

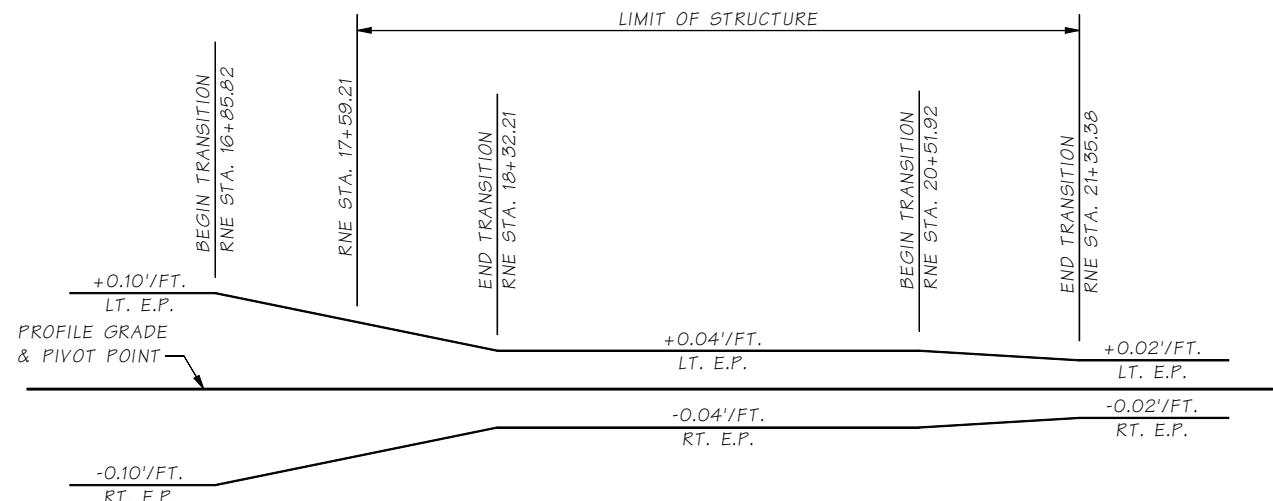
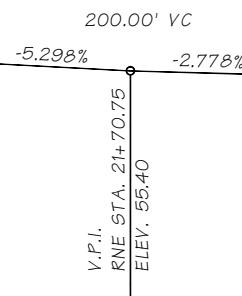
CURVE DATA

P.I. STATION	Δ	RADIUS	TANGENT	LENGTH	BK. TANGENT BRG.
RNE 16+35.08	89°51'33" RT.	180.00'	179.56'	282.30'	N 12°19'26" W
RNE 19+11.74	09°11'09" RT.	2165.00'	173.92'	347.10'	N 77°32'07" E

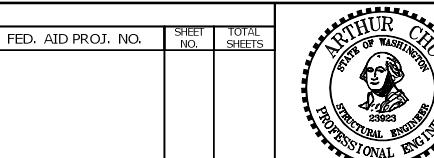
GENERAL NOTES

- ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION DATED 2008 AND AMENDMENTS.
- EXCEPT FOR SEISMIC DESIGN, THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 4TH EDITION, DATED 2007 AND INTERIMS THROUGH 2008. THE SEISMIC DESIGN HAS BEEN COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN DATED MAY 2007 USING SEISMIC DESIGN CATEGORY D AND SITE CLASS D. DEAD LOAD INCLUDES ADDITIONAL FUTURE WEARING SURFACE OF 23 POUNDS PER SQUARE FOOT.
- THE CONCRETE IN THE ROADWAY SLAB SHALL BE CLASS 4000D. THE CONCRETE IN THE SHAFTS SHALL BE CLASS 4000P. ALL OTHER CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
- THE BACKFILL BEHIND THE ABUTMENTS SHALL BE PLACED PRIOR TO PLACEMENT OF THE SUPERSTRUCTURE.
- UNLESS OTHERWISE SHOWN IN THE PLANS, CONCRETE COVER MEASURED FROM THE FACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING STEEL SHALL BE $2\frac{1}{2}$ " AT THE TOP OF THE ROADWAY SLAB, 1" AT THE BOTTOM OF THE ROADWAY SLAB, 3" AT THE BOTTOM OF FOOTINGS, 2" AT THE TOP OF FOOTINGS AND $1\frac{1}{2}$ " AT ALL OTHER LOCATIONS.
- FALSEWORK SHALL BE CAREFULLY RELEASED TO PREVENT IMPACT OR UNDUE STRESS IN THE STRUCTURE.
- CONDUITS, JUNCTION BOXES, AND UTILITIES ARE SHOWN FOR REFERENCE ONLY. THE CONTRACTOR SHALL COORDINATE THESE PLANS WITH THE ELECTRICAL, I.T.S., AND OTHER CIVIL PLANS.

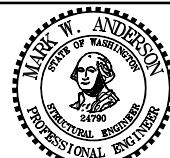
RNE LINE PROFILE



RNE LINE
SUPERELEVATION DIAGRAM



BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

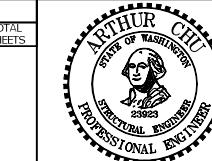
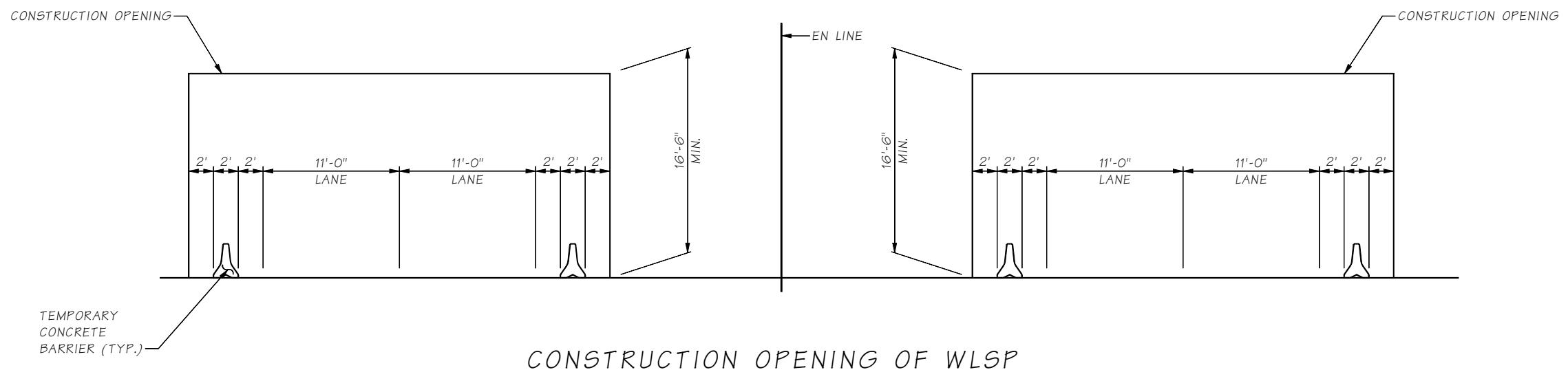
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

**GEOMETRIC DATA
AND GENERAL NOTES**

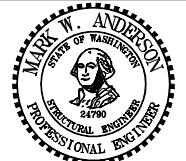
EXISTING ROADWAY ELEVATIONS FOR VERTICAL CLEARANCE CALCULATION					
ROADWAY CROSSING	RNE LINE STATION	OFFSET (FT.)	EXISTING ELEVATION	TOP OF BRIDGE ELEVATION	DESCRIPTION
WLSP	18+38.83	-4.00	42.4	73.14	WLSP WEST EOP
WLSP	18+36.84	23.00	43.0	72.17	WLSP WEST EOP
WLSP	18+44.45	-4.00	42.3	72.84	WLSP WEST LANE EDGE
WLSP	18+42.50	23.00	42.8	71.87	WLSP WEST LANE EDGE
WLSP	18+55.42	-4.00	42.9	72.26	WLSP WEST LANE LINE
WLSP	18+53.56	23.00	43.3	71.28	WLSP WEST LANE LINE
WLSP	18+67.11	-4.00	43.5	71.64	WLSP WEST MEDIAN LINE
WLSP	18+65.35	23.00	44.2	70.66	WLSP WEST MEDIAN LINE
WLSP	18+77.62	-4.00	44.1	71.08	WLSP EAST MEDIAN LINE
WLSP	18+76.57	23.00	44.9	70.06	WLSP EAST MEDIAN LINE
WLSP	18+89.32	-4.00	44.6	70.46	WLSP EAST LANE LINE
WLSP	18+88.21	23.00	44.9	69.44	WLSP EAST LANE LINE
WLSP	19+00.40	-4.00	45.1	69.88	WLSP EAST LANE EDGE
WLSP	18+99.43	23.00	45.5	68.85	WLSP EAST LANE EDGE
WLSP	19+05.92	-4.00	45.9	69.59	WLSP EAST EOP
WLSP	19+04.99	23.00	46.2	68.56	WLSP EAST EOP
TRAIL	19+40.96	-4.00	40.7	67.73	WEST SAM. RIVER TRAIL
TRAIL	19+46.06	23.00	40.3	66.38	WEST SAM. RIVER TRAIL
TRAIL	19+51.16	-4.00	40.4	67.19	EAST SAM. RIVER TRAIL
TRAIL	19+56.34	23.00	39.8	65.83	EAST SAM. RIVER TRAIL
TRAIL	21+08.37	-4.00	40.7	58.88	WEST PED PATH
TRAIL	21+13.40	23.00	41.4	58.10	WEST PED PATH
TRAIL	21+13.58	-4.00	40.7	58.63	EAST PED PATH
TRAIL	21+18.63	23.00	41.5	57.85	EAST PED PATH

EOP = EDGE OF PAVEMENT

WLSP = WEST LAKE SAMMAMISH PARKWAY



BRIDGE
AND
STRUCTURES
OFFICE



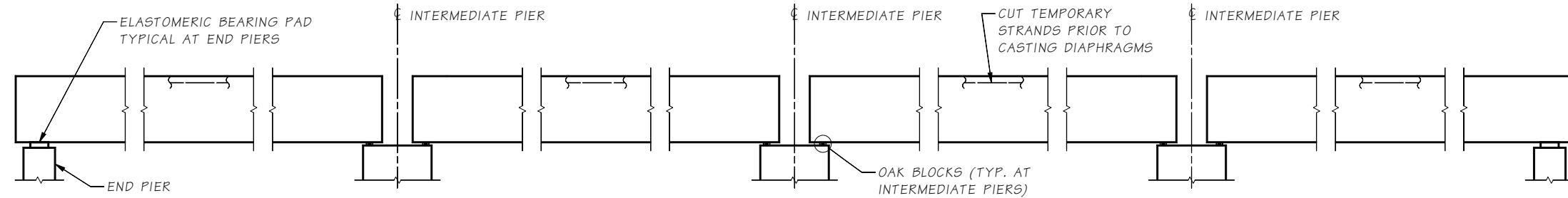
Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

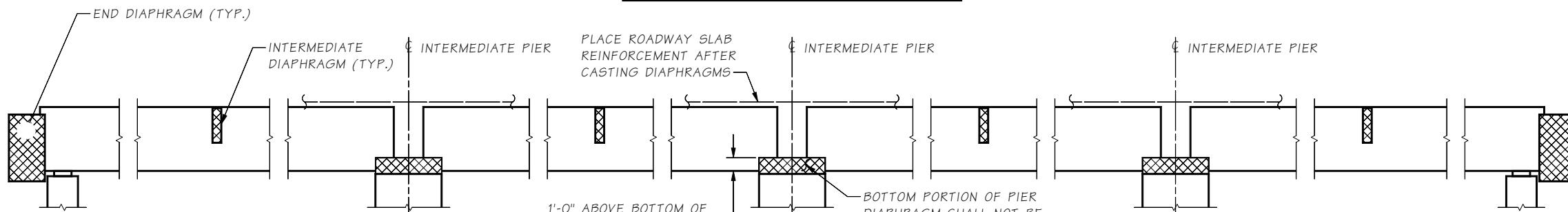
EXISTING DATA AND
GEOMETRIC DATA

CONSTRUCTION SEQUENCE

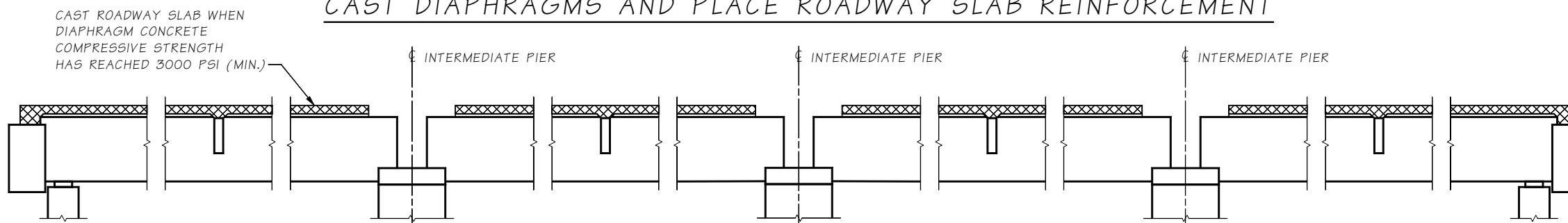
1. CONSTRUCT THE SUBSTRUCTURE, INCLUDING ALL SHAFTS, ABUTMENTS, COLUMNS, LOWER CROSSBEAMS AND EXCLUDING GROUT PADS AT ABUTMENTS.
2. PLACE EMBANKMENT FILL AROUND FRONT AND SIDES OF PIERS 1 AND 5 ABUTMENTS AND BACKFILL UP TO 1'-3" BELOW GIRDER BEARINGS.
3. RE-SURVEY LOCATION OF $\frac{1}{4}$ BEARING AND GROUT PAD ELEVATIONS AT TOP OF ABUTMENTS. PLACE GROUT PADS, ADJUSTING THICKNESS OF GROUT PAD FOR ABUTMENT SETTLEMENT. PLACE OAK BLOCKS AT INTERIOR PIERS.
4. SET GIRDERS, PLACE INTERMEDIATE DIAPHRAGMS, END DIAPHRAGMS, AND BOTTOM PORTION OF PIER DIAPHRAGMS.
5. PLACE ROADWAY SLAB.
6. PLACE TOP PORTION OF PIER DIAPHRAGM AT PIERS 2, 3 & 4.
7. BACKFILL TO THE LEVEL OF THE PAVEMENT SEAT.
8. PLACE TRAFFIC BARRIER.
9. CONSTRUCT APPROACH SLABS.



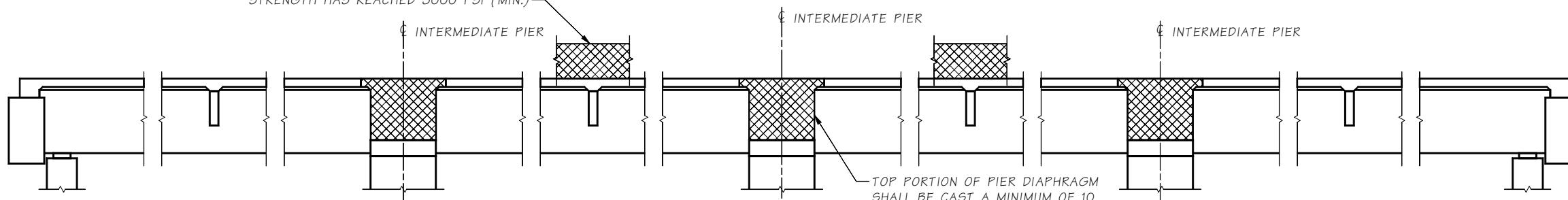
STAGE 1
SET GIRDERS IN PLACE



STAGE 2
CAST DIAPHRAGMS AND PLACE ROADWAY SLAB REINFORCEMENT



STAGE 3
CAST ROADWAY SLAB



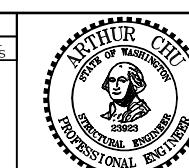
STAGE 4
COMPLETE DIAPHRAGMS

CONSTRUCTION SEQUENCE ~ SUPERSTRUCTURE

SHEET BB4
FILE NO. 7041

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\CONSTR. SEQU.WND						
Supervisor	Anderson, MW							
Designed By	Chu, A	07/08						
Checked By								
Detailed By	McCarthy, DJ	07/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE	REVISION	BY APPD						

Thu Sep 18 14:47:16 2008



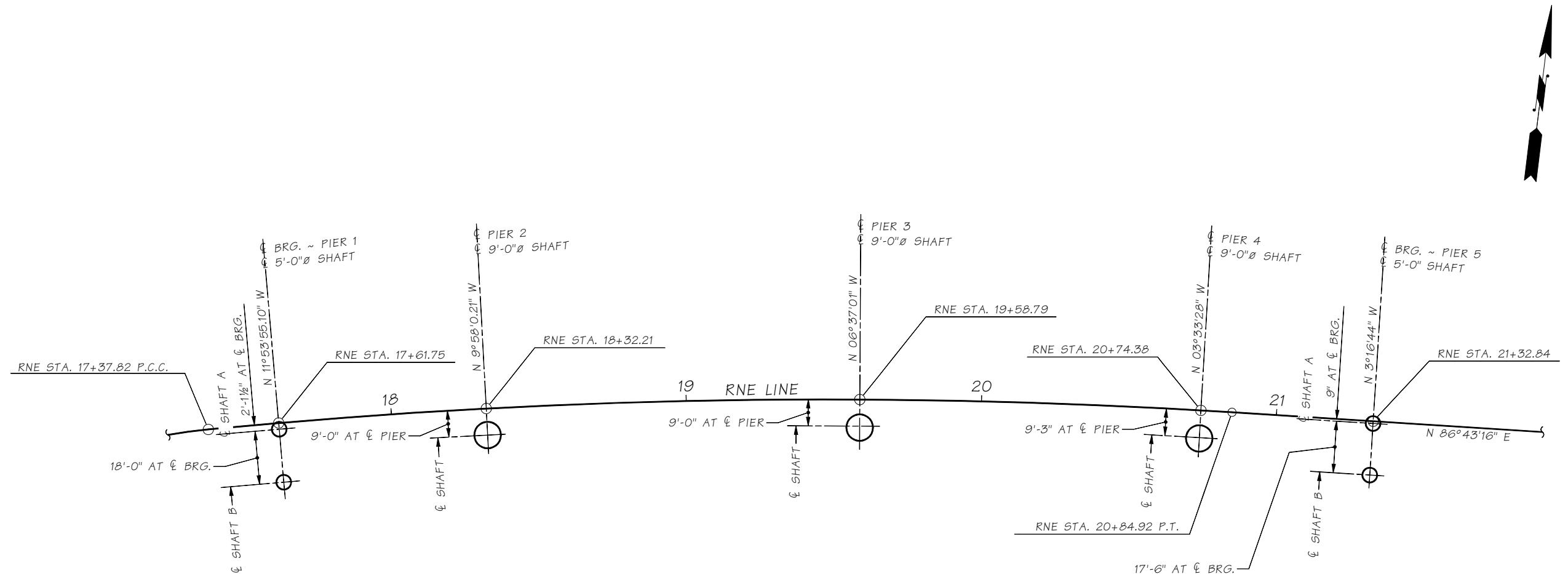
BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
CONSTRUCTION SEQUENCE

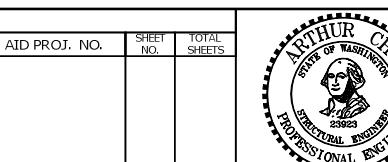
BRIDGE SHEET
NO.
BB4
SHEET
OF
SHEETS



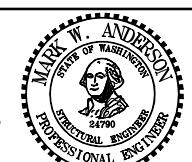
FOUNDATION LAYOUT

BEARING OF ALL PIERS ARE NORMAL TO RNE LINE.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\FOUNDATION LAY.WND					
Supervisor	Anderson, MW						
Designed By	Chu, A	04/08					
Checked By							
Detailed By	McCarthy, DJ	04/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE	REVISION	BY APPD					



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AND
STRUCTURES
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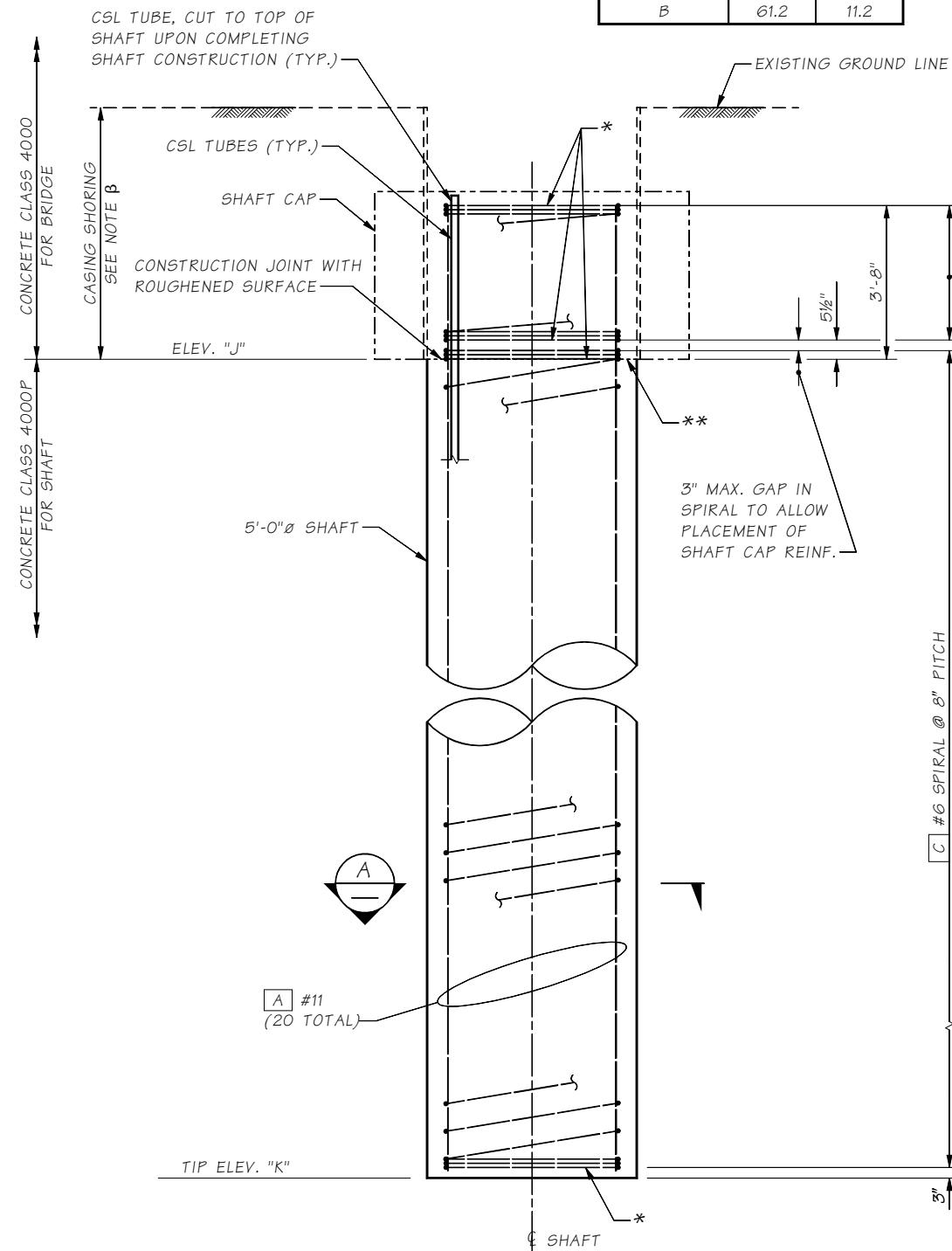


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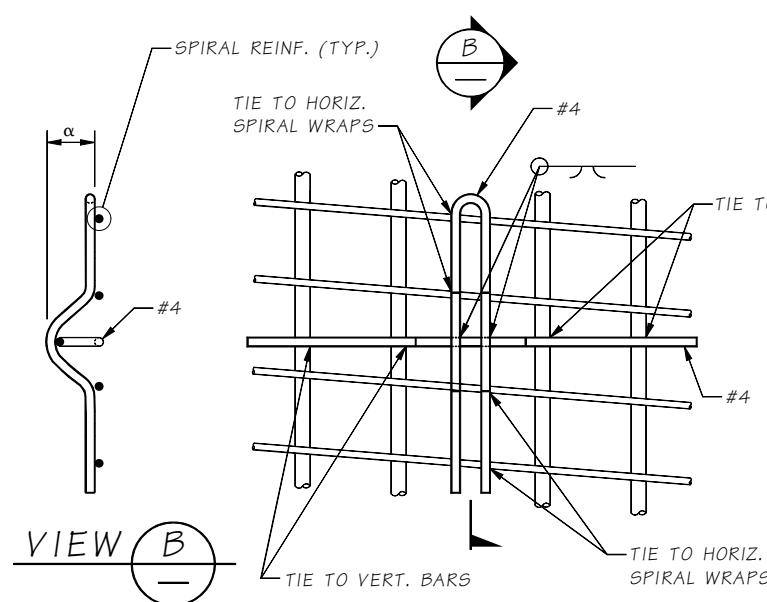
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
FOUNDATION LAYOUT

Bridge Design Engr. Khalighi, B
Supervisor Anderson, MW
Designed By Chu, A 05/08
Checked By McCarthy, DJ 05/08
Bridge Projects Engr.
Prelim. Plan By
Architect/Specialist

ELEVATION



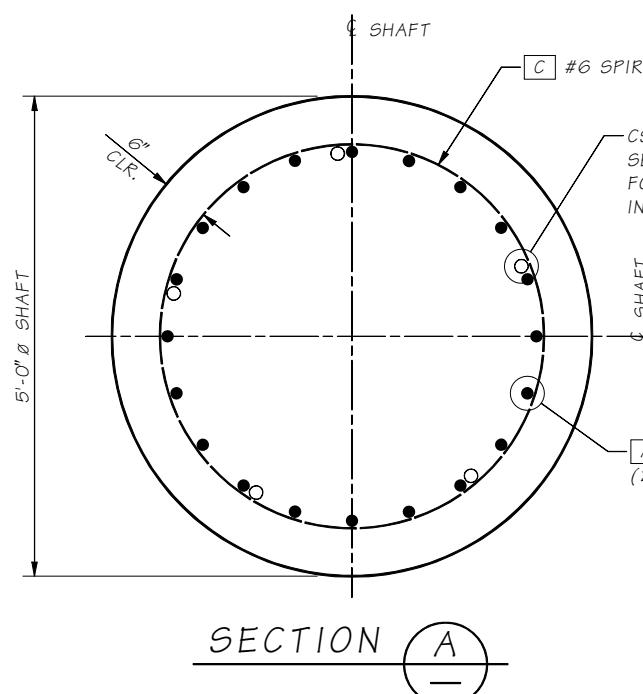
PIER 1 SHAFT ELEVATIONS

**CENTRALIZER DETAIL**

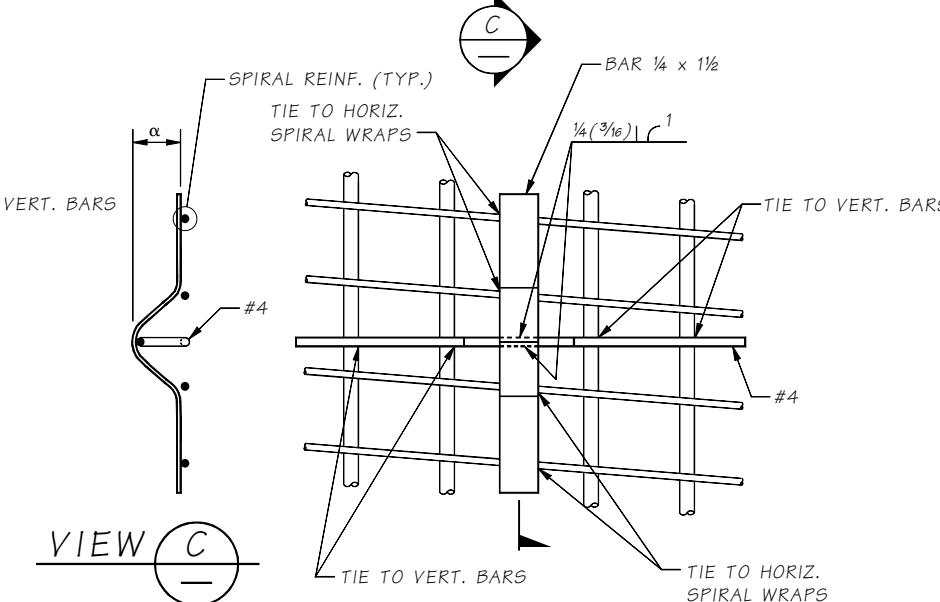
EPOXY COAT CENTRALIZER OR PAINT WITH INORGANIC ZINC AFTER FABRICATION (OPTION 1)

NOTES:
EACH LEG SHOULD BE TIED TO TWO VERTICAL BAR BUNDLES OR TWO SPIRALS.
SEE SPECIAL PROVISIONS FOR SPACING REQUIREMENTS.

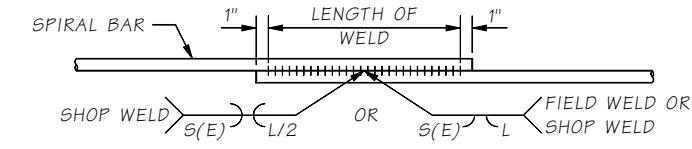
α CONCRETE COVER - $\frac{1}{2}$ "



- * SEE "SPIRAL TERMINATION DETAIL" THIS SHEET
- ** REMOVE SEDIMENT LAITANCE & WEAK CONCRETE TO SOUND CONCRETE PRIOR TO SETTING SHAFT CAP REINFORCEMENT.
- B CASING SHORING SHALL BE DELETED IF THE CONTRACTOR SHORES AND EXCAVATES FOR THE SHAFT CAP PRIOR TO THE SHAFT EXCAVATION.

**CENTRALIZER DETAIL**

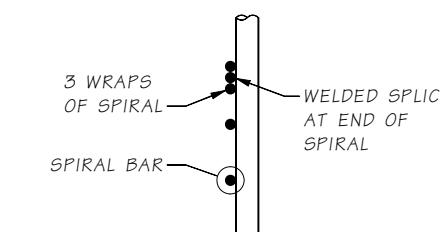
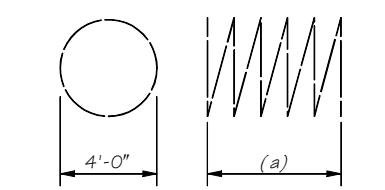
EPOXY COAT CENTRALIZER OR PAINT WITH INORGANIC ZINC AFTER FABRICATION (OPTION 2)

**SHAFT SPIRAL TABLE**

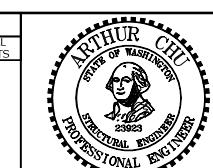
DEFORMED BAR	WELD DIMENSIONS (in.)		
	S	E	LENGTH (L)
#6	$\frac{3}{8}$	$\frac{3}{16}$	6

SHAFT BAR LIST

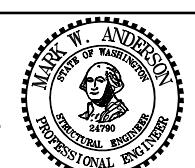
MARK	SIZE	NO.	LENGTH	BEND TYPE	WT. (lbs.)
A	#11	20	53'-6"	STRAIGHT	5685
B	#6	1	-	SPIRAL	192
C	#6	1	-	SPIRAL	1415
TOTAL PER SHAFT					7300

**SPIRAL TERMINATION DETAIL**

(a) ~ DETERMINED FROM PLANS
WEIGHT DOES NOT INCLUDE SPLICES

SPIRAL

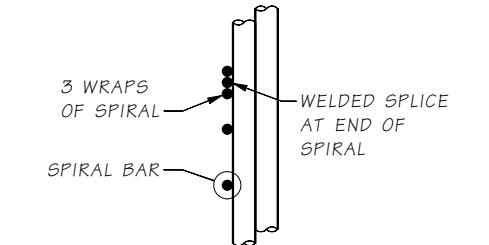
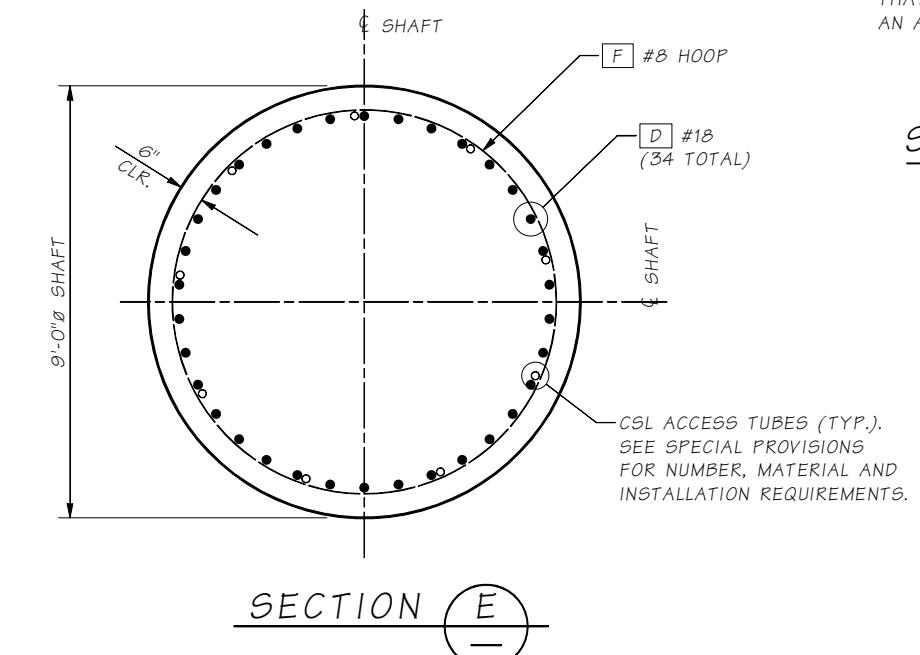
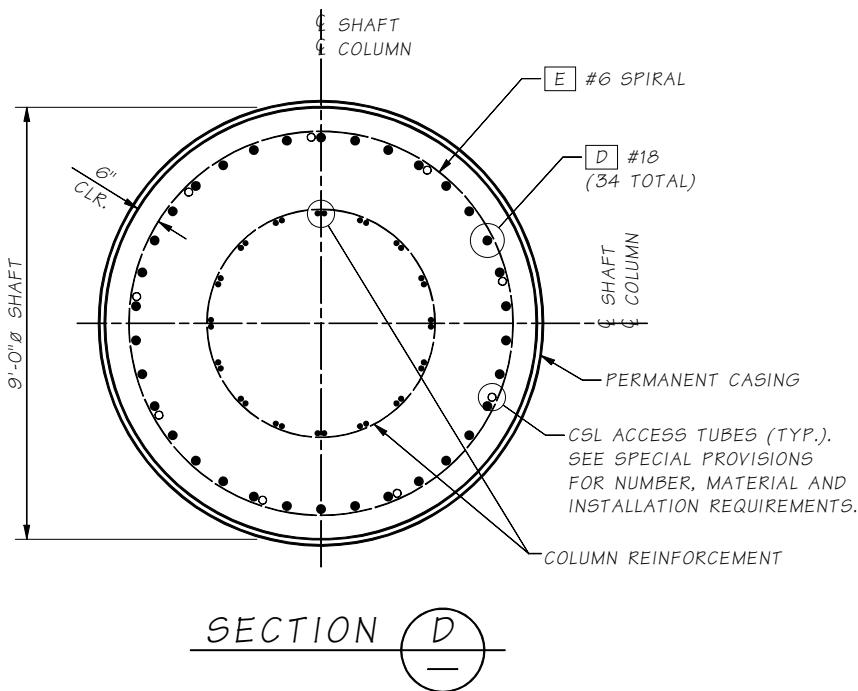
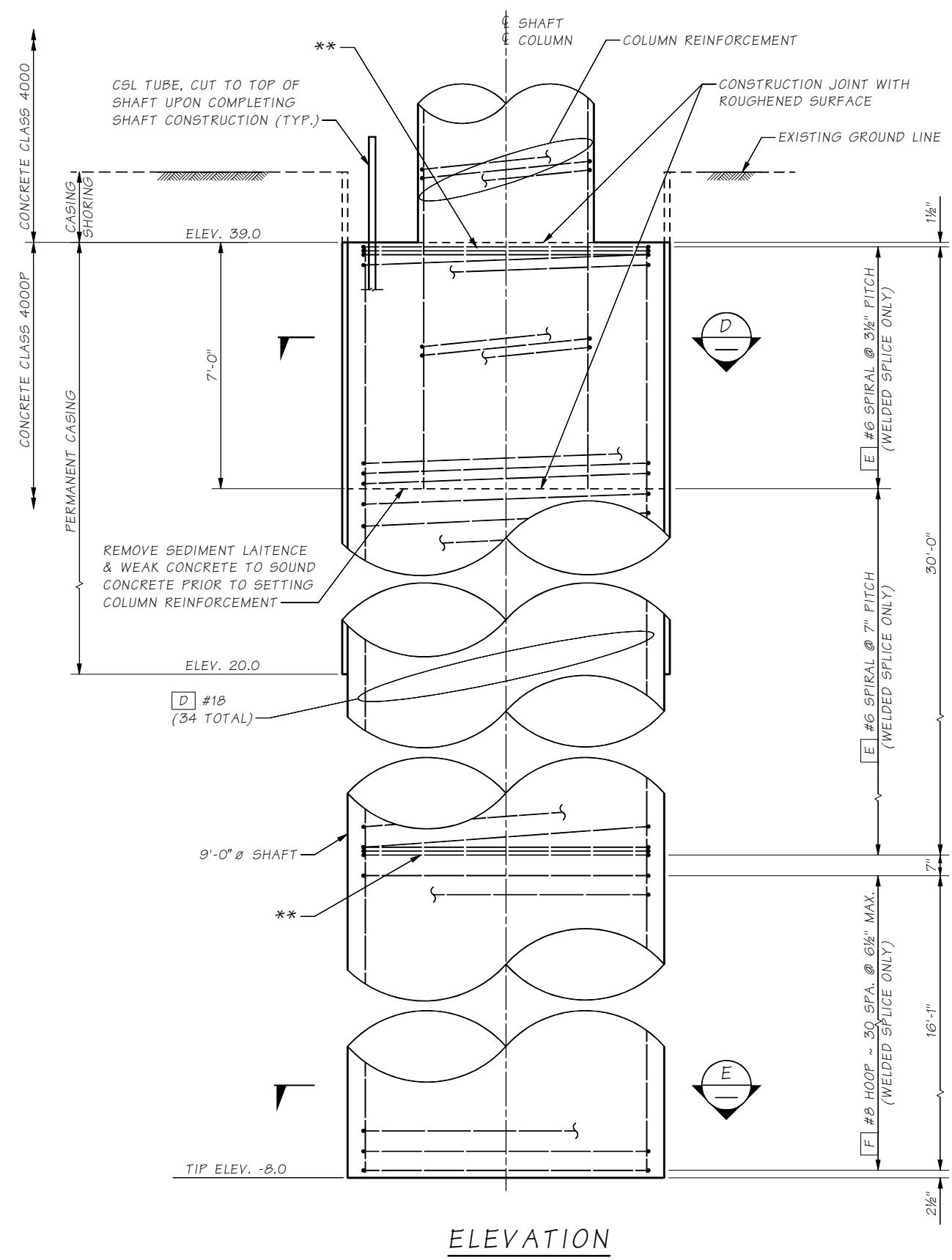
BRIDGE AND STRUCTURES OFFICE



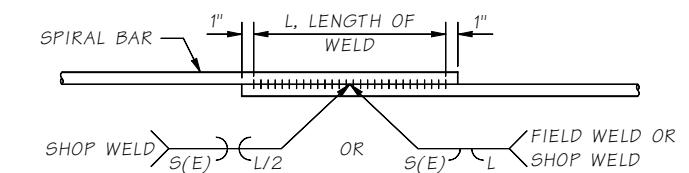
Washington State Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 1 SHAFT DETAILS

BRIDGE SHEET NO. BB6
SHEET OF 1 OF SHEETS



**SPIRAL TERMINATION
DETAIL**



WELDED LAP SPLICE DETAIL

WELDING SHALL MEET THE REQUIREMENTS OF STD. SPEC. 6-02.3(24)E
EACH HOOP SHALL HAVE WELDED LAP SPLICE. ORIENT HOOPS SUCH
THAT THE SPLICE IN ANY HOOP IS NOT DIRECTLY OVER THE SPLICE IN
AN ADJACENT HOOP. FOR WELD DIMENSIONS, SEE TABLE BELOW.

SHAFT SPIRAL WELD TABLE

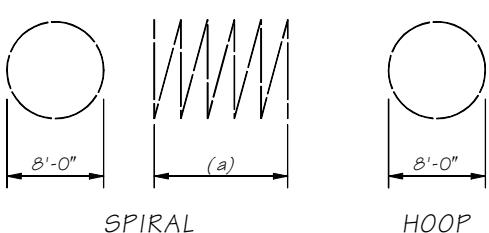
DEFORMED BAR	WELD DIMENSIONS (in.)		
	S	E	LENGTH (L)
#6	3/8	3/16	6

HOOP WELD TABLE

DEFORMED BAR	WELD DIMENSIONS (in.)		
	S	E	LENGTH (L)
#8	1/8	1/4	8

SHAFT BAR LIST

MARK	SIZE	NO.	LENGTH	BEND TYPE	WT. (lbs.)
D	#18	34	46'-8"	STRAIGHT	21580
E	#6	1	(a)	SPIRAL	2405
F	#8	31	(a)	HOOP	2130
					TOTAL PER SHAFT 26115

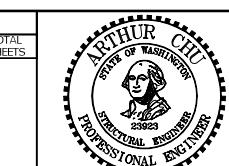


(a) ~ DETERMINED FROM PLANS
WEIGHT DOES NOT INCLUDE SPIRAL OR HOOPS SPLICES

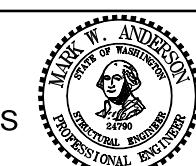
Bridge Design Engr. Khalighi, B
Supervisor Anderson, MW
Designed By Chu, A 03/08
Checked By McCarthy, DJ 03/08
Detailed By Bridge Projects Engr.
Prelim. Plan By
Architect/Specialist

M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\P2 SHAFT.WND
DATE REVISION BY APPD

REGION NO. STATE FED. AID PROJ. NO. SHEET NO. TOTAL SHEETS
10 WASH.
JOB NUMBER



BRIDGE
AND
STRUCTURES
OFFICE



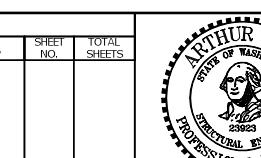
Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 2 SHAFT DETAILS

BRIDGE SHEET NO. BB7
SHEET OF 1
SHEETS

Bridge Design Engr. Khalighi, B
Supervisor Anderson, MW
Designed By Chu, A 05/08
Checked By McCarthy, DJ 05/08
Bridge Projects Engr.
Prelim. Plan By
Architect/Specialist

M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\P3 SHAFT.WND
REGION NO. STATE FED. AID PROJ. NO. SHEET NO. TOTAL SHEETS
10 WASH.
JOB NUMBER



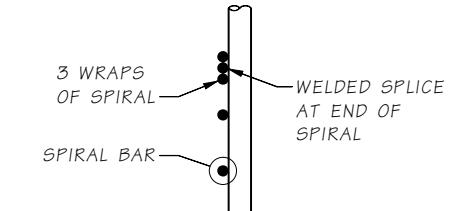
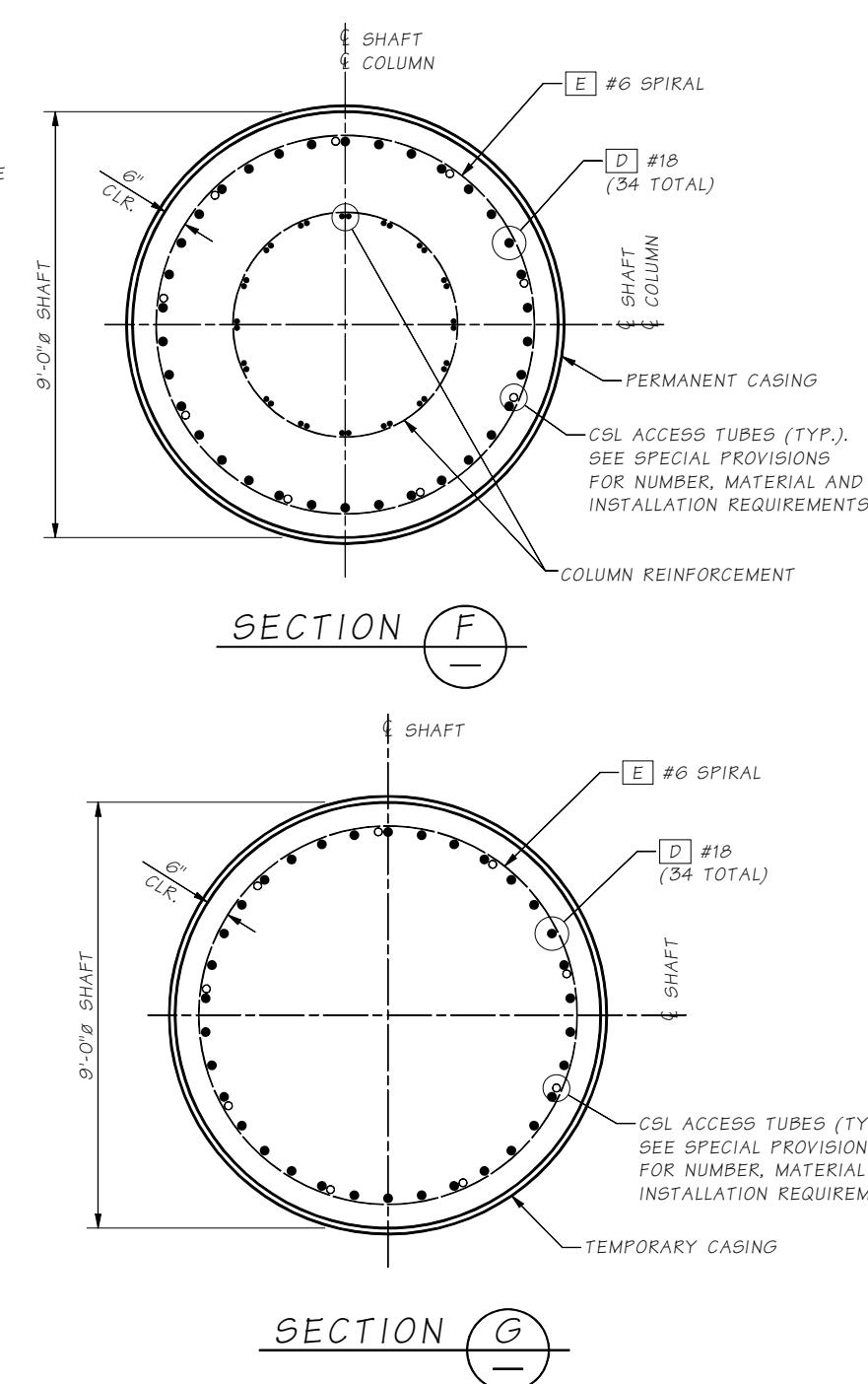
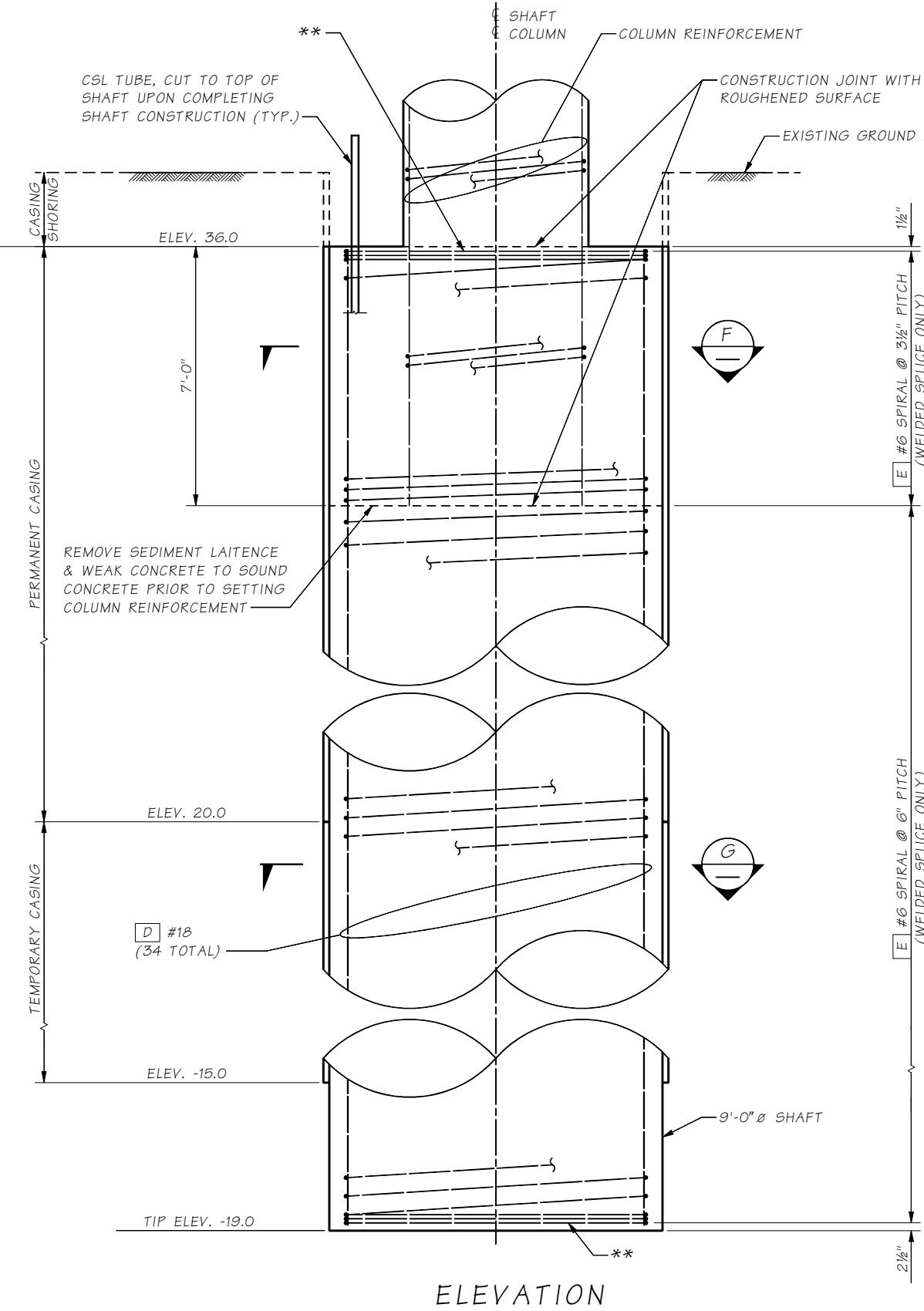
BRIDGE AND STRUCTURES OFFICE



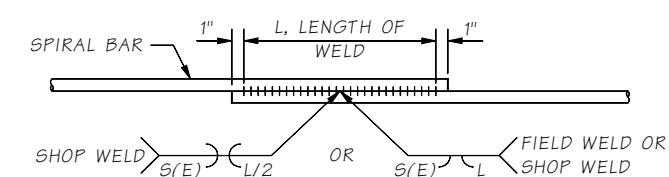
Washington State Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 3 SHAFT DETAILS

BRIDGE SHEET NO. BB8
SHEET OF SHEETS



SPIRAL TERMINATION
DETAIL



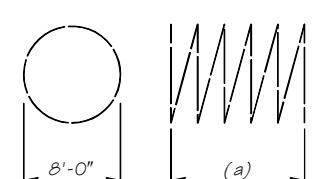
WELDED LAP SPLICE DETAIL
WELDING SHALL MEET THE REQUIREMENTS
OF STD. SPEC. 6-02.3(24)E
FOR WELD DIMENSIONS, SEE TABLE BELOW.

