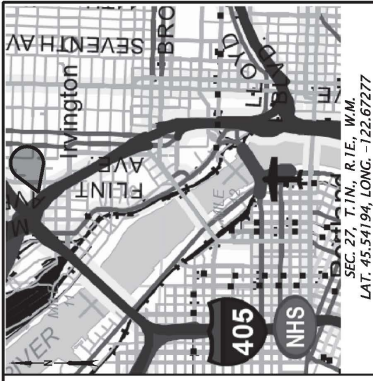


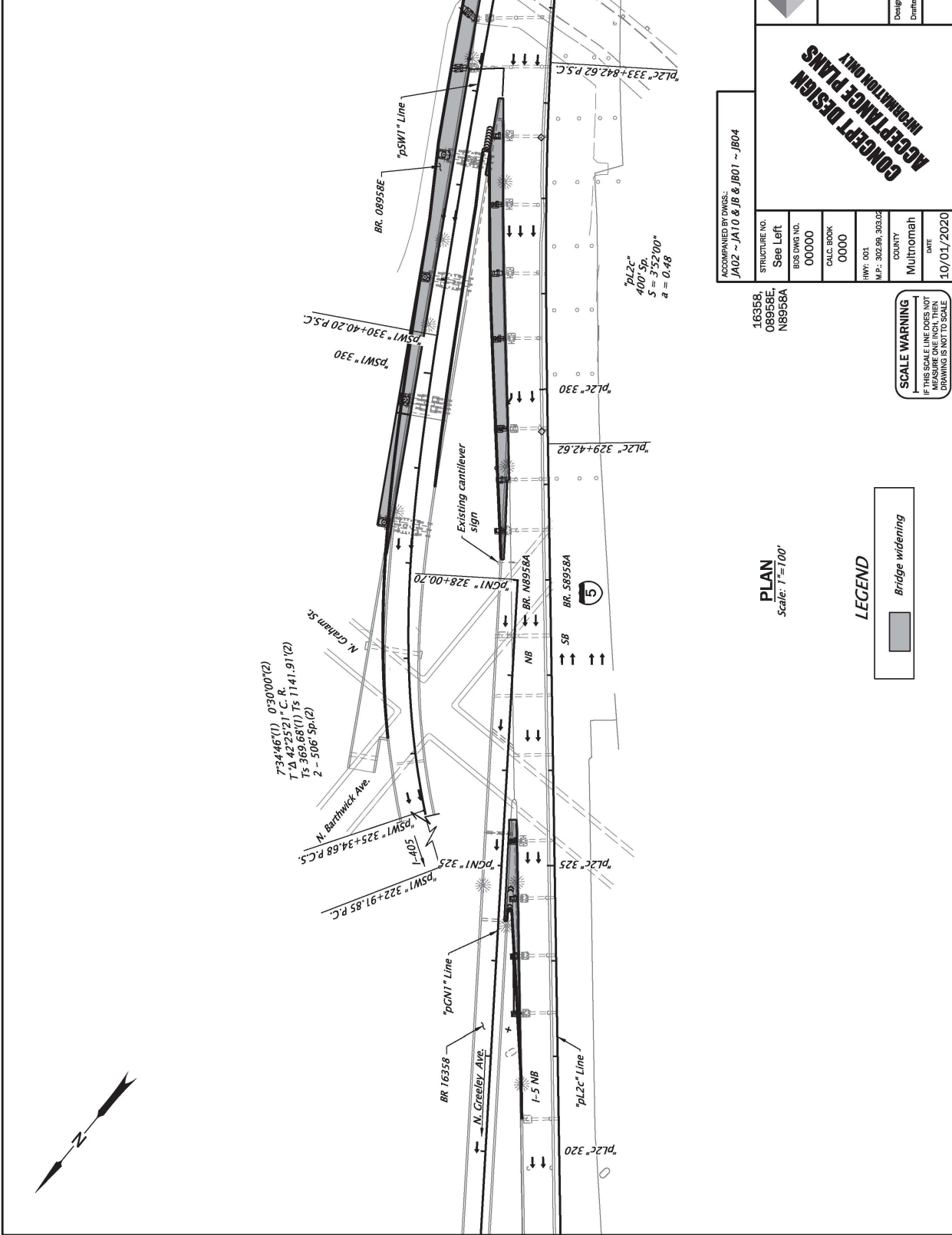
Appendix H. Bridge Plan, Elevation, and Typical Sections

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SEC. 27 T.1N. R.1E. W.4M
 LAT. 45.54194, LONG. -122.67277
 No Scale

LOCATION MAP



ACCOMPANIED BY DWGS:
 JA02 ~ JA10 & JB & JB01 ~ JB04

STRUCTURE NO.	16358, 08958E, N8958A
BUS DWG NO.	See Left
BUS DWG NO.	00000
CALC. BOOK	0000
HWY.	001
M.P.	302.99, 303.02
COUNTY	Multnomah
DWG	10/01/2020

PLAN
 Scale: 1"=100'

LEGEND



SCALE WARNING
 IF THIS SCALE LINE DOES NOT MATCH THE DRAWING SCALE, DRAWING IS NOT TO SCALE

CONCEPT DESIGN
 INFORMATION ONLY

I-5 ROSE QUARTER IMPROVEMENT PROJECT
 PACIFIC HIGHWAY
 MULTNOMAH COUNTY

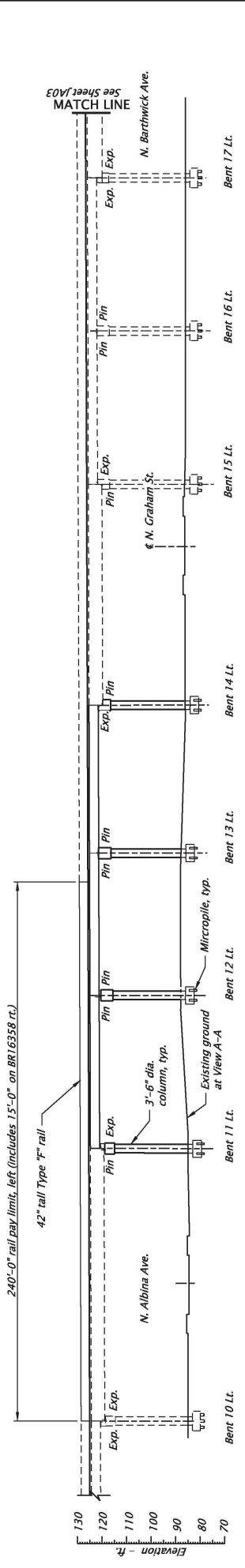
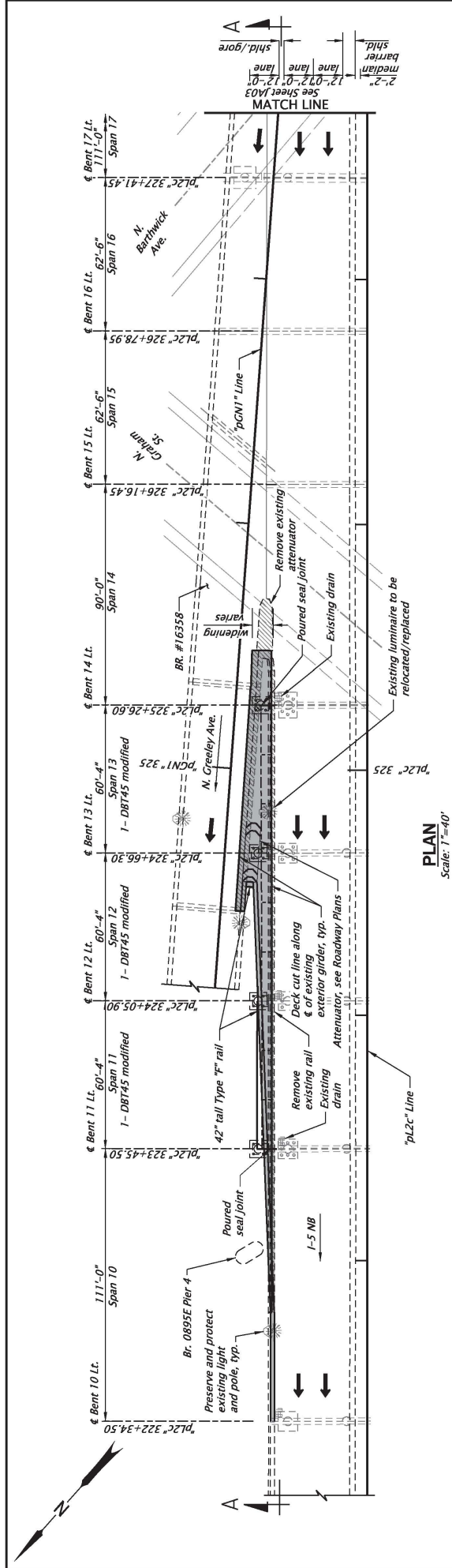
Designer: Nigh Long, PE
 Reviewer: Douglas Kikpatrick, PE
 Checker: Pete Slocum, PE, SE
 Drafter: Rodney Schultz

**I-405 INTERCHANGE
 BRIDGE WIDENING WORK PLAN**

SHEET NO.
 JA01

Rotation: 309.4507° Scale: 1"=100'

FINAL ELECTRONIC DOCUMENT
 ANALYSIS REPORT REQUEST



CONCEPT DESIGN
INFORMATION ONLY

For accompanied by drawings, see Sht. JA01

STRUCTURE NO. NB958A
BUS. DWS. NO. 00000
CALC. BOOK 0000
HWY. 001
M.P.: 302.99
COUNTY Multnomah
DATE 10/01/2020

SCALE WARNING
IF THIS SCALE LINE DOES NOT MATCH THE DRAWING, CONSULT THE DRAWING'S SUSTO SCALE

LEGEND
Bridge widening (hatched)
Removal (cross-hatched)

Note:
See Sht. JA05 for Estimated Preliminary Foundation Data.

Note:
Elevations shown are based on North American Vertical Datum (1988).

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Fremont Viaduct, Hwy 1 NB

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Reviewer: Douglas Kirkpatrick, PE
Checker: Pete Sibum, PE, SE
Designer: Nigh Long, PE
Draftler: Rodney Schultz

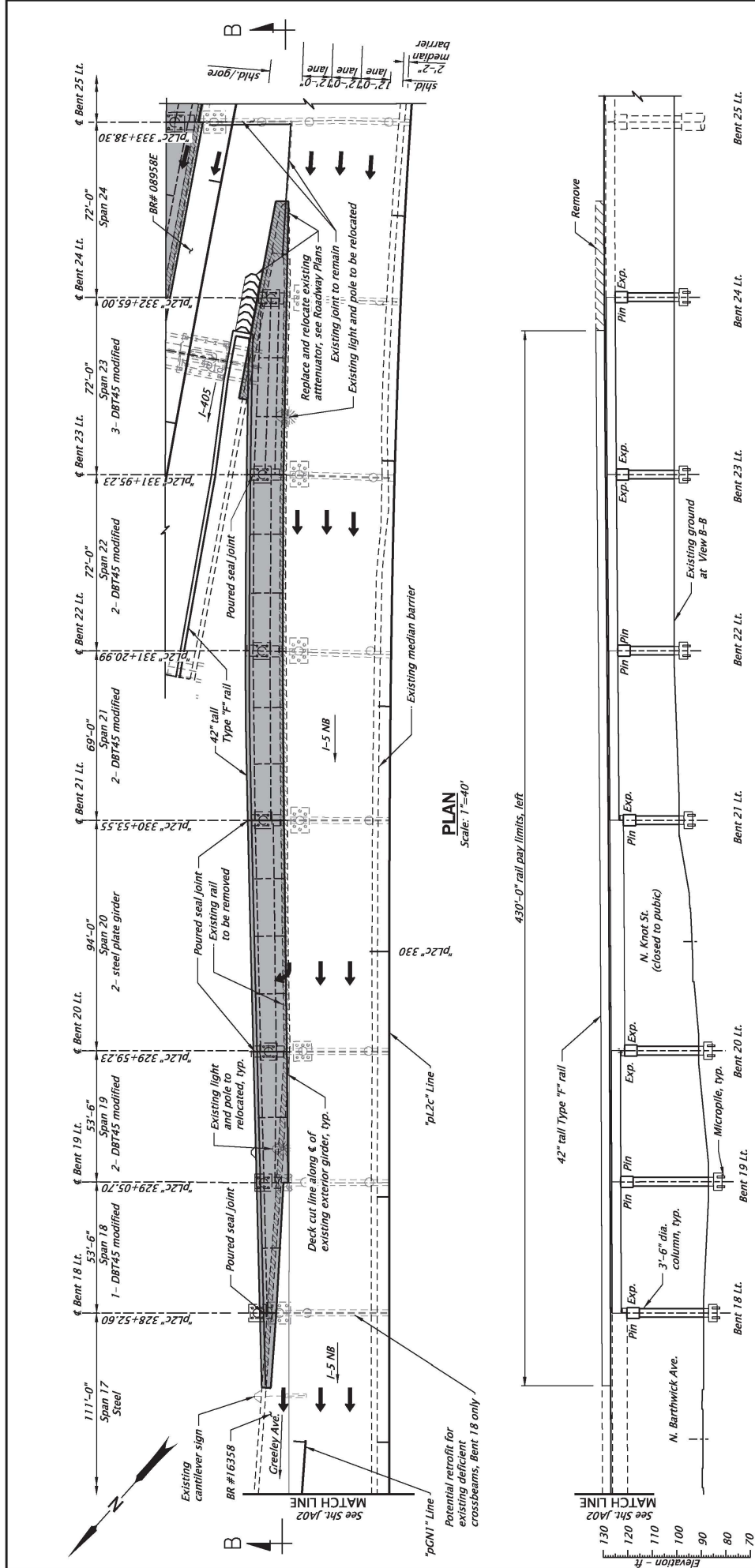
Scale: 1"=40'
Rotation: 310.359'

STRUCTURE NO. NB958A
BUS. DWS. NO. 00000
CALC. BOOK 0000
HWY. 001
M.P.: 302.99
COUNTY Multnomah
DATE 10/01/2020

SHEET NO. JA02

PLAN AND ELEVATION SPANS 10 - 16

FINAL ELECTRONIC DOCUMENT
ANALYSIS PER REQUEST



PLAN
Scale: 1"=40'

VIEW B-B
Scale: 1"=40'

LEGEND

- Bridge widening
- Removal

CONCEPT DESIGN
ACCEPTANCE PLANS
INFORMATION ONLY

For accompanied by drawings, see Sht. JA01

STRUCTURE NO.	NB958A
BUS DWS NO.	00000
CALC. BOOK	0000
HWY. DDL	M.P.: 302.99
COUNTY	Multnomah
DRAWN	10/01/2020

SCALE WARNING
IF THIS SCALE LINE DOES NOT MATCH ANY OTHER SCALE DRAWING, SUSTO SCALE

Notes:
See Sht. JA05 for Estimated Preliminary Foundation Data.

Note:
Elevations shown are based on North American Vertical Datum (1988).

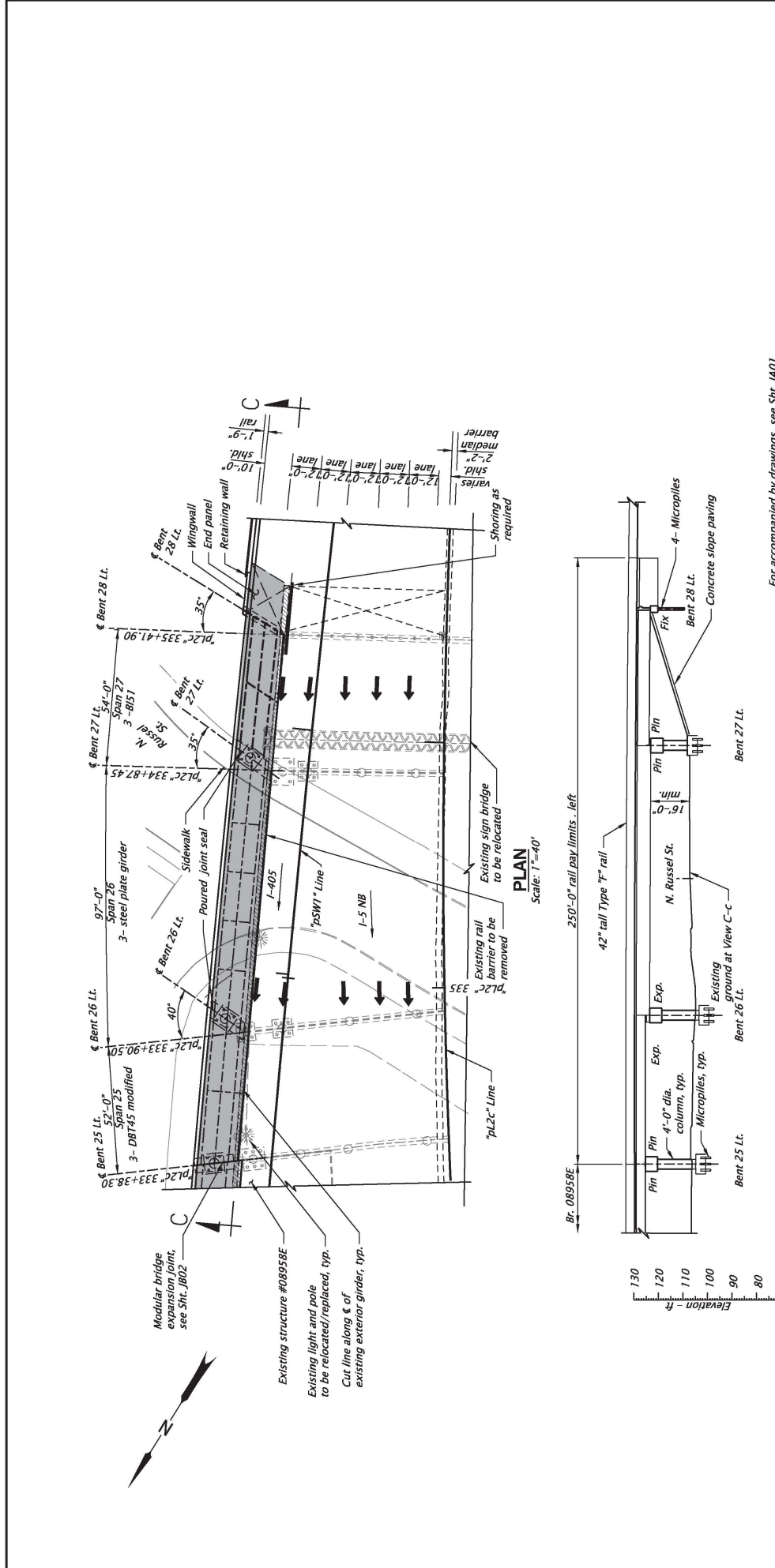
DOWL
www.dowl.com
Fremont Viaduct, Hwy 1 NB

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Nigh Long, PE
Reviewer: Douglas Kikpatrick, PE
Checker: Pete Slocum, PE, SE

PLAN AND ELEVATION SPANS 17 - 24

SHEET NO. JA03



For accompanied by drawings, see Sht. JA01

STRUCTURE NO.	NB958A
BUS DWS NO.	00000
CALC. BOOK	0000
HWY: 001	M.P.: 302.99
COUNTY	Multnomah
DRAWN	10/01/2020

CONCEPT DESIGN
INFORMATION ONLY

DOWL
www.dowl.com
Fremont Viaduct, Hwy 1 NB

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

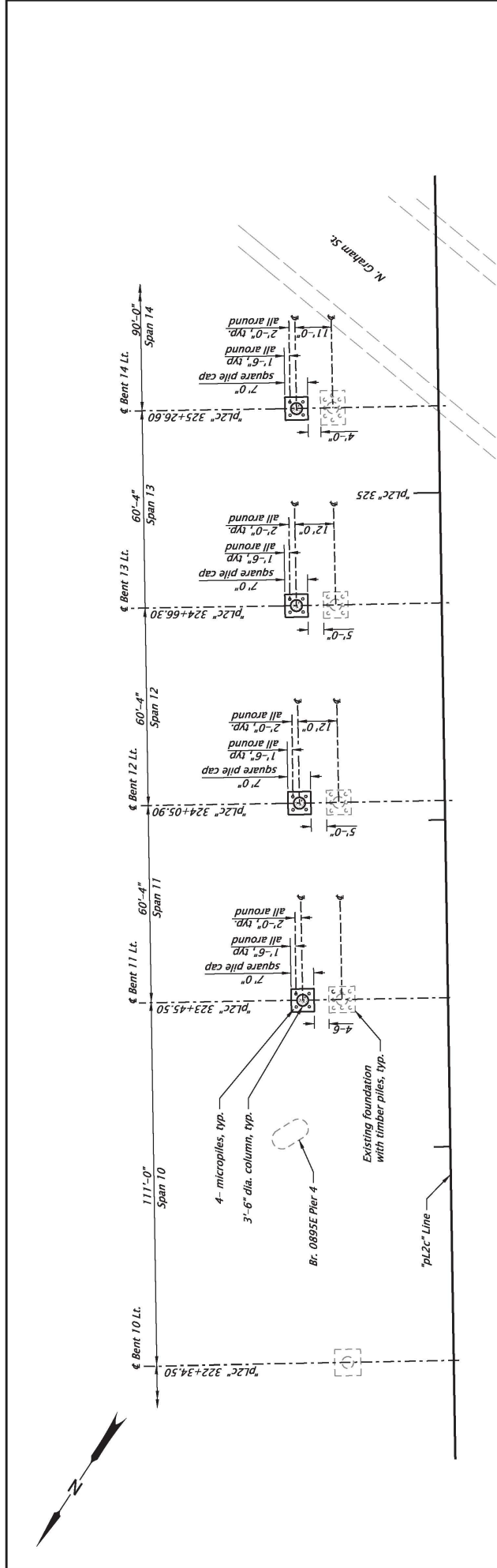
Designer: Agh Long, PE
Reviewer: Douglas Kikpatrick, PE
Checker: Pete Slocum, PE, SE

Draftsman: Rodney Schultz

PLAN AND ELEVATION SPANS 25 - 27
SHEET NO. JA04

Rotation: 304.3473° Scale: 1"=40'

FILE ELECTRONIC DOCUMENT AND SUBMIT REQUEST



FOUNDATION PLAN - BENT 11 ~ BENT 14
Scale: 1"=30'

Note:
For more information on existing foundations, see existing drawing numbers 25584 and 25591.

ESTIMATED PRELIMINARY FOUNDATION DATA

Bent	Foundation Type	Element Size (dia.)	Number	Pile Cap Bottom Elev. (ft.)	Tip Elev. (ft.)	Average Length (ft.)	Permanent Casing Length (ft.)
11	micropile	8"	4	83.19	8.00	75	35
12	micropile	8"	4	83.94	8.00	75	35
13	micropile	8"	4	85.94	10.00	75	35
14	micropile	8"	4	88.19	13.00	75	35
18	micropile	8"	4	87.94	12.00	75	40
19	micropile	8"	4	86.94	11.00	75	40
20	micropile	8"	4	89.19	14.00	75	40
21	micropile	8"	4	96.94	21.00	75	40
22	micropile	8"	4	97.69	22.00	75	40
23	micropile	8"	4	102.19	27.00	75	40
24	micropile	8"	4	99.69	24.00	75	40
25	micropile	8"	5	101.94	31.00	70	25
26	micropile	8"	5	102.44	32.00	70	25
27	micropile	8"	5	102.69	32.00	70	25
28	micropile	8"	4	123.34	53.00	70	25

DOWL Various Structures
WWW.DOWL.COM

1-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Agh Long, PE
Checker: Pete Sloum, PE, SE
Reviewer: Douglas Kikpatrick, PE

FOUNDATION PLAN - BENTS 11 ~ 14

STRUCTURE NO. 163358
SHEET NO. JA05

DATE 10/01/2020

COUNTY Multnomah

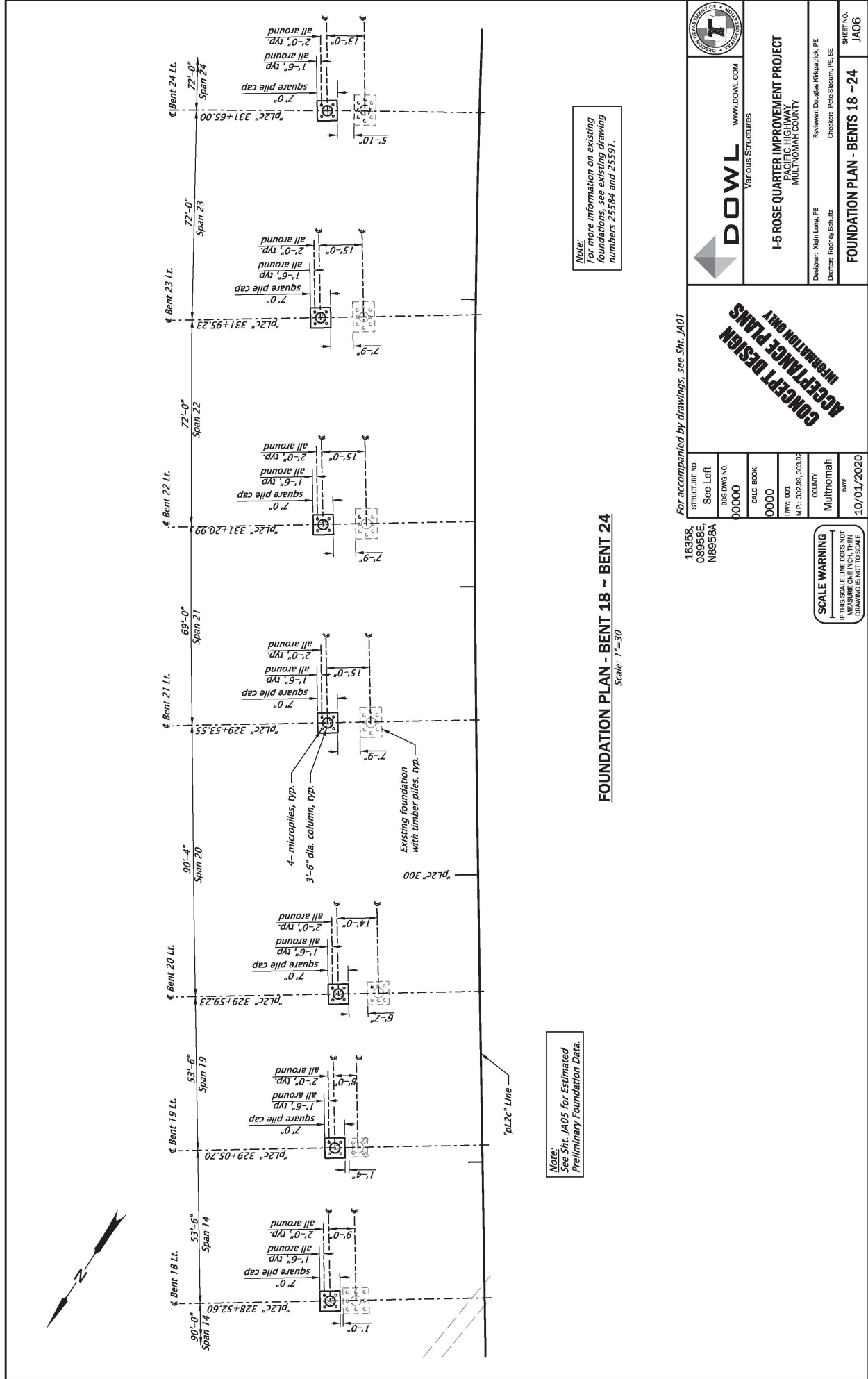
SCALE WARNING
IF THIS SCALE LINE DOES NOT MATCH THE DRAWING SCALE, DRAWING SCALE IS TO BE USED.

FOR ACCOMPANIED BY DRAWINGS, SEE SHT. JA01

CONCEPT DESIGN
INFORMATION ONLY

FINAL ELECTRONIC SUBMITTAL
AND PAPER REQUIRED

Rotation: 309.4507 Scale: 1"=30'



Note:
See Sht. JA05 for Estimated
Preliminary Foundation Data.

Note:
For more information on existing
foundations, see existing drawing
numbers 25584 and 25591.

