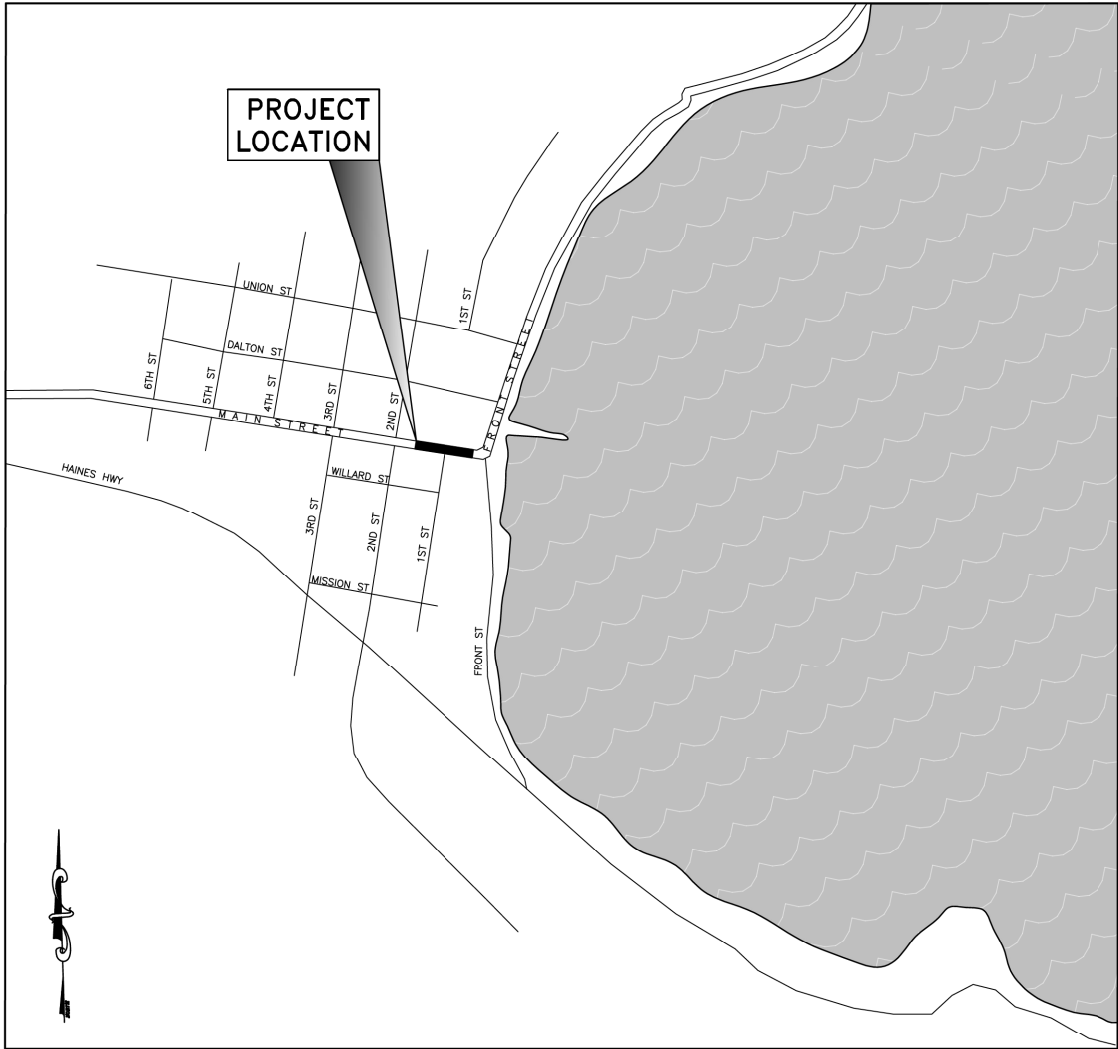


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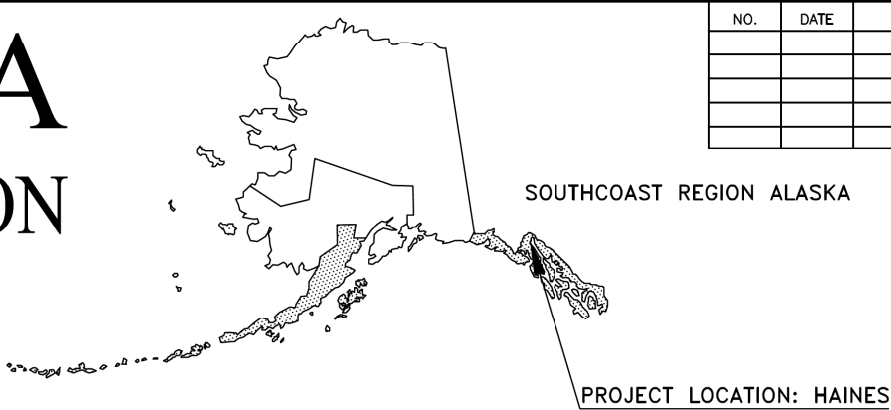
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT
HNS ADA IMPROVEMENTS: MAIN ST HANDRAIL
PROJECT NO.0003283/SFHWY00441

PIPE HAND RAIL REPLACEMENT



0 0.2 0.4
SCALE IN MILES
VICINITY MAP
CITY OF HAINEs, AK



NO.	DATE	REVISIONS	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003283/SFHWY00441	2023	A1	10
			CDS ROUTE: 296000		MILEPOINT: 0.05 TO 0.14		
			LATITUDE: 59°14'05.71"N		LONGITUDE: 135°26'36.27"E		

DESIGN DESIGNATIONS	
PROJECT TYPE	PREVENTIVE MAINTENANCE
FUNCTIONAL CLASS	MAJOR COLLECTOR
ADT (2020)	950
DESIGN SPEED (V)	25 MPH

As Advertised

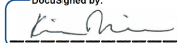
September 12, 2023

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET & INDEX
A2	LEGEND & ABBREVIATIONS
C1	BASIS OF ESTIMATE
E1-E2	DETAILS
F1-F4	PLAN AND ELEVATION VIEWS
T1	TRAFFIC CONTROL PLANS

See Approved Shop Drawings attached to these As-Builts
for Reference

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES 6860 GLACIER HIGHWAY, JUNEAU, AK 99801 (907) 465-1763	
APPROVED: DocuSigned by:  KIRK MILLER, P.E. REGIONAL PRECONSTRUCTION ENGINEER	4/30/2023 DATE
CONCUR: DocuSigned by:  CHRISTOPHER GOINS, P.E., C.M. DIRECTOR, SOUTHCOST REGION	5/1/2023 DATE

	RECOVERED	SET
BLM MONUMENT		
GLO MONUMENT		
USC&GS MONUMENT		
PRIMARY MONUMENT		
CENTERLINE MONUMENT IN CASING		
PRIMARY R.O.W. MONUMENT		
BEARING OBJECT		
MISCELLANEOUS MONUMENT		
LINE OF SIGHT MONUMENT		
CONCRETE R.O.W. MONUMENT		
BENCHMARK		
REBAR AND CAP		
REBAR		
IRON PIPE		
PK NAIL		
SPIKE		
HUB AND TACK		
CONSTRUCTION CENTERLINE		
MICELLANEOUS CENTERLINE		
STATION EQUATION		
PROJECT RIGHT-OF-WAY LINE		
EXISTING RIGHT-OF-WAY LINE		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
EXISTING EASEMENT LINE		
PROPOSED EASEMENT LINE		
PROPOSED CUT SLOPE LIMIT		
PROPOSED FILL SLOPE LIMIT		
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
TOWNSHIP & RANGE LINE		
MEANDER LINE		