SHAFT SPIRAL TABLE

DEFORMED BAR	WELD DIMENSIONS (in.)		
	S	E	LENGTH (L)
#6	3/8	3/16	6

SHAFT BAR LIST

MARK	SIZE	NO.	LENGTH	BEND TYPE	WT. (lbs.)
D	#18	34	54'-8"	STRAIGHT	25280
E	#6	1	(a)	SPiral	4555
TOTAL PER SHAFT					29835

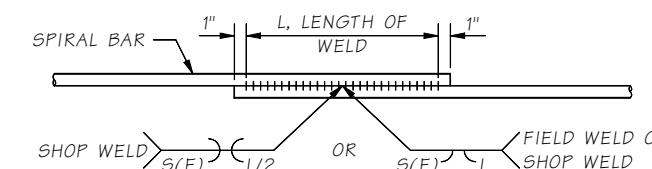
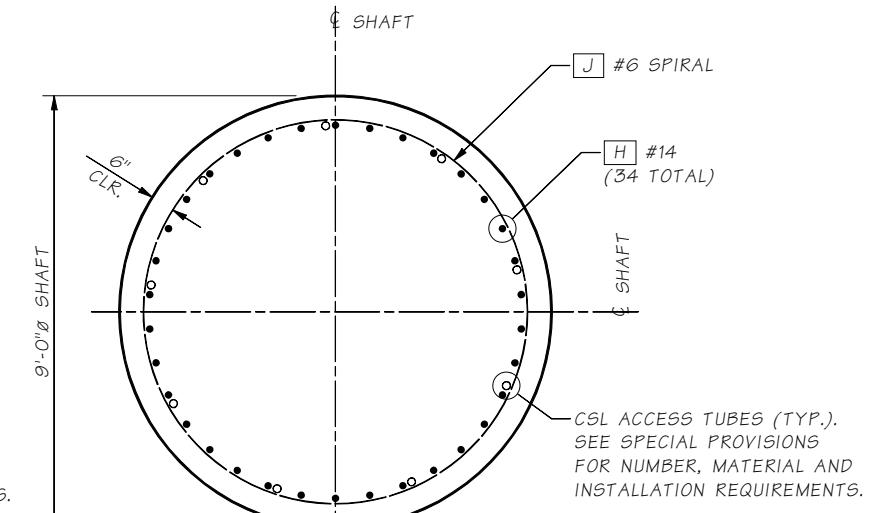
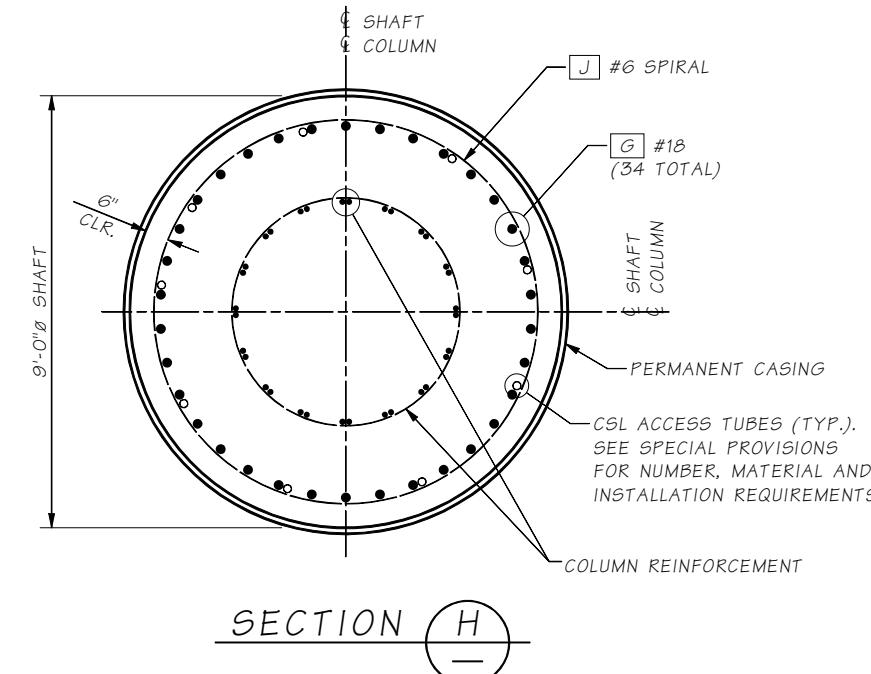
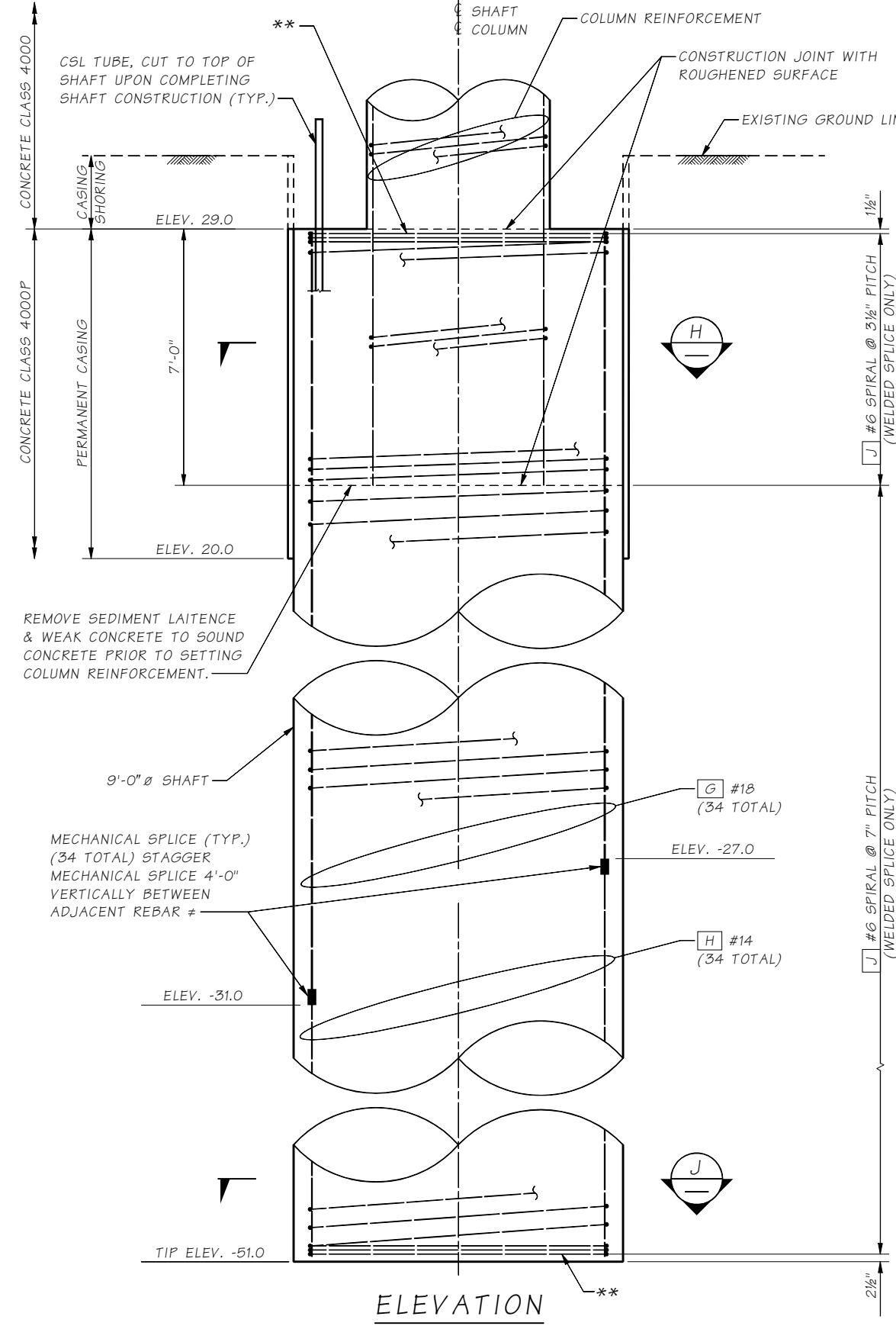


(a) ~ DETERMINED FROM PLANS
WEIGHT DOES NOT INCLUDE SPLICES

SPIRAL

NOTES:

1. THE UPPER LIMITS OF CASING SHORING FOR SHAFT EXCAVATION SHALL EXTEND AT MINIMUM TO TOP OF THE EXISTING GROUND LINE THAT OCCURS WHEN THE WORK IS PERFORMED.
2. ** SEE "SPIRAL TERMINATION DETAIL" THIS SHEET.
3. SEE "PIER 1 SHAFT DETAILS" SHEET FOR STEEL REINFORCING BAR "CENTRALIZER DETAILS".



WELDING SHALL MEET THE REQUIREMENTS
OF STD. SPEC. G-02.3(24)E
FOR WELD DIMENSIONS, SEE TABLE BELOW.

SHAFT SPIRAL TABLE

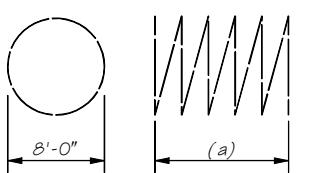
DEFORMED BAR	WELD DIMENSIONS (in.)		
	S	E	LENGTH (L)
#6	3/8	3/16	6

NOTES:

1. THE UPPER LIMITS OF CASING SHORING FOR SHAFT EXCAVATION SHALL EXTEND AT MINIMUM TO TOP OF THE EXISTING GROUND LINE THAT OCCURS WHEN THE WORK IS PERFORMED.
2. ** SEE "SPIRAL TERMINATION DETAIL" THIS SHEET
3. SEE "PIER 1 SHAFT DETAILS" SHEET FOR STEEL REINFORCING BAR "CENTRALIZER DETAILS".
4. # MECHANICAL SPLICING SHALL PROVIDE A MECHANICAL CONNECTION BETWEEN TWO REBARS OF DIFFERENT DIAMETERS WITH THREADED ENDS. EACH MECHANICAL SPLICING SHALL HAVE AN ULTIMATE STRENGTH OF 216.0 KIPS.

SHAFT BAR LIST

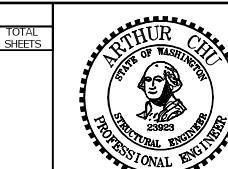
MARK	SIZE	NO.	LENGTH	BEND TYPE	WT. (lbs.)
G	#18	17	60'-0"	STRAIGHT	13875
G	#18	17	56'-0"	STRAIGHT	12950
H	#14	17	19'-8"	STRAIGHT	2600
H	#14	17	23'-8"	STRAIGHT	3125
J	#6	1	-	SPIRAL	5660
					TOTAL PER SHAFT 38210



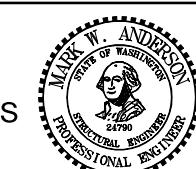
(a) ~ DETERMINED FROM PLANS
WEIGHT DOES NOT INCLUDE SPLICES

SPIRAL

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\P4 SHAFT 1.WND					
Supervisor	Anderson, MW						
Designed By	Chu, A	05/08					
Checked By							
Detailed By	McCarthy, DJ	05/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE		REVISION	BY APPD				



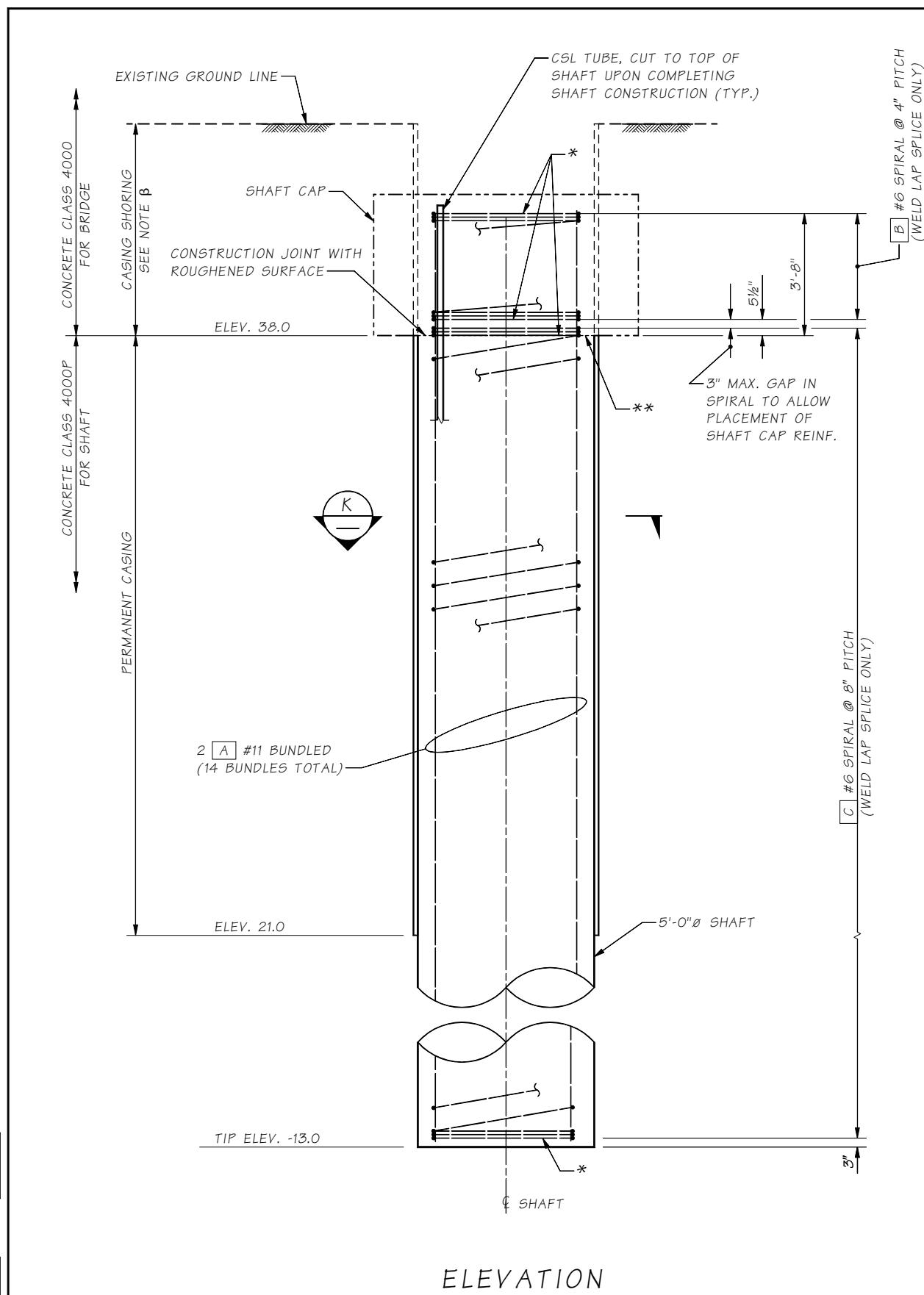
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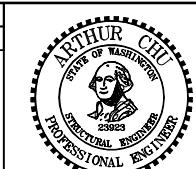
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 4 SHAFT DETAILS

BRIDGE SHEET NO. BB9
SHEET OF SHEETS

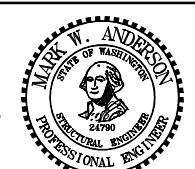


NOTES:

1. SEE "PIER 1 SHAFT DETAILS" SHEET FOR STEEL REINFORCING BAR "CENTRALIZER DETAILS".
 2. * SEE "SPIRAL TERMINATION DETAIL" THIS SHEET
 3. ** REMOVE SEDIMENT LAITANCE & WEAK CONCRETE TO SOUND CONCRETE PRIOR TO SETTING SHAFT CAP REINFORCEMENT.
 4. **B** CASING SHORING SHALL BE DELETED IF THE CONTRACTOR SHORES AND EXCAVATES FOR THE SHAFT CAP PRIOR TO THE SHAFT EXCAVATION.



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WELDED LAP SPLICING DETAIL

WELDING SHALL MEET THE REQUIREMENTS
OF STD. SPEC. 6-02.3(24)E
FOR WELD DIMENSIONS, SEE TABLE BELOW.

SHAFT SPIRAL TABLE

DEFORMED BAR	WELD DIMENSIONS (in.)		
	S	E	LENGTH (L)
#6	3/8	3/16	6

SHAFT BAR LIST

MARK	SIZE	NO.	LENGTH	BEND TYPE	WT. (lbs.)
A	#11	28	54'-6"	STRAIGHT	8110
B	#6	1	-	SPIRAL	195
C	#6	1	-	SPIRAL	1445
			TOTAL PER SHAFT		9750

WEIGHT DOES NOT INCLUDE SPLICES

SPIRAL

SR 520 FILE NO. 7041 SHEET BB10

Bridge Design Engr.	Khaleghi, B		M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window f		
Supervisor	Anderson, MW				
Designed By	Chu, A		06/08		
Checked By					
Detailed By	McCarthy, DJ		06/08		
Bridge Projects Engr.					
Prelim. Plan By					
Architect/Specialist			DATE	REVISION	BY A

REGION NO.		STATE	FED. AID PROJ. NO.	SHEET NO.	TO SH.
	10	WASH.			
		JOB NUMBER			

Thu Sep 18 14:49:25 2008

BRIDGE
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STRUCTURE
OFFICE

A circular professional seal for Mark W. Anderson. The outer ring contains the text "MARK W. ANDERSON" at the top and "PROFESSIONAL ENGINEER" at the bottom. The inner circle features a portrait of George Washington in the center, with "STATE OF WASHINGTON" written above him and "STRUCTURAL ENGINEER" written below. At the bottom of the inner circle, the year "1970" is printed.

 Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNF RAMP

PIER 5 SHAFT DETAILS

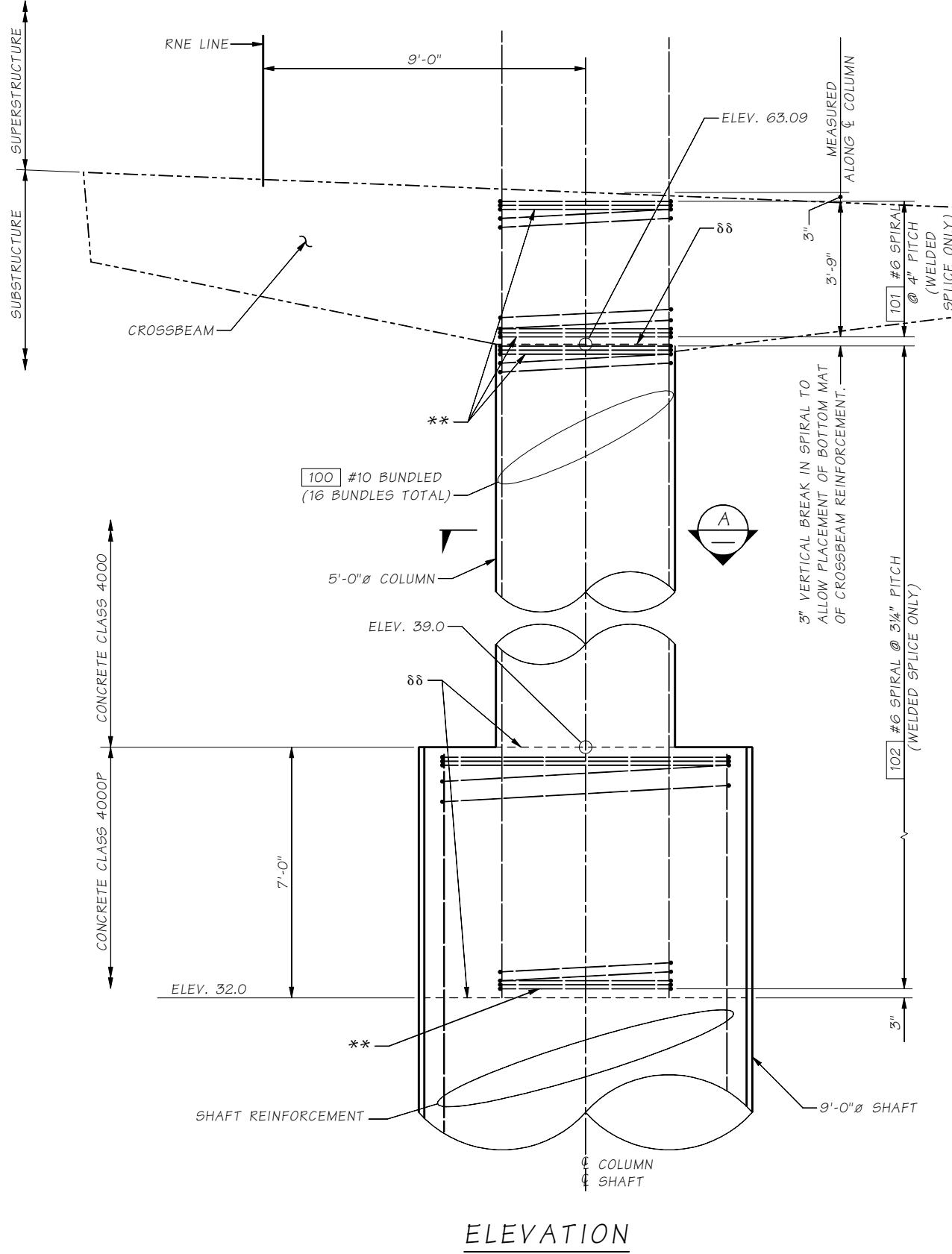
BRIDGE
SHEET
NO.

BB10

SHEET

OF

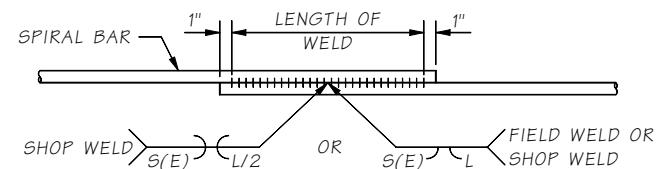
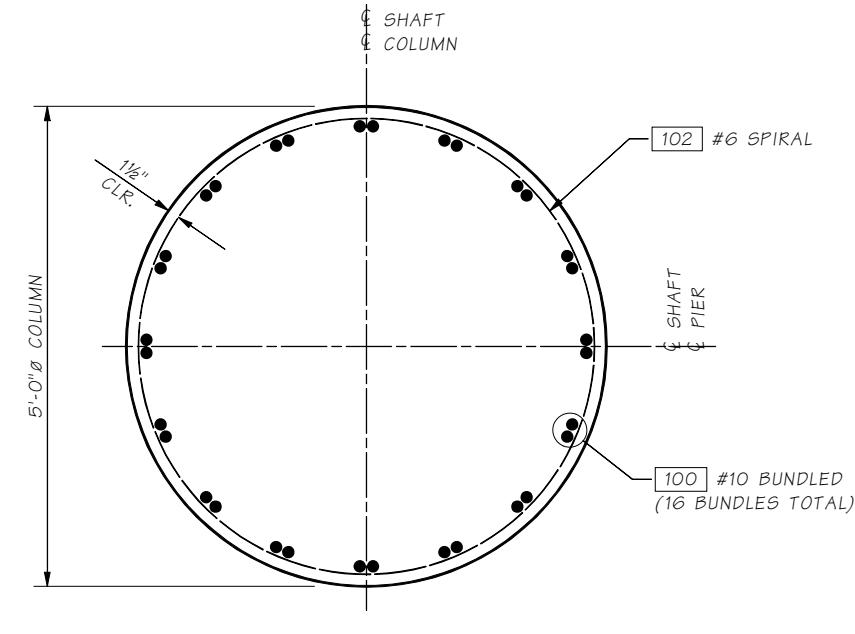
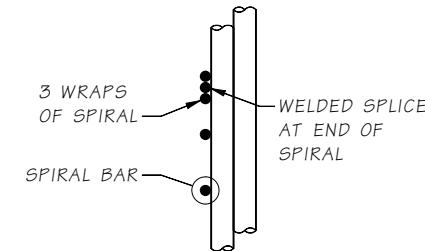
SHEETS



NOTES:

1. 88 CONSTRUCTION JOINT WITH ROUGHENED SURFACE
2. ** SEE "SPIRAL TERMINATION DETAIL" THIS SHEET.

SPIRAL TERMINATION DETAIL

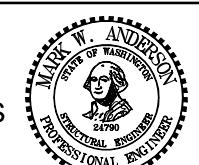
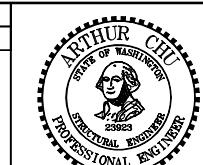


WELDED LAP SPLICE DETAIL

WELDING SHALL MEET THE REQUIREMENTS OF STD. SPEC. 6-02.3(24E)
FOR WELD DIMENSIONS, SEE TABLE BELOW.

COLUMN SPIRAL

DEFORMED BAR	WELD DIMENSIONS (in.)		
	S	E	LENGTH (L)
#6	3/8	3/16	6

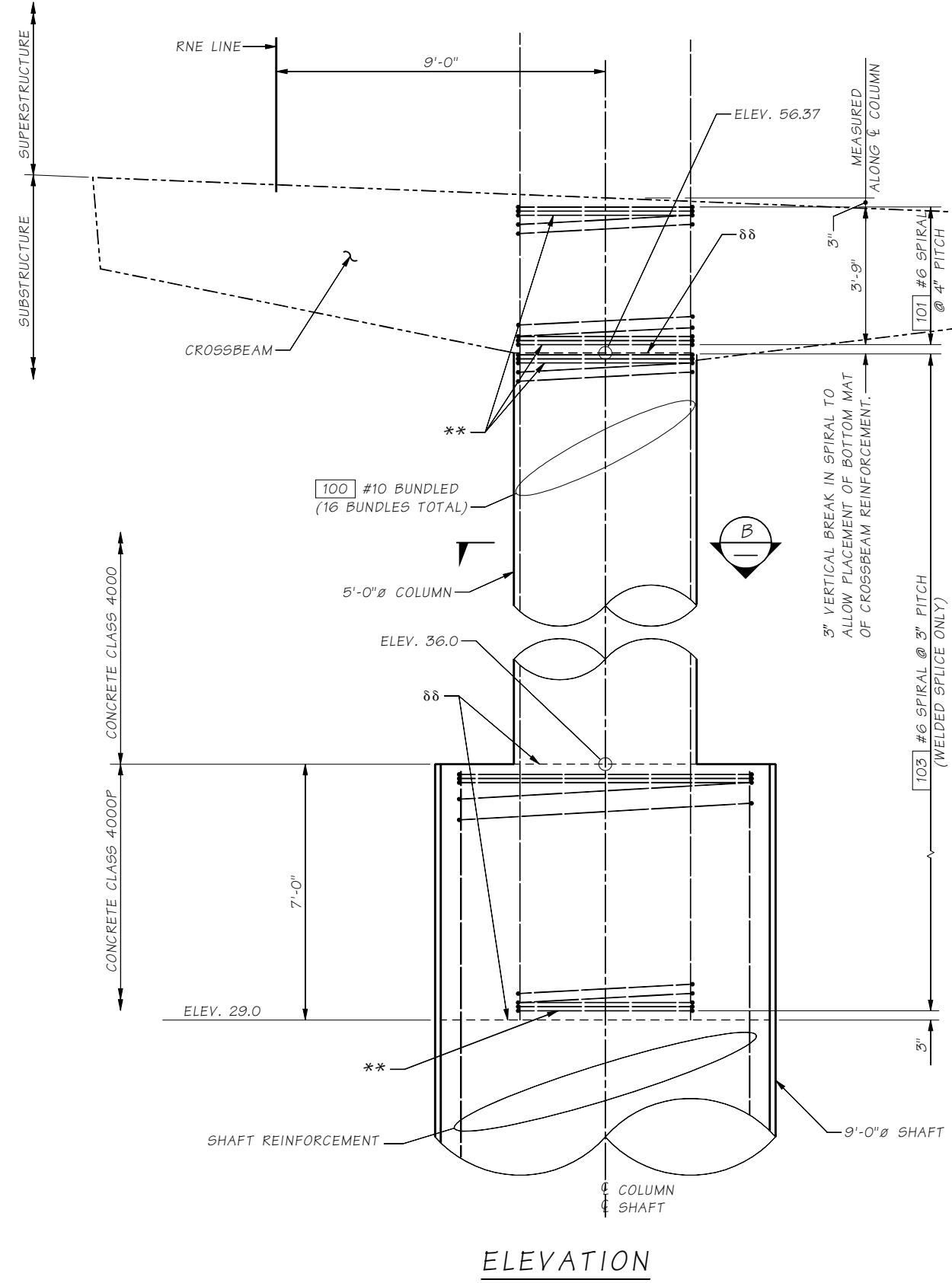


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AND
STRUCTURES
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SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 2 COLUMN DETAILS

BRIDGE SHEET NO.
BB11
SHEET OF
OF SHEETS



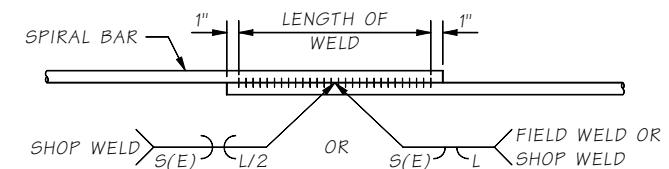
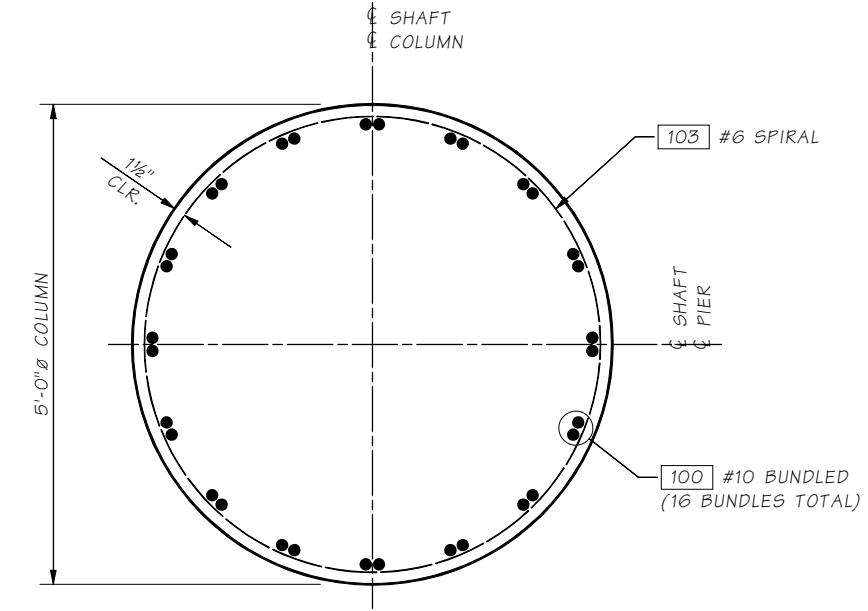
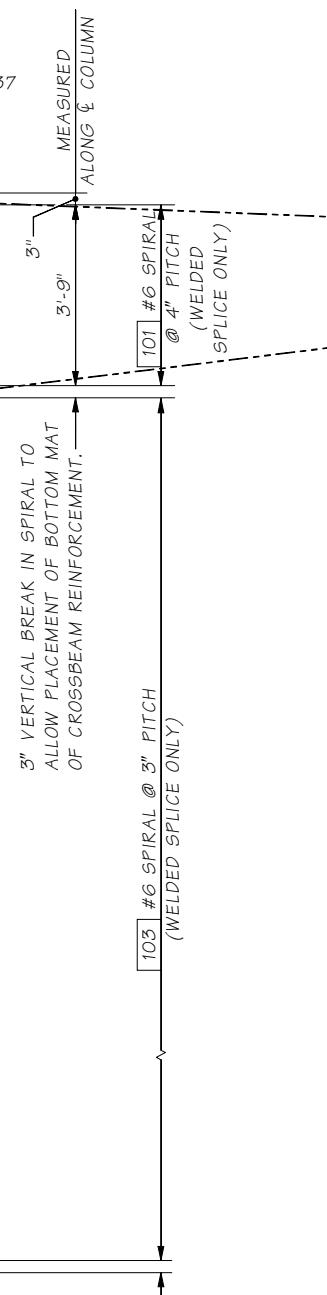
BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\P3 COLUMN.WND					
Supervisor	Anderson, MW						
Designed By	Chu, A	06/08					
Checked By							
Detailed By	McCarthy, DJ	06/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE		REVISION	BY APPD				

Thu Sep 18 14:48:41 2008



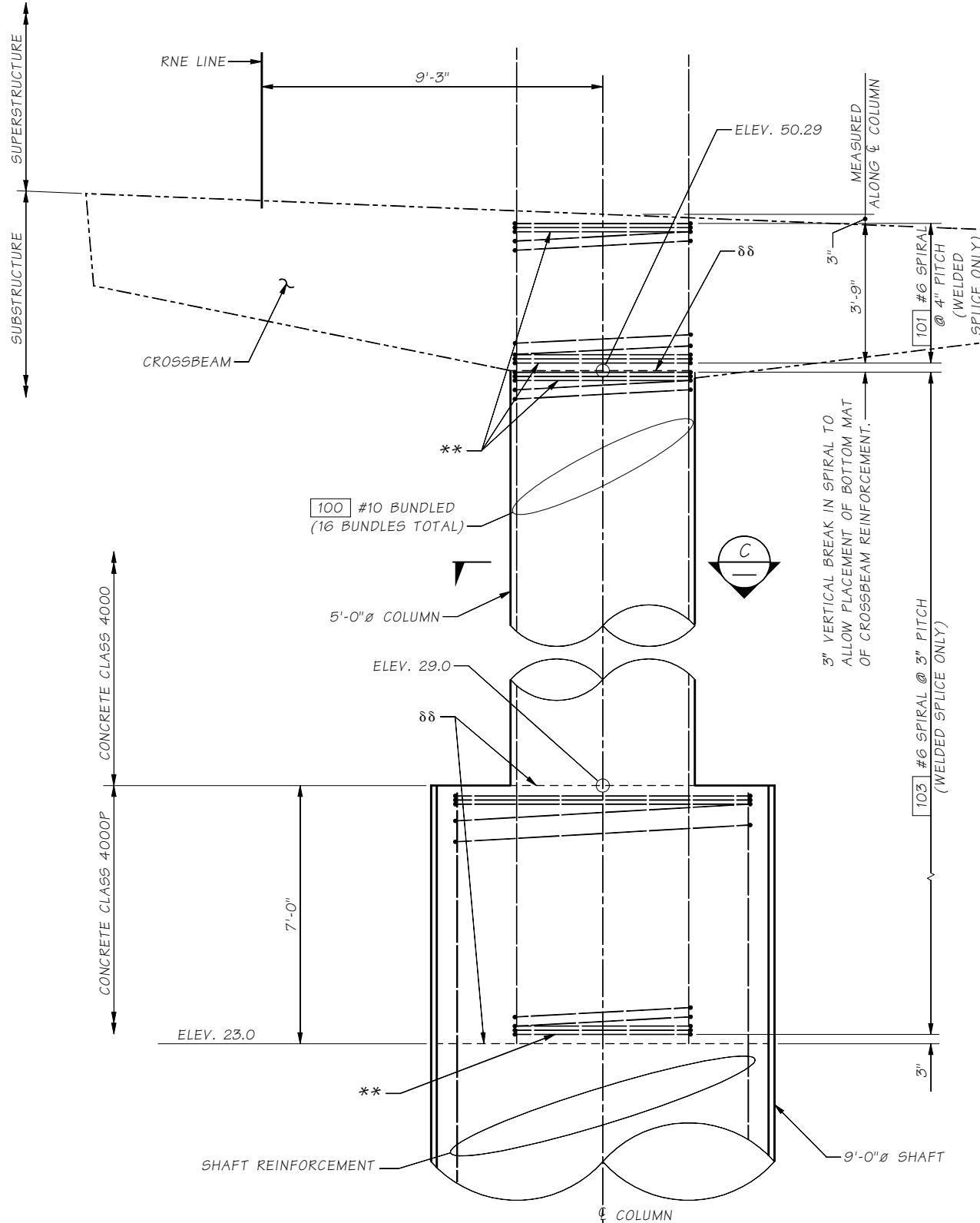
COLUMN SPIRAL

DEFORMED BAR	WELD DIMENSIONS (in.)		
	S	E	LENGTH (L)
#6	3/8	3/16	6

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

PIER 3 COLUMN DETAILS

BRIDGE SHEET NO.
BB12
SHEET OF
OF SHEETS

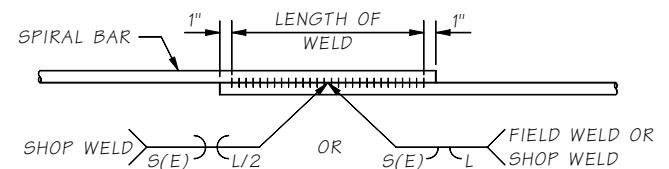
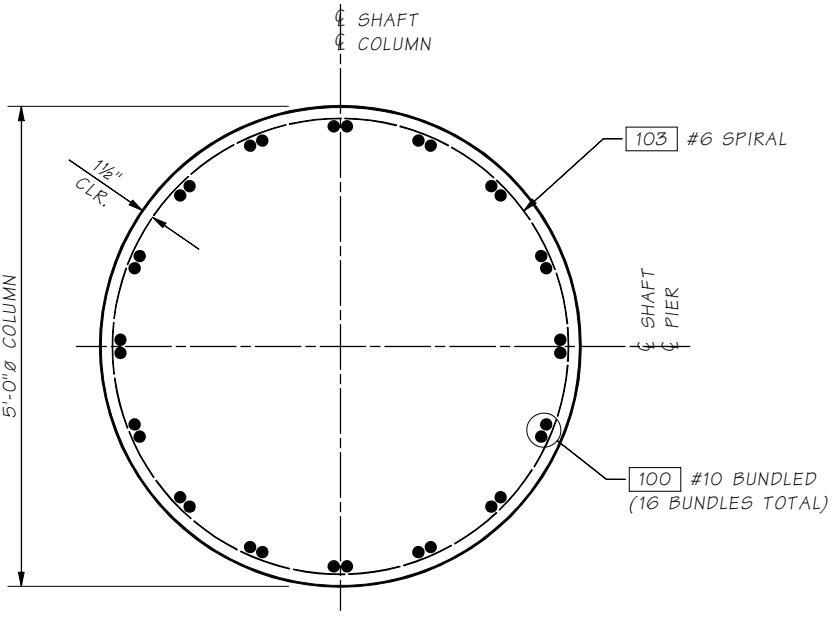
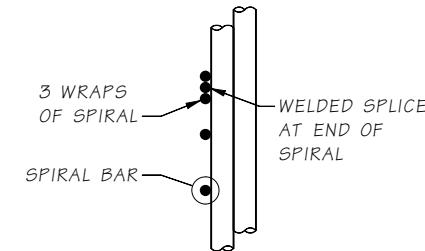


ELEVATION

NOTES:

1. ** CONSTRUCTION JOINT WITH ROUGHENED SURFACE
2. ** SEE "SPIRAL TERMINATION DETAIL" THIS SHEET.

SPIRAL TERMINATION DETAIL

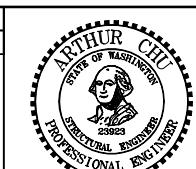


WELDED LAP SPLICE DETAIL

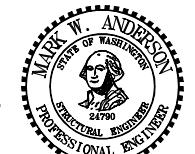
WELDING SHALL MEET THE REQUIREMENTS
OF STD. SPEC. 6-02.3(24E)
FOR WELD DIMENSIONS, SEE TABLE BELOW.