FOUNDATION PLAN - BENT 18 ~ BENT 24
Scale: 1"=30'

For accompanied by drawings, see Sht. JA01

STRUCTURE NO.	163358,
See Left	089558E,
BUS DWG NO.	N89558A
CALC. BOOK	00000
0000	
HWY: 001	
M.P.: 302.89, 303.02	
COUNTY	Multnomah
DIST	
DATE	10/01/2020

SCALE WARNING
IF THIS SCALE LINE DOES NOT
MATCH THE DRAWING SCALE,
DRAWING IS NOT TO SCALE

DOWL
Various Structures
www.dowl.com

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Nigh Long, PE
Draftsman: Rodney Schultz

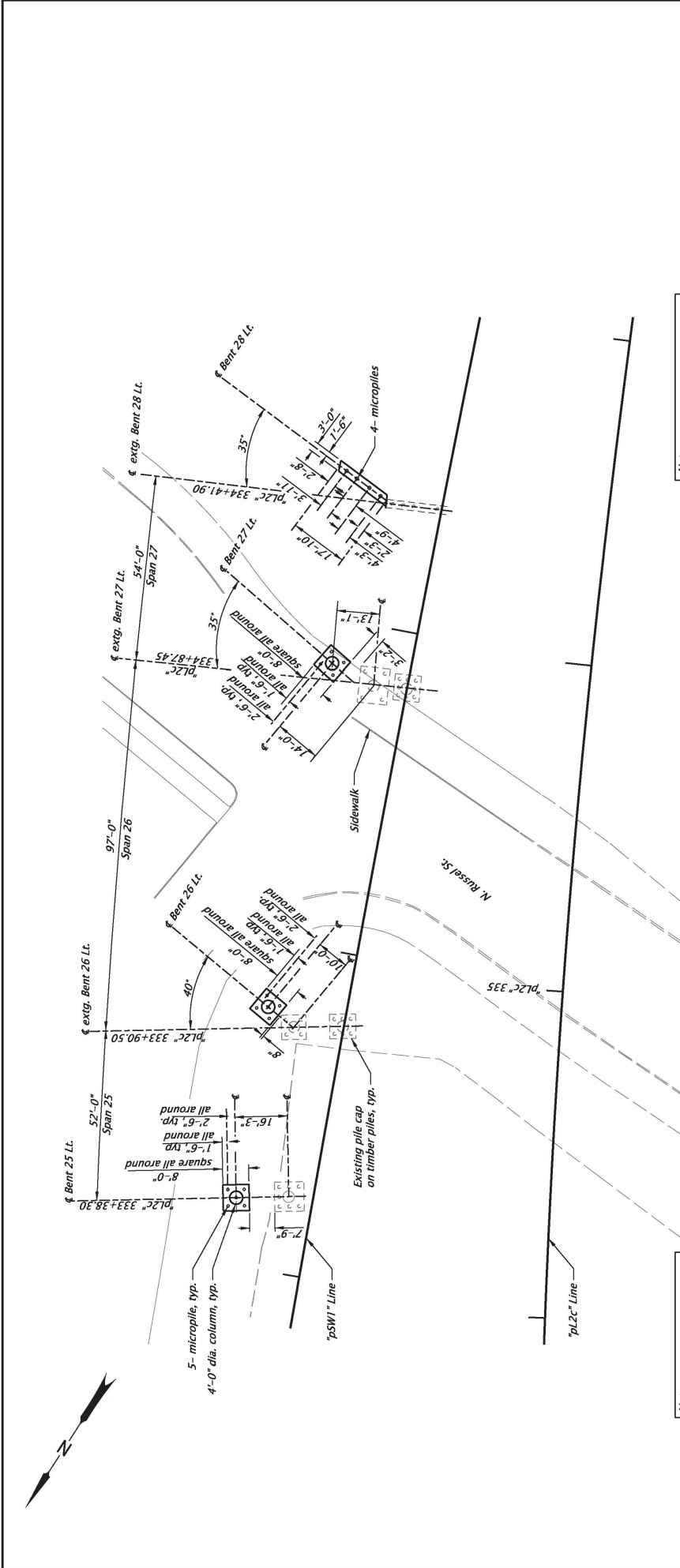
Reviewer: Douglas Kikpatrick, PE
Checker: Pete Sloum, PE, SE

FOUNDATION PLAN - BENTS 18 ~ 24

SHEET NO.
JA06

FINAL ELECTRONIC DOCUMENT
ANALYSIS FOR REQUEST

Rotation: 309.4507 Scale: 1"=30'



NOTE:
See Sht. JA05 for Estimated Preliminary Foundation Data.

NOTE:
For more information on existing foundations see existing drawing numbers 25584 and 25591.

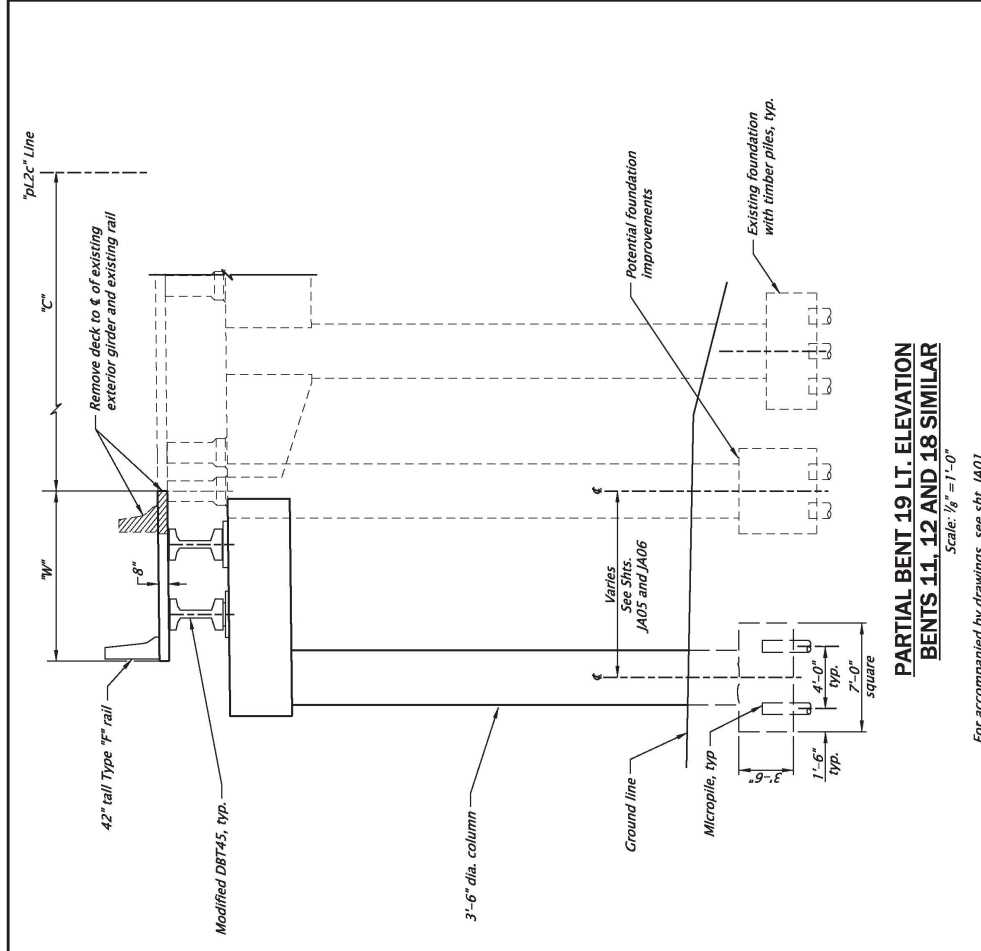
FOUNDATION PLAN - BENTS 25 ~ BENT 28
Scale: 1"=30'

For accompanied by drawings, see Sht. JA01

 Various Structures WWW.DOWL.COM	 PACIFIC HIGHWAY MULTNOMAH COUNTY	Designer: High Long, PE Drafter: Rodney Schultz	Reviewer: Douglas Kikpatrick, PE Checker: Pete Sloum, PE, SE
		FOUNDATION PLAN - BENTS 25 ~ 28	
CONCEPT DESIGN INFORMATION ONLY		COUNTY: Multnomah DATE: 10/01/2020	SHEET NO.: JA07 Scale: 1"=30'

STRUCTURE NO.	163358
See Left	08958E
BUS DWG NO.	N8958A
00000	
CALC. BOOK	0000
0000	
HWY: 001	
M.P.: 302.99, 303.02	
COUNTY	Multnomah
DATE	10/01/2020

SCALE WARNING
IF THIS SCALE LINE DOES NOT MATCH THE DRAWING SCALE, DRAWING IS NOT TO SCALE



**PARTIAL BENT 19 LT. ELEVATION
BENTS 11, 12 AND 18 SIMILAR**
Scale: 1/8" = 1'-0"

For accompanied by drawings, see sht. JA01

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Fremont, Virginia, Hwy 1 NB

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Nigh Long, PE
Reviewer: Douglas Kikpatrick, PE
Checker: Pete Sloum, PE, SE

Draftsman: Rodney Schultz

STRUCTURE NO. N8958A
BUS DWG NO. 00000
CALC. BOOK 0000
HWY: 001
M.P.: 302.99

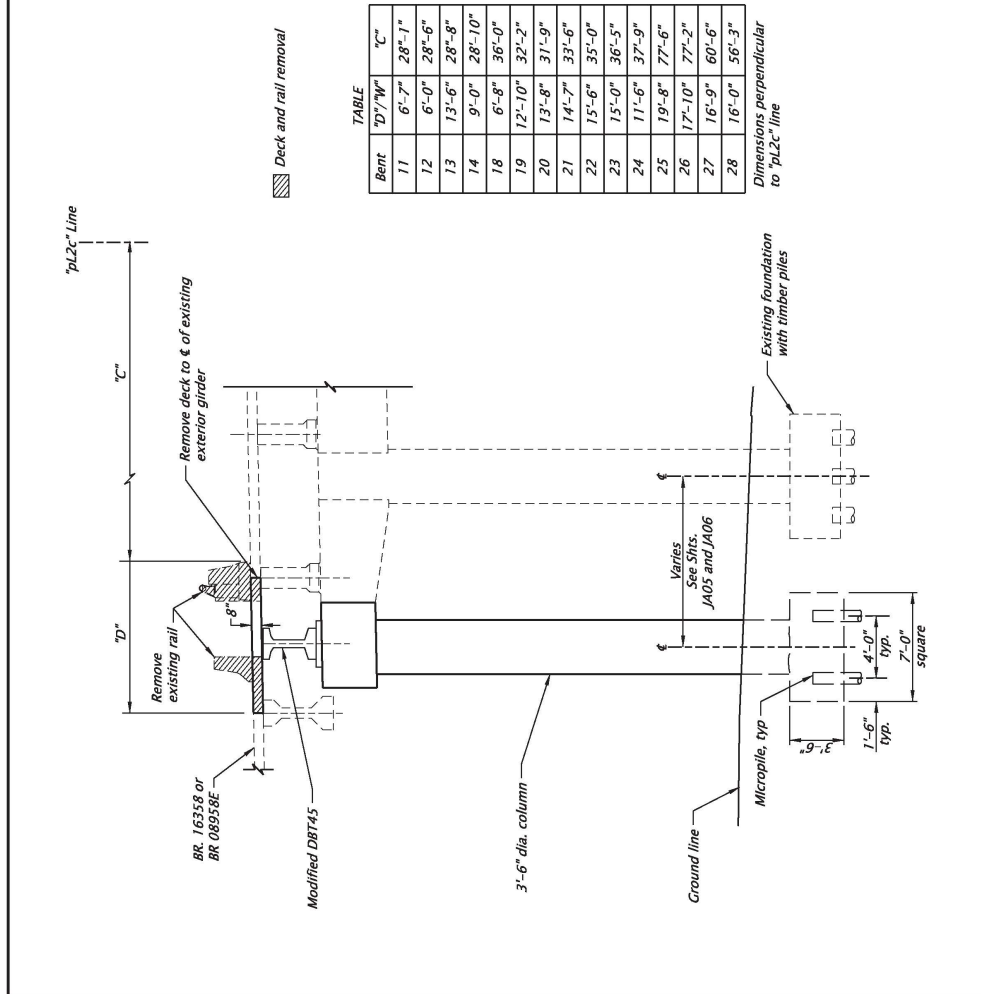
COUNTY Multnomah
DATE 10/01/2020

SHEET NO. JA08
BENT ELEVATIONS - 1

CONCEPT DESIGN
INFORMATION ONLY

SCALE WARNING
IF THIS SCALE LINE DOES NOT MATCH THE DRAWING SCALE, DRAWING IS NOT TO SCALE

FULL ELECTRONIC DOCUMENT ANALYSIS PER REQUIRED



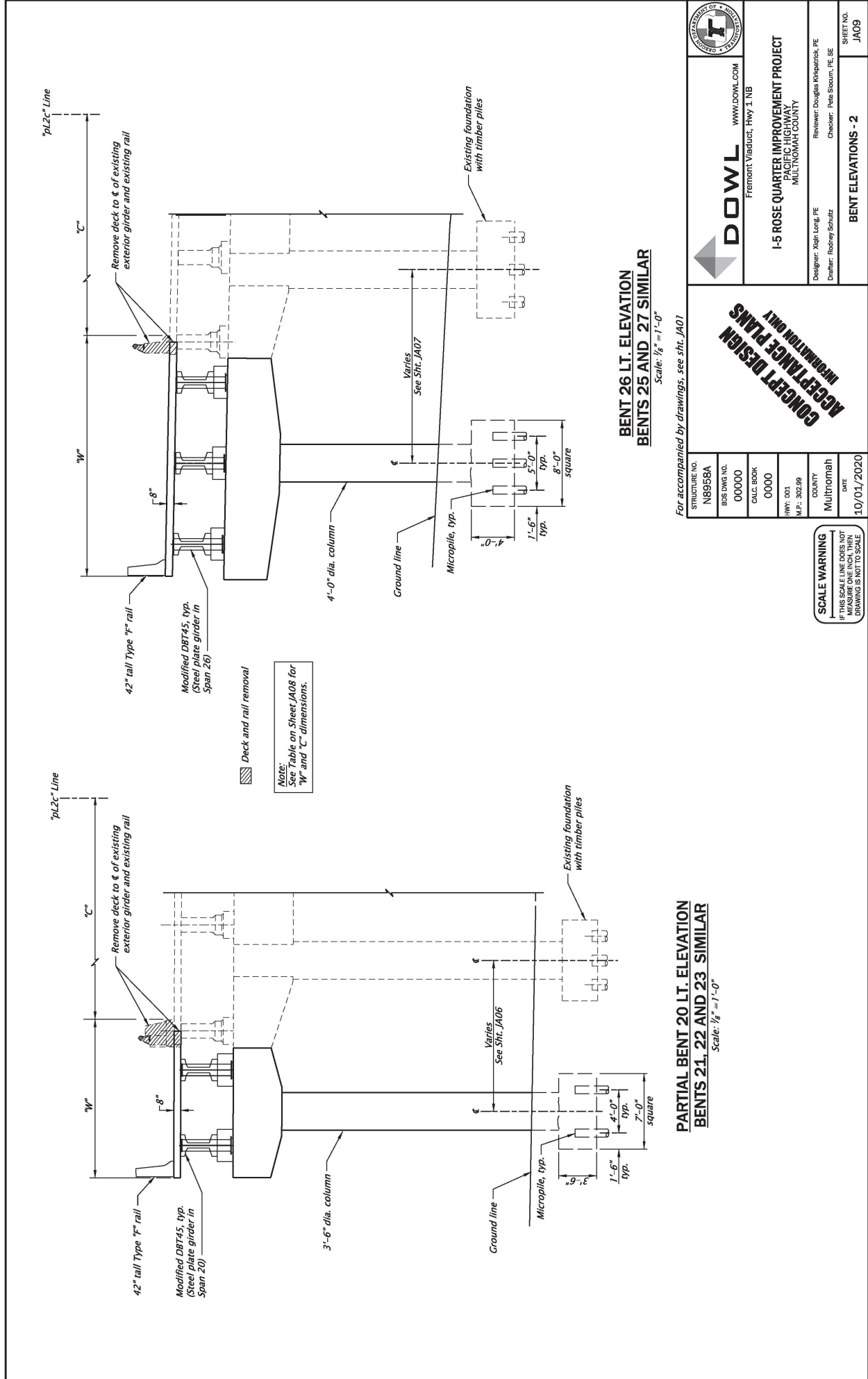
**PARTIAL BENT 14 LT. ELEVATION
BENTS 13 AND 24 SIMILAR**
Scale: 1/8" = 1'-0"

TABLE

Bent	D/W	C
11	6'-7"	28'-1"
12	6'-0"	28'-6"
13	13'-6"	28'-8"
14	9'-0"	28'-10"
18	6'-8"	36'-0"
19	12'-10"	32'-2"
20	13'-8"	31'-9"
21	14'-7"	33'-6"
22	15'-6"	35'-0"
23	15'-0"	36'-5"
24	11'-6"	37'-9"
25	19'-8"	77'-6"
26	17'-10"	77'-2"
27	16'-9"	60'-6"
28	16'-0"	56'-3"

Dimensions perpendicular to pL2c line

▨ Deck and rail removal



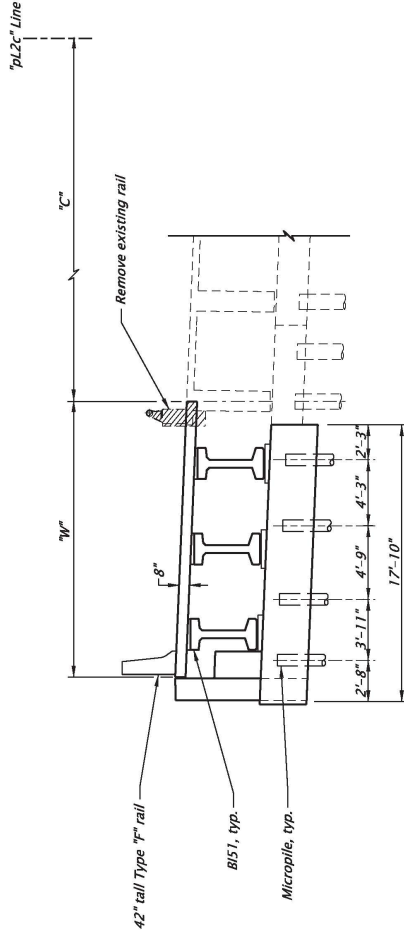
BENT 26 LT. ELEVATION
BENTS 25 AND 27 SIMILAR
 Scale: 1/8" = 1'-0"

For accompanied by drawings, see sht. JA01

STRUCTURE NO. N8958A	BUS DWG NO. 00000	CALC. BOOK 0000	HWY: 001 M.P.: 302.89	COUNTY Multnomah	DATE 10/01/2020
 Fremont Viaduct, Hwy 1 NB I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY			DESIGNER: Nigh Long, PE	REVIEWER: Douglas Mikheitski, PE	SHEET NO. JA09
			DRAWER: Rodney Schultz	CHECKER: Pete Sloum, PE, SE	BENT ELEVATIONS - 2

CONCEPT DESIGN
 INFORMATION ONLY

SCALE WARNING
 IF THIS SCALE LINE DOES NOT
 MATCH THE DRAWING SCALE,
 DRAWING IS NOT TO SCALE




BENT 28 LEFT ELEVATION

Scale: 1/8" = 1'-0"

For accompanied by drawings, see sht. JA01

STRUCTURE NO.	N8958A
BUS DWG NO.	00000
CALC. BOOK	0000
HWY.	001
M.P.	302.99
COUNTY	Multnomah
DATE	10/01/2020

SCALE WARNING
IF THIS SCALE LINE DOES NOT
MATCH THE DRAWING SCALE
DRAWING IS NOT TO SCALE



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Fremont Viaduct, Hwy 1 NB

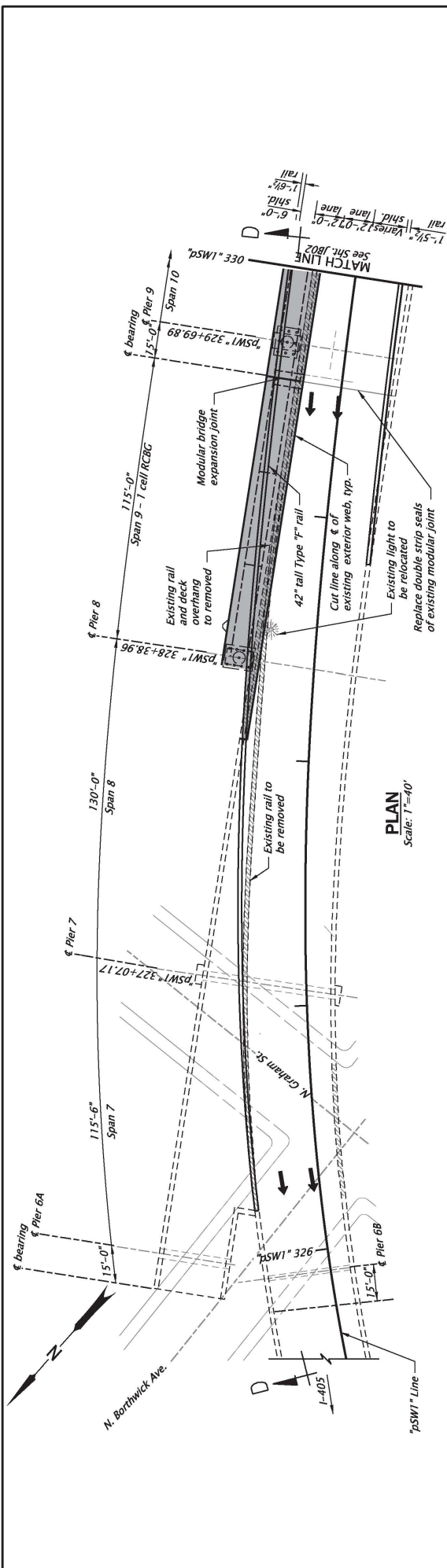
I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Agh Long, PE	Reviewer: Douglas Kikpatrick, PE
Drafter: Rodney Schultz	Checker: Pete Sloum, PE, SE
BENT ELEVATIONS - 3	
SHEET NO. JA10	

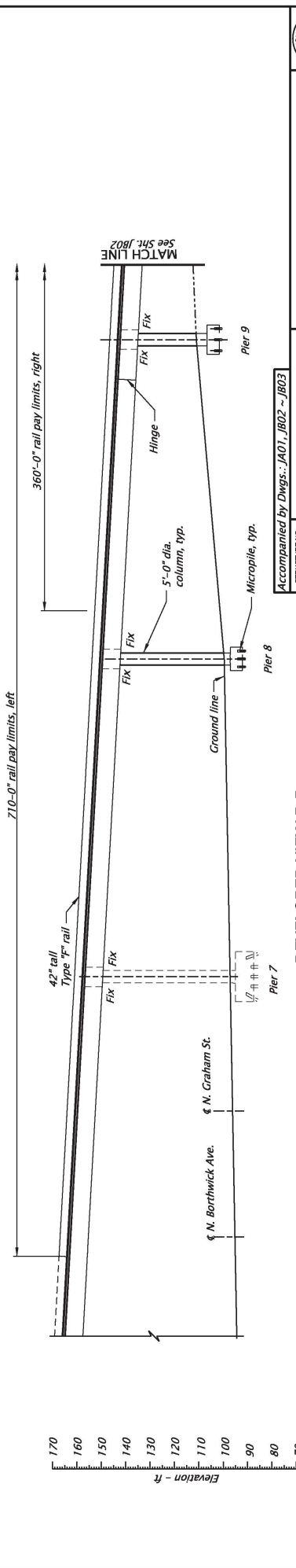
**CONCEPT DESIGN
ACCEPTANCE PLANS
INFORMATION ONLY**

FINAL ELECTRONIC DOCUMENT
AVAILABLE UPON REQUEST

Rotation: 0° Scale: 1/8" = 1'-0"



PLAN
Scale: 1"=40'



DEVELOPED VIEW D-D
Scale: 1"=40'

Note:
See Sht. JB03 for Estimated
Preliminary Foundation Data.

LEGEND

- Bridge widening
- Deck and/or Rail Removal

Note:
Elevations shown are based on North
American Vertical Datum (1988).

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I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Accompanied by Dwg's: A01, JB02 ~ JB03

STRUCTURE NO.	08958E
BUS DWS NO.	00000
CALC. BOOK	00000
HWY: D01	
M.P.: 303.02	
COUNTY	Multnomah
DIST	
DWG	10/01/2020

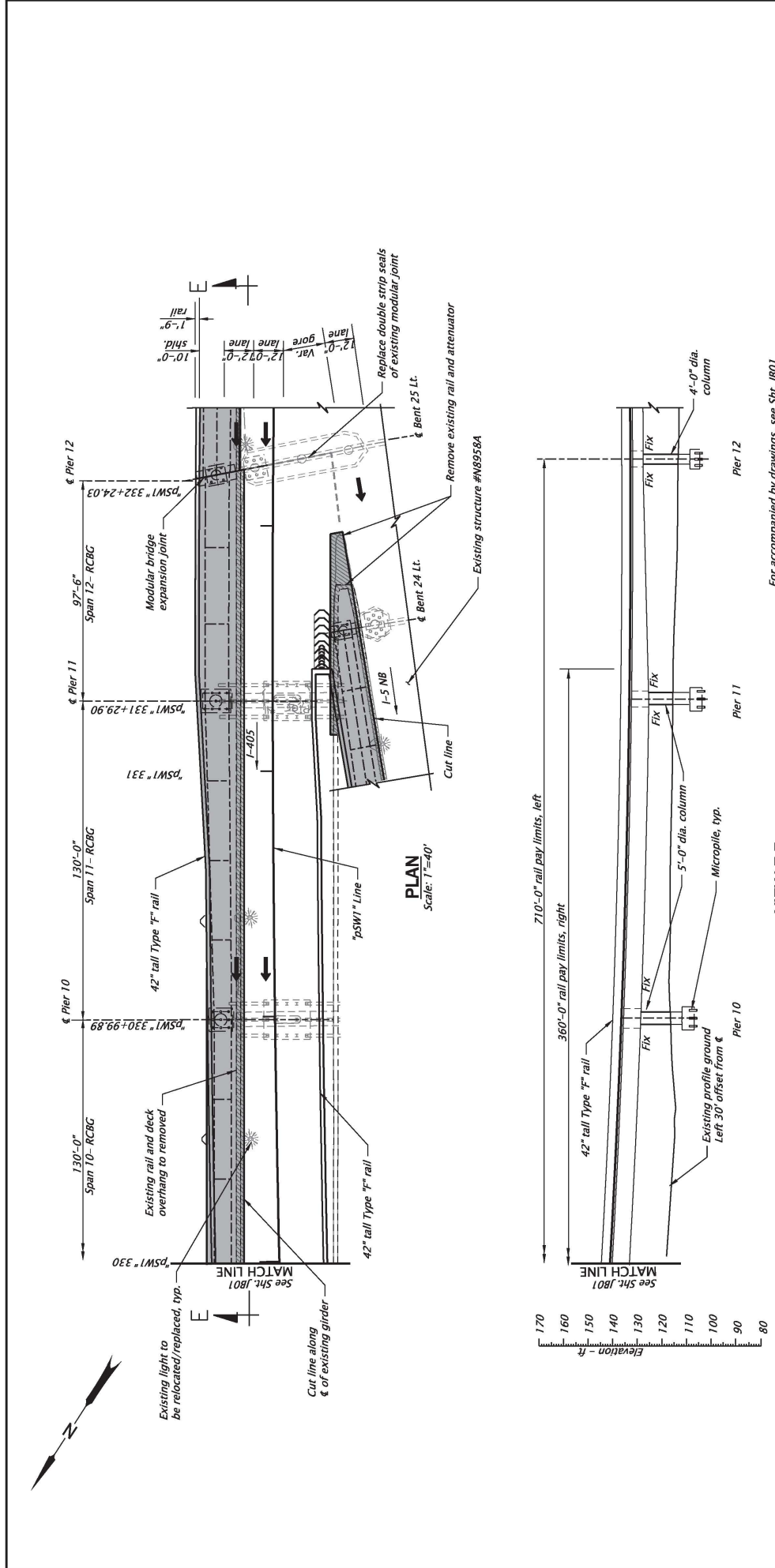
CONCEPT DESIGN
INFORMATION ONLY

Designer: Nigh Long, PE
Draftsman: Rodney Schultz

Reviewer: Douglas Kikpatrick, PE
Checker: Pete Sloum, PE, SE

PROJECT: I-5 ROSE QUARTER IMPROVEMENT PROJECT
SHEET NO.: JB01

PLAN AND ELEVATION PIERS 6 - 9
SHEET NO.: JB01



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Fremont Viaduct, Hwy 1 NB

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Nigh Long, PE
Reviewer: Douglas Kikpatrick, PE
Checker: Pete Slocum, PE, SE

Drafter: Rodney Schultz

PLAN AND ELEVATION PIERS 10-12

SHEET NO. JB02
Scale: 1"=40'

CONCEPT DESIGN
INFORMATION ONLY

STRUCTURE NO. 08958E
BUS DWG NO. 00000
CALC. BOOK 00000
HWY: 001
M.P.: 303.02
COUNTY Multnomah
DATE 10/01/2020

For accompanied by drawings, see Sht. JB01

SCALE WARNING
IF THIS SCALE LINE DOES NOT MATCH THE SCALE OF THE DRAWING, THE SCALE OF THE DRAWING SHALL GOVERN.

