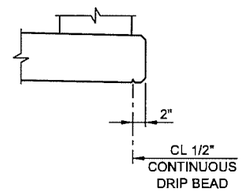
6/7/2016 N:\11399\200-11399-13001-05\CADISheetFiles\JP 28865 (04) -25-BR.A-Pier 2.2.dgn

DESCRIPTION	REVISIONS	DATE



PARTIAL SECTION AT INTERMEDIATE DIAPHRAGM

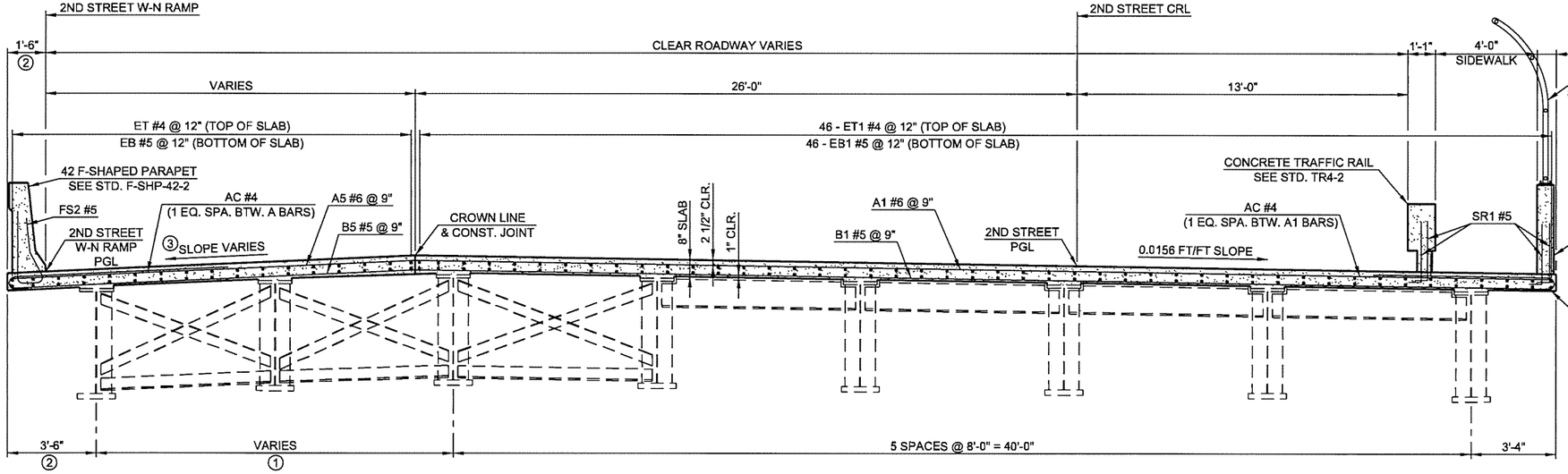
PARTIAL SECTION AT END DIAPHRAGM



DETAIL A

TYPICAL SECTION - EXISTING BRIDGE DECK

(FOR INFORMATION ONLY)



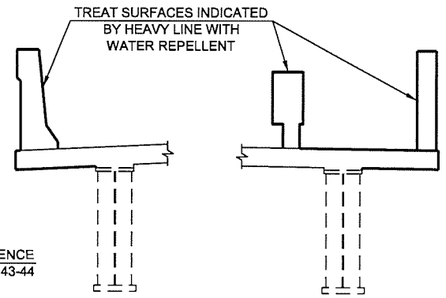
PARTIAL SECTION AT INTERMEDIATE DIAPHRAGM

PARTIAL SECTION AT END DIAPHRAGM

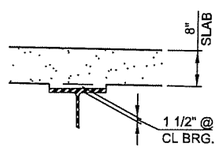
TYPICAL SECTION - PROPOSED BRIDGE DECK
SPAN 1

NOTE:
FOR BAR BENDS AND BAR LIST SEE SHEET 33. ROTATE HOOKS ON A BARS TO MAINTAIN MINIMUM CLEARANCE.

① SEE FRAMING PLAN ON SHEET 29 FOR DIMENSIONS
② MEASURED PERPENDICULAR TO 2ND STREET W-N RAMP CRL
③ SEE SHEET 15 FOR CROSS SLOPE



WATER REPELLENT TREATMENT DETAILS



BEAM HAUNCH DETAIL

NOTE:
PLAN QUANTITIES FOR CLASS AA CONCRETE INCLUDE BEAM HAUNCHES. THE HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE BEARING ONLY, MEASURED FROM THE BOTTOM OF THE DECK SLAB TO THE TOP OF THE BEAM, AND VARIES ACROSS THE SPAN. DETERMINE THE ACTUAL HEIGHT (ACCOUNTING FOR BEAM CAMBER, DEAD LOAD DEFLECTION AND ROADWAY GRADE) AFTER RESETTING THE BEAMS AND SUBMIT TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HEIGHTS FOR PAYMENT

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

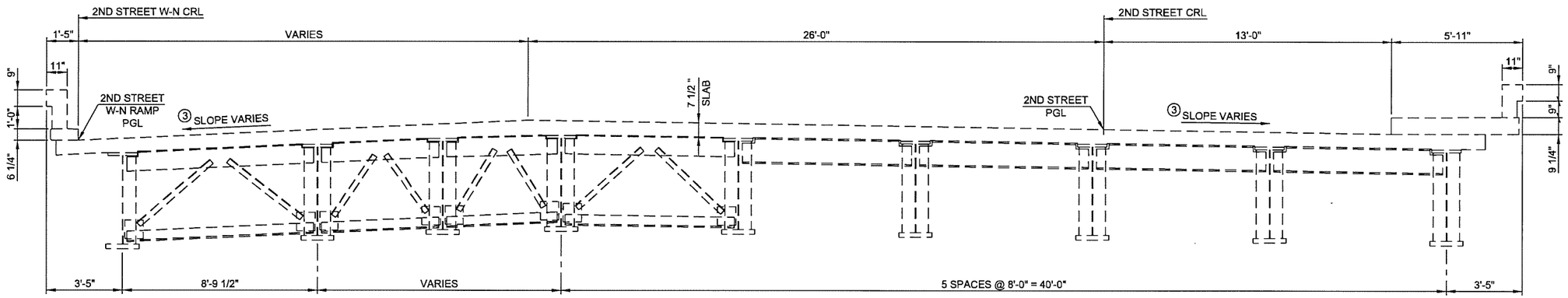
TYPICAL BRIDGE SECTION
SPAN 1

STATE JOB NO. 28865(04) SHEET NO. 26

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -26-BR A-Typ.Section.1.dgn

DESCRIPTION	REVISIONS	DATE

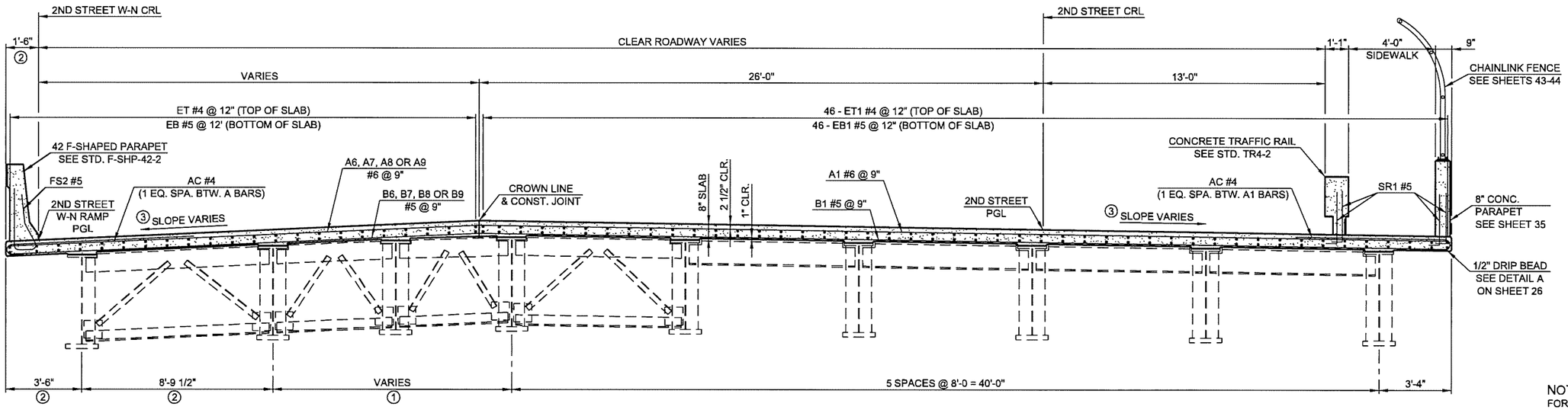


PARTIAL SECTION AT INTERMEDIATE DIAPHRAGM

PARTIAL SECTION AT END DIAPHRAGM

TYPICAL SECTION - EXISTING BRIDGE DECK

(FOR INFORMATION ONLY)



PARTIAL SECTION AT INTERMEDIATE DIAPHRAGM

PARTIAL SECTION AT END DIAPHRAGM

TYPICAL SECTION - PROPOSED BRIDGE DECK
SPAN 2

NOTE:
FOR WATER REPELLENT TREATMENT AND BEAM HAUNCH DETAILS SEE SHEET 26

NOTE:
FOR BAR BENDS AND BAR LIST SEE SHEET 33.
ROTATE HOOKS ON A BARS TO MAINTAIN MINIMUM CLEARANCE

① SEE FRAMING PLAN ON SHEET 29 FOR DIMENSIONS
② MEASURED PERPENDICULAR TO 2ND STREET W-N RAMP CRL
③ SEE SHEET 15 FOR CROSS SLOPE

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

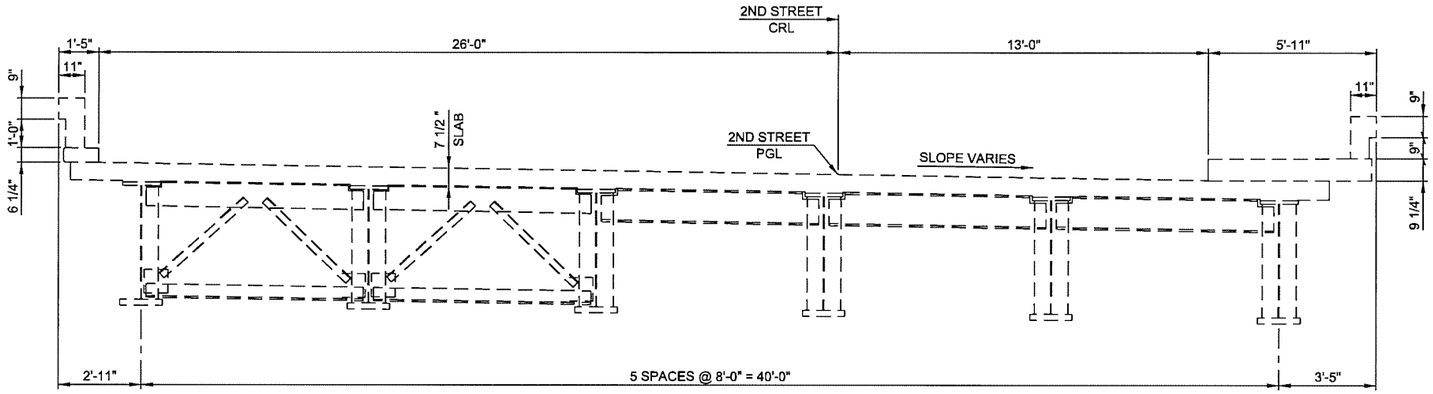
TYPICAL BRIDGE SECTION
SPAN 2

STATE JOB NO. 28865(04) SHEET NO. 27

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -27-BR.A-Typ.Section.2.dgn

REVISIONS		
DESCRIPTION		DATE

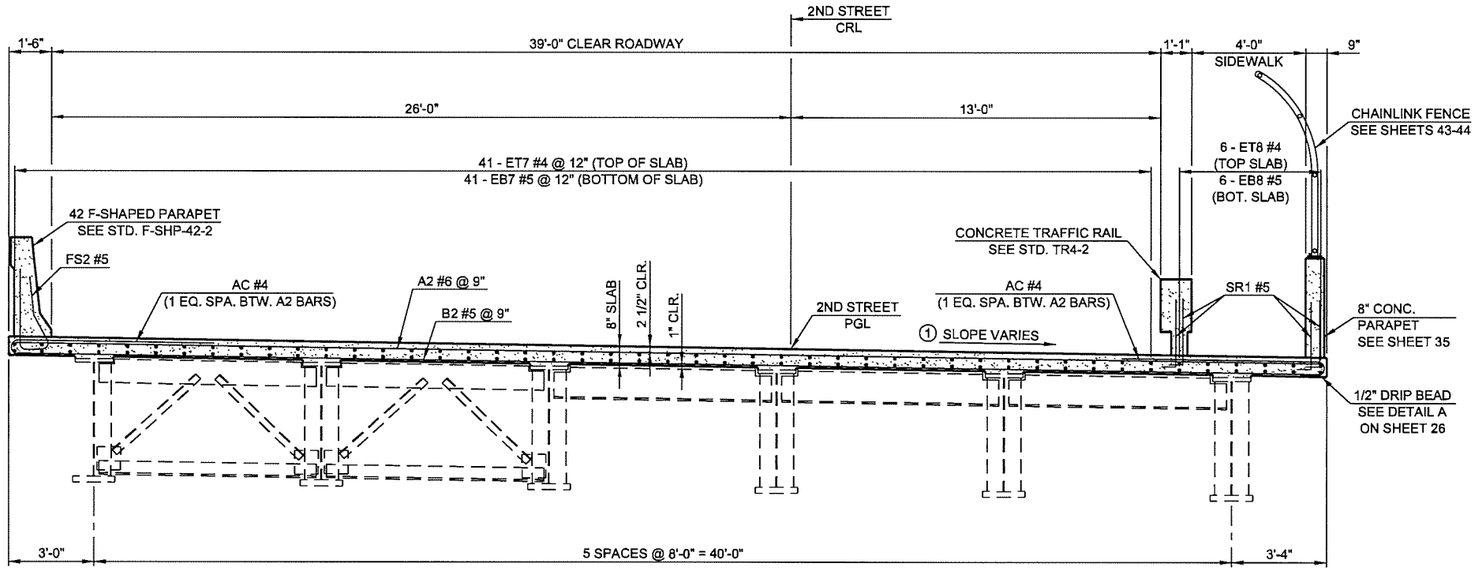


PARTIAL SECTION AT INTERMEDIATE DIAPHRAGM

PARTIAL SECTION AT END DIAPHRAGM

TYPICAL SECTION - EXISTING BRIDGE DECK

(FOR INFORMATION ONLY)



PARTIAL SECTION AT INTERMEDIATE DIAPHRAGM

PARTIAL SECTION AT END DIAPHRAGM

TYPICAL SECTION - PROPOSED BRIDGE DECK
SPAN 3

NOTE:
FOR BAR BENDS AND BAR LIST SEE SHEET 33.
ROTATE HOOKS ON A BARS TO MAINTAIN MINIMUM CLEARANCE.

1 SEE SHEET 15 FOR CROSS SLOPE

NOTE:
FOR WATER REPELLENT TREATMENT AND BEAM HAUNCH DETAILS SEE SHEET 26

SUPERSTRUCTURE QUANTITIES

DESCRIPTION	UNIT	TOTAL
SAW-CUT GROOVING	SY	1240.0
SEALED EXPANSION JOINT	LF	107.0
CONCRETE RAIL (TR-4)	LF	212.3
42" F-SHAPED PARAPET	LF	271.8
CONCRETE PARAPET	LF	213.1
STRUCTURAL STEEL	LB	1900.0
WEATHERING STEEL FIXED BEARING ASSEMBLY	EA	23.0
WEATHERING STEEL EXPANSION BEARING ASSEMBLY	EA	23.0
CLASS AA CONCRETE	CY	323.7
EPOXY COATED REINFORCING	LB	81150.0
WATER REPELLENT (VISUALLY INSPECTED)	SY	880.0
SEALER CRACK PREPARATION	LF	59.0
SEALER RESIN	GAL	1.0
FENCE-STYLE CLF (6" HIGH, CLASS A)	LF	206.0

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TYPICAL BRIDGE SECTION
SPAN 3

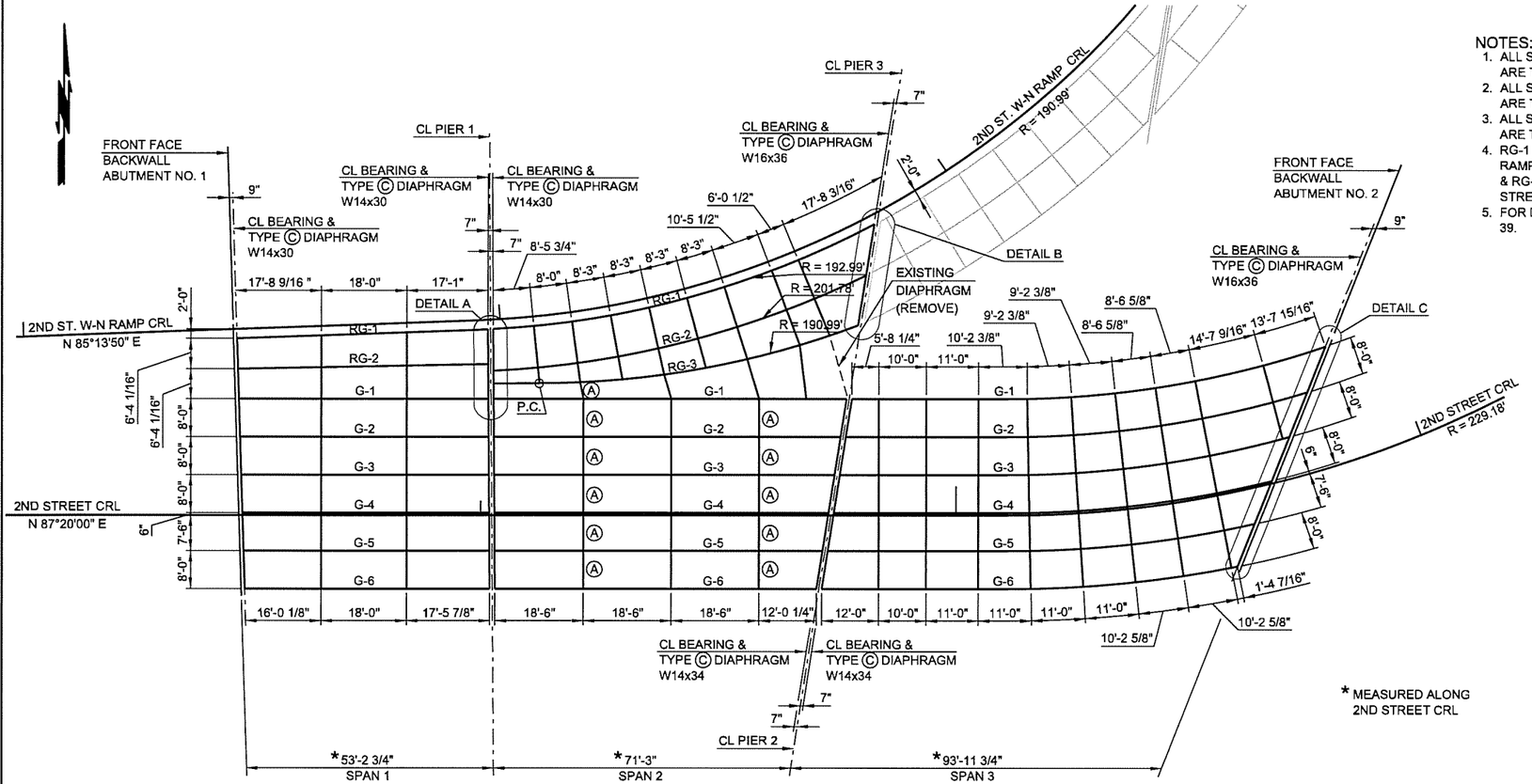
STATE JOB NO. 28865(04) SHEET NO. 28

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -28-BR.A-Typ.Section 3.dgn

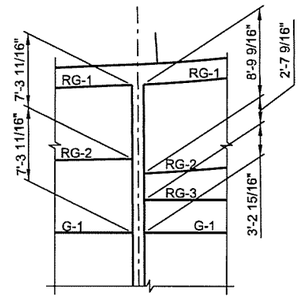
DESCRIPTION	REVISIONS	DATE

NOTES:
1. ALL SPAN 1 INTERMEDIATE DIAPHRAGMS ARE TYPE Ⓐ.
2. ALL SPAN 2 INTERMEDIATE DIAPHRAGMS ARE TYPE Ⓑ UNLESS NOTED OTHERWISE.
3. ALL SPAN 3 INTERMEDIATE DIPAHRAGMS ARE TYPE Ⓑ.
4. RG-1 IS CONCENTRIC TO 2ND STREET W-N RAMP CRL. TYPE Ⓑ CROSS BETWEEN RG-1 & RG-2 AND RG-2 & RG-3 ARE RADIAL TO 2ND STREET W-N RAMP CRL.
5. FOR DETAILS OF DIAPHRAGMS SEE SHEET 39.

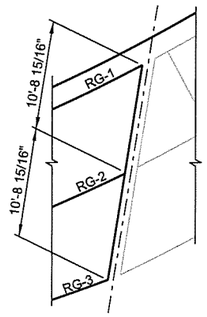


FRAMING PLAN
SCALE: 1" = 15'

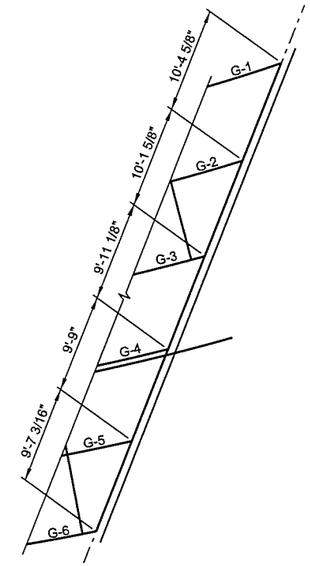
* MEASURED ALONG 2ND STREET CRL



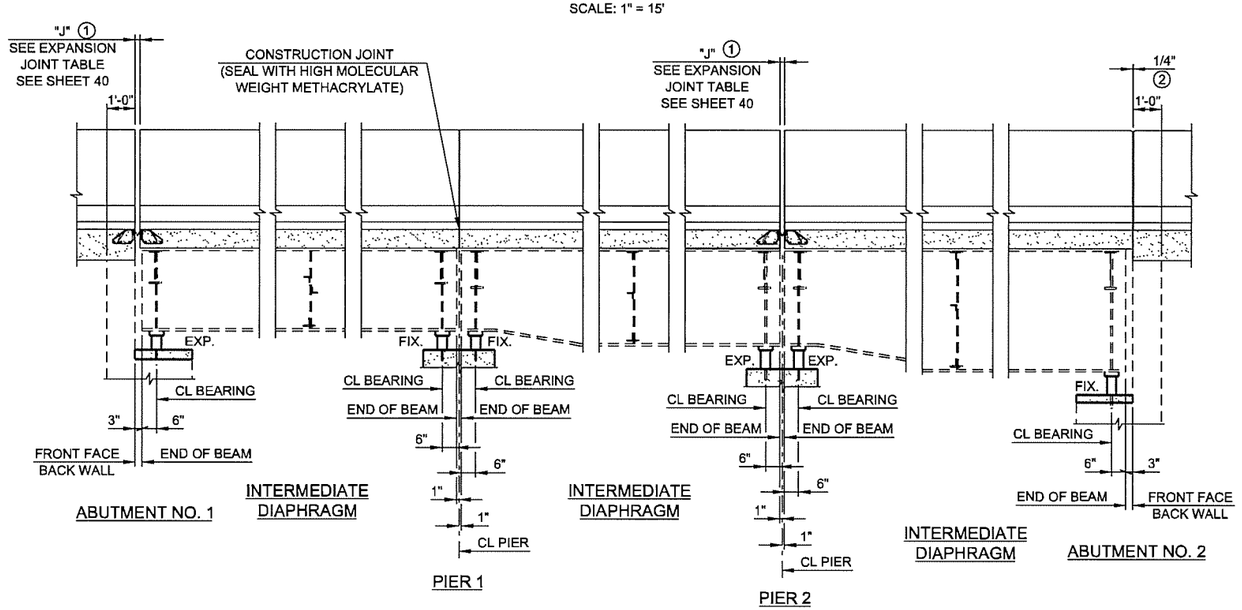
DETAIL A



DETAIL B



DETAIL C



LONGITUDINAL SECTION

① PARAPET OPENING SHALL BE THE SAME AS DECK SLAB OPENING AT EXPANSION JOINT.

② PLACE A 1/4" THICK PERFORMED EXPANSION MATERIAL IN EACH PARAPET VERTICAL CONSTRUCTION JOINT. SEE STD. TR4-2 AND FSHP-42-2 FOR ADDITIONAL DETAILS

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND LONGITUDINAL SECTION

STATE JOB NO. 28865(04) SHEET NO. 29

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -29-BR.A-Framing.dgn

DESCRIPTION	REVISIONS	DATE

"J" SEE EXPANSION JOINT TABLE ON SHEET 40

F.F BACKWALL ABUTMENT NO. 1

BEGIN DECK SLAB

54'-1 1/8" (NORTH FASCIA) SPAN 1

CL PIER 1

84'-8 3/4", R = 189.49' (NORTH FASCIA) SPAN 2

133 - FS2 #5 & 8 - L #4 (SEE SHEET 34 FOR PLACMENT)

89 - A6 #6 @ 9" TOP (LAP WITH A1)
89 - B6 #5 @ 9" BOTTOM (LAP WITH B1)

73 - A5 #6 @ 9" TOP (LAP WITH A1)
73 - B5 #5 @ 9" BOTTOM (LAP WITH B1)

2"

195 - AC #4 TOP
(1 EQUALLY SPACED BETWEEN A5, A6, A7, A8 & A9 BARS)

17 - A8 #6 @ 9" TOP
17 - B8 #5 @ 9" BOT.

16 - A9 #6 @ 9" TOP
16 - B9 #5 @ 9" BOT.

CL PIER 3

9 - A10 #6 @ 4" TOP
9 - B10 #5 @ 4" BOT.

1'-6"

VARIES

4 - AT4 #5

B2

9"

9"

2 - A7 #6 @ 9" TOP
2 - B7 #5 @ 9" BOT.

1'-6"

DETAIL A
(SEE SHEET 31)

8 - ET4 #4 @ 12" TOP
8 - EB4 #5 @ 12" BOT.

2 - ET5 #4 @ 12" TOP
2 - EB5 #5 @ 12" BOT.

A2

14'-7 3/4"

16 - ET3 #4 @ 12" TOP
16 - EB3 #5 @ 12" BOTTOM

2"

2"

2 - AT2 #5
(LAP WITH AT1)

CONSTRUCTION JOINT & CROWN LINE

CONSTRUCTION JOINT

1'-6"

9"

B1

4 - AT3 #5

59'-6"

44'-10 1/4"

A1

46 - ET1 #4 @ 12" TOP
46 - EB1 #5 @ 12" BOTTOM

44'-1"

9"

2 - AT1 #5
(LAP WITH AT2)

356 - SR1 #5 (261 ROADWAY FACE OF TR4 TRAFFIC RAIL)
(95 SIDEWALK FACE OF TR4 TRAFFIC RAIL) (SEE SHEET 34 FOR PLACEMENT)

1'-1" TR4 RAIL

4'-9"

1'-1" TR4 RAIL

4'-9"

9"

8 - A3 #6 @ 9" TOP
8 - B3 #5 @ 9" BOTTOM

LIGHTING BRACKET
STA. 223+57.00
(SEE SHEET 36 FOR DETAILS)

162 - AC #4 TOP
(1 EQUALLY SPACED BETWEEN A1 AND A2 BARS)

2 - A2 #6 @ 9" TOP
2 - B2 #5 @ 9" BOTTOM

6"

89 - A1 #6 @ 9" MAX. TOP (LAP WITH A6)
89 - B1 #5 @ 9" MAX. BOTTOM (LAP WITH B6)

73 - A1 #6 @ 9" MAX. TOP (LAP WITH A5)
73 - B1 #5 @ 9" MAX. BOTTOM (LAP WITH B5)

2"

224 - SR1 #5 & 12 - L #4 FOR PEDESTRIAN PARAPET (SEE SHEET 34 FOR PLACEMENT)

68'-2 1/8" (SOUTH FASCIA) SPAN 2

52'-7 1/8" (SOUTH FASICA) SPAN 1

CL PIER 2

NOTE:
FOR SECTIONS A1, A2, B1 AND B2 SEE SHEET 33.

SLAB REINFORCING PLAN - SPANS 1 & 2

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

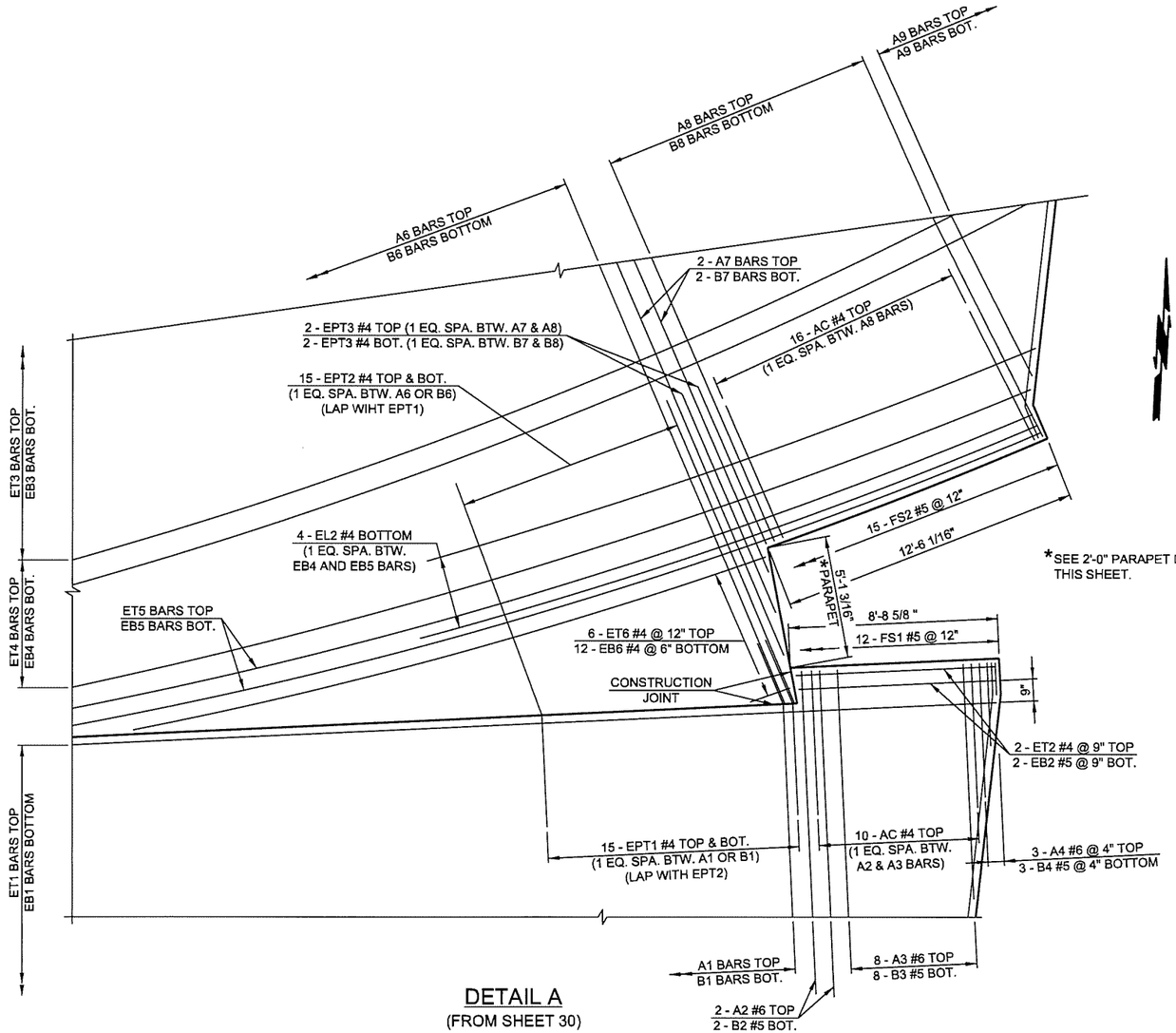
DECK SLAB REINFORCING DETAILS
SHEET 1OF 4

STATE JOB NO. 28865(04) SHEET NO. 30

TULSA CO. 2ND STREET

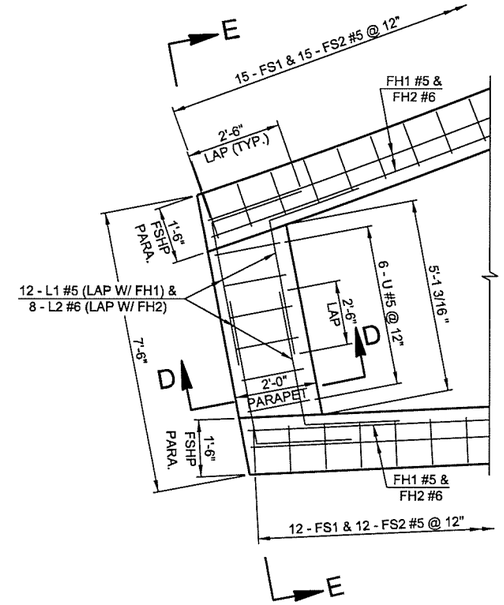
6/7/2016 N:\113991200-11399-13001-05\CADSheetFiles\JP 28865 (04) -30-BR.A-Deck.Reinf.1.dgn

DESCRIPTION	REVISIONS	DATE

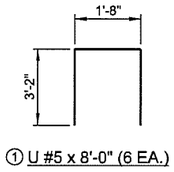


*SEE 2'-0" PARAPET DETAILS THIS SHEET.

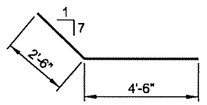
DETAIL A
(FROM SHEET 30)



PARAPET DETAIL PLAN

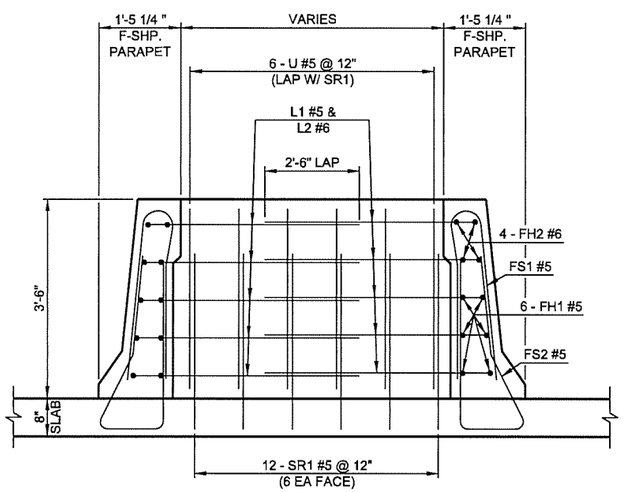


① U #5 x 8'-0" (6 EA.)

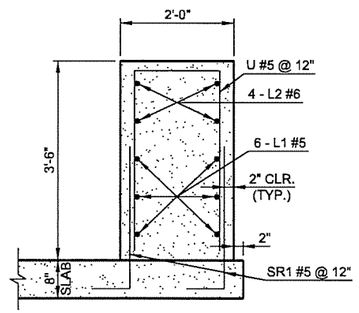


① L1 #5 x 7'-0" (12 EA.)
① L2 #6 x 7'-0" (8 EA.)

① REINFORCING SHOWN FOR INFORMATION ONLY.



SECTION E-E



SECTION D-D

2'-0" PARAPET NOTES:

CLASS AA CONCRETE:
CLASS AA CONCRETE SHALL BE USED IN THE PARAPET. ALL COSTS OF CONCRETE TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "42" F-SHAPED PARAPET".

REINFORCING STEEL:
ALL REINFORCING STEEL USED IN THE PARAPET IS TO BE EPOXY COATED. PLACE AND TIE ALL SR1 BARS BEFORE THE CONCRETE IS PLACED IN THE DECK SLAB. SR1 BARS WILL BE MEASURED AND PAID FOR AS "EPOXY COATED REINFORCING STEEL". COST OF ALL OTHER REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT BID PRICE OF "42" F-SHAPED PARAPET".

ADDITIONAL DETAIL:
FOR ADDITIONAL DETAILS OF THE F-SHAPED PARAPET, FH1, FH2, FS1 AND FS2 REINFORCING BARS, SEE STD. FSHP-42-2. FOR BAR BEND OF SR1 REINFORCING BAR SEE STD. TR4-2.

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

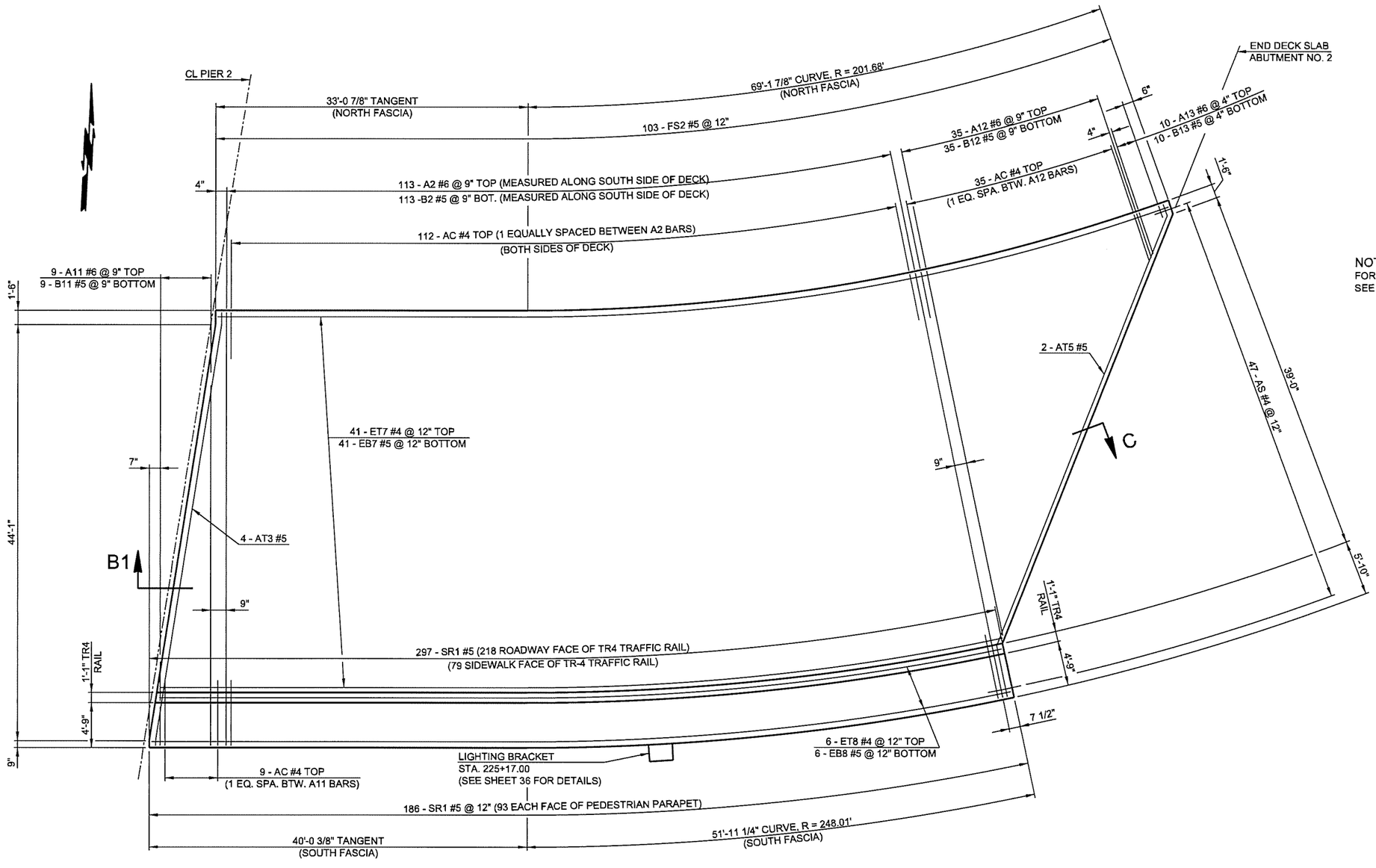
DECK SLAB REINFORCING DETAILS
SHEET 2 OF 4

STATE JOB NO. 28865(04) SHEET NO. 31

TULSA CO. 2ND STREET

6/7/2016 N:\113990200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -31-BR A-Deck Reinf 2.dgn

DESCRIPTION	REVISIONS	DATE



NOTE:
FOR SECTIONS B1 AND C.
SEE SHEET 33

SLAB REINFORCING PLAN - SPAN 3

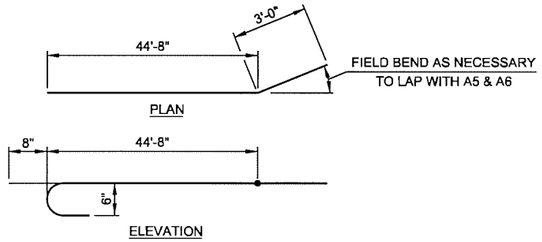
2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED	-	-
SQUAD	TT	

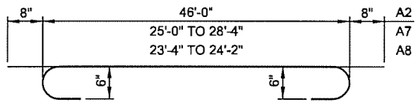
OKLAHOMA DEPARTMENT OF TRANSPORTATION

DECK SLAB REINFORCING DETAILS
SHEET 3 OF 4
STATE JOB NO. 28865(04) SHEET NO. 32
TULSA CO. 2ND STREET

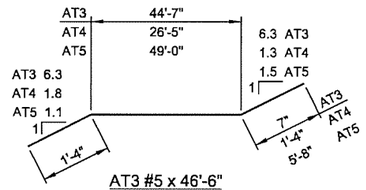
6/7/2016 N:\11399\200-11399-13001-05\CADISheetFiles\JP 28865 (04) -32-BR A-Deck Reinf 3.dgn



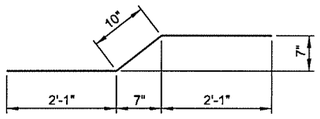
A1 #6 x 48'-4"



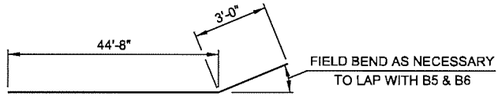
A2 #6 x 47'-4"
A7 #6 x 28'-0" AVG.
A8 #6 x 25'-1" AVG.



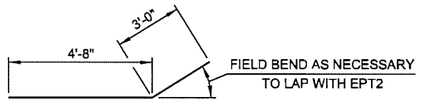
AT3 #5 x 46'-6"
AT4 #5 x 29'-1"
AT5 #5 x 56'-0"



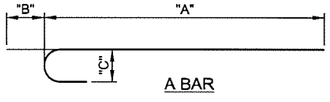
AS #4 x 5'-0"



B1 #5 x 47'-8"



EPT1 #4 x 7'-8"



A BAR

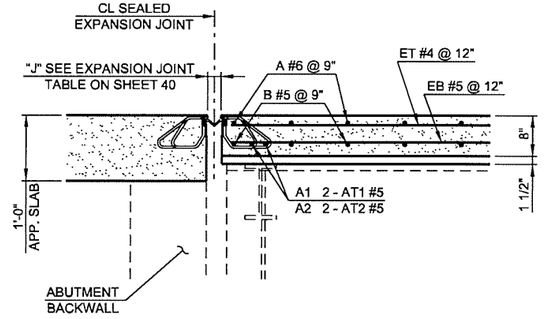
A BAR SCHEDULE

MARK	SIZE	A DIM	B DIM.	C DIM.	TOTAL LENGTH
A3	#6	10'-7" TO 43'-11"	8"	6"	27'-11" AVG.
A4	#6	2'-2" TO 6'-4"	8"	6"	4'-11" AVG.
A5	#6	14'-4" TO 16'-2"	8"	6"	15'-11" AVG.
A6	#6	16'-2" TO 29'-8"	8"	6"	23'-7" AVG.
A9	#6	5'-6" TO 21'-10"	8"	6"	14'-4" AVG.
A10	#6	1'-4" TO 5'-2"	8"	6"	3'-11" AVG.
A11	#6	4'-0" TO 42'-0"	8"	6"	23'-8" AVG.
A12	#6	5'-6" TO 39'-10"	8"	6"	23'-4" AVG.
A13	#6	1'-8" TO 5'-2"	8"	6"	4'-1" AVG.
AC	#4	6'-0"	6"	4"	6'-6"

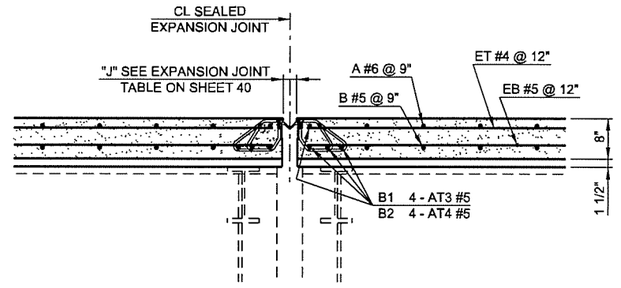
SUPERSTRUCTURE BAR LIST

	MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIES
	EPOXY COATED REINFORCING BARS					
	A1	#6	162	BNT	48'-4"	
	A2	#6	115	BNT	47'-4"	
	A3	#6	8	BNT	27'-11" AVG.	11'-3" TO 44'-7"
	A4	#6	3	BNT	4'-11" AVG.	2'-10" TO 7'-0"
	A5	#6	73	BNT	15'-11" AVG.	15'-0" TO 16'-10"
	A6	#6	89	BNT	23'-7" AVG.	16'-10" TO 30'-4"
	A7	#6	2	BNT	28'-0" AVG.	26'-4" TO 29'-8"
	A8	#6	17	BNT	25'-1" AVG.	24'-8" TO 25'-6"
	A9	#6	16	BNT	14'-4" AVG.	6'-2" TO 22'-6"
	A10	#6	9	BNT	3'-11" AVG.	2'-0" TO 5'-10"
	A11	#6	9	BNT	23'-8" AVG.	4'-8" TO 42'-8"
	A12	#6	35	BNT	23'-4" AVG.	6'-2" TO 40'-6"
	A13	#6	10	BNT	4'-1" AVG.	2'-4" TO 5'-10"
	AC	#4	651	BNT	6'-6"	
	B1	#5	162	BNT	47'-8"	
	B2	#5	115	STR	46'-0"	
	B3	#5	8	STR	27'-3" AVG.	10'-7" TO 43'-11"
	B4	#5	3	STR	4'-3" AVG.	2'-2" TO 6'-4"
	B5	#5	73	STR	15'-3" AVG.	14'-4" TO 16'-2"
	B6	#5	89	STR	22'-11" AVG.	16'-2" TO 29'-8"
	B7	#5	2	STR	26'-8" AVG.	25'-0" TO 28'-4"
	B8	#5	17	STR	23'-9" AVG.	23'-4" TO 24'-2"
	B9	#5	16	STR	13'-8" AVG.	5'-6" TO 21'-10"
	B10	#5	9	STR	3'-3" AVG.	1'-4" TO 5'-2"
	B11	#5	9	STR	23'-0" AVG.	4'-0" TO 42'-0"
	B12	#5	35	STR	22'-8" AVG.	5'-6" TO 39'-10"
	B13	#5	10	STR	3'-5" AVG.	1'-8" TO 5'-2"
(1)(8)	ET1	#4	46	STR	128'-1" AVG.	123'-10" TO 132'-4"
	ET2	#4	2	STR	8'-5"	
(1)(8)	ET3	#4	16	STR	141'-0" AVG.	138'-11" TO 143'-1"
(2)	ET4	#4	8	STR	88'-3" AVG.	59'-6" TO 117'-0"
	ET5	#4	2	STR	47'-8" AVG.	44'-6" TO 50'-10"
	ET6	#4	6	STR	13'-9" AVG.	2'-4" TO 25'-2"
(2)	ET7	#4	41	STR	98'-3" AVG.	91'-6" TO 105'-0"
(2)	ET8	#4	6	STR	92'-7" AVG.	91'-8" TO 93'-6"
(3)(8)	EB1	#5	46	STR	129'-9" AVG.	125'-6" TO 134'-0"
	EB2	#5	2	STR	8'-5"	
(3)(8)	EB3	#5	16	STR	142'-8" AVG.	140'-7" TO 144'-9"
(4)	EB4	#5	8	STR	89'-1" AVG.	60'-4" TO 117'-10"
	EB5	#5	2	STR	47'-8" AVG.	44'-6" TO 50'-10"
	EB6	#4	12	STR	15'-5" AVG.	2'-4" TO 28'-6"
(4)	EB7	#5	41	STR	99'-1" AVG.	92'-4" TO 105'-10"
(4)	EB8	#5	6	STR	92'-5" AVG.	92'-6" TO 94'-4"
	AS	#4	47	BNT	5'-0"	
	AT1	#5	2	STR	47'-8"	
	AT2	#5	2	STR	14'-4"	
	AT3	#5	8	BNT	46'-6"	
	AT4	#5	4	BNT	29'-1"	
	AT5	#5	2	BNT	56'-0"	
	EPT1	#4	30	BNT	7'-8"	
	EPT2	#4	30	STR	12'-0" AVG.	10'-6" TO 13'-6"
(5)	EPT3	#4	4	STR	8'-10" AVG.	7'-2" TO 10'-6"
	EL1	#4	1	STR	22'-0"	
	EL2	#4	4	STR	27'-2"	
(6)	FS2	#5	263	BNT	7'-4"	
(7)	SR1	#5	1063	BNT	4'-1"	
(6)	L	#4	20	BNT	1'-3"	

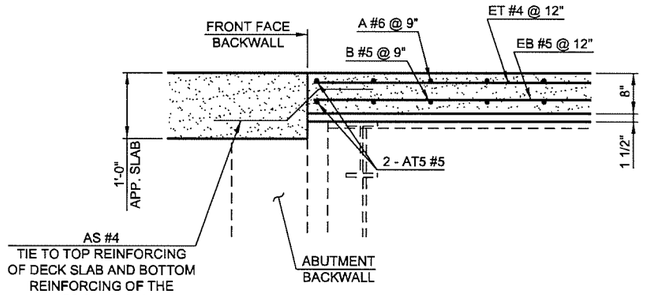
(1) INCLUDES 2 LAP LENGTHS OF 1'-8" MIN.
(2) INCLUDES 1 LAP LENGTH OF 1'-8" MIN.
(3) INCLUDES 2 LAP LENGTHS OF 2'-6" MIN.
(4) INCLUDES 1 LAP LENGTH OF 2'-6" MIN.
(5) 2 SETS OF 2
(6) FOR BAR BEND SEE STD. FSPH-42-2
(7) FOR BAR BEND SEE STD. TR4-2
(8) REINFORCING SHALL BE CONTINUOUS THRU CONSTRUCTION JOINT AT PIER NO. 1. DO NOT LAP WIHTIN 10' OF CENTERLINE OF PIER NO. 1.