COLUMN SPIRAL

DEFORMED BAR	WELD DIMENSIONS (in.)		
	S	E	LENGTH (L)
#6	3/8	3/16	6



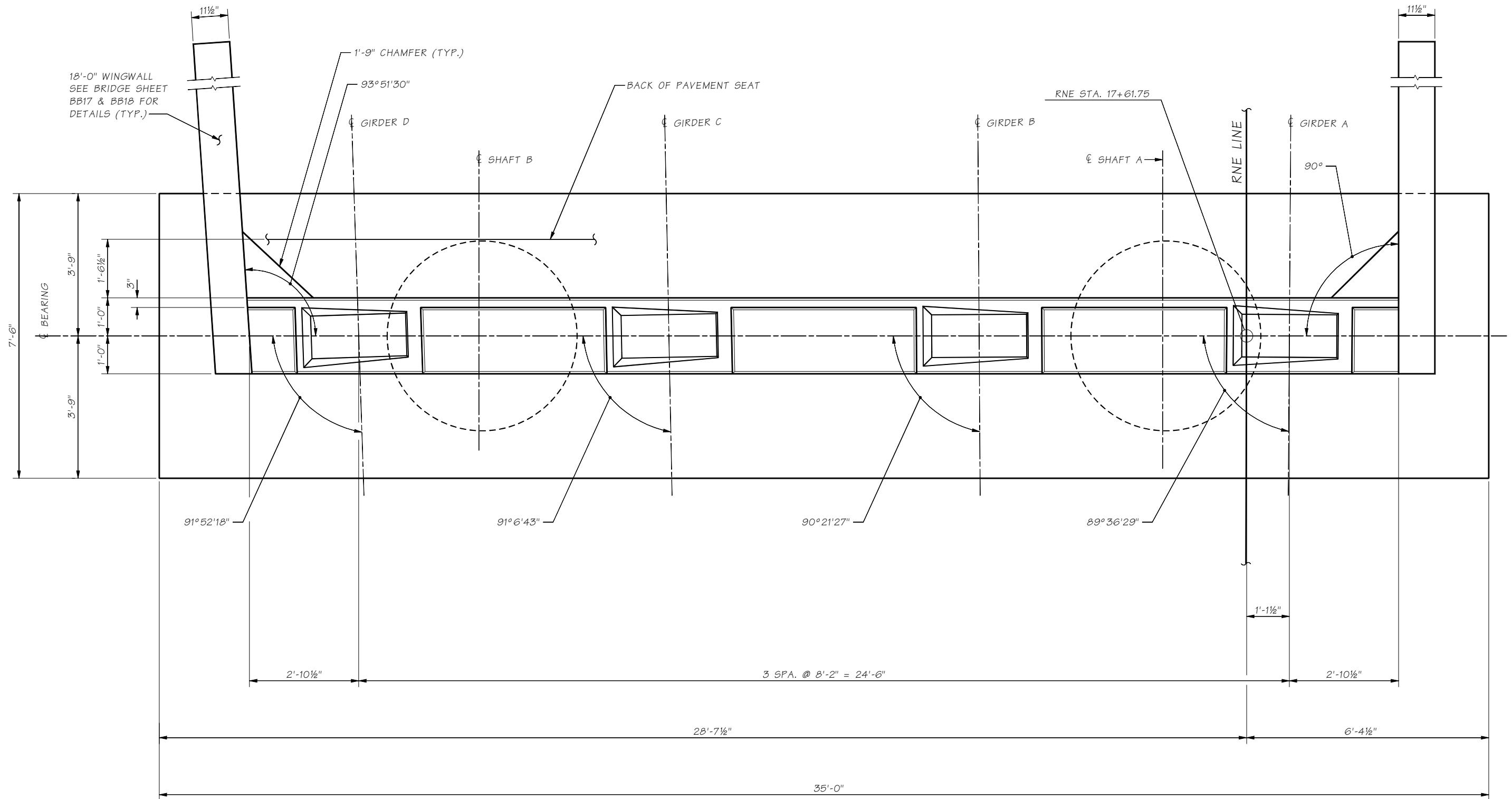
BRIDGE
AND
STRUCTURES
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Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 4 COLUMN DETAILS

BRIDGE
SHEET
NO.
BB13
SHEET
OF
SHEETS



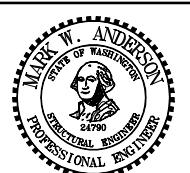
PLAN

DIMENSIONS ARE TAKEN ALONG & BEARING.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\PL PLAN.WND
Supervisor	Anderson, MW	
Designed By	Chu, A	05/08
Checked By		
Detailed By	McCarthy, DJ	05/08
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		
DATE	REVISION	BY APPD



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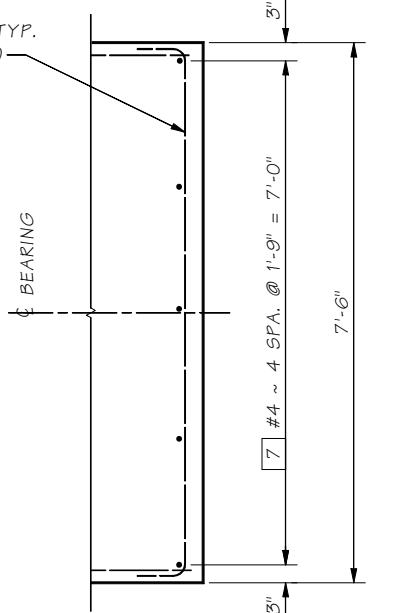
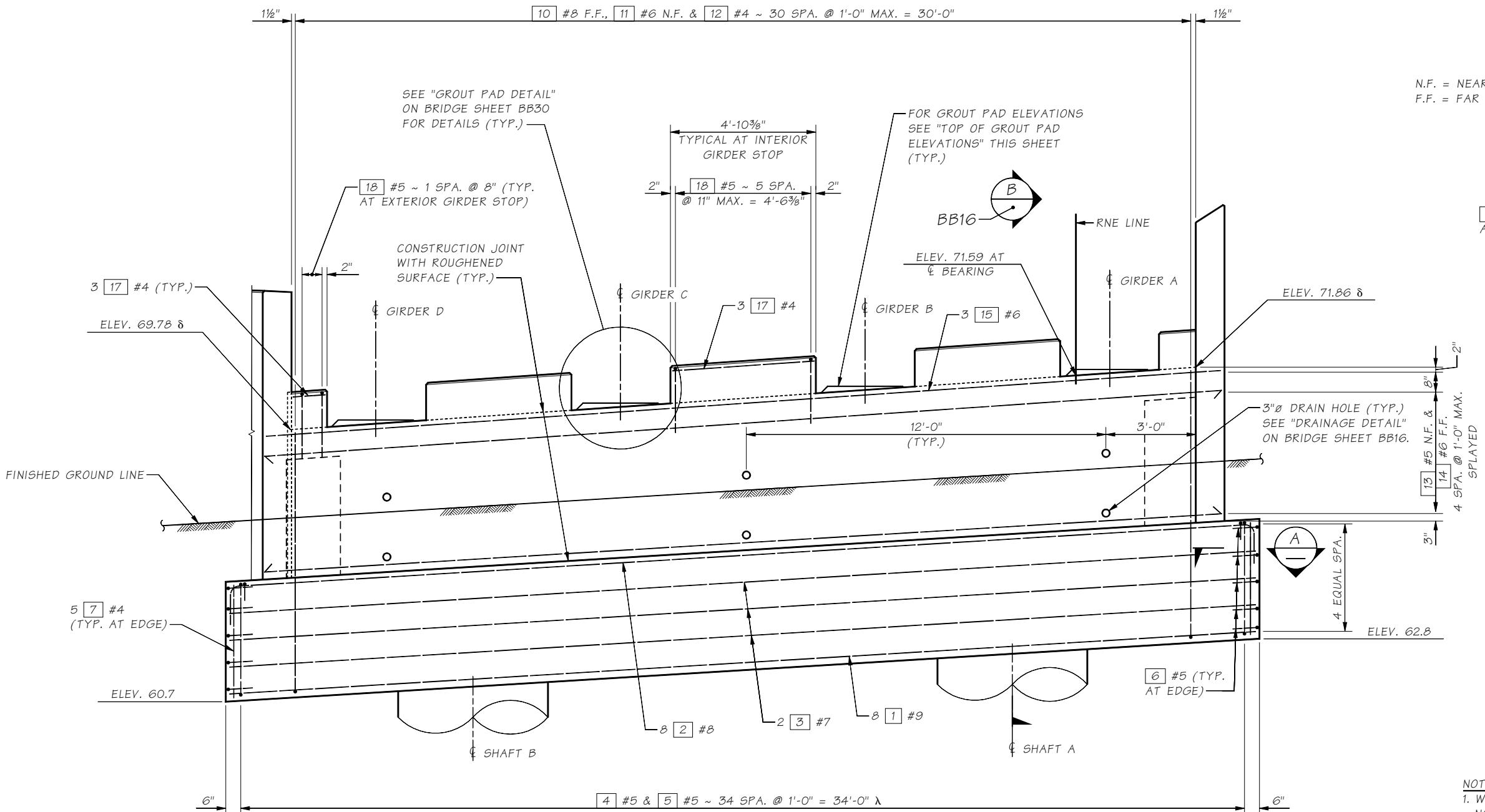
Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 1 PLAN

TOP OF GROUT
PAD ELEVATIONS

GIRDER	A	B	C	D
ELEVATION	71.79	71.23	70.67	70.10

N.F. = NEAR FACE
F.F. = FAR FACE

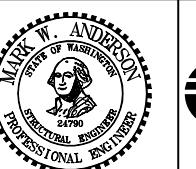


NOTES:

1. WINGWALL REINFORCEMENT AND 16 #4 WALL TIES NOT SHOWN FOR CLARITY.
2. TOP 15 #6 REBARS ARE PARALLEL TO TOP OF WALL.
3. δ ELEVATION TAKEN AT INSIDE FACE OF WINGWALL ALONG Ⓛ BEARING.
4. λ ADJUST SPACING AS NECESSARY OVER SHAFTS.

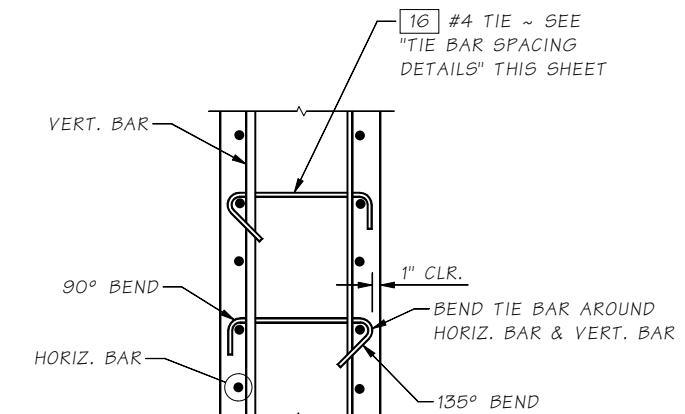
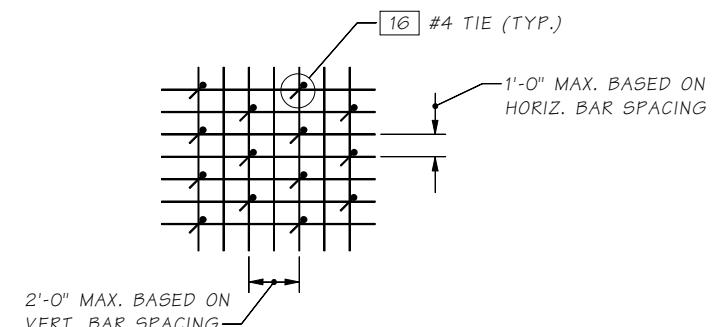
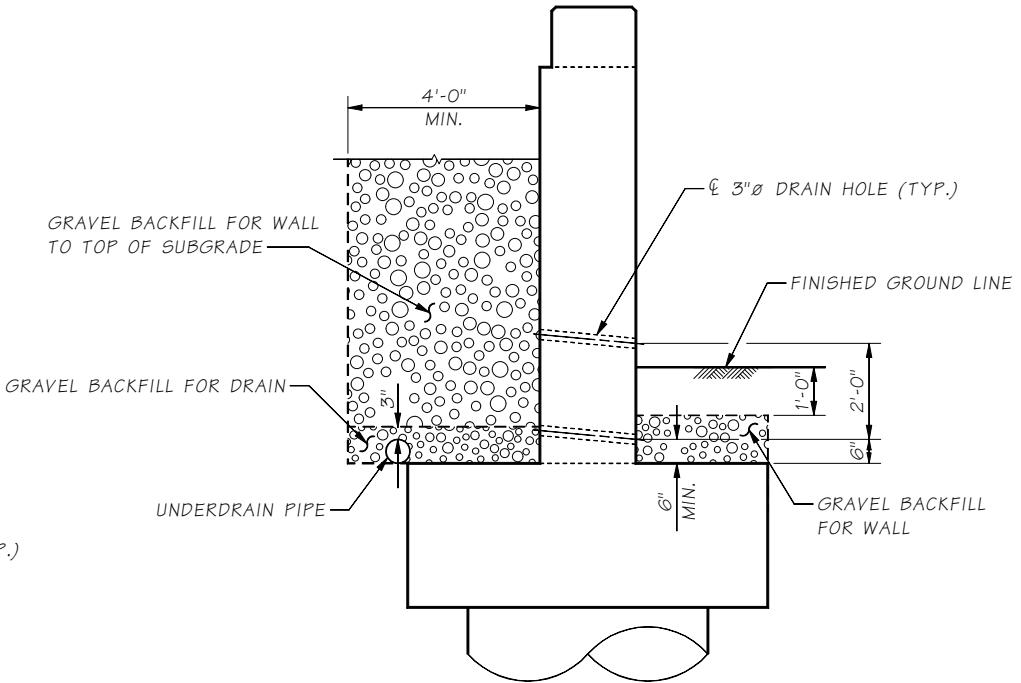
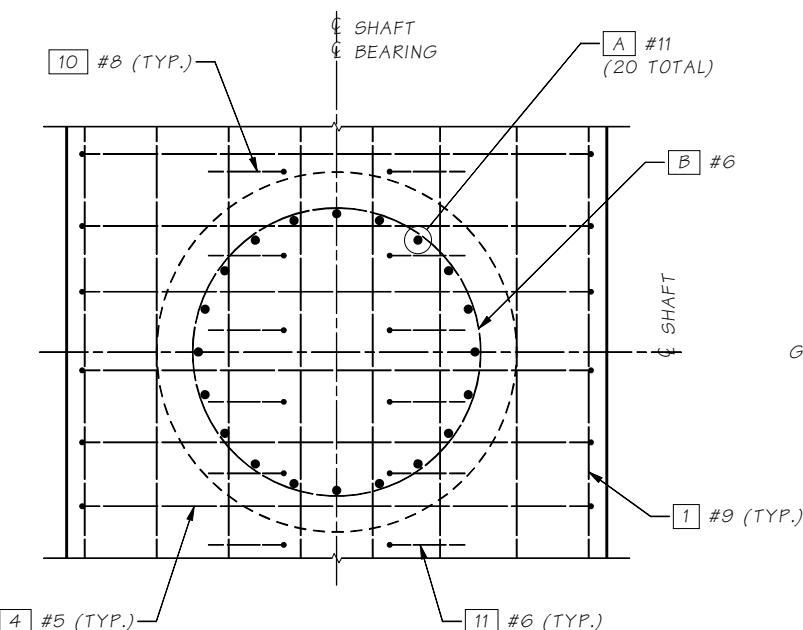
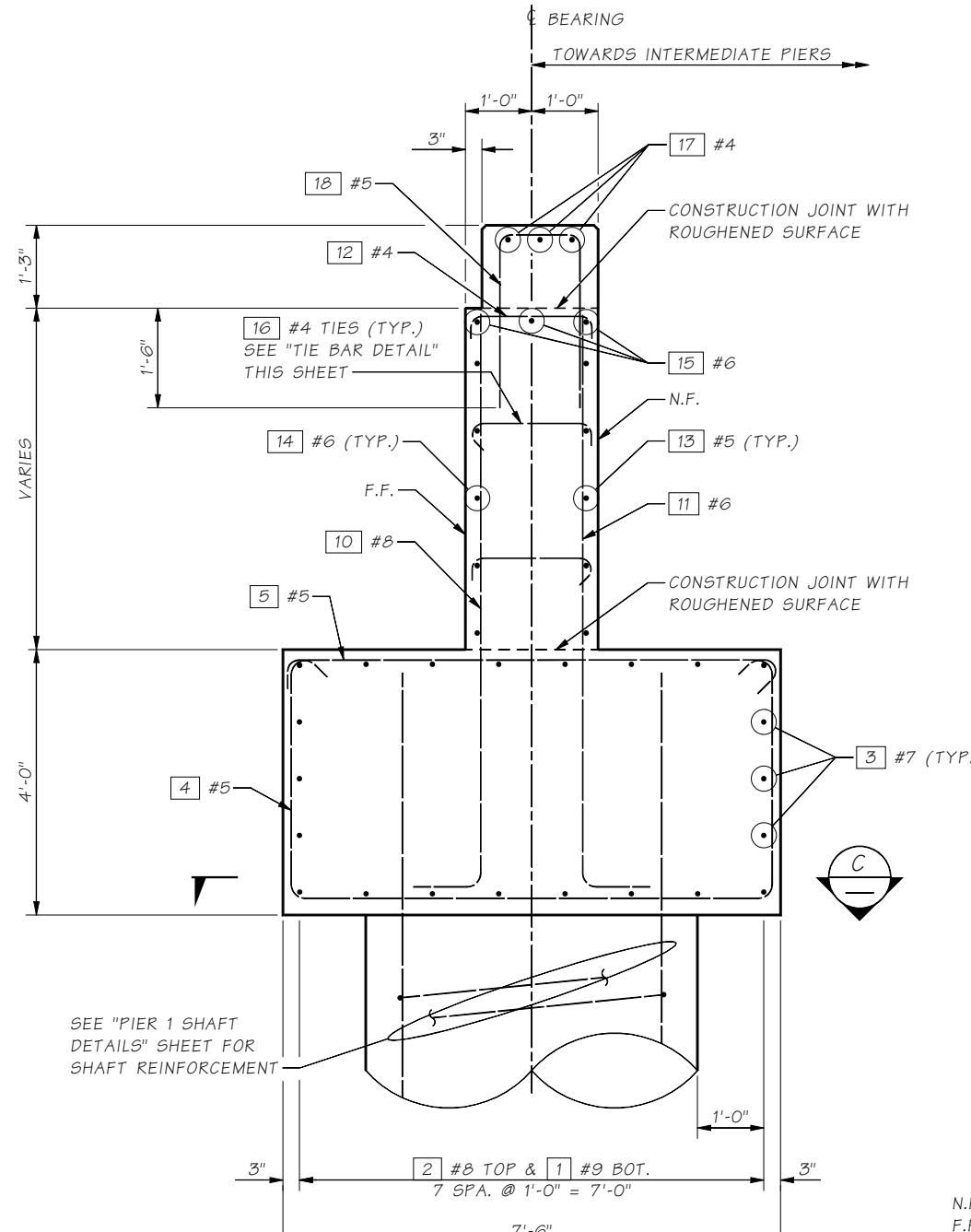


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STRUCTURES
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Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 1 ELEVATION



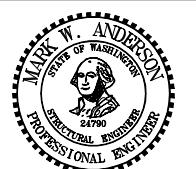
TIE BAR SPACING DETAIL

TIE BAR DETAIL
ALTERNATE 135° HOOK
EVERY OTHER TIE BAR

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\PL DETAILS.WND		REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Anderson, MW							
Designed By	Chu, A	07/08						
Checked By								
Detailed By	McCarthy, DJ	07/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE	REVISION	BY APPD		JOB NUMBER				



BRIDGE AND STRUCTURES OFFICE

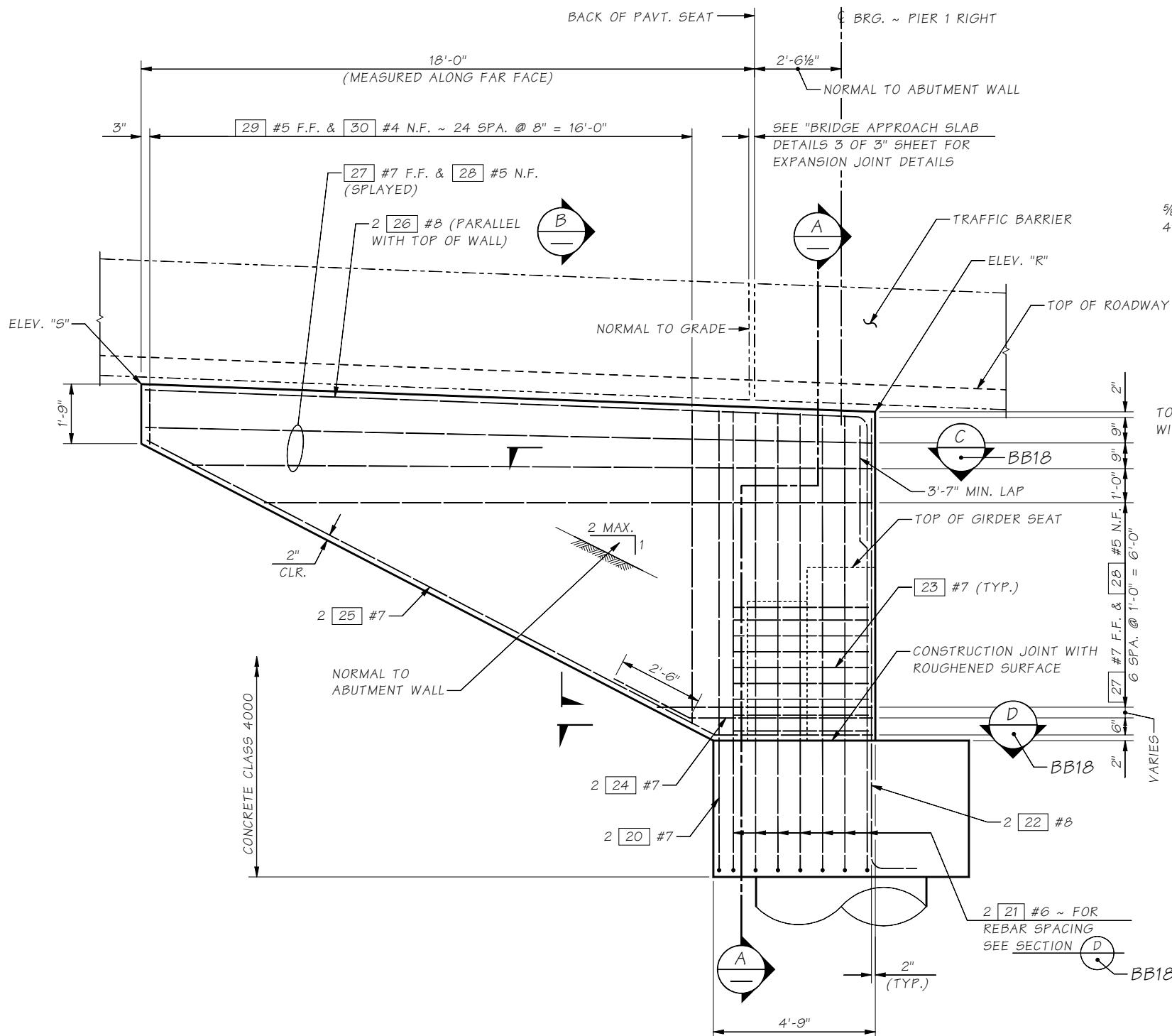


Washington State Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 1 DETAILS

WINGWALL ELEVATIONS	
WINGWALL LOCATION	ELEVATION POINT
PIER 1 LEFT	76.56 * 77.74 *
PIER 1 RIGHT	74.35 * 75.16 *

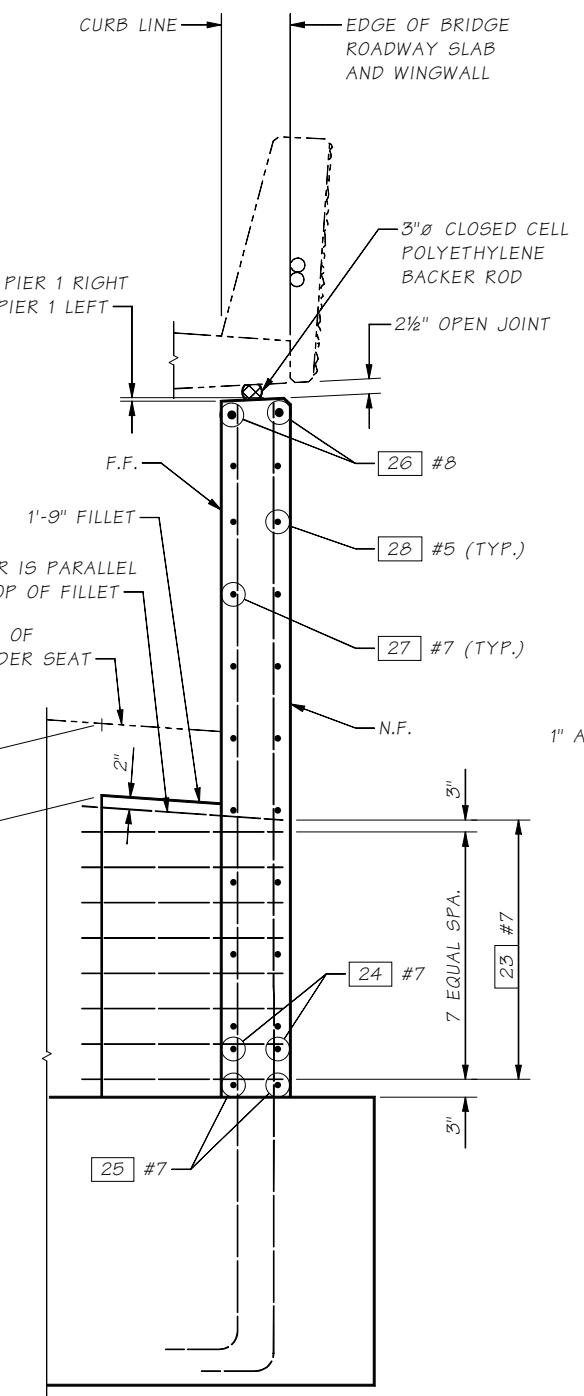
* ELEVATION TAKEN AT N.F. AND TOP OF CHAMFER.



N.F. = NEAR FACE
F.F. = FAR FACE

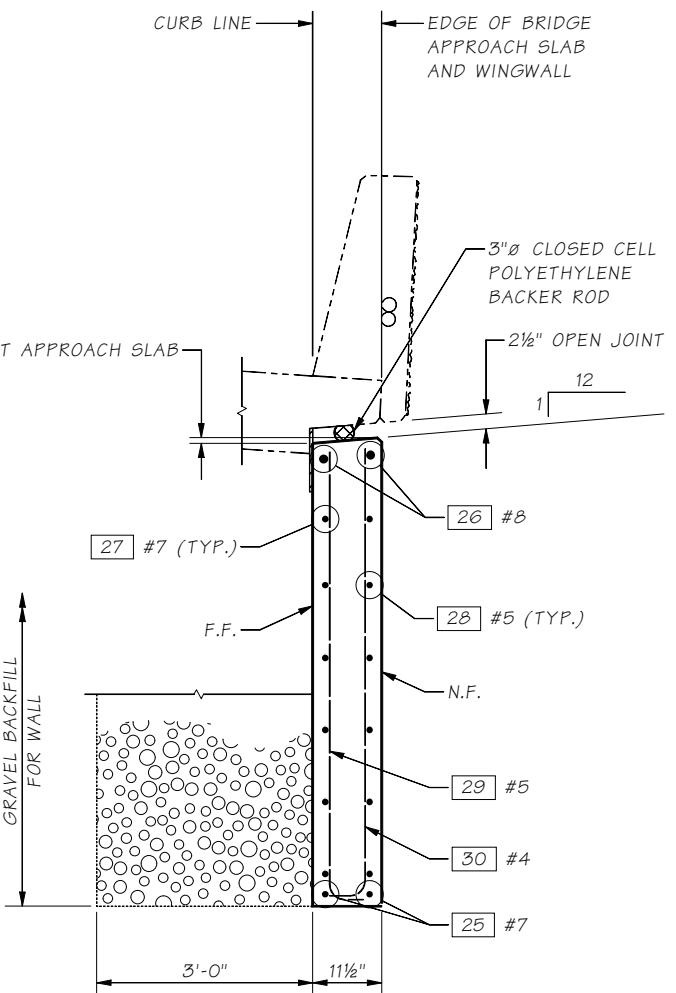
PIER 1 WINGWALL OUTSIDE ELEVATION

PIER 1 RIGHT SHOWN, PIER 1 LEFT SIMILAR.
FOR REINFORCEMENT NOT SHOWN, SEE PIER 1 PLANS.



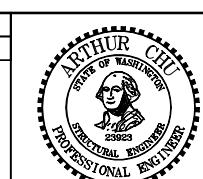
SECTION A

FOR REINFORCEMENT NOT SHOWN, SEE PIER 1 PLANS.

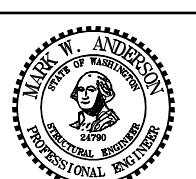


SECTION B

Bridge Design Engr.	Khaleghi, B	M:	\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\PL WINGWALL 1.WND	REGION NO.	STATE	FED. AID PROJ. NO.	HEET NO.	TOTAL SHEETS
Supervisor	Anderson, MW							
Designed By	Chu, A	07/08						
Checked By								
Detailed By	McCarthy, DJ	07/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION		BY APPD				



BRIDGE AND STRUCTURES OFFICE

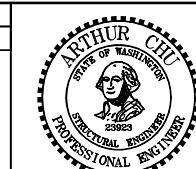


Washington State Department of Transportation

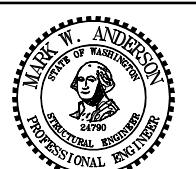
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 1 WINGWALL DETAILS 1 OF 2

BRIDGE SHEET NO. BB17
SHEET OF SHEETS

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\PL_WINGWALL 2.WND						
Supervisor	Anderson, MW							
Designed By	Chu, A	06/08						
Checked By								
Detailed By	McCarthy, DJ	06/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION		BY APPD				



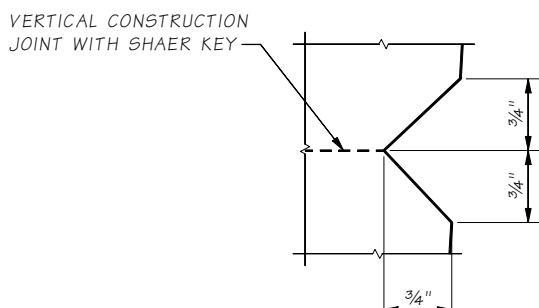
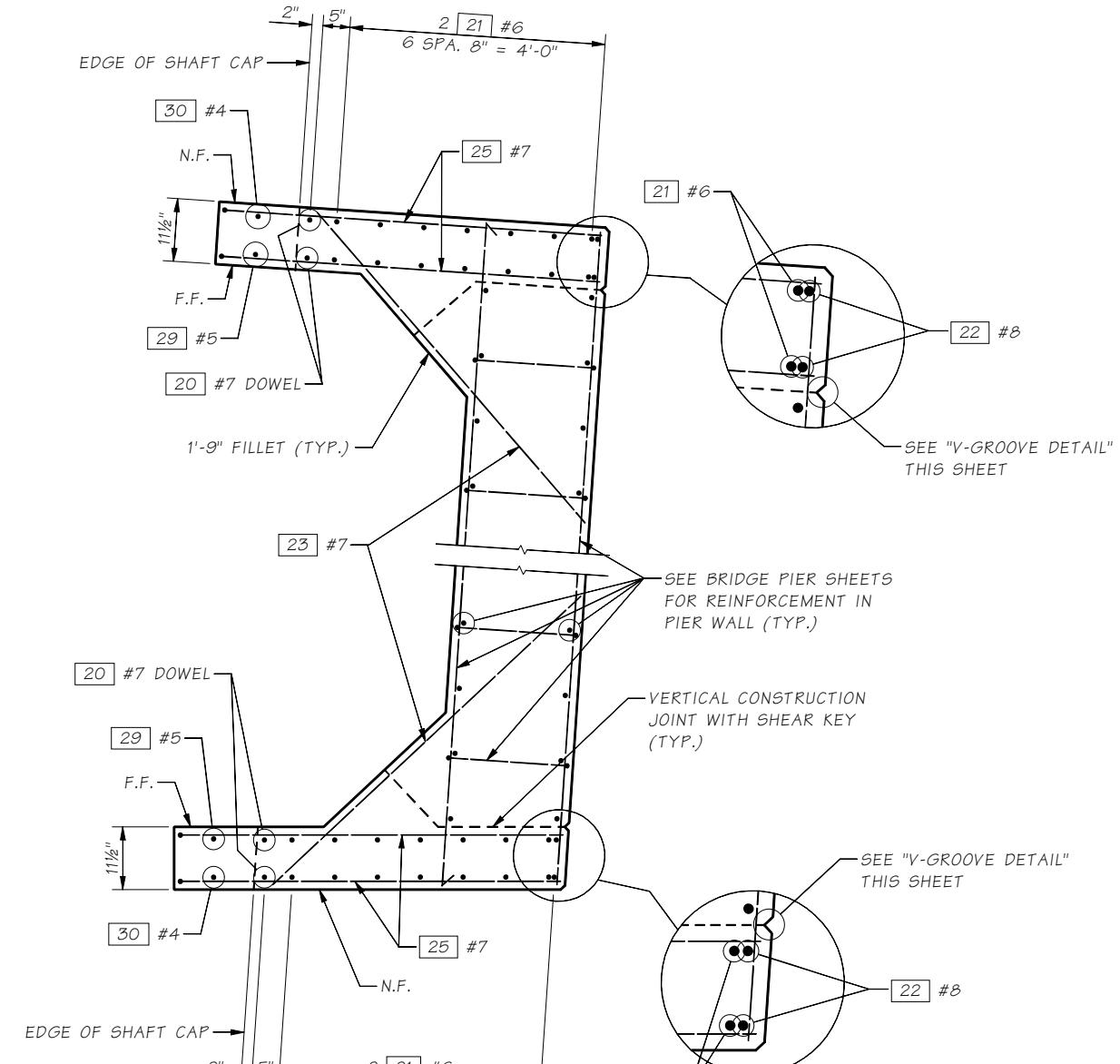
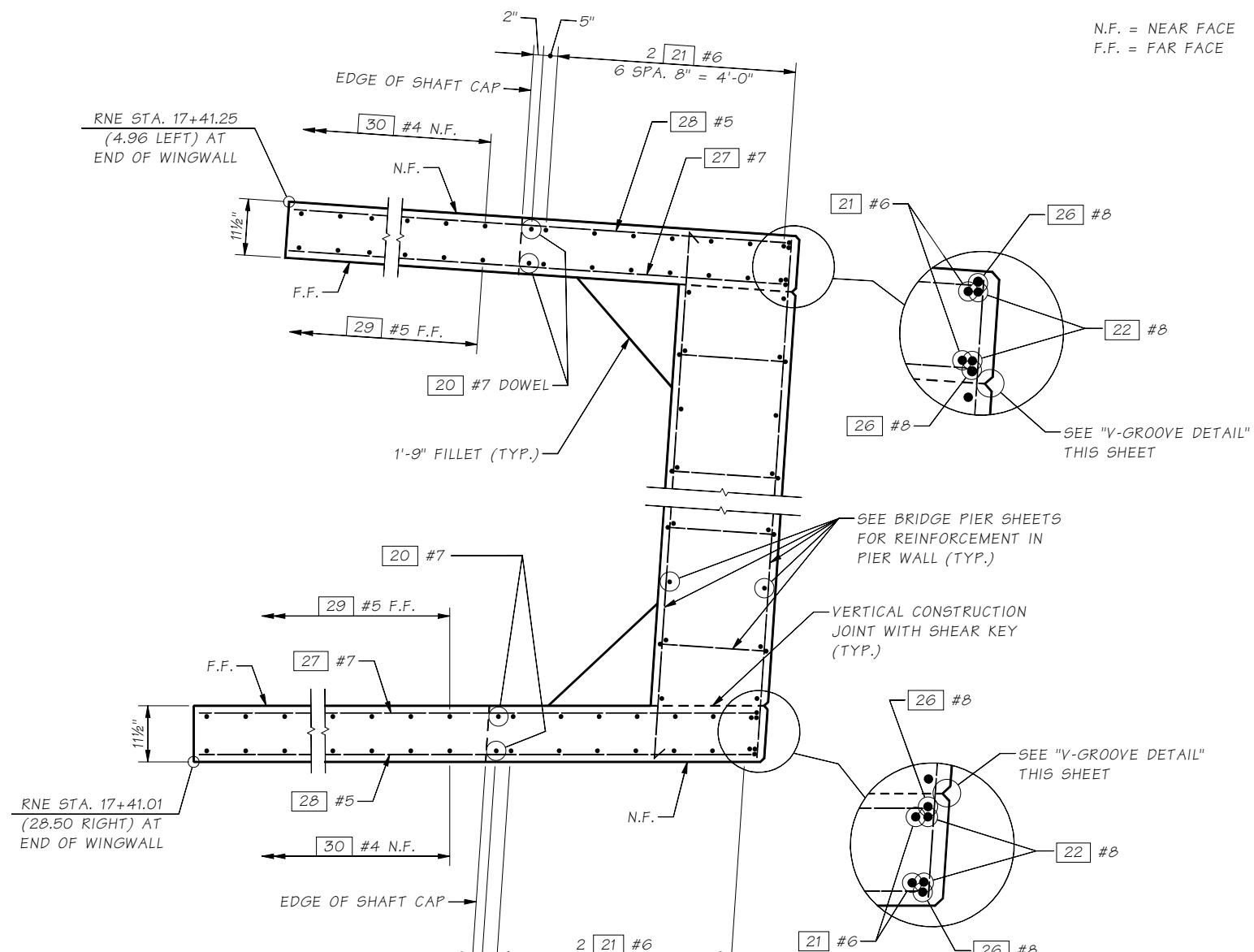
BRIDGE
AND
STRUCTURES
OFFICE

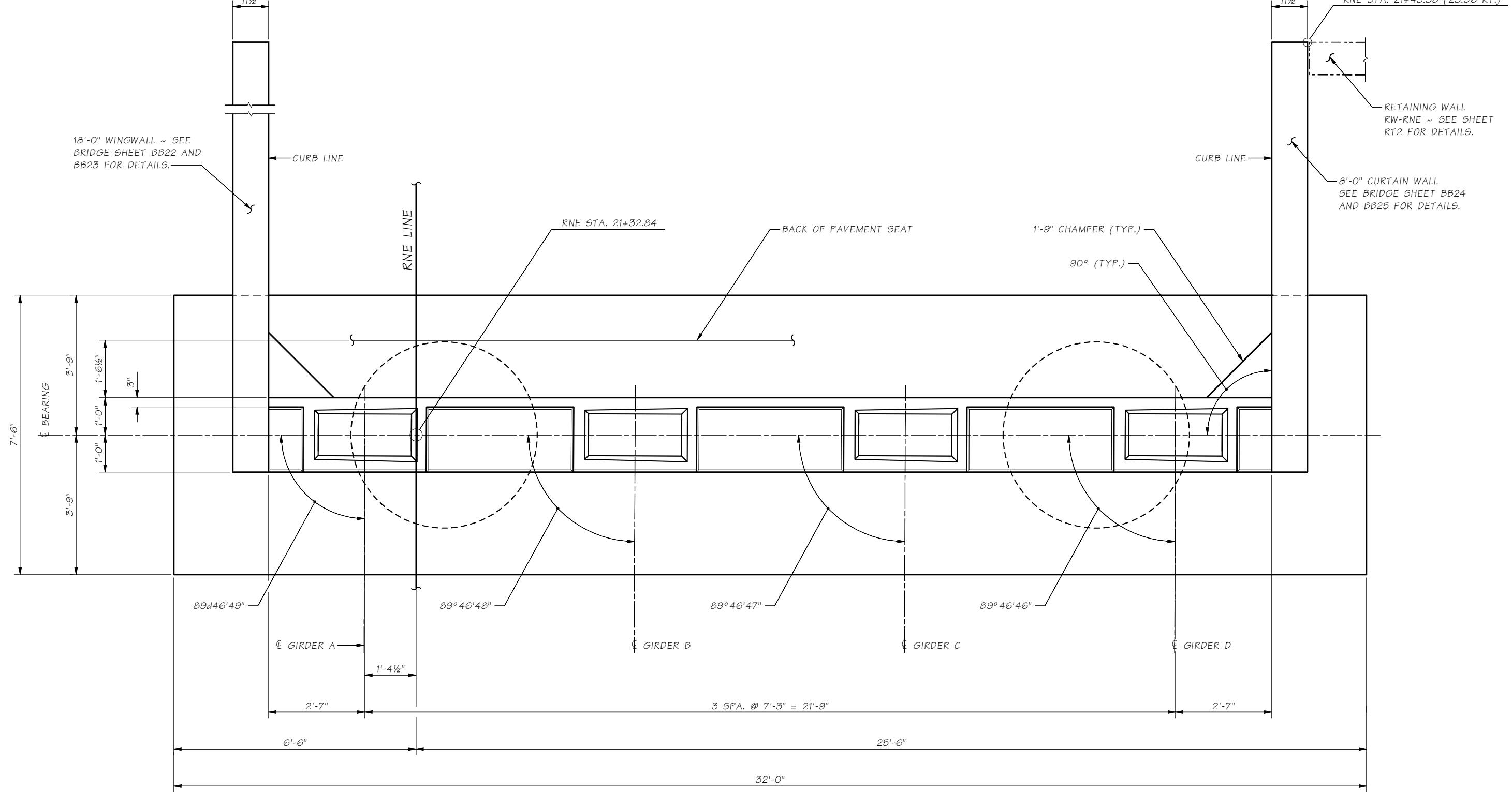


Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 1 WINGWALL
DETAILS 2 OF 2

BRIDGE
SHEET
NO.
BB18
SHEET
OF
SHEETS



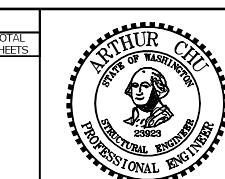


SR 520 FILE NO. 7041 SHEET BB19

PLAN

DIMENSIONS ARE TAKEN ALONG E BEARING.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\P5 PLAN.WND						
Supervisor	Anderson, MW							
Designed By	Chu, A	05/08						
Checked By								
Detailed By	McCarthy, DJ	05/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY	APPD				



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Department of Transportation

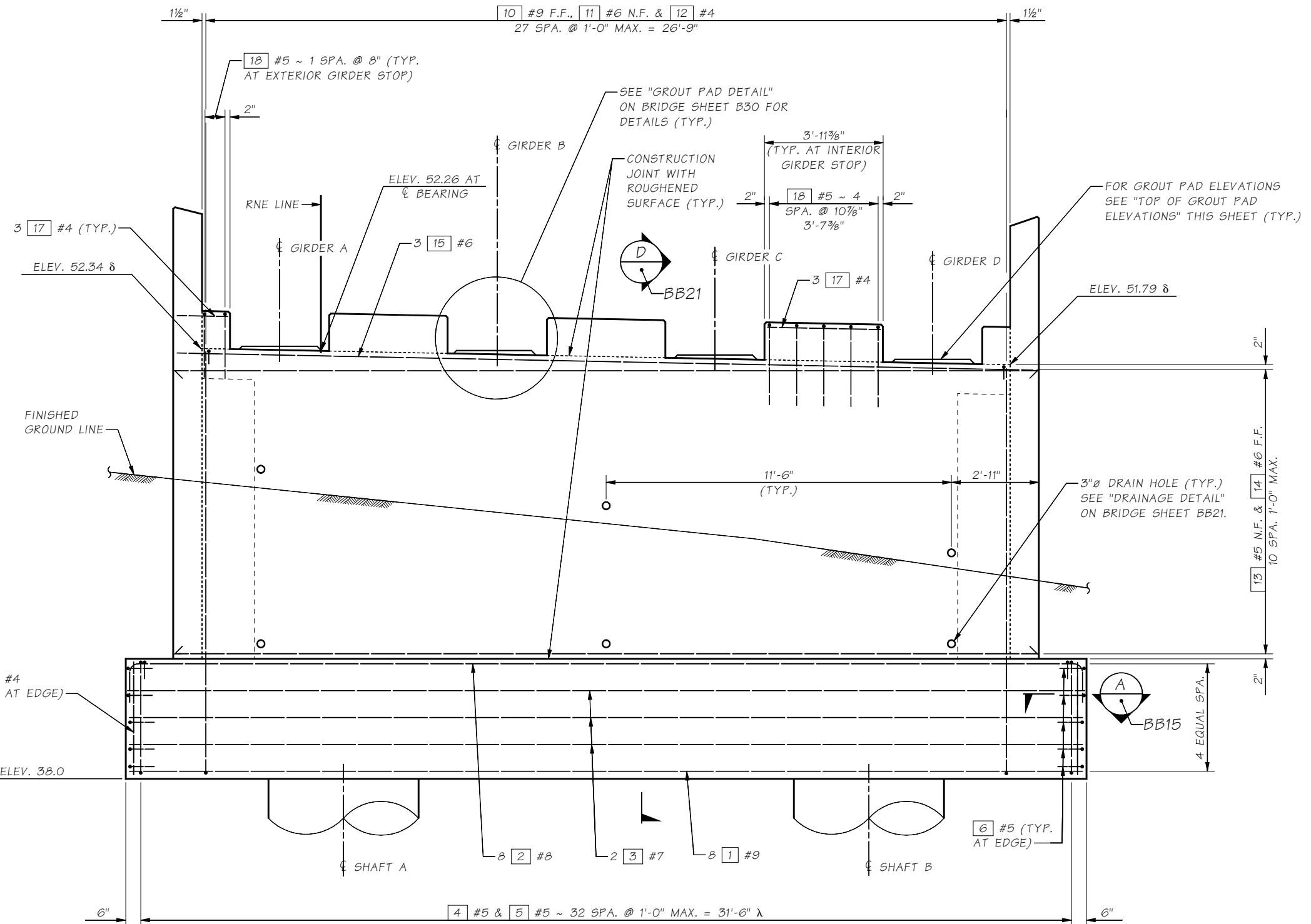
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 5 PLAN

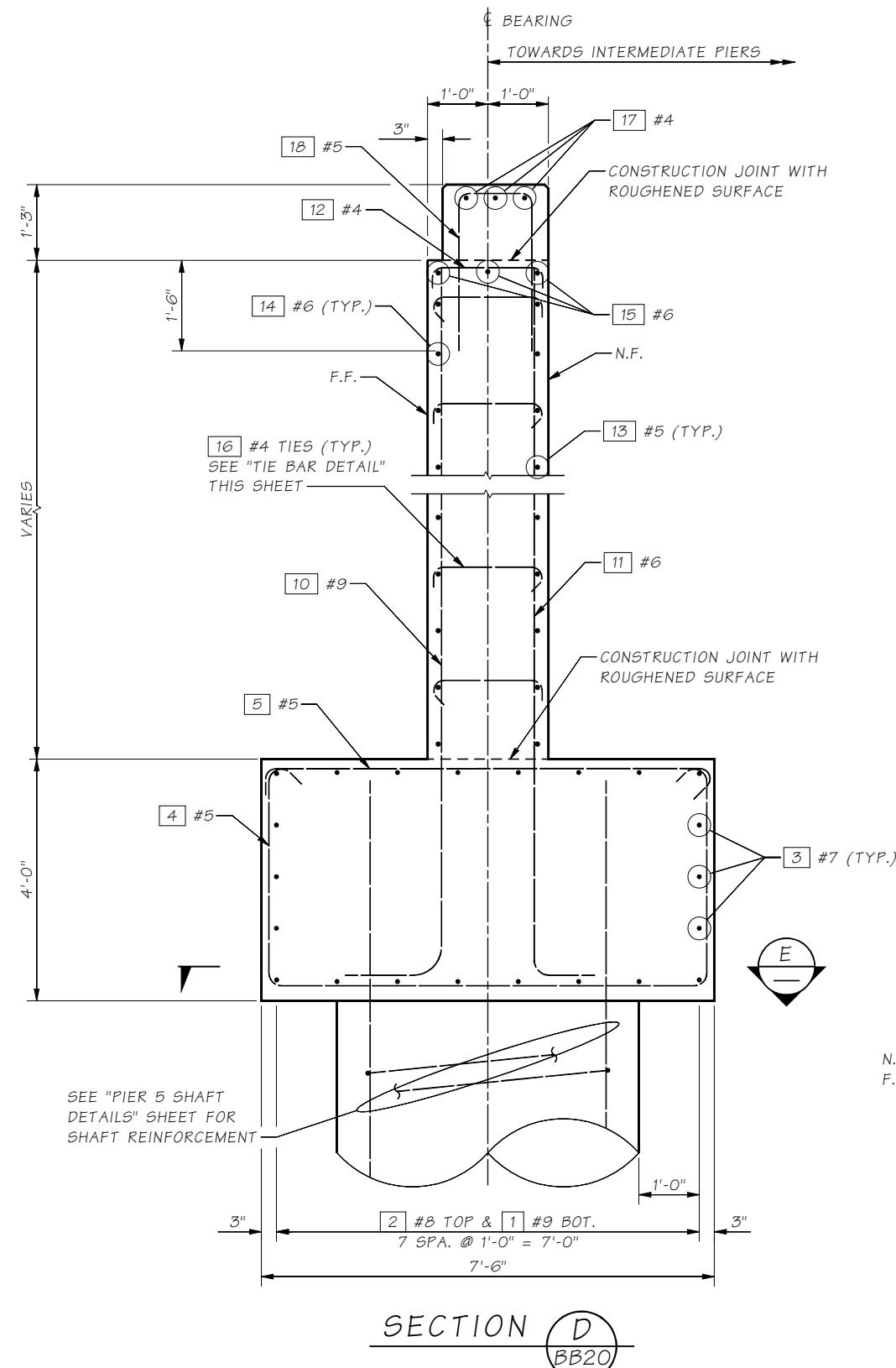
BRIDGE
SHEET
NO.
BB19

SHEET
OF
SHEETS

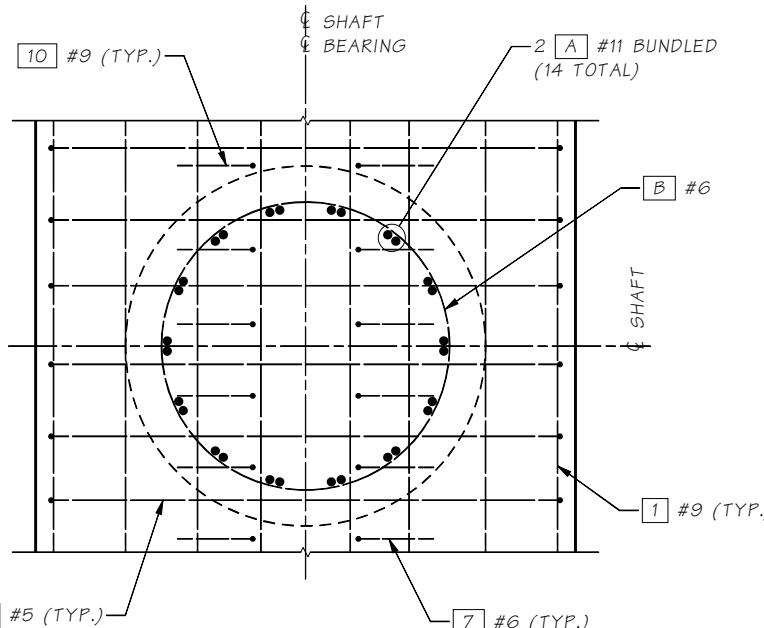
TOP OF GROUT
PAD ELEVATIONS

GIRDER	A	B	C	D
ELEVATION	52.42	52.27	52.12	51.97





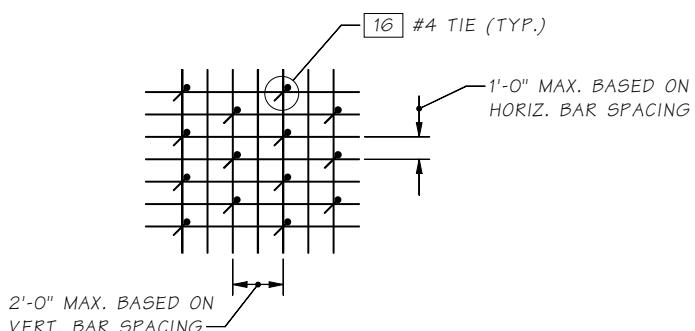
SR 520 FILE NO. 7041 SHEET BB21



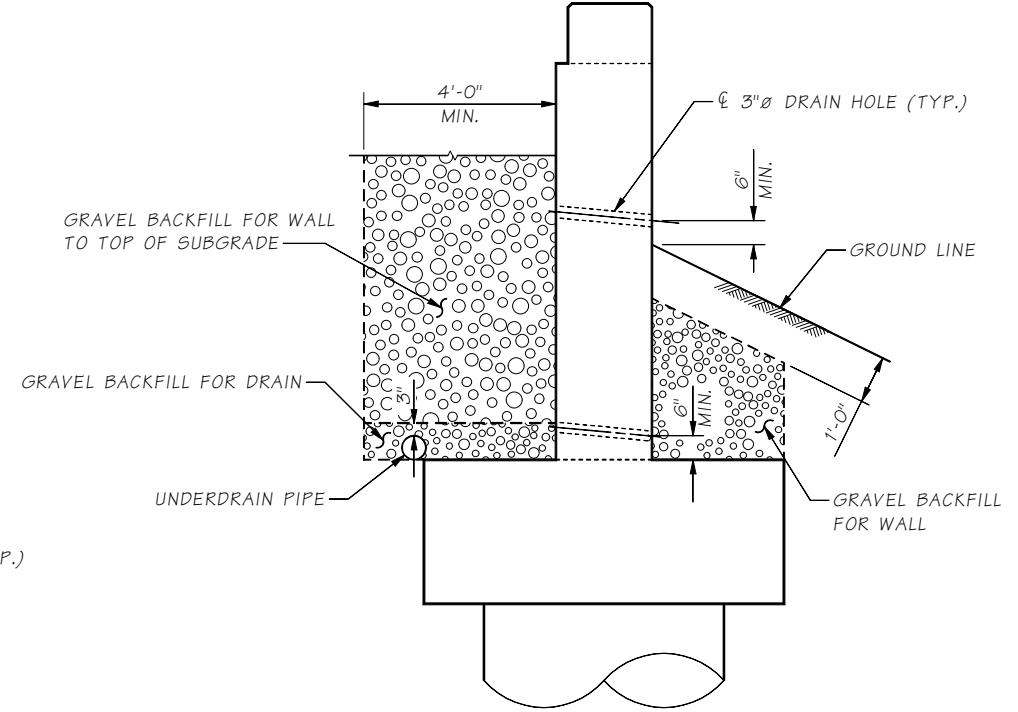
SECTION E

THE CONTRACTOR SHALL ADJUST 1 #9, 10 #9 & 11 #6 BARS TO CLEAR SHAFT VERTICAL BAR A #11 & C #6 SPIRAL. SEE "PIER 5 SHAFT DETAILS" SHEET FOR A #11 & C #6 SPIRAL REINFORCEMENT.