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)		
FUEL LINE		
GAS LINE		
WATER LINE		
METER, VALVE, FIRE HYDRANT		
EXISTING STORM DRAIN (FLOW DIRECTION →)		
PROPOSED STORM DRAIN		
FIBER OPTIC LINE		
DIRECT BURIAL TELEPHONE CABLE		
DIRECT BURIAL ELECTRIC CABLE		
ELECTRIC LINE (OVERHEAD)		
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
TELEPHONE DUCT		
TELEPHONE PEDESTAL		
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE		
SANITARY SEWER CLEAN OUT		
RIPRAP		
SPECIAL DITCH CENTERLINE		
HIGH TIDE LINE		

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

	EXISTING	PROPOSED
ROADWAY/PAVEMENT EDGE		
FENCE		
CURB AND GUTTER		
DETECTABLE WARNINGS		
GUARDRAIL		
CULVERT PIPE		
SIGN		
MAILBOX		
RAILROAD TRACKS		
RAILROAD DEVICES		
TREE LINE		
WATER BOUNDARY		
ORDINARY HIGH WATER LINE		
FLOW CENTERLINE		
FLOW DIRECTION		
WETLANDS		
EXISTING BUILDINGS		
POST OR BOLLARD		
WELL OR MONITORING WELL		
SEPTIC PIPE		
FUEL TANK FILL PIPE/VENT		
SATELLITE DISH		
TEST HOLE		
CONIFER TREE		
DECIDUOUS TREE		
GRAVE		
THERMOSIPHON		
PARKING METER		
VEHICLE PLUG-IN		
DELINEATOR/GUIDE MARKER		

H = HOUSE
G = GARAGE
M = MERCHANT/STORE
B = BARN
S = SHED
P = PRIVY
SS = SERVICE STATION
W = WAREHOUSE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003283/SFHWY00441	2023	A2	10

	EXISTING	PROPOSED
JUNCTION BOX, TYPE IA		
JUNCTION BOX, TYPE II		
JUNCTION BOX, TYPE III		
SIGNAL FACE, VEHICULAR		
SIGNAL FACE, BACKPLATE		
SIGNAL FACE, LEFT TURN, BACKPLATE		
SIGNAL FACE, PEDESTRIAN		
LOOP DETECTOR		
VIDEO DETECTOR		
RADAR DETECTOR		
OPTICOM DETECTOR		
PEDESTRIAN PUSH BUTTON		
SIGNAL POST W/O MAST ARM		
SIGNAL POLE W/MAST ARM		
SIGNAL CONTROLLER		
LOAD CENTER		
LUMINAIRE		
RIGID METAL CONDUIT		

ABBREVIATIONS	
BLDG	BUILDING
BOP	BEGINNING OF PROJECT
CL	CENTER LINE
DIA / Ø	DIAMETER
EOP	END OF PROJECT
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
STA	STATION
TYP	TYPICAL

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HNS ADA IMPROVEMENTS:
MAIN ST HANDRAIL

LEGEND / SYMBOLS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003283/SFWY00441	2023	C1	10

PIPE HAND RAIL (LF)		
ITEM	LENGTH (LF)	NOTES
PIPE HAND RAIL 1A	32	
PIPE HAND RAIL 1B	8	
PIPE HAND RAIL 2	44.5	
PIPE HAND RAIL 3	64.71	

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HNS ADA IMPROVEMENTS:
MAIN ST HANDRAIL

BASIS OF ESTIMATE

FILE Q:\hns\SFH00441\PlanSet\E1 DETAILS.dwg

DATE 4/29/2023 13:24

DESIGNED TE

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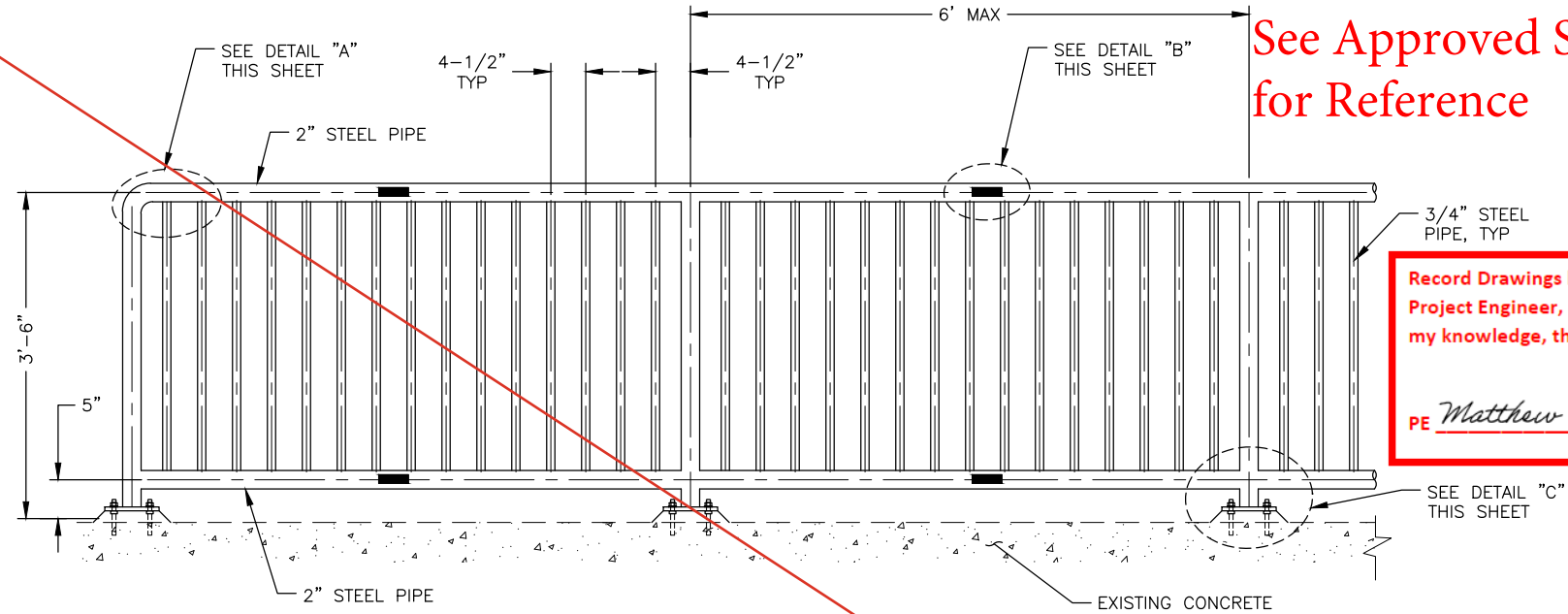
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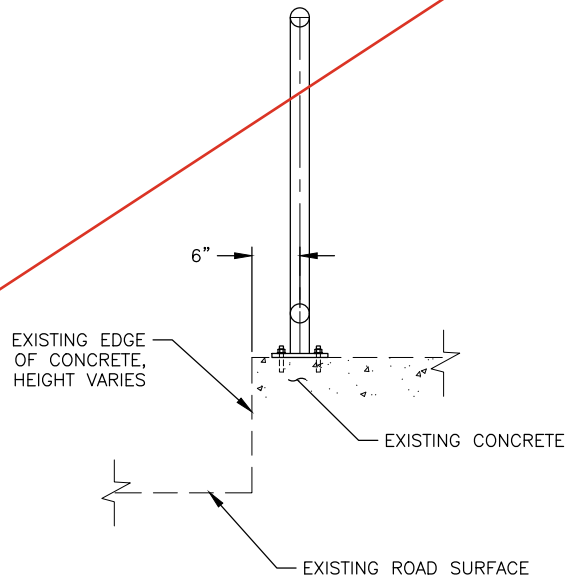
See Approved Shop Drawings attached to these As-BUILTs for Reference