SECTION A1 AND A2
(FROM SHEET 30)



SECTION B1 AND B2
(FROM SHEETS 30 AND 32)



SECTION C
(FROM SHEET 32)

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED	-	-
SQUAD	TT	

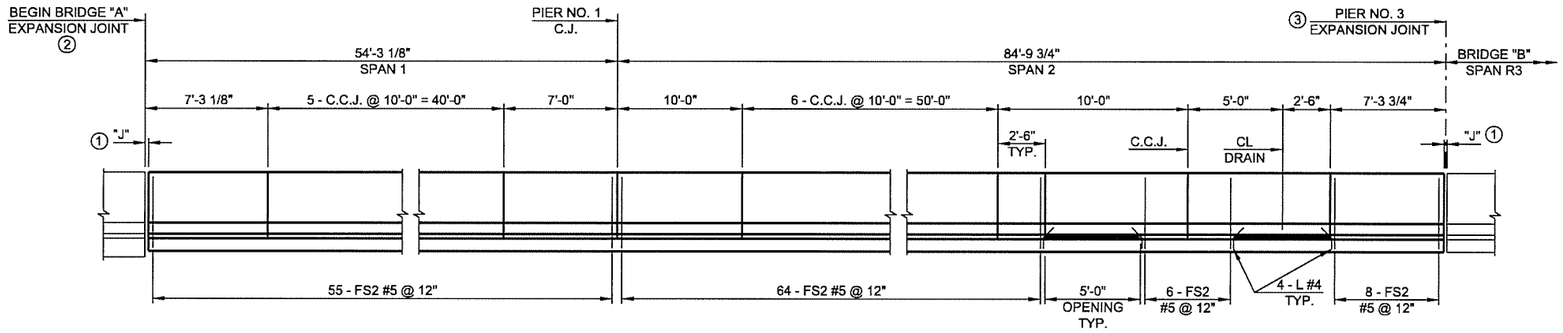
OKLAHOMA DEPARTMENT OF TRANSPORTATION

DECK SLAB REINFORCING DETAILS
SHEET 4 OF 4
STATE JOB NO. 28865(04) SHEET NO. 33
TULSA CO. 2ND STREET

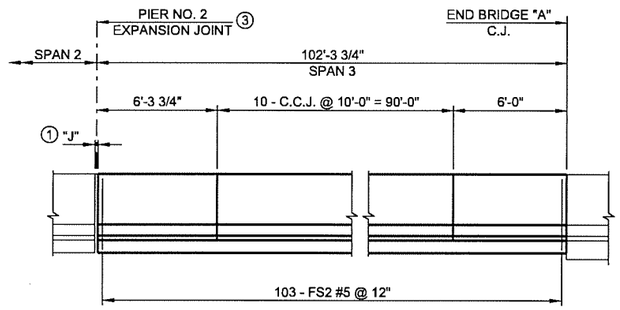
DESCRIPTION REVISIONS DATE

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -33-BR.A-Deck.Reinf.4.dgn

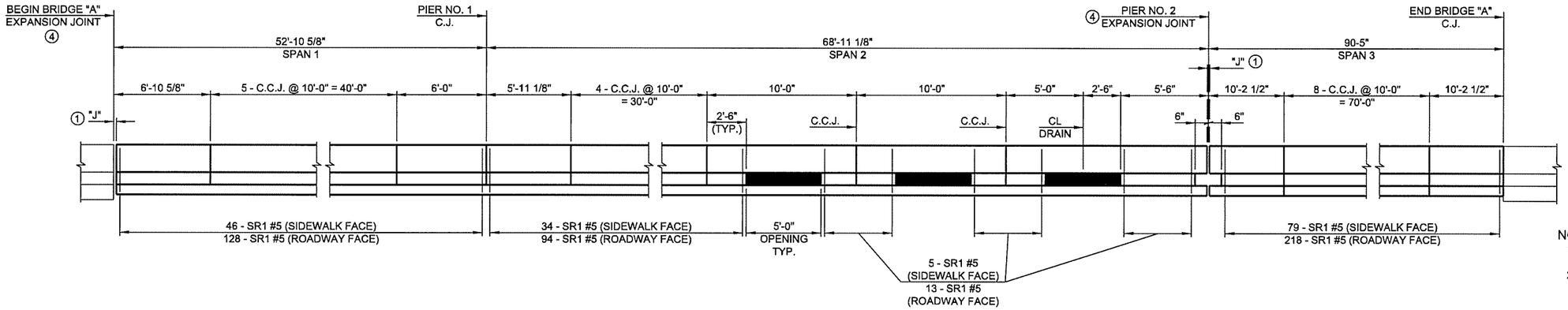
DESCRIPTION	REVISIONS	DATE



F-SHAPED CONCRETE PARAPET ELEVATION
SPANS 1 & 2 NORTH FACE OF BRIDGE



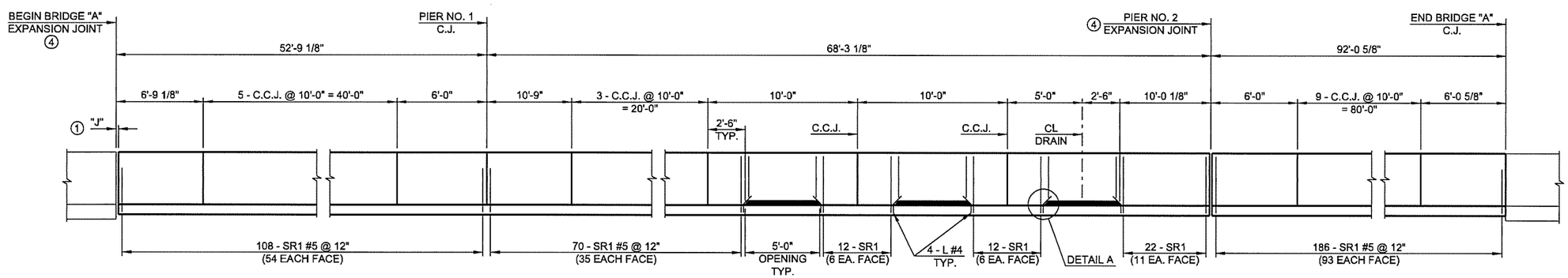
F-SHAPED CONCRETE PARAPET ELEVATION
SPAN 3 AT NORTH SIDE



TR4 CONCRETE TRAFFIC RAIL ELEVATION
AT SIDEWALK

NOTES:
1. ALL DIMENSIONS ARE MEASURED ALONG OUTSIDE FACE OF PARAPETS AND TRAFFIC RAILS.
2. SEE STD'S FSHP-42-2 AND TR4-2 FOR ADDITIONAL DETAILS OF F-SHAPED PARAPET AND TR4 TRAFFIC RAIL. SEE SHEET 35 FOR DETAILS OF PEDESTRIAN PARAPET.

C.J. DESIGNATES CONSTRUCTION JOINT
C.C.J. DESIGNATES CONTROL CRACK JOINT



PEDESTRIAN PARAPET ELEVATION
SOUTH FACE OF BRIDGE

① SEE EXPANSION JOINT TABLE SHEET 40 FOR OPENING "J".
② USE TURNED UP STEEL RECEPTORS. SEE SHEET 40 FOR DETAILS.
③ EXTEND SEALED EXPANSION JOINT THRU PARAPET. SEE SHEET 41 FOR DETAILS
④ EXTEND SEALED EXPANSION JOINT THRU PARAPET. SEE SHEET 40 FOR DETAILS.

SEE SHEET 35 FOR DETAIL A AND PEDESTRIAN PARAPET DETAILS

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	LWN	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

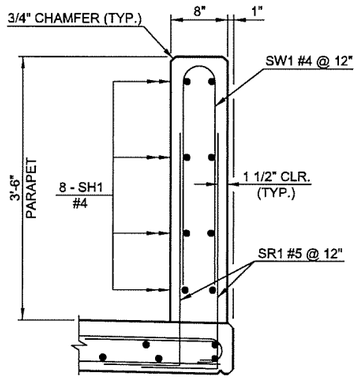
PARAPET AND TRAFFIC RAIL DETAILS
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 34

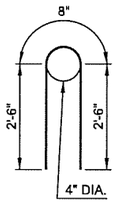
TULSA CO. 2ND STREET

6/7/2016 N:\113399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -34-BR.A-Traffic.Rail.Dtl.dgn

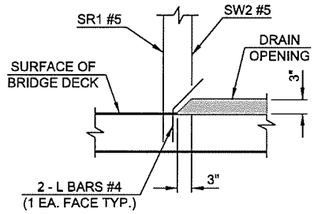
DESCRIPTION	REVISIONS	DATE



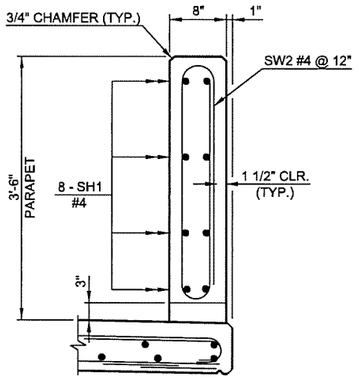
TYPICAL SECTION THRU
PEDESTRIAN PARAPET



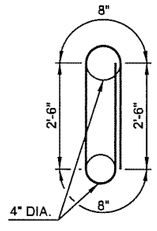
SW1 #4 x 5'-8"



DETAIL A
(FROM SHEET 34)



SECTION THRU PEDESTRIAN
PARAPET AT DRAIN OPENING



SW2 #4 x 8'-10"

PEDESTRIAN PARAPET NOTES:

1. CLASS AA CONCRETE SHALL BE USED IN THE PARAPET. ALL COSTS OF CONCRETE TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "CONCRETE PARAPET".
2. ALL REINFORCING FOR THE PARAPET SHALL BE EPOXY COATED. THE WEIGHT OF THE SR1 AND L BARS WILL BE MEASURED AND PAID FOR AS "EPOXY COATED REINFORCING STEEL". ALL OTHER REINFORCING STEEL IN THE PARAPET SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "CONCRETE PARAPET".
3. AT THE EXPANSION JOINTS IN THE DECK SLAB, MATCH THE WIDTH OF THE OPENING BETWEEN THE ENDS OF THE PARAPET WITH THE OPENINGS OF THE EXPANSION JOINTS.
4. PROVIDE DOUBLE 3/4" CHAMFERS OR 3/4" DEEP SAWCUT AT THE CONTROL CRACK JOINTS.
5. FOR SR1 BAR BEND SEE STD TR4-2.
6. FOR L BAR BEND SEE STD. FSHP-42-2.

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	LWN	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PARAPET AND TRAFFIC RAIL DETAILS
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 35

TULSA CO. 2ND STREET

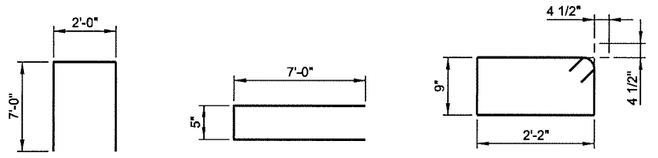
6/7/2016 N:\113992\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -35-BR.A-Traffic.Rail.Dtl.2.dgn

DESCRIPTION	REVISIONS	DATE

LIGHTING BRACKET BAR LIST

FOR INFORMATION ONLY
(NOT INCLUDED IN QUANTITIES)
(ONE SHOWN, TWO REQUIRED)

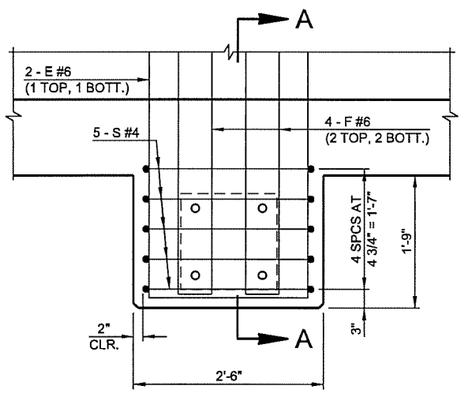
MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING BARS				
E	#6	2	BNT.	16'-0"
F	#6	4	BNT.	14'-5"
S	#4	5	BNT.	6'-7"



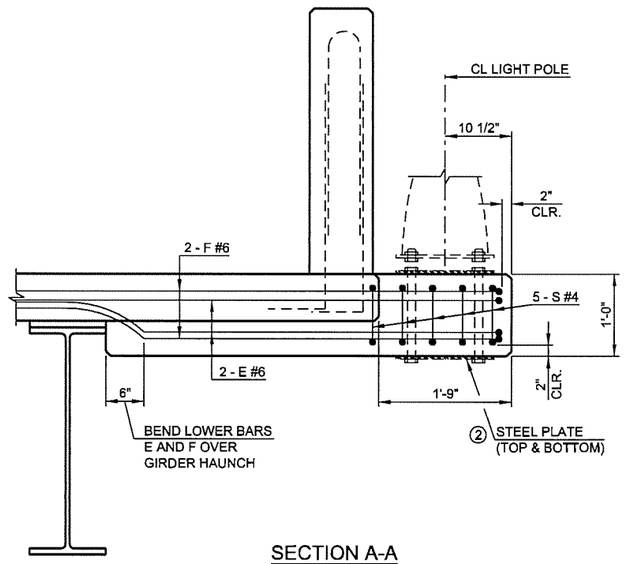
E #6 x 16'-0" F #6 x 14'-5" S #4 x 6'-7"

LIGHTING BRACKET NOTES:

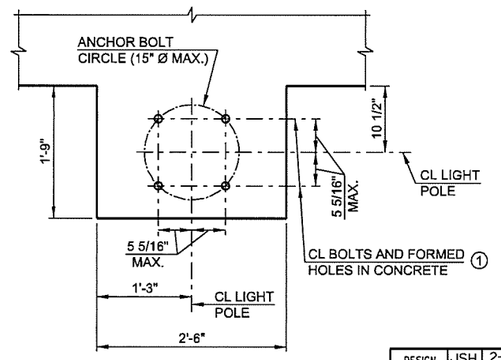
1. COST OF CONSTRUCTING THE LIGHTING BRACKET AS SHOWN, INCLUDING CONCRETE AND EPOXY COATED REINFORCING SHALL BE INCLUDED IN THE TRAFFIC UNIT COST PER EACH RESET OF LIGHT POLE.
2. THE ESTIMATED QUANTITIES OF EACH LIGHTING BRACKET ARE 0.24 CUBIC YARDS OF CONCRETE, 157 POUNDS OF EPOXY COATED REINFORCING STEEL, AND 104 POUNDS OF STRUCTURAL STEEL INCLUDING ANCHOR BOLTS, NUTS, WASHERS, AND 2 PLATES.
3. THE CONTRACTOR SHALL VERIFY THE SIZE OF THE BOLT HOLE PATTERN PRIOR TO CONSTRUCTION OF THE LIGHTING BRACKETS, MAXIMUM BOLT PATTERN DIAMETER FOR LIGHTING BRACKET SHOWN IS 15".
4. DO NOT PLACE LIGHTING POLE UNTIL AFTER THE BRIDGE DECK HAS BEEN CONSTRUCTED AND CONCRETE HAS OBTAINED ADEQUATE STRENGTH.



PLAN



SECTION A-A



MOUNTING PLAN

① ANCHOR BOLTS SHALL BE 1 1/4" DIAMETER FOR 15" DIAMETER BOLT PATTERN AND 1" DIAMETER FOR 14" DIAMETER BOLT PATTERN OR LESS. HOLES IN STEEL PLATES AND CONCRETE FOR ANCHOR BOLTS SHALL BE 1 1/4" DIAMETER FOR 1" DIAMETER BOLTS AND 1 1/2" DIAMETER FOR 1 1/4" BOLTS.

② STEEL PLATES SHALL BE 1/2" x 15 1/2" x 15 1/2"

LIGHTING BRACKET DETAILS

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

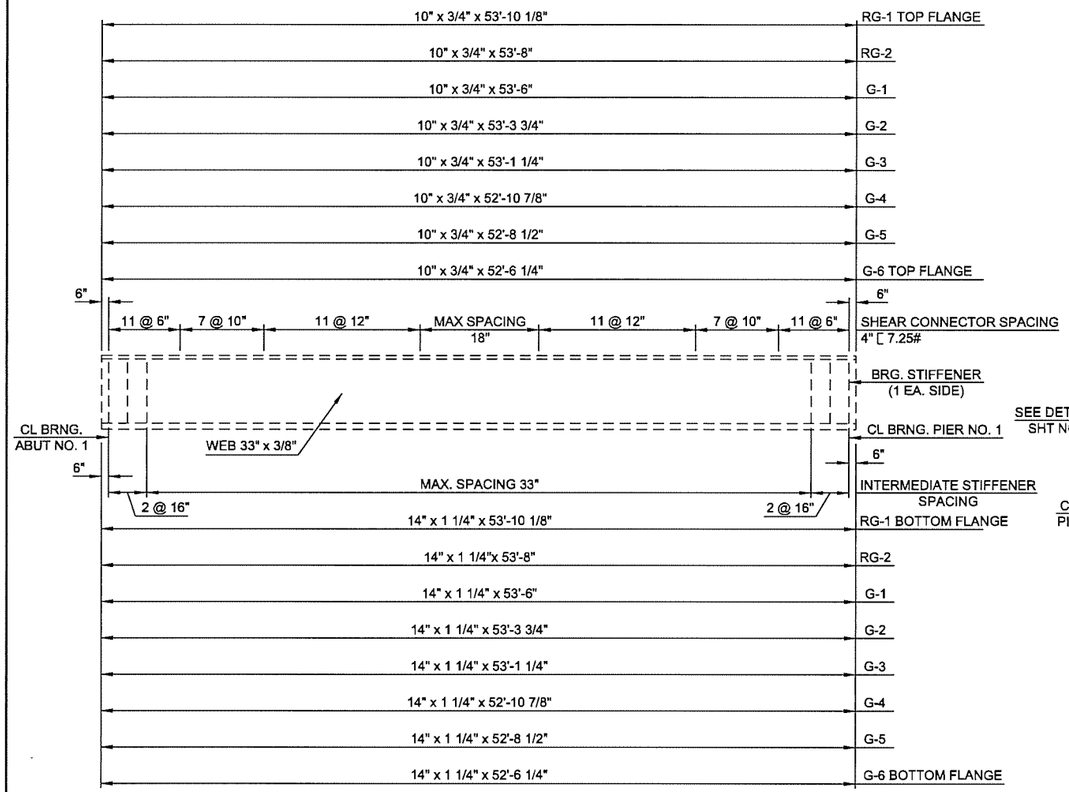
LIGHTING BRACKET DETAILS

STATE JOB NO. 28865(04) SHEET NO. 36

TULSA CO. 2ND STREET

6/7/2016 N:\113992\00-11399-13001-05\CAD\SheetFiles\UP 28865 (04) -36-BR A-Parapet.Misc.Dtls.dgn

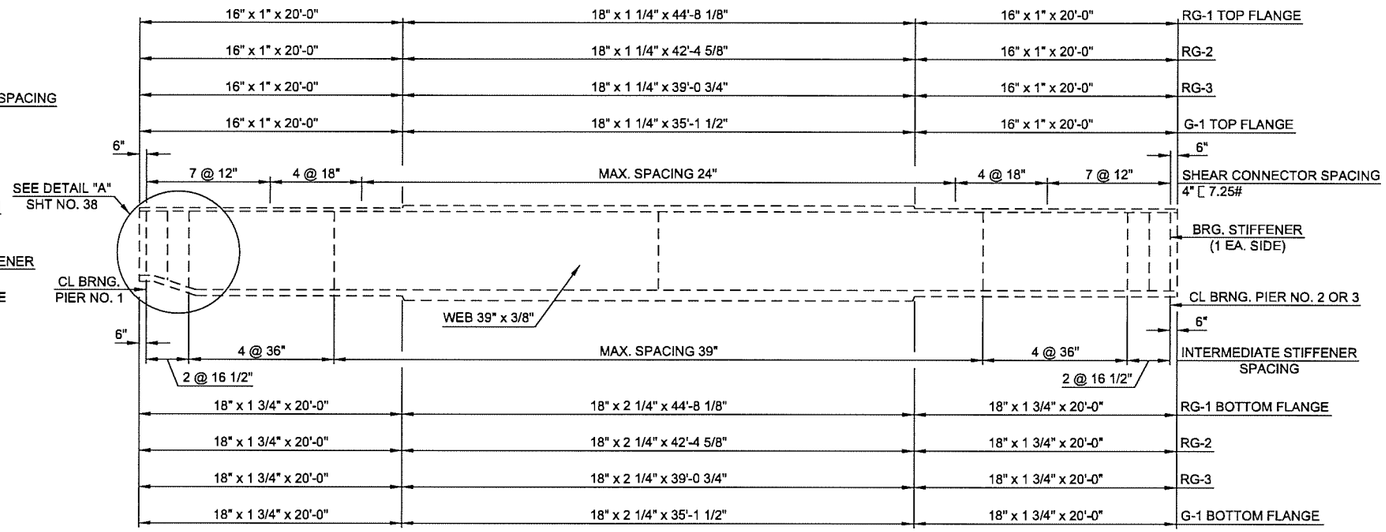
DESCRIPTION	REVISIONS	DATE



SPAN NO. 1

GIRDERS RG-1, RG-2 & G-1 THRU G-6

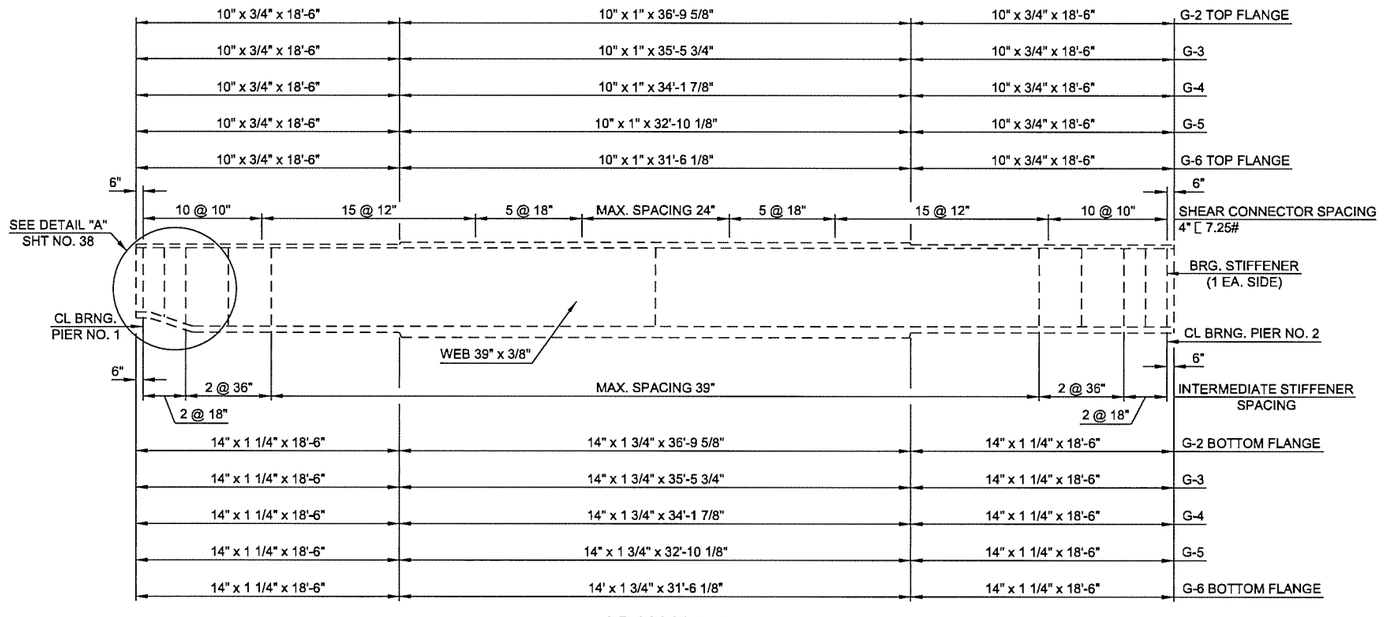
(BEARING STIFFENERS ARE 4 3/4" x 1/2")



SPAN NO. 2

GIRDER RG-1 THRU RG-3 & G-1

(BEARING STIFFENERS ARE 8 3/4" x 3/4")



SPAN NO. 2

GIRDERS G-2 TO G-6

(BEARING STIFFENERS ARE 6 3/4" x 5/8")

NOTE:
DETAILS SHOWN ARE FOR INFORMATION ONLY. SEE GENERAL NOTES REGARDING DAMAGE TO EXISTING STEEL.

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	2-15
DRAWN	MRM	2-15
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

STEEL DETAILS

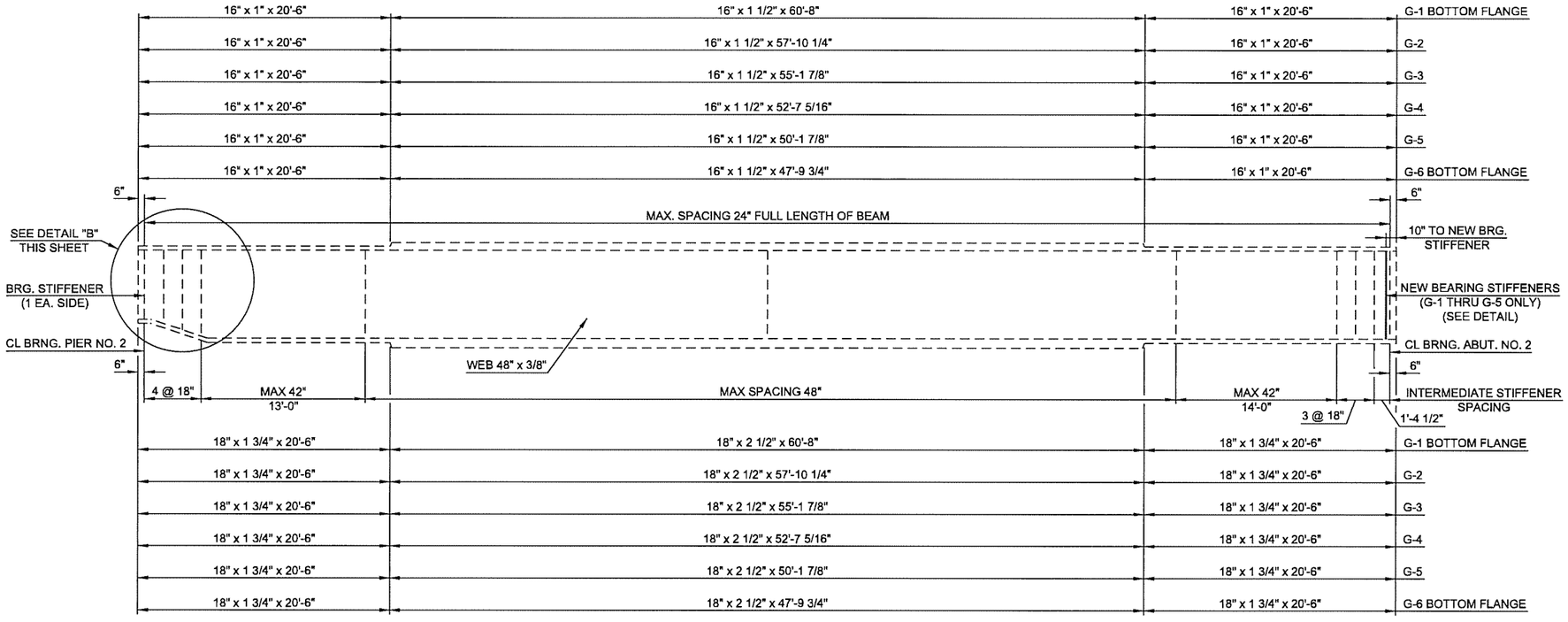
SHEET 1 OF 3

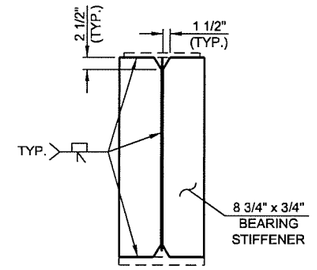
STATE JOB NO. 28865(04) SHEET NO. 37

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -37-BR.A-Steel.Details.1.dgn

DESCRIPTION	REVISIONS	DATE

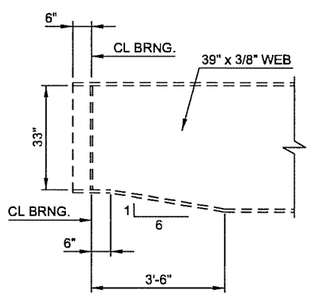




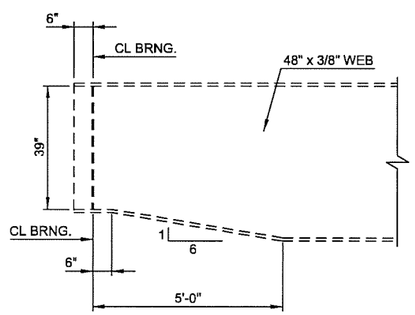
NEW BEARING STIFFENER DETAIL
(G-1 THRU G-5 ONLY)

SPAN NO. 3

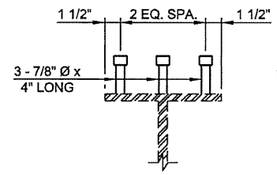
GIRDERS G-1 THRU G-6
(BEARING STIFFENERS SHALL BE 8 3/4" x 3/4")



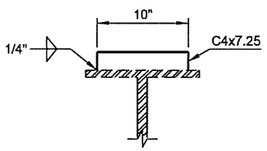
DETAIL "A"



DETAIL "B"



STUD SHEAR CONNECTOR



CHANNEL SHEAR CONNECTOR (TYP.)

SHEAR CONNECTOR DETAILS

NOTE:
CONTRACTOR SHALL TAKE EXTRA CARE IN REMOVING BRIDGE DECK IN ORDER TO NOT DAMAGE EXISTING CHANNEL SHEAR CONNECTORS. DAMAGED OR MISSING CONNECTORS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE PROJECT. REPLACEMENT CONNECTORS CAN BE CHANNELS OR STUDS AS SHOWN. DETAILS SHOWN FOR INFORMATION ONLY UNLESS NOTED OTHERWISE. SEE NEW BEARING STIFFENER DETAILS THIS SHEET.

2ND STREET OVER I-444 - BRIDGE "A"

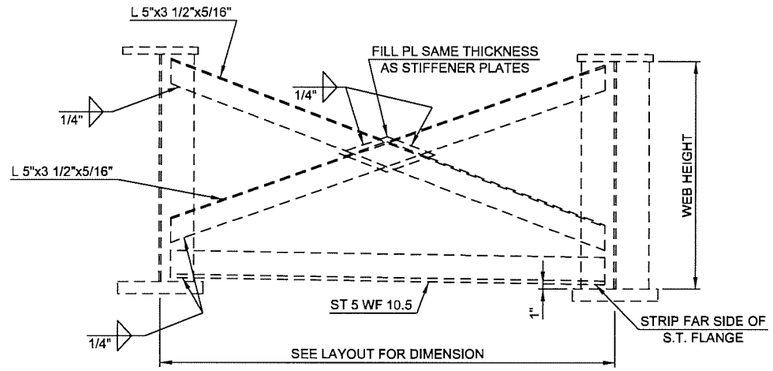
DESIGN	JSH	2-15
DRAWN	MRM	2-15
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

STEEL DETAILS
SHEET 2 OF 3
STATE JOB NO. 28865(04) SHEET NO. 38
TULSA CO. 2ND STREET

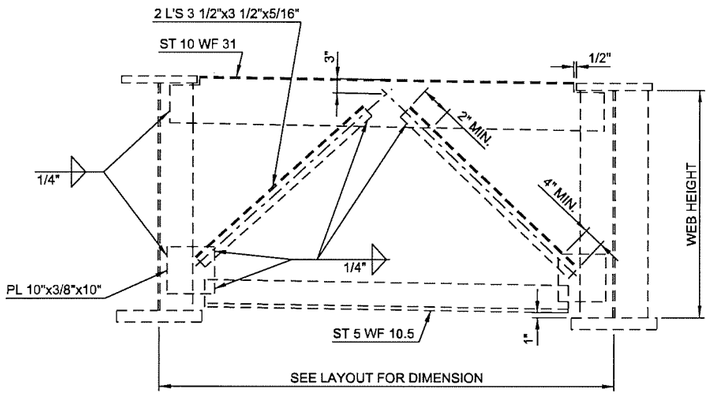
6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -38-BR.A-Steel.Details.2.dgn

DESCRIPTION	REVISIONS	DATE



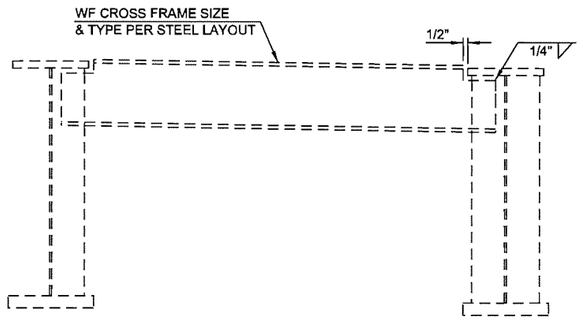
TYPE (A) DIAPHRAGM

(FOR INFORMATION ONLY)



TYPE (B) DIAPHRAGM

(FOR INFORMATION ONLY)



TYPE (C) DIAPHRAGM

(FOR INFORMATION ONLY)

BEAM SCHEDULE

SPAN	BEAM	BRG. TO BRG. LENGTH	BEAM AND DIAPHRAGM DEFLECTION						DECK SLAB, HAUNCH AND TRAFFIC RAIL DEFLECTIONS						LFD OPERATING RATING
			CL BRG.	0.1 & 0.9	0.2 & 0.8	0.3 & 0.7	0.4 & 0.6	0.5	CL BRG.	0.1 & 0.9	0.2 & 0.8	0.3 & 0.7	0.4 & 0.6	0.5	
1	RG-1	52'-10 1/8"	0.00"	0.04"	0.07"	0.09"	0.11"	0.12"	0.00"	0.22"	0.39"	0.52"	0.60"	0.65"	HS 71.8
	RG-2	52'-8"	0.00"	0.04"	0.07"	0.09"	0.11"	0.11"	0.00"	0.22"	0.39"	0.51"	0.59"	0.63"	HS 67.7
	G-1	53'-6"	0.00"	0.04"	0.07"	0.09"	0.10"	0.11"	0.00"	0.22"	0.39"	0.52"	0.60"	0.63"	HS 52.4
	G-2	52'-3 3/4"	0.00"	0.04"	0.07"	0.09"	0.10"	0.11"	0.00"	0.22"	0.40"	0.53"	0.62"	0.65"	HS 55.8
	G-3	52'-1 1/4"	0.00"	0.04"	0.07"	0.09"	0.10"	0.11"	0.00"	0.23"	0.41"	0.54"	0.62"	0.66"	HS 59.6
	G-4	51'-10 7/8"	0.00"	0.04"	0.06"	0.09"	0.10"	0.10"	0.00"	0.22"	0.40"	0.53"	0.61"	0.65"	HS 49.5
	G-5	51'-8 1/2"	0.00"	0.04"	0.06"	0.08"	0.10"	0.10"	0.00"	0.22"	0.39"	0.51"	0.59"	0.63"	HS 65.7
	G-6	51' 6 1/4"	0.00"	0.03"	0.06"	0.08"	0.09"	0.10"	0.00"	0.20"	0.36"	0.48"	0.55"	0.59"	HS 131.4
2	RG-1	83'-8 1/8"	0.00"	0.10"	0.19"	0.25"	0.29"	0.30"	0.00"	0.31"	0.59"	0.79"	0.91"	0.96"	HS 89.1
	RG-2	81'-4 5/8"	0.00"	0.11"	0.20"	0.27"	0.32"	0.33"	0.00"	0.34"	0.63"	0.85"	0.98"	1.02"	HS 73.6
	RG-3	78'-0 3/4"	0.00"	0.11"	0.21"	0.28"	0.33"	0.34"	0.00"	0.35"	0.65"	0.88"	1.02"	1.07"	HS 61.0
	G-1	74'-1 1/2"	0.00"	0.11"	0.20"	0.27"	0.32"	0.33"	0.00"	0.35"	0.66"	0.90"	1.05"	1.12"	HS 53.5
	G-2	72'-9 5/8"	0.00"	0.11"	0.19"	0.25"	0.29"	0.31"	0.00"	0.41"	0.74"	0.98"	1.13"	1.20"	HS 60.5
	G-3	71'-5 3/4"	0.00"	0.09"	0.17"	0.22"	0.26"	0.27"	0.00"	0.43"	0.77"	1.01"	1.17"	1.23"	HS 62.5
	G-4	70'-1 7/8"	0.00"	0.09"	0.15"	0.20"	0.23"	0.25"	0.00"	0.42"	0.75"	0.99"	1.14"	1.20"	HS 57.6
	G-5	68'-10 1/8"	0.00"	0.08"	0.14"	0.18"	0.21"	0.22"	0.00"	0.39"	0.70"	0.92"	1.07"	1.13"	HS 68.8
	G-6	67'-6 1/8"	0.00"	0.07"	0.12"	0.16"	0.19"	0.20"	0.00"	0.36"	0.63"	0.84"	0.97"	1.02"	HS 102.6
3	G-1	100'-8"	0.00"	0.15"	0.27"	0.36"	0.42"	0.44"	0.00"	0.40"	0.75"	1.01"	1.16"	1.21"	HS 79.6
	G-2	97'-10 1/4"	0.00"	0.15"	0.28"	0.37"	0.43"	0.45"	0.00"	0.42"	0.79"	1.05"	1.21"	1.26"	HS 68.0
	G-3	95'-1 7/8"	0.00"	0.15"	0.28"	0.37"	0.43"	0.45"	0.00"	0.42"	0.79"	1.06"	1.23"	1.28"	HS 60.3
	G-4	92'-7 5/16"	0.00"	0.15"	0.27"	0.37"	0.43"	0.45"	0.00"	0.42"	0.78"	1.06"	1.23"	1.28"	HS 58.9
	G-5	90'-1 7/8"	0.00"	0.15"	0.27"	0.36"	0.42"	0.44"	0.00"	0.43"	0.78"	1.06"	1.23"	1.29"	HS 61.4
	G-6	87'-9 3/4"	0.00"	0.15"	0.27"	0.37"	0.43"	0.46"	0.00"	0.43"	0.79"	1.08"	1.26"	1.34"	HS 61.0

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	2-15
DRAWN	MRM	2-15
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

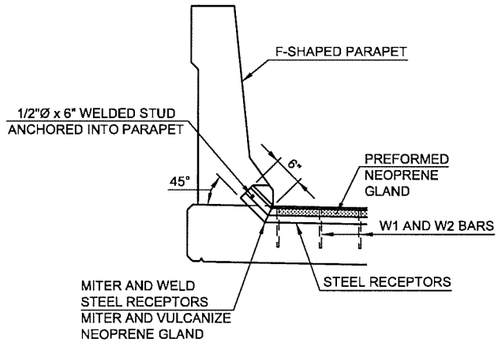
STEEL DETAILS

SHEET 3 OF 3

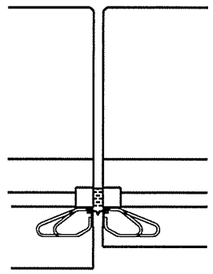
STATE JOB NO. 28865(04) SHEET NO. 39

TULSA CO. 2ND STREET

DESCRIPTION	REVISIONS	DATE

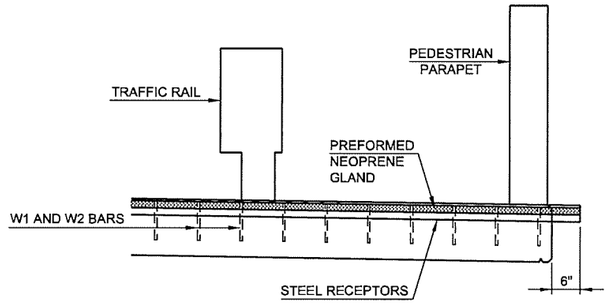


SECTION AT F-SHAPED PARAPET
(ABUTMENT NO. 1)

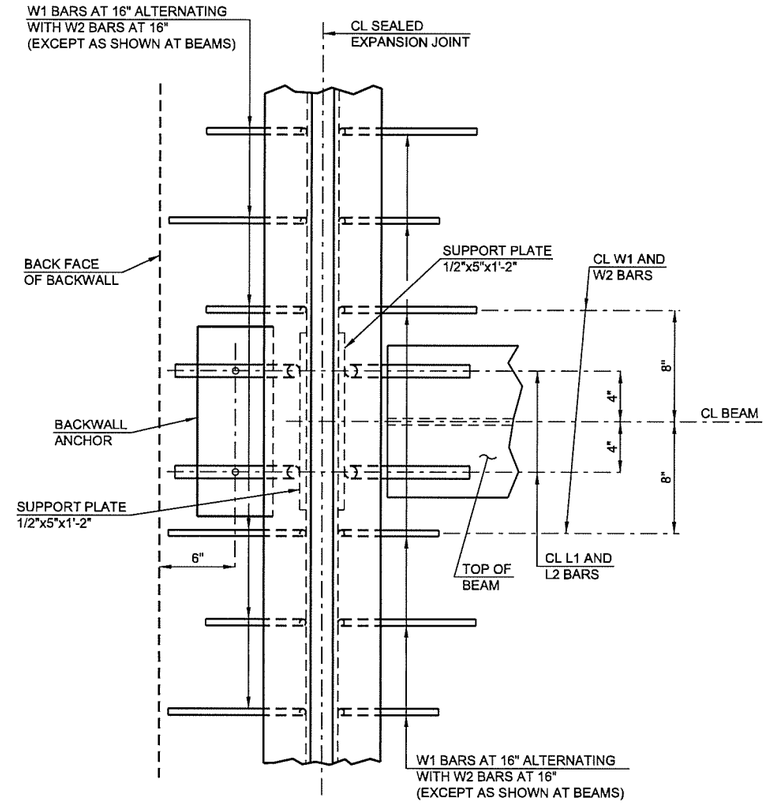


ELEVATION OF EXPANSION JOINT
(ABUTMENT NO. 1)

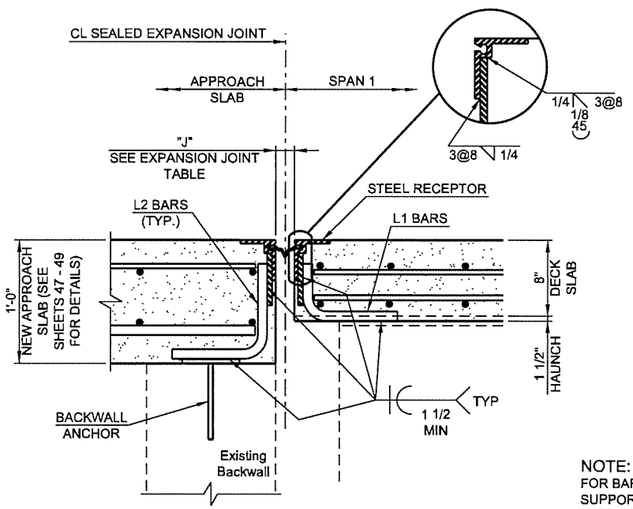
EXPANSION TABLE		
TEMPERATURE		JOINT
ABUT. 1	PIER 2	OPENING "J"
-	-7°F	2 7/8"
-	3°F	2 3/4"
-	12°F	2 5/8"
-	22°F	2 1/2"
-30°F	31°F	2 3/8"
0°F	41°F	2 1/4"
30°F	50°F	2 1/8"
60°F	60°F	2"
90°F	70°F	1 7/8"
120°F	79°F	1 3/4"
-	89°F	1 5/8"
-	98°F	1 1/2"
-	108°F	1 3/8"



SECTION AT TRAFFIC RAIL
(ABUTMENT NO. 1 AND PIER NO. 2)



