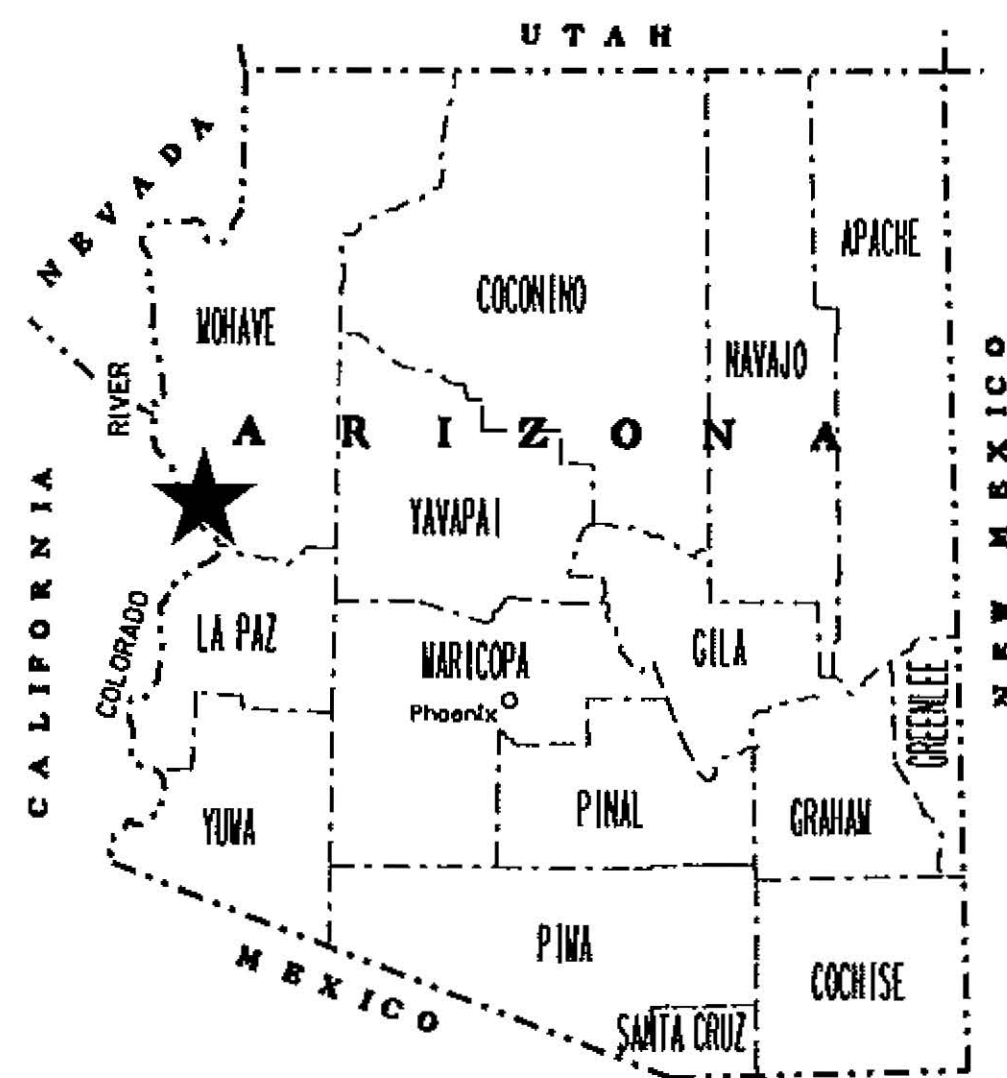




STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION

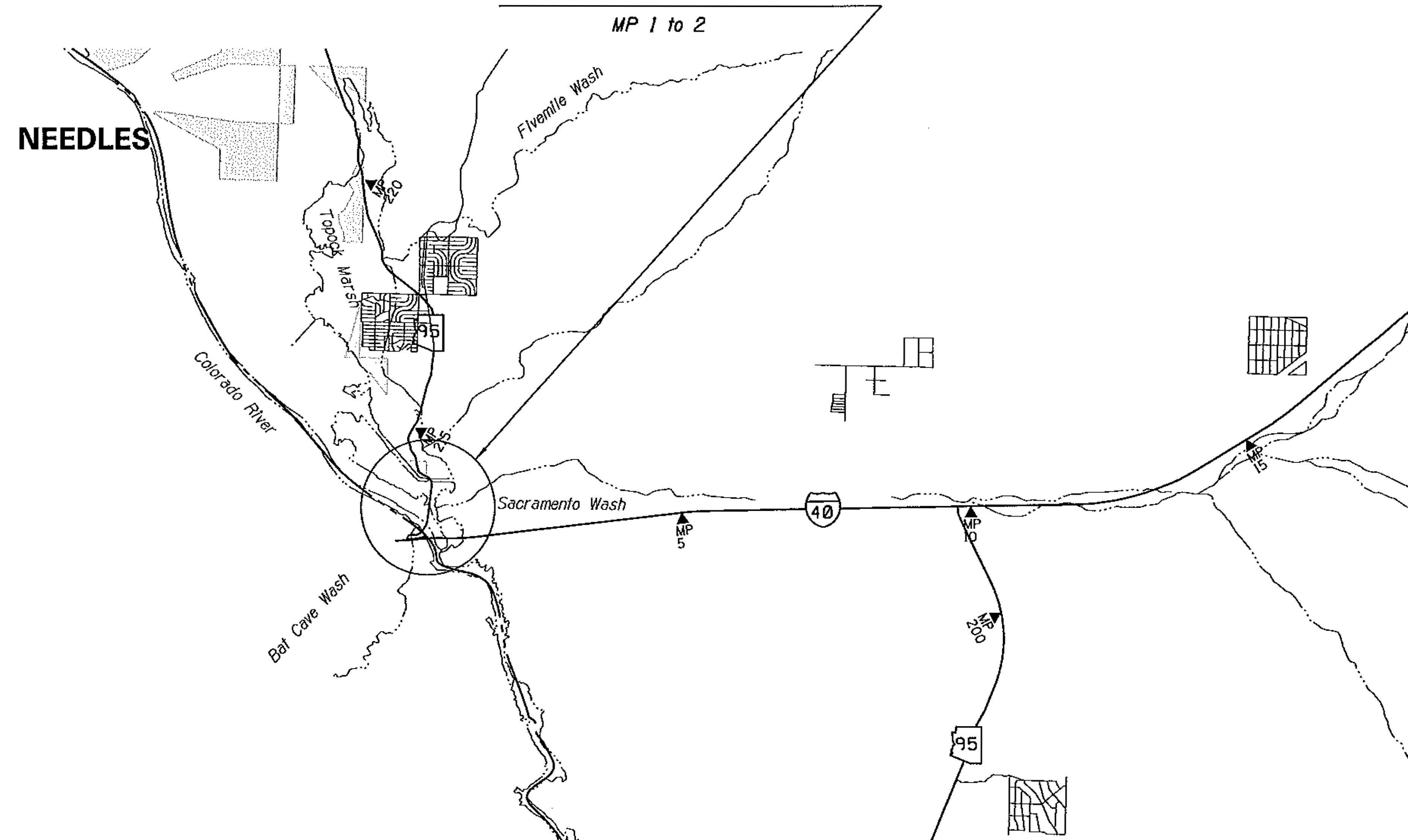
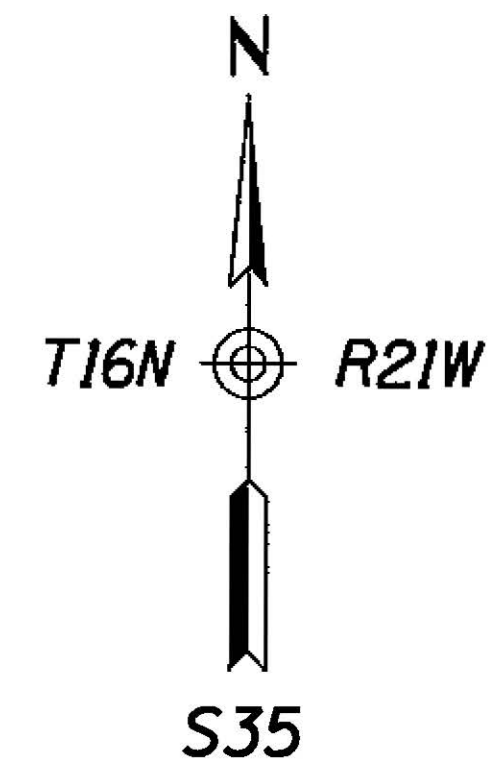
ADOT

PROJECT PLANS

**OATMAN HIGHWAY
(OLD ROUTE 66)**

BRIDGE STRUCTURE AND APPROACH

MP 1 to 2



Constructed by:

Construction Company

Completion Date

Red-Lines by:

Construction Administrator Name & Company

Completion Date

Record Drawings by:

Record Drawings Designer Name & Company

Completion Date

OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING

PROJECT NO. 0000 MO MMO T0021 01C

FEDERAL AID NO. 000-MMO-0(216)T

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
DALLAS HAMMIT, P.E., STATE ENGINEER

ADOT STANDARD DRAWINGS
C STANDARDS

ISSUE OR REVISION DATE	STANDARD NO.	SUBJECT CONSTRUCTION
5/12	C-01.10 SH 1	SYMBOL LEGEND
5/12	C-01.10 SH 2	SYMBOL LEGEND
5/12	C-01.10 SH 3	SYMBOL LEGEND
5/12	C-01.10 SH 4	SYMBOL LEGEND
5/12	C-01.30 SH 1	GENERAL ABBREVIATIONS
5/12	C-01.30 SH 2	GENERAL ABBREVIATIONS
5/12	C-01.30 SH 3	GENERAL ABBREVIATIONS
5/12	C-02.10	SLOPES, RURAL DIVIDED HIGHWAYS
5/12	C-02.20	SLOPES, RURAL UNDIVIDED AND FRINGE-URBAN HIGHWAYS
5/12	C-02.30	SLOPES, MISCELLANEOUS ROADWAYS
5/12	C-03.10 SH 1	DITCHES, CHANNELS, DIKES AND BERMS, DITCHES AND CHANNELS
5/12	C-03.10 SH 2	DITCHES, CHANNELS, DIKES AND BERMS, DIKES
5/12	C-03.10 SH 3	DITCHES, CHANNELS, DIKES AND BERMS, DITCH DIKE
5/12	C-03.10 SH 4	DITCHES, CHANNELS, DIKES AND BERMS, PIPE BERMS
5/12	C-03.10 SH 5	DITCHES, CHANNELS, DIKES AND BERMS, HEADWALL BERMS
5/12	C-04.10 SH 1	SPILLWAY, EMBANKMENT SINGLE INLET
5/12	C-04.10 SH 2	SPILLWAY, EMBANKMENT DOUBLE INLET
5/12	C-04.20 SH 1	DOWNDRAIN, EMBANKMENT SINGLE INLET
5/12	C-04.20 SH 2	DOWNDRAIN, EMBANKMENT DOUBLE INLET
5/12	C-04.30	SPILLWAY LENGTH TABLE
5/12	C-04.40	DOWNDRAIN LENGTH TABLE
5/12	C-04.50	DOWNDRAIN ENERGY DISSIPATOR
5/12	C-05.10	CURB & GUTTER, CURB, GUTTER
5/12	C-05.12 SH 1	CURB & GUTTER TRANSITIONS
5/12	C-05.12 SH 2	CURB & GUTTER TRANSITIONS
5/12	C-05.12 SH 3	CURB AND GUTTER TRANSITIONS
5/12	C-05.20 SH 1	CONCRETE DRIVEWAYS & SIDEWALKS, DRIVEWAYS
5/12	C-05.20 SH 2	CONCRETE DRIVEWAYS & SIDEWALKS, SIDEWALKS
5/12	C-05.30 SH 1	SIDEWALK RAMP, TYPE A
5/12	C-05.30 SH 2	SIDEWALK RAMP, TYPE B
5/12	C-05.30 SH 3	SIDEWALK RAMP, TYPE C
5/12	C-05.30 SH 4	SIDEWALK RAMP, TYPE D
5/12	C-05.30 SH 5	SIDEWALK RAMP, TYPE E
5/12	C-05.30 SH 6	SIDEWALK RAMP, TYPE F
5/12	C-05.30 SH 7	SIDEWALK RAMP, DETECTABLE WARNING STRIP
5/12	C-05.40	MEDIAN PAVING AND NOSE TAPER
5/12	C-05.50	CONCRETE BUS BAY
5/12	C-06.10 SH 1	DRIVEWAY & TURNOUT LAYOUTS
5/12	C-06.10 SH 2	DRIVEWAY & TURNOUT LAYOUTS
5/12	C-07.01 SH 1	PCCP JOINTS
5/12	C-07.01 SH 2	PCCP JOINTS
5/12	C-07.02	LOAD TRANSFER DOWEL ASSEMBLY
5/12	C-07.03 SH 1	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 2	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 3	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 4	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 5	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 6	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 7	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 8	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.04 SH 1	PCCP JOINT LOCATIONS, PARALLEL TYPE ENTRANCE RAMP WITH AUXILIARY LANE
5/12	C-07.04 SH 2	PCCP JOINT LOCATIONS, PARALLEL TYPE EXIT RAMP WITH AUXILIARY LANE
5/12	C-07.04 SH 3	PCCP JOINT LOCATIONS, TAPER TYPE ENTRANCE RAMP
5/12	C-07.04 SH 4	PCCP JOINT LOCATIONS, TAPER TYPE EXIT RAMP
5/12	C-07.04 SH 5	PCCP JOINT LOCATIONS, CROSSROAD AND RAMP TERMINI
5/12	C-07.06	TRENCH BACKFILL AND PAVEMENT REPLACEMENT
5/12	C-08.20	PAVED GORE AREA
5/12	C-10.00	GUARDRAIL MEASUREMENT LIMITS
5/12	C-10.01	GUARDRAIL INSTALLATION, TYPE A AND REFLECTOR TAB
5/12	C-10.02	GUARDRAIL INSTALLATION, TYPE B AND REFLECTOR TAB
5/12	C-10.03	W-BEAM GUARDRAIL, G4(1W) AND G4(2W), BLOCKED-OUT TIMBER POST
5/12	C-10.04	W-BEAM GUARDRAIL, G4(1S), BLOCKED-OUT STEEL POST
5/12	C-10.05 SH 1	W-BEAM GUARDRAIL, G4(MODIFIED) WITH FREEWAY CURB AND GUTTER
5/12	C-10.05 SH 2	W-BEAM GUARDRAIL, G4(MODIFIED) WITH FREEWAY CURB AND GUTTER
5/12	C-10.06 SH 1	W-BEAM GUARDRAIL, NESTED, TYPES 1 AND 2
5/12	C-10.06 SH 2	W-BEAM GUARDRAIL, NESTED, TYPE 3
5/12	C-10.07 SH 1	W-BEAM GUARDRAIL, BOLTED ANCHOR
5/12	C-10.07 SH 2	W-BEAM GUARDRAIL, BOLTED ANCHOR
5/12	C-10.08	W-BEAM GUARDRAIL, END ANCHOR
5/12	C-10.20	THREE-BEAM GUARDRAIL, G9, BLOCKED-OUT STEEL POST
5/12	C-10.30 SH 1	GUARDRAIL TRANSITION, THREE BEAM TO CONCRETE HALF BARRIER, 32" TYPE 'F'
5/12	C-10.30 SH 2	GUARDRAIL TRANSITION, THREE BEAM TO CONCRETE HALF BARRIER, 32" TYPE 'F'
5/12	C-10.40	CONCRETE MEDIAN BARRIER, 32" TYPE 'F', CAST-IN-PLACE
5/12	C-10.41	CONCRETE MEDIAN BARRIER, 42" TYPE 'F', CAST-IN-PLACE
5/12	C-10.42 SH 1	GLARE SCREEN, CONCRETE MEDIAN BARRIER
5/12	C-10.42 SH 2	GLARE SCREEN, CONCRETE MEDIAN BARRIER
5/12	C-10.42 SH 3	GLARE SCREEN, CONCRETE MEDIAN BARRIER
5/12	C-10.50 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F', CAST-IN-PLACE
5/12	C-10.50 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F', PRECAST
5/12	C-10.51	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH SIDEWALK
5/12	C-10.52	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH GUTTER
5/12	C-10.53	CONCRETE HALF BARRIER, 42" TYPE 'F' WITH GUTTER
5/12	C-10.54 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, CAST-IN-PLACE
5/12	C-10.54 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, PRECAST
5/12	C-10.54 SH 3	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, LAYOUT
5/12	C-10.55 SH 1	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, CAST-IN-PLACE
5/12	C-10.55 SH 2	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, PRECAST
5/12	C-10.55 SH 3	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, LAYOUT
5/12	C-10.70 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
5/12	C-10.70 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
5/12	C-10.70 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS

ISSUE OR REVISION DATE	STANDARD NO.	SUBJECT CONSTRUCTION
5/12	C-10.71 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
5/12	C-10.71 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
5/12	C-10.72 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
5/12	C-10.72 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
5/12	C-10.72 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
5/12	C-10.73 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
5/12	C-10.73 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
5/12	C-10.74	CONCRETE HALF-BARRIER TRANSITION, 42" TO 32" TYPE 'F'
5/12	C-10.75 SH 1	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F', TANGENT DEPARTURE TYPE 1
5/12	C-10.75 SH 2	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F', TANGENT DEPARTURE TYPE 2
5/12	C-10.76	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' AT RADIUS, 32" TO 0"
5/12	C-10.77	CONCRETE HALF-BARRIER TRANSITION, END TERMINAL CURB AND GUTTER
5/12	C-11.10 SH 1	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 2	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 3	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 4	ROADWAY CATTLE GUARD
5/12	C-11.20	CATTLE GUARD, DRAINAGE
5/12	C-12.10 SH 1	FENCE, WOVEN WIRE
5/12	C-12.10 SH 2	FENCE, BARBED WIRE
5/12	C-12.10 SH 3	FENCE, TYPES 1 AND 2 GATES, FLOOD GATE
5/12	C-12.10 SH 4	FENCE, FLOOD GATE INSTALLATION
5/12	C-12.10 SH 5	FENCE, MISCELLANEOUS DETAILS
5/12	C-12.20 SH 1	FENCE, CHAIN LINK, TYPE 1
5/12	C-12.20 SH 2	FENCE, CHAIN LINK, TYPE 2
5/12	C-12.20 SH 3	FENCE, CHAIN LINK, GATES
5/12	C-12.30 SH 1	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-12.30 SH 2	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-12.30 SH 3	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-13.10 SH 1	PIPE CULVERT INSTALLATION
5/12	C-13.10 SH 2	PIPE CULVERT INSTALLATION
5/12	C-13.15	TYPICAL PIPE INSTALLATION
5/12	C-13.20	PIPE, REINFORCED CONCRETE END SECTION
5/12	C-13.25	PIPE, CORRUGATED METAL END SECTION
5/12	C-13.30	PIPE AND PIPE ARCH, CORRUGATED METAL, CONCRETE INVERT PAVING
5/12	C-13.55	PIPE, CATTLE-VEHICLE PASS, MITERED END TREATMENT
5/12	C-13.60	SLOTTED DRAIN DETAILS
5/12	C-13.65	SLOTTED DRAIN INSTALLATION DETAILS
5/12	C-13.70	STORM DRAIN CONNECTION DETAILS
5/12	C-13.75	STORM DRAIN OUTLET BARRIER GATE
5/12	C-13.76	STORM DRAIN OUTLET AND STORM DRAIN PLUG
5/12	C-13.80	PIPE COLLAR DETAILS
5/12	C-15.10	CATCH BASIN, TYPE 1
5/12	C-15.20 SH 1	CATCH BASIN, TYPE 3
5/12	C-15.20 SH 2	CATCH BASIN, TYPE 3
5/12	C-15.20 SH 3	CATCH BASIN, ACCESS FRAME AND COVER DETAILS
5/12	C-15.30	CATCH BASIN, TYPE 4
5/12	C-15.40 SH 1	CATCH BASIN, TYPE 5
5/12	C-15.40 SH 2	CATCH BASIN, TYPE 5
5/12	C-15.50	CATCH BASIN, FRAME AND GRATE
5/12	C-15.70 SH 1	CATCH BASIN, MISCELLANEOUS DETAILS
5/12	C-15.70 SH 2	CATCH BASIN, MISCELLANEOUS DETAILS
5/12	C-15.75	CATCH BASIN, DROP INLET
5/12	C-15.80	CATCH BASIN, FLUSH
5/12	C-15.81	CATCH BASIN, SIDE SLOPE
5/12	C-15.90	CATCH BASIN, MEDIAN DIKE, PRECAST
5/12	C-15.91 SH 1	FREEWAY CATCH BASIN DETAILS
5/12	C-15.91 SH 2	FREEWAY CATCH BASIN DETAILS
5/12	C-15.92 SH 1	CATCH BASIN WITH TYPE 'F' CONCRETE HALF BARRIER
5/12	C-15.92 SH 2	CATCH BASIN WITH TYPE 'F' CONCRETE HALF BARRIER
5/12	C-16.40	IRRIGATION SLEEVES
5/12	C-17.10	RAIL BANK PROTECTION FOR DRAINAGEWAYS, TYPES 1, 2 & 3
5/12	C-17.15	RAIL BANK PROTECTION AT ABUTMENTS, TYPES 4, 5 & 6
5/12	C-17.20	BANK PROTECTION FOR DRAINAGEWAYS, TYPES 7, 8 & 9
5/12	C-18.10 SH 1	MANHOLE, RISER DETAILS
5/12	C-18.10 SH 2	MANHOLE, BASE DETAILS, NORMAL INSTALLATION
5/12	C-18.10 SH 3	MANHOLE, FRAME AND COVER DETAILS
5/12	C-19.10 SH 1	FORD, CONCRETE WALLS
5/12	C-19.10 SH 2	FORD, TYPES 1 AND 2
5/12	C-21.10	SURVEY MONUMENT FRAME AND COVER
5/12	C-21.20	SURVEY MARKER

ADOT STANDARD DRAWINGS			
REVISION DATES and STANDARD NO.'s REVIEW			
NAME		DATE	
CONSTRUCTION Standards		7-07-2016	
PROJECT NO.			
0000 MO MMO T0021 OIC		1A OF 76	
RECORD DRAWING FEDERAL AID NO.		REC. DWG. DATE	
DATA MMO-012161T		OF	

REV.: 05/12

ADOT STANDARD DRAWINGS
TRAFFIC SIGNING & MARKING STANDARDS
(SHEET 1 OF 2)
EFFECTIVE MAY 2015

SUBJECT:

SIGNING & MARKING DETAILS

REVISION	STANDARD	SIGNING & MARKING DETAILS
6/14	M-1	CURB MARKINGS FOR RAISED MEDIAN AND ISLANDS
6/14	M-2 SHT 1	INTERSECTION STRIPING
5/15	M-2 SHT 2	INTERSECTION STRIPING (TWO-LANE RURAL)
6/14	M-2 SHT 3	CENTERLINE & REVERSE CURVE DETAILS
6/14	M-3	STRIPING AND DELINEATION FOR FREEWAY TERMINALS
6/14	M-4	PASSING LANE STRIPING DETAILS
6/14	M-5	RAILROAD PAVEMENT MARKINGS
6/14	M-6	WORD MARKINGS
6/14	M-7	PAVEMENT LETTERS
6/14	M-8	PAVEMENT LETTERS
6/14	M-9	PAVEMENT NUMBERS
6/14	M-10 SHT 1	PAVEMENT MARKING SYMBOLS
6/14	M-10 SHT 2	PAVEMENT MARKING SYMBOLS
6/14	M-11	TURN LANE PAVEMENT MARKINGS
6/14	M-12	WRONG-WAY ARROWS
6/14	M-13	PREFERENTIAL LANE PAVEMENT MARKINGS
6/14	M-14	STRIPING AND DELINEATION FOR TRUCK ESCAPE RAMPS
6/14	M-15 SHT 1	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - TAPERED ACCELERATION LANE
6/14	M-15 SHT 2	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - PARALLEL ACCELERATION LANE
6/14	M-15 SHT 3	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - PARALLEL ACCELERATION LANE WITH HOV BYPASS
6/14	M-15 SHT 4	PAVEMENT MARKING FOR FREEWAY PARALLEL - ACCELERATION LANE
6/14	M-16 SHT 1	PAVEMENT MARKING FOR FREEWAY EXIT RAMPS - TAPERED DECELERATION LANE
6/14	M-16 SHT 2	PAVEMENT MARKING FOR FREEWAY EXIT RAMP - PARALLEL DECELERATION LANE
5/15	M-17	FREEWAY LANE DROP PAVEMENT MARKINGS
6/14	M-18	RECESSED PAVEMENT MARKER DETAILS
6/14	M-19 SHT 1	RAISED PAVEMENT MARKER PLAN LEGEND
6/14	M-19 SHT 2	NON-REFLECTIVE RAISED PAVEMENT MARKER DETAILS
6/14	M-19 SHT 3	RETROREFLECTIVE RAISED PAVEMENT MARKER DETAILS
6/14	M-19 SHT 4	RETROREFLECTIVE RAISED PAVEMENT MARKER DETAILS
5/15	M-19 SHT 5	PAVEMENT MARKING DETAILS FOR UNDIVIDED HIGHWAYS
6/14	M-19 SHT 6	RETROREFLECTIVE RAISED PAVEMENT MARKERS (RPM) FOR UNDIVIDED HIGHWAYS
6/14	M-19 SHT 7	FREEWAY AND DIVIDED HIGHWAY EDGE LINE AND LANE STRIPING
5/15	M-19 SHT 8	LANE DROP MARKING AND RAMP OR INTERSECTION GUIDE STRIPING
6/14	M-19 SHT 9	PAVEMENT MARKING CROSS-SECTION DETAILS FOR HIGHWAYS AND FREEWAYS

SUBJECT:

SIGNING & MARKING DETAILS

REVISION	STANDARD	SIGNING & MARKING DETAILS
6/14	M-20 SHT 1	CHIP SEAL MARKER USAGE FOR TEMPORARY MARKERS
6/14	M-20 SHT 2	CHIP SEAL MARKER USAGE FOR TEMPORARY MARKERS
6/14	M-21	TRANSVERSE RUMBLE STRIP DETAILS
6/14	M-22 SHT 1	LONGITUDINAL RUMBLE STRIP GROOVE, PATTERN - AND LOCATION DETAILS
6/14	M-22 SHT 2	LONGITUDINAL RUMBLE STRIP EXCEPTION DETAILS
6/14	M-22 SHT 3	CENTERLINE RUMBLE STRIP GROOVE, PATTERN - AND LOCATION DETAILS
6/14	M-23	OBJECT MARKER DETAILS
6/14	M-24	OBJECT MARKER PLACEMENT DETAILS
6/14	M-26 SHT 1	DELINEATOR PLACEMENT AND SPACING
6/14	M-26 SHT 2	DELINEATOR PLACEMENT AND SPACING
6/14	M-26 SHT 3	FLEXIBLE DELINEATOR ASSEMBLIES
6/14	M-26 SHT 4	SQUARE STEEL POST DELINEATOR
6/14	M-26 SHT 5	DELINEATOR FOUNDATION DETAILS
6/14	M-27	DELINEATION DETAILS FOR MEDIAN CROSSTOVS
6/14	M-29	OFF-MAINLINE REFERENCE MARKER LOCATION DETAIL
6/14	M-30	OFF-MAINLINE REFERENCE MARKER DETAILS
6/14	M-32	BRIDGE AND BARRIER MARKER DETAILS
6/14	M-33	BRIDGE & BARRIER MARKER PLACEMENT AND INSTALLATION DETAILS
6/14	M-34	GUARDRAIL END TERMINAL DELINEATION DETAILS
6/14	M-35	OBJECT MARKER FOR SAND BARREL CRASH CUSHION

ADOT STANDARD DRAWINGS			
REVISION DATES and STANDARD NO.'s REVIEW			
SIGNING & MARKING STANDARDS		NAME T. Lopez	DATE 7-07-2016
PROJECT NO. 0000 MO MMO T0021 OIC		1B-1	OF 76
RECORD DRAWING DATA	FEDERAL AID NO. MMO-0(216)T	REC. DWG. DATE	OF

ADOT STANDARD DRAWINGS
TRAFFIC SIGNING & MARKING STANDARDS
(SHEET 2 OF 2)
EFFECTIVE MAY 2015

SUBJECT:

REVISION	STANDARD	SIGNING & MARKING DETAILS
6/14	S-1 SHT 1	GENERAL SIGNING NOTES
6/14	S-2 SHT 1	S & W BREAKAWAY POST SELECTION CHART
6/14	S-2 SHT 2	S & W BREAKAWAY POST INSTALLATION DETAILS
6/14	S-3 SHT 1	FLAT SHEET SIGNS SQUARE TUBE POST GENERAL NOTES
6/14	S-3 SHT 2	SINGLE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 12, 18 AND 24 INCH WIDTHS
6/14	S-3 SHT 3	SINGLE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 30, 36, 42 AND 54 INCH WIDTHS
6/14	S-3 SHT 4	TWO POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 36, 42 AND 48 INCH WIDTHS
6/14	S-3 SHT 5	TWO POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 54, 60 AND 72 INCH WIDTHS
6/14	S-3 SHT 6	TWO POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 84 - 144 INCH WIDTHS
6/14	S-3 SHT 7	THREE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 48, 60 AND 72 INCH WIDTHS
6/14	S-3 SHT 8	THREE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 84 - 144 INCH WIDTHS
6/14	S-3 SHT 9	WARNING SIGN ASSEMBLY - SINGLE POST
6/14	S-3 SHT 10	WARNING SIGN ASSEMBLY - TWO POST
6/14	S-3 SHT 11	WARNING SIGN ASSEMBLY - THREE POST
6/14	S-3 SHT 12	MULTIPLE ROUTE MARKER ASSEMBLIES
6/14	S-3 SHT 13	SPECIAL SIGN ASSEMBLIES
6/14	S-3 SHT 14	STRINGER DETAILS FOR SQUARE TUBE POSTS
6/14	S-3 SHT 15	SQUARE TUBE SIGN POST FOUNDATION
6/14	S-3 SHT 16	SQUARE TUBE POST SLIP BASE DETAILS
6/14	S-4	W SHAPE BREAKAWAY POST FUSE PLATE AND HINGE DETAILS
6/14	S-5	W SHAPE BREAKAWAY POST DETAILS
6/14	S-6	S4x7.7 BREAKAWAY POST DETAILS
6/14	S-7 SHT 1	ALUMINUM EXTRUSION SIGN PANEL DETAILS
6/14	S-7 SHT 2	ALUMINUM EXTRUSION AUXILIARY SIGN INSTALLATION DETAILS
5/15	S-7 SHT 3	ALUMINUM EXTRUSION EXIT PANEL INSTALLATION DETAIL
6/14	S-8 SHT 1	FLAT SHEET ALUMINUM PANEL ON BREAKAWAY POSTS INSTALLATION DETAIL
6/14	S-8 SHT 2	ALUMINUM EXTRUSION SIGN TO PERFORATED POSTS INSTALLATION DETAIL
6/14	S-9 SHT 1	SIGN INSTALLATION ON POLE
6/14	S-9 SHT 2	SIGN INSTALLATION ON SIGNAL POLE
6/14	S-9 SHT 3	SIGN INSTALLATION ON POLE BAND-TYPE CLAMP
6/14	S-10	MILEPOST AND REFERENCE LOCATION SIGNS
6/14	S-11 SHT 1	TAPERED TUBE SIGN STRUCTURE CANTILEVER
6/14	S-11 SHT 2	TAPERED TUBE SIGN STRUCTURE CANTILEVER POST AND MAST ARM DETAILS
6/14	S-11 SHT 3	TAPERED TUBE SIGN STRUCTURE SINGLE BEAM
6/14	S-11 SHT 4	TAPERED TUBE SIGN STRUCTURE SINGLE BEAM POST AND BEAM DETAILS

SUBJECT:

REVISION	STANDARD	SIGNING & MARKING DETAILS
6/14	S-12 SHT 1	TYPE A, B, AND DOWN ARROWS
6/14	S-12 SHT 2	TYPE C AND D ARROWS
6/14	S-12 SHT 3	C2 ARROW DETAIL
6/14	S-13	SIGN IDENTIFICATION DETAILS
6/14	S-14 SHT 1	ROTATING OPEN/CLOSED SIGN
6/14	S-14 SHT 2	ROTATING OPEN/CLOSED SIGN DETAILS
6/14	S-14 SHT 3	ROTATING OPEN/CLOSED SIGN MOUNTING DETAILS
6/14	S-15 SHT 1	FOLDING RECTANGULAR SIGN ASSEMBLY
6/14	S-15 SHT 2	FOLDING RECTANGULAR SIGN OPERATION
6/14	S-15 SHT 3	FOLDING DIAMOND SIGN ASSEMBLY
6/14	S-16 SHT 1	TEMPORARY WOOD POSTS
6/14	S-16 SHT 2	TEMPORARY WOOD POSTS SELECTION CHART
6/14	S-17	END OF ROAD BARRICADE
6/14	C-1	SAND BARREL CRASH CUSHION
6/14	C-2	SAND BARREL CRASH CUSHION TYPICAL INSTALLATION
6/14	C-3 SHT 1	PRECAST CONCRETE BARRIER STRUCTURAL DETAILS
6/14	C-3 SHT 2	PRECAST CONCRETE BARRIER PIN AND LOOP ASSEMBLY
6/14	C-4 SHT 1	MEDIAN CROSSOVER
6/14	C-4 SHT 2	TYPICAL END TREATMENTS FOR DETOURS USING TEMPORARY CONCRETE BARRIER (TCB)
6/14	C-5 SHT 1	APPROACH PLATE AND TRANSITION SECTION FOR TEMPORARY CONCRETE BARRIER
6/14	C-5 SHT 2	APPROACH PLATE AND TRANSITION SECTION FOR TEMPORARY CONCRETE BARRIER

ADOT STANDARD DRAWINGS			
REVISION DATES and STANDARD NO.'s REVIEW			
SIGNING & MARKING STANDARDS		NAME <i>Tw...</i>	DATE 7-07-2016
PROJECT NO. 0000 MO MMO T0021 OIC		1B-2	OF 76
RECORD DRAWING DATA	FEDERAL AID NO. MMO-0(216)T	REC. DWG. DATE	OF

NO.1 DESCRIPTION OF REVISION REVISED ALL DRAWINGS AND RE-ISSUED. CREATED SHEET 2. NO.2 DESCRIPTION OF REVISION REVISED S-7 SHT. REVISED W-2 SHT.2, W-1, W-2 SHT.3 AND ON P-1. UPDATED BORDER TITLE BLOCK. MADE BY L. LOPEZ DATE 6/14

NO.3 DATE 5/15

ADOT STANDARD DRAWINGS

STRUCTURE DETAIL DRAWINGS

REVISION
DATE SD NUMBER

SUBJECT

RAILINGS

6/12	SD 1.01	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")
6/12	SD 1.02	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (44")
6/12	SD 1.03	THREE BEAM GUARD RAIL TRANSITION SYSTEM
3/09	SD 1.04	COMBINATION PEDESTRIAN-TRAFFIC BRIDGE RAILING
3/09	SD 1.05	PEDESTRIAN FENCE FOR BRIDGE RAILING SD1.04
6/09	SD 1.06 (1 OF 4)	TWO TUBE BRIDGE RAIL
6/09	SD 1.06 (2 OF 4)	TWO TUBE BRIDGE RAIL
6/09	SD 1.06 (3 OF 4)	TWO TUBE BRIDGE RAIL
6/09	SD 1.06 (4 OF 4)	TWO TUBE BRIDGE RAIL
4/10	SD 1.11	BARRIER JUNCTION BOX

APPROACHES

12/07	SD 2.01	APPROACH SLAB DETAILS
12/07	SD 2.02	TYPE 1 ANCHOR SLAB DETAILS
12/07	SD 2.03	TYPE 2 ANCHOR SLAB DETAILS
9/09	SD 2.04	SLOPE PAVING DETAILS

DECK JOINTS

6/09	SD 3.01	DECK JOINT ASSEMBLY - COMPRESSION SEAL
12/09	SD 3.02	DECK JOINT ASSEMBLY - STRIP SEAL
12/09	SD 3.03	DECK JOINT ASSEMBLY - RAISED STRIP SEAL

SUBSTRUCTURE

11/12	SD 5.01	STRUCTURAL EXCAVATION - PAYMENT LIMITS
11/12	SD 5.02	STRUCTURE BACKFILL - PAYMENT LIMITS

DRAINAGE STRUCTURES

5/15	SD 6.01 (1 OF 5)	REINFORCED CONCRETE BOX CULVERTS - MISCELLANEOUS DETAILS
2/12	SD 6.01 (2 OF 5)	REINFORCED CONCRETE BOX CULVERTS - MISCELLANEOUS DETAILS
2/12	SD 6.01 (3 OF 5)	REINFORCED CONCRETE BOX CULVERTS - EXTENSION DETAILS
2/12	SD 6.01 (4 OF 5)	REINFORCED CONCRETE BOX CULVERTS - STRUCTURAL EXCAVATION & STRUCTURE BACKFILL
5/15	SD 6.01 (5 OF 5)	REINFORCED CONCRETE BOX CULVERTS - SINGLE BARREL (0'-30' FILLS)
5/15	SD 6.02 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - DOUBLE BARREL (0'-15' FILLS)
5/15	SD 6.02 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - DOUBLE BARREL (15'-30' FILLS)
5/15	SD 6.03 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - TRIPLE BARREL (0'-15' FILLS)
5/15	SD 6.03 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - TRIPLE BARREL (15'-30' FILLS)
5/15	SD 6.04 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - FOUR BARREL (0'-15' FILLS)
5/15	SD 6.04 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - FOUR BARREL (15'-30' FILLS)
5/15	SD 6.05 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - FIVE BARREL (0'-15' FILLS)
5/15	SD 6.05 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - FIVE BARREL (15'-30' FILLS)
5/15	SD 6.06 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - SIX BARREL (0'-15' FILLS)
5/15	SD 6.06 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - SIX BARREL (15'-30' FILLS)
2/12	SD 6.07	REINFORCED CONCRETE BOX CULVERTS - 16' x 14' EQUIPMENT PASS (0'-20' FILLS)
5/15	SD 6.08 (1 OF 8)	REINFORCED CONCRETE BOX CULVERTS - OUTLET WINGS - SKEW 0° to 20° - CULVERT HEIGHT 3' to 7'
2/12	SD 6.08 (2 OF 8)	REINFORCED CONCRETE BOX CULVERTS - OUTLET WINGS - SKEW 0° to 20° - CULVERT HEIGHT 8' to 12'
5/15	SD 6.08 (3 OF 8)	REINFORCED CONCRETE BOX CULVERTS - INLET WINGS - SKEW 0° to 20° - CULVERT HEIGHT 3' to 7'
2/12	SD 6.08 (4 OF 8)	REINFORCED CONCRETE BOX CULVERTS - INLET WINGS - SKEW 0° to 20° - CULVERT HEIGHT 8' to 12'
5/15	SD 6.08 (5 OF 8)	REINFORCED CONCRETE BOX CULVERTS - OUTLET WINGS - SKEW 25° to 45° - CULVERT HEIGHT 3' to 7'
2/12	SD 6.08 (6 OF 8)	REINFORCED CONCRETE BOX CULVERTS - OUTLET WINGS - SKEW 25° to 45° - CULVERT HEIGHT 8' to 12'
5/15	SD 6.08 (7 OF 8)	REINFORCED CONCRETE BOX CULVERTS - INLET WINGS - SKEW 25° to 45° - CULVERT HEIGHT 3' to 7'
2/12	SD 6.08 (8 OF 8)	REINFORCED CONCRETE BOX CULVERTS - INLET WINGS - SKEW 25° to 45° - CULVERT HEIGHT 8' to 12'
5/15	SD 6.09 (1 OF 3)	REINFORCED CONCRETE BOX CULVERTS - HEADWALL QUANTITIES - 2 ±1 SLOPE
5/15	SD 6.09 (2 OF 3)	REINFORCED CONCRETE BOX CULVERTS - HEADWALL QUANTITIES - 4 ±1 SLOPE
5/15	SD 6.09 (3 OF 3)	REINFORCED CONCRETE BOX CULVERTS - HEADWALL QUANTITIES - 6 ±1 SLOPE
5/15	SD 6.10 (1 OF 2)	REINFORCED CONCRETE BOX CULVERTS - INLET OR OUTLET - LEVEL WINGS - CULVERT HEIGHT 3' to 7'
2/12	SD 6.10 (2 OF 2)	REINFORCED CONCRETE BOX CULVERTS - INLET OR OUTLET - LEVEL WINGS - CULVERT HEIGHT 8' to 12'
2/12	SD 6.11 (1 OF 4)	REINFORCED CONCRETE BOX CULVERTS - OUTLET APRON DETAILS
5/15	SD 6.11 (2 OF 4)	REINFORCED CONCRETE BOX CULVERTS - OUTLET APRON - DIMENSIONS & QUANTITIES (2 ±1 SLOPE)
5/15	SD 6.11 (3 OF 4)	REINFORCED CONCRETE BOX CULVERTS - OUTLET APRON - DIMENSIONS & QUANTITIES (4 ±1 SLOPE)
5/15	SD 6.11 (4 OF 4)	REINFORCED CONCRETE BOX CULVERTS - OUTLET APRON - DIMENSIONS & QUANTITIES (6 ±1 SLOPE)

7/12	SD 6.30 (1 OF 5)	PIPE CULVERT HEADWALLS - MISCELLANEOUS DETAILS
7/12	SD 6.30 (2 OF 5)	PIPE CULVERT HEADWALLS - INLET AND OUTLET - 18" to 42" PIPES
7/12	SD 6.30 (3 OF 5)	PIPE CULVERT HEADWALLS - RIGHT ANGLE INLET AND OUTLET - 48" to 84" PIPES
7/12	SD 6.30 (4 OF 5)	PIPE CULVERT HEADWALLS - SKEWED INLET AND OUTLET - 48" to 84" PIPES
7/12	SD 6.30 (5 OF 5)	PIPE CULVERT HEADWALLS - MULTI-PIPE - 48" to 84" PIPES
7/12	SD 6.31 (1 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE INLET
7/12	SD 6.31 (2 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE INLET - 2 ±1 SLOPE
7/12	SD 6.31 (3 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE INLET - 4 ±1 SLOPE
7/12	SD 6.31 (4 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE INLET - 6 ±1 SLOPE
7/12	SD 6.31 (5 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE OUTLET
7/12	SD 6.31 (6 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE OUTLET - 2 ±1 SLOPE
7/12	SD 6.31 (7 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE OUTLET - 4 ±1 SLOPE
7/12	SD 6.31 (8 OF 8)	PIPE CULVERT HEADWALLS - RIGHT ANGLE OUTLET - 6 ±1 SLOPE

STRUCTURE DETAIL DRAWINGS

REVISION
DATE SD NUMBER

SUBJECT

DRAINAGE STRUCTURES (Continued)

7/12	SD 6.32 (1 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW INLET
7/12	SD 6.32 (2 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW INLET - 2 ±1 SLOPE
7/12	SD 6.32 (3 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW INLET - 4 ±1 SLOPE
7/12	SD 6.32 (4 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW INLET - 6 ±1 SLOPE
7/12	SD 6.32 (5 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW OUTLET
7/12	SD 6.32 (6 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW OUTLET - 2 ±1 SLOPE
7/12	SD 6.32 (7 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW OUTLET - 4 ±1 SLOPE
7/12	SD 6.32 (8 OF 8)	PIPE CULVERT HEADWALLS - 15° SKEW OUTLET - 6 ±1 SLOPE
7/12	SD 6.33 (1 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW INLET
7/12	SD 6.33 (2 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW INLET - 2 ±1 SLOPE
7/12	SD 6.33 (3 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW INLET - 4 ±1 SLOPE
7/12	SD 6.33 (4 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW INLET - 6 ±1 SLOPE
7/12	SD 6.33 (5 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW OUTLET
7/12	SD 6.33 (6 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW OUTLET - 2 ±1 SLOPE
7/12	SD 6.33 (7 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW OUTLET - 4 ±1 SLOPE
7/12	SD 6.33 (8 OF 8)	PIPE CULVERT HEADWALLS - 30° SKEW OUTLET - 6 ±1 SLOPE
7/12	SD 6.34 (1 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW INLET
7/12	SD 6.34 (2 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW INLET - 2 ±1 SLOPE
7/12	SD 6.34 (3 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW INLET - 4 ±1 SLOPE
7/12	SD 6.34 (4 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW INLET - 6 ±1 SLOPE
7/12	SD 6.34 (5 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW OUTLET
7/12	SD 6.34 (6 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW OUTLET - 2 ±1 SLOPE
7/12	SD 6.34 (7 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW OUTLET - 4 ±1 SLOPE
7/12	SD 6.34 (8 OF 8)	PIPE CULVERT HEADWALLS - 45° SKEW OUTLET - 6 ±1 SLOPE
7/12	SD 6.35 (1 OF 2)	PIPE CULVERT HEADWALLS - MULTI-PIPE WITHOUT APRON
7/12	SD 6.35 (2 OF 2)	PIPE CULVERT HEADWALLS - MULTI-PIPE WITH OUTLET APRON
7/12	SD 6.36 (1 OF 4)	PIPE CULVERT HEADWALLS - OUTLET APRONS
7/12	SD 6.36 (2 OF 4)	PIPE CULVERT HEADWALLS - OUTLET APRON STEEL LIST - 2 ±1 SLOPE
7/12	SD 6.36 (3 OF 4)	PIPE CULVERT HEADWALLS - OUTLET APRON STEEL LIST - 4 ±1 SLOPE
7/12	SD 6.36 (4 OF 4)	PIPE CULVERT HEADWALLS - OUTLET APRON STEEL LIST - 6 ±1 SLOPE

RETAINING WALLS

1/15	SD 7.01 (1 OF 5)	RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
1/15	SD 7.01 (2 OF 5)	RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
1/15	SD 7.01 (3 OF 5)	RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
1/15	SD 7.01 (4 OF 5)	RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
1/15	SD 7.01 (5 OF 5)	RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
9/10	SD 7.02 (1 OF 2)	RETAINING WALL (MASONRY CANTILEVER)
9/10	SD 7.02 (2 OF 2)	RETAINING WALL (MASONRY CANTILEVER)

SOUND BARRIER WALLS

4/10	SD 8.01	SOUND BARRIER WALL (CONCRETE)
1/13	SD 8.02 (1 OF 2)	SOUND BARRIER WALL (MASONRY)
1/13	SD 8.02 (2 OF 2)	SOUND BARRIER WALL (MASONRY)

TRAFFIC STRUCTURES

11/04	SD 9.01 (1 OF 5)	MEDIAN SIGN STRUCTURE (TWO SIDED) - ELEVATION & NOTES
4/00	SD 9.01 (2 OF 5)	MEDIAN SIGN STRUCTURE (TWO SIDED) - FOUNDATION DETAILS
4/00	SD 9.01 (3 OF 5)	MEDIAN SIGN STRUCTURE (TWO SIDED) - TYPE A SIGN MOUNT ASSEMBLY
4/00	SD 9.01 (4 OF 5)	MEDIAN SIGN STRUCTURE (TWO SIDED) - TYPE B SIGN MOUNT ASSEMBLY
4/00	SD 9.01 (5 OF 5)	MEDIAN SIGN STRUCTURE (TWO SIDED) - LIGHT SUPPORT AND MISC. DETAILS
11/04	SD 9.02 (1 OF 5)	MEDIAN SIGN STRUCTURE (ONE SIDED) - ELEVATION & NOTES
5/00	SD 9.02 (2 OF 5)	MEDIAN SIGN STRUCTURE (ONE SIDED) - FOUNDATION DETAILS
5/00	SD 9.02 (3 OF 5)	MEDIAN SIGN STRUCTURE (ONE SIDED) - TYPE A SIGN MOUNT ASSEMBLY
5/00	SD 9.02 (4 OF 5)	MEDIAN SIGN STRUCTURE (ONE SIDED) - TYPE B SIGN MOUNT ASSEMBLY
5/00	SD 9.02 (5 OF 5)	MEDIAN SIGN STRUCTURE (ONE SIDED) - LIGHT SUPPORT AND MISC. DETAILS
3/11	SD 9.10 (1 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR CANTILEVER - GENERAL PLAN
3/11	SD 9.10 (2 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR CANTILEVER - FOUNDATION DETAILS
3/11	SD 9.10 (3 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR CANTILEVER - POST AND MAST ARM DETAILS
3/11	SD 9.10 (4 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR CANTILEVER - SIGN SUPPORT DETAILS
3/11	SD 9.10 (5 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR CANTILEVER - LIGHT SUPPORT DETAILS
3/11	SD 9.20 (1 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR FRAME - GENERAL PLAN
3/11	SD 9.20 (2 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR FRAME - FOUNDATION DETAILS
3/11	SD 9.20 (3 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR FRAME - POST AND MAST ARM DETAILS
3/11	SD 9.20 (4 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR FRAME - SIGN SUPPORT DETAILS
3/11	SD 9.20 (5 OF 5)	TUBULAR SIGN STRUCTURES - TUBULAR FRAME - LIGHT SUPPORT AND MISC. DETAILS

8/02	SD 9.50 (1 OF 5)	VARIABLE MESSAGE SIGN - TUBULAR FRAME - PLAN & ELEVATION
8/02	SD 9.50 (2 OF 5)	VARIABLE MESSAGE SIGN - TUBULAR FRAME - MOUNTING DETAILS
8/02	SD 9.50 (3 OF 5)	VARIABLE MESSAGE SIGN - TUBULAR FRAME - MOUNTING & SIGN BRACKET DETAILS
7/00	SD 9.50 (4 OF 5)	VARIABLE MESSAGE SIGN - CATWALK - HANDRAIL DETAILS
7/00	SD 9.50 (5 OF 5)	VARIABLE MESSAGE SIGN - CATWALK - MISCELLANEOUS DETAILS
8/02	SD 9.51	DUAL VARIABLE MESSAGE SIGN - TUBULAR FRAME
5/07	SD 9.52 (1 OF 5)	DYNAMIC MESSAGE SIGN - TUBULAR FRAME - PLAN & ELEVATION
5/07	SD 9.52 (2 OF 5)	DYNAMIC MESSAGE SIGN - TUBULAR FRAME - MOUNTING DETAILS
5/07	SD 9.52 (3 OF 5)	DYNAMIC MESSAGE SIGN - TUBULAR FRAME - MOUNTING DETAILS
5/07	SD 9.52 (4 OF 5)	DYNAMIC MESSAGE SIGN - CATWALK - HANDRAIL DETAILS
5/07	SD 9.52 (5 OF 5)	DYNAMIC MESSAGE SIGN - CATWALK - MISCELLANEOUS DETAILS
1/15	SD 9.53 (1 OF 5)	DMS (VARIABLE TILT CABINET) - TUBULAR FRAME - PLAN & ELEVATION
1/15	SD 9.53 (2 OF 5)	DMS (VARIABLE TILT CABINET) - TUBULAR FRAME - MOUNTING DETAILS
1/15	SD 9.53 (3 OF 5)	DMS (VARIABLE TILT CABINET) - TUBULAR FRAME - MOUNTING DETAILS
1/15	SD 9.53 (4 OF 5)	DMS (VARIABLE TILT CABINET) - CATWALK - HANDRAIL DETAILS
1/15	SD 9.53 (5 OF 5)	DMS (VARIABLE TILT CABINET) - CATWALK - MISCELLANEOUS DETAILS

REV.: 5/15

ADOT STANDARD DRAWINGS			
REVISION DATES and STANDARD NO.'s REVIEW			
STRUCTURES Standards		NAME <i>adg</i>	DATE 7-07-2016
PROJECT NO. 0000 MO MMO T0021 OIC		ID <u>10</u> OF <u>76</u>	
RECORD DRAWING	FEDERAL AID NO. DATA MMO-0(216)T	REC. DWG. DATE	OF

DATE- LOCATION- REVISIONS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	2	76	

0000 MO MMO

REFERENCES

12-PS-10-04
TR NAV N6461 (1)
PJD 404
NONFA 39

MIDPOINT OF PROJECT

Western Zone
State Plane Coordinates
X = 481,377
Y = 1,356,719

LENGTH OF PROJECT

Sta 14+30.00 to 29+15.00 = 1485.00'
Gross & Net Length = 0.28 miles
Mile Post 1.03 To 1.31 = 0.28 miles

DESIGN DATA

2016 ADT = 2,000
2036 ADT = 3,000
Oatman Highway Design Speed = 45 mph

INDEX OF SHEETS

Sheet No.	Sheet Type	Sheet No.	Sheet Type
1	Face Sheet	20	Drainage Sheet
1A, 1B & 1D	ADOT Standard Drawings	21-26	Traffic Sheets
2	General Notes/Design Sheet	27	Seeding/Erosion Control General Notes
3-4	Typical Sections	28-31	Seeding/Planting Plan Sheets
5	Barrier Summary Sheet	32	AZPDES SWPPP Index Sheet
6-10	Detail Sheets	33-34	Erosion Control Details
11	Geometric Control and Layout Sheet	35-38	Erosion Control Plan Sheets
12-19	Roadway Plan/Profile Sheets	39-73	Bridge Structure Sheets
		74-76	Foundation Data Sheets

EARTHWORK QUANTITIES	
Roadway Excavation	2,784 CY
Shrink	417 CY
Riprap Excavation ¹	1,771 CY
Shrink	266 CY
Channel Excavation	936 CY
Shrink	140 CY
Structural Excavation	220 CY
Shrink	33 CY
Available Material	4,855 CY
Embankment (Including Ground Comp.)	8,676 CY
Borrow	3,821 CY
Geogrid Reinforced Backfill (Not Included Above) ²	780 CY
Total Import	780 CY

¹Riprap excavation is not a separate pay item and is paid for under bld items 9130008 and 9130030.

²Geogrid Reinforced Backfill paid for under Bridge Construction bld item 9240047.

EARTHWORK FACTORS		
Station	Shrink/Swell	Ground Compaction
14+30.00 to 29+15.00	15% Shrink	0.20'

GENERAL NOTES

The roadway plans have been designed utilizing the 2012 ADOT Construction Standard Drawings as well as the 2015 MAG Uniform Standard Details for Public Works Construction and current revisions. Refer to the 1A sheet for a listing of current revision dates.

The project roadway shall be striped by the contractor in accordance with the current edition of the Signing and Marking & Standard Drawings (M&S-Series) and the Pavement Marking Plans.

Pavement lift thickness is nominal.

Where only the horizontal location of an existing utility is shown, the location is approximate. The contractor shall comply with all current Blue Stake laws and Section 107.15 of the Specifications.

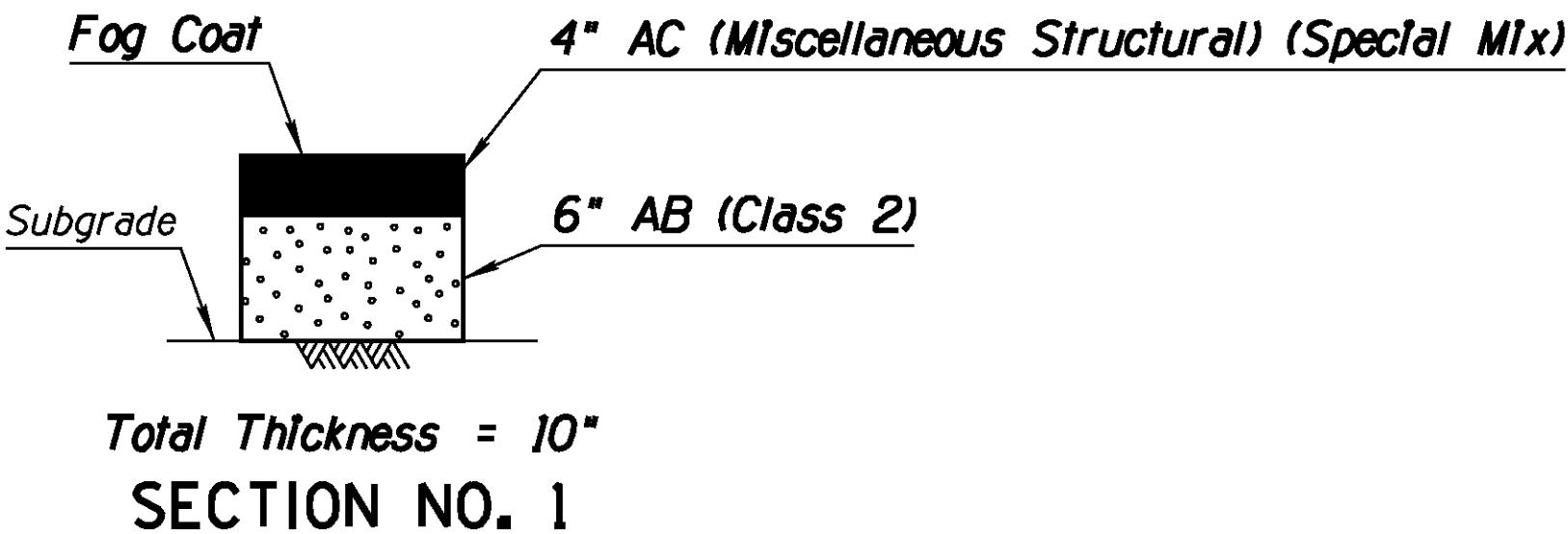
Delimiters, object markers and mile post markers shall be removed and reset as required, at no additional cost to the Department.

The average project elevation is 470'.

New Right of Way and easements are not required.

Approximately 45 tons of Asphaltic Concrete is estimated for guardrail end terminal pads.

Slope rounding shall be applied per Std C-02 series unless otherwise noted.

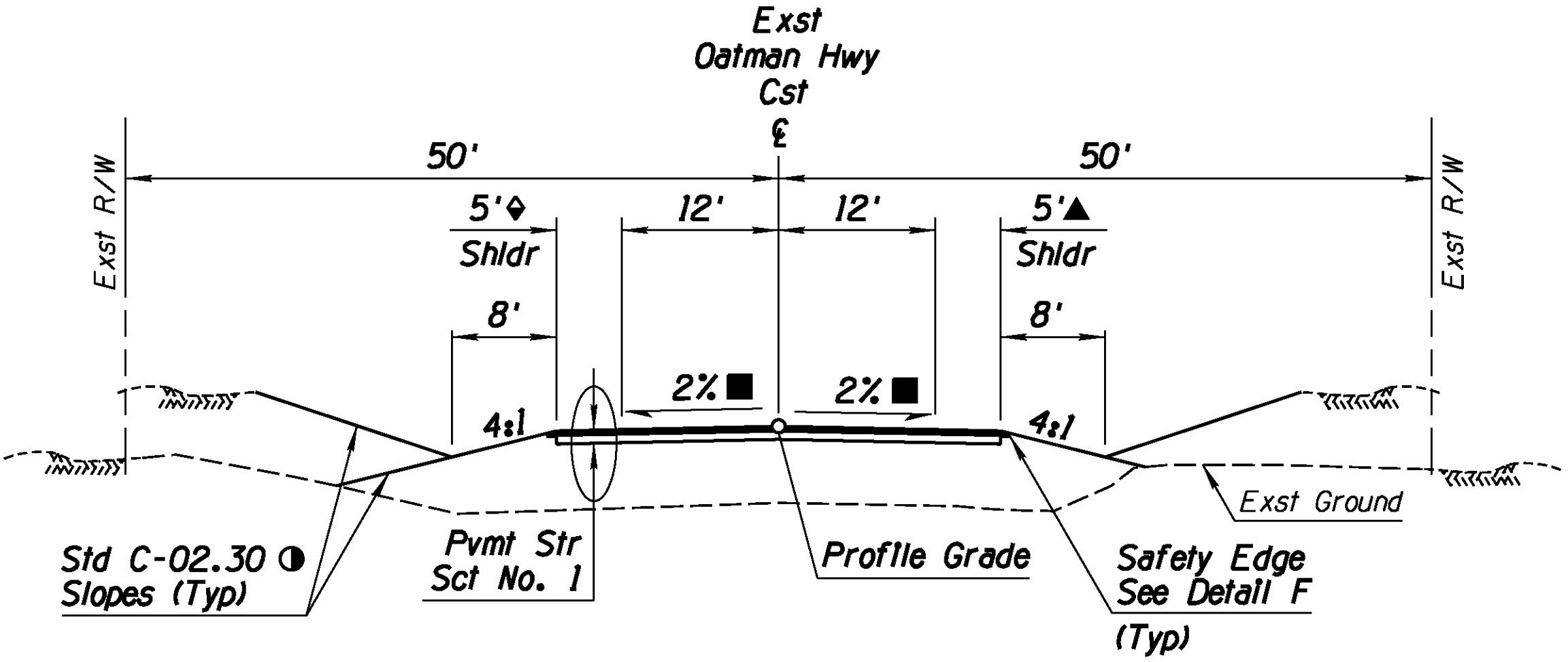


NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DESIGN	RLH	07/16	Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.	
DRAWN	RLH	07/16		
CHECKED	RSC	07/16		
ROUTE LOCATION OLD US 66 OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			DESIGN SHEET	
TRACS NO. T0021 01C			MMO-0(216)T	
			DWG NO. G-01.01	
			OF	

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	3	76	

0000 MO MMO

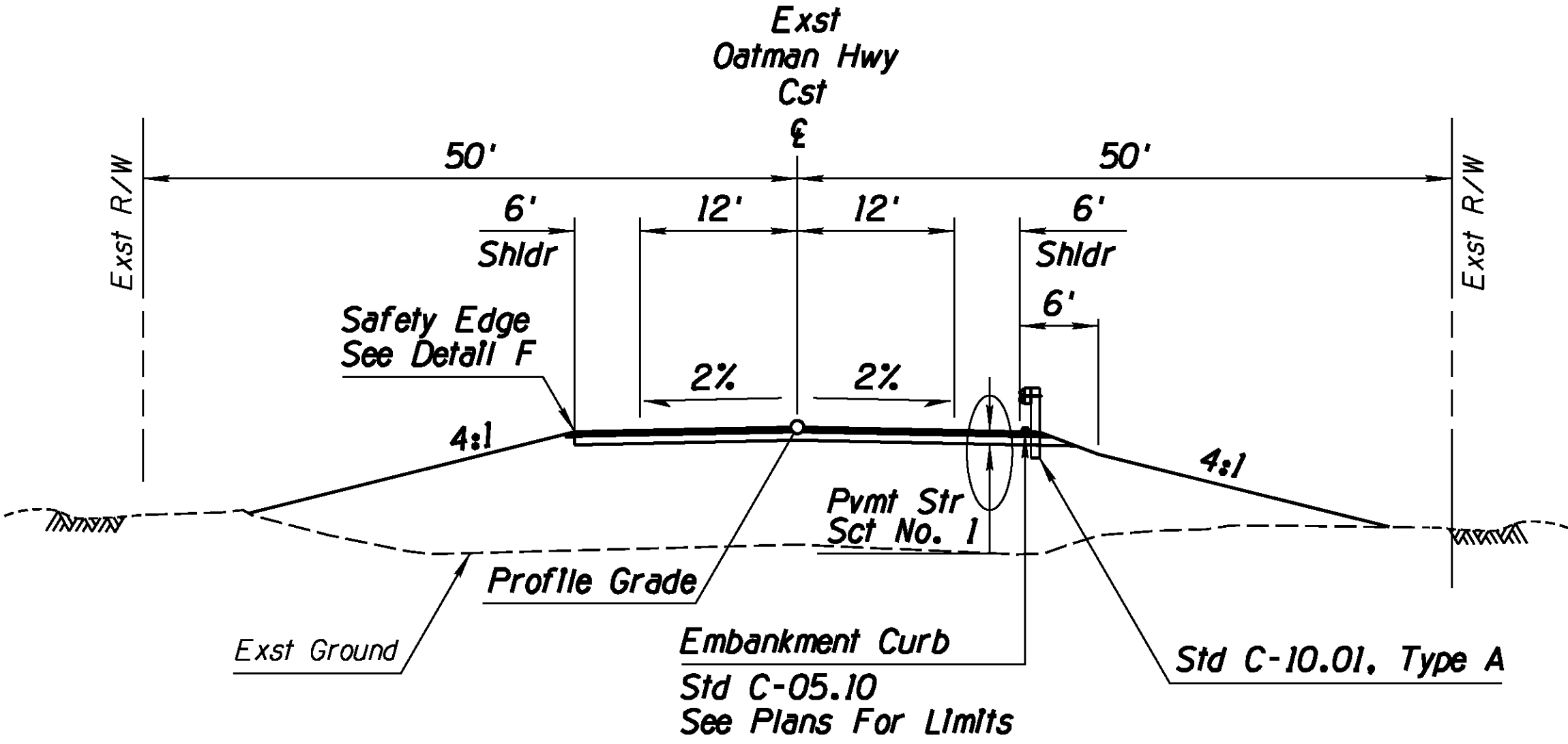
- ◆ Sta 14+30.00 to 16+10.00 - Varles 1.1' to 5'
Sta 18+40.00 to 18+85.00 - Varles 5' to 6'
Sta 25+50 to 25+65.00 - Varles 6' to 5'
Sta 28+62.50 to 29+15.00 - Varles 5' to 1.5'
- Lt Sta 14+30.00 to 15+75.00 - 3:1
Rt Sta 14+30.00 to 16+75.00 - 3:1



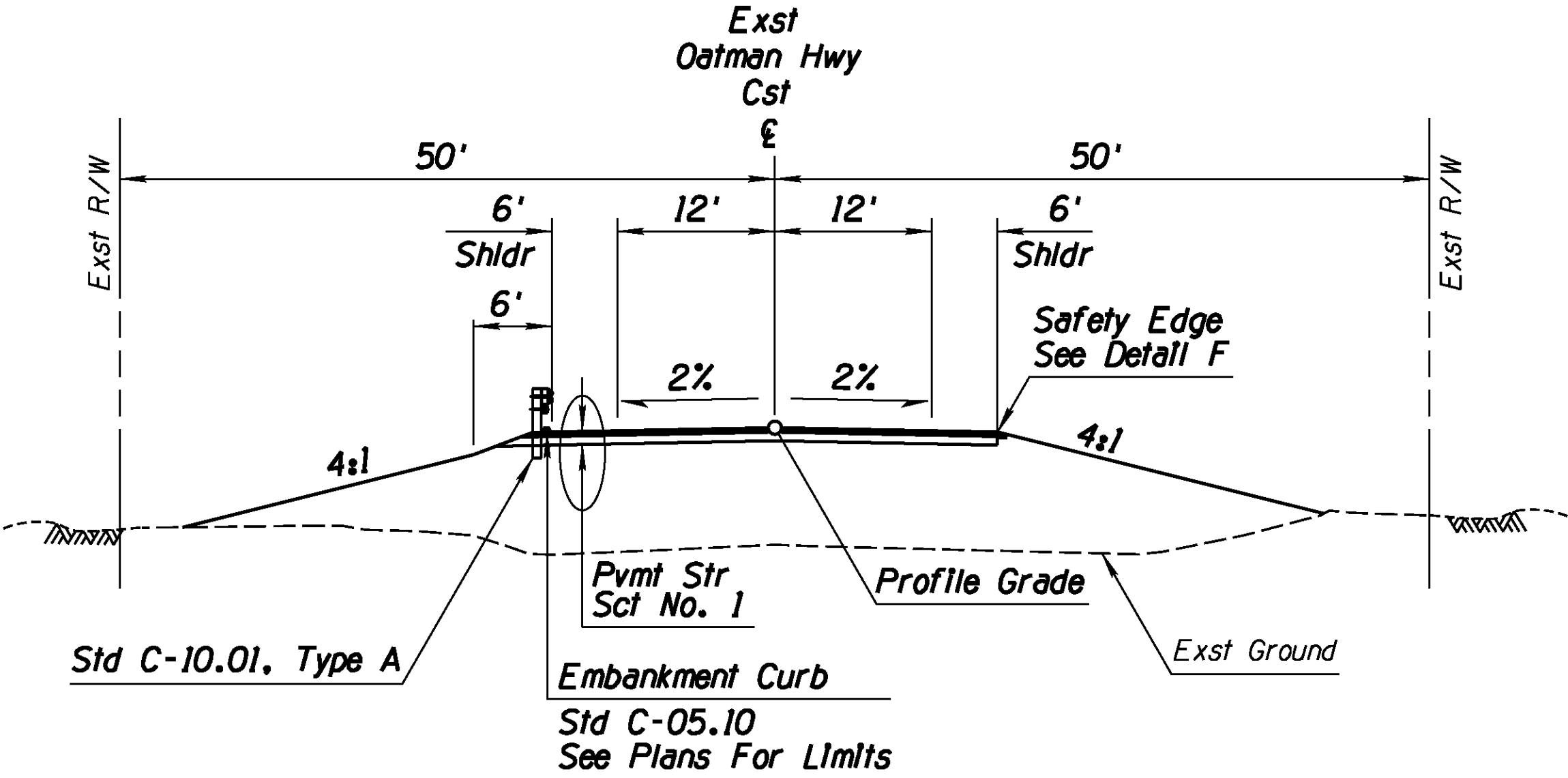
■ Cross slope varles. Value shown represents typical tangent grade. See profile sheets for specific superelevation rates.

- ▲ Sta 14+30.00 to 15+05.00 - Varles 0' to 5'
Sta 18+10.00 to 18+25.00 - Varles 5' to 6'
Sta 24+90.00 to 25+35.00- Varles 6' to 5'
Sta 26+90.00 to 29+15.00 - Varles 5' to 0'

TYPICAL SECTION
Sta 14+30.00 to Sta 18+85.00
Sta 24+90.00 to Sta 29+15.00



TYPICAL SECTION
Sta 18+85.00 to Sta 19+45.00

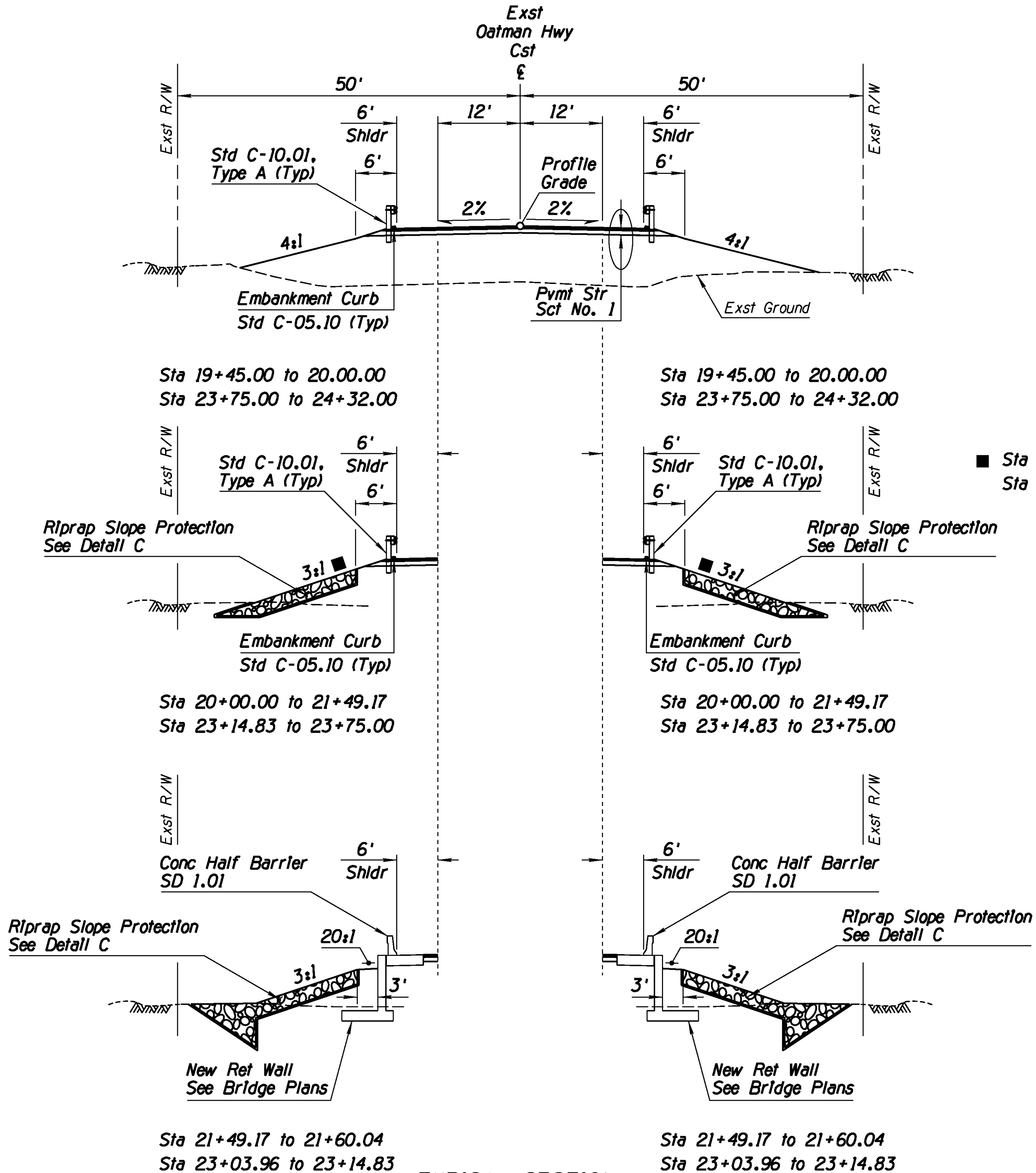


TYPICAL SECTION
Sta 24+32.00 to Sta 24+90.00

DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	31673 RAJESH S. CHRISTIAN 07/30/2016 ARIZONA, U.S.A.
DRAWN	RLH	07/16	TYPICAL SECTIONS	
CHECKED	RSC	07/16	OLD US 66 OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	DWG NO. G-02.01
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.			TRACS NO. T0021 OIC	MMO-0(216)T OF

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	4	76	

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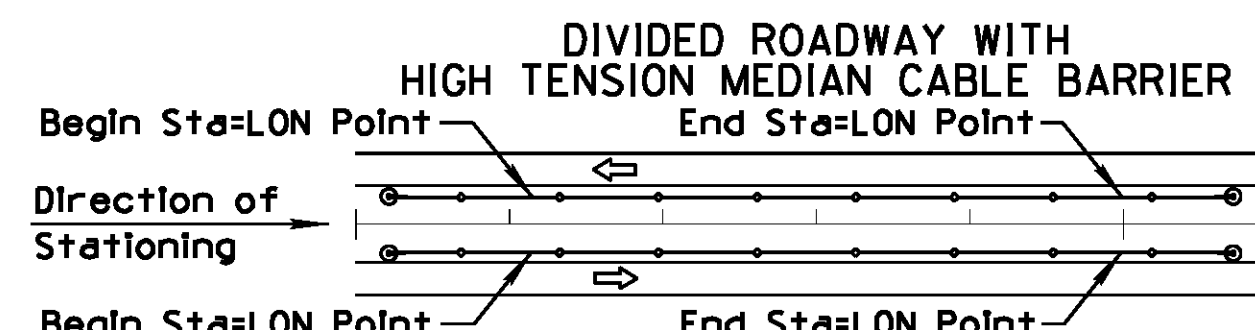
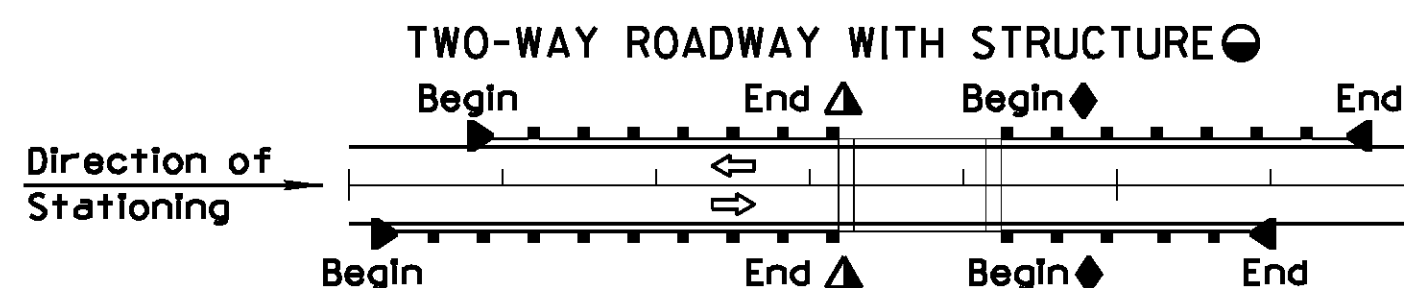
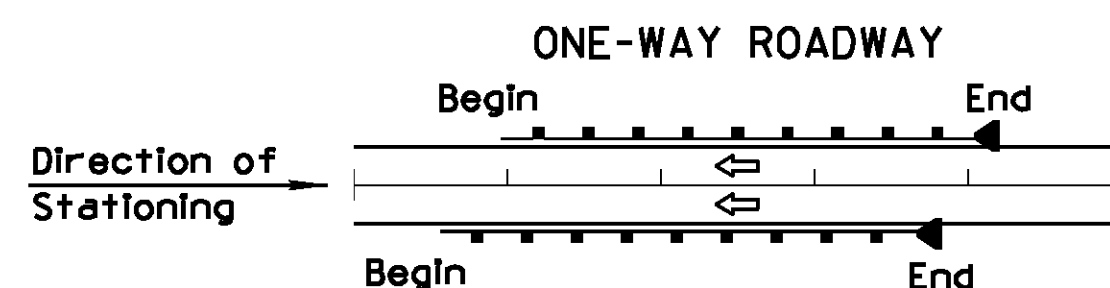


TYPICAL SECTION

Sta 19+45.00 to Sta 21+60.04
Sta 21+60.04 to 23+03.96 - See Bridge Plans
Sta 23+03.96 to Sta 24+32.00

NOTE:
1. See Detail C for riprap gradation.

DESIGN	RLH	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DRAWN	RLH	DATE	07/16		
CHECKED	RSC	DATE	07/16		
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				TYPICAL SECTIONS	
ROUTE	LOCATION			OLD US 66 OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	DWG NO. G-02.02
TRACS NO. T0021 01C				MMO-0(216)T	OF



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	5	76	

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[illegible]

THE ZEROS IN PARENTHESES (0.0) INDICATE THE
DIMENSIONAL PRECISION FOR THAT COLUMN

▲ THE LENGTH OF NESTED W-BEAM IS FOR TYPES 2 OR 3 (37.5'). DETERMINATION OF TYPE (1, 2 or 3) TO USE IS MADE IN THE FIELD. THE PAY QUANTITY IS THE LENGTH INSTALLED PER STD. C-10.06 (25.0' or 37.5')

▲ END STATION BEFORE BRIDGE TRANSITION

◆ BEGIN STATION AFTER BRIDGE TRANSITION

SEE BRIDGE SHEETS FOR BRIDGE BARRIER DETAILS AND QUANTITIES

● LENGTH IS FROM LENGTH OF NEED (LON) POINT TO LON POINT. ACTUAL SEGMENT LENGTH VARIES DEPENDING ON TERMINAL TYPE. SEE SPECIAL PROVISIONS.

☒ ALLOWABLE END TREATMENT OPTIONS ARE INDICATED WITH THE NUMBER '1'
 IN THE SPACE. BLANK SPACES ARE NOT VIABLE ALTERNATIVES

■ ARRAY TYPE AND ANGLE IS NOTED UNDER 'REMARKS'

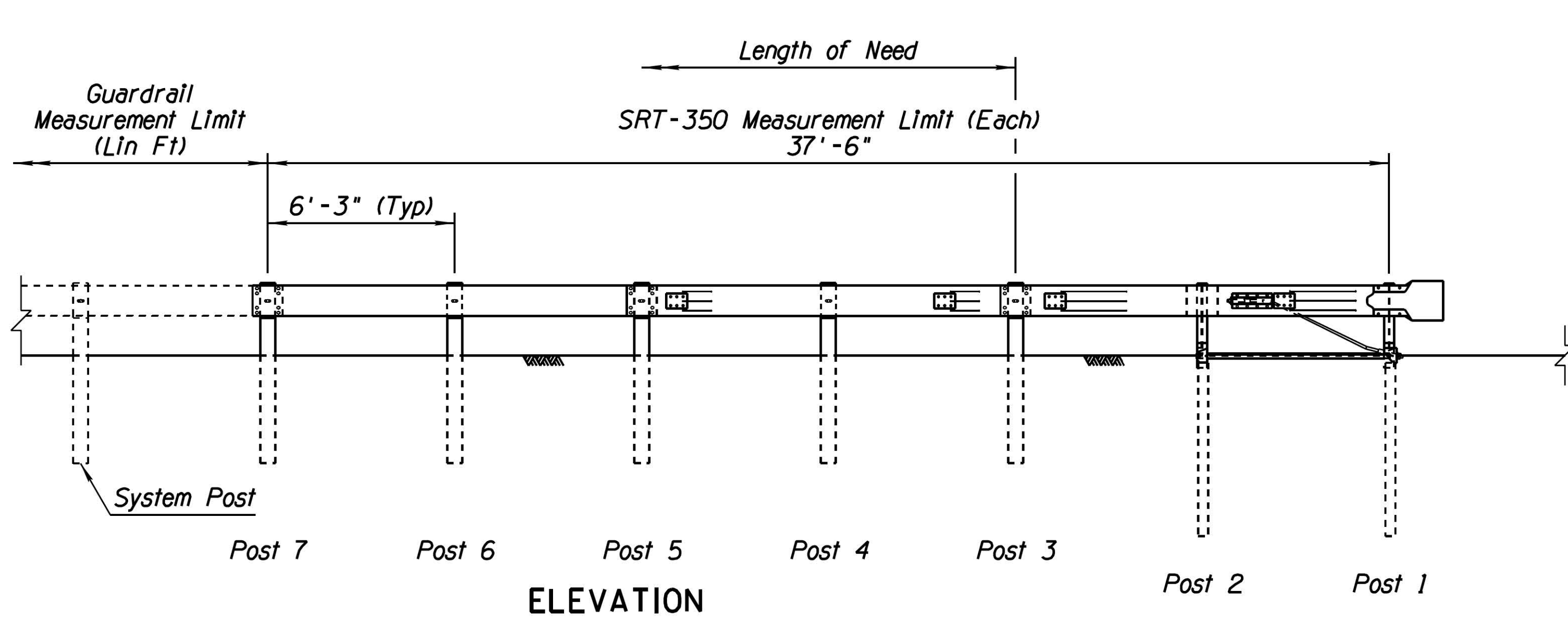
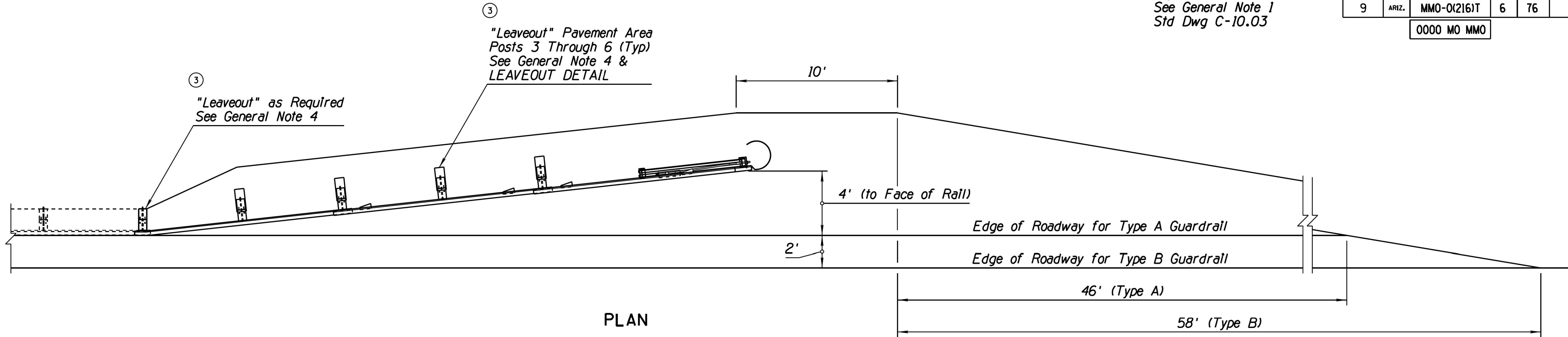
☐ FOR AS-BUILT PREPARATION - CIRCLE END TREATMENT INSTALLED

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT		 31673 RAJESH S. CHRISTIAN 10000 N. CENTRAL AVENUE PHOENIX, ARIZONA 85018 602.964.3000 Fax 602.964.3001
DESIGN	RLH	07/16				
DRAWN	RLH	07/16				
CHECKED	RSC	07/16				
Kimley»»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				BARRIER SUMMARY SHEET		 31673 RAJESH S. CHRISTIAN 10000 N. CENTRAL AVENUE PHOENIX, ARIZONA 85018 602.964.3000 Fax 602.964.3001
ROUTE		LOCATION				
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING				DWG NO.G-03.01
TRACS NO. T0021 OIC				MMO-0(216)T		OF

Date: 5/16/11

Note to Designer:
The information presented in this Roadway Plans Detail is for general use. Designers should satisfy themselves that their project site conditions are appropriate for use of this drawing. Contents within the inner border shall not be altered, except for the addition of the Detail designation.

NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	REISSUED DRAWING WITH MODIFIED APPROACH TAPER	RLF	5/22/07
2	REVISED APPROACH TAPER CRITERIA	RLF	7/09/09
3	ADDED "LEAVEOUT" CALLOUT & REVISED SECTION VIEW	RLF	5/16/11
4	ADDED "LEAVEOUT" DETAIL & NEW GENERAL NOTE 4	RLF	5/16/11

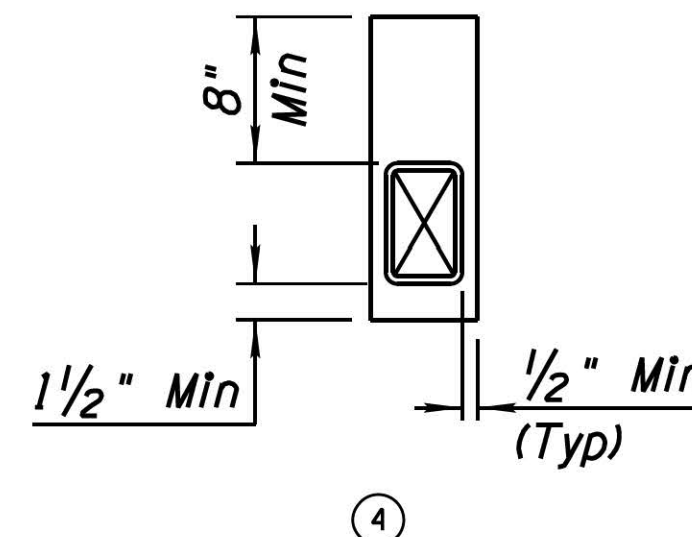
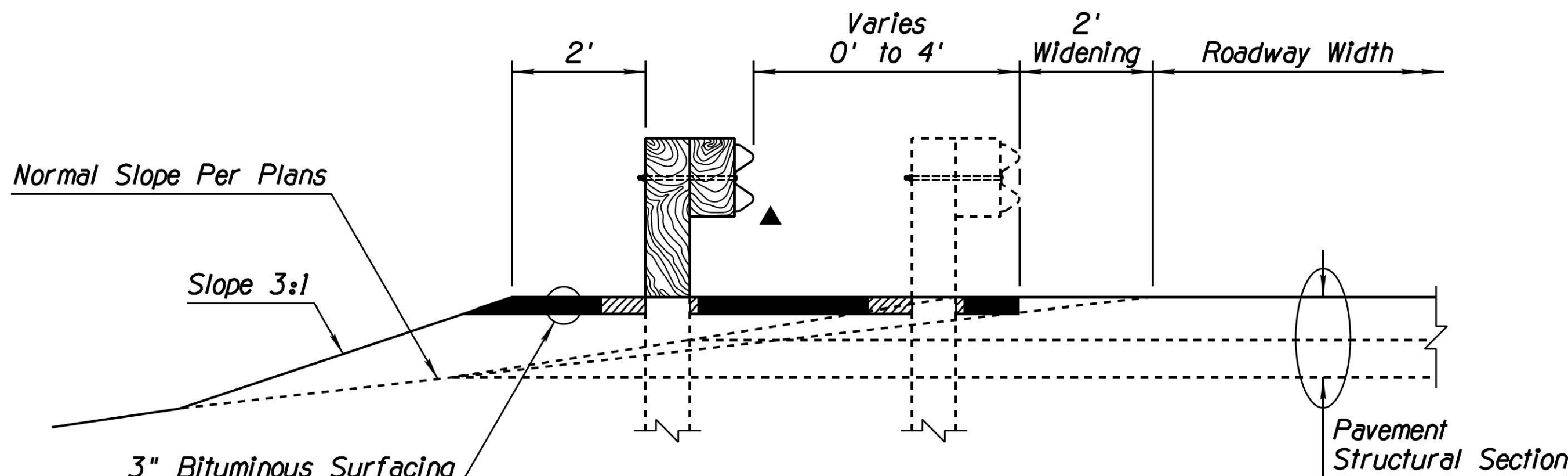


GENERAL NOTES

1. This detail is for roadway layout only.
2. The SRT-350 shall be installed in accordance with the manufacturer's specifications and current approved drawings including all details, hardware, hardware quantities, and other information.

The current manufacturer's approved drawing is number SS-355, 05/16/11. Visit the Roadway Design web site to view and print the drawing.
3. See specifications and Traffic Signing and Marking Standard Drawings.
4. "Leaveouts" in asphaltic concrete or PCC surface shall be provided around the guardrail posts at the locations and dimensions specified on the manufacturer approved drawings. "Leaveout" material shall consist of a 1-sack grout mix or other non-cohesive material as approved by the engineer.

If the SRT-350 is installed in concrete, leaveouts shall be provided as shown for the depth of the concrete.



DETAIL A

LAYOUT FOR SRT-350 HBA POSTS (AC PAVEMENT APPLICATION SHOWN)

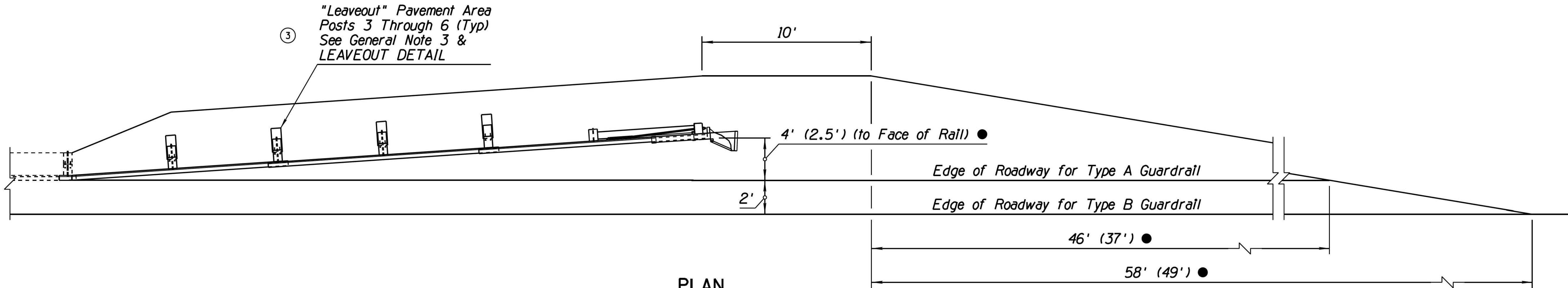
DESIGN APPROVED	J.C. Cooper	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY GROUP PLANS DETAIL
APPROVED FOR DISTRIBUTION	Mary Viharina	DETAIL SHEET DETAIL A
ROUTE OLD US 66	LOCATION SOUTH OATMAN HIGHWAY, MP 1 TO 2	SHEET C-01.01
TRACS NO. T0021 OIC	MM0-0(216)T	OF

Date: 06/04/11

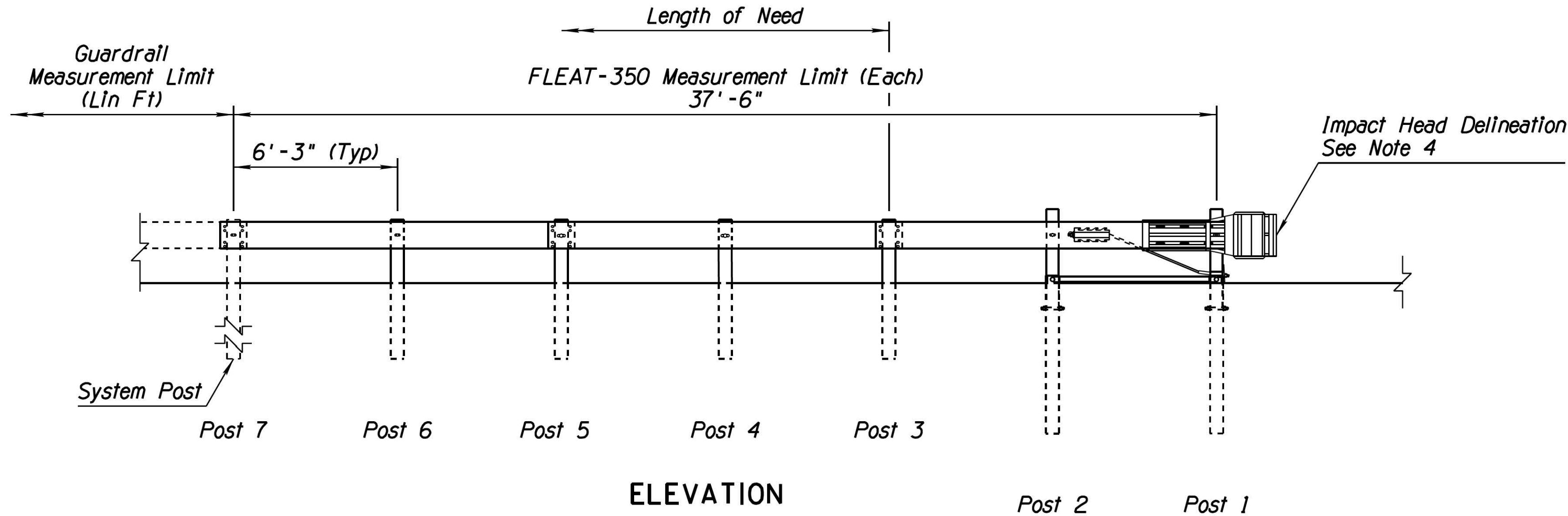
● USE THE VALUES IN PARENTHESES ONLY WHEN SHOWN ON THE PLANS.

▲ Top of Guardrail = 28"
See General Note 1
Std Dwg C-10.03

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	7	76	
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PLAN

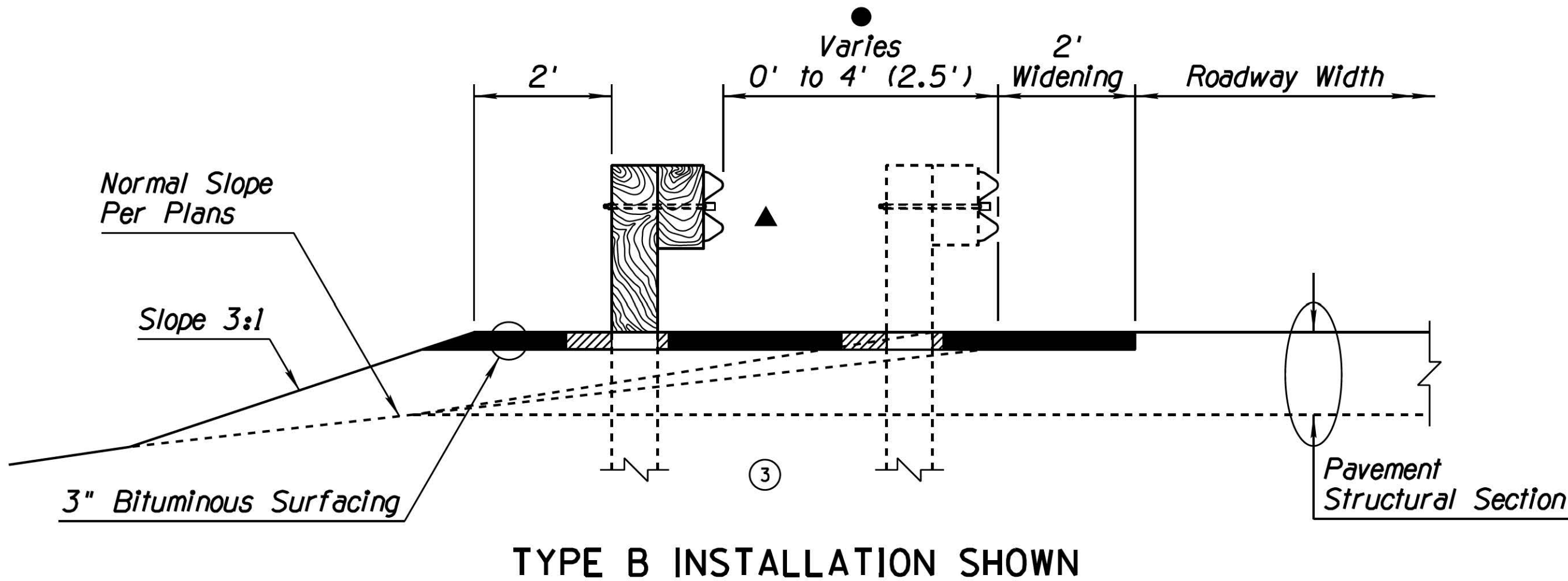


ELEVATION

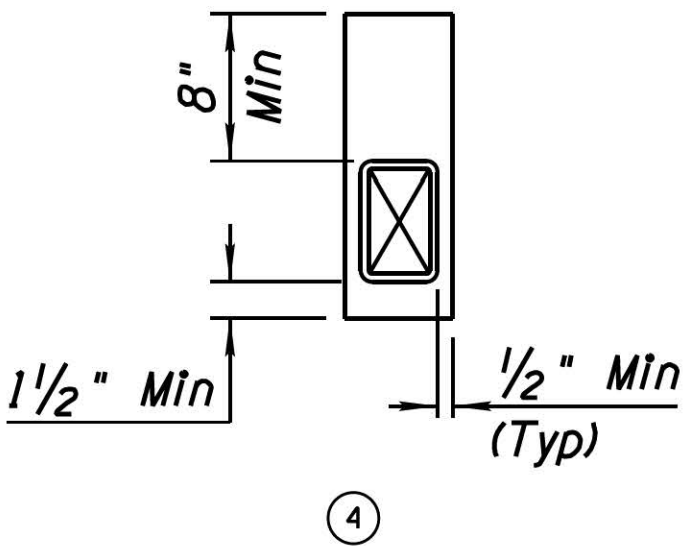
GENERAL NOTES

1. The FLEAT-350 shall be installed in accordance with the manufacturer's specifications and current approved drawings including all details, hardware, hardware quantities, and other information.
The current manufacturer's approved drawing is number FLT-W-US-AZ, Current Revision 06/04/11. Visit the Roadway Design web site to view and print the drawing.
2. Dimensions shown in () correspond to 2.5' flare.
3. "Leaveouts" in asphaltic concrete shall be provided in the AC pavement around the guardrail posts at the locations and dimensions specified on the manufacturer approved drawings. "Leaveout" material shall consist of a 1-sack grout mix or other non-cohesive material as approved by the engineer.
If the FLEAT is installed in concrete, leaveouts shall be provided as shown for the depth of the concrete.
4. See specifications and Traffic Signing and Marking Standard Drawings.

DETAIL B
LAYOUT FOR FLEAT-350



TYPE B INSTALLATION SHOWN



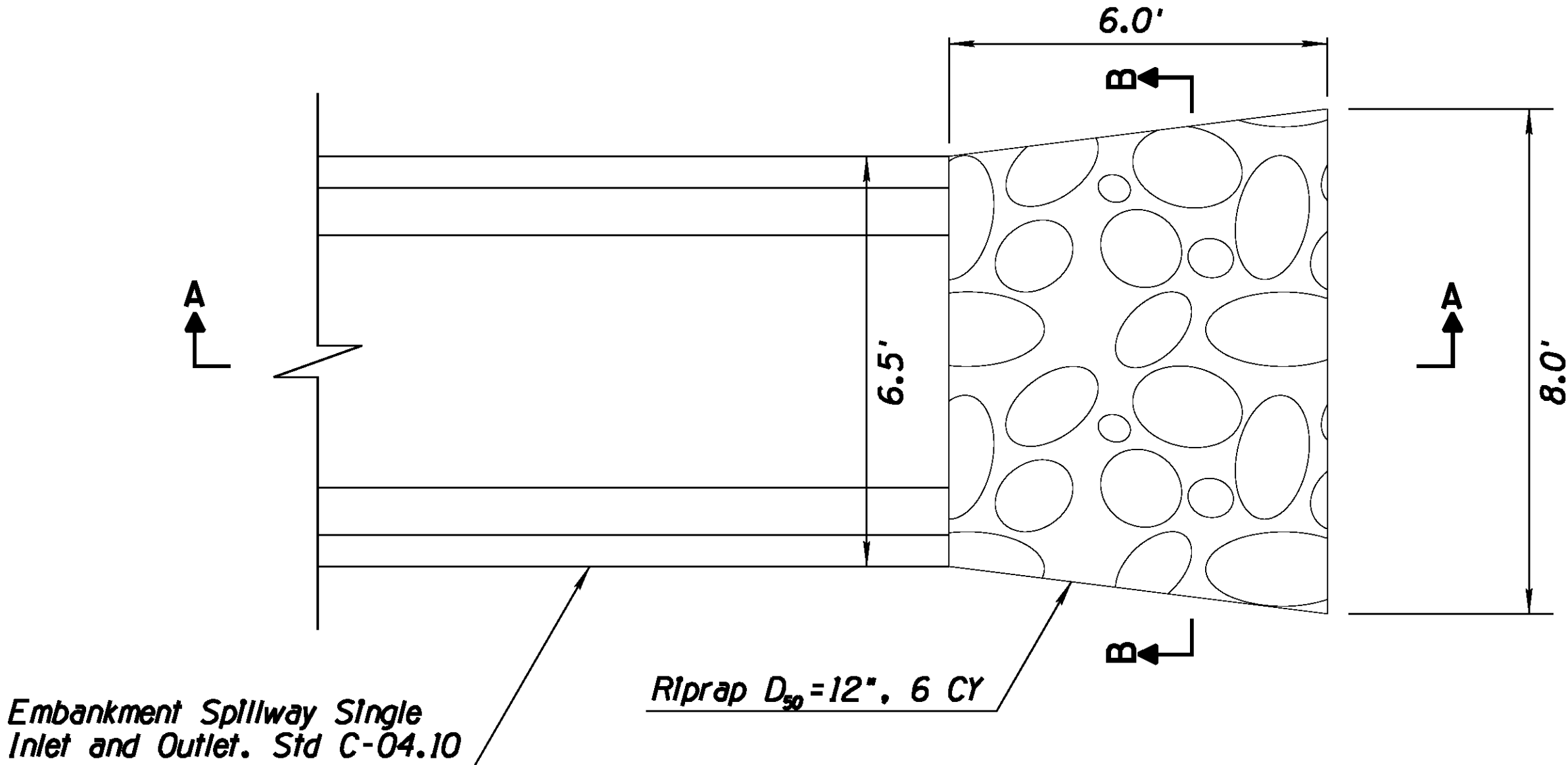
LEAVEOUT DETAIL

DESIGN APPROVED J.C. Cooper	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY GROUP PLANS DETAIL	
APPROVED FOR DISTRIBUTION Mary Viparina	DETAIL SHEET DETAIL B	
ROUTE OLD US 66	LOCATION SOUTH OATMAN HIGHWAY, MP 1 TO 2	SHEET C-01.02
TRACS NO. T0021 OIC	MMO-0(216)T	___ OF ___

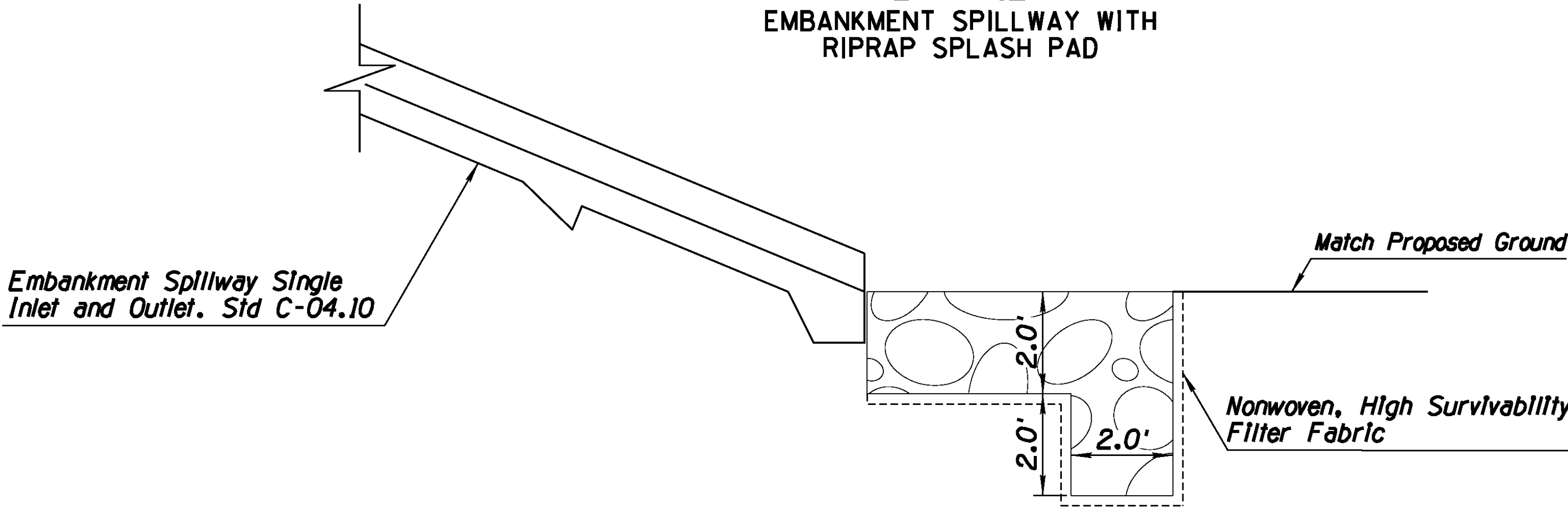
DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	8	76	

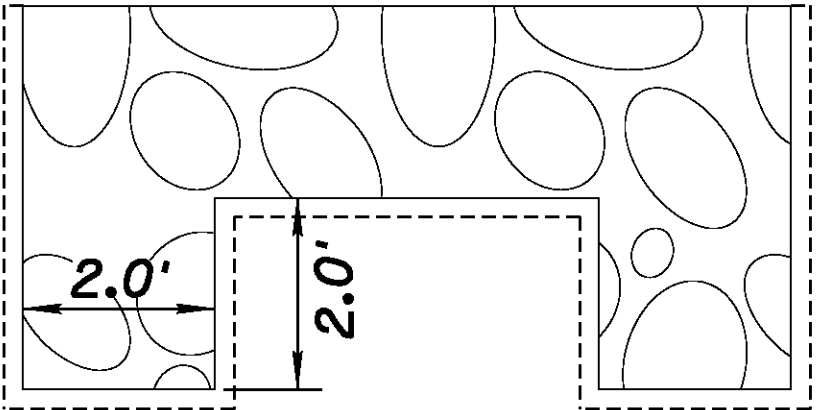
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PLAN VIEW
EMBANKMENT SPILLWAY WITH
RIPRAP SPLASH PAD

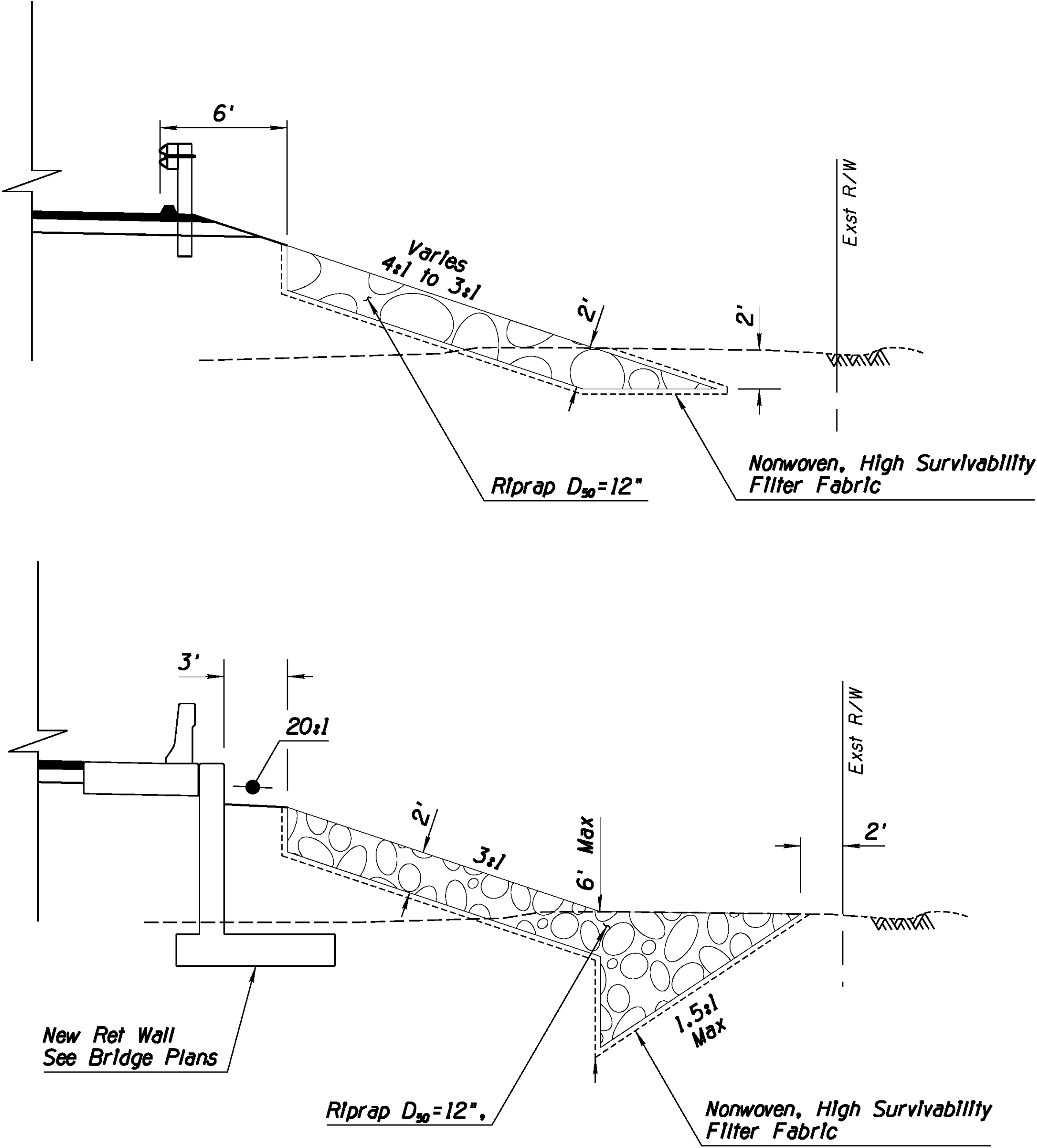


ELEVATION
SECTION A-A



SECTION B-B

RIPRAP GRADATION	
Percent Passing	D ₅₀ =12 Inch
100	18.00-20.4 Inch
85	14.40-16.80 Inch
50	12.00-13.8 Inch
15	4.80-7.20 Inch



DETAIL C

EMBANKMENT RIPRAP PROTECTION

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DESIGN	AOM		07/16		
DRAWN	DWT		07/16		
CHECKED	AOM		07/16		
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				SACRAMENTO WASH EMBANKMENT PROTECTION DETAIL	
ROUTE		LOCATION		OLD US 66 OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
TRACS NO. T0021 01C				MMO-0(216)T	
				DWG NO.C-01.03	
				OF	

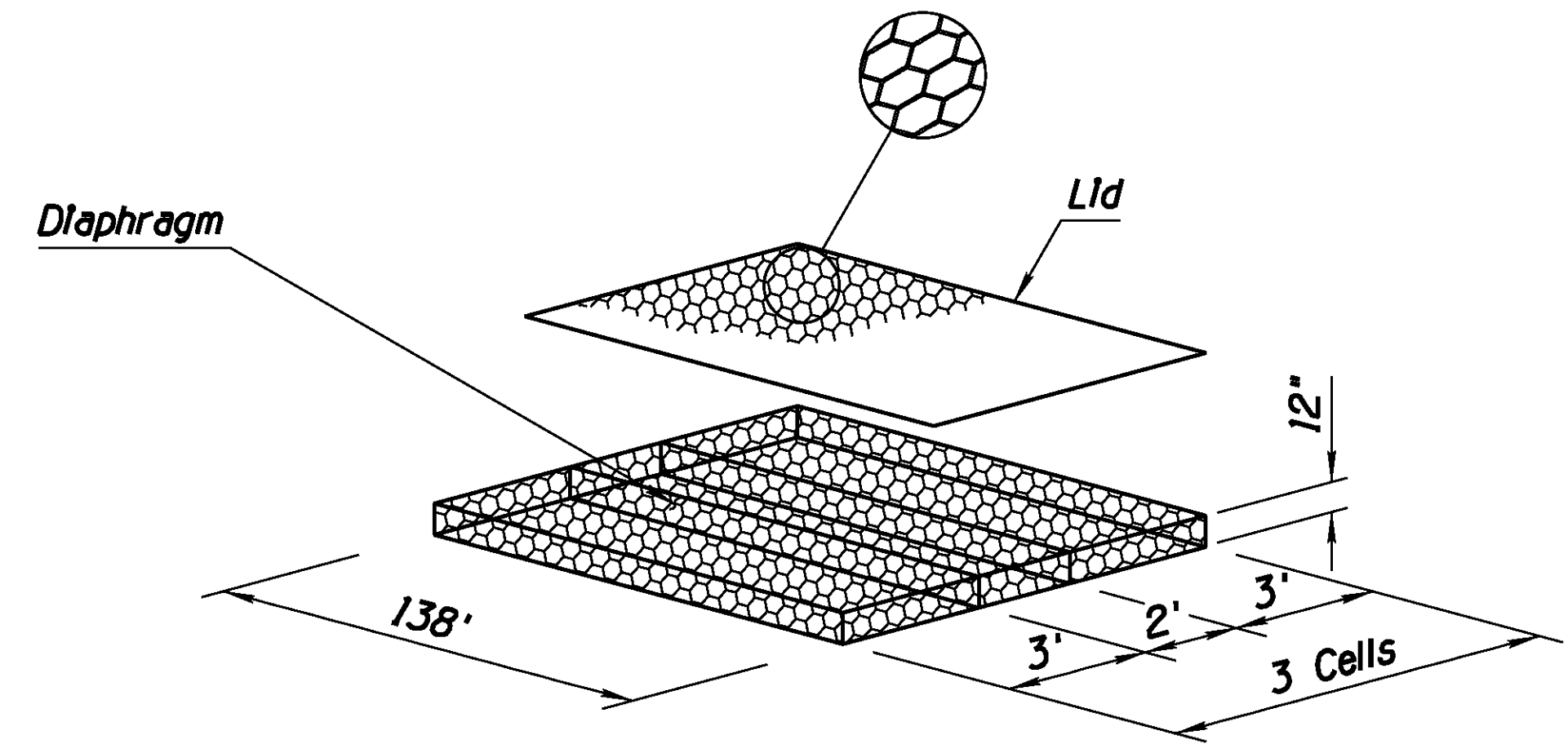
DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	9	76	

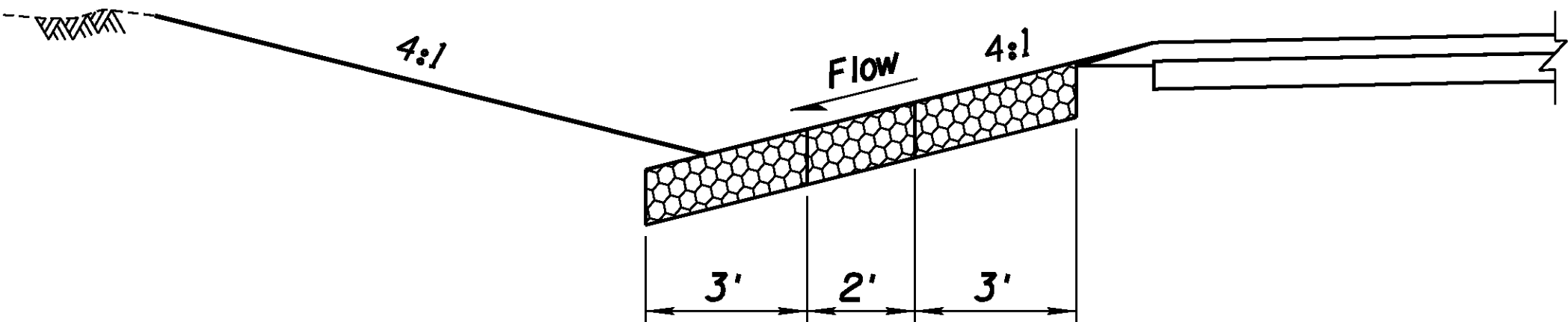
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NOTES:

1. Connect edges of gablons to adjacent mattresses using wire gablon connectors at 4"-6" spacing.
2. Connect top of gablon to each edge and divider at 12" spacing.
3. Fill gablon mattress cells to the top with 4"-8" well graded riprap per Standard Specifcations and manufacturer's recommendations.
4. Install high survivabililty geotextile fabric (woven) behind all new gablons.
5. Backfill and compact excavated areas using native channel material to match finished channel grade.
6. Backfill and compact to 95% density below gablons per ADOT Standard Specifcations Section 203.
7. The distance between wire mesh dividers shall not exceed 3'.
8. Securely attach stake to gablon top at 2 points with rope per manufacturer's recommendations.
9. Gablon mattress shall be installed so that the length of cell is perpendicular to the direction of flow.
10. The existing ground shall be free of weathered, loose, or degraded rock, clay pockets, gouge or seams prior to the placement of the levelling course of gablons.
11. All work and materials associated with gablon mattress construction and instalation shall be paid for under bid item 9130030.



TYPICAL GABION MATTRESS
Scale: NTS



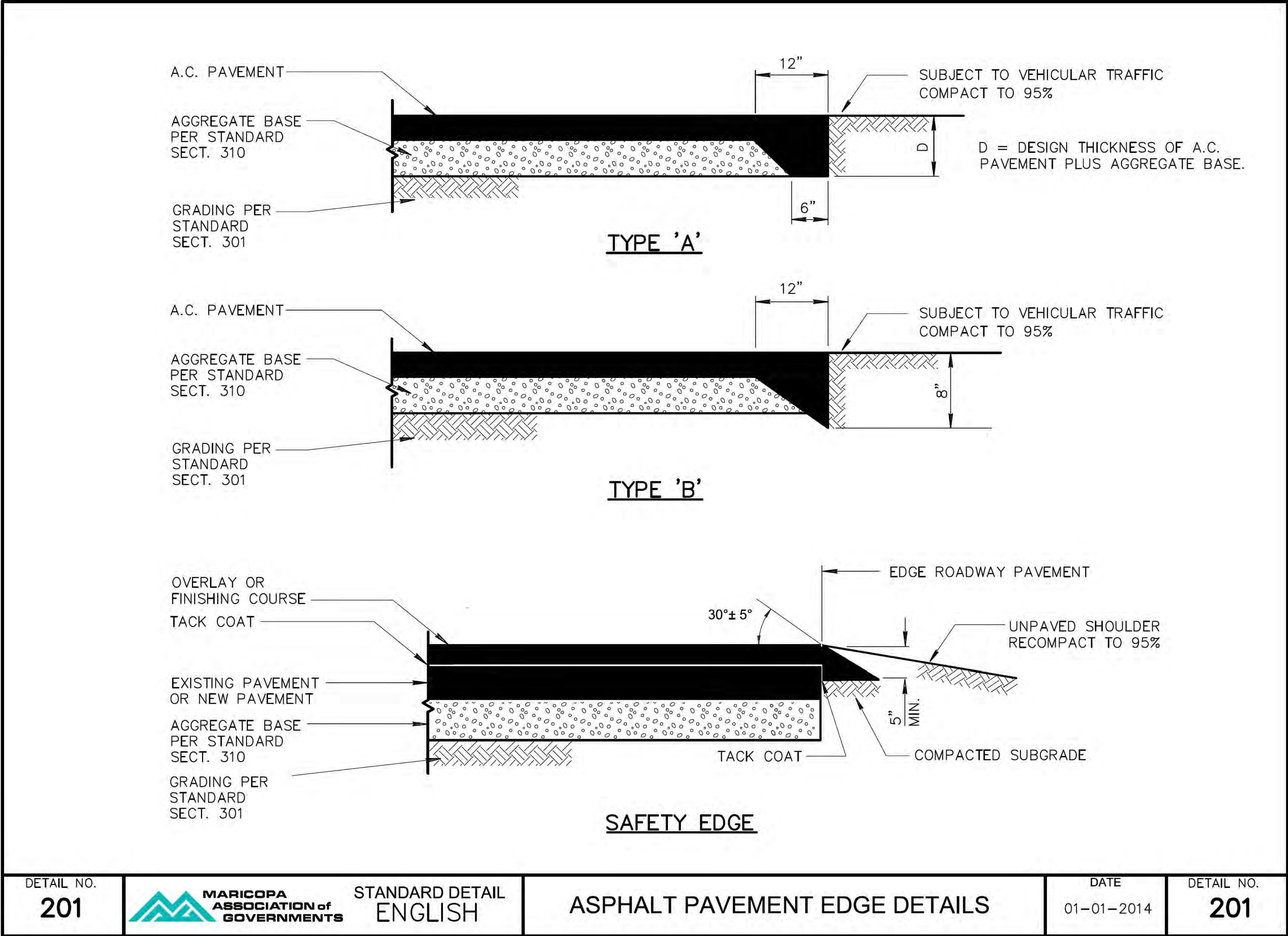
CROSS SECTION
Scale: NTS

DETAIL E
GABION MATTRESS

DESIGN	AOM	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DRAWN	RLH	DATE	07/16		
CHECKED	AOM	DATE	07/16		
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				DETAIL D GABION MATTRESS	
ROUTE		LOCATION			
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
TRACS NO. T0021 01C				MMO-0(216)T	DWG NO. C-01.03 OF

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	10	76	
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DETAIL F

MAG STANDARD DETAIL 201

NOTE:
The details shown herein are the product of the Maricopa Association of Government (MAG) who is solely responsible for their design, content and any specifications or other information referenced therein. Exceptions to the MAG details have been noted to address specific requirements of this project.

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT		
DESIGN	MAG		07/16			
DRAWN	MAG		07/16			
CHECKED	MAG		07/16			
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				DETAIL SHEET ASPHALT PAVEMENT EDGE		
ROUTE		LOCATION				DWG NO. C-01.04
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING				
TRACS NO. T0021 OIC			MMO-0(216)T			___ OF ___

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

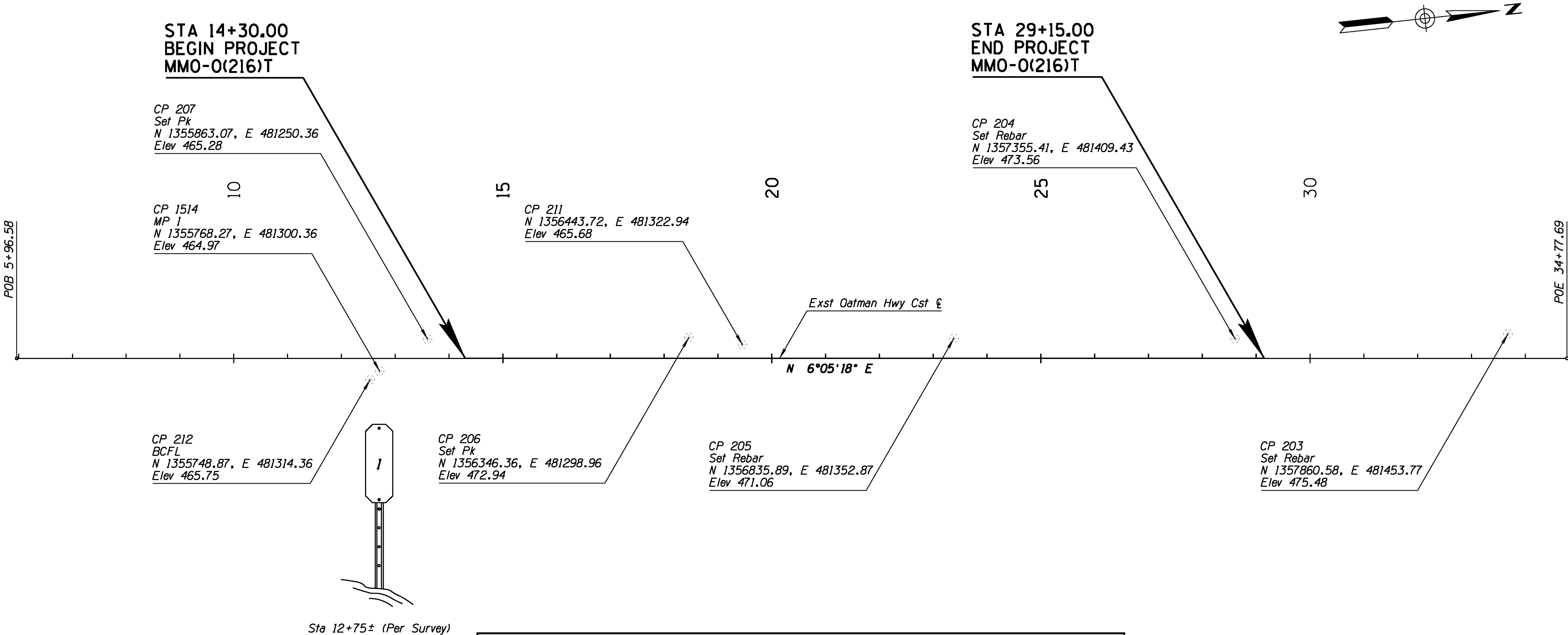
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	11	76	

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GENERAL NOTES

- ALL COORDINATES LISTED ARE STATE PLANE GRID COORDINATES ARIZONA WEST ZONE, STANDARD TRANSVERSE MERCATOR PROJECTION.
- UNITS = INTERNATIONAL FEET
1 FOOT = 0.3048 METER EXACTLY
- ALL BEARINGS ARE GRID BEARINGS, DISTANCES ARE GRID DISTANCES AND COORDINATES ARE GRID COORDINATES.
- THE FIELD PORTION OF THIS SURVEY WAS PERFORMED DURING NOVEMBER, 2015.

CENTERLINE GEOMETRIC DATA				
Description	Point Type	Station	Coordinates	
			Northing	Easting
Exlst Oatman Hwy Cst £	POB	05+96.58	1355100.11	481205.22
Exlst Oatman Hwy Cst £	POE	34+77.69	1357964.96	481510.80

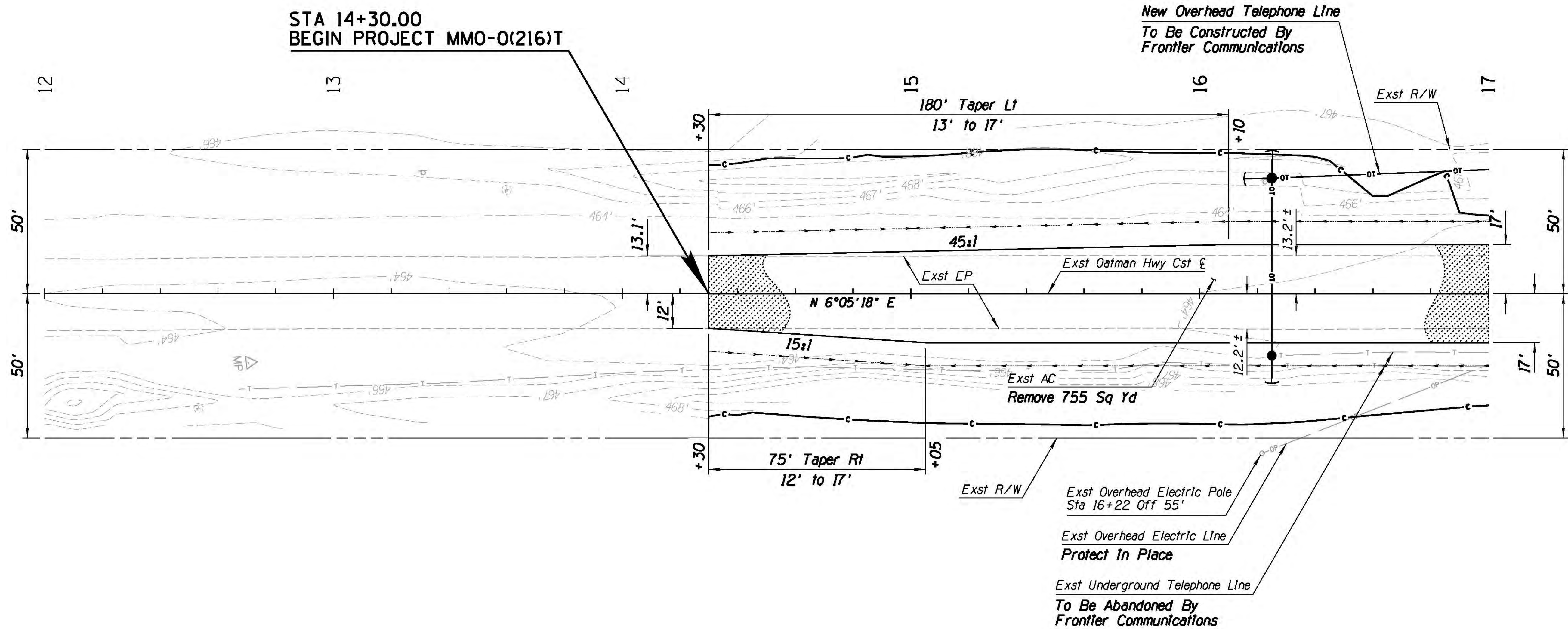
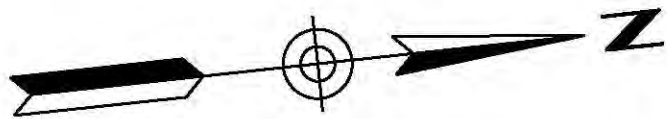


SURVEY CONTROL POINTS AND BASIS OF ELEVATIONS					
Point	Northing	Easting	Elevation	Description	Station And Offset
104	1358697.73	479253.69	463.45	2IN ALUM CAP	N/A
105	1353653.04	479550.38	495.59	2IN ALUM CAP	N/A
106	1359745.63	479930.65	469.23	2IN ALUM CAP	N/A
111	1356764.98	482522.36	490.00	2IN ALUM CAP	23+91.76, 1133.13' Rt

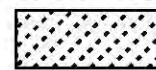
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DRAWN	RLH	DATE	07/16		
CHECKED	RSC	DATE	07/16		
Kimley»Horn				GEOMETRIC CONTROL AND LAYOUT SHEET	
ROUTE 66				LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 OIC				MMO-0(216)T	
				DWG NO.C-02.01	
				OF	

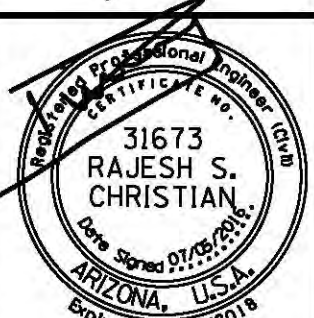
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	12	76	

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LEGEND

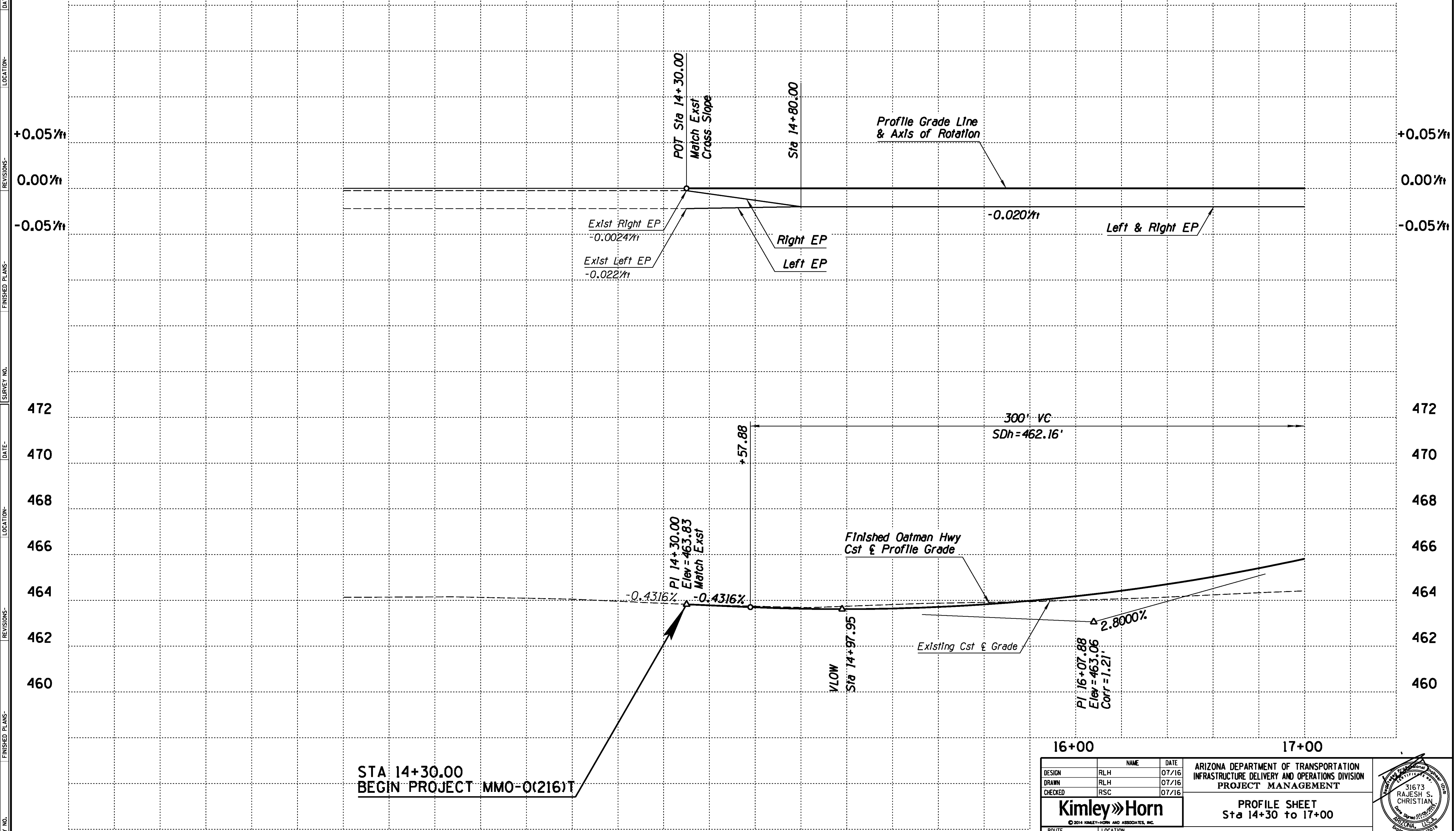
 Pavement Structural Section No. 1

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DESIGN	RLH	07/16			
DRAWN	RLH	07/16			
CHECKED	RSC	07/16			
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.			PLAN SHEET Sta 14+30 to 17+00		
ROUTE	LOCATION				
OLD US 66	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			DWG NO.C-03.01	
TRACS NO. T0021 OIC		MMO-0(216)T		OF	

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	13	76	

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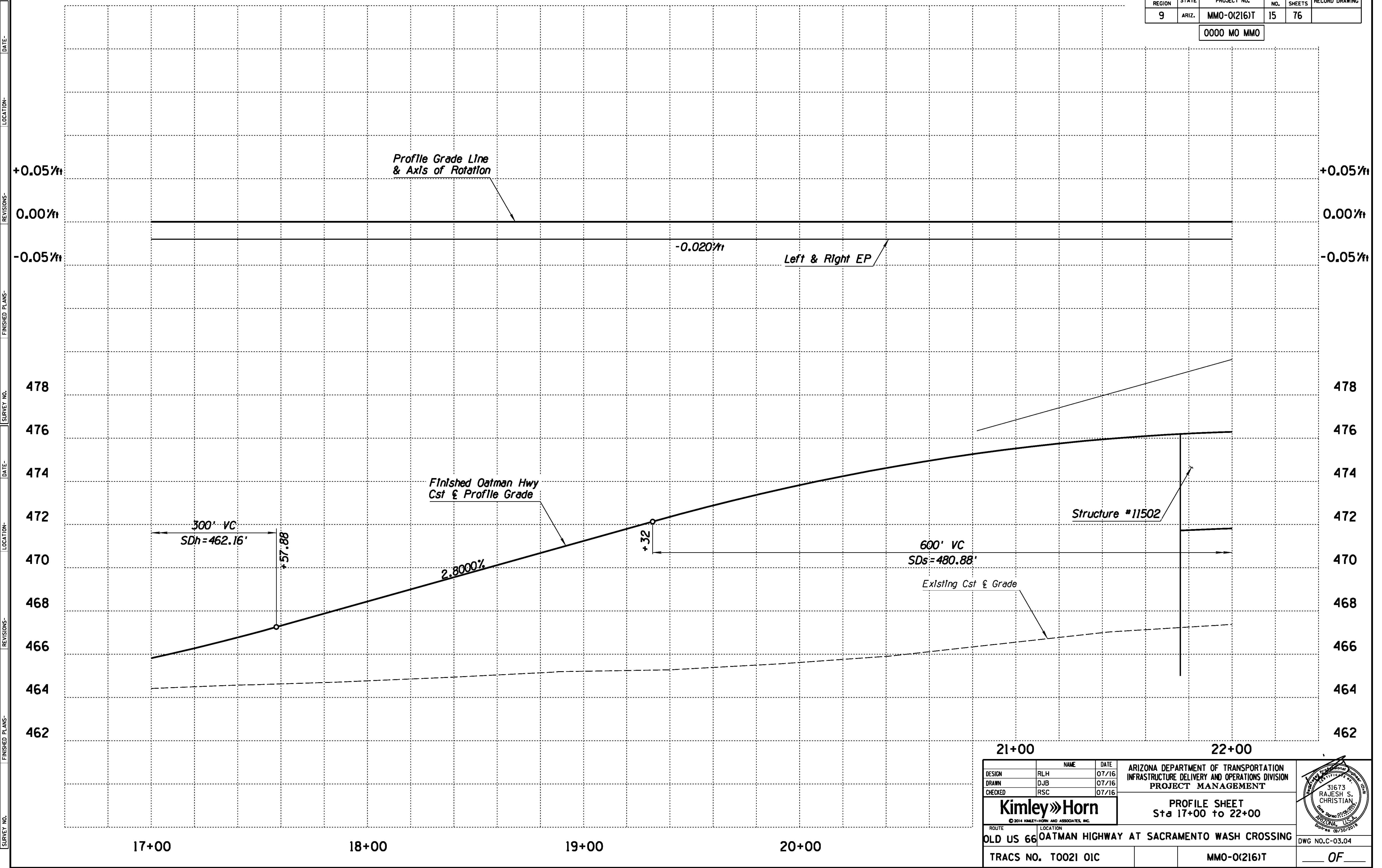
STA 14+30.00
BEGIN PROJECT MMO-0(216)T

DESIGN		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DRAWN		RLH	07/16		
CHECKED		RSC	07/16		
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				PROFILE SHEET Sta 14+30 to 17+00	
ROUTE		LOCATION			DWG NO. C-03.02
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
TRACS NO.		T0021 OIC		MMO-0(216)T	OF

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	15	76	

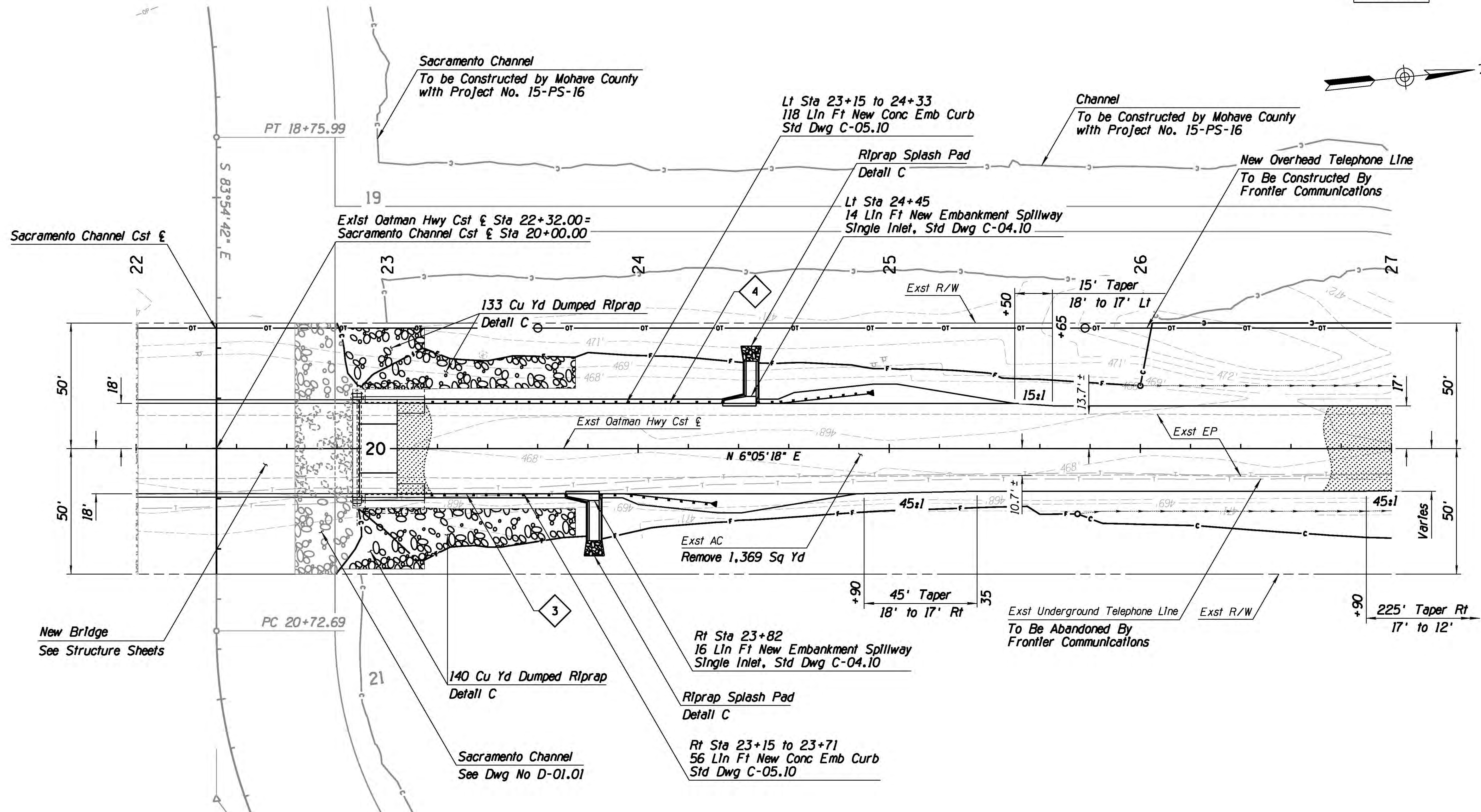
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DRAWN	DJB	DATE	07/16		
CHECKED	RSC	DATE	07/16		
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				PROFILE SHEET Sta 17+00 to 22+00	
ROUTE		LOCATION		DWG NO. C-03.04	
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
TRACS NO. T0021 01C				MMO-0(216)T	
				OF	

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	16	76	

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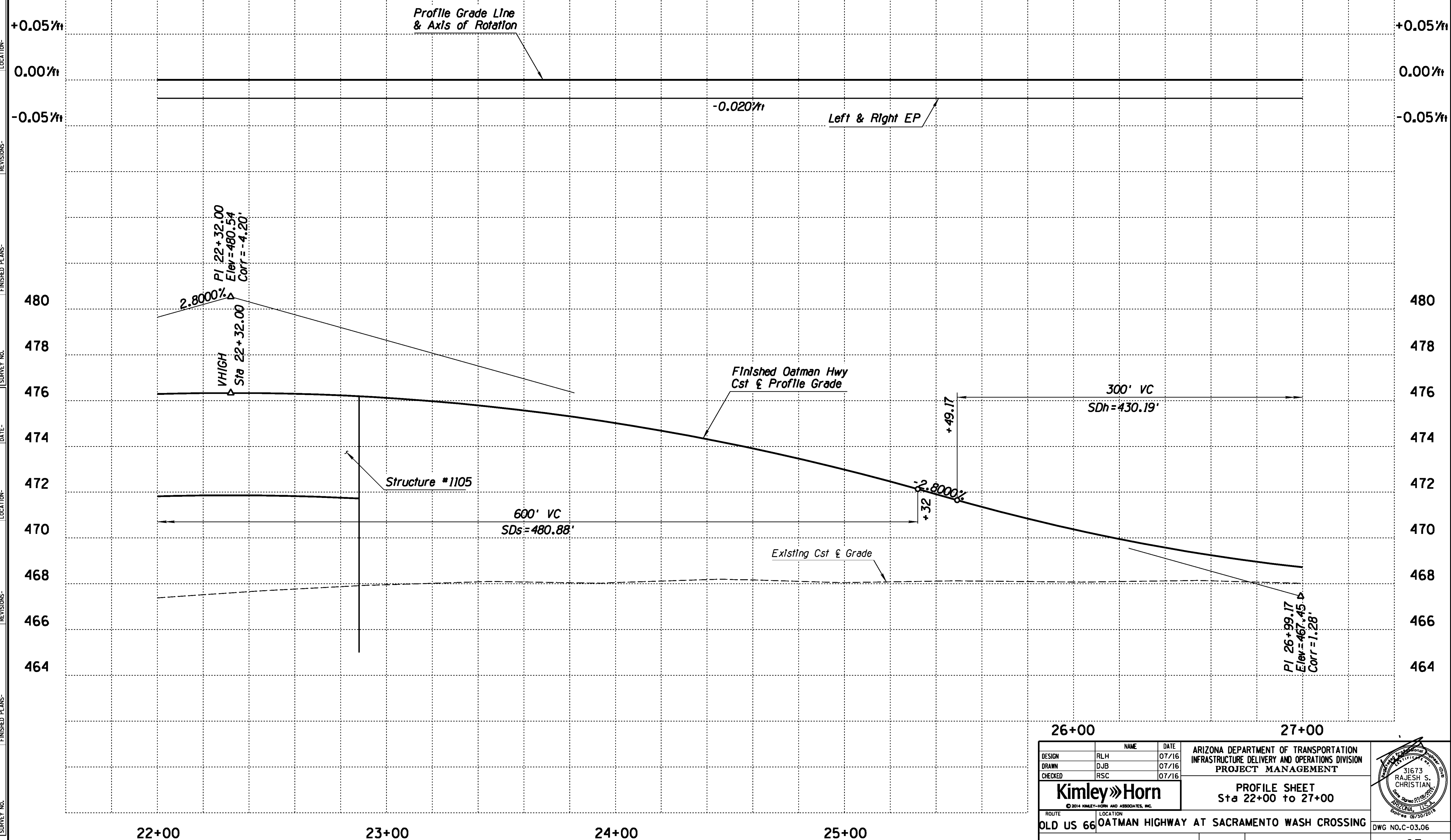
LEGEND

Pavement Structural Section No. 1

		NAME		DATE		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT			
DESIGN	RLH			07/16				31673 RAJESH S. CHRISTIAN	
DRAWN	DJB			07/16				Date Sent 07/20/2016	
CHECKED	RSC			07/16				ARIZONA, U.S.A. Expires 09/30/2016	
Kimley»Horn				PLAN SHEET					
© 2014 KIMLEY-HORN AND ASSOCIATES, INC.				Sta 22+00 to 27+00					
ROUTE		LOCATION							
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING							
TRACS NO. T0021 OIC				MMO-0(216)T				DWG NO. C-03.05	
								OF	

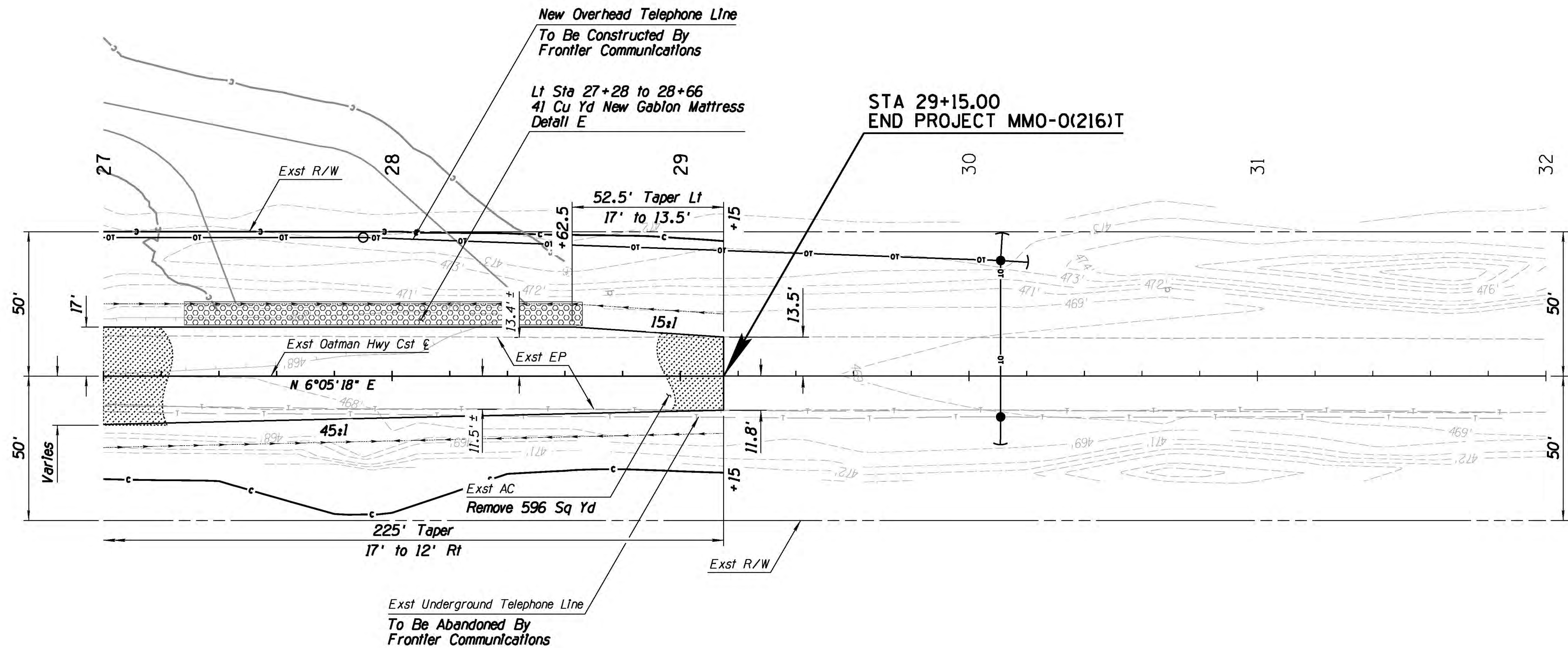
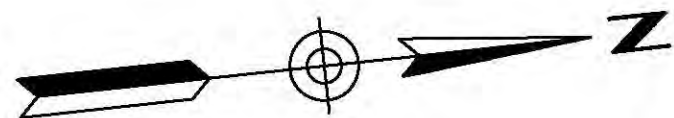
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	17	76	

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	18	76	

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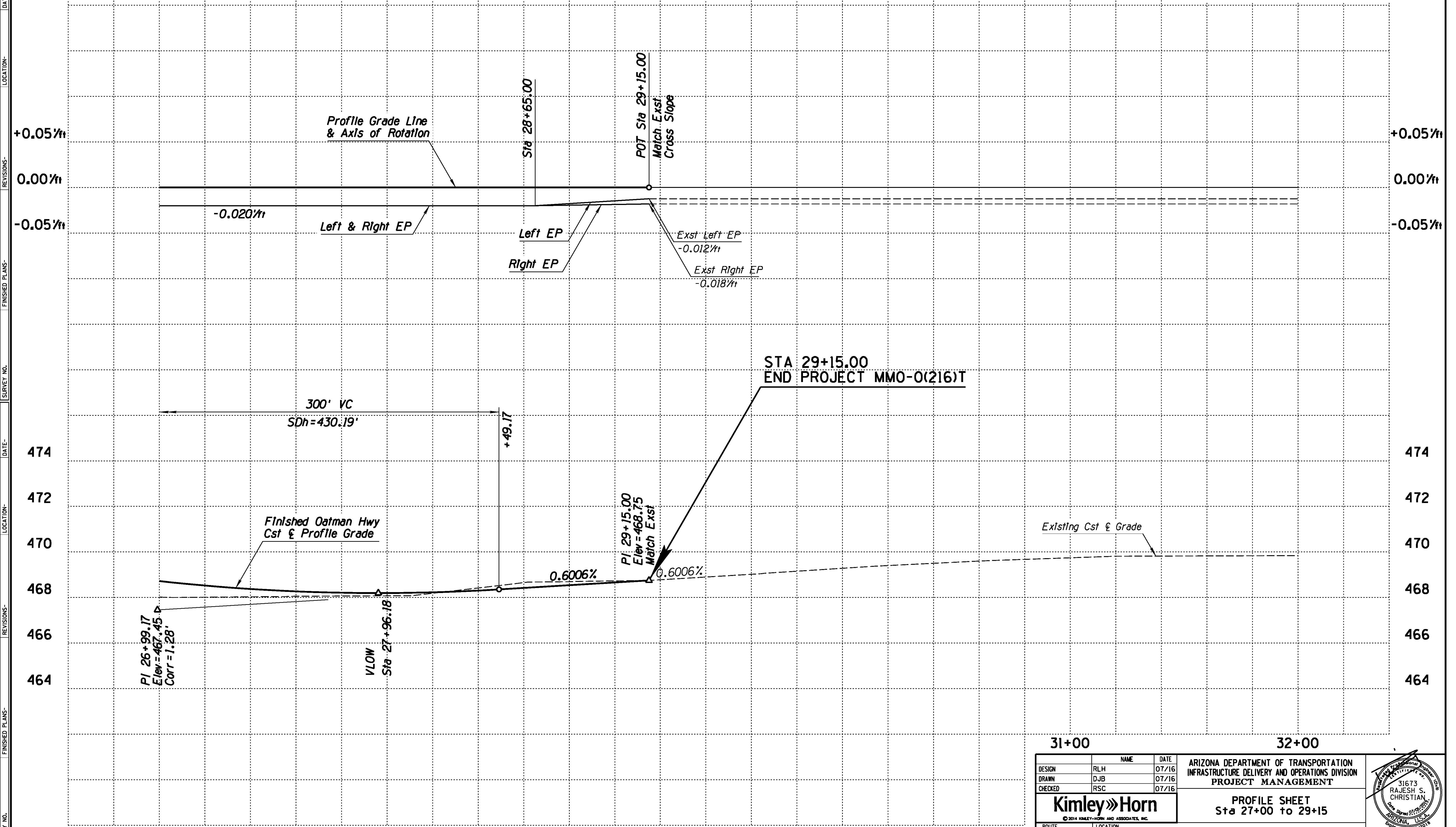
LEGEND
 Pavement Structural Section No. 1

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT		
DESIGN	RLH	07/16				
DRAWN	DJB	07/16				
CHECKED	RSC	07/16		PLAN SHEET Sta 27+00 to 29+15		
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.						
ROUTE	LOCATION		OLD US 66 OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
TRACS NO. T0021 01C		MMO-0(216)T				

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	19	76	

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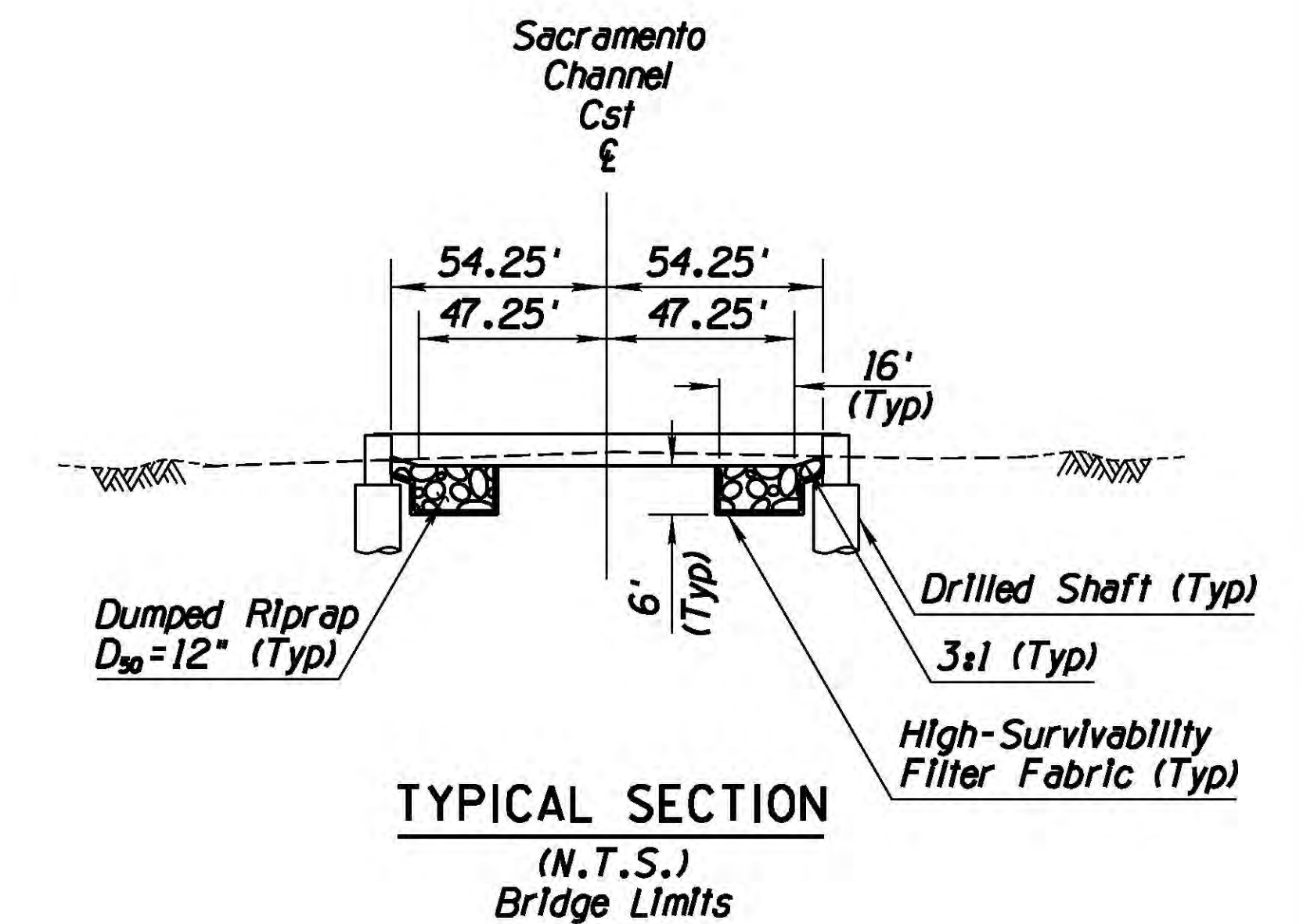
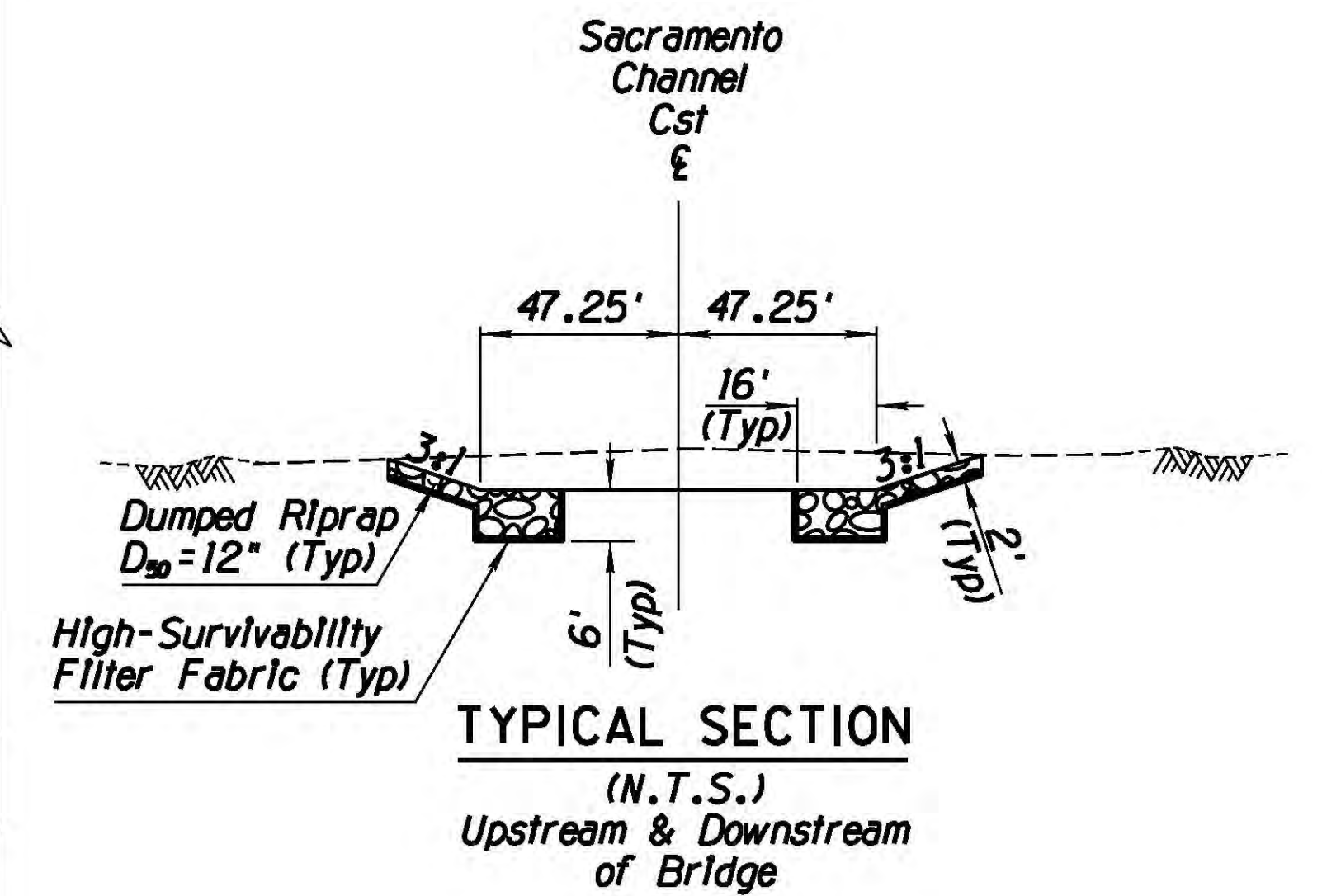
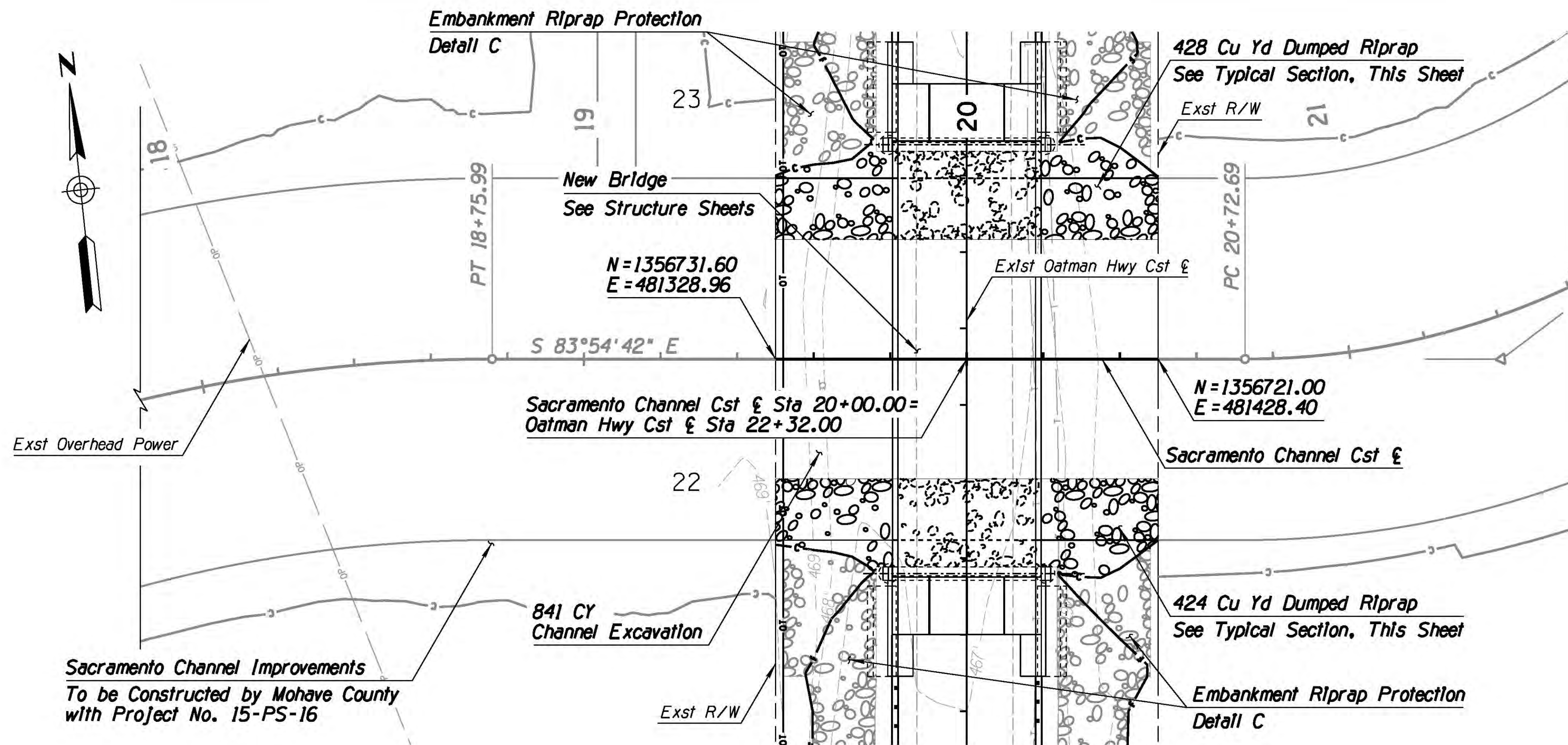


DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT
DRAWN	RLH	07/16	
CHECKED	DJB	07/16	
	RSC	07/16	
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.			PROFILE SHEET Sta 27+00 to 29+15
ROUTE	LOCATION	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
OLD US 66	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	DWG NO. C-03.08	
TRACS NO.	T0021 01C	MMO-0(216)T	OF

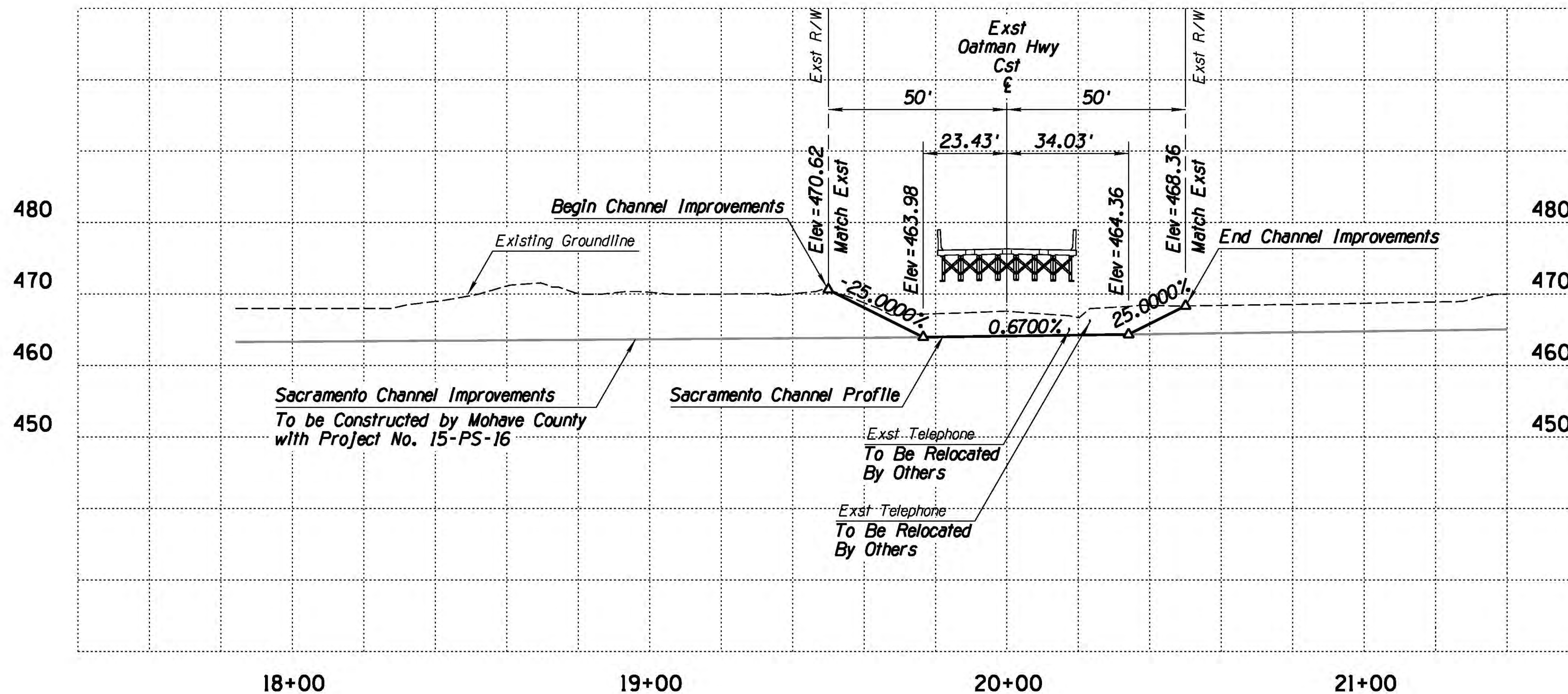
DATE: LOCATION: REVISIONS: FINISHED PLANS: SURVEY NO. DATE: LOCATION: REVISIONS: FINISHED PLANS: SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	20	76	

0000 MO MMO



- NOTES:
1. See Detail C for riprap gradation.
 2. Sacramento Channel Stationing is provided for reference only. See Mohave County Project No. 15-PS-16 for details.