VIEW E-E
Scale: 1"=40'

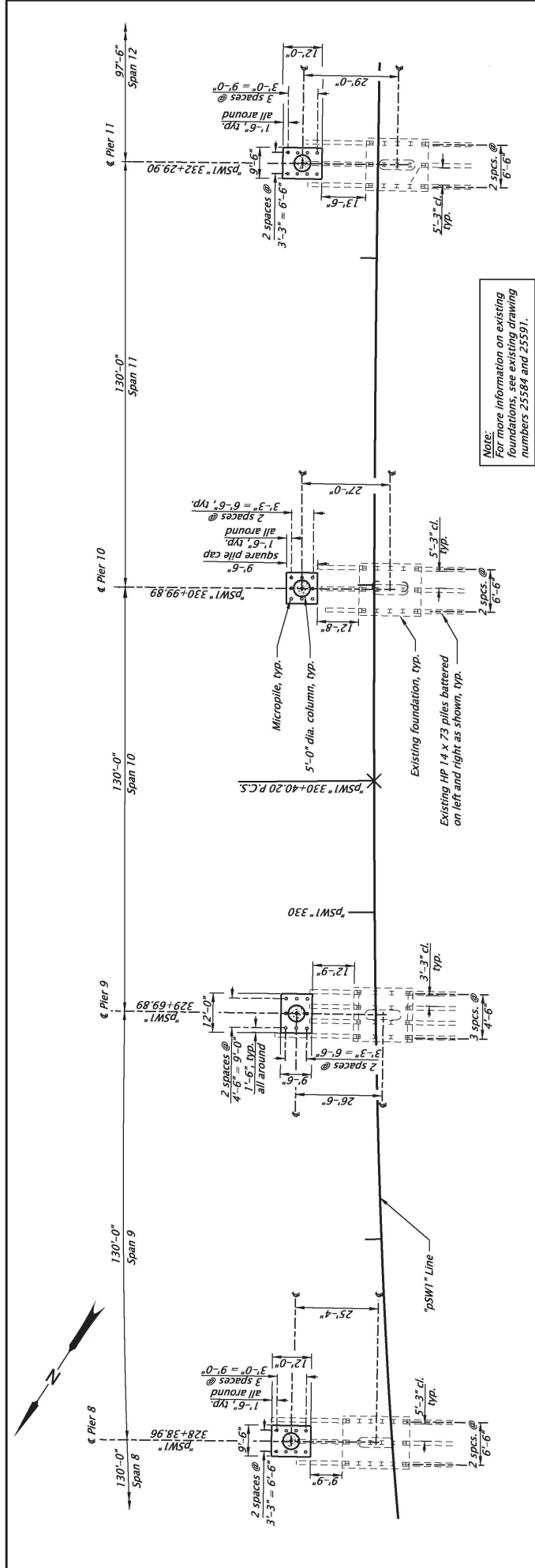
710'-0" rail pay limits, left
360'-0" rail pay limits, right

LEGEND

- Bridge widening
- Deck and/or Rail Removal

Note:
See Sht. JB03 for Estimated Preliminary Foundation Data.

Note:
Elevations shown are based on North American Vertical Datum (1988).



FOUNDATION PLAN - PIER 8 ~ PIER 11
Scale: 1"=30'

ESTIMATED PRELIMINARY FOUNDATION DATA

Pier	Foundation Type	Element Size (dia.)	Number	Pile Cap Bottom Elev. (ft.)	Tip Elev. (ft.)	Average Length (ft.)	Permanent Casting Length (ft.)
8	micropile	8"	9	90.44	20.00	70	25
9	micropile	8"	9	100.44	30.00	70	25
10	micropile	8"	9	100.44	34.00	70	25
11	micropile	8"	9	100.44	30.00	70	25

For accompanied by drawings, see Sht. JB01

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1-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

STRUCTURE NO. 08958E
BUS. DWG. NO. 00000
CALC. BOOK 00000
HWY: 001
M.P.: 303.02

DESIGNER: High Long, PE
DRAFTER: Rodney Schultz
CHECKER: Pete Sloum, PE, SE
REVIEWER: Douglas Mikheevich, PE

CONCEPT DESIGN
INFORMATION ONLY

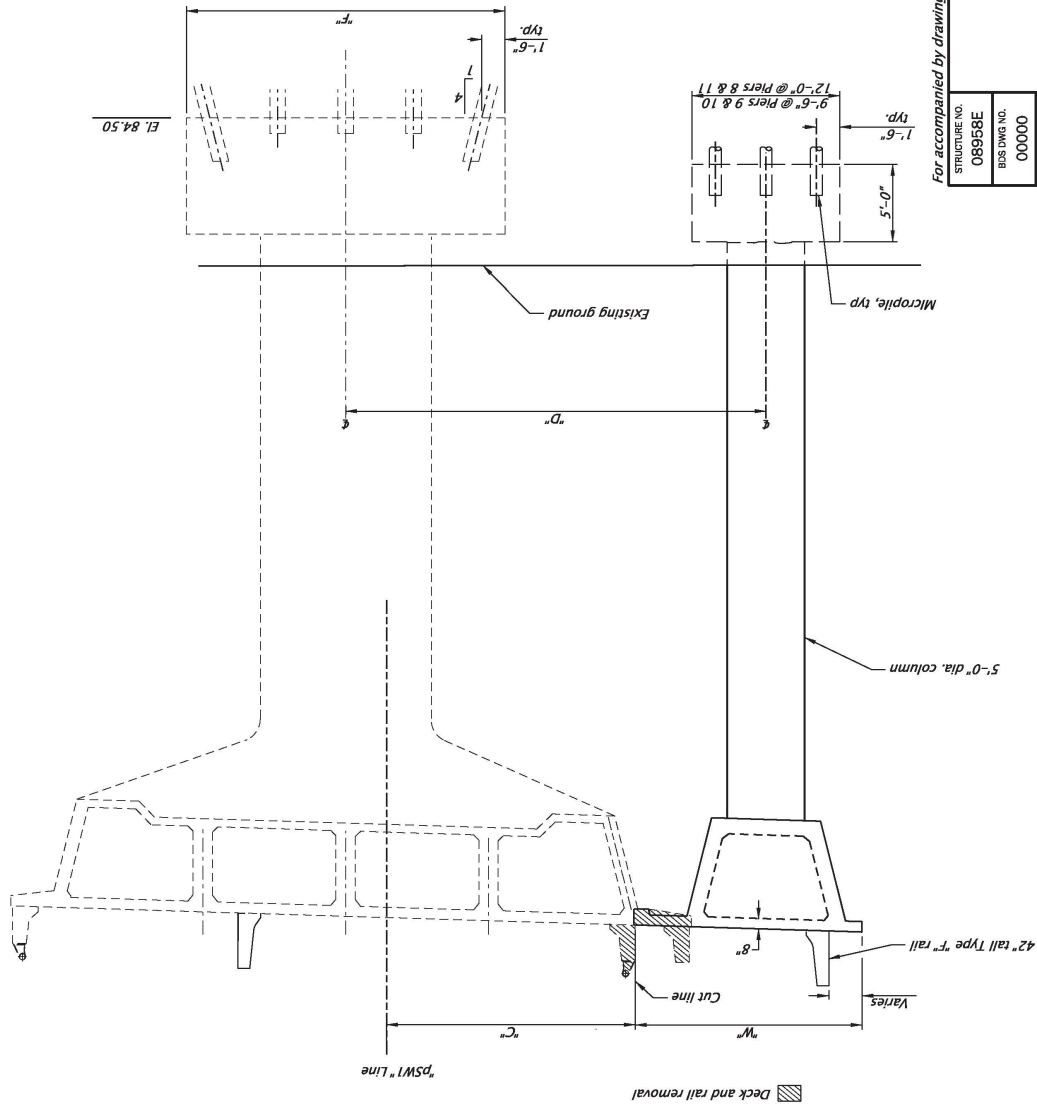
FOUNDATION PLAN
PIER 8 ~ PIER 11

COUNTY Multnomah
DATE 10/01/2020

SCALE WARNING
IF THIS SCALE LINE DOES NOT MATCH THE DRAWING, USE THE SCALE

PROJECT NO. JB03
SHEET NO. JB03

ROTATION: 300.73°
SCALE: 1"=30'



TABLE

Pier	"W"	"C"	"D"	"F"
8	15'-0"	22'-7"	25'-4"	20'-6"
9	15'-1"	15'-4"	26'-6"	18'-0"
10	15'-2"	12'-9"	27'-0"	19'-0"
11	19'-3"	11'-9"	29'-0"	19'-0"

Dimensions along bent &

ELEVATION - PIER 9 (PIER 8, 10, & 11 SIMILAR)

Scale: 1/8" = 1'-0"

For accompanied by drawings, see Sht. JB01

DOWL
www.dowl.com
Fremont Viaduct, Hwy 1 NB

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Nigh Long, PE
Draftsman: Rodney Schultz

Reviewer: Douglas Kikpatrick, PE
Checker: Pete Sloum, PE, SE

STRUCTURE NO.: 08958E
BUS. DIV. NO.: 00000
CALC. BOOK: 0000
HWY: 001
M.P.: 303.02

COUNTY: Multnomah
DATE: 10/01/2020

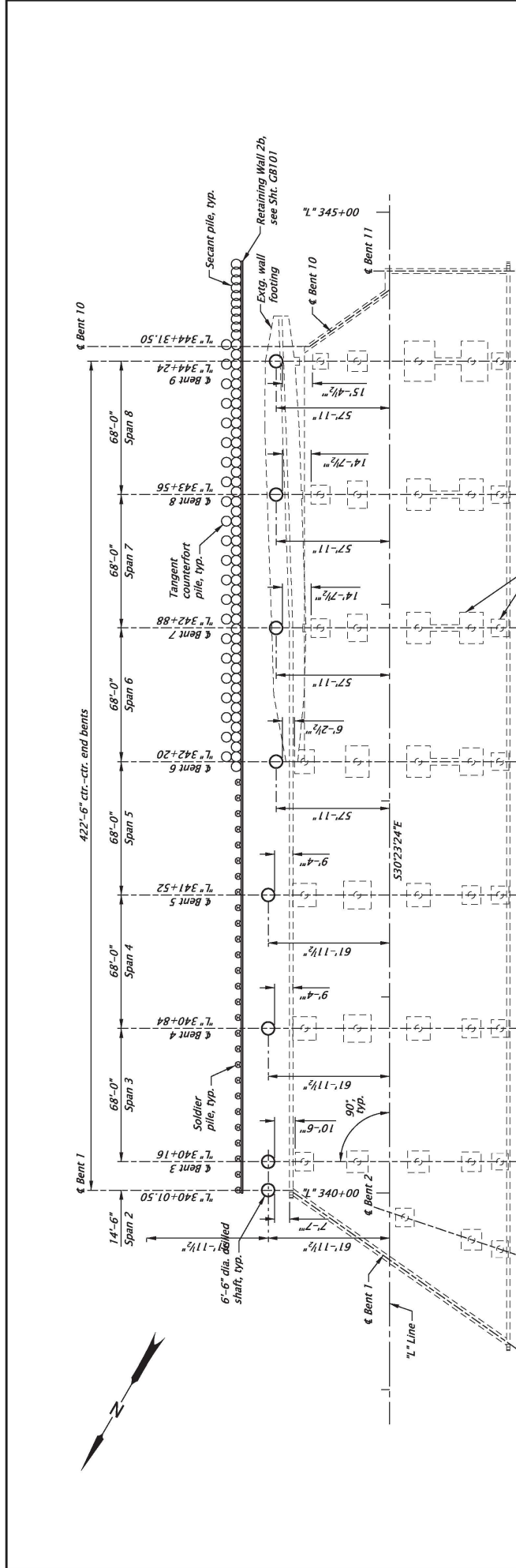
SHEET NO.: JB04

ELEVATION - PIER 9

CONCEPT DESIGN
INFORMATION ONLY

SCALE WARNING
IF THIS SCALE LINE DOES NOT
MATCH THE SCALE OF THE
DRAWING, SINO TO SCALE

FINAL ELECTRONIC DOCUMENT
ANALYSIS FOR REQUEST
Rotation: 119.7897° Scale: 1/8" = 1'-0"



FOOTING PLAN
Scale: 1"=50'

ESTIMATED PRELIMINARY FOUNDATION DATA

Bent	Foundation Type	Element Size (dia.)	Number	Tip Elevation (ft.)	Average Length (ft.)
1	Drilled Shaft	6'-6"	1	53.0	50.00
3	Drilled Shaft	6'-6"	1	53.0	50.00
4	Drilled Shaft	6'-6"	1	52.0	50.00
5	Drilled Shaft	6'-6"	1	50.0	50.00
6	Drilled Shaft	6'-6"	1	49.0	50.00
7	Drilled Shaft	6'-6"	1	32.0	65.00
8	Drilled Shaft	6'-6"	1	30.0	65.00
9	Drilled Shaft	6'-6"	1	34.0	60.00

For accompanied by drawings, see Sht. JC01

DOWL
www.dowl.com

Elliot School Viaduct Widening

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Peter R. Papp, P.E., S.E.
Reviewer: Douglas Kikpatrick, P.E.
Checker: Pete Sloum, P.E., S.E.
Drafter: Yuka Garzwell

STRUCTURE NO.
08782A

BAS. DWG. NO.
00000

CALC. BOOK
0000

HWY: 001
M.P.: 302.65

COUNTY
Multnomah

DATE
10/01/2020

CONCEPT DESIGN
INFORMATION ONLY

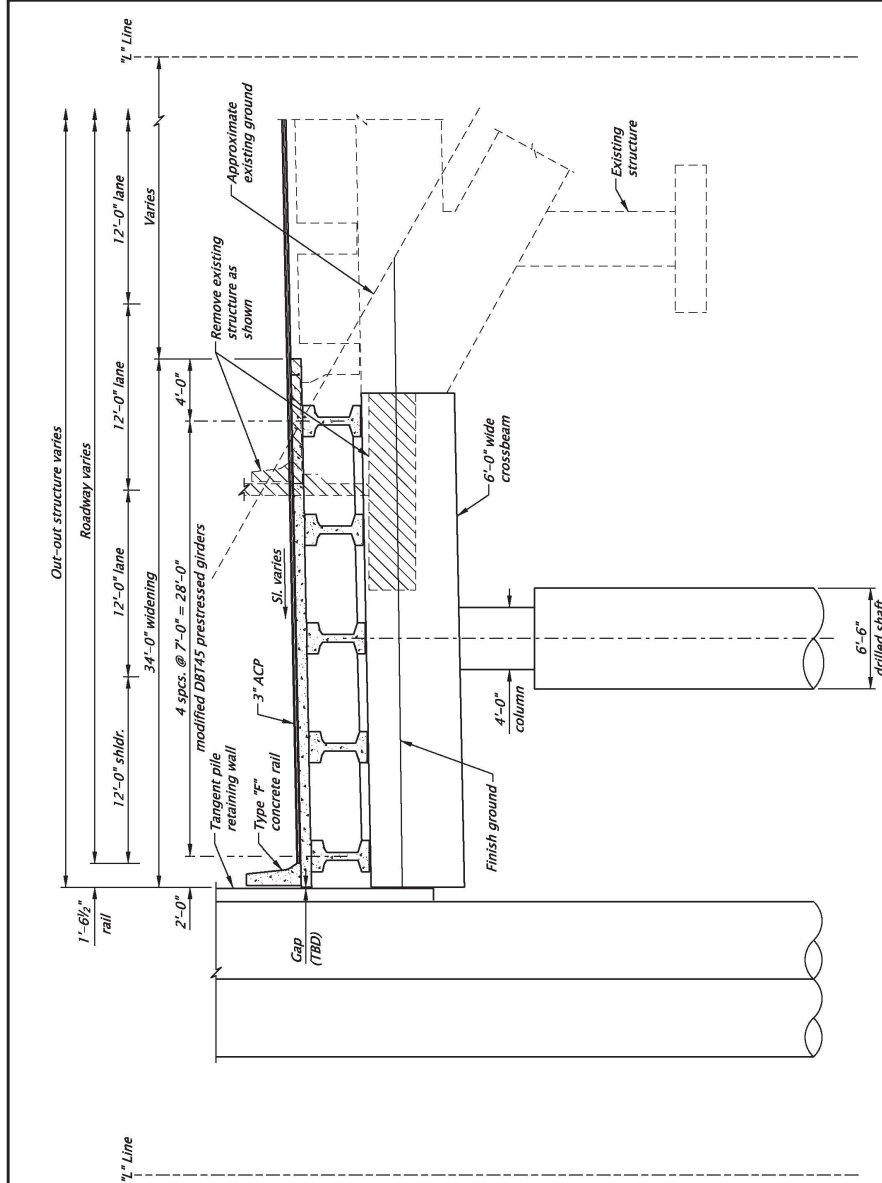
FOOTING PLAN

SHEET NO.
JC02

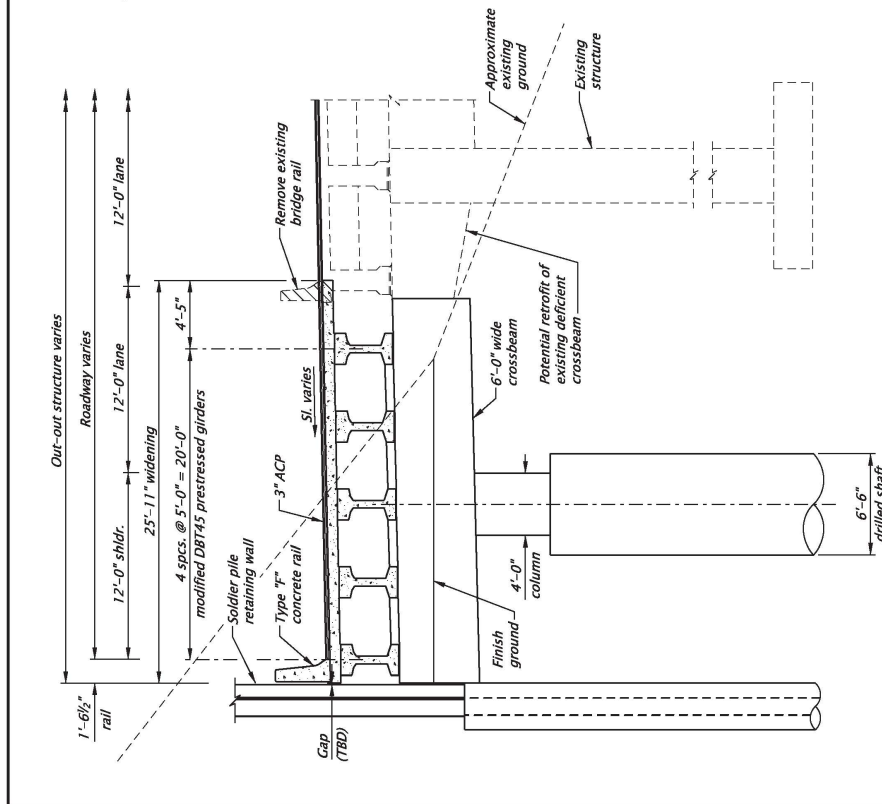
Rotation: 300.39° Scale: 1"=50'

SCALE WARNING
IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE

FINAL ELECTRONIC DOCUMENT
ANALYSIS FOR REQUEST



BENT 6 PARTIAL ELEVATION
Scale: 1/8" = 1'-0"



BENT 5 PARTIAL ELEVATION
Scale: 1/8" = 1'-0"

For accompanied by drawings, see Sht. JC01

STRUCTURE NO.	08782A
BUS DWG NO.	00000
CALC. BOOK	0000
HWY: 001	
M.P.: 302.65	
COUNTY	Multnomah
DATE	10/01/2020

SCALE WARNING
IF THE SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE

DOWL WWW.DOWL.COM
Elliot School Viaduct Widening

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Peter R. Papp, P.E., S.E.
Reviewer: Douglas Mikhaelick, P.E.
Checker: Pete Sloum, P.E., S.E.
Drafter: Yuka Garzwell

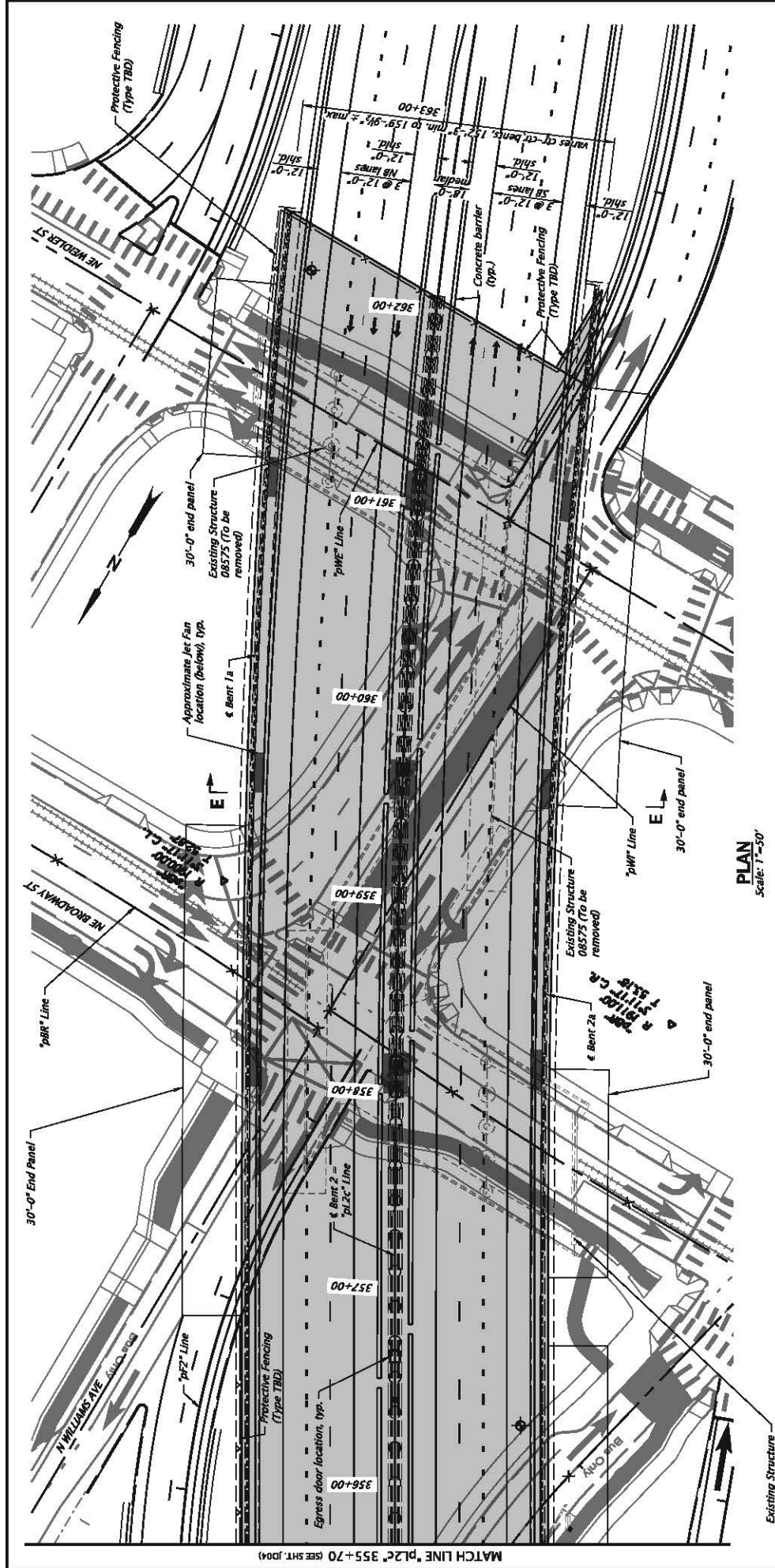
BENT ELEVATIONS - BENTS 5 AND 6
SHEET NO. JC03

Rotation: 0° Scale: 1/8" = 1'-0"


CONCEPT DESIGN
INFORMATION ONLY

FINAL ELECTRONIC DOCUMENT
ANALYSIS FOR REQUEST

JC03 - 08782A Bents 5 & 6 Elevation :: JC03 9/29/2020 11:42:30 AM RSchultz



PLAN
Scale: 1"=50'



HDR
HDR ENGINEERING, INC.
1050 SW 6TH AVENUE, SUITE 1600
PORTLAND, OR 97204-1134
503.423.3700

BROADWAY ST./WILLIAMS AVE./WEIDLER ST. OVER I-5
I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Name
Drafter: Heather Bostor

Reviewed Name
Checked Name

STRUCTURE NO.
COVER
800 8000 NO.

DATE
M/C/YR

CALC. BOOK
0000

COUNTY
Multnomah

SCALE WARNING
IF THIS SCALE LINE DOES NOT
MEASURE ONE INCH, THEN
DRAWING IS NOT TO SCALE

NOTE:
For Section E-E, see sheet JD07.

Approximate Point of Minimum Vertical
Clearance, see narrative in 20% Basis
of Design Memorandum.

CONCEPT DESIGN
MEMORANDUM ONLY

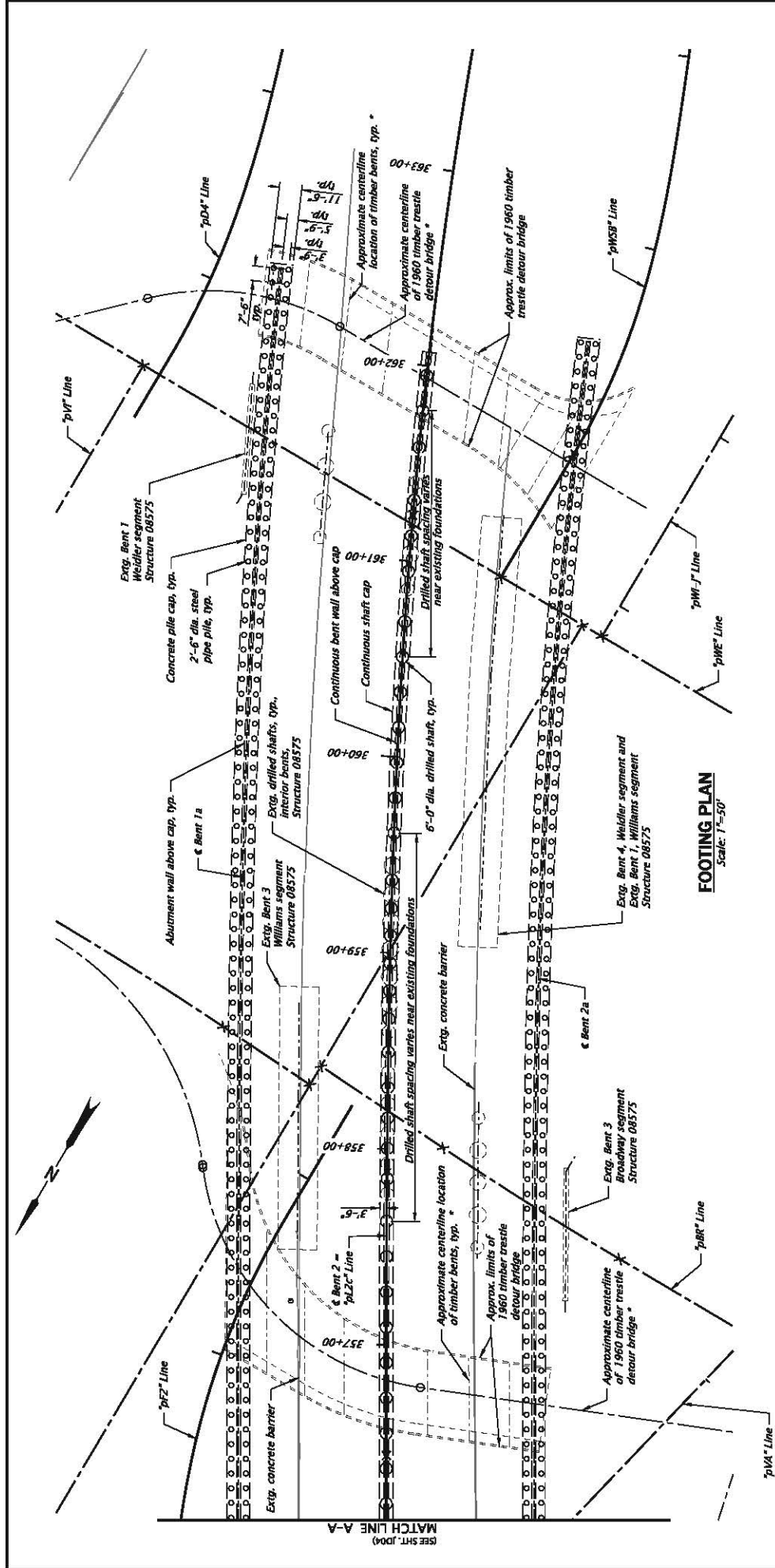
CONTRACT NO.
JDO3


PROJECT NO.
COVER PLAN - 2

DATE
10/5/2020 7:53:37 AM

SCALE: 1"=50'
ROTATION: 300.435°

MATCH LINE "PL2C" 355+70 (SEE SHEET JD04)



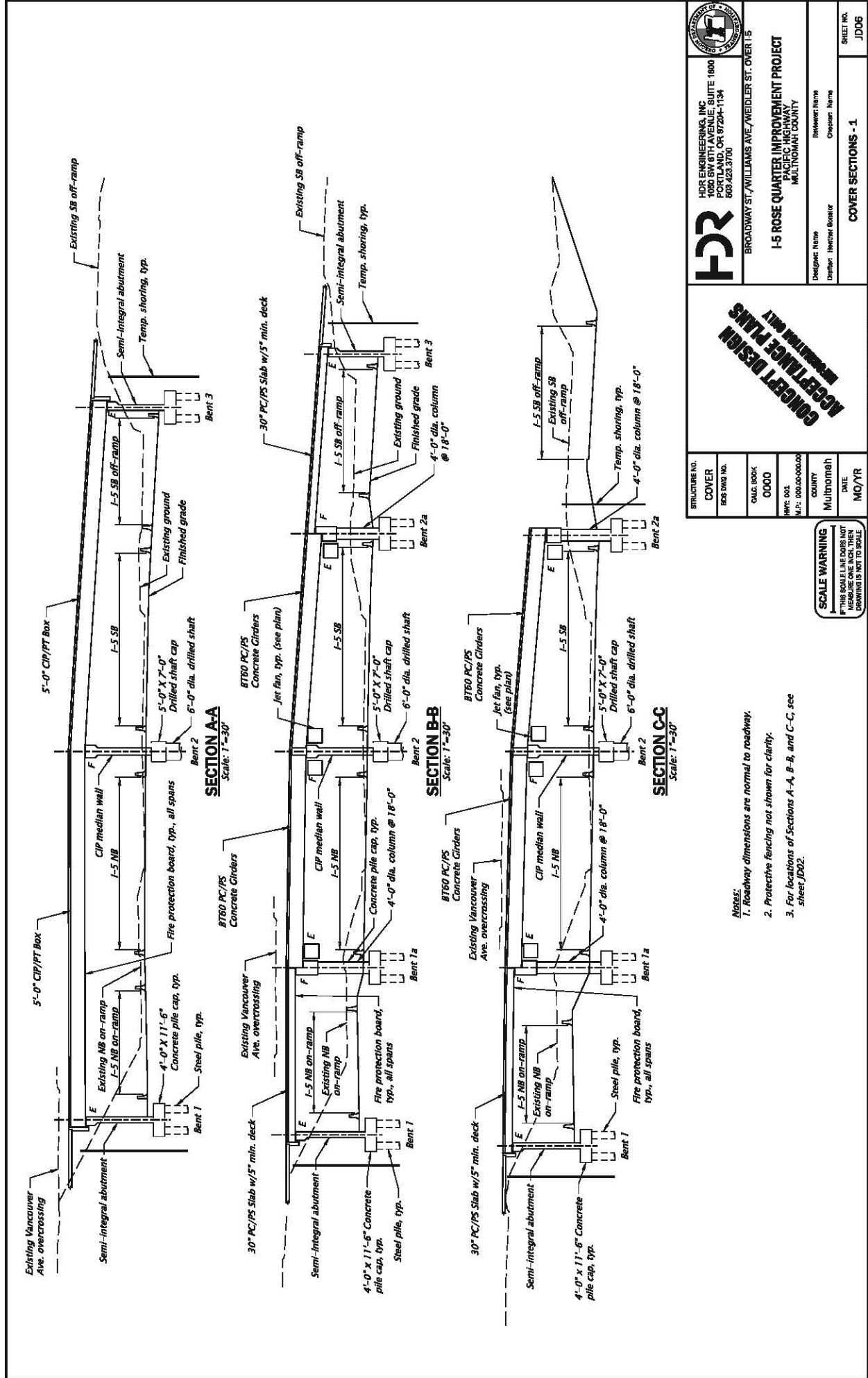
 HDR ENGINEERING, INC. 1050 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700		BROADWAY ST./WILLIAMS AVE./WEIDLER ST. OVER 15	
I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY		Designer: Name Drafter: Hechre Bortor	
STRUCTURE NO. COVER BSS DRAW NO.		SHEET NO. JD05	
CALC. BOOK 0000		Revision: Name Designer: Name	
HWY. DIST. M.P.: 000.00-000.00		PROJECT NO. FOOTING PLAN - 2	
COUNTY Multnomah		DATE MO/YR	
SCALE WARNING IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE			


* Used in original construction of existing bridges. Possible abandoned foundations.