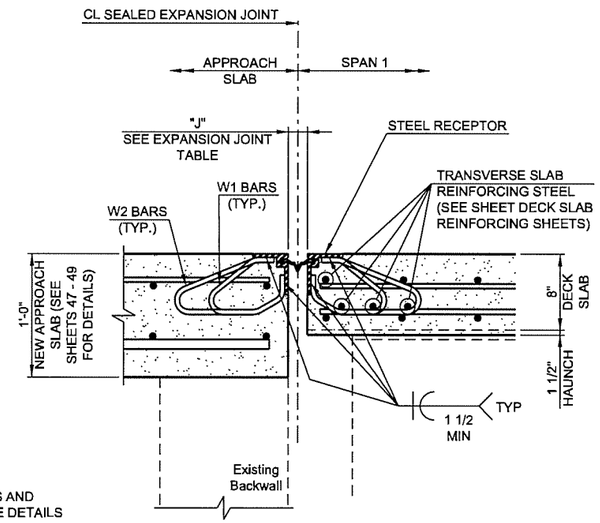
PLAN OF SEALED EXPANSION JOINT AT ABUTMENT NO. 1



SECTION OF EXPANSION JOINT AT ABUTMENT NO. 1 AT BEAMS

NOTE:
DRILL INTO EXISTING BACKWALL AND SECURE ANCHOR PLATE WITH ODOT APPROVED EPOXY (SEE ANCHORAGE SYSTEM NOTE, SHEET 42)

NOTE:
FOR BAR BENDS AND SUPPORT PLATE DETAILS SEE SHEET 42



SECTION OF EXPANSION JOINT AT ABUTMENT NO. 1 BETWEEN BEAMS

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

SEALED EXPANSION JOINT DETAILS

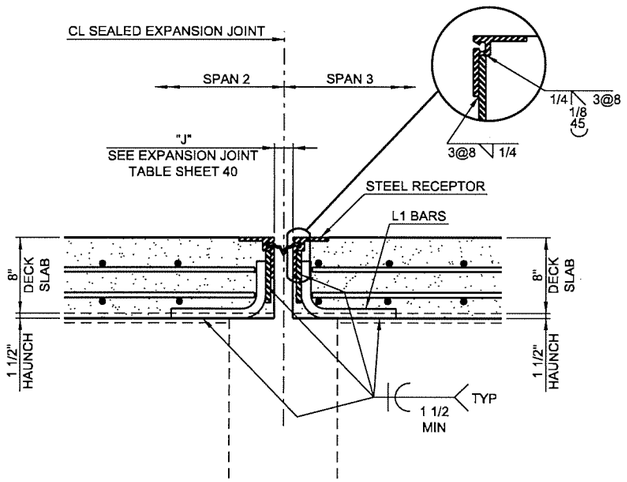
SHEET 1 OF 3

STATE JOB NO. 28865(04) SHEET NO. 40

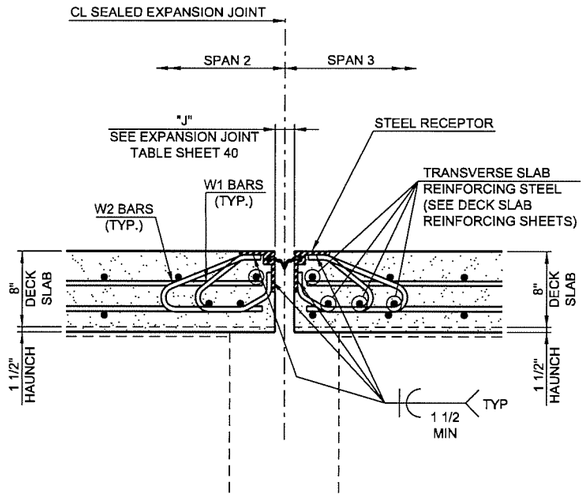
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -40-BR.A-Exp.Jt.1.dgn

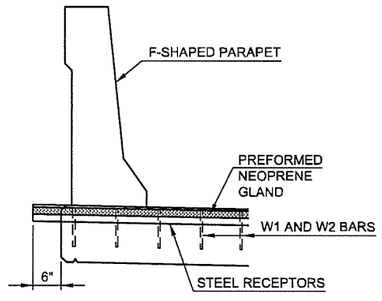
DESCRIPTION	REVISIONS	DATE



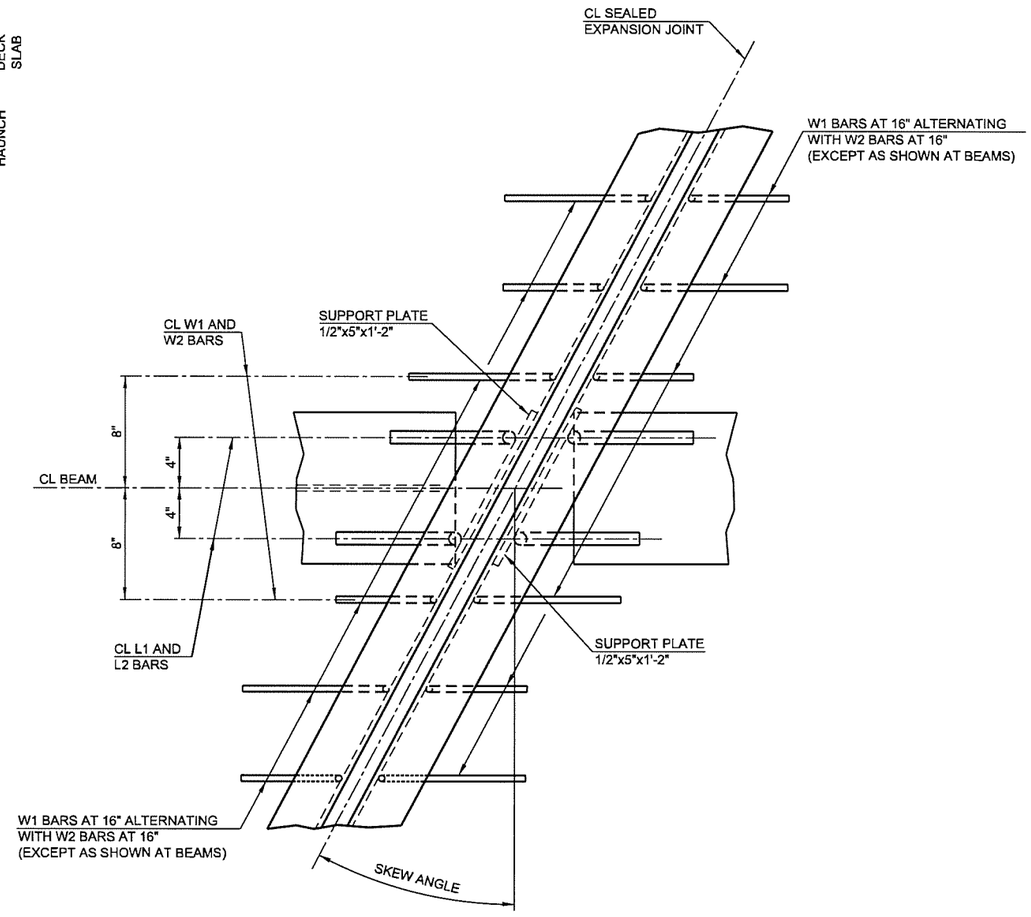
SECTION OF EXPANSION JOINT
AT PIER NO. 2 AT BEAMS



SECTION OF EXPANSION JOINT
AT PIER NO. 2 BETWEEN BEAMS



SECTION AT F-SHAPED
PARAPET
(PIER NO. 2)



PLAN OF SEALED EXPANSION JOINT
AT PIER NO. 2

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

SEALED EXPANSION JOINT DETAILS

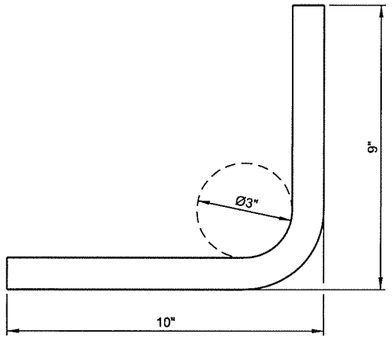
SHEET 2 OF 3

STATE JOB NO. 28865(04) SHEET NO. 41

TULSA CO. 2ND STREET

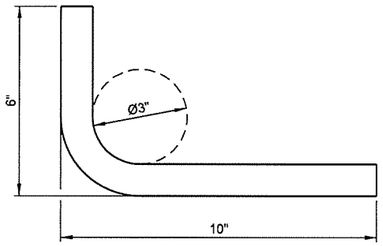
6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -41-BR.A-Exp.Jt.2.dgn

DESCRIPTION	REVISIONS	DATE



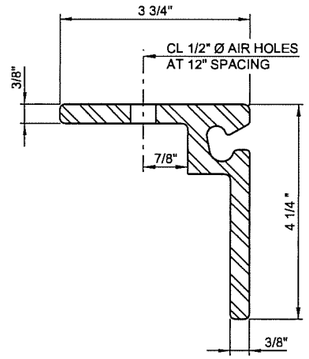
L2 SUPPORT BAR DETAIL

1" DIA



L1 SUPPORT BAR DETAIL

1" DIA.



D.S. BROWN TYPE SSOK STEEL EXTRUSION RECEPTOR DETAIL

SEALED EXPANSION JOINT NOTES

THE SEALED EXPANSION JOINT SHALL HAVE A TOTAL MOVEMENT RANGE OF 4" AND SEAL THE DECK TO PREVENT MOISTURE OR OTHER CONTAMINANTS FROM DESCENDING ONTO THE LOWER STRUCTURE COMPONENTS.

THE STEEL RECEPTOR PROVIDED SHALL EITHER BE THE WATSON, BOWMAN AND ACME TYPE Q STEEL EXTRUSION OR THE D.S. BROWN TYPE SSOK STEEL EXTRUSION RECEPTOR AS SHOWN ON THIS SHEET.

PAINT

TWO SHOP COATS, ONE IN INORGANIC ZINC RICH (IZ) PRIMER, THE OTHER IN INORGANIC ZINC RICH (IZ) INTERMEDIATE COAT, WILL BE APPLIED TO THE ENTIRE SURFACE OF THE STEEL RECEPTOR, SUPPORT PLATES, L SUPPORT BARS, AND W1 AND W2 ANCHOR BARS. THE PAINTING SHALL BE DONE IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS.

MATERIALS

STEEL RECEPTORS, SUPPORT PLATES, AND L SUPPORT BARS SHALL BE IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 36, 50, 50W (CHARPY V-NOTCH TESTING NOT REQUIRED). W1 AND W2 ANCHOR BARS SHALL CONFORM TO AASHTO M225 (ASTM A 496). ALL BAR DIMENSIONS SHALL BE INCLUDED IN THE SHOP DRAWINGS.

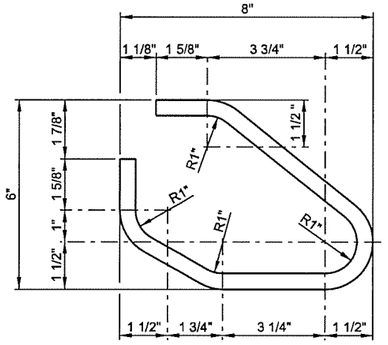
WELDING OF STEEL RECEPTORS, SUPPORT PLATES, L SUPPORT BARS AND W1 AND W2 ANCHOR BARS SHALL BE IN ACCORDANCE WITH SUBSECTION 724.03 OF THE STANDARD SPECIFICAITONS. PREFORMED NEOPRENE GLAND LUBRICANT ADHESIVE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED LITERATURE.

FABRICATION OF JOINT

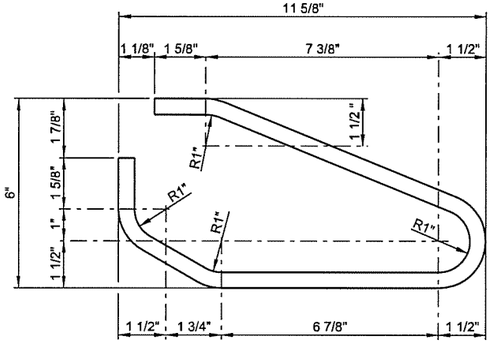
AT LOCATIONS WHERE JOINT IS SHOWN TO BE MITERED AT ANY ANGLE FOR TURN-UP AT TRAFFIC RAIL, THE MATERIAL SHALL BE SHOP SPLICED WITH HEAT VULCANIZING OR OTHER METHOD OF EQUAL EFFECTIVENESS AS RECOMMENDED BY THE LISTED JOINT MANUFACTURER OR APPROVED EQUAL AND APPROVED BY THE ENGINEER.

ANCHORAGE SYSTEM

THE CONTRACTOR SHALL USE AN ANCHORAGE SYSTEM THAT HAS BEEN APPROVED BY ODOT'S MATERIAL DIVISION. THE ANCHORAGE SYSTEM SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE REINFORCING STEEL THAT IS TO BE ANCHORED. ANCHORAGES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICAITONS FOR THE SYSTEM USED AND ODOT STANDARD SPECIFICATIONS SECTION 509.04(d)3. ALL COST OF ANCHORAGE ASSEMBLIES INCLUDING LABOR, MATERIALS, TOOLS, DRILLING AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "SEALED EXPANSION JOINT".

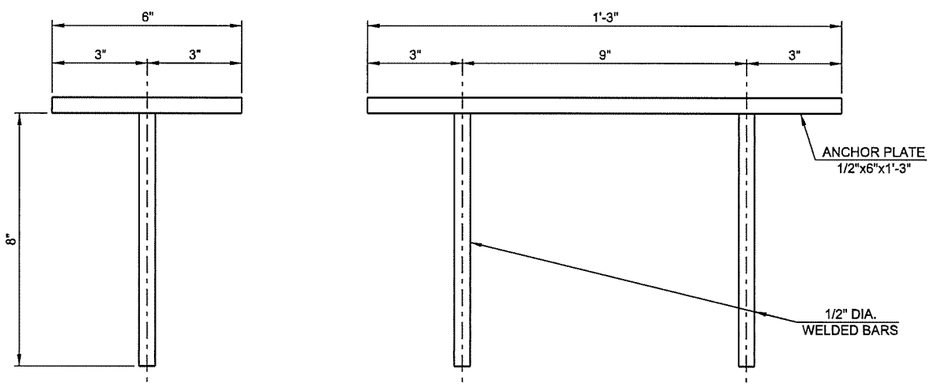


W1 ANCHOR BAR DETAIL

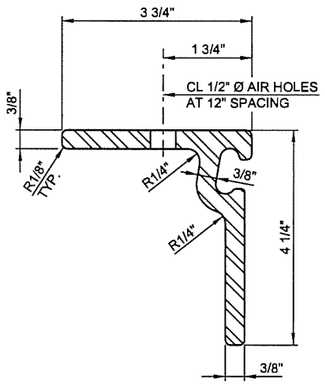


W2 ANCHOR BAR DETAIL

NOTE:
W1 AND W2 BARS SHALL BE FABRICATED FROM W20 DEFORMED STEEL WIRE.



ANCHOR ASSEMBLY



WATSON BOWMAN AND ACME TYPE Q STEEL EXTRUSION RECEPTOR DETAIL

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

SEALED EXPANSION JOINT DETAILS

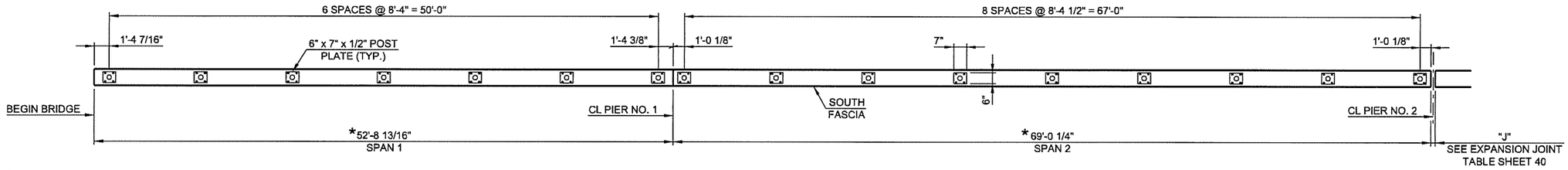
SHEET 3 OF 3

STATE JOB NO. 28865(04) SHEET NO. 42

TULSA CO. 2ND STREET

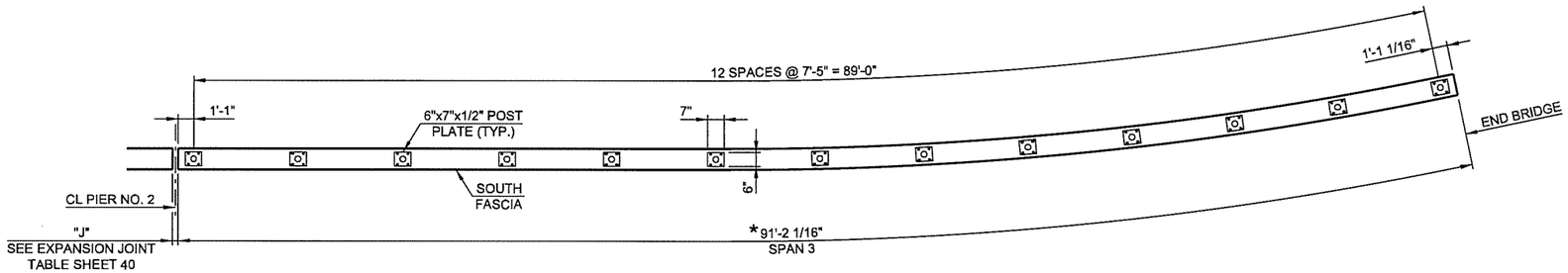
6/7/2016 N:\111399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -42-BR.A-Exp.Jt.3.dgn

DESCRIPTION	REVISIONS	DATE

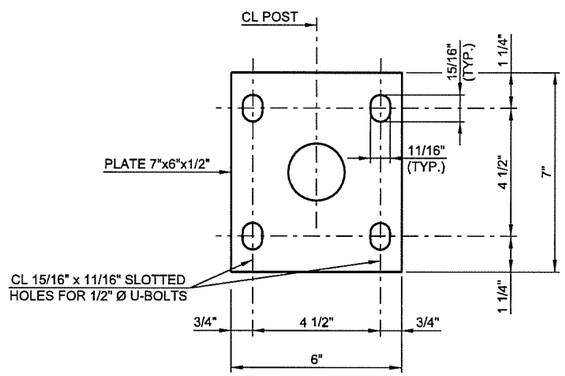


SPAN 1 AND 2 FENCE POST SPACING PLAN

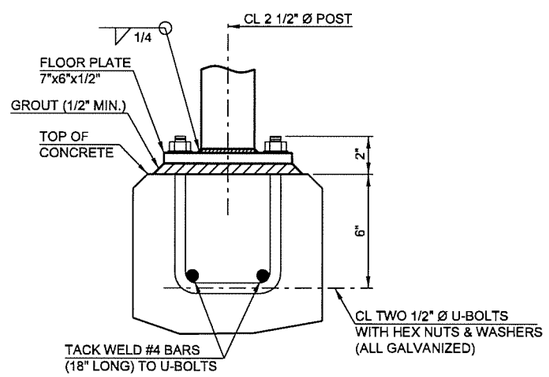
* MEASURED ALONG SOUTH FASCIA



SPAN 3 FENCE POST SPACING PLAN



PLAN OF FLOOR PLATE



POST CONNECTION (TYPICAL)

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

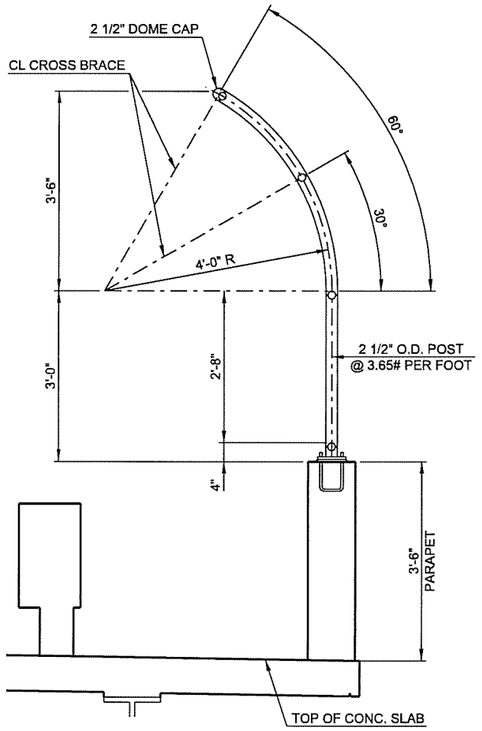
FENCE DETAILS
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 43

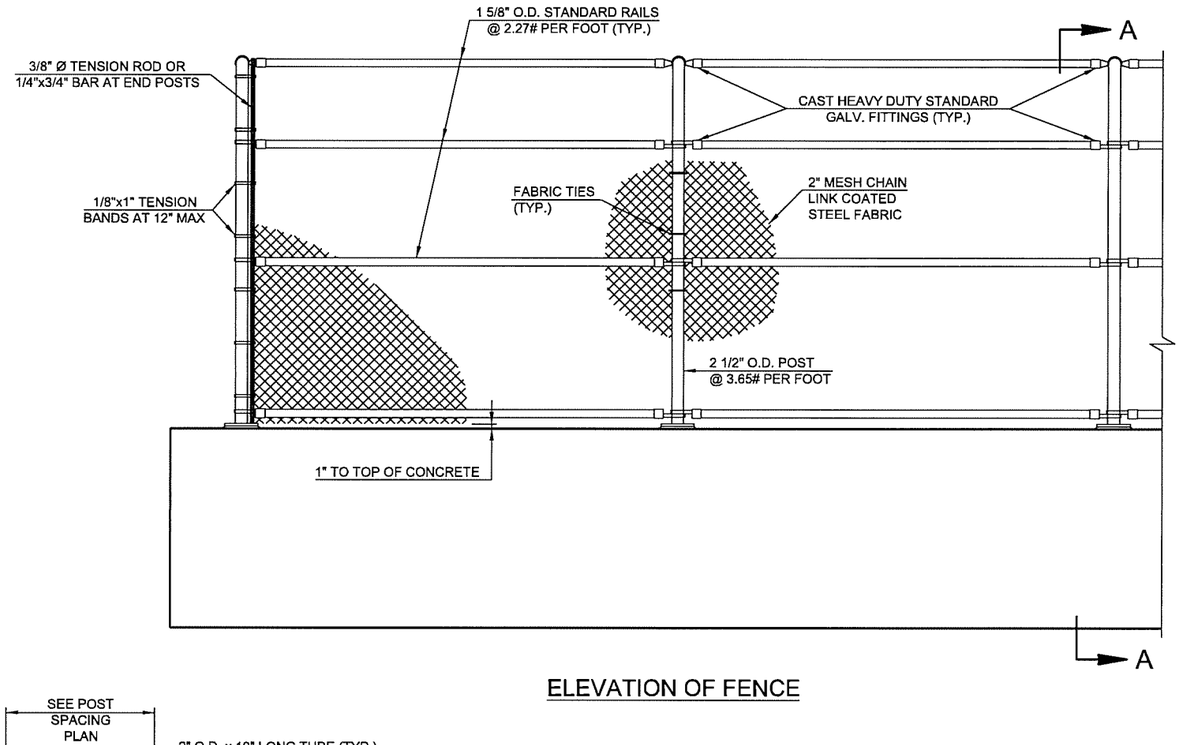
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -43-BR.A-Fence.1.dgn

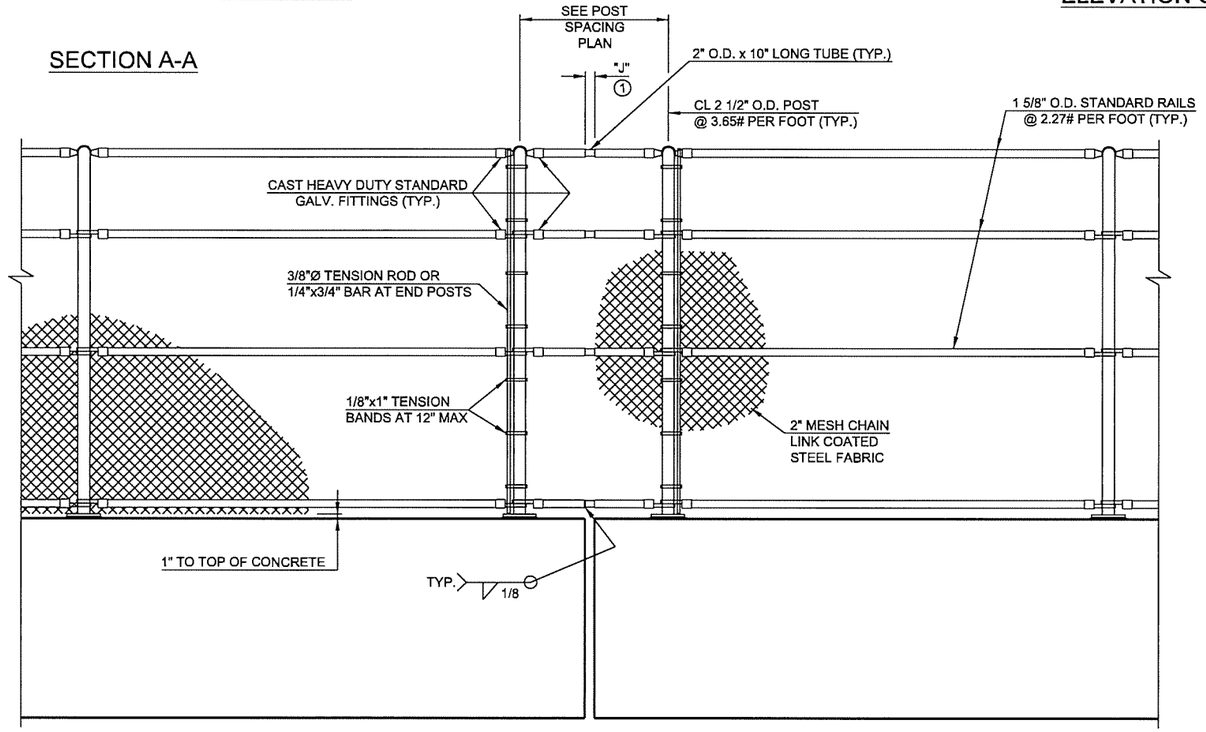
DESCRIPTION	REVISIONS	DATE



SECTION A-A



ELEVATION OF FENCE



ELEVATION OF FENCE AT EXPANSION JOINT

① SEE SHEET 40 FOR OPENING "J".

CHAIN LINK FENCE NOTES:

THE PEDESTRIAN FENCE (CHAIN LINK TYPE) SHALL BE IN ACCORDANCE WITH SECTION 624 OF THE OKLAHOMA STANDARD SPECIFICATION, EXCEPT AS AMENDED IN THE PLANS AND SPECIFICATIONS.

FABRIC SHALL BE FASTENED TO LINE POST WITH PROPER TIES SPACED APPROXIMATELY 12" APART. FABRIC SHALL BE FASTENED TO RAILS WITH PROPER TIES SPACED AT APPROXIMATELY 15" APART.

THE PEDESTRIAN FENCE SHALL BE BID PER LINEAR FOOT AS BID ITEM, "FENCE, STYLE CLF (6" HIGH, CLASS "A"). THIS ITEM SHALL INCLUDE FURNISHING AND PLACING THE FENCE, WHICH INCLUDES THE WIRE FABRIC, ALL THE PIPE, FRAMEWORK, ALL THE FASTENERS, PLATES, STRAPS, U-BOLTS, AND CONNECTORS NECESSARY FOR THIS INSTALLATION, COMPLETE AND IN PLACE. ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION AND ALL WELDS SHALL BE FREE OF SLAG HOLES PRIOR TO GALVANIZATION.

ALL FENCE POSTS SHALL BE VERTICAL. GROUT OF 1/2" MINIMUM THICKNESS SHALL BE PLACED UNDER FLOOR PLATES TO PROVIDE FOR VERTICAL ALIGNMENT OF POSTS.

DIMENSIONS OF THE PEDESTRIAN FENCE ARE MEASURED HORIZONTALLY.

MISCELLANEOUS PLATES, BARS, SHAPES INCLUDING TENSION ROD SHALL CONFORM TO ASTM A36.

THE CHAIN LINK FABRIC FOR THE PEDESTRIAN FENCE SHALL HAVE THE TOP AND BOTTOM EDGES KNUCKLED.

THE CHAIN LINK FABRIC FOR THE PEDESTRIAN FENCE SHALL BE LAPPED AT THE POSTS. THE CHAIN LINK FABRIC SHALL BE PLACED ON THE OUTSIDE OF THE POST. NO SPLICES WITH BARS WILL BE PERMITTED.

APPROVAL OF SHOP DETAILS AND MATERIALS IS REQUIRED BEFORE INSTALLATION BEGINS.

ALL RAILS SHALL HAVE A 1/2" DIAMETER DRAIN HOLE IN THE BOTTOM OF EACH PIPE LOCATED NEAR THE LOW END OF EACH PANEL.

CORE WIRE SIZE FOR WIRE FABRIC SHALL BE 6 GAGE MINIMUM.

2ND STREET OVER I-444 - BRIDGE "A"

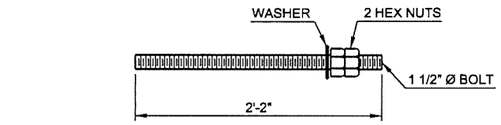
DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

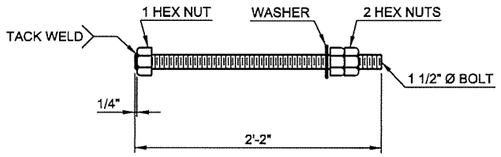
FENCE DETAILS
SHEET 2 OF 2
STATE JOB NO. 28865(04) SHEET NO. 44
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -44-BR.A-Fence 2.dgn

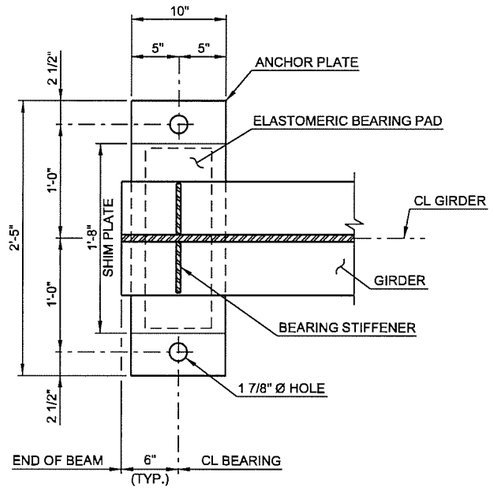
REVISIONS		
DESCRIPTION		DATE



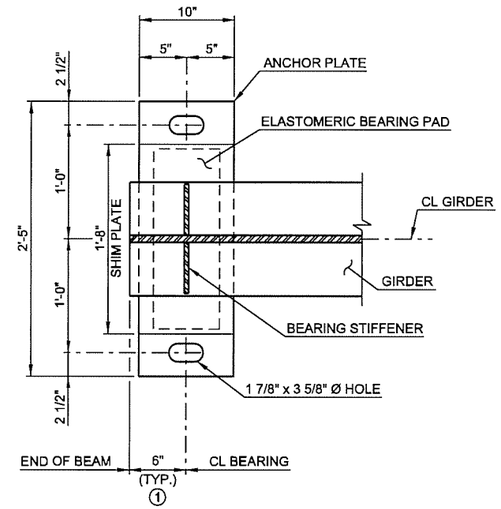
ANCHOR BOLT ASSEMBLY DETAIL
(AT ABUTMENTS)



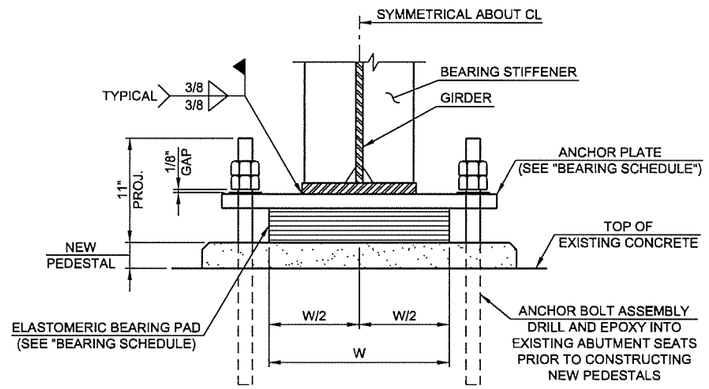
ANCHOR BOLT ASSEMBLY DETAIL
(AT PIERS)



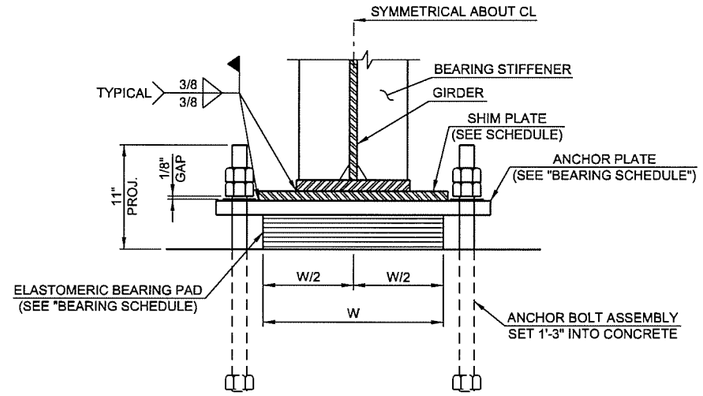
FIXED BEARING PLAN
(ABUTMENT 1 AND PIERS)
ANCHOR BOLT ASSEMBLIES NOT SHOWN



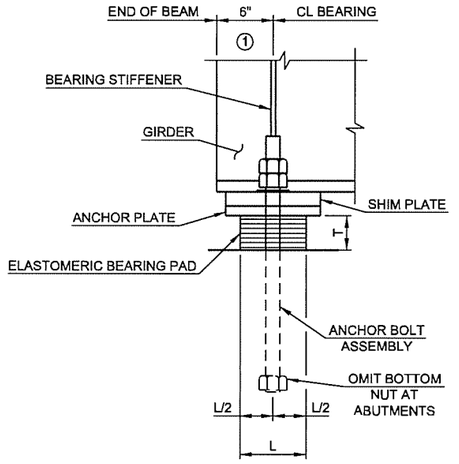
EXPANSION BEARING PLAN
(PIERS)
ANCHOR BOLT ASSEMBLIES NOT SHOWN



END VIEW
(ABUTMENTS)



END VIEW
(PIERS)



SIDE VIEW
(ABUTMENT 1 AND PIERS)

SHIM PLATE SCHEDULE

LOCATION		BEAM	1'-8" x 10" SHIM PLATE THICKNESS
PIER 1	SPAN 1	RG-1	3/4"
		G-1	1 3/16"
	SPAN 2	G-1	7/16"
PIER 2	SPAN 2	G-2 THRU G-6	3/4"

BEARING SCHEDULE

SPAN	ANCHOR PLATE	60 DUROMETER ELASTOMERIC BEARING PAD			
		SIZE (T x L x W)	COVER LAYER	INNER LAYER	LAMINATE LAYER
ALL	1 1/2" x 10"x 2'-5"	3 5/8" x 7" x 1'-7"	2 - 1/4"	6 - 3/8"	7 - 1/8"

BEARING DETAILS

① CENTER ANCHOR BOLTS IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING. SEE TABLE ON SHEET 40.

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
SHEET 1 OF 2

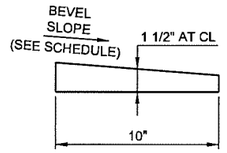
STATE JOB NO. 28865(04) SHEET NO. 45

TULSA CO. 2ND STREET

N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -45-BR.A-Bearing.dgn

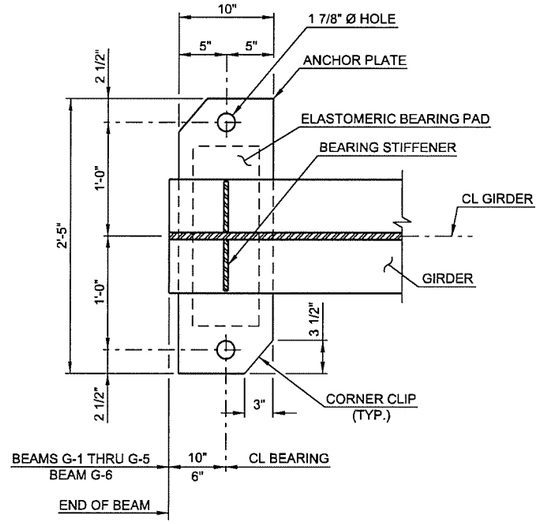
6/7/2016

DESCRIPTION	REVISIONS	DATE

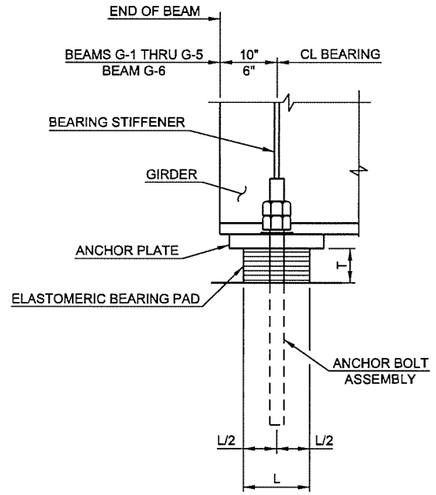


BEVELED ANCHOR PLATE DETAIL

BEVEL SCHEDULE		
LOCATION	BEAM	BEVEL SLOPE
SPAN 1	RG-2	1.3%
	G-2	1.4%
	G-3	1.4%
	G-4	1.4%
	G-5	1.5%
SPAN 2	RG-1	1.1%
SPAN 3	G-1	2.1%
	G-2	1.8%
	G-3	1.5%
	G-4	1.2%



FIXED BEARING PLAN
(ABUTMENT 2)
ANCHOR BOLT ASSEMBLIES NOT SHOWN



SIDE VIEW
(ABUTMENT 2)

ANCHORAGE SYSTEM

THE CONTRACTOR SHALL USE AN ANCHORAGE SYSTEM THAT HAS BEEN APPROVED BY ODOT'S MATERIAL DIVISION. THE ANCHORAGE SYSTEM SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE REINFORCING STEEL THAT IS TO BE ANCHORED. ANCHORAGES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICAITONS FOR THE SYSTEM USED AND ODOT STANDARD SPECIFICATIONS SECTION 509.04(d)3. ALL COST OF ANCHORAGE ASSEMBLIES INCLUDING LABOR, MATERIALS, TOOLS, DRILLING AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "WEATHERING STEEL FIXED BEARING ASSEMBLY".

BEARING SCHEDULE					
SPAN	ANCHOR PLATE	60 DUROMETER ELASTOMERIC BEARING PAD			
		SIZE (T x L x W)	COVER LAYER	INNER LAYER	LAMINATE LAYER
ALL	1 1/2" x 10"x 2'-5"	3 5/8" x 7" x 1'-7"	2 - 1/4"	6 - 3/8"	7 - 1/8"

BEARING DETAILS

CENTER ANCHOR BOLTS IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING. SEE TABLE ON SHEET 40.

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

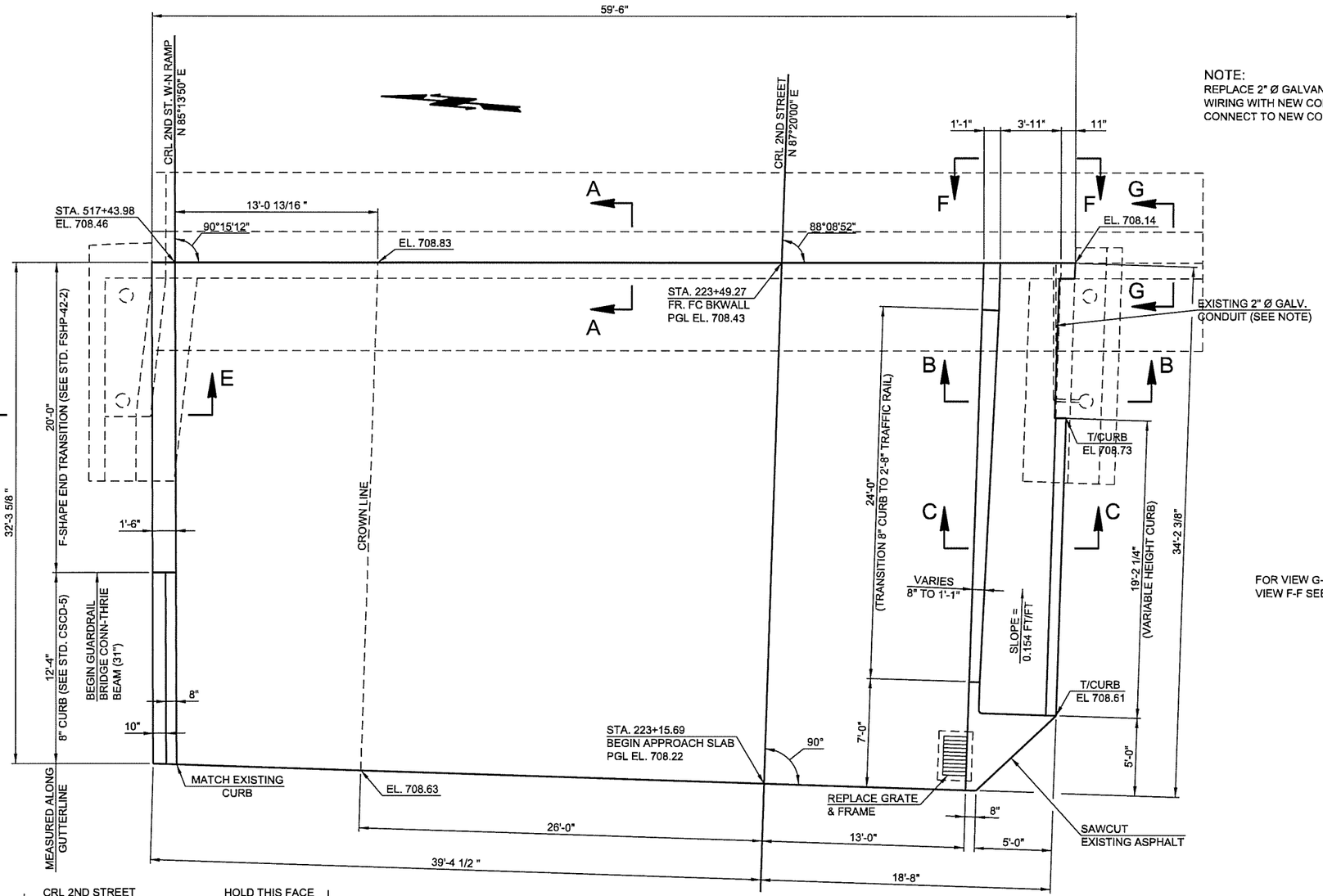
BEARING DETAILS
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 46

TULSA CO. 2ND STREET

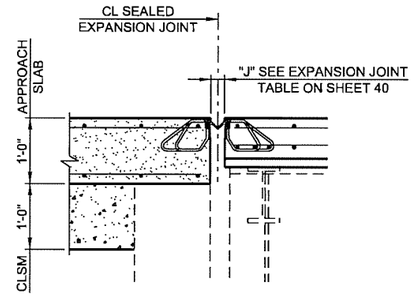
6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -46-BR.A-Bearing.2.dgn

DESCRIPTION	REVISIONS	DATE

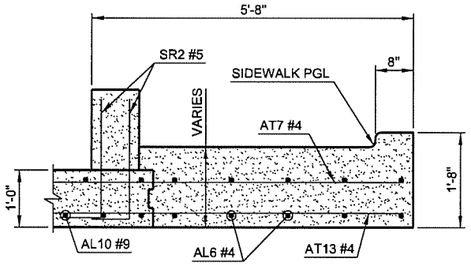


NOTE:
REPLACE 2" Ø GALVANIZE CONDUIT AND WIRING WITH NEW CONDUIT AND WIRING. CONNECT TO NEW CONDUIT.

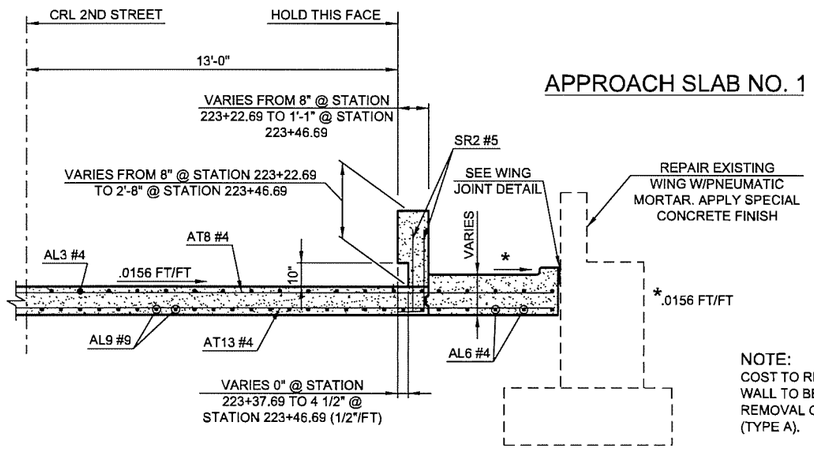
FOR VIEW G-G AND
VIEW F-F SEE SHEET 19.



SECTION A-A

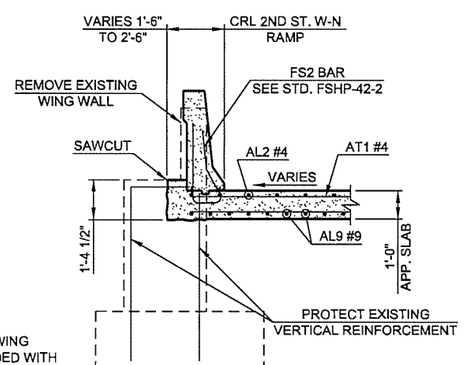


SECTION C-C



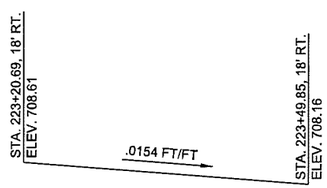
SECTION B-B

APPROACH SLAB NO. 1

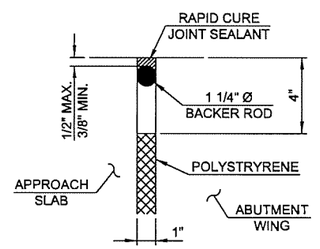


SECTION E-E

NOTE:
COST TO REMOVE WING WALL TO BE INCLUDED WITH REMOVAL OF BRIDGE ITEM (TYPE A).