DESIGN	AOM	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DRAWN	RLH	DATE	07/16		
CHECKED	AOM	DATE	07/16		
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				SACRAMENTO CHANNEL PLAN & PROFILE	
ROUTE		LOCATION		DWG NO. D-01.01	
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
TRACS NO. T0021 01C		MMO-0(216)T		OF	

TRAFFIC CONTROL NOTES:

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	21	76	

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Signs

- All existing signs in conflict with the construction signs shall be removed, relocated, or covered in place, as directed by the Engineer. The Contractor shall store and reinstall items which have been removed or relocated in a manner approved by the Engineer. Any signs damaged by the contractor's activities shall be replaced at no additional cost to the department.
- The retroreflective sheeting on all construction signs shall meet criteria established in Section 1007 of ADOT Standard Specifications and in Section 380 of the ADOT Traffic Guidelines and Processes.
- Signs installed on embedded posts shall be mounted at a minimum height of 7 feet as measured from the bottom of the sign to the near edge of the pavement. All other short-term signs may be installed on spring stands, at the height recommended by the spring stand manufacturer.
- The nearest edge or corner of a sign shall be approximately 12 feet from the nearest edge of pavement for all signs mounted on embedded posts.
- Flags shall be mounted on top of all construction signs except the "END ROAD WORK THANK YOU" sign.
- Type A flashing warning lights shall be required on all nighttime construction signs except the "END ROAD WORK THANK YOU" sign.
- Type C steady-burning yellow lights shall be mounted on every barricade.
- Channelizing devices shall be placed 40 feet on center in tapers and 80 feet on center in tangents, except as otherwise noted on plans.
- Construction signs shall not be displayed to traffic more than 24 hours prior to the actual start of construction. These signs may be installed sooner but they must be covered or turned away from traffic. The cost for covering or turning them shall be considered part of the sign installation cost. No further compensation will be made. These signs shall be removed within 24 hours after the completion of construction activities.
- All construction signs shall have black letters on an orange background, except as otherwise noted.
- Speed limit signing is preliminary and is subject to review and change by the Engineer as dictated by field conditions.

Devices

- The Contractor may substitute Type I barricades for Type II barricades as long as the reflective area on the top panel of each Type I barricade is equivalent or greater than the reflective area of a Type II barricade.
- For temporary concrete barrier markers, see ADOT Standard Drawing M-32. Markers shall be installed at 20 feet spacing. The installed price for the markers shall be considered part of the barrier cost.
- For sand barrel crash cushion details, see ADOT Standard Drawings C-1 and C-2.
- When traffic control devices are not in use, they shall be moved at least 30 feet from the roadway.
- An adequate number of Type III barricades shall be placed across each roadway to be closed. A 48 x 30 inch "ROAD CLOSED" or "RAMP CLOSED" sign, as appropriate, shall be attached to one of the Type III barricades closing the roadway. A Type A flashing warning light shall be mounted on each end of each Type III barricade.
- The Contractor shall utilize a flashing arrow panel in the sequential chevron mode for each closure of a through lane. The Contractor shall not utilize a flashing arrow panel in connection with any shifting taper.

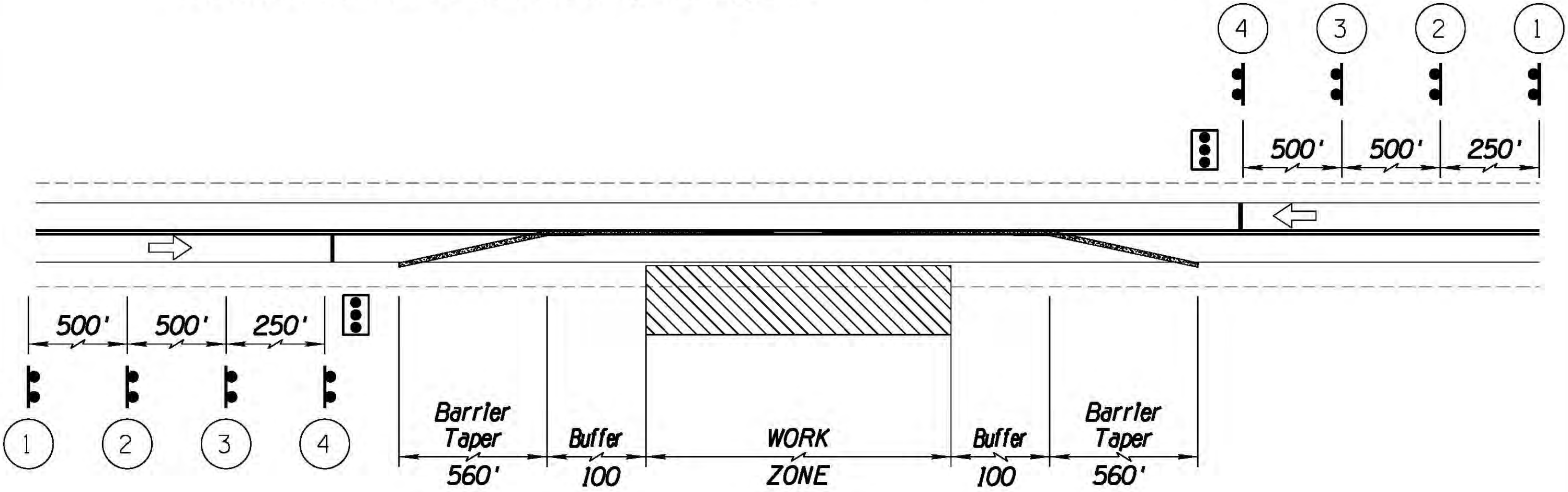
REFERENCES / ABBREVIATIONS:

MUTCD - Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition, and the ADOT supplement to the Manual on Uniform Traffic Control Devices (2009).

TCDG - ADOT Traffic Control Design Guidelines 2011 (LATEST EDITION).

Plans

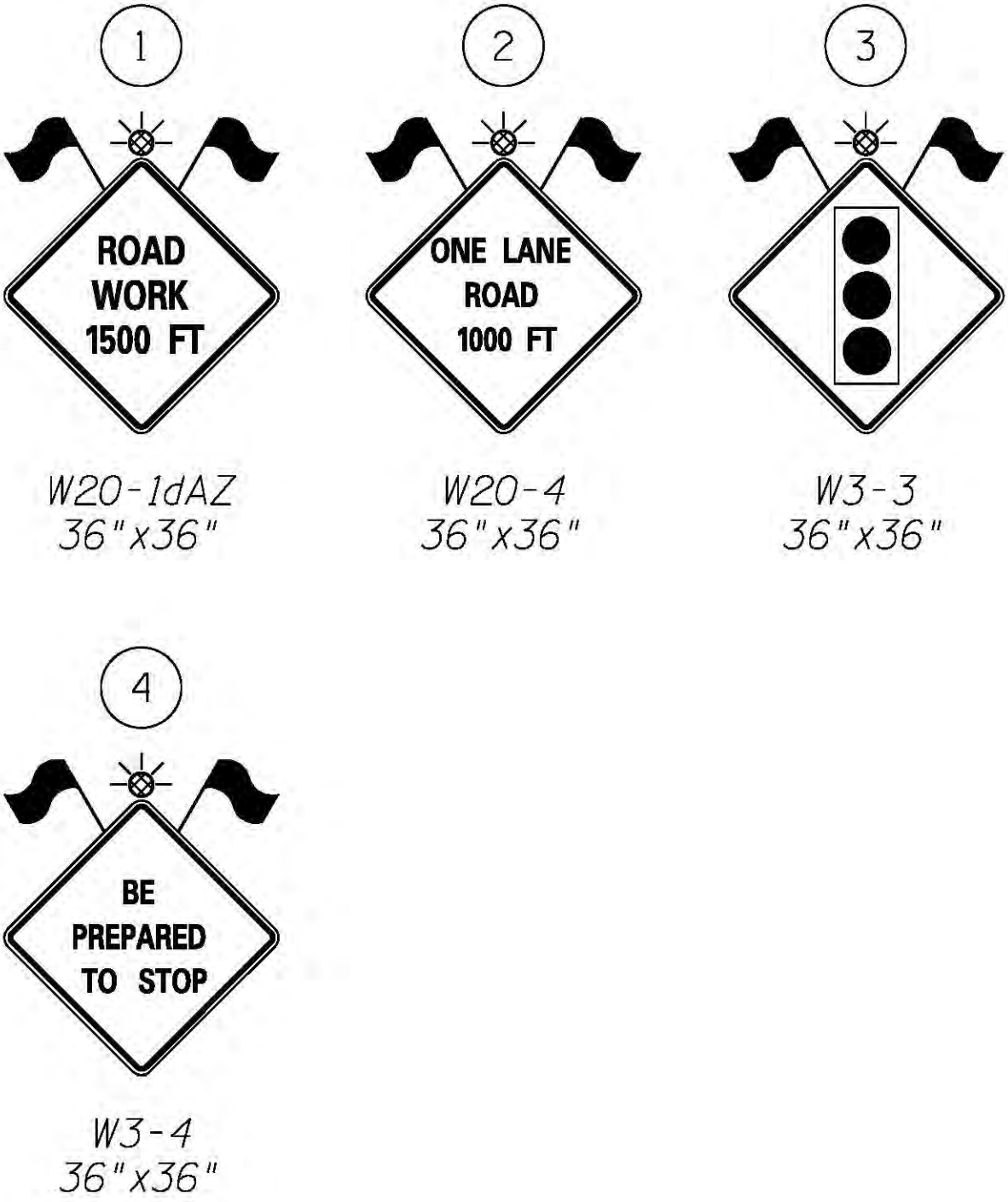
- All drawings are schematic only and not to scale.
- The traffic control plans represent a suggested method for traffic control during construction. The Contractor may prepare another traffic control plan in accordance with Section 701 of the Standard Specifications. All traffic control plans are subject to the approval of the Engineer before beginning construction.
- Adjustments to the details of these traffic control plans and requirements may be necessary due to construction activities or as directed by the Engineer.



DETAIL FOR TEMPORARY SIGNAL SETUP

SYMBOL LEGEND:

	Sign on 2 Embedded Posts
	Temporary Signal
	Type II Barricades
	Direction Of Travel
	WORK AREA



NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES	
DESIGN	E. EGGEN	06/16	
DRAWN	E. EGGEN	06/16	TRAFFIC CONTROL PLAN GENERAL NOTES
CHECKED	D. DUFFY	06/16	
CivTech Inc. 10000 N. Hayden Rd. Suite 100 Scottsdale, AZ 85260 480.688.4000 info@civtech.com		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
LOCATION		DWG. NO. T-1.01	
TRACS NO. T0021 OIC		MMO-0(216)T	
		OF	

DATE-

LOCATION-

REVISIONS-

FINISHED PLANS-

SURVEY NO.

DATE-

LOCATION-

REVISIONS-

FINISHED PLANS-

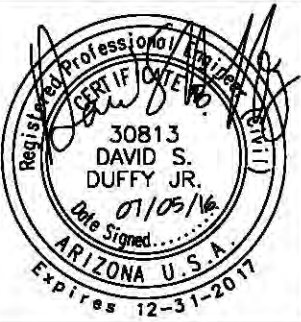
SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	22	76	
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APPROXIMATE TRAFFIC CONTROL QUANTITIES							
		DURATION (CALENDAR DAYS)	28	21*	4	28**	-
BID ITEM NO.	ELEMENT OF WORK	UNIT	ACTIVITY 1	ACTIVITY 2	ACTIVITY 3	ACTIVITY 4	TOTAL
7015010	Temporary Concrete Barrier (Installation & Removal)	L. Ft.	-	880	-	830	1710
7015020	Temporary Impact Attenuators (Installation & Removal)	Each	-	4	-	-	4
7015042	Temporary Painted Marking (Stripe)	L. Ft.	-	-	-	56	56
7016020	Temporary Concrete Barrier (In Use)	L. Ft.-Day	-	10560	-	13280	23840
7016021	Temporary Impact Attenuators (In Use)	Each-Day	-	48	-	-	48
7016030	Barricade (Type II, Vertical Panel, Tubular Marker)	Each-Day	2680	-	-	320	3000
7016031	Barricade (Type III, High Level Flag Trees)	Each-Day	-	-	24	-	24
7016033	Portable Sign Stands (Spring Type)	Each-Day	-	108	152	188	448
7016035	Warning Lights (Type A)	Each-Day	402	-	152	-	554
7016037	Warning Lights (Type C)	Each-Day	2680	-	-	-	2680
7016039	Embedded Sign Post	Each-Day	804	-	-	-	804
7016051	Temporary Sign (Less than 10 S.F.)	Each-Day	-	108	608	188	904
7016052	Temporary Sign (10 S.F. or more)	Each-Day	402	-	-	-	402
7016061	Flashing Arrow Panel	Each-Day	-	-	-	32	32
7016067	Changeable Message Board (Contractor Furnished)	Each-Day	268	-	-	-	268
7016075	Flagging Services (Civilian)	Hour	-	80	-	80	160
7016078	Flagging Services (Local Enforcement Officer)	Hour	-	80	-	80	160
7370202	Temporary Traffic Signal	L. Sum	-	-	-	1	1

* For activlty 2, 5 calendar days are estimated to Install the temporary concrete barrier. 16 calendar days are estimated for the shoulder closure.

** For activity 4, 5 calendar days are estimated to Install the temporary concrete barrier. 8 calendar days are estimated for guard rail work. 12 calendar days are estimated for channel work.

DESIGN	E. EGGEN	06/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES	
DRAWN	E. EGGEN	06/16		
CHECKED	D. DUFFY	06/16		
 CivTech Inc. 10605 N. Hayden Rd. Suite 100 Scottsdale, AZ 85260 480.688.4000 p 480.688.0080 f info@civtech.com			TRAFFIC CONTROL PLAN QUANTITY SUMMARY SHEET	
LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING				
TRACS NO. T0021 OIC			MMO-0(216)T	DWG. NO. T-1.02 OF

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	23	76	
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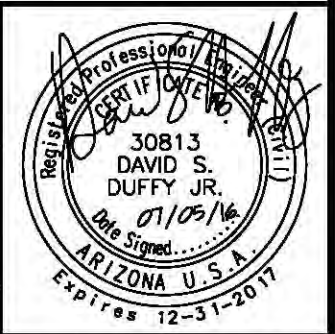
MAINTENANCE AND PROTECTION OF TRAFFIC			
ACTIVITY (Duration)	CONSTRUCTION ACTIVITY	TRAFFIC CONTROL	COMMENTS
1 (Duration of work)	Install DMS signs Install advance work zone signs on embedded post	DMS shall be Installed on southbound Oatman Highway south of the County Route 1 and Oatman Highway Intersection 14 days In advance of closure of Oatman Highway and north of I-40, Exit 1 on northbound Oatman Highway. provide "ROAD WORK AHEAD" signs on all approaches to the work zone and "END WORK THANK YOU" signs as directed by the Engineer. "ROAD WORK AHEAD" signs should be one mile In advance of the work zone.	Traffic control shall remain for duration as directed by the Engineer. Install 10 Type II barricades with lights per DMS. Provide changeable message signs during construction activities as directed by the Engineer. Traffic control shall remain for the duration of the work and shall be placed on embedded sign post.
2 (21 Calendar Days)	SHOULDER CLOSURE a. Setup temporary concrete barrier b. Construct Drilled Shafts c. Remove temporary concrete barrier	One lane closure for Installation and removal of temporary concrete barrier per Figure SA-3 of the ADOT TCDG. NB and SB shoulder closures per Figures SA-15 and SA-16 of the ADOT TCDG. Maintain 11 foot lanes on Oatman Highway. Reduce speed to 25 mph speed workzone. Speed reductions shall be In 10 MPH Increments.	Use temporary concrete barrier with Type C warning lights. Maintain 11 foot lanes through the workzone.
3 (4 Calendar Days)	ROAD CLOSURE a. Construct Sacramento Wash Bridge. b. Reconstruct roadway approaches.	Type III barricades shall be Installed across Oatman Highway, south of Polaris Road and east of Marina Access. Provide "ROAD CLOSED AHEAD" sign on southbound Oatman Highway/County Route 10 approach and eastbound Courtwright Road/County Route 1 approach to the Intersection of Oatman Highway/County Route 10 and County Route 1. Provide detour routes per traffic control detour plans. Traffic exiting at I-40 Exit 142 (In California) shall detour to west and north to I-40/SR 95, and east to Courtwright Road/County Route 1 and north to Oatman Highway at Topock Junction. Install detour signing on I-40 Exit 142 Ramps (In California), I-40/SR 95, Courtwright Road/County Route 1 and Oatman Highway. DMS shall be Installed on EB and WB I-40 prior to Exit 1 Arizona and E142, Needles, California, Informing Oatman Highway Is closed, Exit at I-40 Exit 142, Needles, California for detour route. DMS at I-40, Exit 142 (In California) detour for Oatman Highway.	Traffic control shall remain for the duration of the work and all signs shall be placed on spring stands. DMS Informing of Road Closure shall be placed at least one week In advance or as directed by the Engineer.
4 (28 Calendar Days)	LANE CLOSURE a. Setup temporary concrete barrier b. Construct guard rail at bridge approaches (8 days). c. Construct channel Improvements (12 days).	One lane closure for Installation and removal of temporary concrete barrier from Sta 17+70 to 26+00. Install temporary concrete barrier on centerline In lieu of channelizing devices per Figure SA-3 of the ADOT TCDG. For temporary signal setup, see detail shown on plan sheet T-1.01. Reduce speed to 25 mph speed workzone. Speed reductions shall be In 10 MPH Increments.	Maintain 11 foot lanes through the workzone. Barrier taper to be adjusted with traffic shift. Install 10 Type II barricades with lights per temporary signal.

TCDG - Traffic Control Design Guidelines, DMS - Dynamic Message Sign

TRAFFIC CONTROL NOTES:

1. The order of activities above does not constitute a sequence of construction.
2. The Contractor shall perform the work In the most expeditious manner consistent with the project plans, ADOT project special provisions and approval of the Engineer.
3. The estimated duration for the Installation and removal of barrier Is 5 days.

DESIGN	E. EGGEN	DATE	06/16
DRAWN	E. EGGEN	DATE	06/16
CHECKED	D. DUFFY	DATE	06/16
 CivTech Inc. 10000 N. Hayden Rd. Suite 100 Scottsdale, AZ 85260 480.688.4000 info@civtech.com		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES	
LOCATION		TRAFFIC CONTROL PLAN MAINTENANCE OF TRAFFIC	
OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		DWG. NO. T-1.03	
TRACS NO. T0021 01C		MMO-0(216)T	
		OF	



DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

PAVEMENT MARKING NOTES:

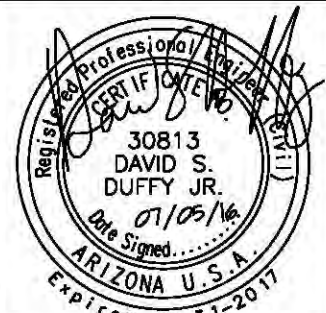
1. Final striping shall be standard reflectorized traffic paint placed over the existing striping, placed at a minimum of 30 calendar days after the initial striping. All other markings shall be applied at the same time.
2. The Contractor shall clean the roadway surface to the satisfaction of the Engineer, by sweeping and air-jet blowing, immediately prior to the placement of all pavement markings. The roadway surface shall be dry and the air and pavement temperatures shall be a minimum of 55 degree F and rising for the placement of thermoplastic striping. The roadway surface shall be dry and the air and pavement temperatures shall not be less than 60 degrees F for the installation of Type I, II, or III pavement marking tape. Type I tape shall not be installed if rain is anticipated 48 hours prior to or after intended installation date.
3. It is the Contractor's responsibility to ensure that the final surface course is placed so that the striping is offset one foot clear of any construction joint, unless otherwise directed by the Engineer.
4. At the completion of the final pavement surface each day, center lines, lane lines, and edge lines shall be striped with one application of standard reflectorized traffic paint at the locations of the permanent striping. The paint shall have a maximum thickness of 15 mils wet.
5. The Contractor shall be responsible for the layout and installation of permanent pavement markings on the final surface course following control points that have been set no more than 50 feet apart along the lines to be striped.
6. The Contractor shall break the center lines and edge lines adjacent to turnouts across any intersections with dedicated roadways or as otherwise directed by the Engineer. In addition, the Contractor shall not place any center lines within 10 feet of the nearest edge of pavement of the intersecting roadway.
7. When stripe obliteration is necessary, it shall be accomplished by an approved method. Painting over striping, removal of pavement, and overlaying pavement do not constitute stripe obliteration.
8. The Contractor shall preserve all roadway signs, sign supports, object markers, and milepost markers. The Contractor shall replace any signs, sign supports or markers damaged as a result of the construction at the Contractor's expense.
9. The Contractor shall delineate all new guardrail end treatments in accordance with the ADOT Standard Drawings and ADOT Standard Specifications. There shall be no measurement or payment for the guardrail end treatment delineation.
10. New striping shall be installed to match existing layout. It is the Contractor's responsibility to develop a "Record Drawing" plan of the existing striping and have the plan approved by the Engineer before any construction activities. The center line striping log is from Mohave County office records which needs to be field verified. Layout of traffic markings will be part of the work included in item 9250001-Construction Surveying and Layout.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	24	76	

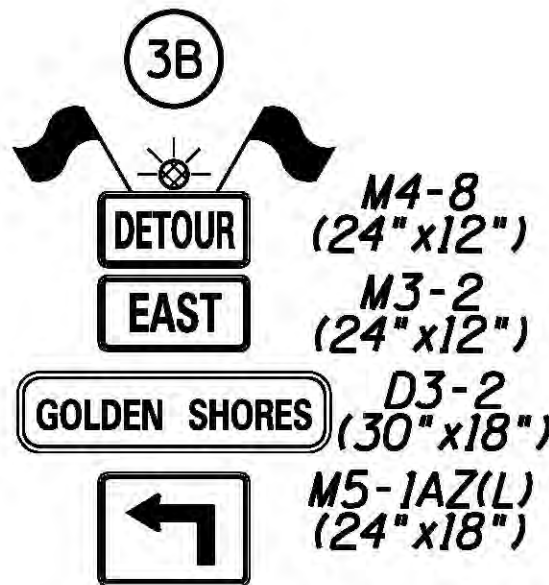
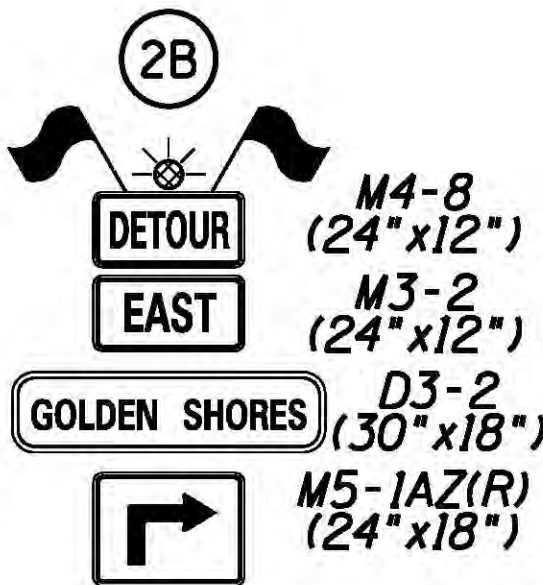
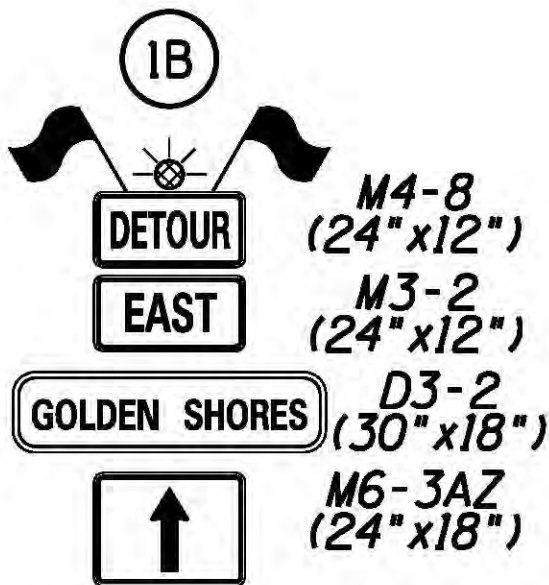
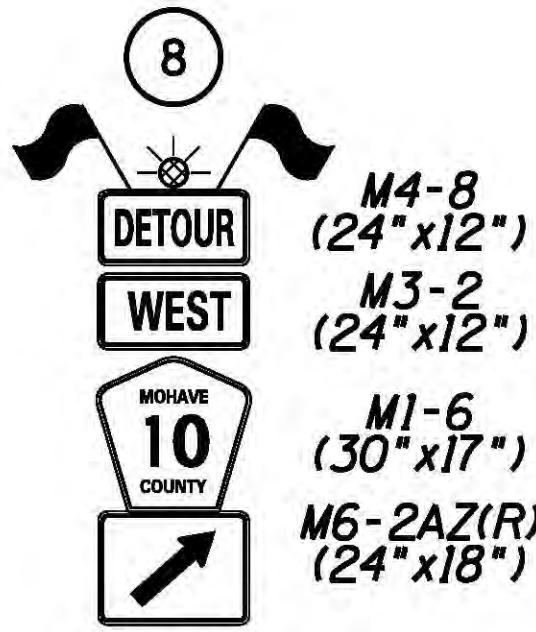
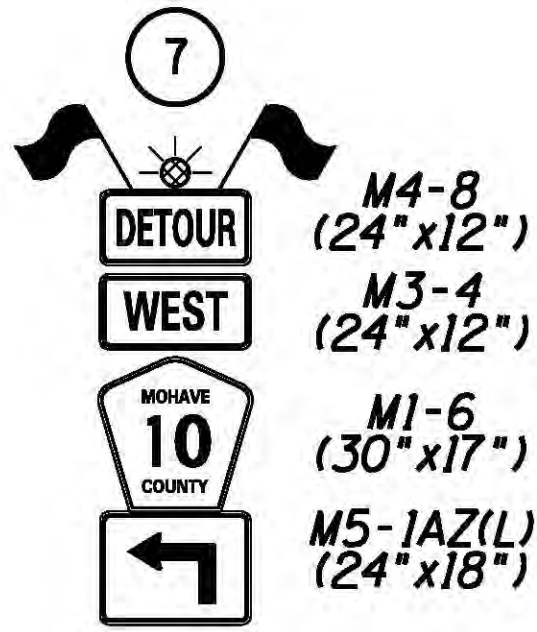
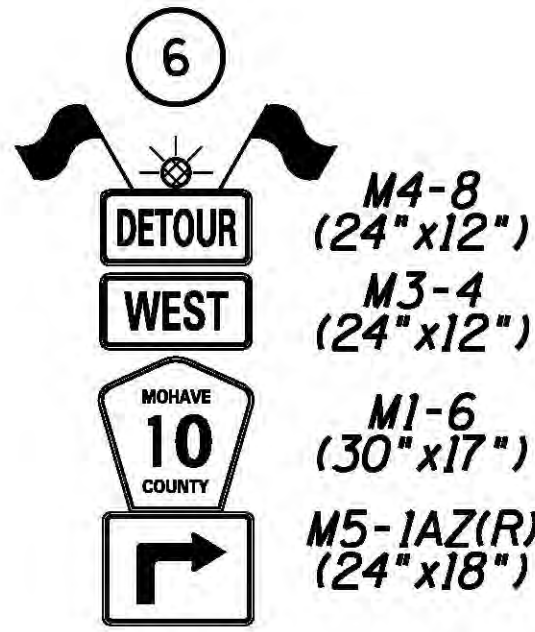
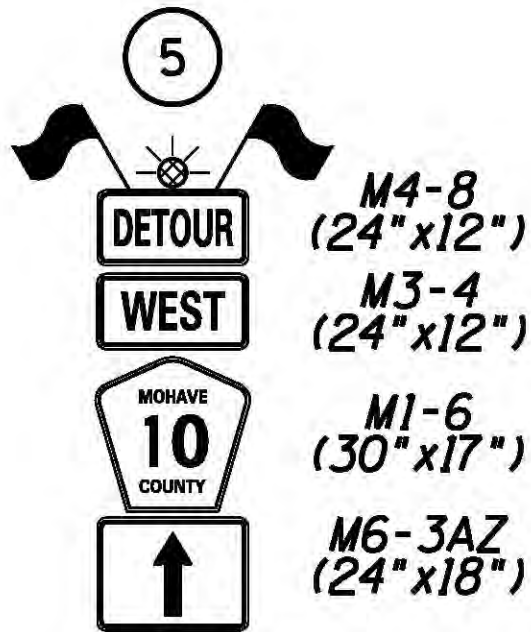
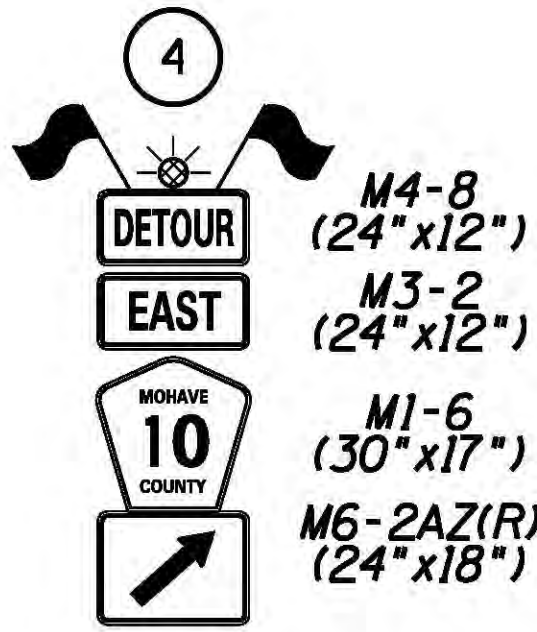
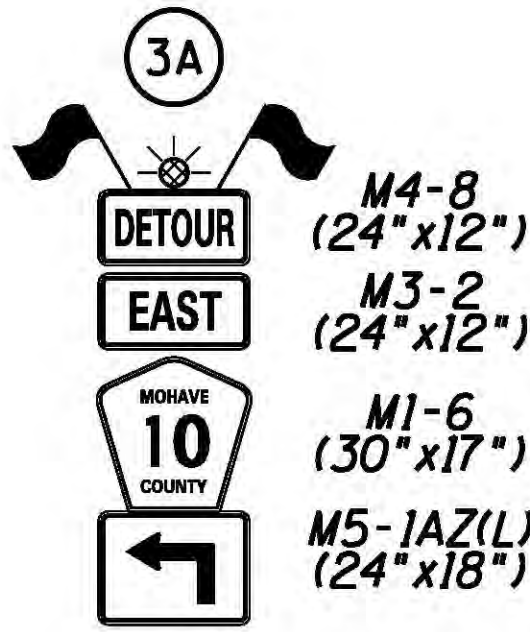
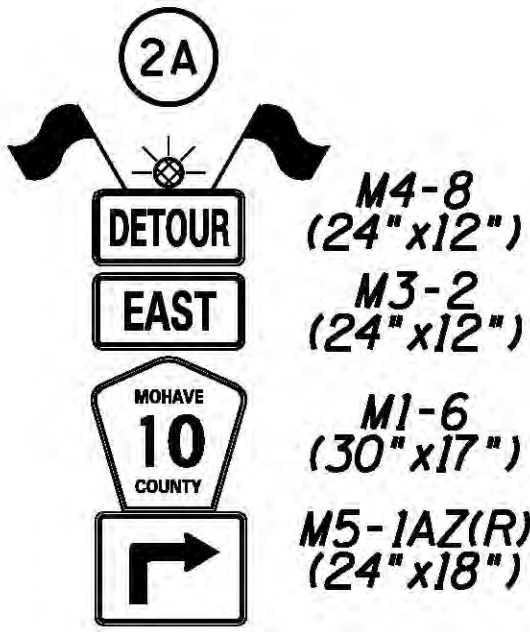
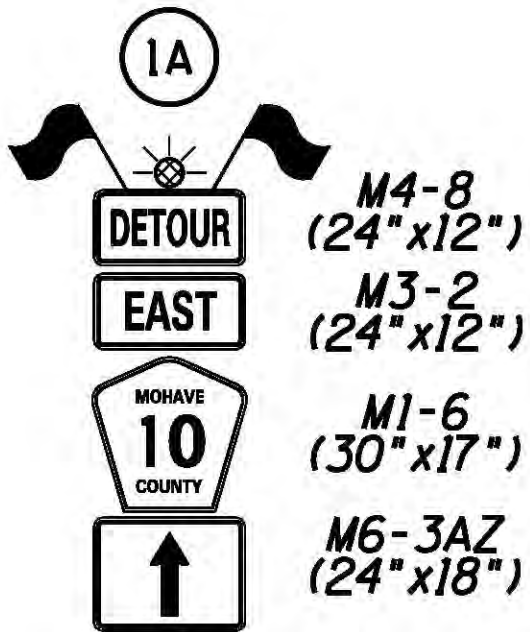
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APPROXIMATE PAVEMENT MARKING QUANTITIES

ITEM DESCRIPTION		UNIT	TOTAL LENGTH
STANDARD REFLECTORIZED TRAFFIC PAINT STA 14+30.00 TO STA 29+15.00	2-4" WHITE EDGE STRIPE	L.F.T.	2,970
	4" DOUBLE YELLOW CENTERLINE	L.F.T.	2,970

DESIGN	E. EGGEN	06/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES		
DRAWN	E. EGGEN	06/16			
CHECKED	D. DUFFY	06/16			
 CivTech Inc. 13000 N. 114th Ave. Suite 140 Scottsdale, AZ 85250 480.660.4200 p 480.660.0586 f info@civtech.com			PAVEMENT MARKING NOTES AND QUANTITIES		
LOCATION			OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		
DWG. NO. T-2.01			TRACS NO. T0021 OIC		
			MMO-0(216)T		
			OF		

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	25	76	
0000 MO MMO					



DETAIL TC1

TRAFFIC CONTROL
DETOUR SIGNS
NOT TO SCALE

	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES	
DESIGN	E. EGGEN	06/16		
DRAWN	E. EGGEN	06/16		
CHECKED	D. DUFFY	06/16		
	CivTech Inc. 10000 N. Hayden Rd. Suite 100 Scottsdale, AZ 85260 480.688.4000 info@civtech.com		TRAFFIC CONTROL PLAN DETOUR SIGNS	
	LOCATION			
OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING				DWG. NO. T-1.04
TRACS NO. T0021 OIC		MMO-0(216)T		OF

NOTES:

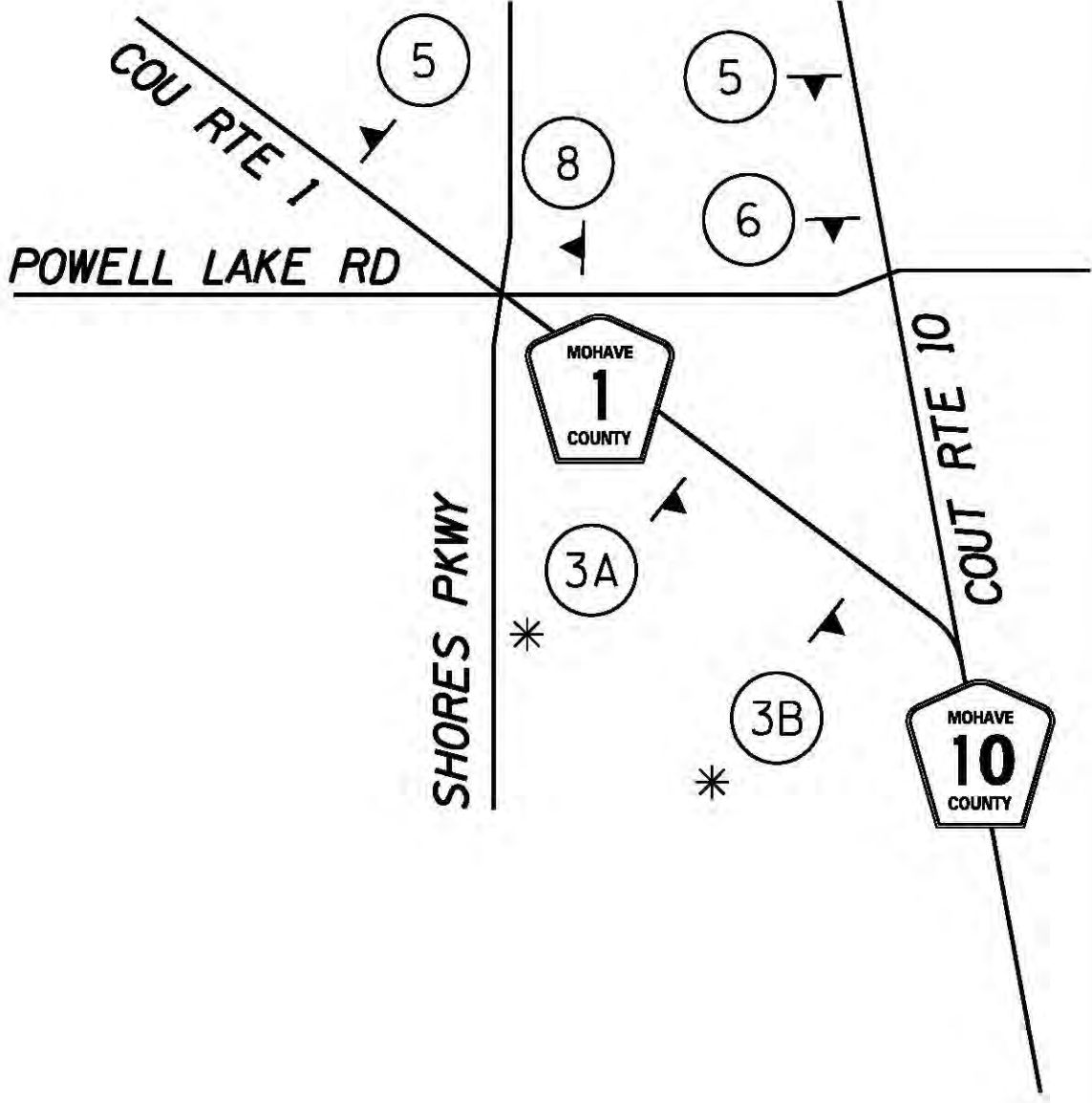
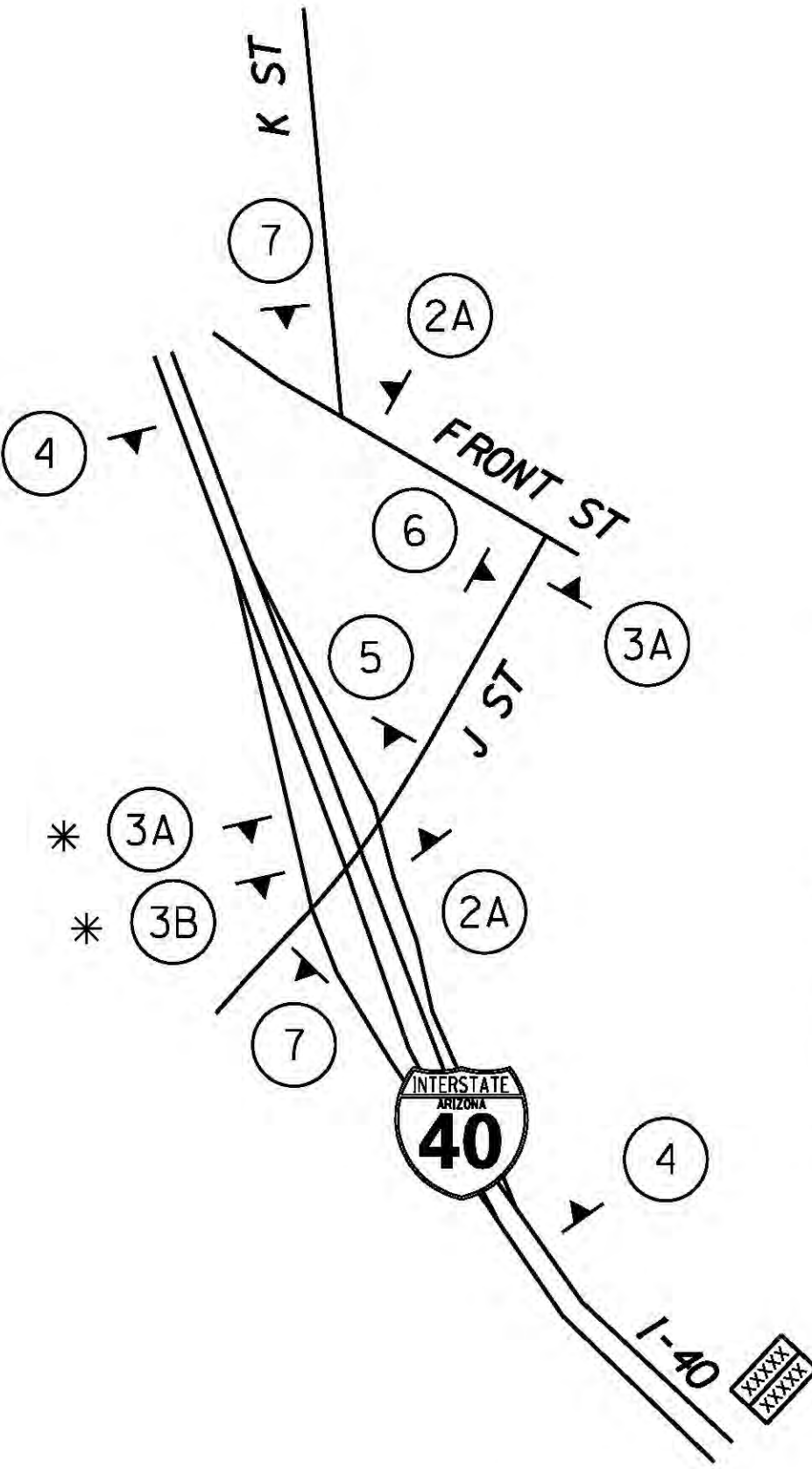
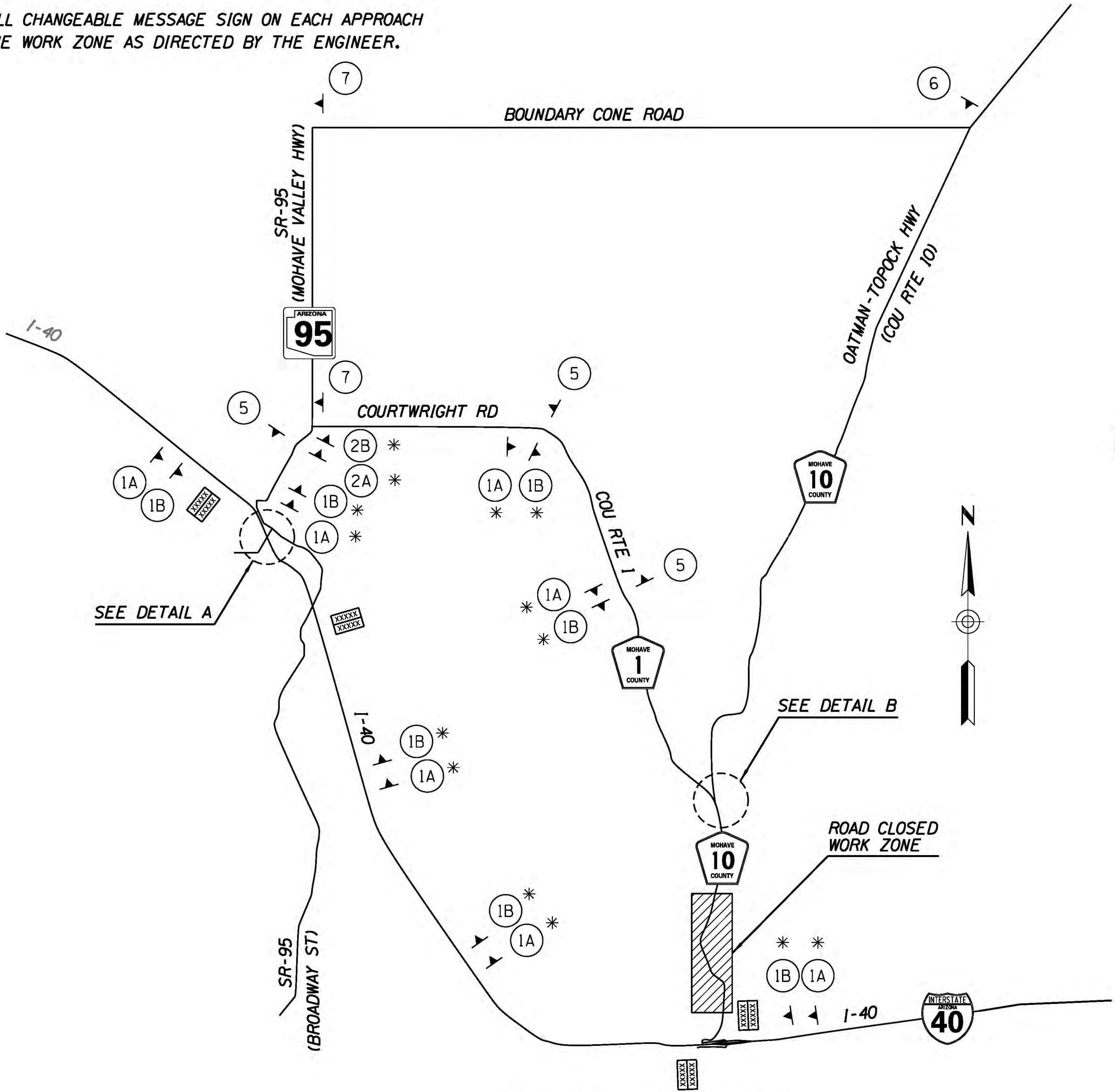
1. COORDINATE ADVANCE SIGNING MESSAGE WITH THE ENGINEER.
2. INSTALL CHANGEABLE MESSAGE SIGN ON EACH APPROACH TO THE WORK ZONE AS DIRECTED BY THE ENGINEER.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	26	76	

0000 MO MMO

SYMBOL LEGEND:

	SIGN ON SPRING STAND
	CHANGEABLE MESSAGE SIGN
	WORK AREA



DETAIL TC2

OATMAN HIGHWAY DETOUR
NOT TO SCALE

* SIGN SPACING BETWEEN A AND B SIGNS SHOULD BE 500 FEET, SPACING MAY BE ADJUSTED BY ENGINEER.

ADVANCE WARNING SIGNS

THE ABOVE SIGNS SHALL BE IN PLACE FOR THE DURATION OF THE PROJECT.

DESIGN	E. EGGEN	DATE	06/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SERVICES	
DRAWN	E. EGGEN	DATE	06/16		
CHECKED	D. DUFFY	DATE	06/16		
CivTech Inc. 10000 N. Hayden Rd. Suite 100 Scottsdale, AZ 85260 480.688.4000 info@civtech.com				TRAFFIC CONTROL PLAN ADVANCE WARNING SIGNS	
LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING					
TRACS NO. T0021 OIC			MMO-0(216)T		
			OF		

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	27	76	
0000 MO MMO					

GENERAL NOTES:

1. All landscape and erosion/sediment control installation shall be installed per these approved plans and shall comply with all applicable ADOT Standard Specifications for Road and Bridge Construction, 2008 Edition. Any deviations to the approved plans require Engineer approval.
2. Contractor to verify limits of soil disturbance throughout the project. Bring discrepancies immediately to the attention of the Engineer.
3. All work shall be confined within the disturbance limits as shown on the plans.
4. The Contractor is responsible for installing any required erosion/sediment control measures for any impacts within the project areas that may not be shown on these project plans, such as any stockpiling or staging areas.
5. Substantial Completion and Final Acceptance: An inspection at completion of the landscape and erosion/sediment control installation will be made by ADOT. Any deficiencies in the installation will be noted and corrected by the contractor prior to final inspection. A final inspection is required prior to the Engineer's acceptance of the landscape and erosion/sediment control installation.
6. The above inspections require a minimum of 48 hours prior notification to ADOT.

NOTES:

1. Construction Entrance Item and quantity are included for bidding purposes only. Entrance/Exit locations are to be determined by the contractor, with approval from the Engineer.

SEEDING GENERAL NOTES:

1. Surface Roughening of all new cut/fill slopes shall be horizontal and in a pattern parallel to the slope contours before seeding as specified in section 805 of the special provisions.
2. Remove the existing pavement (if applicable), scarify the underlying soil to 12 inches in depth, and seed the areas with Class II Seeding.
3. The amount of Class II Seeding will vary according to new cut/fill and disturbed areas. Field adjustments may be necessary as per the direction of the Engineer.

SEED MIX QUANTITY SUMMARY:

BID ITEM	DESCRIPTION	SYM.	UNIT	TOTAL
8050003	Seeding (Class II)		Acre	2

EROSION CONTROL SUMMARY:

BID ITEM	DESCRIPTION	SYM.	UNIT	TOTAL
8101018	Detail E2 - Construction Entrance		SQ YD	400
8101021	Detail E1 - Sediment Wattle (9")		LF	1,220

MAINTENANCE GENERAL NOTES:

1. Repair erosion/stormwater damage immediately.
2. Remove any paper and container debris from the ROW.
3. Control undesirable plant species within the ROW.
4. All maintenance items in these notes are paid for as part of the individual BMP cost.

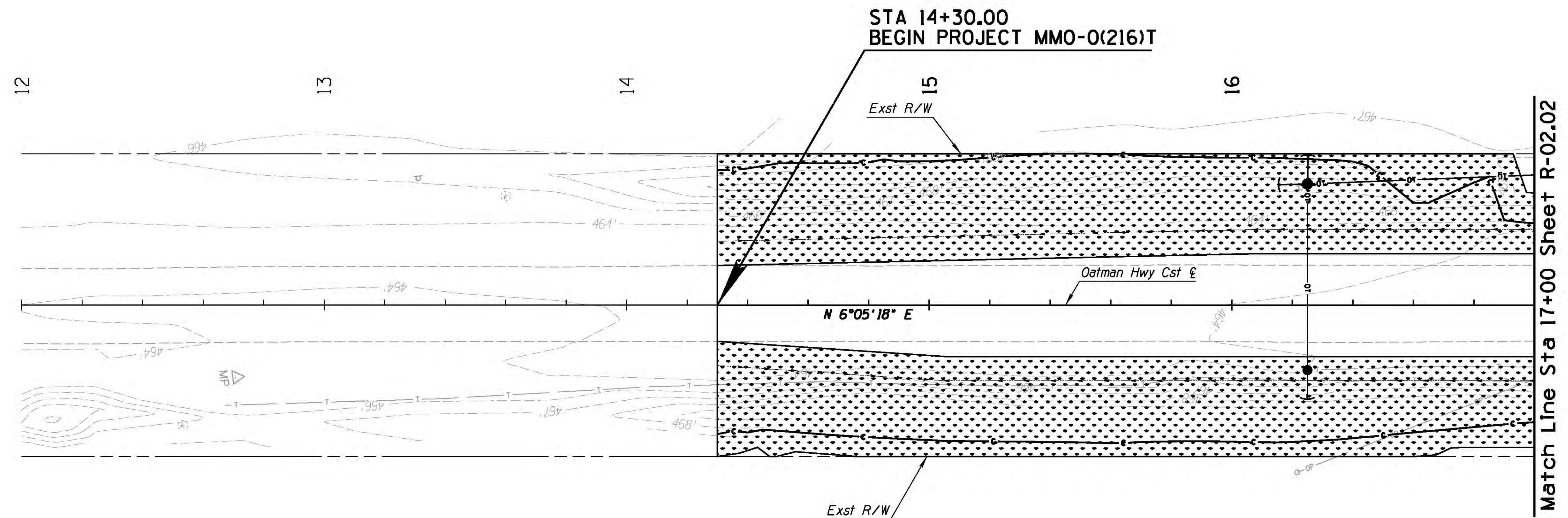
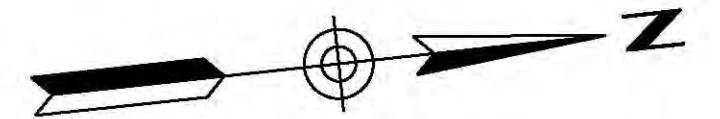
PROJECT INFORMATION:

OLD US 66 SOUTH OATMAN HIGHWAY
MP 1 to MP 2

DESIGN	AB	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DRAWN	JAF	DATE	07/16		
CHECKED	AB	DATE	07/16		
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				REVEGETATION & EROSION/SEDIMENT CONTROL GENERAL NOTES	
ROUTE		LOCATION		DWG NO. R-01.01	
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
TRACS NO. T0021 01C				MMO-0(216)T	
				OF	

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	28	76	

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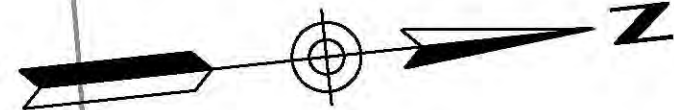
SEEDING TOTAL QUANTITIES SUMMARY	
SYM	CLASS II SEEDING
	Seed Mix (H1) - 0.5 AC

		NAME		DATE		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT			
DESIGN	AB			07/16					
DRAWN	JAF			07/16					
CHECKED	AB			07/16					
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.						SEEDING PLAN SHEET Sta 14+30 to 17+00			
ROUTE		LOCATION							
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING							
TRACS NO. T002I OIC				MMO-0(216)T				DWG NO.R-02.01 OF	

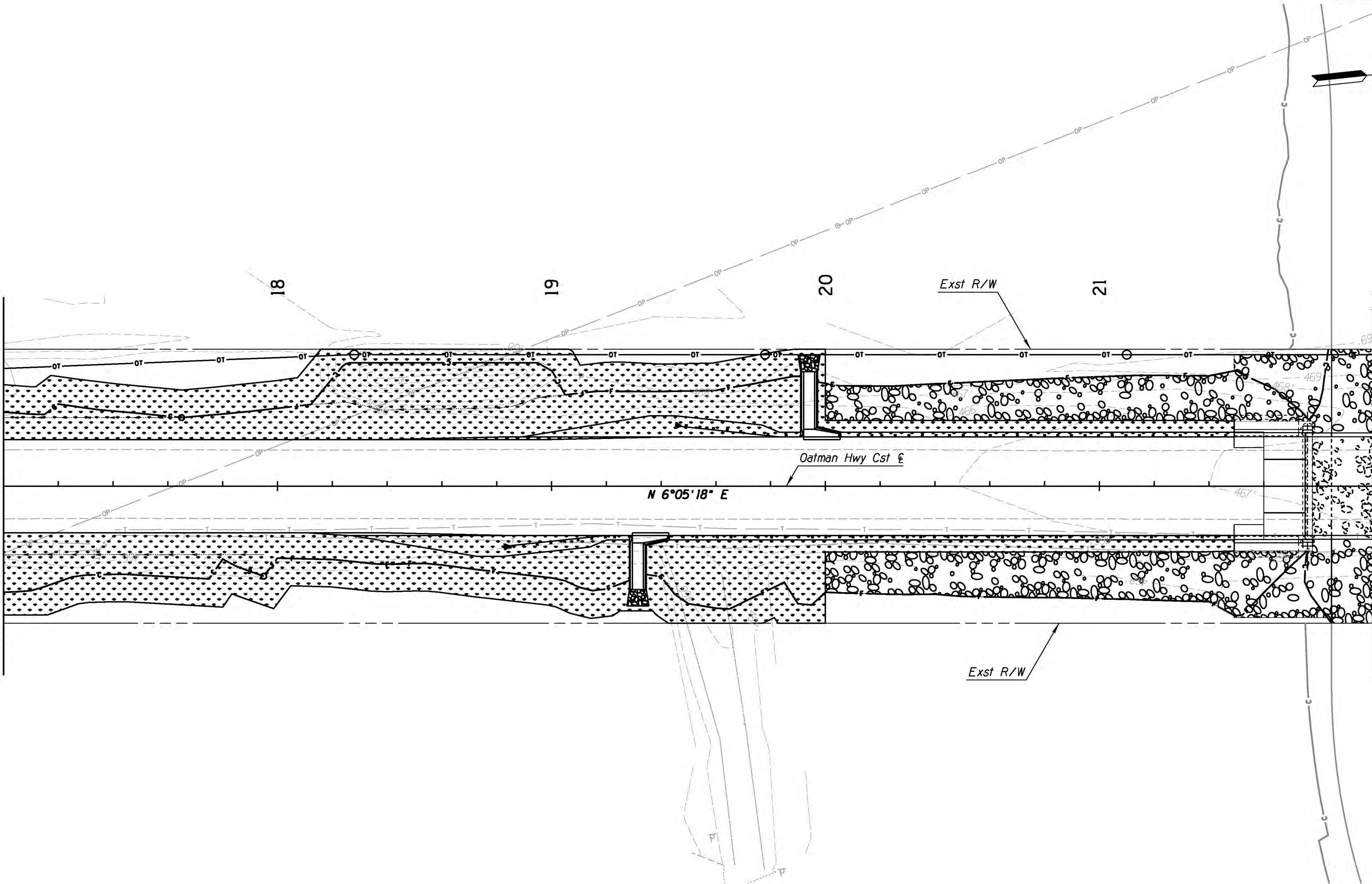
SURVEY NO. FINISHED PLANS LOCATION DATE REVISIONS FINISHED PLANS LOCATION DATE REVISIONS

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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Match Line Sta 17+00 Sheet R-02.01



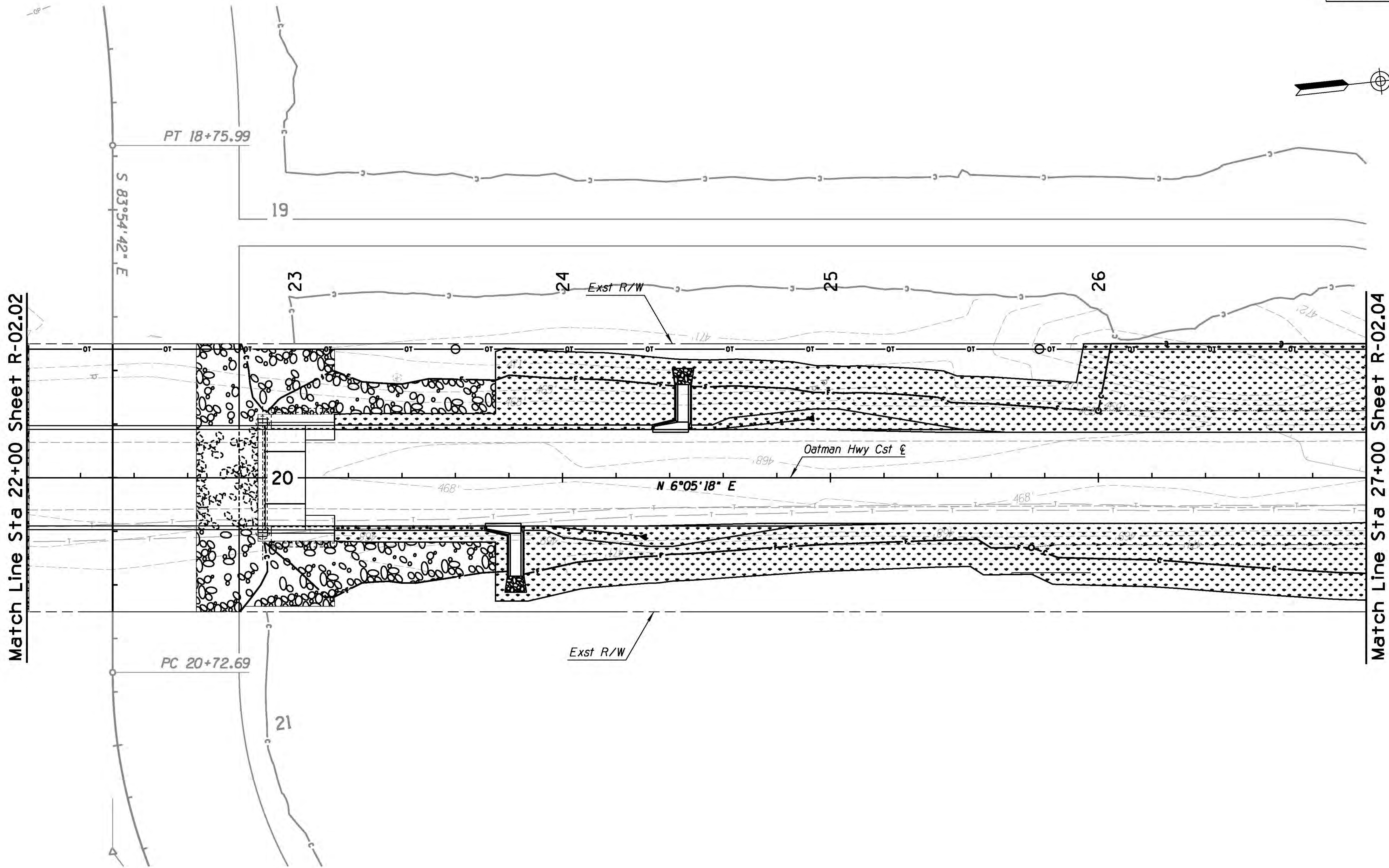
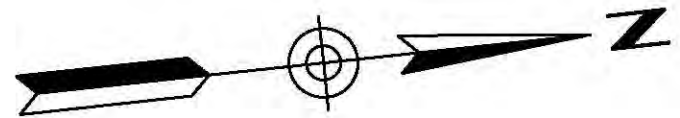
Match Line Sta 22+00 Sheet R-02.03

SEEDING TOTAL QUANTITIES SUMMARY	
SYM	CLASS II SEEDING
	Seed Mix (H1) - 0.6 AC

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT		
DESIGN	AB		07/16			
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CHECKED	AB		07/16			
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ROUTE		LOCATION				DWG NO. R-02.02
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING				
TRACS NO. T0021 01C				MMO-0(216)T		<u> OF </u>

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9	ARIZ.	MMO-0(216)T	30	76	

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SEEDING TOTAL QUANTITIES SUMMARY	
SYM	CLASS II SEEDING
	Seed Mix (H1) - 0.6 AC

0 10 20
Scale

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT		
DESIGN	AB		07/16			
DRAWN	JAF		07/16			
CHECKED	AB		07/16			
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				SEEDING PLAN SHEET Sta 22+00 to 27+00		
ROUTE		LOCATION				DWG NO. R-02.03
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING				
TRACS NO. T0021 01C			MMO-0(216)T			<u> OF </u>

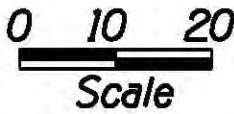
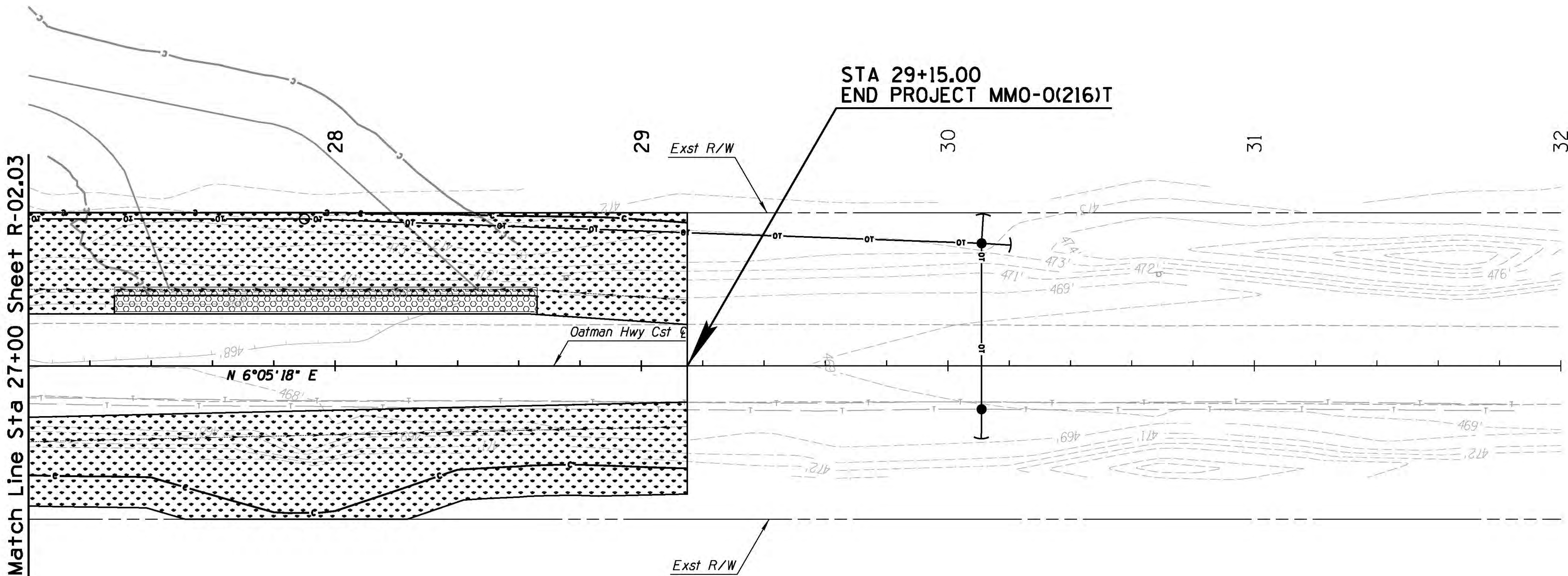
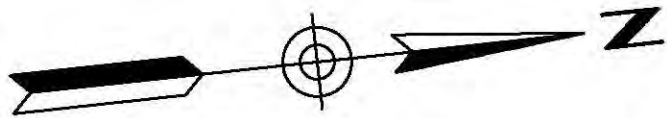


SURVEY NO. FINISHED PLANS LOCATION DATE REVISIONS FINISHED PLANS LOCATION DATE REVISIONS

DATE- LOCATION- REVISIONS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO. DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	31	76	

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SEEDING TOTAL QUANTITIES SUMMARY	
SYM	CLASS II SEEDING
	Seed Mix (H1) - 0.3 AC

DESIGN	AB	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DRAWN	JAF		07/16		
CHECKED	AB		07/16		
ROUTE		LOCATION		SEEDING PLAN SHEET Sta 27+00 to 29+15	
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		DWG NO. R-02.04	
TRACS NO. T0021 01C		MMO-0(216)T		OF	



PART 1 - To be completed by the Landscape Architect or Design Engineer

I. PROJECT DESCRIPTION

- A. Owner Name and Address:
Arizona Department of Transportation
205 South 17th Avenue
Phoenix, Arizona 85007-3213
- B. Project TRACS Number: T002I 01D
- C. Project Location: Old Route 66
City: Topock County: Mohave
Beginning Latitude (NAD 83): 34° 43' 26.0" N
Beginning Longitude (NAD 83): 114° 28' 40.6" W
Ending Latitude (NAD 83): 34° 43' 45.1" N
Ending Longitude (NAD 83): 114° 28' 38.3" W
To obtain the project latitude/longitude data, refer to the Flash Earth web link below (Bing Maps with labels): <http://www.flashearth.com/>

- D. Project Description: Construction of new bridge and approach

II. HYDROLOGIC INFORMATION

- A. Project Size:
Length (Mi.) 0.32 Mi.
Area (Ac.) 3.88 Ac.
- B. Area to be Graded (Ac.) *:2.40 Ac.
* Blading of the shoulder build-up area is considered as grading and ground disturbance and should be covered by stormwater and/or other environmental regulations.
- C. Percentage of the site that is impervious before and after construction:
Percentage before Construction: 24.7%
Percentage after Construction: 34.8%
- D. Receiving Water(s), refer to the Arizona Department of Environmental Quality Web Link below (USGS Topo) : <https://az.gov/app/smartnol/>

Colorado River

III. PRESERVATION OF EXISTING VEGETATION

- A. In accordance with the specifications, existing vegetation will be preserved. Clearing limits shall be confined to areas that require grading. Existing vegetation outside the boundaries of the cleared area shall be protected from damage by construction activities. Existing trees within the area to be cleared shall be preserved and protected, wherever possible.

IV. SOIL STABILIZATION MEASURES

- A. All disturbed soil, which will not be paved, riprapped or otherwise covered to prevent erosion, will be revegetated and/or landscaped in accordance with the project plans and specifications.
- B. Scheduling of the revegetation effort can be found on PART 2 of this sheet under SCHEDULE OF MAJOR ACTIVITIES.

V. MEASURES TO CONTROL EROSION AND SEDIMENT

- A. Temporary Erosion and Sediment Controls: (Refer to the Following SWPPP Site Plan and Specifications)
- Erosion Control Mattings
 Temporary Diversion Dikes
 Check Dams
 Rock Inlet/Outlet Protection
 Sediment Control Berms
 Silt Fences
 X Wattles (Excelsior/Straw)
 Excelsior Logs / Sediment Logs
 Seeding (Class II with mulch)
 Others Describe:

Stabilized Construction Entrance/Exit

Gravel Pad

- B. Permanent Erosion and Sediment Controls and Post-construction Storm Water Management Measures: (Refer to SWPPP Site Plan and Specifications)
- Crown Ditch/Dike
 Rock Protection
 Rock Riprap Channel Lining
 Sediment Basin
 Embankment Curb
 Spillways and Downdrains
 Minibenching
 X Seeding established as a perennial vegetative cover with a density of 70% of the native background vegetative cover.
 Others Describe:

VI. MAINTENANCE AND INSPECTIONS

- A. Frequency of Inspections:
 At least once every 7 calendar days, OR
 X Every 14 calendar days and within 24 hours after a rainfall of 0.5 inches (12.7 mm) or more.

NOTE: RAINFALL GAUGE TO BE KEPT ON-SITE TO DETERMINE DEPTH OF RAINFALL

- B. Inspection Procedure:
ADOT's Contractor's Inspection Log and Compliance Evaluation Report (CER) will be completed by the contractor or his representative and will be kept on file for 3 years. A signed copy of the CER will be sent to the ADOT resident engineer. If repairs are necessary, they shall be initiated within 24 hours of the inspection report.

PART 2 - To be completed by ADOT & CONTRACTOR

http://www.azdot.gov/Inside_adot/OES/Water_Quality/Stormwater/Docs/swppp_construction_template.dot

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	32	76	

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I. SCHEDULE OF MAJOR ACTIVITIES

- A. Project Schedule:

Start Date:

End Date:
- B. Construction Sequencing Schedule: (Attach Additional Sheets) Construction Activities

II. INVENTORY OF POLLUTANTS

- A. The materials or substances checked below are expected to be onsite during construction:
- | | |
|---|------------------------------|
| <u> </u> Concrete | <u> </u> Asphalt |
| <u> </u> Paints | <u> </u> Fertilizer |
| <u> </u> Herbicides | <u> </u> Wood |
| <u> </u> Fuel | <u> </u> Oil |
| <u> </u> Others, List: <u> </u> | |

III. POLLUTION CONTROL MEASURES

- A. Other Best Management Practices:
- Wind Erosion and Dust Control
 Solid Waste Management
 Equipment Maintenance Procedures
 Designated Washout Areas
 Stabilized Construction Entrance
 Protected Chemical and Material Storage Area
 Other, Describe:

IV. SPILL PREVENTION AND RESPONSE

- A. Spill Prevention:
The procedures outlined in the Best Management Practices listed under Pollution Control Measures will be followed to prevent and contain spills of hazardous material. These preventative action include BMP's on equipment maintenance and proper handling, storage and disposal of chemicals and materials. All manufacturer's recommendations for usage, clean-up and disposal shall be followed.
- B. Spill Response:
In the event of any accidental spill of chemicals or hazardous materials, contact the ADOT Traffic Operations Center at 800-379-3701. If a reportable quantity is discharged into the storm water, ADOT shall contact the National Response Center and document the spill to the EPA. ADOT's Hazardous Materials Specialist shall provide instructions.

V. CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

- A. This Storm Water Pollution Prevention Plan (SWPPP) has been prepared in accordance with the latest updated version of ADOT's EROSION AND POLLUTION CONTROL MANUAL FOR HIGHWAY DESIGN AND CONSTRUCTION, published by ADOT Intermodal Transportation Division.
- SWPPP is in compliance with other Federal, State Laws, or Local Regulations.