FULL LISTING SOCIETY
 ANALYSIS REQUIRED

BR.L19071_LHDR_Fig_03.dgn :: Default 10/5/2020 7:53:53 AM PCREHAN

Rotation: 300.435° Scale: 1"=50'

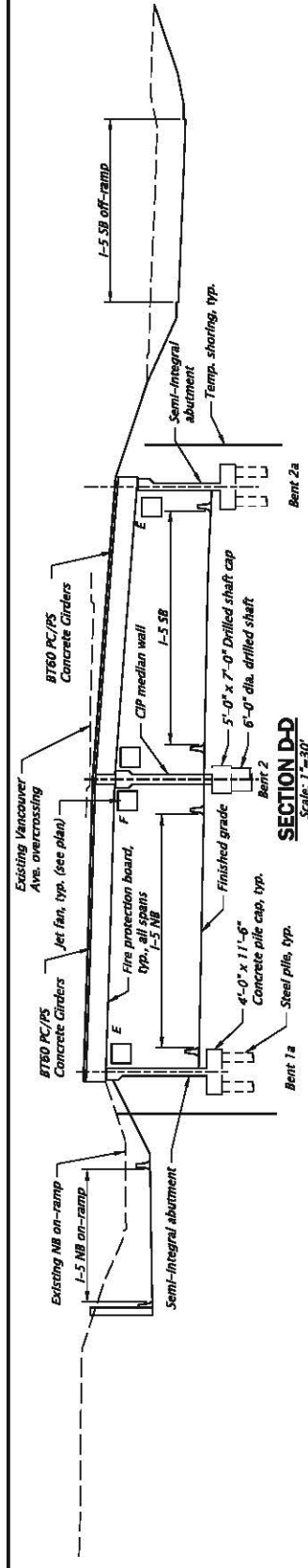


 HDR ENGINEERING, INC. 1050 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700		BROADWAY ST./WILLIAMS AVE./WEIDLER ST. OVER I-5 I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY	
STRUCTURE NO. COVER B03 B03 NO.	CALC. BOOK 0000	COUNTY Multnomah	SHEET NO. J006
HWY. DIST. M.P. 000.000-000.000	DATE MO/YR	DESIGNER: Name DRAFTER: Name CHECKER: Name COVER SECTIONS - 1	SCALE: 1"=30'

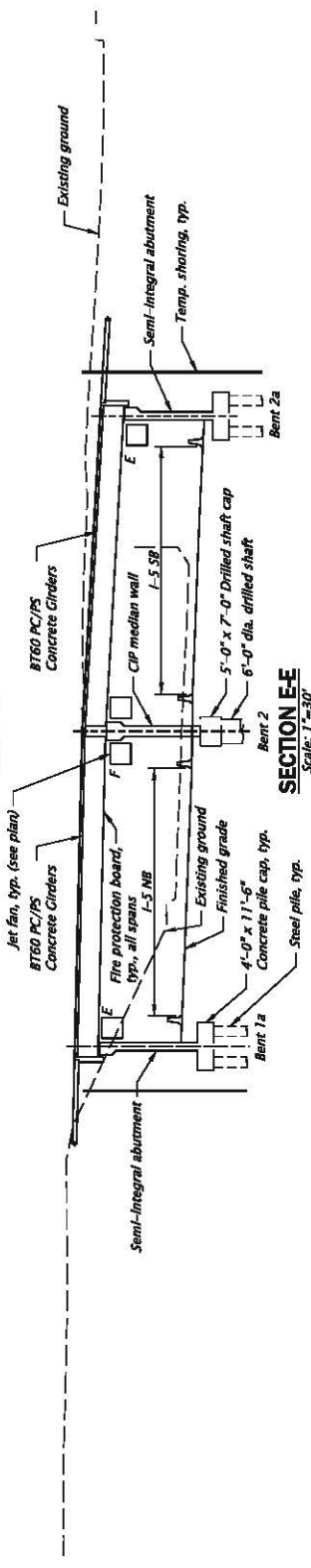
CONCEPT DESIGN
 PRELIMINARY PLAN

SCALE WARNING
 IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE

- Notes:**
1. Roadway dimensions are normal to roadway.
 2. Protective fencing not shown for clarity.
 3. For locations of Sections A-A, B-B, and C-C, see sheet J002.




SECTION D-D
Scale: 1"=30'



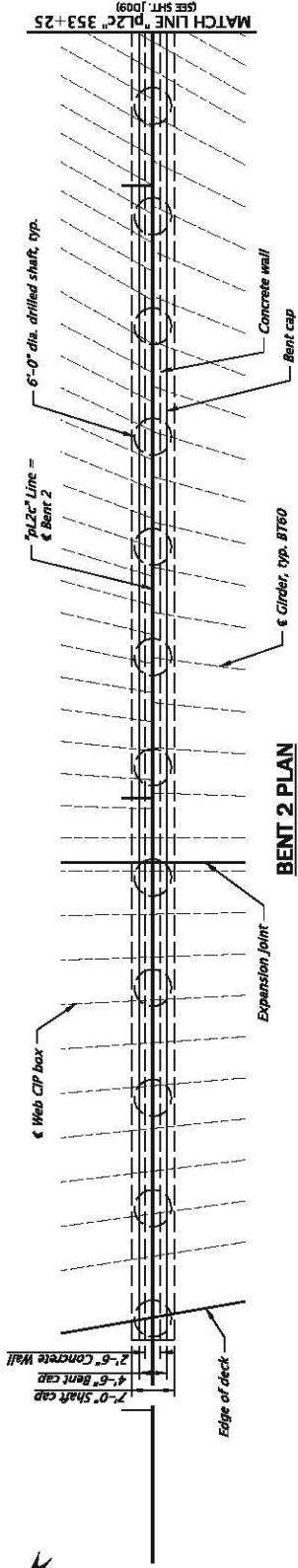
SECTION E-E
Scale: 1"=30'

- Notes:
1. Roadway dimensions are normal to roadway.
 2. Protective fencing not shown for clarity.
 3. For locations of Sections D-D and E-E, see sheets JD02 and JD03.

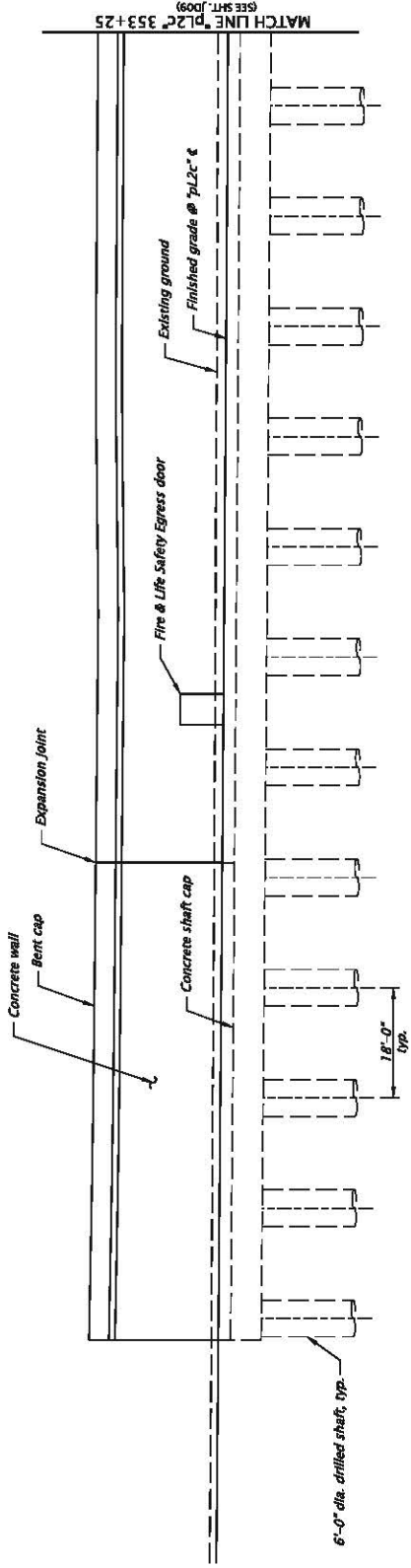
 HDR ENGINEERING, INC. 1050 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700		BROADWAY ST./WILLIAMS AVE./WEIDLER ST. OVER I-5 I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY	
STRUCTURE NO. COVER BDS DRAW NO.		CALC. BOOK 0000 HW: 001 M.P.: 000.00-000.00	
COUNTY Multnomah		DESIGNER: Name Designer: Name DATE:	
SHEET NO. JD07		COVER SECTIONS - 2	

CONCEPT DESIGN
 PRELIMINARY ONLY


SCALE WARNING
 IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE

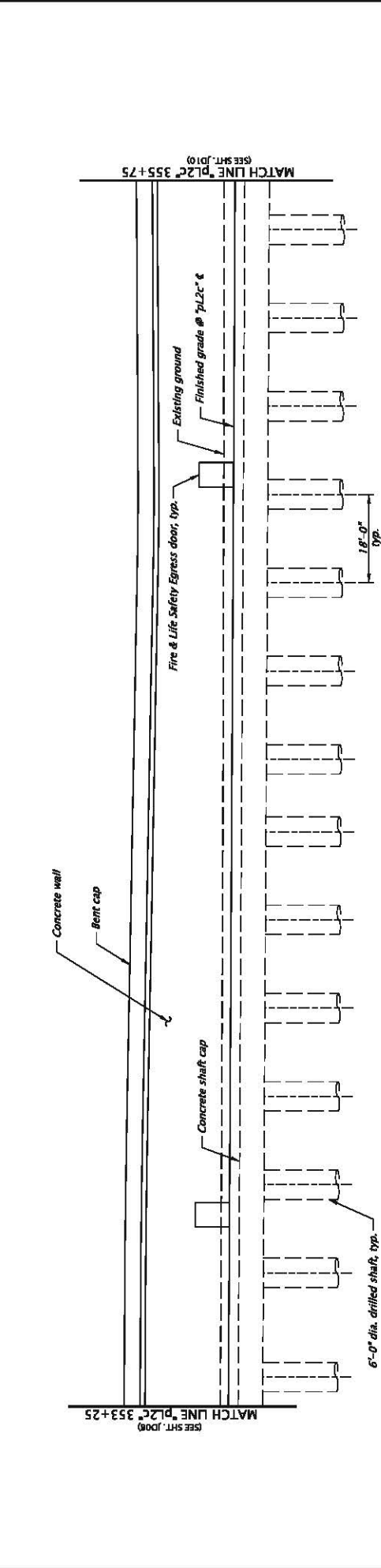
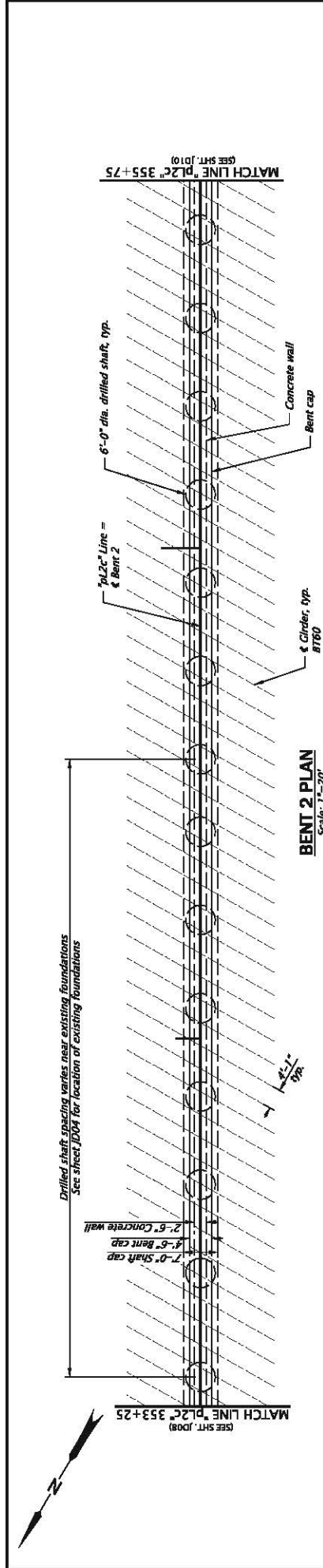


BENT 2 PLAN
Scale: 1"=20'



BENT 2 ELEVATION
Scale: 1"=20'
(SUPERSTRUCTURE NOT SHOWN)

		HDR ENGINEERING, INC. 1050 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700		BROADWAY ST./WILLIAMS AVE./WEIDLER ST. OVER I-5	
CONCEPT DESIGN PRELIMINARY ONLY		I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY		Designer: Name Drafter: Heather Bostler Reviewer: Name Checker: Name	
STRUCTURE NO. COVER BSS DRAW NO.	CALC. BOOK 0000	HWY. DIST. M.P.: 000.000-000.000	COUNTY Multnomah	BENT 2 PLAN AND ELEVATION - 1	
SCALE WARNING IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE		DATE MO/YR		SHEET NO. J008	Scale: 1"=20' Rotation: 300.435°



CONCEPT DESIGN
INVESTMENT ONLY

HDR HDR ENGINEERING, INC.
1030 SW 6TH AVENUE, SUITE 1600
PORTLAND, OR 97204-1134
503.423.3700

BROADWAY ST./WILLIAMS AVE./WEIDLER ST. OVER I-5

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Name
Director: Hechler Bortler
Estimator: Name
Checker: Name

BENT 2 PLAN AND ELEVATION - 2

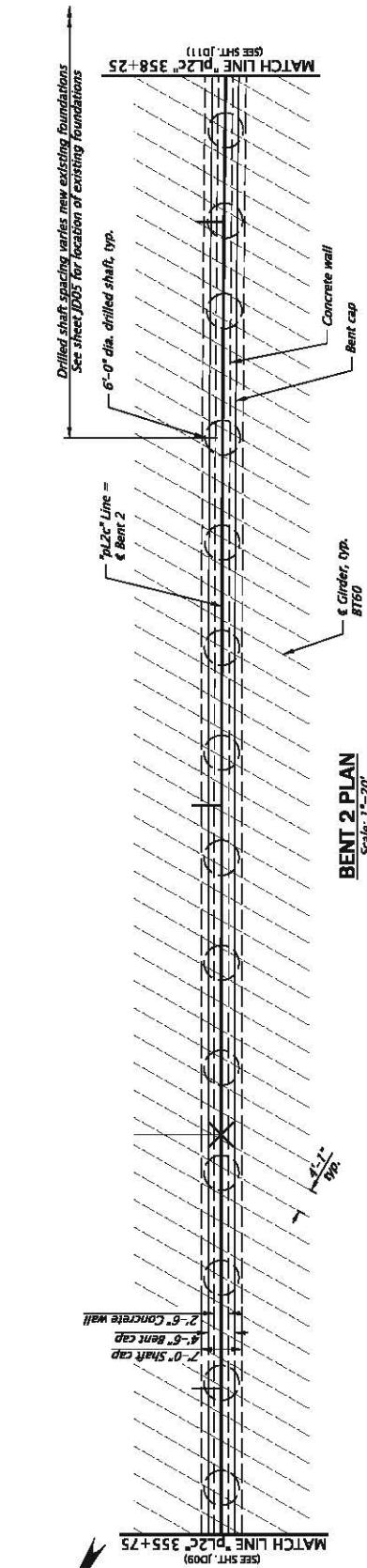
SHEET NO. J009

Rotation: 300.435° Scale: 1"=20'

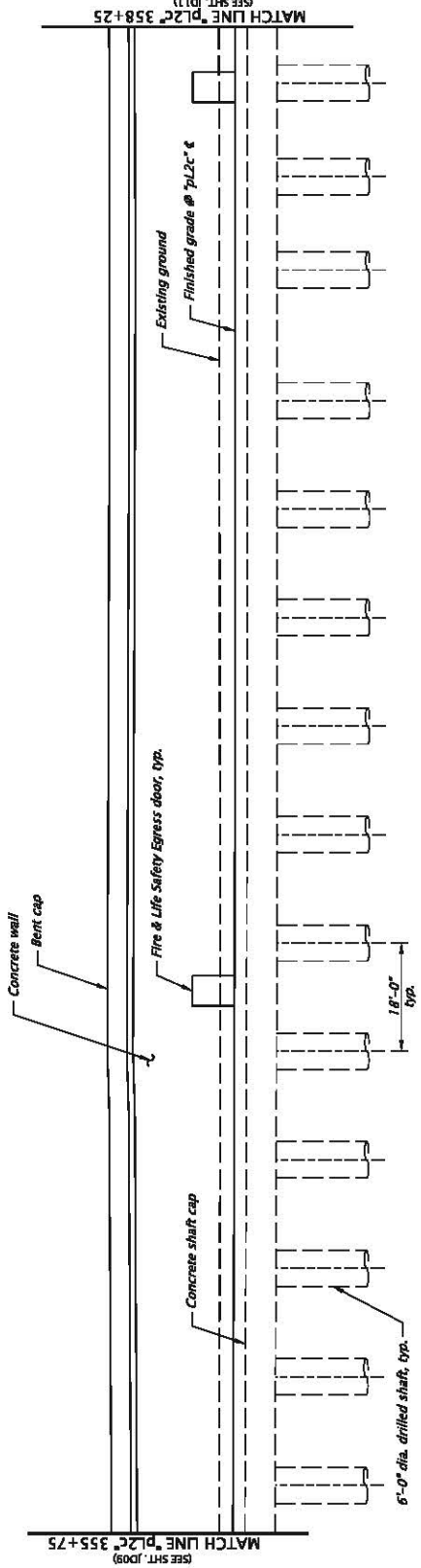
STRUCTURE NO. COVER	CALC. BOOK 0000	COUNTY Multnomah
BSJ DRAW NO.	HW: 001 M.P.: 000.000-000.000	DATE MO/YR

SCALE WARNING
IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE!

FILED IN ACCORDANCE WITH MULTNOMAH COUNTY REGULATIONS

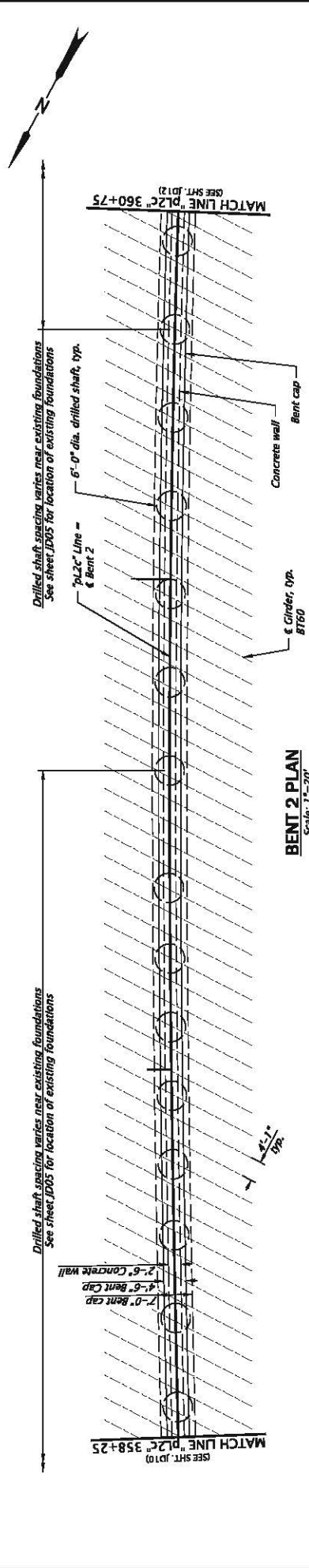


BENT 2 PLAN
Scale: 1"=20'

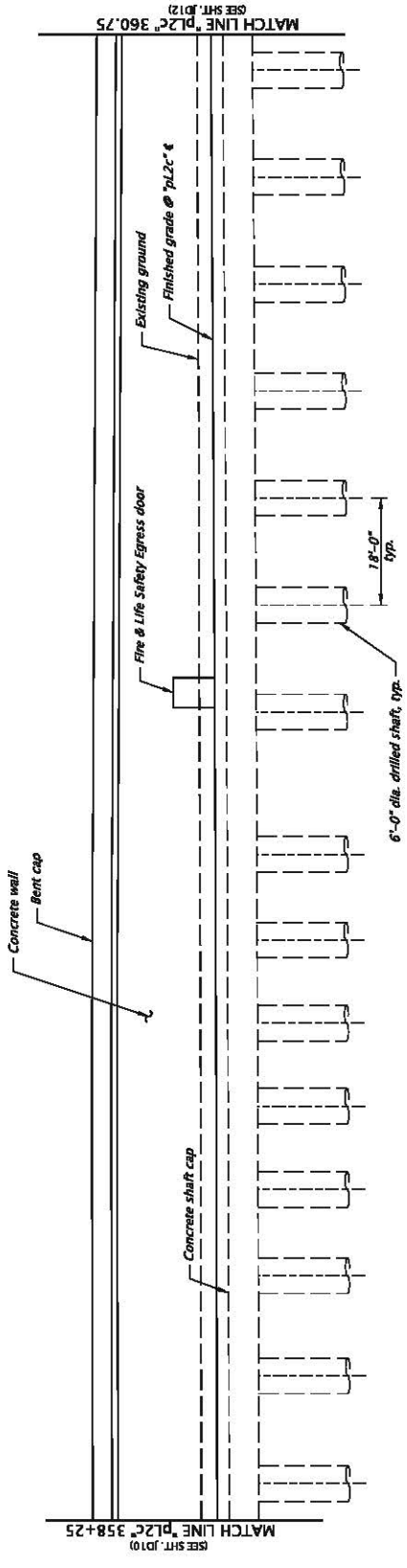


BENT 2 ELEVATION
Scale: 1"=20'


		HDR ENGINEERING, INC. 1050 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700		BROADWAY ST./WILLIAMS AVE./WEIDLER ST. OVER I-5	
CONCEPT DESIGN PRELIMINARY ONLY		I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY		Designer: Name Drafter: Heather Bortner Reviewer: Name Checker: Name	
STRUCTURE NO. COVER BSS DRAW NO.		CALC. BOOK 0000		COUNTY Multnomah	
HWY. DIST. M.P.: 000.000-000.000		DATE MC/YR		SHEET NO. JD10	
SCALE WARNING IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE		BENT 2 PLAN AND ELEVATION - 3		Rotation: 300.435° Scale: 1"=20'	

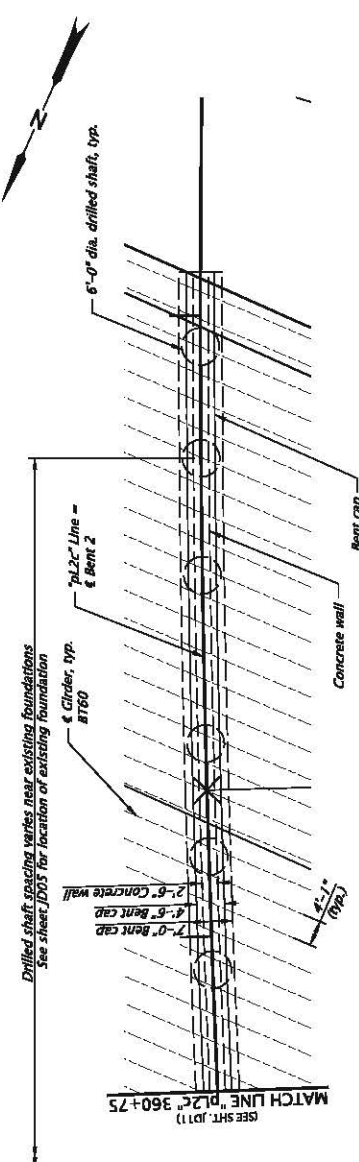


BENT 2 PLAN
Scale: 1"=20'

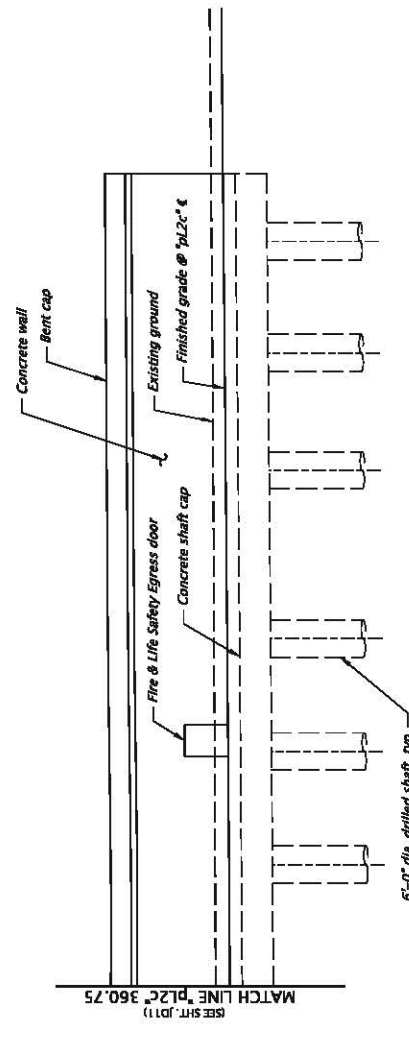


BENT 2 ELEVATION
Scale: 1"=20'
(SUPERSTRUCTURE NOT SHOWN)

		HDR HDR ENGINEERING, INC. 1030 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700		BROADWAY ST./WILLIAMS AVE./WEIDLER ST. OVER I-5 I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY	
STRUCTURE NO. COVER BSS DRAW NO.	CALC. BOOK 0000	HWY. DIST. M.P.: 000.000-000.000	COUNTY Multnomah	Designer: Name Designer: Name	SHEET NO. JD11
SCALE WARNING IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE			DATE MO/YR	Designer: Name Designer: Name	SHEET NO. JD11
CONCEPT DESIGN PRELIMINARY ONLY			DATE MO/YR	Designer: Name Designer: Name	SHEET NO. JD11



BENT 2 PLAN
Scale: 1"=20'