SIDEWALK PROFILE



WING JOINT DETAIL

2ND STREET OVER I-444 - BRIDGE 'A'

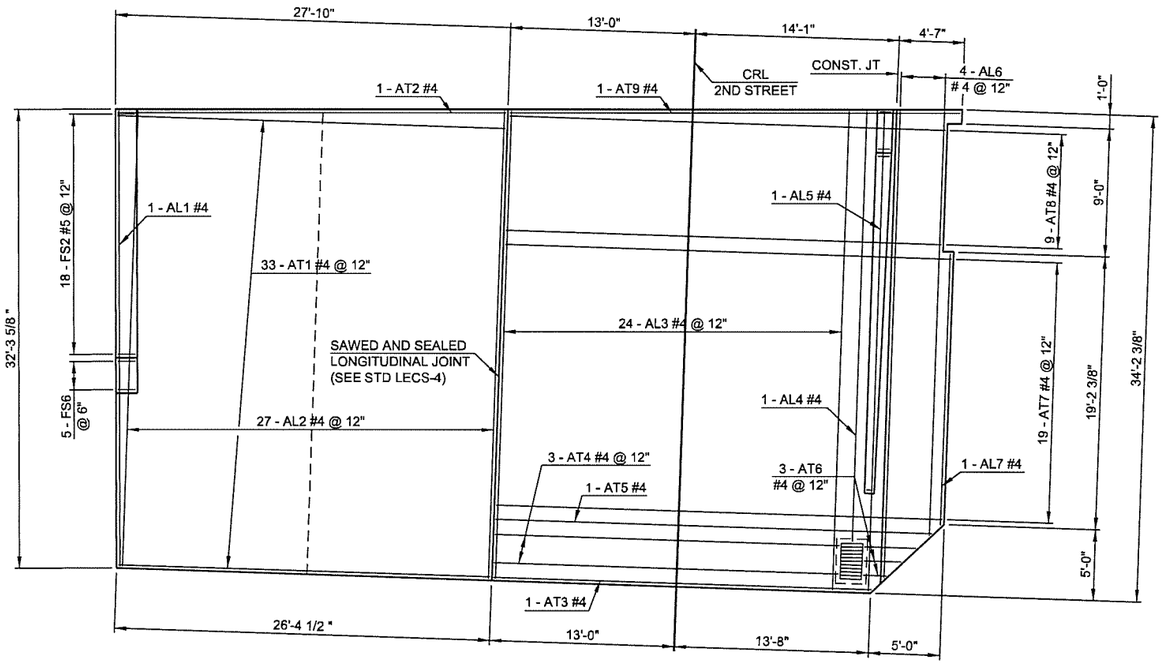
DESIGN	JWB	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

APPROACH SLAB NO. 1
SHEET 1 OF 3
STATE JOB NO. 28865(04) SHEET NO. 47
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -47-BR.A-App.Slab.1.1.dgn

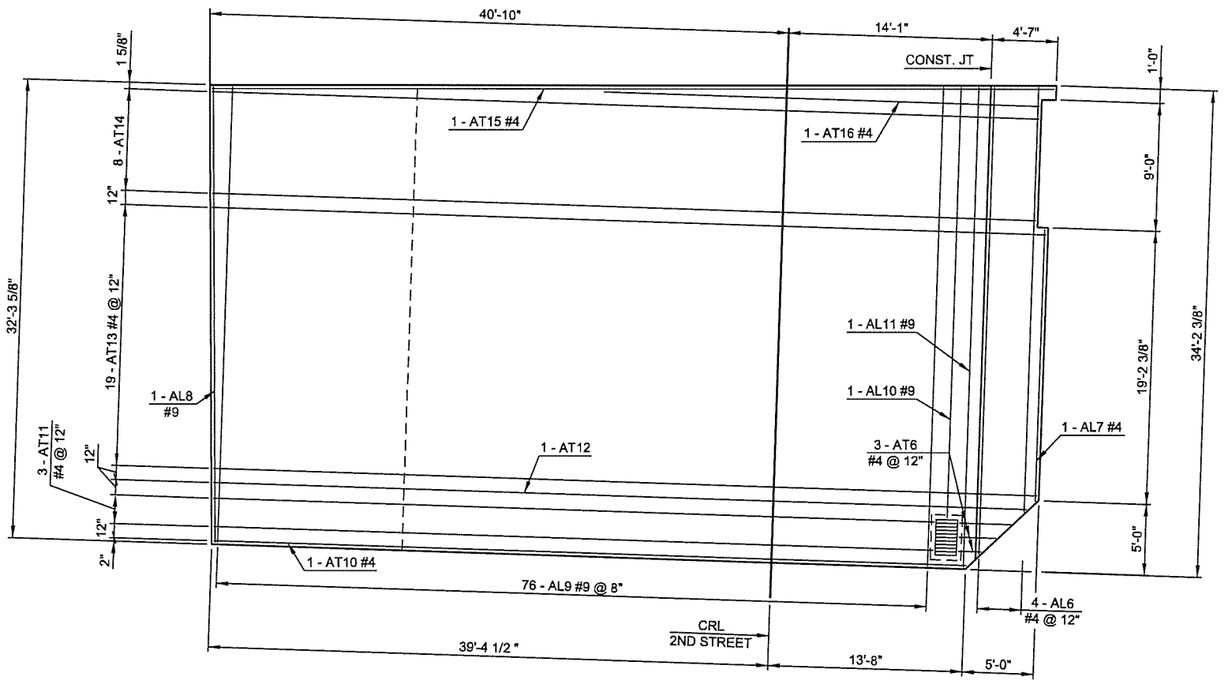
DESCRIPTION	REVISIONS	DATE



APPROACH SLAB NO. 1

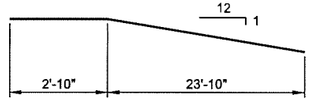
TOP REINFORCING
MAT DETAIL

SEE SHEET 3 OF 3 FOR
TRAFFIC RAIL REINFORCING

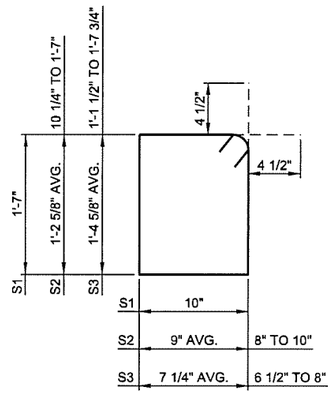


APPROACH SLAB NO. 1

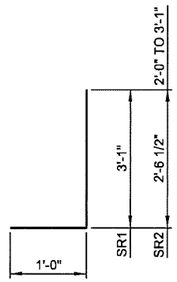
BOTTOM REINFORCING
MAT DETAIL



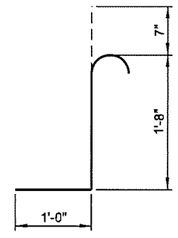
R1 #5 x 26'-9"



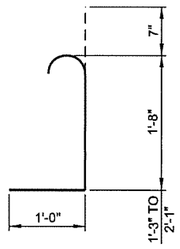
S1 #4 x 5'-7" AVG.
S2 #4 x 4'-8 1/4" AVG.
S3 #4 x 4'-8 3/4" AVG.



SR1 #5 x 4'-1"
SR2 #5 x 3'-6 1/2"



SR3 #5 x 3'-3"



SR4 #5 x 3'-3"

APPROACH SLAB NO. 1 BAR LIST

FOR INFORMATION ONLY
(NOT SHOWN IN QUANTITIES)

	MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIES
	EPOXY COATED REINFORCING BARS					
	AL1	#4	1	STR	32'-1"	
	AL2	#4	27	STR	32'-5" AVG.	32'-0" TO 32'-10"
	AL3	#4	24	STR	33'-3" AVG.	32'-10" TO 33'-8"
	AL4	#4	1	STR	30'-0"	
	AL5	#4	1	STR	33'-9"	
(1)	AL6	#4	8	STR	31'-6" AVG.	29'-6" TO 33'-6"
	AL7	#4	2	STR	18'-11"	
	AL8	#9	1	STR	32'-1"	
	AL9	#9	76	STR	32'-10" AVG.	32'-0" TO 33'-8"
	AL10	#9	1	STR	30'-0"	
	AL11	#9	1	STR	33'-9"	
	AT1	#4	33	STR	26'-10" AVG.	26'-1" TO 27'-7"
	AT2	#4	1	STR	27'-7"	
	AT3	#4	1	STR	26'-5"	
	AT4	#4	3	STR	25'-3"	
	AT5	#4	1	STR	30'-5"	
(2)	AT6	#4	6	STR	2'-0" AVG.	1'-0" TO 3'-0"
	AT7	#4	19	STR	31'-5"	
	AT8	#4	9	STR	30'-5"	
	AT9	#4	1	STR	31'-5"	
	AT10	#4	1	STR	52'-9"	
	AT11	#4	3	STR	46'-6"	
	AT12	#4	1	STR	56'-9"	
	AT13	#4	19	STR	58'-7" AVG.	58'-2" TO 58'-11"
	AT14	#4	8	STR	58'-2" AVG.	58'-0" TO 58'-3"
	AT15	#4	1	STR	59'-4"	
	AT16	#4	1	STR	23'-0"	
(3)	FS2	#5	18	BNT	7'-4"	
(3)	FS6	#5	5	BNT	7'-6 1/2"	
	R1	#5	2	BNT	26'-9"	
	R2	#5	2	STR	8'-10"	
	R3	#5	2	STR	14'-10"	
	R4	#5	2	STR	20'-10"	
	R5	#5	4	STR	26'-10"	
	S1	#4	7	BNT	5'-7" AVG.	
	S2	#4	22	BNT	4'-8 1/4" AVG.	
	S3	#4	16	BNT	4'-8 3/4" AVG.	
	SR1	#5	10	BNT	4'-1"	
	SR2	#5	51	BNT	3'-6 1/2" AVG.	
	SR3	#5	20	BNT	3'-3" AVG.	
	SR4	#5	8	BNT	3'-3" AVG.	

(1) 2 SETS OF 4
(2) 2 SETS OF 3
(3) SEE STD. FSHP-42-2 FOR BAR BEND

2ND STREET OVER I-444 - BRIDGE "A"

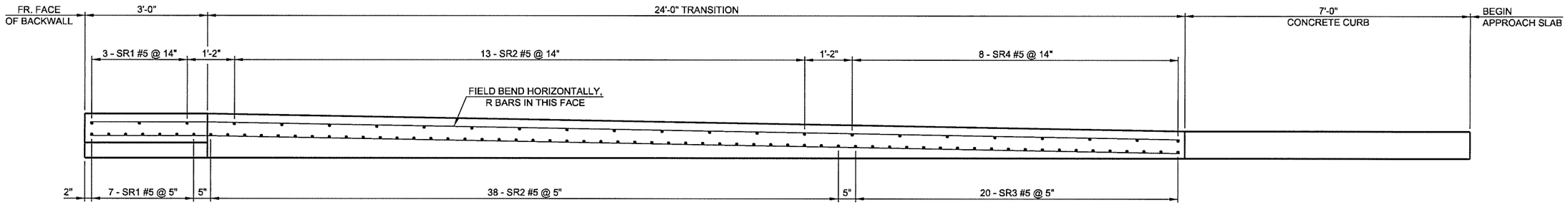
DESIGN	JWB	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

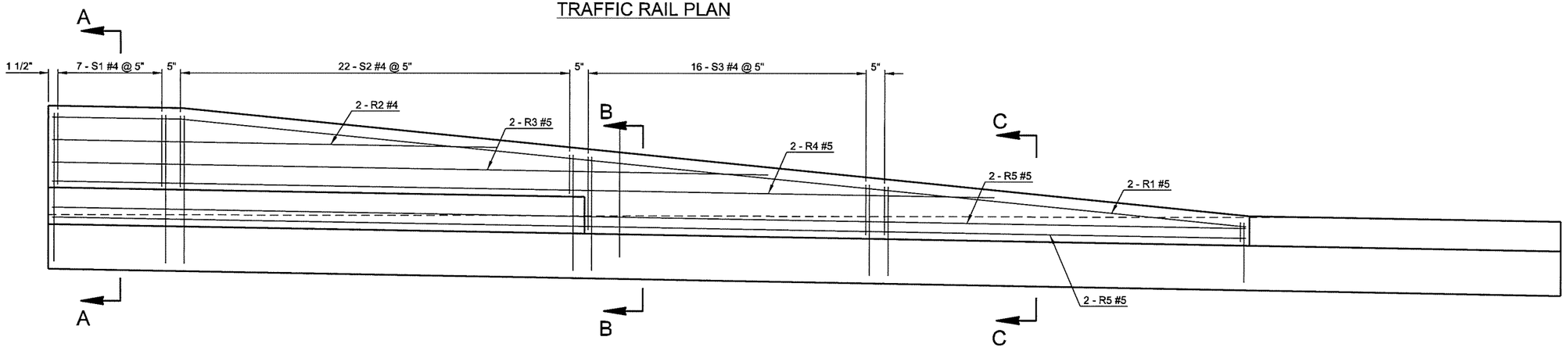
APPROACH SLAB NO. 1
SHEET 2 OF 3
STATE JOB NO. 28865(04) SHEET NO. 48
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -48-BR A-App Slab 1 2.dgn

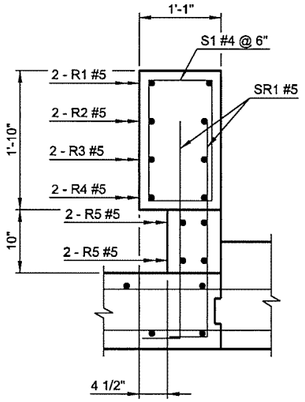
DESCRIPTION	REVISIONS	DATE



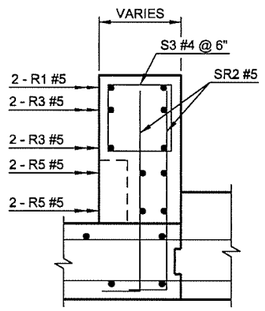
TRAFFIC RAIL PLAN



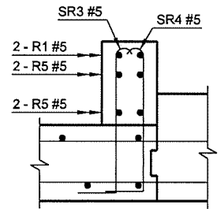
TRAFFIC RAIL ELEVATION



SECTION A-A



SECTION B-B



SECTION C-C

APPROACH SLAB NO. 1 QUANTITIES		
DESCRIPTION	UNIT	TOTAL
① APPROACH SLAB	SY	215.0
42" F-SHAPED PARAPET	LF	20.0
CONCRETE RAIL (TR4)	LF	27.0
SAW CUT GROOVING	SY	190
WATER REPELLENT (VISUALLY INSPECTED)	SY	228.0
PNEUMATICALLY PLACED MORTAR	SY	2.0
(PL)CORROSION INHIBITOR (SURFACE APPLIED)	SY	4.5
CONCRETE CURB (8" BARRIER-INTEGRAL)	LF	39.0
CLSM BACKFILL	CY	69.5

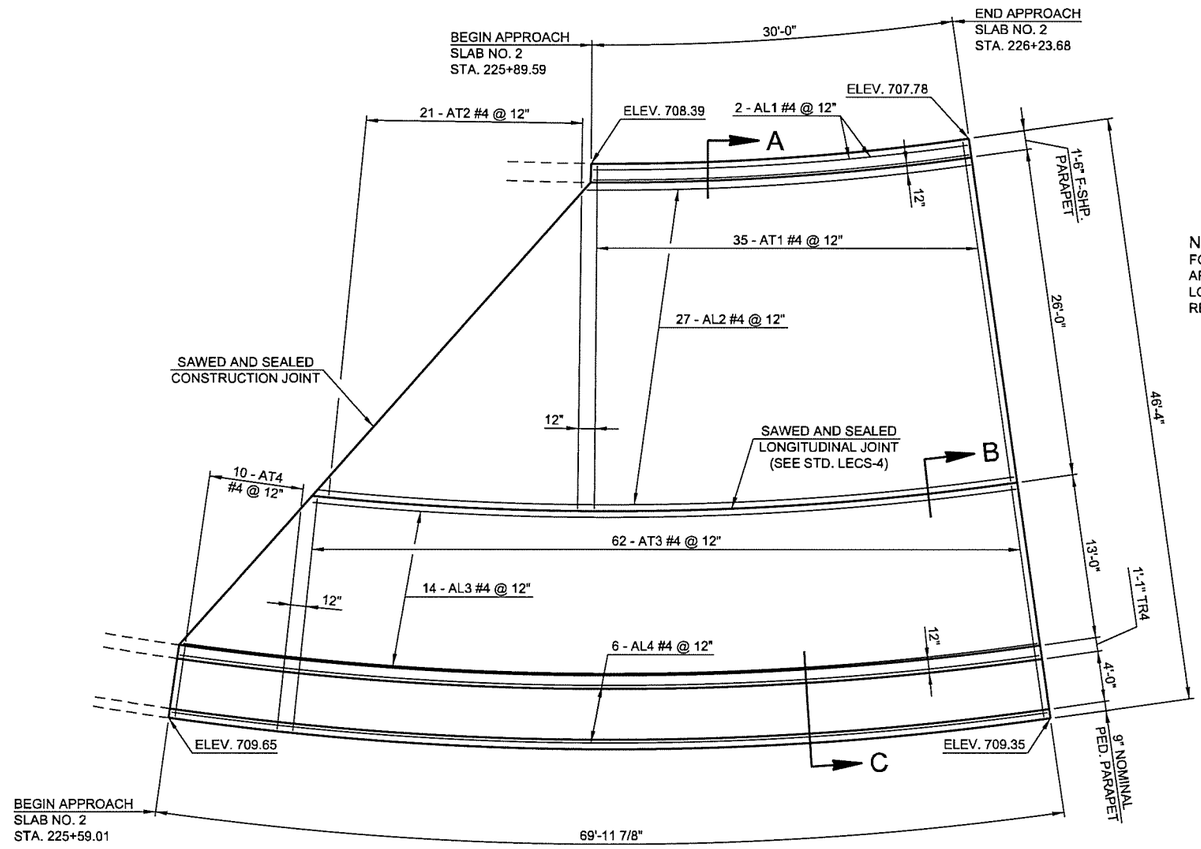
① THE CONTRACT UNIT PRICE FOR APPROACH SLAB SHALL BE FULL COMPENSATION FOR CONCRETE, REINFORCING STEEL (INCLUDING SR1, SR2, SR3, FS2 AND FS6), BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE, LABOR, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED ON THE PLANS. THERE IS AN ESTIMATED 71.7 C.Y. OF CLASS AA CONCRETE AND AN ESTIMATED 13,679 LB. OF EPOXY COATED REINFORCING STEEL IN APPROACH SLAB NO. 1.

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JWB	3-16	OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	MRM	3-16	APPROACH SLAB NO. 1
CHECKED	JSH	3-16	SHEET 3 OF 3
APPROVED			STATE JOB NO. 28865(04) SHEET NO. 49
SQUAD	TT		TULSA CO. 2ND STREET

6/7/2016 N:\113992\00-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -49-BR.A-App.Slab.1.3.dgn

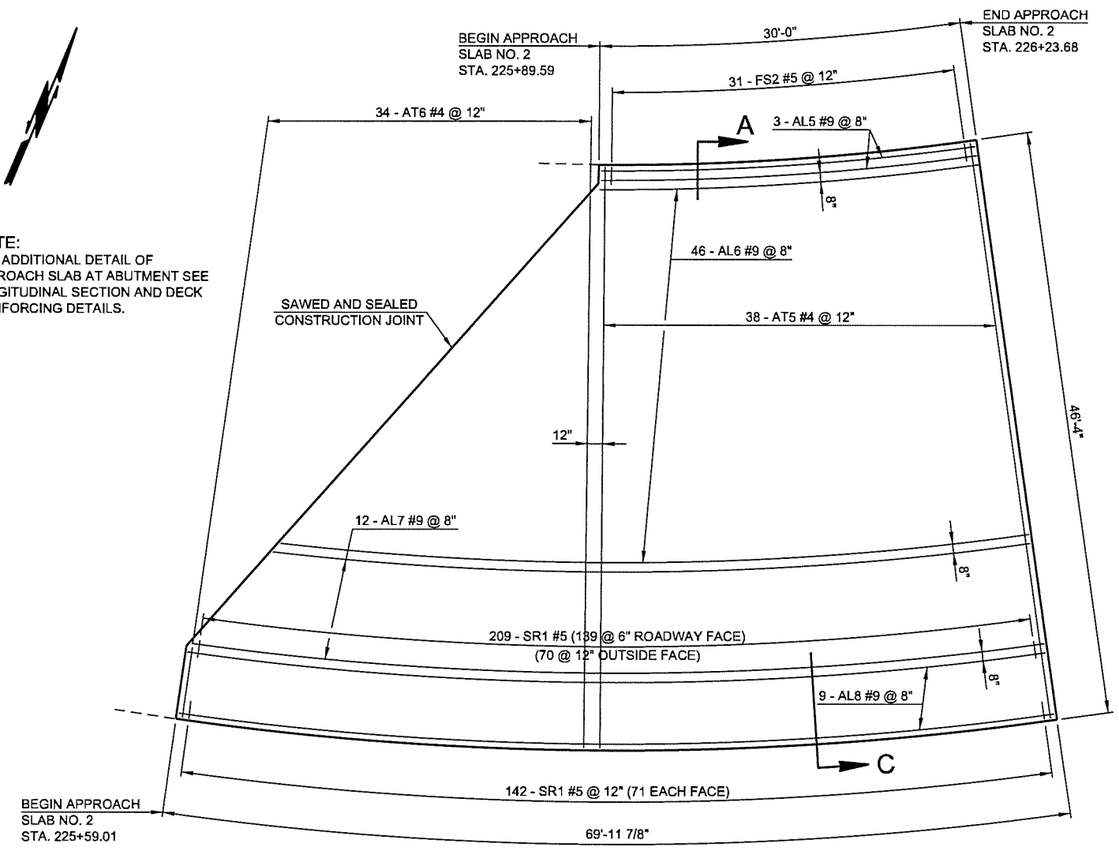
REVISIONS		
DESCRIPTION		DATE



APPROACH SLAB NO. 2

TOP REINFORCING
MAT DETAIL

NOTE:
FOR ADDITIONAL DETAIL OF APPROACH SLAB AT ABUTMENT SEE LONGITUDINAL SECTION AND DECK REINFORCING DETAILS.



APPROACH SLAB NO. 2

BOTTOM REINFORCING
MAT DETAIL

NOTE:
FOR SECTION A, B AND C SEE SHEET 51

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	JWB	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

APPROACH SLAB NO. 2
SHEET 1 OF 2

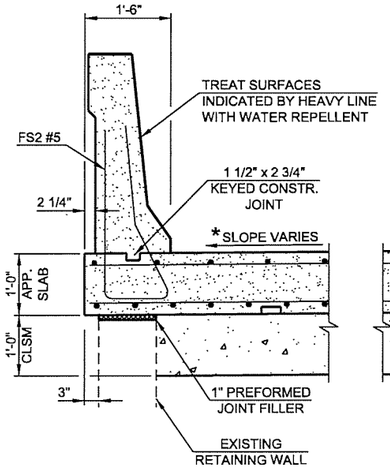
STATE JOB NO. 28865(04) SHEET NO. 50

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -50-BR.A-App.Slab.2.1.dgn

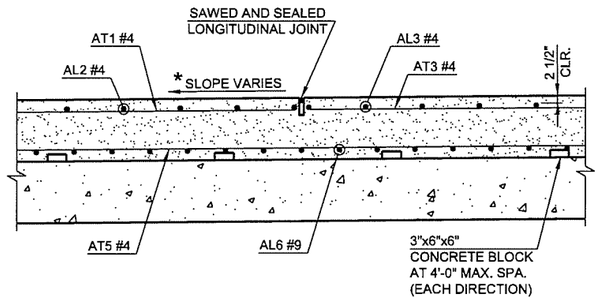
REVISIONS		
DESCRIPTION		DATE

NOTE:
FOR ADDITIONAL DETAIL OF
F-SHAPED PARAPET, SEE STD.
FSHP-42-2.



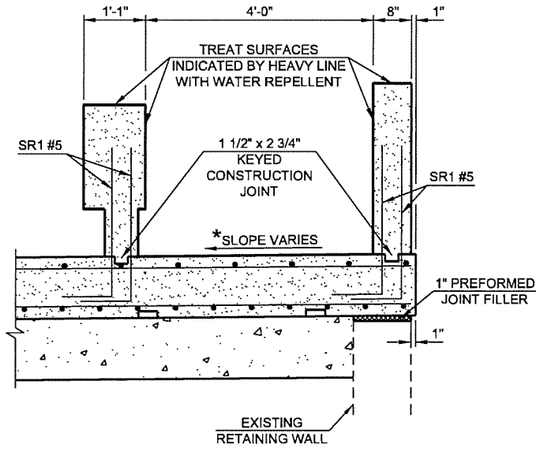
SECTION A

NOTE:
PLACE REINFORCING IN THE TOP OF APPROACH SLAB 2" FROM
EITHER SIDE OF THE SAWED AND SEALED LONGITUDINAL
JOINT. FOR ADDITIONAL DETAILS FOR LONGITUDINAL JOINT,
SEE STD. LECS-4.



SECTION B

NOTE:
FOR ADDITIONAL DETAIL OF
CONCRETE TRAFFIC RAIL,
SEE STD. TR4-2.



SECTION C

*SEE SHEET 15 FOR CROSS SLOPES

APPROACH SLAB NO. 2 BAR LIST

	MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIES
	EPOXY COATED REINFORCING BARS					
	AT1	#4	35	STR	27'-2"	
	AT2	#4	21	STR	13'-0" AVG	1'-3" TO 24'-9"
	AT3	#4	62	STR	18'-6"	
	AT4	#4	10	STR	11'-5" AVG	5'-7" TO 17'-3"
	AT5	#4	38	STR	46'-0"	
	AT6	#4	34	STR	24'-8" AVG	5'-7" TO 43'-9"
	AL1	#4	2	STR	29'-9"	
	AL2	#4	27	STR	42'-11" AVG	30'-5" TO 55'-5"
①	AL3	#4	14	STR	63'-5" AVG	57'-5" TO 69'-5"
①	AL4	#4	6	STR	71'-3"	
	AL5	#9	3	STR	29'-9"	
	AL6	#9	46	STR	49'-9" AVG	35'-0" TO 64'-6"
②	AL7	#9	9	STR	68'-8" AVG	65'-2" TO 72'-2"
②	AL8	#9	9	STR	69'-7"	
③	FS2	#5	31	BNT	7'-4"	
④	SR1	#5	351	BNT	4'-1"	

① INCLUDES 1 LAP LENGTH OF 1'-8"
② INCLUDES 1 LAP LENGTH OF 4'-6"
③ FOR BAR BEND, SEE STD. FSHP-42-2
④ FOR BAR BEND, SEE STD. TR4-2

APPROACH SLAB NO. 2 QUANTITIES

	DESCRIPTION	UNIT	TOTAL
⑤	APPROACH SLAB	SY	265
	SAW-CUT GROOVING	SY	215
	CONCRETE RAIL (TR4)	LF	68.7
	42" F-SHAPED PARAPET	LF	30
	CONCRETE PARAPET	LF	70
	WATER REPELLENT (VISUALLY INSPECTED)	SY	130.7
	CLSM BACKFILL	CY	85

⑤ THE DEPARTMENT CONSIDERS THE COST OF CONCRETE, REINFORCING STEEL (INCLUDING FS2 AND SR1 BARS), BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE AND POLYETHYLENE SHEETING AND PREFORMED JOINT FILLER TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF APPROACH SLAB. THERE IS AN ESTIMATED 88.2 C.Y. OF CLASS AA CONCRETE AND AN ESTIMATED 19,130 LB OF EPOXY COATED REINFORCING STEEL IN APPROACH SLAB NO. 2.

2ND STREET OVER I-444 - BRIDGE 'A'

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	JWB	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

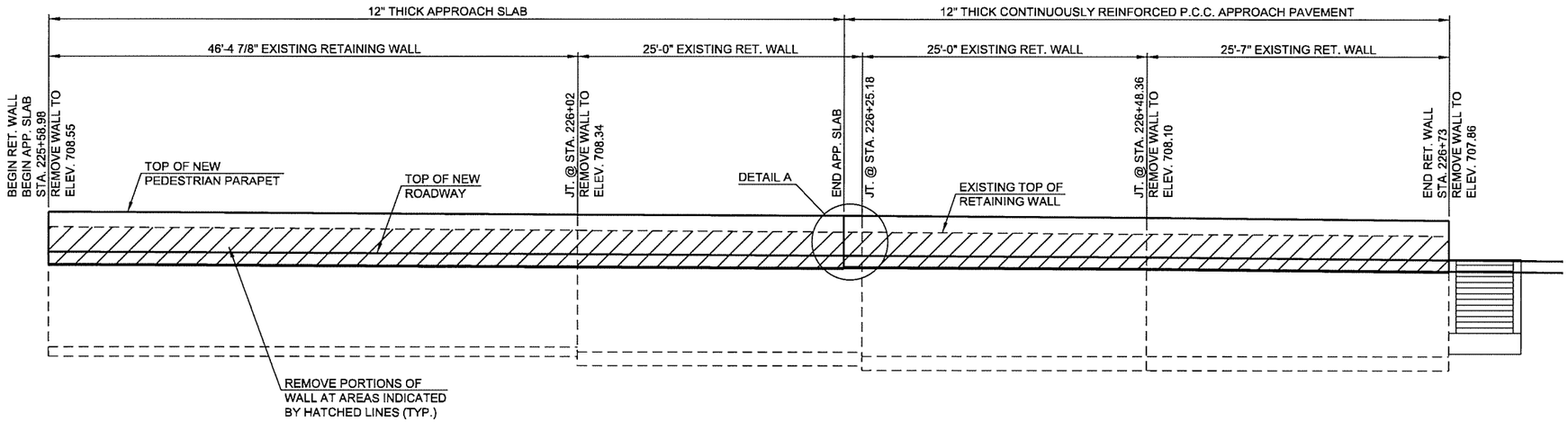
APPROACH SLAB NO. 2
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 51

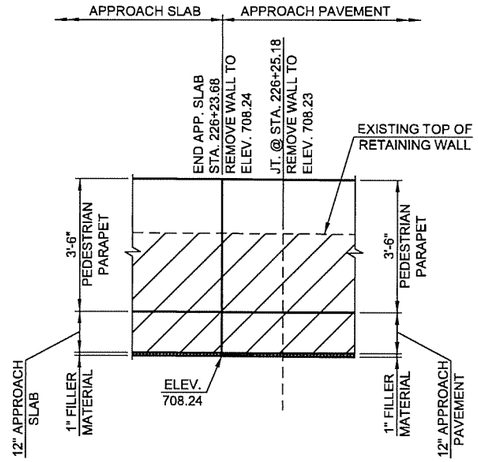
TULSA CO. 2ND STREET

6/7/2016 N:\113399\200-11399-13001-05\CADSheetFiles\JP 28865 (04) -51-BR.A-App.Slab.2.2.dgn

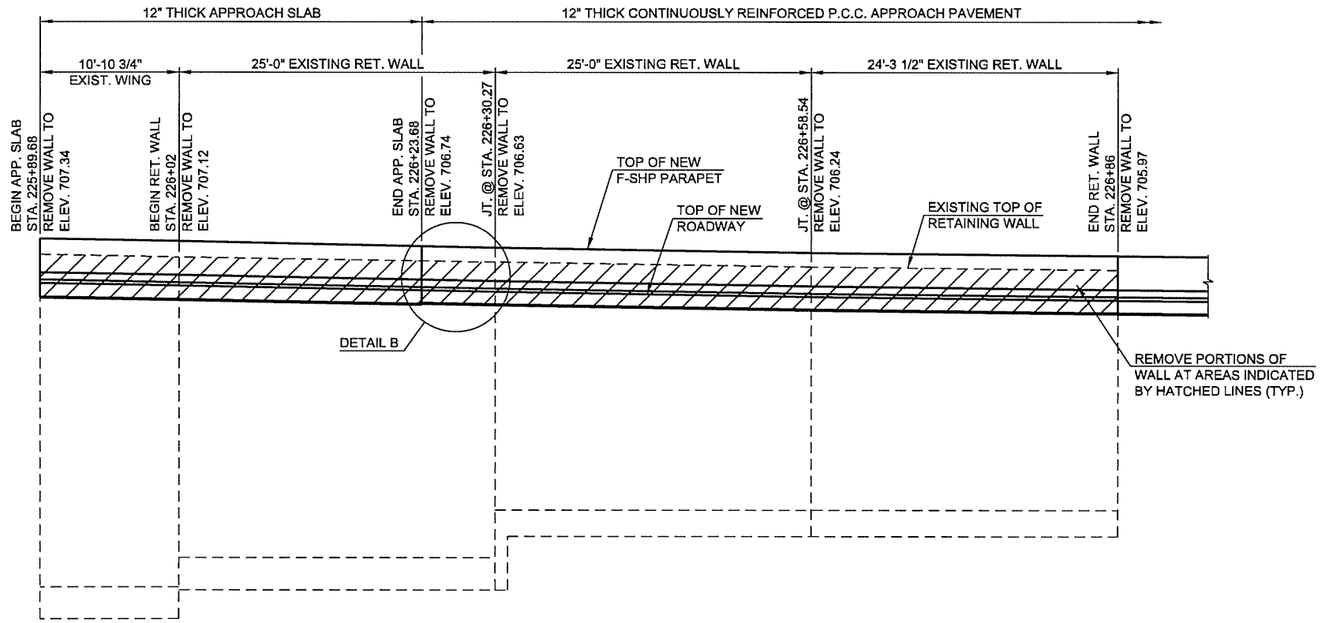
DESCRIPTION	REVISIONS	DATE



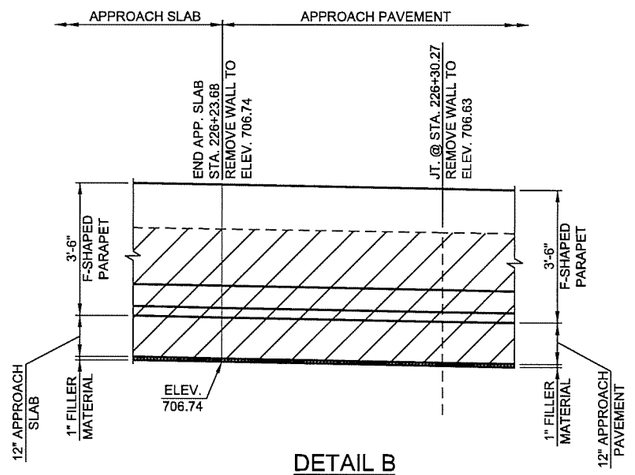
RIGHT RETAINING WALL ELEVATION



DETAIL A



LEFT RETAINING WALL ELEVATION



DETAIL B

2ND STREET OVER I-444 - BRIDGE "A"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

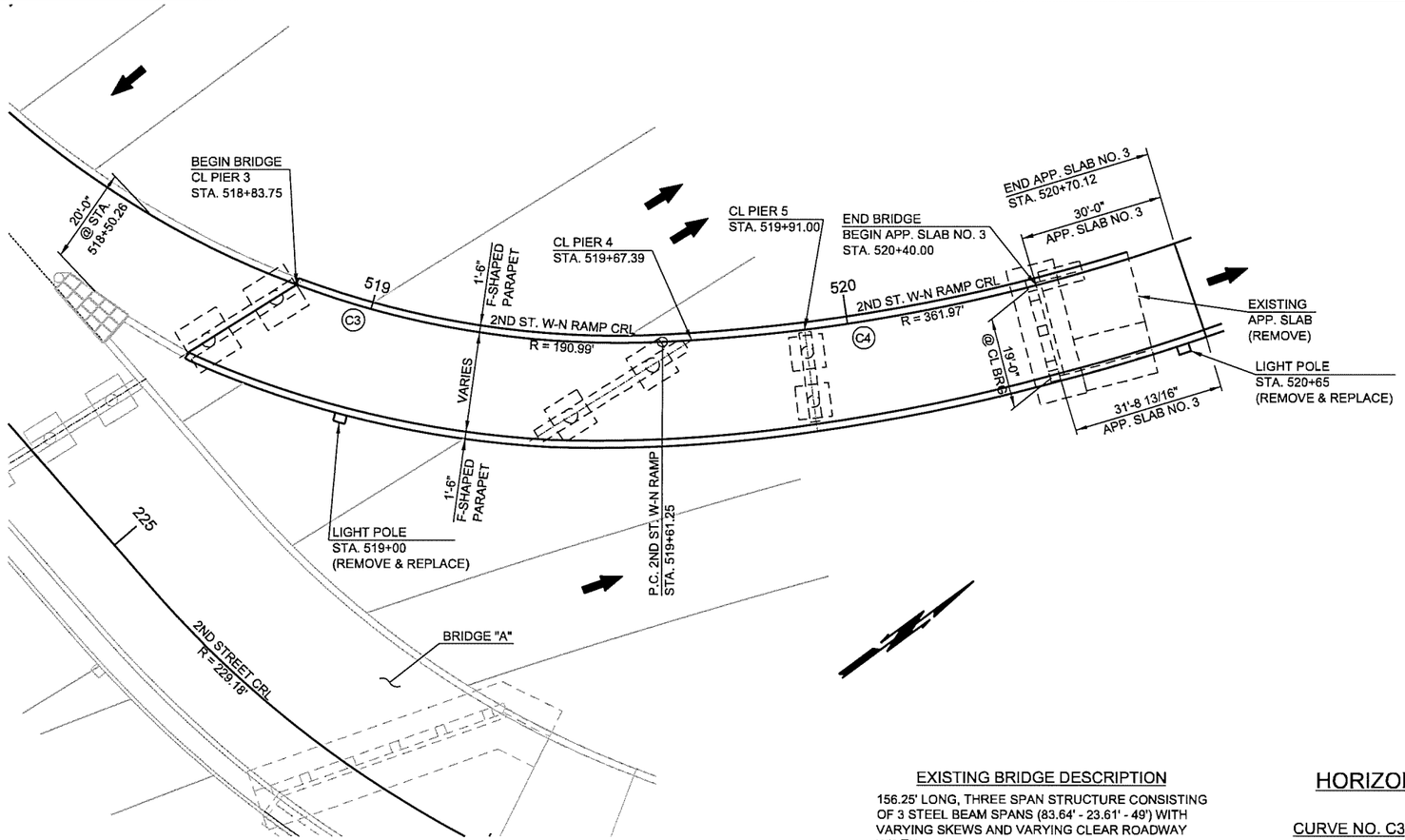
RETAINING WALL
MODIFICATION DETAILS

STATE JOB NO. 28865(04) SHEET NO. 52

TULSA CO. 2ND STREET

6/7/2016 N:\113992\00-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -52-BR.A-Retaining.Wall.Mod.1.dgn

DESCRIPTION	REVISIONS	DATE



INDEX OF SHEETS

REQUIRED STANDARD DRAWINGS

ROADWAY	BRIDGE
LECS-4-1	TR4-2-00E
	FSHP-42-2-00E
	EJ-SQ-03E
	EJ-SK-03E
	B40-STL-BM-BRACING-00E

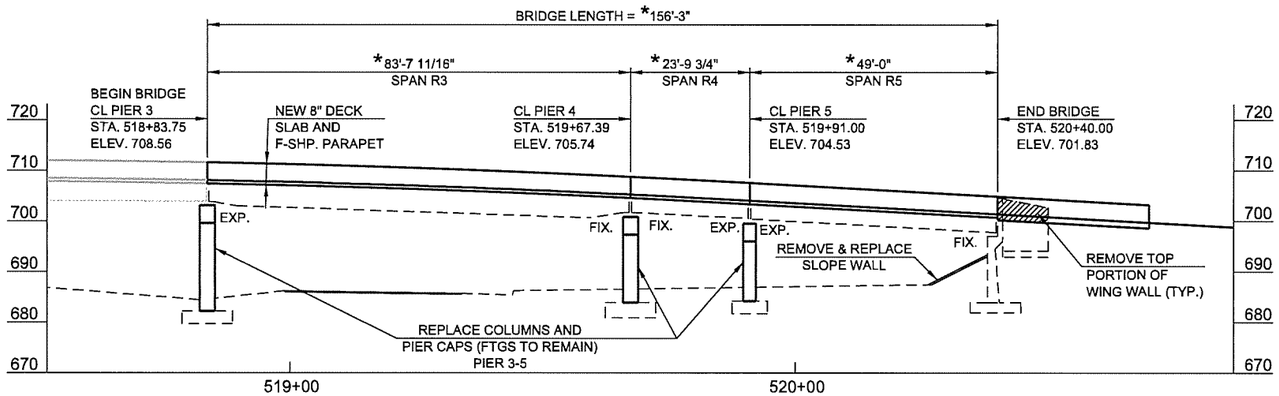
EXISTING BRIDGE DESCRIPTION

156.25' LONG, THREE SPAN STRUCTURE CONSISTING OF 3 STEEL BEAM SPANS (83.64' - 23.61' - 49') WITH VARYING SKEWS AND VARYING CLEAR ROADWAY WIDTH.

HORIZONTAL CURVE DATA

CURVE NO. C3	CURVE NO. C4
PI STA. 518+84.07	PI STA. 512+21.79
Δ = 49°40'00"	Δ = 45°35'41"
D = 30°00'00"	D = 15°00'00"
R = 190.99'	R = 381.97
T = 88.38'	T = 160.54'
L = 165.56'	L = 303.96'

PLAN
SCALE: 1" = 15'



ELEVATION
SCALE: 1" = 15'

* MEASURED ALONG 2ND STREET W-N RAMP CRL

NOTE:
SEE SHEET 69 FOR LOAD RATINGS.

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION - BRIDGE "B"
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 53

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -53-BR.B-P&E.dgn

REVISIONS		
DESCRIPTION		DATE

ORGINAL DESIGN DATA

(FOR INFORMATION ONLY)

CLASS "A" CONCRETE	1,000 P.S.I.
CLASS "AA" CONCRETE	1,200 P.S.I.
REINFORCING STEEL	20,000 P.S.I.
STRUCTURAL STEEL	20,000 P.S.I.
LOADING	HS 20-44 & PPM 20-4

MATERIALS
STRUCTURAL STEEL - A36
CONCRETE, SUPERSTRUCTURE - CLASS "AA(AE)"
SUBSTRUCTURE - CLASS "A"

APPROACH SLABS - CLASS "A(AE)"
REINFORCING STEEL - A.S.T.M., A-305
INTERMEDIATE GRADE

MAX. FOUNDATION PRESSURES

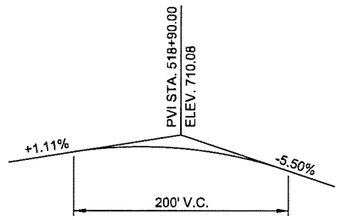
PIERS - COMB. LOADING	4.3 T-S.F.
DIRECT BRG.	4.3 T-S.F.
ABUT. - COMB. LOADING	3.3 T-S.F.

REHABILITATION DESIGN DATA

AASHTO SEVENTEENTH EDITION
STRENGTH DESIGN METHOD (LOAD FACTOR DESIGN)

CONCRETE CLASS "A"	F'c = 3,000 P.S.I.
CONCRETE CLASS "AA"	F'c = 4,000 P.S.I.
STRUCTURAL STEEL M270 (GRADE 50W)	Fy = 50,000 P.S.I.
REINFORCING STEEL (GRADE 60)	Fy = 60,000 P.S.I.

LOADING HS20-44 PLUS 20 PSF FUTURE WEARING SURFACE



PROPOSED 2ND STREET W-N RAMP PROFILE

THE PROPOSED PROFILE GRADE IS THE PROFILE FROM THE AS-BUILT PLANS PLUS 0.45 FEET TO ACCOUNT FOR SURVEY ADJUSTMENTS.

SUMMARY OF QUANTITIES - BRIDGE "B"

DESCRIPTION	UNIT	ABUTMENTS	PIERS	SUPERSTRUCTURE	APPROACH SLABS	TOTAL
CLSM BACKFILL	CY				24.0	24.0
(PL)FALSEWORK JACKING	LSUM			1.0		1.0
APPROACH SLAB	SY				75.5	75.5
SAW-CUT GROOVING	SY			385.0	65.2	450.2
SEALED EXPANSION JOINT	LF			54.0		54.0
42" F-SHAPED PARAPET	LF			341.2	61.7	402.9
STRUCTURAL STEEL	LB			1,000.0		1,000.0
WEATHERING STEEL FIXED BEARING ASSEMBLY	EA			9.0		9.0
WEATHERING STEEL EXPANSION BEARING ASSEMBLY	EA			9.0		9.0
SPECIAL CONCRETE FINISH	LSUM					1.0
CLASS AA CONCRETE	CY			100.6		100.6
CLASS A CONCRETE	CY	0.5	86.2			86.7
SLOPE WALL (4")	SY					80.0
EPOXY COATED REINFORCING STEEL	LB	90.0	15,280.0	27,960.0		43,330.0
PAINTING EXISTING STRUCTURES	LSUM			1.0		1.0
COLLECTION AND HANDLING OF WASTE	LSUM			1.0		1.0
WATER REPELLENT (VISUALLY INSPECTED)	SY	33.0	234.0	450.0	30.0	747.0
PREPARATION OF CRACKS, ABOVE WATER	LF	16.0				16.0
EPOXY RESIN, ABOVE WATER	GAL	1.0				1.0
PNEUMATICALLY PLACED MORTAR	SY	2.0				2.0
SEALER CRACK PREPARATION	LF			39.0		39.0
SEALER RESIN	GAL			0.5		0.5
(SP) CORROSION INHIBITOR(SURFACE APPLIED)	SY	7.0				7.0
REMOVAL OF BRIDGE ITEM (TYPE A)	LSUM			1.0		1.0
REMOVAL OF BRIDGE ITEM (TYPE B)	LSUM		1.0			1.0
REMOVAL OF BRIDGE ITEM (TYPE C)	EA	3.0				3.0
REMOVAL OF BRIDGE ITEM (TYPE D)	EA			3.0		3.0

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2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

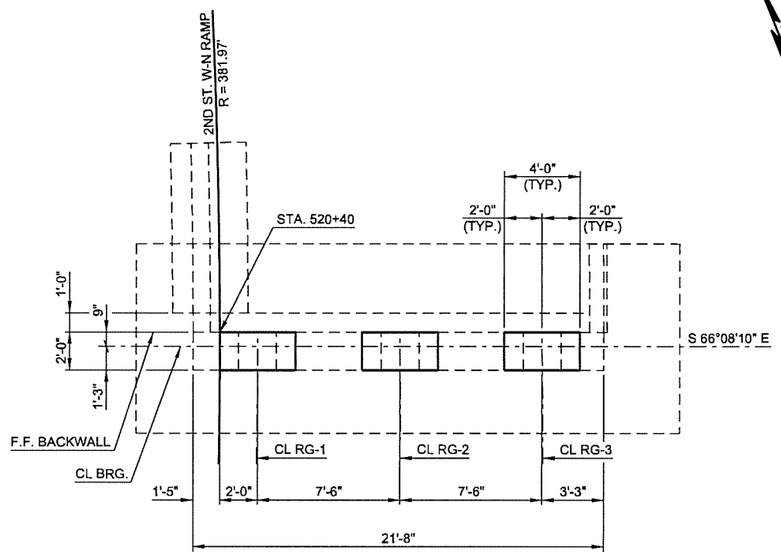
OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION - BRIDGE "B"
SHEET 2 OF 2

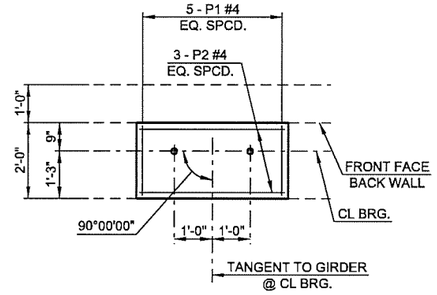
STATE JOB NO. 28865(04) SHEET NO. 54

TULSA CO. 2ND STREET

DESCRIPTION	REVISIONS	DATE



PLAN

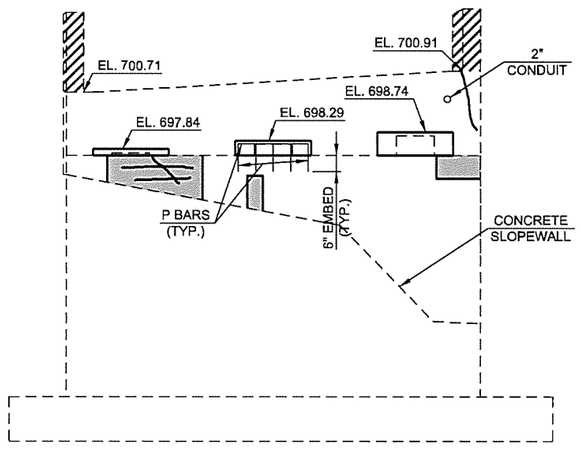


PEDESTAL DETAIL PLAN

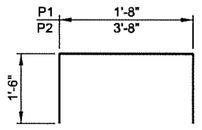
PNEUMATICALLY PLACED MORTAR

EPOXY INJECTION

CONCRETE REMOVAL (SEE SHEET 74)



ELEVATION



P1 #4 x 4'-8"
P2 #4 x 6'-8"

ANCHORAGE SYSTEM

THE CONTRACTOR SHALL USE AN ANCHORAGE SYSTEM THAT HAS BEEN APPROVED BY ODOT'S MATERIAL DIVISION. THE ANCHORAGE SYSTEM SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE REINFORCING STEEL THAT IS TO BE ANCHORED. ANCHORAGES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICAITONS FOR THE SYSTEM USED AND ODOT STANDARD SPECIFICATIONS SECTION 509.04(d)3. ALL COST OF ANCHORAGE ASSEMBLIES INCLUDING LABOR, MATERIALS, TOOLS, DRILLING AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID PER POUND OF "EPOXY COATED REINFORCING".