VI. POLLUTION PREVENTION PLAN CERTIFICATION

- A. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Applies to VI. B., C., and D)
- B. The operator/contractor as defined in AZPDES should sign the SWPPP in accordance with CGP Part VIII. J, and retain the SWPPP on-site at the construction site or other location easily accessible during normal business hours.
- Signature: (operator/contractor)
Date:
Name:
Title:
Company:

- C. ADOT Resident Engineer
Signature: (owner)
Date:
Name:
Title:
ADOT District:

- D. MUNICIPALITY for Municipal Separate Storm Sewer System (MS4)
Signature:
Date:
Name:
Title:
MS4 Name:

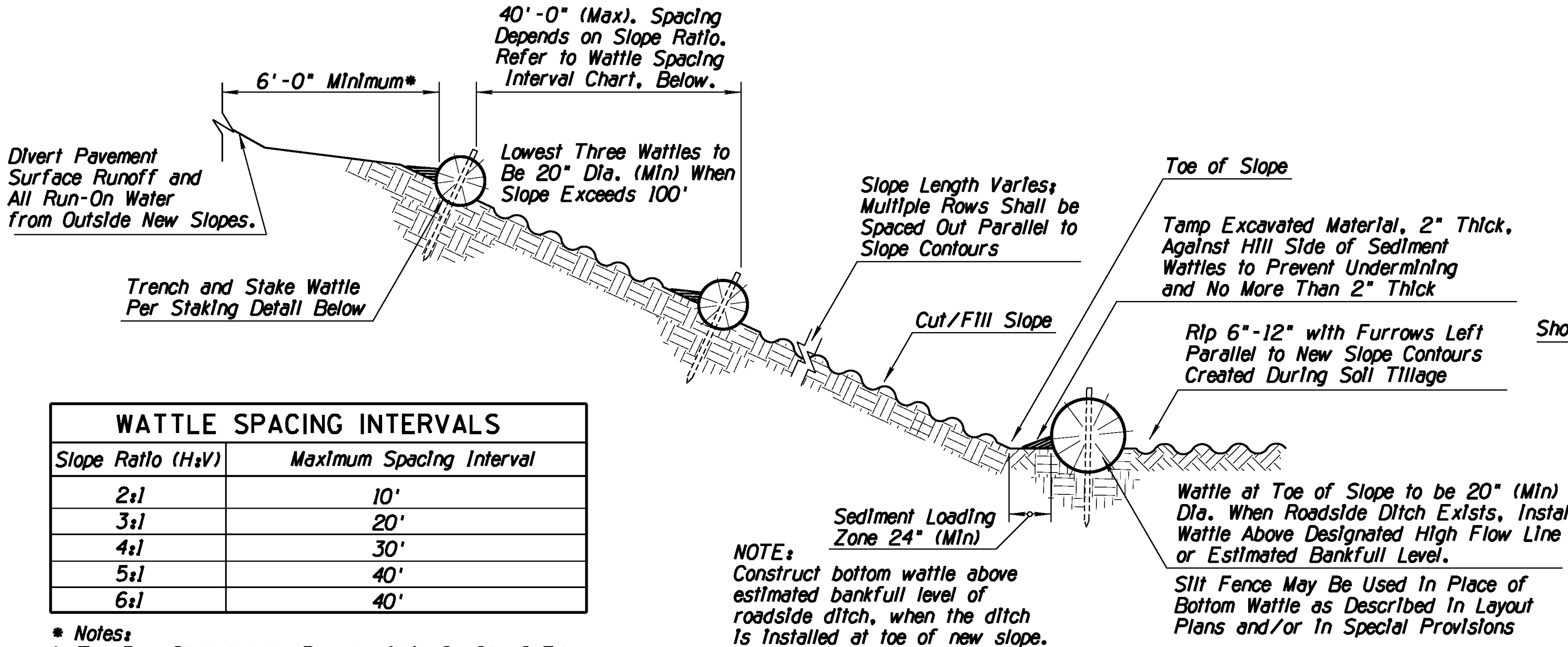
VII. OTHER REQUIREMENTS

- A. A copy of the General Permit and NOI are attached in accordance to AZPDES General Permit for Storm Water Discharges From Construction Activities To The Water Of The United States.
- B. Projects that are within ¼ mile of impaired or unique waters require the SWPPP to be sent to ADEQ in combination with the NOI. Refer to the Arizona Outstanding, Impaired and Not-Attaining Waters *.PDF Maps by County web link: https://www.azdot.gov/Inside_adot/OES/Water_Quality/Stormwater/outstanding-unique_waters_maps_by_county.asp
- C. For further requirements, check the ADEQ's Smart NOI Web Page: <https://az.gov/app/smartnol/>

DESIGN	AB	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DRAWN	JAF		07/16		
CHECKED	AB		07/16		
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				AZPDES SWPPP INDEX SHEET	
ROUTE	LOCATION			DWG NO. R-03.01	
OLD US 66				OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T002I 01C				MMO-0(216)T	
				OF	

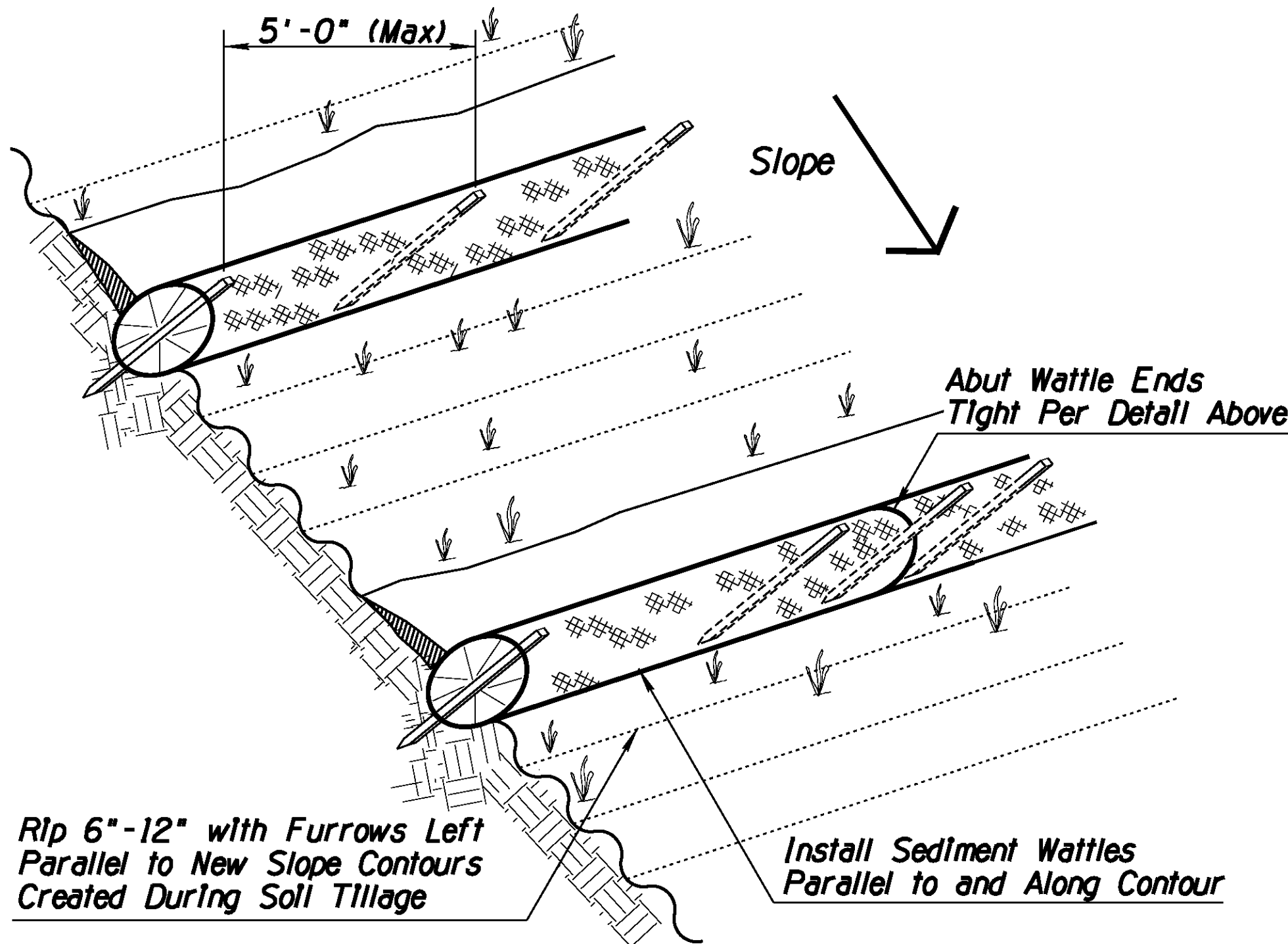
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	33	76	

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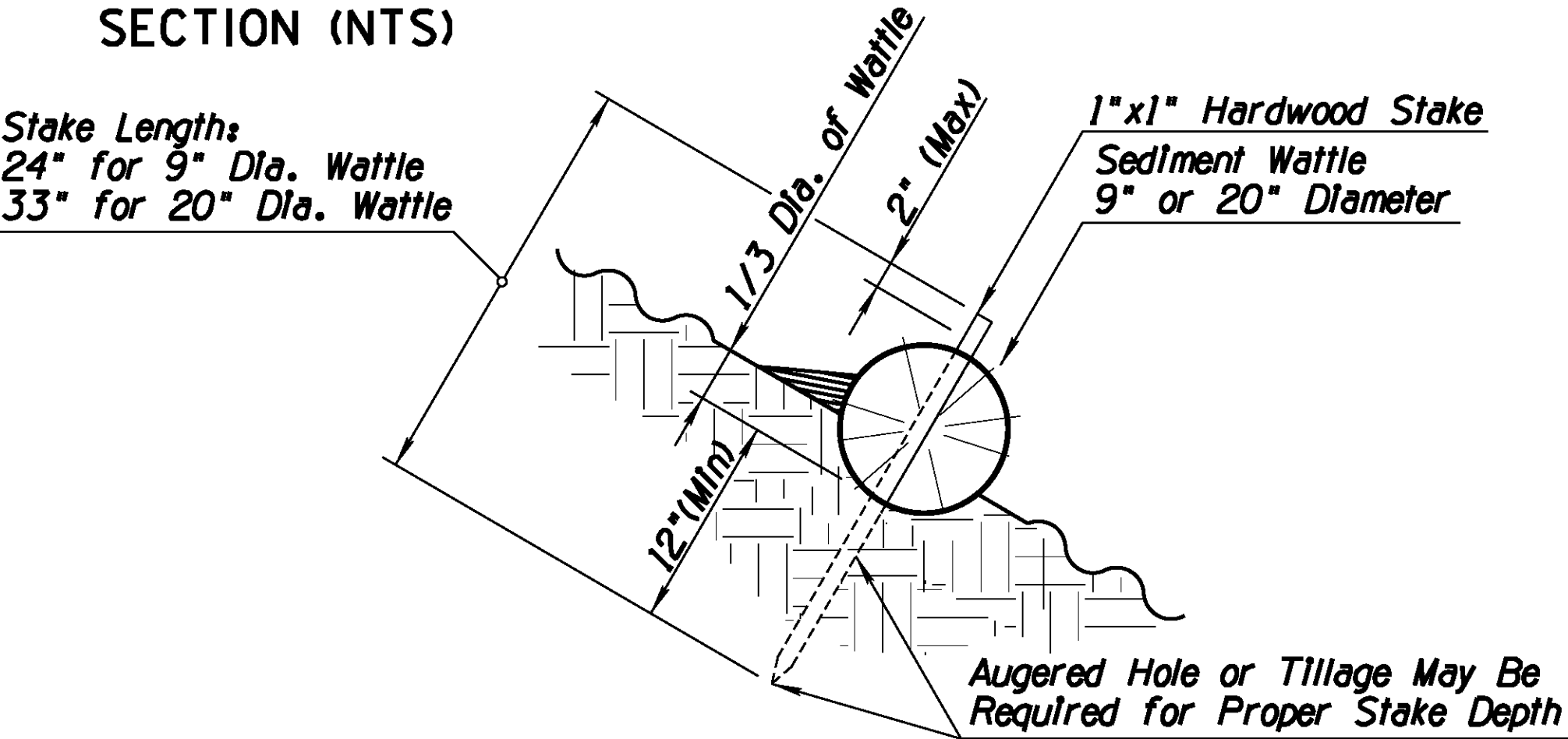


WATTLE SPACING INTERVALS	
Slope Ratio (H:V)	Maximum Spacing Interval
2:1	10'
3:1	20'
4:1	30'
5:1	40'
6:1	40'

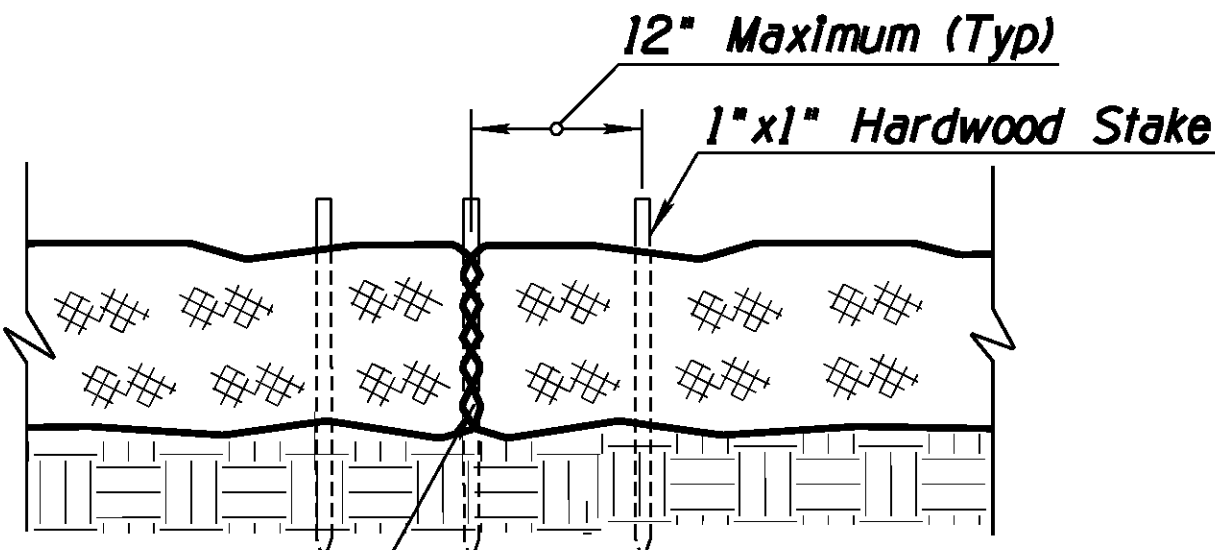
- * Notes:
- 1) Top Row Shall Not be Placed within 6'-0" of Edge of Pavement and 9'-0" from Outside Surface of Barrier.
 - 2) For erosive soils, place rows of wattles closer together.
 - 3) For soils with low erosive potential, place rows of wattles further apart.



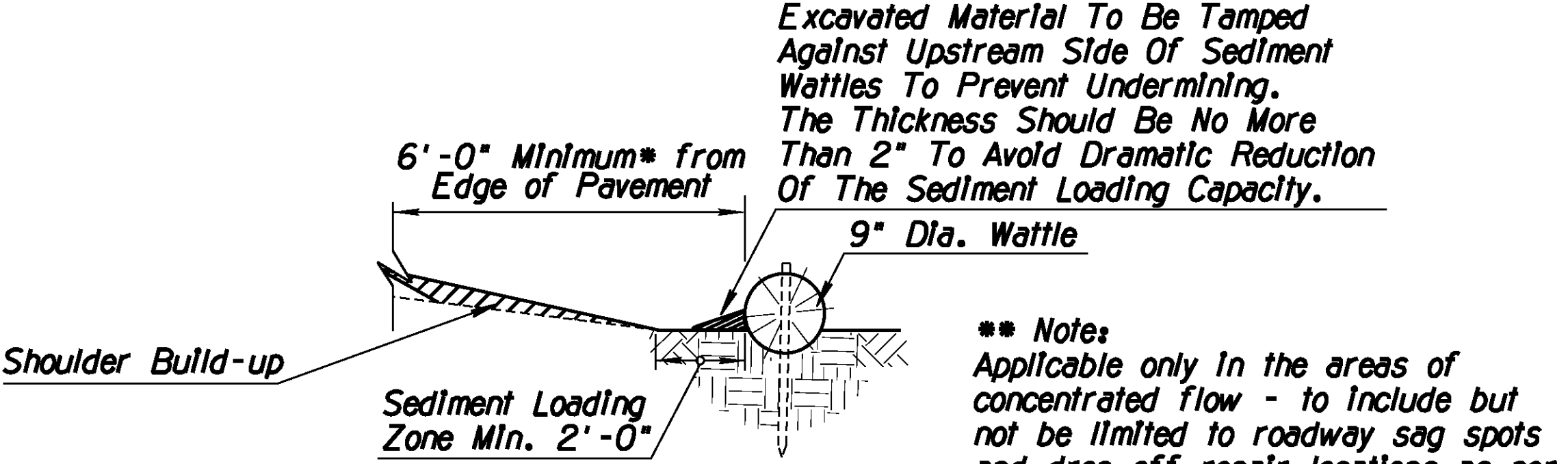
SEDIMENT WATTLE LAYOUT (NTS)



SEDIMENT WATTLE STAKING DETAIL (NTS)



SEDIMENT WATTLE OVERLAP (NTS)



NEW SHOULDER BUILDUP ** PROTECTION SECTION (NTS)

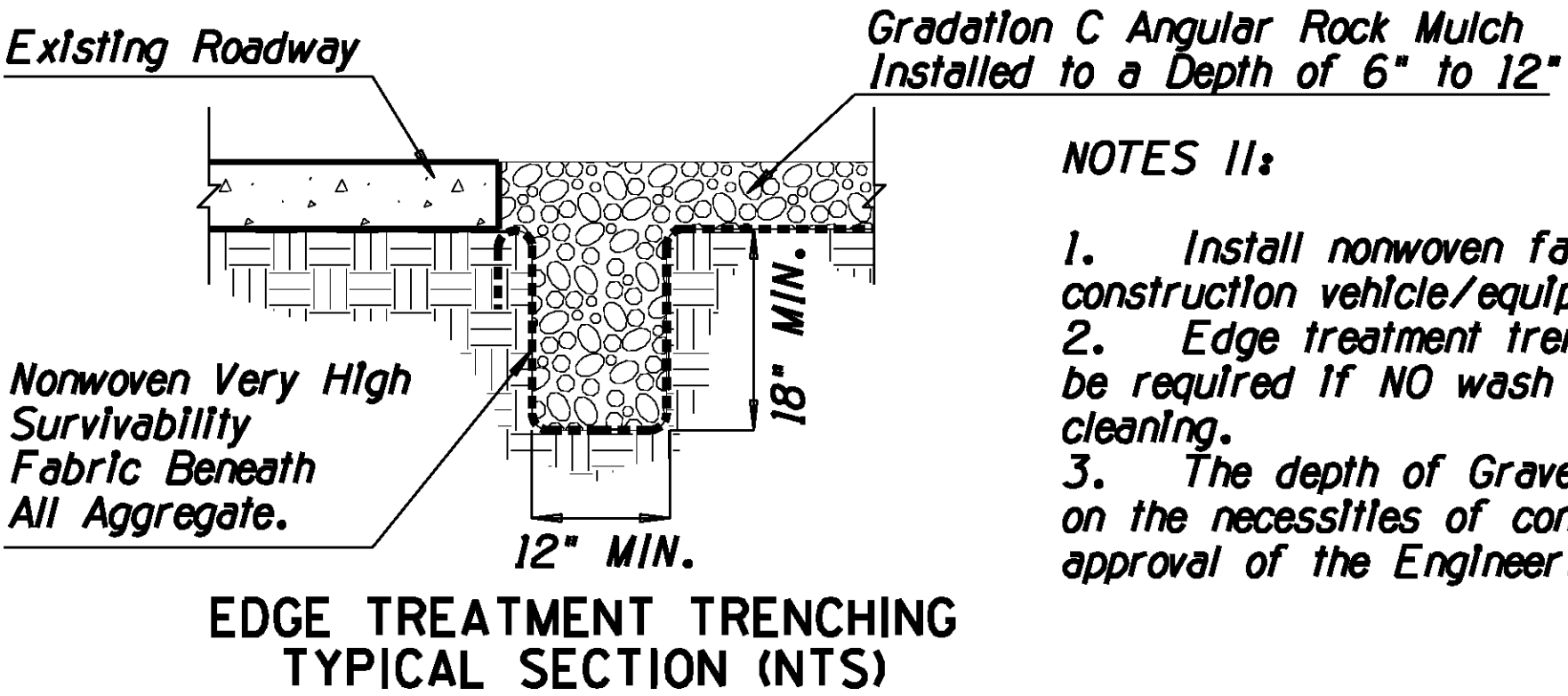
- NOTES:
1. Install Sediment Wattles as slopes are constructed to grade or as directed by the Engineer. Select, install and maintain in conformance with manufacturers' specifications to meet site conditions for slope protection and in accordance with good engineering practices. No Sediment Wattles shall be installed in urban freeway medians, nor where cable barrier systems are employed.
 2. Sediment Wattles shall be in continuous contact with trench bottom and sides. Do not overlap wattle ends on top of each other. A 20" Dia. wattle may be made from 2-3 rolled excelsior or straw blankets.
 3. Butt adjoining wattles tightly against each other. Drive the first end stake of the second wattle at an angle toward the first wattle to help abut them tightly.
 4. Repair any rills or gullies promptly. Make field adjustments and corrections of Wattle BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
 5. Construction of cut slopes 2:1 and steeper in soil and rock materials that can be ripped shall be constructed, whenever possible, by Minibenching. Refer to Slope Minibenching BMP Detail.
 6. Loosening surface soil is not required where Minibenching are used. For seeded areas, tillage shall be performed to form minor ridges and furrows parallel to new slope contours and as specified in Section 805 of the Standard Specifications and these special provisions.
 7. Divert and direct run-on water from outside of the slopes to the spillways and/or rock riprap/rock mulch. Diversion dikes and/or ditches are necessary on natural undisturbed slopes beyond the top limits of new slopes to divert run-on water.
 8. Installation and maintenance of Sediment Wattle BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities.
 9. Install and maintain Sediment Wattle BMPs to carry the stormwater of at least 2-year, 24-hour events.
 10. The Sediment Wattle BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, maintenance, final removal, and disposal of this temporary BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
 11. Refer to Standard Specification Section 810-2.06(C) for Sediment Wattle material specifications.
 12. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT
DRAWN	AB	07/16	
CHECKED	JAF	07/16	
		07/16	
Kimley»Horn			STORMWATER QUALITY PROTECTION & EROSION/SEDIMENT CONTROL DETAILS
ROUTE	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
OLD US 66			
TRACS NO.	T0021 OIC	MMO-0(216)T	

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DWG NO. R-03.02
OF

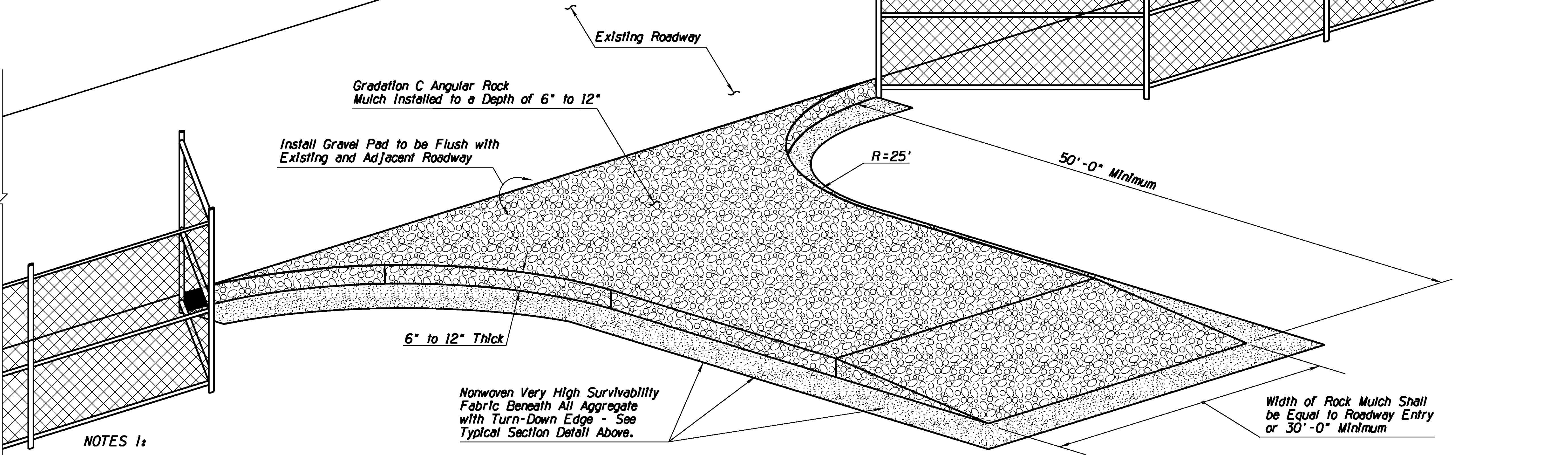
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	34	76	

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NOTES 11:

1. Install nonwoven fabric when water is applied for construction vehicle/equipment cleaning on Gravel Pad.
2. Edge treatment trenching and nonwoven fabric shall not be required if NO wash water is used for vehicle/equipment cleaning.
3. The depth of Gravel Pad varies from 6" to 12" based on the necessities of construction vehicle/equipment as per the approval of the Engineer.



NOTES 1:

1. Install Stabilized Construction Entrance/Exit Gravel Pad BMP for traffic entering or exiting a construction site where sedimentation, clay, silt or other pollutants can be tracked onto public roads and/or adjacent water bodies, as approved by the Engineer. It may also be applied for construction entrance/exit wind erosion/dust control, as approved by the Engineer.
2. Locate new Construction Entrance(s)/Exit(s) at appropriate project entrance/exit points as determined in field with the approval of the Engineer. Relocate Stabilized Construction Entrance/Exit Gravel Pad BMP as needed as project progresses. Replace Rock Mulch materials in drive paths when dirt or mud accumulates.
3. Nonwoven Very High Survivability Fabric shall conform to the standards of Sub-section 1014-4.04 of the Standard Specifications.
4. Rock Mulch materials shall be fractured/crushed rocks in angular shape and as defined in the Sub-section 810-2.03 of the Standard Specifications. Natural river-run materials, especially rounded natural river rocks are not acceptable.
5. Make field adjustments and corrections of Construction Entrance/Exit Gravel Pad BMP immediately if it is causing flooding and/or affecting roadway safety.
6. When paid separately, the Stabilized Construction Entrance/Exit Gravel Pad BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, final removal, and disposal of this temporary BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
7. * Fence/barricade pay/bid item shall not be included as a component of the Stabilized Construction Entrance/Exit Gravel Pad BMP pay/bid item.
8. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

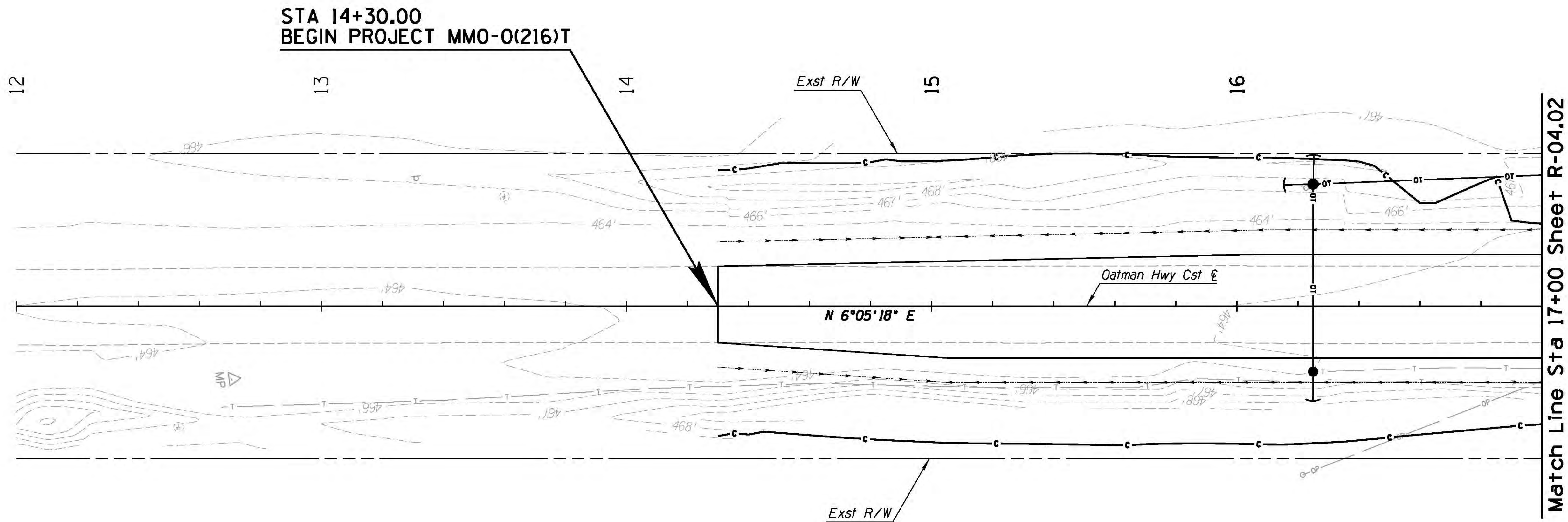
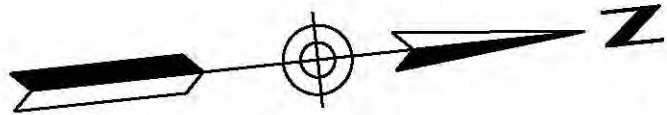
DETAIL E2

STABILIZED CONSTRUCTION ENTRANCE/EXIT GRAVEL PAD

DESIGN	AB	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT
DRAWN	JAF		07/16	
CHECKED	AB		07/16	
Kimley»Horn				STORMWATER QUALITY PROTECTION & EROSION/SEDIMENT CONTROL DETAILS
ROUTE LOCATION OLD US 66 OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING				DWG NO. R-03.03
TRACS NO. T0021 01C				MMO-0(216)T
				OF

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	35	76	

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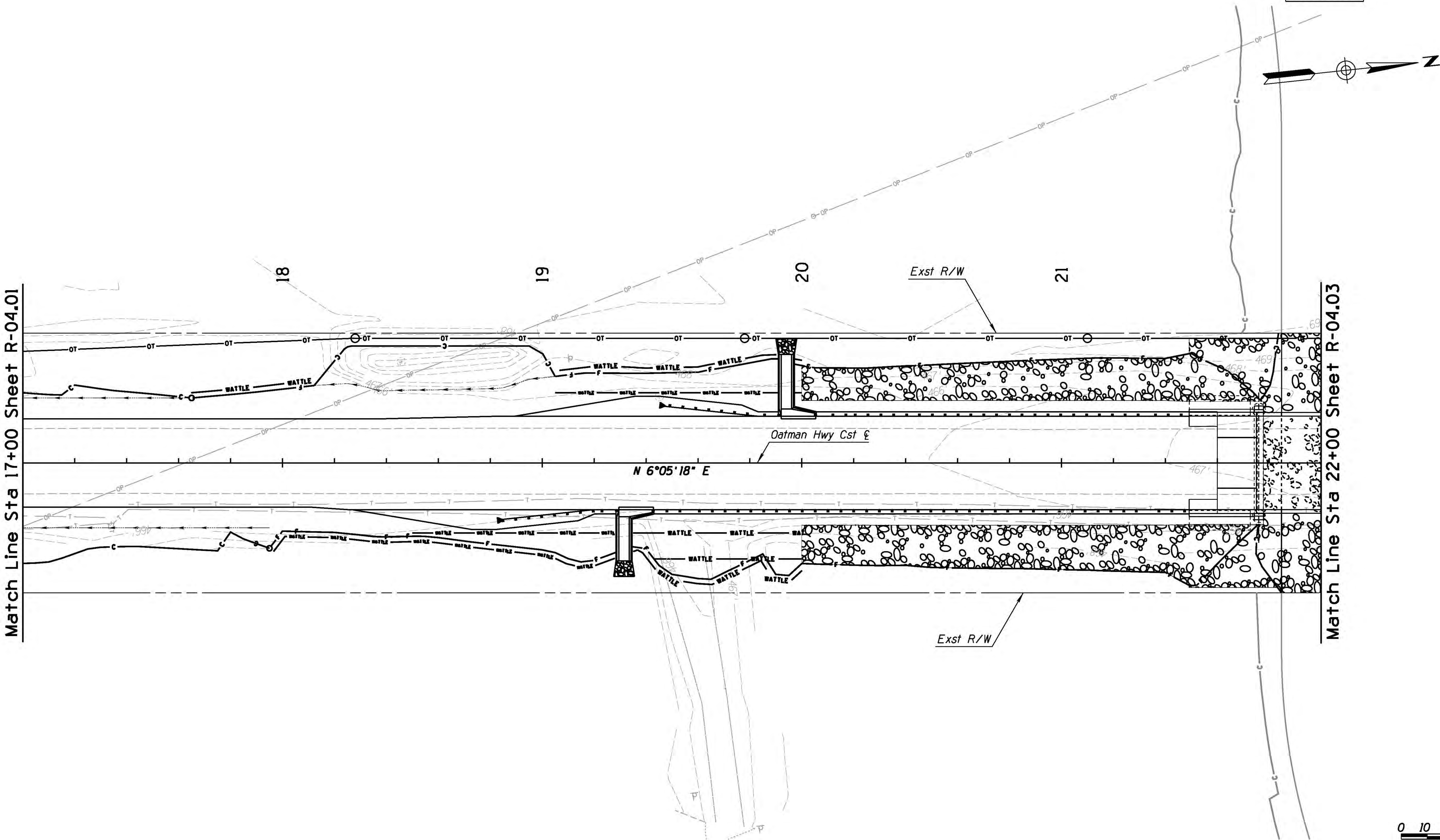
APPROX. EROSION/SEDIMENT CONTROL SUB-QTY - PER SHEET				
ITEM	SYM.	UNIT	QTY	AS-BUILT
Detail E1 - Sediment Wattle (9")		LF	0	
Detail E2 - Construction Entrance		SY	200	

•Note: Construction Entrance Shall Be Located By The Contractor, With Approval From The Engineer

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT		
DESIGN	AB		07/16			
DRAWN	JAF		07/16			
CHECKED	AB		07/16			
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				EROSION CONTROL SHEET Sta 14+30 to 17+00		
ROUTE		LOCATION				
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING				
TRACS NO. T0021 01C				MMO-0(216)T		OF

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	36	76	

0000 MO MMO



0 10 20
Scale

APPROX. EROSION/SEDIMENT CONTROL SUB-QTY - PER SHEET				
ITEM	SYM.	UNIT	QTY	AS-BUILT
Detail E1 - Sediment Wattle (9")		LF	633	
Detail E2 - Construction Entrance		SY	0	

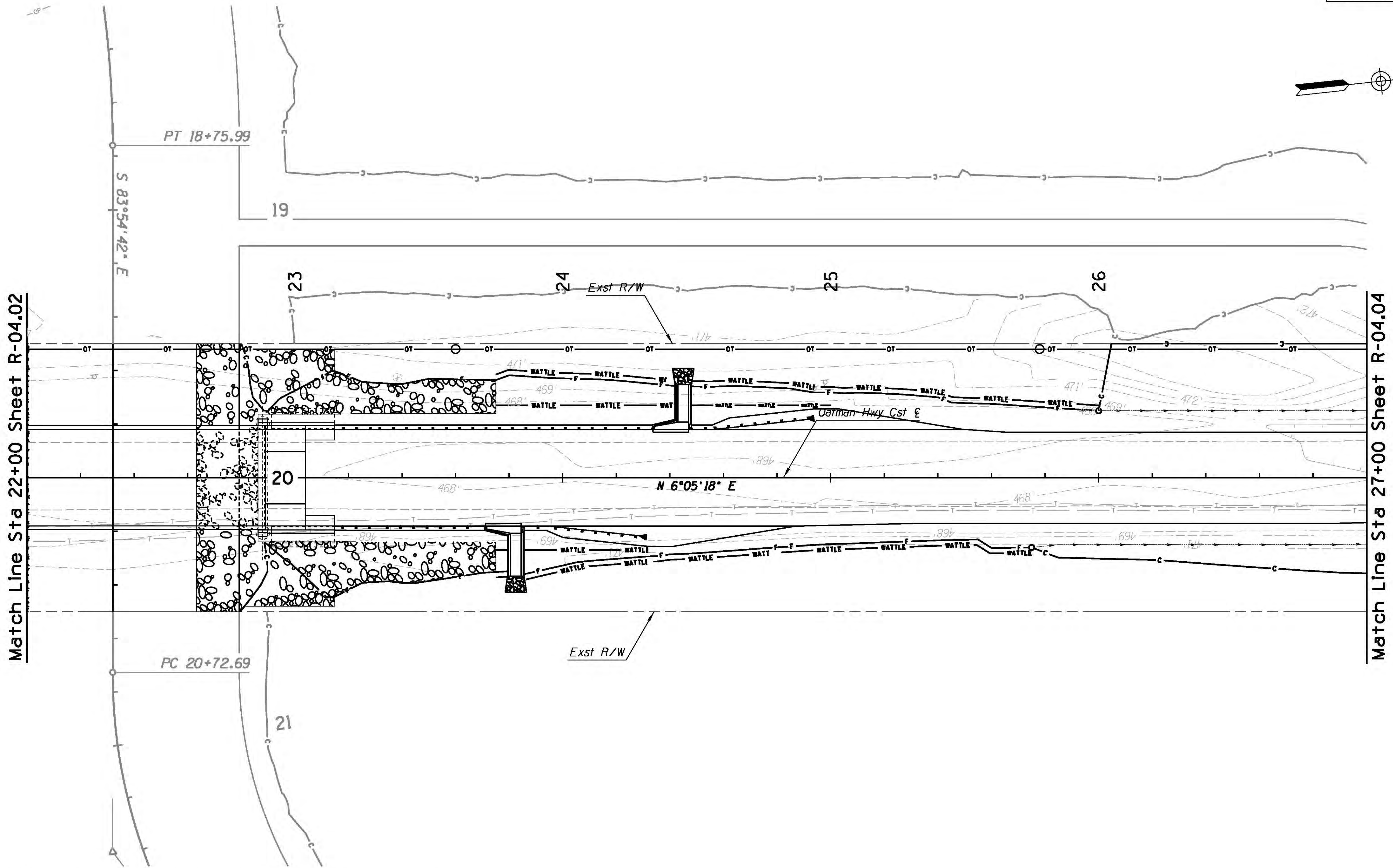
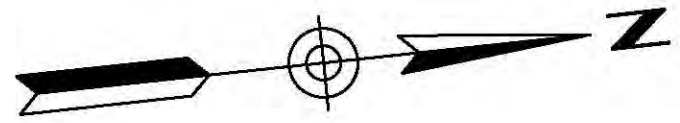
•Note: Construction Entrance Shall Be Located By The Contractor, With Approval From The Engineer

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT	
DESIGN	AB		07/16		
DRAWN	JAF		07/16		
CHECKED	AB		07/16		
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				EROSION CONTROL SHEET Sta 17+00 to 22+00	
ROUTE		LOCATION			
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
TRACS NO. T0021 01C			MMO-0(216)T		
			DWG NO. R-04.02 OF		



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	37	76	

0000 MO MMO



Match Line Sta 22+00 Sheet R-04.02

Match Line Sta 27+00 Sheet R-04.04

0 10 20
Scale

APPROX. EROSION/SEDIMENT CONTROL SUB-QTY - PER SHEET				
ITEM	SYM.	UNIT	QTY	AS-BUILT
Detail E1 - Sediment Wattle (9")		LF	587	
Detail E2 - Construction Entrance		SY	0	

•Note: Construction Entrance Shall Be Located By The Contractor, With Approval From The Engineer

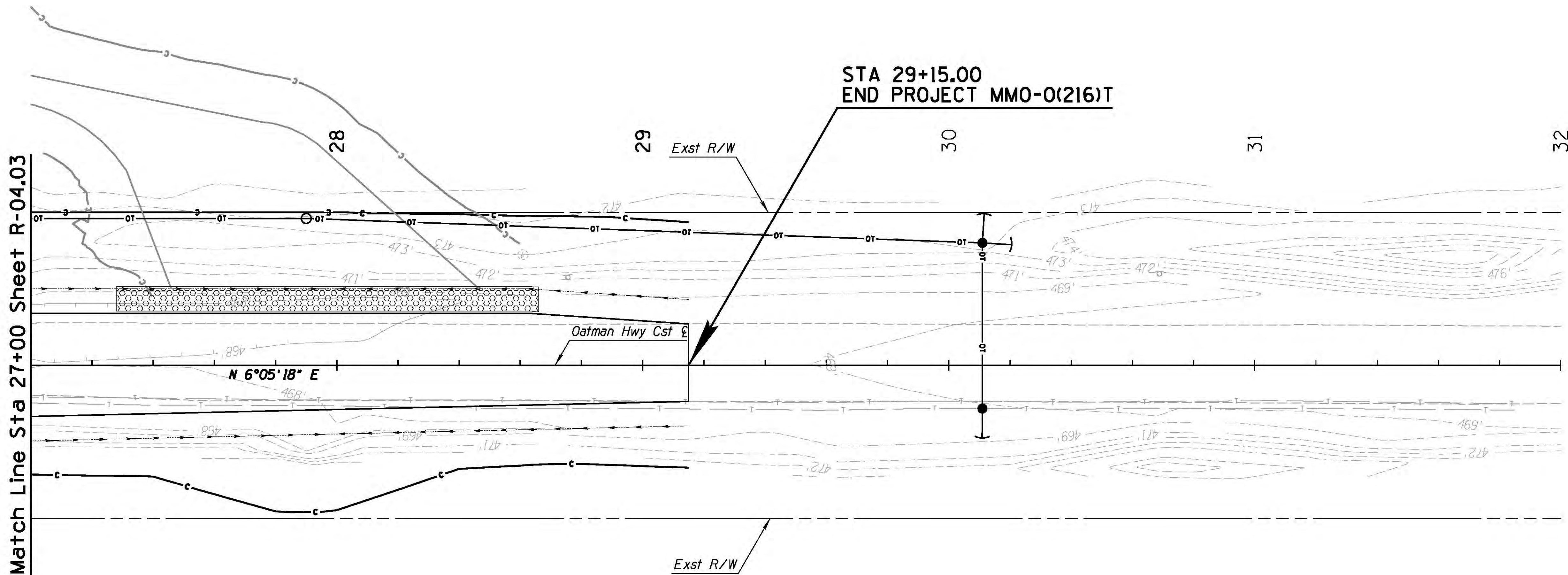
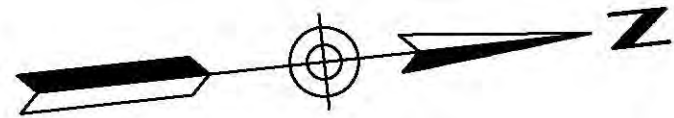
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DRAWN	JAF	DATE	07/16	
CHECKED	AB	DATE	07/16	
ROUTE		LOCATION		EROSION CONTROL SHEET Sta 22+00 to 27+00
OLD US 66		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		
TRACS NO. T0021 01C		MMO-0(216)T		DWG NO. R-04.03

Kimley-Horn

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	38	76	

0000 MO MMO



0 10 20
Scale

APPROX. EROSION/SEDIMENT CONTROL SUB-QTY - PER SHEET				
ITEM	SYM.	UNIT	QTY	AS-BUILT
Detail E1 - Sediment Wattle (9")		LF	0	
Detail E2 - Construction Entrance		SY	200	

•Note: Construction Entrance Shall Be Located By The Contractor, With Approval From The Engineer

DESIGN	AB	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION PROJECT MANAGEMENT
DRAWN	JAF		07/16	
CHECKED	AB		07/16	
Kimley»Horn © 2014 KIMLEY-HORN AND ASSOCIATES, INC.				EROSION CONTROL SHEET Sta 27+00 to 29+15
ROUTE	LOCATION	OLD US 66 OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		
TRACS NO. T0021 01C		MMO-0(216)T		DWG NO. R-04.04 OF



OATMAN-TOPOCK HIGHWAY
SACRAMENTO WASH CROSSING
MOHAVE COUNTY

Length of Bridge = 113' - 10"

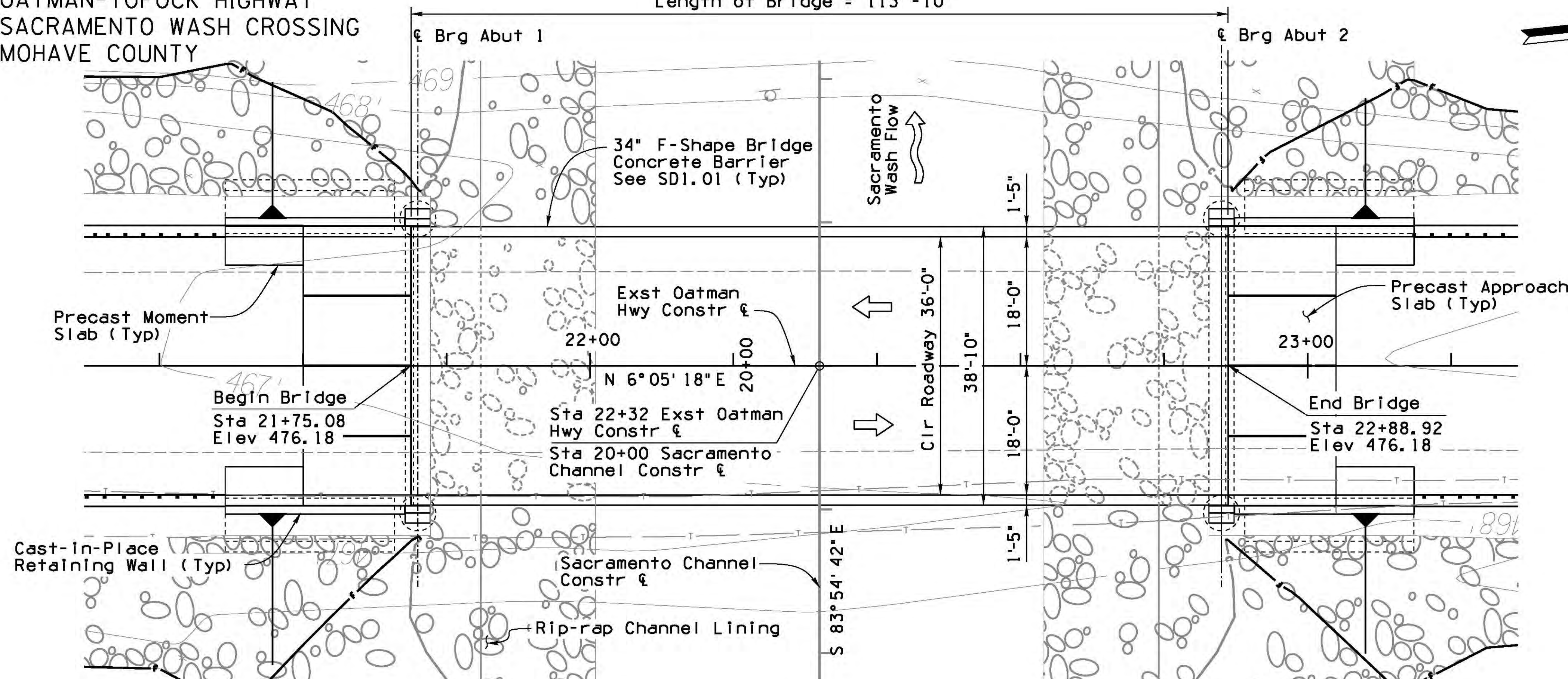
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	39	76	

INDEX OF DRAWINGS

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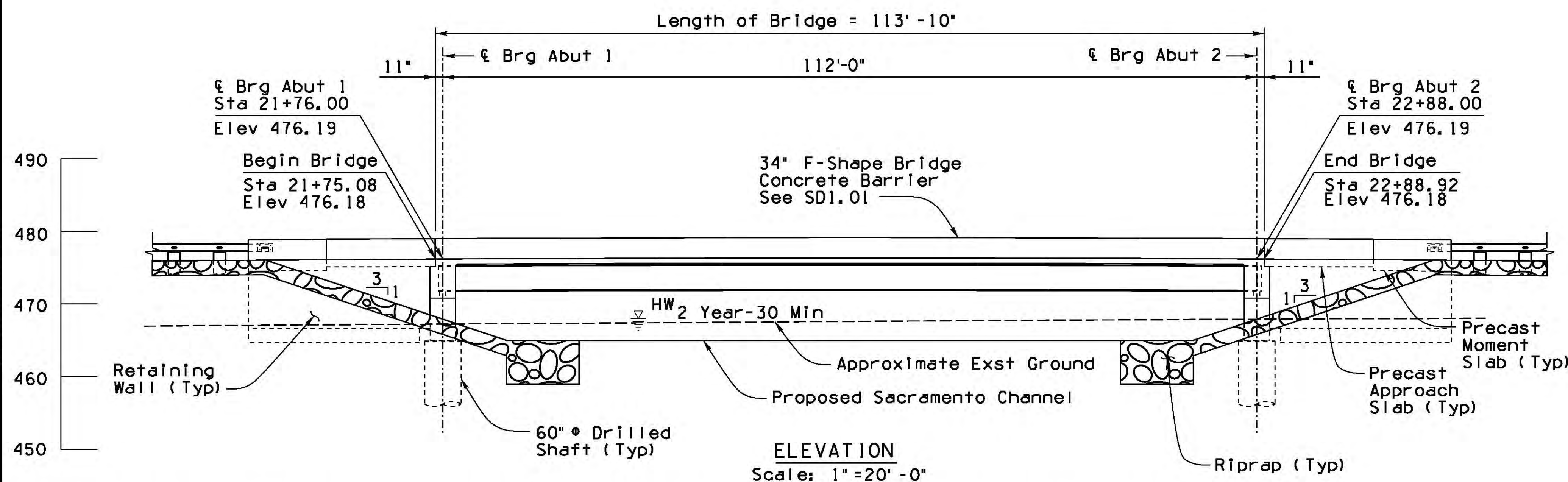
<u>DWG NO</u>	<u>TITLE</u>
S-1.01	GENERAL PLAN AND ELEVATION
S-1.02	GENERAL NOTES & QUANTITIES
S-1.03	GENERAL NOTES 1
S-1.04	GENERAL NOTES 2
S-1.05	EXCAVATION & BACKFILL DETAILS
S-1.06	PREFABRICATED ELEMENT DETAILS 1
S-1.07	PREFABRICATED ELEMENT DETAILS 2
S-1.08	SUGGESTED CONSTRUCTION SEQUENCE
S-1.09	FOUNDATION PLAN
S-1.10	DRILLED SHAFT DETAILS
S-1.11	ABUTMENT PLAN AND ELEVATION
S-1.12	ABUTMENT DETAILS 1
S-1.13	ABUTMENT DETAILS 2
S-1.14	ABUTMENT DETAILS 3
S-1.15	PRECAST ABUTMENT DETAILS
S-1.16	RETAINING WALL PLAN
S-1.17	RETAINING WALL ELEVATION
S-1.18	RETAINING WALL & BACKFILL DETAILS
S-1.19	FRAMING PLAN
S-1.20	GIRDER ELEVATION & DETAILS
S-1.21	GIRDER CAMBER & MISC DETAILS
S-1.22	TYPICAL SECTION
S-1.23	INTERIOR DECK UNIT DETAILS
S-1.24	EXTERIOR DECK UNIT DETAILS
S-1.25	DECK UNIT DETAILS
S-1.26	DECK PLAN
S-1.27	CLOSURE POUR PLAN
S-1.28	ABUTMENT DIAPHRAGM DETAILS
S-1.29	DECK UNIT LIFTING DETAILS
S-1.30	APPROACH SLAB PLAN
S-1.31	APPROACH SLAB DETAILS 1
S-1.32	APPROACH SLAB DETAILS 2
S-1.33	MOMENT SLAB DETAILS

SF-1.01- FOUNDATION DATA SHEET
SF-1.03

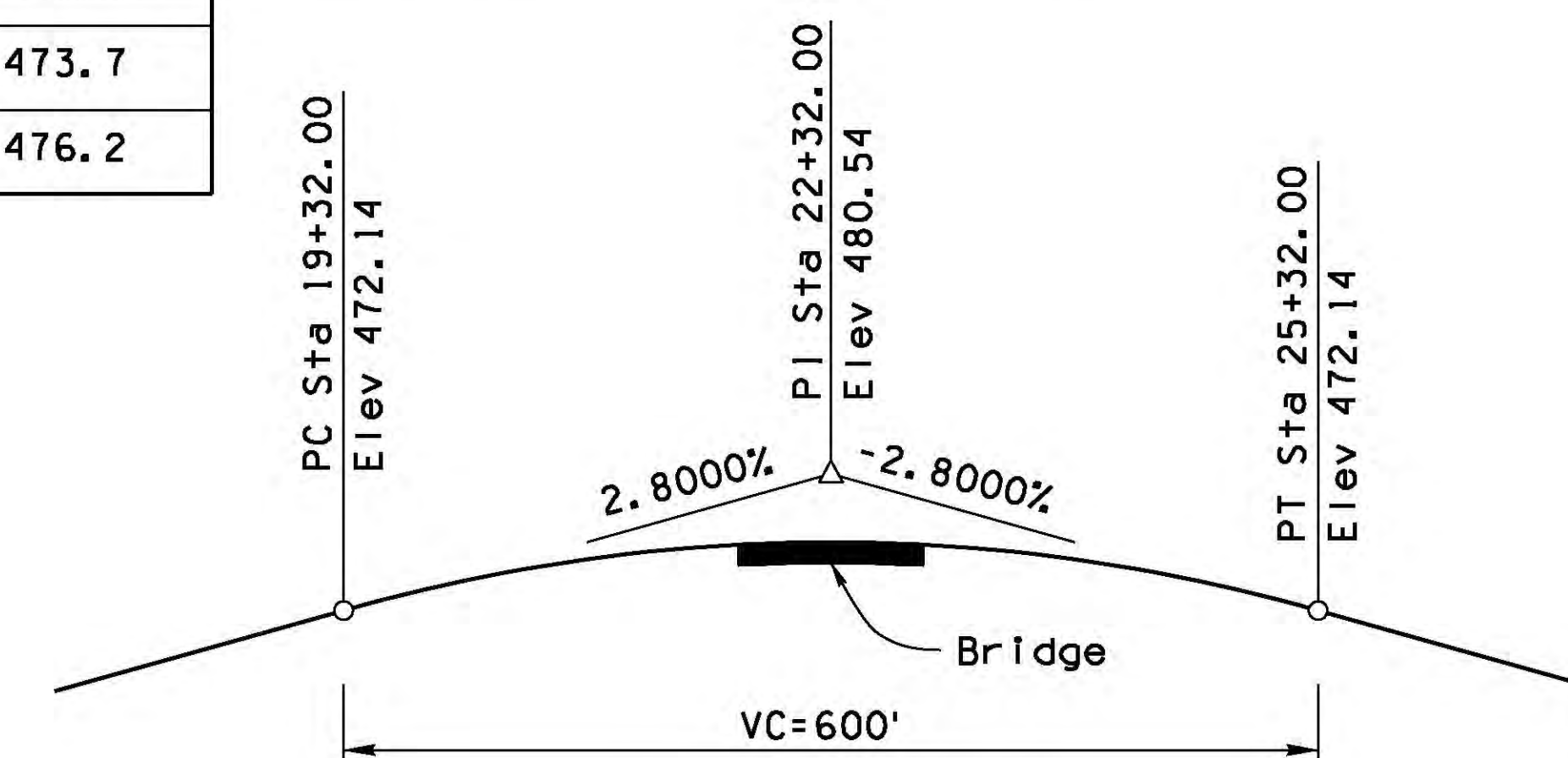


PLAN
New Prefabricated Single Span
Steel Plate Girder Bridge
Contour Interval 1'-0"
Scale: 1" = 20'
Skew = 00° 00' 00"

HYDRAULIC DATA			
	Q (ft ³ /s)	V (ft/s)	WSE (ft)
2 Years - 30 Minutes	2,348	8.0	468.1
2 Years - 24 Hours	4,212	8.3	470.3
25 Years - 24 Hours	7,766	8.9	473.7
100 Year - 24 Hour	9,243	8.1	476.2



BRIDGE PROFILE
Not To Scale



		NAME		DATE		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP			
DESIGN	DJL	07/16						31422 DAVID L. LEISTON	
DRAWN	RLH	07/16						THE STATE OF ARIZONA ARIZONA, U.S.A. Date: 05/31/2017	
CHECKED	KJK	07/16						DWG NO. S-1.01	
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING GENERAL PLAN AND ELEVATION					
OLD 66		1.2		11502		LOCATION			
ROUTE		MILEPOST		STRUCTURE NO.		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
TRACS NO. T0021 OIC						MMO-O(216)T		OF	

DATE
MADE BY
NO.1 DESCRIPTION OF REVISIONS
DATE
MADE BY
NO.2 DESCRIPTION OF REVISIONS
DATE
MADE BY
NO.3 DESCRIPTION OF REVISIONS
DATE
MADE BY

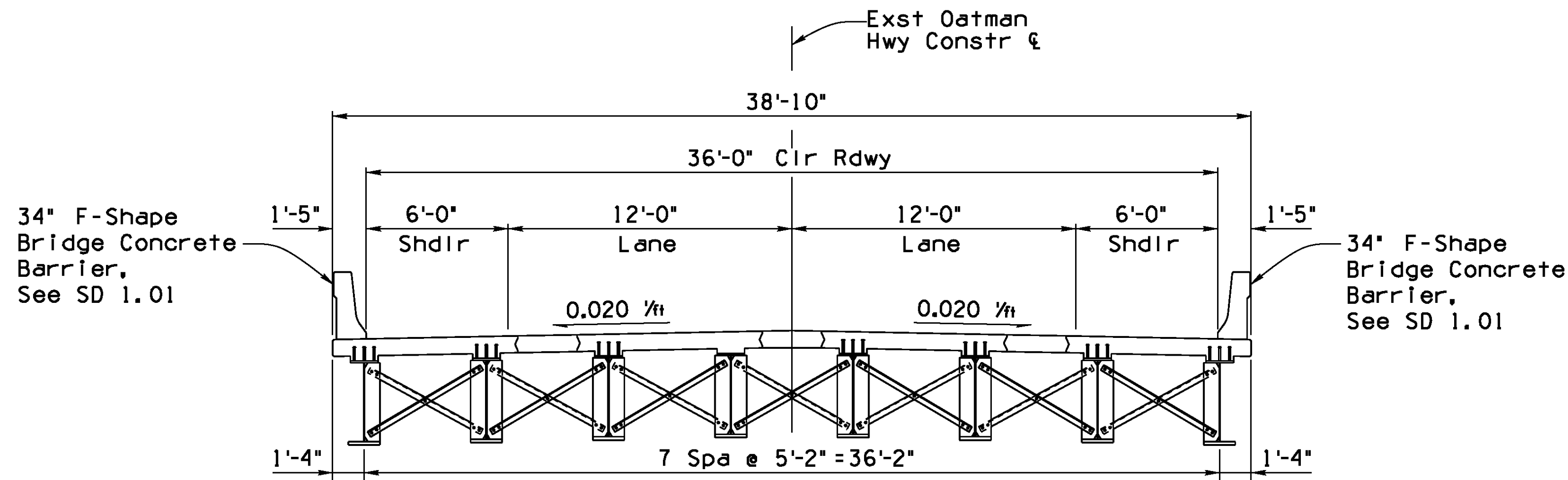
APPROXIMATE QUANTITIES

	STRUCTURAL EXCAVATION	GEOGRID RE INFORCED BACKFILL	Class 'S' Concrete		CLOSURE POUR	RE INFORCING STEEL	STRUCTURAL STEEL	DRILLED SHAFTS (60" DIA)
			f' c=4000psi	f' c=4500psi				
	CY	CY	CY	CY	CY	LBS	LBS	LF
Abutment 1	110	390	39 (1)		18	12,107 (3)		150
Abutment 2	110	390	39 (1)		18	12,107 (3)		150
Superstructure				96 (2)	21	29,952 (3)	199,099 (2)	
Total	220	780	78	96	57	54,166	199,099 (2)	300
As-Built Total								

F-Shape Bridge Concrete Barrier and Transition (34") (SD 1.01) 331 LF
Thrie-Beam Guard Rail Transition System (SD 1.03) 4 EA
Retaining Wall (Special Detail) 959 SF
Precast Approach Slab 1,165 SF (4)
Precast Moment Slab 236 SF (5)

Quantity Table Notes

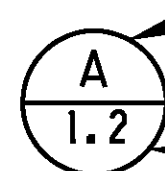
- (1) Quantity provided for reference only and shall be paid for as part of Items 9240133, 924134 and 9240135.
- (2) Quantity provided for reference only and shall be paid for as part of Items 9240119 and 9240120.
- (3) Quantity provided for reference only and shall be paid for as part of other contract items per the Special Provisions.
- (4) Quantity provided for reference only and shall be paid for as part of Items 9240121 and 9240122.
- (5) Quantity provided for reference only and shall be paid for as part of item 9240127.



TYPICAL SECTION
Scale: 1/4" = 1'-0"

BRIDGE GROUP SD DRAWINGS
SD 1.01 and SD 1.03

LEGEND



Letter denoting sections
Number denoting details

Drawing No where section or
detail is shown or called out.
S-series unless noted otherwise;
"___" if shown on same sheet

ABBREVIATIONS

NF = Near Face
FF = Far Face
EF = Each Face

GENERAL NOTES:

Construction Specification -
Arizona Department of Transportation
Standard Specifications for Road
and Bridge Construction, Edition of 2008 and the Special Provisions.

Design Specifications -
AASHTO LRFD Bridge Design Specifications, 6th Edition, 2012.

Dead Load - Dead Load includes an allowance of 25 pounds per square foot for
future wearing surface.

Loading Class HL-93.

Stay-In-Place forms shall not be used.

The bridge site is classified as Site Class D with Peak Ground Acceleration
(PGA) = 0.083 g and Spectral Acceleration Coefficients:
at Period 0.2 sec (S_s) = 0.228, and at Period 1.0 sec (S₁) = 0.119.
The bridge is assigned to Seismic Zone 2.

Inventory and operating ratings for HL-93 are in accordance with AASHTO
Manual for Bridge Evaluation, 2nd Edition 2011 and most current interims,
in accordance with the Load and Resistance Factor Rating Method.
Inventory Load Rating - RF 1.75
Operating Load Rating - RF 2.27

All concrete shall be Class 'S' unless noted otherwise.

Closure Pour concrete shall be in accordance with the
Project Special Provisions.

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing
shall be furnished as Grade 60.

All bends and hooks shall meet the requirements of AASHTO Article 5.10.2
All bend dimensions for reinforcing steel shall be out-to-out of bars. All
placement dimensions for reinforcing steel shall be to center of bars
unless noted otherwise.

All reinforcing steel shall have 2 inch clear cover unless noted otherwise.

All welding shall conform to the requirements of the AASHTO/AWS D1.5M/D1.5
Bridge Welding Code.

All mechanical splices shall conform to the requirements of mechanical
connections in Section 605-3.02 of the Standard Specifications.

Strengths:

Concrete Deck f'c = 4.5 ksi
Closure Pour (@ 6 hours) f'c = 3.0 ksi
Closure Pour (@ 7-days) f'c = 4.5 ksi
Barriers f'c = 4.0 ksi
Precast Substructure Elements f'c = 4.0 ksi
Precast Approach Slab f'c = 4.5 ksi
Precast Moment Slab f'c = 4.5 ksi
All other Class 'S' Concrete f'c = 3.0 ksi
Grade 60 Reinforcing fy = 60.0 ksi
Structural Steel
Girder Plates (ASTM A709 Grade 50W) fy = 50.0 ksi
Angles & Channels (ASTM A588 Grade 50) fy = 50.0 ksi
Shear Studs (ASTM A108) fy = 50.0 ksi
Lifting Lugs (ASTM A709 Grade 36) fy = 36.0 ksi

Bolts for use with weathering steel shall be ASTM A325 Type 3 with
A563 Grade DH3 nuts and F436 Type 3 washers.

Dimensions shall not be scaled from drawings.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	40	76	

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DESIGN	DJL	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN	RLH	DATE	07/16		
CHECKED	KJK	DATE	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING GENERAL NOTES & QUANTITIES	
OLD US ROUTE	1.2	11502	STRUCTURE NO.	LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 01C				MMO-0(216)T	
				DWG NO. S-1.02 OF	

No.1 DESCRIPTION OF REVISIONS

MADE BY

DATE

No.2 DESCRIPTION OF REVISIONS

MADE BY

DATE

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	41	76	
0000 MO MMO					

GENERAL NOTES:

This design is for the construction of a new 113'-10"x38'-10" steel plate girder bridge, Bridge No. 11502, on Oatman Highway over Sacramento Wash 1 mile north of I-40. The intent of this plan is to perform an accelerated construction of the new bridge using precast abutment elements and steel superstructure deck units, requiring the bridge to be constructed in the 96 hour Full Roadway Closure period.

Utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the bridge contractor of the starting date.

The Bridge Contractor will be the only contractor at the site and is responsible for the completion of all work as detailed and noted in these plans.

The Bridge Contractor is to clear and/or shape the channel within the approximate limits shown on the "SACRAMENTO WASH PLAN AND PROFILE" on Dwg No. D-01.01.

It shall be the Bridge Contractor's responsibility to provide sites for excess excavated material. No payment for overhaul will be allowed for material hauled to these sites.

LIFTING ANCHORS:

PRECAST CONCRETE SUBSTRUCTURE AND APPROACH SLABS:

The precast fabricator shall submit lifting locations and lifting anchor details for approval by the Engineer prior to use. The top of the lifting anchors shall be recessed 2 inch minimum from the surface of the precast panel. The lifting anchors shall be hot dipped galvanized. Recessed pockets at lifting anchor locations shall be backfilled with non-shrink grout.

SUPERSTRUCTURE UNITS:

Lifting anchors and locations are shown on plans. The anchors are designed based on a 85 degree angle from horizontal to lifting lines. The Bridge Contractor may propose alternate lifting details that must be approved by the Engineer prior to use.

PRECASTING:

Precasting materials and procedures shall conform to section 601 of the Standard Specifications. Site casting shall conform to alternate site casting provisions listed on Dwg. No. S-1.04.

FORM REMOVAL AND STORAGE:

All precast elements shall be removed from the forms in such a manner that no damage occurs to the element. Form removal shall conform to the requirements of section 601 of the Standard Specifications. Any materials forming blockouts in the precast elements shall be removed such that damage does not occur to the precast elements or the blockout. Precast elements shall be stored in such a manner that adequate support is provided to prevent cracking.

LIFTING AND HANDLING:

All precast elements shall be handled in such a manner as not to damage the precast elements during lifting or moving. Lifting anchors cast into the precast elements shall be used for lifting and moving the precast elements at the fabrication plant and in the field. The angle between the top surface of the precast elements and the lifting line shall not be less than shown in the project plans or detailed in the Assembly Plans for the respective precast elements. Damage caused to any precast elements shall be repaired at the expense of the contractor to the satisfaction of the Engineer.

TRANSPORTATION:

All precast elements shall be transported in such a manner that each precast element will not be damaged during transportation. Precast elements shall be properly supported during transportation such that cracking or deformation (sagging) does not occur. If more than one precast element is transported per vehicle, proper support and separation must be provided between the individual precast elements. Precast elements shall lie horizontal during transportation, unless otherwise approved.

REPAIRS:

Repairs of damage caused to the precast elements during fabrication, lifting and handling or transportation shall be addressed on a case-by-case basis. Damage within acceptable limits caused to the top surface (driving surface) or to keyed edges of the precast elements shall be repaired in accordance with section 601 of the Standard Specifications at no cost to the department. Repetitive damage to panels shall be cause for stoppage of fabrication operations until the cause of the damage can be remedied. All proposed repairs shall be approved by the Engineer in advance.

VALUE ENGINEERING CHANGE PROPOSALS:

Contractors may develop alternative construction proposals using precast concrete superstructure modules that allow the State to benefit from reduced costs, while maintaining the same or reduced ABC construction schedule of 96 hours for the project. The contractor shall also perform any necessary redesign of substructure components resulting from the changes to the superstructure modules. Only alternate designs that utilize concrete modular systems assembled using SCC Full Moment Connections will be accepted for review under the Value Engineering Change Proposal. These designs must provide the required performance, reliability, quality and constructability.

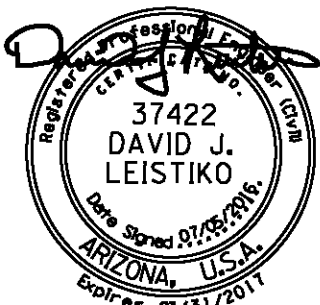
DIAMOND GRINDING:

Contractor to bid diamond grinding based on the type of coarse aggregated in the concrete mix for bridge decks. Diamond grinding of the bridge deck should be in accordance with Section 601 of the Standard Specifications.

PREFABRICATED DECK UNITS:

Prefabricated Deck Units are to be Fabricated in the unshored condition when forming and placing concrete deck.

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DESIGN		DJL	07/16		
DRAWN		RLH	07/16		
CHECKED		KJK	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING GENERAL NOTES 1	
OLD US 66	1.2	11502	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
ROUTE	MILEPOST	STRUCTURE NO.	DWG NO.S-1.03		
TRACS NO. T0021 01C			MMO-0(216)T		___ OF ___



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	42	76	

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ESTIMATED WEIGHTS OF ELEMENTS	
PREFABRICATED ELEMENT	WEIGHT
Interior Deck Unit	143.6 kips
Exterior Deck Unit	143.4 kips
Abutment Cap	123.6 kips
Abutment Backwall	14.0 kips
Abutment Cheeckwall	2.6 kips
Approach Slab Panel	21.9 kips
Barrier Moment Slab	13.4 kips

ALTERNATE SITE CASTING:

ALTERNATE SITE CASTING:

If the Contractor elects to precast the superstructure substructure, and bridge approach components at a temporary casting facility or on-site, structural concrete and casting shall comply with section 601 and the provisions listed below:

CONSTRUCTION:

A. EQUIPMENT.

Use equipment meeting the requirements of Section 601 and the following:

B. CASTING BEDS - For precast concrete, use casting beds rigidly constructed and supported so that under the weight (mass) of the concrete and the vertical reactions of holdups and hold downs there will be no vertical deformation of the bed.

C. FORMS - Use forms for precast true to the dimension as shown in the contract documents, true to line, mortar tight, and of sufficient rigidity to not sag or bulge out of shape under placement and vibration of concrete. Ensure inside surfaces are smooth and free of any projections, indentations, or offsets that might restrict differential movements of forms and concrete.

D. CURING.

1. Use a method of curing that prevents loss of moisture and maintains an internal concrete temperature at least 40°F during the curing period. Obtain the Engineer's approval for this method.

2. When using accelerated heat curring, do so under a suitable enclosure. Use equipment and procedures that will ensure uniform control and distribution of heat and prevent local overheating. Ensure the curing process is under the direct supervision and control of competent operators.

3. When accelerated heat is used to obtain temperatures above 100°F:

a. Record the temperature of the interior of the concrete using a system capable of automatically producing a temperature record at intervals of no more than 15 minutes during the entire curing period.

b. Space the systems at a minimum of one location per 100 feet of length per unit of fraction thereof, with a maximum of three location along each line of units being cured.

c. Ensure all units, when calibrated individually, are accurate with in ±5°F.

d. Do not artificially raise the temperature of the concrete above 100°F for a minimum of 2 hours after the units have been cast. After the 2 hour period, the temperature of the concrete may be raised to a maximum temperature of 160°F at a rate not to exceed 25°F per hour.

e. Lower the temperature of the concrete at a rate not to exceed 40°F per hour by reducing the amount of heat applied until the interior of the concrete has reached the temperature of the surrounding air.

ALTERNATE SITE CASTING: CONT'D

4. In all cases, cover the concrete and leave covered until curing is completed. Side forms and pans forming the underside of channel shapes may be removed during this period if the cover is immediately replaced. Do not, under any circumstances, remove units from the casting bed until the strength requirements are met.

E. Removal of Forms.

If forms are removed before the concrete has attained the strength which will permit the units to be moved or stressed, remove protection only from the immediate section from which forms are being removed. Immediately replace the protection and resume curing after the forms are removed. Do not remove protection any time before the units attain the specified compressive strength when the surrounding air temperature is below 20°F.

F. TOLERANCES

Apply the following tolerances for precast units, unless otherwise shown elsewhere in these plans:

1. Limit variation from dimensions shown in the contract documents to no more than $\frac{1}{8}$ inch. For overruns, greater deviation may be accepted if, in the Engineer's opinion, it does not impair the suitability of the member for its intended use.

2. Ensure girder seat bearing areas at each end of the unit are flat and true and perpendicular transversely to the vertical axis of the beam.

3. Limit the difference of cambers between two adjacent units, as assembled, to no more than $\frac{1}{8}$ inch.

G. HANDLING AND STORAGE

1. When lifting and handling precast units, support them at or near the points designated in the contract documents.

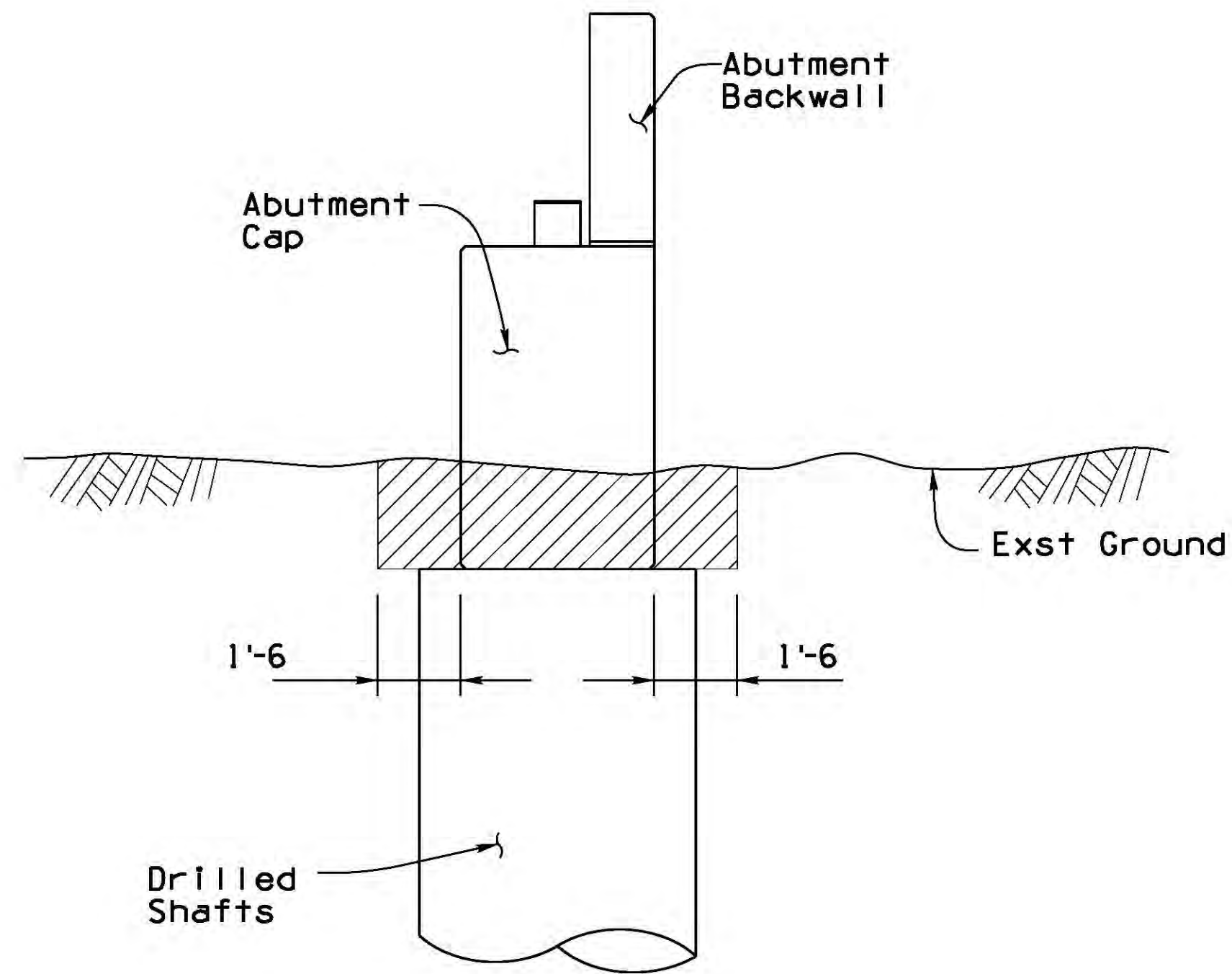
2. Do not lift or strain units in any way before they have developed the strength specified. In storage, support units at points adjacent to the bearings.

3. During fabrication, storage, handling, and hauling take care to prevent cracking, twisting, unnecessary roughness, or other damage. In particular, do not allow tiedowns to come in direct contact with concrete surfaces. Do not subject units to excessive impact. Replace at no additional cost to the department units that are, in the Engineer's opinion, damaged in a way to impair their strength or suitability for their intended use.

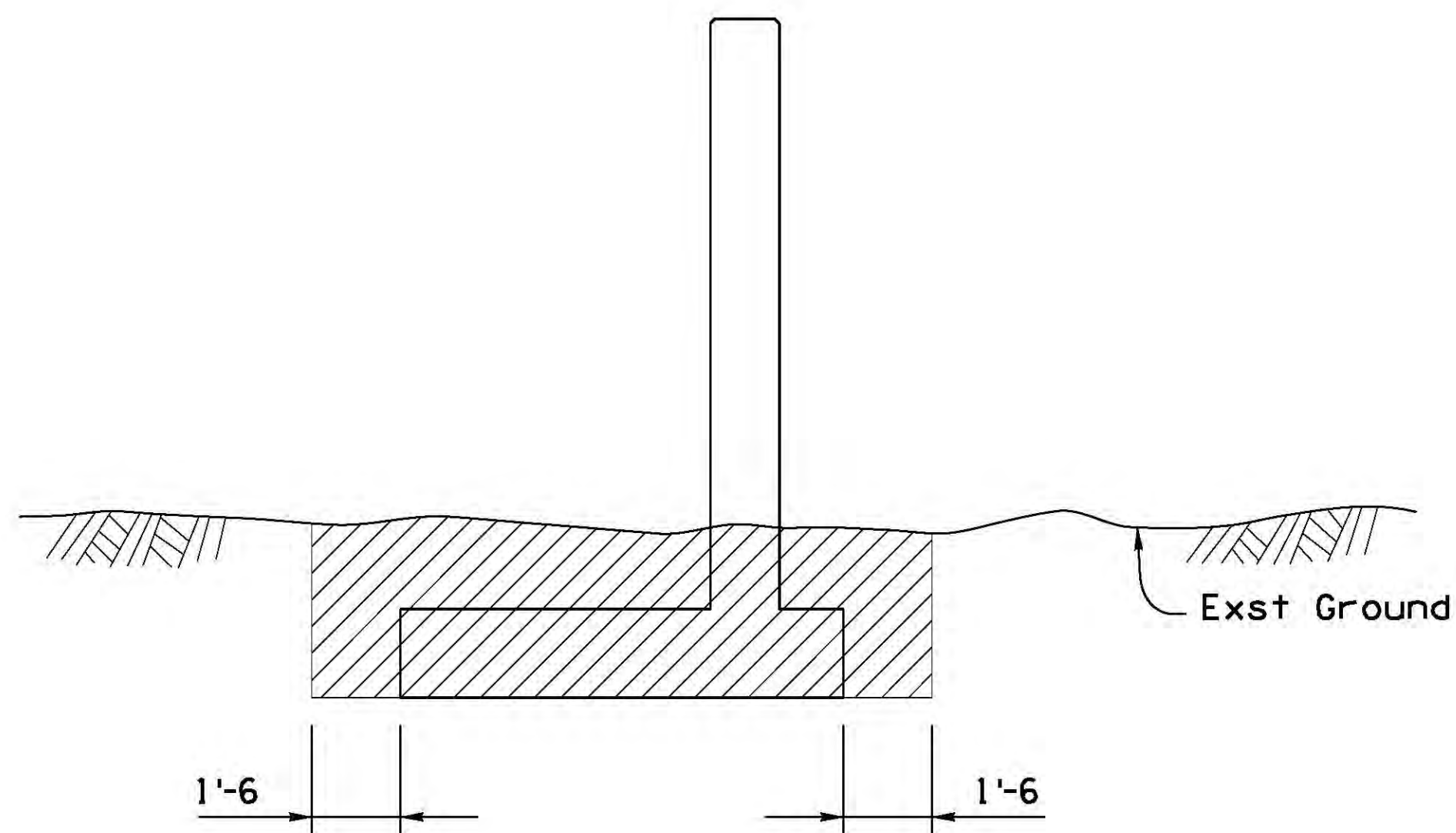
H. FINISH - Finish all surfaces which will be exposed in the finished structure as provided in section 601 of the Standard Specifications, and ensure they are free of honeycomb or surface defects. Submit structural repair procedures to the Engineer for approval. The top wearing surface of the precast deck and approach slab shall have a texture applied conforming to Section 601 of the Standard Specifications.