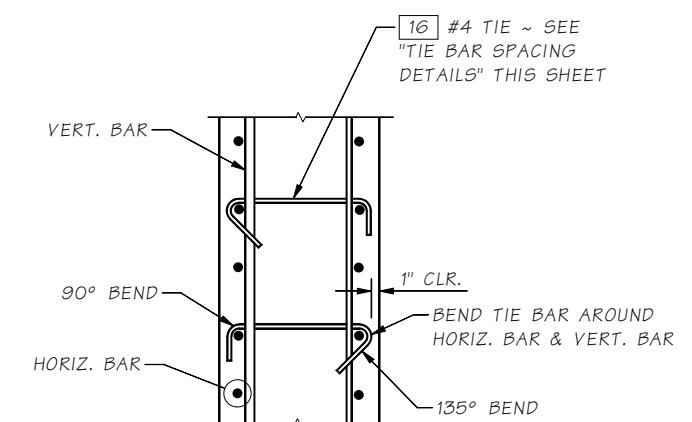
N.F. = NEAR FACE
F.F. = FAR FACE



TIE BAR SPACING DETAIL



DRAINAGE DETAIL

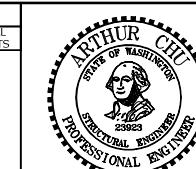


TIE BAR DETAIL

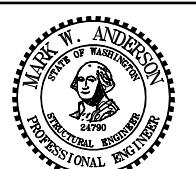
ALTERNATE 135° HOOK
EVERY OTHER TIE BAR

Bridge Design Engr.	Khaleghi, B	M:	\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\P5 DETAILS.WND	REGION NO.	STATE	FED. AID PROJ. NO.	SHFT NO.	TOTAL SHEETS
Supervisor	Anderson, MW							
Designed By	Chu, A	05/08						
Checked By								
Detailed By	McCarthy, DJ	05/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY APPD					

Thu Sep 18 14:48:57 2008



BRIDGE
AND
STRUCTURES
OFFICE

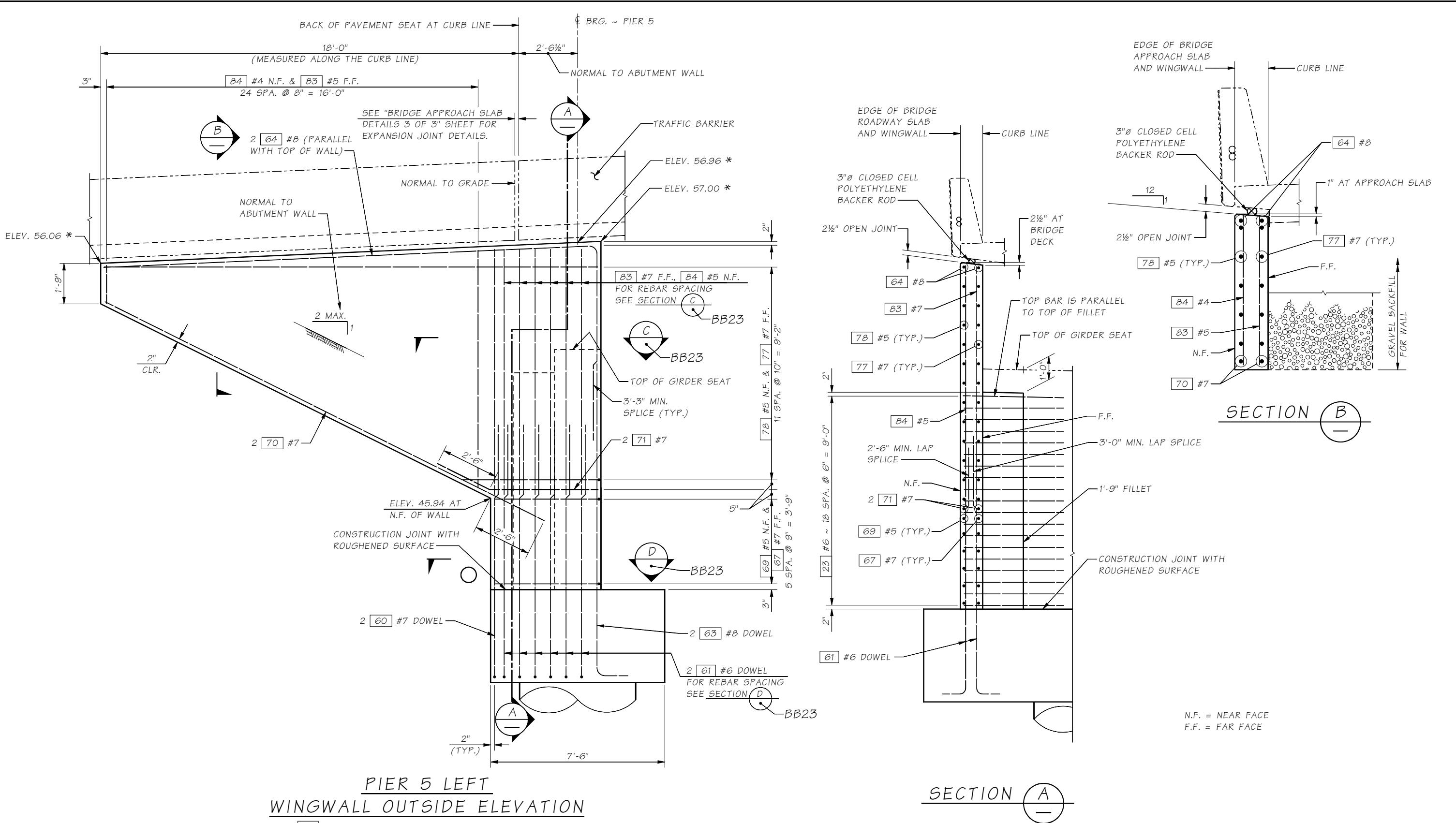


Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

PIER 5 DETAILS

BRIDGE SHEET NO.
BB21
SHEET OF
SHEETS



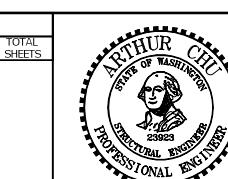
PIER 5 LEFT
WINGWALL OUTSIDE ELEVATION

* ELEVATION TAKEN AT N.F. OF WALL AND TOP OF CHAMFER.

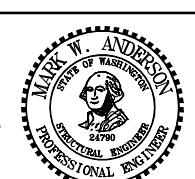
Bridge Design Engr.	Khaléghi, B	M:\X-Team\W
Supervisor	Anderson, MW	
Designed By	Chu, A	07/08
Checked By		
Detailed By	McCarthy, DJ	08/08
Bridge Projects Engr:		
Prelim. Plan By		
Architect/Specialist	DATE	

LSP SR202 STAGE 3\RNE RAMP\window files\P5 LT WINGWALL			REGION NO.	STATE	FILE NUMBER
			10	WASH.	
				JOB NUMBER	
REVISION	BY	APP'D			

1.WND
FED. AID PROJ. NO.



BRIDGE
AND
STRUCTURES
OFFICE



The logo for the Washington State Department of Transportation (WSDOT) features a circular emblem on the left containing a stylized 'T' and 'Y' shape. To the right of the emblem, the words "Washington State" are written in a bold, sans-serif font, followed by "Department of Transportation" in a slightly smaller bold font.

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

PIER 5 LEFT WINGWALL
DETAILS 1 OF 2

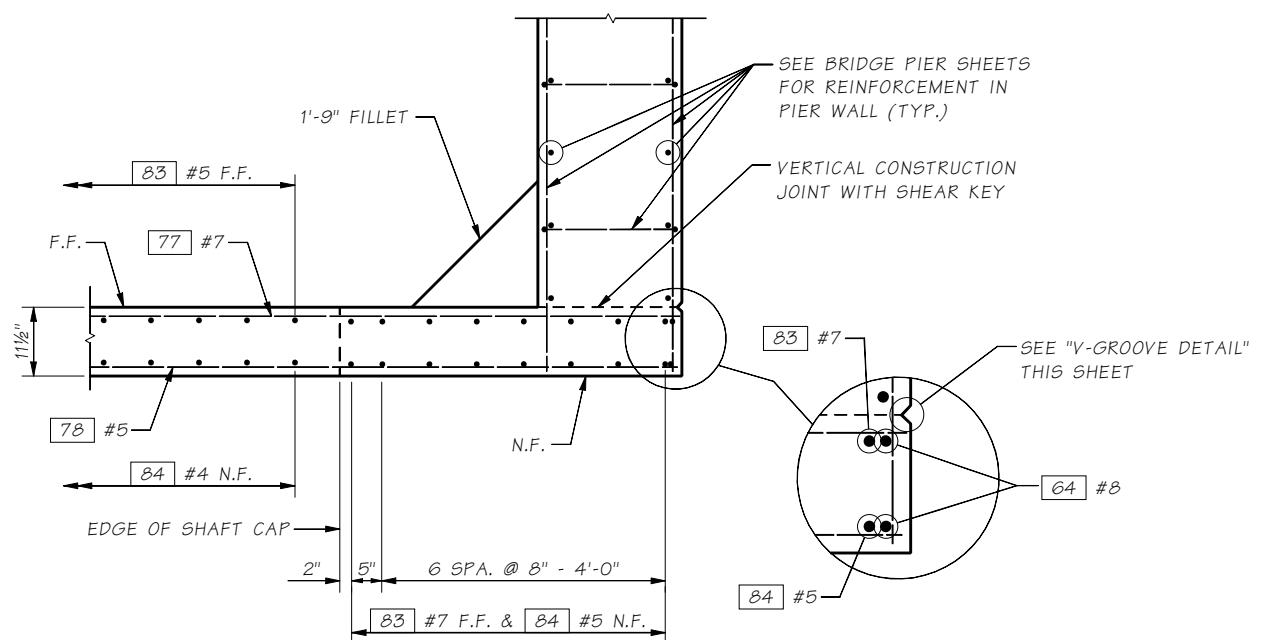
BRIDGE
SHEET
NO.

BB22

SHEET

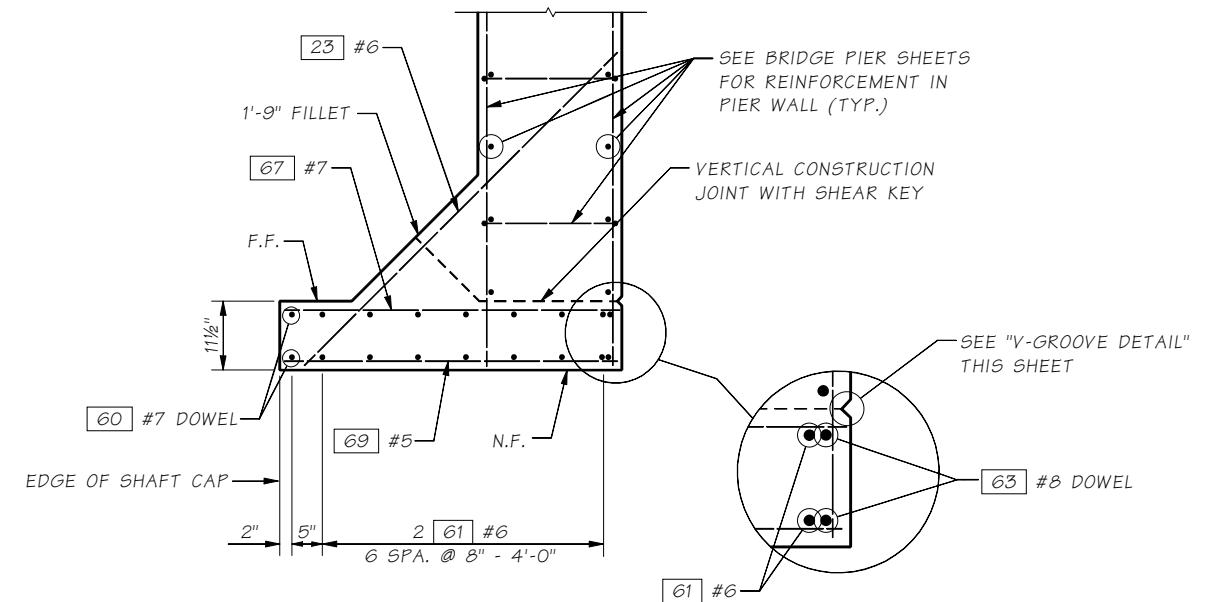
OF

SHEETS

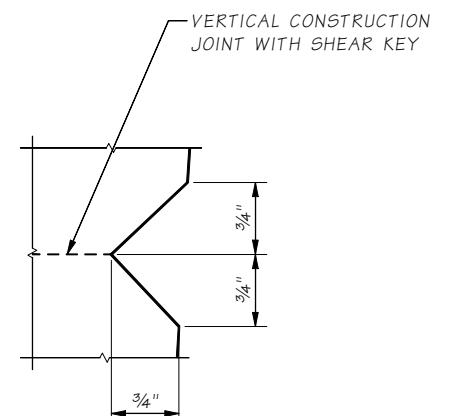


SECTION C
BB22

N.F. = NEAR FACE
F.F. = FAR FACE

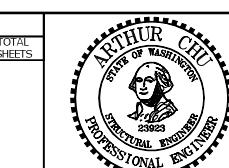


SECTION D
PIER 5 LEFT WINGWALL
BB22

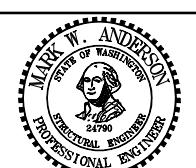


V-GROOVE DETAIL

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\P5_LT_WINGWALL_2.WND						
Supervisor	Anderson, MW							
Designed By	Chu, A	07/08						
Checked By								
Detailed By	McCarthy, DJ	07/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY	APPD				



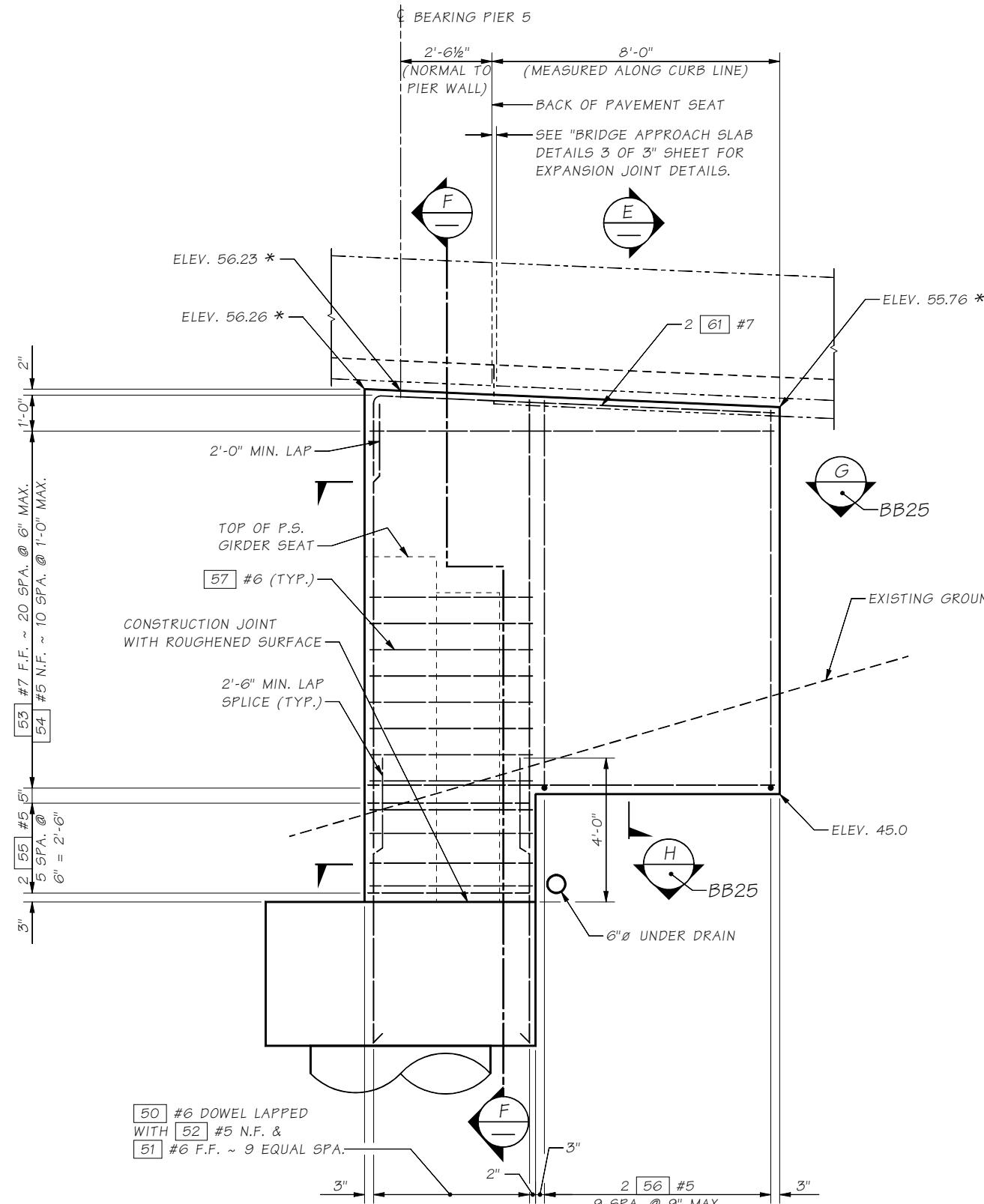
BRIDGE
AND
STRUCTURES
OFFICE



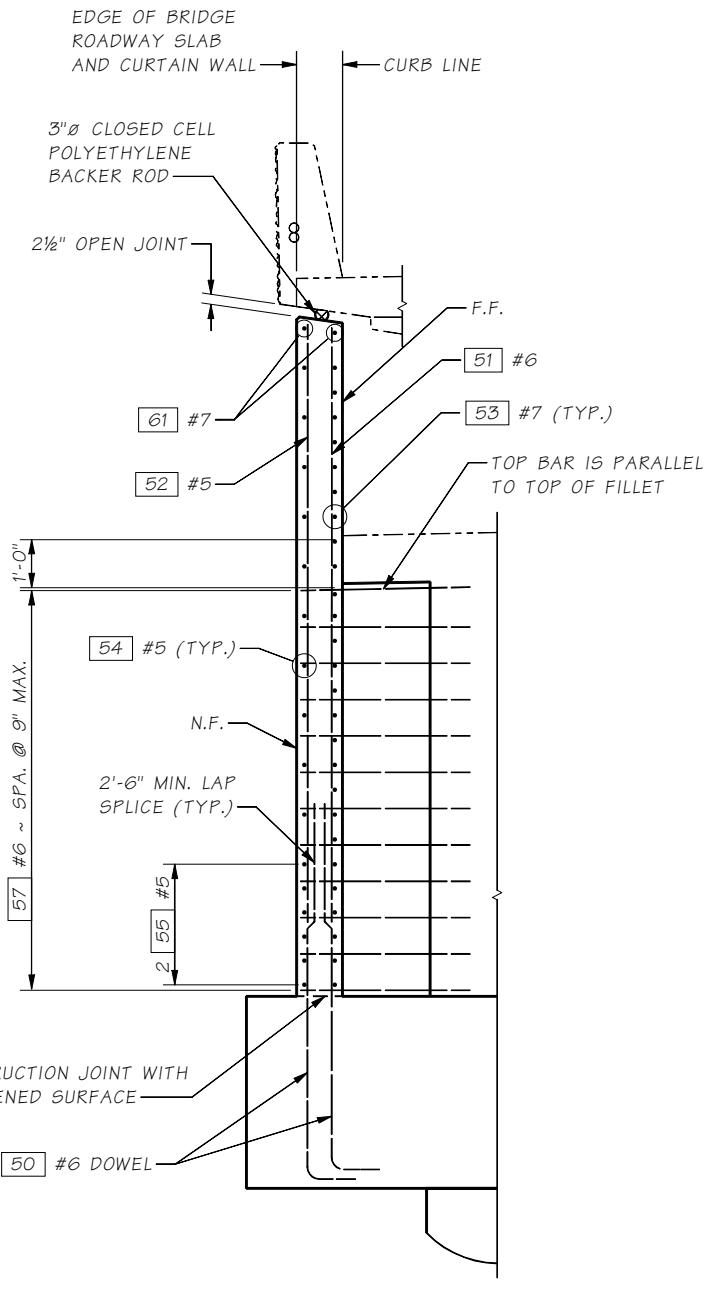
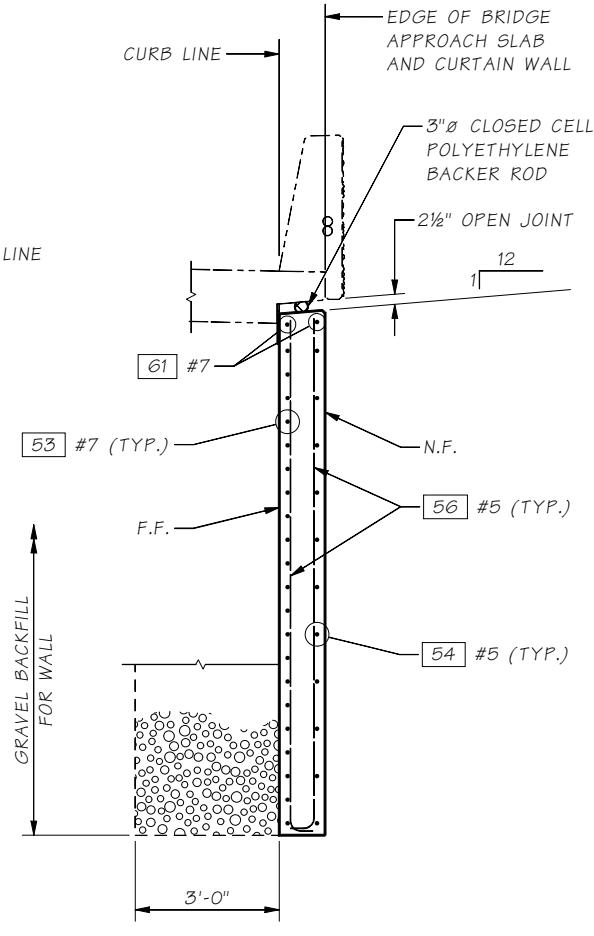
 Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

PIER 5 LEFT WINGWALL
DETAILS 2 OF 2



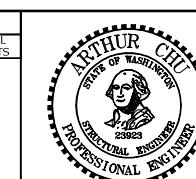
N.F. = NEAR FACE
F.F. = FAR FACE



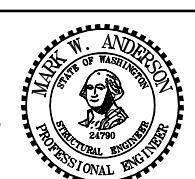
LOOKING BACK ON STATIONING.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\P5 RT CURTN WALL 1.WND					
Supervisor	Anderson, MW						
Designed By	Chu, A	07/08					
Checked By							
Detailed By	McCarthy, DJ	07/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE	REVISION	BY APPD					

Thu Sep 18 14:49:17 2008



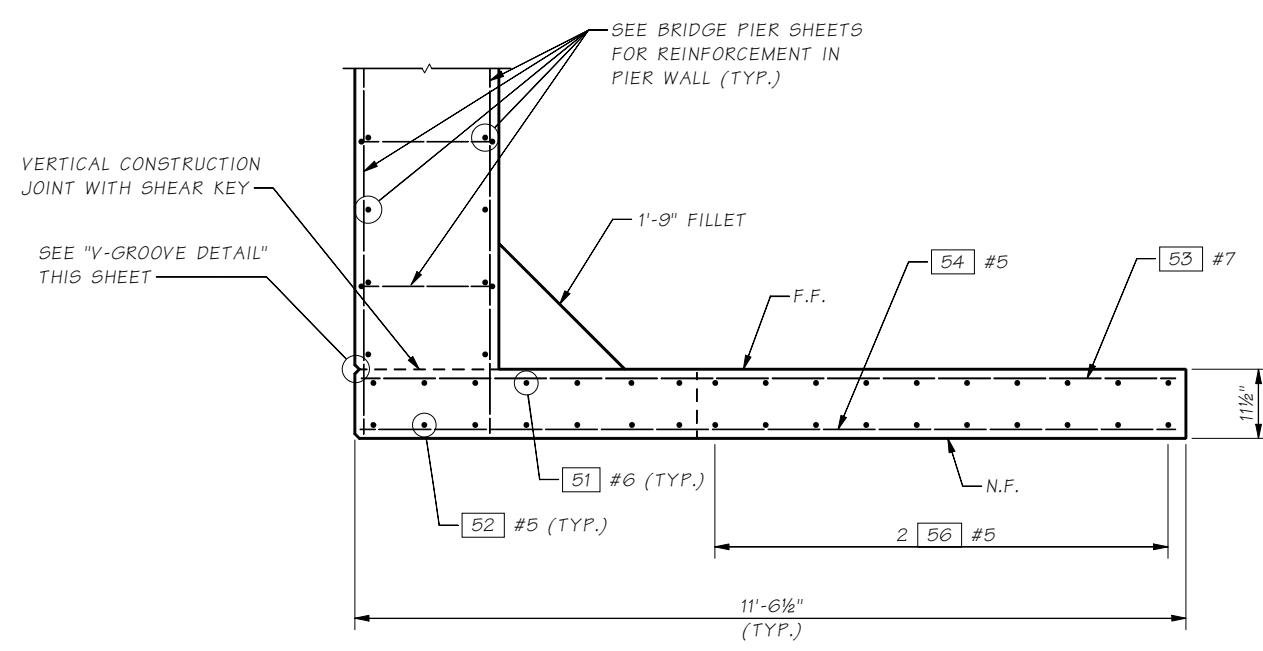
BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

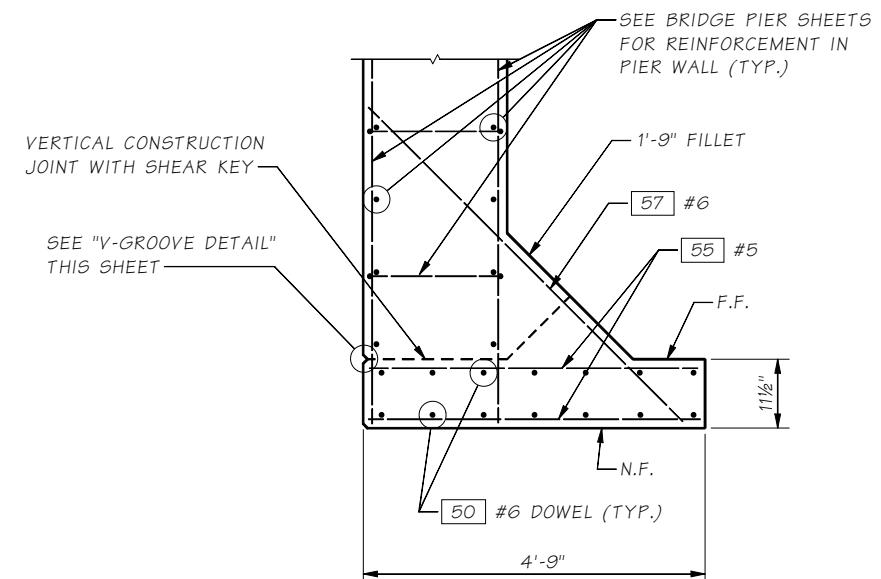
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PIER 5 RIGHT CURTAIN WALL
DETAILS 1 OF 2

BRIDGE SHEET NO.
BB24
SHEET OF
1 OF 2



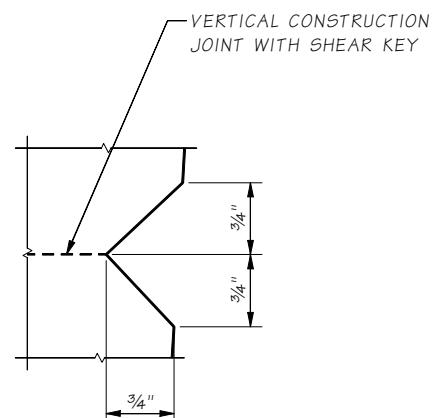
SECTION G

BB24



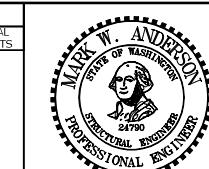
SECTION H

BB24



V-GROOVE DETAIL

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\P5 RT CURTN WALL 2.WND						
Supervisor	Anderson, MW							
Designed By	Chu, A	08/08						
Checked By								
Detailed By	McCarthy, DJ	08/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY	APPD				



BRIDGE
AND
STRUCTURES
OFFICE



 Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

PIER 5 RIGHT CURTAIN WALL
DETAILS 2 OF 2

BRIDGE
SHEET
NO.
BB25

SHEET
OF
SHEETS

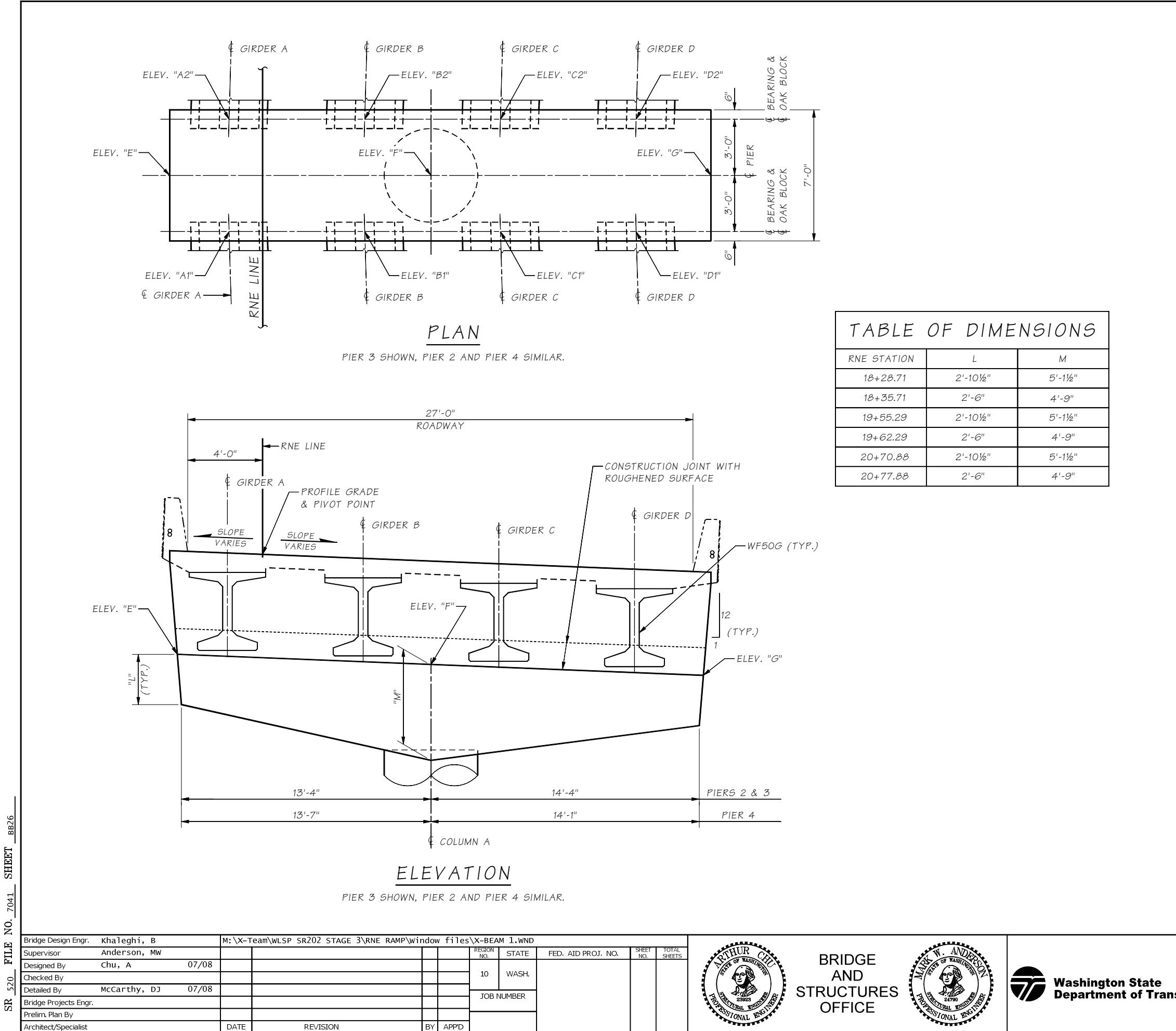


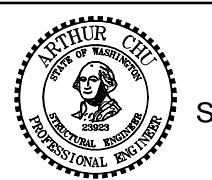
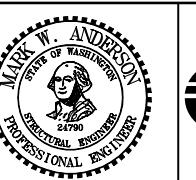
TABLE OF ELEVATIONS

PIER 2	RNE STATION	OFFSET	ELEVATION
A1 *	18+29.21	1.80' LEFT	68.48
A2 *	18+35.21	1.79' LEFT	68.05
B1 *	18+29.20	5.49' RIGHT	68.18
B2 *	18+35.22	5.46' RIGHT	67.76
C1 *	18+29.19	12.78' RIGHT	67.88
C2 *	18+35.23	12.71' RIGHT	67.47
D1 *	18+29.18	20.07' RIGHT	67.58
D2 *	18+35.24	19.96' RIGHT	67.18
E	18+32.21	4.56' LEFT	68.07
F	18+32.21	9.00' RIGHT	67.53
G	18+32.21	23.56' RIGHT	66.95
PIER 3	RNE STATION	OFFSET	ELEVATION
A1 *	19+55.79	1.79' LEFT	61.67
A2 *	19+61.79	1.79' LEFT	61.33
B1 *	19+55.78	5.46' RIGHT	61.38
B2 *	19+61.80	5.46' RIGHT	61.04
C1 *	19+55.77	12.71' RIGHT	61.09
C2 *	19+61.81	12.71' RIGHT	60.75
D1 *	19+55.76	19.96' RIGHT	60.80
D2 *	19+61.82	19.96' RIGHT	60.46
E	19+58.79	4.56' LEFT	61.35
F	19+58.79	9.00' RIGHT	60.80
G	19+58.79	23.56' RIGHT	60.22
PIER 4	RNE STATION	OFFSET	ELEVATION
A1 *	20+71.38	1.55' LEFT	55.51
A2 *	20+77.38	1.60' LEFT	55.38
B1 *	20+71.37	5.70' RIGHT	55.26
B2 *	20+77.39	5.65' RIGHT	55.14
C1 *	20+71.36	12.95' RIGHT	55.00
C2 *	20+77.40	12.90' RIGHT	54.89
D1 *	20+71.35	20.20' RIGHT	54.74
D2 *	20+77.41	20.15' RIGHT	54.64
E	20+74.38	4.56' LEFT	55.21
F	20+74.38	9.25' RIGHT	54.73
G	20+74.38	23.56' RIGHT	54.23

* ELEVATION AT TOP OF OAK BLOCK
(BOTTOM OF PRESTRESSED GIRDER)

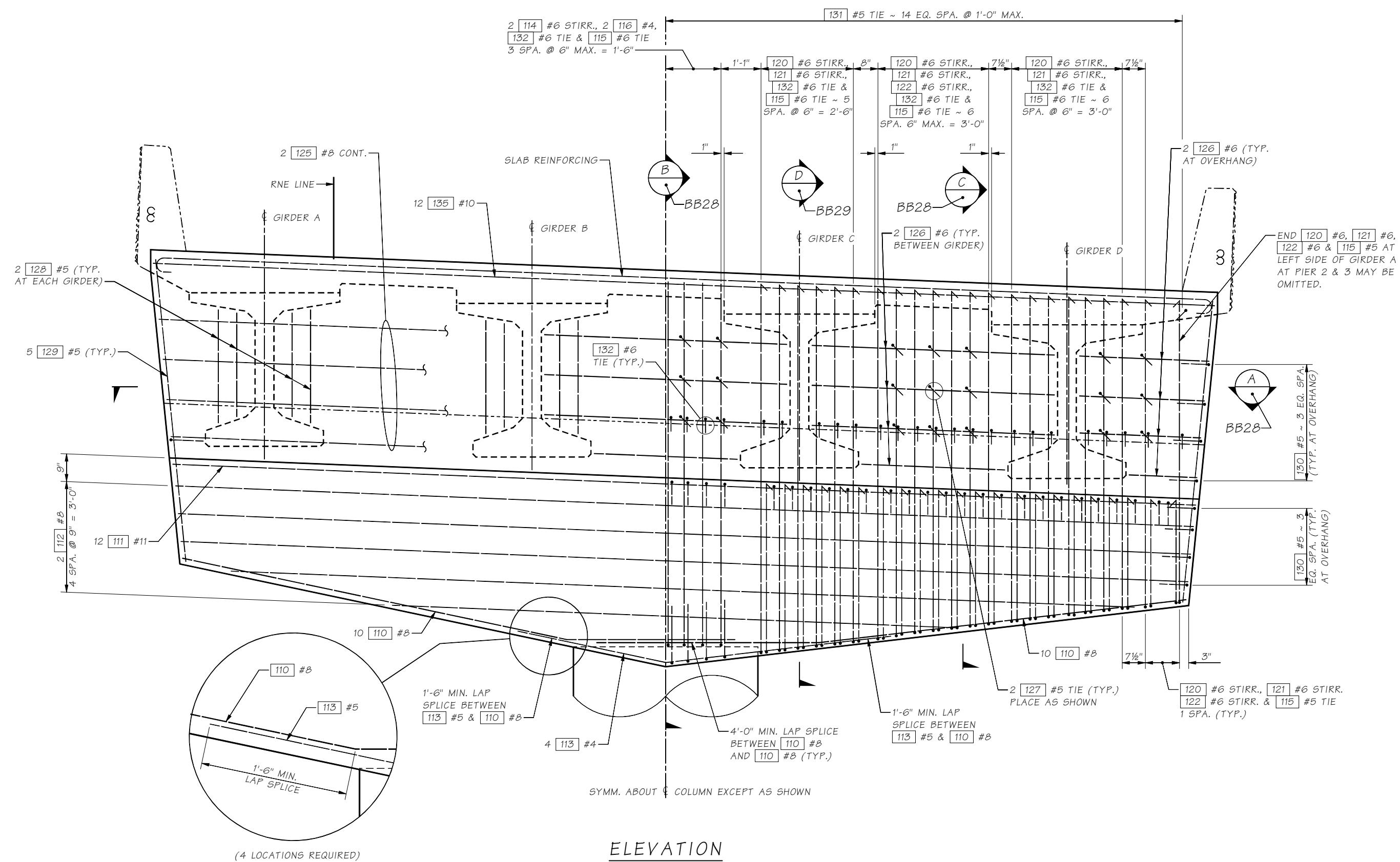
Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\x-beam 1.wnd						
Supervisor	Anderson, MW							
Designed By	Chu, A	07/08						
Checked By								
Detailed By	McCarthy, DJ	07/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY APPD					

Thu Sep 18 14:50:25 2008

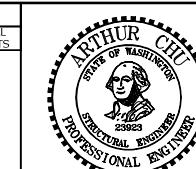
BRIDGE
AND
STRUCTURES
OFFICEWashington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
CROSSBEAM PIERS 2 THROUGH 4
DETAILS 1 OF 4

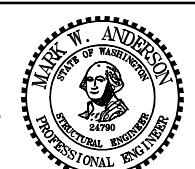
BRIDGE
SHEET
NO.
BB26
SHEET
OF
SHEETS



Bridge Design Engr.	Khaleghi, B	M:	\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\x-beam 2.wnd	REGION NO.	STATE	FED. AID PROJ. NO.	SHFT. NO.	TOTAL SHEETS
Supervisor	Anderson, MW							
Designed By	Chu, A	06/08						
Checked By								
Detailed By	McCarthy, DJ	06/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY APPD					



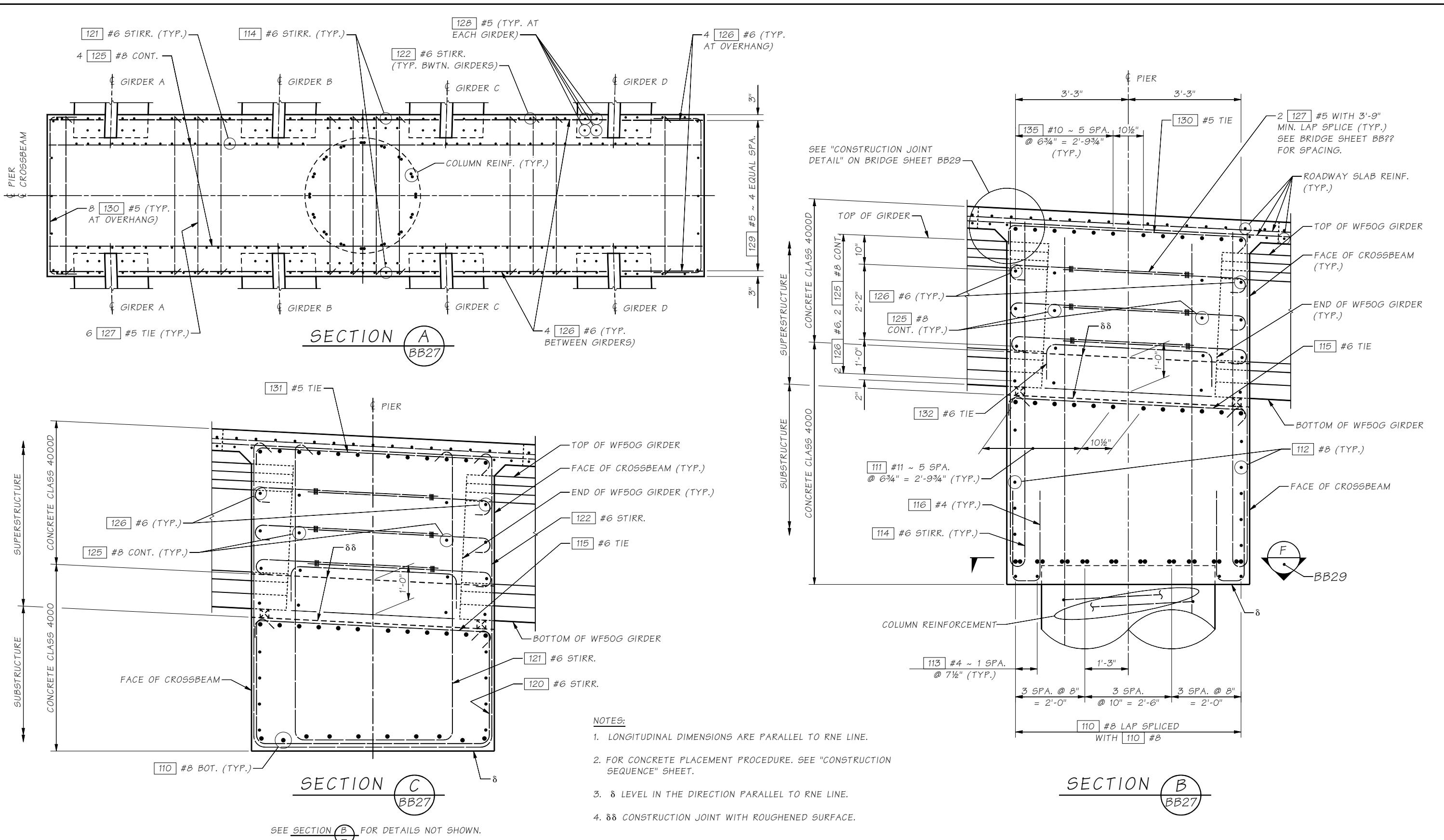
BRIDGE
AND
STRUCTURES
OFFICE



 Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
CROSSBEAM PIERS 2 THROUGH 4
DETAILS 2 OF 4

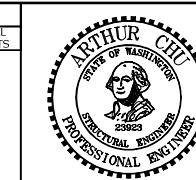
BRIDGE SHEET NO.
BB27
SHEET OF
OF SHEETS



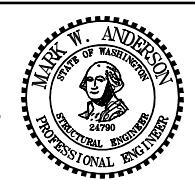
SR 520 FILE NU. 7041 SHEET BB28

Thu Sep 18 14:50:33 2008

Bridge Design Engr. Khaleghi, B		M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\X-BEAM 3.WND						
Supervisor	Anderson, MW					REGION NO.	STATE	FED. AID PR
Designed By	Chu, A	06/08				10	WASH.	
Checked By								
Detailed By	McCarthy, DJ	06/08				JOB NUMBER		
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist		DATE	REVISION	BY	APP'D			



**BRIDGE
AND
STRUCTURE
OFFICE**



 Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

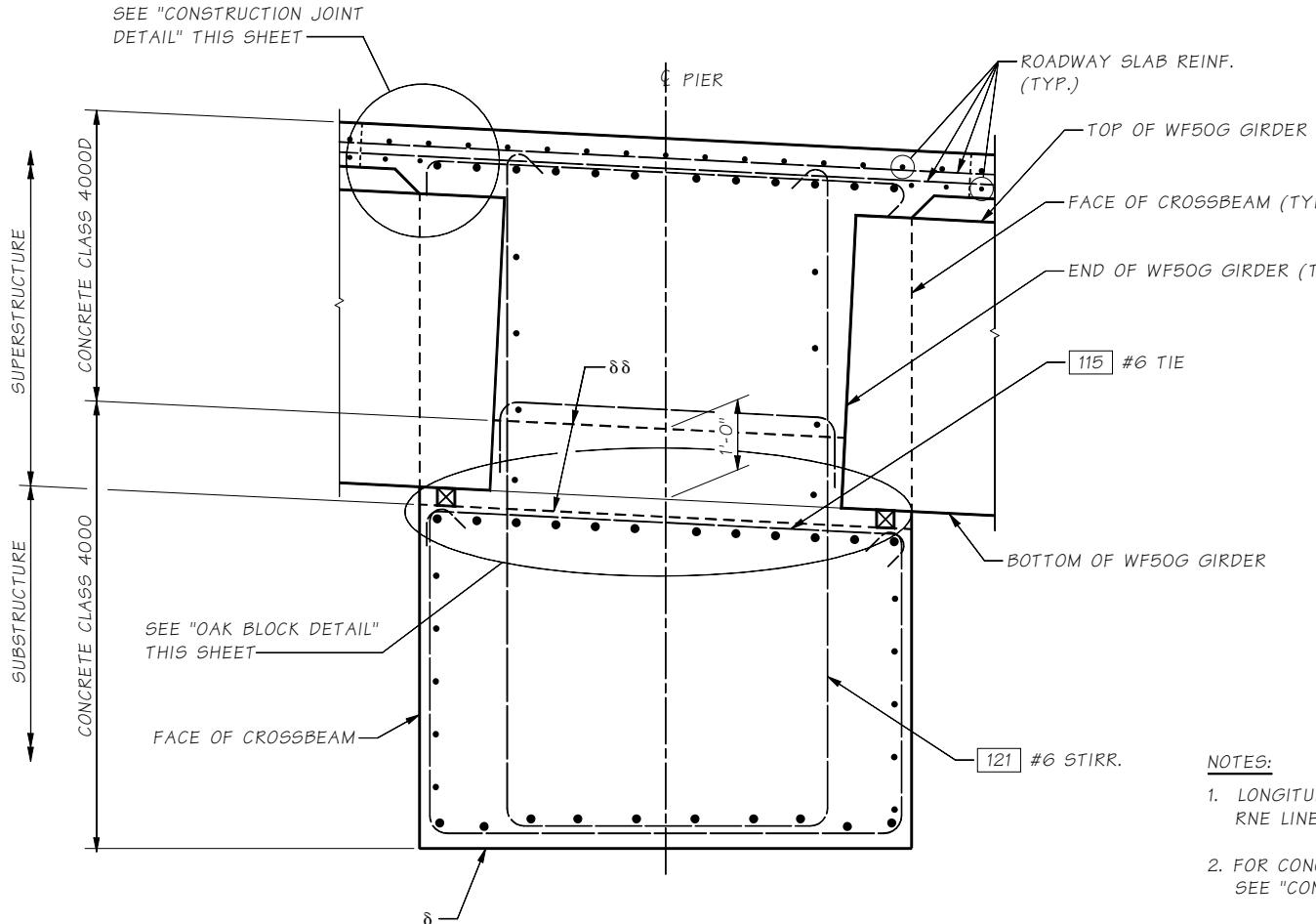
BRIDGE
SHEET
NO.