ABUTMENT NO. 3 BAR LIST

MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING BARS				
P1	#4	15	BNT	4'-8"
P2	#4	9	BNT	6'-8"

ABUTMENT NO. 3 QUANTITIES

DESCRIPTION	UNIT	TOTAL
CLASS A CONCRETE	CY	0.5
EPOXY COATED REINFORCING STEEL	LBS	90
WATER REPELLENT (VISUALLY INSPECTED)	SY	33
PREPARATION OF CRACKS ABOVE WATER	LF	16
EPOXY RESIN ABOVE WATER	GAL	1
PNEUMATICALLY PLACED MORTAR	SY	2
(SP) CORROSION INHIBITOR (SURFACE APPLIED	SY	7
REMOVAL OF BRIDGE ITEM (TYPE C)	EA	3

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JWB	3-16
DRAWN	MRM	3-16
CHECKED		
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

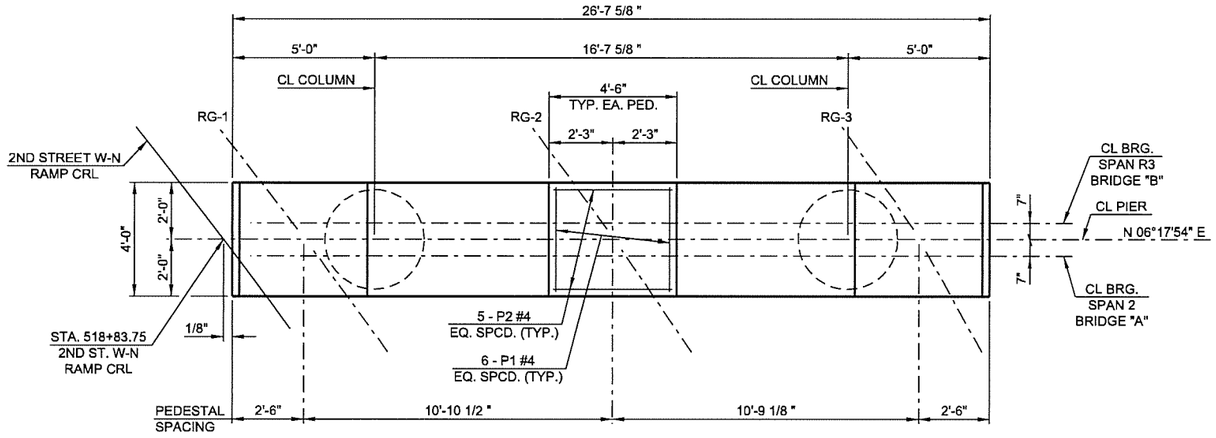
ABUTMENT NO. 3 REPAIRS

STATE JOB NO. 28865(04) SHEET NO. 55

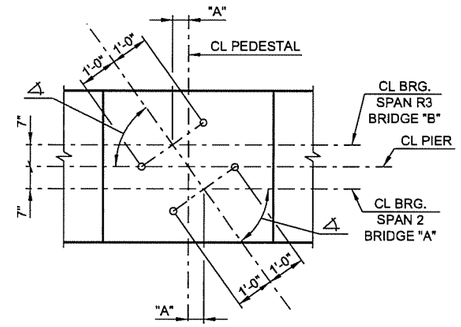
TULSA CO. 2ND STREET

6/7/2016 N:\113992\00-11399-13001-05\CAD\SheetFiles\JP 28665 (04) -55-BR.B-Abut. 3.dgn

DESCRIPTION	REVISIONS	DATE

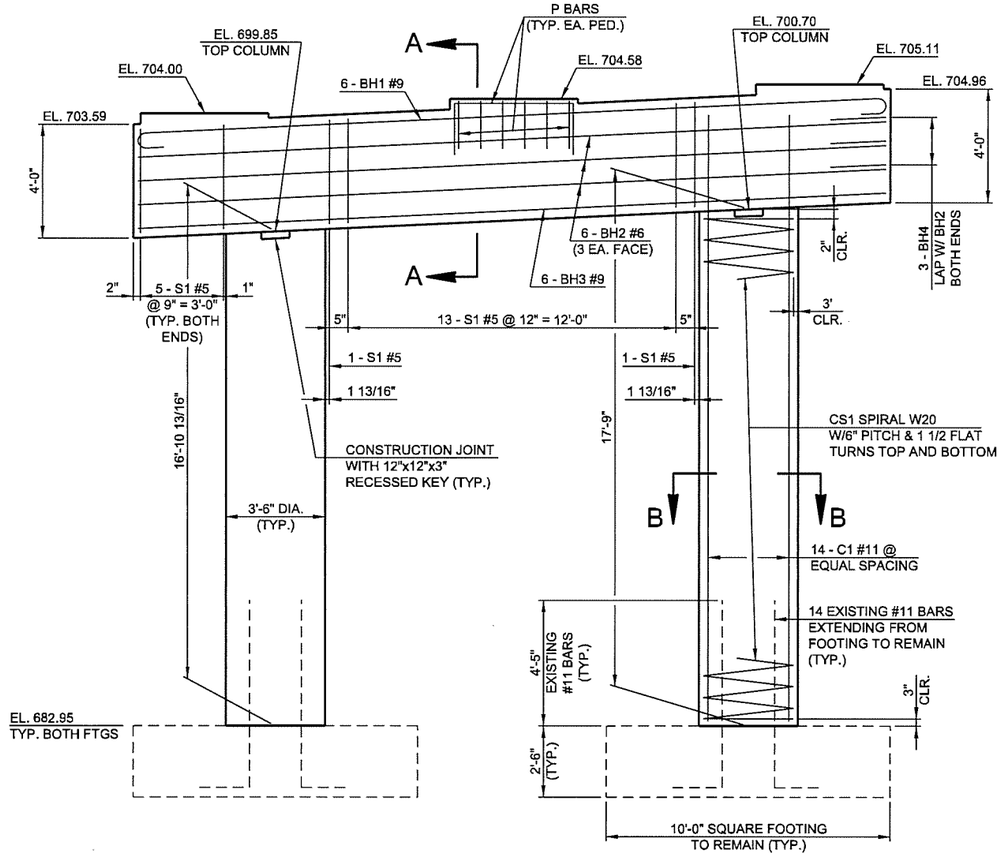


PLAN



SPAN R2	"A"	∠
RG-1	5 1/4"	53°11'
RG-2	4 7/8"	55°02'
RG-3	4"	60°24'
SPAN R3		
RG-1	5 1/4"	52°45'
RG-2	5"	54°12'
RG-3	4 3/4"	55°30'

ANCHOR BOLT LAYOUT



ELEVATION

NOTES:

1. THE EXISTING PIER CAP AND COLUMNS SHALL BE REMOVED IN THEIR ENTIRETY DOWN TO THE TOP OF THE EXISTING FOOTINGS AS SHOWN. ALL EXISTING REINFORCING EXTENDING FROM THE FOOTINGS INTO THE COLUMNS SHALL REMAIN IN PLACE. ANY REINFORCING DAMAGED DUE TO THE CONTRACTORS OPERATIONS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE BY MEANS OF DRILLING AND EPOXY NEW REINFORCING BARS AS APPROVED BY THE ENGINEER.
2. FOOTING ELEVATIONS WERE OBTAINED FROM THE BRIDGE "AS-BUILT" PLANS. AFTER THE FOOTINGS ARE EXPOSED, THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF THE FOOTINGS AND DIMENSIONS OF THE PROPOSED PIER AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
3. ALL EXPOSED PIER CAP EDGES SHALL HAVE 1 1/2" CHAMFER AND ALL PEDESTAL EXPOSED EDGES SHALL HAVE 3/4" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED.
4. COLUMN REINFORCING SHOWN IS TYPICAL FOR ALL COLUMNS.
5. PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE TOP, SIDES, ENDS, AND PEDESTALS OF THE PIER CAPS AND ALL EXPOSED AREAS OF THE COLUMNS.

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	LWN	2-16
DRAWN	MRM	2-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

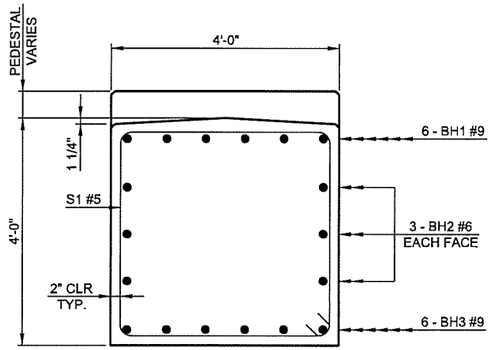
PIER NO. 3 DETAILS
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 56

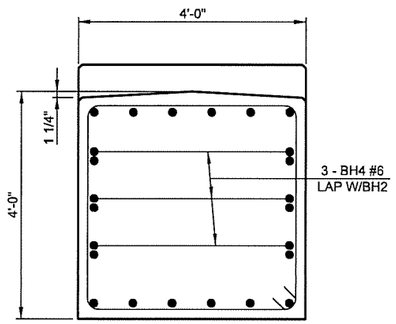
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -56-BR.B-Pier 3.1.dgn

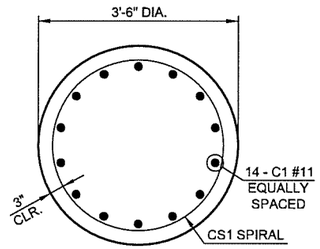
DESCRIPTION	REVISIONS	DATE



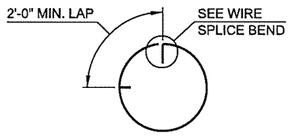
SECTION A-A



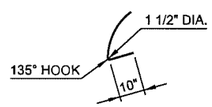
END SECTION



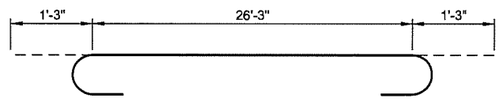
SECTION B-B



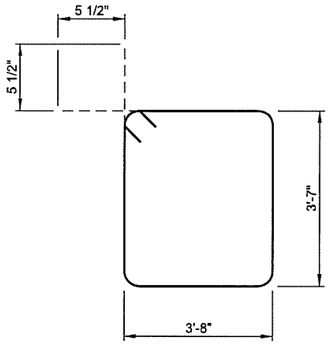
WIRE SPLICE WHEN REQ'D



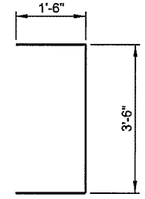
WIRE SPLICE BEND



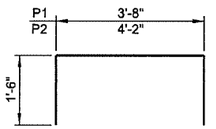
BH1 #9 x 28'-9"



S1 #5 x 15'-5"



BH4 #6 x 6'-6"



P1 #4 x 6'-8"
P2 #4 x 7'-2"

PIER NO. 3 COLUMN BAR LIST

EPOXY COATED REINFORCING BARS				
MARK	SIZE	NO.	FORM	LENGTH
NORTH COLUMN				
C1	#11	14	STR.	20'-3"
CS1	W20	1	SPIRAL	341'-0"
SOUTH COLUMN				
C1	#11	14	STR.	21'-2"
CS1	W20	1	SPIRAL	357'-1"

PIER NO. 3 PIER CAP BAR LIST

MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING BARS				
BH1	#9	6	BNT.	28'-9"
BH2	#6	6	STR.	26'-3"
BH3	#9	6	STR.	26'-3"
BH4	#6	6	BNT.	6'-6"
S1	#5	25	BNT.	15'-5"
P1	#4	18	BNT.	6'-8"
P2	#4	15	BNT.	7'-2"

PIER NO. 3 SUMMARY OF QUANTITIES

DESCRIPTION	UNIT	TOTAL
CLASS A CONCRETE	CY	28.7
EPOXY COATED REINFORCING STEEL	LB	5530.0
WATER REPELLENT (VISUALLY INSPECTED)	SY	83.0

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	LWN	2-16
DRAWN	MRM	2-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

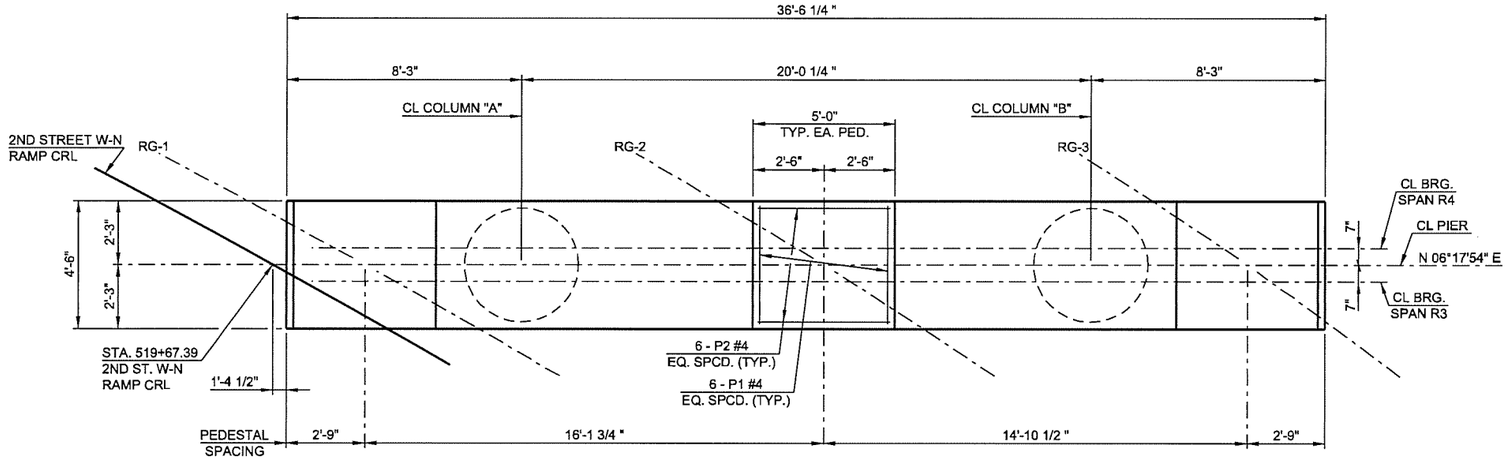
PIER NO. 3 DETAILS
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 57

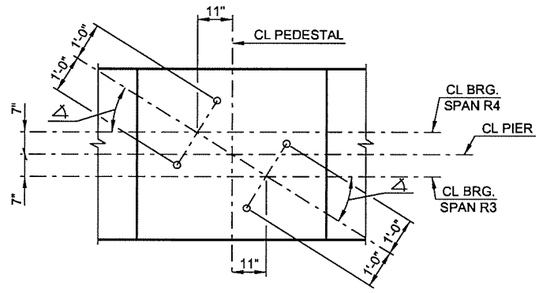
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -57-BR.B-Pier 3.2.dgn

DESCRIPTION	REVISIONS	DATE

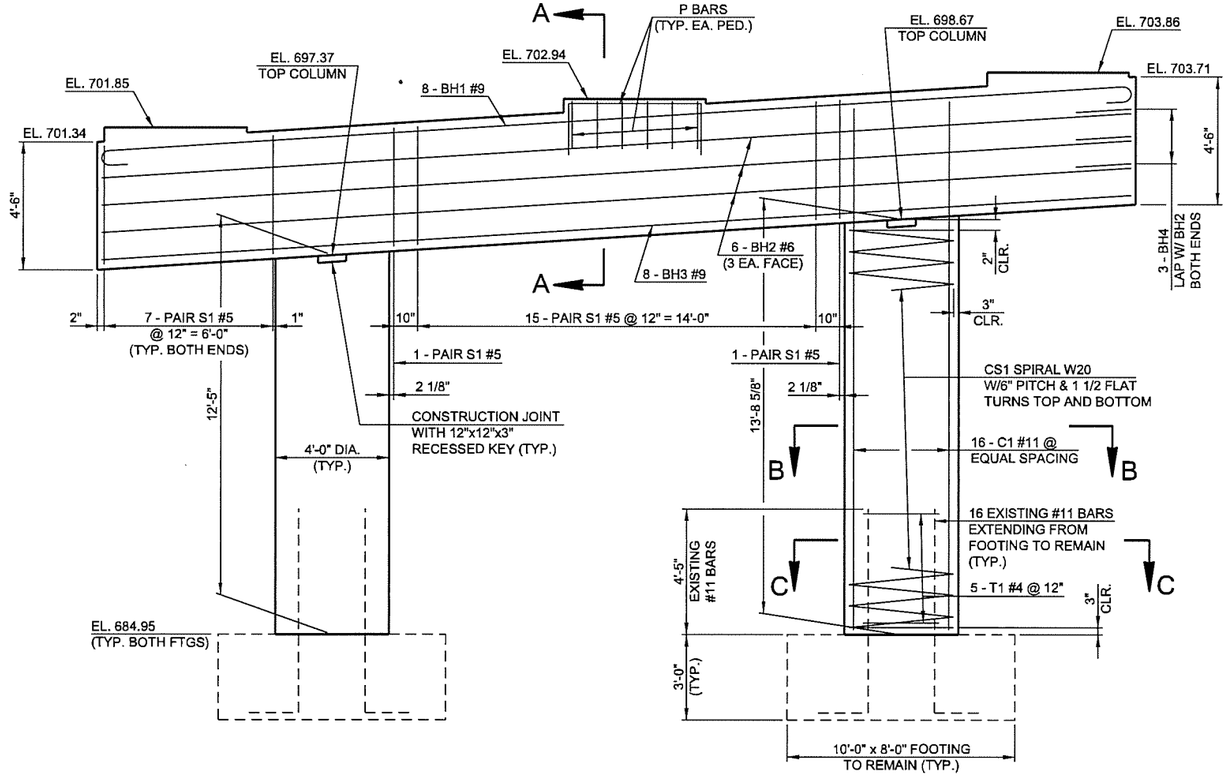


PLAN



SPAN R3	"A"	△
RG-1	1'-0 3/4"	28°53'
RG-2	11"	32°29'
RG-3	9 7/8"	35°29'
SPAN R4		
RG-1	1'-0 3/4"	28°44'
RG-2	11 5/8"	30°57'
RG-3	10 1/2"	33°50'

ANCHOR BOLT LAYOUT



ELEVATION

NOTES:

1. THE EXISTING PIER CAP AND COLUMNS SHALL BE REMOVED IN THEIR ENTIRETY DOWN TO THE TOP OF THE EXISTING FOOTINGS AS SHOWN. ALL EXISTING REINFORCING EXTENDING FROM THE FOOTINGS INTO THE COLUMNS SHALL REMAIN IN PLACE. ANY REINFORCING DAMAGED DUE TO THE CONTRACTORS OPERATIONS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE BY MEANS OF DRILLING AND EPOXY NEW REINFORCING BARS AS APPROVED BY THE ENGINEER.
2. FOOTING ELEVATIONS WERE OBTAINED FROM THE BRIDGE "AS-BUILT" PLANS. AFTER THE FOOTINGS ARE EXPOSED, THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF THE FOOTINGS AND DIMENSIONS OF THE PROPOSED PIER AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
3. ALL EXPOSED PIER CAP EDGES SHALL HAVE 1 1/2" CHAMFER AND ALL PEDESTAL EXPOSED EDGES SHALL HAVE 3/4" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED.
4. COLUMN REINFORCING SHOWN IS TYPICAL FOR ALL COLUMNS.
5. PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE TOP, SIDES, ENDS, AND PEDESTALS OF THE PIER CAPS AND ALL EXPOSED AREAS OF THE COLUMNS.

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	LWN	2-16
DRAWN	MRM	2-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PIER NO. 4 DETAILS

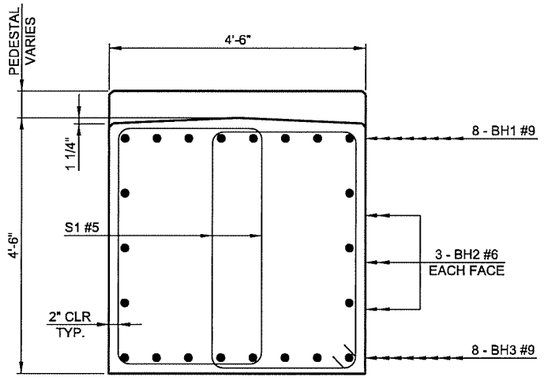
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 58

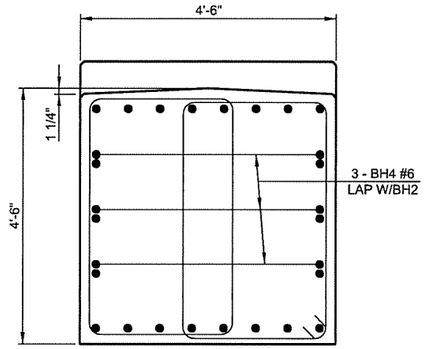
TULSA CO. 2ND STREET

6/7/2016 N:\113991200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -58-BR.B-Pier 4.1.dgn

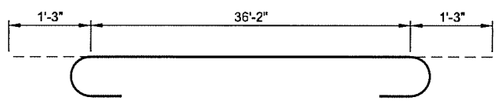
DESCRIPTION	REVISIONS	DATE



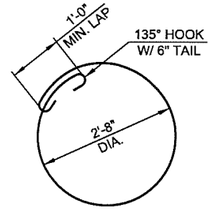
SECTION A-A



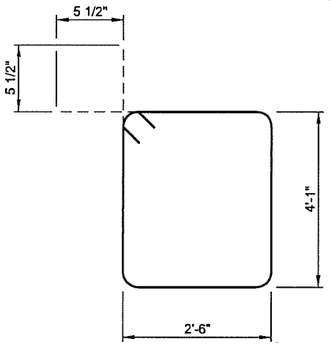
END SECTION



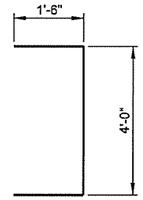
BH1 #9 x 38'-8"



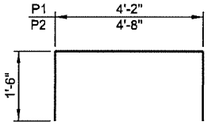
T1 #4 x 10'-5"



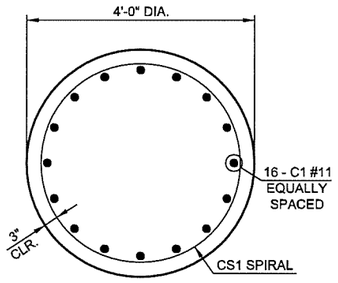
S1 #5 x 15'-1"



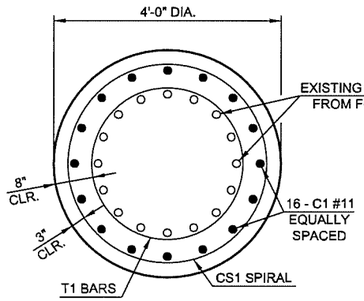
BH4 #6 x 7'-0"



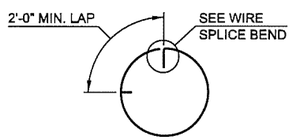
P1 #4 x 7'-2"
P2 #4 x 7'-8"



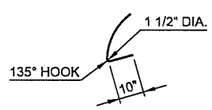
SECTION B-B



SECTION C-C



WIRE SPLICE WHEN REQ'D



WIRE SPLICE BEND

PIER NO. 4 COLUMN BAR LIST

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
NORTH COLUMN				
C1	#11	16	STR.	16'-4"
CS1	W20	1	SPIRAL	298'-10"
T1	#4	5	BNT.	10'-5"
SOUTH COLUMN				
C1	#11	16	STR.	17'-7"
CS1	W20	1	SPIRAL	327'-6"
T1	#4	5	BNT.	10'-5"

PIER NO. 4 PIER CAP BAR LIST

EPOXY COATED REINFORCING BARS

MARK	SIZE	NO.	FORM	LENGTH
BH1	#9	8	BNT.	38'-8"
BH2	#6	6	STR.	36'-2"
BH3	#9	8	STR.	36'-2"
BH4	#6	6	BNT.	7'-0"
S1	#5	66	BNT.	14'-1"
P1	#4	18	BNT.	7'-2"
P2	#4	18	BNT.	7'-8"

PIER NO. 4 SUMMARY OF QUANTITIES

DESCRIPTION	UNIT	TOTAL
CLASS A CONCRETE	CY	40.4
EPOXY COATED REINFORCING STEEL	LB	6960.0
WATER REPELLENT (VISUALLY INSPECTED)	SY	98.0

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	LWN	2-16
DRAWN	MRM	2-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PIER NO. 4 DETAILS

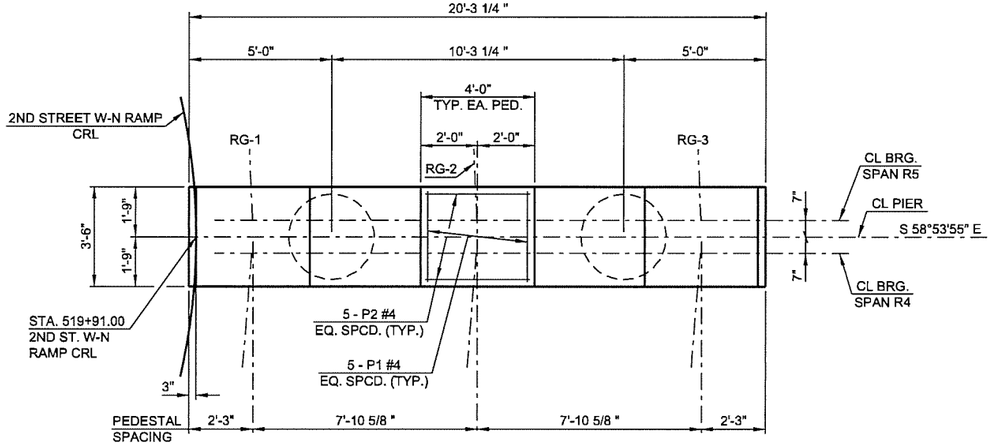
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 59

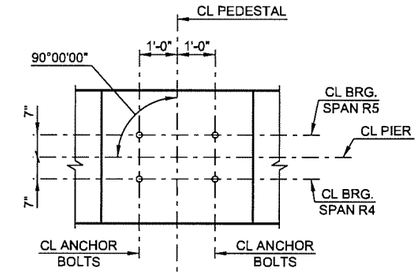
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -59-BR.B-Pier 4.2.dgn

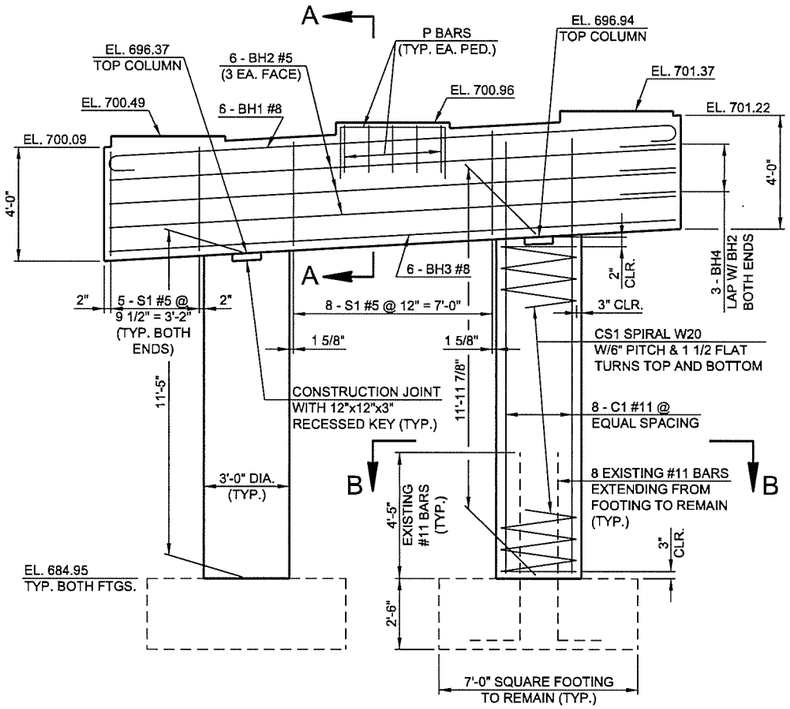
DESCRIPTION	REVISIONS	DATE



PLAN



ANCHOR BOLT LAYOUT



ELEVATION

NOTES:

1. THE EXISTING PIER CAP AND COLUMNS SHALL BE REMOVED IN THEIR ENTIRETY DOWN TO THE TOP OF THE EXISTING FOOTINGS AS SHOWN. ALL EXISTING REINFORCING EXTENDING FROM THE FOOTINGS INTO THE COLUMNS SHALL REMAIN IN PLACE. ANY REINFORCING DAMAGED DUE TO THE CONTRACTORS OPERATIONS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE BY MEANS OF DRILLING AND EPOXY NEW REINFORCING BARS AS APPROVED BY THE ENGINEER.
2. FOOTING ELEVATIONS WERE OBTAINED FROM THE BRIDGE "AS-BUILT" PLANS. AFTER THE FOOTINGS ARE EXPOSED, THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF THE FOOTINGS AND DIMENSIONS OF THE PROPOSED PIER AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
3. ALL EXPOSED PIER CAP EDGES SHALL HAVE 1 1/2" CHAMFER AND ALL PEDESTAL EXPOSED EDGES SHALL HAVE 3/4" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED.
4. COLUMN REINFORCING SHOWN IS TYPICAL FOR ALL COLUMNS.
5. PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE TOP, SIDES, ENDS, AND PEDESTALS OF THE PIER CAPS AND ALL EXPOSED AREAS OF THE COLUMNS.

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	LWN	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PIER NO. 5 DETAILS

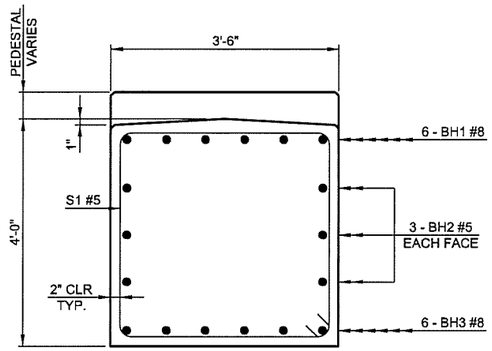
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 60

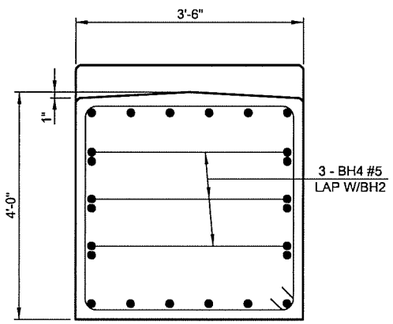
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -60-BR.B-Pier 5.1.dgn

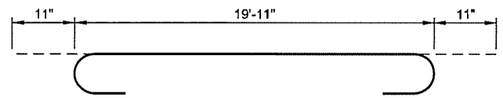
DESCRIPTION	REVISIONS	DATE



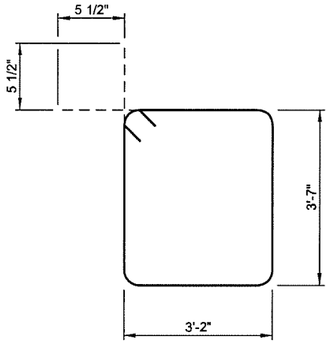
SECTION A-A



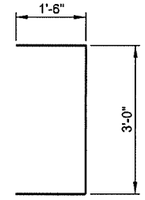
END SECTION



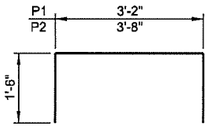
BH1 #8 x 21'-9"



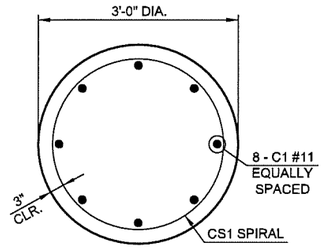
S1 #5 x 14'-5"



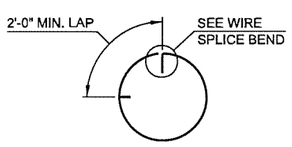
BH4 #5 x 6'-0"



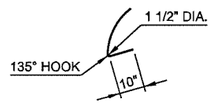
P1 #4 x 6'-2"
P2 #4 x 6'-8"



SECTION B-B



WIRE SPLICE WHEN REQ'D



WIRE SPLICE BEND

PIER NO. 5 COLUMN BAR LIST

EPOXY COATED REINFORCING BARS				
MARK	SIZE	NO.	FORM	LENGTH
NORTH COLUMN				
C1	#11	8	STR.	14'-10"
CS1	W20	1	SPIRAL	198'-5"
SOUTH COLUMN				
C1	#11	8	STR.	15'-4"
CS1	W20	1	SPIRAL	207'-4"

PIER NO. 5 PIER CAP BAR LIST

MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING BARS				
BH1	#8	6	BNT.	21'-9"
BH2	#5	6	STR.	19'-11"
BH3	#8	6	STR.	19'-11"
BH4	#5	6	BNT.	6'-0"
S1	#5	18	BNT.	14'-5"
P1	#4	15	BNT.	6'-2"
P2	#4	15	BNT.	6'-8"

PIER NO. 5 SUMMARY OF QUANTITIES

DESCRIPTION	UNIT	TOTAL
CLASS A CONCRETE	CY	17.1
EPOXY COATED REINFORCING STEEL	LB	2790.0
WATER REPELLENT (VISUALLY INSPECTED)	SY	53.0

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	LWN	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

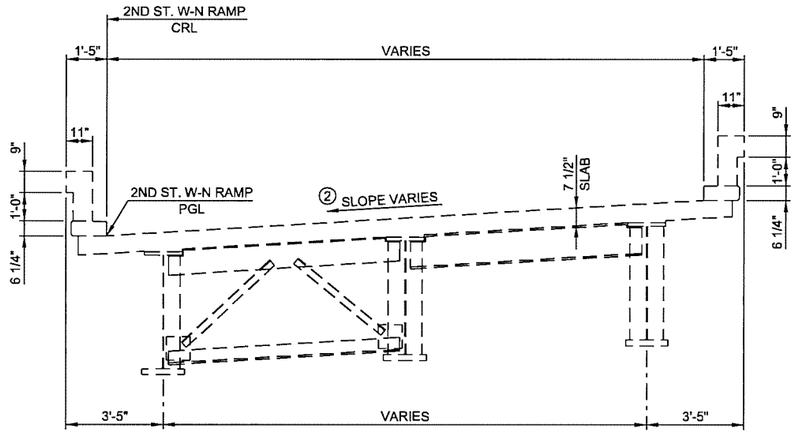
PIER NO. 5 DETAILS
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 61

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CADISheetFiles\JP 28865 (04) -61-BR.B-Pier 5.2.dgn

DESCRIPTION	REVISIONS	DATE

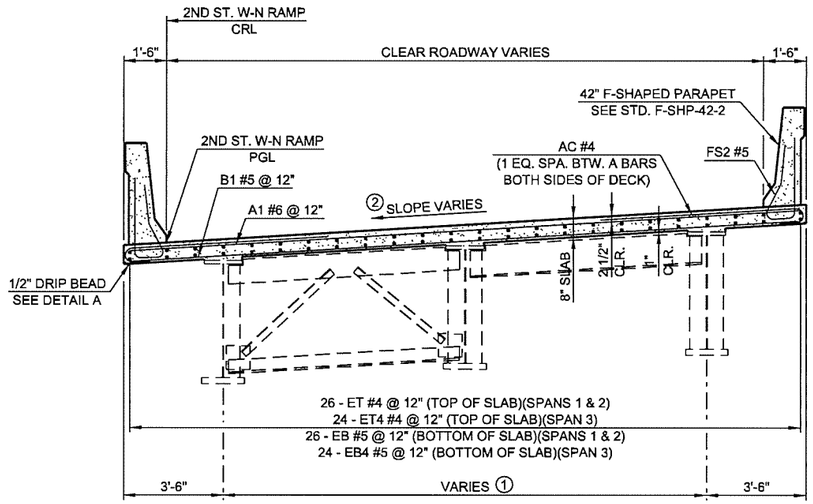


PARTIAL SECTION AT INTERMEDIATE DIAPHRAGM

PARTIAL SECTION AT END DIAPHRAGM

TYPICAL SECTION - EXISTING BRIDGE DECK

(FOR INFORMATION ONLY)



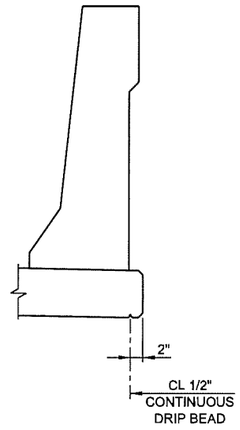
PARTIAL SECTION AT INTERMEDIATE DIAPHRAGM

PARTIAL SECTION AT END DIAPHRAGM

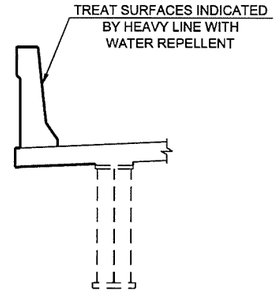
TYPICAL SECTION - PROPOSED BRIDGE DECK

NOTE:
FOR BAR BENDS AND BAR LIST SEE SHEET 65. ROATE HOOKS ON A BARS TO MAINTAIN MINIMUM CLEARANCE.

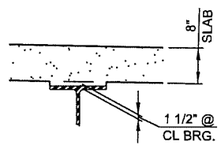
① SEE FRAMING PLAN ON SHEET 63 FOR DIMENSIONS
② SEE SHEET 15 FOR CROSS SLOPE



DETAIL A



WATER REPELLENT TREATMENT DETAILS



BEAM HAUNCH DETAIL

NOTE:
PLAN QUANTITIES FOR CLASS AA CONCRETE INCLUDE BEAM HAUNCHES. THE HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE BEARING ONLY, MEASURED FROM THE BOTTOM OF THE DECK SLAB TO THE TOP OF THE BEAM, AND VARIES ACROSS THE SPAN. DETERMINE THE ACTUAL HEIGHT (ACCOUNTING FOR BEAM CAMBER, DEAD LOAD DEFLECTION AND ROADWAY GRADE) AFTER RESETTING THE BEAMS AND SUBMIT TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HEIGHTS FOR PAYMENT

SUPERSTRUCTURE QUANTITIES

DESCRIPTION	UNIT	TOTAL
SAW-CUT GROOVING	SY	385.0
SEALED EXPANSION JOINT	LF	54.0
42" F-SHAPED PARAPET	LF	341.2
STRUCTURAL STEEL	LB	1000.0
WEATHERING STEEL FIXED BEARING ASSEMBLY	EA	9.0
WEATHERING STEEL EXPANSION BEARING ASSEMBLY	EA	9.0
CLASS AA CONCRETE	CY	100.6
EPOXY COATED REINFORCING	LB	27960.0
WATER REPELLENT (VISUALLY INSPECTED)	SY	450.0
SEALER CRACK PREPARATION	LF	39.0
SEALER RESIN	GAL	0.5

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

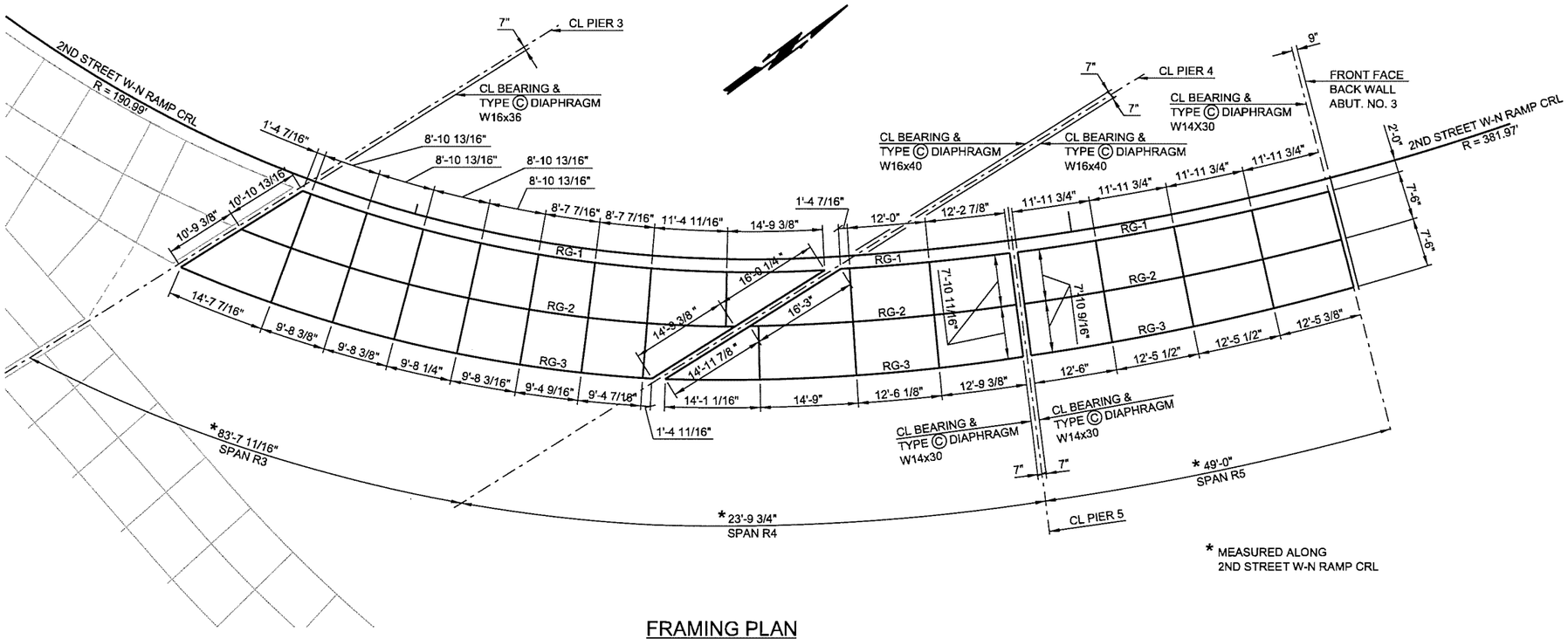
TYPICAL BRIDGE SECTION

STATE JOB NO. 28865(04) SHEET NO. 62

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -62-BR.B-Typ.Section.dgn

DESCRIPTION	REVISIONS	DATE



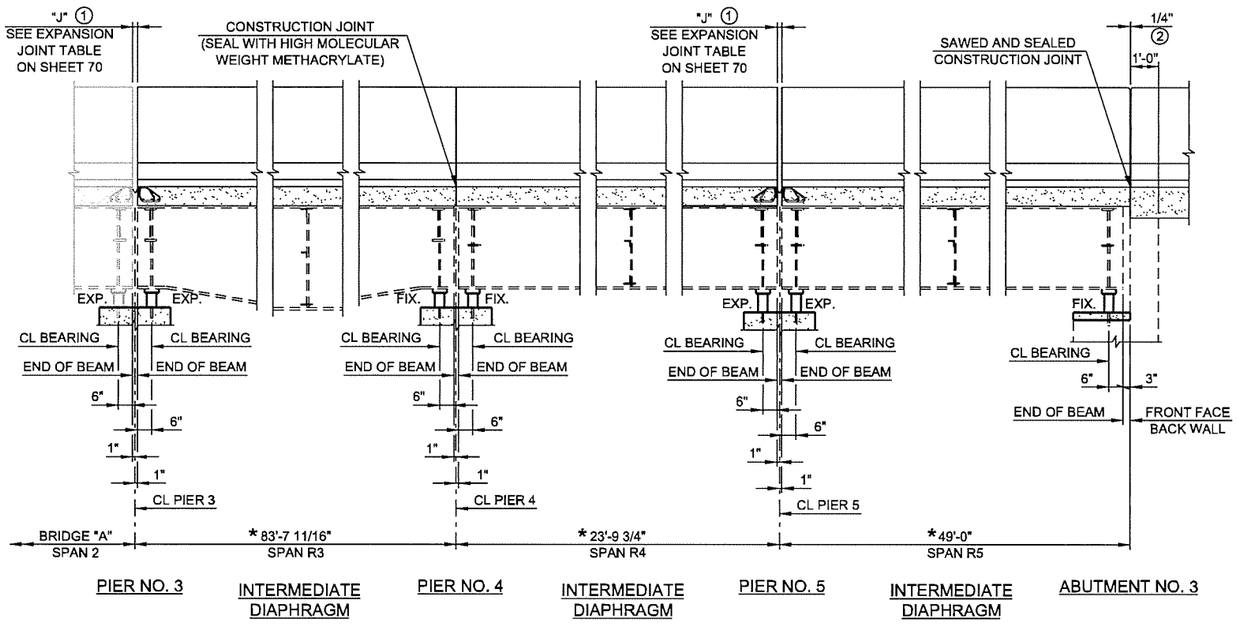
* MEASURED ALONG
2ND STREET W-N RAMP CRL

FRAMING PLAN

SCALE: 1" = 10'

NOTES:

1. ALL INTERMEDIATE DIAPHRAGMS ARE TYPE Ⓑ.
2. RG-1 IS CONCENTRIC TO 2ND STREET W-N RAMP CRL. TYPE Ⓑ DIAPHRAGMS BETWEEN RG-1 & RG-2 AND RG-2 & RG-3 ARE RADIAL TO 2ND STREET W-N RAMP CRL.
3. FOR DETAILS OF DIAPHRAGMS SEE SHEET 69.



LONGITUDINAL SECTION

① PARAPET OPENING SHALL BE THE SAME AS DECK SLAB OPENING AT EXPANSION JOINT.