DESIGN	DJL	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP		
DRAWN	RLH	DATE	07/16	STA 22+ SACRAMENTO CROSSING GENERAL NOTES 2		
CHECKED	KJK	DATE	07/16	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				LOCATION	DWG NO. S-L04	
OLD US 66 ROUTE	1.2 MILEPOST	11502 STRUCTURE NO.	TRACS NO. T0021 OIC		MMO-0(216)T	OF

NO.1 DESCRIPTION OF REVISIONS
MADE BY
DATE
NO.2 DESCRIPTION OF REVISIONS
MADE BY
DATE



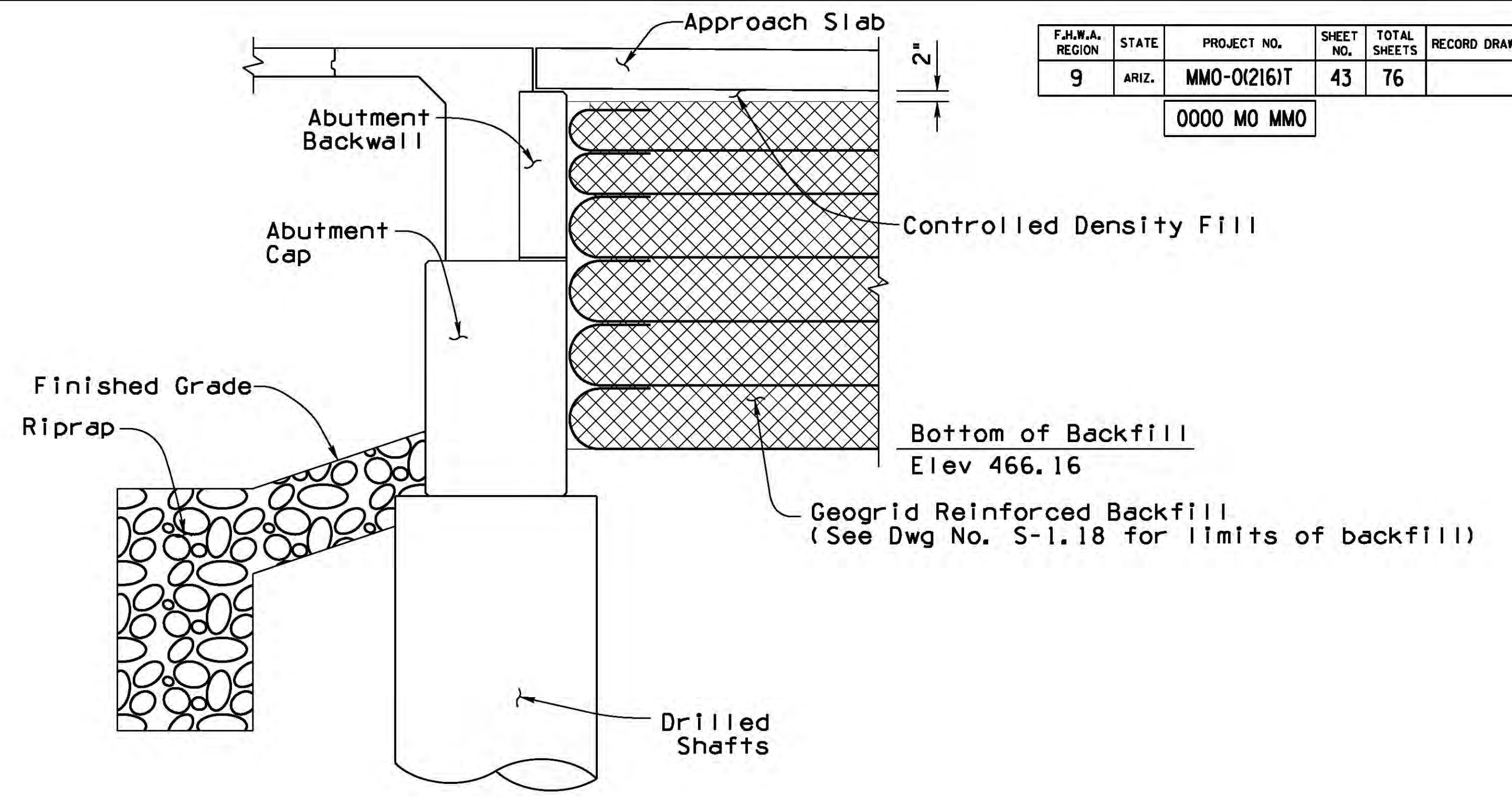
TYPICAL ABUTMENT SECTION



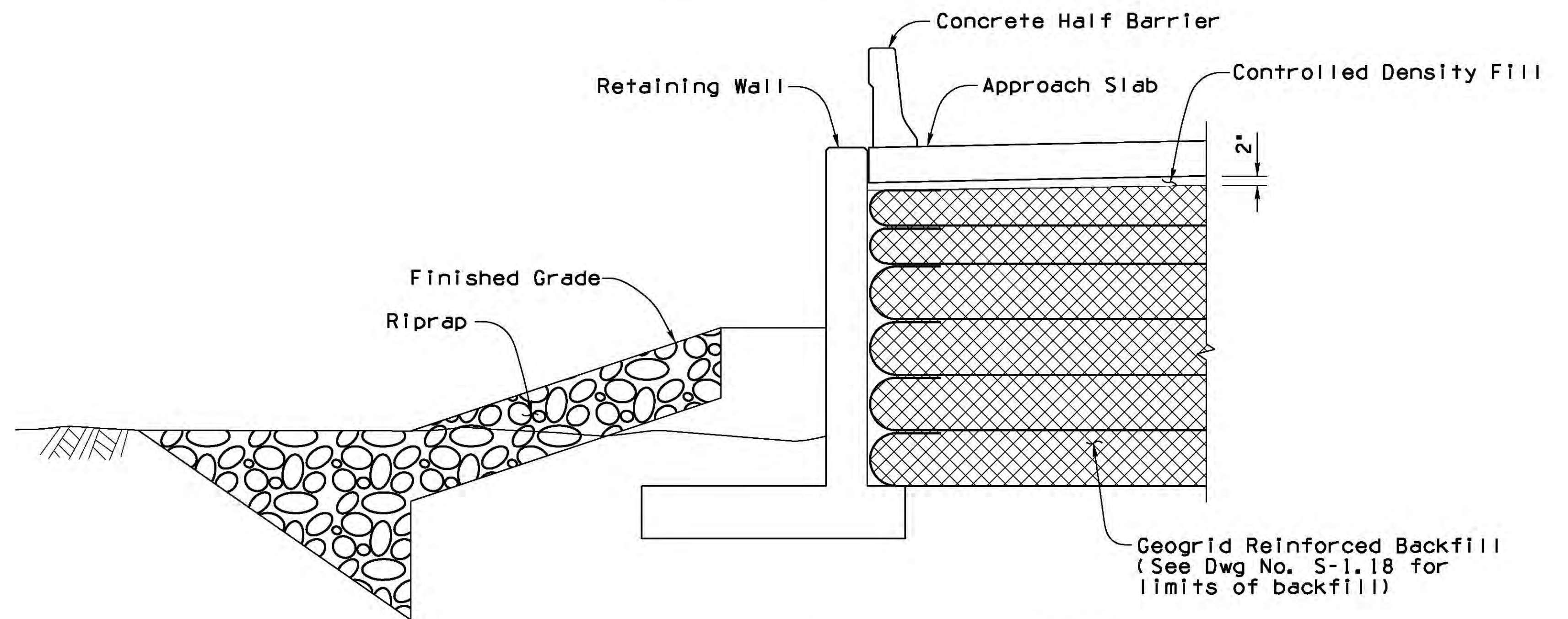
TYPICAL RETAINING WALL SECTION

STRUCTURAL EXCAVATION PAYMENT LIMITS
Not to Scale

- LEGEND
- Structural Excavation
 - Geogrid Reinforced Backfill



TYPICAL ABUTMENT SECTION



TYPICAL RETAINING WALL SECTION

GEOGRID REINFORCED BACKFILL PAYMENT LIMITS
Not to Scale

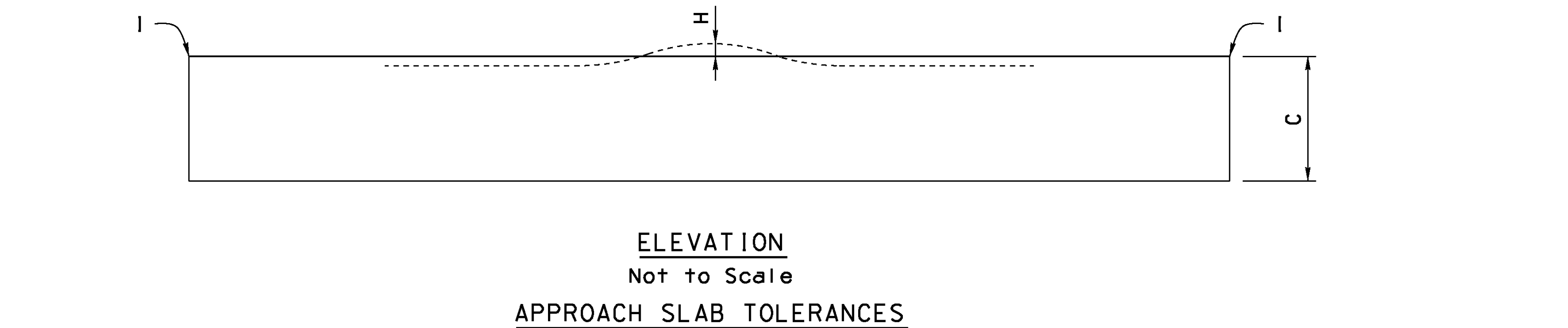
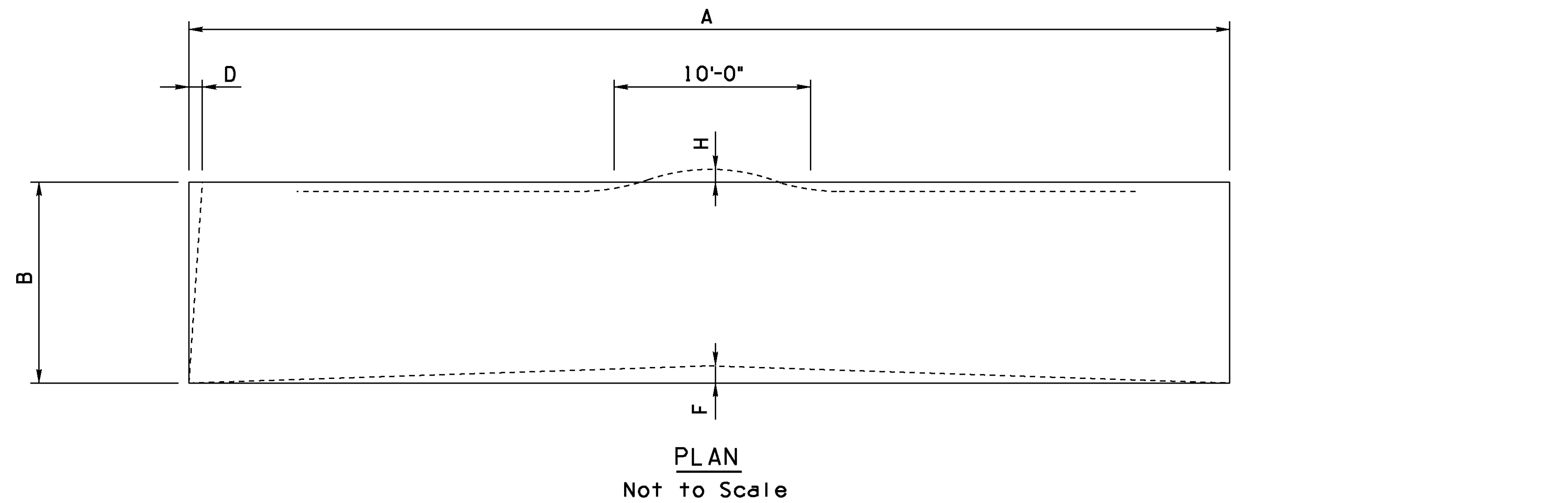
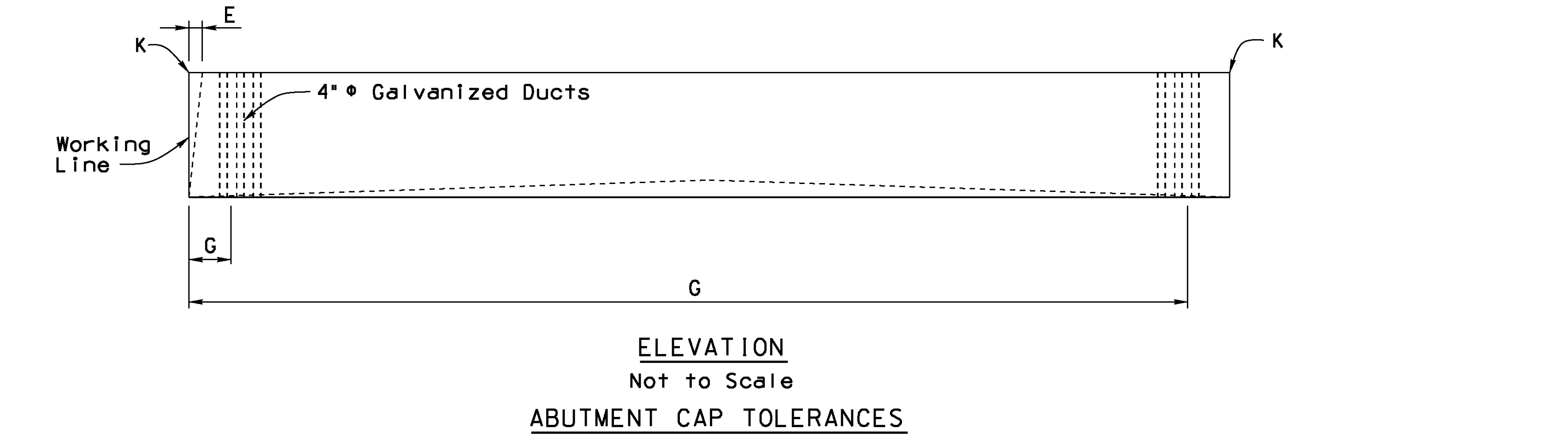
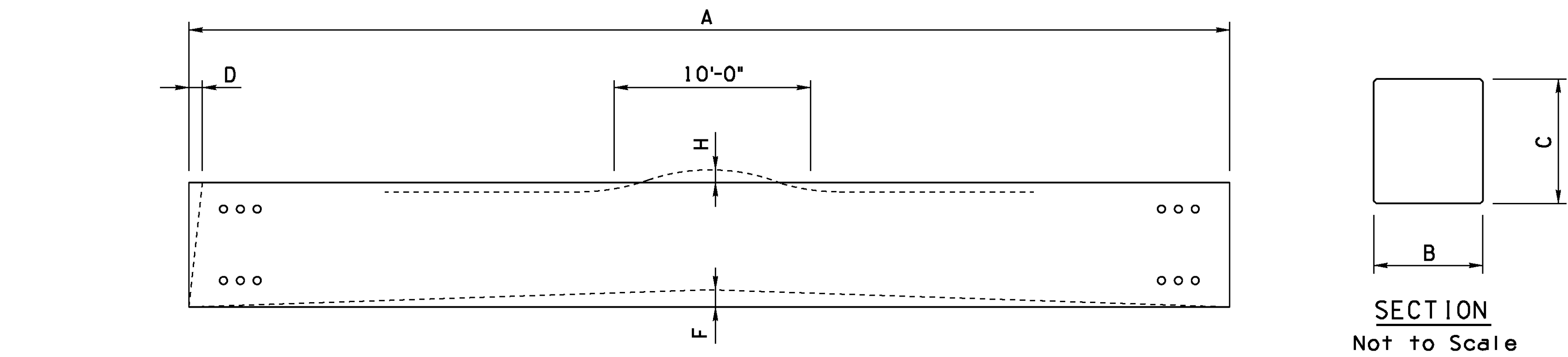
NAME			DATE			ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP		
DESIGN	DJL		07/16			Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.		
DRAWN	RLH		07/16					
CHECKED	KJK		07/16					
ROUTE			MILEPOST			LOCATION		
TRACS NO. T0021 01C			1.2			11502		
						OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		
						MMO-0(216)T		

37422
DAVID J. LEISTIKO
ARIZONA, U.S.A.
Exp. 03/31/2017

DWG NO. S-1.05
OF

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	44	76	

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ABUTMENT CAP FABRICATION TOLERANCES		
A	Length (Overall)	$\pm \frac{3}{4}$ "
B	Width (Overall)	$\pm \frac{1}{4}$ "
C	Depth (Overall)	$\pm \frac{1}{4}$ "
D	Variation from specified Plan End Squareness or Skew	$\pm \frac{1}{8}$ " Per 12 Inch Width $\frac{1}{2}$ " Maximum
E	Variation from specified Elevation End Squareness or Skew	$\pm \frac{1}{8}$ " Per 12 Inch Depth $\frac{1}{2}$ " Maximum
F	Sweep, For Member length: Up to 40 Feet 0 Feet to 60 Feet Over 60 Feet	$\pm \frac{1}{4}$ " $\pm \frac{1}{2}$ " $\pm \frac{5}{8}$ "
G	Location of Galvanized Ducts Measured from a Working Line	$\pm \frac{1}{4}$ "
H	Local Smoothness of any Surface	$\pm \frac{1}{4}$ " in 10 Feet

ABUTMENT CAP ELEVATION ERECTION TOLERANCES		
K	Erection Elevation Tolerance	$\pm \frac{1}{4}$ "

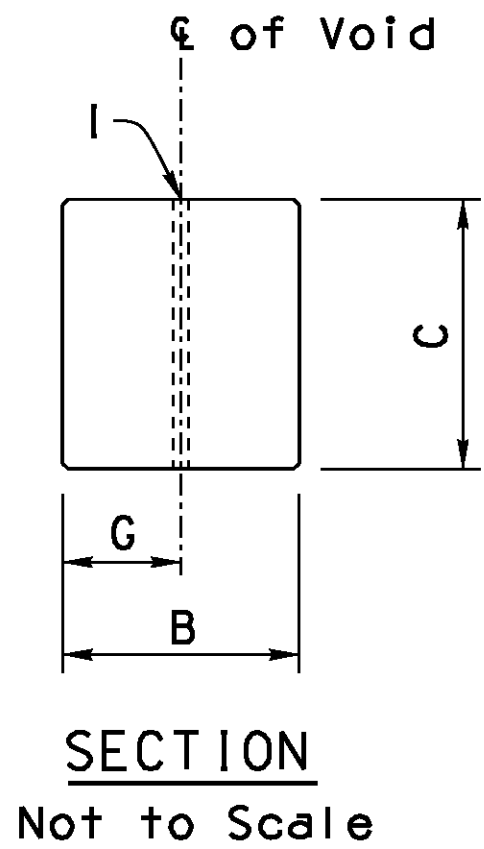
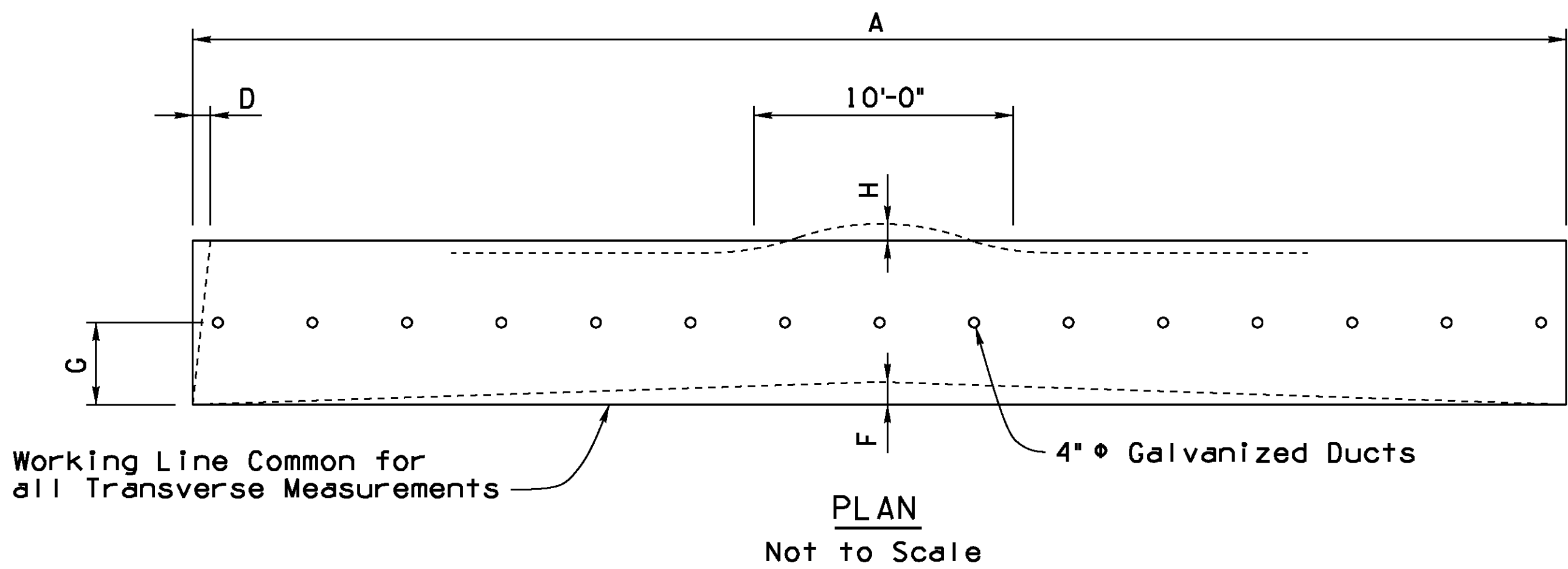
APPROACH SLAB FABRICATION TOLERANCES		
A	Length (Overall)	$\pm \frac{1}{4}$ "
B	Width (Overall)	$\pm \frac{1}{4}$ "
C	Depth (Overall)	$\pm \frac{1}{4}$ "
D	Variation from specified Plan End Squareness or Skew	$\pm \frac{1}{2}$ "
F	Sweep over member Length:	$\pm \frac{3}{8}$ "
H	Local Smoothness of any Surface	$\pm \frac{1}{8}$ " in 10 Feet
I	Erection Elevation Tolerance	$\pm \frac{1}{8}$ "

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CHECKED	KJK	DATE	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING PREFABRICATED ELEMENT DETAILS 1	
OLD US ROUTE	1.2	11502	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 01C				MMO-0(216)T	
				DWG NO.S-L06 OF	

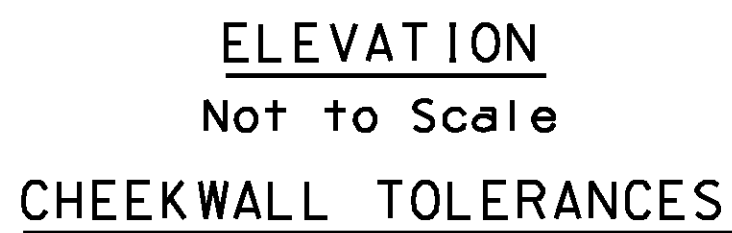
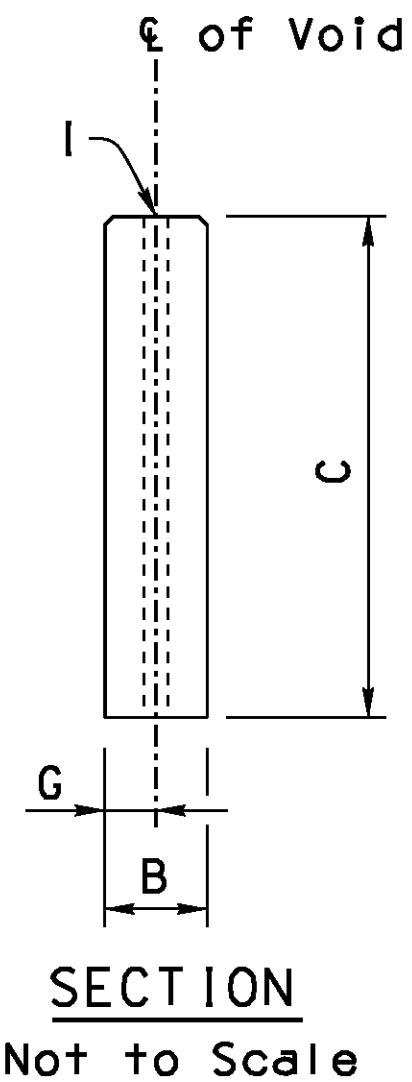
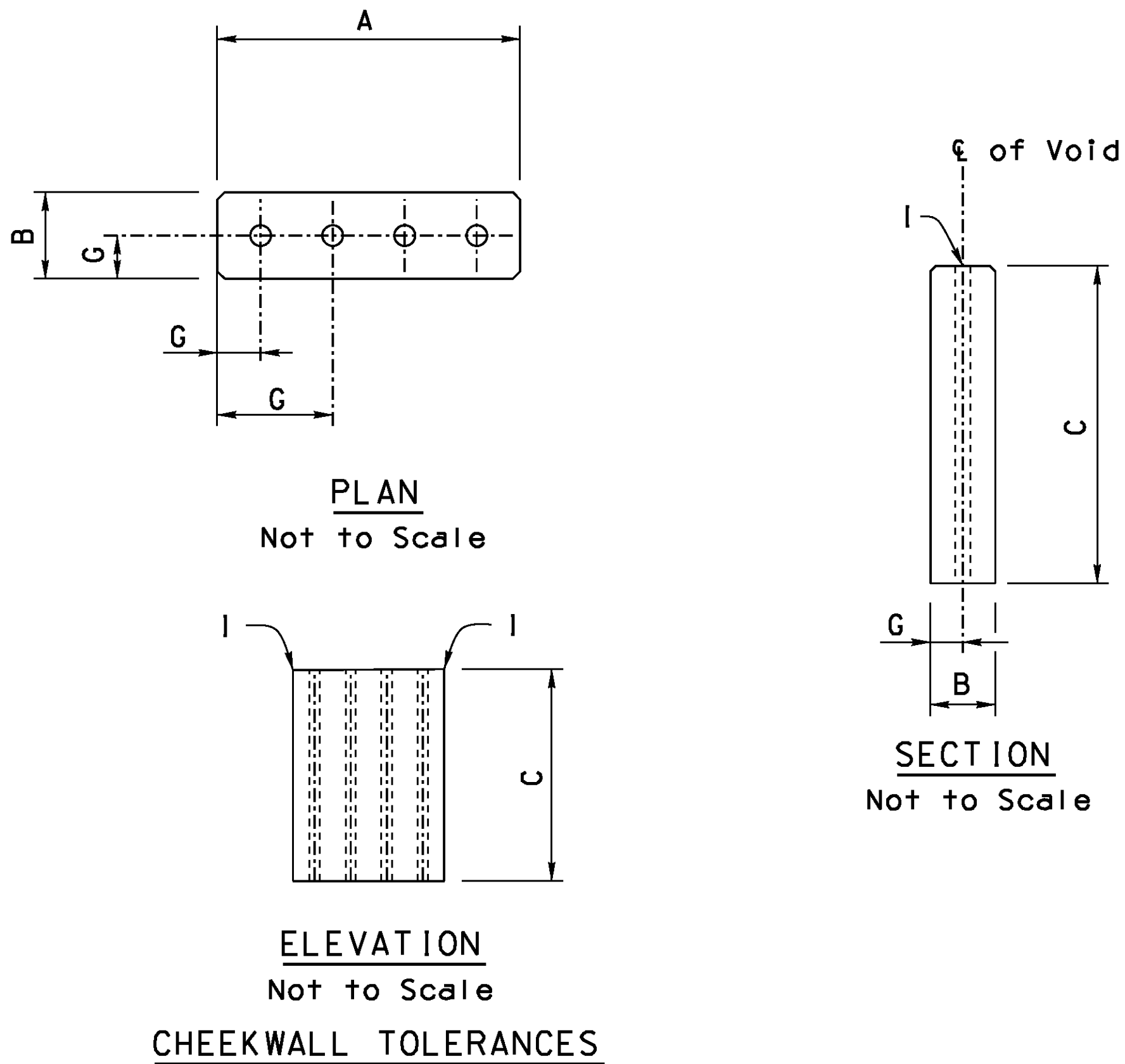
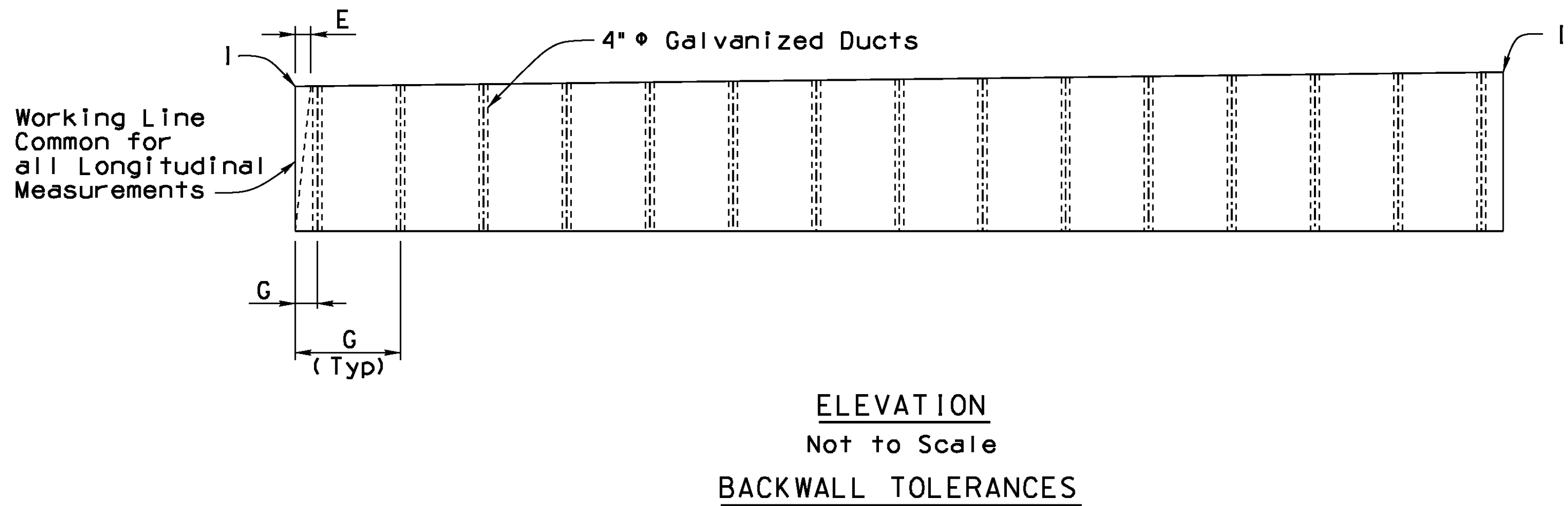
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DATE
NO.2 DESCRIPTION OF REVISIONS
MADE BY
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NO.3 DESCRIPTION OF REVISIONS
MADE BY
DATE

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	45	76	

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BACKWALL/CHEEKWALL FABRICATION TOLERANCES		
A	Length (Overall)	$\pm \frac{1}{4}''$
B	Width (Overall)	$\pm \frac{1}{4}''$
C	Depth (Overall)	$\pm \frac{1}{4}''$
D	Variation from specified Plan End Squareness or Skew	$\pm \frac{1}{8}''$ Per 12 Inch Width $\frac{1}{2}''$ Maximum
E	Variation from specified Elevation End Squareness or Skew	$\pm \frac{1}{8}''$ Per 12 Inch Depth $\frac{1}{2}''$ Maximum
F	Sweep over member Length:	$\pm \frac{1}{4}''$
G	Location of Galvanized Ducts Measured from a Common Reference Point	$\pm \frac{1}{4}''$
H	Local Smoothness of any Surface	$\pm \frac{1}{4}''$ in 10 Feet
I	Erection Elevation Tolerance	$\pm \frac{1}{8}''$



		NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP		
DESIGN	DJL			07/16			
DRAWN	RLH			07/16			
CHECKED	KJK			07/16			
Kimley»Horn					STA 22+ SACRAMENTO CROSSING PREFABRICATED ELEMENT DETAILS 2		
© 2016 KIMLEY-HORN AND ASSOCIATES, INC.					LOCATION		
OLD US 66 ROUTE	1.2 MILEPOST	11502 STRUCTURE NO.		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			DWG NO. S-L07
TRACS NO. T0021 01C				MMO-0(216)T		___ <i>OF</i> ___	

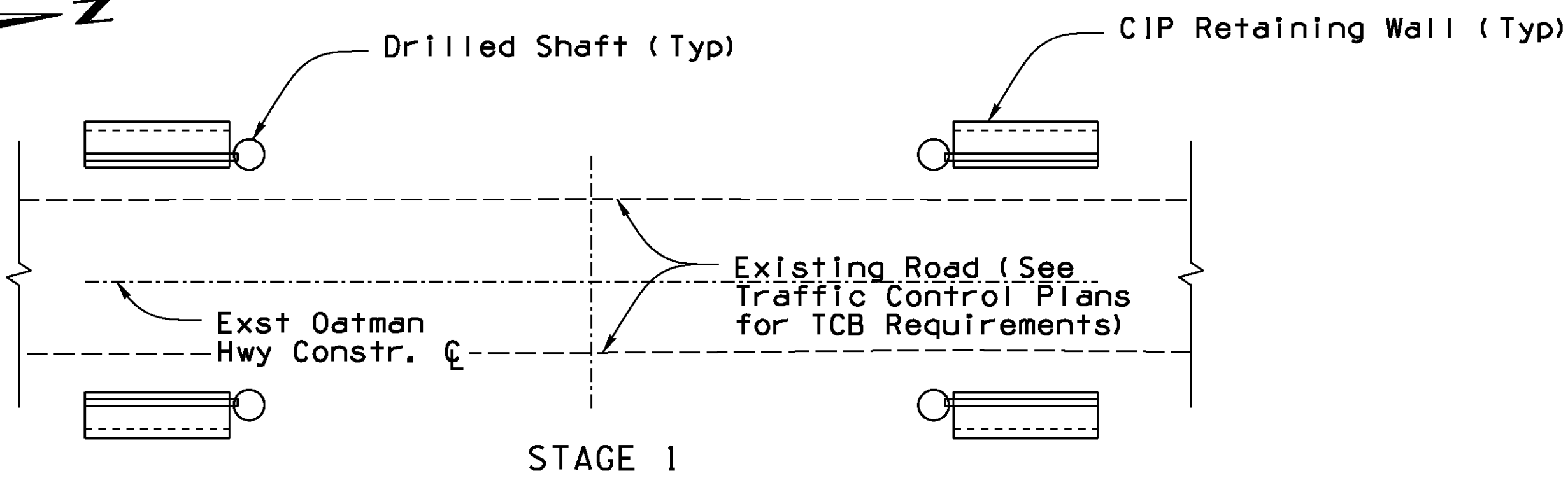
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	46	76	

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SUGGESTED BRIDGE CONSTRUCTION SEQUENCE:

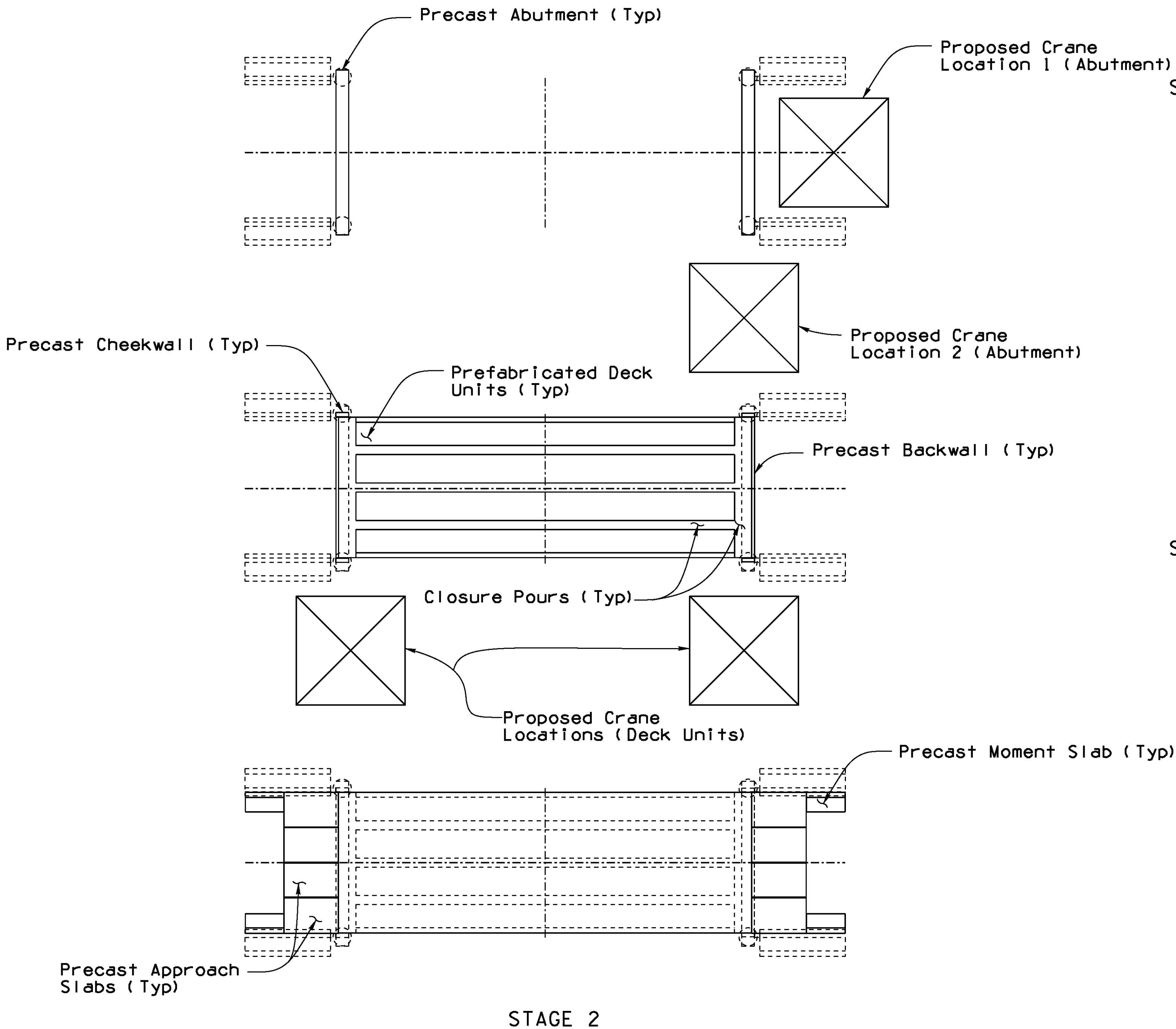
STAGE 1: WORK TO BE COMPLETED PRIOR TO ROADWAY CLOSURE

- Clear and grubbing outside of existing roadway limits
- Establish staging areas
- Construct drilled shafts to the elevation shown on Dwg. No. S-1.08 & S-1.09
- Construct retaining walls as shown on Dwg. No. S-1.15, S-1.16, & S-1.17, Section A



STAGE 2: WORK TO BE COMPLETED DURING ROADWAY CLOSURE (96-HOURS)

- Remove existing roadway pavement
- Excavate for abutments and portion of channel below bridge
- Place and grout abutment cap units
- Place modular deck units
- Form deck closure pours
- Place and grout backwalls and cheekwalls
- Form abutment diaphragm closure pours
- Backfill abutments and retaining walls as shown on Dwg. No. S-1.17
- Place approach and moment slabs
- Place closure pour concrete in deck and abutment diaphragms
- Grout approach slab joints
- Profile bridge deck
- Form and pour bridge barrier
- Place temporary concrete barrier
- Open road to traffic



STAGE 3: WORK TO BE COMPLETED AFTER ROADWAY CLOSURE

- Remove temporary concrete barrier after roadway guardrail construction

DESIGN	DJL	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN	RLH	DATE	07/16		
CHECKED	KJK	DATE	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING SUGGESTED CONSTRUCTION SEQUENCE	
OLD US ROUTE 66	1.2 MILEPOST	11502 STRUCTURE NO.	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 OIC				MMO-0(216)T	
				DWG NO. S-1.08 OF	

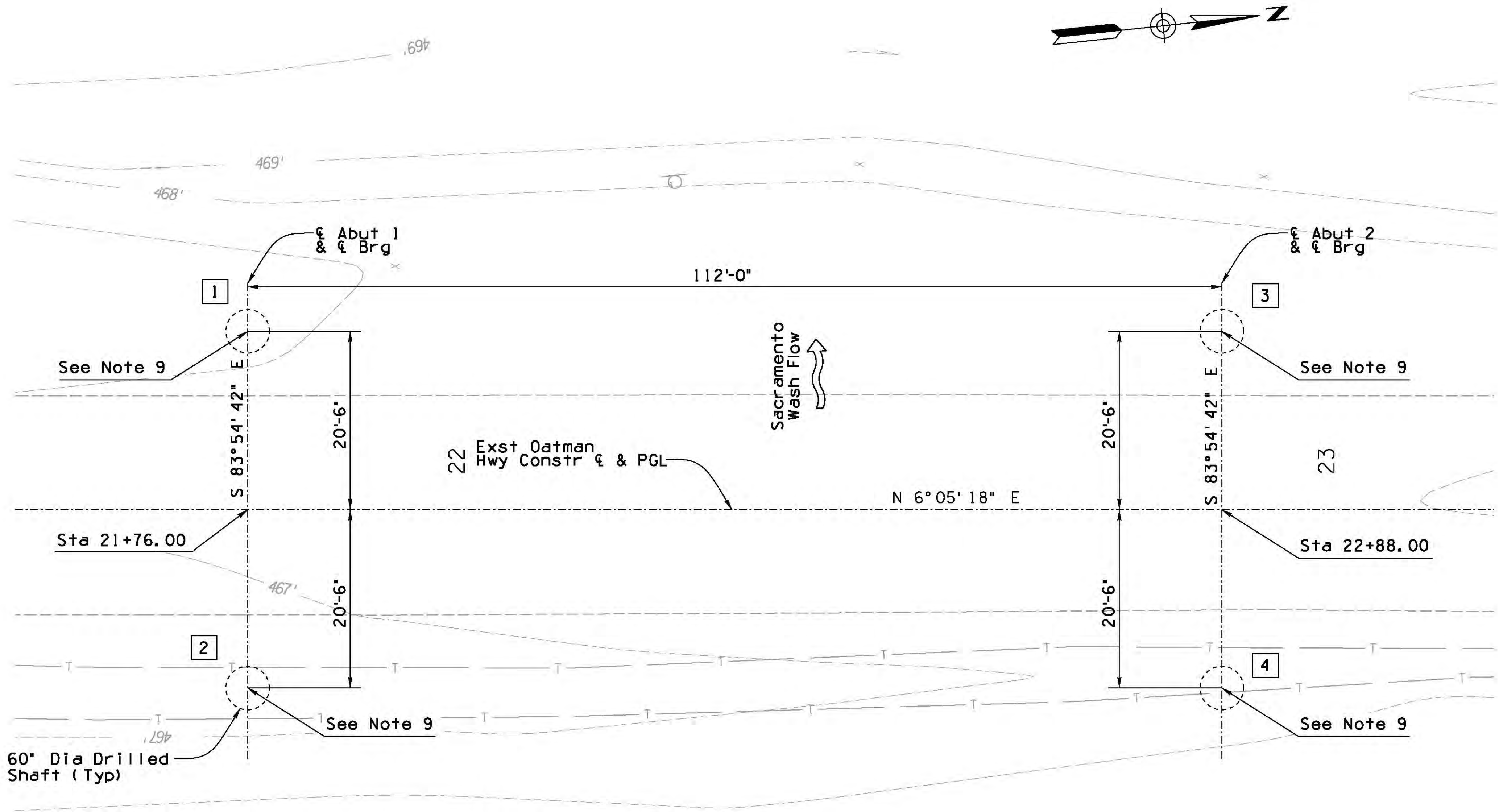


F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	47	76	

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NOTES:

- 1 indicates drilled shaft foundation identification number.
- The Contractor shall select one 60" diameter drilled shaft as a confirmation shaft per Section 609-3.02 of the Standard Specifications. The selected shaft shall be indicated in the Contractor's drilled shaft installation plan.
- Information pertaining to the nature of the soil and the site conditions can be obtained from the Geotechnical Exploration Report Sacramento Wash Bridge by Kleinfelder, Project No. 20162731, dated April 15, 2016.
- It is the responsibility of the prospective bidders to review the Geotechnical Exploration Report Sacramento Wash Bridge.
- See SF Drawings for Foundation Data.
- Contractor shall submit a plan detailing the drilling construction procedures for approval in the Drilled Shaft Installation Plan prior to starting drilled shaft construction.
- Temporary Support of Steel Casing is the Contractors responsibility, and is considered included in the drilled shaft pay item.
- Contractor shall provide steel casing, if needed, at no additional cost to the Department.
- See Dwg. No. S-1.16 for coordinate data.



FOUNDATION PLAN

Existing Contour Interval = 1'-0"
Scale 1/8" = 1'-0"

		NAME		DATE		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STA 22+ SACRAMENTO CROSSING FOUNDATION PLAN OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING DWG NO. S-1.09			
DESIGN		DJL			07/16				
DRAWN		RLH			07/16				
CHECKED		KJK			07/16				
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.						LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
OLD US ROUTE		1.2 MILEPOST		11502 STRUCTURE NO.					
66									
TRACS NO. T0021 OIC				MMO-0(216)T				37422 DAVID J. LEISTIKO ARIZONA, U.S.A. Expire 09/31/2017	
								OF	

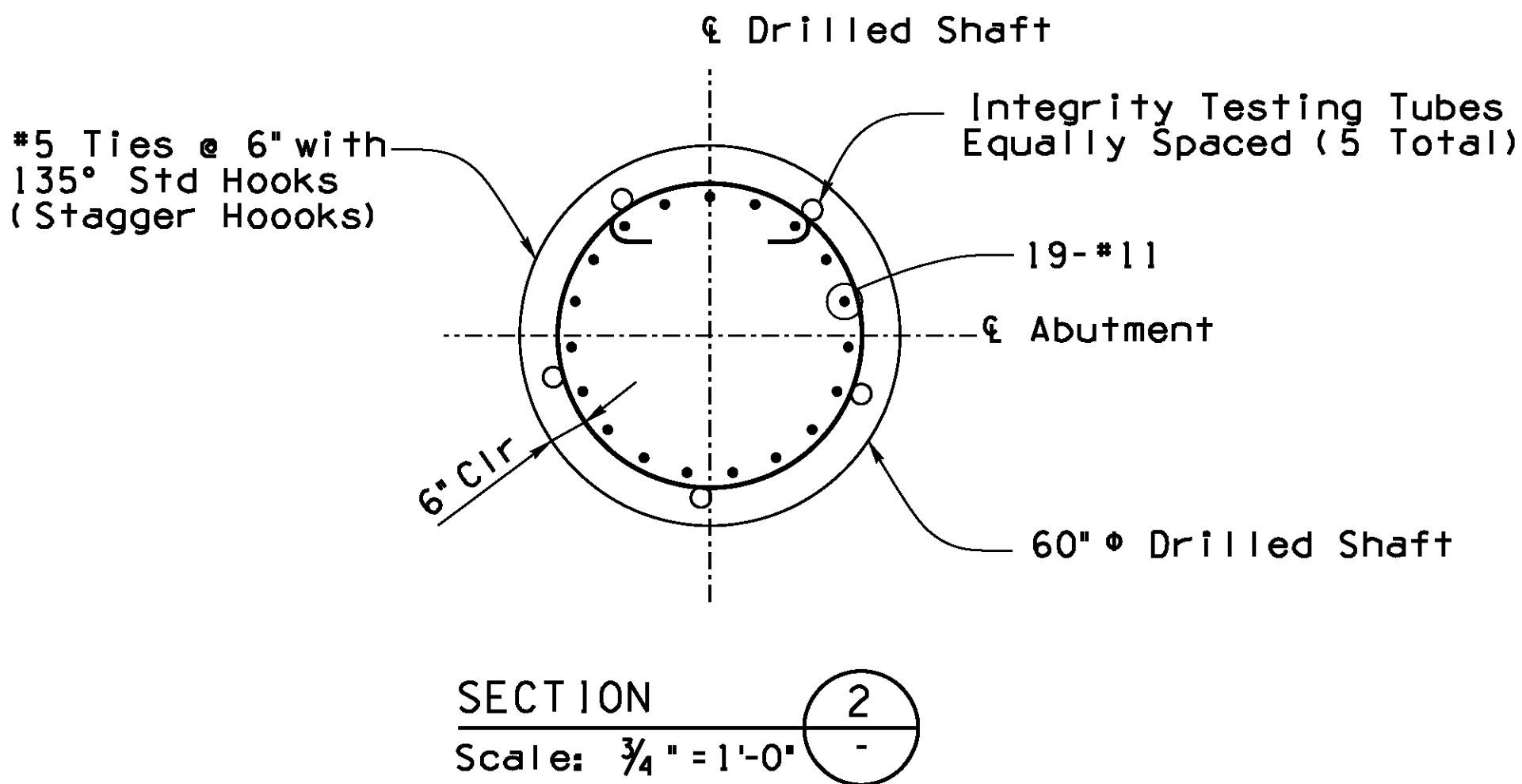
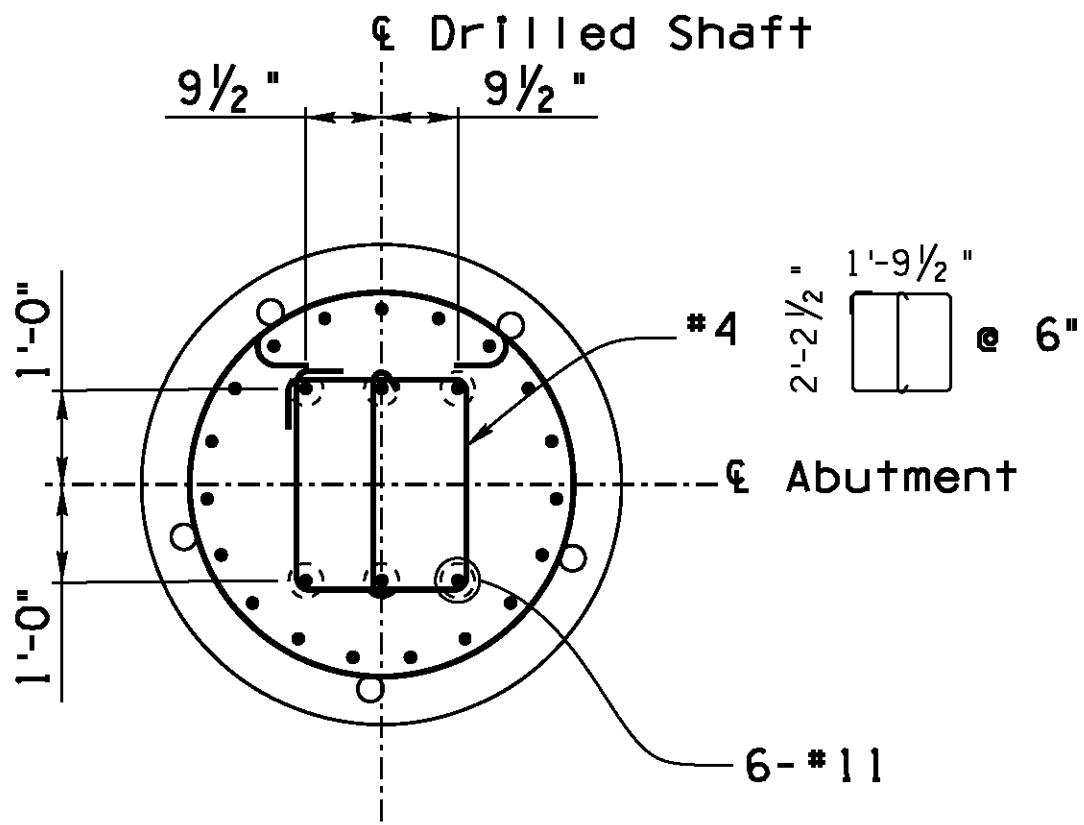
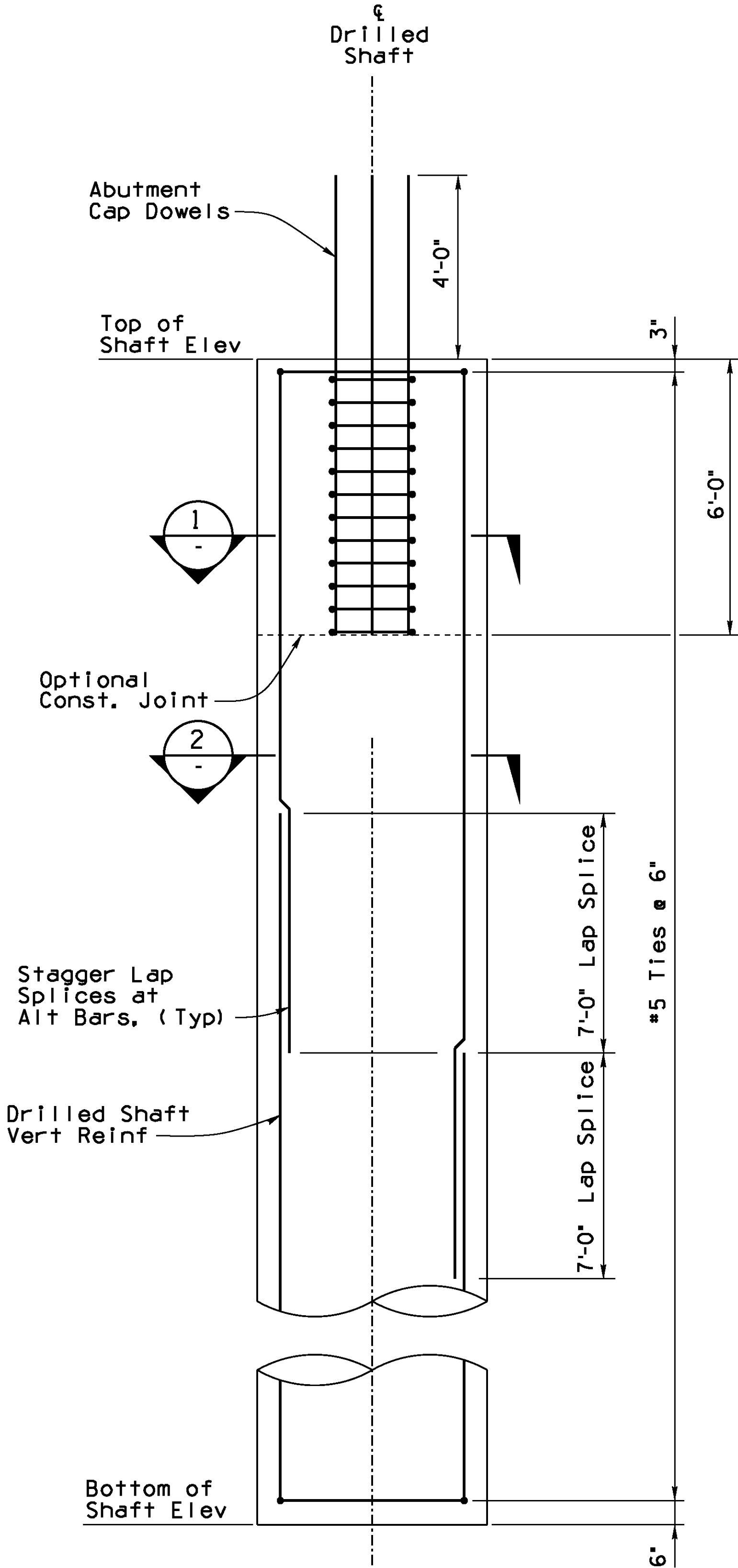
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	48	76	

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DRILLED SHAFT NOTES

1. Cost of Drilled Shaft Includes Reinforcement.
2. Drilled shaft construction shall conform to Section 609 of the ADOT Standard Specifications, Edition of 2008, and in accordance with the Special Provisions for this project.
3. Construction Joints not shown on the plans shall require the approval of the Engineer prior to construction.
4. Inspection tubes shall be installed in all shafts. Size, type and details of tubes shall be per Standard Specifications and Special Provisions. Inspection tubes shall not be attached to the longitudinal reinforcing.
5. Concrete shall be placed immediately after the excavation has been completed and the reinforcing cage placed in its position.
6. Temporary or permanent casing may be used to stabilize the native soil overburden for all drilled shafts. The use of slurry may be permitted for the stabilization of drilled shaft excavations. Drilled shafts shall be oversized to accommodate temporary casings where utilized. The final drilled shaft diameter shall be as shown on the plans within the tolerance allowable in the standard plans.
7. Abutment cap dowel bars shall be epoxy coated.
8. Groundwater was present at approximately 10 feet below existing ground at time of Geotechnical Borings.
9. See SF Drawings for Geotechnical Boring Logs.

NO.1	DESCRIPTION OF REVISIONS	DATE	MADE BY
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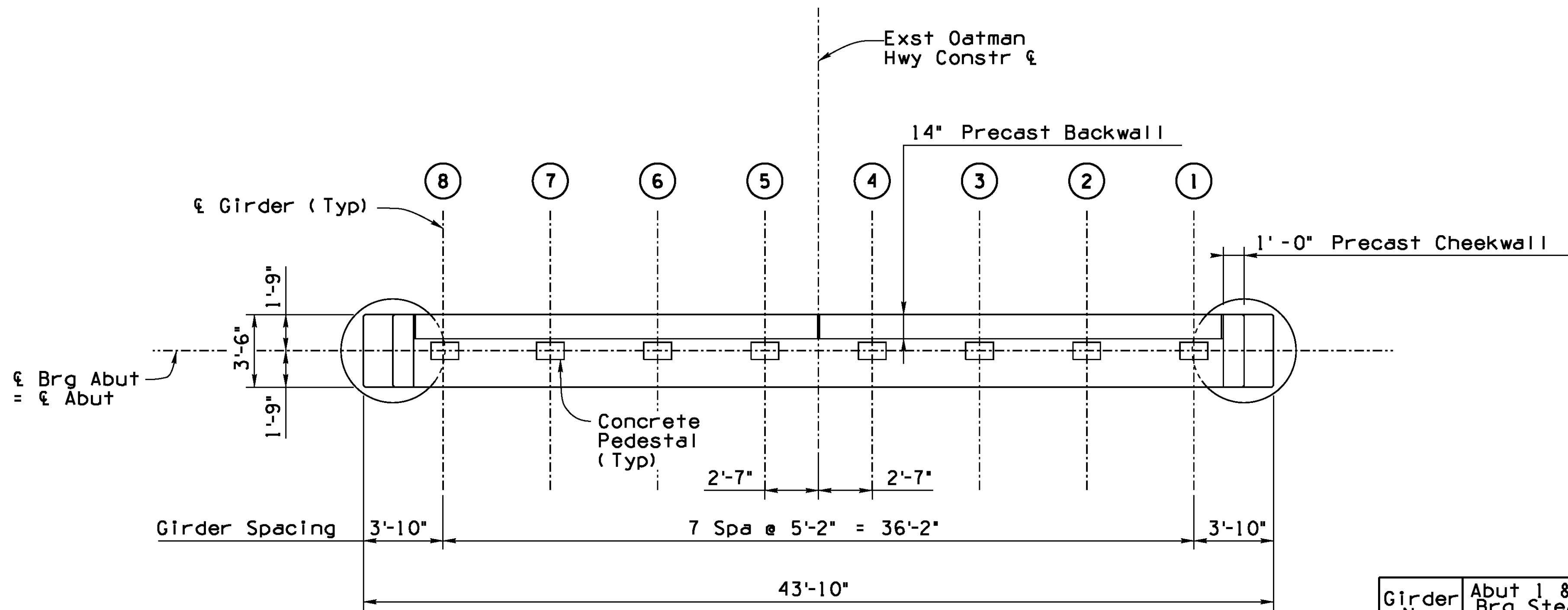
Abut. No.	Shaft No.	Top of Shaft	Bottom of Shaft	Shaft Diameter	Total Factored Loads (kips)
1	1	464.83	389.83	5'-0	875
	2	464.83	389.83	5'-0	875
2	3	464.83	389.83	5'-0	875
	4	464.83	389.83	5'-0	875

DESIGN	DJL	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN	RLH	DATE	07/16		
CHECKED	KJK	DATE	07/16		
Kimley»Horn				STA 22+ SACRAMENTO CROSSING DRILLED SHAFT DETAILS	
OLD US 66 ROUTE	1.2 MILEPOST	11502 STRUCTURE NO.	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 01C				MMO-0(216)T	

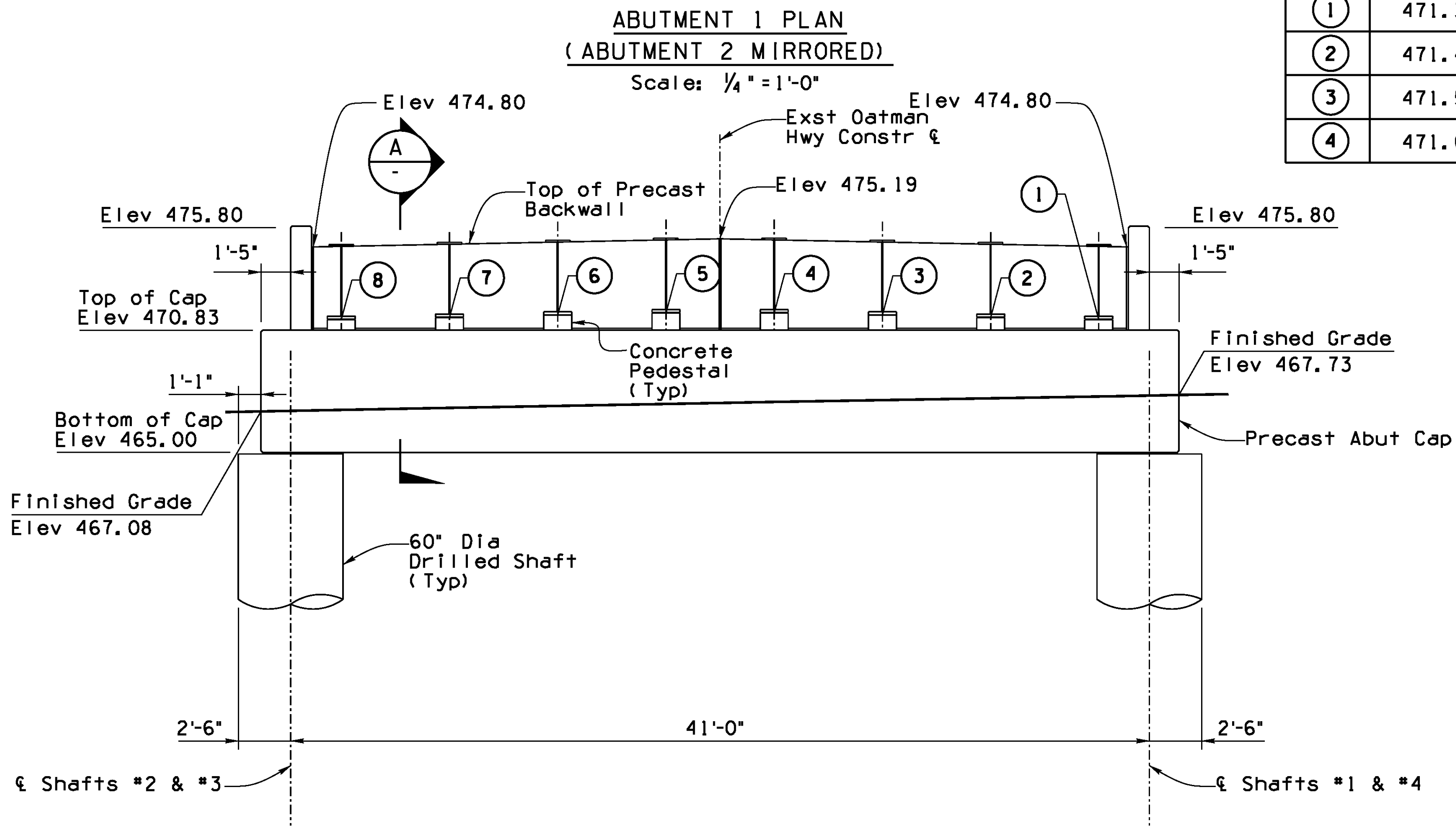
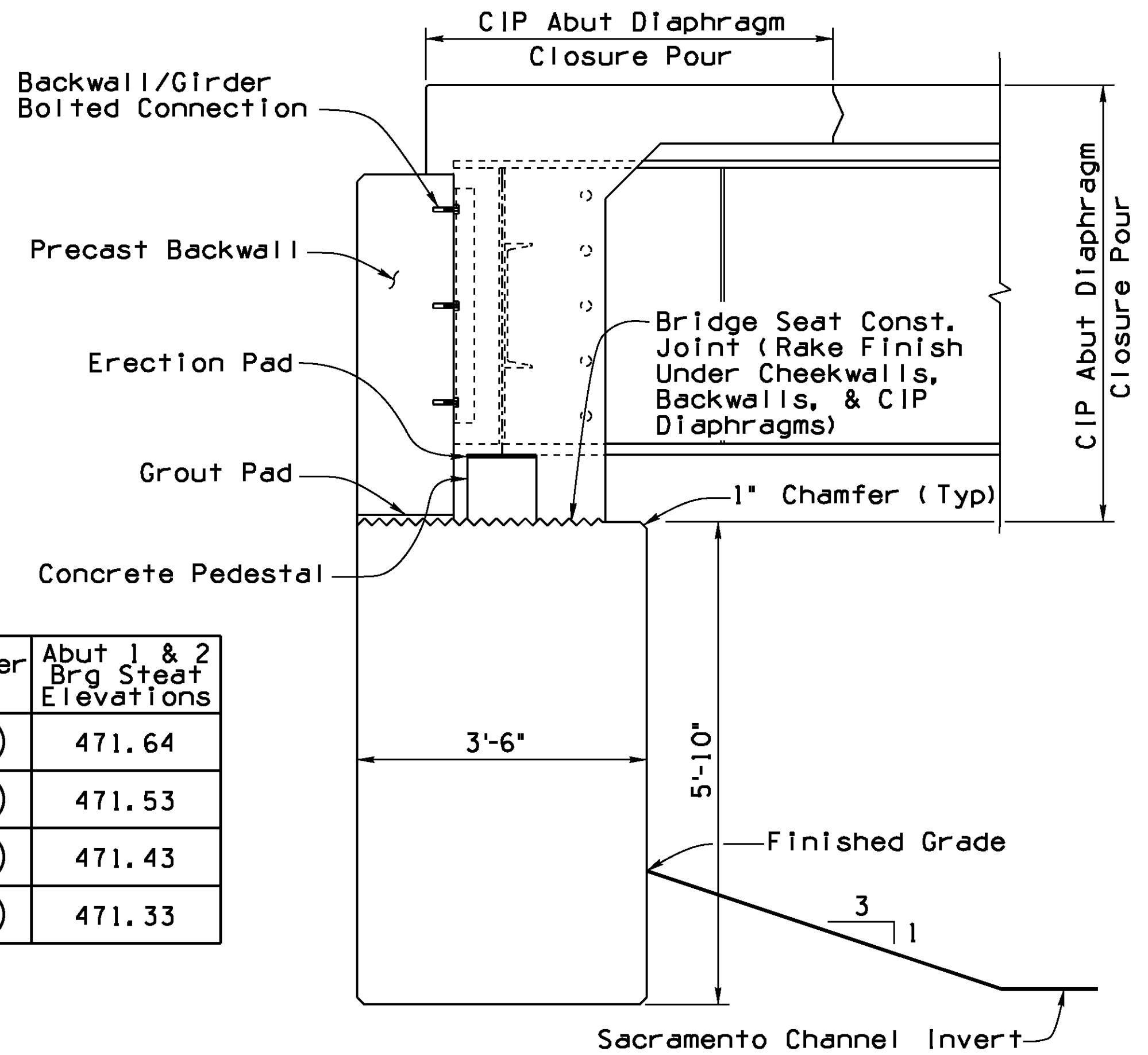


F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	49	76	

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Girder No.	Abut 1 & 2 Brg Seat Elevations	Girder No.	Abut 1 & 2 Brg Seat Elevations
①	471.33	⑤	471.64
②	471.43	⑥	471.53
③	471.53	⑦	471.43
④	471.64	⑧	471.33



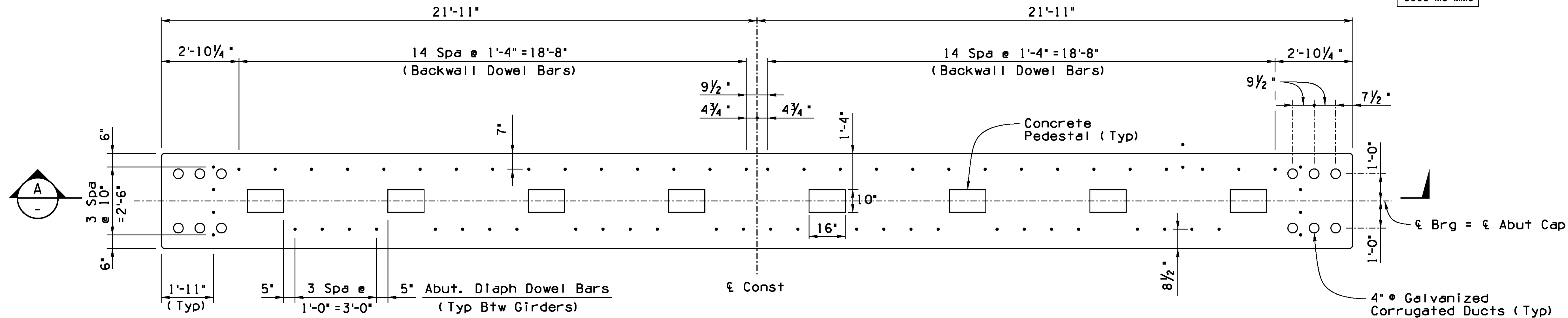
NOTES:

- Retaining walls not shown on this sheet for clarity.
- Brg seat elevations are at & brg top of concrete pedestal.
- Top of backwall elevations are at front face of backwall.
- ① Indicates & girder.

DESIGN		NAME		DATE		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN		RLH		07/16		Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC. STA 22+ SACRAMENTO CROSSING ABUTMENT PLAN AND ELEVATION LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
CHECKED		KJK		07/16			
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TRACS NO. T0021 01C				MMO-0(216)T		OF	

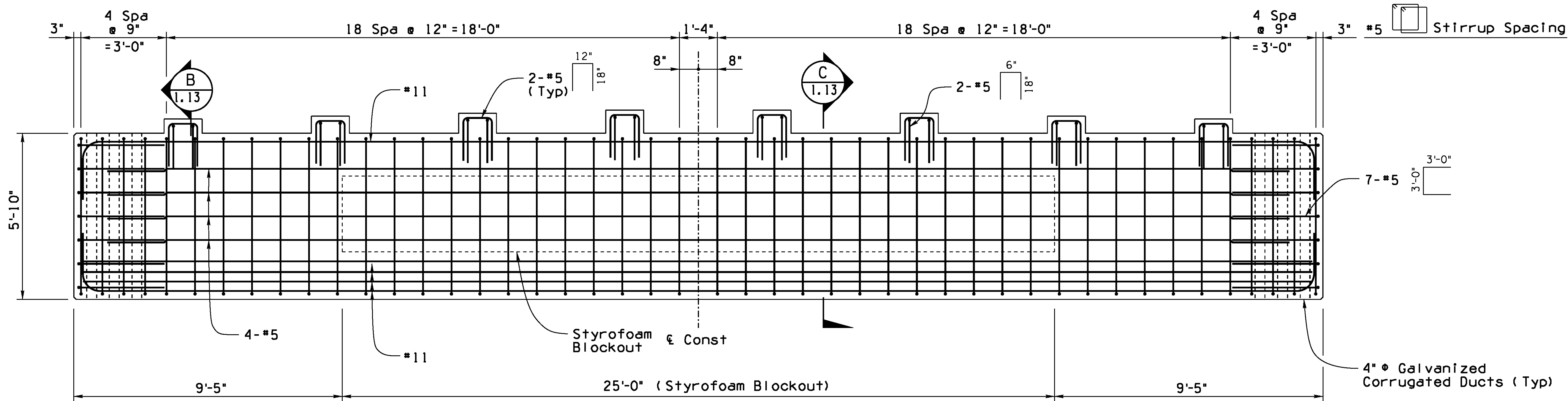
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	50	76	

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PRECAST ABUTMENT CAP PLAN

Scale: 1/2" = 1'-0"



SECTION A
Scale: 1/2" = 1'-0"

NOTE:

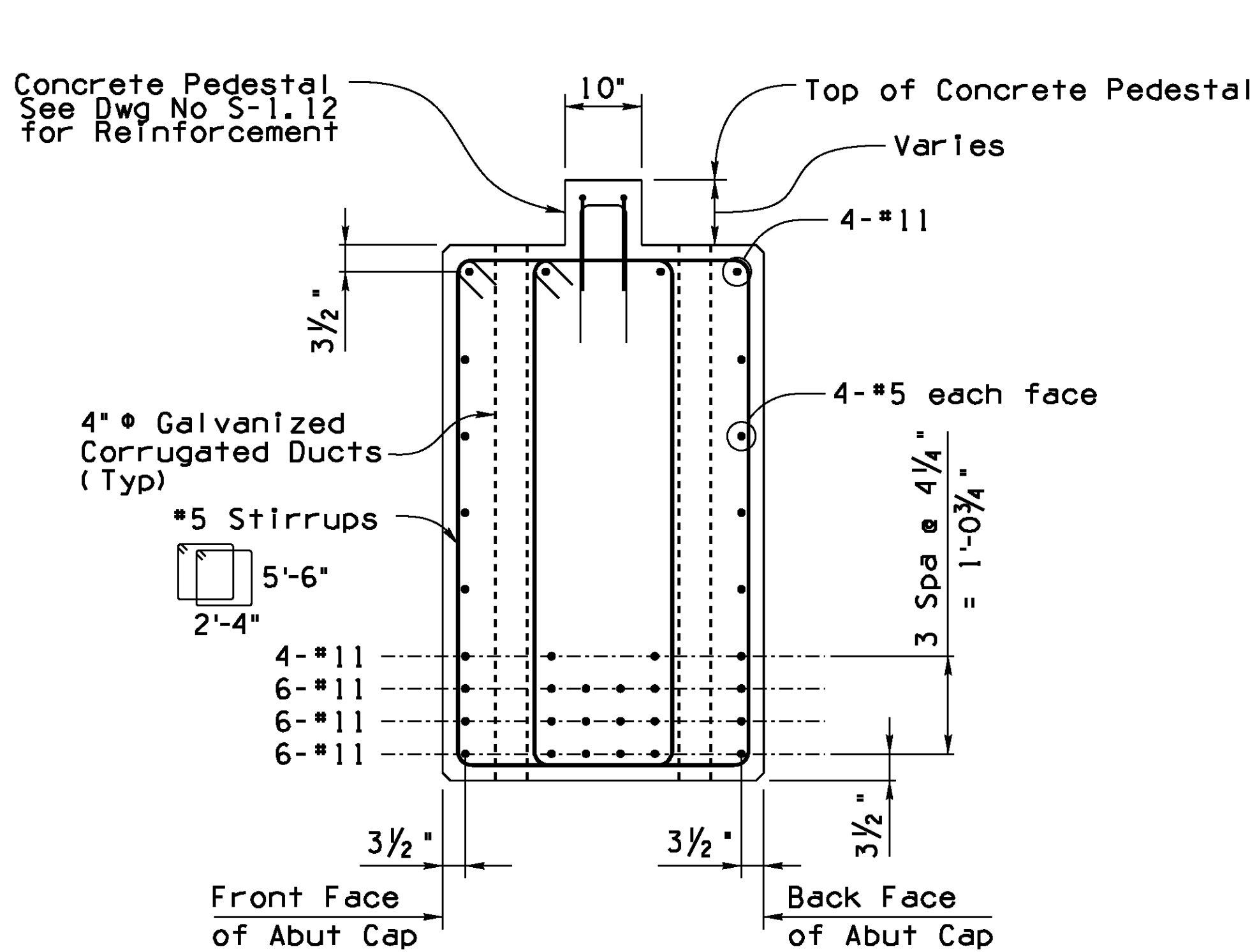
Backwall and Abut Diaphragm dowel bars not shown for clarity.

DESIGN	DJL	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
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CHECKED	KJK	DATE	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING ABUTMENT DETAILS I	DWG NO. S-1.12 OF
ROUTE	1.2	STRUCTURE NO.	11502	LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 01C			MMO-0(216)T		

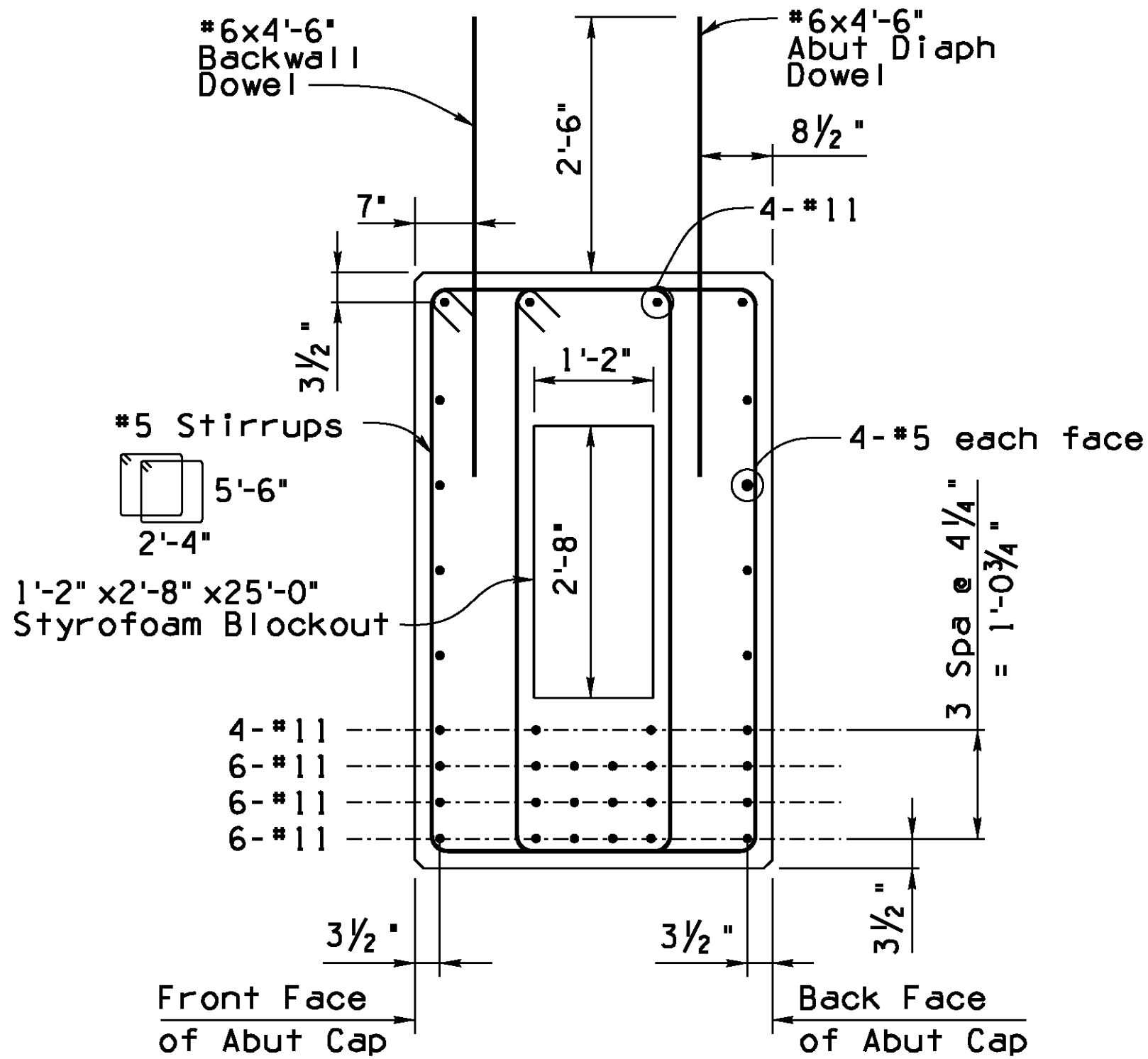
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NO. 2	DESCRIPTION OF REVISIONS	MADE BY <td>DATE</td>	DATE

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9	ARIZ.	MMO-0(216)T	51	76	

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SECTION **B**
Scale: $\frac{3}{4}" = 1'-0"$ 1.12



SECTION **C**
Scale: $\frac{3}{4}" = 1'-0"$ 1.12

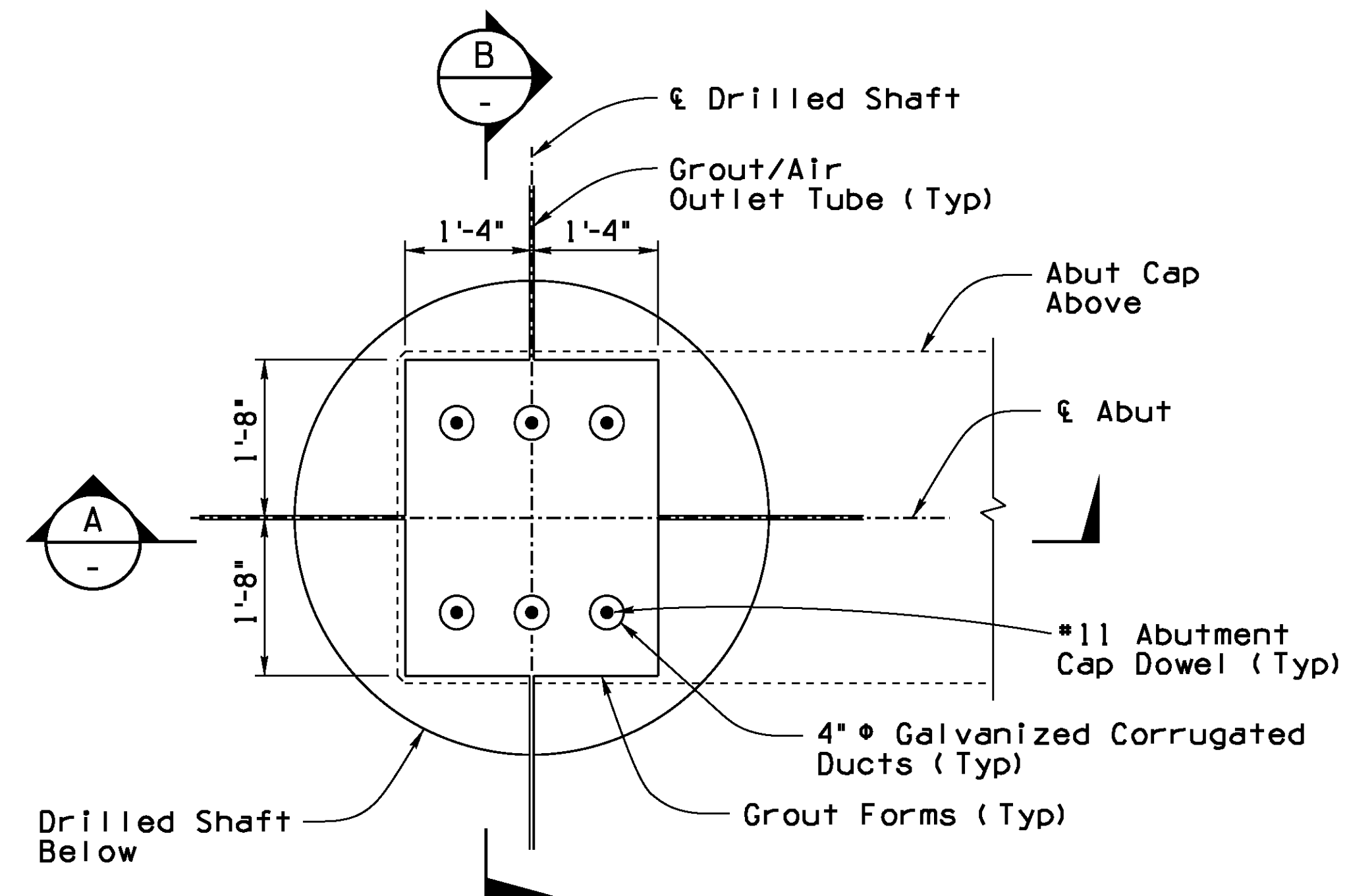
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CHECKED		KJK	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING ABUTMENT DETAILS 2	
ROUTE	1.2	11502	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO.	T0021	OIC	MMO-0(216)T	DWG NO. S-1.13	
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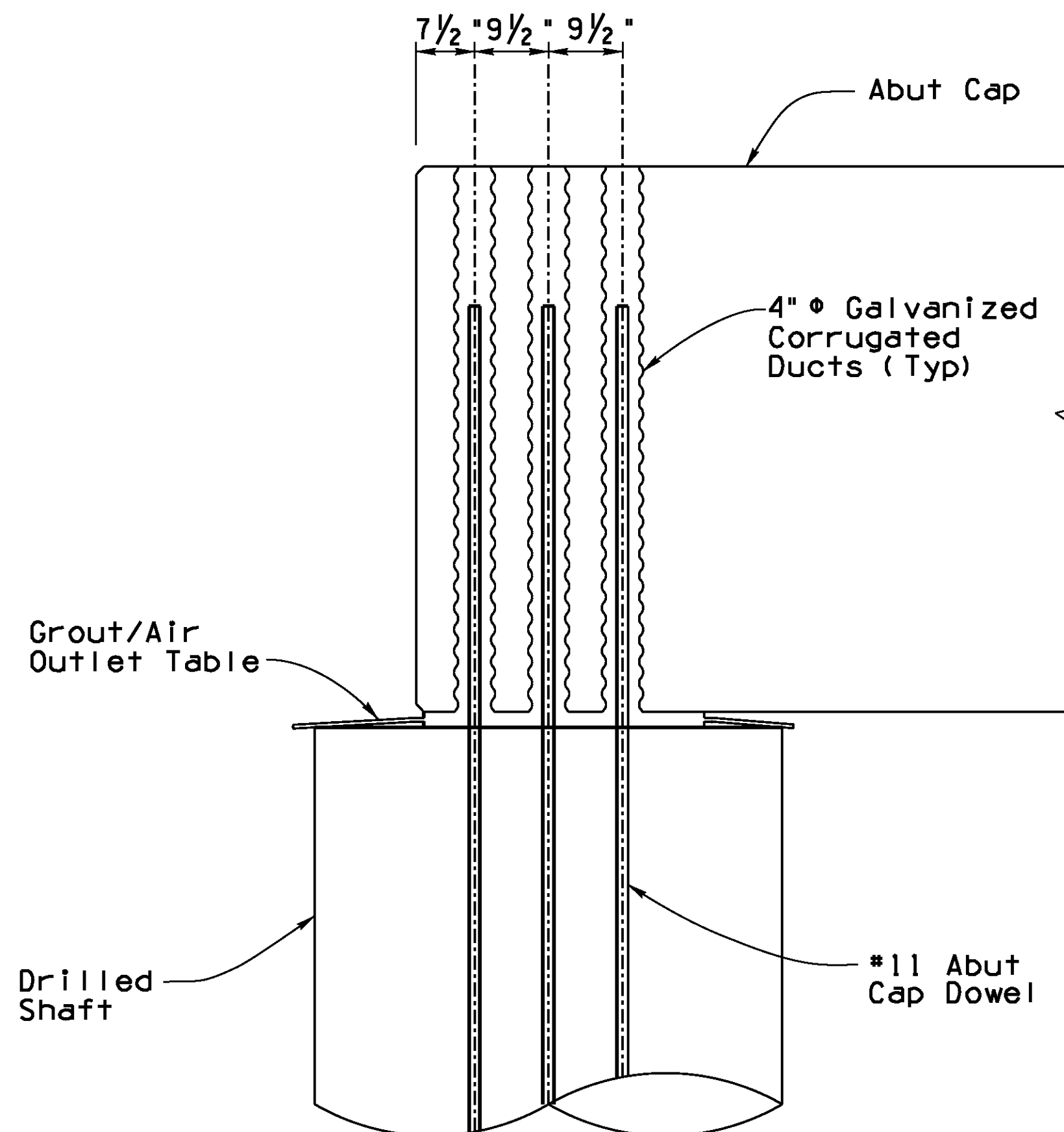
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9	ARIZ.	MMO-0(216)T	52	76	

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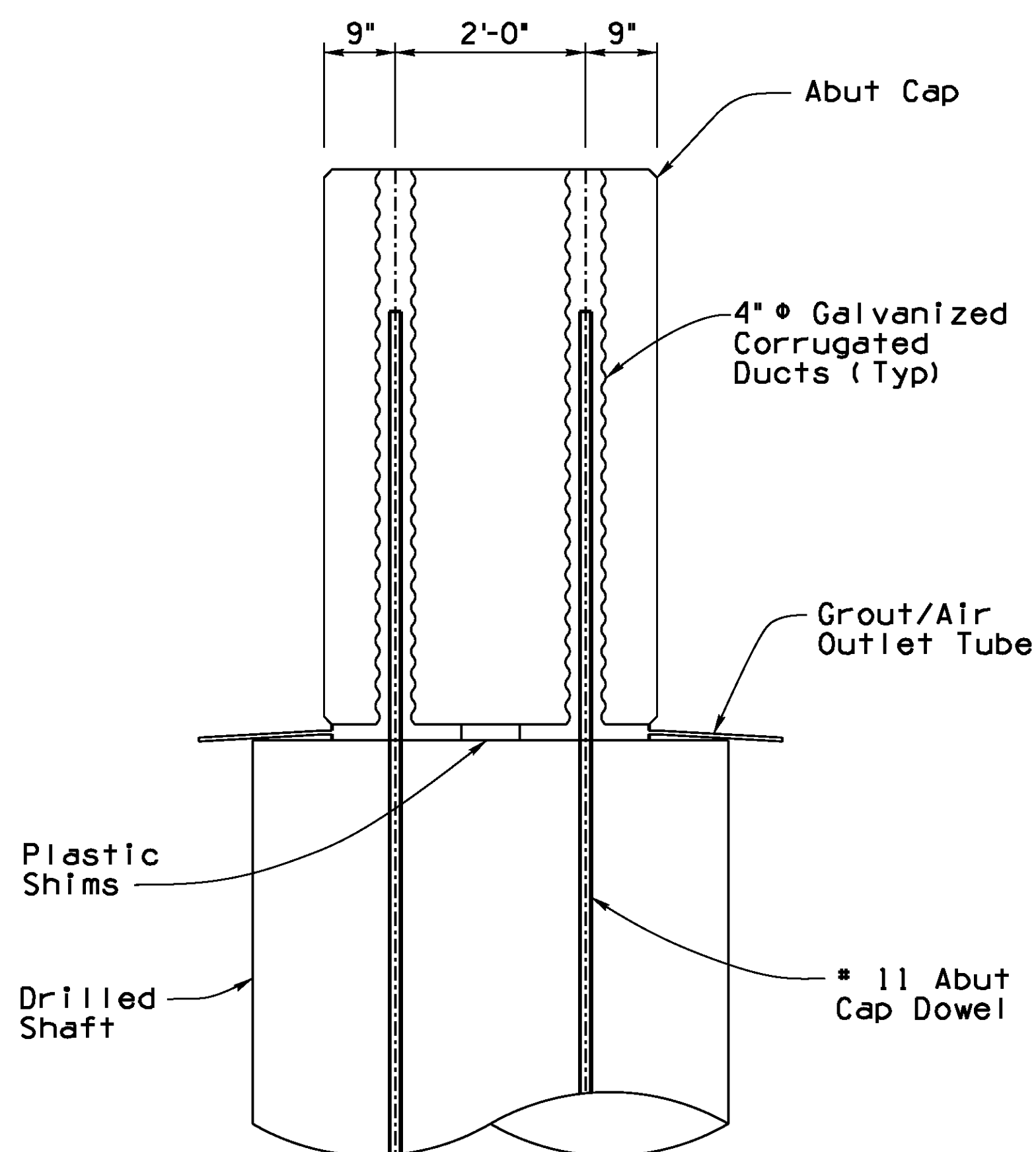
ABUTMENT CAP/DRILLED SHAFT PLAN

Scale: $\frac{3}{4}$ " = 1'-0"



SECTION A

Scale: $\frac{3}{4}$ " = 1'-0"



SECTION B

Scale: $\frac{3}{4}$ " = 1'-0"

GENERAL NOTES:

Abutment caps shall not be placed on drilled shafts until drilled shaft concrete has achieved it's full compressive strength. Use plastic shims to support the cap at the proper elevation prior to grouting. Total area of plastic shims used on top of each drilled shaft may not exceed 6 percent of the plan area to be grouted.