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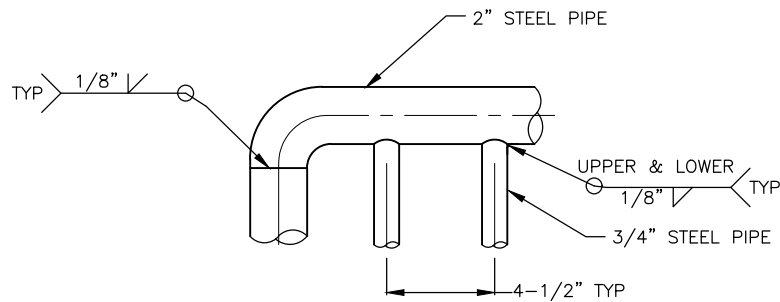
PE Matthew Sperber 9/10/2025



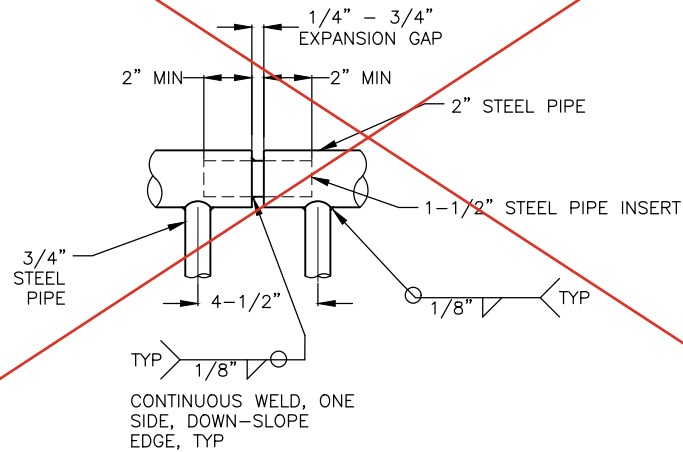
PIPE HAND RAIL ELEVATION, TYPICAL



DETAIL E: PIPE HAND RAIL POST, FRONT VIEW



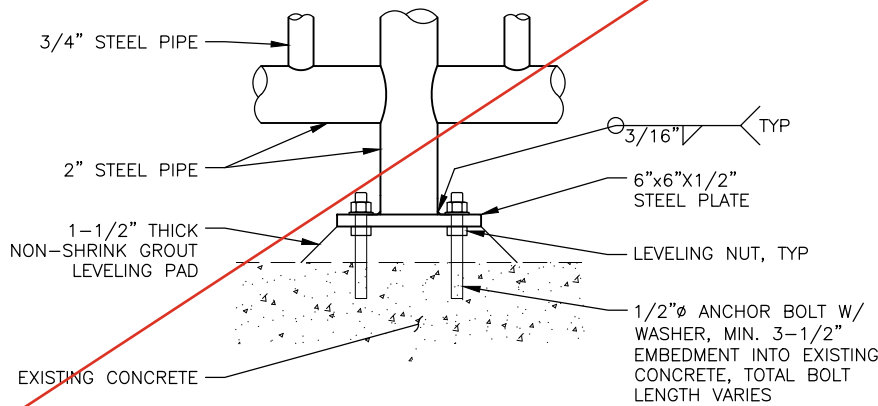
DETAIL A: RAIL ENDS



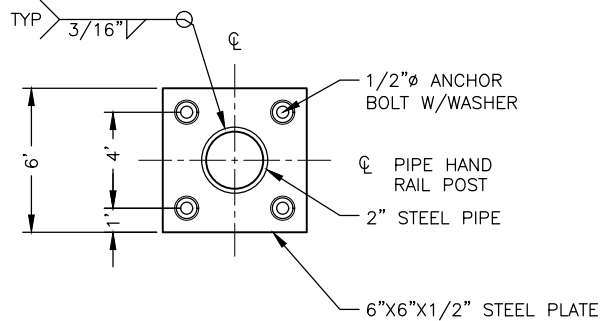
DETAIL B: SLIP JOINT

NOTES:

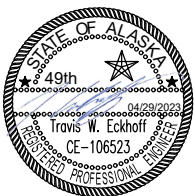
1. VERIFY ALL RAIL LENGTHS AND OTHER CONTROLLING DIMENSIONS IN THE FIELD BEFORE FABRICATION.
2. ALL STEEL RAILING PIPE DIMENSIONS ARE NOMINAL PIPE SIZE, SCHEDULE 40 UNLESS OTHERWISE NOTES.
3. ALL STEEL RAILING MEMBERS AND ASSOCIATED HARDWARE SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
4. SPACING OF VERTICAL POST MEMBERS SHALL BE UNIFORM BUT SPACING MAY VARY IF NEEDED. ALL RAILING ELEMENTS SHALL BE SPACED SO A 4" SPHERE CANNOT PASS BETWEEN ELEMENTS.
5. SEE F SHEETS FOR TOTAL PIPE HAND RAIL LENGTHS. INDIVIDUAL PANEL LENGTHS MAY BE ADJUSTED AS NEEDED TO MATCH FIELD CONDITIONS AND FACILITATE CONSTRUCTION. MAXIMUM PANEL LENGTH EQUALS 6 FEET UNLESS APPROVED BY THE ENGINEER.
6. LOCATE VENT HOLES AND SLIP JOINTS AS NEEDED TO FACILITATE PIPE HAND RAIL FABRICATION, HOT DIP GALVANIZING, AND INSTALLATION. MAX SLIP JOINT SPACING IS EVERY OTHER PANEL