② PLACE A 1/4" THICK PERFORMED EXPANSION MATERIAL IN EACH PARAPET VERTICAL CONSTRUCTION JOINT. SEE STD. TR4-2 AND FSHP-42-2 FOR ADDITIONAL DETAILS

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	1-16
DRAWN	MRM	1-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

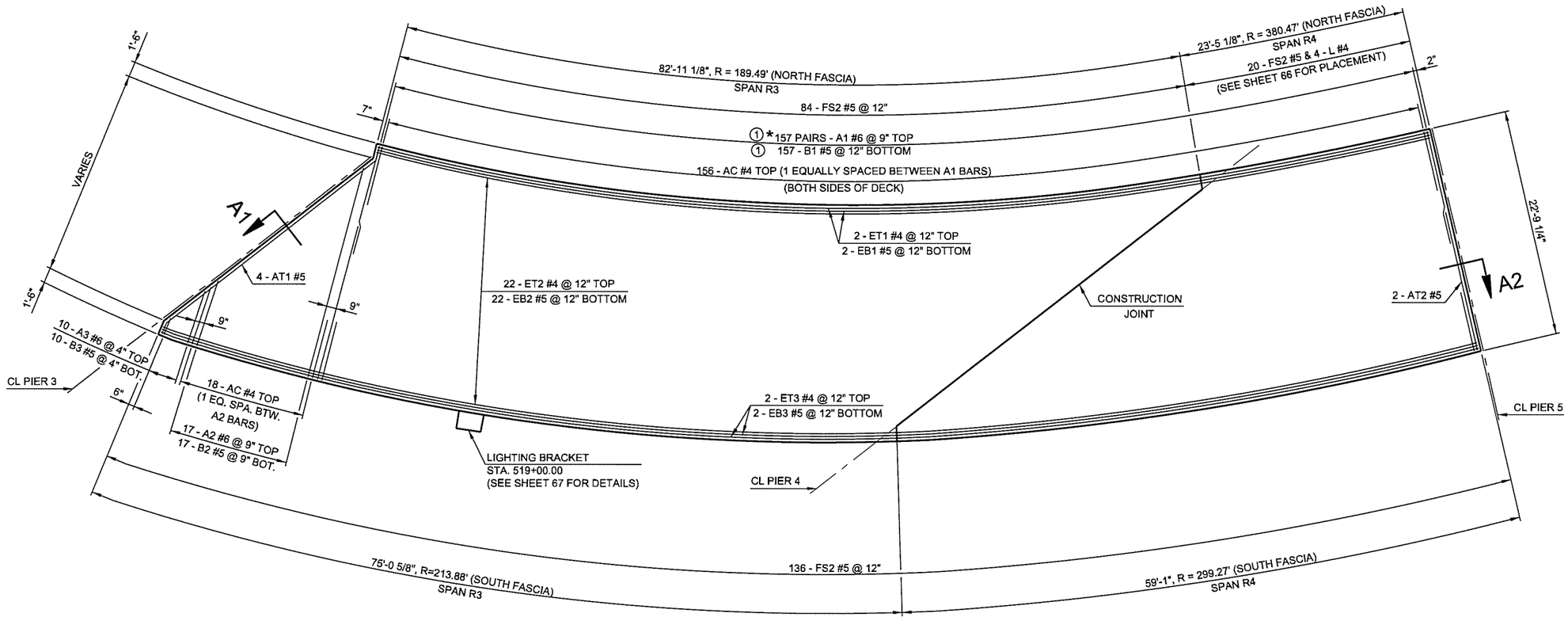
FRAMING PLAN AND
LONGITUDINAL SECTION

STATE JOB NO. 28865(04) SHEET NO. 63

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -63-BR.B-Framing.dgn

DESCRIPTION	REVISIONS	DATE

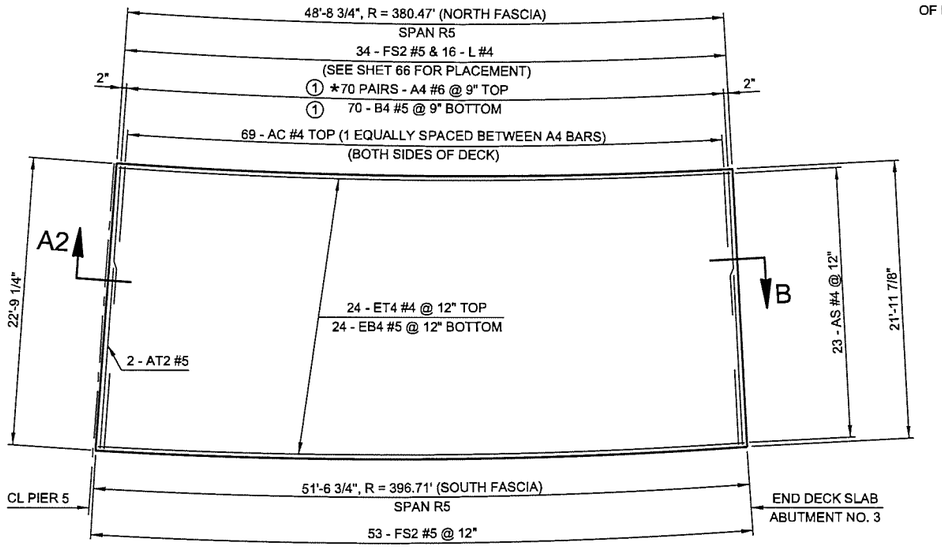


SLAB REINFORCING PLAN - SPANS R3 & R4

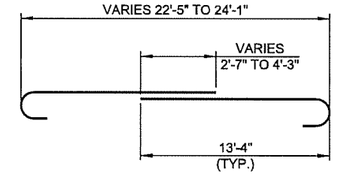
NOTE:
FOR SECTIONS A1, A2 AND B SEE SHEET 65.

*SEE LAP SPLICE DETAIL THIS SHEET

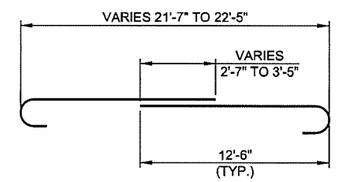
①SPACING OF A AND B BARS IS MEASURED ALONG SOUTH SIDE OF DECK SLAB.



SLAB REINFORCING PLAN - SPAN R5



A1 BAR LAP SPLICE DETAIL



A4 BAR LAP SPLICE DETAIL

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

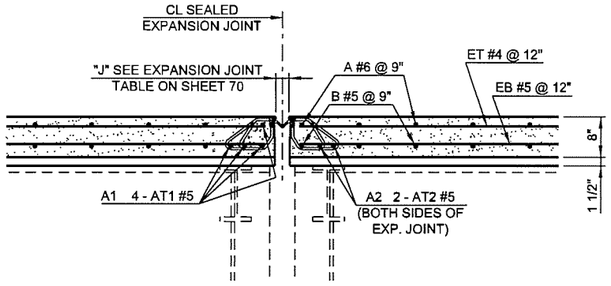
DECK SLAB REINFORCING DETAILS
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 64

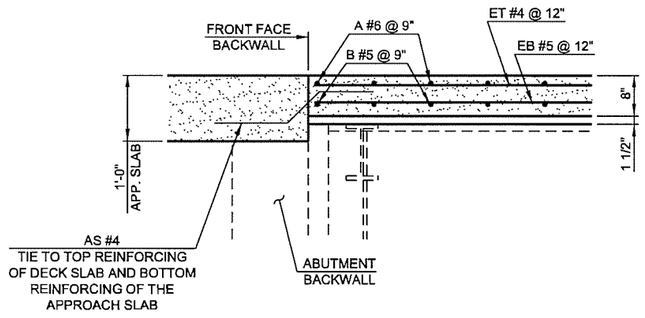
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -64-BR.B-Deck.Reinf.dgn

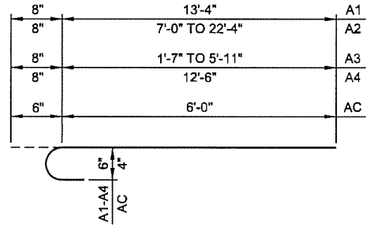
DESCRIPTION	REVISIONS	DATE



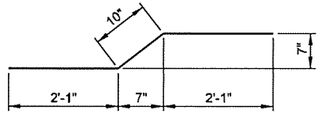
SECTION A1 AND A2
(FROM SHEET 64)



SECTION B
(FROM SHEET 64)



A1 #6 x 14'-0"
A2 #6 x 15'-4" AVG.
A3 #6 x 4'-5" AVG.
A4 #6 x 13'-2"
AC #4 x 6'-6"

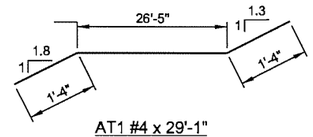


AS #4 x 5'-0"

SUPERSTRUCTURE BAR LIST

	MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIES
	EPOXY COATED REINFORCING BARS					
	A1	#6	314	BNT	14'-0"	
	A2	#6	17	BNT	15'-4" AVG.	7'-8" TO 23'-0"
	A3	#6	10	BNT	4'-5" AVG.	2'-3" TO 6'-7"
	A4	#6	140	BNT	13'-2"	
	AC	#4	468	BNT	6'-6"	
	B1	#5	157	STR	23'-3" AVG.	22'-5" TO 24'-1"
	B2	#5	17	STR	14'-8" AVG.	7'-0" TO 22'-4"
	B3	#5	10	STR	3'-9" AVG.	1'-7" TO 5'-11"
	B4	#5	70	STR	22'-0" AVG.	21'-7" TO 22'-5"
(1)	ET1	#4	2	STR	108'-3"	
(2)(6)	ET2	#4	22	STR	123'-5" AVG.	111'-2" TO 135'-8"
(2)	ET3	#4	2	STR	137'-2"	
	ET4	#4	24	STR	49'-10" AVG.	48'-5" TO 51'-3"
(3)	EB1	#5	2	STR	109'-1"	
(4)(6)	EB2	#5	22	STR	125'-1" AVG.	112'-10" TO 137'-4"
(4)	EB3	#5	2	STR	138'-10"	
	EB4	#5	24	STR	49'-10" AVG.	48'-5" TO 51'-3"
	AS	#4	23	BNT	5'-0"	
	AT1	#5	4	BNT	29'-1"	
	AT2	#5	4	STR	22'-5"	
(5)	L	#4	20	BNT	1'-3"	
(5)	FS2	#5	327	BNT	7'-4"	

(1) INCLUDES 1 LAP LENGTH OF 1'-8" MIN.
(2) INCLUDES 2 LAP LENGTHS OF 1'-8" MIN.
(3) INCLUDES 1 LAP LENGTH OF 2'-6" MIN.
(4) INCLUDES 2 LAP LENGTHS OF 2'-6" MIN.
(5) FOR BAR BEND SEE STD. FSHP-42-2
(6) REINFORCING SHALL BE CONTINUOUS THRU CONSTRUCTION JOINT AT PIER NO 4. DO NOT LAP WIHTIN 10' OF PIER NO. 4



AT1 #4 x 29'-1"

N:\111399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -65-BR.B-Deck.Reinf.2.dgn
6/7/2016

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

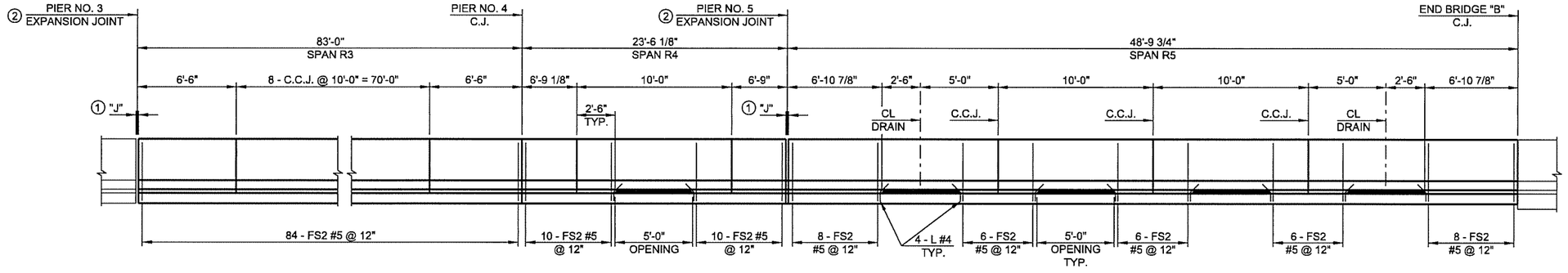
OKLAHOMA DEPARTMENT OF TRANSPORTATION

DECK SLAB REINFORCING DETAILS
SHEET 2 OF 2

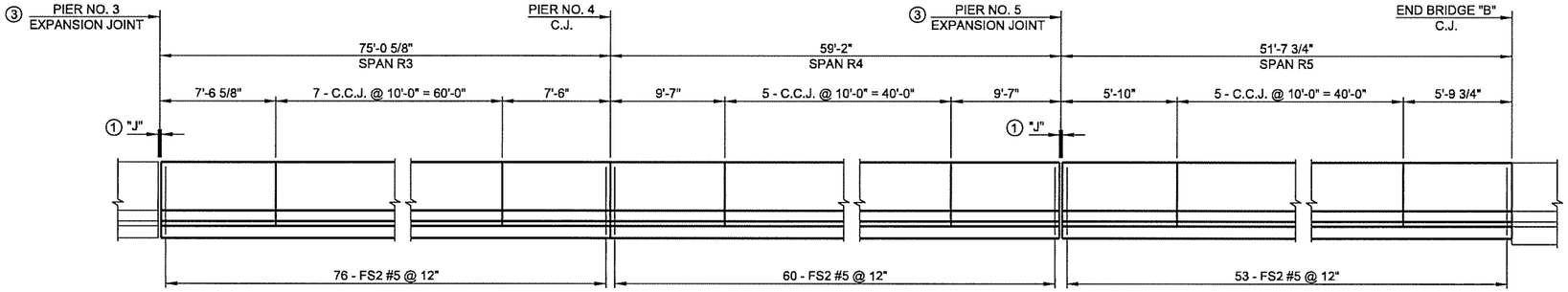
STATE JOB NO. 28865(04) SHEET NO. 65

TULSA CO. 2ND STREET

REVISIONS		
DESCRIPTION		DATE



F-SHAPED CONCRETE PARAPET ELEVATION
NORTH FACE OF BRIDGE



F-SHAPED CONCRETE PARAPET ELEVATION
SOUTH FACE OF BRIDGE

NOTES:
1. ALL DIMENSIONS ARE MEASURED ALONG OUTSIDE FACE OF PARAPETS.
2. SEE STD'S FSHP-42-2 FOR ADDITIONAL DETAILS OF F-SHAPED PARAPET.

C.J. DESIGNATES CONSTRUCTION JOINT
C.C.J. DESIGNATES CONTROL CRACK JOINT

① SEE EXPANSION JOINT TABLE SHEET 70 FOR OPENING "J".
② EXTEND SEALED EXPANSION JOINT THRU PARAPET. SEE SHEET 70 FOR DETAILS
③ USE TURNED UP STEEL RECEPTORS. SEE SHEET 70 FOR DETAILS.

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	LWN	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

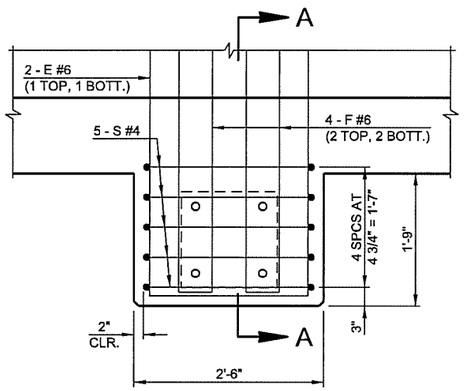
F-SHAPED PARAPET DETAILS

STATE JOB NO. 28865(04) SHEET NO. 66

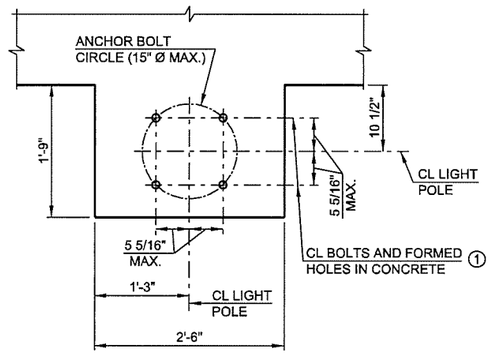
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -66-BR.B-Traffic.Rail.Dtl.dgn

DESCRIPTION	REVISIONS	DATE



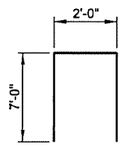
PLAN



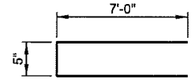
MOUNTING PLAN

① ANCHOR BOLTS SHALL BE 1 1/4" DIAMETER FOR 15" DIAMETER BOLT PATTERN AND 1" DIAMETER FOR 14" DIAMETER BOLT PATTERN OR LESS. HOLES IN STEEL PLATES AND CONCRETE FOR ANCHOR BOLTS SHALL BE 1 1/4" DIAMETER FOR 1" DIAMETER BOLTS AND 1 1/2" DIAMETER FOR 1 1/4" BOLTS.

② STEEL PLATES SHALL BE 1/2" x 15 1/2" x 15 1/2"



E #6 x 16'-0"

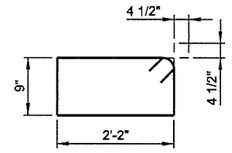


F #6 x 14'-5"

LIGHTING BRACKET BAR LIST

FOR INFORMATION ONLY
(NOT INCLUDED IN QUANTITIES)
(ONE SHOWN, TWO REQUIRED)

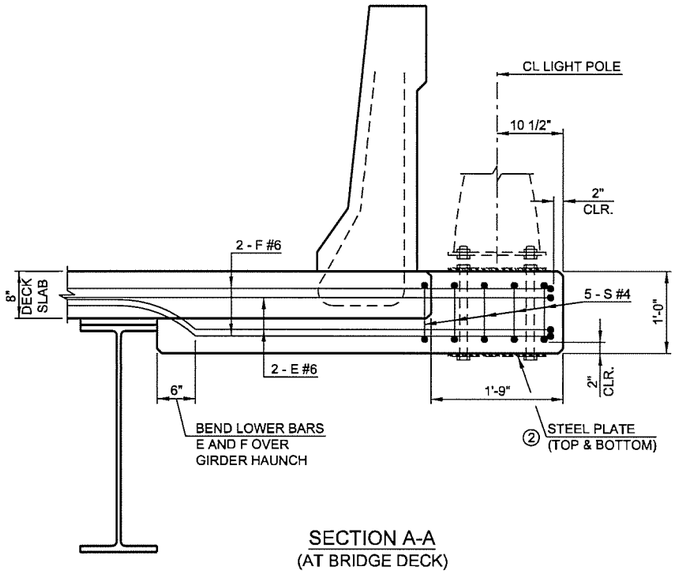
MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING BARS				
E	#6	2	BNT.	16'-0"
F	#6	4	BNT.	14'-5"
S	#4	5	BNT.	6'-7"



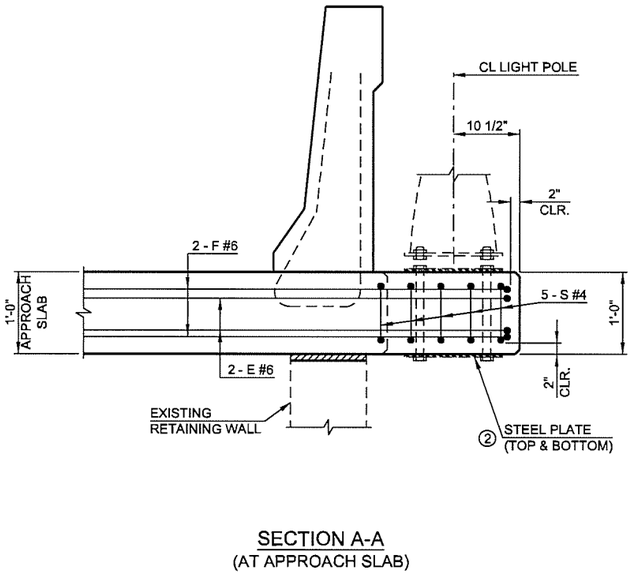
S #4 x 6'-7"

LIGHTING BRACKET NOTES:

1. COST OF CONSTRUCTING THE LIGHTING BRACKET AS SHOWN, INCLUDING CONCRETE AND EPOXY COATED REINFORCING SHALL BE INCLUDED IN THE TRAFFIC UNIT COST PER EACH REMOVE AND RESET LIGHT POLE.
2. THE ESTIMATED QUANTITIES OF EACH LIGHTING BRACKET ARE 0.20 CUBIC YARDS OF CONCRETE, 157 POUNDS OF EPOXY COATED REINFORCING STEEL, AND 104 POUNDS OF STRUCTURAL STEEL INCLUDING ANCHOR BOLTS, NUTS, WASHERS, AND 2 PLATES.
3. THE CONTRACTOR SHALL VERIFY THE SIZE OF THE BOLT HOLE PATTERN PRIOR TO CONSTRUCTION OF THE LIGHTING BRACKETS, MAXIMUM BOLT PATTERN DIAMETER FOR LIGHTING BRACKET SHOWN IS 15".
4. DO NOT PLACE LIGHTING POLE UNTIL AFTER THE BRIDGE DECK OR APPROACH SLAB HAS BEEN CONSTRUCTED AND CONCRETE HAS OBTAINED ADEQUATE STRENGTH.



SECTION A-A
(AT BRIDGE DECK)



SECTION A-A
(AT APPROACH SLAB)

LIGHTING BRACKET DETAILS

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

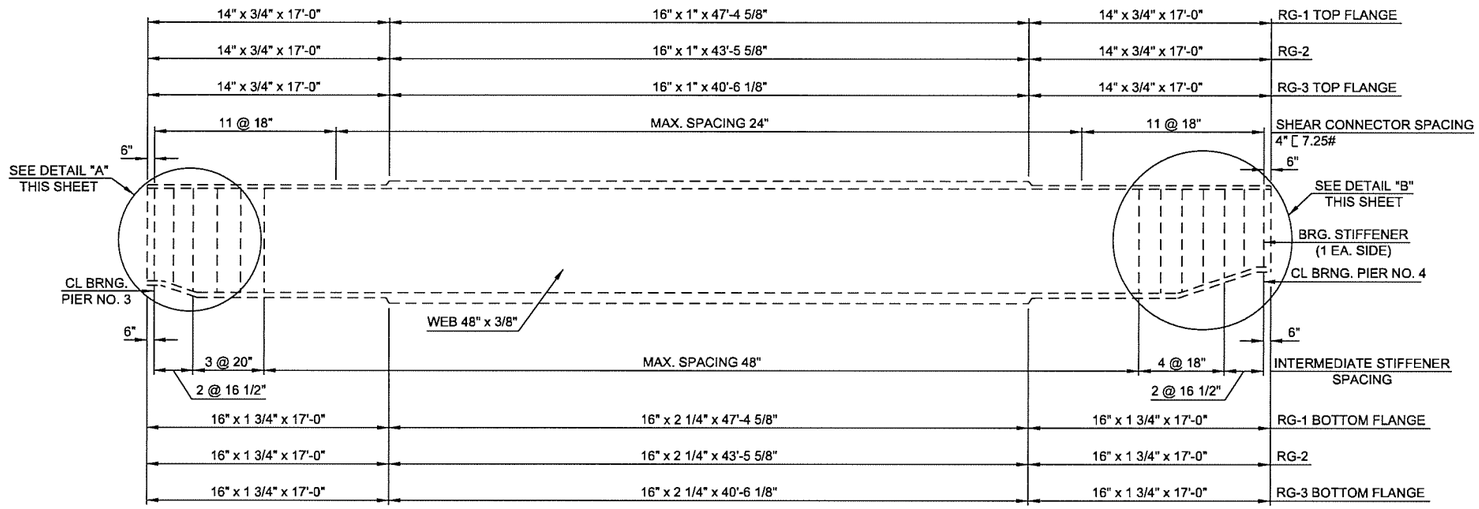
LIGHTING BRACKET DETAILS

STATE JOB NO. 28865(04) SHEET NO. 67

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -67-BR.B-Lighting Bracket.Dlls.dgn

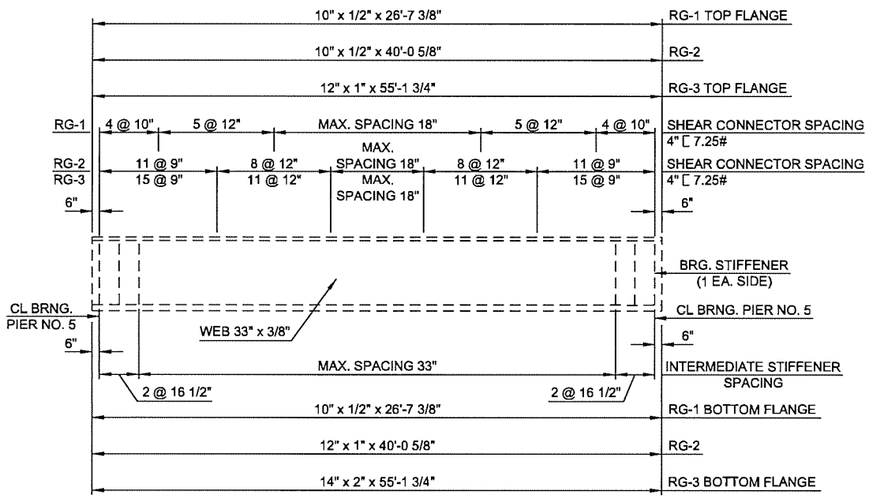
REVISIONS		
DESCRIPTION		DATE



SPAN NO. 1

GIRDERS RG-1 THRU RG-3

(BEARING STIFFENERS ARE 8 3/4" x 3/4")



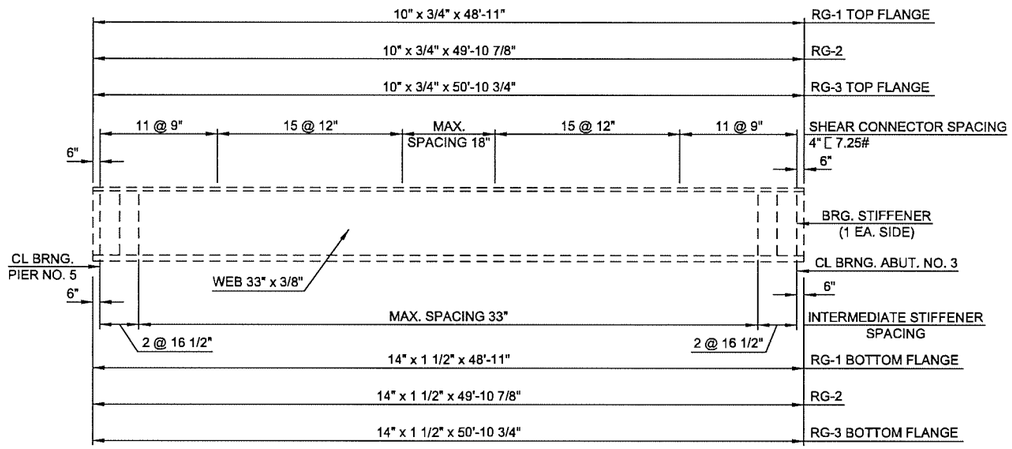
SPAN NO. 2

GIRDERS RG-1 THRU RG-3

(RG-1 BEARING STIFFENERS ARE4 3/4" x 1/2")

(RG-2 BEARING STIFFENERS ARE 5 3/4" x 1/2")

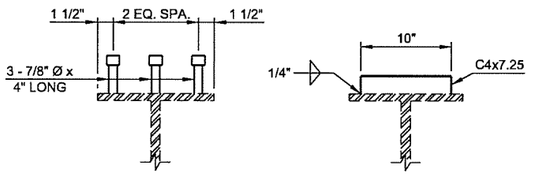
(RG-3 BEARING STIFFENERS ARE 6 3/4" x 1/2")



SPAN NO. 3

GIRDERS RG-1 THRU RG-3

(BEARING STIFFENERS ARE 6 3/4" x 1/2")

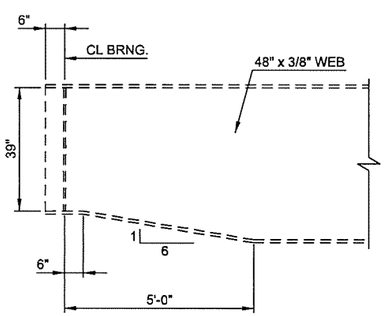


STUD SHEAR CONNECTOR

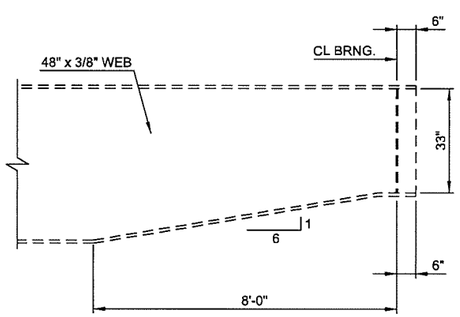
CHANNEL SHEAR CONNECTOR (TYP.)

SHEAR CONNECTOR DETAILS

NOTE:
CONTRACTOR SHALL TAKE EXTRA CARE IN REMOVING BRIDGE DECK IN ORDER TO NOT DAMAGE EXISTING CHANNEL SHEAR CONNECTORS. DAMAGED OR MISSING CONNECTORS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE PROJECT. REPLACEMENT CONNECTORS CAN BE CHANNELS OR STUDS AS SHOWN.



DETAIL "A"



DETAIL "B"

NOTE:
DETAILS SHOWN ARE FOR INFORMATION ONLY. SEE GENERAL NOTES REGARDING DAMAGE TO EXISTING STEEL.
INTERMEDIATE STIFFENERS ARE 4 1/2" x 5/16" PLACED ON ALTERNATE SIDES OF INTERIOR GIRDERS AND ON BOTH SIDES OF EXTERIOR GIRDERS AT EACH STIFFENER LOCATION.
ALL BEARING STIFFENERS AND THEIR CONNECTING CROSSFRAMES ARE CONSTRUCTED VERTICALLY.

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	12-15
DRAWN	MRM	12-15
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

STEEL DETAILS

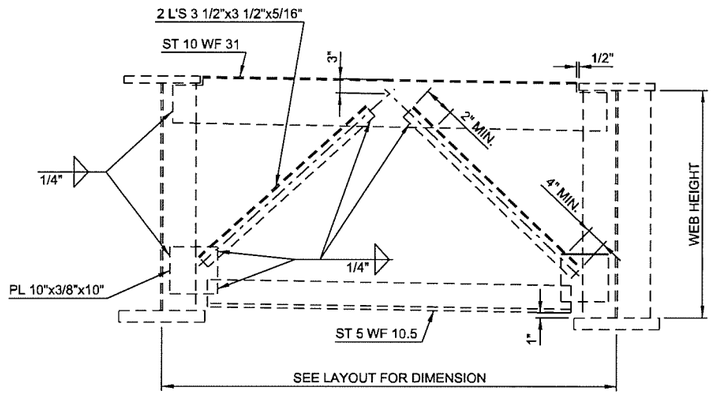
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 68

TULSA CO. 2ND STREET

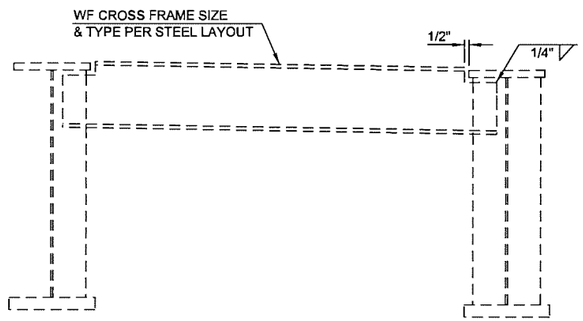
6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -68-BR.B-Steel.Details.1.dgn

DESCRIPTION	REVISIONS	DATE



TYPE (B) DIAPHRAGM

(FOR INFORMATION ONLY)



TYPE (C) DIAPHRAGM

(FOR INFORMATION ONLY)

BEAM SCHEDULE

SPAN	BEAM	BRG. TO BRG. LENGTH	BEAM AND DIAPHRAGM DEFLECTION						DECK SLAB, HAUNCH, S.I.P. STEEL DECK FORMS AND TRAFFIC RAIL DEFLECTIONS						LFD OPERATING RATING
			CL BRG.	0.1 & 0.9	0.2 & 0.8	0.3 & 0.7	0.4 & 0.6	0.5	CL BRG.	0.1 & 0.9	0.2 & 0.8	0.3 & 0.7	0.4 & 0.6	0.5	
R3	RG-1	80'-4 5/8"	0.00"	0.06"	0.12"	0.16"	0.18"	0.19"	0.00"	0.24"	0.44"	0.59"	0.68"	0.71"	HS 58.0
	RG-2	76'-5 5/8"	0.00"	0.08"	0.15"	0.19"	0.22"	0.22"	0.00"	0.31"	0.56"	0.73"	0.83"	0.84"	HS 86.2
	RG-3	73'-6 1/8"	0.00"	0.10"	0.18"	0.24"	0.28"	0.29"	0.00"	0.38"	0.69"	0.92"	1.07"	1.12"	HS 89.3
R4	RG-1	25'-7 3/8"	0.00"	0.00"	0.00"	0.01"	0.01"	0.01"	0.00"	0.01"	0.02"	0.02"	0.03"	0.03"	HS 64.1
	RG-2	40'-4 3/4"	0.00"	0.02"	0.03"	0.04"	0.05"	0.05"	0.00"	0.08"	0.14"	0.20"	0.24"	0.24"	HS 53.5
	RG-3	54'-1 3/4"	0.00"	0.04"	0.08"	0.10"	0.11"	0.12"	0.00"	0.20"	0.36"	0.48"	0.55"	0.58"	HS 49.1
R5	RG-1	47'-11"	0.00"	0.02"	0.04"	0.06"	0.07"	0.07"	0.00"	0.13"	0.24"	0.32"	0.37"	0.39"	HS 52.2
	RG-2	48'-10 7/8"	0.00"	0.03"	0.06"	0.07"	0.09"	0.09"	0.00"	0.16"	0.29"	0.39"	0.46"	0.49"	HS 77.8
	RG-3	49'-10 3/4"	0.00"	0.04"	0.07"	0.09"	0.10"	0.11"	0.00"	0.20"	0.35"	0.47"	0.55"	0.59"	HS 59.4

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	1-15
DRAWN	MRM	1-15
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

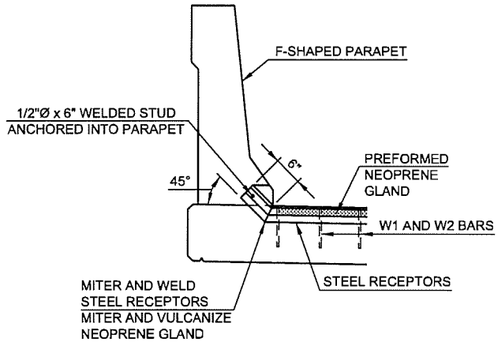
STEEL DETAILS

SHEET 2 OF 2

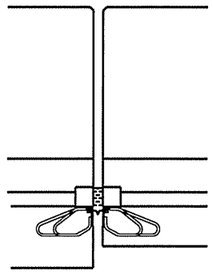
STATE JOB NO. 28865(04) SHEET NO. 69

TULSA CO. 2ND STREET

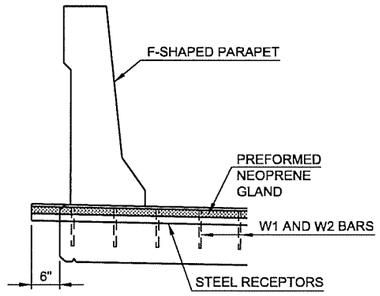
DESCRIPTION	REVISIONS	DATE



SECTION AT
F-SHAPED PARAPET
(PIERS NO. 3 AND 5 SOUTH
SIDE OF DECK)

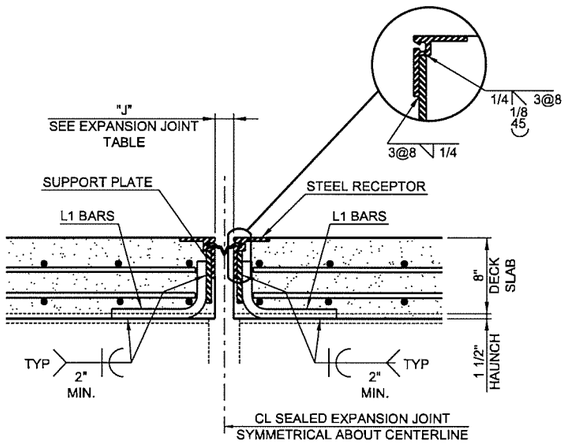


ELEVATION OF
EXPANSION JOINT

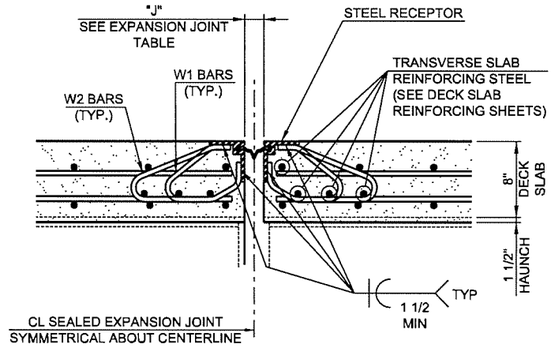


SECTION AT
F-SHAPED PARAPET
(PIERS NO. 3 AND 5 NORTH
SIDE OF DECK)

EXPANSION TABLE		
TEMPERATURE		JOINT
PIER 3	PIER 5	OPENING "J"
-10°F	-	2 7/8"
0°F	-	2 3/4"
10°F	-	2 5/8"
20°F	-10°F	2 1/2"
30°F	7°F	2 3/8"
40°F	25°F	2 1/4"
50°F	42°F	2 1/8"
60°F	60°F	2"
70°F	78°F	1 7/8"
80°F	95°F	1 3/4"
90°F	113°F	1 5/8"
100°F	-	1 1/2"
110°F	-	1 3/8"

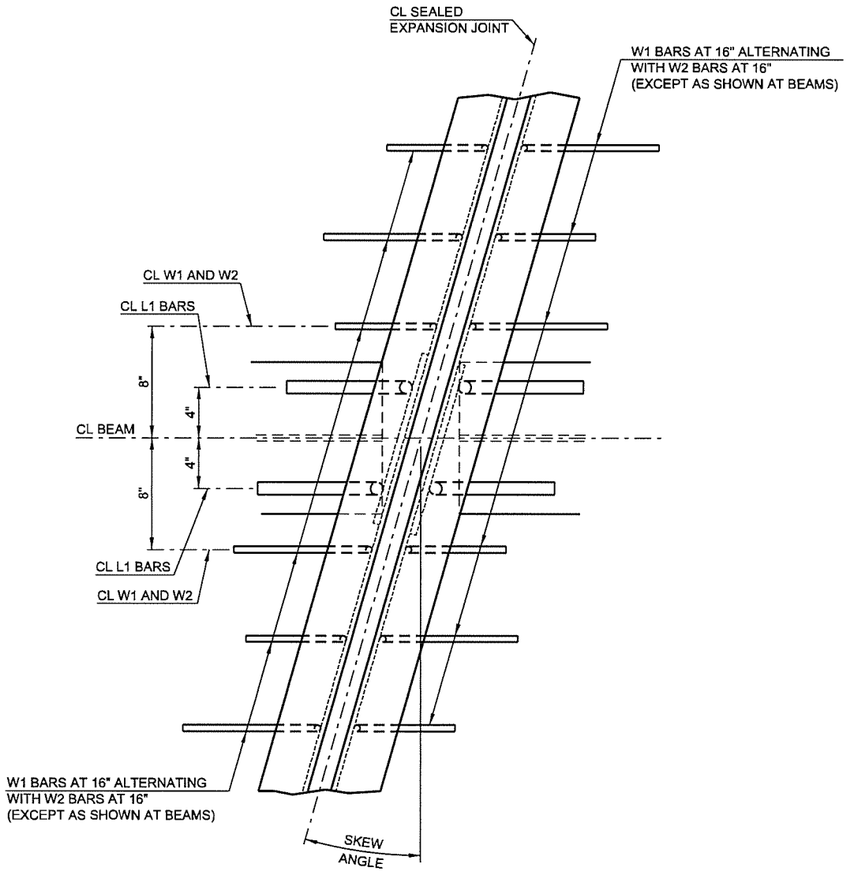


SECTION OF EXPANSION JOINT
AT BEAMS



NOTE:
FOR BAR BENDS AND SUPPORT
PLATE DETAILS SEE SHEET 71.

SECTION OF EXPANSION JOINT
BETWEEN BEAMS



PLAN OF SEALED EXPANSION JOINT

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -70-BR.B-Exp.Jt.1.dgn

2ND STREET RAMP OVER I-444 - BRIDGE "B"

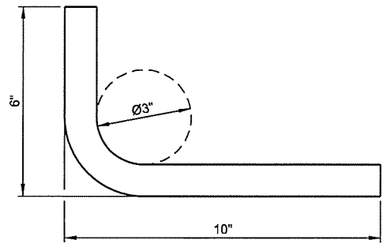
DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

SEALED EXPANSION JOINT DETAILS
SHEET 1 OF 2
STATE JOB NO. 28865(04) SHEET NO. 70

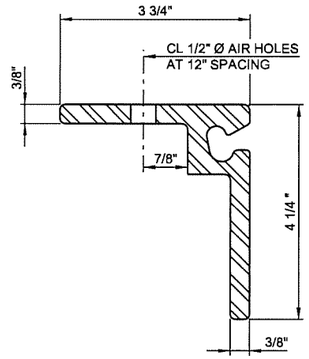
TULSA CO. 2ND STREET

DESCRIPTION	REVISIONS	DATE



L1 SUPPORT
BAR DETAIL

1" DIA.



D.S. BROWN
TYPE SSOK STEEL EXTRUSION
RECEPTOR DETAIL

SEALED EXPANSION JOINT NOTES

THE SEALED EXPANSION JOINT SHALL HAVE A TOTAL MOVEMENT RANGE OF 4" AND SEAL THE DECK TO PREVENT MOISTURE OR OTHER CONTAMINANTS FROM DESCENDING ONTO THE LOWER STRUCTURE COMPONENTS.

THE STEEL RECEPTOR PROVIDED SHALL EITHER BE THE WATSON, BOWMAN AND ACME TYPE Q STEEL EXTRUSION OR THE D.S. BROWN TYPE SSOK STEEL EXTRUSION RECEPTOR AS SHOWN ON THIS SHEET.

PAINT

TWO SHOP COATS, ONE IN INORGANIC ZINC RICH (IZ) PRIMER, THE OTHER IN INORGANIC ZINC RICH (IZ) INTERMEDIATE COAT, WILL BE APPLIED TO THE ENTIRE SURFACE OF THE STEEL RECEPTOR, SUPPORT PLATES, L SUPPORT BARS, AND W1 AND W2 ANCHOR BARS. THE PAINTING SHALL BE DONE IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS.

MATERIALS

STEEL RECEPTORS, SUPPORT PLATES, AND L SUPPORT BARS SHALL BE IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 36, 50, 50W (CHARPY V-NOTCH TESTING NOT REQUIRED). W1 AND W2 ANCHOR BARS SHALL CONFORM TO AASHTO M225 (ASTM A 496). ALL BAR DIMENSIONS SHALL BE INCLUDED IN THE SHOP DRAWINGS.

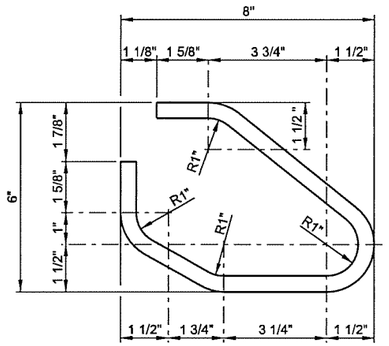
WELDING OF STEEL RECEPTORS, SUPPORT PLATES, L SUPPORT BARS AND W1 AND W2 ANCHOR BARS SHALL BE IN ACCORDANCE WITH SUBSECTION 724.03 OF THE STANDARD SPECIFICAITONS. PREFORMED NEOPRENE GLAND LUBRICANT ADHESIVE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED LITERATURE.

FABRICATION OF JOINT

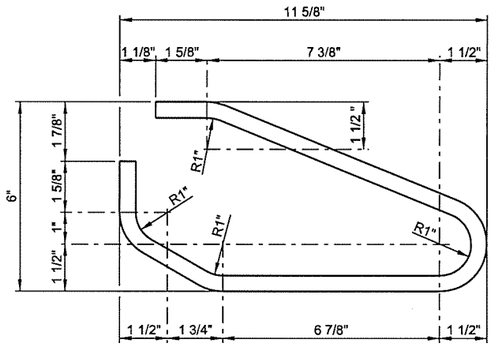
AT LOCATIONS WHERE JOINT IS SHOWN TO BE MITERED AT ANY ANGLE FOR TURN-UP AT TRAFFIC RAIL, THE MATERIAL SHALL BE SHOP SPLICED WITH HEAT VULCANIZING OR OTHER METHOD OF EQUAL EFFECTIVENESS AS RECOMMENDED BY THE LISTED JOINT MANUFACTURER OR APPROVED EQUAL AND APPROVED BY THE ENGINEER.

ANCHORAGE SYSTEM

THE CONTRACTOR SHALL USE AN ANCHORAGE SYSTEM THAT HAS BEEN APPROVED BY ODOT'S MATERIAL DIVISION. THE ANCHORAGE SYSTEM SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE REINFORCING STEEL THAT IS TO BE ANCHORED. ANCHORAGES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICAITONS FOR THE SYSTEM USED AND ODOT STANDARD SPECIFICATIONS SECTION 509.04(d)3. ALL COST OF ANCHORAGE ASSEMBLIES INCLUDING LABOR, MATERIALS, TOOLS, DRILLING AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "SEALED EXPANSION JOINT".

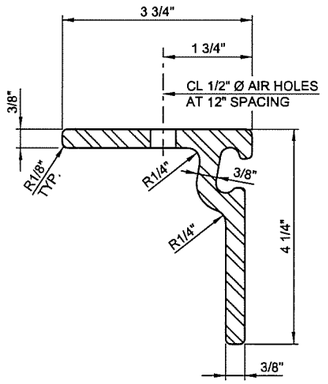


W1 ANCHOR BAR DETAIL



W2 ANCHOR BAR DETAIL

NOTE:
W1 AND W2 BARS SHALL BE FABRICATED FROM W20 DEFORMED STEEL WIRE.