Surfaces in contact with grout must be clean and in a saturated, surface-dry condition, immediately prior to grouting. Provide water tight forms. Fill the forms with water and drain just prior to grouting. Ponding or free-standing water is not permitted. Use compressed air to blow out excess water.

Mix grout in accordance with the manufacturer's directions. Evidence of frothing, foaming, or segregation is cause for rejection. Transport grout from mixer to final location by wheel barrow, bucket or pumping. Trowel finish top surface of cap anchorage ducts flush with top of cap. When lifting loops are removed, remove them to a point 1" below cap surface.

Perform sampling and testing of grout by trained personnel at the Contractor's expense and while witnessed by the Engineer. Grouted connections must be free of voids.

Secure ducts to prevent their movement during concrete placement. Location tolerance of ducts is $\frac{1}{4}$ " from plan location, transversely and longitudinally. Seal ducts to prevent intrusion of concrete.

MATERIAL NOTES:

Provide a grout conforming to the Project Special Provisions.

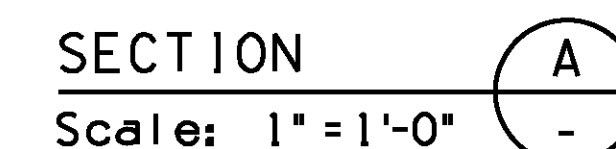
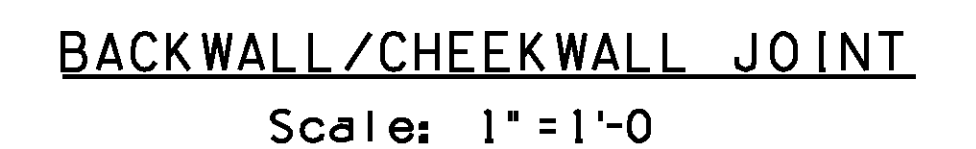
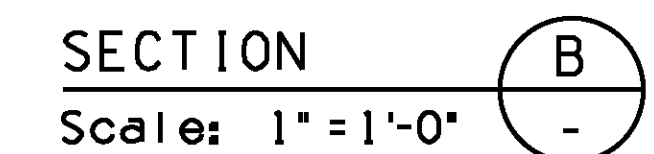
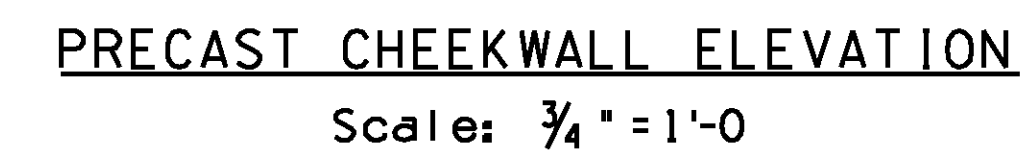
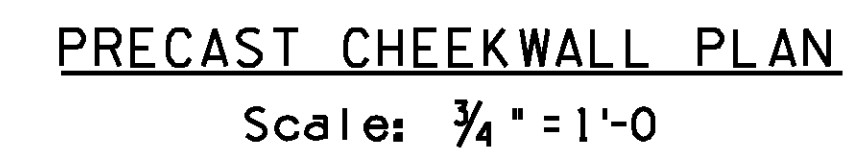
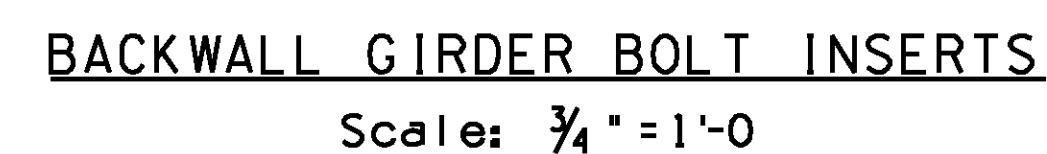
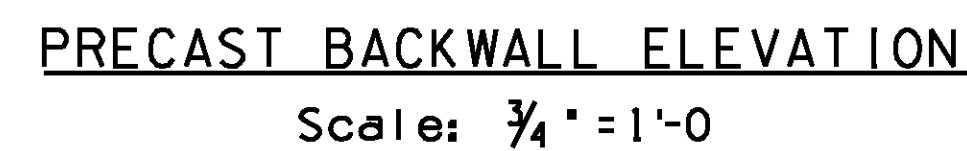
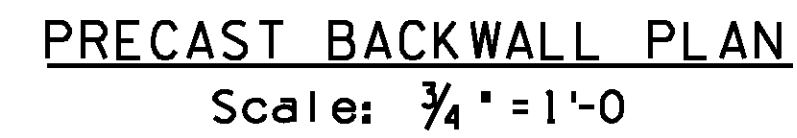
Use semi-rigid spirally crimped, corrugated duct of galvanized, cold rolled steel conforming to ASTM A 653. Corrugations shall have a minimum amplitude of 0.094".

Grout tubes and forms must be approved by the Engineer prior to grouting.

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CHECKED	KJK	DATE	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING ABUTMENT DETAILS 3	
OLD US 66 ROUTE	1.2 MILEPOST	11502 STRUCTURE NO.	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 01C				MMO-0(216)T	
				DWG NO. S-1.14 OF	



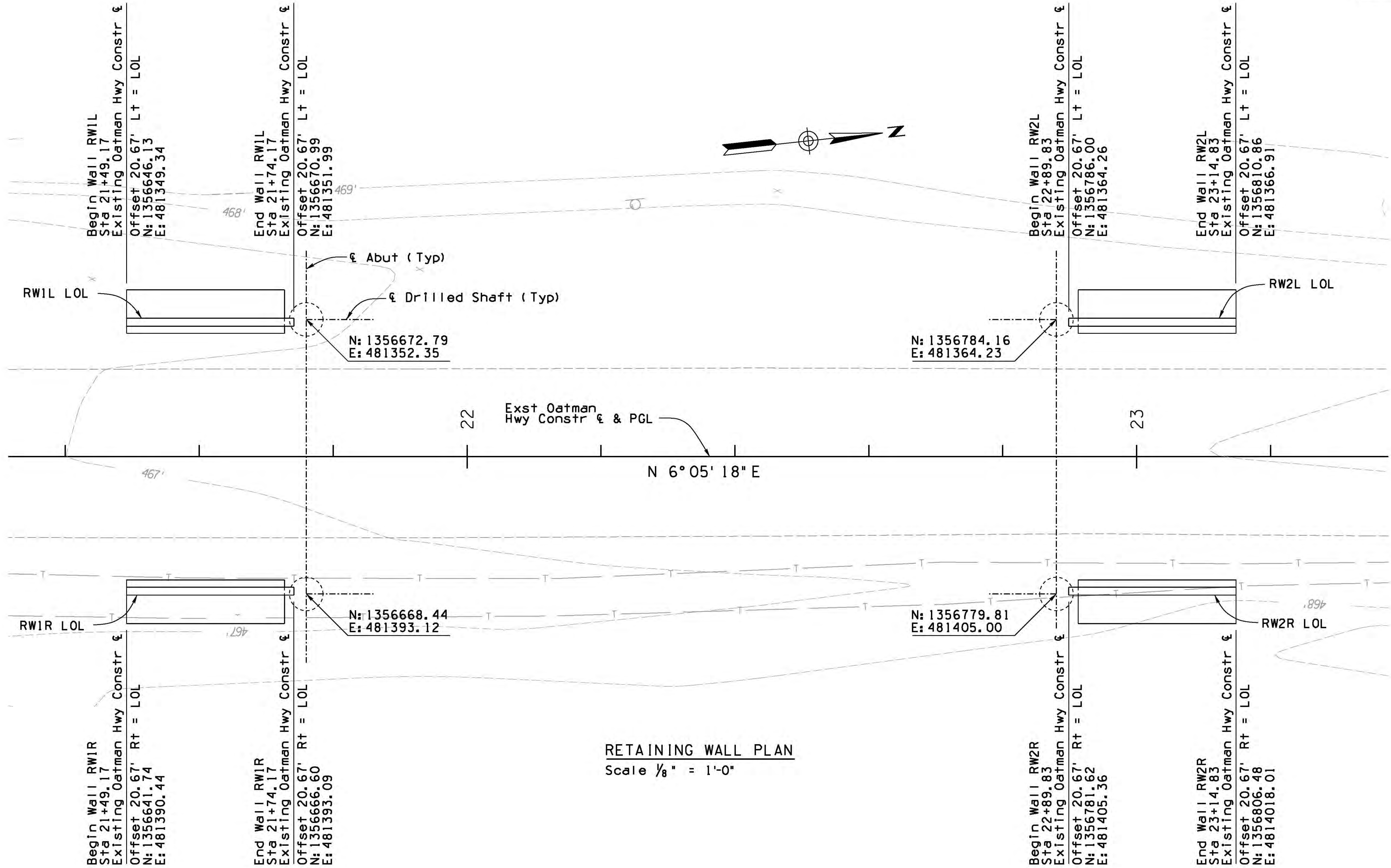
0000	MO	MMO
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NO.1	DESCRIPTION OF REVISIONS	MADE BY	DATE
NO.2	DESCRIPTION OF REVISIONS	MADE BY	DATE

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	54	76	

0000 MO MMO



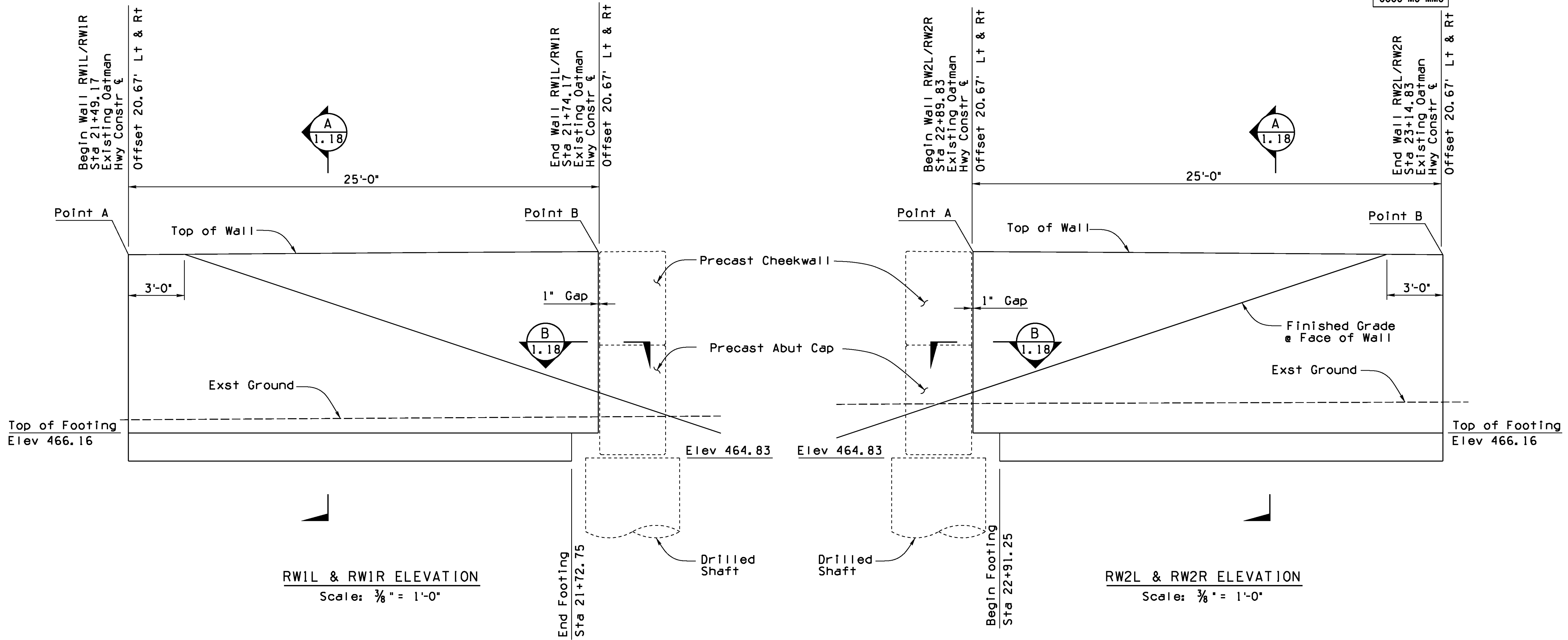
RETAINING WALL PLAN

Scale 1/8" = 1'-0"

DESIGN		NAME		DATE		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STA 22+ SACRAMENTO CROSSING RETAINING WALL PLAN LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		
DRAWN		RLH		07/16				
CHECKED		KJK		07/16				
		ROUTE 66		MILEPOST 1.2		STRUCTURE NO. 11502		DWG NO. S-116 OF
TRACS NO. T0021 OIC		MMO-0(216)T						

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	55	76	

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RW1L & RW1R ELEVATION
Scale: 3/8" = 1'-0"

RW2L & RW2R ELEVATION
Scale: 3/8" = 1'-0"

GEOMETRIC CONTROL						
	Point A			Point B		
	Northing	Easting	Elev	Northing	Easting	Elev
RW1L	1356646.13	481349.34	475.63	1356670.99	481351.99	475.79
RW1R	1356641.74	481390.44	475.63	1356666.60	481393.09	475.79
RW2L	1356786.00	481364.26	475.79	1356810.86	481366.91	475.63
RW2R	1356781.62	481405.36	475.79	1356806.48	481408.01	475.63

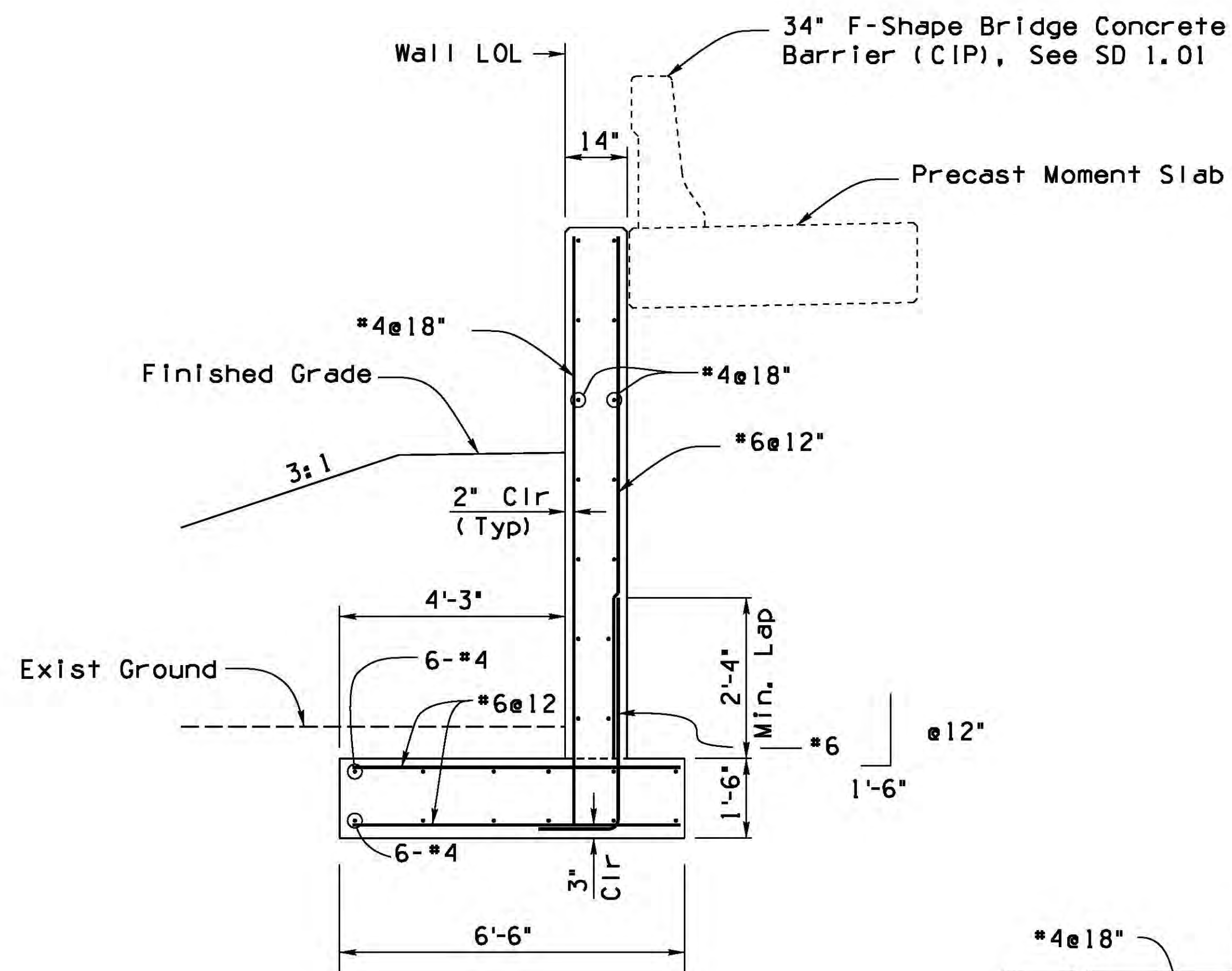
NOTE
Barrier not shown for clarity.

DESIGN		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN		DJL	07/16		
CHECKED		RLH	07/16		
CHECKED		KJK	07/16	STA 22+ SACRAMENTO CROSSING RETAINING WALL ELEVATION	
Kimley»Horn		LOCATION		OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
OLD US 66		1.2	11502	DWG NO. S-1.17	
ROUTE		MILEPOST	STRUCTURE NO.		
TRACS NO. T0021 01C				MMO-0(216)T	

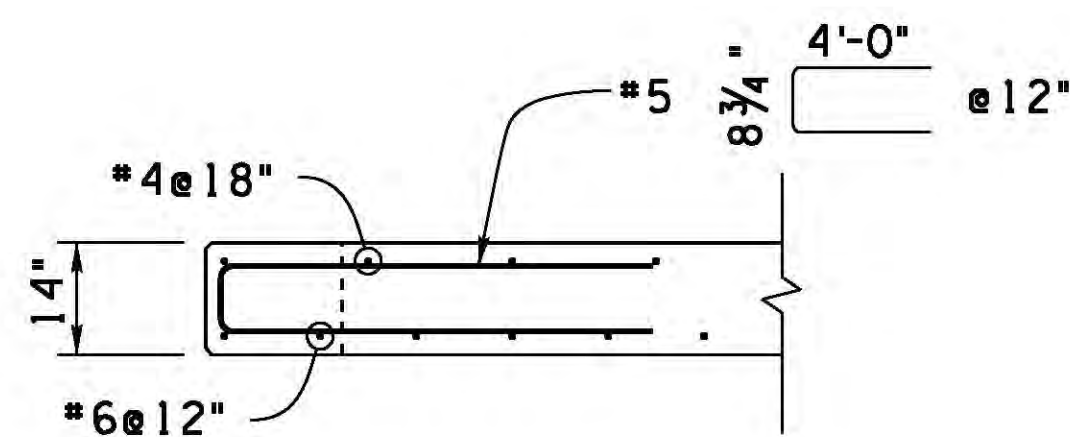


F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	56	76	

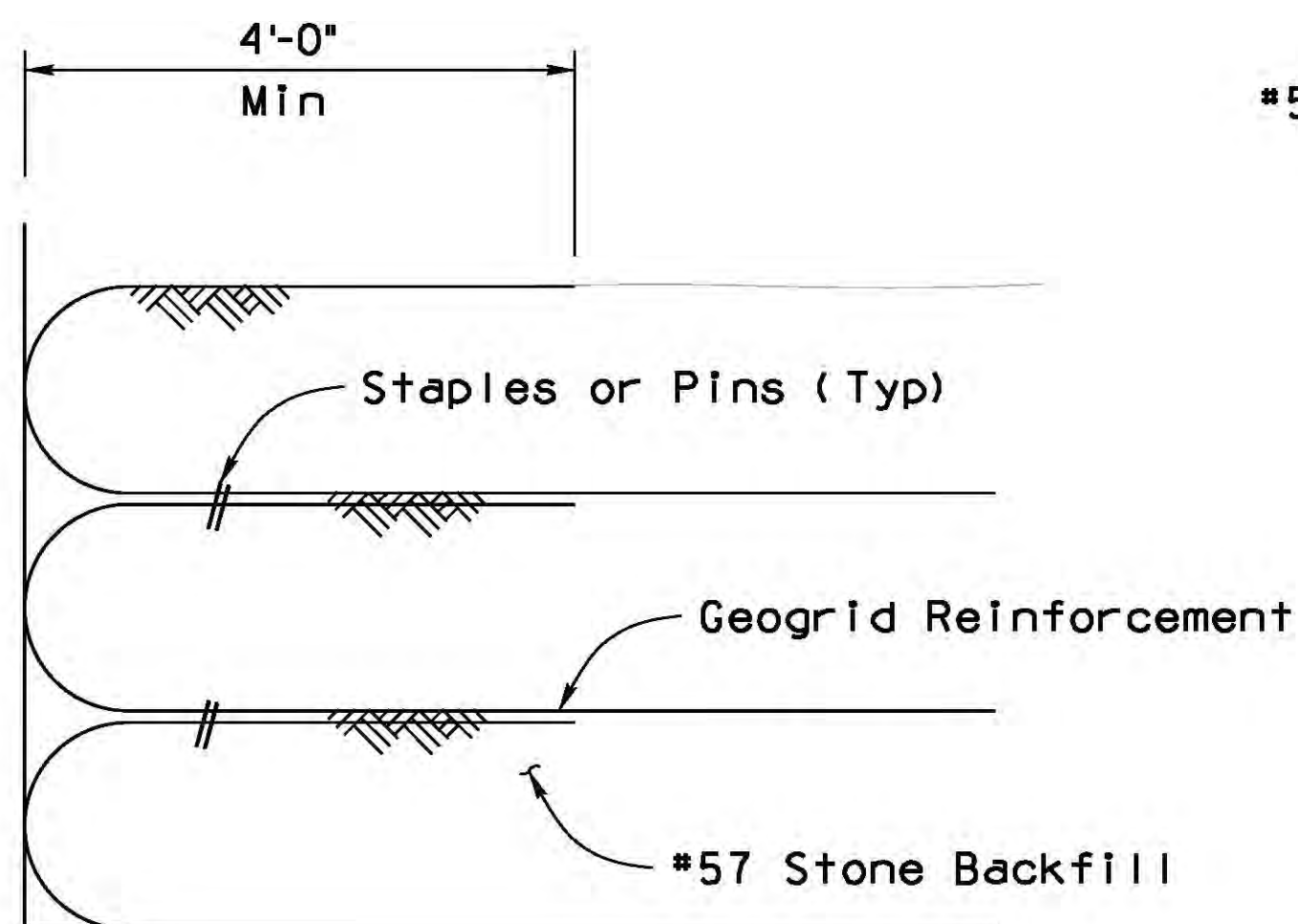
0000 MO MMO



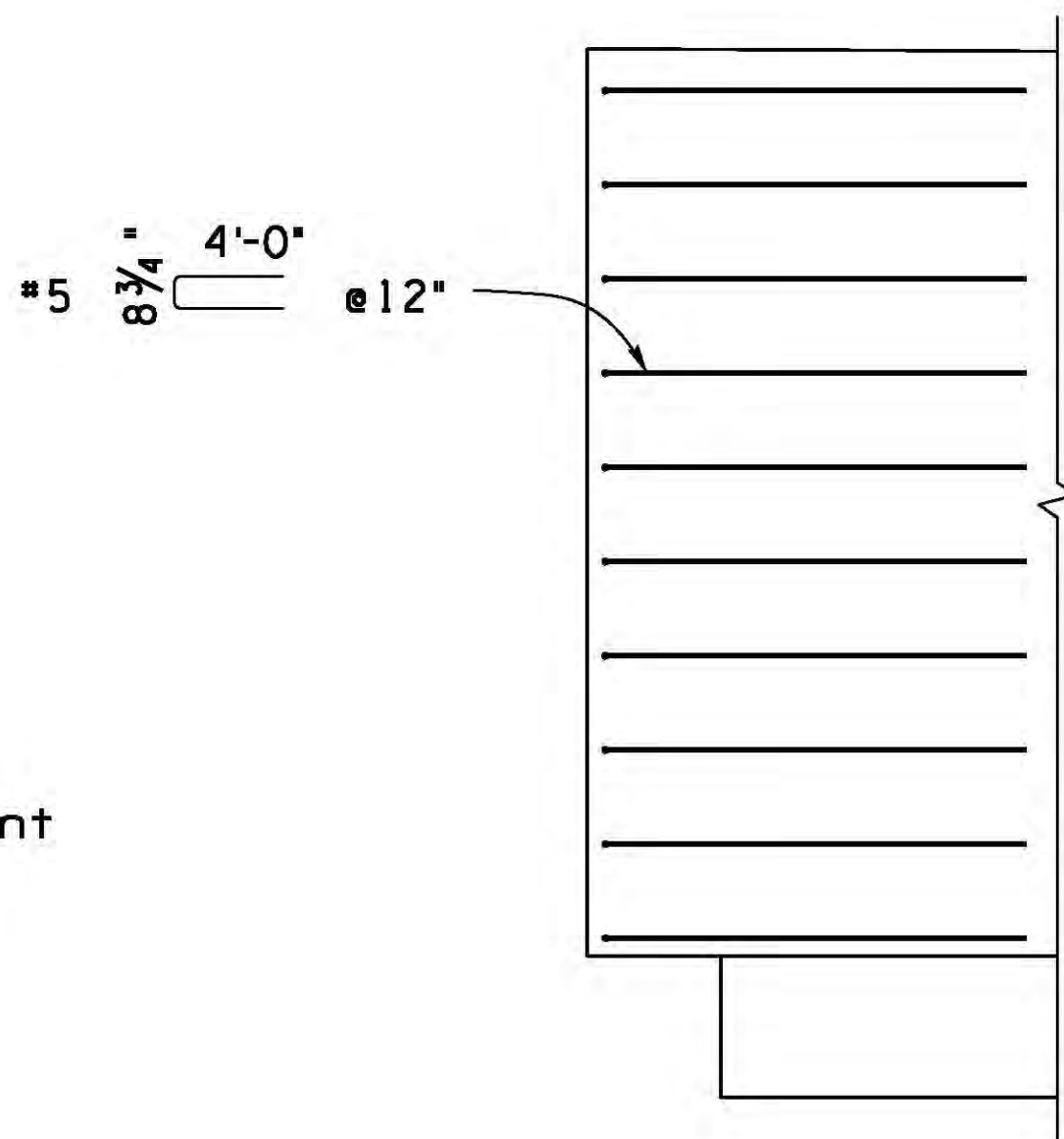
SECTION A
Scale: 1/2" = 1'-0"



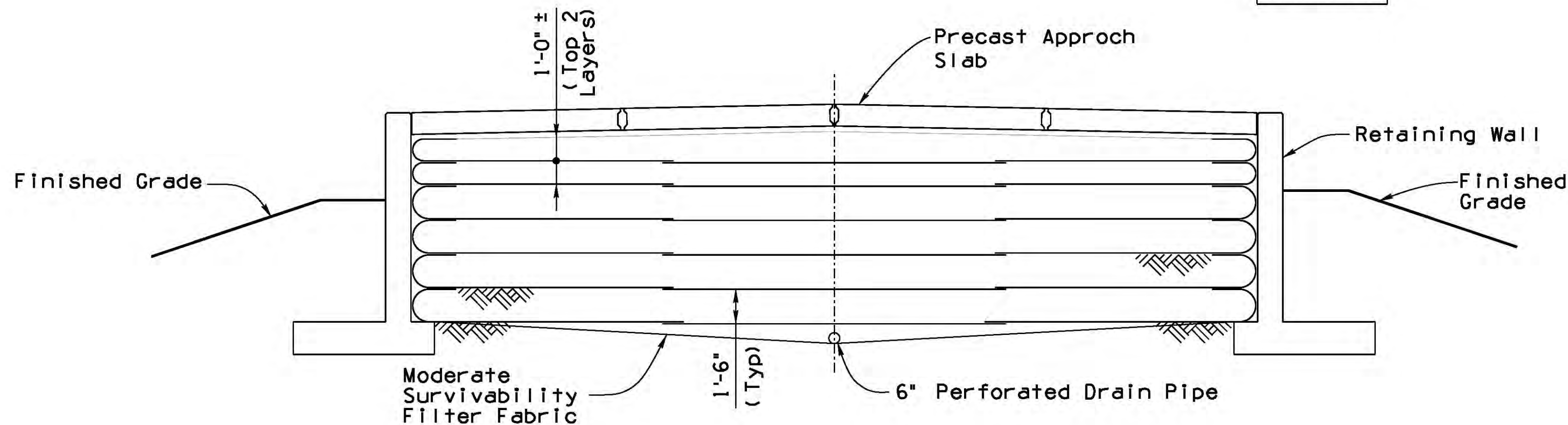
SECTION B
Scale: 1/2" = 1'-0"



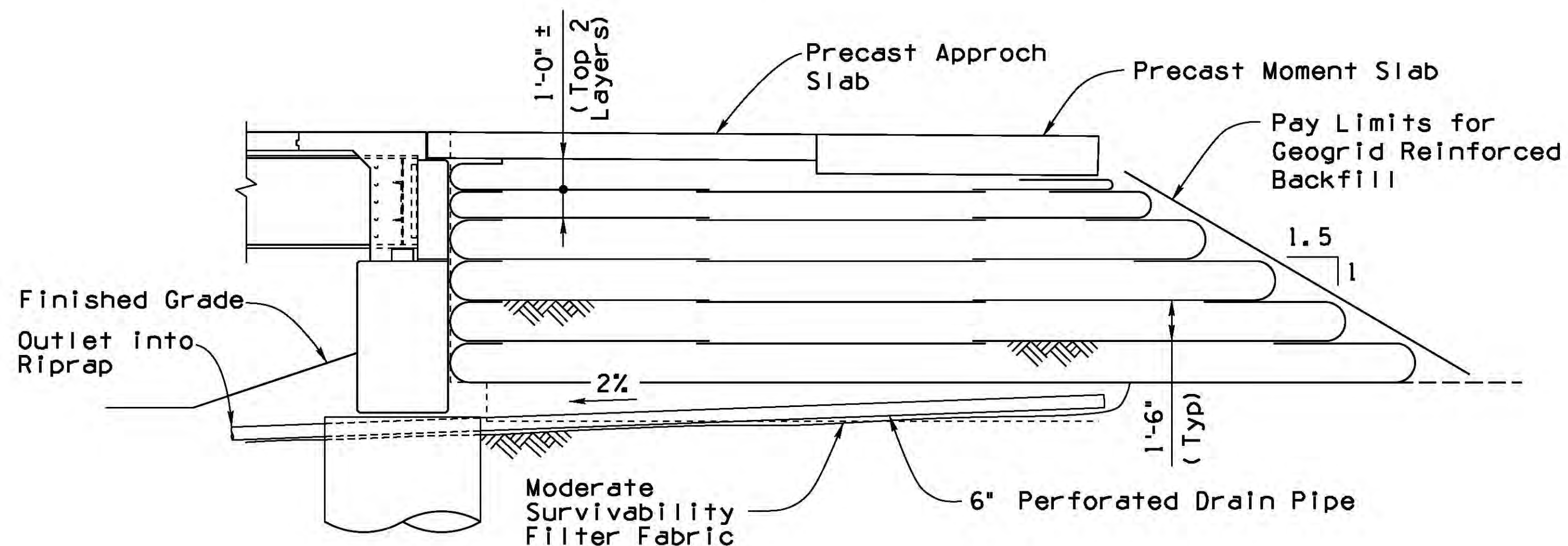
GEOGRID WRAP DETAIL
Scale: 3/4" = 1'-0"



RETAINING WALL ADDITIONAL REINFORCEMENT DETAIL
Scale: 1/2" = 1'-0"



GEOGRID REINFORCED BACKFILL SECTION (BARRIER NOT SHOWN)
Scale: 1/4" = 1'-0"



GEOGRID REINFORCED BACKFILL ELEVATION
Scale: 1/4" = 1'-0"

NOTES:

Concrete for Retaining Walls shall be Class 'S', $f_{uc} = 3.0$ ksi.

Geogrid Reinforcement shall be placed by alternating Machine Direction (MD) with Cross Machine Direction (XD) from layer to layer.

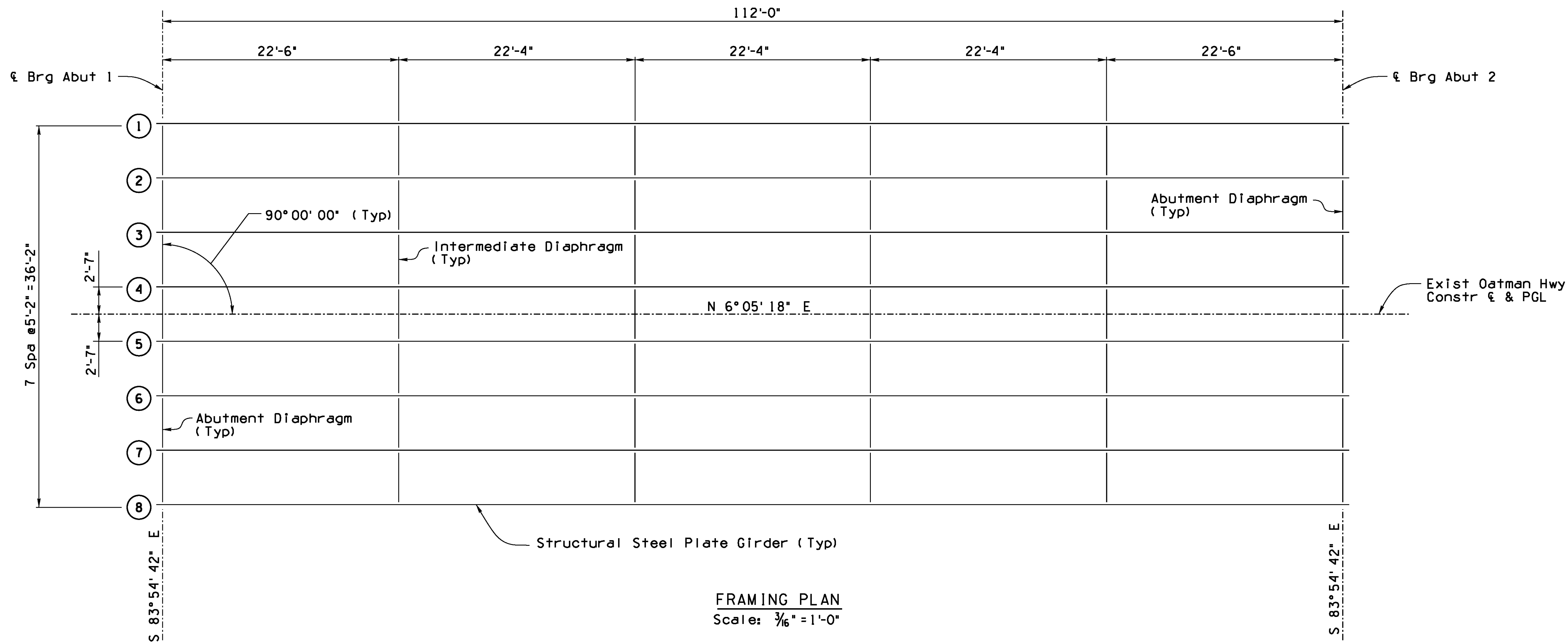
The Geogrid Reinforcement wrap at Back Face of Abutment shall be pulled back slack free with its end anchored to soil underneath with staples or pins.

Minimum splice of all Geogrid shall consist of 6" of overlap.

DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP
DJL		07/16	
DRAWN	NAME	DATE	STA 22+ SACRAMENTO CROSSING RETAINING WALL & BACKFILL DETAILS
RLH		07/16	
CHECKED	NAME	DATE	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING
KJK		07/16	
Kimley-Horn	11502	1.2	TRACS NO. T0021 OIC
OLD US ROUTE	MILEPOST	STRUCTURE NO.	MMO-0(216)T
66	1.2	11502	
			DWG NO. S-1.18
			OF

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	57	76	

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FRAMING PLAN
Scale: 3/16" = 1'-0"

NOTES:

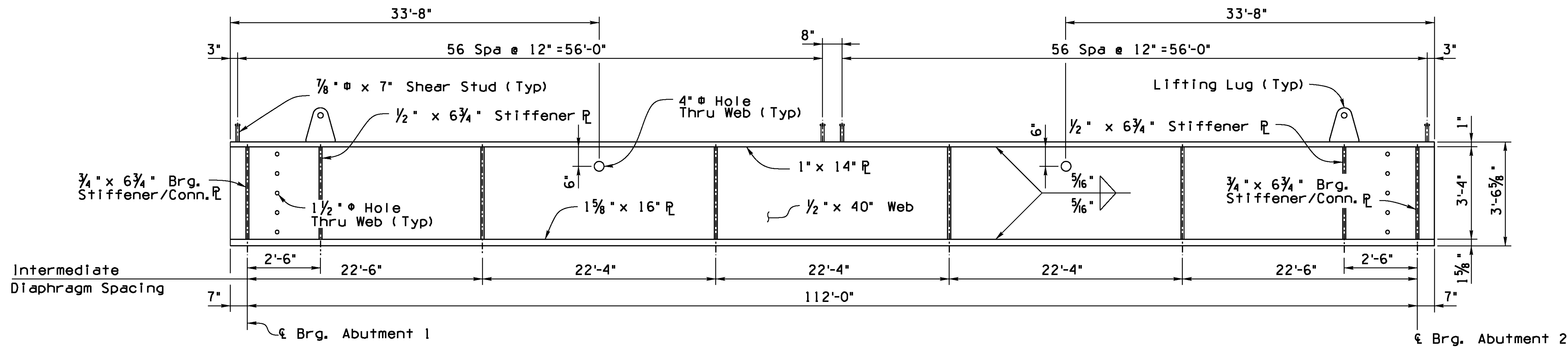
1. See Dwg No S-1.20 for Structural Steel Plate Girder Details.
2. See Dwg. No. S-1.25 for Abutment Diaphragm and Intermediate Diaphragm Details.

DESIGN	DJL	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN	RLH	DATE	07/16		
CHECKED	KJK	DATE	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING FRAMING PLAN	
OLD US 66 ROUTE	1.2 MILEPOST	11502 STRUCTURE NO.	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 01C			MMO-0(216)T		DWG NO. S-1.19 ____ OF ____

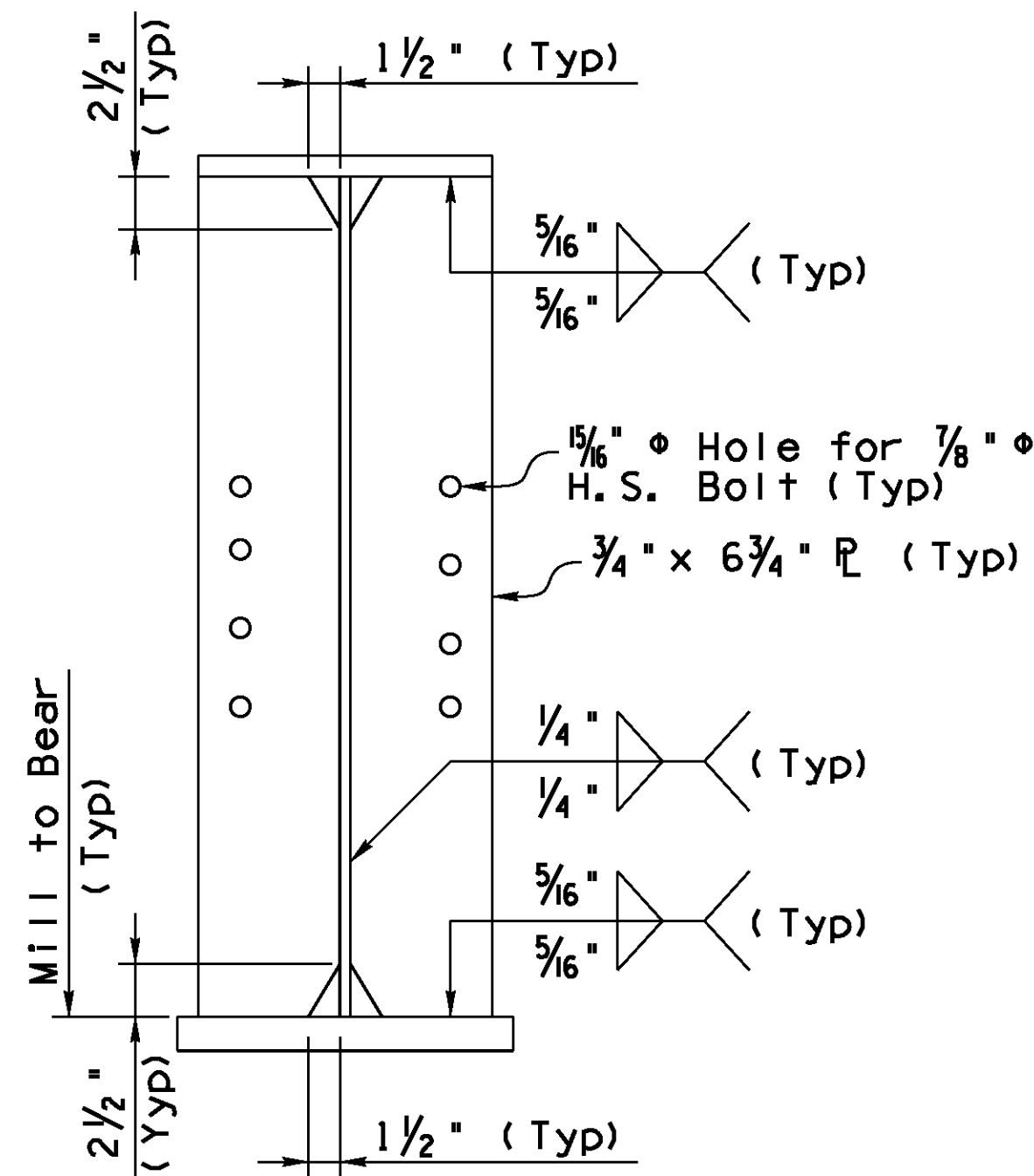


F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	58	76	

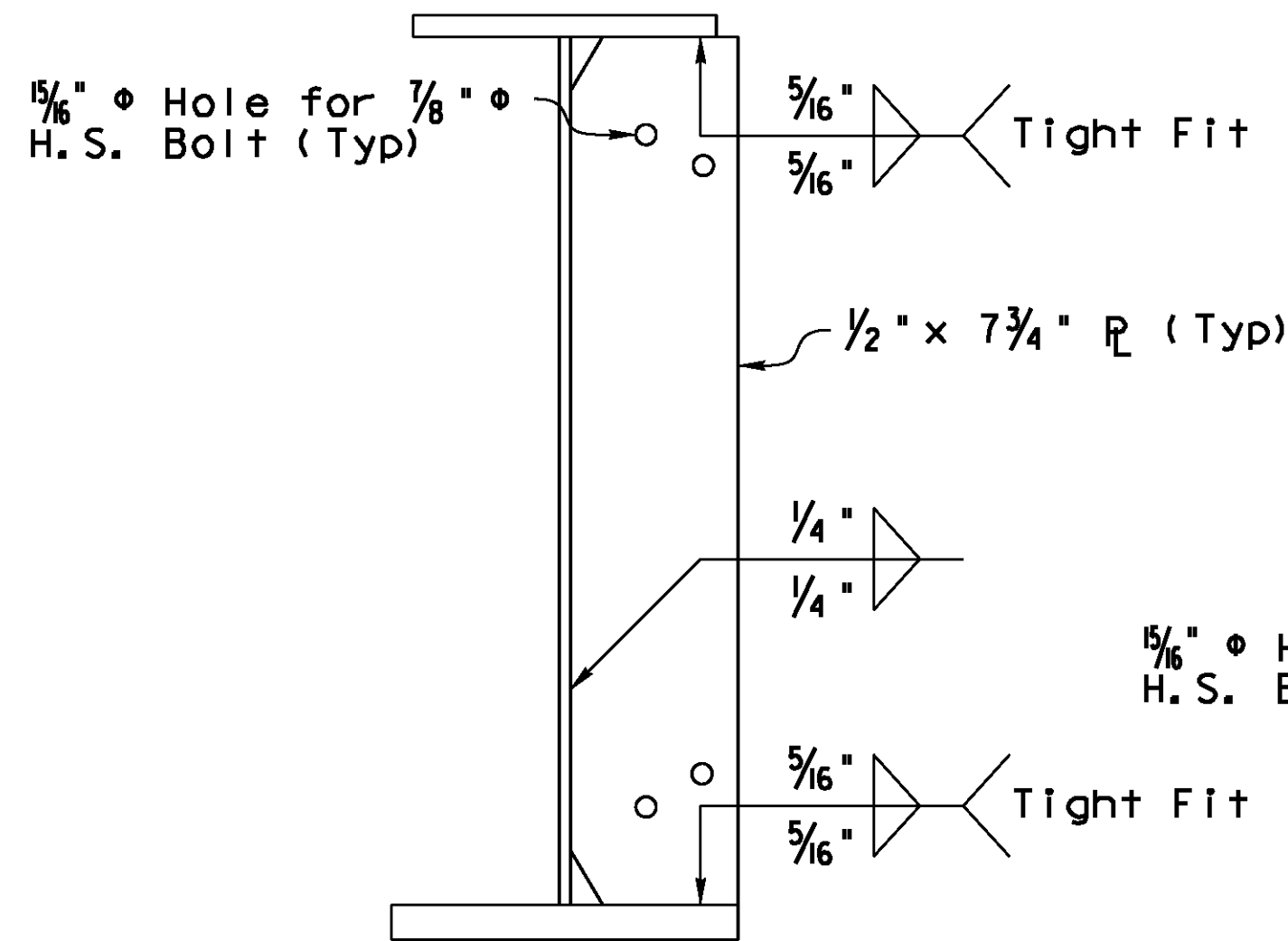
0000 MO MMO



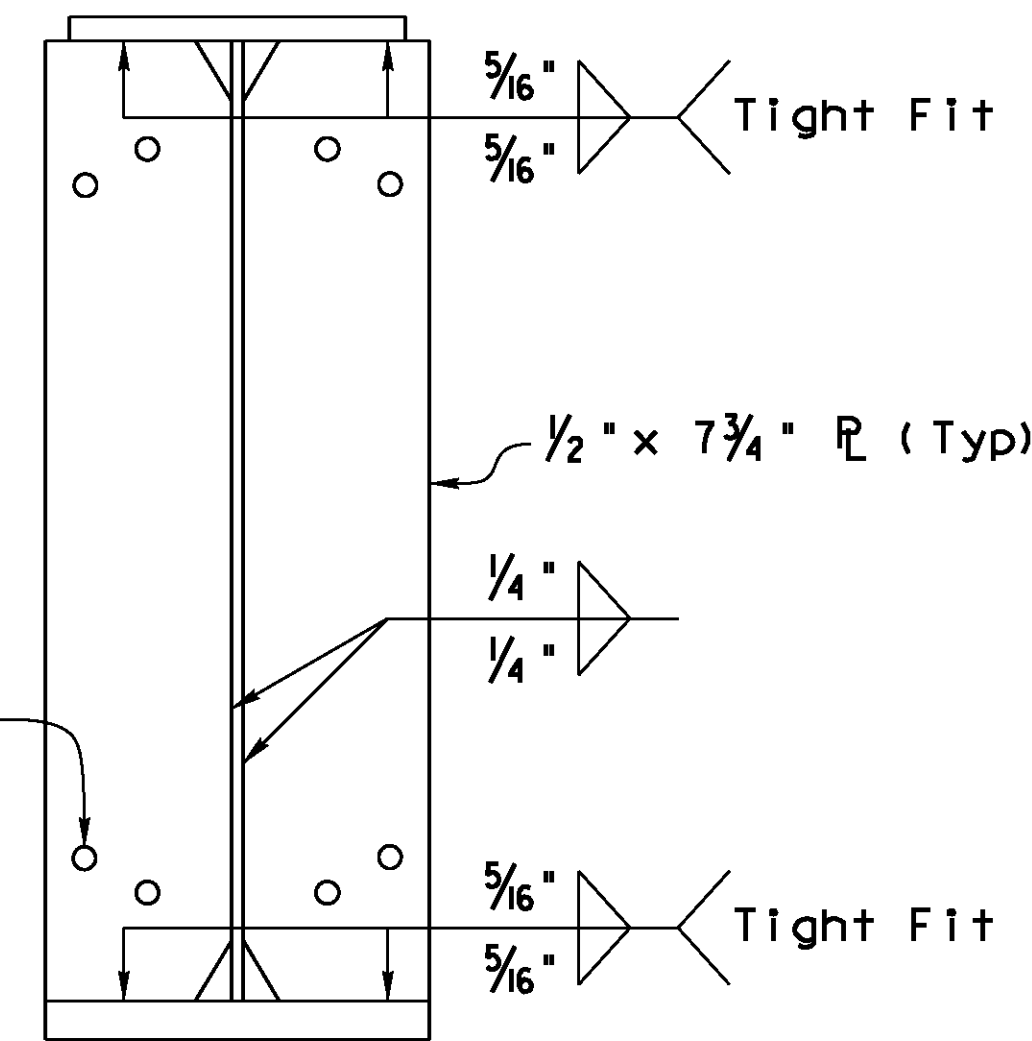
GIRDER ELEVATION
N. T. S.



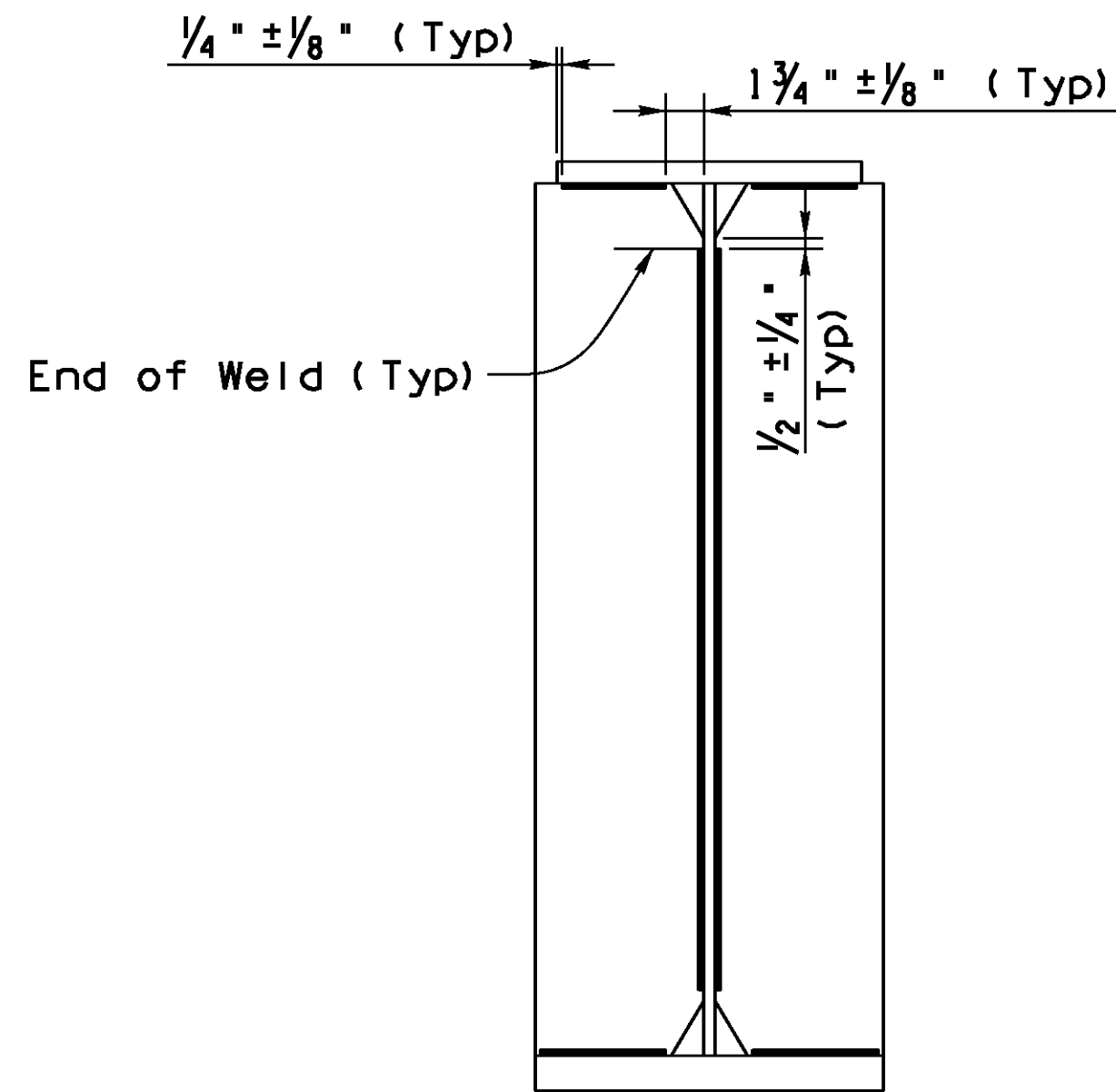
BEARING STIFFENER/CONNECTION PL
@ ABUTMENTS
Scale: 1 1/2" = 1'-0"



INTERMEDIATE DIAPHRAGM
CONNECTION PL (EXTERIOR GIRDER)
Scale: 1 1/2" = 1'-0"



INTERMEDIATE DIAPHRAGM
CONNECTION PL (INTERIOR GIRDER)
Scale: 1 1/2" = 1'-0"



WELD TERMINATION DETAILS
Scale: 1 1/2" = 1'-0"

NOTES:

- See Dwg No. S-1.25 for additional diaphragm details and bolt hole layouts in connection plates.

DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN	RLH	07/16	STA 22+ SACRAMENTO CROSSING GIRDER ELEVATION & DETAILS	
CHECKED	KJK	07/16	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	DWG NO. S-1.20
TRACS NO.	T0021 OIC		MMO-0(216)T	OF

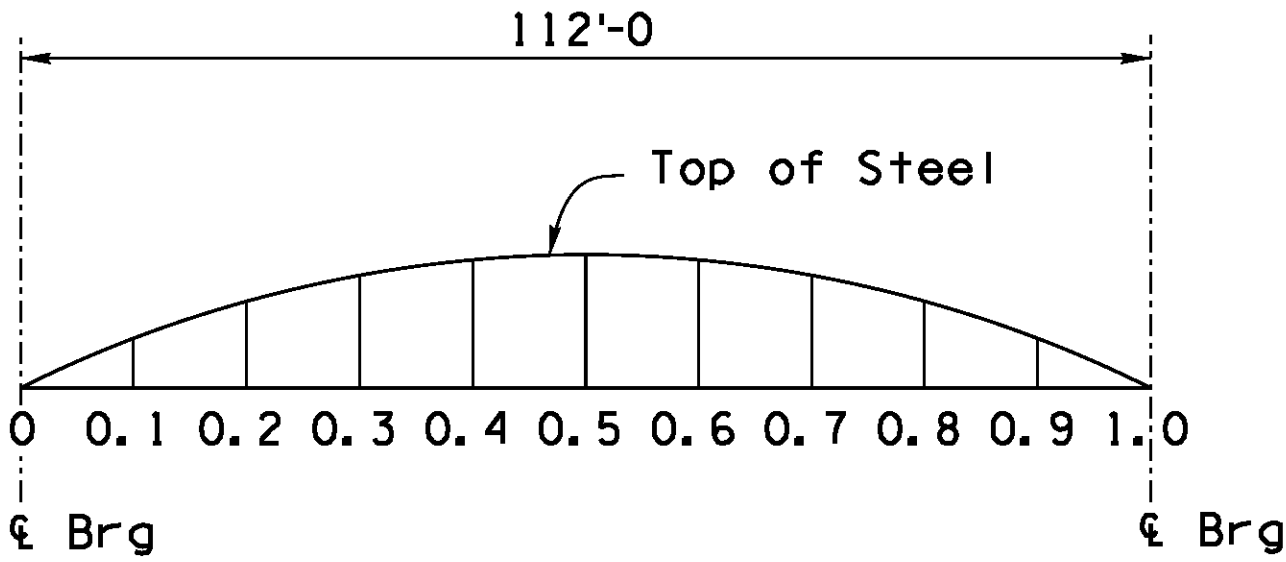
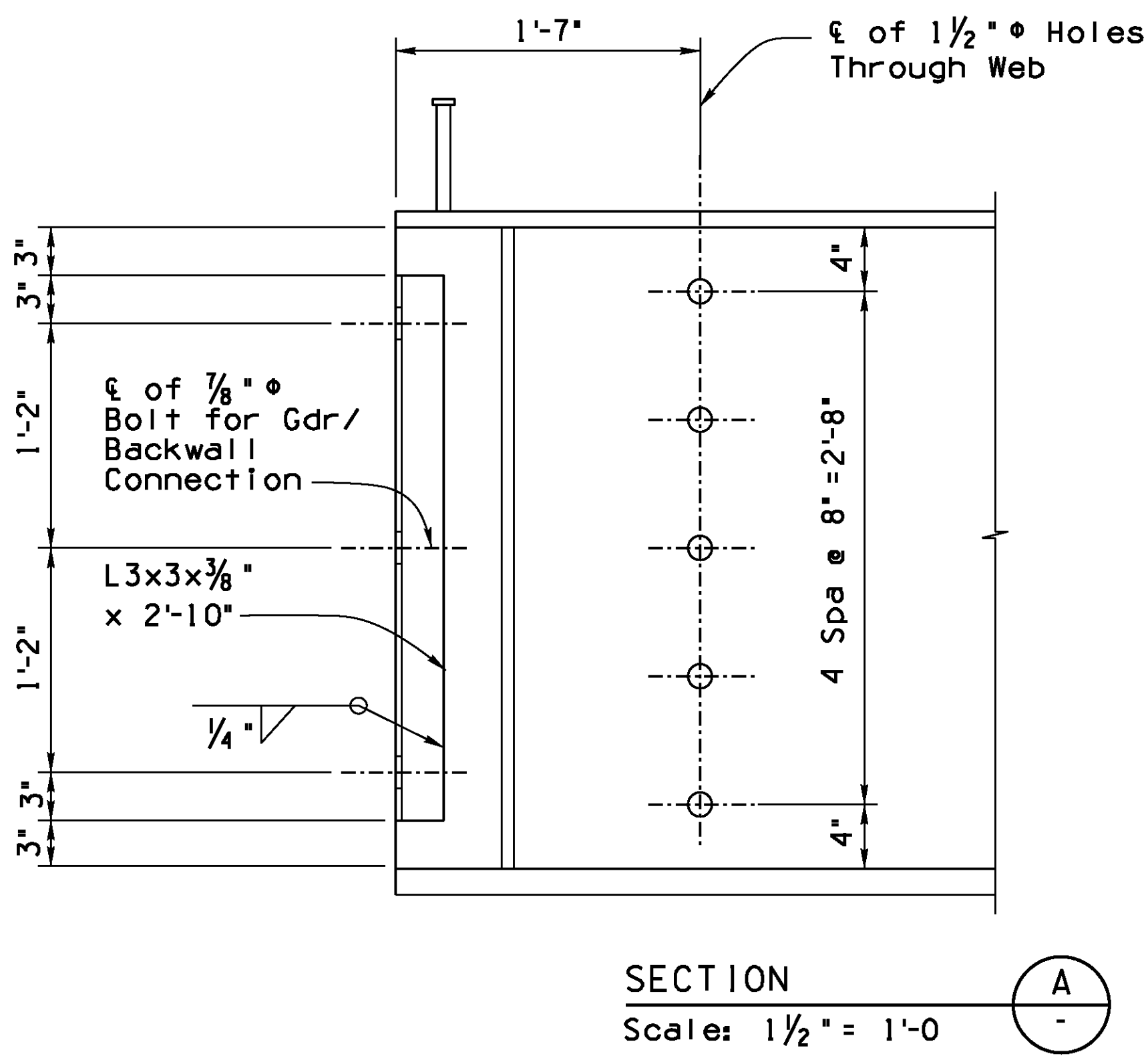
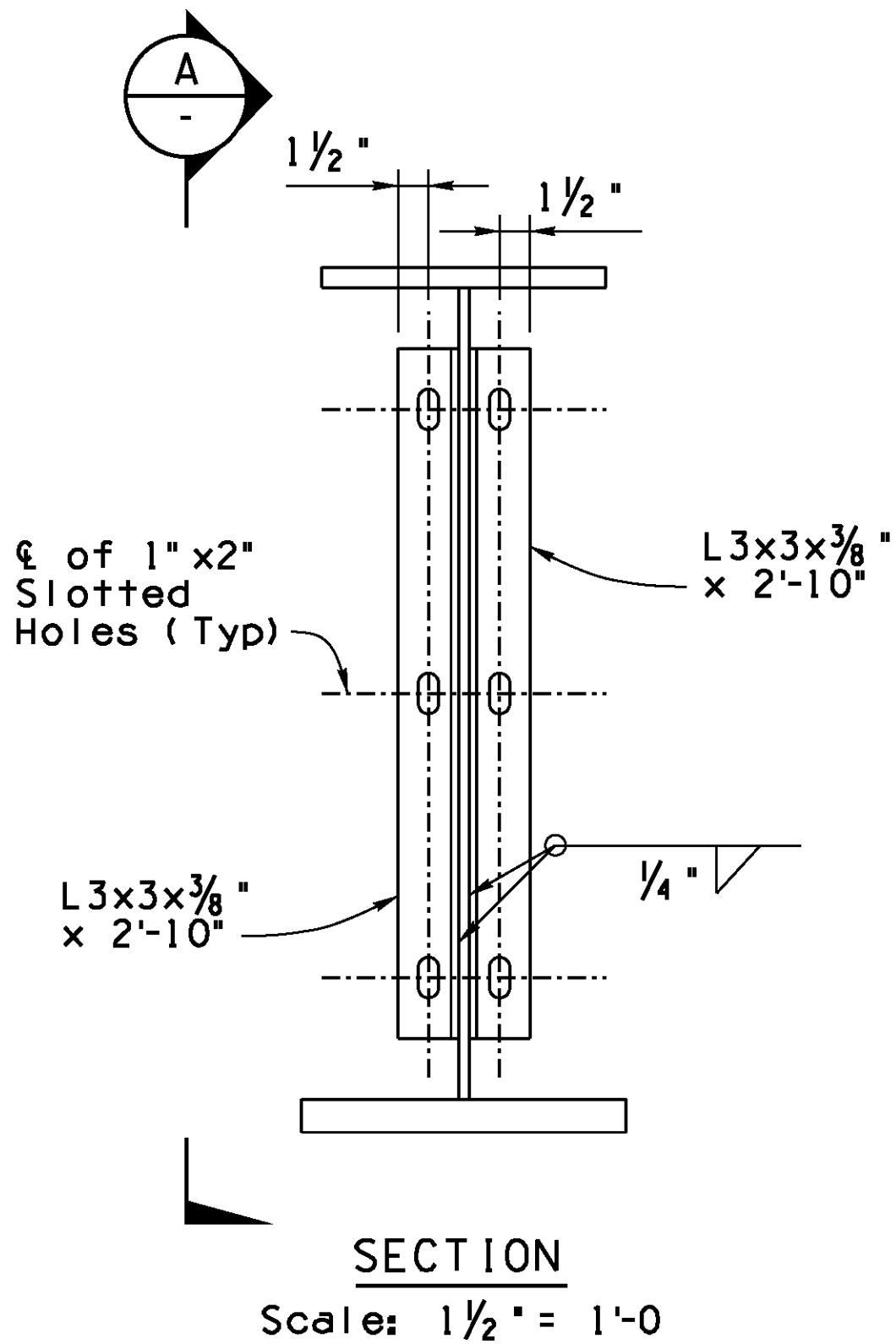
NO.1 DESCRIPTION OF REVISIONS
MADE BY
DATE
NO.2 DESCRIPTION OF REVISIONS
MADE BY
DATE
NO.3 DESCRIPTION OF REVISIONS
MADE BY
DATE

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	59	76	

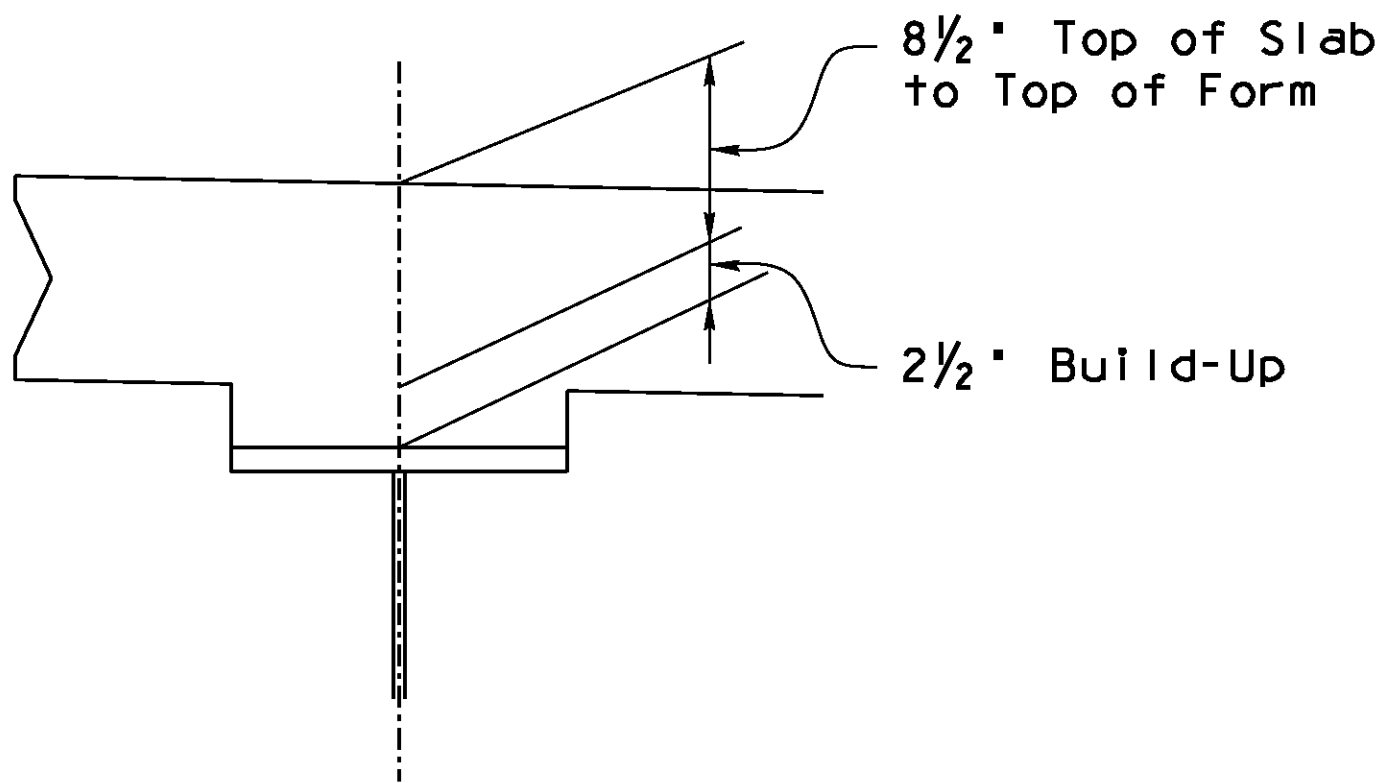
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CAMBER TABLE GIRDERS 1, 2, 7 & 8 (INCHES)											
Deflections	£ Brg	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	£ Brg
Steel Weight	0.451	0.451	0.853	1.168	1.368	1.436	1.368	1.168	0.853	0.451	0.451
Deck Weight	0.925	0.925	1.751	2.397	2.807	2.948	2.807	2.397	1.751	0.925	0.925
Comp. Dead Load	0.207	0.207	0.390	0.534	0.626	0.657	0.626	0.534	0.390	0.207	0.207
Vertical Curve	0.632	0.632	1.124	1.475	1.686	1.756	1.686	1.475	1.124	0.632	0.632
Total Camber	2.215	2.215	4.118	5.574	6.486	6.797	6.486	5.574	4.118	2.215	2.215

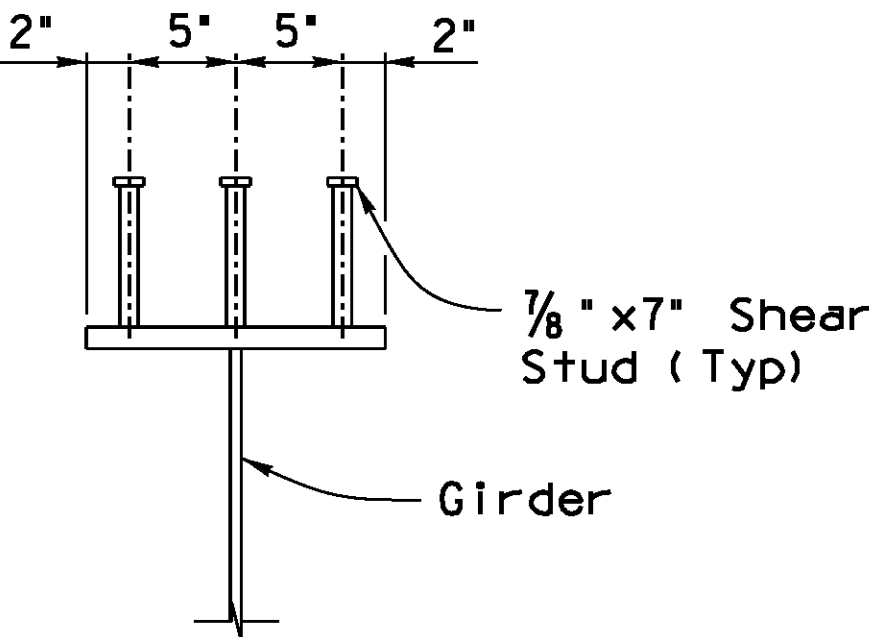
CAMBER TABLE GIRDERS 3, 4, 5 & 6 (INCHES)											
Deflections	£ Brg	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	£ Brg
Steel Weight	0.451	0.451	0.853	1.168	1.368	1.436	1.368	1.168	0.853	0.451	0.451
Deck Weight	0.925	0.925	1.751	2.397	2.807	2.948	2.807	2.397	1.751	0.925	0.925
Comp. Dead Load	0.207	0.291	0.550	0.753	0.882	0.926	0.882	0.753	0.550	0.291	0.207
Vertical Curve	0.632	0.632	1.124	1.475	1.686	1.756	1.686	1.475	1.124	0.632	0.632
Total Camber	2.215	2.299	4.278	5.793	6.743	7.066	6.743	5.793	4.278	2.299	2.215



CAMBER DIAGRAM
Not to Scale



TYPICAL GIRDER BUILD-UP
Not to Scale



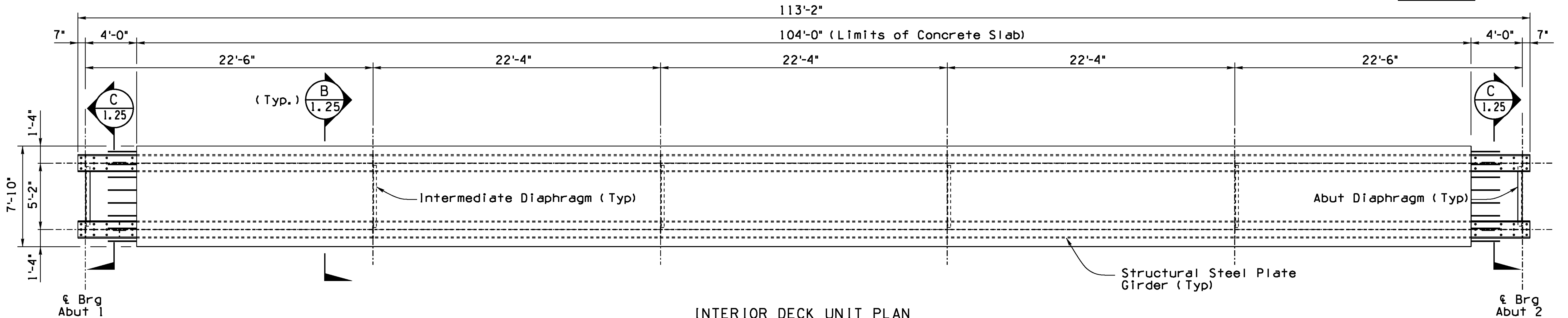
SHEAR STUD DETAIL
Not to Scale

NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP		
DESIGN	DJL	07/16	Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.		
DRAWN	RLH	07/16			
CHECKED	KJK	07/16			
ROUTE	1.2	11502	LOCATION	STA 22+ SACRAMENTO CROSSING CAMBER & MISC DETAILS OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 OIC			MMO-0(216)T		DWG NO. S-1.21 OF

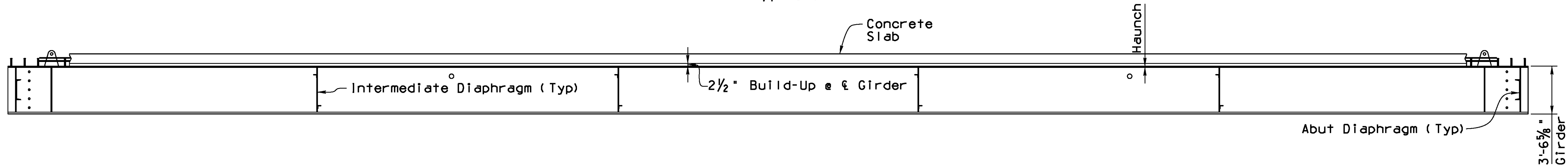
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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	61	76	

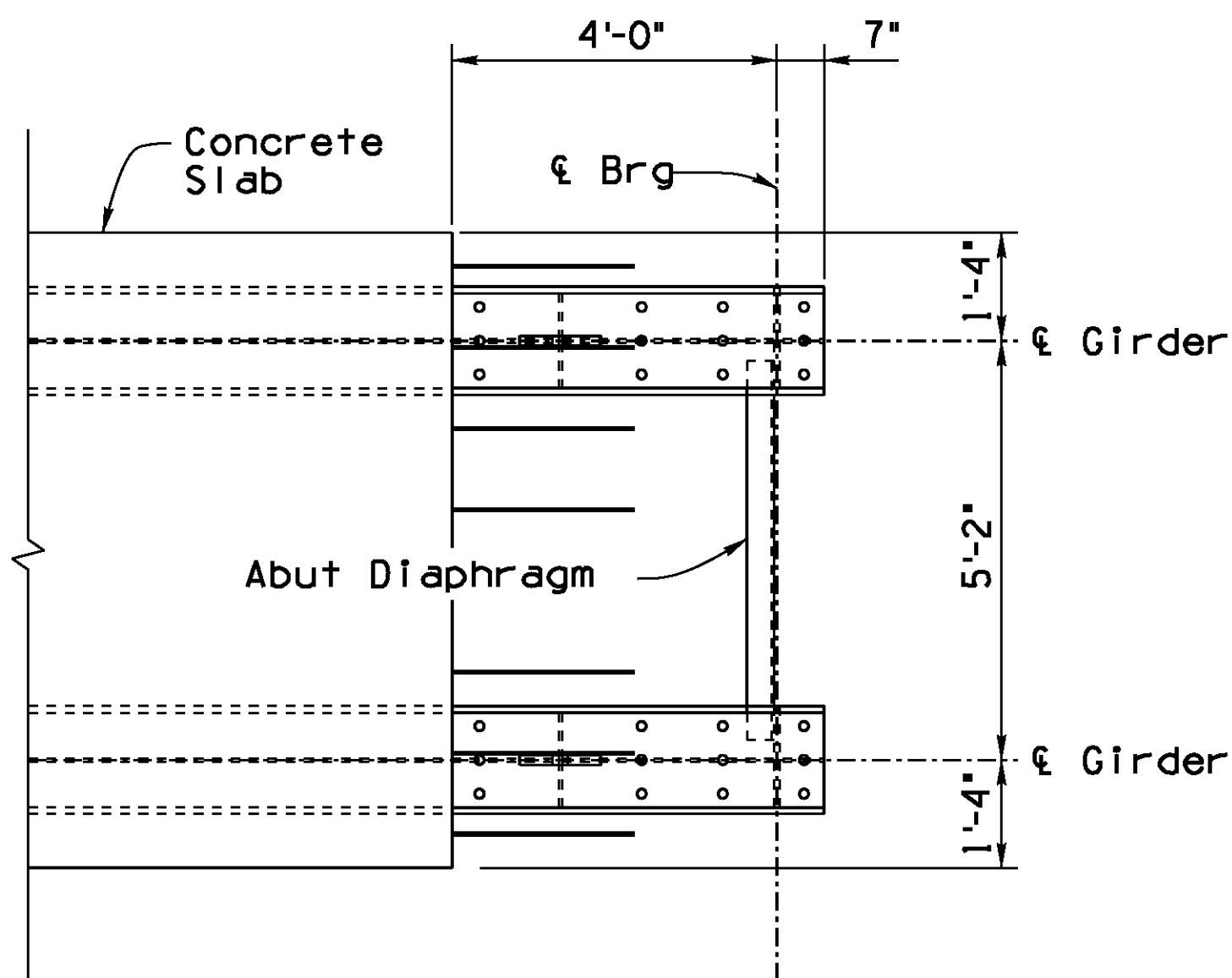
0000 MO MMO



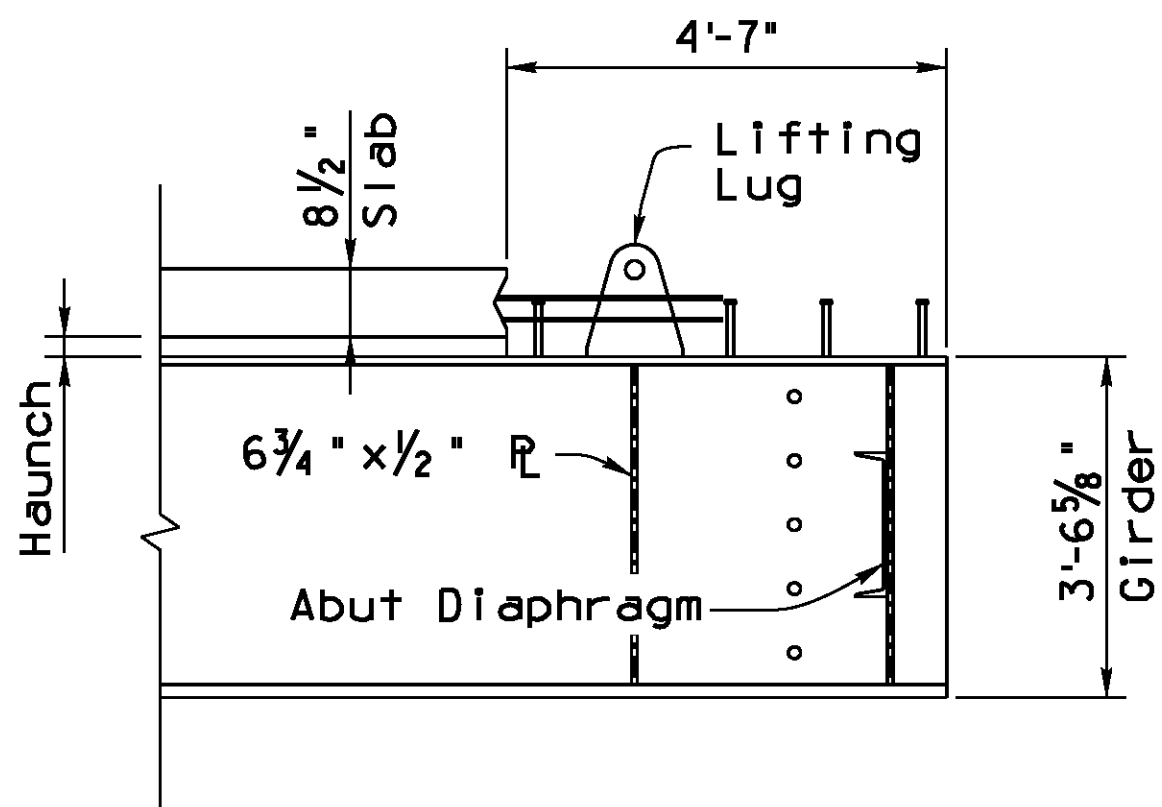
INTERIOR DECK UNIT PLAN
Scale: 1/4" = 1'-0"



INTERIOR DECK UNIT ELEVATION
Scale: 1/4" = 1'-0"



DECK UNIT END PLAN
Scale: 1/2" = 1'-0"



DECK UNIT END ELEVATION
Scale: 1/2" = 1'-0"

NOTES:

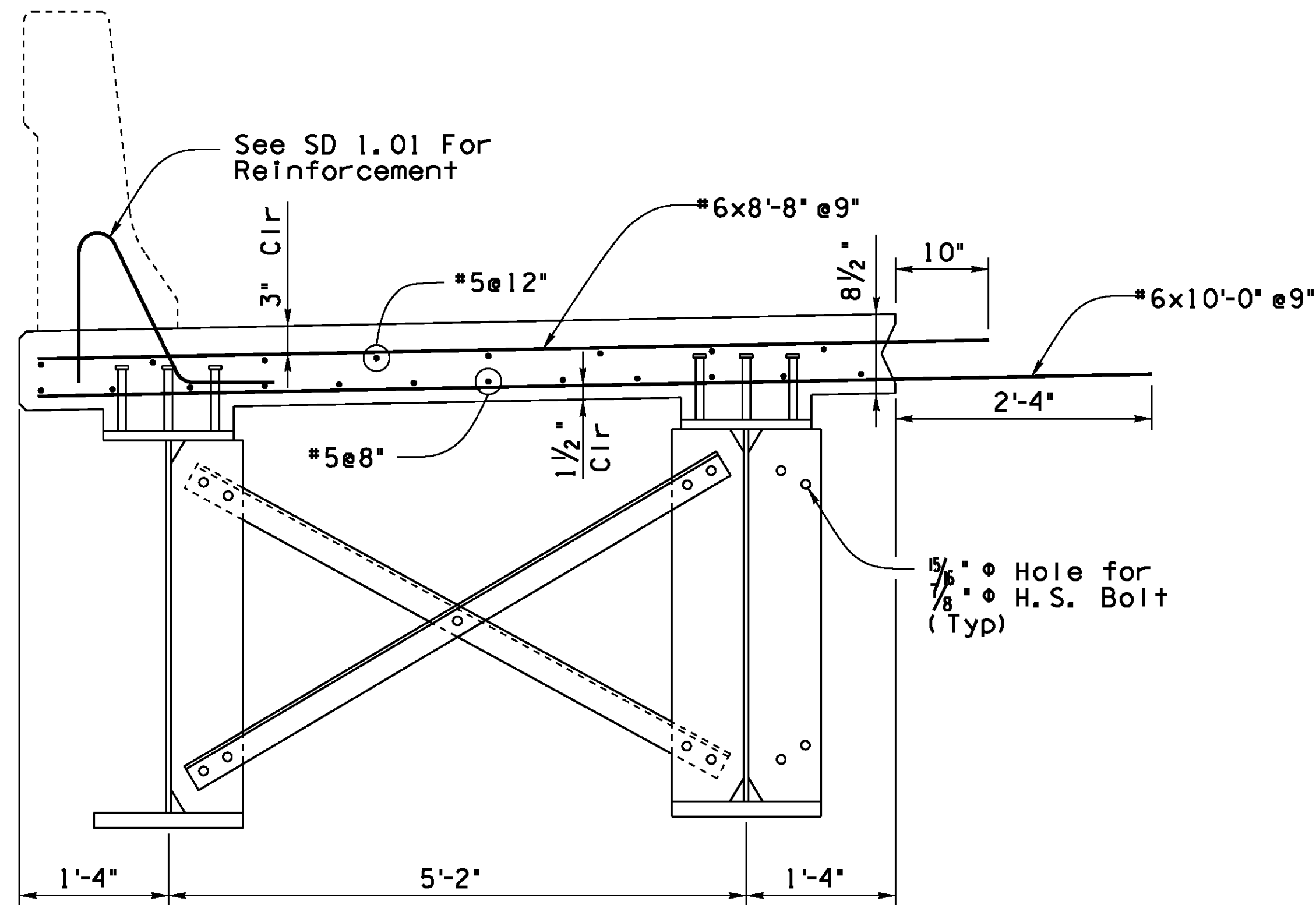
1. See Dwg No. S-1.20 for structural steel plate girder details.
2. See Dwg No. S-1.25 for abutment diaphragm and intermediate diaphragm details.
3. Deck Unit shall be supported at bearing points during casting operations and storage.
4. Transverse reinforcement not shown for clarity. See Dwg. No. S-1.25 and S-1.26 for details.
5. See Dwg. No. S-1.29 for Lifting Lug details.