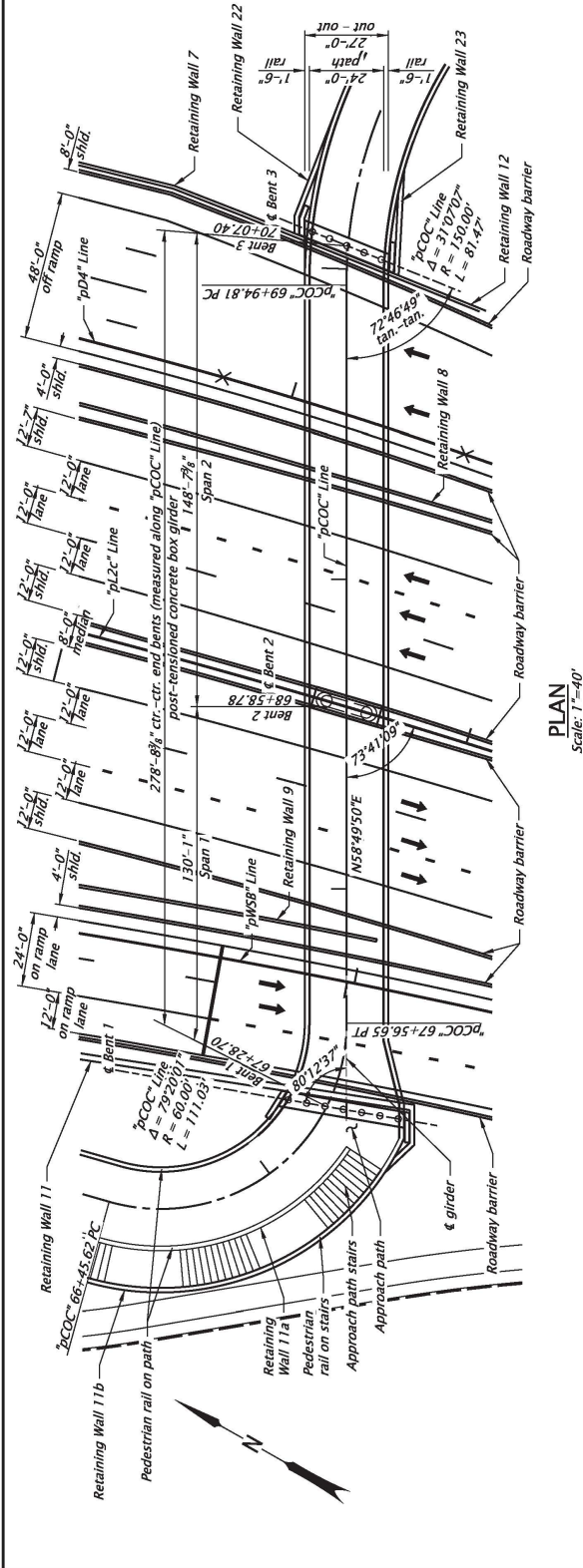
BENT 2 ELEVATION
Scale: 1"=20'
(SUPERSTRUCTURE NOT SHOWN)

STRUCTURE NO. COVER		HDR HDR ENGINEERING, INC. 1050 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700	BROADWAY ST./WILLIAMS AVE./WEIDLER ST. OVER I-5 I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY
DESIGN NO. 0000			
DATE MO/YR	DESIGNER: Name	DESIGNER: Name	DESIGNER: Name
COUNTY Multnomah	DRAWN: Name	DRAWN: Name	DRAWN: Name
SCALE 1"=20'	BENT 2 PLAN AND ELEVATION - 5		
CONCEPT DESIGN PRELIMINARY ONLY			SHEET NO. JD12
SCALE WARNING IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE			ROTATION: 294.0001" Scale: 1"=20"

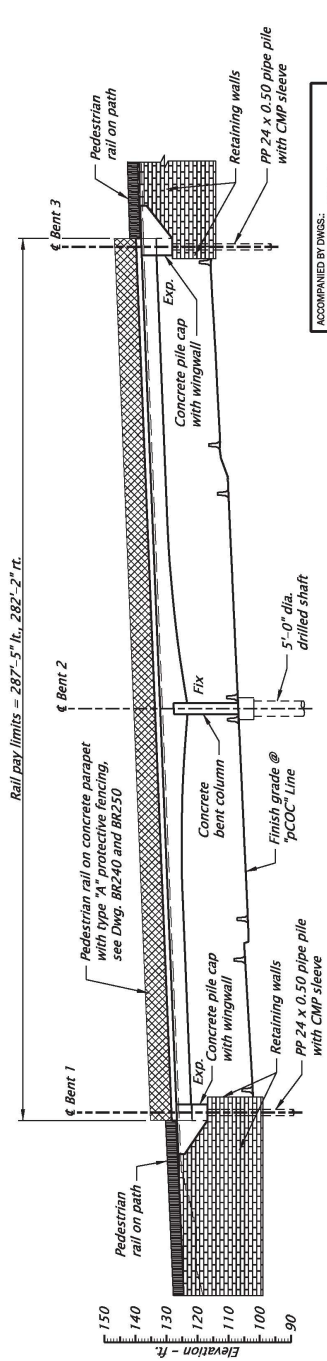


LOCATION MAP
No Scale

NOTES:
Concrete box girder will be constructed high and lowered into place.
Install CMP sleeve around pipe piles in bents 1 and 3 within the retaining wall backfill. Do not fill sleeve void with backfill.



PLAN
Scale: 1"=40'



ELEVATION
Scale: 1"=40'

Note:
See Sht. JF02 for Estimated Preliminary Foundation Data.

Note:
Elevations shown are based on North American Vertical Datum (1988).

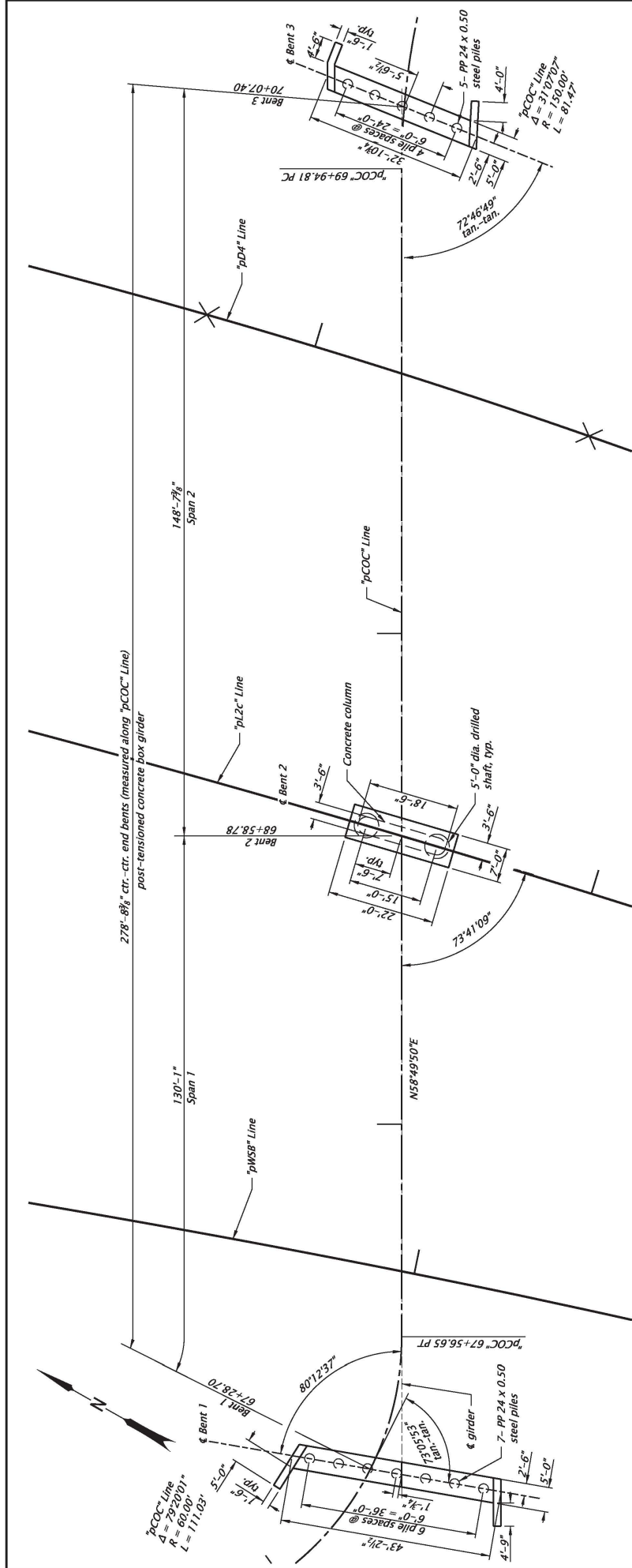
CONCEPT DESIGN
INFORMATION ONLY

DOWL
www.dowl.com

Clackamas Overcrossing Pedestrian Bridge

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

DESIGNED BY: Kenton Aldritt, PE	REVIEWED: Douglas Kikpatrick, PE	SHEET NO. JF01
DRAWN BY: Andrea Lovendahl	CHECKED: Jacob McVitt, PE	SCALE: 1"=40'
PLAN AND ELEVATION		



FOOTING PLAN
Scale: 1"=20'

ESTIMATED PRELIMINARY FOUNDATION DATA

Bent	Foundation Type	Element Size	Number	Tip Elev. (ft)	Average Length (ft)
1	Piles	PP 24 x 0.50	7	46.00	72
2	Drilled Shaft	5'-0" dia.	2	52.00	54
3	Piles	PP 24 x 0.50	5	59.00	71

Note:
Elevations shown are based on North American Vertical Datum (1988).

DOWL WWW.DOWL.COM
Clackamas Overcrossing Pedestrian Bridge

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Kenton Aldritt, PE
Reviewer: Douglas Mikhaeloff, PE
Drafter: Andrea Lovendahl
Checker: Jacob McIntire, PE

STRUCTURE NO. CLO
BUS DWS NO. 00000
CALC. BOOK 0000
HWY. M.P.:
COUNTY Multnomah
DATE 10/01/2020

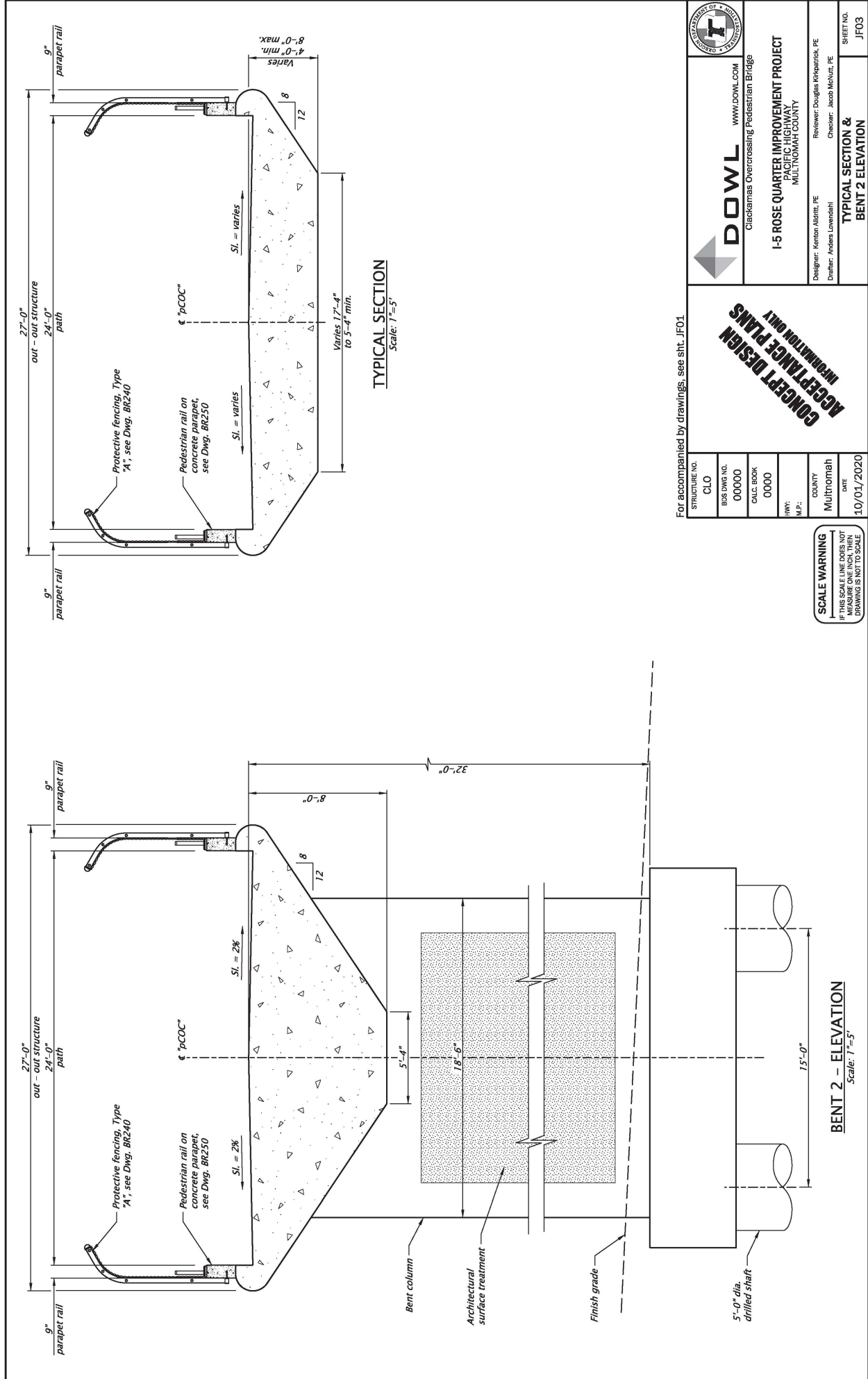
SHEET NO. JF02

Scale: 1"=20'

CONCEPT DESIGN
INFORMATION ONLY

FINAL ELECTRONIC DOCUMENT
ANALYSIS FOR REQUEST

SCALE WARNING
IF THIS SCALE LINE DOES NOT MATCH THE DRAWING SCALE, DRAWING IS NOT TO SCALE



TYPICAL SECTION
Scale: 1"=5'

SCALE WARNING
IF THIS SCALE LINE DOES NOT
MATCH THE DRAWING SCALE,
DRAWING IS NOT TO SCALE

BENT 2 - ELEVATION
Scale: 1"=5'

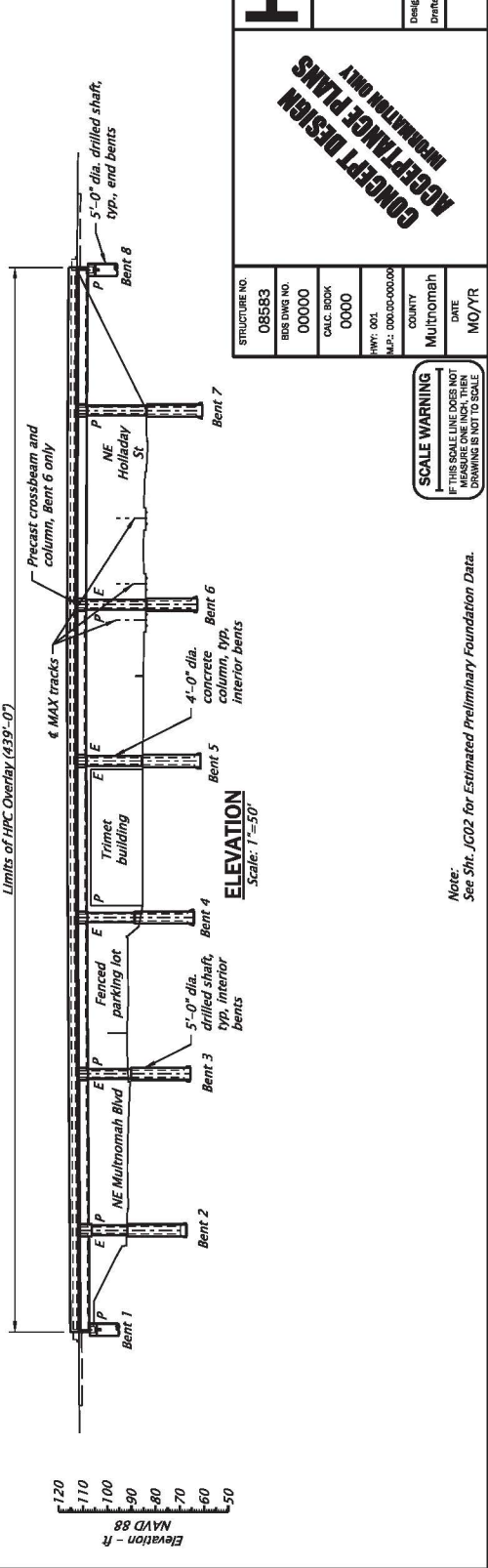
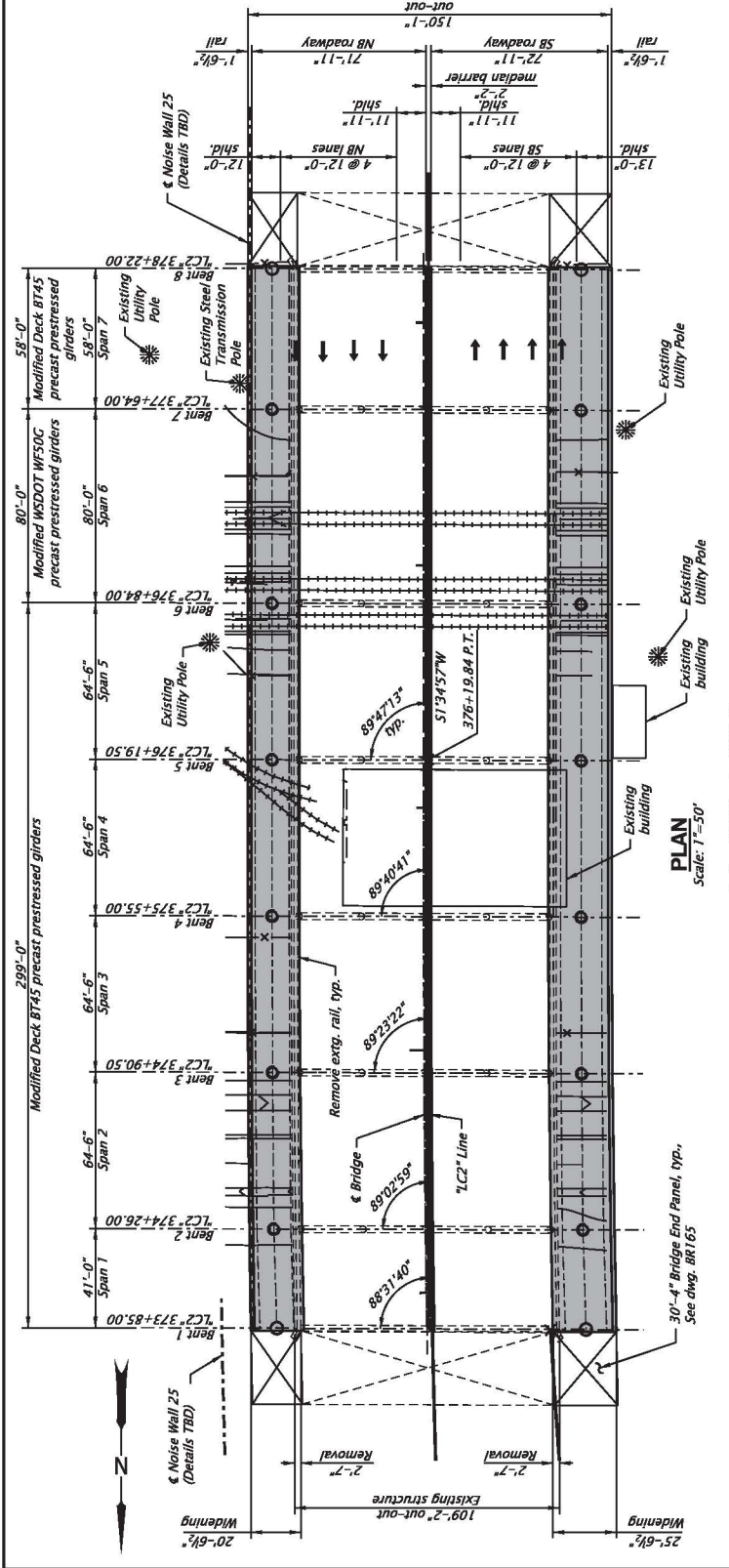
CONCEPT DESIGN
INFORMATION ONLY

For accompanied by drawings, see sht. JF01

STRUCTURE NO. CLO	WWW.DOWL.COM	DOWL Clackamas Overcrossing Pedestrian Bridge
BUS. DWG. NO. 00000		
CALC. BOOK 0000		I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY
HWY. M.P.:		Designer: Kenton Aldrich, PE Reviewer: Douglas Mikhaelick, PE
COUNTY Multnomah		Checker: Jacob McVitt, PE
DATE 10/01/2020		TYPICAL SECTION & BENT 2 ELEVATION
		SHEET NO. JF03



LOCATION MAP
No Scale



HDR HDR ENGINEERING, INC.
1080 SW 6TH AVENUE, SUITE 1800
PORTLAND, OR 97204-1134
503.423.3700

HWY 1 OVER NE MULTNOMAH BLVD & NE HOLLADAY ST

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: Cary Clark
Reviewer: Justin Boornink
Drafter: Heather Goslar
Checker: Kurt Schweitzer

PLAN AND ELEVATION

SHEET NO. JG01

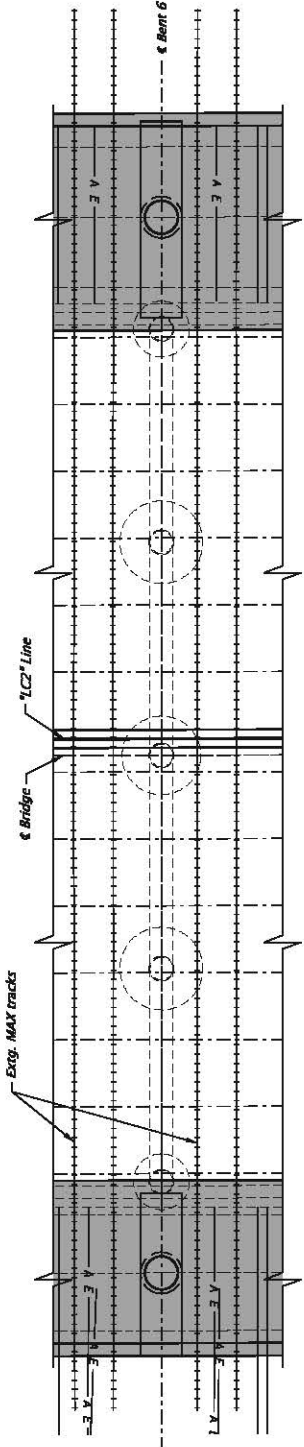
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CONCEPT DESIGN
FOR INFORMATION ONLY

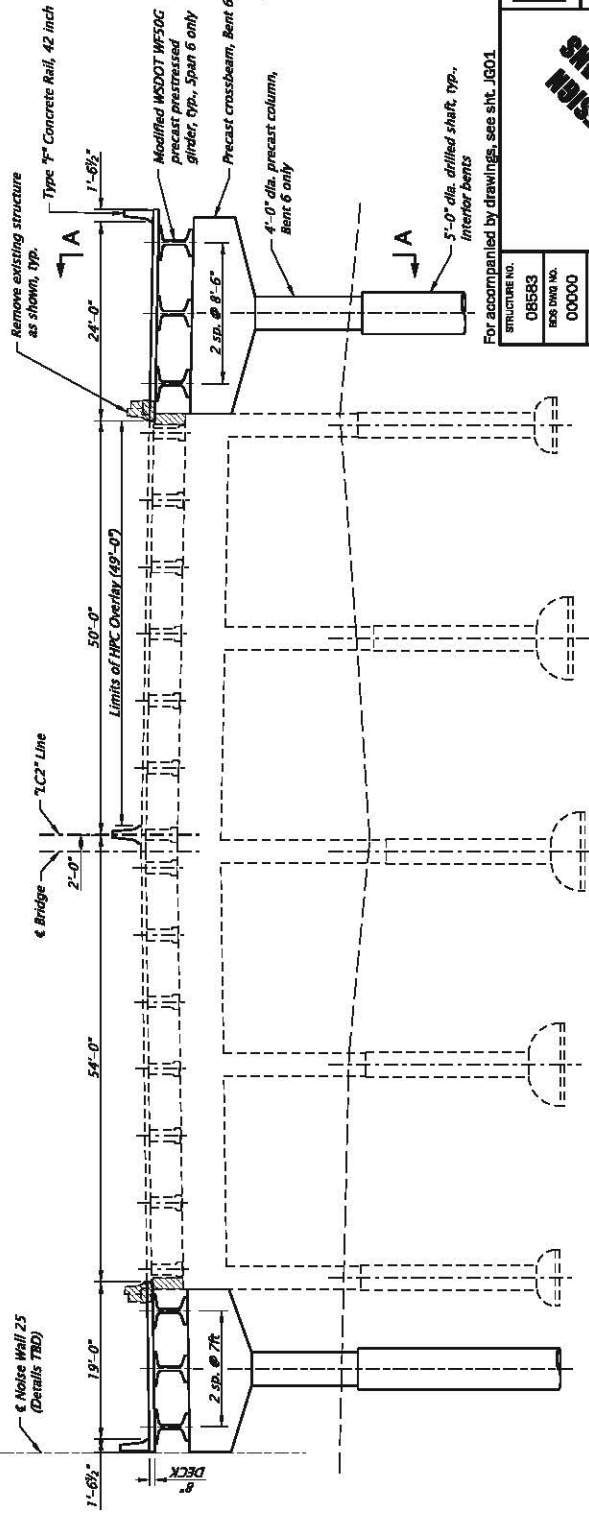
STRUCTURE NO.	08583
BUS BMS NO.	00000
CALC. BOOK	0000
HWY: 001	
M.P.: 000.000-000.000	
COUNTY	Multnomah
DATE	MO/YR

SCALE WARNING
IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE

Note:
See Sht. JG02 for Estimated Preliminary Foundation Data.



BENT 6 - PLAN
Scale: 1"=15'



BENT 6 - ELEVATION (LOOKING UPSTATION)
Scale: 1"=15'

LEGEND:



Bridge widening

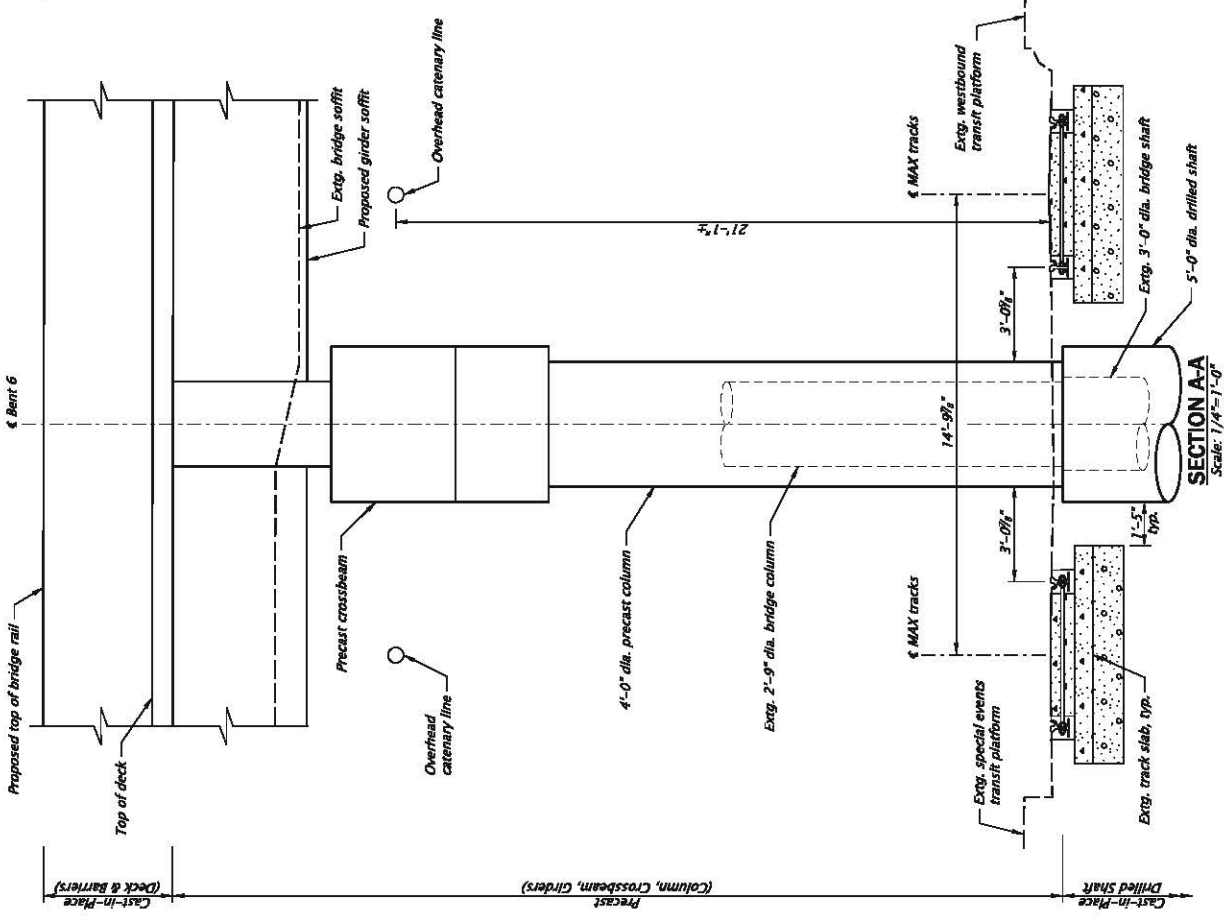
NOTES:

1. For Section A-A, see sheet JG04.
2. Bents 2-5, 7 similar to Bent 6.
3. Bent 6 shown due to atypical features to lessen impacts to MAX. Precast substructure elements are not required at other interior bents.
4. HPC overlay assumed for full length and width of existing SB bridge deck. Assumes removal of existing overlays and Class 2 preparation to a clear distance of 0.75' below the top mat of deck reinforcement for full area of overlay. HPC overlay to be installed to provide 2.5" of concrete cover over top mat of deck reinforcement.