WATSON BOWMAN AND ACME
TYPE Q STEEL EXTRUSION
RECEPTOR DETAIL

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

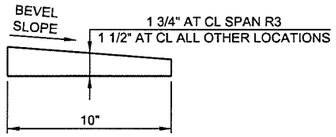
SEALED EXPANSION JOINT DETAILS
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 71

TULSA CO. 2ND STREET

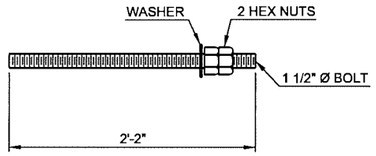
6/7/2016 N:\113990200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -71-BR.B-Exp.Jt.2.dgn

DESCRIPTION	REVISIONS	DATE



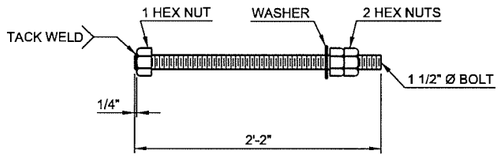
BEVELED ANCHOR PLATE DETAIL

BEVEL SCHEDULE		
LOCATION	BEAM	BEVEL SLOPE
SPAN R3	RG-1	2.6%
	RG-2	2.1%
	RG-3	1.7%
SPAN R4	RG-1	5.2%
	RG-2	4.8%
	RG-3	4.6%
SPAN R5	RG-1	5.5%
	RG-2	5.9%
	RG-3	5.5%



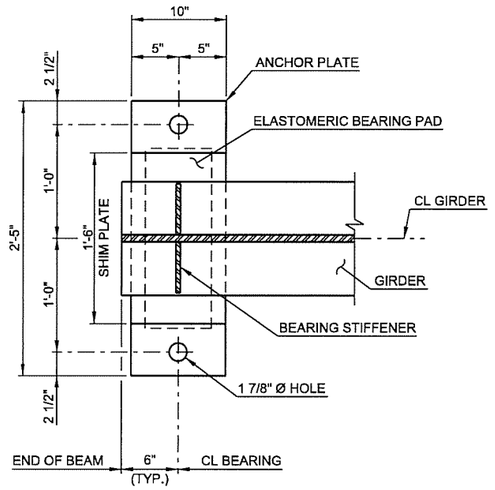
ANCHOR BOLT ASSEMBLY DETAIL

(AT ABUTMENTS)



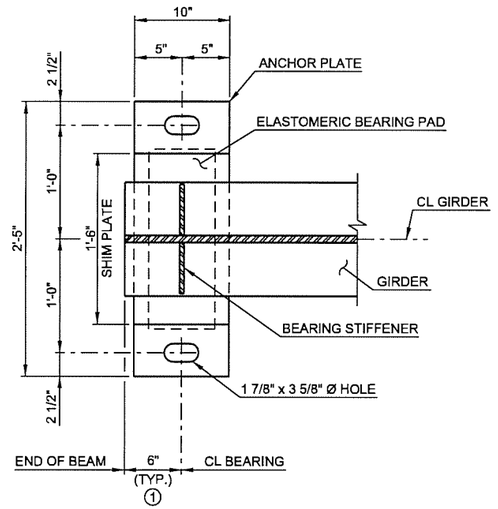
ANCHOR BOLT ASSEMBLY DETAIL

(AT PIERS)



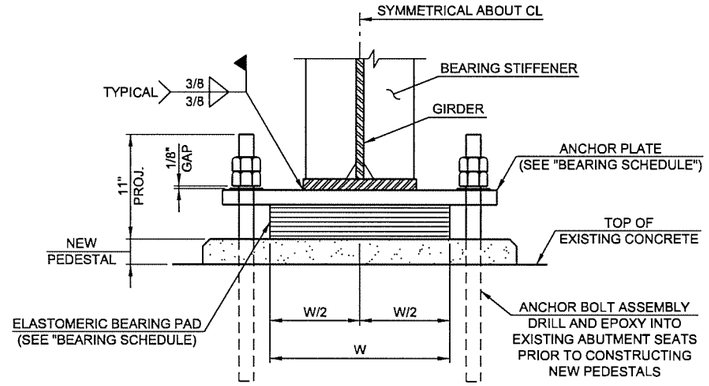
FIXED BEARING PLAN

ANCHOR BOLT ASSEMBLIES NOT SHOWN



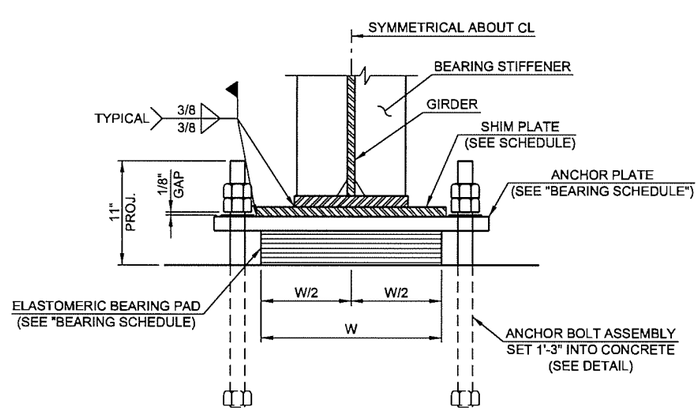
EXPANSION BEARING PLAN

ANCHOR BOLT ASSEMBLIES NOT SHOWN



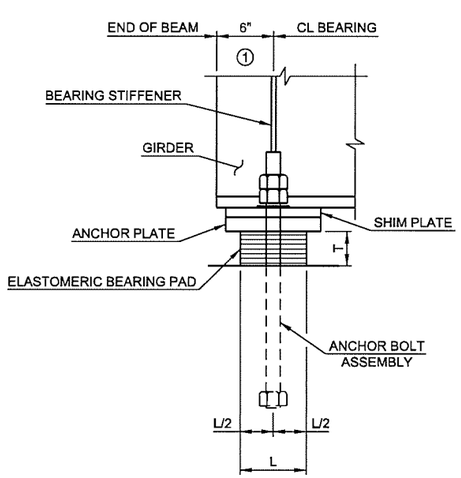
END VIEW

(AT ABUTMENT)



END VIEW

(AT PIERS)



SIDE VIEW

SHIM PLATE SCHEDULE			
LOCATION		BEAM	1'-6" x 10" SHIM PLATE THICKNESS
PIER 4	SPAN R3	RG-3	1/2"
	SPAN R4	RG-1	1 1/2"
		RG-2	1"
PIER 2	SPAN R4	RG-1	1 1/4"
		RG-2	3/4"
	SPAN R5	RG-3	3/4"

BEARING SCHEDULE						
LOCATION		ANCHOR PLATE	60 DUROMETER ELASTOMERIC BEARING PAD			
			SIZE (T x L x W)	COVER LAYER	INNER LAYER	LAMINATE LAYER
PIER 3	SPAN R3	1 3/4" x 10" x 2'-5"	3 5/8" x 7" x 1'-7"	2 - 1/4"	6 - 3/8"	7 - 1/8"
ALL OTHER BEARINGS		1 1/2" x 10" x 2'-5"	3 5/8" x 7" x 1'-7"	2 - 1/4"	6 - 3/8"	7 - 1/8"

ANCHORAGE SYSTEM

THE CONTRACTOR SHALL USE AN ANCHORAGE SYSTEM THAT HAS BEEN APPROVED BY ODOT'S MATERIAL DIVISION. THE ANCHORAGE SYSTEM SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE REINFORCING STEEL THAT IS TO BE ANCHORED. ANCHORAGES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICAITONS FOR THE SYSTEM USED AND ODOT STANDARD SPECIFICATIONS SECTION 509.04(d)3. ALL COST OF ANCHORAGE ASSEMBLIES INCLUDING LABOR, MATERIALS, TOOLS, DRILLING AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "WEATHERING STEEL FIXED BEARING ASSEMBLY".

BEARING DETAILS

(1) CENTER ANCHOR BOLTS IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING. SEE TABLE ON SHEET 70.

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

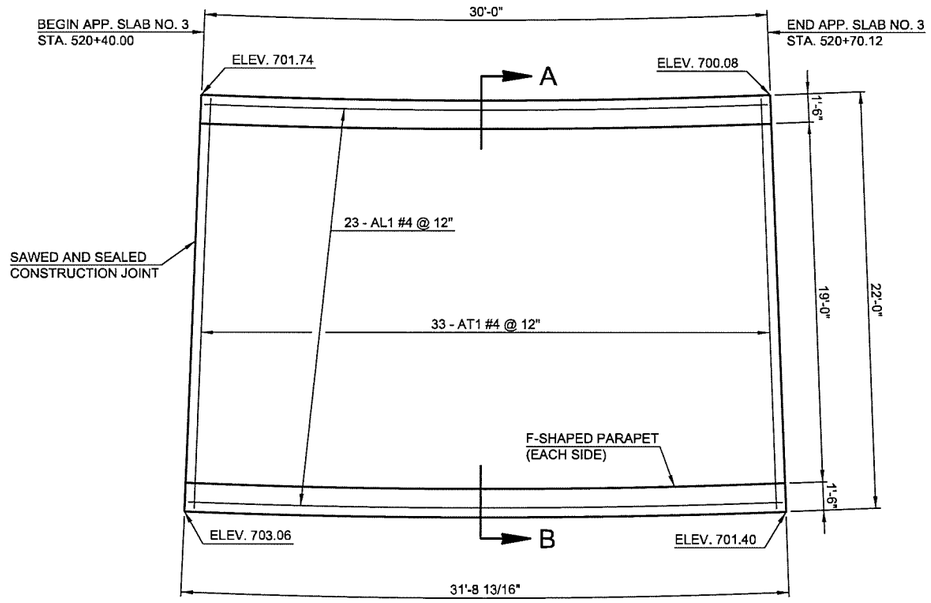
BEARING DETAILS

STATE JOB NO. 28865(04) SHEET NO. 72

TULSA CO. 2ND STREET

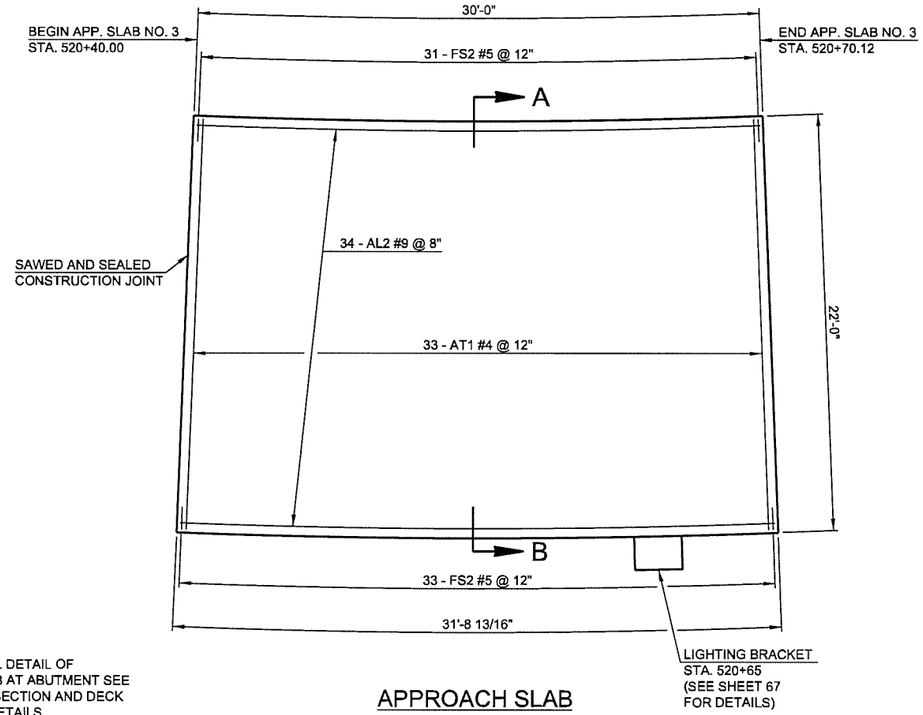
6/7/2016 N:\113992\00-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -72-BR.B-Bearing.dgn

DESCRIPTION	REVISIONS	DATE



APPROACH SLAB
TOP REINFORCING
MAT DETAIL

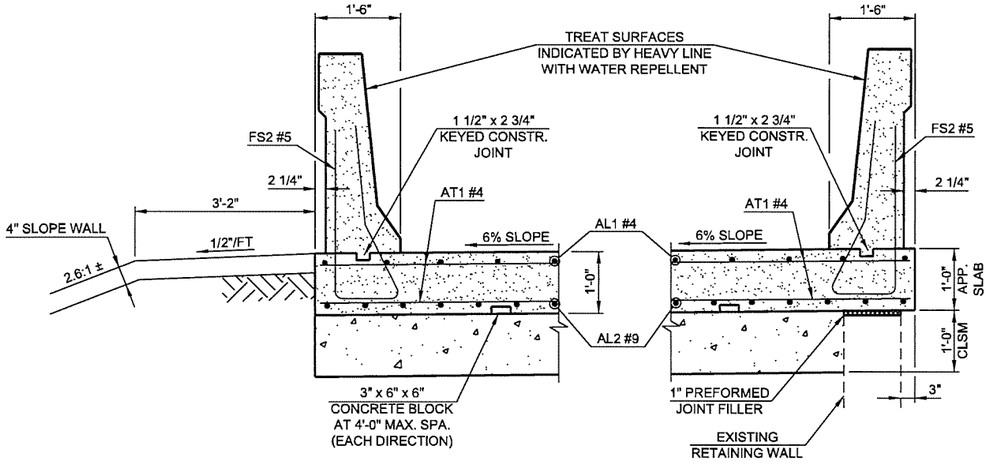
NOTE:
FOR ADDITIONAL DETAIL OF
APPROACH SLAB AT ABUTMENT SEE
LONGITUDINAL SECTION AND DECK
REINFORCING DETAILS.



APPROACH SLAB
BOTTOM REINFORCING
MAT DETAIL

NOTE:
PLACE REINFORCING IN THE TOP OF APPROACH SLAB 2" FROM EITHER SIDE OF THE SAWED AND SEALED LONGITUDINAL JOINT. FOR ADDITIONAL DETAILS FOR LONGITUDINAL JOINT, SEE STD. LECS-4.

NOTE:
FOR ADDITIONAL DETAIL OF F-SHAPED PARAPET, SEE STD. FSHP-42-2.



SECTION A

SECTION B

APPROACH SLAB NO. 3 BAR LIST

MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIES
EPOXY COATED REINFORCING BARS					
AT1	#4	66	STR	21'-8"	
AL1	#4	23	STR	30'-6" AVG	29'-8" TO 31'-4"
AL2	#9	34	STR	30'-6" AVG	29'-8" TO 31'-4"
(1) FS2	#5	64	BNT	7'-4"	

(1) FOR BAR BEND SEE STD. FSHP-42-2.

APPROACH SLAB NO. 3 QUANTITIES

	DESCRIPTION	UNIT	TOTAL
(2)	APPROACH SLAB	SY	75.5
	SAW-CUT GROOVING	SY	65.2
	42" F-SHAPED PARAPET	LF	61.7
	WATER REPELLENT (VISUALLY INSPECTED)	SY	30
	CLSM BACKFILL	CY	24

(2) THE DEPARTMENT CONSIDERS THE COST OF CONCRETE, REINFORCING STEEL (INCLUDING FS2), BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE AND POLYETHYLENE SHEETING AND PREFORMED JOINT FILLER TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF APPROACH SLAB. THERE IS AN ESTIMATED 25.2 C.Y. OF CLASS AA CONCRETE AND AN ESTIMATED 5,400 LB OF EPOXY COATED REINFORCING STEEL IN THE APPROACH SLAB NO. 3

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	3-16
DRAWN	MRM	3-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

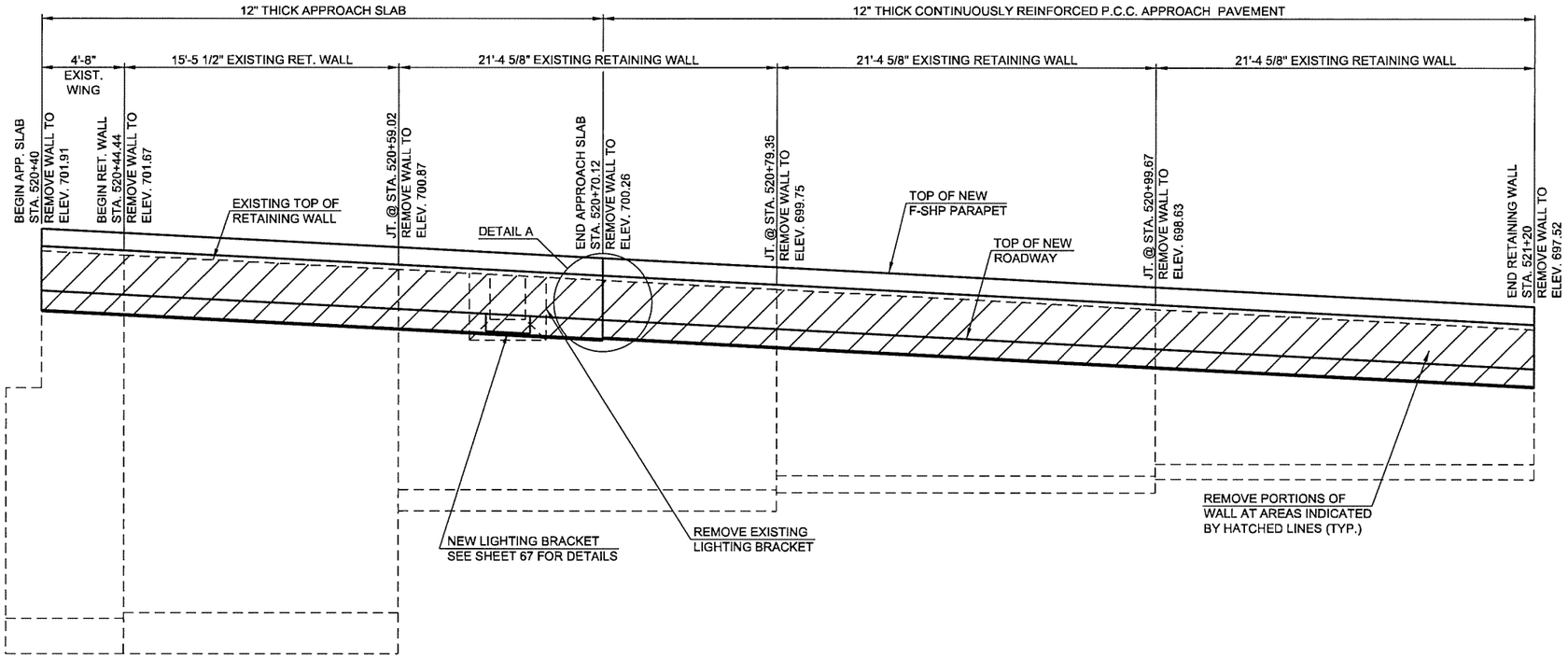
APPROACH SLAB NO. 3

STATE JOB NO. 28865(04) SHEET NO. 73

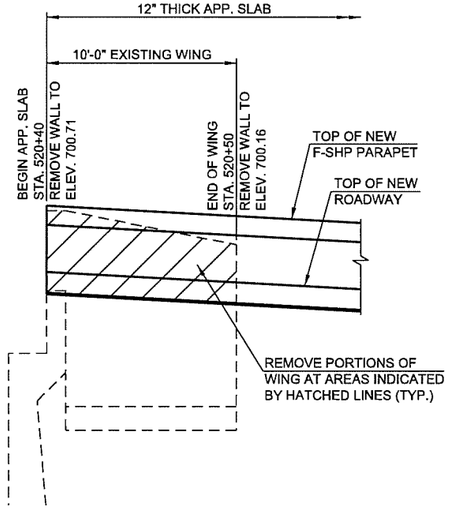
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -73-BR.B-App.Slab.dgn

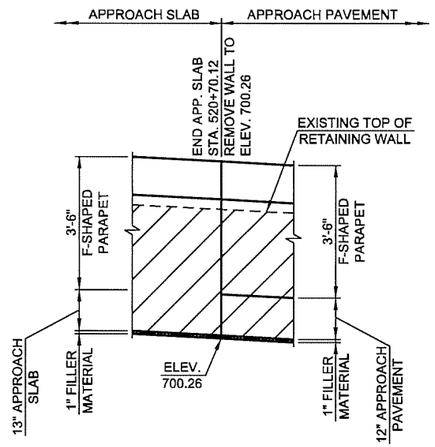
DESCRIPTION	REVISIONS	DATE



RIGHT RETAINING WALL ELEVATION



LEFT WING ELEVATION



DETAIL A

2ND STREET RAMP OVER I-444 - BRIDGE "B"

DESIGN	JSH	2-16
DRAWN	MRM	2-16
CHECKED	LWN	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

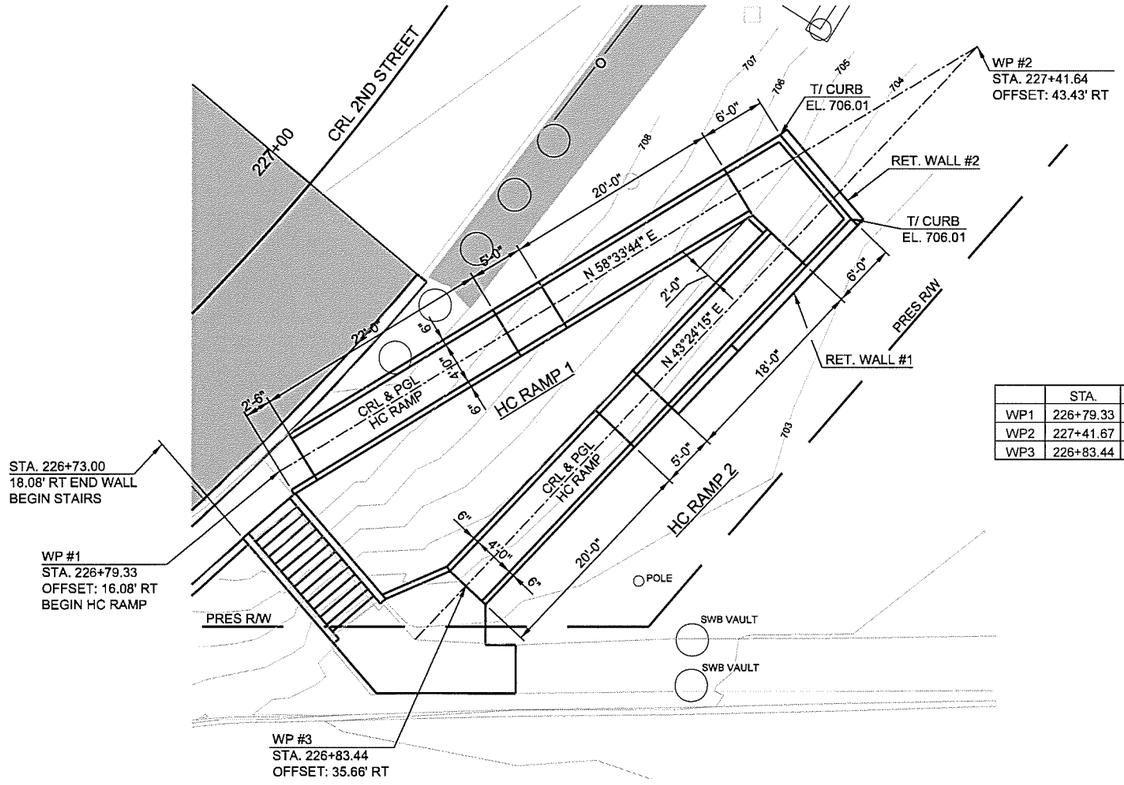
RETAINING WALL MODIFICATION DETAILS

STATE JOB NO. 28865(04) SHEET NO. 74

TULSA CO. 2ND STREET

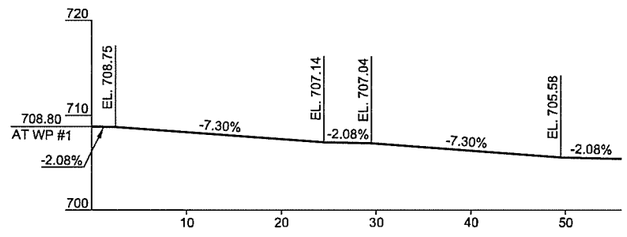
6/7/2016 N:\113992\00-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -74-BR.B-Retaining Wall.dgn

DESCRIPTION	REVISIONS	DATE

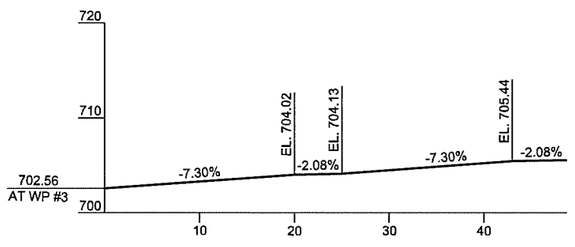


PLAN

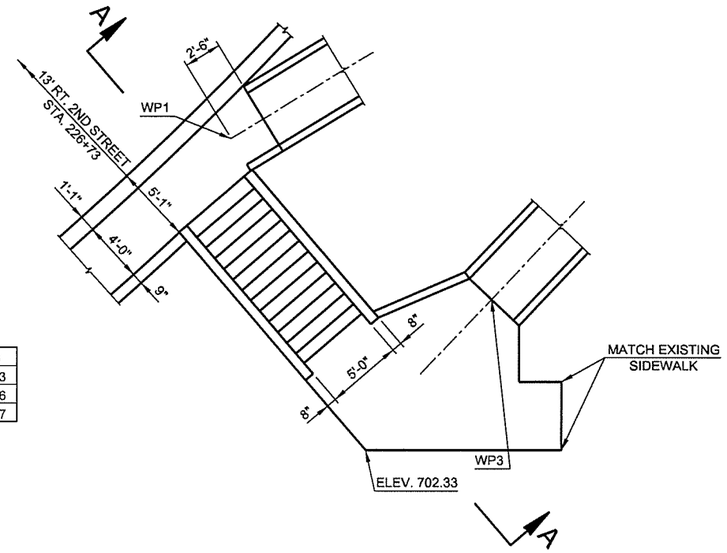
	STA.	OFFSET	NORTHING	EASTING
WP1	226+79.33	16.08' RT	427679.10	2564890.63
WP2	227+41.67	43.43' RT	427718.35	2564954.86
WP3	226+83.44	35.66' RT	427668.56	2564907.77



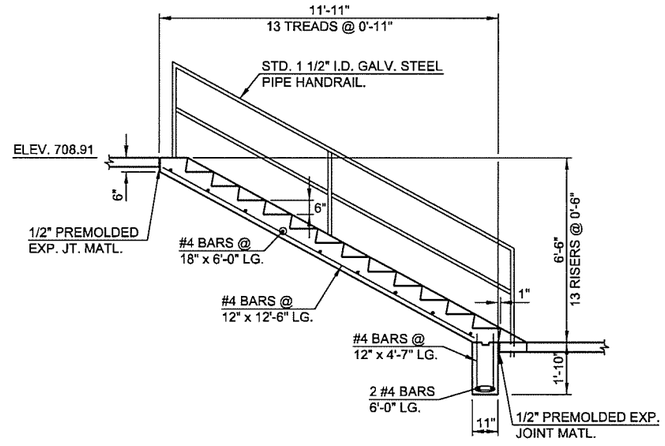
PROFILE
HC RAMP 1



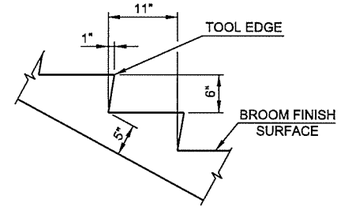
PROFILE
HC RAMP 2



5'-0" WIDE REINF. CONC. STAIRS
RT. 2ND STREET STA. 226+73



SECTION A-A



DETAIL OF TREADS & RISERS

SUMMARY OF QUANTITIES

	DESCRIPTION	UNIT	TOTAL
(1)	EARTHWORK	L.SUM	1
	TEMPORARY SILT FENCE	LF	60
	SOLID SLAB SODDING	SY	142
	CLASS A CONCRETE	CY	12.8
	MSE RETAINING WALL	SY	21.8
	REINFORCING STEEL	LB	846
(2)	REMOVAL OF STRUCTURES & OBSTRUCTIONS	L.SUM	1
	1 1/2" PIPE RAILING	LF	200.7

(1) INCLUDES ALL WORK INLCUDING EXCAVATION, EMBANKMENT, COMPACTION AND OTHER INCIDENTAL WORK, TOOLS AND LABOR FOR THE STAIRS AND HANDICAP RAMPS.

(2) FOR REMOVAL OF EXISTING STAIRS AND SIDEWALK

NOTES:

1. COST OF STAIRS AND HANDICAP RAMP TO BE INCLUDED IN THE ITEMS CLASS A CONCRETE AND REINFORCING STEEL.
2. SHOP DETAILS OF 1 1/2" PIPE HANDRAIL SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
3. DETAILS AND DESIGN OF THE MSE RETAINING WALL SHALL BE PREPARED BY A LICENSED ENGINEER IN THE STATE OF OKLAHOMA. CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE PROPOSED MSE WALL SYSTEM FOR APPROVAL PRIOR TO DESIGN AND DRAWINGS.

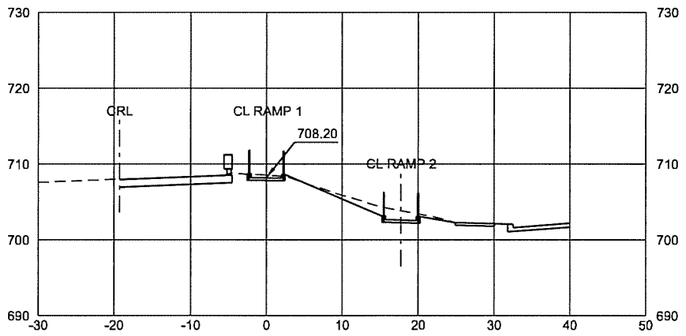
DESIGN	JWB	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

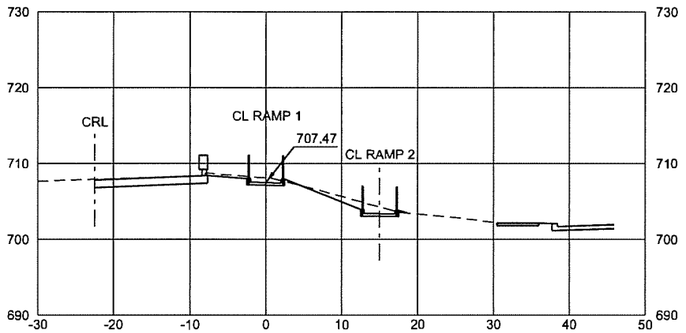
STAIRS AND HANDICAP RAMP
SHEET 1 OF 2
STATE JOB NO. 28865(04) SHEET NO. 75
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -75-RD -Wheel Chair 1.dgn

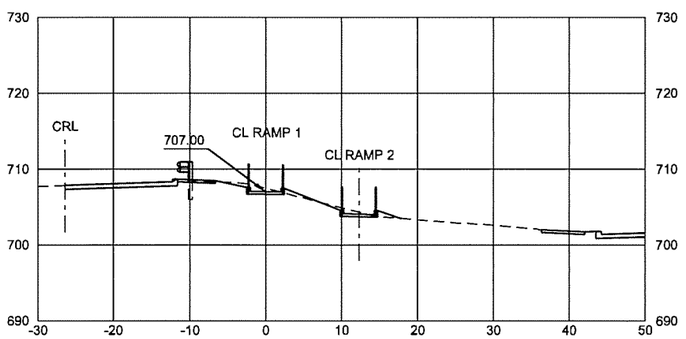
DESCRIPTION	REVISIONS	DATE



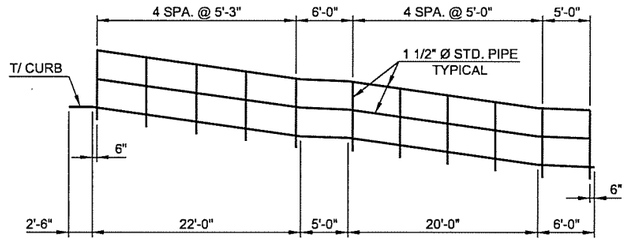
WP1+10



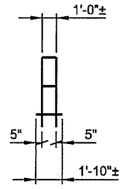
WP1+20



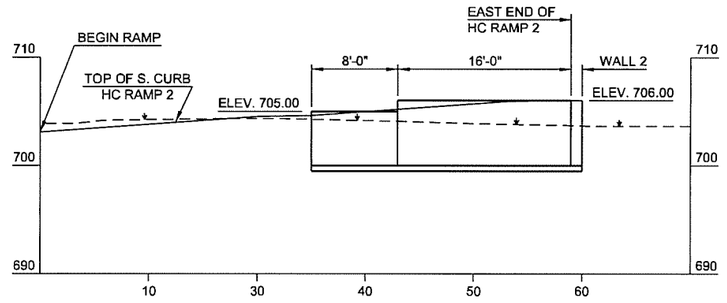
WP1+30



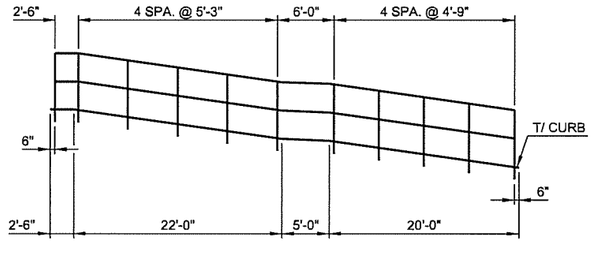
NORTH RAIL HC RAMP 1



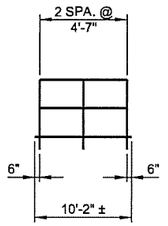
WEST RAIL
TRANSITION LANDING



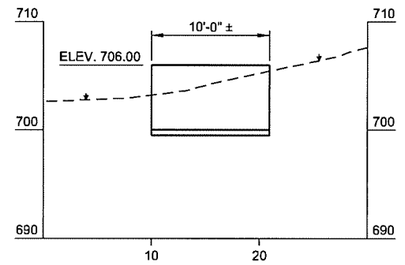
ELEVATION
RETAINING WALL #1



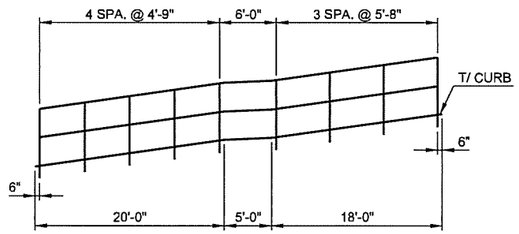
SOUTH RAIL HC RAMP 1



EAST RAIL
TRANSITION LANDING

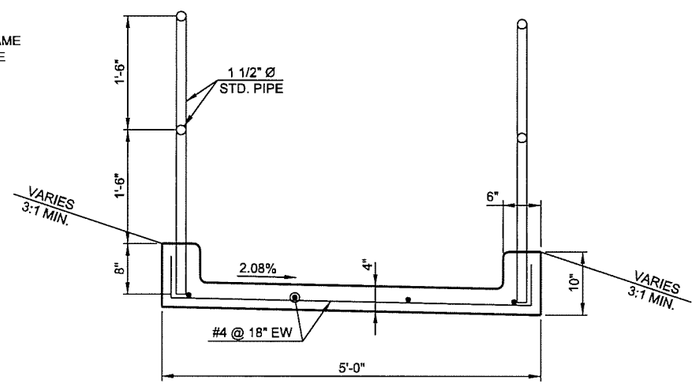


ELEVATION
RETAINING WALL #2

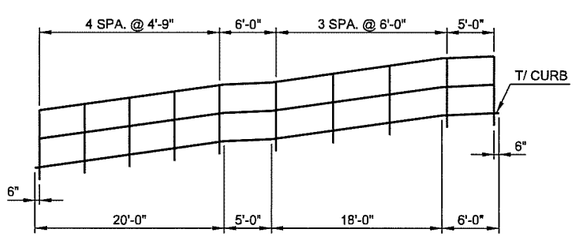


NORTH RAIL HC RAMP 2

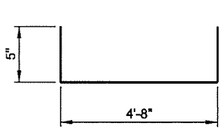
NOTE:
TOP OF RAIL SHALL HAVE SAME SLOPE AS TOP OF CURB. SEE RAMP PROFILES.



TYPICAL SECTION



SOUTH RAIL HC RAMP 2



#4 x 5'-6"

BAR BEND

DESIGN	JWB	3-16
DRAWN	MRM	3-16
CHECKED	JSH	3-16
APPROVED		
SQUAD	TT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

STAIRS AND HANDICAP RAMP
SHEET 2 OF 2

STATE JOB NO. 28865(04) SHEET NO. 76

TULSA CO. 2ND STREET

6/7/2016 N:\113992200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -76-RD -Wheel Chair-2.dgn

TRAFFIC CONTROL KEY NOTES

1. CLOSE BOTH 2nd STREET RAMPS TO NB US-75 AND EB I-444 FOR THE DURATION OF BRIDGE REHABILITATION.
2. REMOVAL OF EXISTING BRIDGE DECK AND REPAIRS TO SUPERSTRUCTURE WILL OCCUR OVER TRAFFIC.

REVISIONS		
DESCRIPTION		DATE

2ND STREET

ON STREET PARKING

S ELGIN AVE.

S FRANKFORT AVE.

S GREENWOOD AVE.

S HARTFORD AVE.

REMOVE ANY CONFLICTING PAVEMENT MARKING

W1-6

MATCHLINE A

ROAD WORK AHEAD — W20-1

DETOUR 3.9 MI — W20-2

LANE ENDS MERGE RIGHT — W9-2(R)

W4-2(L)

NO THRU ACCESS

S KENOSHA AVE.

S LANSING AVE.

115' TAPER (TYP.)

ROAD CLOSED AHEAD — W20-3

W4-2(L)

ROAD CLOSED TO THRU TRAFFIC — R11-4

ROAD CLOSED — R11-2 (LANE)

R3-2

W1-6

ROAD CLOSED — R11-2 (ROAD)

R3-1

DETOUR — US 75 — INTERSTATE 244 — M5-1 — M1-4/M1-1 — M4-8

DETOUR — US 75 — INTERSTATE 244 — M5-1 — M1-4/M1-1 — M4-8

LEGEND:

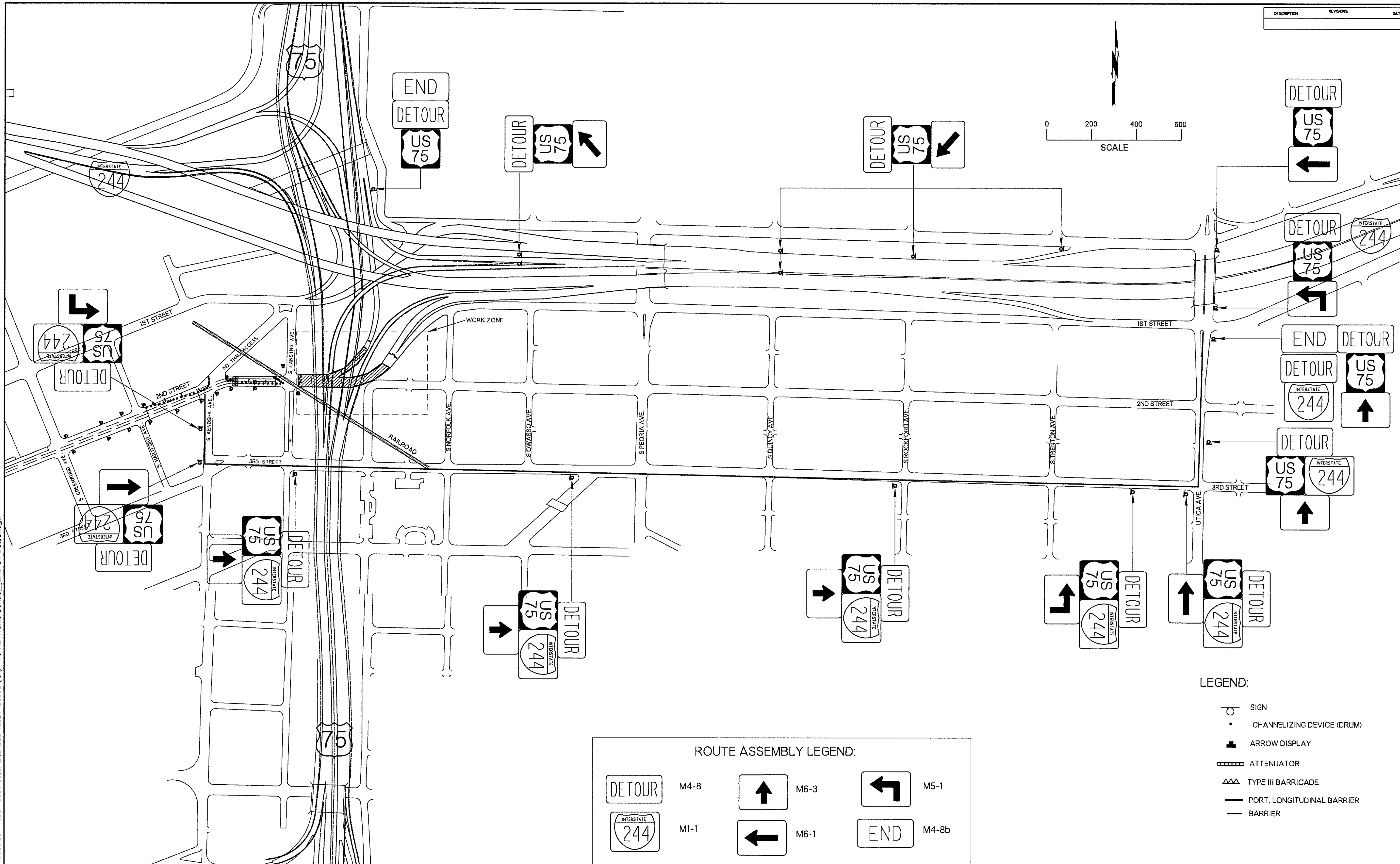
- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

0 50 100 150

SCALE

DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN		
CHECKED		TRAFFIC CONTROL PLAN 2ND STREET RAMP AND BRIDGE CLOSURE
APPROVED		STATE JOB NO. 28865(04) SHEET NO. 77
CREW		TULSA CO. 2ND STREET

6/8/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -77-RD-Traffic Control_ (2ND ST) .dgn



DESCRIPTION
REVISIONS
DATE
0 200 400 600
SCALE
END
DETOUR
US 75
DETOUR
INTERSTATE 244
75
1ST STREET
2ND STREET
3RD STREET
WORK ZONE
NO THRU ACCESS
RAILROAD
S LANSING AVE.
S KENOSHA AVE.
S HARTFORD AVE.
S GREENWOOD AVE.
S NORFOLK AVE.
S OWASSO AVE.
S PEORIA AVE.
S QUINCY AVE.
S ROCKFORD AVE.
S TRENTON AVE.
UTICA AVE.
ROUTE ASSEMBLY LEGEND:
DETOUR M4-8
INTERSTATE 244 M1-1
US 75 M1-4
M6-3
M6-1
M6-2(R)
M5-1
END M4-8b
M6-2(L)
LEGEND:
SIGN
CHANNELIZING DEVICE (DRUM)
ARROW DISPLAY
ATTENUATOR
TYPE III BARRICADE
PORT. LONGITUDINAL BARRIER
BARRIER

DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN			
CHECKED			TRAFFIC CONTROL PLAN 2ND STREET DETOUR
APPROVED			
CREW			STATE JOB NO. 28865(04) SHEET NO. 78

TULSA CO. 2ND STREET

N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -78-RD-Traffic Control_ 2ND ST Detour.dgn

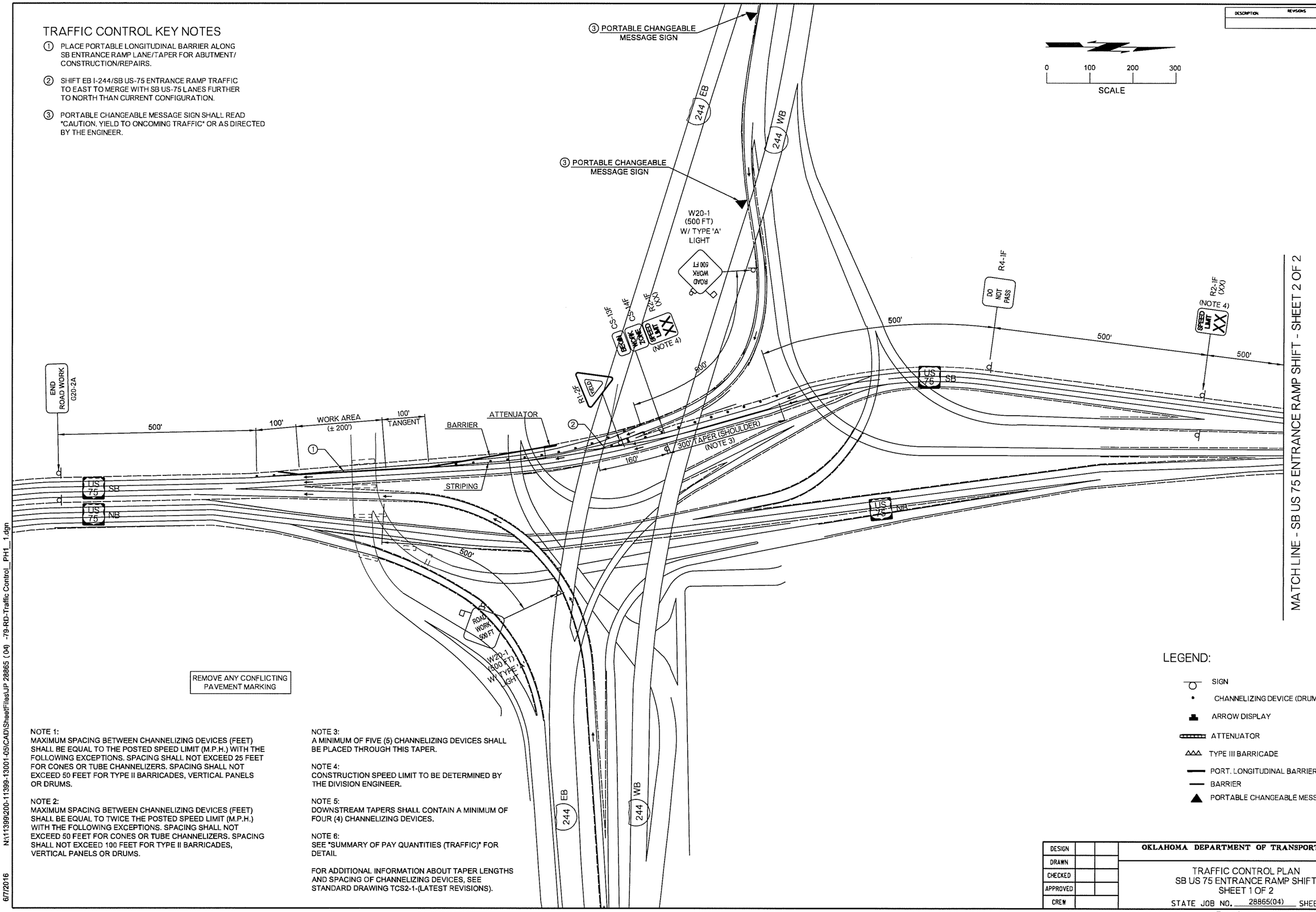
6/7/2016

TRAFFIC CONTROL KEY NOTES

1. PLACE PORTABLE LONGITUDINAL BARRIER ALONG SB ENTRANCE RAMP LANE/TAPER FOR ABUTMENT/ CONSTRUCTION/REPAIRS.
2. SHIFT EB I-244/SB US-75 ENTRANCE RAMP TRAFFIC TO EAST TO MERGE WITH SB US-75 LANES FURTHER TO NORTH THAN CURRENT CONFIGURATION.
3. PORTABLE CHANGEABLE MESSAGE SIGN SHALL READ "CAUTION, YIELD TO ONCOMING TRAFFIC" OR AS DIRECTED BY THE ENGINEER.