DESIGN	DJL	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN	RLH	DATE	07/16		
CHECKED	KJK	DATE	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING INTERIOR DECK UNIT DETAILS	
OLD US ROUTE	66	1.2 MILEPOST	11502 STRUCTURE NO.	LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 OIC				MMO-0(216)T	
				DWG NO. S-1.23 OF	

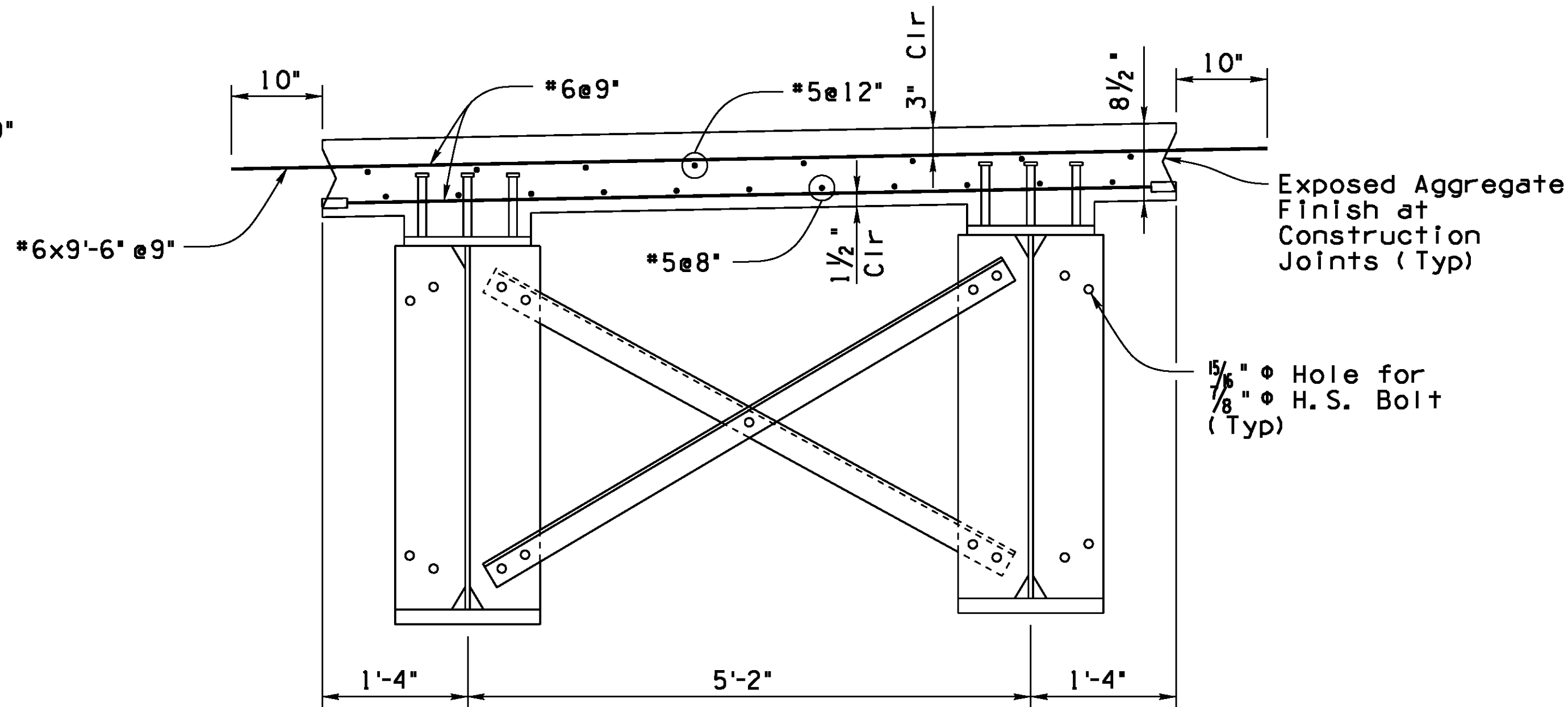


F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	63	76	

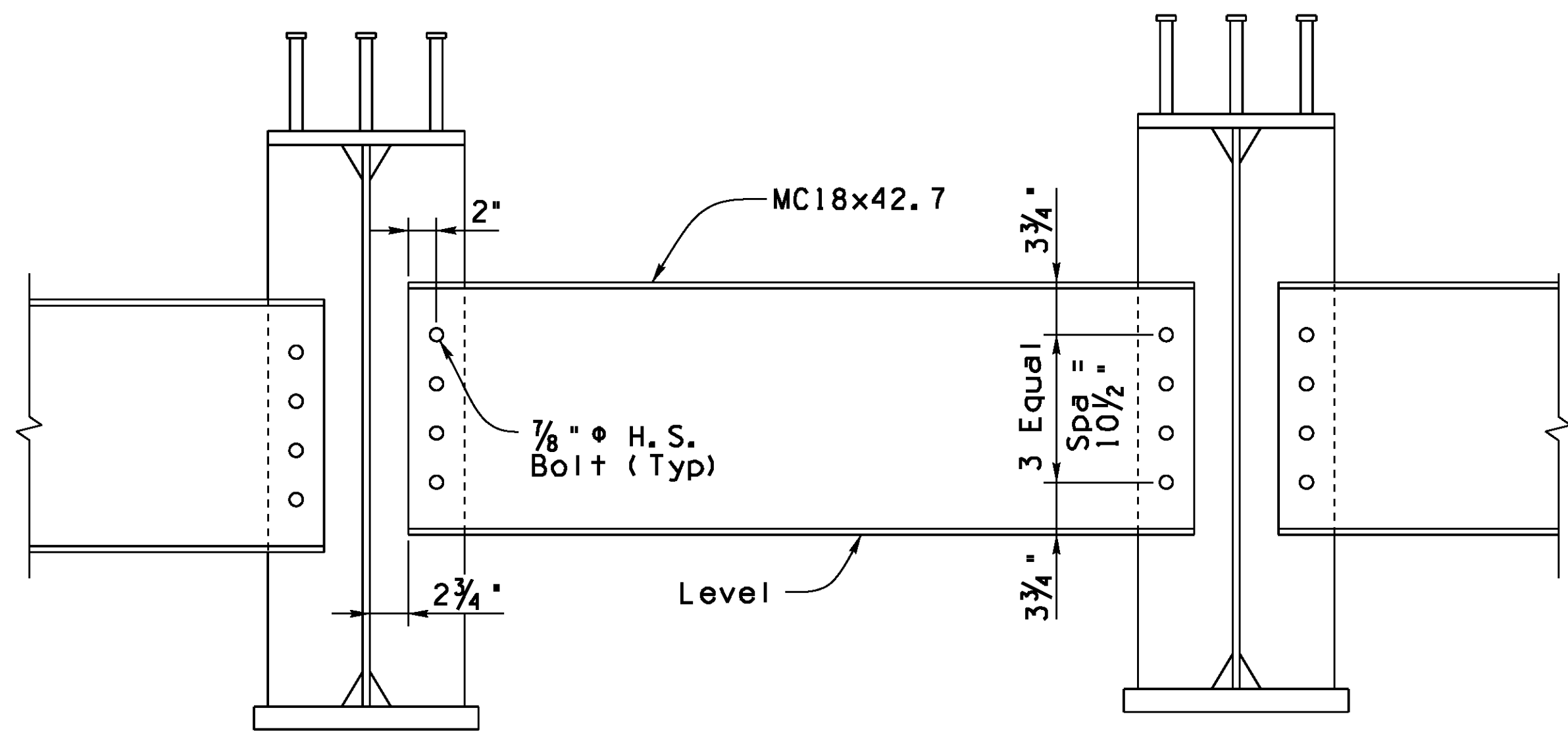
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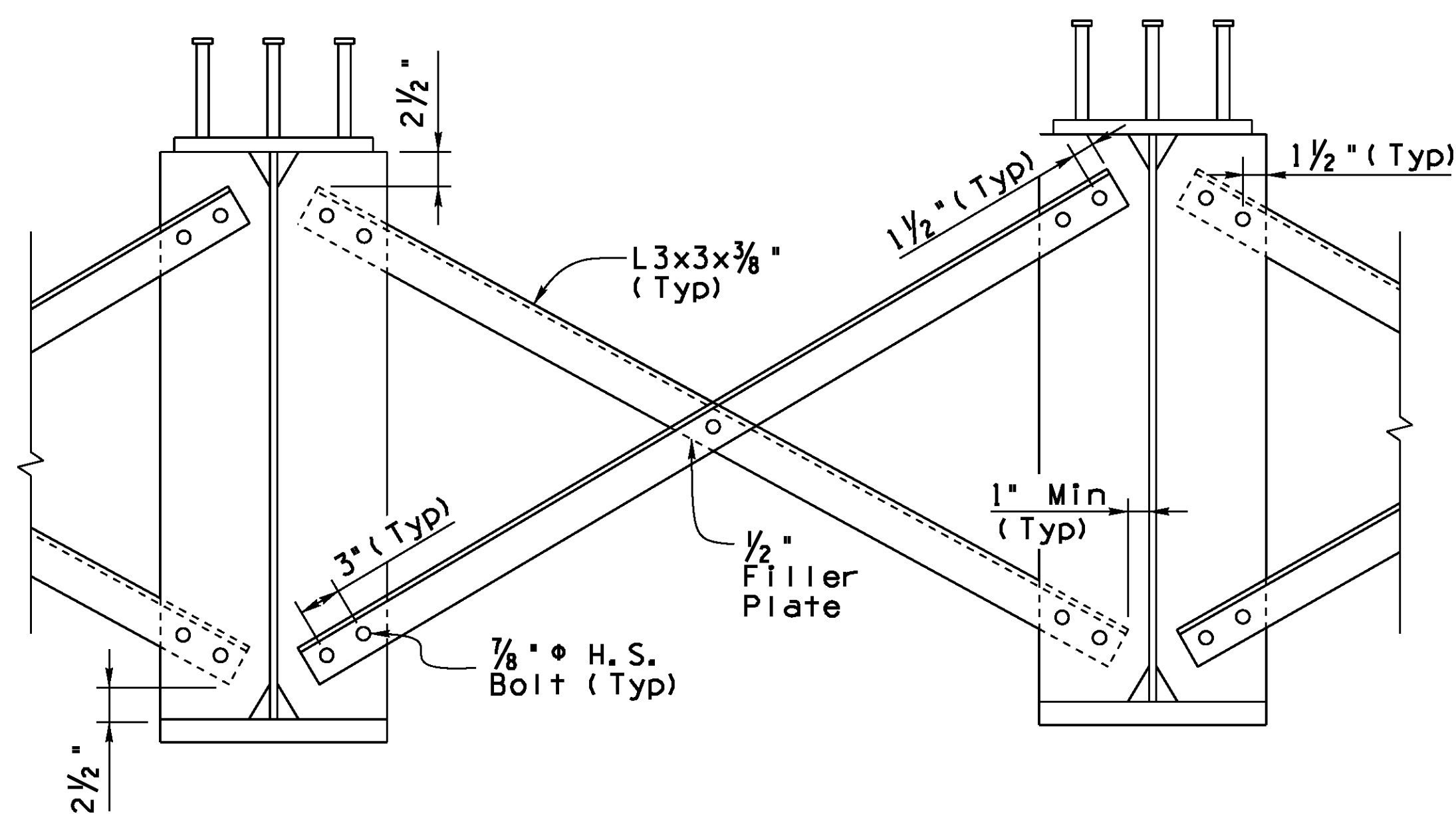
EXTERIOR DECK UNIT TYPICAL SECTION **A**
Scale: 1" = 1'-0" 1.24



INTERIOR DECK UNIT TYPICAL SECTION **B**
Scale: 1" = 1'-0" 1.23



TYPICAL ABUTMENT DIAPHRAGM **C**
Scale: 1 1/2" = 1'-0" 1.23 1.24



TYPICAL INTERMEDIATE DIAHPRAGM
Scale: 1 1/2" = 1'-0"

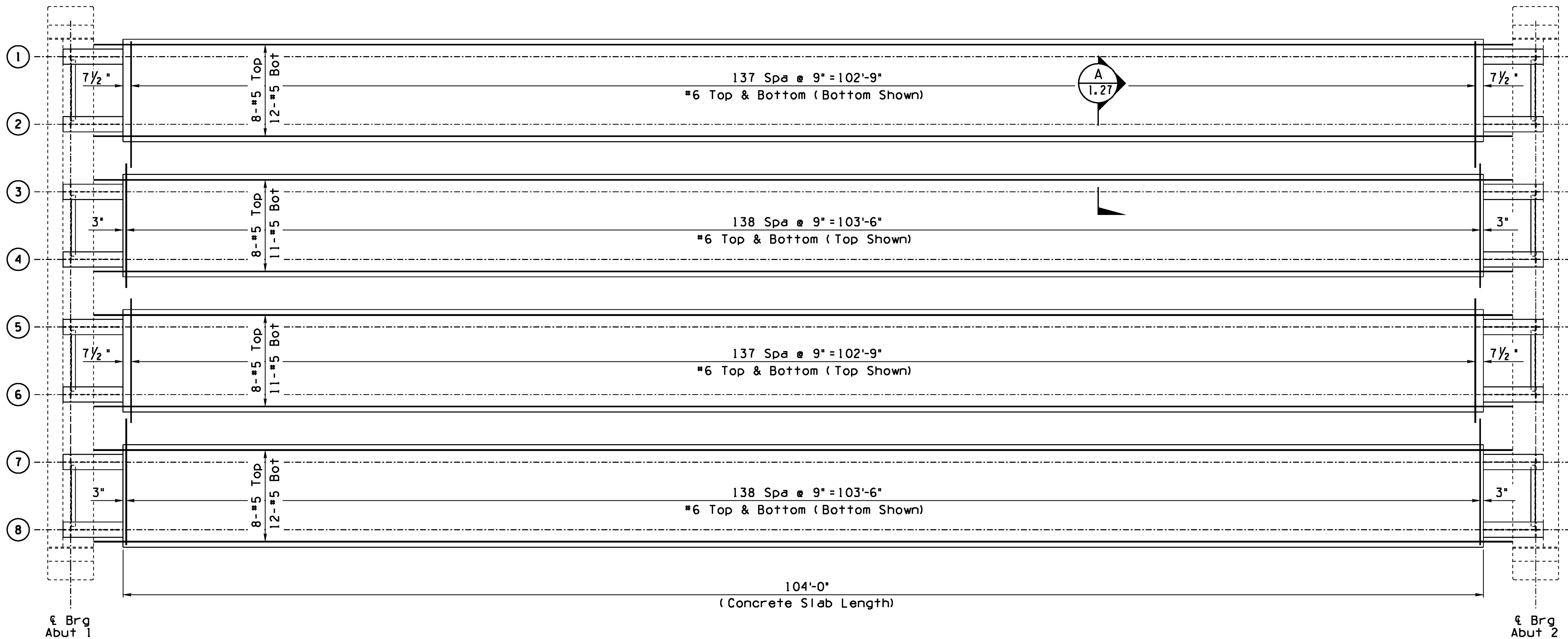
NOTES:

1. Continuous longitudinal bars may be spliced as required with a minimum lap length of 1'-11". Splices at adjacent bars shall be staggered 1'-11" minimum.

DESIGN		NAME		DATE		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STA 22+ SACRAMENTO CROSSING DECK UNIT DETAILS LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING			
DRAWN		RLH		07/16					
CHECKED		KJK		07/16					
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.		OLD US 66 ROUTE		1.2 MILEPOST		11502 STRUCTURE NO.		DWG NO. S-1.25	
TRACS NO. T0021 OIC				MMO-0(216)T				OF	

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	64	76	

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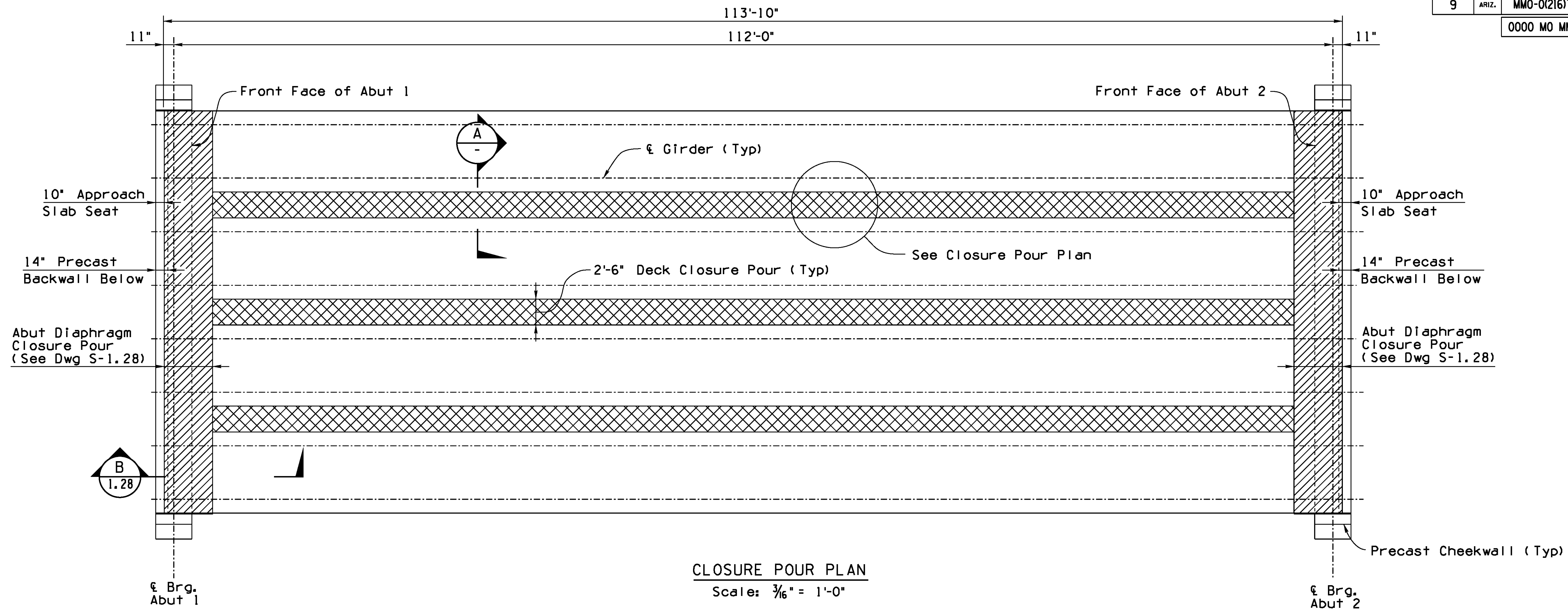
NOTES:

- Barrier reinforcement not shown in exterior deck units for clarity.
- See Dwg. No. S-1.25 for Deck Unit Typical Sections.
- Continuous longitudinal bars may be spliced as required with a minimum lap length of 1'-11". Splices at adjacent bars shall be staggered 1'-11" minimum.

DESIGN		DJL	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN		RLH	DATE	07/16		
CHECKED		KJK	DATE	07/16		
Kimley»Horn		© 2016 KIMLEY-HORN AND ASSOCIATES, INC.		STA 22+ SACRAMENTO CROSSING DECK PLAN		
OLD US 66	ROUTE	1.2	MILEPOST	11502	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING
TRACS NO.		T0021 OIC		MMO-0(216)T		DWG NO. S-1.26
						OF

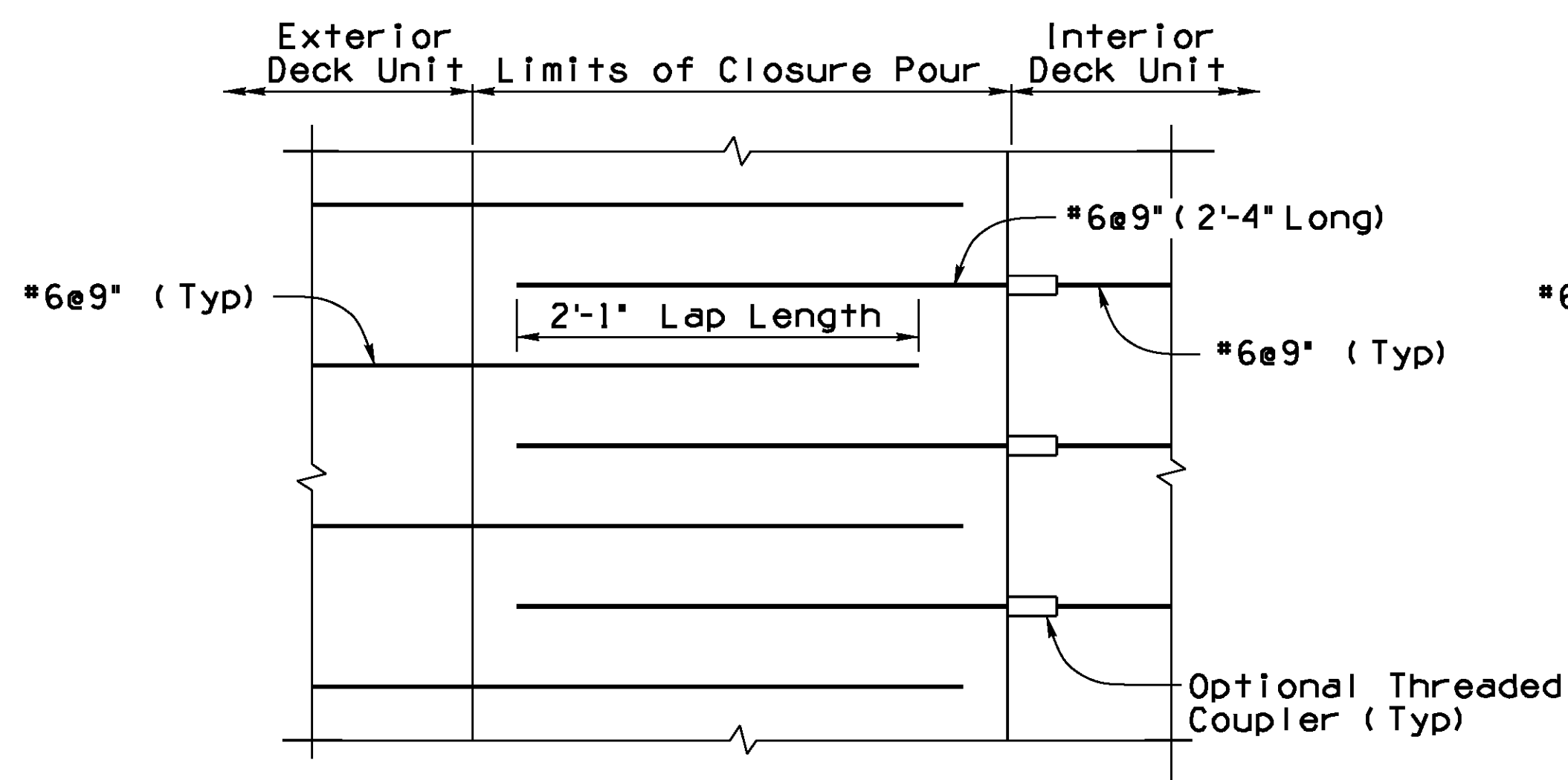
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	65	76	

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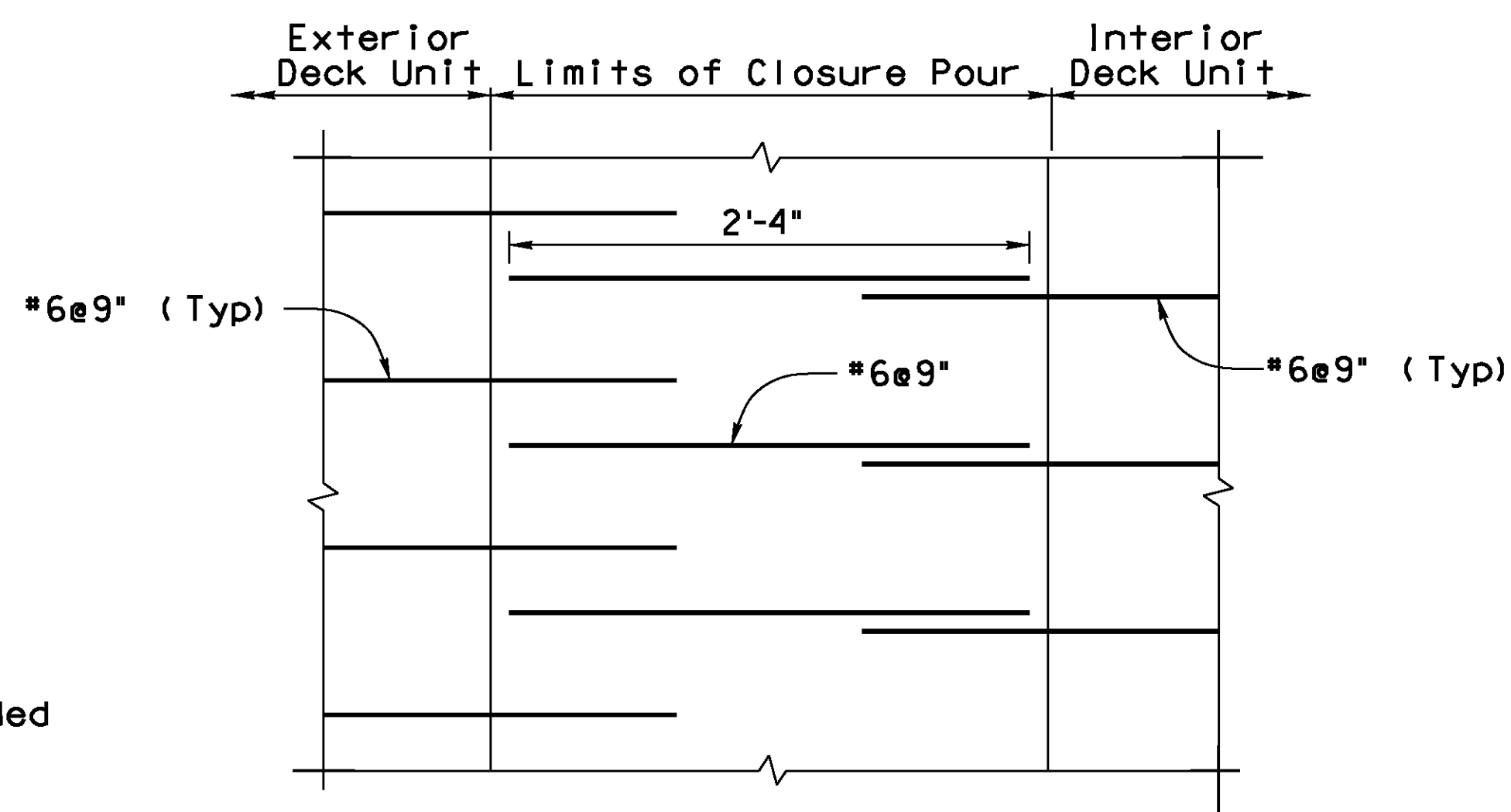
CLOSURE POUR PLAN

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



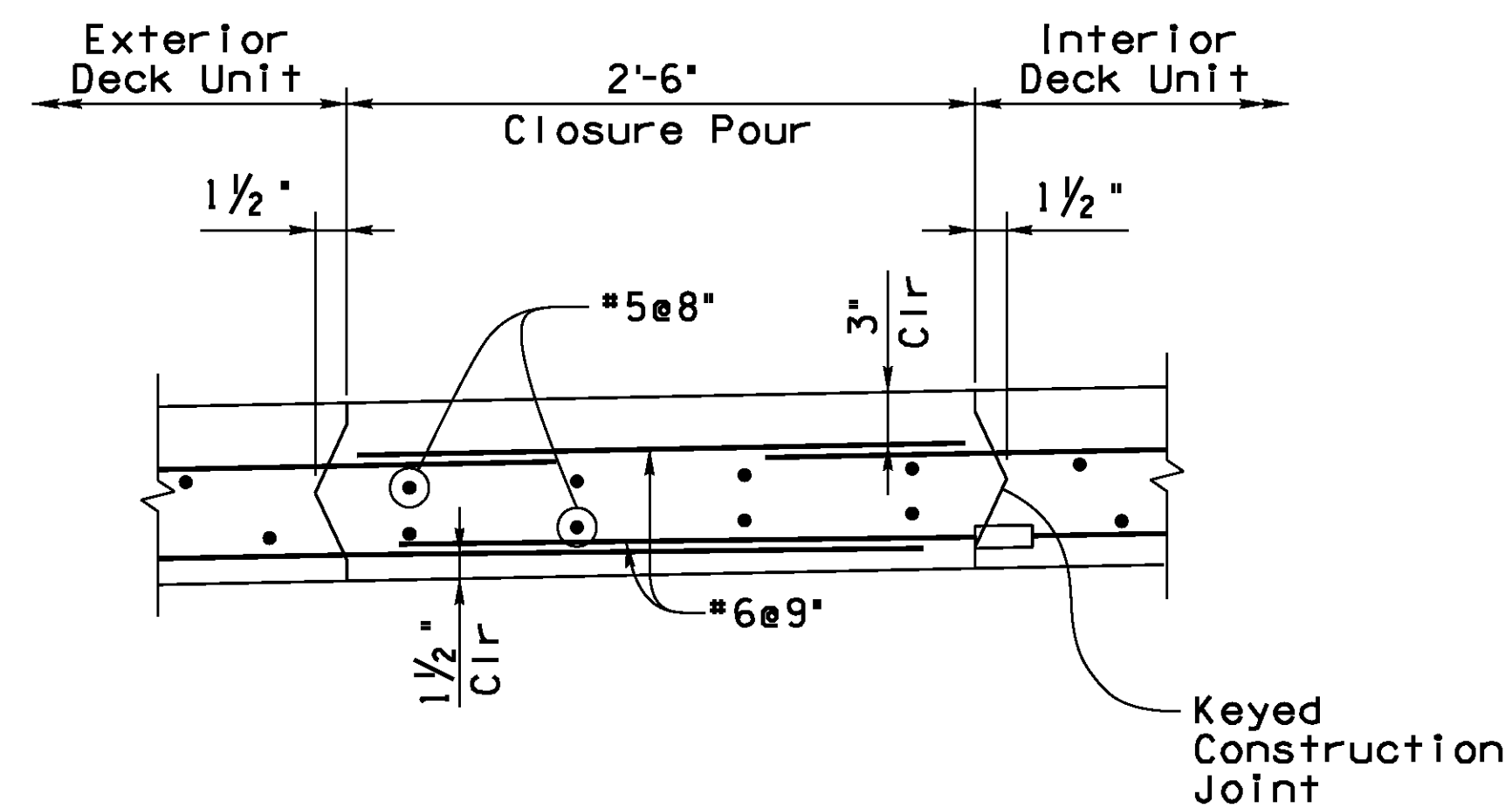
CLOSURE POUR PLAN (BOTTOM REINFORCEMENT)

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



CLOSURE POUR PLAN (TOP REINFORCEMENT)

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



CLOSURE POUR SECTION

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

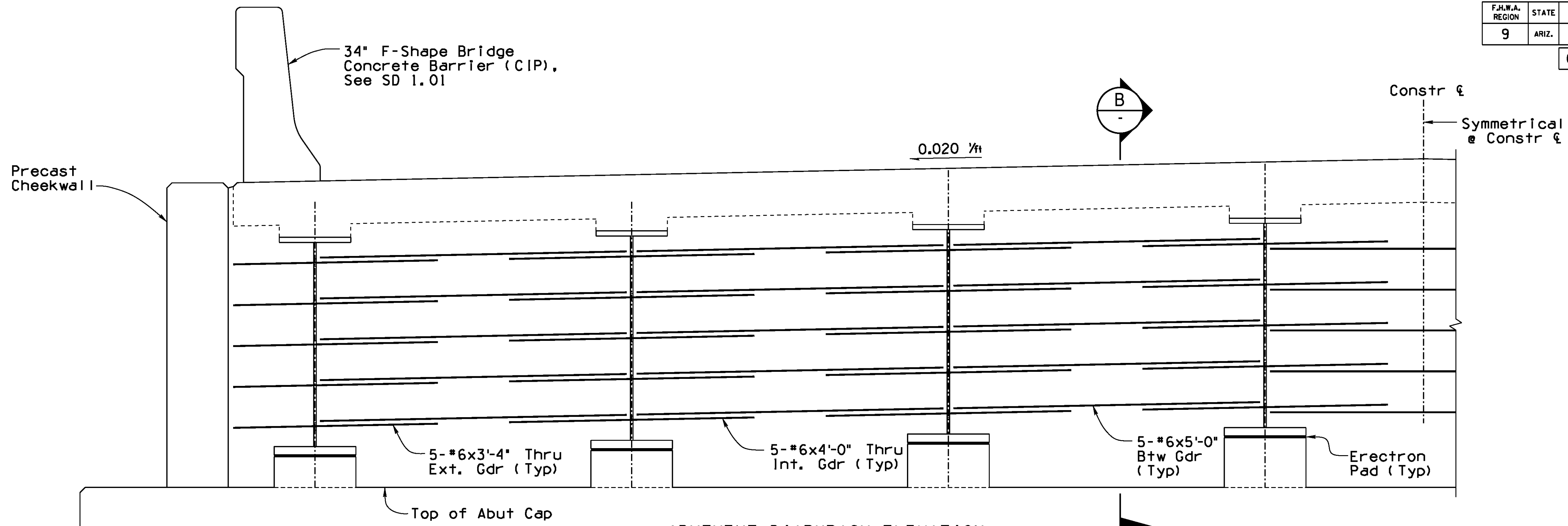
NOTES:

1. Retaining Wall and Approach Slab line work not shown for clarity.
2. Continuous longitudinal bars may be spliced as required with a minimum lap length of 1'-11". Splices at adjacent bars shall be staggered 1'-11" minimum.
3. All transverse reinforcement splices designed as non-contact splices.

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DESIGN	DJL		07/16		
DRAWN	RLH		07/16		
CHECKED	KJK		07/16		
Kimley»Horn				STA 22+ SACRAMENTO CROSSING CLOSURE POUR PLAN	
© 2016 KIMLEY-HORN AND ASSOCIATES, INC.					
OLD US 66 ROUTE	1.2 MILEPOST	11502 STRUCTURE NO.	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 OIC				MMO-0(216)T	DWG NO.S-1.27
					OF

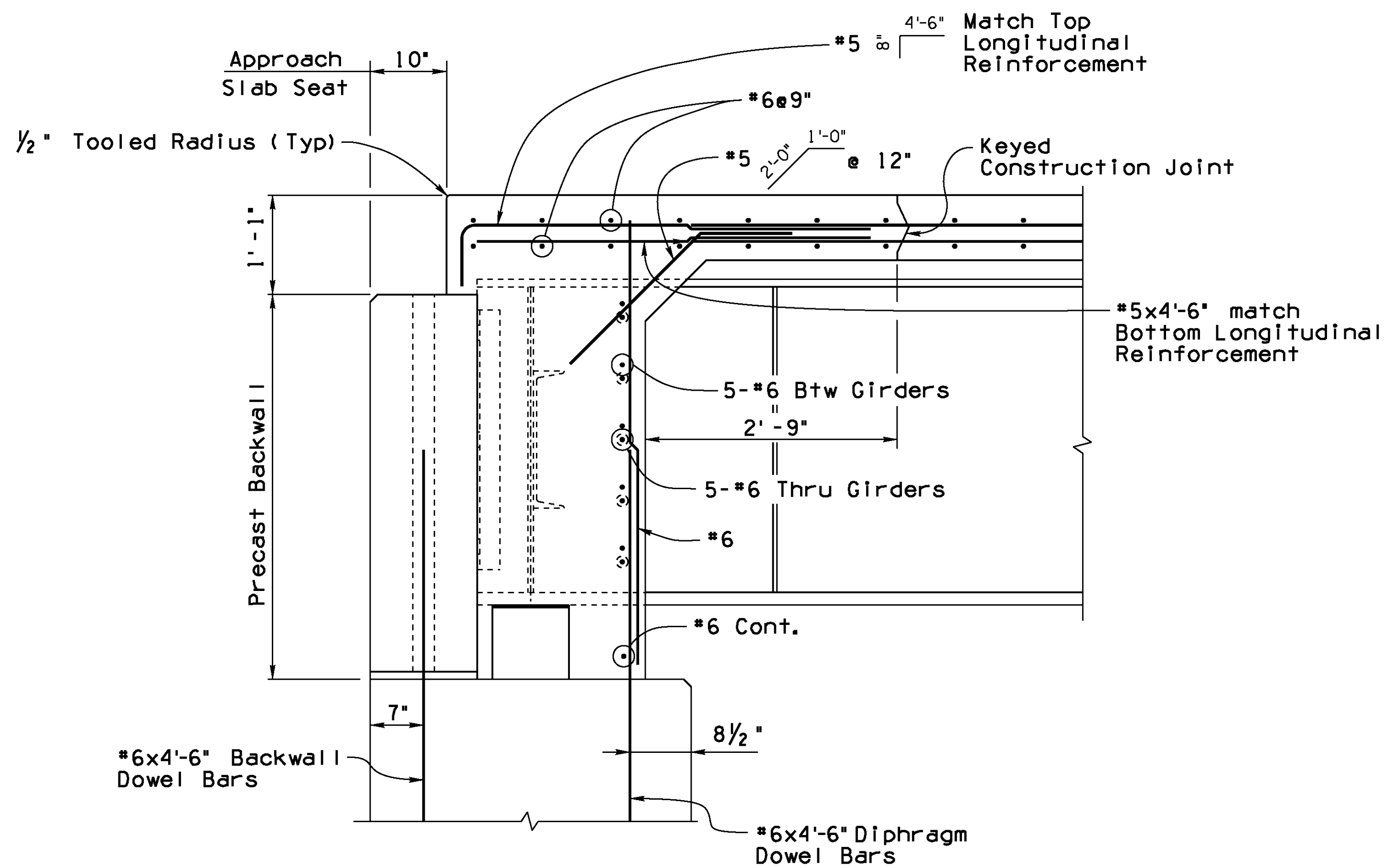
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	66	76	

0000 MO MMO



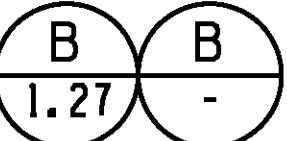
ABUTMENT DIAPHRAGM ELEVATION

Scale: 1" = 1'-0"



SECTION

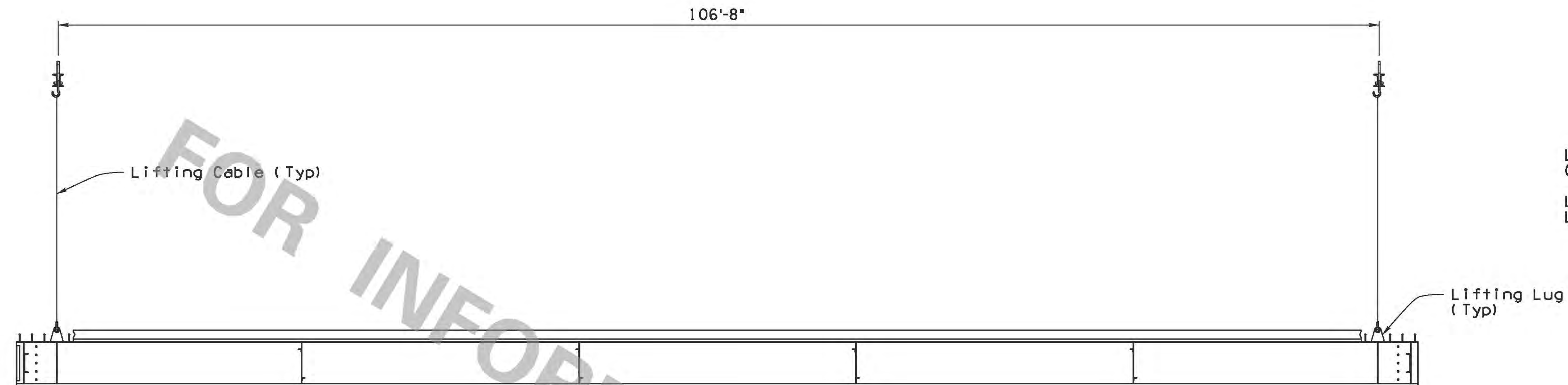
Scale: 1" = 1'-0"



DESIGN		NAME		DATE		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STA 22+ SACRAMENTO CROSSING ABUTMENT DIAPHRAGM DETAILS LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		
DRAWN		RLH		07/16				
CHECKED		KJK		07/16				
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.		OLD US ROUTE 66	1.2 MILEPOST	11502 STRUCTURE NO.	DWG NO. S-1.28		OF	
TRACS NO. T0021 01C				MMO-0(216)T				

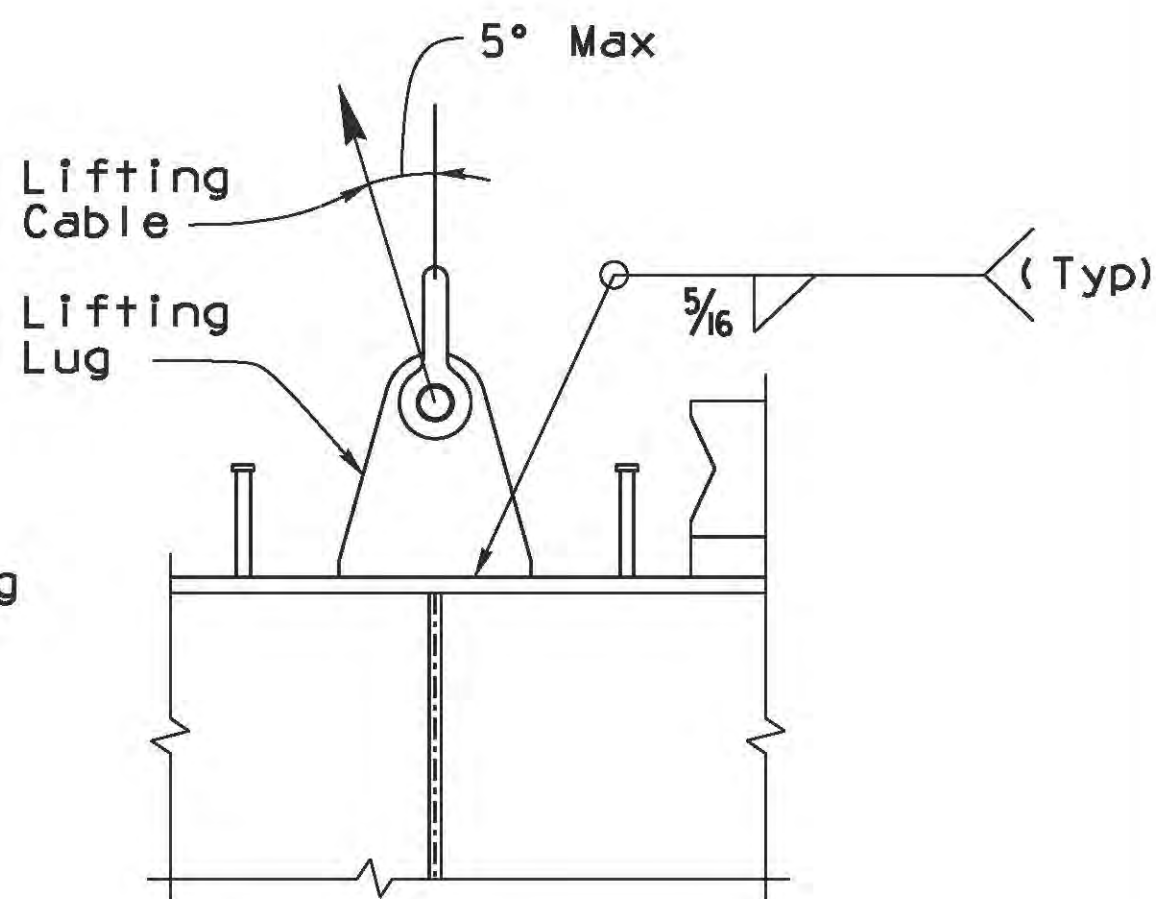
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	67	76	

0000 MO MMO



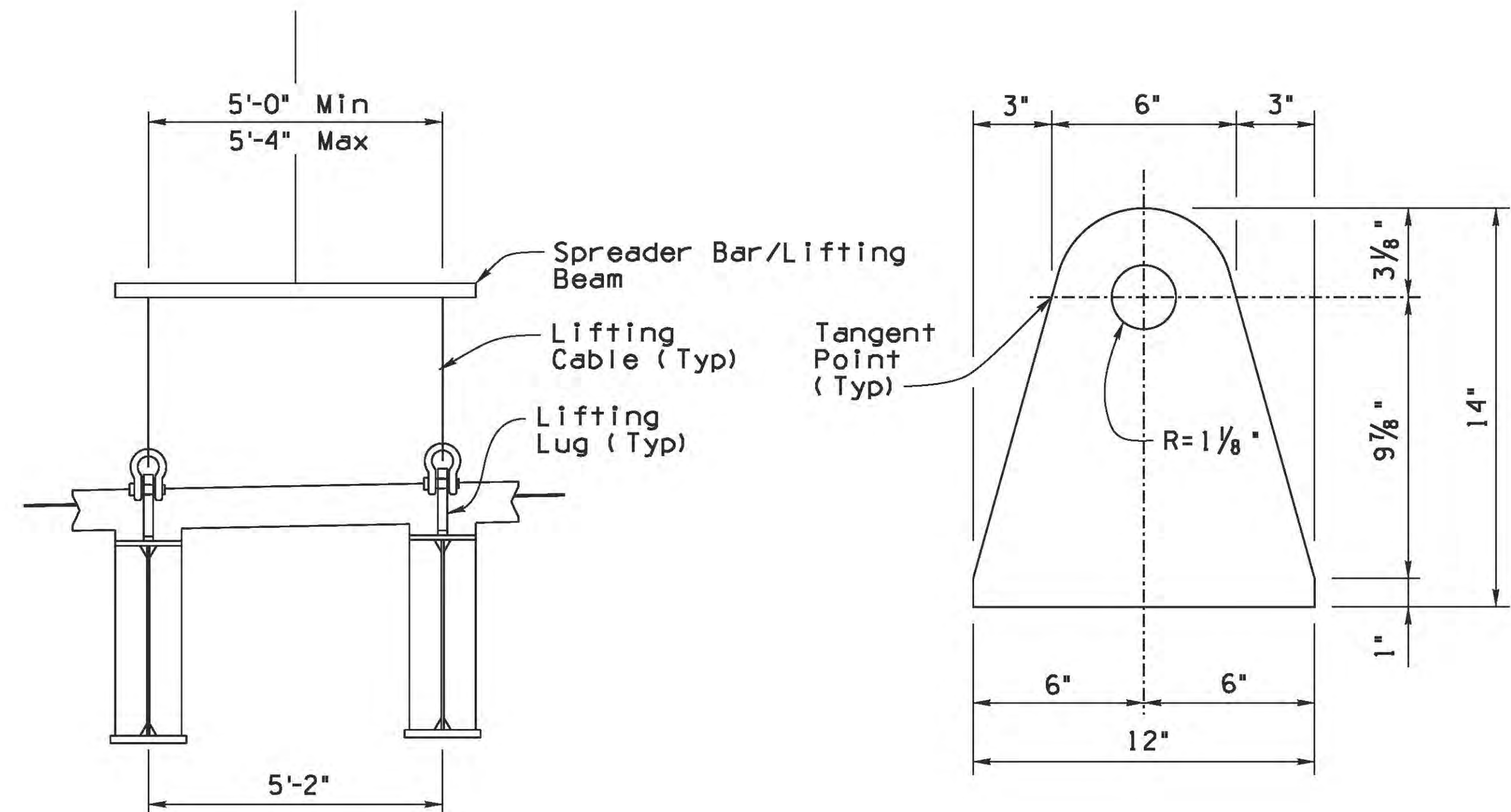
TYPICAL DECK UNIT ELEVATION

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



LIFTING LUG ELEVATION

Scale: 1" = 1'-0"

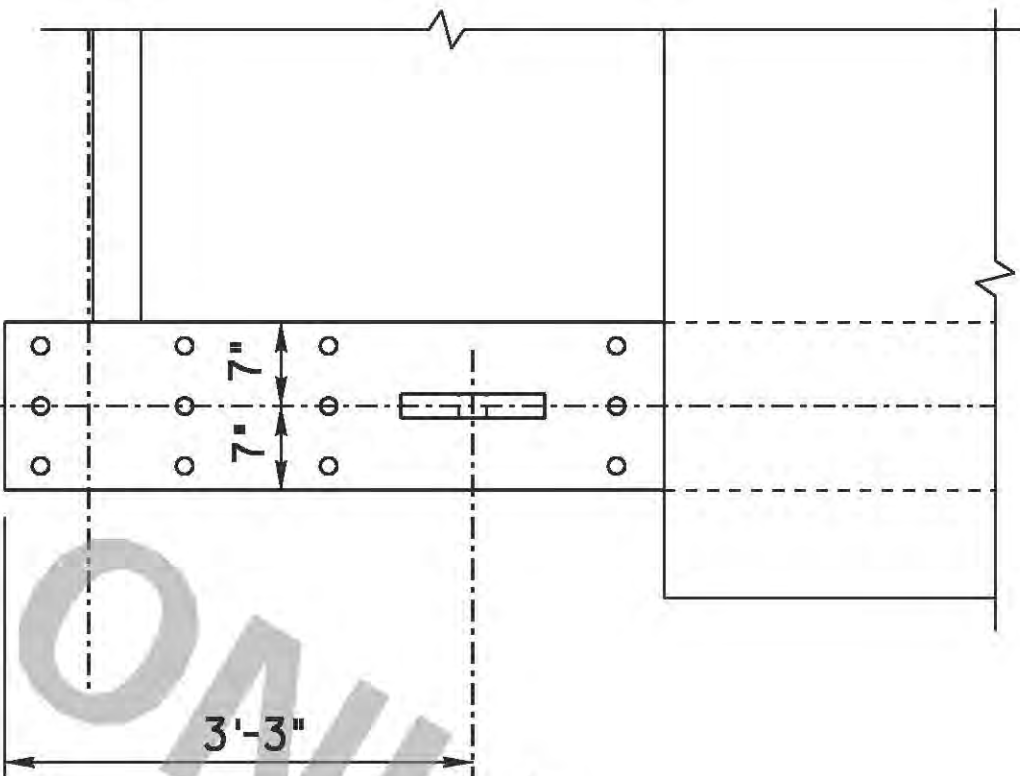
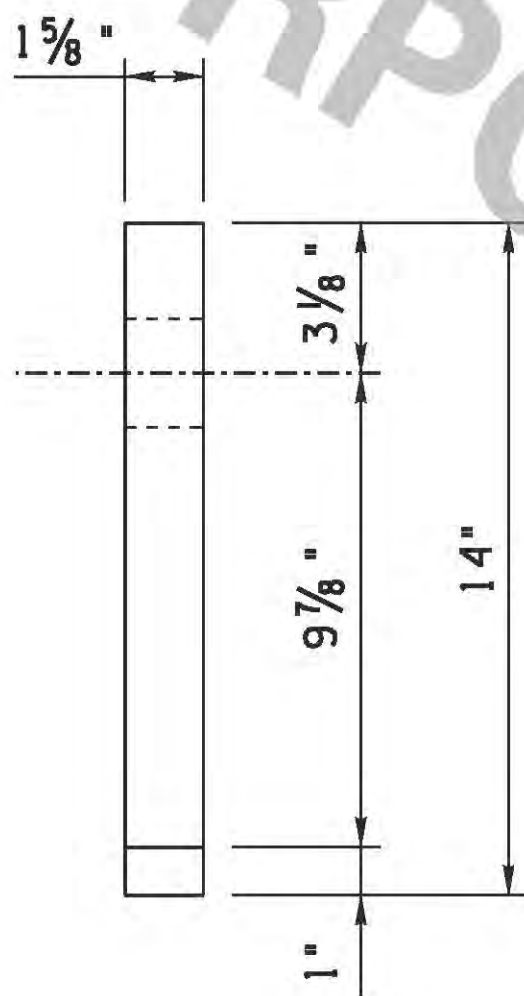


TYPICAL DECK UNIT SECTION

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

LIFTING LUG PLATE DETAILS

Scale: 3" = 1'-0"



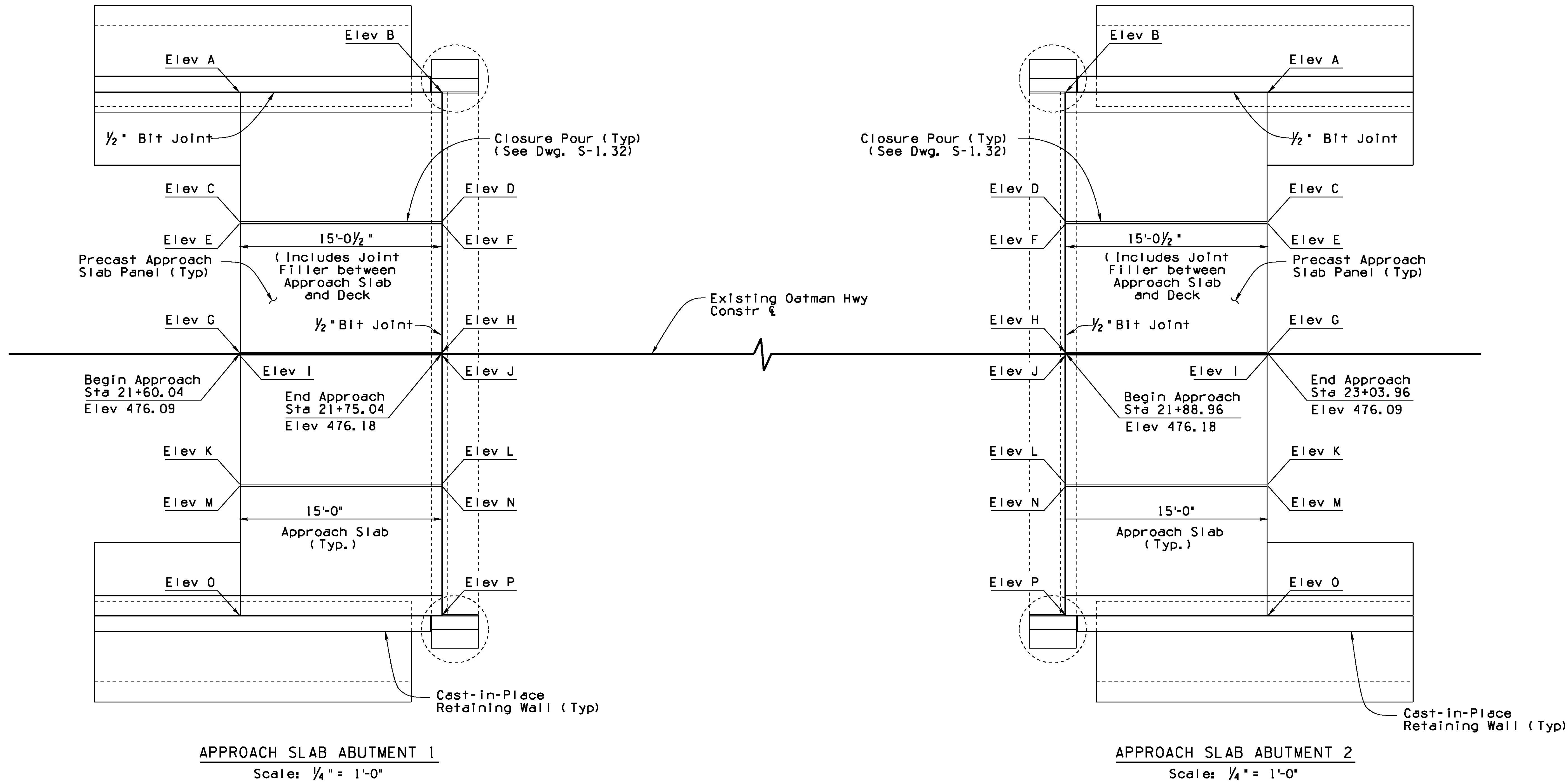
LIFTING LUG PLATE PLAN

Scale: $\frac{3}{4}'' = 1'-0''$

DESIGN	DJL	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN	RLH	DATE	07/16		
CHECKED	KJK	DATE	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING DECK UNIT LIFTING DETAILS	
OLD US 66 ROUTE	1.2 MILEPOST	11502 STRUCTURE NO.	LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	DWG NO. S-1.29	
TRACS NO. T0021 01C				MMO-0(216)T	
				OF	

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	68	76	

0000 MO MMO



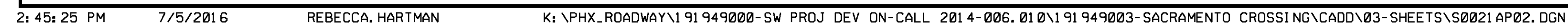
APPROACH SLAB ELEVATIONS								
	Elev A	Elev B	Elev C	Elev D	Elev E	Elev F	Elev G	Elev H
Abut 1	475.70	475.80	475.90	475.99	475.90	475.99	476.09	476.18
Abut 2	475.70	475.80	475.90	475.99	475.90	475.99	476.09	476.18
APPROACH SLAB ELEVATIONS								
	Elev I	Elev J	Elev K	Elev L	Elev M	Elev N	Elev O	Elev P
Abut 1	476.09	476.18	475.90	475.99	475.90	475.99	475.70	475.80
Abut 2	476.09	476.18	475.90	475.99	475.90	475.99	475.70	475.80

NOTES:

1. See Dwg No. S-1.31 and S-1.32 for approach slab details.

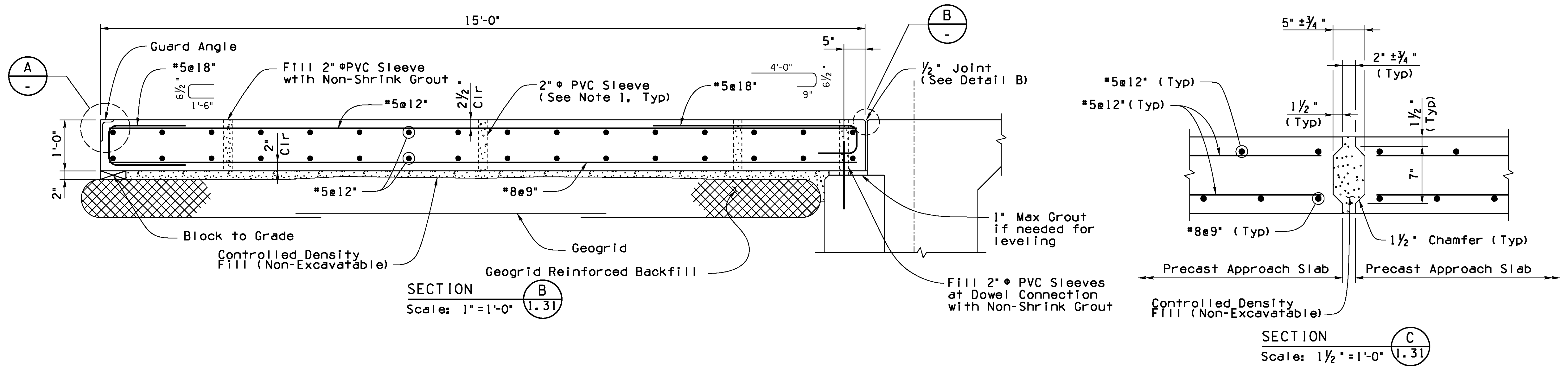
DESIGN	DJL	DATE	07/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN	RLH	DATE	07/16		
CHECKED	KJK	DATE	07/16		
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.				STA 22+ SACRAMENTO CROSSING APPROACH SLAB PLAN	
OLD US ROUTE	66	1.2 MILEPOST	11502 STRUCTURE NO.	LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 OIC				MMO-0(216)T	
				DWG NO. S-1.30 OF	

0000 MO MMO



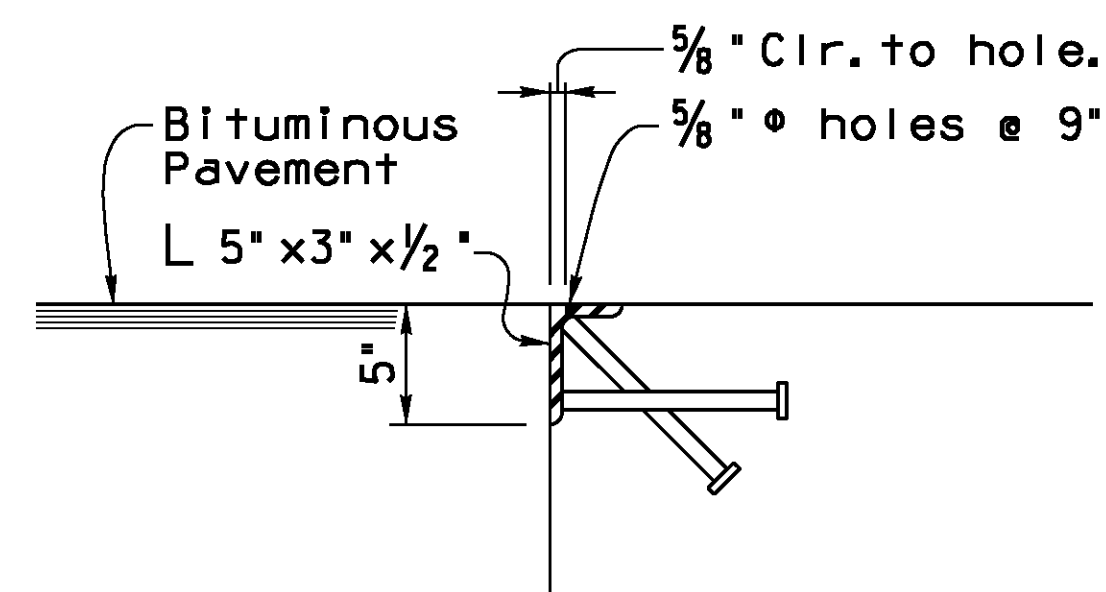
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	70	76	

0000 MO MMO

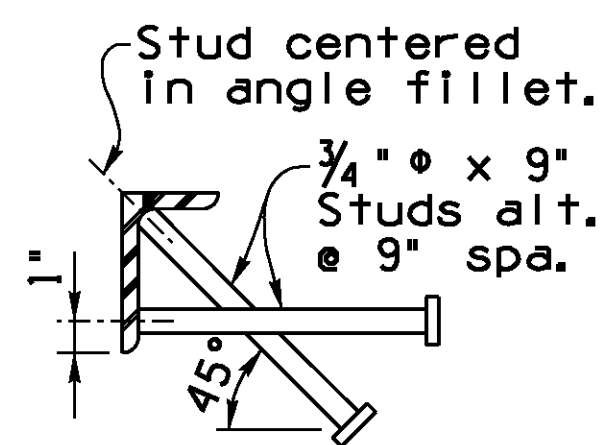


NOTES:

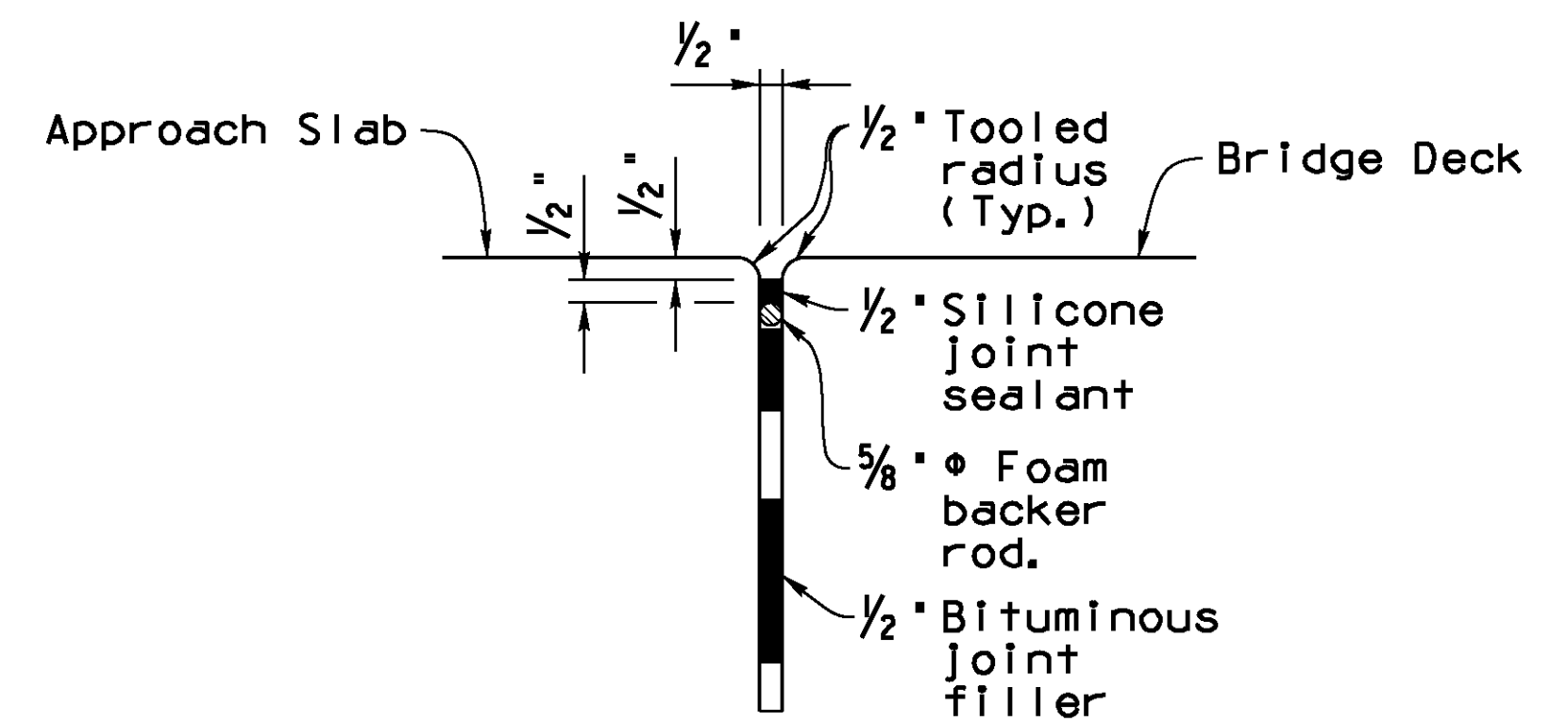
- PVC Sleeves to be included in precast approach slabs to facilitate placement of controlled density fill (non-excavatable).



DETAIL A
Scale: 1 1/2" = 1'-0"



GUARD ANGLE DETAIL
Not to Scale

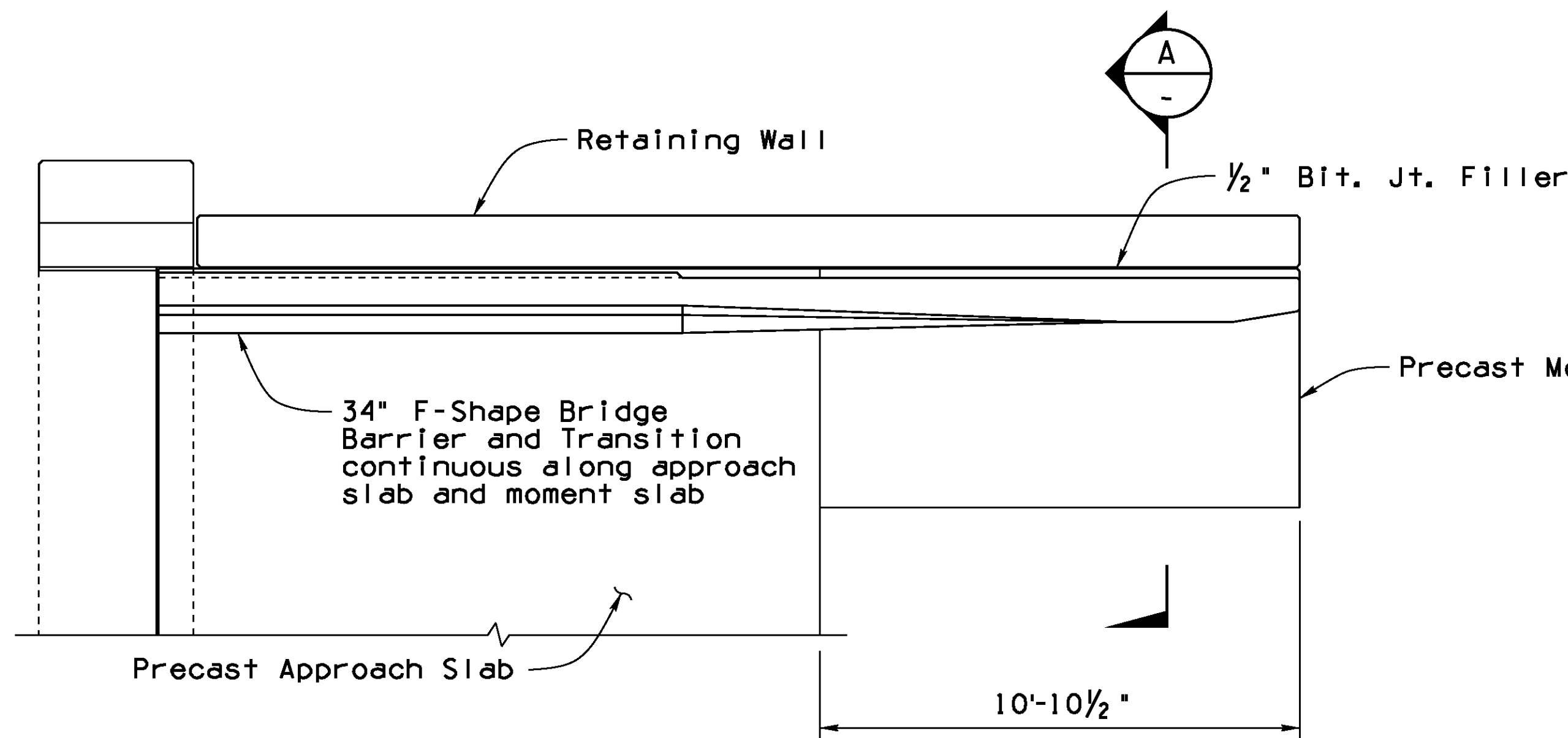


DETAIL B
Scale: 3" = 1'-0"

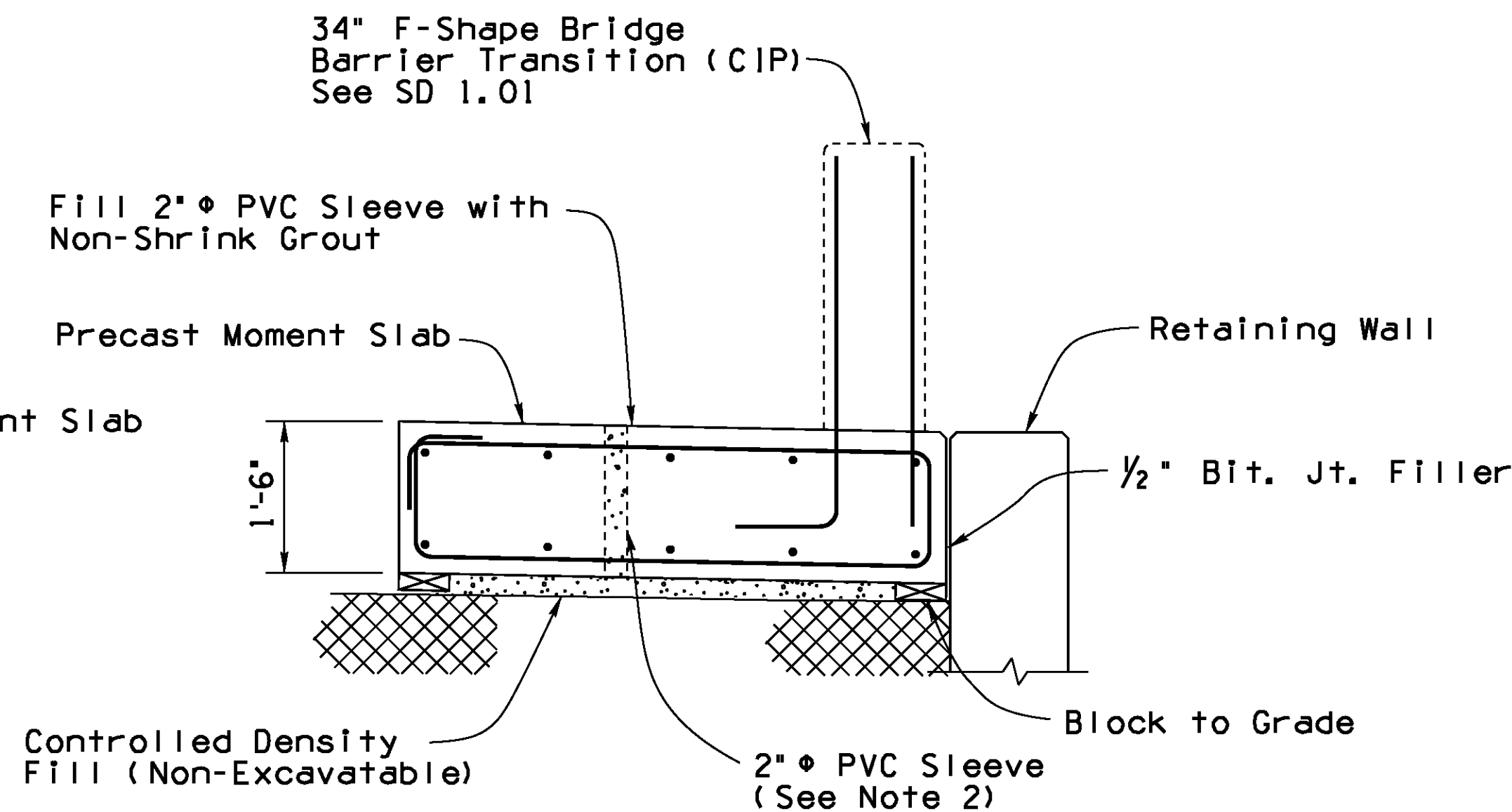
DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP
DJL		07/16	
DRAWN	NAME	DATE	STA 22+ SACRAMENTO CROSSING APPROACH SLAB DETAILS 2
RLH		07/16	
CHECKED	NAME	DATE	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING
KJK		07/16	
Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.			
OLD US ROUTE 66	1.2 MILEPOST	11502 STRUCTURE NO.	
TRACS NO. T0021 01C			DWG NO. S-L32
			OF

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	71	76	

0000 MO MMO



PLAN
Scale: $\frac{3}{8}$ " = 1'-0"



SECTION
Scale: $\frac{3}{4}$ " = 1'-0"



PRECAST MOMENT SLAB PLAN
Scale: $\frac{3}{4}$ " = 1'-0"

NOTES:

- See SD 1.01 for Additional Moment Slab Reinforcement Details.
- PVC Sleeves to be included in precast moment slab to facilitate placement of controlled density fill (non-excavatable).