For accompanied by drawings, see sht. JG01

	HDR ENGINEERING, INC. 1030 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700	HWY 1 OVER NE MULTNOMAH BLVD & NE HOLLADAY ST I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY	SHEET NO. JG03
	Designer: Cliff O'Leary Director: Heather Granter	Reviewer: Judith Dorfmeit Designer: Kurt Schwabner	BENT 6 PLAN AND ELEVATION

CONCEPT DESIGN PRELIMINARY ONLY	
STRUCTURE NO. 08583	COUNTY Multnomah
BDS DRAW NO. 00000	DATE MCO/YR
CALC. BOOK 0000	SCALE WARNING IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE
HWY. DIST. M.P.: 000.000-000.000	FULL LISTING SOCIETY ANALYSIS PLAN REQUIRED

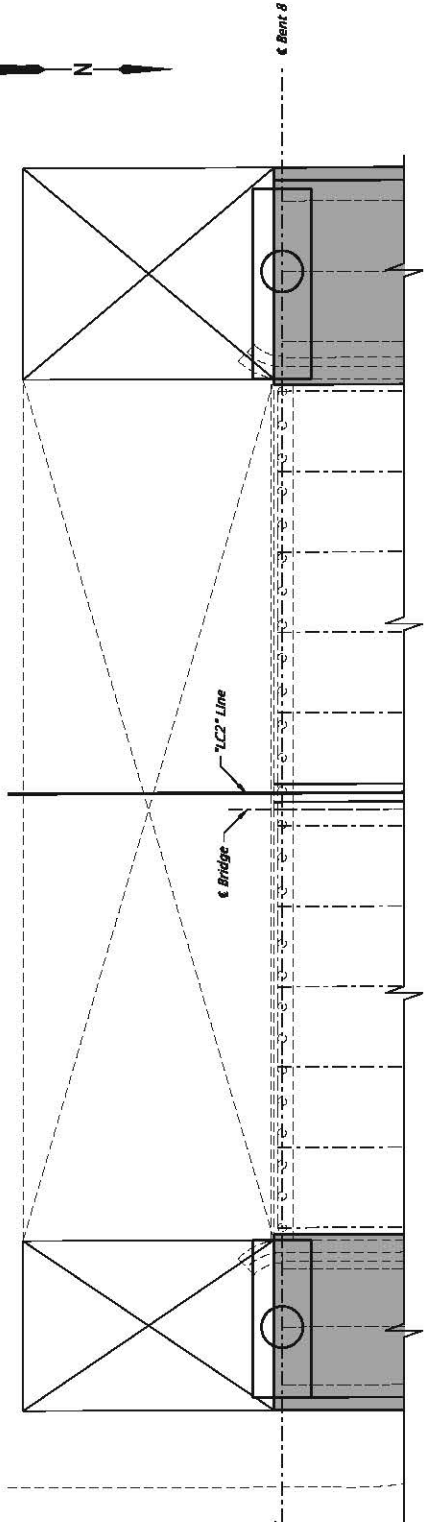


CONCEPT DESIGN
FOR PRELIMINARY PERMITTING ONLY

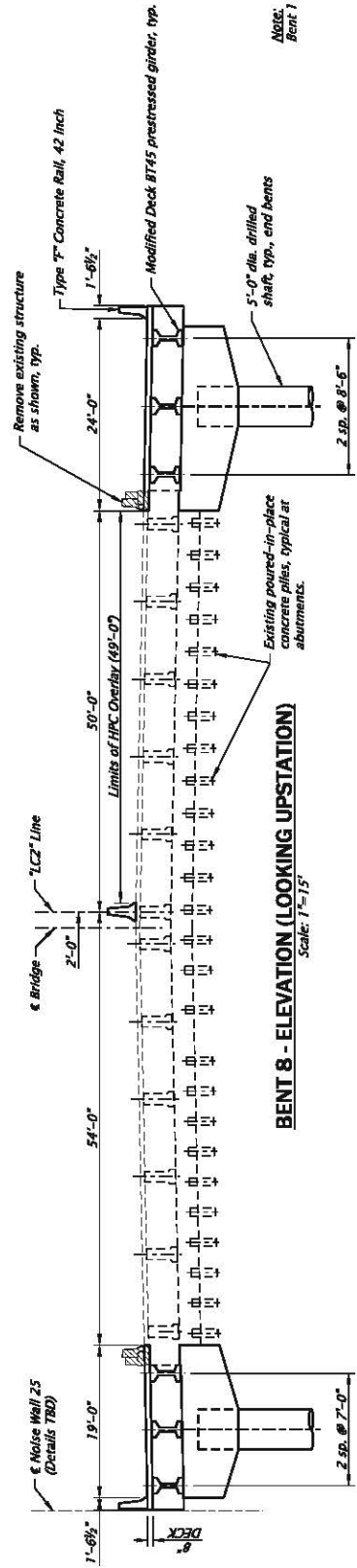
For accompanied by drawings, see sht. JG01

STRUCTURE NO. 085583	DESIGNER HDR		HDR ENGINEERING, INC. 1050 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700	HWY 1 LOWER NE MULTNOMAH BLVD & NE HOLLADAY ST I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY	DESIGNER Cathy Clark	REVIEWER Juhan Dorfflik	SHEET NO. JG04
BOS PROJ NO. 00000	CALC BOOK 0000				DRAWN Heather Graner	CHECKED Kurt Schwabbe	
COUNTY Multnomah	DATE MO/YR					SCALE: 0' = 1/4" = 1'-0" ROTATION: 0°	

SCALE WARNING
IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE



BENT 8 - PLAN
 Scale: 1"=15'



Note:
 Bent 1 similar to Bent 8.

For accompanied by drawings, see sht. JG01

	HDR ENGINEERING, INC. 1050 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700	Reviewer: Judith Dorfleitnik Designer: Caitly Clark Director: Heather Granter	SHEET NO. JG05
	HWY 1 OVER NE MULTNOMAH BLVD & NE HOLLADAY ST I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY	BENT 8 PLAN AND ELEVATION	Rotation: 179.7969° Scale: 1"=15'

CONCEPT DESIGN
 PRELIMINARY ONLY

STRUCTURE NO.	085583
BOS PROJ NO.	000000
CALC BOOK	0000
HWY: D01	
M.P.: 000.000-000.000	
COUNTY	Multnomah
DATE	MO/YR

SCALE WARNING
 IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE



SEC. 34 T. 1 N., R. 1 E., W. 4 M.
LAT. XX.XXXXX, LONG. XXX.XXXXX

LOCATION MAP

No Scale

LEGEND:



Bridge widening

Curve Data

- ① R = 3819.72'
L = 474.35'
T = 237.48'
Δ = 7°06'55"
- ② R = 11459.16'
L = 313.89'
T = 156.95'
Δ = 1°34'10"
- ③ R = 1420.30'
L = 656.49'
T = 334.22'
Δ = 26°29'00"

Spiral Data

- A L = 150.00'
L = 107.90'
X = 149.99'
Y = 0.98'

Note:
Dimensions represented in these plans are based on the ODOT survey data and as-constructed plans. Copies of the as-constructed plans are available upon request.

JACOBS

HWY 2 WB TO HWY 1 NB OVER UPRR (BANFIELD INTERCHG)
I-5 ROSE QUARTER IMPROVEMENT PROJECT

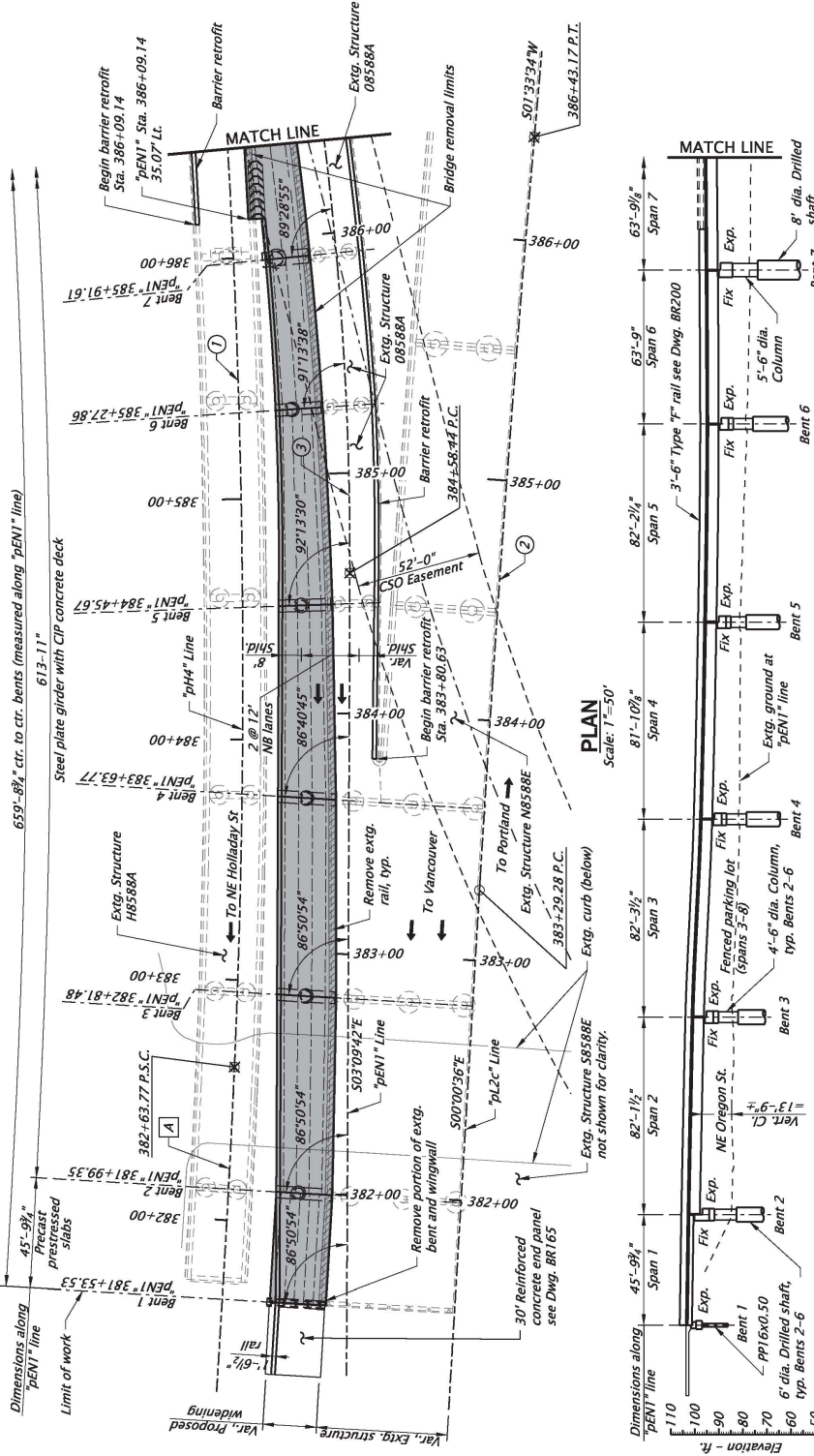
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: R. Coombs
Reviewer: TBD
Draftsman: C. Orsone
Checker: .

PLAN AND ELEVATION 1

SHEET NO. JH01

Scale: 1" = 50'



ACCOMPANIED BY DWGS:
JH02 through JH10.

Note:
Extg. bridge not shown for clarity.

ELEVATION
Scale: 1" = 50'

Note:
See Sht. JH03 for Estimated Preliminary Foundation Data.

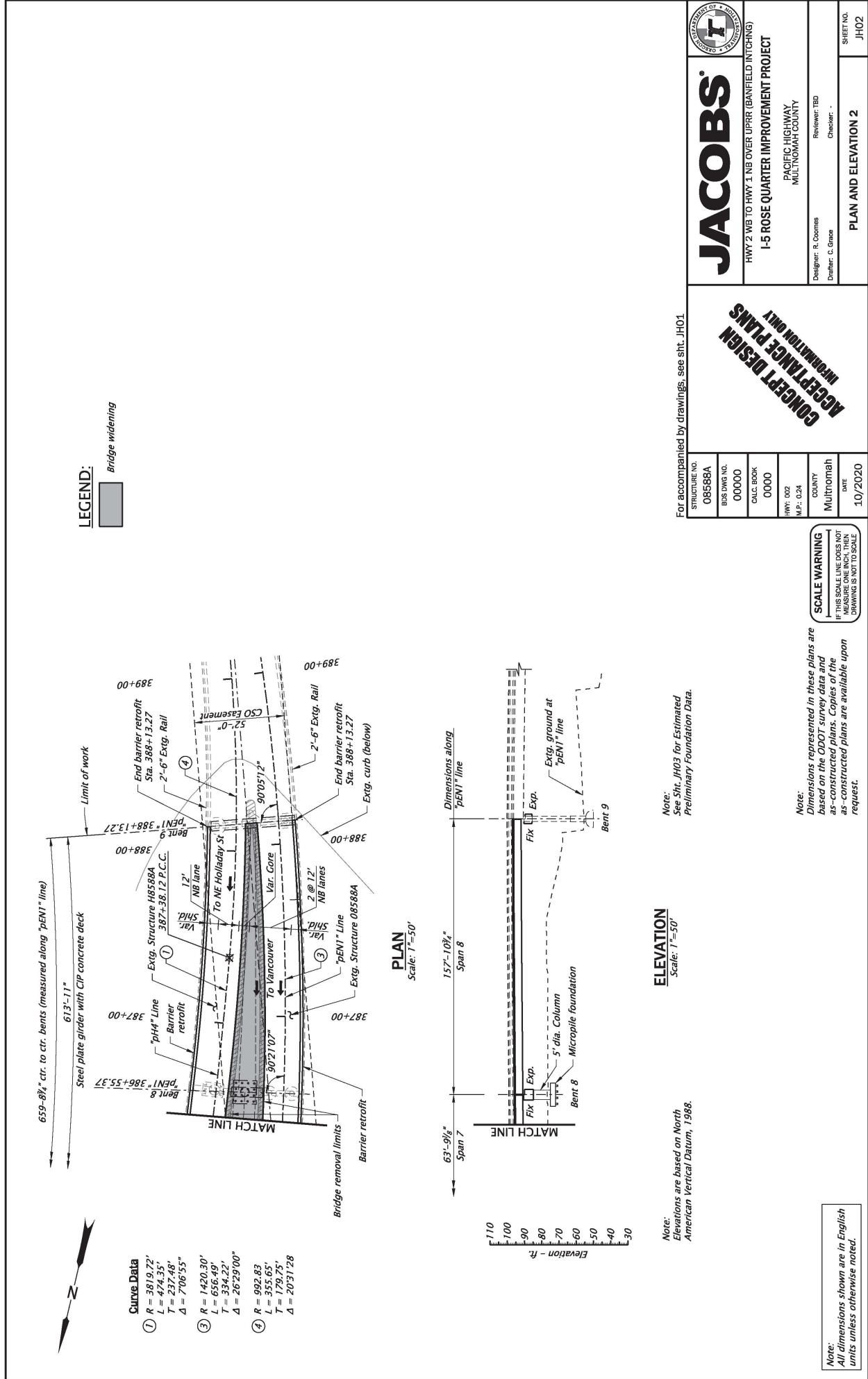
Note:
Elevations are based on North American Vertical Datum, 1988.

CONCEPT DESIGN
INFORMATION ONLY

STRUCTURE NO.	08588A
BUS DWG NO.	00000
CALC. BOOK	0000
HWY: 002	
M.P.: 0.24	
COUNTY	Multnomah
DIST	
DATE	10/2020

SCALE WARNING
IF THIS SCALE LINE DOES NOT DRAWING IS NOT TO SCALE

Note:
All dimensions shown are in English units unless otherwise noted.



LEGEND:
 Bridge widening

- Curve Data**
- ① R = 3819.72'
L = 474.35'
T = 237.46'
Δ = 7°06'55"
 - ② R = 1420.30'
L = 656.49'
T = 334.22'
Δ = 26°29'00"
 - ③ R = 992.83'
L = 355.65'
T = 179.75'
Δ = 20°31'28"

PLAN
 Scale: 1"=50'

ELEVATION
 Scale: 1"=50'

Note:
 Elevations are based on North American Vertical Datum, 1988.

Note:
 See Sht. JH03 for Estimated Preliminary Foundation Data.

Note:
 Dimensions represented in these plans are based on the ODOT survey data and as-constructed plans. Copies of the as-constructed plans are available upon request.

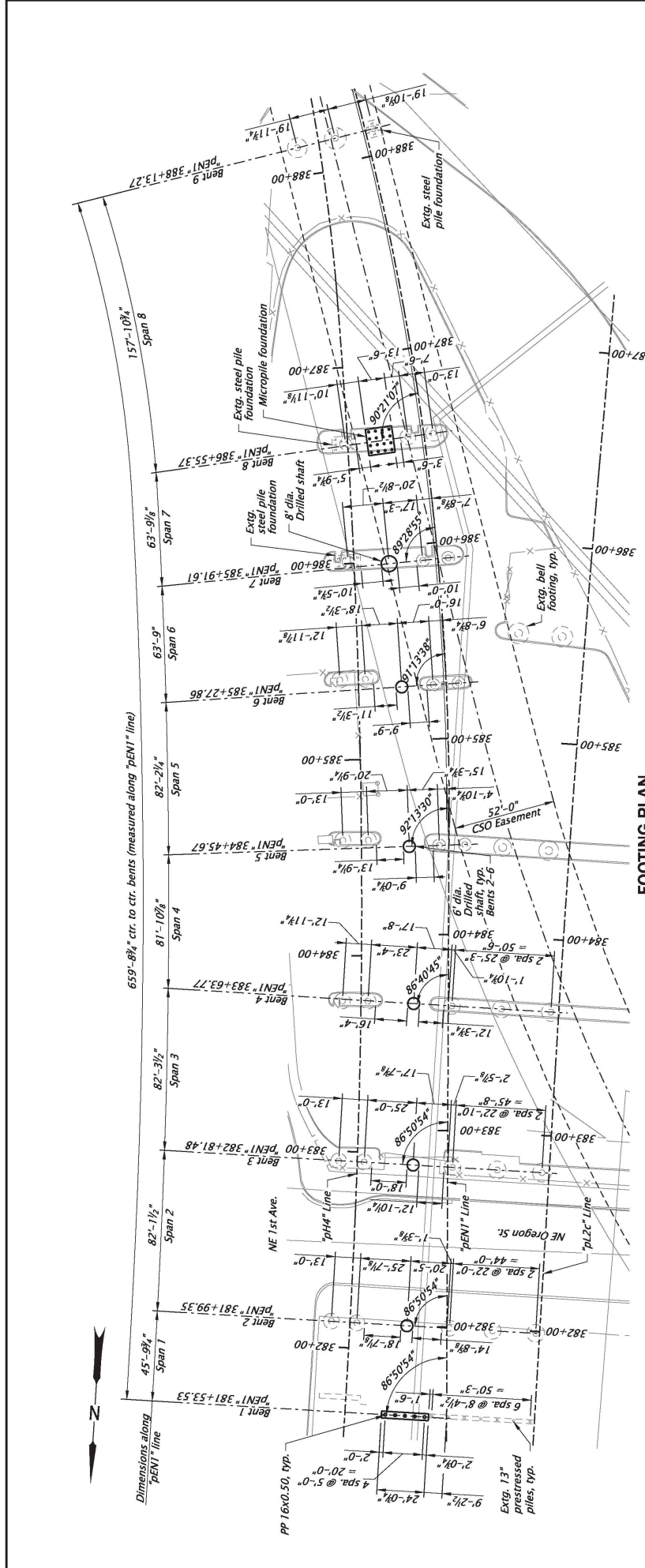
SCALE WARNING
 THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE

**CONCEPT DESIGN
 ACCEPTANCE PLANS
 INFORMATION ONLY**

For accompanied by drawings, see sht. JH01

STRUCTURE NO. 08588A	BUS DWG NO. 00000	CALC. BOOK 0000	HWY: 002 M.P.: 0.24	COUNTY Multnomah	DESIGNER: R. Coomis DRAFTER: C. Grace	REVIEWER: TBD CHECKER: .	SHEET NO. JH02
JACOBS HWY 2 WB TO HWY 1 NB OVER UPRR (BANFIELD INTERCHG) I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY							PLAN AND ELEVATION 2
Scale: 1"=50' Rotation: 283.2249°							FIN. ELECTRONIC DOCUMENT ANALYSIS REQUIRED

Note:
 All dimensions shown are in English units unless otherwise noted.



FOOTING PLAN
Scale: 1"=50'

ESTIMATED PRELIMINARY FOUNDATION DATA

Bent	Foundation Type	Element Size	Number	Tip Elev. (ft)	Average Length (ft)	Permanent Casing Length (ft)
1	PP 16x0.50	1'-4" dia.	5	40.00	57.00	-
2	Drilled Shaft	6'-0" dia.	1	53.00	30.00	-
3	Drilled Shaft	6'-0" dia.	1	52.00	30.00	-
4	Drilled Shaft	6'-0" dia.	1	50.00	30.00	-
5	Drilled Shaft	6'-0" dia.	1	54.00	25.00	-
6	Drilled Shaft	6'-0" dia.	1	51.00	25.00	-
7	Drilled Shaft	8'-0" dia.	1	55.00	20.00	-
8	Micropile	9" dia.	16	40.00	34.00	19.00

CONCEPT DESIGN
ACCEPTANCE PLANS
INFORMATION ONLY

For accompanied by drawings, see sht. JH01

STRUCTURE NO.	08588A
BAS. DIMS. NO.	00000
CALC. BOOK	0000
HWY. DIST.	M.P.: 0.24
COUNTY	Multnomah
DIST.	10/2020

SCALE WARNING
IF THIS SCALE LINE DOES NOT MATCH THE SCALE OF THE DRAWING IS NOT TO SCALE

STATE OF OREGON
DEPARTMENT OF TRANSPORTATION

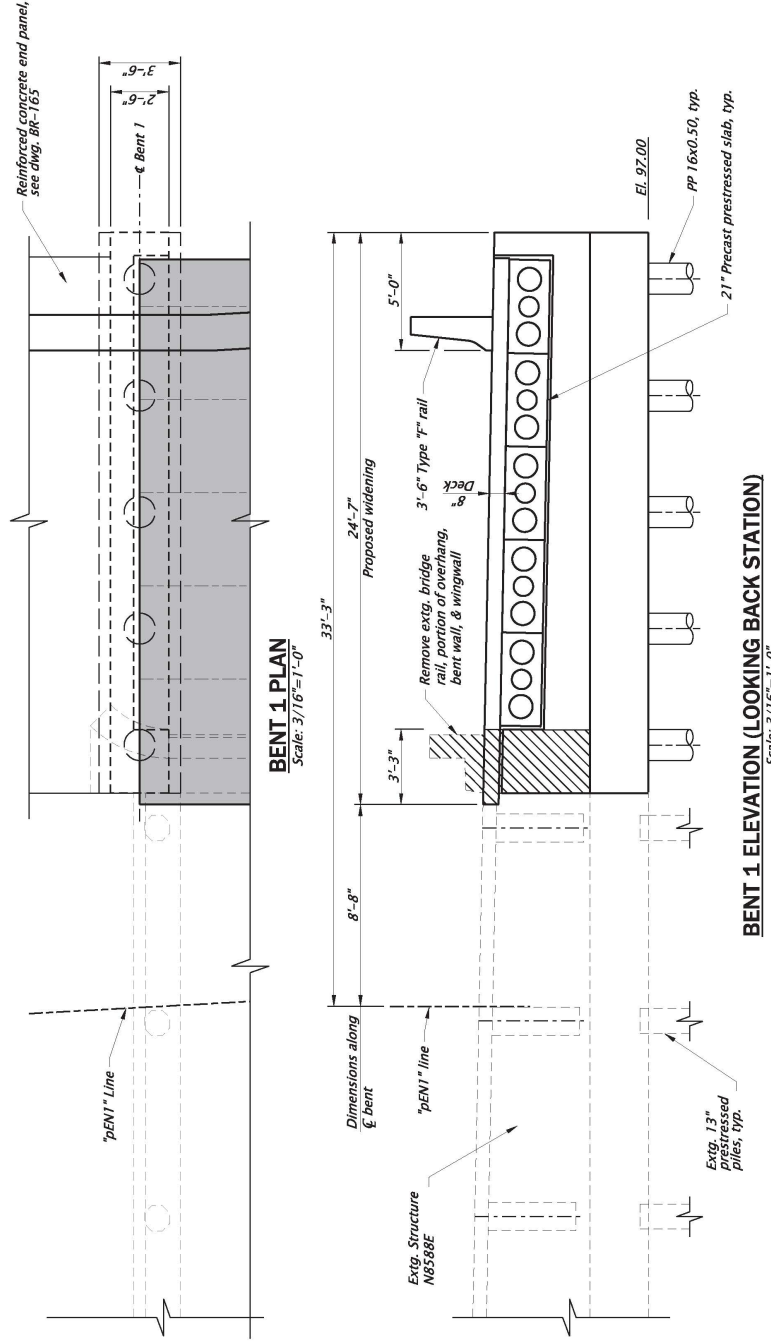
JACOBS

HWY 2 WB TO HWY 1 NB OVER UPRR (BANFIELD INTERCHG)
I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Designer: R. Coombs
Draftsman: C. Orace
Reviewer: TBD
Checker: .