B28

SHEET

OF

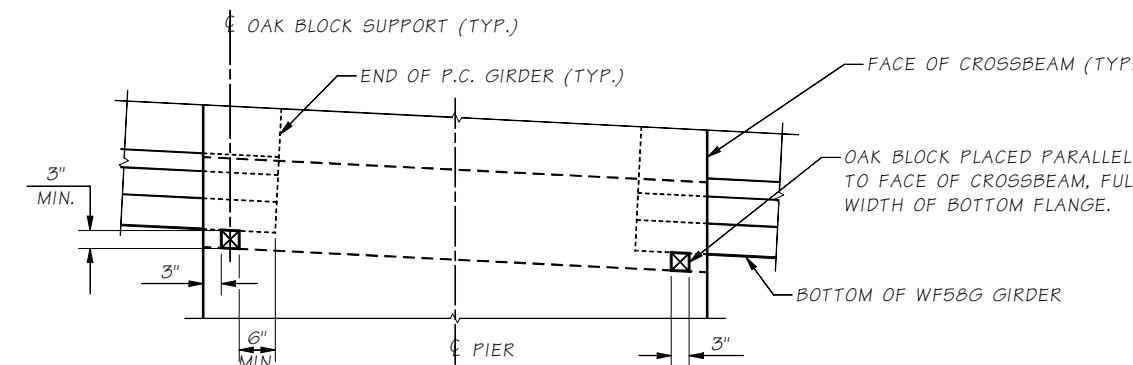
SHEETS



SECTION D
BB27

SEE SECTION C FOR DETAILS NOT SHOWN.

BB28



OAK BLOCK DETAIL

LONGITUDINAL DIMENSIONS ARE NORMAL TO SKEW.



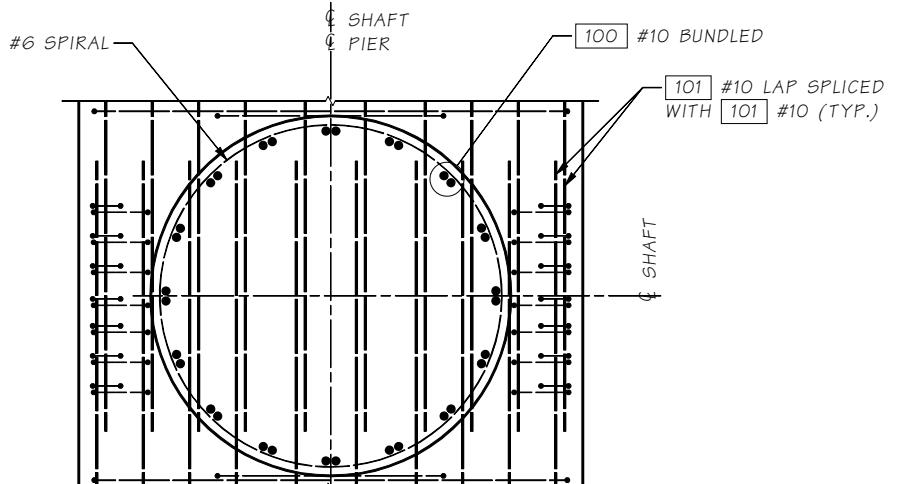
BRIDGE
AND
STRUCTURES
OFFICE



 Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
CROSSBEAM PIERS 2 THROUGH 4
DETAILS 4 OF 4

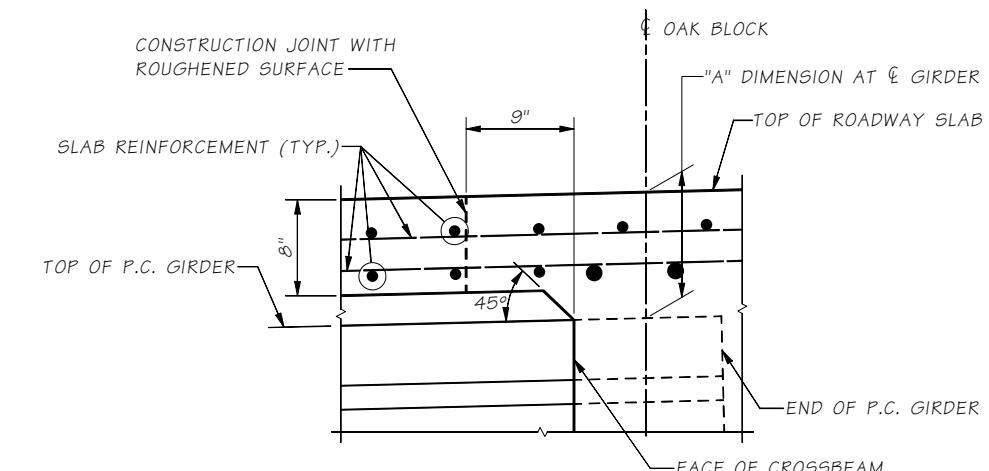
BRIDGE
SHEET
NO.
BB29
SHEET
OF
SHEETS



SECTION F
BB28

THE CONTRACTOR SHALL ADJUST 110 #8 BAR TO CLEAR COLUMN VERTICAL BAR 100 #10 BUNDLED & 101 #6 SPIRAL. FOR 110 #8 BAR SPACING ~ SEE SECTION C FOR DETAILS.

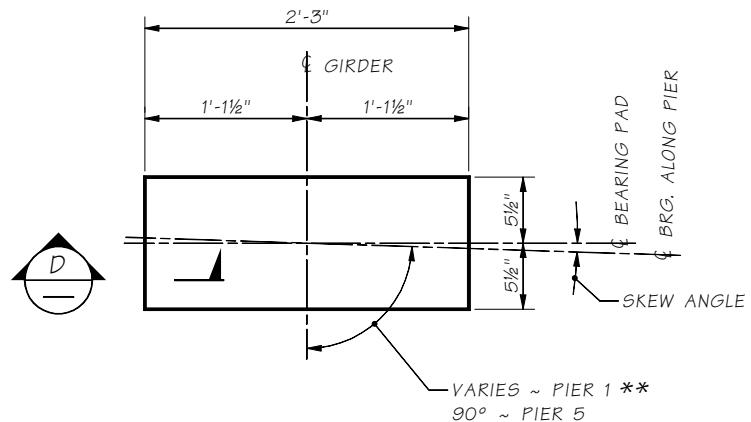
BB28



CONSTRUCTION JOINT DETAIL

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\BEARING DTL.WND					
Supervisor	Anderson, MW						
Designed By	Sawahata, D	08/08					
Checked By							
Detailed By	McCarthy, DJ	08/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE		REVISION	BY APPD				

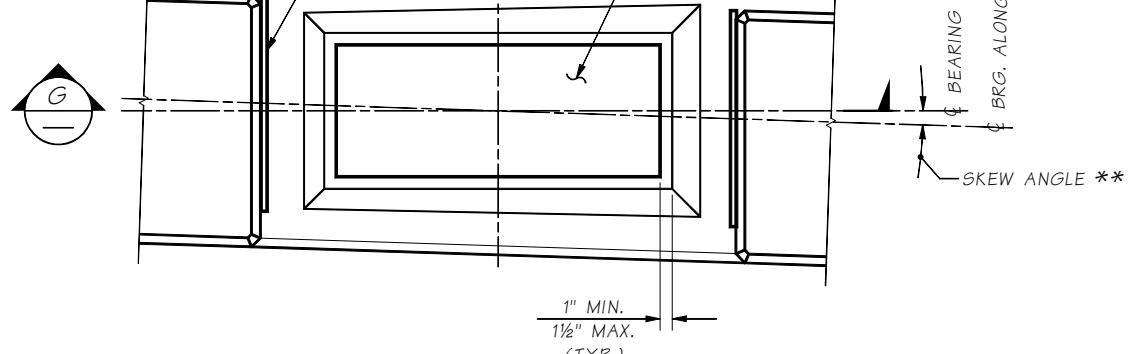
Thu Sep 18 14:47:00 2008



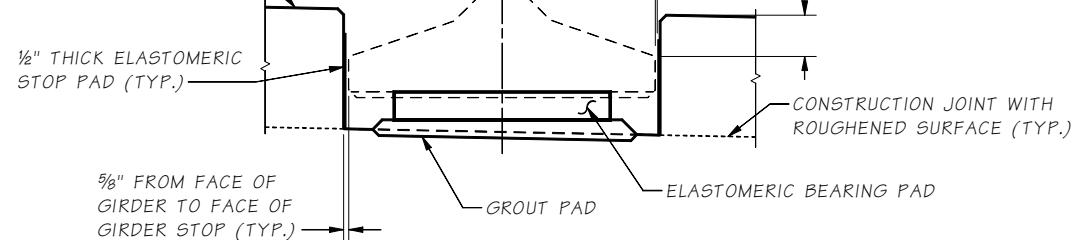
BEARING PAD

LAMINATED ELASTOMERIC BRIDGE PAD 3 1/2" THICK (6 SHIMS).

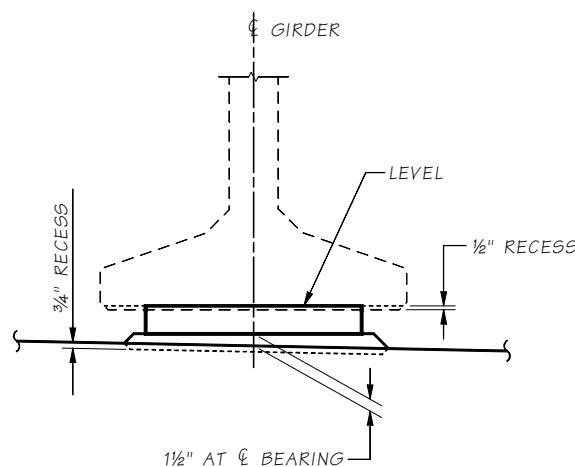
SECTION G



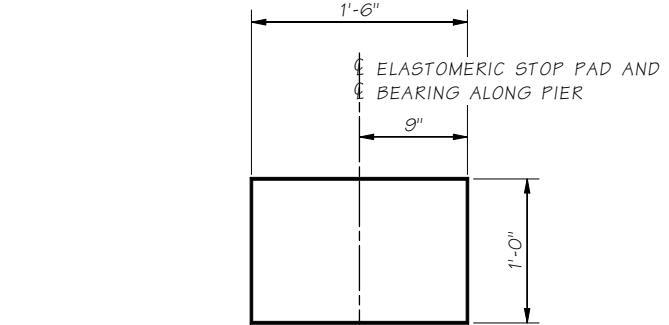
GROUT PAD DETAIL



SECTION G

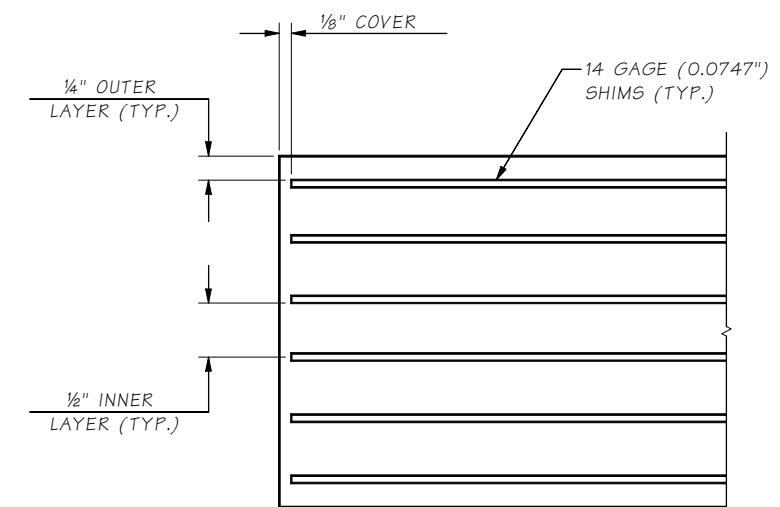


GROUT PAD ELEVATION



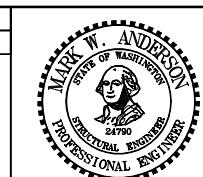
ELASTOMERIC STOP PAD

DUROMETER HARDNESS = 60



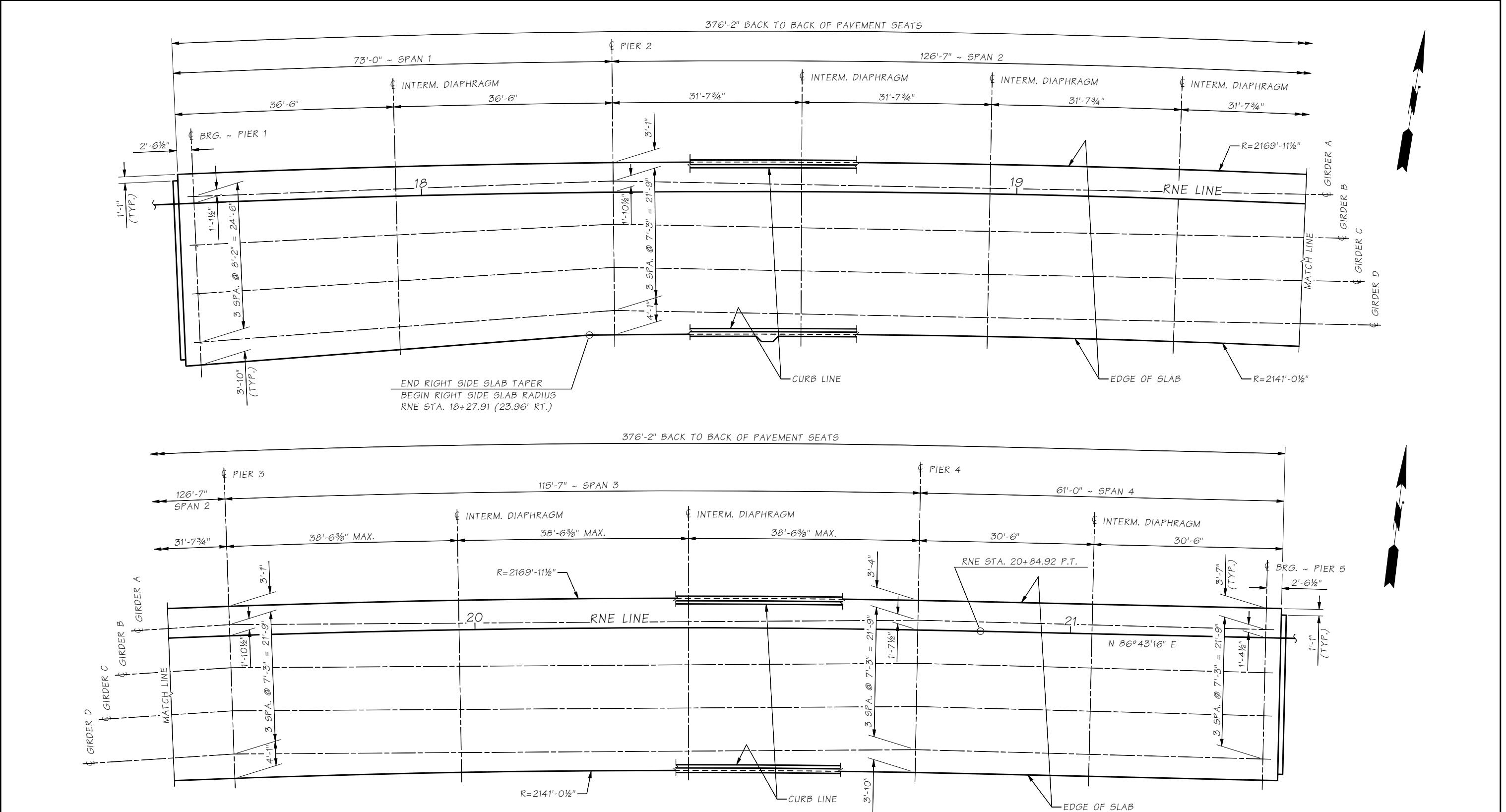
SECTION D

BEARING DESIGN TABLE		
SERVICE - I LIMIT STATE	PIER 1	PIER 5
DEAD LOAD REACTION	104 KIPS	86 KIPS
LIVE LOAD REACTION (W/O IMPACT)	67 KIPS	61 KIPS
UNLOADED HEIGHT	3.45 IN.	3.45 IN.
LOADED HEIGHT (DL)	3.43 IN.	3.43 IN.
DUROMETER HARDNESS	60	60

BRIDGE
AND
STRUCTURES
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Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
ELASTOMERIC BEARING DETAILS

BRIDGE SHEET NO.
BB30
SHEET OF
SHEETS

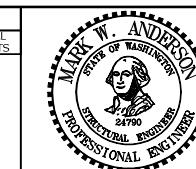


FRAMING PLAN

ALL DIMENSIONS ARE NORMAL ALONG RNE LINE, & BEARING AND & PIER
UNLESS OTHERWISE SHOWN. BEARING OF ALL PIERS IS NORMAL TO RNE LINE.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\FRAME PLAN 1.WND
Supervisor	Anderson, MW	
Designed By	Sawahata, D	03/08
Checked By		
Detailed By	McCarthy, DJ	03/08
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		
DATE	REVISION	BY APPD

REGION NO.	STATE	FED. AID PROJ. NO.	SHFT. NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER				



BRIDGE
AND
STRUCTURES
OFFICE

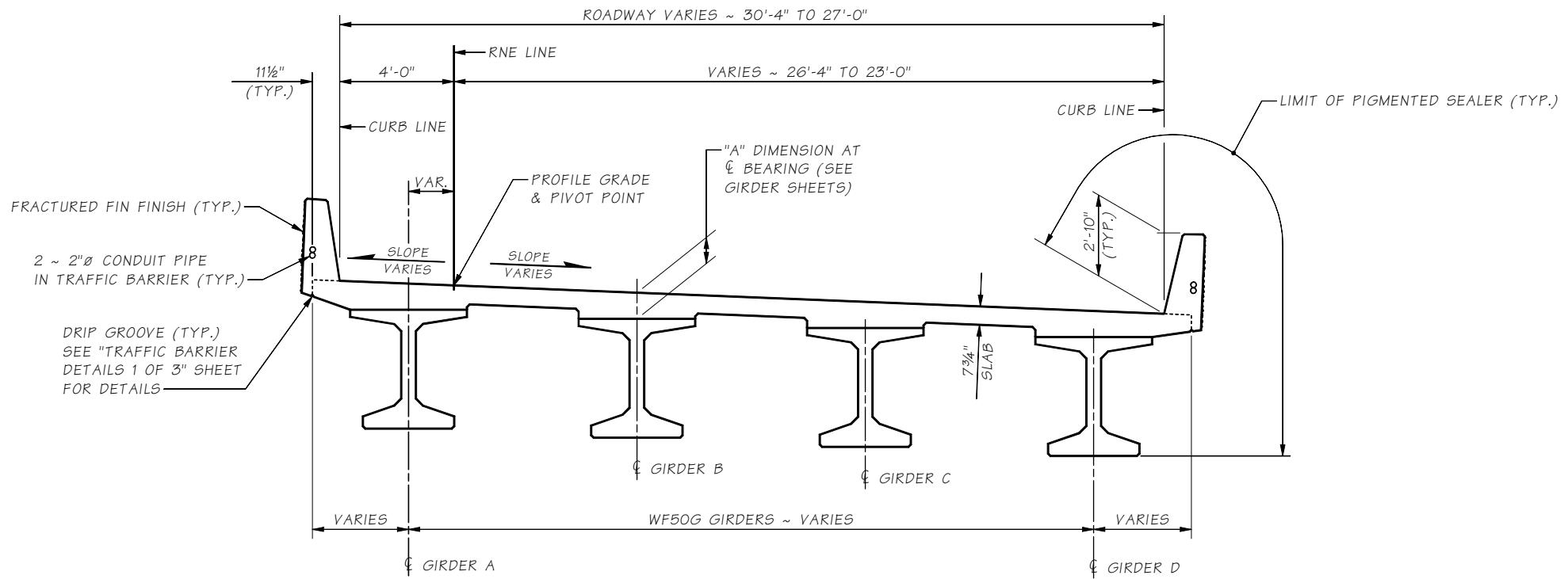


Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

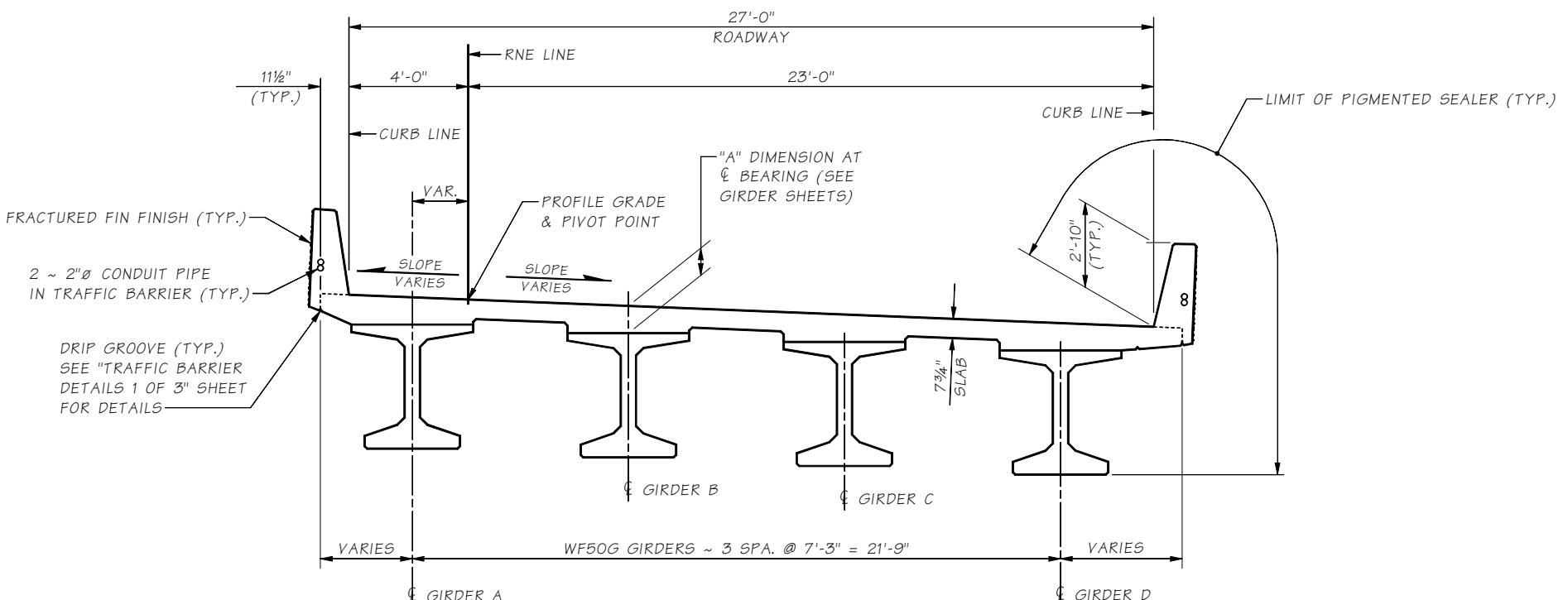
FRAMING PLAN DETAILS

BRIDGE SHEET NO.
BB31
SHEET OF
SHEETS



TYPICAL SECTION ~ SPANS 1

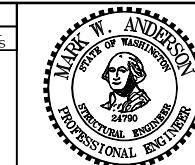
SHOWN NEAR MID-SPAN



TYPICAL SECTION ~ SPANS 2 THROUGH 4

SHOWN NEAR MID-SPAN

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\TYP. SECT..WND		REGION NO.	STATE	FED. AID PROJ. NO.	HEET NO.	TOTAL SHEETS
Supervisor	Anderson, MW							
Designed By	Sawahata, D	04/08						
Checked By								
Detailed By	McCarthy, DJ	04/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE	REVISION	BY APPD		JOB NUMBER				



BRIDGE AND STRUCTURES OFFICE

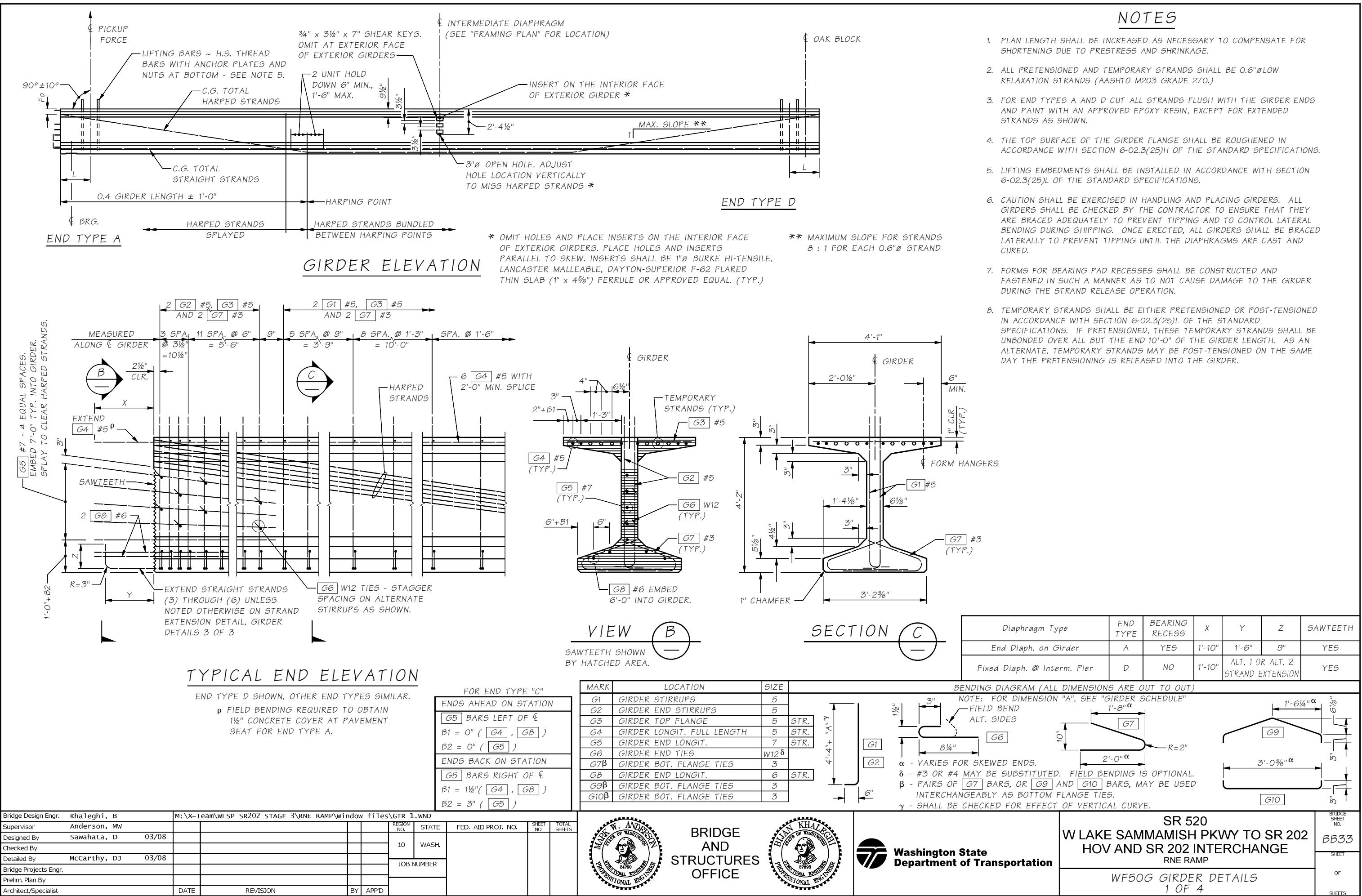


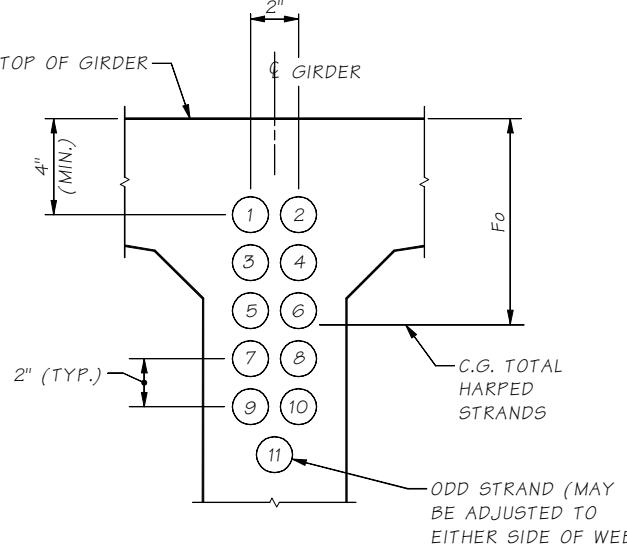
 Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

TYPICAL SECTION
SPANS 1 THROUGH 4

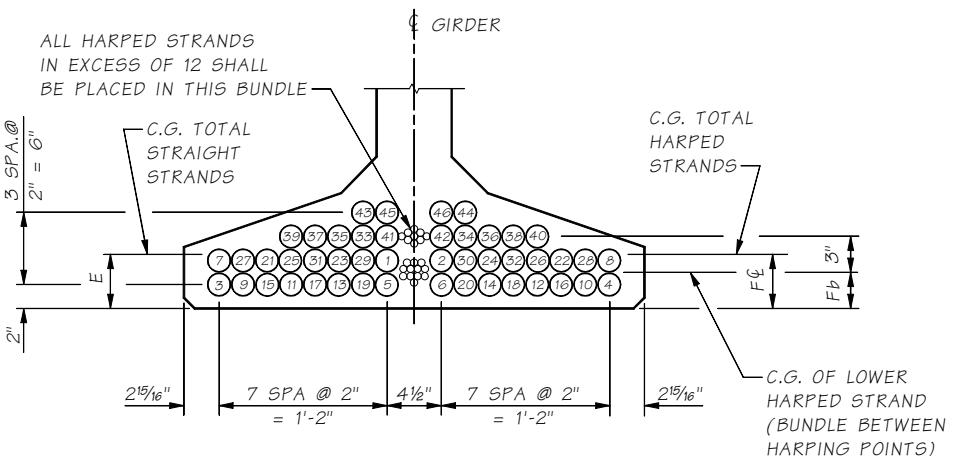
BRIDGE SHEET NO.
BB32
SHEET OF
SHEETS





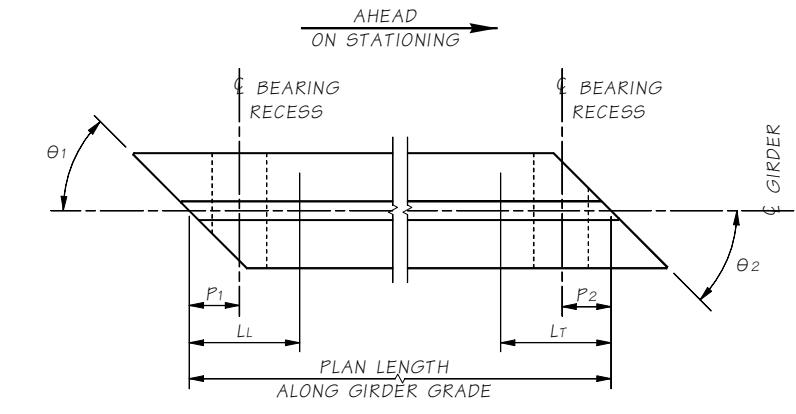
STRAND PATTERN AT GIRDER END

HARPED STRAND LOCATION SEQUENCE
SHALL BE AS SHOWN (1), (2) ETC.

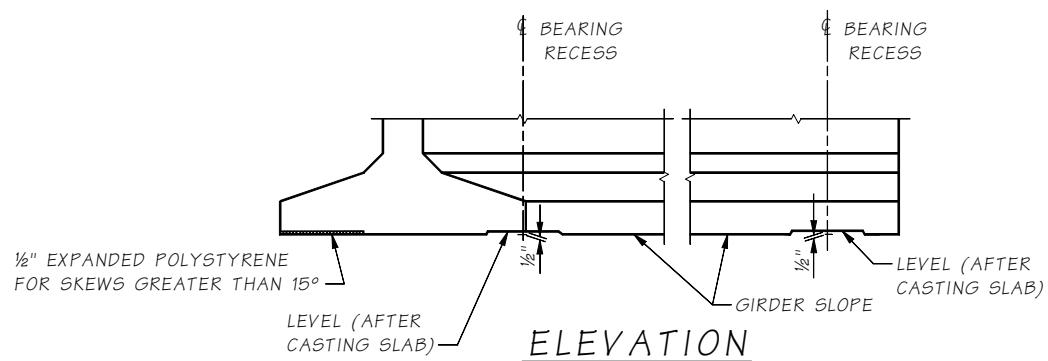


STRAND PATTERN AT 1/4 SPAN

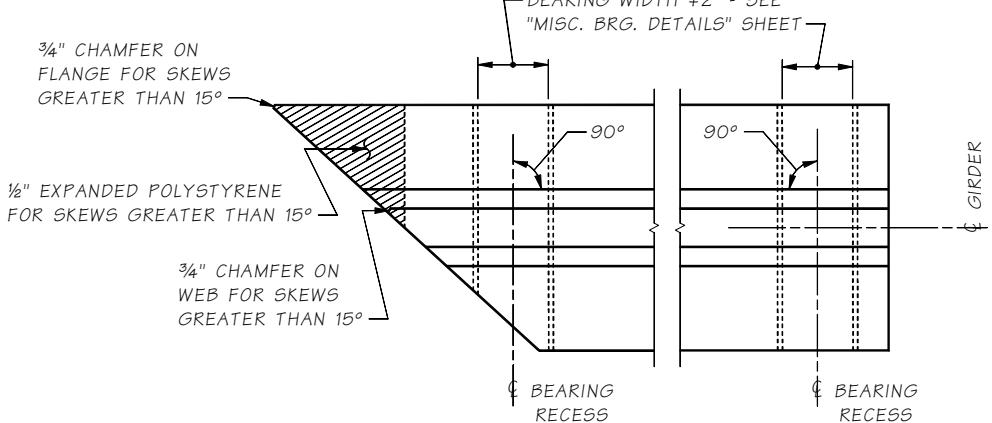
STRAIGHT STRAND LOCATION SEQUENCE
SHALL BE AS SHOWN (1), (2) ETC.



NOTE:
LL AND LT ARE SHIPPING SUPPORT LOCATIONS AT LEADING AND TRAILING ENDS, RESPECTIVELY.

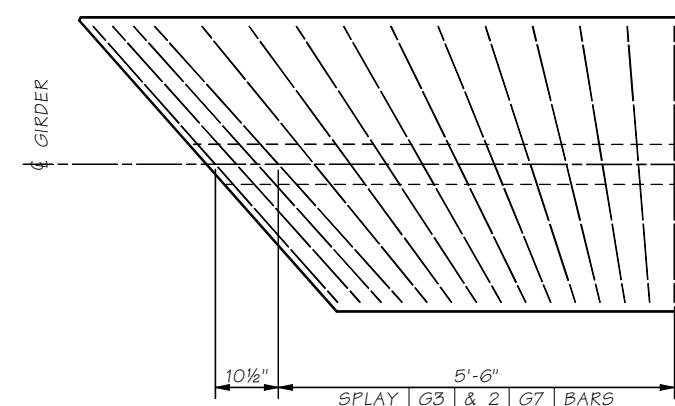


ELEVATION



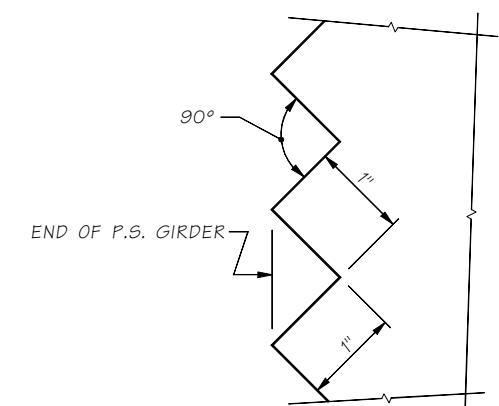
PLAN

BEARING RECESS AND BOTTOM FLANGE SPALL PROTECTION DETAIL



TRANSVERSE REINFORCING SKEWED ENDS

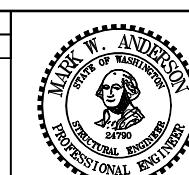
ONLY TRANSVERSE REINF. SHOWN



SAWTOOTH DETAILS

SAWTEETH ARE FULL WIDTH - USE SAWTOOTH KEYS FROM BOTTOM OF BOTTOM FLANGE TO BOTTOM OF LOWEST HARPED STRAND AS WELL AS TOP FLANGE ADJACENT TO HARPED STRANDS AS SHOWN IN VIEW B - GIRDER DETAILS 1 OF 4

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\GIR 2.WND					
Supervisor	Anderson, MW						
Designed By	Sawahata, D	03/08					
Checked By							
Detailed By	McCarthy, DJ	03/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE		REVISION	BY APPD				

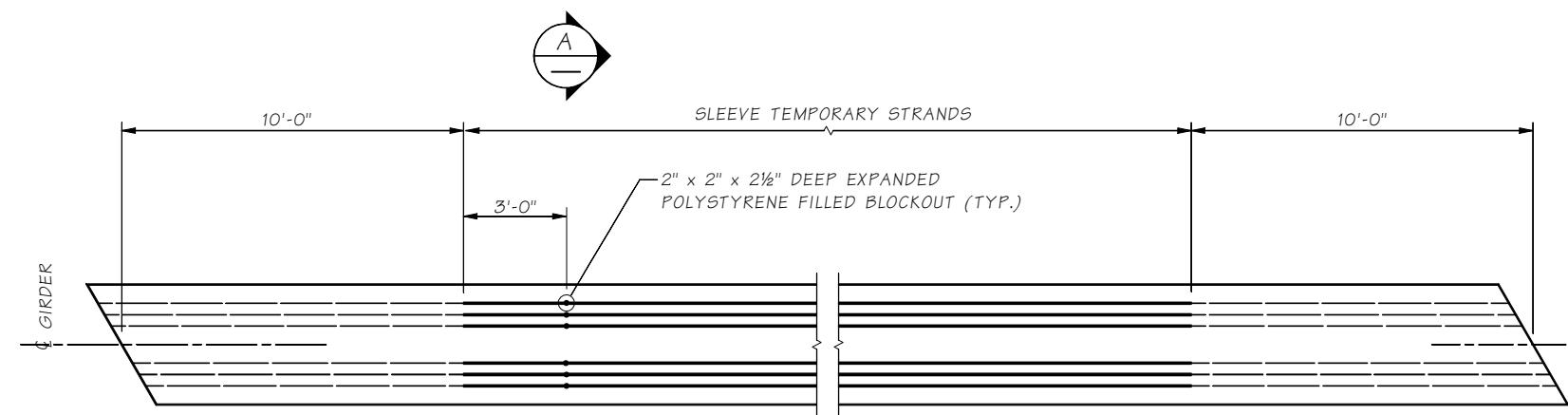


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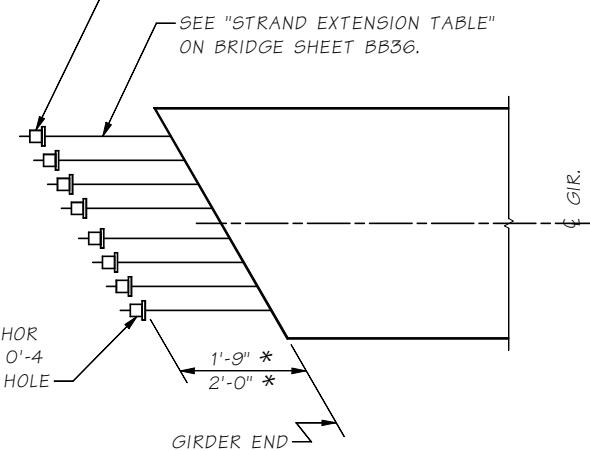
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
WF50G GIRDER DETAILS
2 OF 4



PLAN
PRETENSIONED TEMPORARY
TOP STRANDS

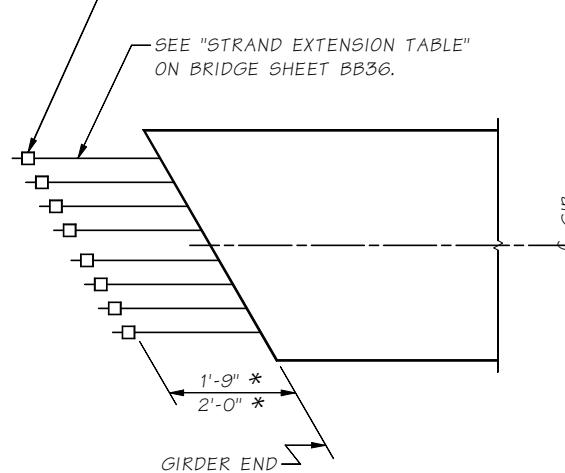
POST-TENSIONED TEMPORARY TOP STRANDS SIMILAR, EXCEPT 10'-0" LENGTH OF BONDING OCCURS AT ONE END ONLY. THE OPPOSING END IS ANCHORED WITH PLATES AND STRAND CHUCKS. SEE "GIRDER SCHEDULE" FOR NUMBER OF TEMPORARY STRANDS REQUIRED.

0.6"Ø STRAND CHUCK. TACK WELD TO ANCHOR #E PRIOR TO INSTALLING ON STRAND. THREAD STRAND THROUGH ANCHOR #E. ANCHOR STRAND WITH TWO PIECE WEDGES BEFORE GIRDER ERECTION. VERIFY WEDGES ARE SEATED TIGHTLY IMMEDIATELY BEFORE PLACING DIAPHRAGM CONCRETE.



ALTERNATE #1

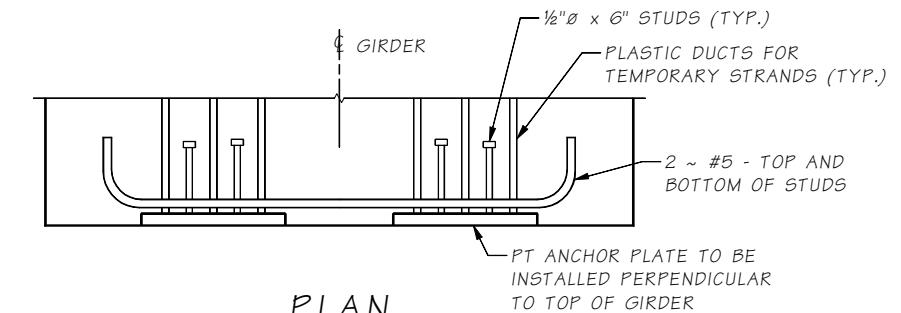
2 3/4"Ø x 1 1/8" STEEL STRAND ANCHOR. ANCHOR STRAND WITH TWO PIECE WEDGES BEFORE GIRDER ERECTION. VERIFY WEDGES ARE SEATED TIGHTLY IMMEDIATELY BEFORE PLACING DIAPHRAGM CONCRETE.