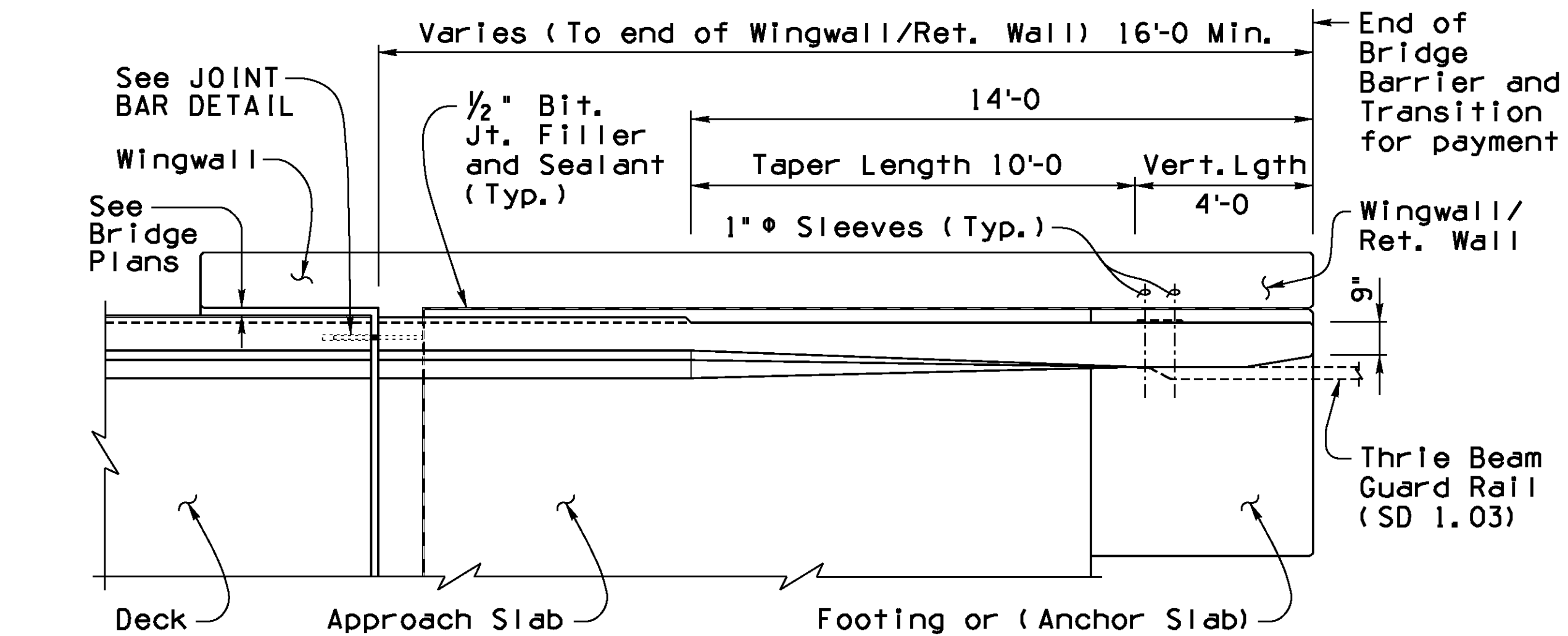
			ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP		
DESIGN	DJL	DATE	07/16	Kimley»Horn © 2016 KIMLEY-HORN AND ASSOCIATES, INC.	
DRAWN	RLH	DATE	07/16		
CHECKED	KJK	DATE	07/16		
OLD US ROUTE			1.2 MILEPOST	11502 STRUCTURE NO.	LOCATION
TRACS NO. T0021 01C			OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		DWG NO. S-1.33
			MMO-0(216)T		OF



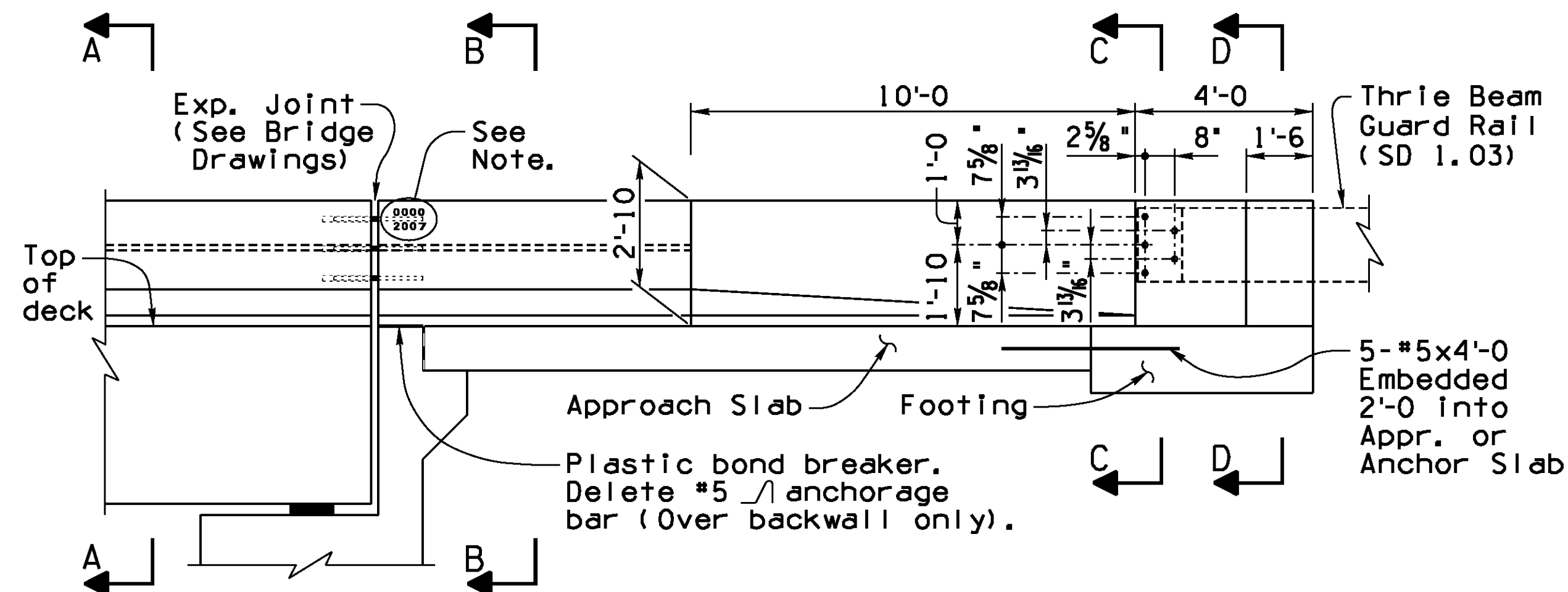
NO. 1	DESCRIPTION OF REVISIONS	MADE BY	DATE
NO. 2	DESCRIPTION OF REVISIONS	MADE BY <td>DATE</td>	DATE

Note to Designer:
The information presented in this Standard Detail has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

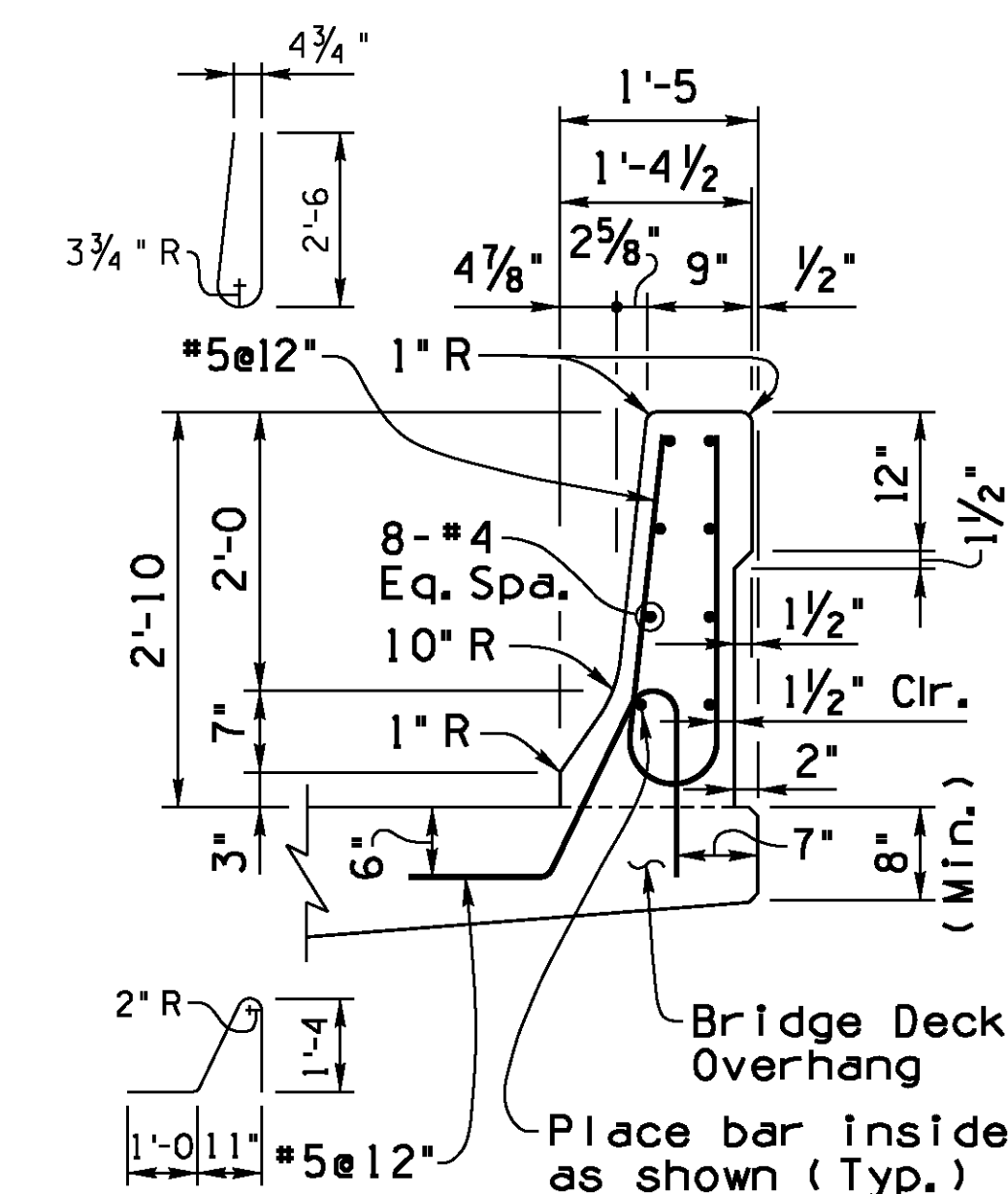
NO.	DATE	DESCRIPTION OF REVISIONS
1	8-99	Original Issue
2	11-07	General Update
3	3-09	General Update, Title Block
4	6-12	Title Block, Item No. and Description



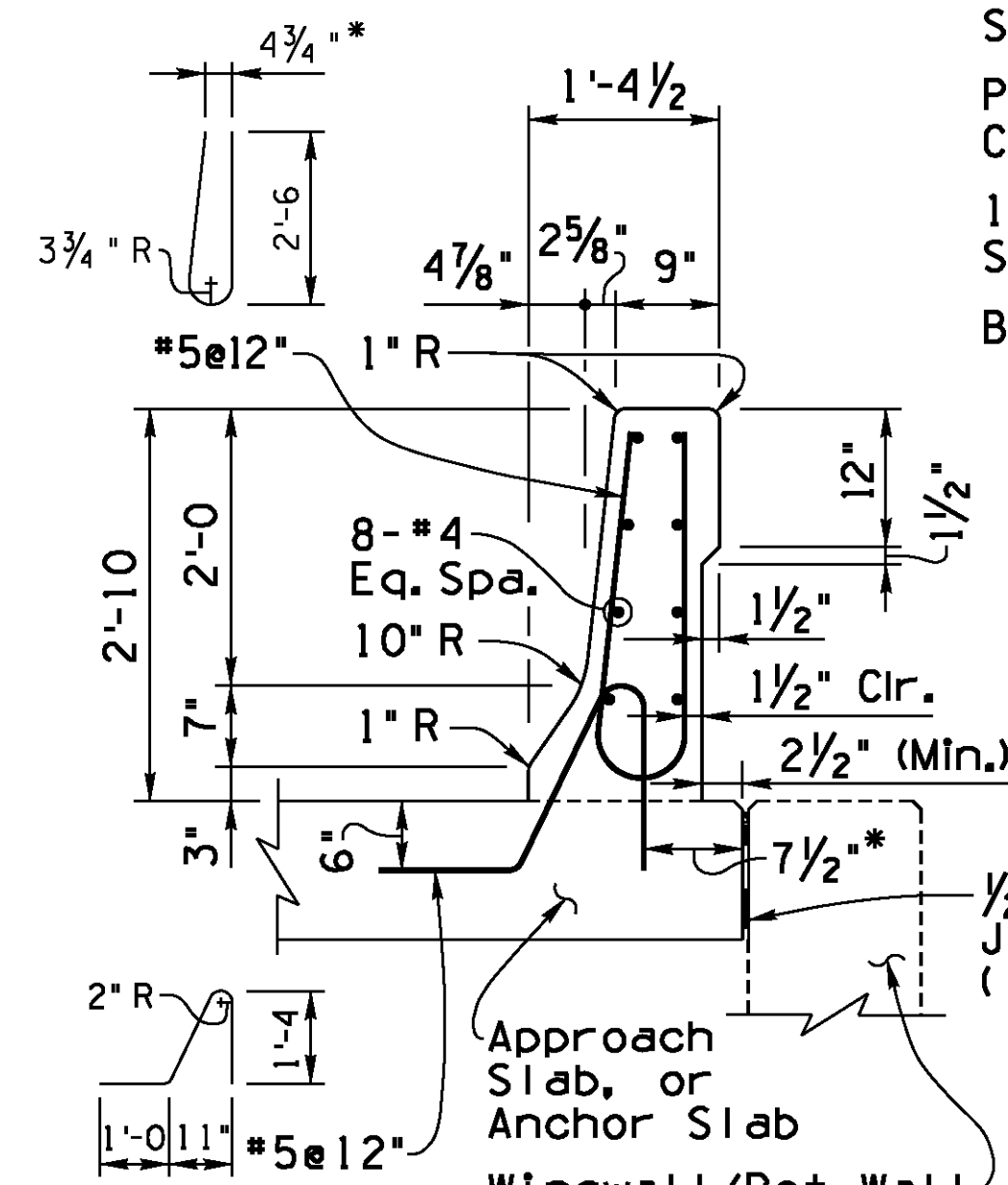
PLAN



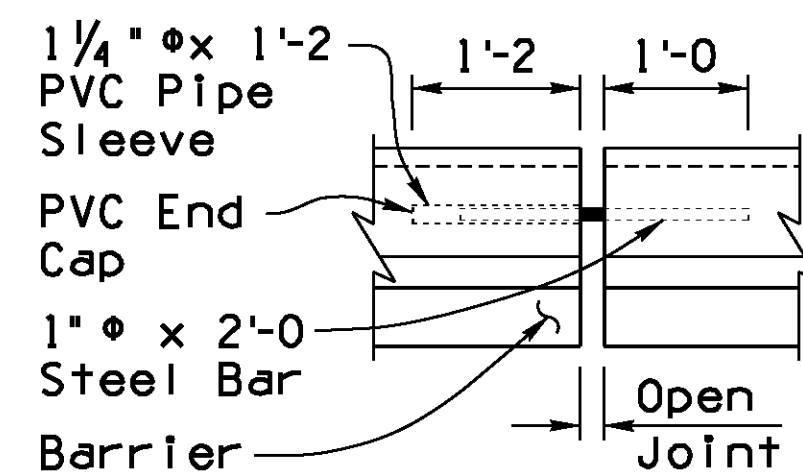
ELEVATION



SECTION A-A

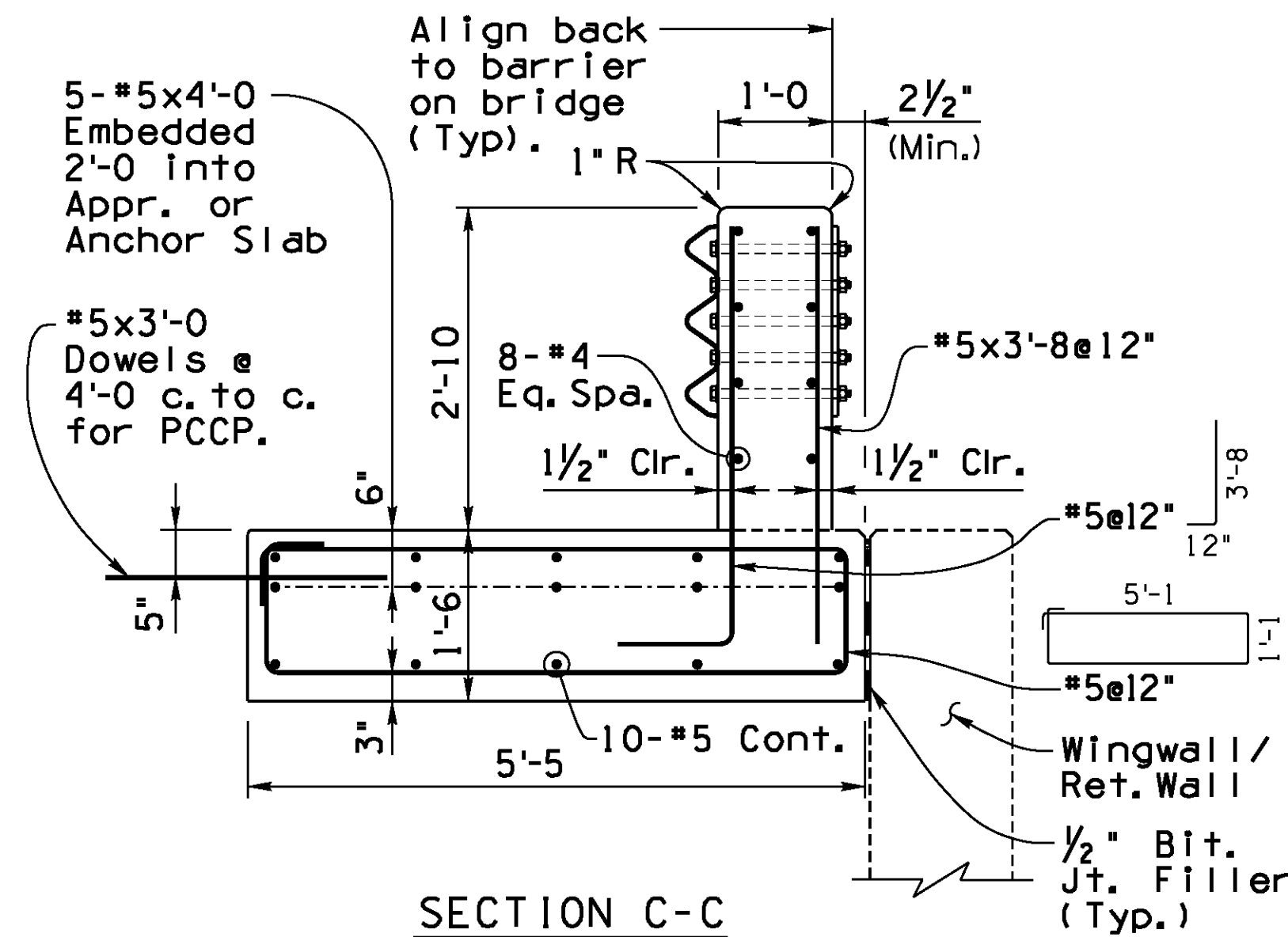


SECTION B-B

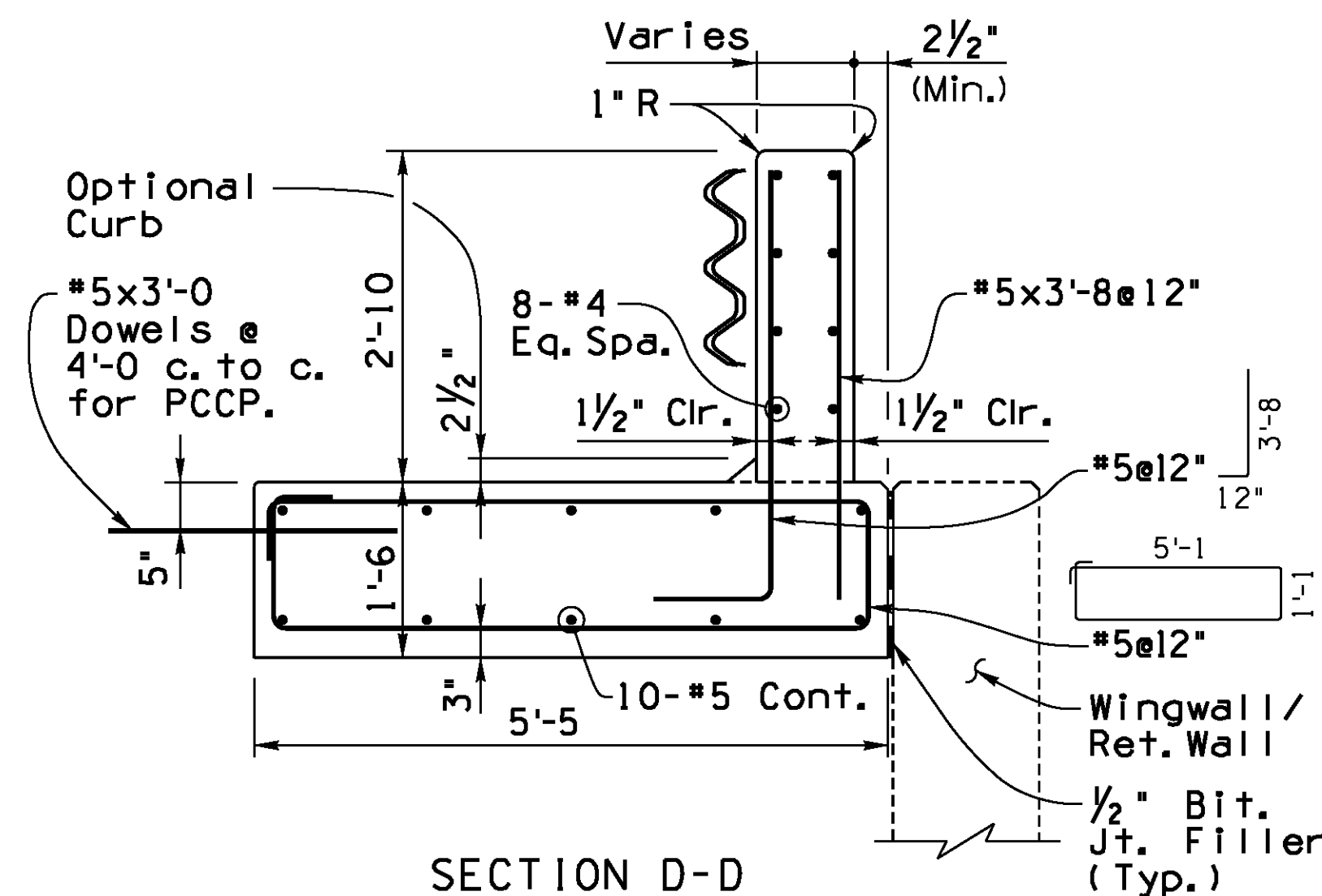


JOINT BAR DETAIL

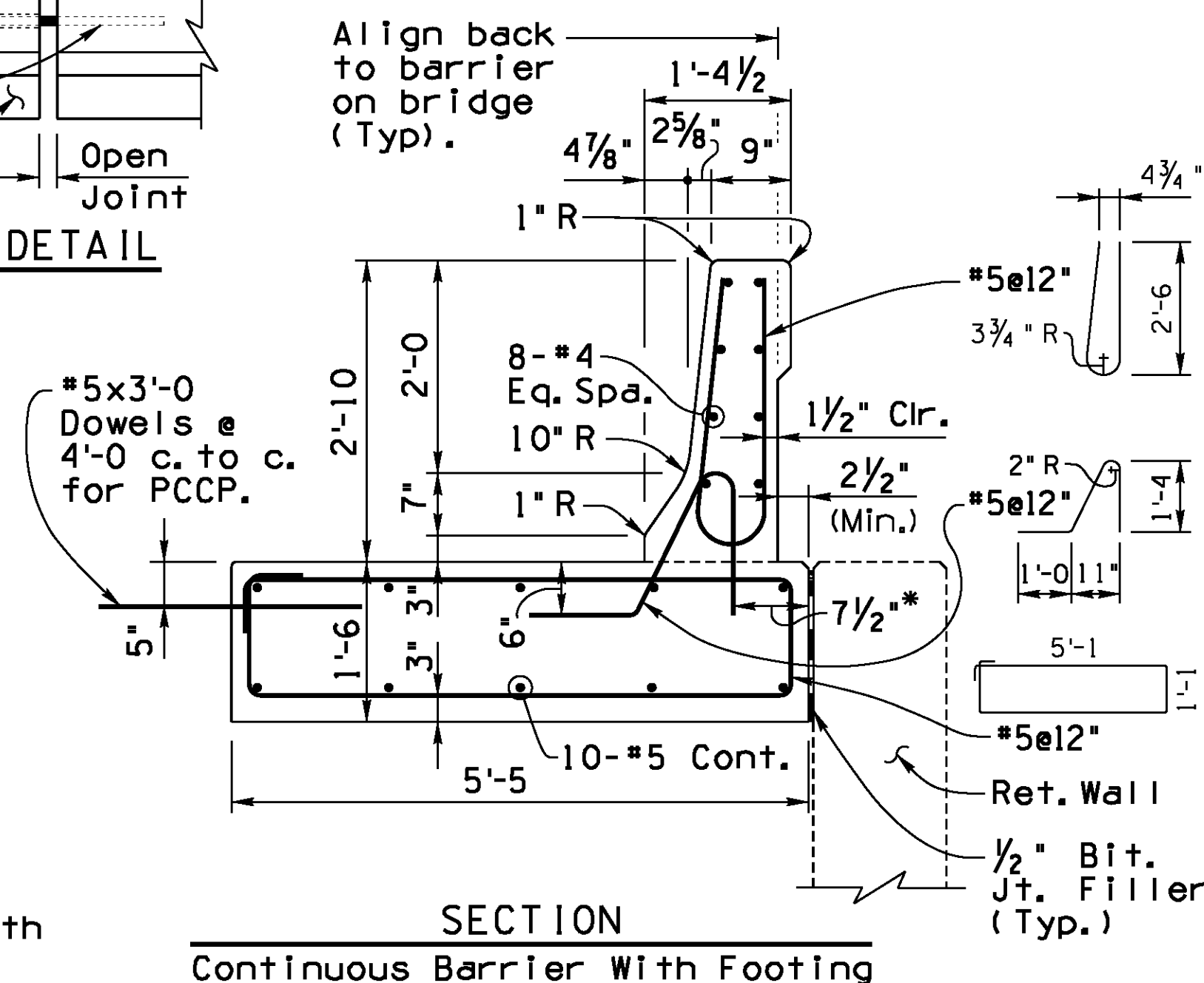
*varies at taper length



SECTION C-C



SECTION D-D



SECTION

Continuous Barrier With Footing

GENERAL NOTES:

Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, latest Edition.

Design Specifications - AASHTO LRFD Bridge Design Specifications, 6th Edition 2012.

This barrier has been successfully crash tested and is structurally evaluated as meeting the requirements of NCHRP Report 350 Test Level 4.

All Concrete shall be Class "S" (f'c = 4000 psi).

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60. All reinforcing shall be epoxy coated at locations above EL.4000 ft.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcing steel shall have 2 inch clear cover unless noted otherwise.

Concrete barriers on continuous superstructures shall have 1/2" bituminous joint filler in open joints over piers. See bridge drawings for details.

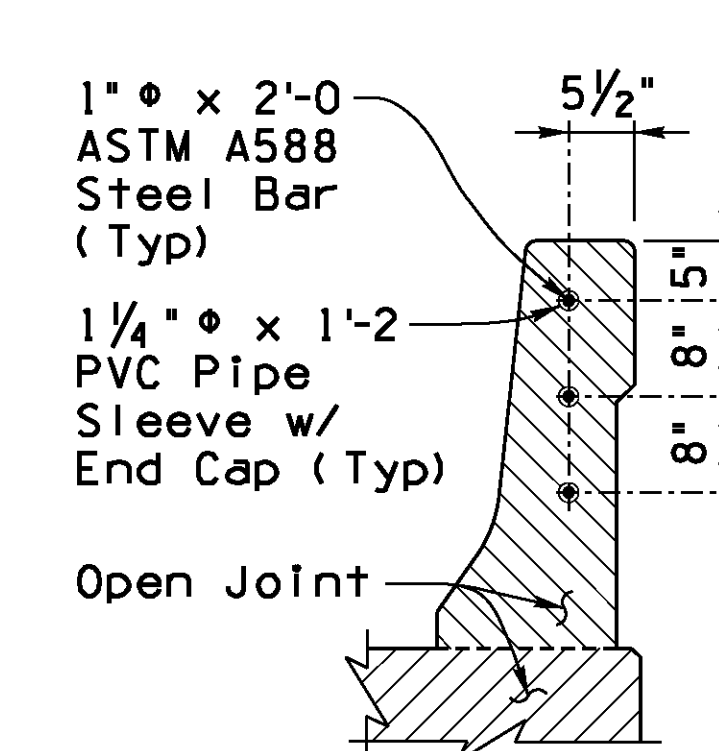
Imbed 1/2", Bridge Number and Year Built, using 1 1/2" w x 2" h number impressions in concrete, located as shown at the approach end of the outside lane.

Anchorage bars are included in the pay item for barrier (Item No. 6011140).

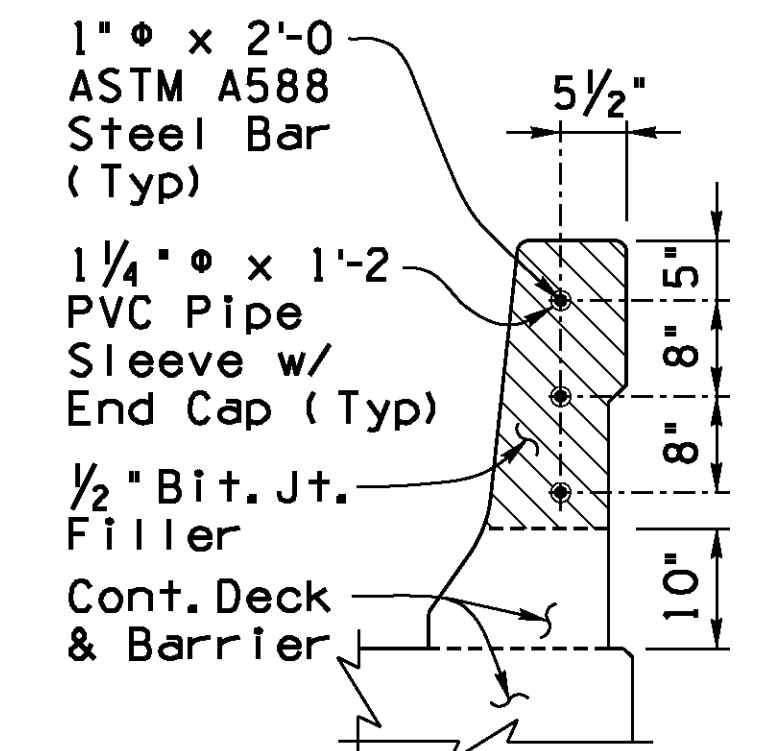
Omit bridge barrier transition when concrete barrier is continuous beyond bridge.

Dimensions shall not be scaled from drawings.

Item No. 6011140 F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34')
Measure: Linear Foot



OPEN JOINT DETAIL
At Expansion Joints

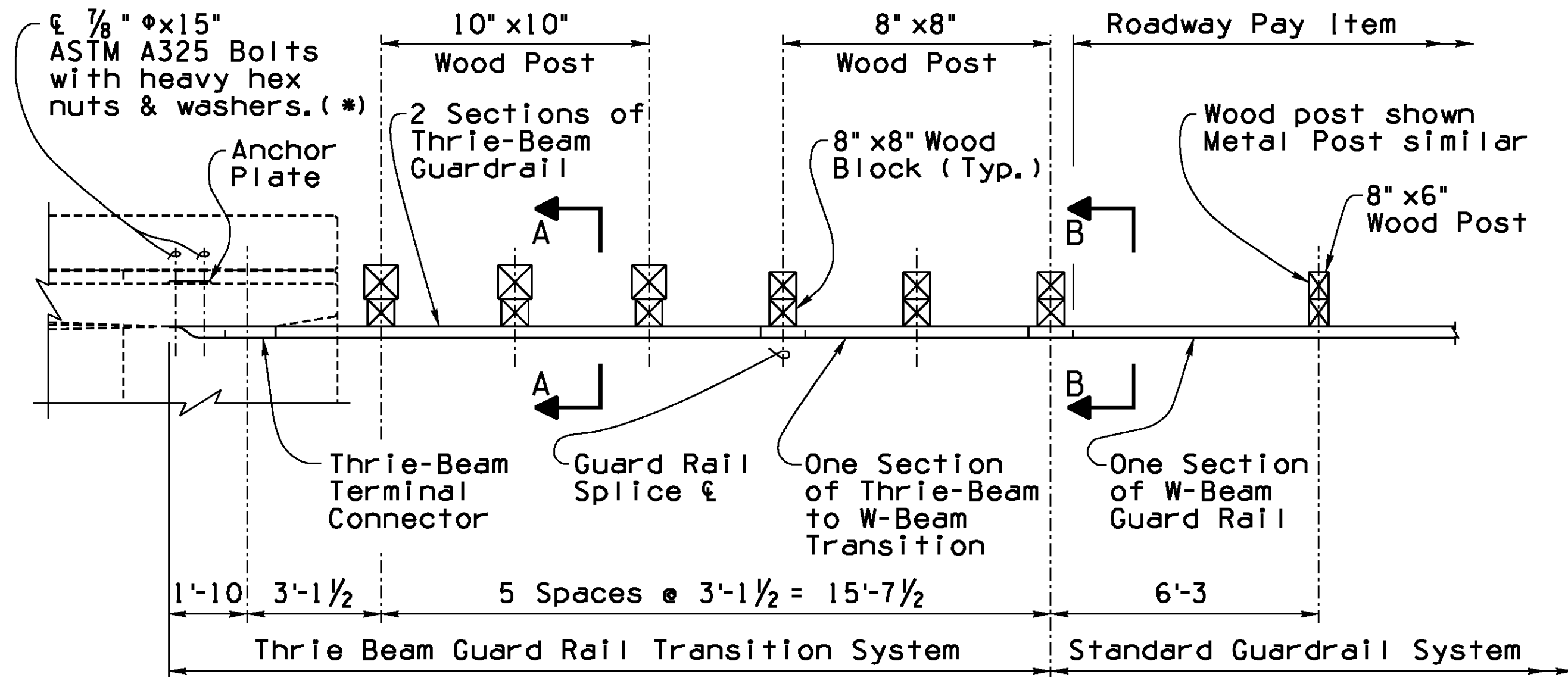


OPEN JOINT DETAIL
Over Continuous Piers

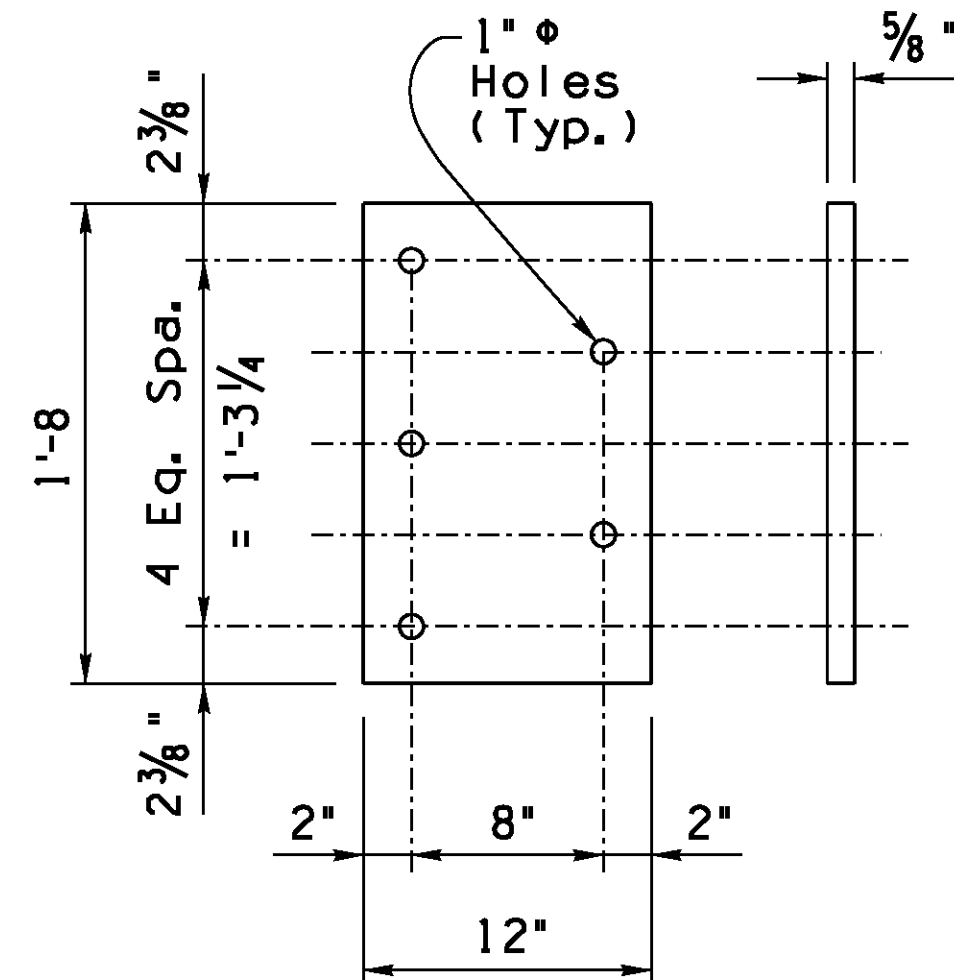
DESIGN APPROVED <i>Shafiq H. Hasan</i>	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STRUCTURE DETAIL
APPROVED FOR DISTRIBUTION <i>Teon A. Nehme</i>	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34')
ROUTE OLD US 66	PROJECT NO. 0000 MO MMO T0021 OIC
LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	FA NO. MMO-0121617
	DRAWING NO. SD 1.01
	SHEET NO. 72 OF 76

Note to Designer:
The information presented in this Standard Detail has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

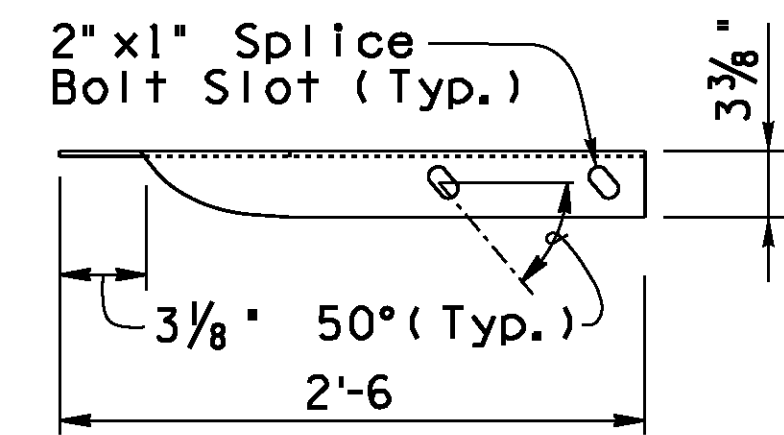
NO.	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	Original Issue	S.U.H.	8-99
2	General Update	S.U.H.	11-07
3	Barrier height reference	S.U.H.	6-12



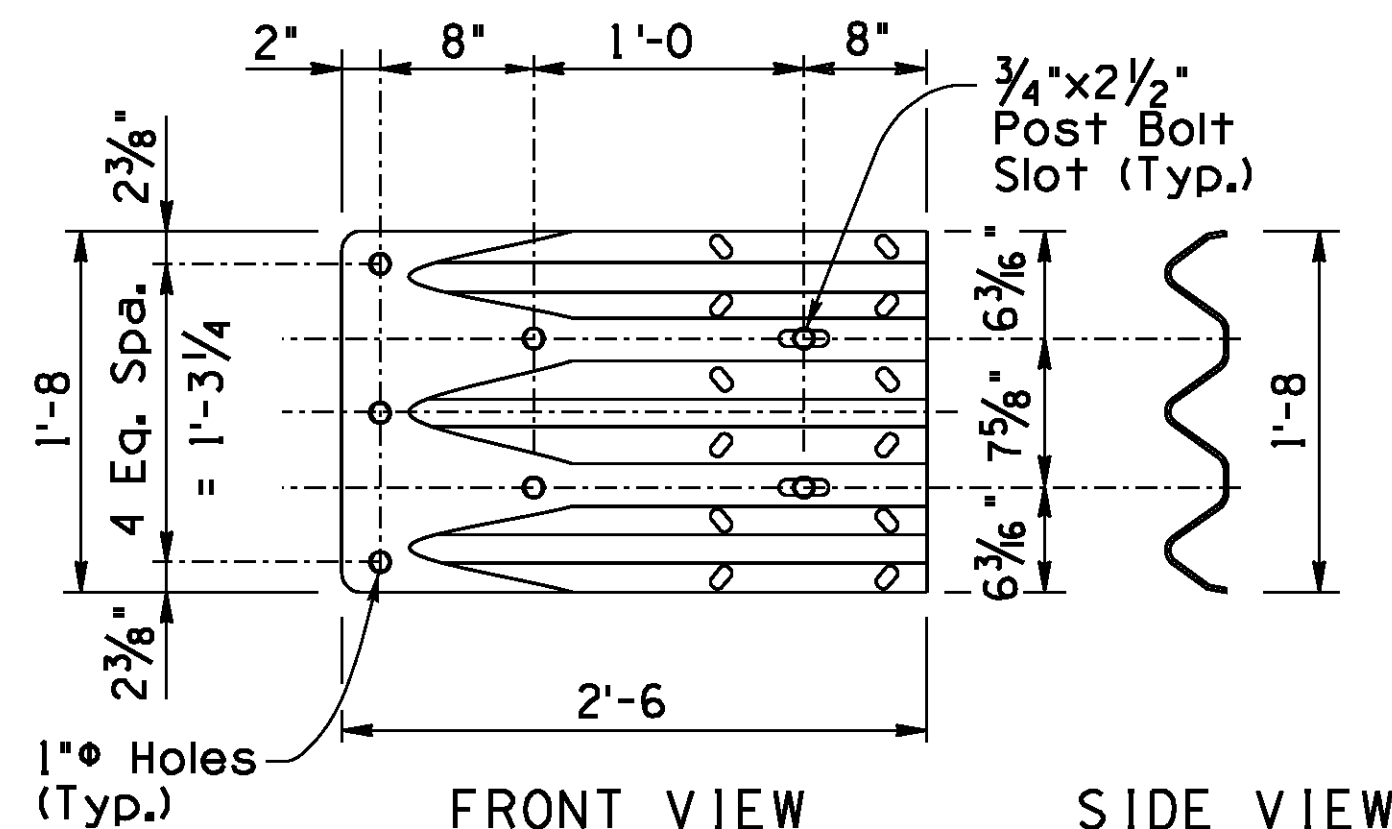
PLAN



ANCHOR PLATE



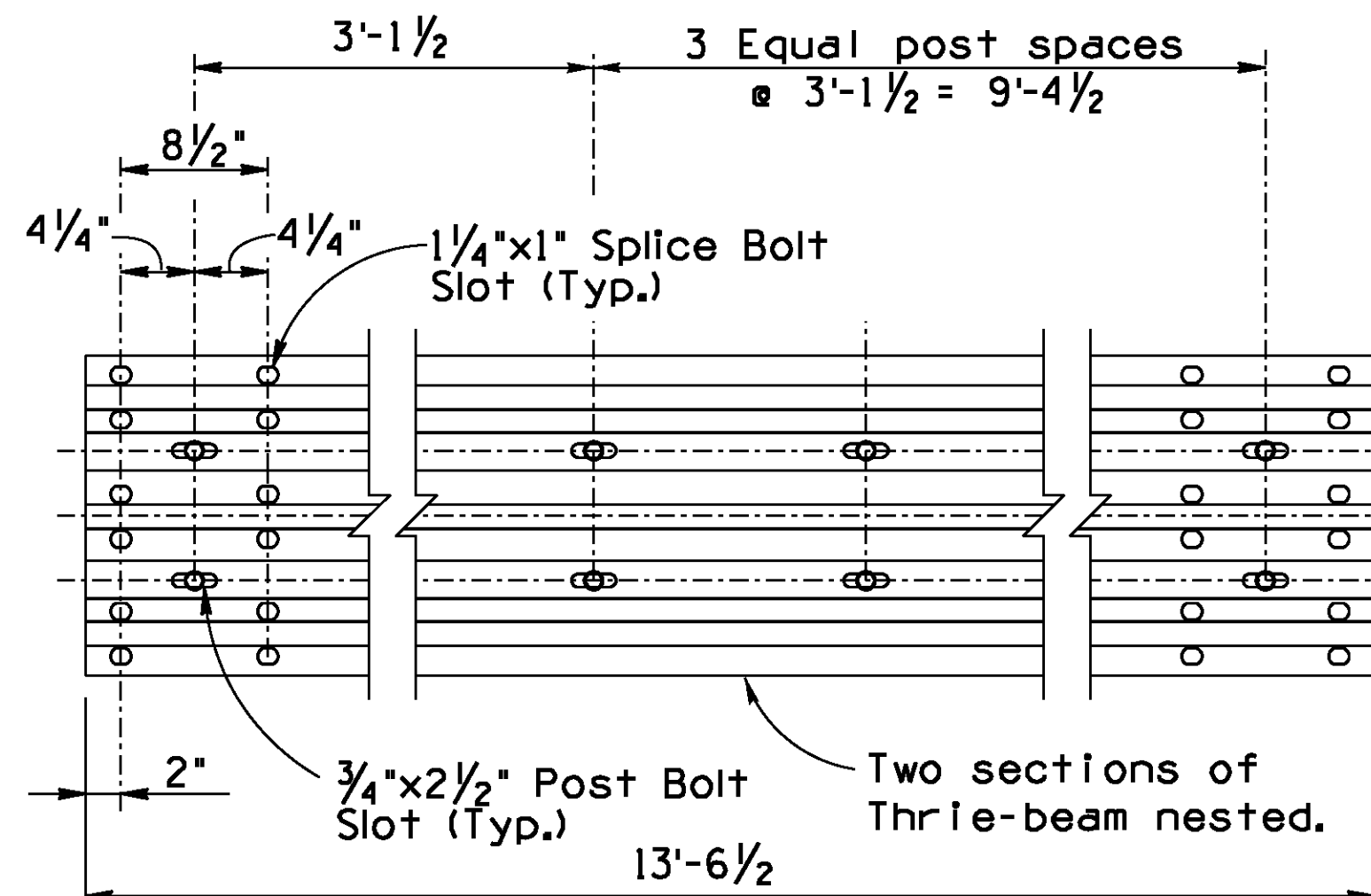
TOP VIEW



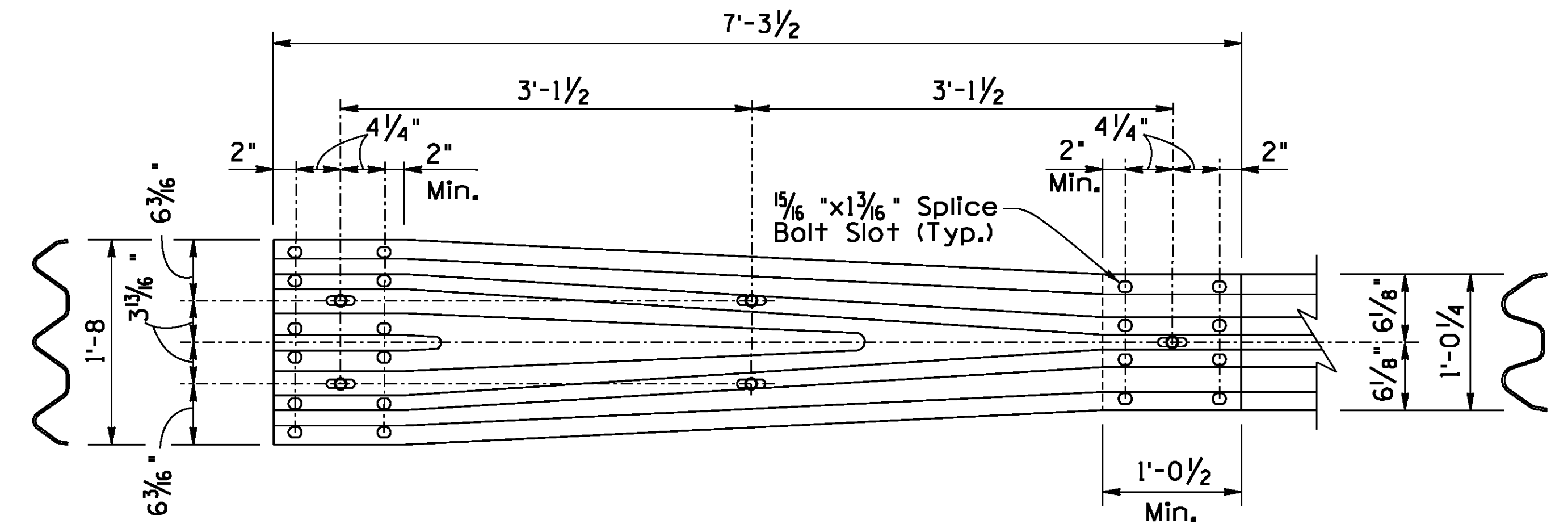
FRONT VIEW

SIDE VIEW

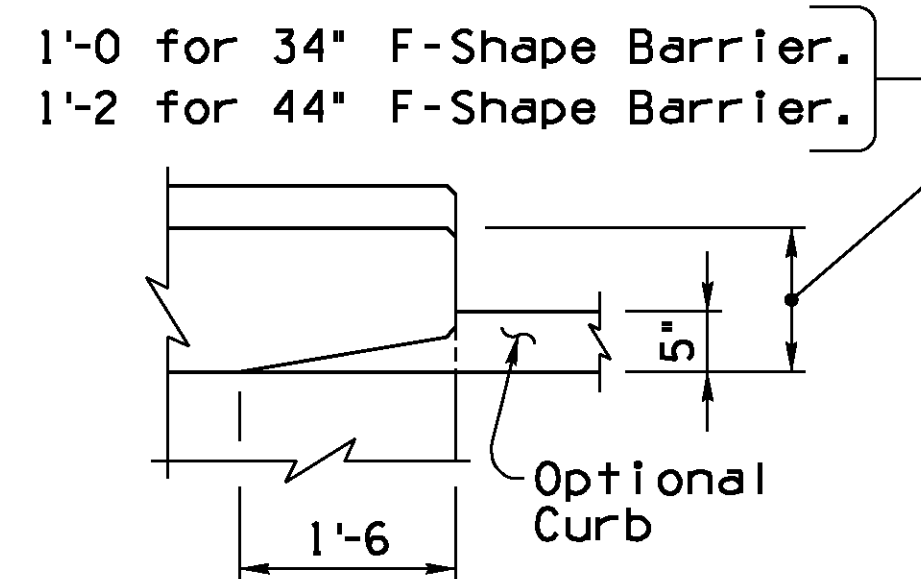
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM ELEVATION

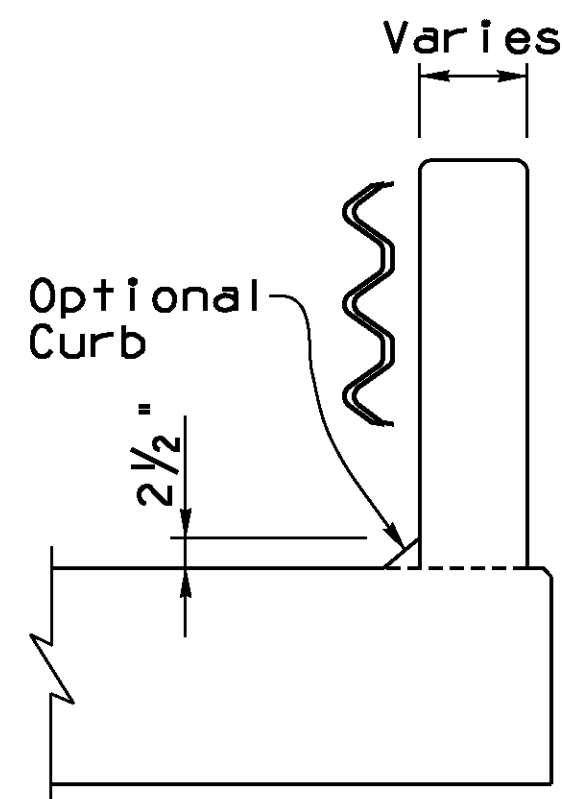


TRANSITION ELEVATION



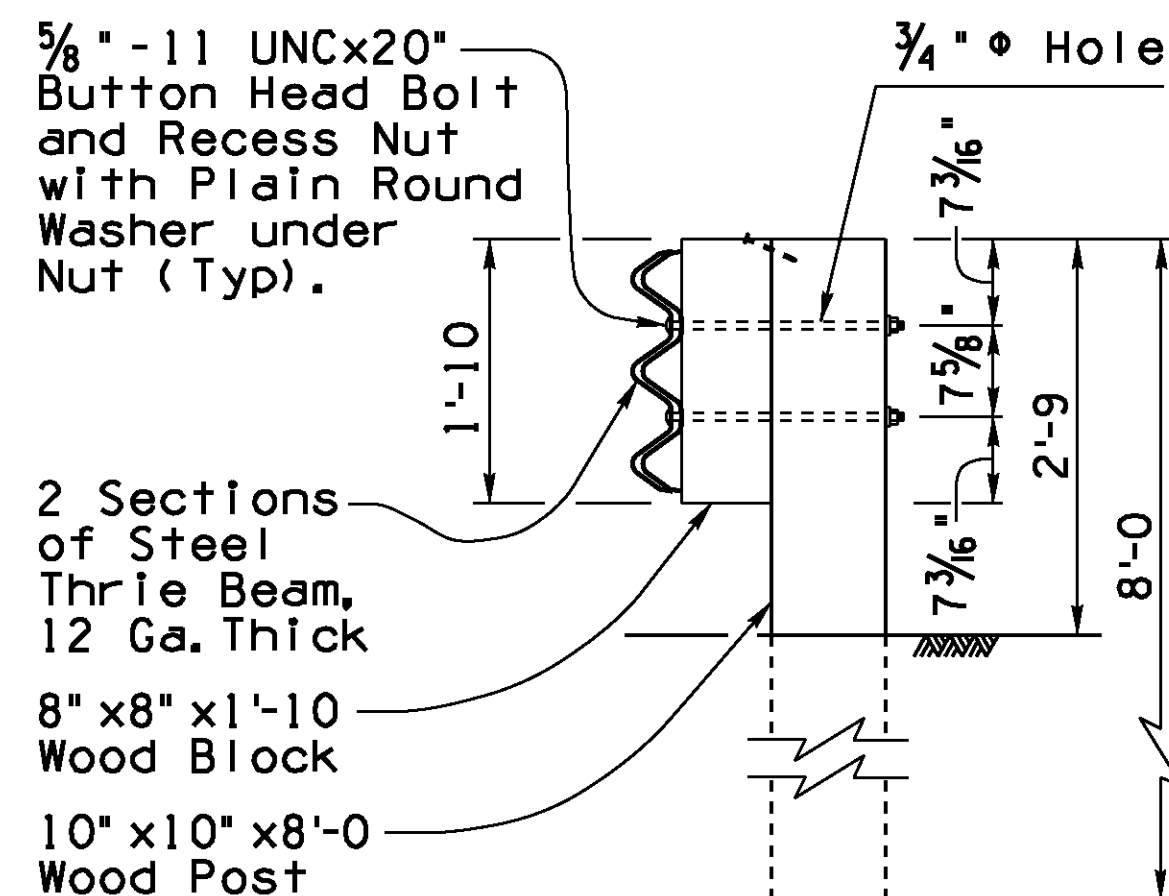
PART. PLAN

(Showing Opt. Curb)

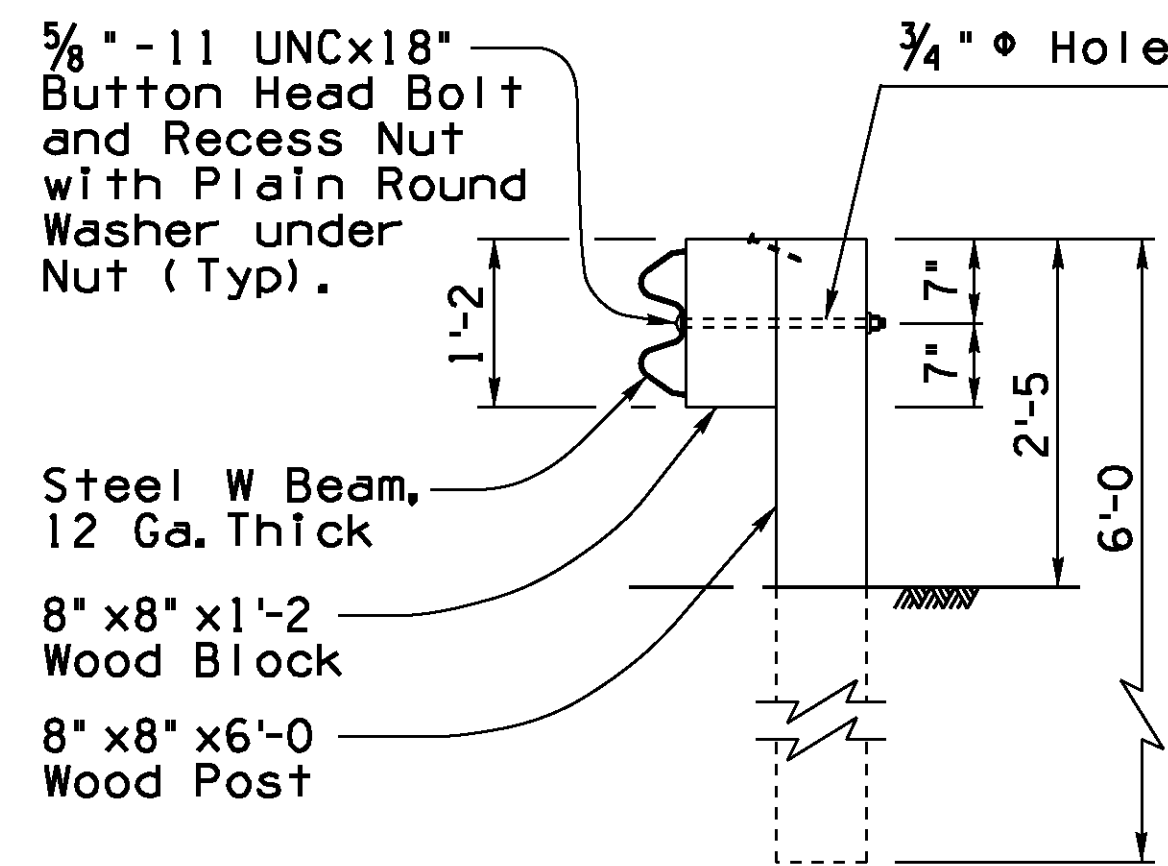


END VIEW

(Showing Opt. Curb)



SECTION A-A



SECTION B-B

GENERAL NOTES:

Thrie Beam Transition Hardware provided is per AASHTO-AGC-ARTBA Joint Committee Task Force 13 Report.

Structural steel shall conform to ASTM Specification A36 unless noted otherwise.

Anchor plates, terminal connectors and thrie beams shall be galvanized after fabrication in accordance with ASTM A123 unless noted otherwise. All bolts, nuts and washers shall be galvanized in accordance with the requirements of ASTM A153. At the contractors option, stainless steel bolts and washers may be used. They shall conform to or exceed the mechanical requirements of ASTM A325. Provide additional washers, as needed, for longer bolt length.

Overlap of the terminal connector, thrie beam, transition and guardrails shall be in the direction of the adjacent traffic lane.

Dimensions shall not be scaled from drawings.

Item No. 9050430 THRIE BEAM GUARD RAIL TRANSITION SYSTEM
Measure: Each

DESIGN APPROVED <i>Shafiq H. Hasan</i>	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STRUCTURE DETAIL
APPROVED FOR DISTRIBUTION <i>Teon A. Nehme</i>	THRIE BEAM GUARD RAIL TRANSITION SYSTEM
ROUTE OLD US 66	PROJECT NO. 0000 MO MMO T0021 OIC
LOCATION OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	FA NO. MMO-0(216)T
	DRAWING NO. SD 1.03
	SHEET NO. 73 OF 76

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	74	76	

0000 MO MMO

NOTES

1. General soil and rock strata descriptions and indicated boundaries are based on engineering interpretation of available subsurface information by the geotechnical engineer and may not reflect actual variation in subsurface conditions between borings and samples. The location of contacts between strata shown on the logs are generally approximate, and changes between material types may be gradual rather than abrupt.

Classification of soil materials is in accordance with ASTM D 2488-00 and is based on field observation unless accompanied by mechanical analysis presented in the Geotechnical exploration report - Foundations, Sacramento Wash Bridge
Oatman Highway - Mohave County Road 10
Mohave County, Arizona
ADOT Contract No. 2014-006-010
Prepared by Kleinfelder West, Inc.

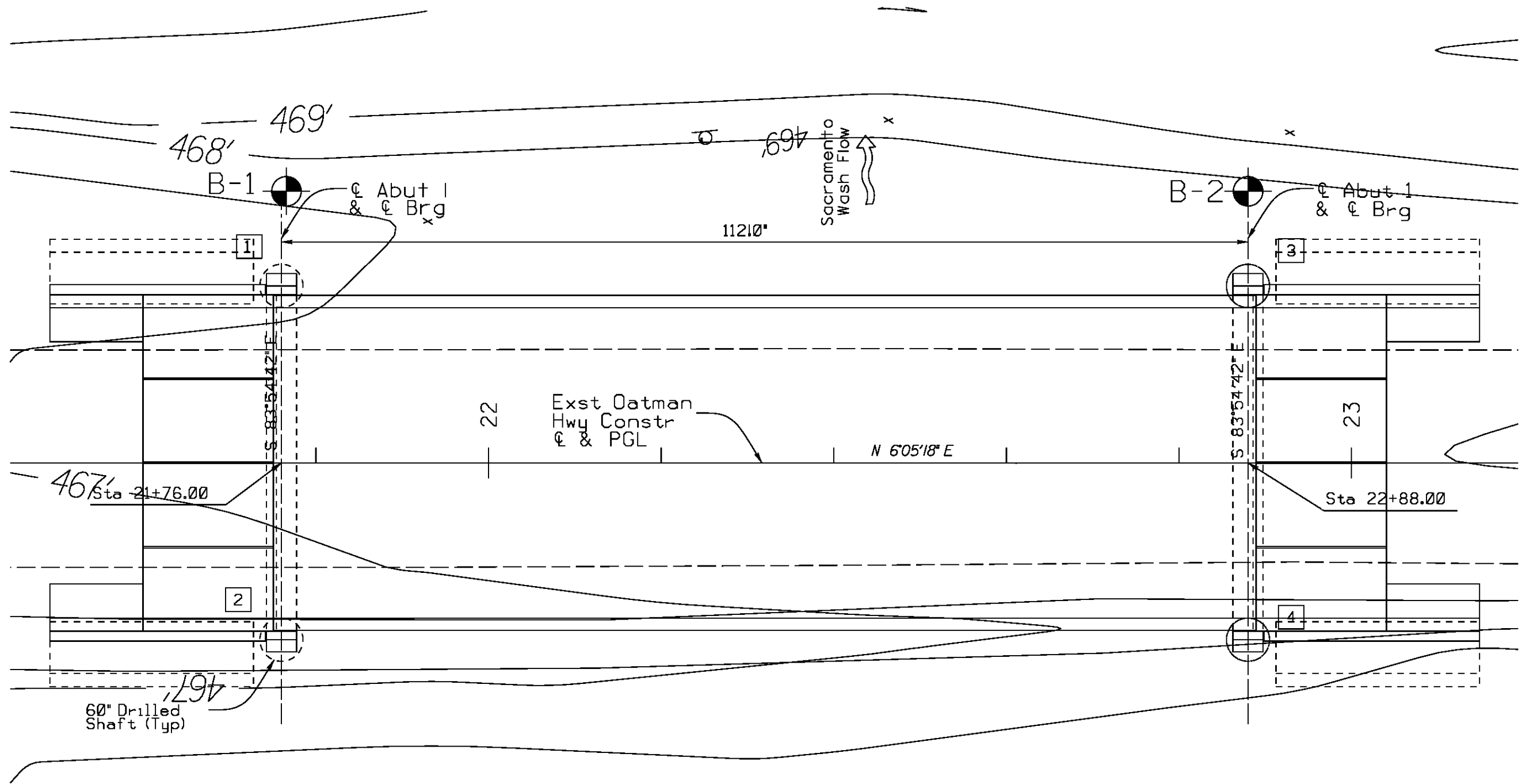
2. The observed water levels and/or moisture conditions indicated on the boring logs are as recorded at the time of exploration. These water levels and/or moisture conditions may vary considerably with time, according to the prevailing climate, rainfall or other factors and are otherwise dependent upon the duration of and methods used in the exploration program.

3. Sound engineering judgement was exercised in preparing the subsurface information presented on these sheets. This information was prepared and is intended for design and estimate purposes. Its presentation on the plans or elsewhere is for the purpose of providing intended users with access to the same information as ADOT and its designers. This subsurface information interpretation is presented in good faith and is not intended as a substitute for personal investigation independent interpretations or judgement of the contractor.

4. A 140 lb. hammer, 30 inch free-fall, was used to drive both the Standard Penetration Test (SPT) split-spoon sampler (ASTM S 1586-84) and the ring-lined sampler.

LOG SYMBOLS

	BULK / GRAB SAMPLE
	RING SAMPLER (2.5-inch inside diameter)
	STANDARD PENETRATION SPLIT SPOON SAMPLER (1.4-inch inside diameter)
	WATER LEVEL (level after completion)
	WATER LEVEL (level where first encountered)



LEGEND

B-1 KLEINFELDER TEST BORING

BORING PLAN
NOT TO SCALE

NAME			DATE			ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP		
DESIGN	DMF		06/16					
DRAWN	DMF		06/16					
CHECKED	DS		06/16					
			LOCATION			STA 22+ SACRAMENTO CROSSING FOUNDATION DATA SHEET I		
OLD US ROUTE	1.2	11502	STRUCTURE NO.			OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING		
TRACS NO. T00210IC			MMO-0(216)T			DWG NO. SF-101		

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	75	76	

0000 MO MMO

DATE: 3/22/2016 - 3/24/2016
BORING LOG B-1
Logged By: J. Flannery/D. Rossman
Drilling Company: GSI/Southlands
Drill Crew: Ramon/Gilbert
Hor.-Vert. Datum: WGS84
Drilling Equipment: CME-75
Hammer Type - Drop: 140 lb. Auto - 30 in.
Plunge: -90 degrees
Drilling Method: Hollow Stem Auger/mud Rotar
Weather: Clear & sunny
Exploration Diameter: 4.25/8.25 in. O.D.

FIELD EXPLORATION		LABORATORY RESULTS										
Depth (feet)	Graphical Log	Sample Type	Base Count/Bore Unit	Recovery (NFI/No Recovery)	USCS Symbol	Moisture Content (%)	Dry Unit Wt. (pcf)	Placing #4 (%)	Placing #200 (%)	Liquid Limit	Plasticity Index (NFI/NonPlastic)	Additional Tests/Remarks
0	Fill											
0	Silty SAND (SM): medium-grained sand, brown, dry											
5	Well-graded SAND with Silt (SW-SM): medium to coarse-grained sand, non-plastic, brown, slightly moist, medium dense	BC-4	8	12"	SW-SM	3.0	89	8.9	NP	NP		
10	coarse-grained sand, with sub-angular to angular fine-grained gravel, moist to wet, dense below 10 feet	BC-16	23	16"	SW-SM	8.8	77	8.4	NP	NP		
15	medium dense below 15 feet	BC-10	13	16"	SW-SM	9.5	72	7.5	NP	NP		
20	Poorly graded SAND with Silt and Gravel (SP-SM): medium to coarse-grained, non-plastic, brown, wet, dense, angular gravel and/or cobbles	BC-12	7	14"	SP-SM	9.6	69	7.4	NP	NP		
25	Clayey SAND (SC): coarse-grained sand, with gravel, olive brown, wet, dense, pale purple clay in shoe for 1"	BC-22	30	7"								
30	Poorly graded SAND with Silt (SP-SM): non-plastic, yellowish brown, wet, looks like shale	BC-7	5	16"	SP-SM		92	6.8	NP	NP		
35	increased clay, low plasticity clay at 31.3 feet	BC-6	6	13"								Switch to mud rotary at 35 feet
40	some rock fragments present below 40 feet	BC-16	18	14"	SP-SM		91	8.8	NP	NP		

KLEINFELDER - 1335 West Auto Drive | Tempe, AZ 85284 | PH: 480.763.1200 | FAX: 480.763.1212 | www.kleinfelder.com

DATE: 3/22/2016 - 3/24/2016
BORING LOG B-1
Logged By: J. Flannery/D. Rossman
Drilling Company: GSI/Southlands
Drill Crew: Ramon/Gilbert
Hor.-Vert. Datum: WGS84
Drilling Equipment: CME-75
Hammer Type - Drop: 140 lb. Auto - 30 in.
Plunge: -90 degrees
Drilling Method: Hollow Stem Auger/mud Rotar
Weather: Clear & sunny
Exploration Diameter: 4.25/8.25 in. O.D.

FIELD EXPLORATION		LABORATORY RESULTS										
Depth (feet)	Graphical Log	Sample Type	Base Count/Bore Unit	Recovery (NFI/No Recovery)	USCS Symbol	Moisture Content (%)	Dry Unit Wt. (pcf)	Placing #4 (%)	Placing #200 (%)	Liquid Limit	Plasticity Index (NFI/NonPlastic)	Additional Tests/Remarks
0	Silty SAND (SM): non-plastic, yellowish brown, wet, trace clay	BC-11	16	17"								
50	becomes brown, increased gravel below 45.3 feet	BC-18	10	7"								
55	medium to coarse-grained sand, with sub-rounded gravel, medium dense below 50 feet	BC-10B	9									
55	increased gravel, cobbles and boulders at 55 feet	BC-50B	3									
60		BC-50B	NR									Auger chatter
65	Silty Clayey SAND with Gravel (SC-SM): fine to medium-grained sand, fine sub-angular gravel, low plasticity, brown, wet, very dense	BC-50B	5									
70		BC-50B	6	SC-SM	11.9		81	15	24	7		
75		BC-50	504"	10"								
80	reddish brown below 80 feet	BC-50B	6									
85		BC-50B	5									

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DATE: 3/22/2016 - 3/24/2016
BORING LOG B-1
Logged By: J. Flannery/D. Rossman
Drilling Company: GSI/Southlands
Drill Crew: Ramon/Gilbert
Hor.-Vert. Datum: WGS84
Drilling Equipment: CME-75
Hammer Type - Drop: 140 lb. Auto - 30 in.
Plunge: -90 degrees
Drilling Method: Hollow Stem Auger/mud Rotar
Weather: Clear & sunny
Exploration Diameter: 4.25/8.25 in. O.D.

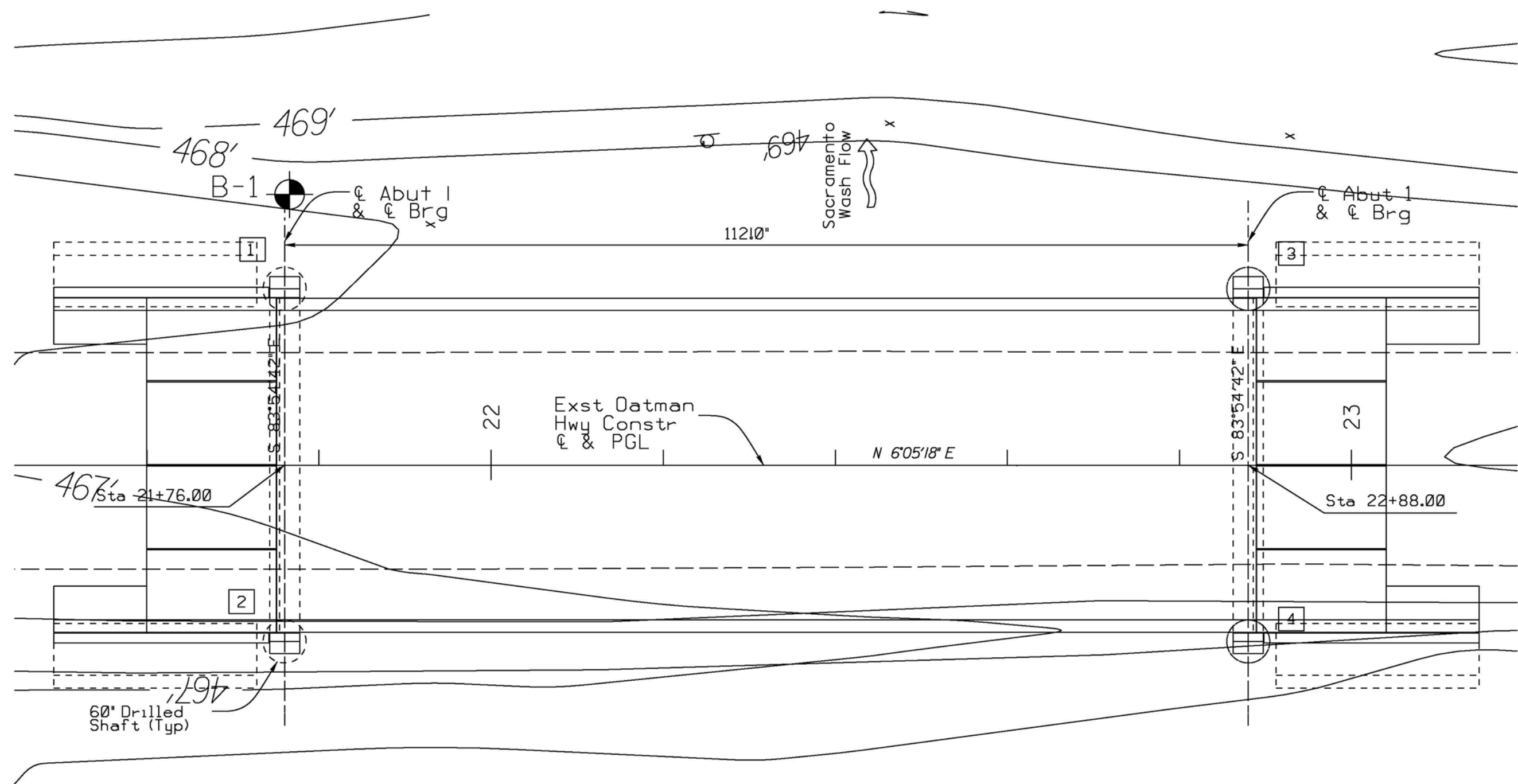
FIELD EXPLORATION		LABORATORY RESULTS										
Depth (feet)	Graphical Log	Sample Type	Base Count/Bore Unit	Recovery (NFI/No Recovery)	USCS Symbol	Moisture Content (%)	Dry Unit Wt. (pcf)	Placing #4 (%)	Placing #200 (%)	Liquid Limit	Plasticity Index (NFI/NonPlastic)	Additional Tests/Remarks
0	Silty Clayey SAND with Gravel (SC-SM): fine to medium-grained sand, fine sub-angular gravel, low plasticity, brown, wet, very dense	BC-27	11"									
5	medium-grained sand, fine sub-angular gravel, low plasticity, brown, wet, very dense	BC-50B	5"									
10	yellowish/reddish brown clay seams at 90 feet (0.5 to 1 inches thick)	BC-50B	5"									
105		BC-50B	6"	SC-SM	11.3		89	16	21	6		
110		BC-50B	5"									
115		BC-50B	3"									
120		BC-50B	5"									

The boring was terminated at approximately 120.5 ft. below ground surface. The boring was backfilled with auger cuttings/heat cement on March 25, 2016.

GROUNDWATER LEVEL INFORMATION:
Groundwater was observed at approximately 10 ft. below ground surface during drilling.
Groundwater was observed at approximately 9.8 ft. below ground surface at the end of drilling.

GENERAL NOTES:

KLEINFELDER - 1335 West Auto Drive | Tempe, AZ 85284 | PH: 480.763.1200 | FAX: 480.763.1212 | www.kleinfelder.com



BORING PLAN
NOT TO SCALE

LEGEND
B-1 KLEINFELDER TEST BORING

DESIGN	DMF	DATE	06/16	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP	
DRAWN	DMF	DATE	06/16		
CHECKED	DS	DATE	06/16		
				STA 22+ SACRAMENTO CROSSING FOUNDATION DATA SHEET 2	
OLD US ROUTE	1.2	11502	LOCATION	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
TRACS NO. T0021 OIC			MMO-0(216)T		DWG NO. SF-1.02

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	MMO-0(216)T	76	76	

0000 MO MMO

Date Begin - End:3/21/2016 - 3/22/2016
Logged By:J. Flannery/D. Rossman
Hor.-Vert. Datum:WGS84
Plunge:-90 degrees
Weather:Clear & sunny

Drilling Company:GSI/Southlands
Drill Crew:Ramon/Gilbert
Drilling Equipment:CME-75
Drilling Method:Hollow Stem Auger/mud Rotar
Exploration Diameter:4.25/8.25 in. O.D.

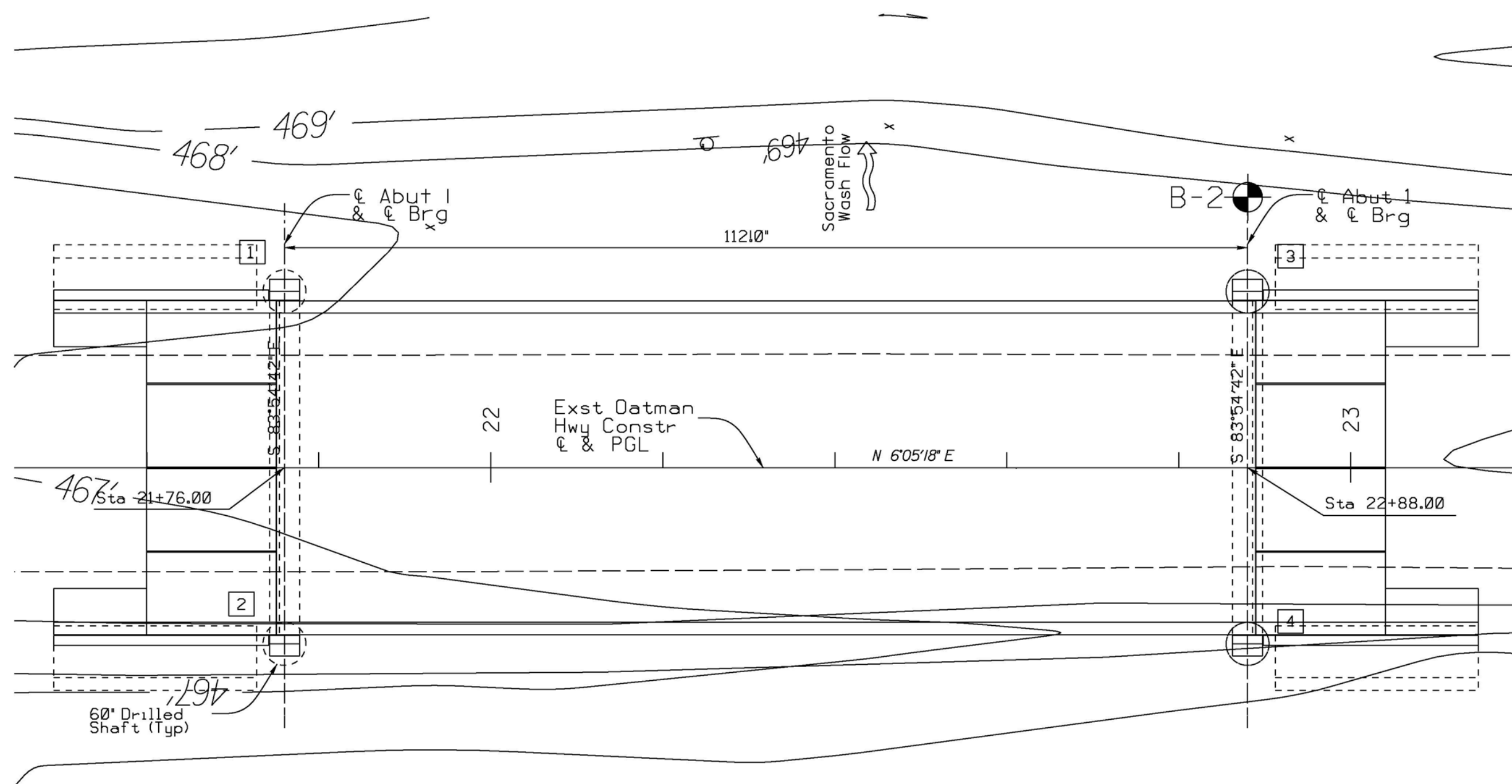
BORING LOG B-2
Hammer Type - Drop:140 lb. Auto - 30 in.

FIELD EXPLORATION			LABORATORY RESULTS						
Depth (feet)	Graphical Log	Sample Type (Base Core Log) USCS Symbol	Recovery (NFI/No Recovery)	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #60 (%)	Plasticity Index (NP=nonplastic)	Additional Tests/ Remarks
Lithologic Description									
5 <									

Date Begin - End: 3/21/2016 - 3/22/2016		Drilling Company: GSI/Southlands		BORING LOG B-2		
Logged By: J. Flannery/D. Rossman		Drill Crew: Ramon/Gilbert				
Hor.-Vert. Datum: WGS84		Drilling Equipment: CME-75		Hammer Type - Drop: 140 lb. Auto - 30 in.		
Plunge: -90 degrees		Drilling Method: Hollow Stem Auger/mud Rotar				
Weather: Clear & sunny		Exploration Diameter: 4.25/8.25 in. O.D.				
		FIELD EXPLORATION		LABORATORY RESULTS		
Depth (feet)	Graphical Log	Sample Type	Recovery (NFI/No Recovery)	USCS	Moisture Content (%)	
Lithologic Description					Dry Unit Wt. (pcf)	
					Pressing 44" (%)	
					Pressing 8200 (%)	
					Liquid Limit	
					Plasticity Index (NP=nonplastic)	
					Additional Tests/Remarks	
0	Silty SAND with Clay (SC-SM): fine-grained sand, low plasticity, brown, wet, medium dense	BC-8	18"			Switch to mud rotary at 45 feet
50	Poorly graded SAND (SP): medium to coarse-grained sand, with sub-rounded to rounded gravel, brown, wet, medium dense to very dense	BC-10	9"			
50		BC-10	7 9/16"			
55		BC-16	9"			Hard layer at 53 feet, drill rig chatter
55		BC-16	50 9/16"			
60		BC-11	16"			
60		BC-11	4 1/4"			
65		BC-16	14"			
65		BC-16	40 50 9/16"			Heaving sands plugging auger, required occasional use of plug pusher below 65 feet
70		BC-40	9"			
70		BC-40	50 9/16"			
75	Well-graded SAND with Silt and Gravel (SW-SM): coarse-grained sand, fine sub-angular gravel, yellowish brown, wet, very dense	BC-43	6"	SW-SM	12.1	
75		BC-43	50 2/16"			
80		BC-44	10"			Water/EZ Mud added intermittently below 75 feet
80		BC-44	50 1/4"			
85	Poorly graded SAND with Gravel (SP): coarse-grained sand, fine sub-angular gravel, non-plastic to low plasticity, brown, wet, very dense, becomes clayey sand with gravel in lower 2-3" of sampler	BC-50	9"			Auger chatter at 85 feet
85		BC-50	50 9/16"			
PROJECT NO.: 20162731		BORING LOG B-2		PLATE		
DRAWN BY: CLW				A-5		
CHECKED BY: MM		Sacramento Wash Bridge				
DATE: 12/14/2015		Oatman Highway - Mohave County Road 10				
REVISED: -		ADOT Contract No. 2014-036.010				
		Mohave County, Arizona		PAGE: 2 of 3		

Date Begin - End: 3/21/2016 - 3/22/2016		Drilling Company: GSI/Southlands		BORING LOG B-2		
Logged By: J. Flannery/D. Rossman		Drill Crew: Ramon/Gilbert				
Hor.-Vert. Datum: WGS84		Drilling Equipment: CME-75		Hammer Type - Drop: 140 lb. Auto - 30 in.		
Plunge: -90 degrees		Drilling Method: Hollow Stem Auger/mud Rotar				
Weather: Clear & sunny		Exploration Diameter: 4.25/8.25 in. O.D.				
		FIELD EXPLORATION		LABORATORY RESULTS		
Depth (feet)	Graphical Log	Sample Type	Recovery (NFI/No Recovery)	USCS	Moisture Content (%)	
Lithologic Description					Dry Unit Wt. (pcf)	
					Pressing 44" (%)	
					Pressing 8200 (%)	
					Liquid Limit	
					Plasticity Index (NP=nonplastic)	
					Additional Tests/Remarks	
0	Silty SAND with Clay (SC-SM): fine-grained sand, low plasticity, brown, wet, medium dense	BC-8	18"			Switch to mud rotary at 45 feet
50	Poorly graded SAND (SP): medium to coarse-grained sand, with sub-rounded to rounded gravel, brown, wet, medium dense to very dense	BC-10	9"			
50		BC-10	7 9/16"			
55		BC-16	9"			Hard layer at 53 feet, drill rig chatter
55		BC-16	50 9/16"			
60		BC-11	16"			
60		BC-11	4 1/4"			
65		BC-16	14"			
65		BC-16	40 50 9/16"			Heaving sands plugging auger, required occasional use of plug pusher below 65 feet
70		BC-40	9"			
70		BC-40	50 9/16"			
75	Well-graded SAND with Silt and Gravel (SW-SM): coarse-grained sand, fine sub-angular gravel, yellowish brown, wet, very dense	BC-43	6"	SW-SM	12.1	
75		BC-43	50 2/16"			
80		BC-44	10"			Water/EZ Mud added intermittently below 75 feet
80		BC-44	50 1/4"			
85	Poorly graded SAND with Gravel (SP): coarse-grained sand, fine sub-angular gravel, non-plastic to low plasticity, brown, wet, very dense, becomes clayey sand with gravel in lower 2-3" of sampler	BC-50	9"			Auger chatter at 85 feet
85		BC-50	50 9/16"			
PROJECT NO.: 20162731		BORING LOG B-2		PLATE		
DRAWN BY: CLW				A-5		
CHECKED BY: MM		Sacramento Wash Bridge				
DATE: 12/14/2015		Oatman Highway - Mohave County Road 10				
REVISED: -		ADOT Contract No. 2014-036.010				
		Mohave County, Arizona		PAGE: 2 of 3		

Date Begin - End: 3/21/2016 - 3/22/2016		Drilling Company: GSI/Southlands		BORING LOG B-2								
Logged By: J. Flannery/D. Rossman		Drill Crew: Ramon/Gilbert										
Hor.-Vert. Datum: WGS84		Drilling Equipment: CME-75		Hammer Type - Drop: 140 lb. Auto - 30 in.								
Plunge: -90 degrees		Drilling Method: Hollow Stem Auger/mud Rotar										
Weather: Clear & sunny		Exploration Diameter: 4.25/8.25 in. O.D.										
		FIELD EXPLORATION		LABORATORY RESULTS								
Depth (feet)	Graphical Log	Latitude 34.72111° N Longitude 114.47783° W Surface Condition: Flat-gravelly shoulder	Sample Type Upper 50' Standard Penetration Test	Recovery (NFI/No Recovery)	USCS Symbol	Water Content (%)	Dry Unit Wt. (pcf)	Passing #20 (%)	Passing #200 (%)	Liquid Limit (NP=nonplastic)	Plasticity Index (NP=nonplastic)	Additional Tests/ Remarks
		Lithologic Description										
		Poorly graded SAND with Gravel (SP): coarse-grained sand, fine sub-angular gravel, non-plastic to low plasticity, brown, wet, very dense, becomes clayey sand with gravel in lower 2-3" of sampler	BC-40 50"	7"								
		sparse reddish brown clayey sand layers below 95 feet (0.5 to 2 inches thick)	BC-50 4"	4"								Auger chatter at 95 feet, slow drilling
			BC-50 6"	6"								
			BC-50 6"	6"								
		Clayey SAND with Gravel (SC): coarse-grained sand, fine sub-angular gravel, low plasticity, reddish/grayish brown, wet, very dense	BC-47 50 9/16"	11"	SC	13.6		73	13	23	8	
			BC-37 50 2/16"	8"								
			BC-50 4"	NR								
The boring was terminated at approximately 115.3 feet below ground surface. The SPT sampler sampled at this depth became stuck and had to be abandoned. Upon the removal of auger, the hole caved to a depth of 20 feet below ground surface.		GROUNDWATER LEVEL INFORMATION: Groundwater was observed at approximately 12 ft. below ground surface during drilling. Groundwater was observed at approximately 12.25 ft. below ground surface 24 hours after drilling completion.		GENERAL NOTES:								
KLEINFELDER Bright People. Right Solutions.		PROJECT NO.: 20162731 DRAWN BY: CLW CHECKED BY: MM DATE: 12/14/2015 REVISED: -		BORING LOG B-2 Sacramento Wash Bridge Oatman Highway - Mohave County Road 10 ADOT Contract No. 2014-036.010 Mohave County, Arizona		PLATE A-6 PAGE: 3 of 3						



BORING PLAN
NOT TO SCALE

LEGEND
B-2 KLEINFELDER TEST BORING

NAME		DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION	
DESIGN	DMF	06/16	BRIDGE GROUP	
DRAWN	DMF	06/16	STA 22+ SACRAMENTO CROSSING FOUNDATION DATA SHEET 3	
CHECKED	DS	06/16	OATMAN HIGHWAY AT SACRAMENTO WASH CROSSING	
OLD US 66 ROUTE	1.2 MILEPOST	11502 STRUCTURE NO.	DWG NO. SF-1.03	
TRACS NO. T0021.01C		MMO-0(216)T		OF