DETAIL C: EXISTING CONCRETE STRUCTURE CONNECTION



DETAIL D: POST PIPE BASE PLATE



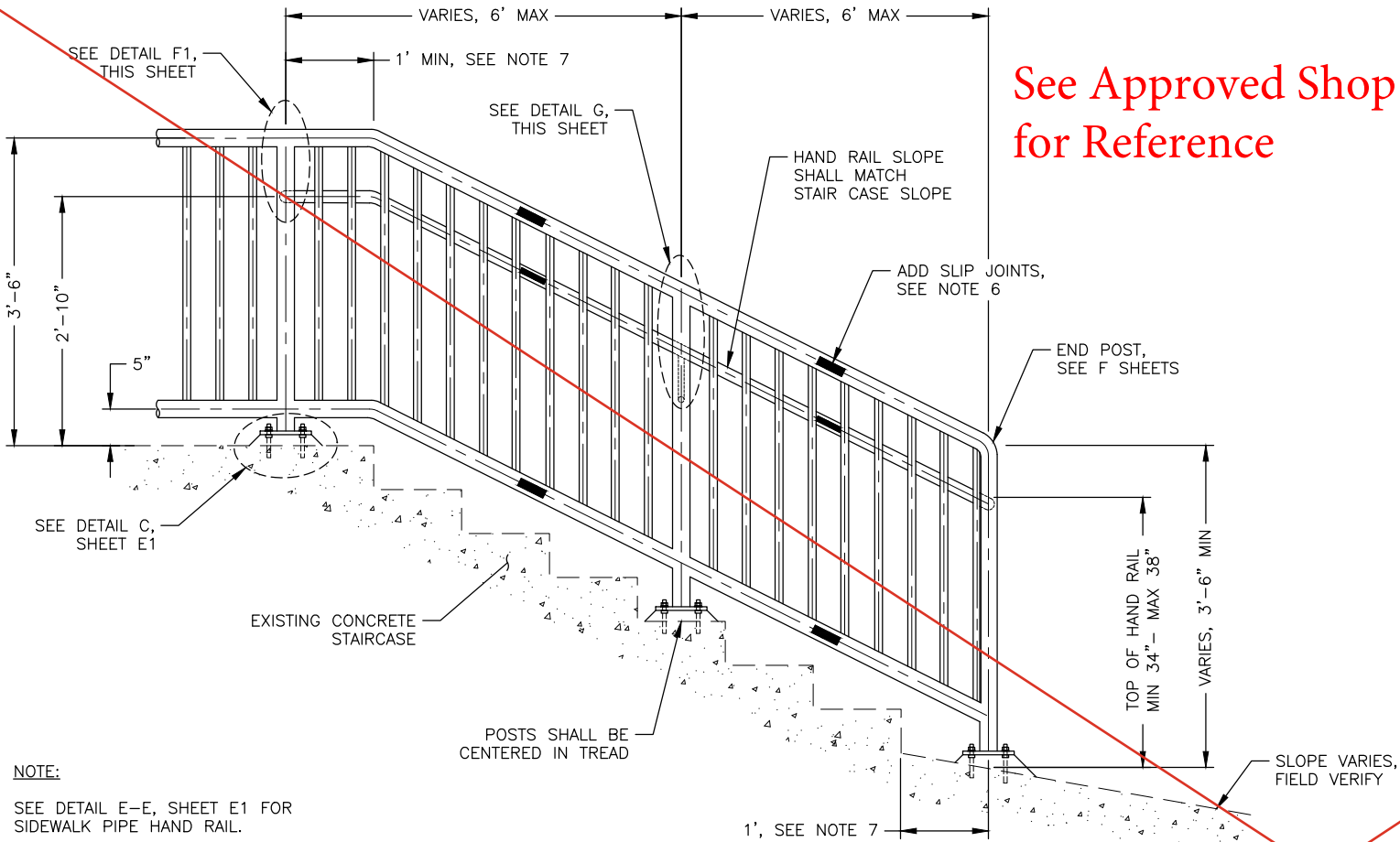
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
HNS ADA IMPROVEMENTS:
MAIN ST HANDRAIL

DETAILS

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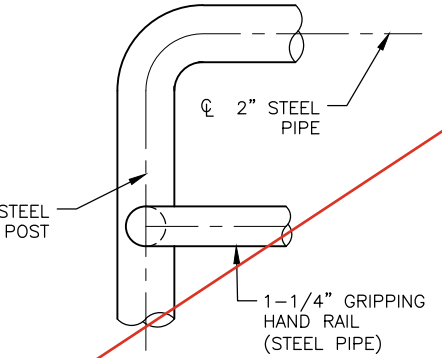
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003283/SFHWY00441	2023	E2	10

See Approved Shop Drawings attached to these As-Builts for Reference

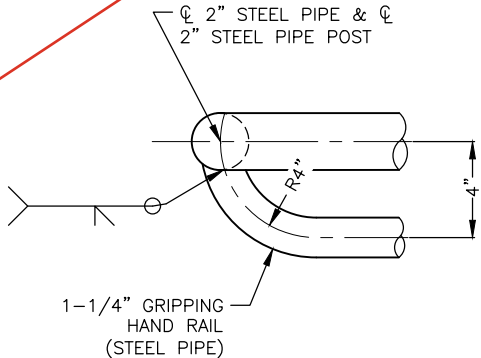


NOTE:
SEE DETAIL E-E, SHEET E1 FOR
SIDEWALK PIPE HAND RAIL.

PIPE HAND RAIL STAIR ELEVATION, TYPICAL



DETAIL F1: HAND GRIP
TERMINATION, ELEVATION VIEW

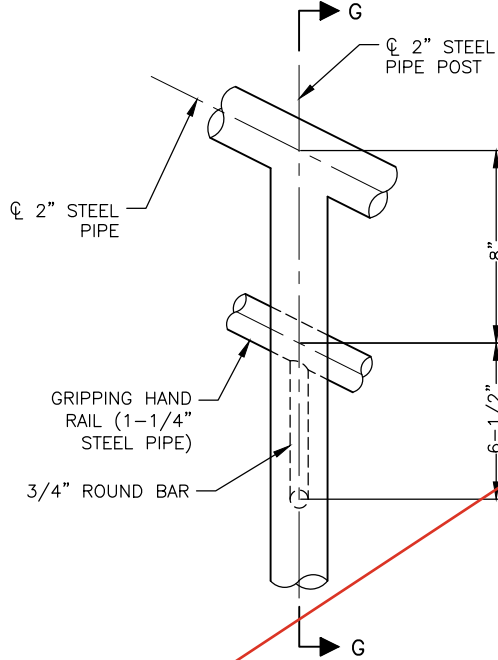


DETAIL F2: HAND GRIP
TERMINATION, TOP VIEW

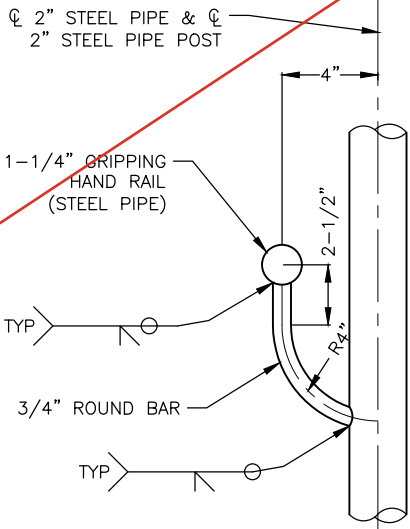
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