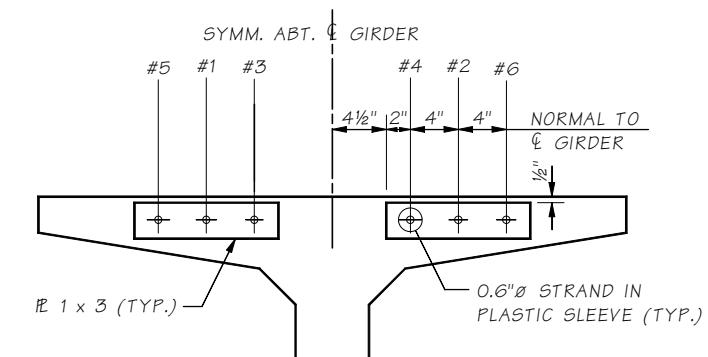
ALTERNATE #2

STRAND EXTENSION DETAIL

* STAGGER ANCHORS LONGITUDINALLY BY 3" BETWEEN ADJACENT EXTENDED STRANDS WHEN ADJACENT EXTENDED STRANDS ARE SPACED LATERALLY LESS THAN 3" APART.

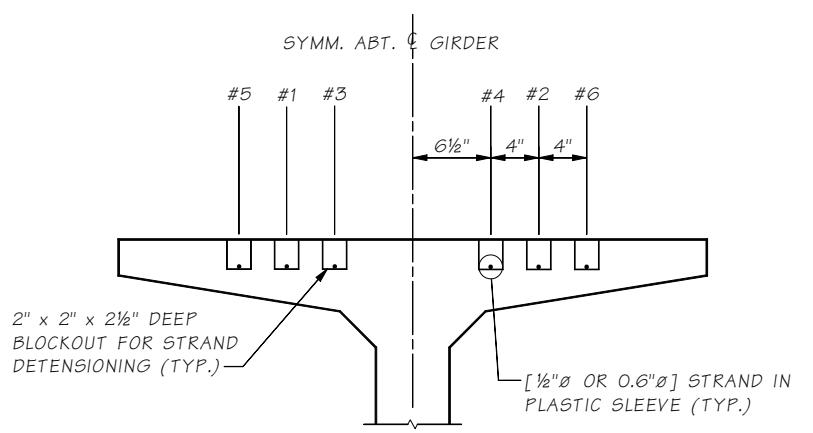


PLAN
TEMPORARY STRAND
POST-TENSIONED ALTERNATE



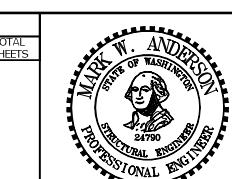
END VIEW
TEMPORARY STRAND
POST-TENSIONED ALTERNATE

ADJUST #E BARS TO CLEAR THE STEEL PLATE



SECTION A

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\GIR_3.WND						
Supervisor	Anderson, MW							
Designed By	Sawahata, D	07/08						
Checked By								
Detailed By	McCarthy, DJ	07/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY APPD					



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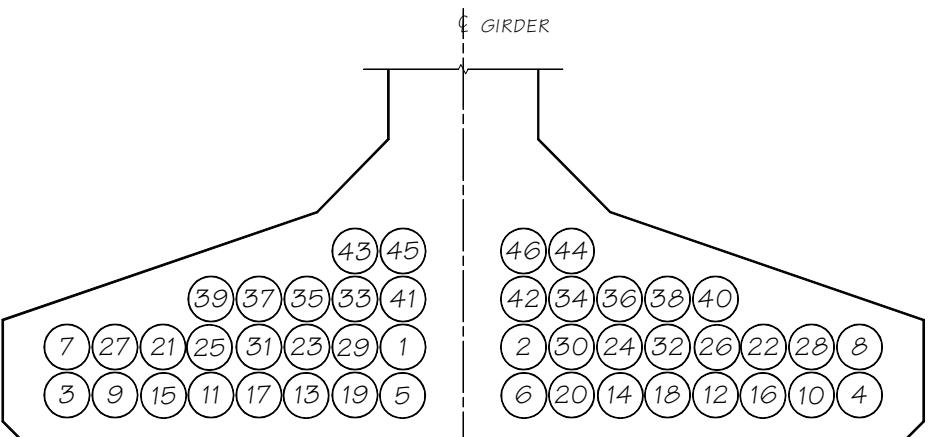


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SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
WF50G GIRDER DETAILS
3 OF 4

GIRDER SCHEDULE

SPAN	GIRDER	DIMENSION "A" AT \$ BEARINGS = SPAN 1 ~ 11 1/4", SPAN 2 ~ 1'-0 1/4", SPAN 3 ~ 1'-0 1/2", SPAN 4 ~ 10 1/4", BASED ON GIRDER DEFLECTION = "D" AT TIME OF SLAB PLACEMENT (120 DAYS)												MIN. CONC. COMP. STRENGTH		HARPED		STRAIGHT		TEMPORARY		LOCATION OF C.G. STRANDS					
		END 1 TYPE	END 2 TYPE	L	LL	LT	θ_1 (DEG.)	θ_2 (DEG.)	P ₁	P ₂	PLAN LENGTH (ALONG GIRDER GRADE)	@ FINAL F'c (KSI)	@ RELEASE FcI (KSI)	NO. OF STRANDS	JACKING FORCE (KIPS)	NO. OF STRANDS	JACKING FORCE (KIPS)	NO. OF STRANDS	JACKING FORCE (KIPS)	LOCATION OF C.G. STRANDS							
														NO. OF STRANDS	JACKING FORCE (KIPS)	NO. OF STRANDS	JACKING FORCE (KIPS)	NO. OF STRANDS	JACKING FORCE (KIPS)	E	F\$	Fb	Fo	C	D @ 40 DAYS	D @ 120 DAYS	Ld
1	A	A	D	3'-0"	5'-0"	5'-0"	90	92	1'-8"	7 1/2"	69'-9 3/8"	5.0	4.0	7	308	14	615	2	88	2 5/8"	3"	3"	9"	3/8"	1 1/4"	1 1/2"	-
1	B	A	D	3'-0"	5'-0"	5'-0"	90	92	1'-8"	7 1/2"	69'-6 3/8"	5.0	4.0	7	308	14	615	2	88	2 5/8"	3"	3"	9"	3/8"	1 1/4"	1 1/2"	-
1	C	A	D	3'-0"	5'-0"	5'-0"	91	93	1'-8"	7 1/2"	69'-3 3/8"	5.0	4.0	7	308	14	615	2	88	2 5/8"	3"	3"	9"	3/8"	1 1/4"	1 1/2"	-
1	D	A	D	3'-0"	5'-0"	5'-0"	92	94	1'-8"	7 1/2"	69'-1"	5.0	4.0	7	308	14	615	2	88	2 5/8"	3"	3"	9"	3/8"	1 1/4"	1 1/2"	-
2	A	D	D	3'-0"	5'-0"	5'-0"	88	92	7 1/2"	7 1/2"	121'-10 1/8"	10.0	7.9	17	747	36	1582	6	264	3 3/8"	5 1/2"	4 5/8"	1'-0"	2 7/8"	4 1/2"	5 1/8"	-
2	B	D	D	3'-0"	5'-0"	5'-0"	88	92	7 1/2"	7 1/2"	121'-5"	10.0	7.9	17	747	36	1582	6	264	3 3/8"	5 1/2"	4 5/8"	1'-0"	2 3/4"	4 1/2"	5"	-
2	C	D	D	3'-0"	5'-0"	5'-0"	88	92	7 1/2"	7 1/2"	120'-11 1/8"	10.0	7.9	17	747	36	1582	6	264	3 3/8"	5 1/2"	4 5/8"	1'-0"	2 3/4"	4 1/2"	5"	-
2	D	D	D	3'-0"	5'-0"	5'-0"	88	92	7 1/2"	7 1/2"	120'-6 7/8"	10.0	7.9	17	747	36	1582	6	264	3 3/8"	5 1/2"	4 5/8"	1'-0"	2 5/8"	4 1/2"	5 1/8"	-
3	A	D	D	3'-0"	5'-0"	5'-0"	88	91	7 1/2"	7 1/2"	110'-9 3/8"	8.9	6.9	15	659	30	1318	6	264	2 7/8"	5 1/4"	4 5/8"	1'-0"	2 1/8"	3 5/8"	4 1/8"	-
3	B	D	D	3'-0"	5'-0"	5'-0"	88	91	7 1/2"	7 1/2"	110'-5 1/4"	8.9	6.9	15	659	30	1318	6	264	2 7/8"	5 1/4"	4 5/8"	1'-0"	2"	3 1/2"	4"	-
3	C	D	D	3'-0"	5'-0"	5'-0"	88	91	7 1/2"	7 1/2"	110'-0 5/8"	8.9	6.9	15	659	30	1318	6	264	2 7/8"	5 1/4"	4 5/8"	1'-0"	2"	3 1/2"	4"	-
3	D	D	D	3'-0"	5'-0"	5'-0"	88	91	7 1/2"	7 1/2"	109'-8"	8.9	6.9	15	659	30	1318	6	264	2 7/8"	5 1/4"	4 5/8"	1'-0"	1 7/8"	3 5/8"	4 1/8"	-
4	A	D	A	3'-0"	5'-0"	5'-0"	90	90	7 1/2"	1'-5"	57'-5 1/2"	5.0	4.0	6	264	12	527	6	264	2 5/8"	8 1/4"	8 1/4"	11"	1/8"	5/8"	3/4"	-
4	B	D	A	3'-0"	5'-0"	5'-0"	90	90	7 1/2"	1'-5"	57'-5"	5.0	4.0	6	264	12	527	6	264	2 5/8"	8 1/4"	8 1/4"	11"	1/8"	5/8"	3/4"	-
4	C	D	A	3'-0"	5'-0"	5'-0"	90	90	7 1/2"	1'-5"	57'-4 3/4"	5.0	4.0	6	264	12	527	6	264	2 5/8"	8 1/4"	8 1/4"	11"	1/8"	5/8"	3/4"	-
4	D	D	A	3'-0"	5'-0"	5'-0"	90	90	7 1/2"	1'-5"	57'-4 1/4"	5.0	4.0	6	264	12	527	6	264	2 5/8"	8 1/4"	8 1/4"	11"	1/8"	5/8"	3/4"	-



STRAND PATTERN
AT GIRDER END

SPAN	GIRDERS	BACK ON STATIONING		AHEAD ON STATIONING	
		STRANDS TOTAL	STRANDS	STRANDS TOTAL	STRANDS
1	ALL GIRDERS	4	3, 4, 5 & 6	14	5, 6, 9, 10, 11, 12, 13, 14, 21, 22, 25, 26, 29 & 30
2	ALL GIRDERS	14	1, 2, 3, 4, 15, 16, 17, 18, 19, 20, 23, 24, 27 & 28	12	5, 6, 9, 10, 11, 12, 13, 14, 25, 26, 29 & 30
3	ALL GIRDERS	12	1, 2, 3, 4, 15, 16, 17, 18, 19, 20, 23 & 24	12	5, 6, 9, 10, 11, 12, 13, 14, 25, 26, 29 & 30
4	ALL GIRDERS	10	1, 2, 3, 4, 15, 16, 17, 18, 19, & 20	4	3, 4, 5 & 6

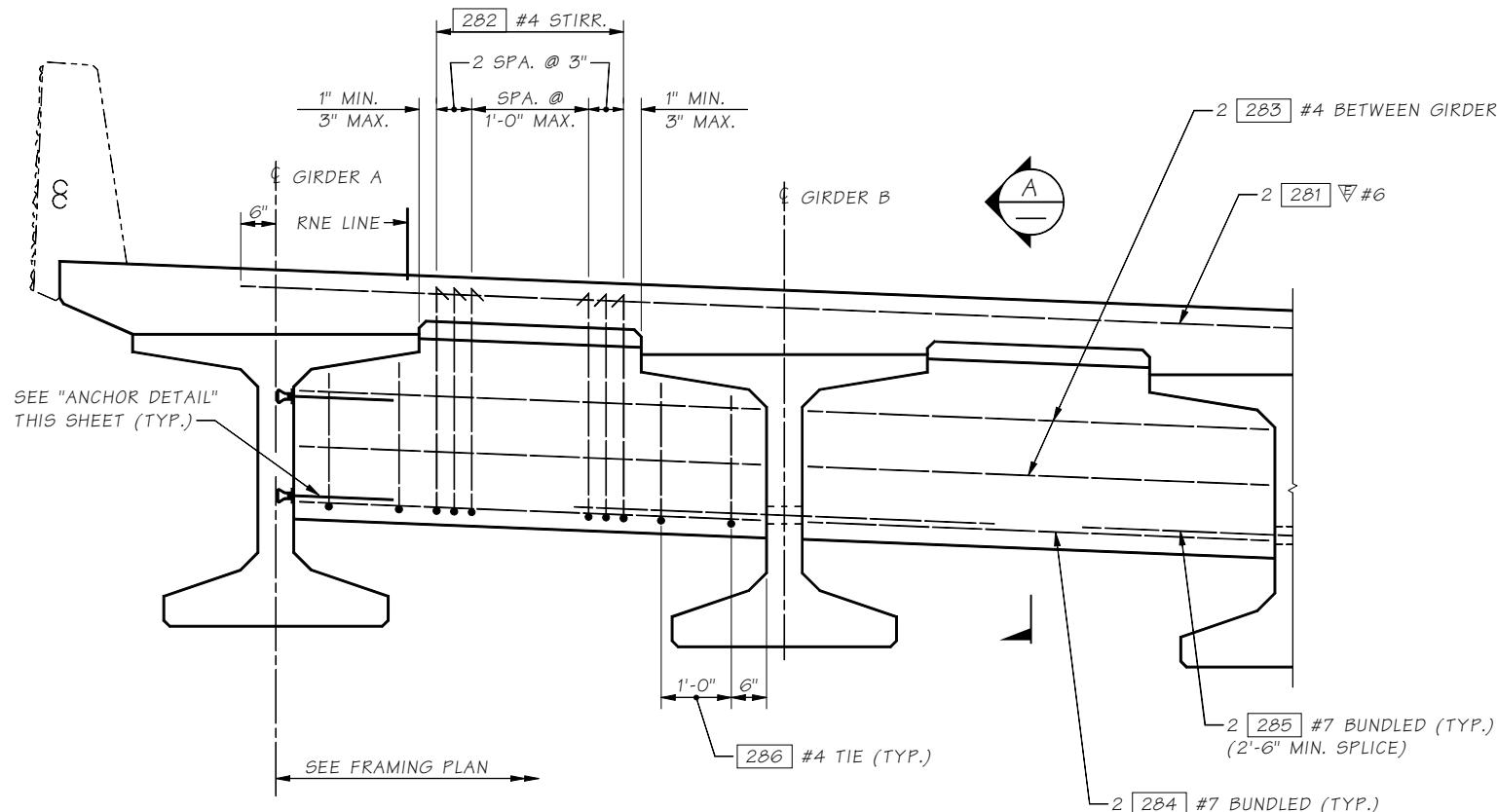


BRIDGE AND STRUCTURES OFFICE



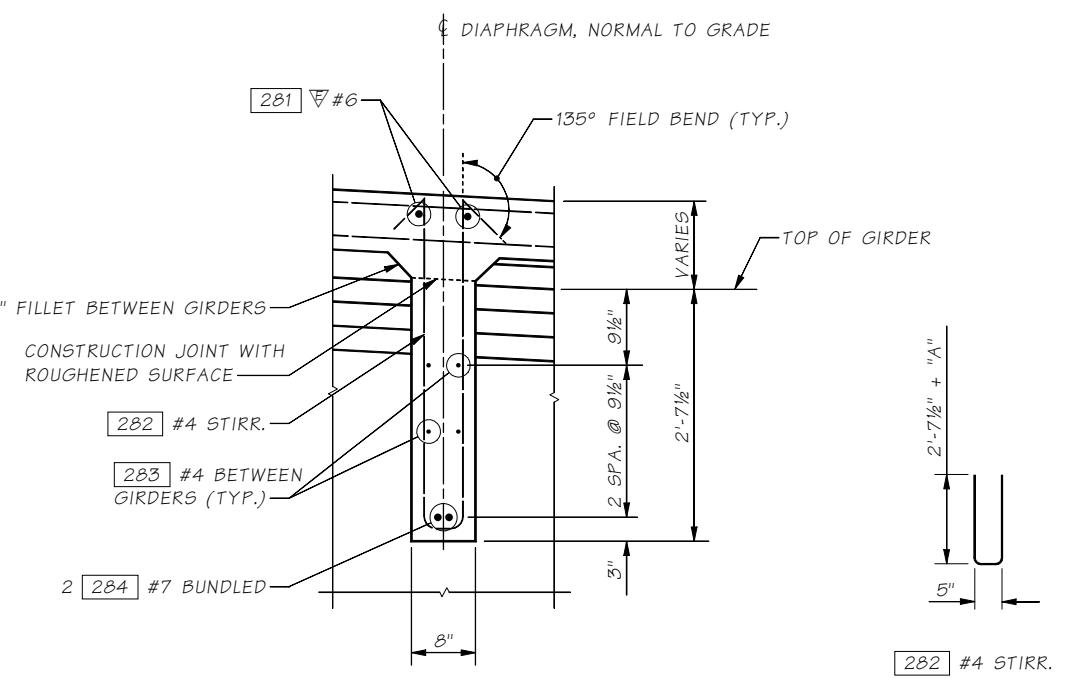
Washington State Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
WF50G GIRDER DETAILS
4 OF 4



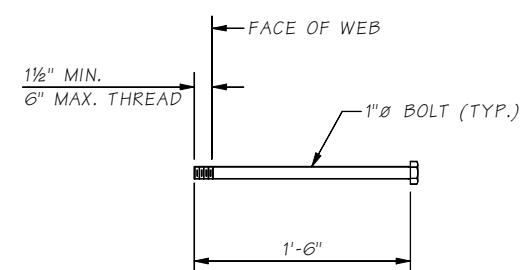
ELEVATION
INTERMEDIATE DIAPHRAGM

DIMENSIONS ARE ALONG DIAPHRAGM



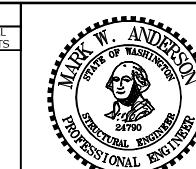
SECTION A

NOTE:
GIRDERS SHALL BE HELD RIGIDLY IN PLACE WHEN DIAPHRAGMS ARE PLACED. REINFORCING BAR SHALL BE THREADED THROUGH HOLES IN GIRDERS PRIOR TO PLACING OF EXTERIOR GIRDERS.
SEE "GIRDER DETAILS" SHEET FOR DIMENSION "A".



ANCHOR DETAIL
ASTM A 307

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\INT DIAPHR.WND						
Supervisor	Anderson, MW							
Designed By	Sawahata, D	03/08						
Checked By								
Detailed By	McCarthy, DJ	03/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY	APPD				



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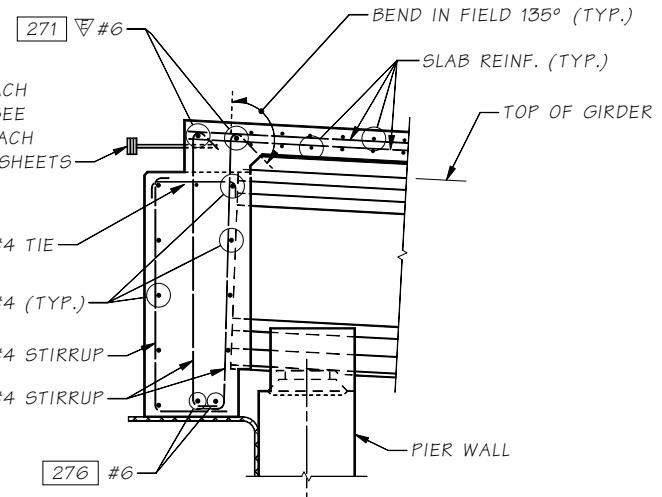


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Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
INTERMEDIATE DIAPHRAGM DETAILS

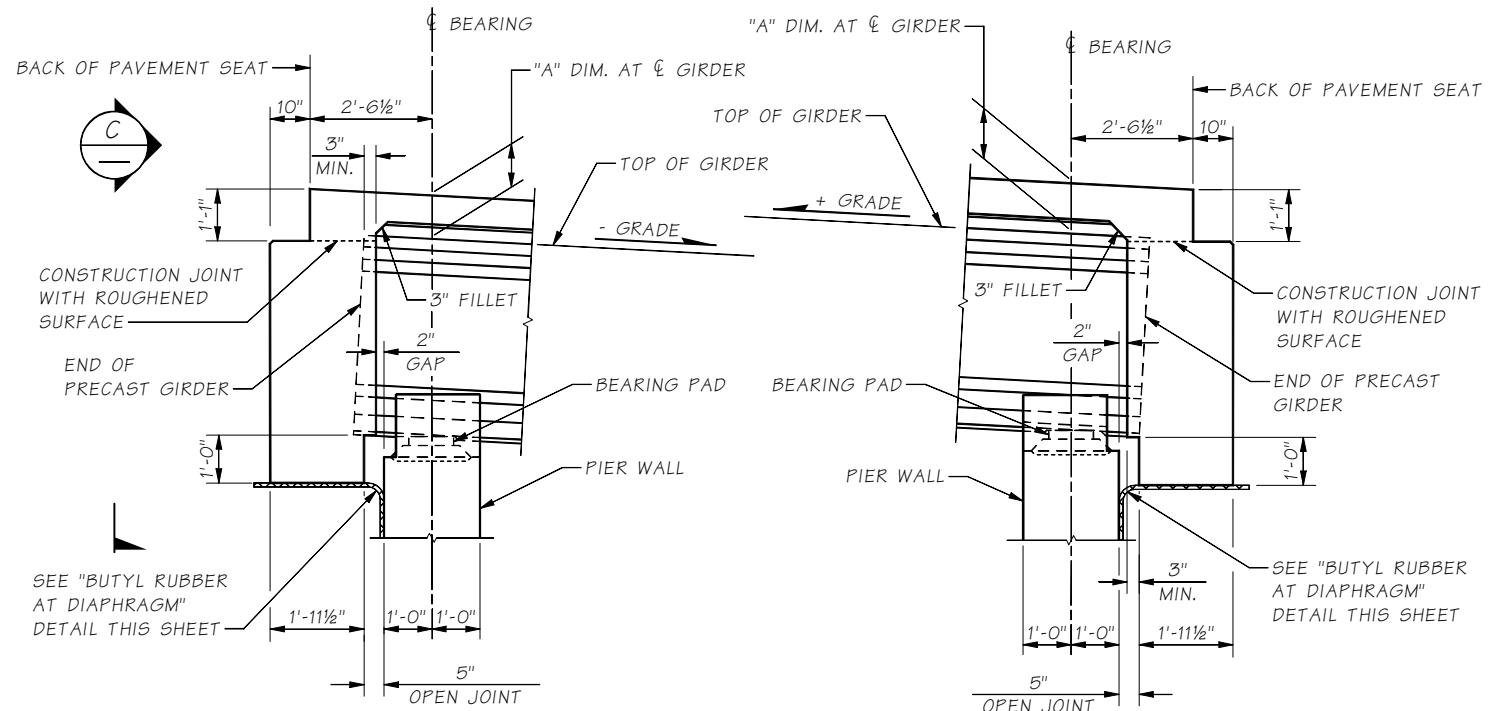
TEMPORARY STRAND CUTTING SEQUENCE

1. ERECT AND BRACE GIRDERS.
2. REMOVE EXPANDED POLYSTYRENE IN 2" x 2" RECESSES IN TOP FLANGE OF GIRDERS.
3. CUT STRAND AND PLASTIC SLEEVE IN 2" x 2" RECESS.
4. REMOVE ALL MOISTURE IN RECESS PRIOR TO FILLING RECESS WITH GROUT.
5. CAST INTERMEDIATE & END DIAPHRAGMS.



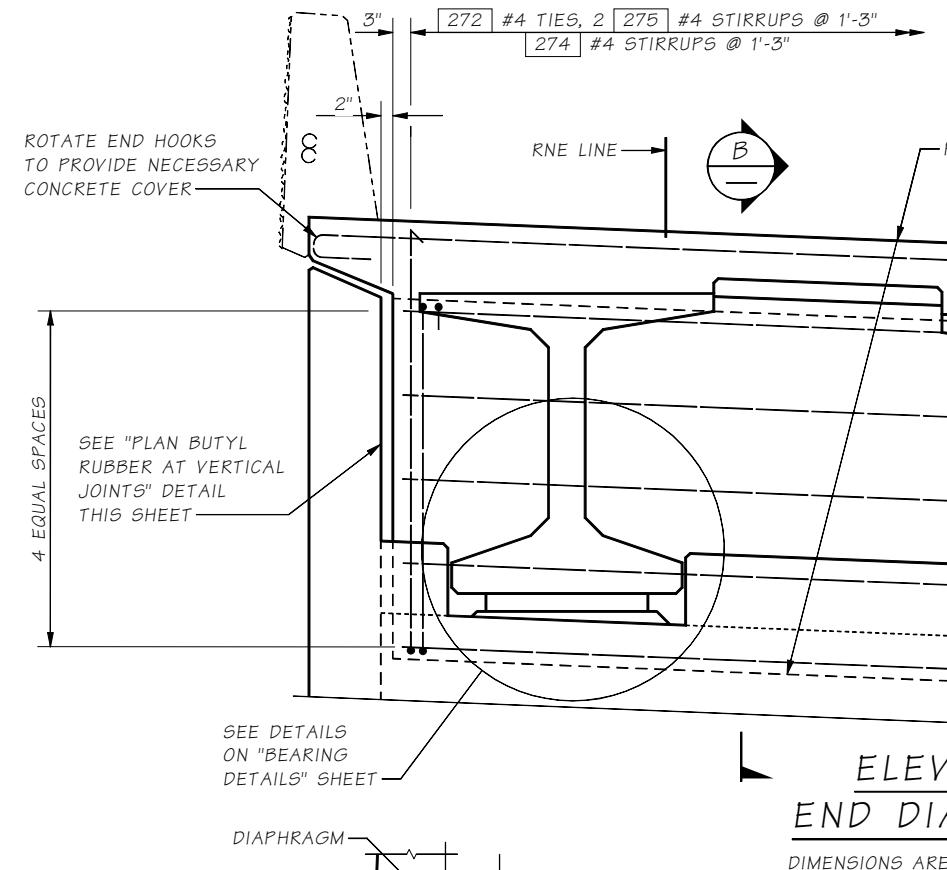
NOTE:
GIRDERS SHALL BE HELD RIGIDLY IN PLACE WHEN DIAPHRAGMS ARE PLACED.

SECTION B



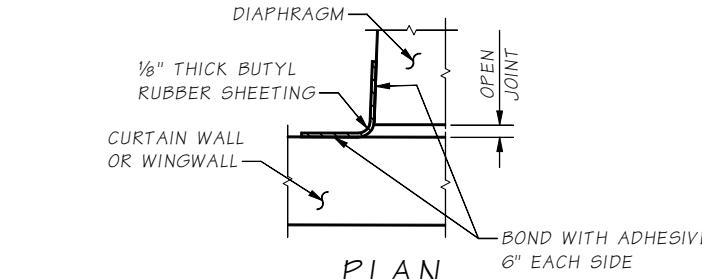
END DIAPHRAGM GEOMETRY

SEE "GIRDER DETAILS" SHEET FOR DIMENSION "A".
ALL LONGITUDINAL DIMENSIONS ARE NORMAL TO SKEW.

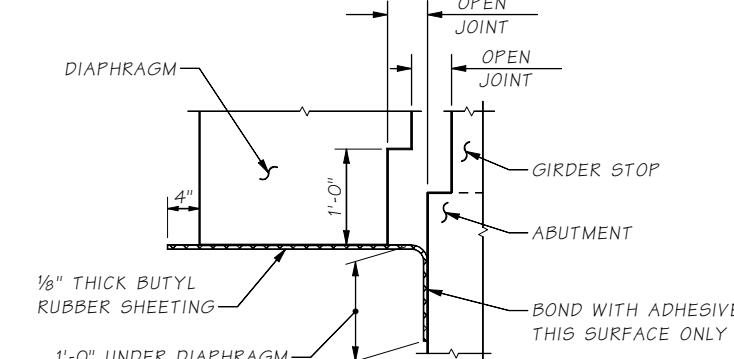


ELEVATION
END DIAPHRAGM

DIMENSIONS ARE ALONG DIAPHRAGM



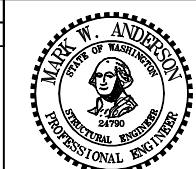
PLAN
BUTYL RUBBER AT VERTICAL JOINTS



ELEVATION
BUTYL RUBBER AT DIAPHRAGM

VIEW C

Bridge Design Engr.	Khaleghi, B	M:	X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\END DIAPHR.WND	REGION NO.	STATE	FED. AID PROJ. NO.	SHFT. NO.	TOTAL SHEETS
Supervisor	Anderson, MW							
Designed By	Sawahata, D	03/08						
Checked By								
Detailed By	McCarthy, DJ	03/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY APPD					



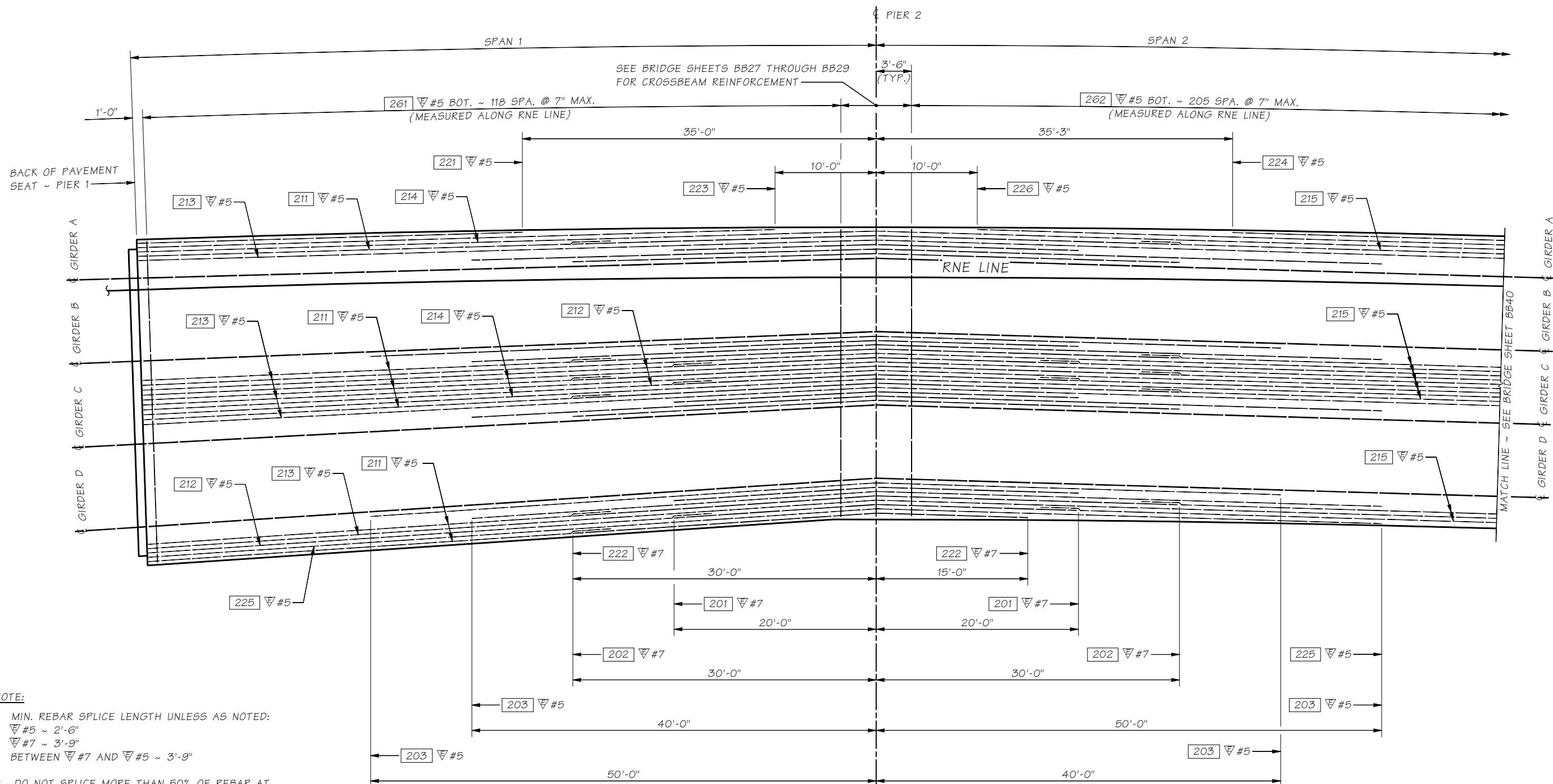
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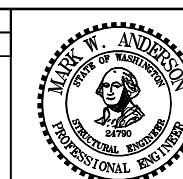
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

END DIAPHRAGM DETAILS



PLAN
ROADWAY SLAB REINFORCEMENT
BOTTOM MAT ~ SPAN 1 PARTIAL SPAN 2

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\BOT. REIN. PLN 1.WND						
Supervisor	Anderson, MW							
Designed By	Sawahata, D	05/08						
Checked By								
Detailed By	McCarthy, DJ	05/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY APPD					

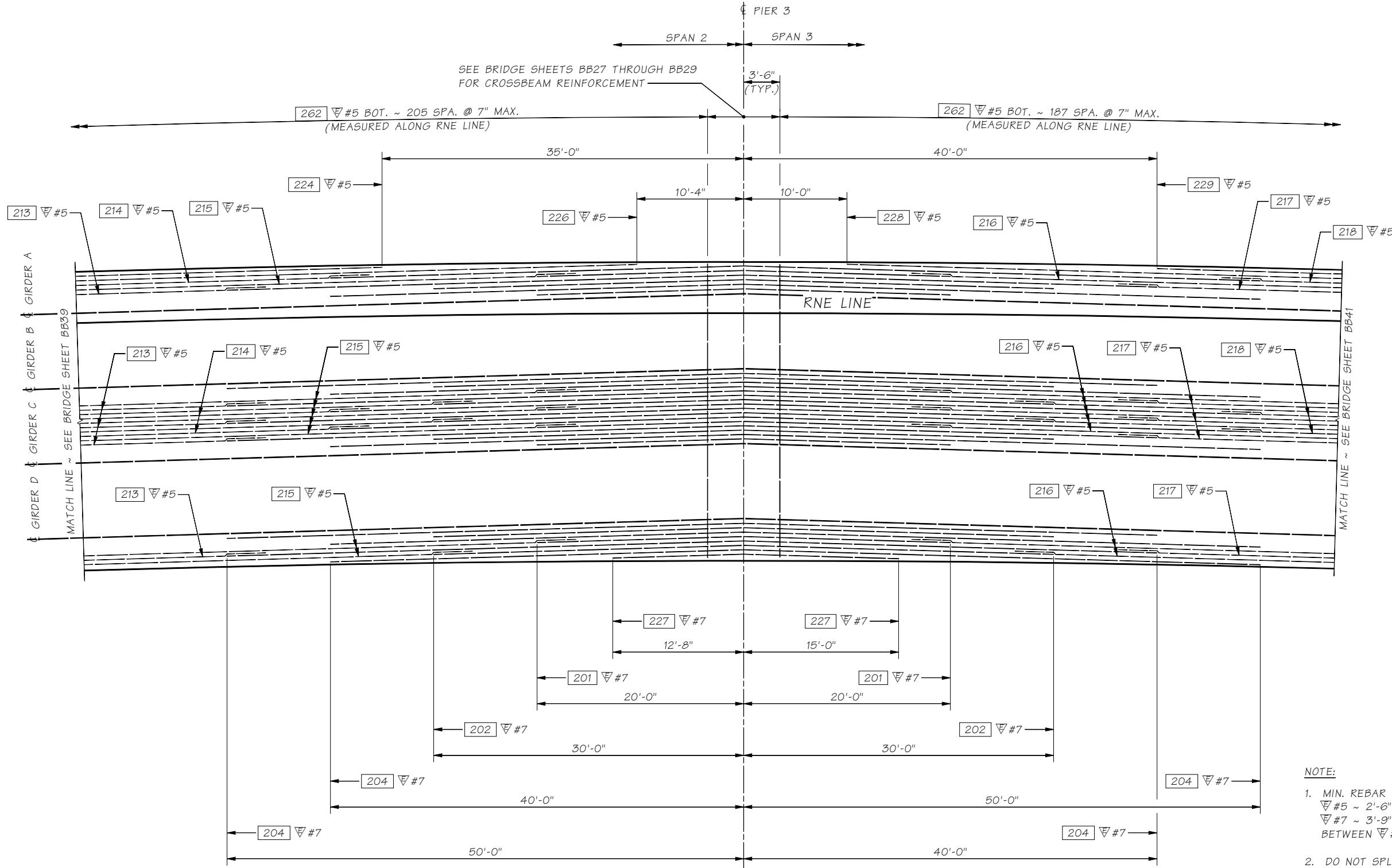


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AND
STRUCTURES
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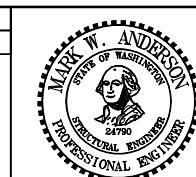
Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PLAN - ROADWAY SLAB REINFORCEMENT
DETAIL 1 OF 6



PLAN
ROADWAY SLAB REINFORCEMENT
BOTTOM MAT ~ SPAN 2 PARTIAL SPAN 3

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\BOT. REIN. PLN 2.WND						
Supervisor	Anderson, MW							
Designed By	Sawahata, D	05/08						
Checked By								
Detailed By	McCarthy, DJ	05/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE	REVISION	BY APPD						



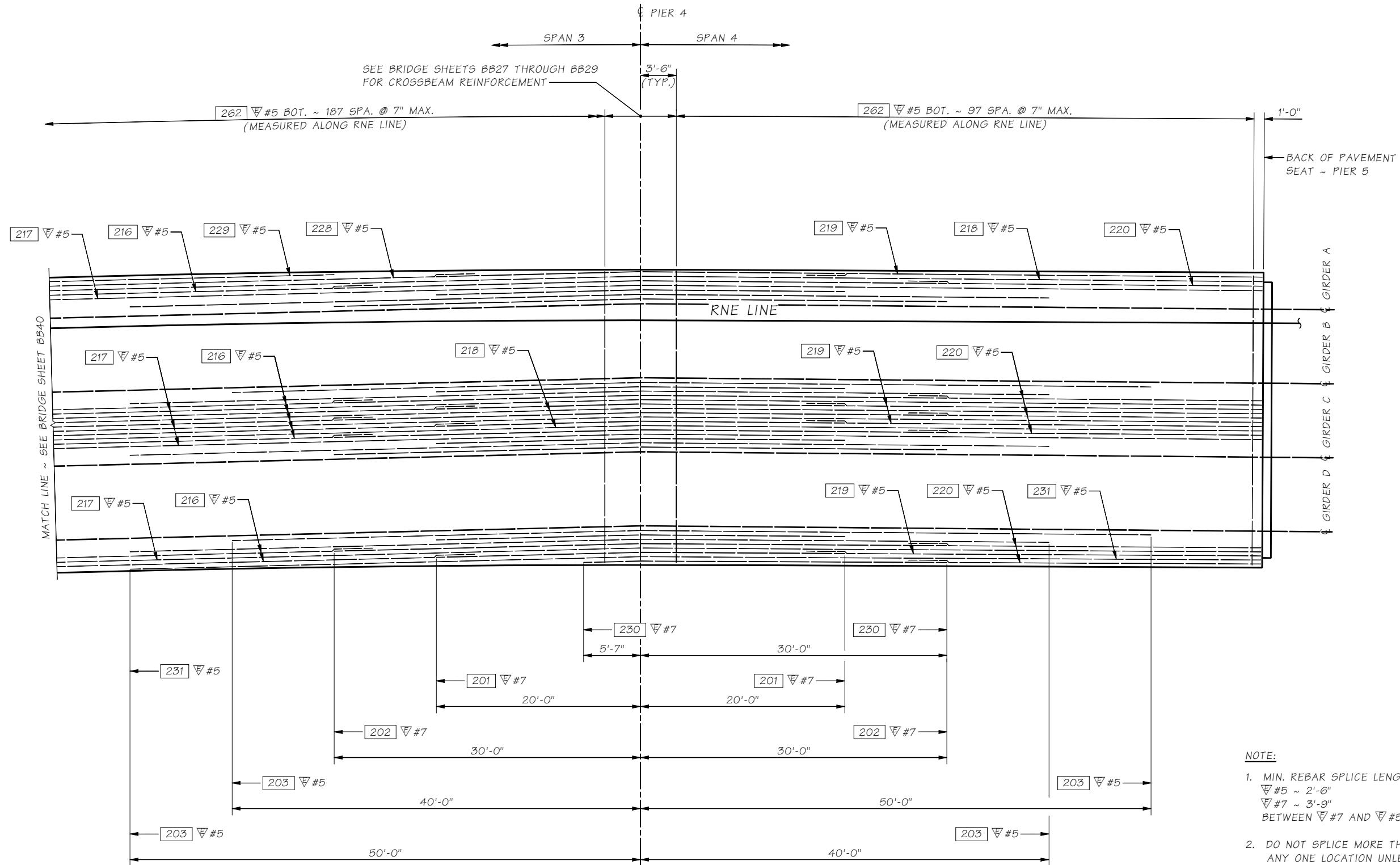
BRIDGE
AND
STRUCTURES
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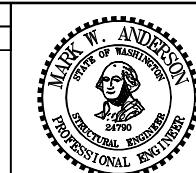
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PLAN - ROADWAY SLAB REINFORCEMENT
DETAIL 2 OF 6

BRIDGE
SHEET
NO.
BB40
SHEET
OF
SHEETS



PLAN
ROADWAY SLAB REINFORCEMENT
BOTTOM MAT ~ SPAN 3 PARTIAL SPAN 4

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\BOT. REIN. PLN 3.WND						
Supervisor	Anderson, MW							
Designed By	Sawahata, D	05/08						
Checked By								
Detailed By	McCarthy, DJ	05/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY	APPD				



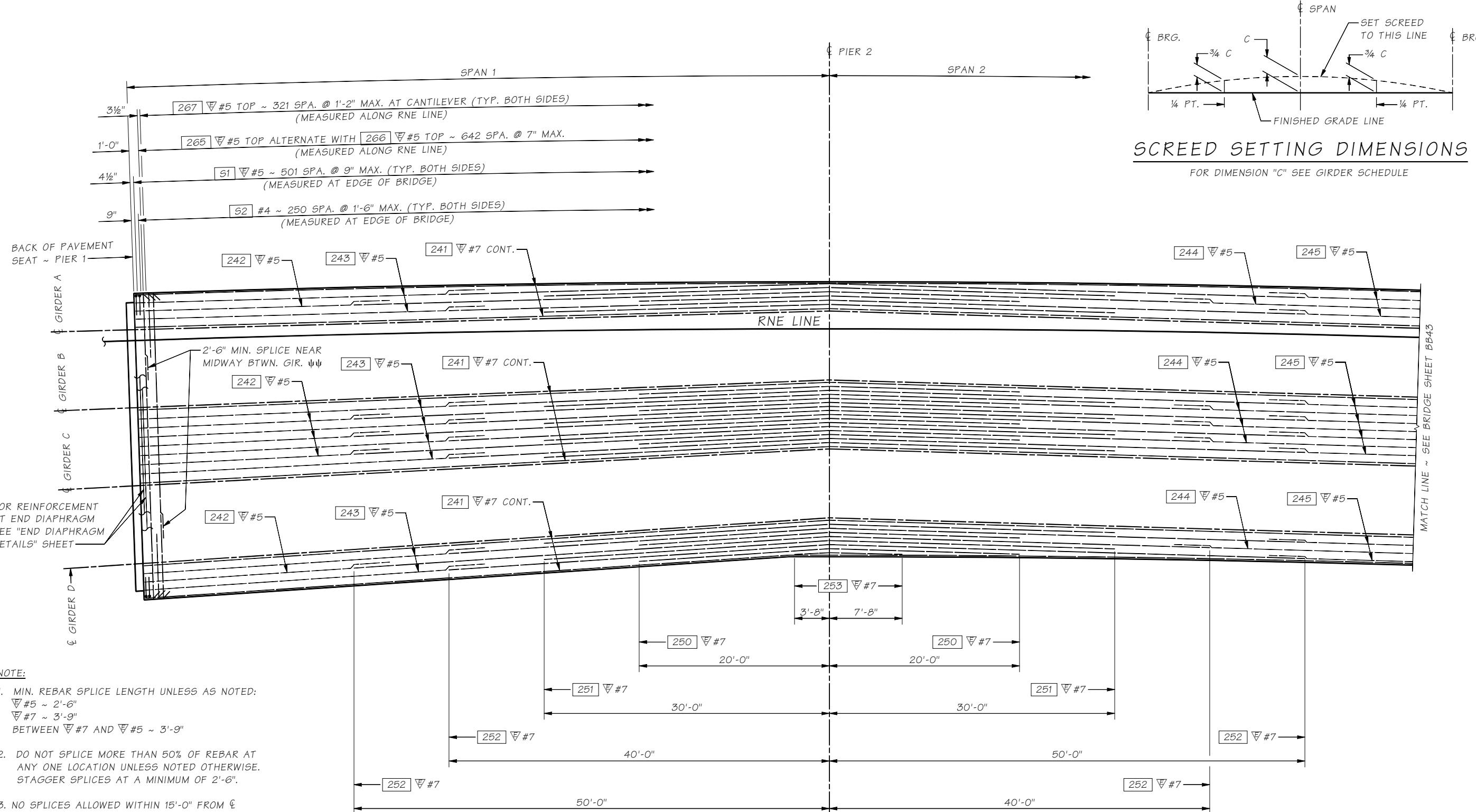
BRIDGE
AND
STRUCTURES
OFFICE



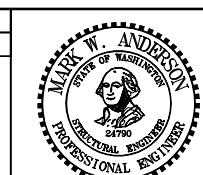
Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PLAN - ROADWAY SLAB REINFORCEMENT
DETAIL 3 OF 6

BRIDGE
SHEET
NO.
BB41
SHEET
OF
SHEETS



Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\TOP REIN. PLN 1.WND						
Supervisor	Anderson, MW							
Designed By	Sawahata, D	05/08						
Checked By								
Detailed By	McCarthy, DJ	05/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY	APPD				