FOOTING PLAN

SHEET NO. JH03
Scale: 1"=50'

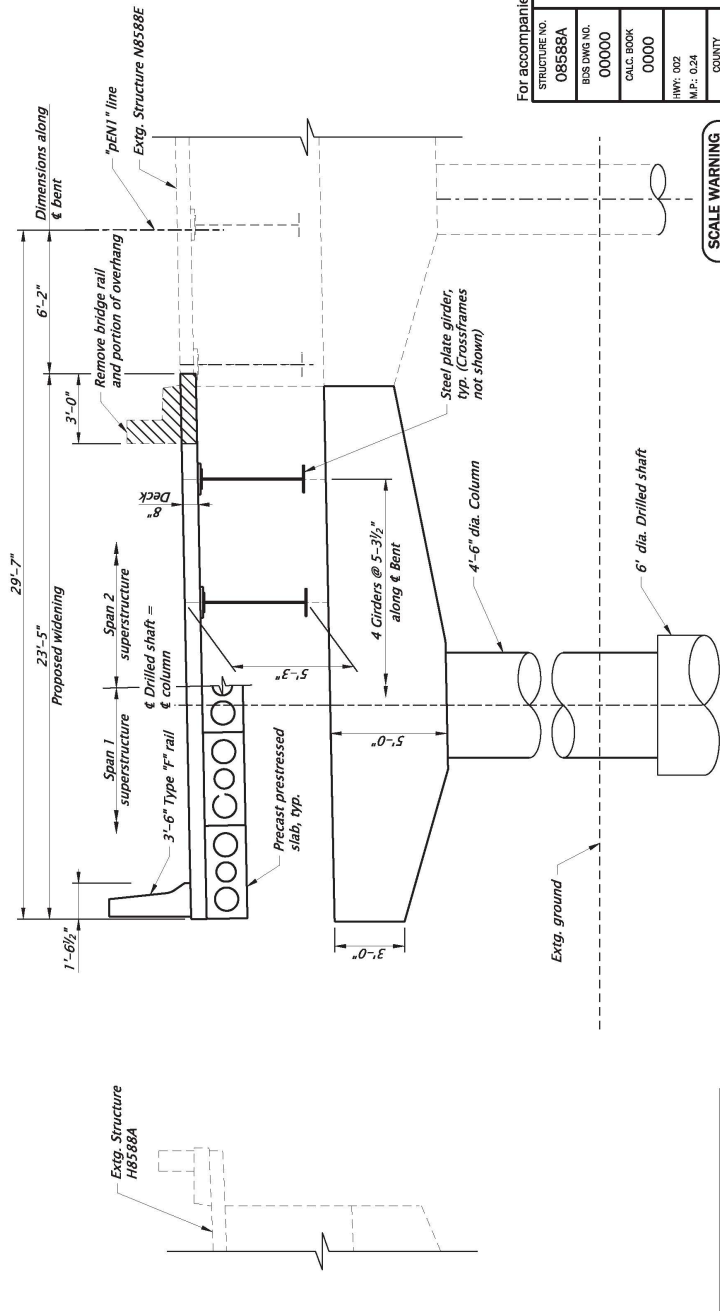
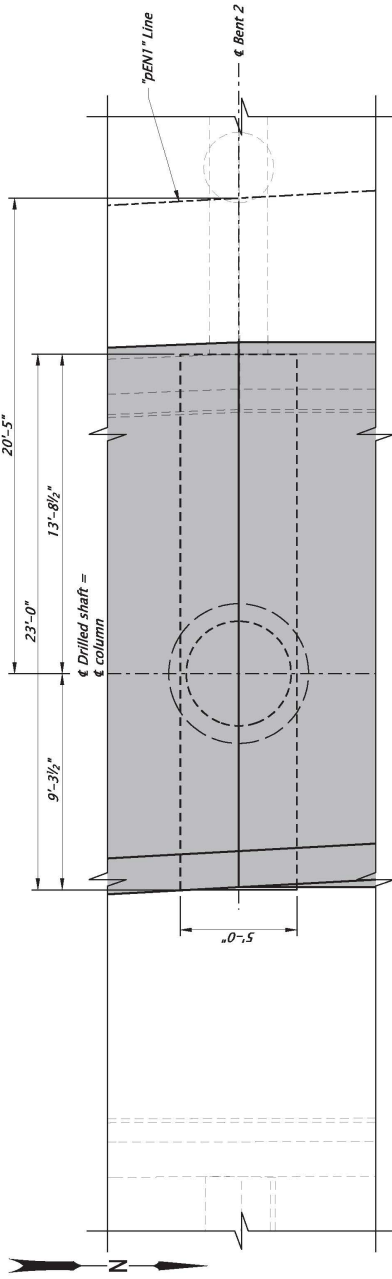
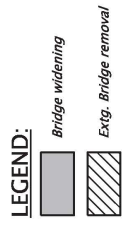


For accompanied by drawings, see sht. JH01

HWY 2 WB TO HWY 1 NB OVER UPRR (BANFIELD INTERCH) I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY			
STRUCTURE NO. 08588A BUS. DWG. NO. 00000 CALC. BOOK 0000 HWY: 002 M.P.: 0.24	DESIGNER: R. Coomis DRAFTER: C. Greco	REVIEWER: TBD CHECKER:	SHEET NO. JH04
BENT 1 PLAN AND ELEVATION			ROTATION: 0.0099° Scale: 3/16"=1'-0"

CONCEPT DESIGN
INFORMATION ONLY

FINAL ELECTRONIC DOCUMENT
 ANALYSIS/PATENT REQUEST



SCALE WARNING
IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE

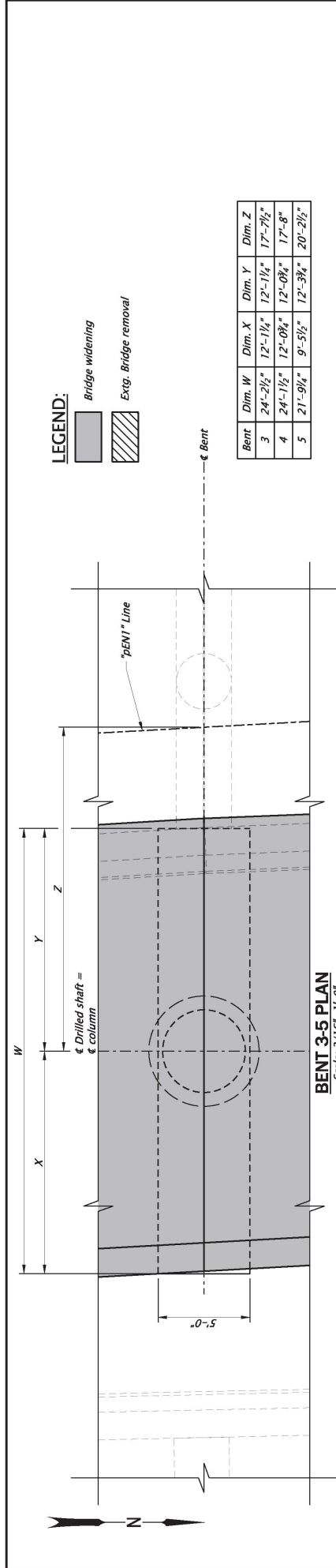
Note:
All dimensions shown are in English units unless otherwise noted.

CONCEPT DESIGN
INFORMATION ONLY

For accompanied by drawings, see sht. JH01

STRUCTURE NO. 08588A	BUS. DIV. NO. 00000	CALC. BOOK 0000	HWY. 002	COUNTY Multnomah	DATE 10/2020
			HWY 2 WB TO HWY 1 NB OVER UPRR (BANFIELD INTERCHG) 1-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY		
Designer: R. Coomis Drafter: C. Grace			Reviewer: TBD Checker:		
BENT 2 PLAN AND ELEVATION					SHEET NO. JH05

Rotation: 180.0099" Scale: 3/16"=1'-0"

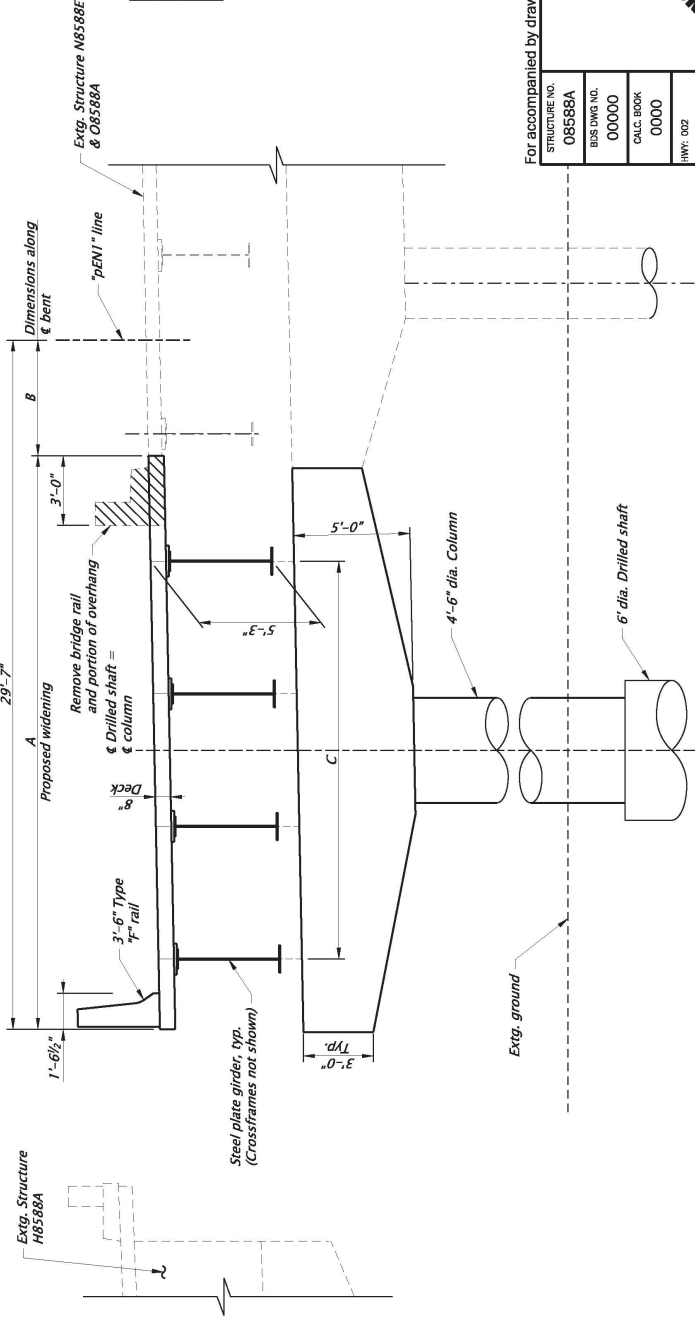


BENT 3-5 PLAN
Scale: 3/16"=1'-0"

LEGEND:
 Bridge widening
 Exgt. Bridge removal

Bent	Dim. W	Dim. X	Dim. Y	Dim. Z
3	24'-2 1/2"	12'-1 1/4"	12'-1 1/4"	17'-7 1/2"
4	24'-1 1/2"	12'-0 3/4"	12'-0 3/4"	17'-8"
5	21'-9 1/2"	9'-5 1/2"	12'-3 3/4"	20'-2 1/2"

Bent	Dim. A	Dim. B	Dim. C
3	24'-7 1/2"	4'-1 1/2"	4 Girders @ 5'-8 1/4"
4	24'-3"	5'-4"	4 Girders @ 5'-8"
5	22'-5"	7'-2"	4 Girders @ 4'-11"



BENT 3-5 ELEVATION
Scale: 3/16"=1'-0"

SCALE WARNING
 IF THIS SCALE LINE DOES NOT
 MEASURE ONE INCH, THEN
 DRAWING IS NOT TO SCALE

Notes:
 All dimensions shown are in English
 units unless otherwise noted.

For accompanied by drawings, see sht. JH01

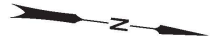
JACOBS
 HWY 2 WB TO HWY 1 NB OVER UPRR (BANFIELD INTERCHG)
 I-5 ROSE QUARTER IMPROVEMENT PROJECT
 PACIFIC HIGHWAY
 MULTNOMAH COUNTY



Design: R. Coombs
 Drafter: C. Grace
 Reviewer: TBD
 Checker: .

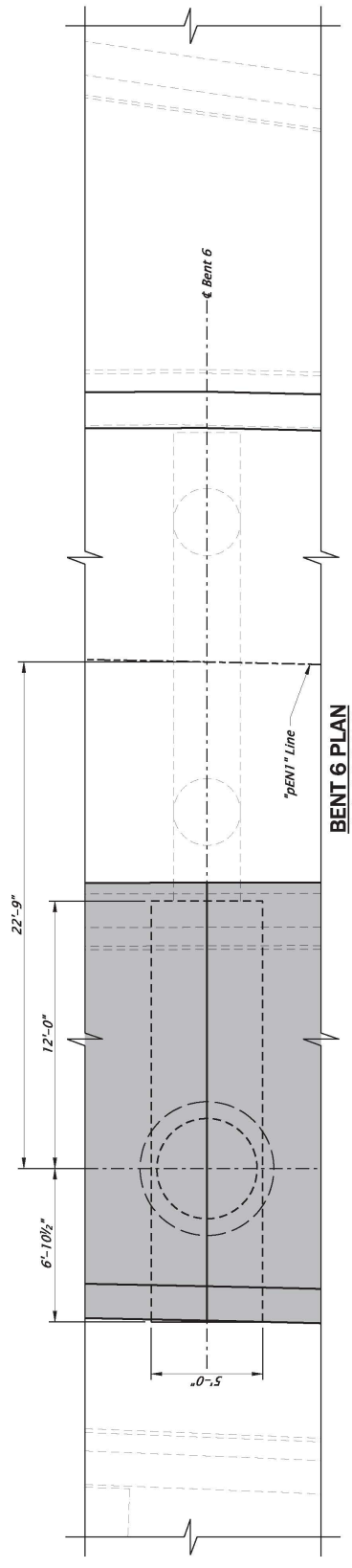
STRUCTURE NO. 08588A
 BUS DWS NO. 00000
 CALC. BOOK 0000
 HWY: 002
 M.P.: 0.24
 COUNTY Multnomah
 DATE 10/2020

CONCEPT DESIGN
INFORMATION ONLY

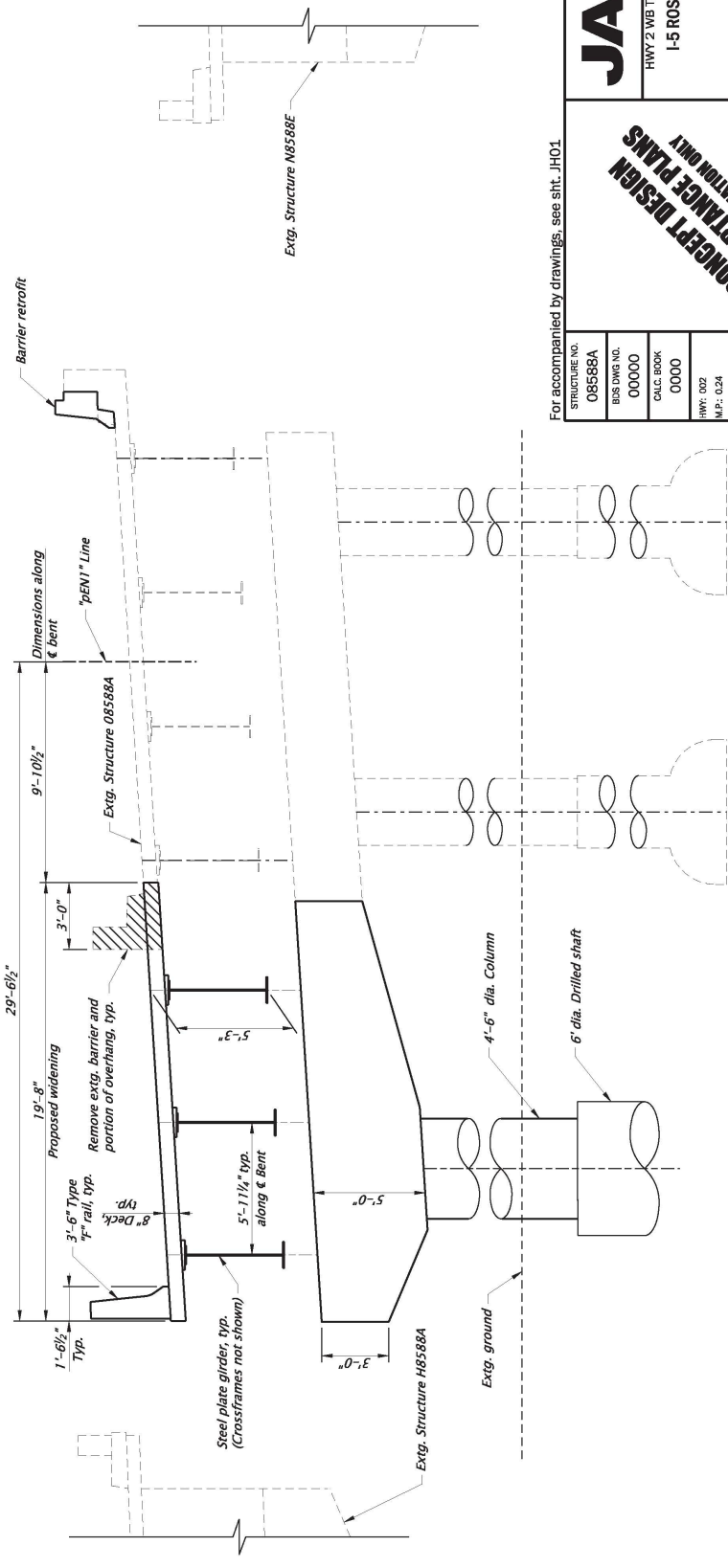
REVISIONS
 SHEET NO. JH06
 BENT 3-5 PLAN AND ELEVATION
 Scale: 3/16"=1'-0"



LEGEND:
 Bridge widening
 Extg. Bridge removal



BENT 6 PLAN
 Scale: 3/16" = 1'-0"




BENT 6 ELEVATION
 Scale: 3/16" = 1'-0"

SCALE WARNING
 IF THIS SCALE LINE DOES NOT MATCH THE DRAWING IS NOT TO SCALE

Notes:
 All dimensions shown are in English units unless otherwise noted.

For accompanied by drawings, see sht. JH01



 HWY 2 WB TO HWY 1 NB OVER UPRR (BANFIELD INTERCHG) 1-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY		SHEET NO. JH07
STRUCTURE NO. 08588A BUS DWS NO. 00000 CALC. BOOK 0000 HWY: 002 M.P.: 0.24		REVIEWER: TBD CHECKER: .
COUNTY Multnomah DATE 10/2020		BENT 6 PLAN AND ELEVATION

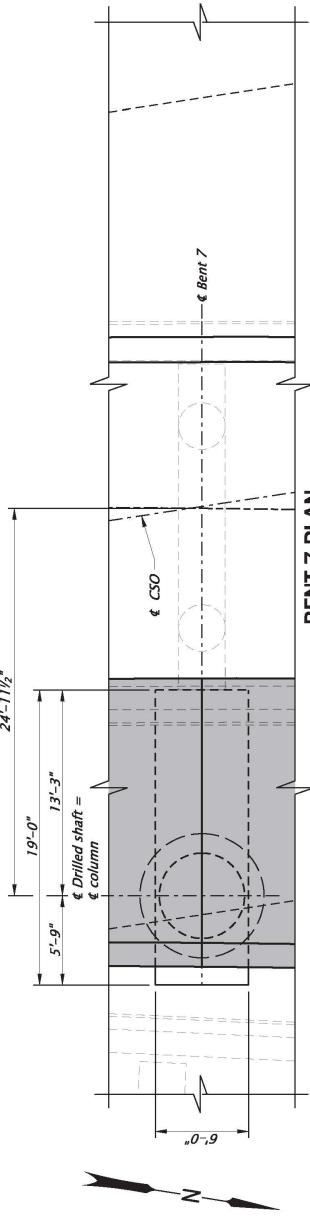
CONCEPT DESIGN
 INFORMATION ONLY

FINAL ELECTRONIC DOCUMENT
 ANALYSIS PER REQUIRED

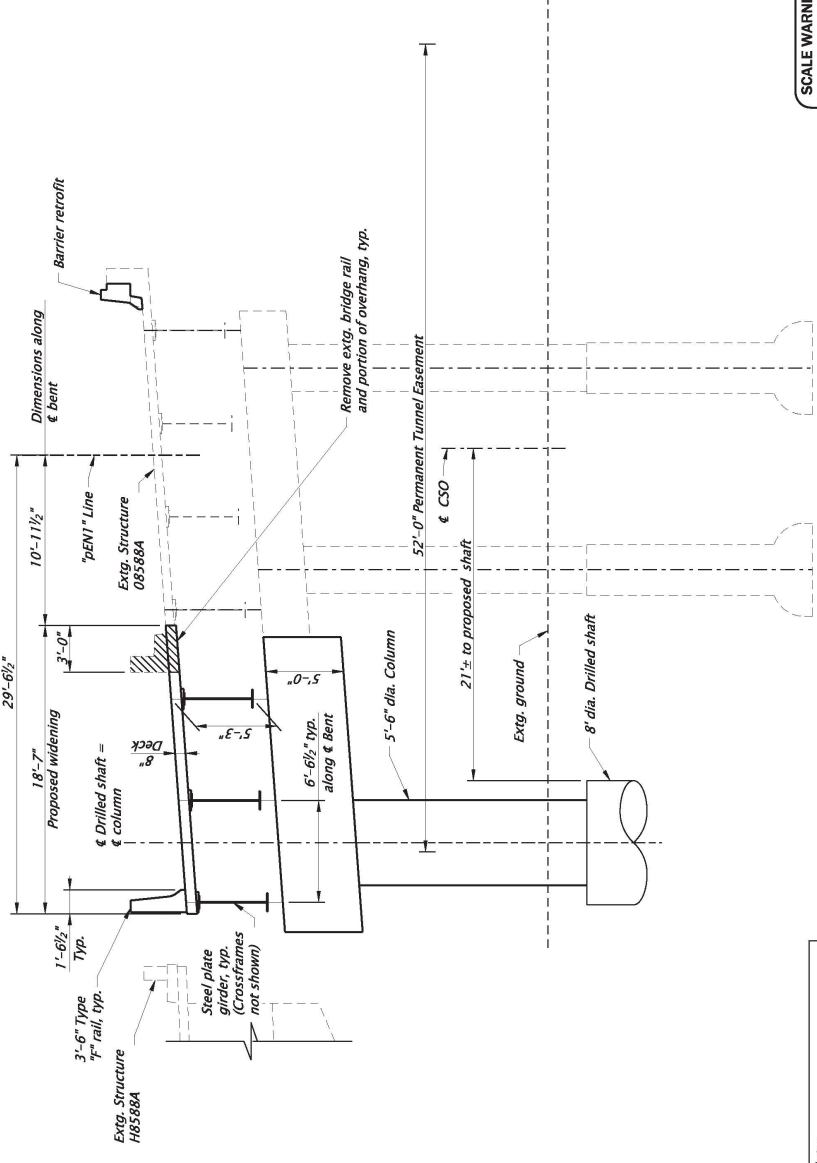
Rotation: 187.1894" Scale: 3/16" = 1'-0"

LEGEND:

-  Bridge widening
-  Extg. Bridge removal



BENT 7 PLAN
Scale: 1/8"=1'-0"





BENT 7 ELEVATION
Scale: 1/8"=1'-0"

Note:
All dimensions shown are in English units unless otherwise noted.

SCALE WARNING
IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE




For accompanied by drawings, see sht. JH01

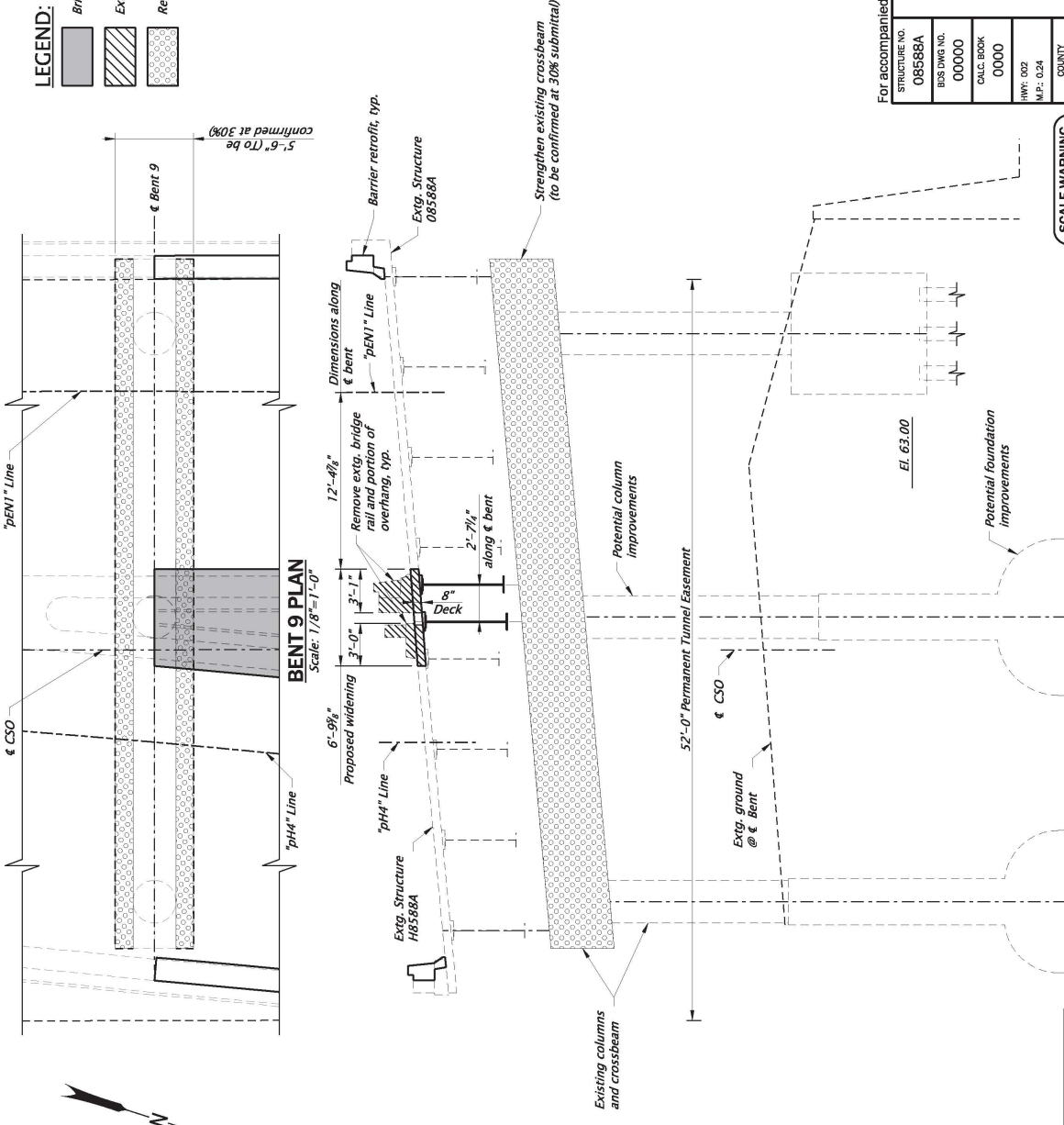
			
HWY 2 WB TO HWY 1 NB OVER UPRR (BANFIELD INTERCH) I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY			
STRUCTURE NO. 08588A BUS DWS NO. 00000 CALC. BOOK 0000 HWY: 002 M.P.: 0.24	COUNTY Multnomah DATE 10/2020	Designer: R. Coomis Drafter: C. Grace Reviewer: TBD Checker: .	SHEET NO. JH08 BENT 7 PLAN AND ELEVATION Rotation: 1/8"=1'-0"

CONCEPT DESIGN
INFORMATION ONLY


FINAL ELECTRONIC DOCUMENT
 ANALYSIS FOR REQUEST

LEGEND:

-  Bridge widening
-  Extg. Bridge removal
-  Retrofit extg. bridge element



CONCEPT DESIGN
INFORMATION ONLY



JACOBS

HWY 2 WB TO HWY 1 NB OVER UPRR (BANFIELD INTERCHG)
I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

STRUCTURE NO. 08588A BUS DWG NO. 00000 CALC BOOK 0000 HWY: 002 M.P.: 0.24	Designer: R. Coomis Drafter: C. Orace Reviewer: TBD Checker:	BENT 9 PLAN AND ELEVATION SHEET NO. JH10
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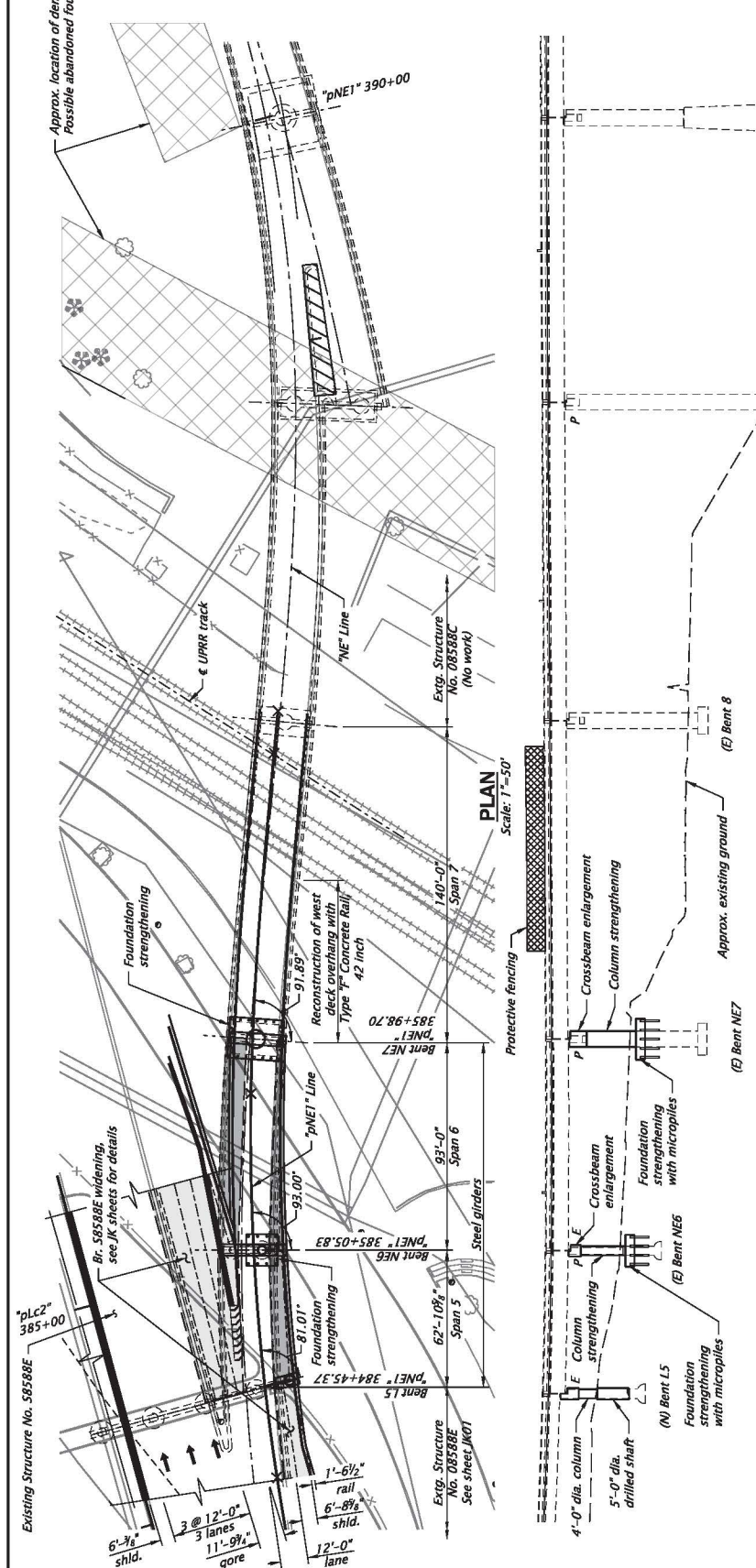
Rotation: 197.5625° Scale: 1/8"=1'-0"

For accompanied by drawings, see sht. JH01

FINAL ELECTRONIC DOCUMENT
ANALYSIS PER REQUEST



Approx. location of demolished timber trestle wharfs.
Possible abandoned foundations in these areas.