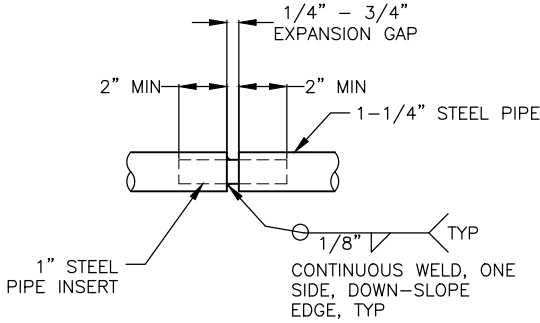
- NOTES:
1. VERIFY ALL RAIL LENGTHS AND OTHER CONTROLLING DIMENSIONS IN THE FIELD BEFORE FABRICATION.
 2. ALL PIPES ARE NOMINAL PIPE SIZE, SCHEDULE 40 UNLESS OTHERWISE NOTED.
 3. ALL STEEL RAILING MEMBERS AND ASSOCIATED HARDWARE SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
 4. SPACING OF VERTICAL POST MEMBERS SHALL BE UNIFORM, BUT SPACING MAY VARY IF NEEDED TO FIT THE OVERALL REQUIRED BARRIER LENGTH. VERTICAL RAILING ELEMENTS SHALL BE SPACED SO THAT A 4" SPHERE CANNOT PASS BETWEEN ANY RAILING ELEMENTS.
 5. SEE F SHEETS FOR TOTAL PIPE HAND RAIL LENGTHS. INDIVIDUAL PANEL LENGTHS MAY BE ADJUSTED AS NEEDED TO MATCH FIELD CONDITIONS AND FACILITATE CONSTRUCTION. MAXIMUM PANEL LENGTH EQUALS 6 FEET UNLESS APPROVED BY THE ENGINEER.
 6. LOCATE SLIP JOINTS AS NEEDED TO FACILITATE PIPE HAND RAIL FABRICATION, HOT DIP GALVANIZING, AND INSTALLATION. MAXIMUM SLIP JOINT SPACING IS EVERY OTHER PANEL.
 7. THE PIPE HAND RAIL SHALL INCLUDE A 1-FOOT MINIMUM HORIZONTAL EXTENSION AT THE TOP OF THE STAIRCASE. THE PIPE HAND RAIL SLOPE SHALL MATCH STAIRCASE SLOPE. THE PIPE HAND RAIL SHALL CONTINUE AT LEAST ONE TREAD DEPTH BEYOND THE BOTTOM OF THE LAST RISER BEFORE TERMINATING.



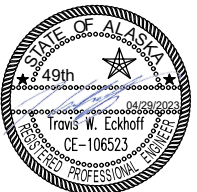
DETAIL G



SECTION G-G



DETAIL H: PIPE HAND RAIL SLIP JOINT



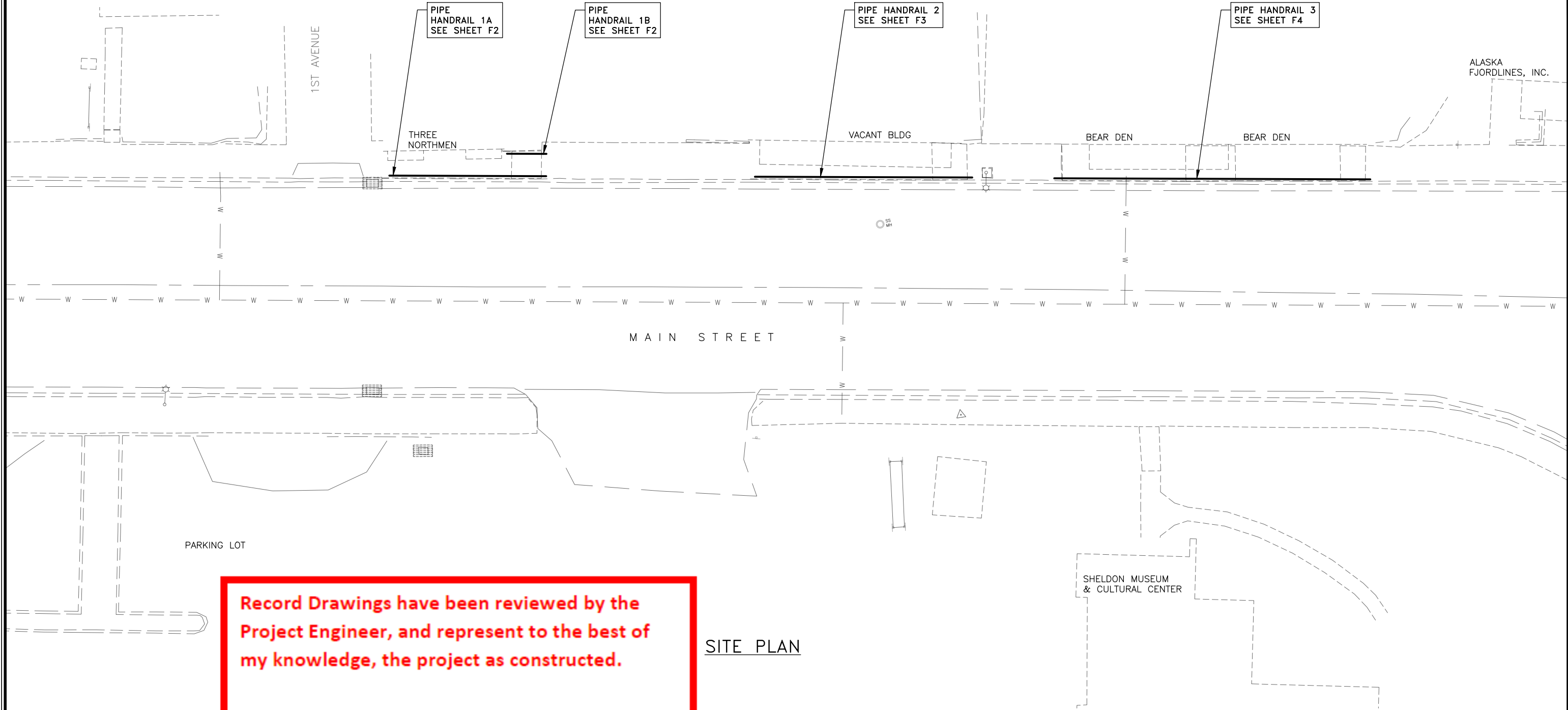
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
HNS ADA IMPROVEMENTS:
MAIN ST HANDRAIL

DETAILS

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003283/SFH00441	2023	F1	10



Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

SITE PLAN

NOTES:

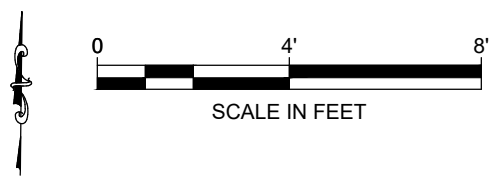
1. CONTRACTOR SHALL FIELD VERIFY ALL RAIL LENGTHS, PANEL WIDTHS, AND OTHER CONTROLLING DIMENSIONS PRIOR TO FABRICATING PIPE HAND RAIL.
2. NO SURVEY CONTROL WAS ESTABLISHED FOR THIS PROJECT. PIPE HAND RAIL LAYOUT SHALL BE BASED ON THE END POST OF THE HAND RAIL BEING CENTERED 1 FOOT FROM THE FACE OF THE LAST STAIRCASE RISER.
3. EXISTING CONCRETE RETAINING WALL, CURB AND GUTTER, AND ROAD SURFACE NOT SHOWN IN SCHEMATIC VIEWS FOR CLARITY.
4. SEE E SHEETS FOR PIPE HAND RAIL DETAILS.
5. DEMOLISH EXISTING HAND RAIL, NOT SHOWN. SEE APPENDIX A OF SPECIFICATIONS FOR PHOTOGRAPHS OF EXISTING HAND RAILS. INSTALL PEDESTRIAN BARRIERS IF NEW HAND RAIL CANNOT BE INSTALLED WITHIN SAME WORKING SHIFT AS RAIL DEMOLITION.
6. ALL DIMENSIONS ARE TO CENTERLINE OF PIPE.