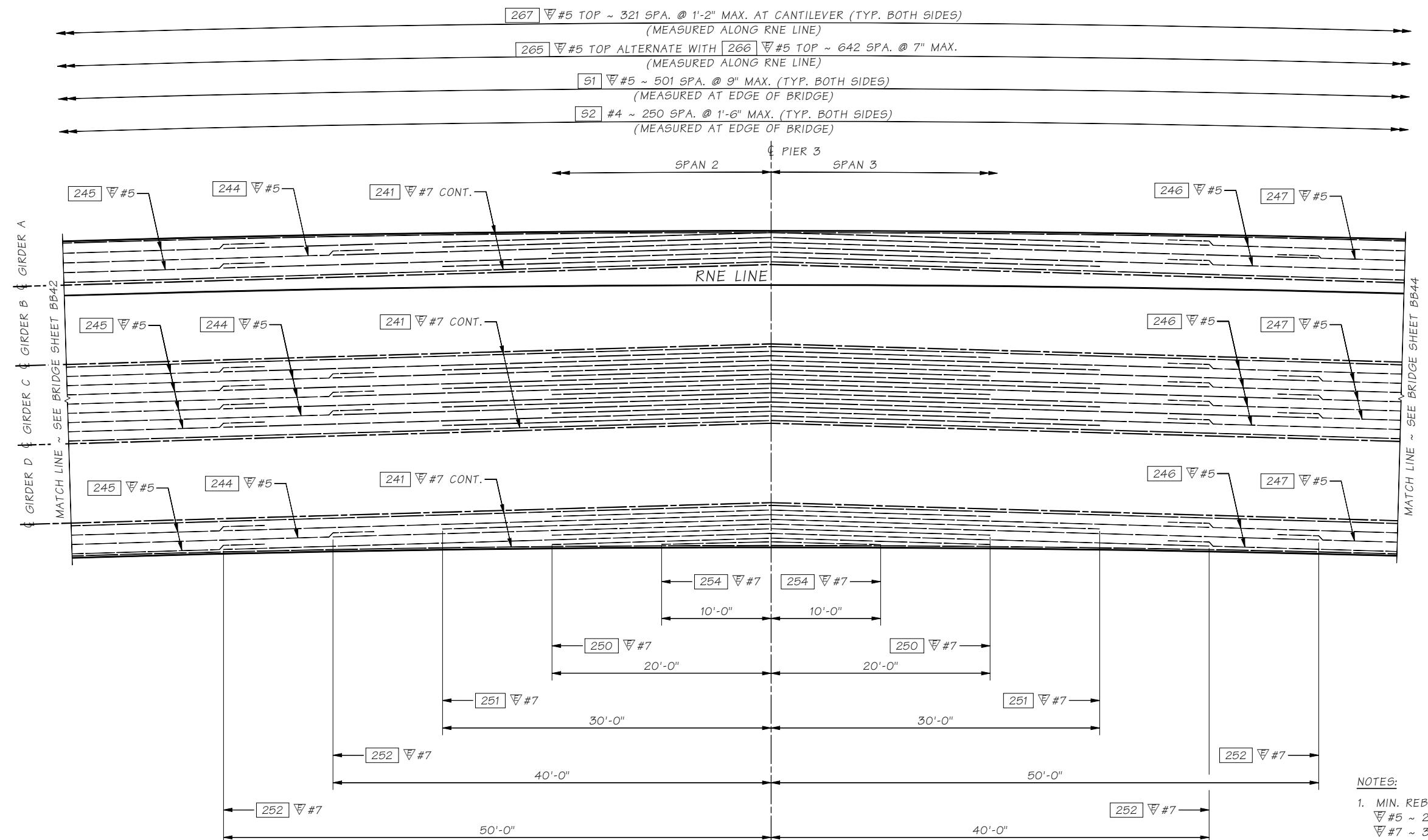


BRIDGE
AND
STRUCTURES
OFFICE



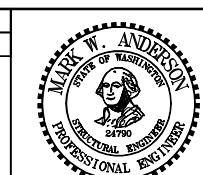
Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PLAN - ROADWAY SLAB REINFORCEMENT
DETAIL 4 OF 6



PLAN
ROADWAY SLAB REINFORCEMENT
TOP MAT ~ PARTIAL SPAN 2 AND PARTIAL SPAN 3

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\TOP REIN. PLN 2.WND
Supervisor	Anderson, MW	
Designed By	Sawahata, D	05/08
Checked By		
Detailed By	McCarthy, DJ	05/08
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		
DATE	REVISION	BY APPD

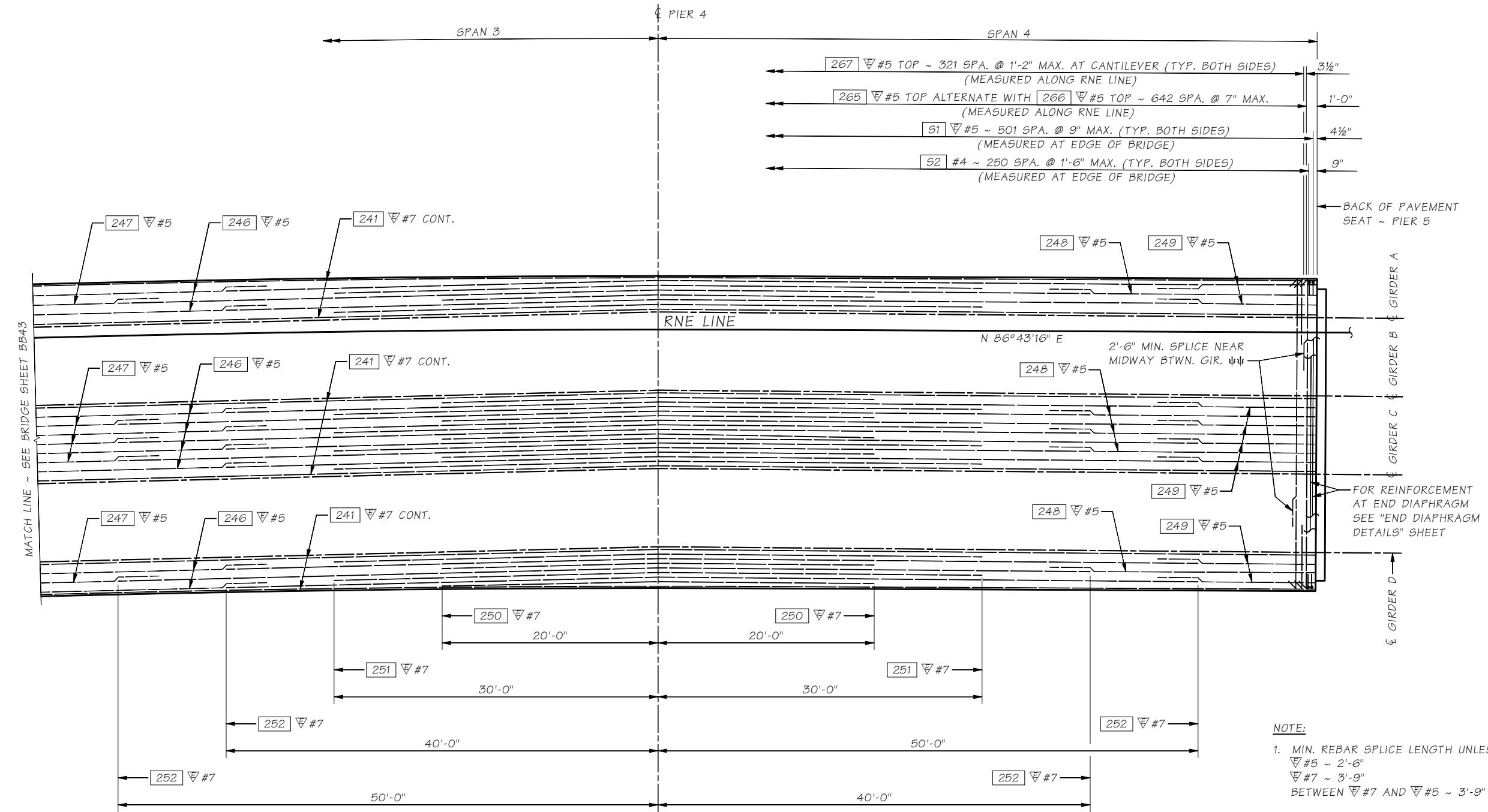


BRIDGE
AND
STRUCTURES
OFFICE



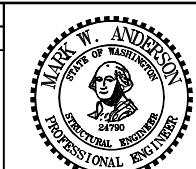
Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PLAN - ROADWAY SLAB REINFORCEMENT
DETAIL 5 OF 6



PLAN
ROADWAY SLAB REINFORCEMENT
TOP MAT ~ PARTIAL SPAN 3 AND SPAN 4

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\TOP REIN. PLN 3.WND						
Supervisor	Anderson, MW							
Designed By	Sawahata, D	05/08						
Checked By								
Detailed By	McCarthy, DJ	05/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY	APPD				

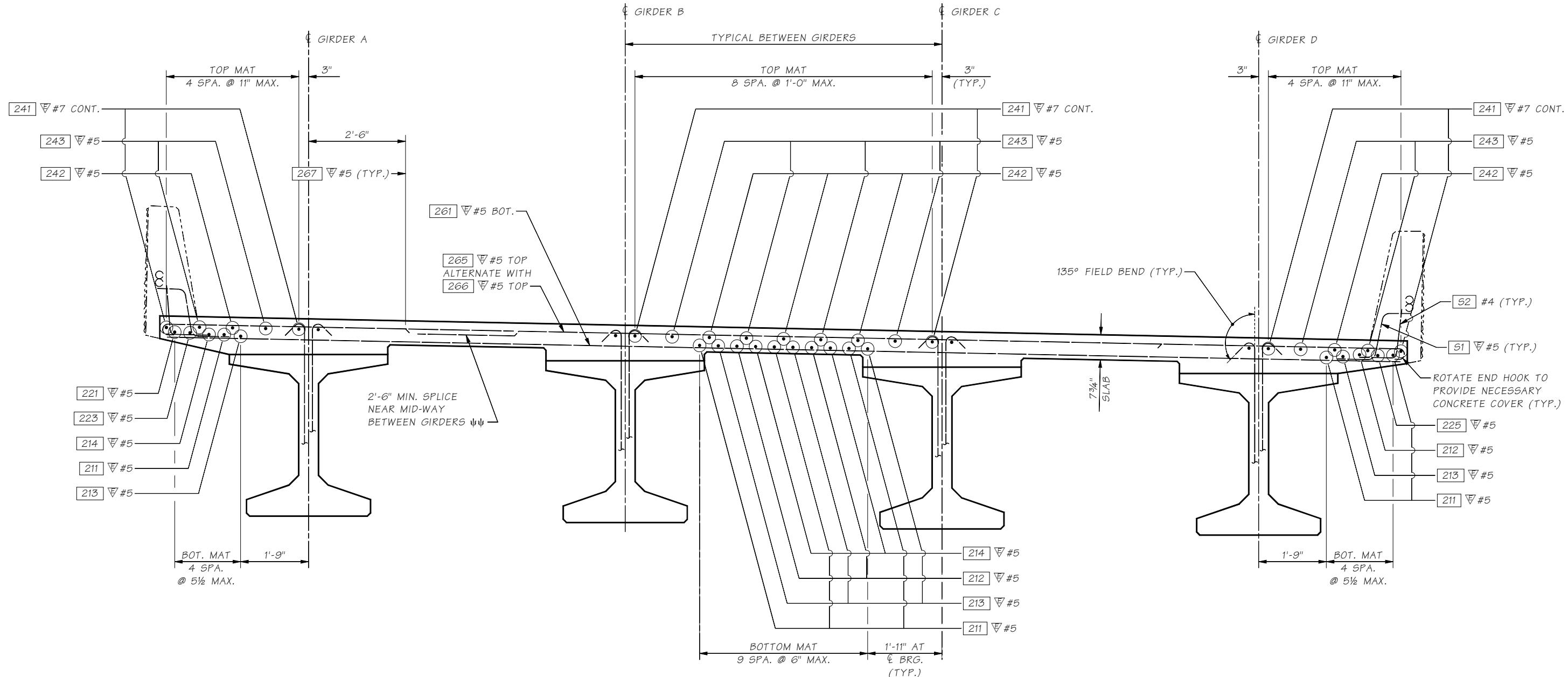


BRIDGE
AND
STRUCTURES
OFFICE

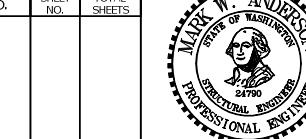


Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
PLAN - ROADWAY SLAB REINFORCEMENT
DETAIL 6 OF 6



Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\SLAB REIN. SECT 1.WND					
Supervisor	Anderson, MW						
Designed By	Sawahata, D	05/08					
Checked By							
Detailed By	McCarthy, DJ	05/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE		REVISION	BY	APPD			



BRIDGE
AND
STRUCTURES
OFFICE



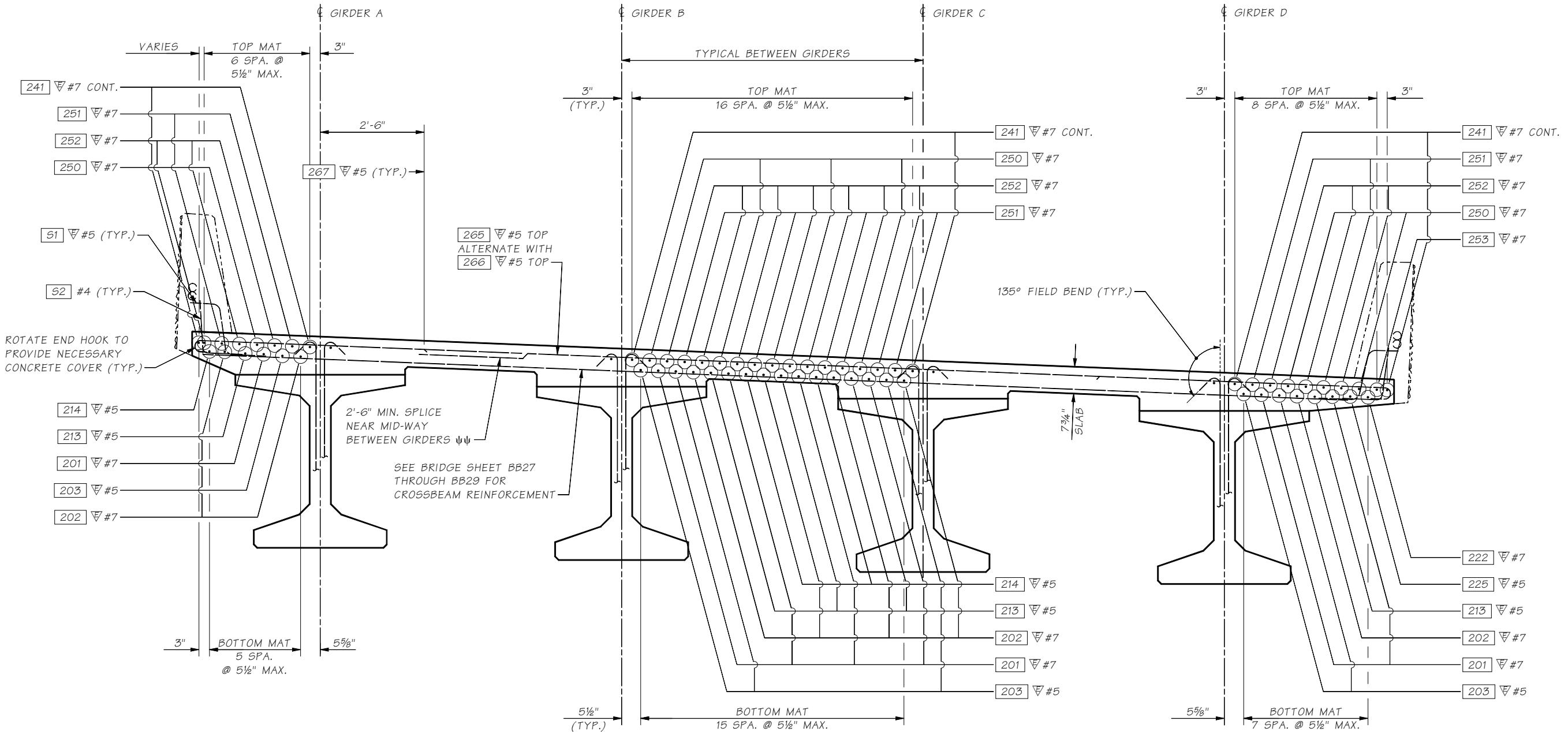
Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

ROADWAY SLAB REINFORCEMENT
SECTION DETAIL 1 OF 7

BRIDGE SHEET
NO.
BB45

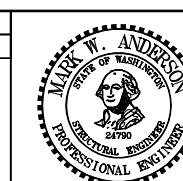
SHEET
OF
SHEETS



ROADWAY SLAB REINFORCEMENT SECTION
NEAR PIER 2

ψψ ALTERNATE SPLICE ABOUT ¼ BRIDGE FOR ADJACENT REBARS.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\SLAB REIN. SECT 2.WND					
Supervisor	Anderson, MW						
Designed By	Sawahata, D	05/08					
Checked By							
Detailed By	McCarthy, DJ	05/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE		REVISION	BY APPD				



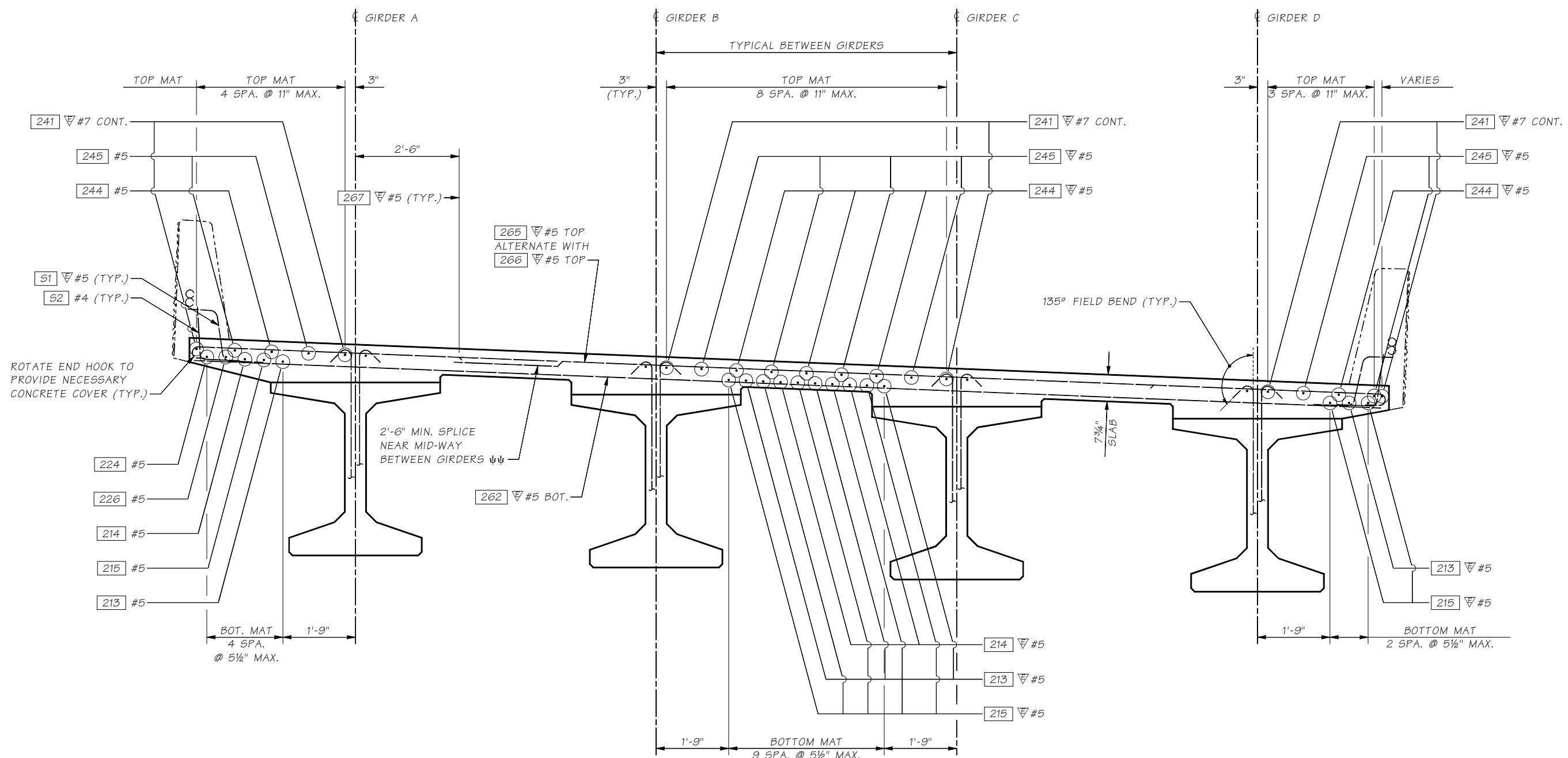
BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

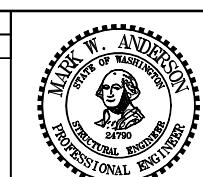
**ROADWAY SLAB REINFORCEMENT
SECTION DETAIL 2 OF 7**



ROADWAY SLAB REINFORCEMENT SECTION
NEAR MID-SPAN ~ SPANS 2

psi ALTERNATE SPICE ABOUT 1/4 BRIDGE FOR ADJACENT REBARS.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\SLAB REIN. SECT 3.WND					
Supervisor	Anderson, MW						
Designed By	Sawahata, D	05/08					
Checked By							
Detailed By	McCarthy, DJ	05/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE		REVISION	BY APPD				



BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

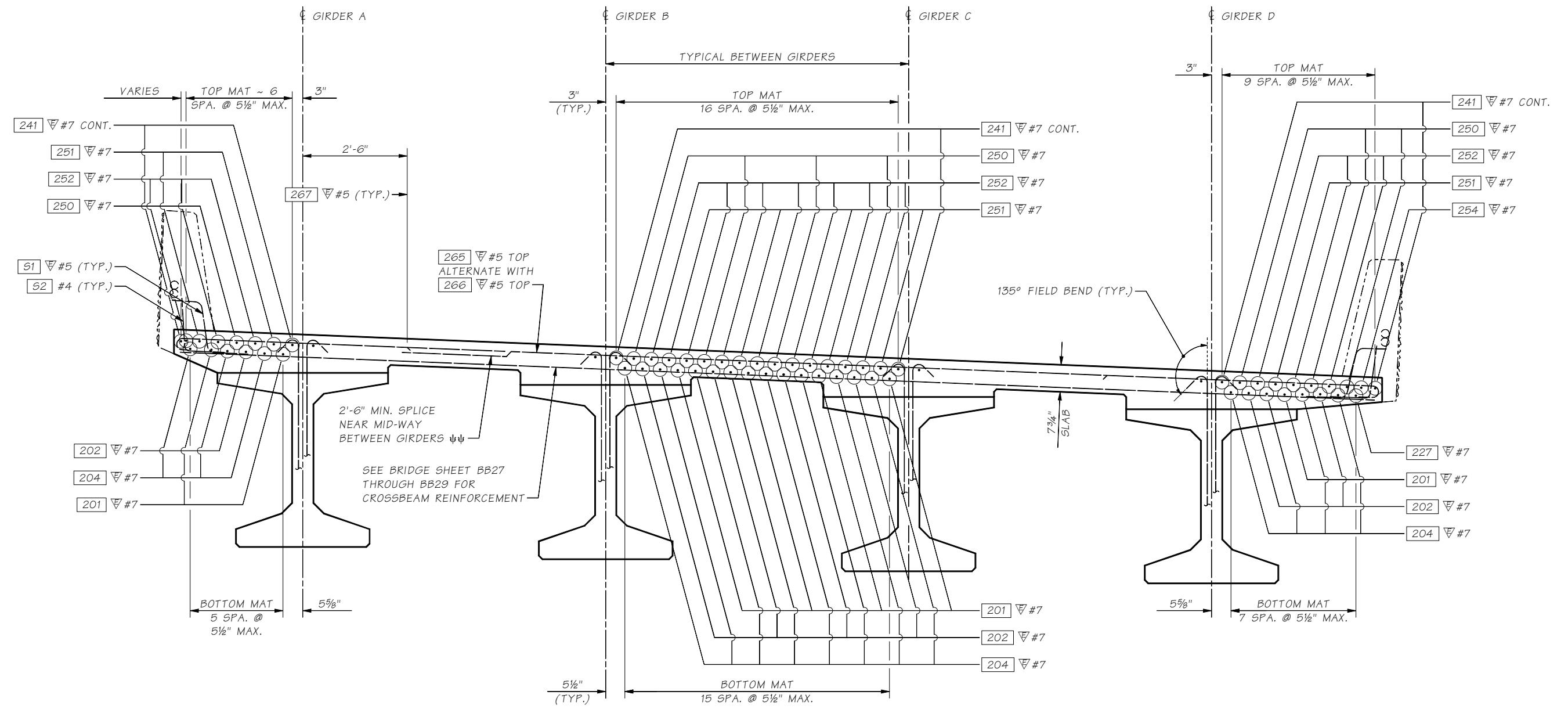
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

**ROADWAY SLAB REINFORCEMENT
SECTION DETAIL 3 OF 7**

BRIDGE
SHEET
NO.
BB47

SHEET
OF
3

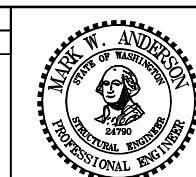
LEAVES
SHEETS



ROADWAY SLAB REINFORCEMENT SECTION
NEAR PIER 3

ALTERNATE SPICE ABOUT 1/4 BRIDGE FOR ADJACENT REBARS.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\SLAB REIN. SECT 4.WND					
Supervisor	Anderson, MW						
Designed By	Sawahata, D	05/08					
Checked By							
Detailed By	McCarthy, DJ	05/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE		REVISION	BY	APPD			



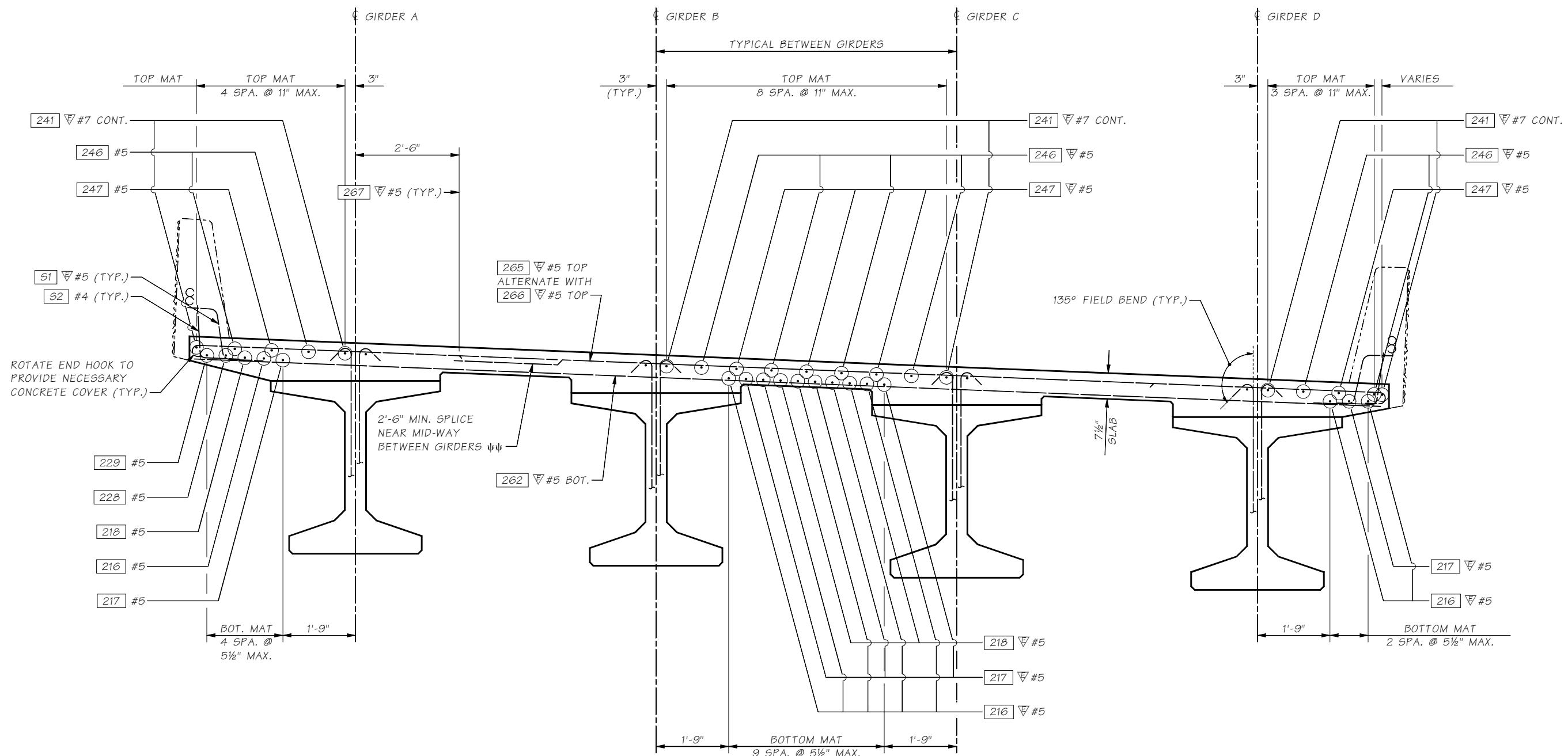
BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

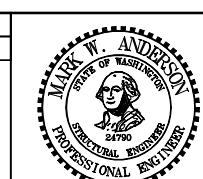
ROADWAY SLAB REINFORCEMENT
SECTION DETAIL 4 OF 7



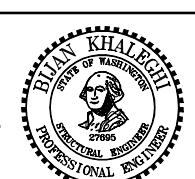
ROADWAY SLAB REINFORCEMENT SECTION
NEAR MID-SPAN ~ SPANS 3

ψ ALTERNATE SPLICING ABOUT 1/4 BRIDGE FOR ADJACENT REBARS.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\SLAB REIN. SECT 5.WND						
Supervisor	Anderson, MW							
Designed By	Sawahata, D	05/08						
Checked By								
Detailed By	McCarthy, DJ	05/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY	APPD				



BRIDGE
AND
STRUCTURES
OFFICE



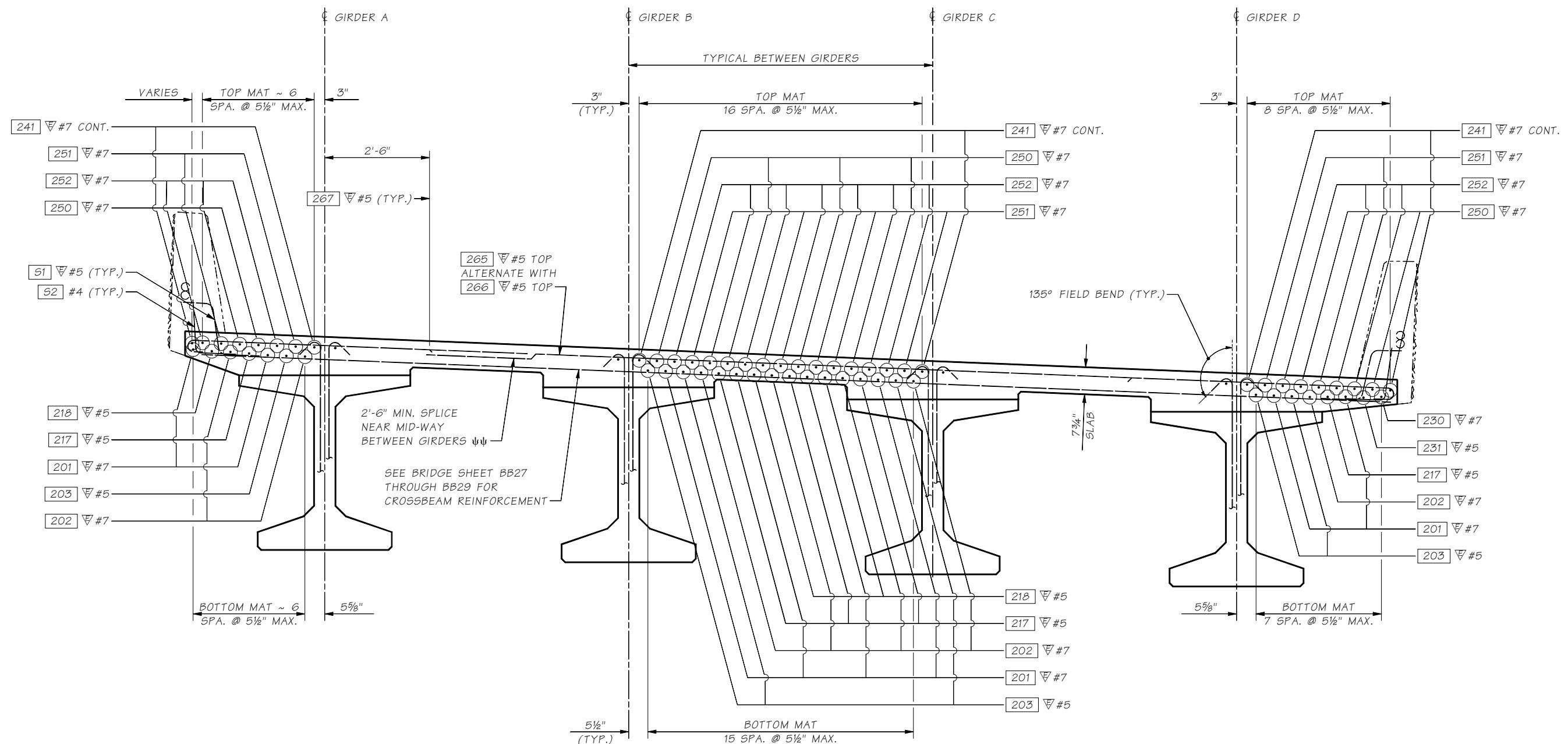
Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

**ROADWAY SLAB REINFORCEMENT
SECTION DETAIL 5 OF 7**

BRIDGE
SHEET
NO.
BB49

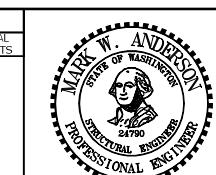
SHEET
OF
SHEETS



ROADWAY SLAB REINFORCEMENT SECTION NEAR PIER 4

ALTERNATE SPICE ABOUT & BRIDGE FOR ADJACENT REBARS.

Bridge Design Engr.		Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\SLAB REIN. SECT 6.WND		REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Anderson, MW								
Designed By	Sawahata, D	05/08			10	WASH.			
Checked By									
Detailed By	McCarthy, DJ	05/08							
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist									
DATE		REVISION	BY APPD						



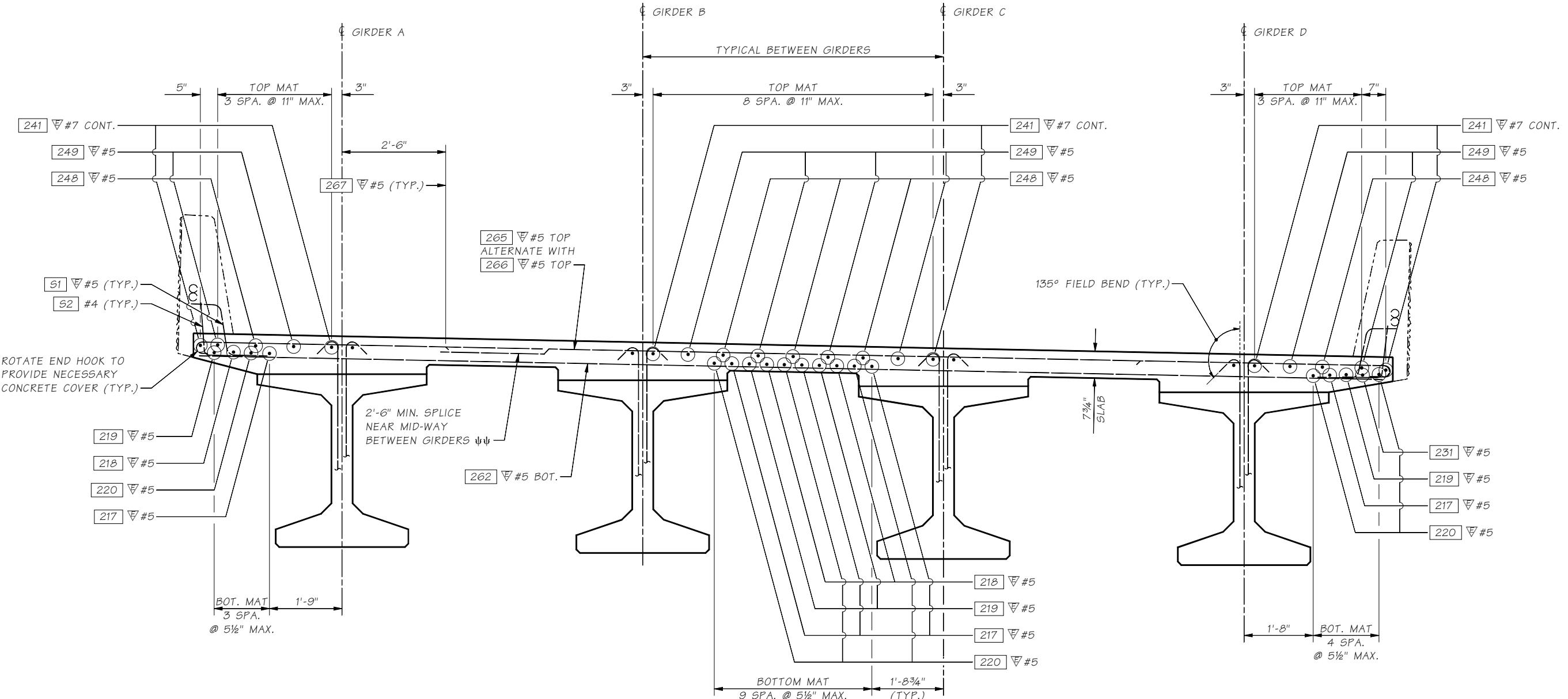
BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
ROADWAY SLAB REINFORCEMENT
SECTION DETAIL 6 OF 7

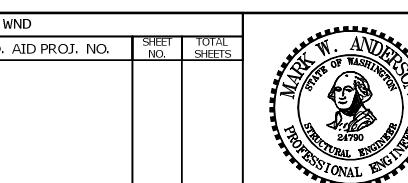
BRIDGE
SHEET
NO.
BB50
SHEET
OF
SHEETS



ROADWAY SLAB REINFORCEMENT SECTION
NEAR PIER 5

ψψ ALTERNATE SPLICE ABOUT & BRIDGE FOR ADJACENT REBARS.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\SLAB REIN. SECT 7.WND					
Supervisor	Anderson, MW						
Designed By	Sawahata, D	06/08					
Checked By							
Detailed By	McCarthy, DJ	06/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE		REVISION	BY APPD				

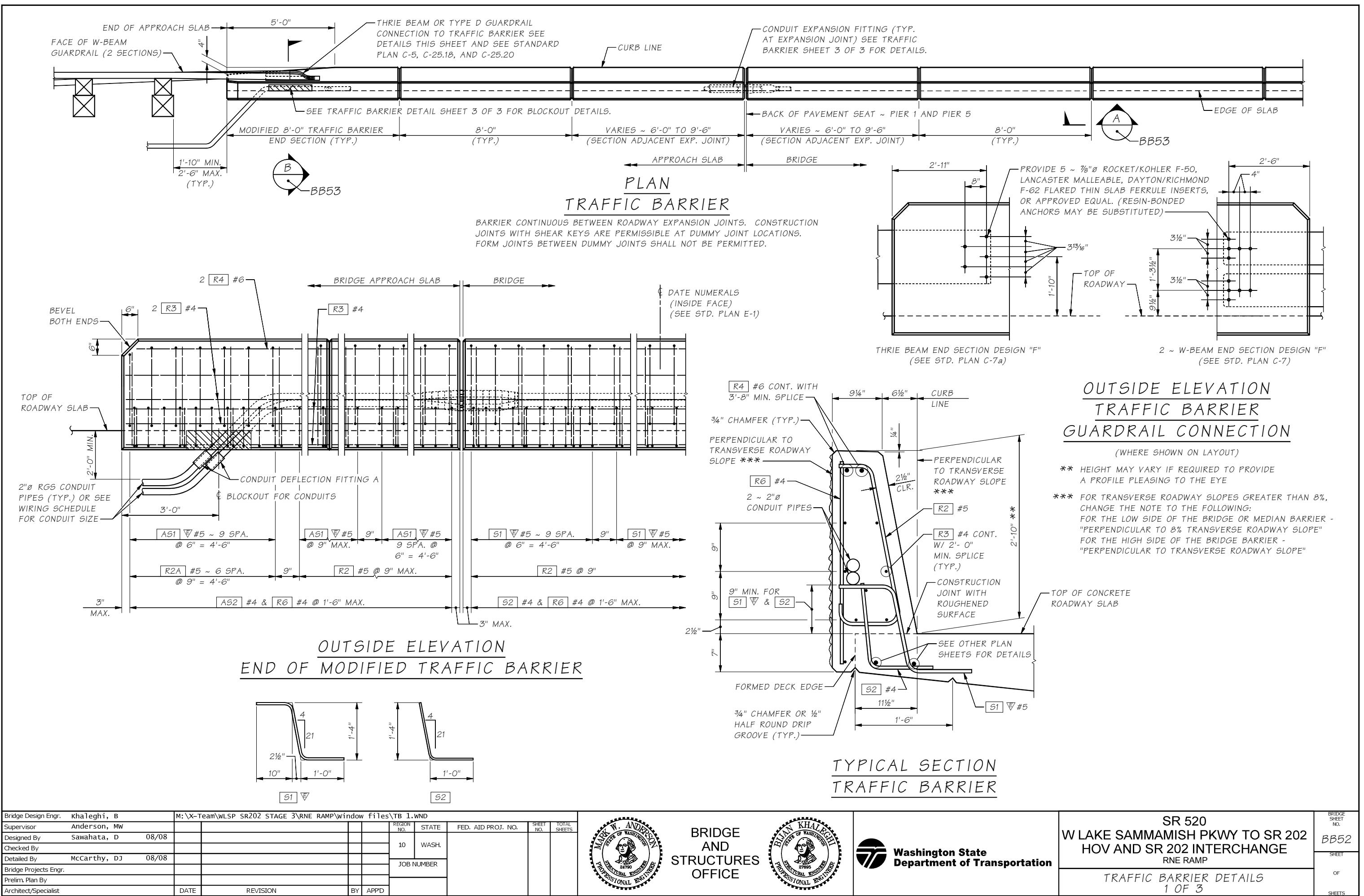


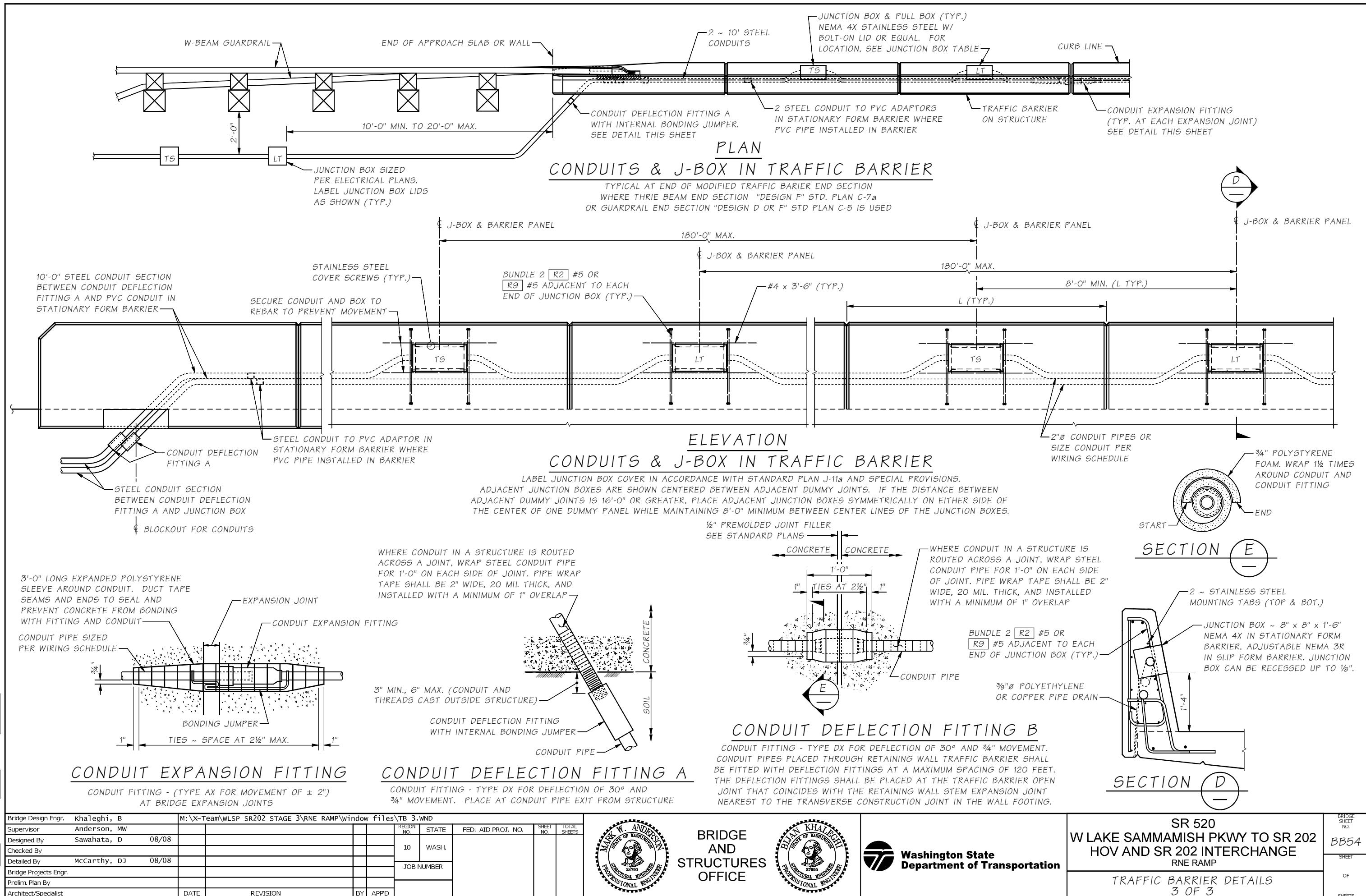
BRIDGE
AND
STRUCTURES
OFFICE

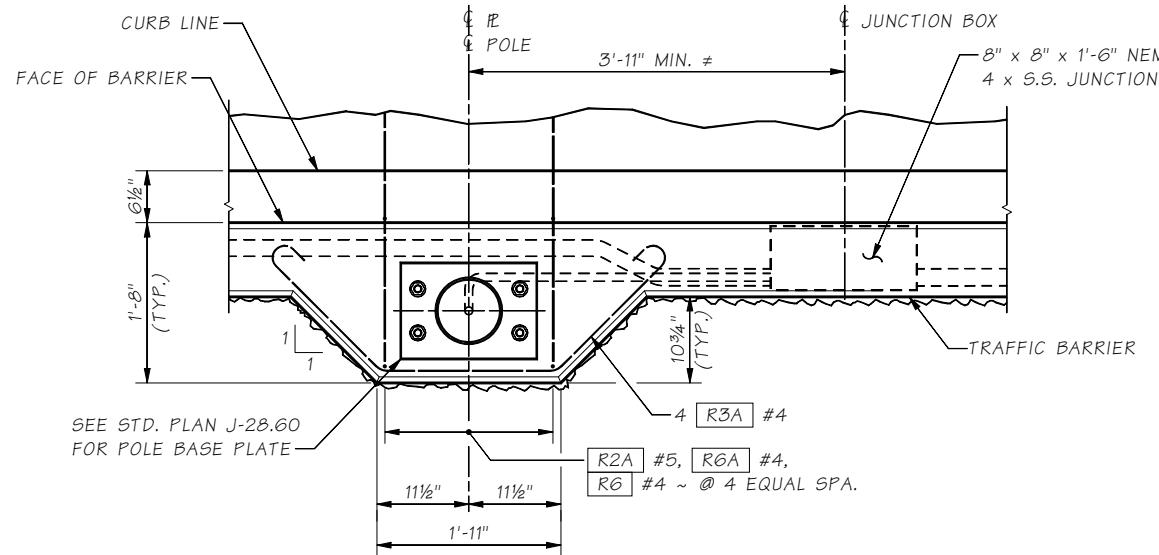


Washington State
Department of Transportation

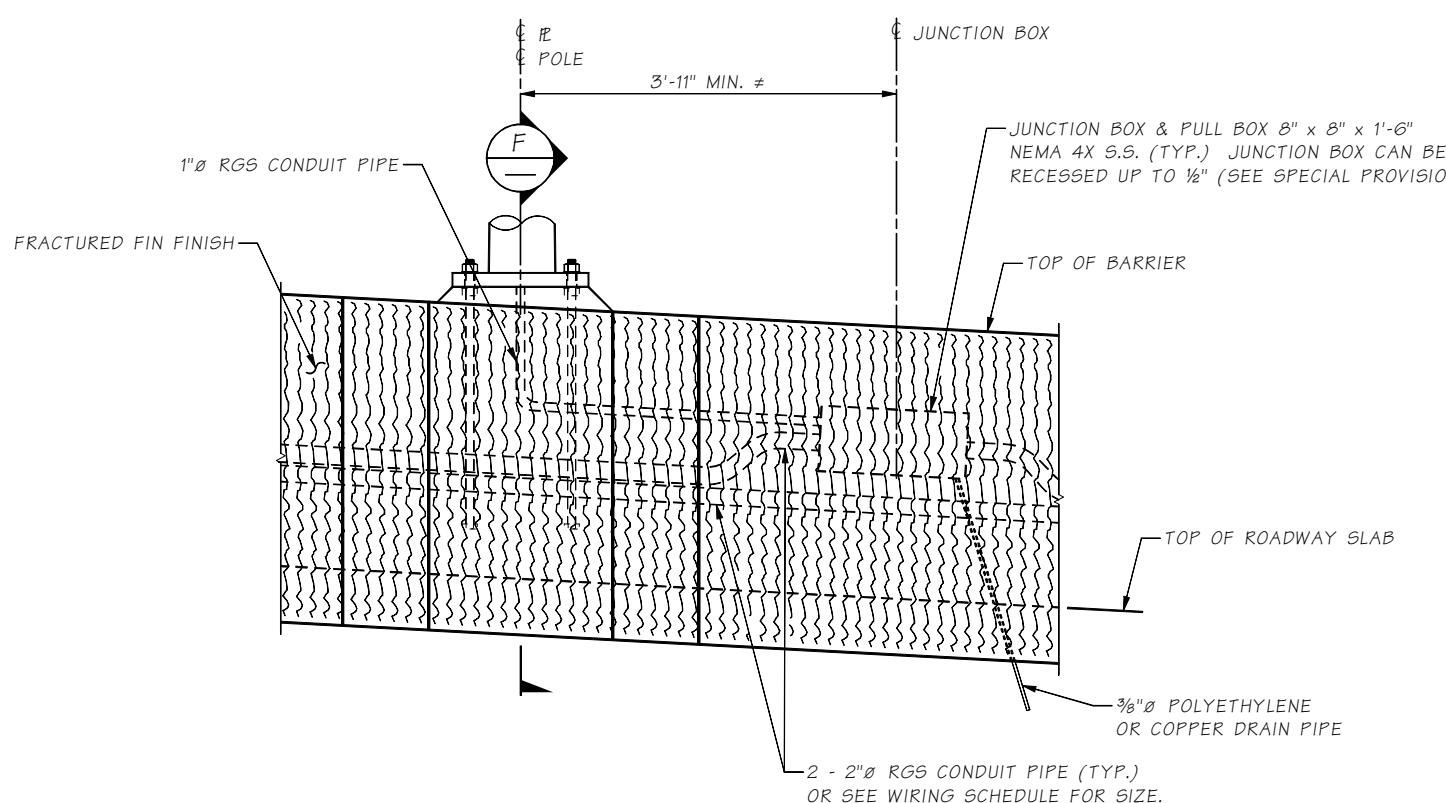
SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
ROADWAY SLAB REINFORCEMENT
SECTION DETAILS 7 OF 7