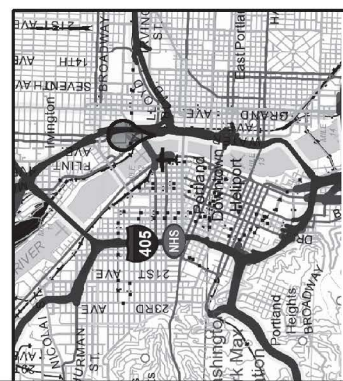


DEVELOPED ELEVATION
Scale: 1"=50'



ESTIMATED PRELIMINARY FOUNDATION DATA

Bent	Foundation Type	Element Size	Number	Tip Elev. (ft)	Average Length (ft)	Permanent Casing Length (ft)
L5	Drilled Shaft	5'-0" dia.	1	34	40	34
NE5	Micropile	9 7/8" dia.	12	21	37	22
NE7	Micropile	9 7/8" dia.	20	-	57	42



LOCATION MAP

SEC. 34, 17N, 12E, 1W
LAT. 45.52555; LONG. -122.66581

HDR ENGINEERING, INC.
1050 SW 6TH AVENUE, SUITE 1800
PORTLAND, OR 97204-1134
503.423.3700

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

HWY 1 SB TO HWY 2 EB OVER HWY 1 & CONNS (BANFIELD INTERCHANGE)

DESIGNED BY: JJO2 and JJO3

STRUCTURE NO. 08588C

BUS ENG NO. 000000

CALC. BOOK 0000

HWY. 001

M.P. 000.00-000.00

COUNTY Multnomah

DATE MO/YR

DESIGNER: Name

DRAWN: H. Gansbar

REFERENCED: Name

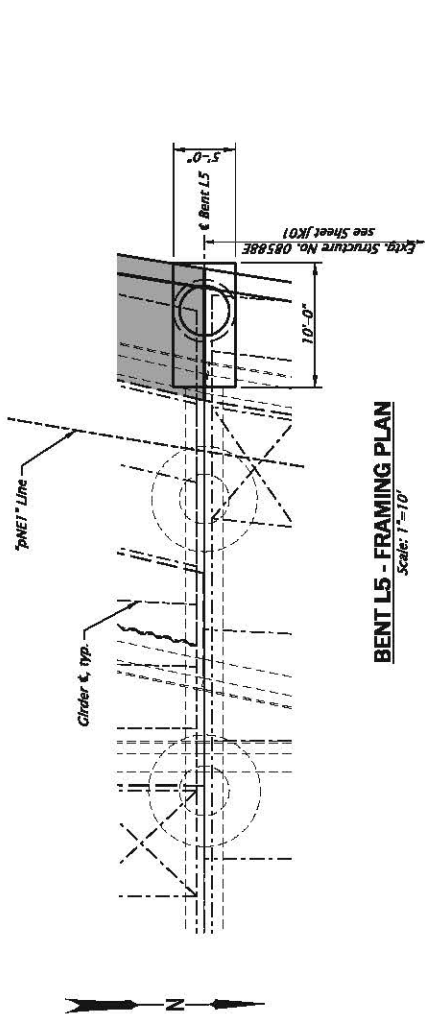
CHECKED: Name

PARTIAL PLAN & ELEVATION - BENTS 5-10

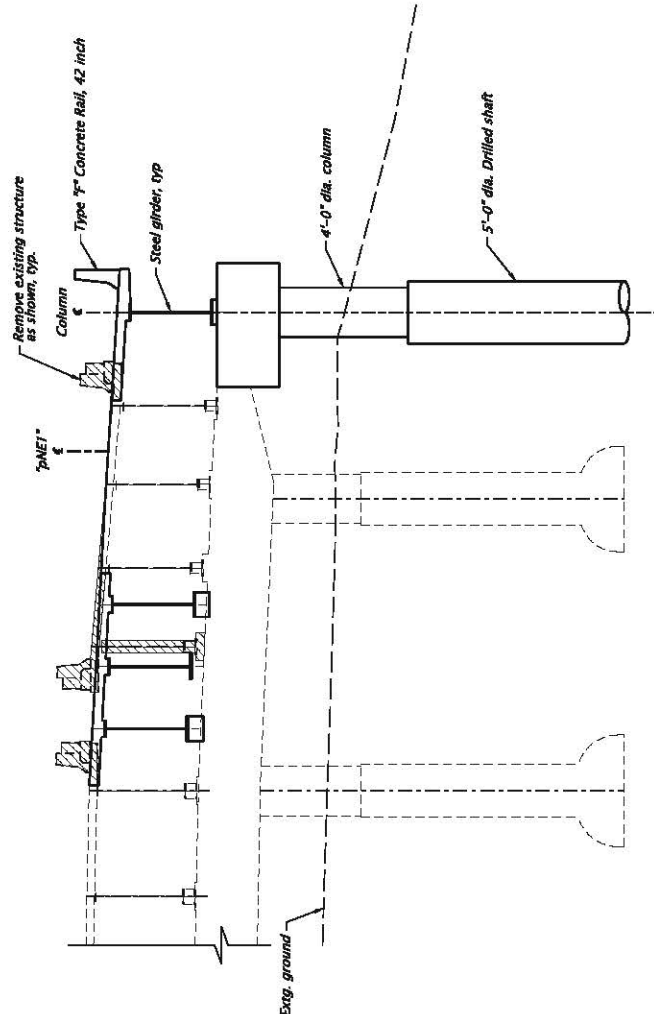
SHEET NO. JJ01

CONCEPT DESIGN
FOR INFORMATION ONLY

SCALE WARNING
IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWINGS SHOULD BE USED



BENT L5 - FRAMING PLAN
Scale: 1"=10'



BENT L5 - ELEVATION
Scale: 1"=10'

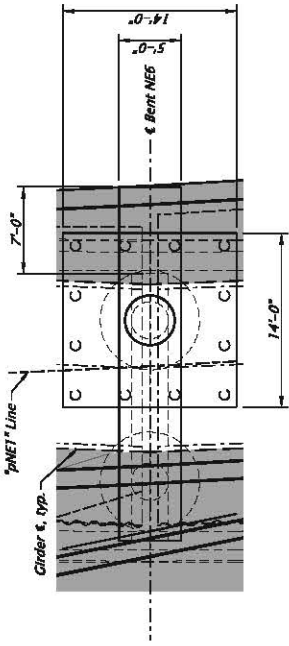
Note:
Bridge deck omitted from Framing Plan for clarity.

For accompanied by drawings, see sht. J01.

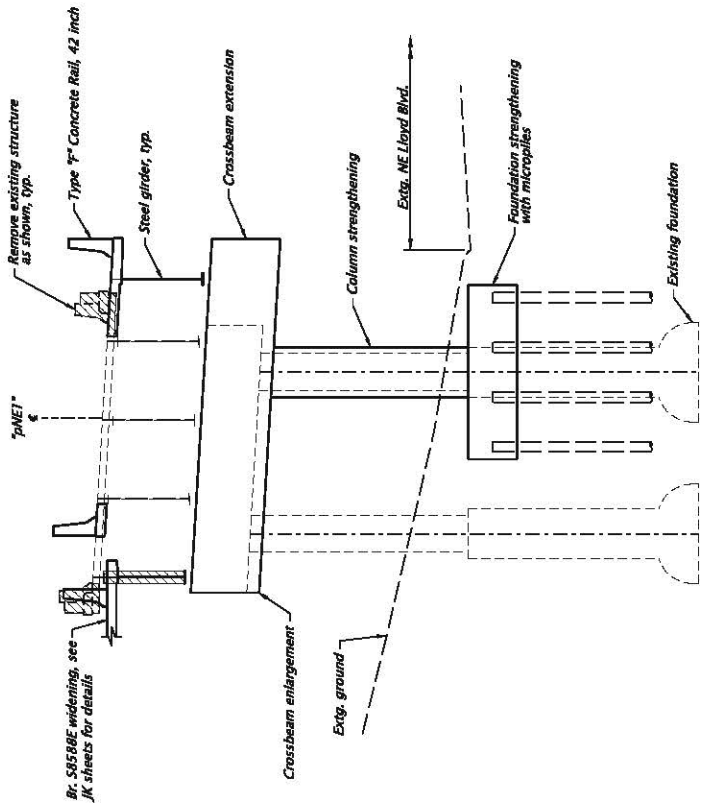
 HDR HDR ENGINEERING, INC. 1050 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700		HWY 1 SB TO HWY 2 EB OVER HWY 1 & CONNS (BANFIELD INTERCHANGE)	
I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY		Designer: Name Designer: H. Gerner	
Reviewer: Name Designer: Name		BENT 5 PLAN AND ELEVATION	
STRUCTURE NO. 08588C		SHEET NO. J02	
BOS PROJ NO. 00000		BENT 5 PLAN AND ELEVATION	
CALC BOOK 0000		DATE MC/YR	
HWY: 001 M.P.: 000.00-000.00		COUNTY Multnomah	
SCALE WARNING IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE		ROTATION: 179.431° Scale: 1"=10'	

CONCEPT DESIGN
 PRELIMINARY ONLY

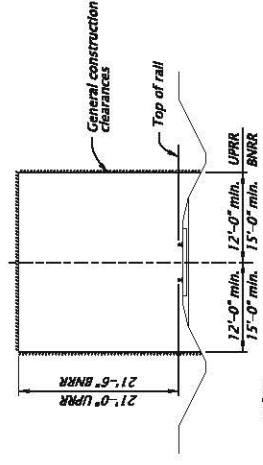
FOR ELECTRONIC DOCUMENT
 MANIPULATION REQUIREMENT



BENT NEG - FRAMING PLAN
Scale: 1"=10"



BENT NEG - ELEVATION
Scale: 1"=10"



NOTE:
On curved track, add 1/2" clearance per degree of curve.


GENERAL RAILROAD CONSTRUCTION CLEARANCES

- Notes:**
1. Bridge deck omitted from Framing Plan for clarity.
 2. Bent NEG similar to Bent NEG, except existing foundation being strengthened is spread footing.

For accompanied by drawings, see sht. J101

STRUCTURE NO.	08588C
BOS BNO NO.	00000
CALC. BOOK	0000
HWY. DIST.	M.P.: 000.000-000.000
COUNTY	Multnomah
DATE	MO/YR

SCALE WARNING
IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE



HDR
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1050 SW 6TH AVENUE, SUITE 1600
PORTLAND, OR 97204-1134
503.423.3700

I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

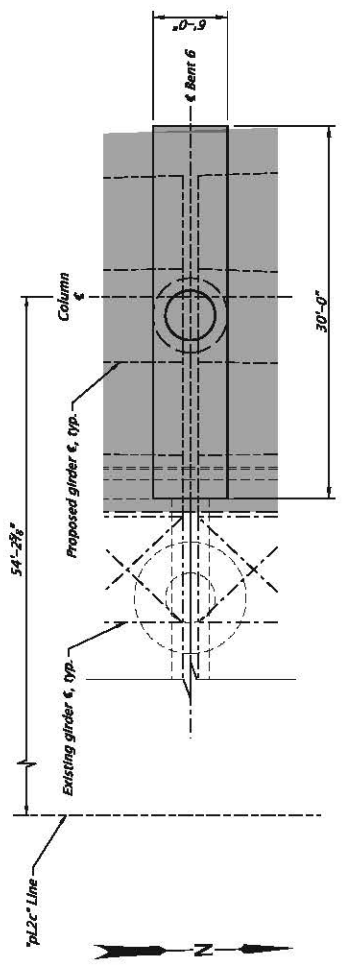
HWY 1 SB TO HWY 2 EB OVER HWY 1 & CONNS (BANFIELD INTERCHANGE)

Revision: Name
Designer: Name
Director: H. Gonsior

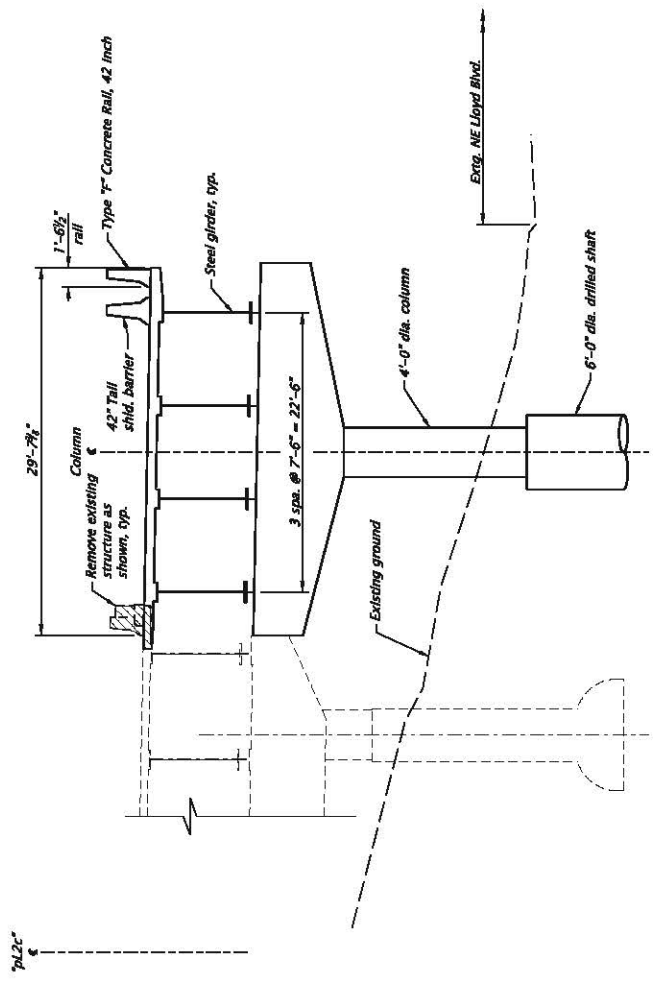
BENT 6 PLAN AND ELEVATION

SHEET NO. J103

Rotation: 163.9564° Scale: 1"=10'



BENT L6 - FRAMING PLAN
Scale: 1"=10'



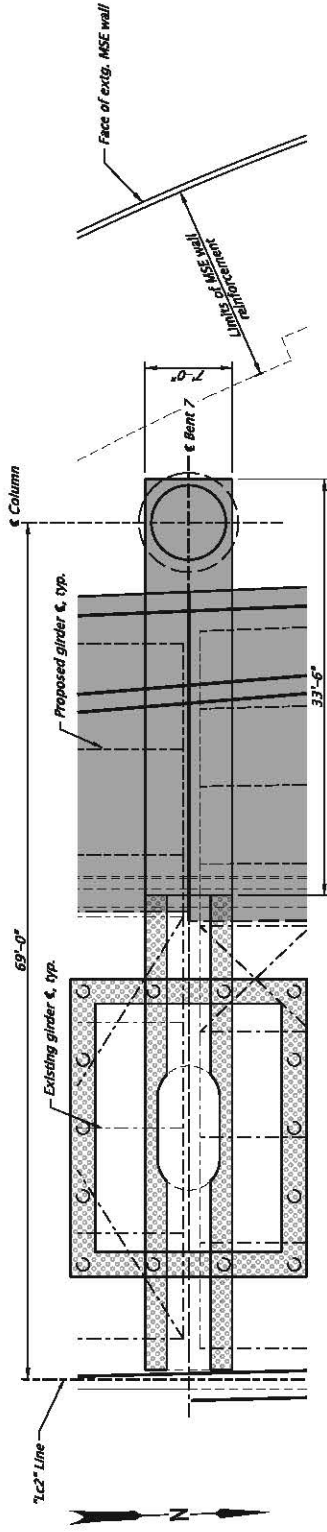
BENT L6 - ELEVATION
Scale: 1"=10'

- Notes:
1. Bridge deck omitted from Framing Plan for clarity.
 2. Bents 2, 3, and 4 similar to Bent 6 with 5'-0" dia. drilled shafts.

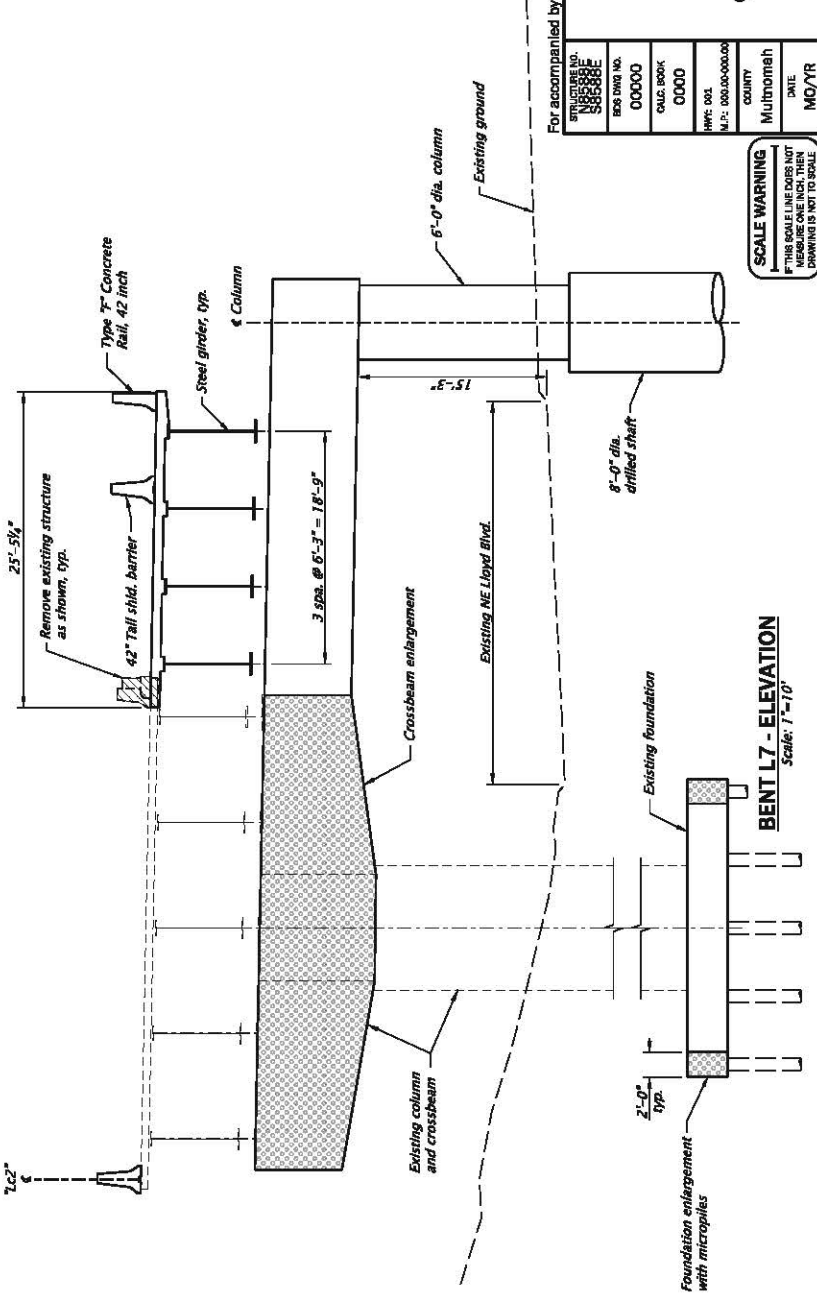
For accompanied by drawings, see sht. JK01

	HDR HDR ENGINEERING, INC. 1050 SW 6TH AVENUE, SUITE 1800 PORTLAND, OR 97204-1134 503.423.3700	EAST BANFIELD INTERCHANGE I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY	Designer: Caiti Clark Director: Heather Grenier	Reviewer: Justin Dorfleitnik Designer: Mayela Young	SHEET NO. JK03
CONCEPT DESIGN INTERCHANGE ONLY			BENT L6 PLAN AND ELEVATION		
PROJECT NO. 178886	BGS BNO NO. 00000	CALC. BOOK 0000	HWY: 001 M.P.: 000.000-000.000	COUNTY Multnomah	DATE MO/YR

SCALE WARNING
 IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE



BENT L7 - FRAMING PLAN
Scale: 1"=10'



BENT L7 - ELEVATION
Scale: 1"=10'

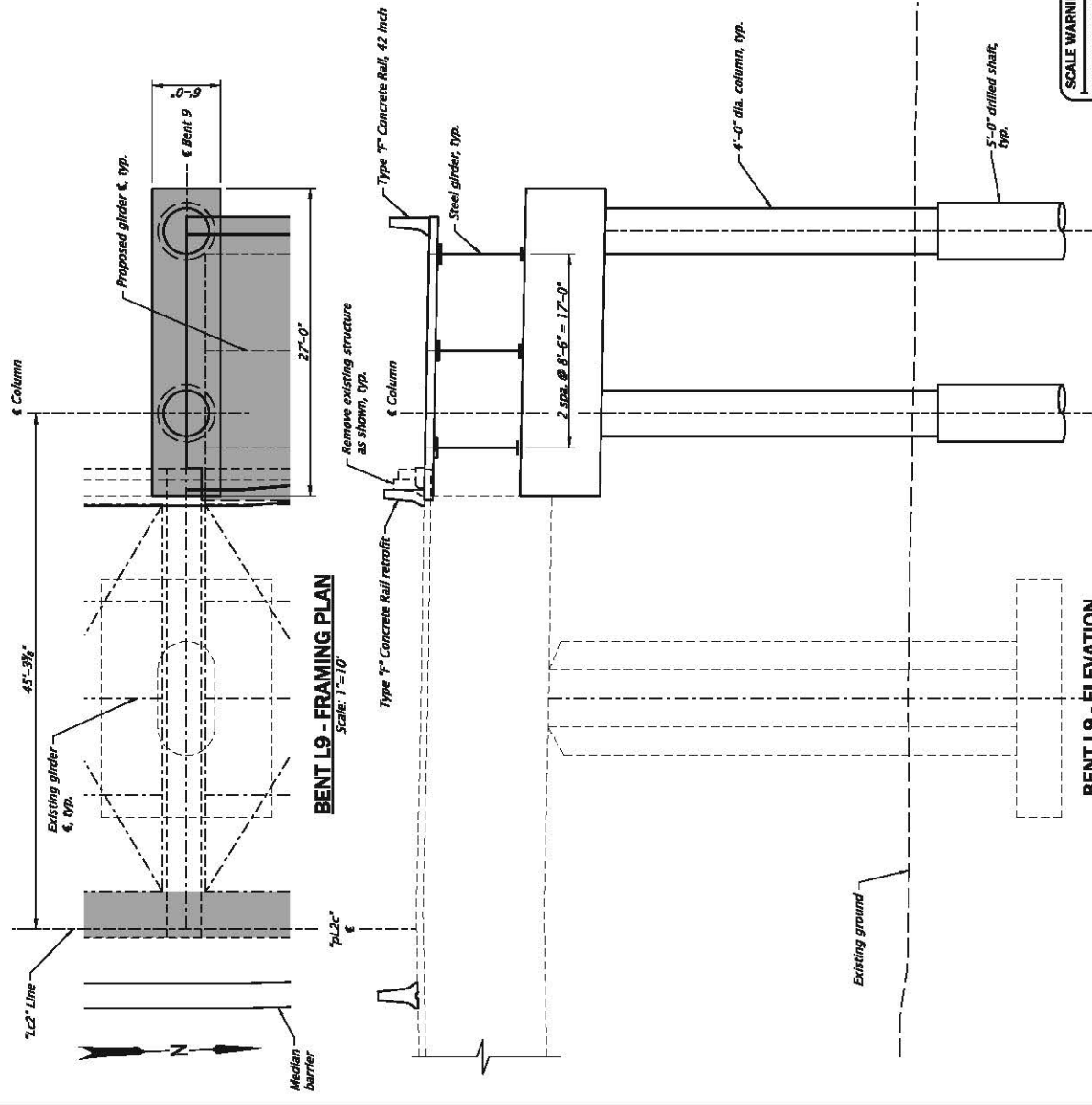
Notes:
Bridge deck omitted from Framing Plan for clarity.

For accompanied by drawings, see sht. JK01

	HDR ENGINEERING, INC. 1030 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700	EAST BANFIELD INTERCHANGE I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY	Designer: Caiti Clark Designer: Heather Grenier Reviewer: Justin Dorfleitnik Designer: Mayela Young	SHEET NO. JK04
	PROJECT NO. 1805888E BOS PROJ NO. 00000 CALC BOOK 0000 HWY: OAS M.P.: 000.000-000.000	COUNTY Multnomah	DATE MC/YR	ROTATION: 178.4405° SCALE: 1"=10'

CONCEPT DESIGN
PRELIMINARY ONLY

SCALE WARNING
 IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE



BENT L9 - FRAMING PLAN
Scale: 1"=10'

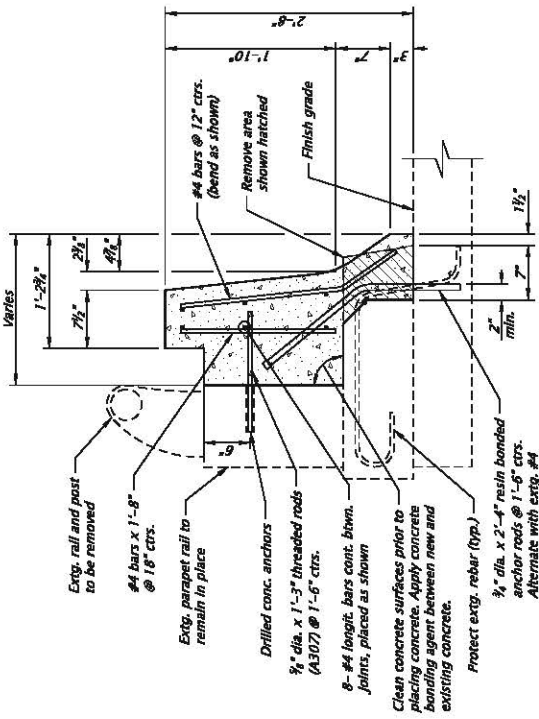
BENT L9 - ELEVATION
Scale: 1"=10'

Notes:
1. Bridge deck omitted from Framing Plan for clarity.

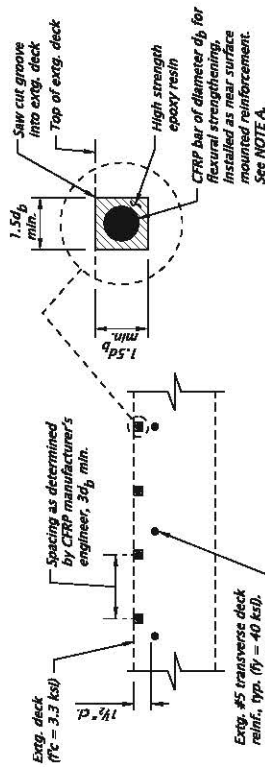
For accompanied by drawings, see sht. JK01

	HDR ENGINEERING, INC. 1030 SW 6TH AVENUE, SUITE 1600 PORTLAND, OR 97204-1134 503.423.3700	EAST BANFIELD INTERCHANGE I-5 ROSE QUARTER IMPROVEMENT PROJECT PACIFIC HIGHWAY MULTNOMAH COUNTY	Designer: Caiti Clark Director: Heather Grenier	Revision: Justin Dorfleit Designer: Mayela Young	SHEET NO. JK05
	CONCEPT DESIGN PRELIMINARY ONLY			BENT L9 PLAN AND ELEVATION	Scale: 1"=10' Rotation: 178.4405°
PROJECT NO. 88588E	BCS DRAW NO. 00000	CALC. BOOK 0000	HWY. DIST. M.P.: 000.00-000.00	COUNTY Multnomah	DATE MD/YR

SCALE WARNING
IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE



TYPE F CONCRETE RAIL RETROFIT
Scale: 3/4"=1'-0"




NOTE A:
Strengthen the extg. deck overhang to provide additional factored moment capacity of 9.0 kip-ft per foot of deck from the resistance of the CFRP reinforcement. See Special Provision 00566 for further details and requirements.

INTERIOR DECK OVERHANG STRENGTHENING
No scale

For accompanied by drawings, see sht. JK01

PROJECT NO.	00000
DESIGN NO.	00000
CALC. BOOK	0000
DATE	0000-00-00
COUNTY	Multnomah
DIST.	MC/YR

SCALE WARNING
IF THIS SCALE LINE DOES NOT MEASURE ONE INCH, THEN DRAWING IS NOT TO SCALE



HDR
HDR ENGINEERING, INC.
1050 SW 6TH AVENUE, SUITE 1600
PORTLAND, OR 97204-1134
503.423.3700

EAST BANFIELD INTERCHANGE
I-5 ROSE QUARTER IMPROVEMENT PROJECT
PACIFIC HIGHWAY
MULTNOMAH COUNTY

Revision: Justin Dorfleit
Designer: Caiti Clark
Director: Heather Grenier
CREATOR: Malaysia Young

Rotation: 0° Scale: 3/8"=1'-0"

CONCEPT DESIGN
FOR INFORMATION ONLY

FOR ELECTRONIC DOCUMENT
MANIPULATION REQUIRE