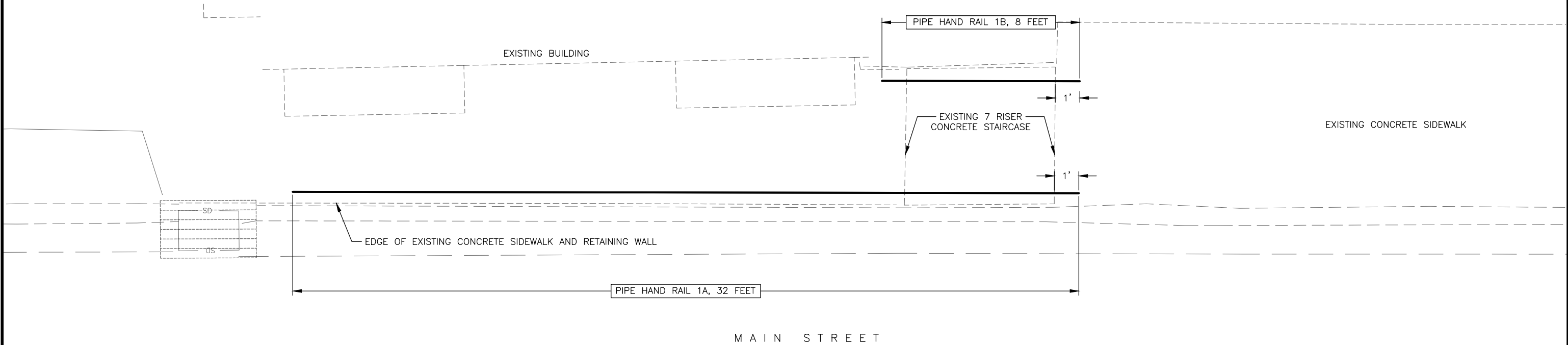
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
HNS ADA IMPROVEMENTS:
MAIN ST HANDRAIL

PLAN VIEW

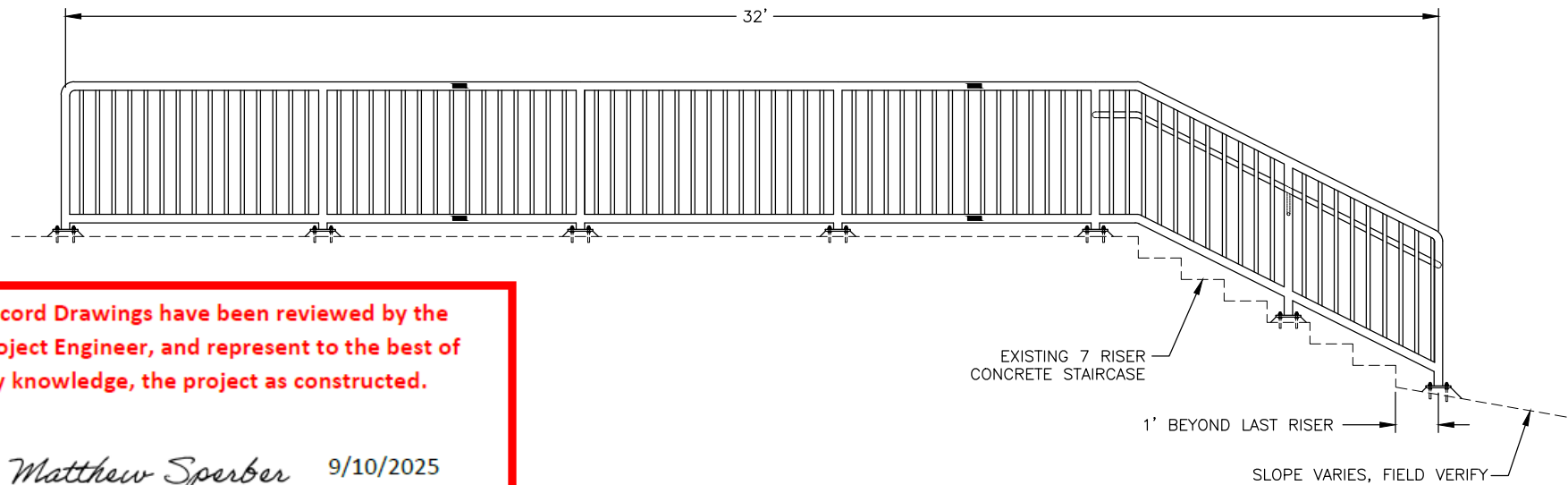
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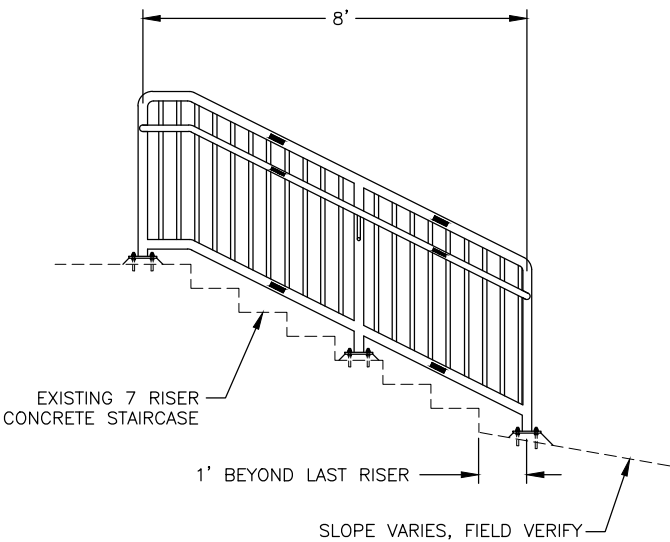
PIPE HAND RAILS 1A & 1B: PLAN VIEW



Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

PIPE HAND RAIL 1A: SCHEMATIC VIEW



PIPE HAND RAIL 1B: SCHEMATIC VIEW

NOTES:

- CONTRACTOR SHALL FIELD VERIFY ALL RAIL LENGTHS, PANEL WIDTHS, AND OTHER CONTROLLING DIMENSIONS PRIOR TO FABRICATING PIPE HAND RAIL.
- NO SURVEY CONTROL WAS ESTABLISHED FOR THIS PROJECT. PIPE HAND RAIL LAYOUT SHALL BE BASED ON THE END POST OF THE HAND RAIL BEING CENTERED 1 FOOT FROM THE FACE OF THE LAST STAIRCASE RISER.
- EXISTING CONCRETE RETAINING WALL, CURB AND GUTTER, AND ROAD SURFACE NOT SHOWN IN SCHEMATIC VIEWS FOR CLARITY.
- SEE E SHEETS FOR PIPE HAND RAIL DETAILS.
- DEMOLISH EXISTING HAND RAIL, NOT SHOWN. SEE APPENDIX A OF SPECIFICATIONS FOR PHOTOGRAPHS OF EXISTING HAND RAILS. INSTALL PEDESTRIAN BARRIERS IF NEW HAND RAIL CANNOT BE INSTALLED WITHIN SAME WORKING SHIFT AS RAIL DEMOLITION.
- ALL DIMENSIONS ARE TO CENTERLINE OF PIPE.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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HNS ADA IMPROVEMENTS:
MAIN ST HANDRAIL
PLAN-ELEVATION PIPE HAND RAIL 1

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F3

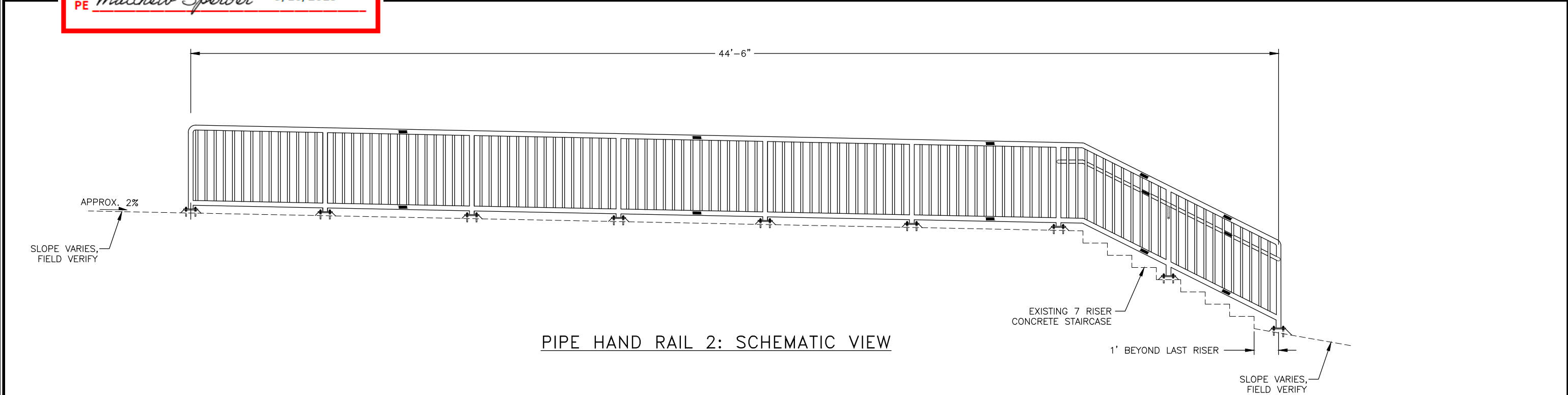
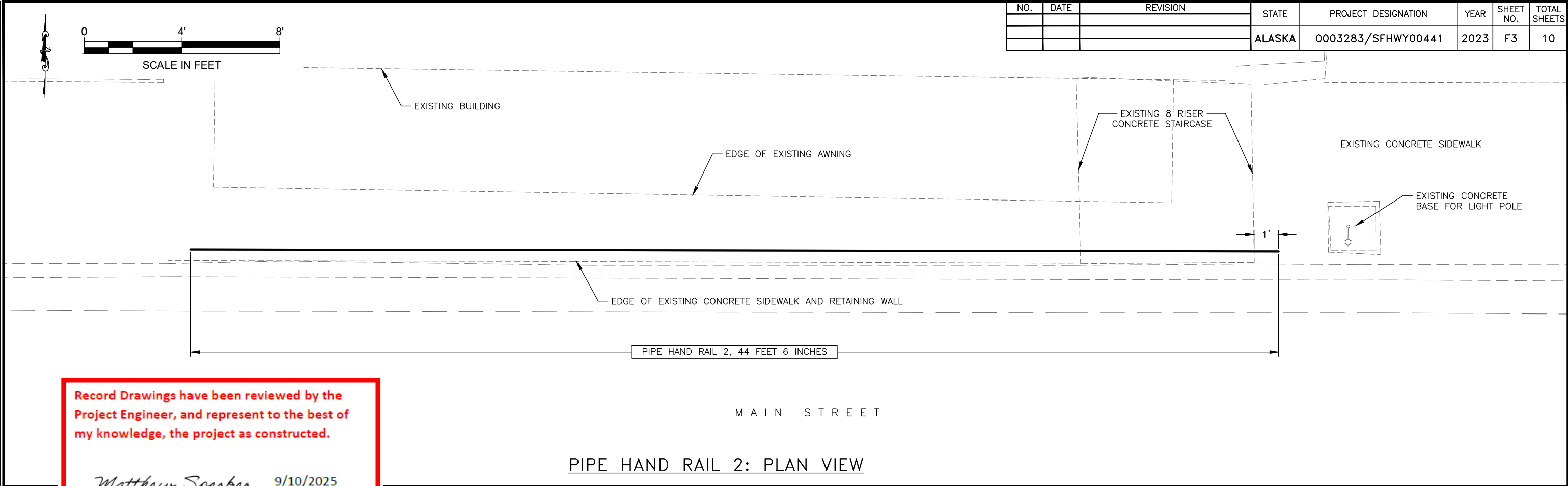
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13.24

DATE 4/29/2023

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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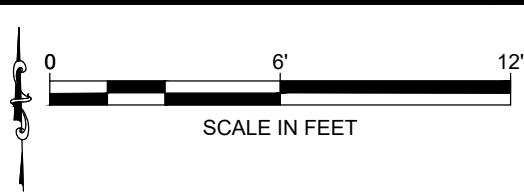


- NOTES:
- CONTRACTOR SHALL FIELD VERIFY ALL RAIL LENGTHS, PANEL WIDTHS, AND OTHER CONTROLLING DIMENSIONS PRIOR TO FABRICATING PIPE HAND RAIL.
 - NO SURVEY CONTROL WAS ESTABLISHED FOR THIS PROJECT. PIPE HAND RAIL LAYOUT SHALL BE BASED ON THE END POST OF THE HAND RAIL BEING CENTERED 1 FOOT FROM THE FACE OF THE LAST STAIRCASE RISER.
 - EXISTING CONCRETE RETAINING WALL, CURB AND GUTTER, AND ROAD SURFACE NOT SHOWN IN SCHEMATIC VIEWS FOR CLARITY.
 - SEE E SHEETS FOR PIPE HAND RAIL DETAILS.
 - DEMOLISH EXISTING HAND RAIL, NOT SHOWN. SEE APPENDIX A OF SPECIFICATIONS FOR PHOTOGRAPHS OF EXISTING HAND RAILS. INSTALL PEDESTRIAN BARRIERS IF NEW HAND RAIL CANNOT BE INSTALLED WITHIN SAME WORKING SHIFT AS RAIL DEMOLITION.
 - ALL DIMENSIONS ARE TO CENTERLINE OF PIPE.