PLAN

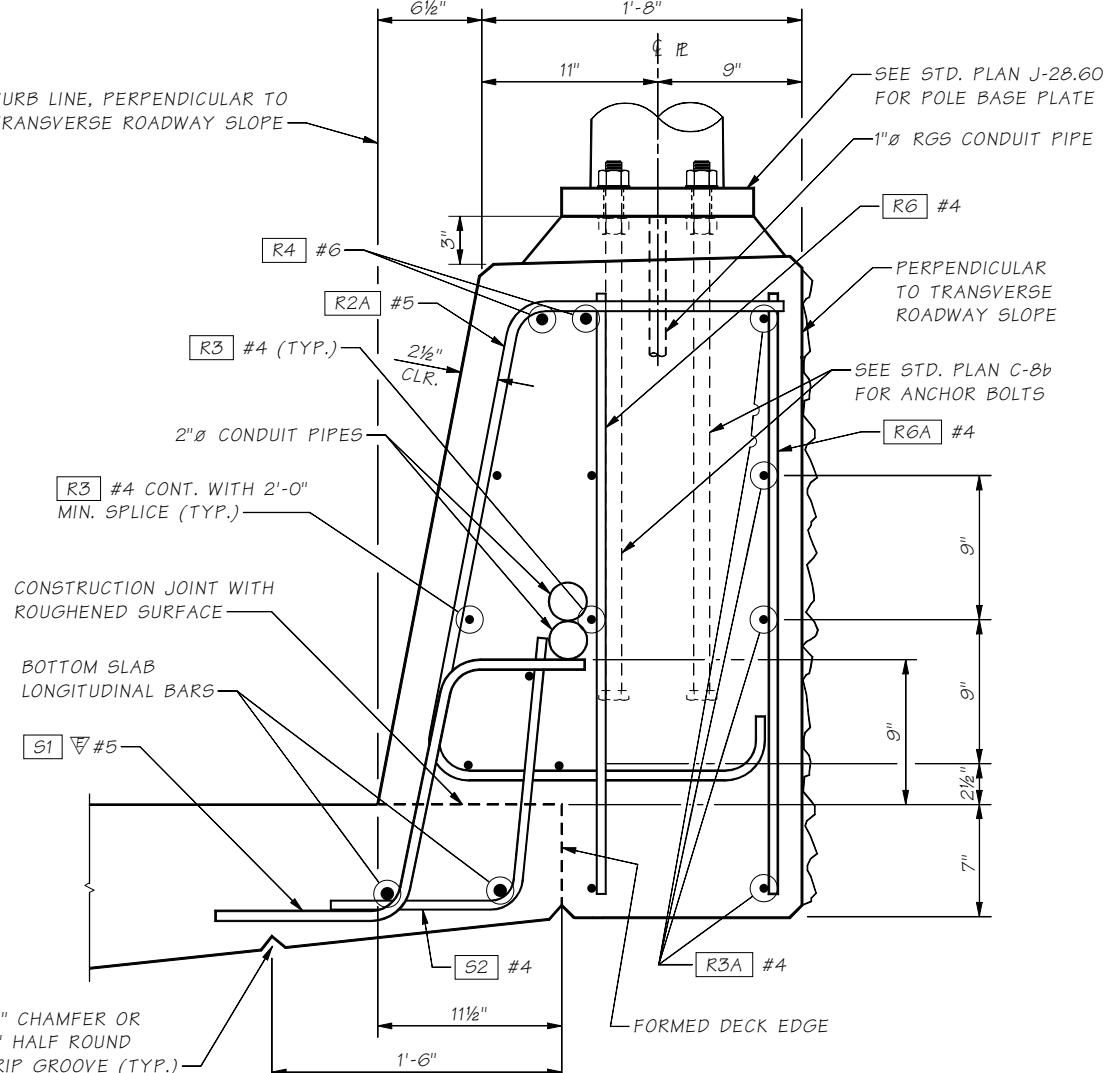


ELEVATION

LUMINAIRE POLE LOCATIONS ON BRIDGE	
STATION	OFFSET
18+58	RIGHT
21+17	RIGHT

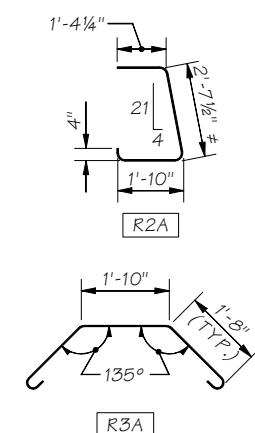
NOTES:

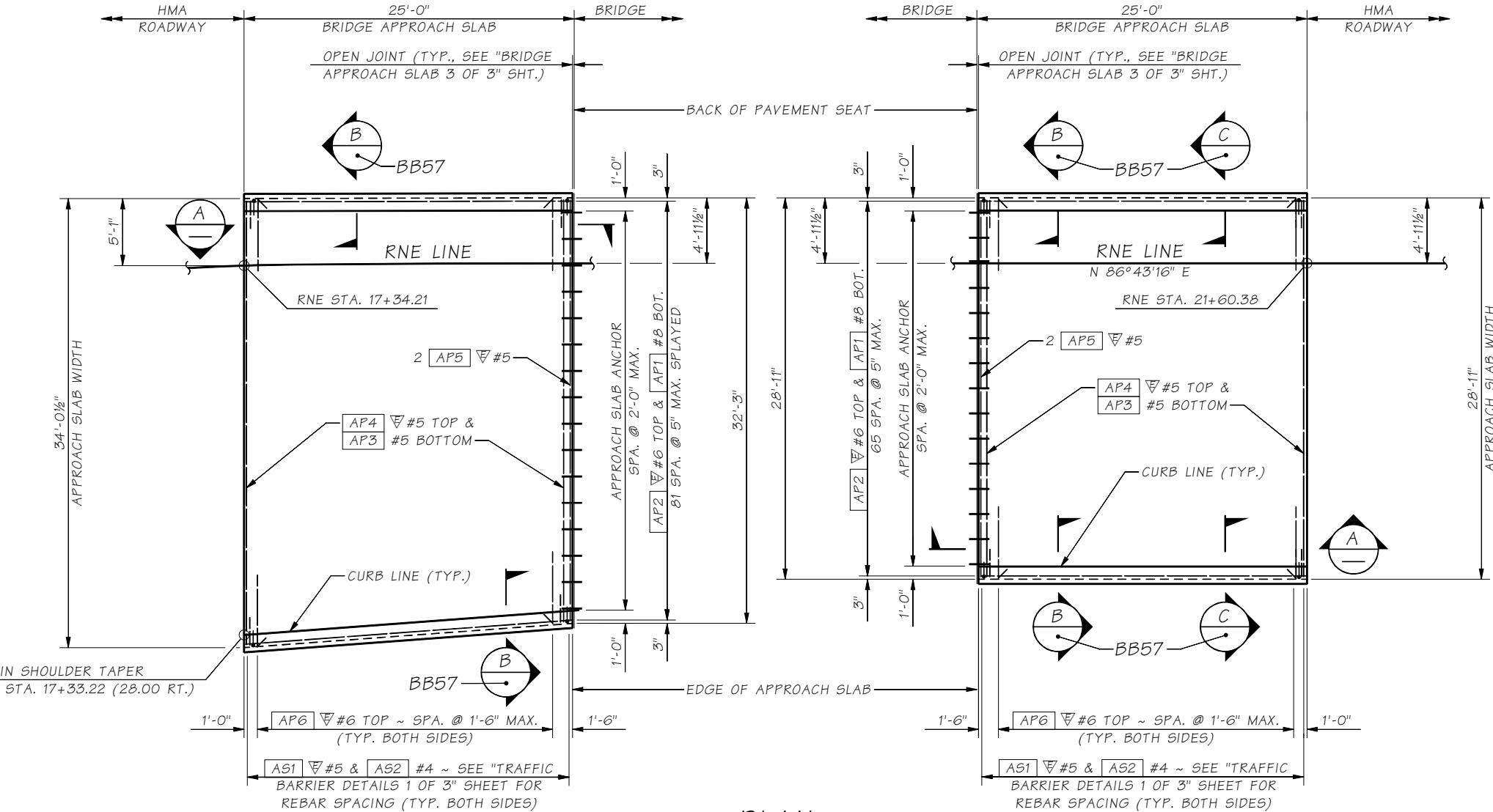
- . # FOR JUNCTION BOX LOCATION ~ SEE JUNCTION BOX TABLE
ON "TRAFFIC BARRIER DETAILS 2 OF 3" SHEET.
 - 2. ALL CONDUIT SHALL BE RIGID GALVANIZED STEEL (RGS).
INSTALL ALL CONDUIT RUNS TO DRAIN TO A BRIDGE END
OR PROVIDE DRAIN AT ALL LOW POINTS WITHIN CONDUIT RUN.
SEE "TRAFFIC BARRIER SHEETS" FOR BARRIER DIMENSIONS



SECTION F

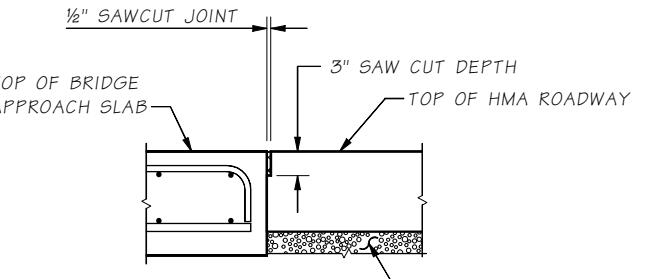
MARK #	SIZE	LENGTH	
R2A	5	(a)	
R3	4	(a)	STR.
R3A	4	(a)	
R4	6	(a)	STR.
R6	4	3'-0"	STR.
R6A	4	3'-0"	STR.





PLAN

NOTE:
ALL EDGES OF BRIDGE APPROACH SLAB SHALL HAVE $\frac{1}{8}$ " RADIUS.



HMA ROADWAY JOINT DETAIL

SAWCUT SHALL BE FILLED WITH HOT-POURED COMPONENT IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 9-04.2(1) AND SEALED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 5-05.3(8B).

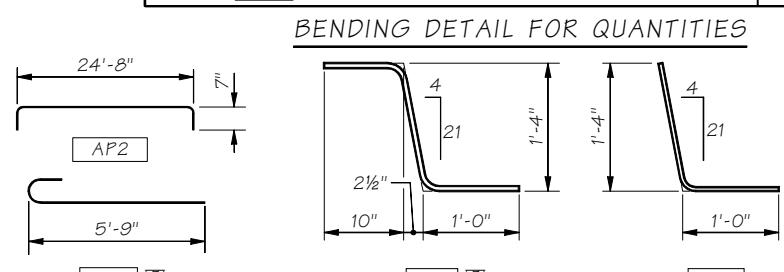
SHEET BB56
FILE NO. 7041

BRIDGE APPROACH SLAB BAR LIST

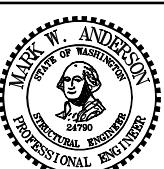
MARK #	SIZE	NO.	LENGTH
AP1	8	-	(a)
AP2	6	-	(a)
AP3	5	-	(a)
AP4	5	-	(a)
AP5	5	-	(a)
AP6	6	-	6'-5"
AS1	5	-	3'-3"
AS2	4	-	2'-7"

6 = EPOXY COATED REINFORCING STEEL

(a) = DETERMINE FROM PLANS



APPROXIMATE QUANTITIES FOR SLAB	
SLAB EPOXY COATED REINFORCING BARS (TOP MAT)	6641 LBS.
SLAB REINFORCING BARS (BOTTOM MAT)	13757 LBS.
CONCRETE (CU. YDS.)	62 CY.
APPROACH ANCHORS AND PCC ROADWAY DOWELS	AS REQUIRED
10 ~ [AP6] 6 (IF REQUIRED)	656 LBS.



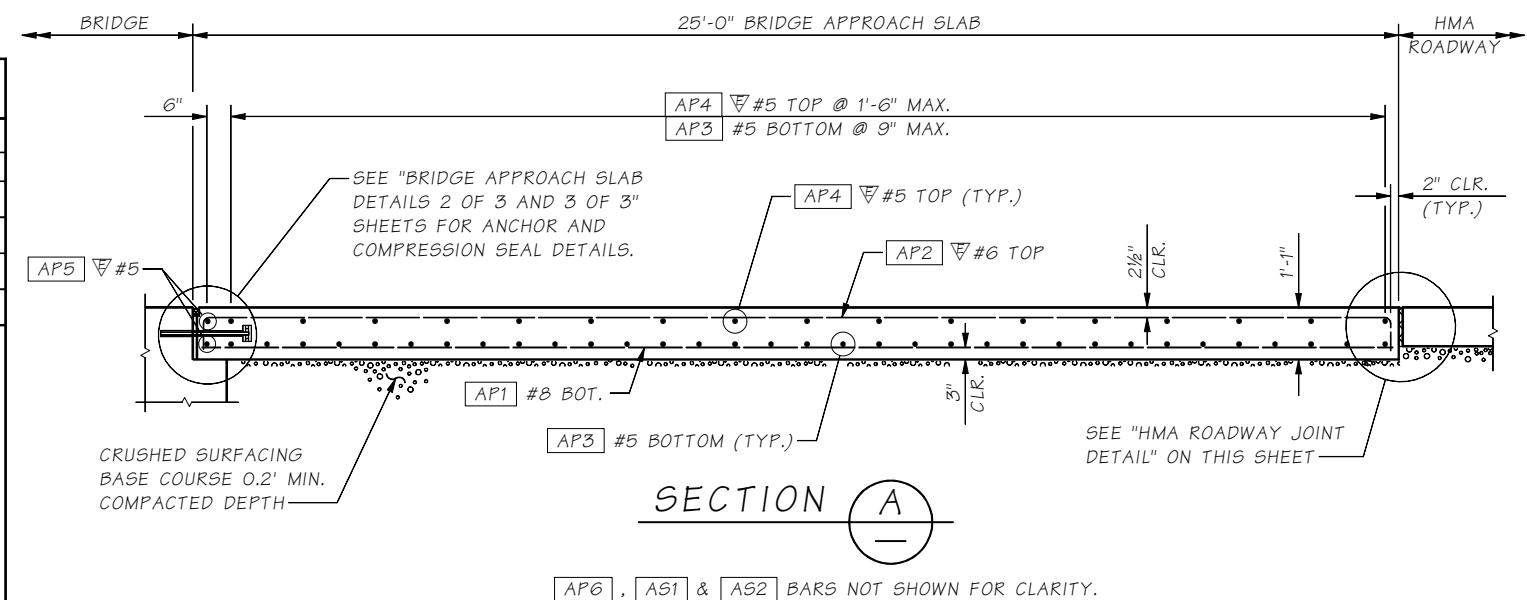
BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

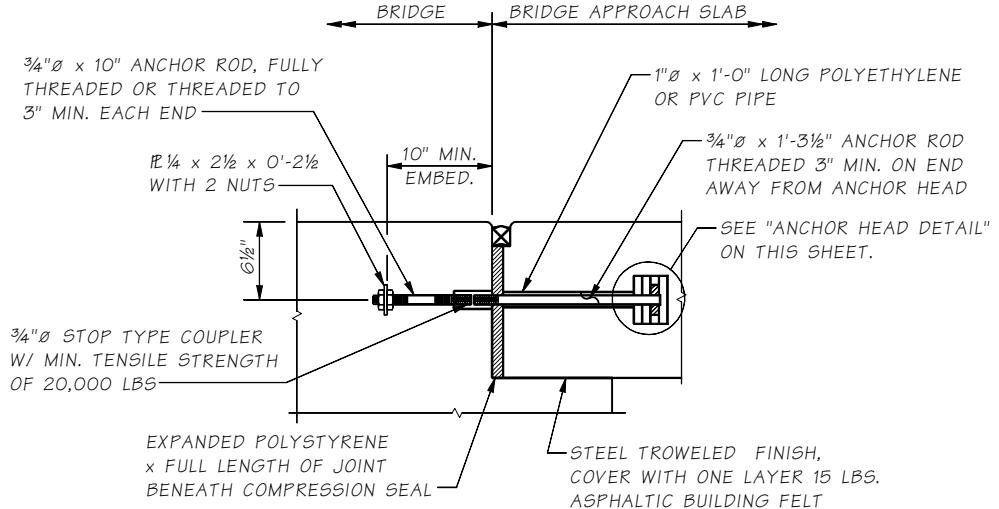
Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\APPR SLAB 1.WND
Supervisor	Anderson, MW	
Designed By	Sawahata, D	08/08
Checked By		
Detailed By	McCarthy, DJ	08/08
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		
DATE	REVISION	BY APPD

Thu Sep 18 14:46:38 2008

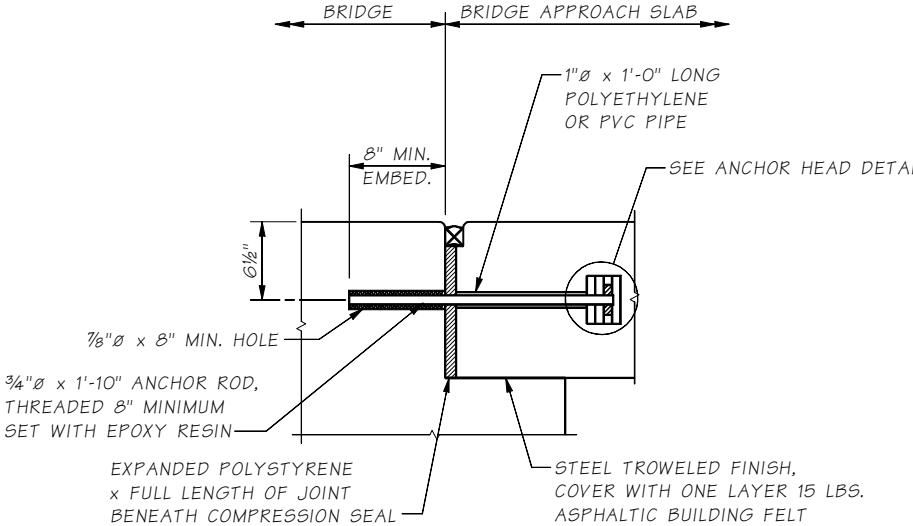


SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
BRIDGE APPROACH SLAB
DETAILS 1 OF 3

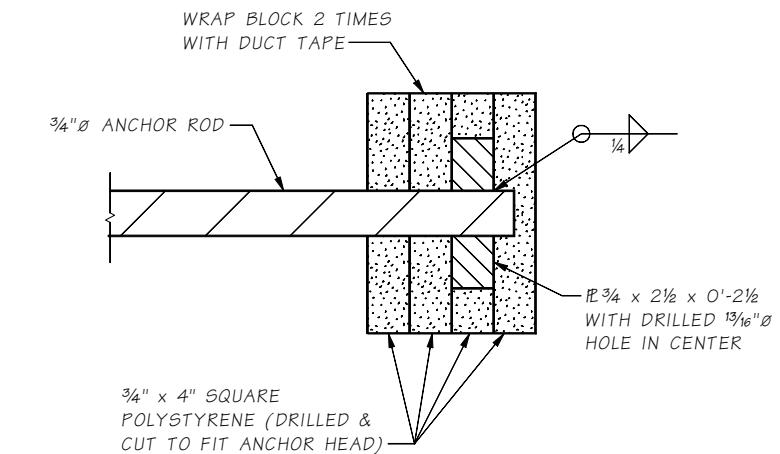
BRIDGE SHEET
NO.
BB56
SHEET
OF
SHEETS



APPROACH ANCHOR ~ METHOD A

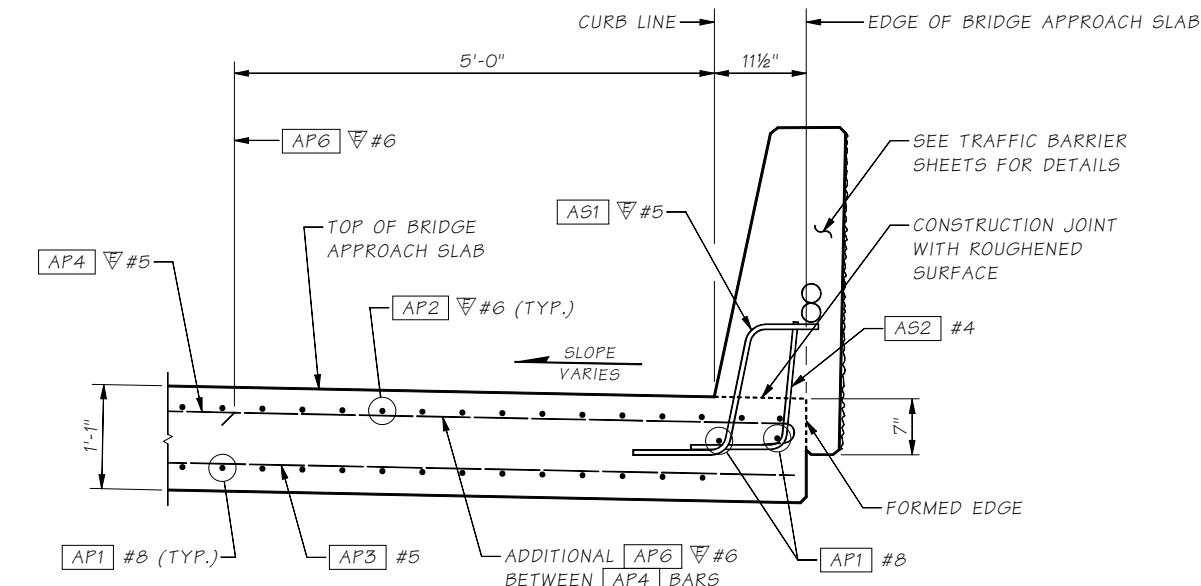
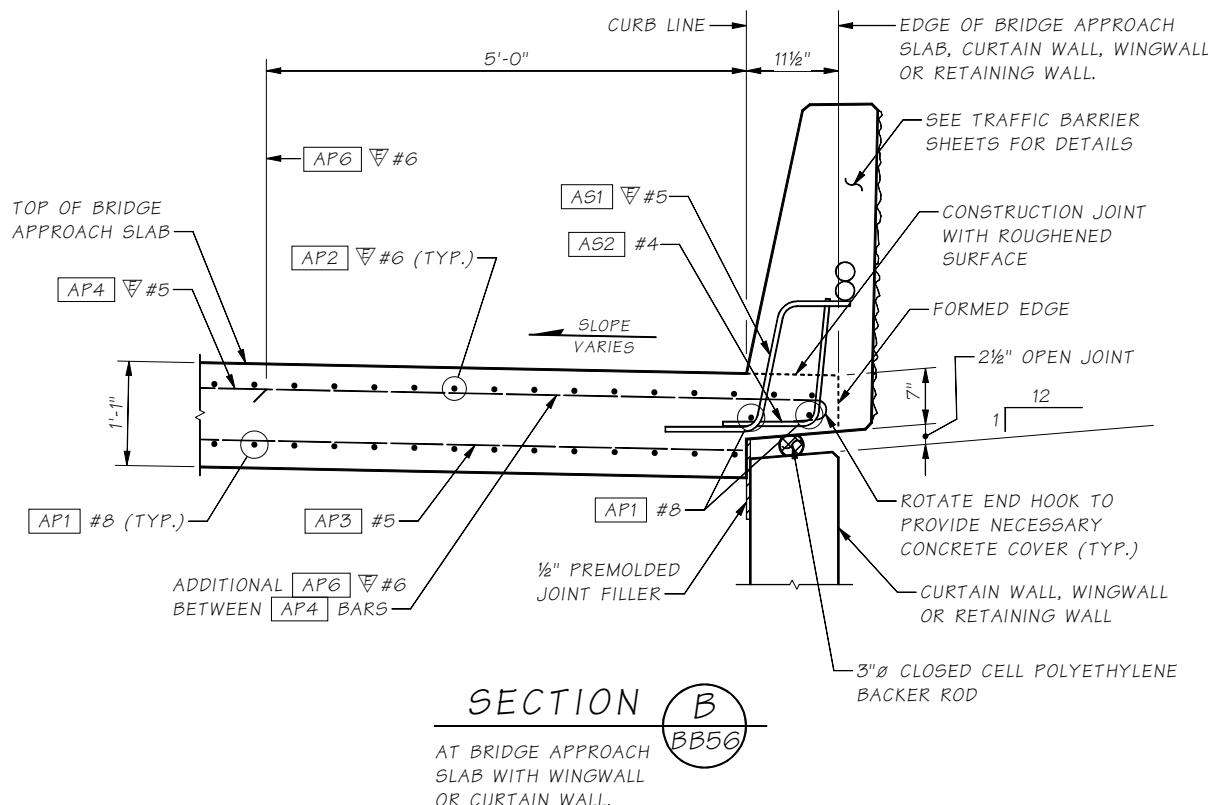


APPROACH ANCHOR ~ METHOD B

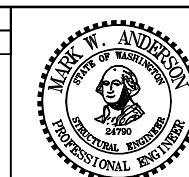


ANCHOR HEAD DETAIL

NOTE:
PAINT METAL COMPONENTS OF APPROACH ANCHOR WITH
ONE COAT OF INORGANIC ZINC OR FORMULA A-11-99 PAINT
IN ACCORDANCE WITH STD. SPEC. 9-08.2.



Bridge Design Engr.	Khaleghi, B	M:	X-Team\WLSP SR202 STAGE 3\RNE RAMP\window files\APPR SLAB 2.WND	REGION NO.	STATE	FED. AID PROJ. NO.	SHFT. NO.	TOTAL SHEETS
Supervisor	Anderson, MW							
Designed By	Sawahata, D	08/08						
Checked By								
Detailed By	McCarthy, DJ	08/08						
Bridge Projects Engr.								
Prelim. Plan By								
Architect/Specialist								
DATE		REVISION	BY APPD					

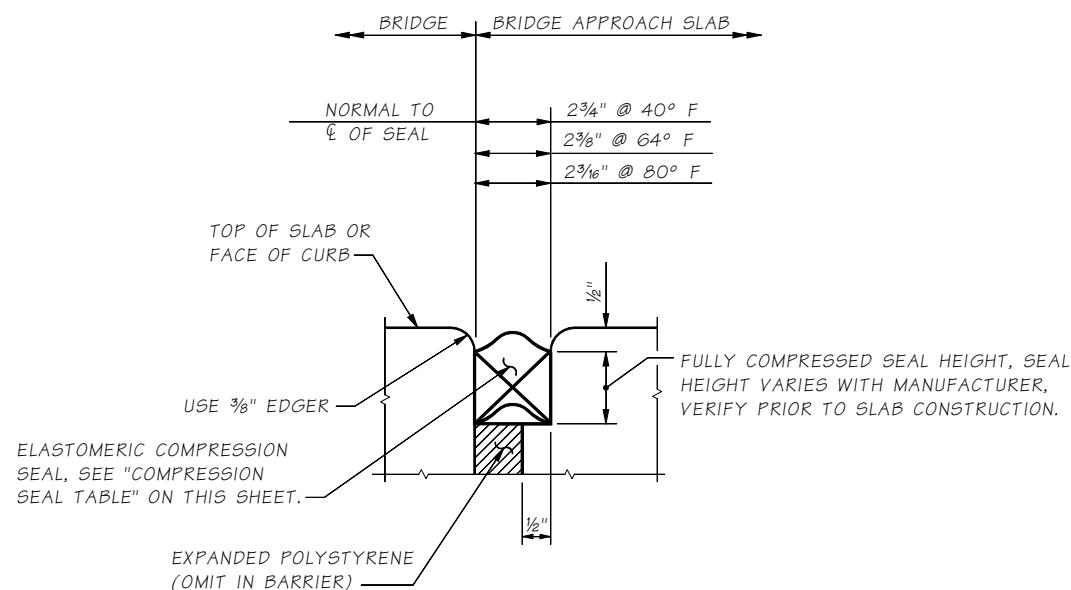


BRIDGE AND STRUCTURES OFFICE

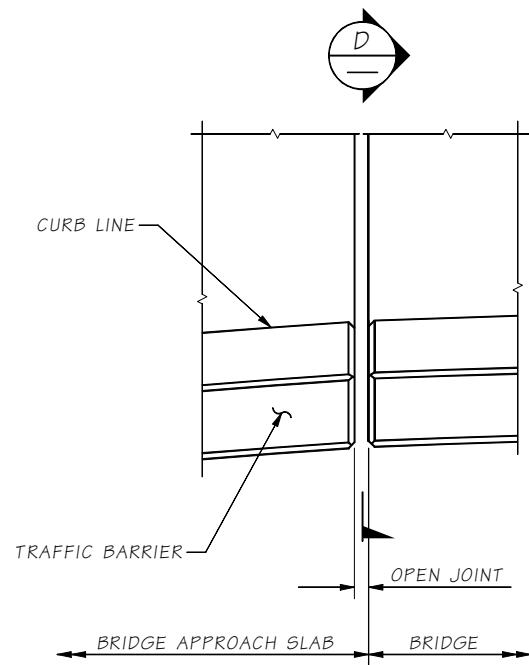


Washington State Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP
BRIDGE APPROACH SLAB DETAILS 2 OF 3



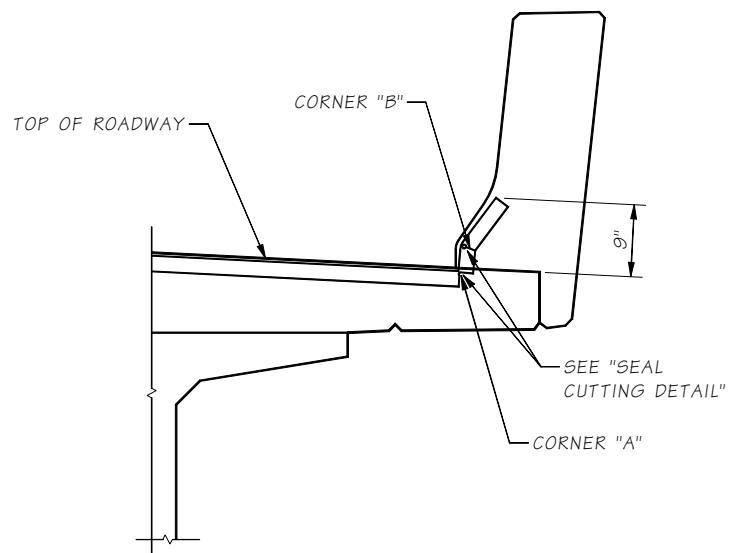
COMPRESSION SEAL



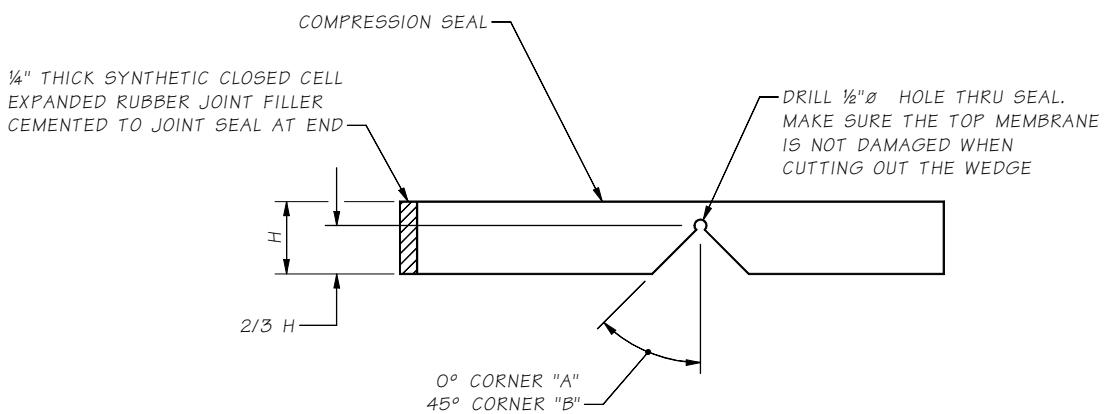
COMPRESSION SEAL TABLE	
D.S. BROWN	WATSON BOWMAN ACME
SEAL W (IN.)	SEAL W (IN.)
CV-40	WA-400

TESTING SHALL BE PER AASHTO M-220 PRIOR TO USE.

PLAN EXPANSION JOINT

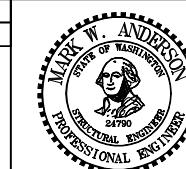


SECTION D



SEAL CUTTING DETAIL

Bridge Design Engr.	Khaleghi, B	M:\X-Team\WLSP SR202 STAGE 3\RNE RAMP>window files\APPR SLAB 3.WND	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Anderson, MW						
Designed By	Sawahata, D	08/08					
Checked By							
Detailed By	McCarthy, DJ	08/08					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist							
DATE		REVISION	BY	APPD			



BRIDGE AND STRUCTURES OFFICE



Washington State Department of Transportation

SR 520
W LAKE SAMMAMISH PKWY TO SR 202
HOV AND SR 202 INTERCHANGE
RNE RAMP

BRIDGE APPROACH SLAB DETAILS 3 OF 3

MARK NO.	LOCATION	SIZE	NO REQD	BEND TYPE	TIE OR STIR	LUMP SUM	GUSSET	VARIES	EPOXY COAT	NO. EACH	DIMENSIONS (Out to Out)						LENGTH	WEIGHT			
											U	W	X	Y	Z	θ_1	θ_2				
	SUBSTRUCTURE																				
	PIER 1 SHAFT																				
A	VERTICAL	11	40	50		S	S				53 1/4	6.0	3 1/4	9.0	0 1/2	4.5	2 0	0.0	60 0.0	53 6	11370
B	SPRAL IN CAP	6	2	67		S	S				50 1/4	0.0	0 1/2	9.0	2 0	0.0	60 0.0	0 1/2	0.0	853 8	384 2564
C	SPRAL	6	2	67		S	S														
D	PIER 2 SHAFT	18	34	50		S	S				46 8	8.0	30 8	0.0	0 1/2	7.0	2 0	0.0	60 0.0	46 8	21579
E	UPPER SHAFT STIRRUP	6	1	67		S	S				127 10	10	132 5	10	8 2	3 10.0	0 10.0	0 10.0	0 10.0	25 8	1991 2127
F	UPPER SHAFT STIRRUP	8	31	66		S	S														
G	PIER 3 SHAFT	18	34	50		S	S				54 8	8.0	55 1	0.0	0 1/2	6.0	2 0	0.0	60 0.0	54 8	25278
H	VERTICAL	6	1	67		S	S				2834 11	11									4258
I	PIER 4 SHAFT	18	17	50		S	S														
J	UPPER VERTICAL	18	17	50		S	S				60 1	0.0	51 1	11.0							13872 12003
K	UPPER VERTICAL	18	17	50		S	S														
L	H LOWER VERTICAL	14	17	50		S	S				35 1	9.0	27 1	9.0	8 1	0.0	0 1/2	9.0	2 0	0.0	60 0.0
M	J SPRAL	6	1	67		S	S				35 9	9	27 9	9	8 1	0.0	0 1/2	9.0	2 0	0.0	60 0.0
N	PIER 5 SHAFT																				
O	A VERTICAL	11	56	50		S	S				51 1	6.0	41 1	9.0	0 1/2	4.5	2 0	0.0	60 0.0	51 6	15323
P	B SPRAL IN CAP	6	2	67		S	S				48 1	0.0	41 0	9.0	0 1/2	9.0	2 0	0.0	60 0.0	127 10	384 2462
Q	C SPRAL	6	2	67		S	S														
R	PIER 1 ABUTMENT																				
S	1 BOTTOM LONG.	9	40	50		S	S				31 1	9.0	31 1	9.0	31 1	9.0				31 9	4318
T	2 TOP LONG.	8	9	56		S	S				31 1	9.0								817 389	
U	3 SIDE BAR	7	6	50		S	S														
V	4 SPIRRUP	5	32	72	S	S	S				71 3	0.0	31 3	8.5	3 1	8.5				15 10	527
W	5 TOP TIE	6	32	56		S	S				71 3	0.0								8 11	430
X	6 ABUT. NEAR SIDE	6	28	54		S	S				14 1	9.0								15 7	656
Y	14 ABUT. FAR SIDE	9	28	54		S	S				14 1	9.0								16 1	1530
Z	8 ABUT. SIDE	5	25	50		S	S				28 6	6								28 6	743
A	9 ABUTMENT TOP	6	3	50		S	S				28 6	6								28 6	128
B	10 ABUT. EQ TIE	4	136	58	S	S	S				11 1	9.0	31 1	9.0	3 1	0.0	3 1	0.0			21 11
C	11 SHEAR BLOCK HORIZONTAL	5	9	50		S	S				11 1	0.0								21 0	35
D	11 SHEAR BLOCK HORIZONTAL	5	3	50		S	S				11 1	6.0	31 1	0.0	3 1	0.0				21 0	3
E	12 SHEAR BLOCK STIRRUP	4	20	74		S	S													97	
F	50 DOWEL	5	20	54		S	S				7 1	6.0								171	
G	51 RT. & LT CURTAIN VERTICAL	5	24	50		S	S				8 1	9.0								219	
H	52 RT. & LT. CURTAIN VERT	5	6	50		S	S				8 1	9.0								17	
I	53 RT. & LT. CURTAIN HORIZ	5	48	50		S	S				11 1	3.0								563 102	
J	54 TOP LONG	7	4	54		S	S				11 1	6.0									
K	55 RT. & LT VERT. CURT	6	14	54		S	S				16 1	0.0								354	
L	56 RT. & LT VERT. CURT NF	5	14	54		S	S				16 1	0.0								244	
M	57 FILLET TIE	5	22	52	S	S	S				4 1	0.0								127	
N	PIER 2 COLUMN																				
O	90 VERTICAL BAR	10	32	50		S	S				50 1	0.0								6885	
P	91 SPRAL	6	1	67		S	S				4 1	9.0	24 1	9.0	0 1/2	4.0	2 0	0.0	60 0.0	216 11	
Q	92 SPRAL	6	1	67		S	S				4 1	9.0	24 1	9.0	0 1/2	3.0	2 0	0.0	60 0.0	1506 8	
R	PIER 2 CROSSBEAM																				
S	101 BOTTOM LOWER CROSS	10	12	79		S	S	V	2		13 1	10.0	13 1	10.0	6 1	0.0			27 8	1427	
T	102 SIDE LOWER CROSSBEAM	8	12	52		S	S	V	2		13 1	10.0	13 1	10.0	6 1	0.0			29 4	611	
U	103 TOP LOWER CROSS	10	24	50		S	S	V	2		27 1	9.0	6 1	9.0	21 8	0.0	2 1	3.0		27 9	2866
V	104 LOWER STIRRUP	6	46	72	T	S	S	V	2		6 1	9.0	4 1	5.0	21 8	0.0	2 1	3.0		27 8	994
W	105 LOWER TIE	5	46	56	T	S	S	V	2		6 1	9.0	4 1	5.0	21 8	0.0	2 1	3.0		27 6	358
X	106 HORIZONTAL BTWN GIR.	6	30	50		S	S	V	2		6 1	4.0			</td						

MARK NO.	LOCATION	SIZE	NO REQD	BEND TYPE	TIE OR STIR	LUMP SUM	SUBSTR.	EPOXY COAT	VARIES	NO. EACH	DIMENSIONS (Out to Out)						LENGTH	WEIGHT
											U	W	X	Y	Z	θ_1	θ_2	
1	PIER 5 ABUTMENT	9	40	50	S	S	S	S	S	31	9.0							4318
3	TOP LONG.	8	9	56						31	9.0							817
2	SIDE BAR	7	6	50						31	9.0							389
4	STIRRUP	5	32	72	S	S	S	S	S	7	3.0	3	8.5	3	8.5			527
5	TOP TIE	6	32	56						7	3.0							430
6	ABUT. NEAR SIDE	6	28	54						14	9.0							656
14	ABUT. FAR SIDE	9	28	54						14	9.0							1530
8	ABUT. SIDE	5	25	50						28	6.0							743
9	ABUTMENT TOP	6	3	50						28	6.0							128
10	ABUT. EQ TIE	4	136	58	S	S	S	S	S	1	9.0							264
11	SHEAR BLOCK HORIZONTAL	5	9	50						3	9.0							35
11	SHEAR BLOCK HORIZONTAL	5	3	50						3	0.0							3
12	SHEAR BLOCK STIRRUP	4	20	74						1	6.0	3	0.0	3	0.0			97
50	DOWEL	5	20	54						7	6.0							171
51	RT. & LT. CURTAIN VERTICAL	5	24	50						8	9.0							219
52	RT. & LT. CURTAIN VERT	5	6	50						2	9.0							17
53	RT. & LT. CURTAIN HORIZ	5	48	50						11	3.0							563
54	TOP LONG	7	4	54						11	6.0							102
55	RT. & LT VERT. CURT	6	14	54						16	0.0							354
56	RT. & LT VERT. CURT NF	5	14	54						16	0.0							244
57	FILLET TIE	5	22	52	S	S	S	S	S	4	0.0							127
	SLAB																	
201	Bot Long Pier 2	7	15	50						E	40	0.0						1226
201	Bot Long Pier 3	7	15	50						E	40	0.0						1226
201	Bot Long Pier 4	7	16	50						E	40	0.0						1308
202	Bot Long Pier 2	7	15	50						E	60	0.0						1840
202	Bot Long Pier 3	7	15	50						E	60	0.0						1840
202	Bot Long Pier 4	7	15	50						E	60	0.0						1840
203	Bot Long Pier 2	5	12	89						E	90	0.0	2	6.0				1189
203	Bot Long Pier 4	5	12	89						E	90	0.0	2	6.0				1189
204	Bot Long Pier 3	7	31	89						E	90	0.0	3	9.0				5941
211	Bot Long Span 1	5	12	89						E	46	9.0	2	6.0				616
212	Bot Long Span 1	5	7	89						E	56	9.0	2	6.0				433
213	Bot Long Span 1, 2	5	11	89						E	153	4.0	2	6.0				1845
214	Bot Long Span 1, 2	5	7	89						E	163	4.0	2	6.0				1265
215	Bot Long Span 2	5	18	89						E	84	1.0	2	6.0				1672
216	Bot Long Span 3	5	18	89						E	73	1.0	2	6.0				1419
217	Bot Long Span 3, 4	5	11	89						E	140	4.0	2	6.0				1696
218	Bot Long Span 3, 4	5	7	89						E	130	4.0	2	6.0				1006
219	Bot Long Span 4	5	8	89						E	44	9.0	2	6.0				394
220	Bot Long Span 4	5	12	50						E	34	9.0						435
221	Bot Long Span 1	5	1	50						E	38	0.0						40
222	Bot Long Pier 1	7	1	50						E	45	0.0						92
223	Bot Long Span 1	5	1	89						E	63	0.0	2	6.0				68
224	Bot Long Span 2	5	1	89						E	56	4.0	2	6.0				61
225	Bot Long Span 1, 2	5	1	89						E	23	0.0	2	6.0				136
226	Bot Long Span 2	5	1	89						E	106	3.0	2	6.0				116
227	Bot Long Pier 3	7	1	50						E	27	8.0						57
228	Bot Long Span 3	5	1	89						E	85	7.0	2	6.0				94
229	Bot Long Span 3	5	1	89						E	45	7.0	2	6.0				50
230	Bot Long Pier 4	7	1	50						E	35	7.0						73
231	Bot Long Span 3, 4	5	1	89						E	111	0.0	2	6.0				121
241	Top Long Cont	7	10	89						E	376	2.0	3	9.0				8149
242	Top Long Span 1	5	11	50						E	29	9.0						307
243	Top Long Span 1	5	16	50						E	36	9.0						613
244	Top Long Span 2	5	11	89						E	54	1.0	2	6.0				649
245	Top Long Span 2	5	16	50						E	34	1.0						569
246	Top Long Span 3	5	16	89						E	43	1.0	2	6.0				761
247	Top Long Span 3	5	11	50						E	23	1.0						265
248	Top Long Span 3	5	11	50						E	24	9.0						284
249</																		