DESCRIPTION	REVISIONS	DATE

0 100 200 300
SCALE



MATCH LINE - SB US 75 ENTRANCE RAMP SHIFT - SHEET 2 OF 2

REMOVE ANY CONFLICTING PAVEMENT MARKING

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER
- PORTABLE CHANGEABLE MESSAGE SIGN

DESIGN		
DRAWN		
CHECKED		
APPROVED		
CREW		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
SB US 75 ENTRANCE RAMP SHIFT
SHEET 1 OF 2

STATE JOB NO. 28865(04) SHEET NO. 79

TULSA CO. 2ND STREET

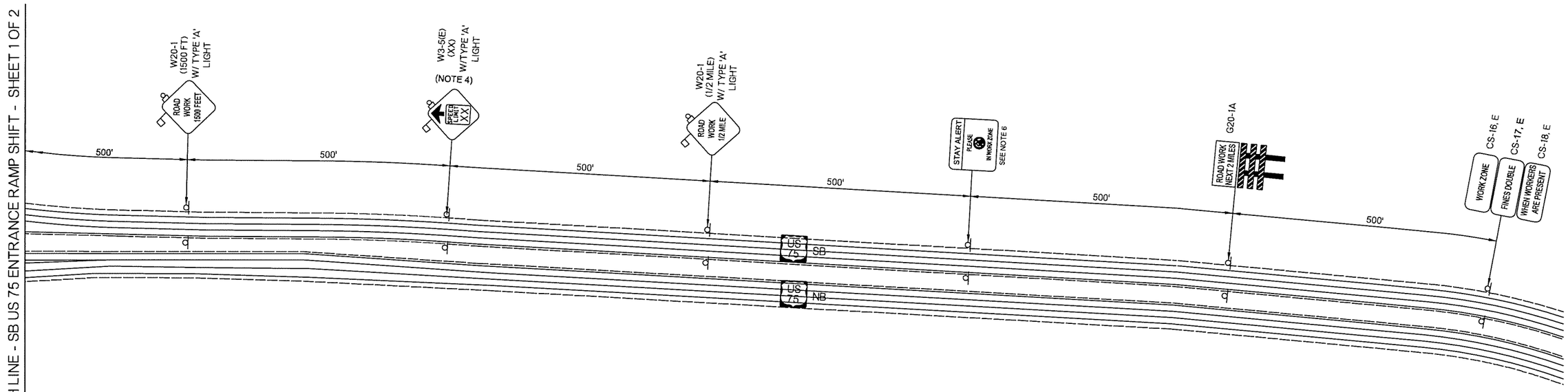
6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -79-RD-Traffic Control_PH1_ 1.dgn

DESCRIPTION	REVISIONS	DATE

0 100 200 300

SCALE

MATCH LINE - SB US 75 ENTRANCE RAMP SHIFT - SHEET 1 OF 2



REMOVE ANY CONFLICTING PAVEMENT MARKING

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

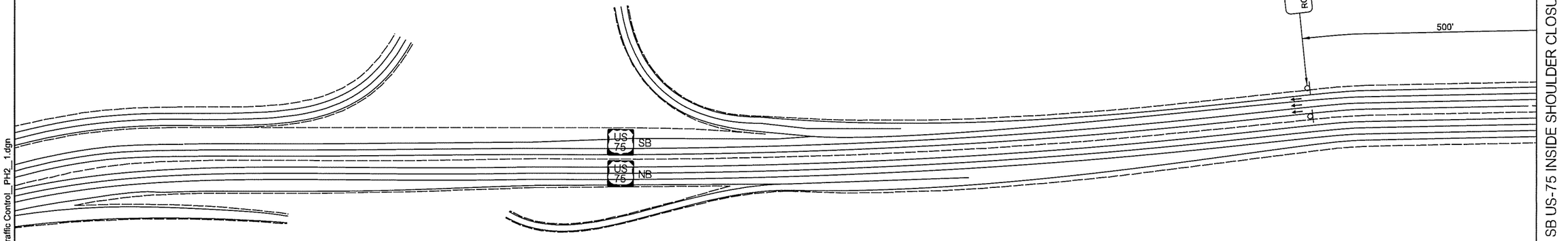
DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN		
CHECKED		TRAFFIC CONTROL PLAN
APPROVED		SB US 75 ENTRANCE RAMP SHIFT
CREW		SHEET 2 OF 2
		STATE JOB NO. 28865(04) SHEET NO. 80
		TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -80-RD-Traffic Control_ PH1_ 2.dgn

DESCRIPTION	REVISIONS	DATE

0 100 200 300

SCALE



REMOVE ANY CONFLICTING PAVEMENT MARKING

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN			
CHECKED			TRAFFIC CONTROL PLAN
APPROVED			SB US-75 INSIDE SHOULDER CLOSURE
CREW			SHEET 1 OF 3

STATE JOB NO. 28865(04) SHEET NO. 81

TULSA CO. 2ND STREET

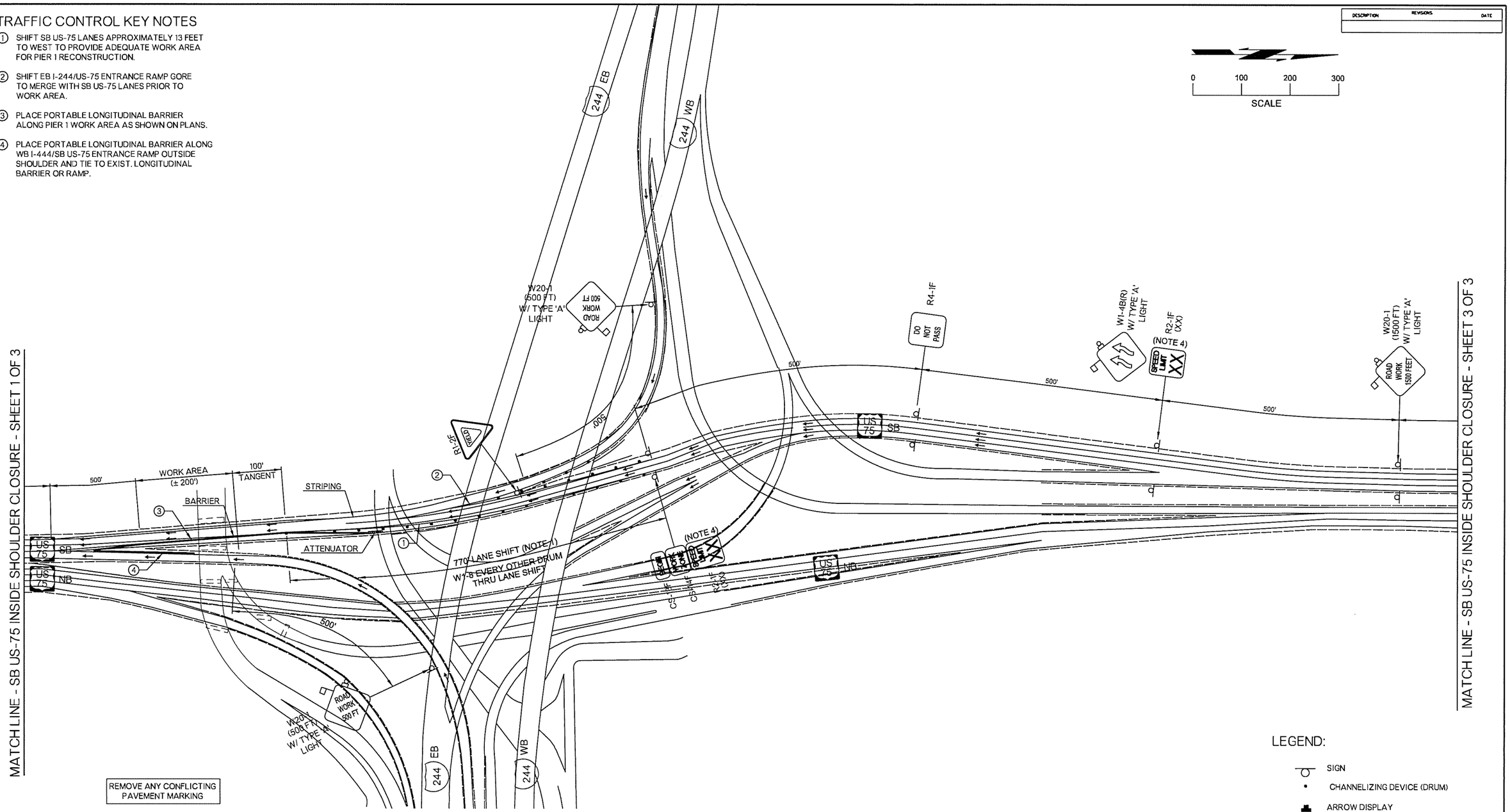
6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -81-RD-Traffic Control_ PH2_ 1.dgn

TRAFFIC CONTROL KEY NOTES

1. SHIFT SB US-75 LANES APPROXIMATELY 13 FEET TO WEST TO PROVIDE ADEQUATE WORK AREA FOR PIER 1 RECONSTRUCTION.
2. SHIFT EB I-244/US-75 ENTRANCE RAMP GORE TO MERGE WITH SB US-75 LANES PRIOR TO WORK AREA.
3. PLACE PORTABLE LONGITUDINAL BARRIER ALONG PIER 1 WORK AREA AS SHOWN ON PLANS.
4. PLACE PORTABLE LONGITUDINAL BARRIER ALONG WB I-444/SB US-75 ENTRANCE RAMP OUTSIDE SHOULDER AND TIE TO EXIST. LONGITUDINAL BARRIER OR RAMP.

DESCRIPTION	REVISIONS	DATE

0 100 200 300
SCALE



LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN		
CHECKED		TRAFFIC CONTROL PLAN SB US-75 INSIDE SHOULDER CLOSURE SHEET 2 OF 3
APPROVED		STATE JOB NO. 28865(04) SHEET NO. 82
CREW		TULSA CO. 2ND STREET

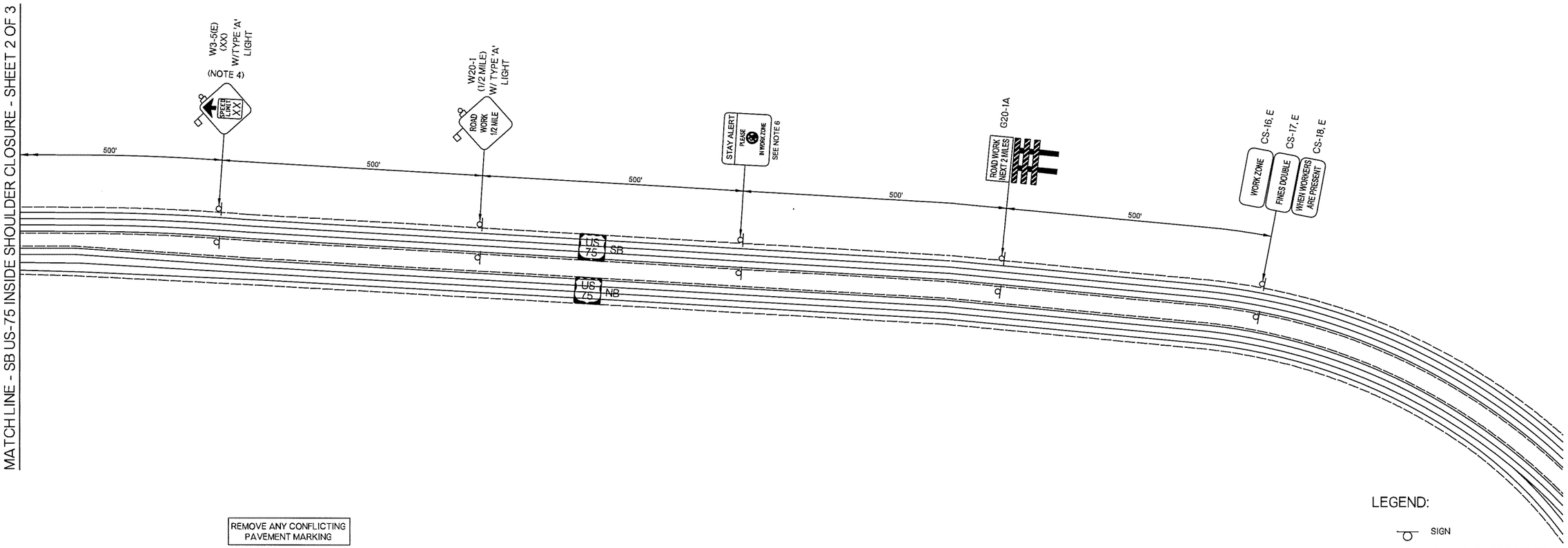
6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -82-RD-Traffic Control_PH2_ 2.dgn

DESCRIPTION	REVISIONS	DATE

0 100 200 300

SCALE

MATCH LINE - SB US-75 INSIDE SHOULDER CLOSURE - SHEET 2 OF 3



REMOVE ANY CONFLICTING PAVEMENT MARKING

LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

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NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

DESIGN		
DRAWN		
CHECKED		
APPROVED		
CREW		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

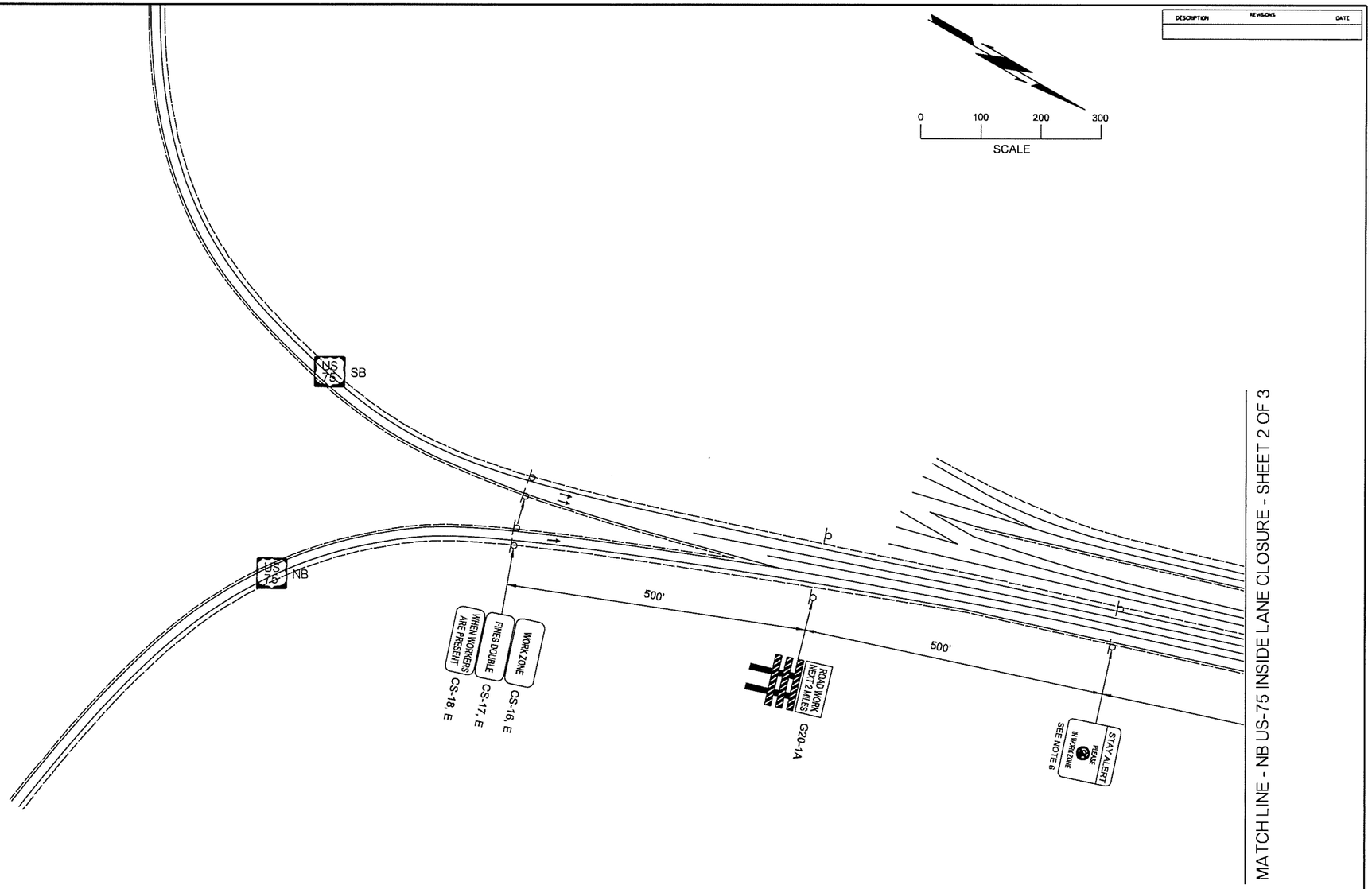
TRAFFIC CONTROL PLAN
SB US-75 INSIDE SHOULDER CLOSURE
SHEET 3 OF 3

STATE JOB NO. 28865(04) SHEET NO. 83

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -83-RD-Traffic Control_PH2_3.dgn

DESCRIPTION	REVISIONS	DATE



REMOVE ANY CONFLICTING PAVEMENT MARKING

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

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NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

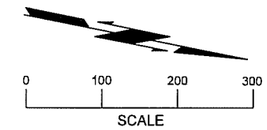
LEGEND:

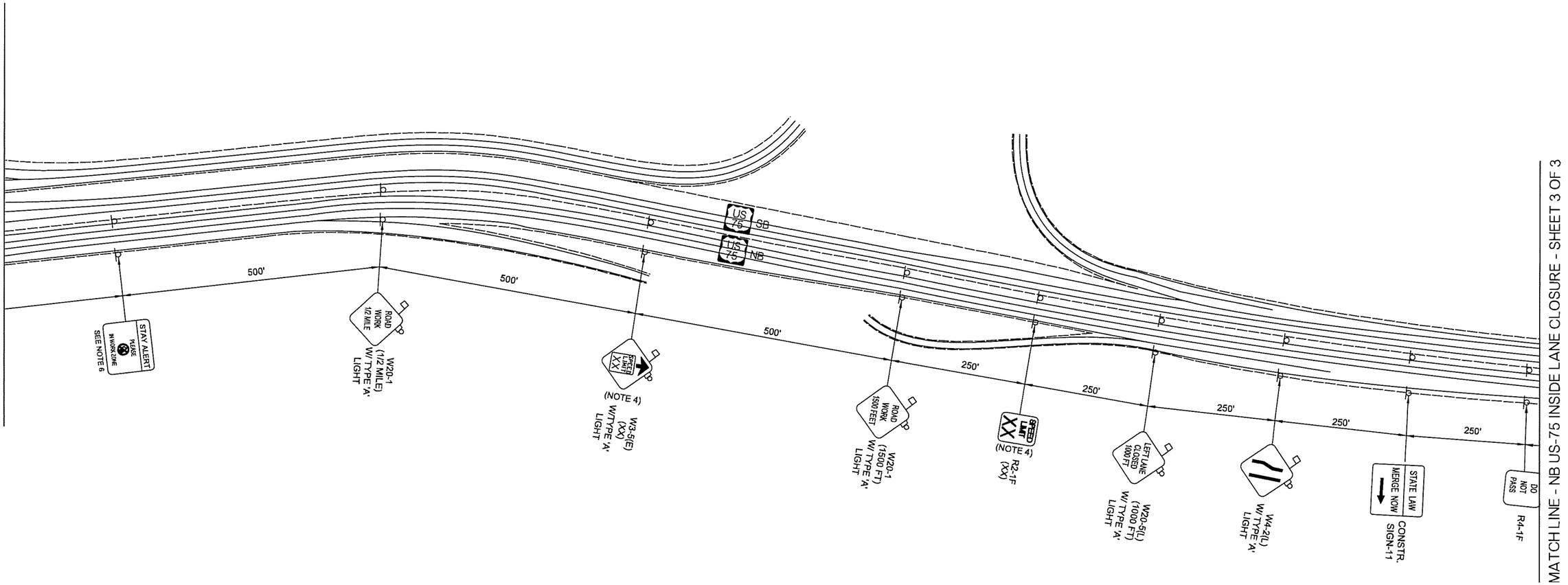
- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN		
CHECKED		TRAFFIC CONTROL PLAN NB US-75 INSIDE LANE CLOSURE SHEET 1 OF 3
APPROVED		STATE JOB NO. 28865(04) SHEET NO. 84
CREW		TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -84-RD-Traffic Control_PH3_ 1.dgn

DESCRIPTION	REVISIONS	DATE





REMOVE ANY CONFLICTING PAVEMENT MARKING

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

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NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

DESIGN		
DRAWN		
CHECKED		
APPROVED		
CREW		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
NB US-75 INSIDE LANE CLOSURE
SHEET 2 OF 3

STATE JOB NO. 28865(04) SHEET NO. 85

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -85-RD-Traffic Control_PH3_2.dgn

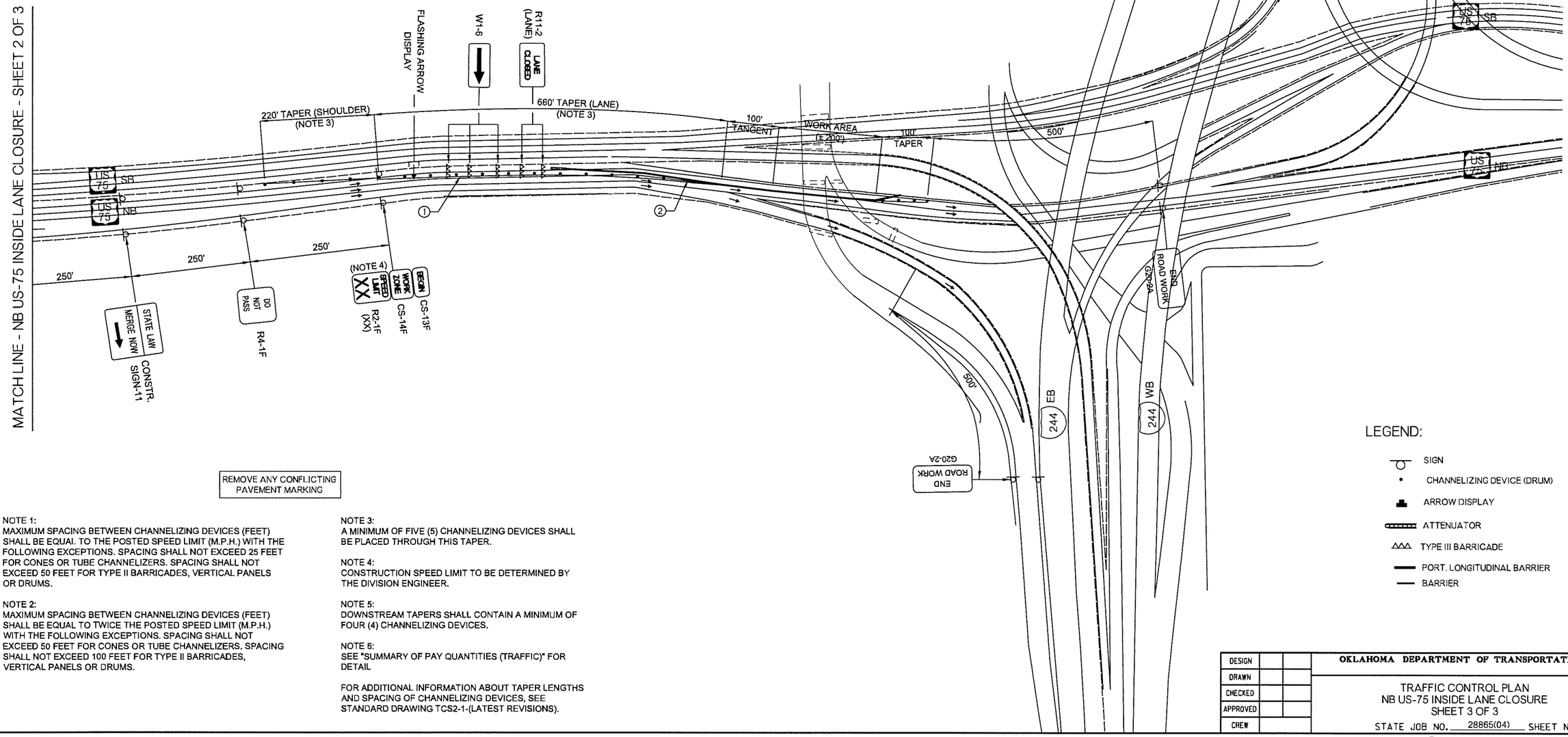
TRAFFIC CONTROL KEY NOTES

① CLOSE NB I-75 INSIDE LANE TO PROVIDE ADEQUATE WORK AREA FOR PIER 2 AND PIER 3 RECONSTRUCTION.

② PLACE PORTABLE LONGITUDINAL BARRIER ALONG CLOSED INSIDE LANE AND WORK AREA AS SHOWN ON THE PLANS.

DESCRIPTION	REVISIONS	DATE

0 100 200 300
SCALE



REMOVE ANY CONFLICTING PAVEMENT MARKING

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

DESIGN		
DRAWN		
CHECKED		
APPROVED		
CREW		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

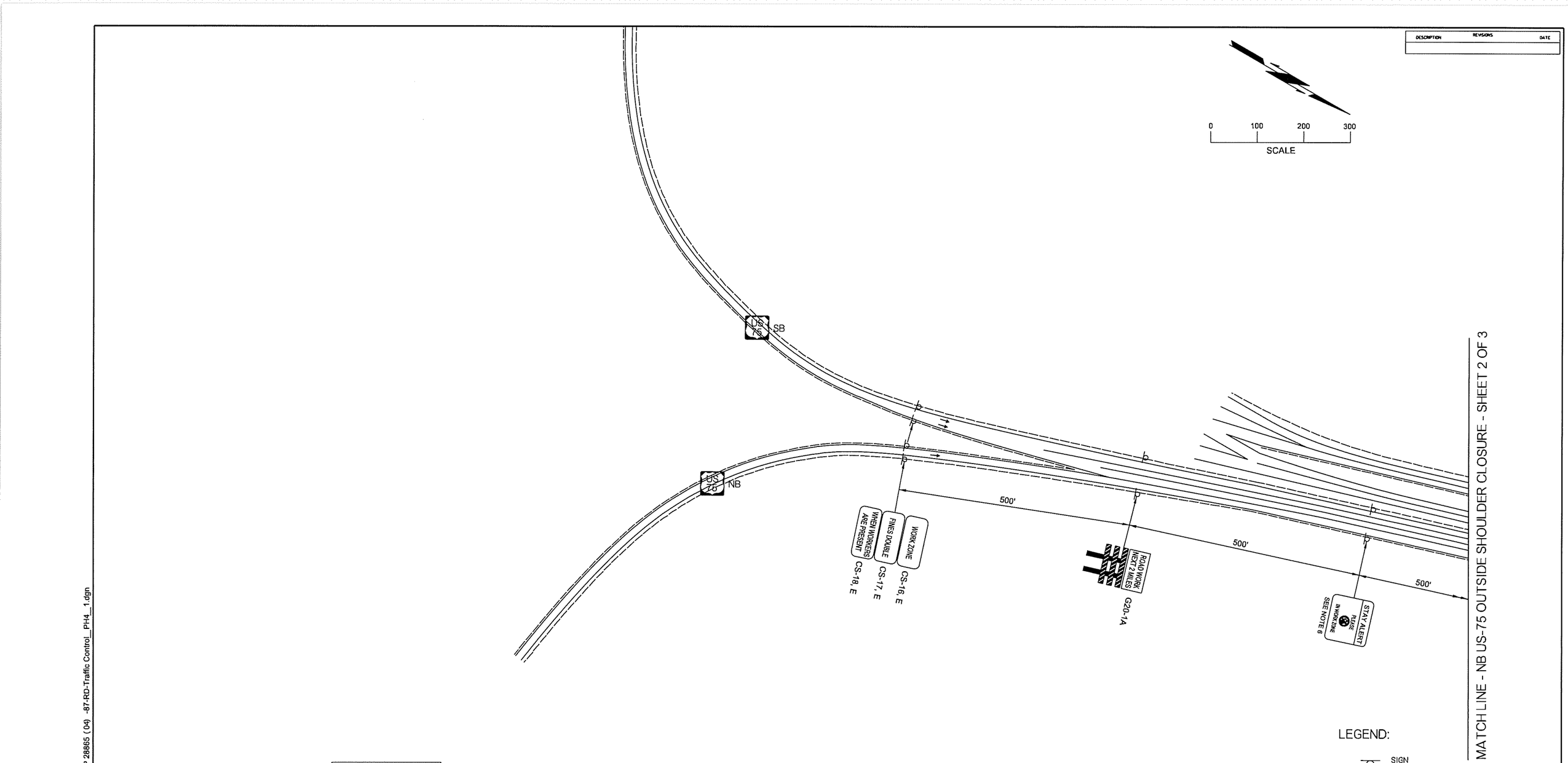
TRAFFIC CONTROL PLAN
NB US-75 INSIDE LANE CLOSURE
SHEET 3 OF 3

STATE JOB NO. 28865(04) SHEET NO. 86

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -86-RD-Traffic Control_PH3_3.dgn

DESCRIPTION	REVISIONS	DATE



REMOVE ANY CONFLICTING PAVEMENT MARKING

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

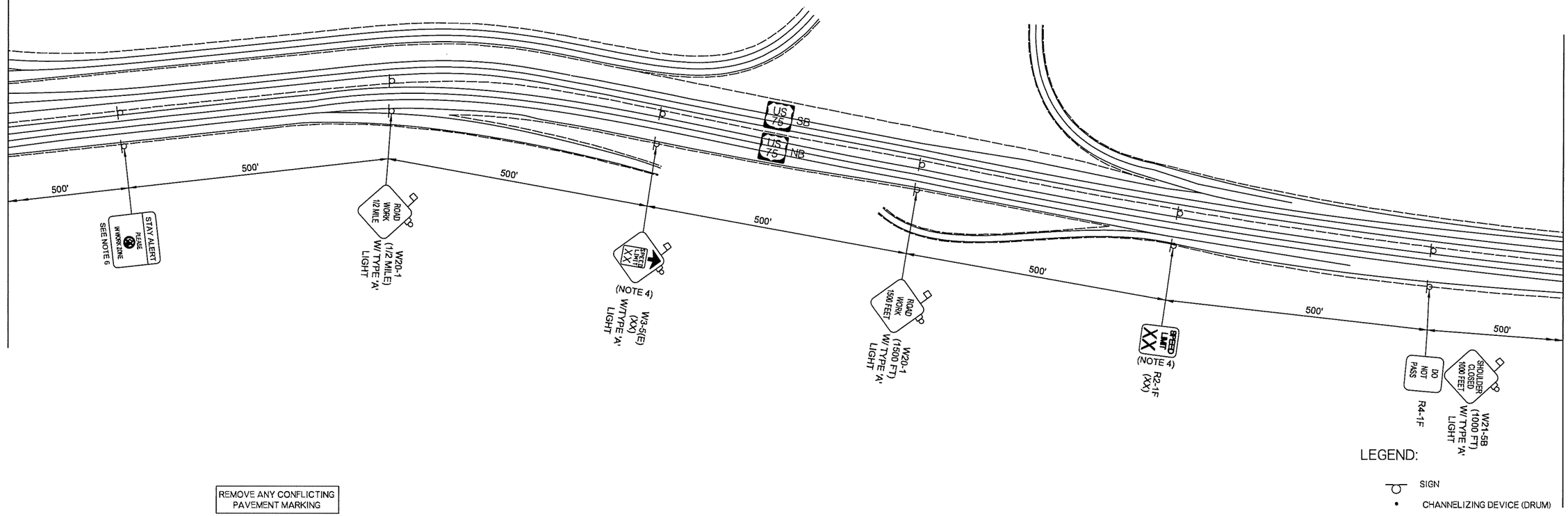
DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN		TRAFFIC CONTROL PLAN NB US-75 OUTSIDE SHOULDER CLOSURE SHEET 1 OF 3
CHECKED		STATE JOB NO. 28865(04) SHEET NO. 87
APPROVED		TULSA CO. 2ND STREET
CREW		

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheatFiles\JP 28865 (04) -87-RD-Traffic Control_ PH4_1.dgn

DESCRIPTION	REVISIONS	DATE

0 100 200 300
SCALE

MATCH LINE - NB US-75 OUTSIDE SHOULDER CLOSURE - SHEET 1 OF 3



MATCH LINE - NB US-75 OUTSIDE SHOULDER CLOSURE - SHEET 3 OF 3

REMOVE ANY CONFLICTING PAVEMENT MARKING

LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2:
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NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN		
CHECKED		TRAFFIC CONTROL PLAN NB US-75 OUTSIDE SHOULDER CLOSURE SHEET 2 OF 3
APPROVED		STATE JOB NO. 28865(04) SHEET NO. 88
CREW		TULSA CO. 2ND STREET

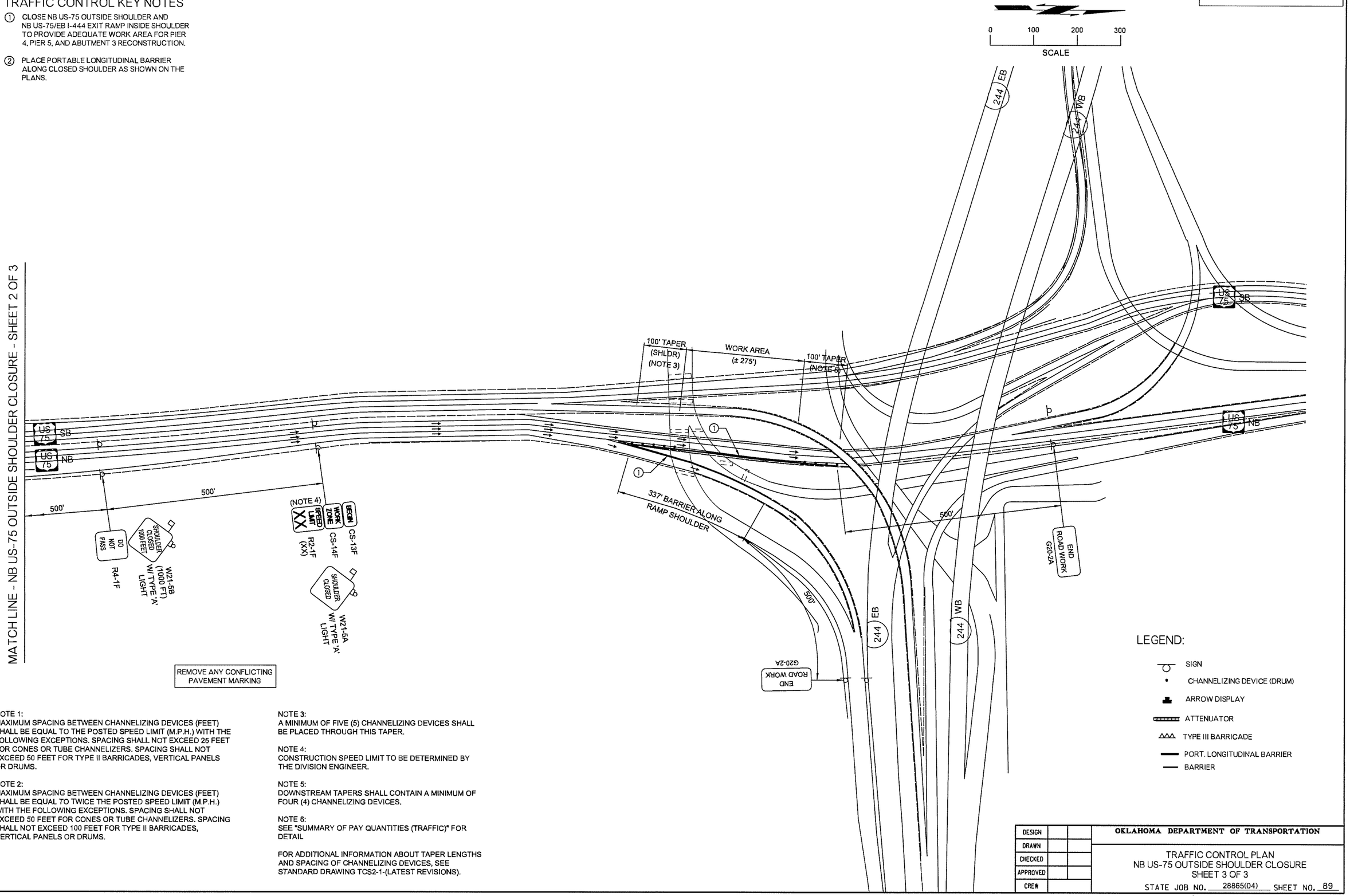
6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -88-RD-Traffic Control_ PH4_ 2.dgn

TRAFFIC CONTROL KEY NOTES

① CLOSE NB US-75 OUTSIDE SHOULDER AND NB US-75/EB I-444 EXIT RAMP INSIDE SHOULDER TO PROVIDE ADEQUATE WORK AREA FOR PIER 4, PIER 5, AND ABUTMENT 3 RECONSTRUCTION.

② PLACE PORTABLE LONGITUDINAL BARRIER ALONG CLOSED SHOULDER AS SHOWN ON THE PLANS.

DESCRIPTION	REVISIONS	DATE



NOTE 1:
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NOTE 2:
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NOTE 3:
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

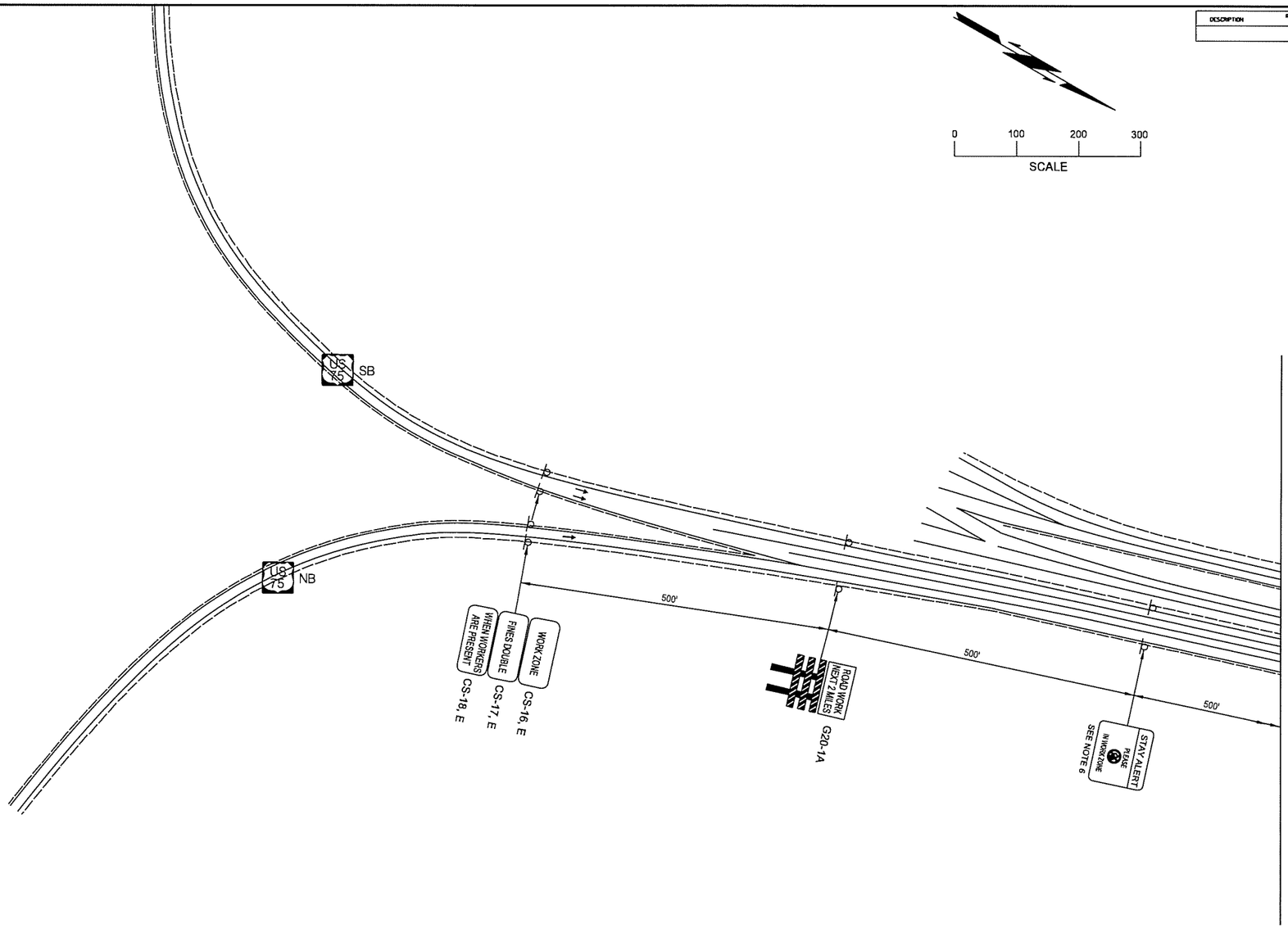
FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN		
CHECKED		TRAFFIC CONTROL PLAN NB US-75 OUTSIDE SHOULDER CLOSURE SHEET 3 OF 3
APPROVED		STATE JOB NO. 28865(04) SHEET NO. 89
CREW		TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -89-RD-Traffic Control_PH4_3.dgn

REVISIONS		
DESCRIPTION		DATE

0 100 200 300
SCALE



REMOVE ANY CONFLICTING PAVEMENT MARKING

NOTE 1:
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

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NOTE 3:
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NOTE 4:
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 5:
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 6:
SEE "SUMMARY OF PAY QUANTITIES (TRAFFIC)" FOR DETAIL

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

DESIGN		
DRAWN		
CHECKED		
APPROVED		
CREW		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
NB US-75 PARTIAL EXIT RAMP CLOSURE
SHEET 1 OF 3

STATE JOB NO. 28865(04) SHEET NO. 90

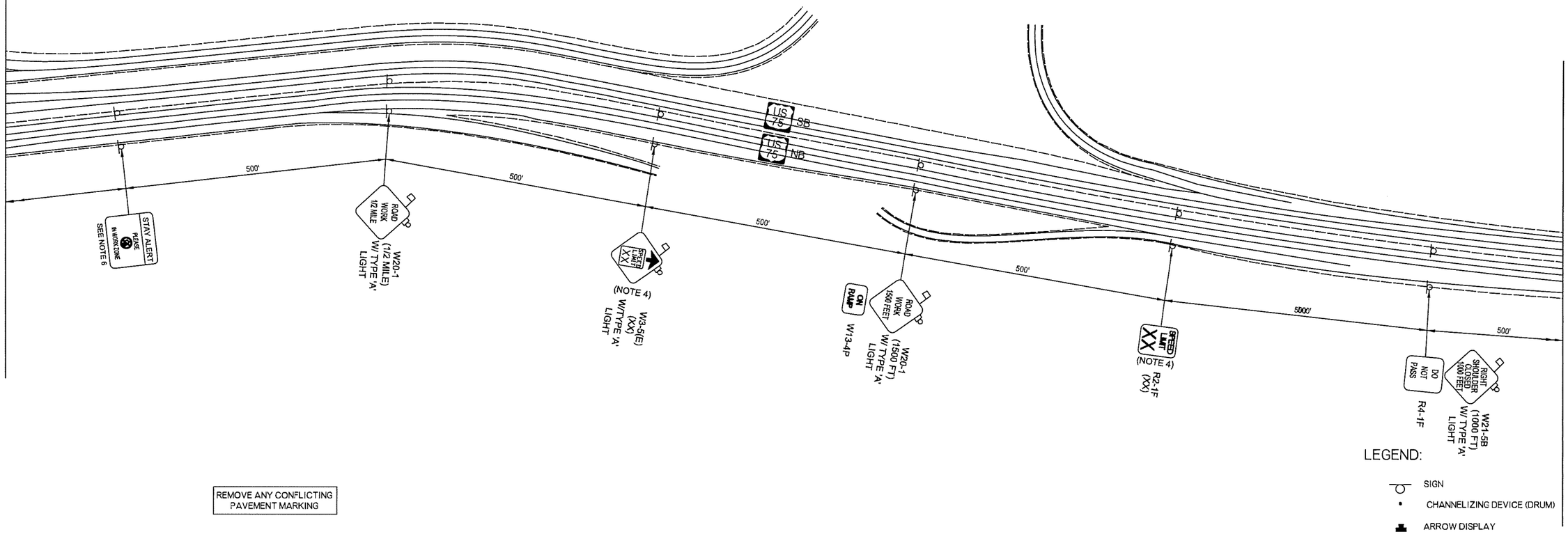
TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -90-RD-Traffic Control_ PH5_ 1.dgn

DESCRIPTION	REVISIONS	DATE

0 100 200 300
SCALE

MATCH LINE - NB US-75 PARTIAL EXIT RAMP CLOSURE - SHEET 1 OF 3



MATCH LINE - NB US-75 PARTIAL EXIT RAMP CLOSURE - SHEET 3 OF 3

REMOVE ANY CONFLICTING PAVEMENT MARKING

NOTE 1:
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FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

LEGEND:

- SIGN
- CHANNELIZING DEVICE (DRUM)
- ARROW DISPLAY
- ATTENUATOR
- TYPE III BARRICADE
- PORT. LONGITUDINAL BARRIER
- BARRIER

DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN		
CHECKED		TRAFFIC CONTROL PLAN
APPROVED		NB US-75 PARTIAL EXIT RAMP CLOSURE
CREW		SHEET 2 OF 3
		STATE JOB NO. 28865(04) SHEET NO. 91
		TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -91-RD-Traffic Control_PH5_2.dgn

TRAFFIC CONTROL KEY NOTES

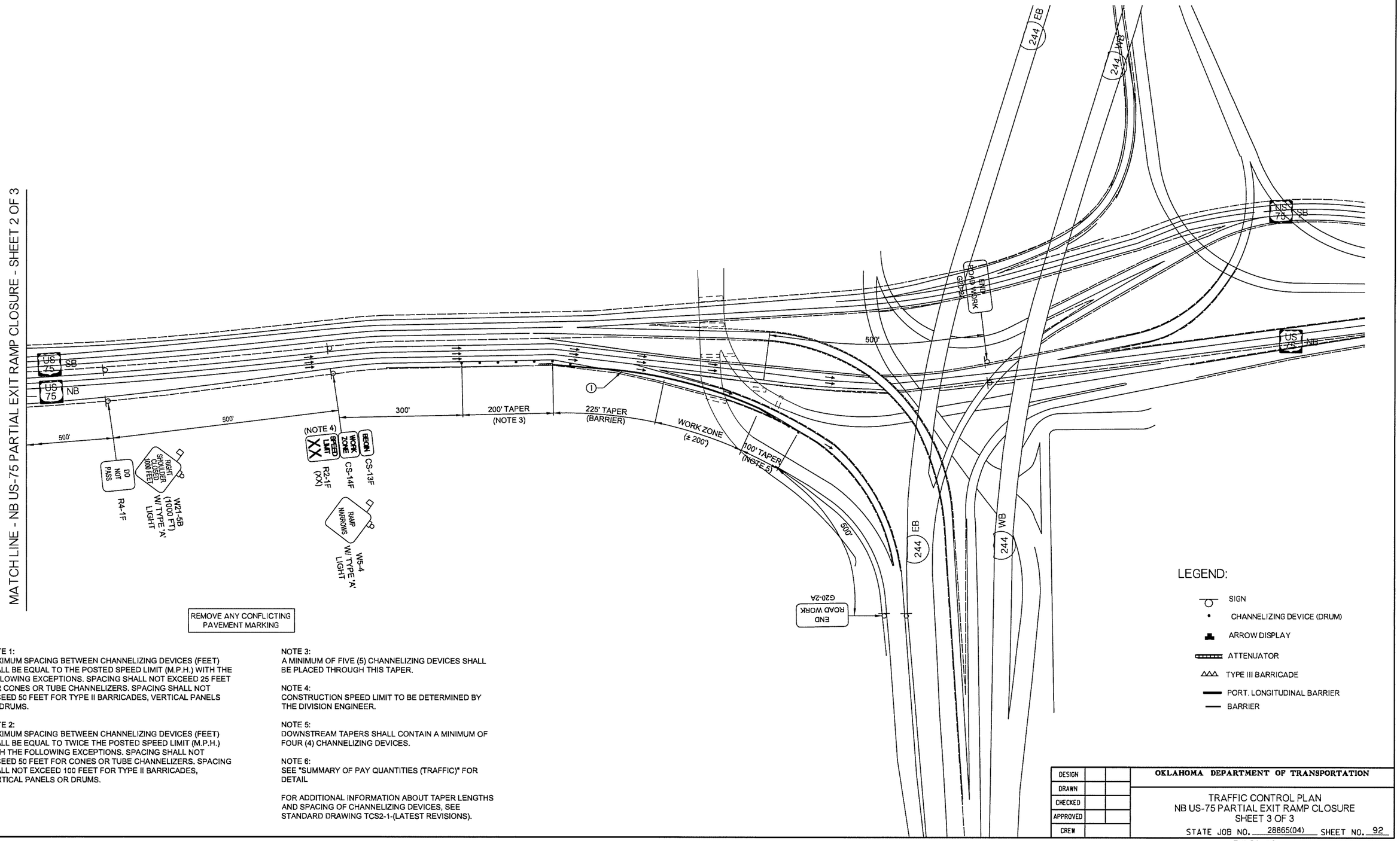
① CLOSE EXISTING NB US-75/EB I-444 EXIT RAMP AND SHIFT RAMP LANE APPROXIMATELY 10 FEET TO THE WEST TO PROVIDE ADEQUATE WORK AREA FOR ABUTMENT 2 REPAIRS.

② PLACE PORTABLE LONGITUDINAL BARRIER ALONG PARTIALLY CLOSED RAMP AND WORK AREA AS SHOWN IN THE PLANS.

REVISIONS		
DESCRIPTION		DATE

0 100 200 300

SCALE



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FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISIONS).

DESIGN		
DRAWN		
CHECKED		
APPROVED		
CREW		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
NB US-75 PARTIAL EXIT RAMP CLOSURE
SHEET 3 OF 3

STATE JOB NO. 28865(04) SHEET NO. 92

TULSA CO. 2ND STREET

6/7/2016 N:\11399\200-11399-13001-05\CAD\SheetFiles\JP 28865 (04) -92-RD-Traffic Control_PH5_3.dgn