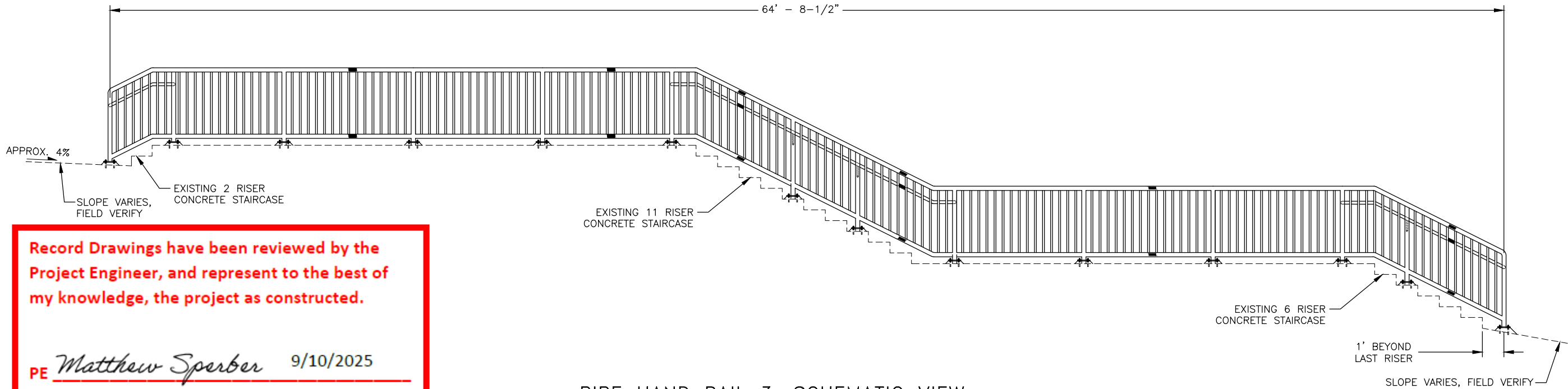
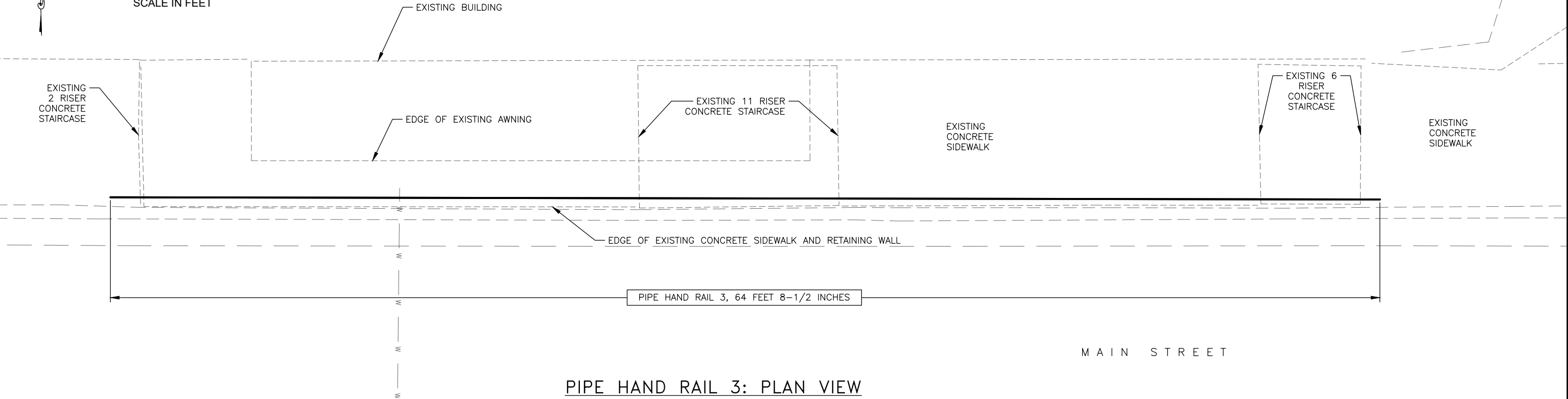


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
HNS ADA IMPROVEMENTS:
MAIN ST HANDRAIL
PLAN-ELEVATION PIPE HAND RAIL 2

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003283/SFWHY00441	2023	F4	10



Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL RAIL LENGTHS, PANEL WIDTHS, AND OTHER CONTROLLING DIMENSIONS PRIOR TO FABRICATING PIPE HAND RAIL.
2. NO SURVEY CONTROL WAS ESTABLISHED FOR THIS PROJECT. PIPE HAND RAIL LAYOUT SHALL BE BASED ON THE END POST OF THE HAND RAIL BEING CENTERED 1 FOOT FROM THE FACE OF THE LAST STAIRCASE RISER.
3. EXISTING CONCRETE RETAINING WALL, CURB AND GUTTER, AND ROAD SURFACE NOT SHOWN IN SCHEMATIC VIEWS FOR CLARITY.
4. SEE E SHEETS FOR PIPE HAND RAIL DETAILS.
5. DEMOLISH EXISTING HAND RAIL, NOT SHOWN. SEE APPENDIX A OF SPECIFICATIONS FOR PHOTOGRAPHS OF EXISTING HAND RAILS. INSTALL PEDESTRIAN BARRIERS IF NEW HAND RAIL CANNOT BE INSTALLED WITHIN SAME WORKING SHIFT AS RAIL DEMOLITION.
6. ALL DIMENSIONS ARE TO CENTERLINE OF PIPE.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
HNS ADA IMPROVEMENTS:
MAIN ST HANDRAIL

PLAN-ELEVATION PIPE HAND RAIL 3

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003283/SFHWY00441	2023	T1	10

TRAFFIC CONTROL NOTES:

1. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME, NOT ALL, OF THE TRAFFIC CONTROL SETUPS WHICH WILL BE REQUIRED ON THIS PROJECT. PLANS FOR CONFIGURATIONS NOT COVERED BY THE TCP SHALL BE CREATED BY THE CONTRACTOR IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
2. SEE THE PROJECT SPECIFICATIONS FOR CONSTRUCTION PHASING REQUIREMENTS.
3. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0".
4. DRIVEWAYS MAY BE CLOSED DURING WORK SHIFTS PROVIDED THAT THE CLOSURE DOES NOT EXCEED 8 HOURS AND THE AFFECTED RESIDENTS HAVE BEEN GIVEN 24 HOURS NOTICE OF THE CLOSURE.
5. MAINTAIN A MINIMUM OF ONE LANE TO BE OPEN FOR TRAFFIC AT ALL TIMES.
6. CONSTRUCTION SIGNS SHALL BE PLACED SUCH THAT THEY DO NOT OBSCURE EXISTING TRAFFIC SIGNS. PLACE AND SPACE CONSTRUCTION SIGNS AND DEVICES IN ACCORDANCE WITH SECTION 643 AND THE ALASKA TRAFFIC MANUAL.
7. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.

LEGEND

- SIGN
- CONE
- PEDESTRIAN BARRIER

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

TCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1400.3.5

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HNS ADA IMPROVEMENTS:
MAIN ST HANDRAIL

TRAFFIC CONTROL

NOTES

- 1. ALL WELDING PER AWS D1.1
- 2. ALL MATERIALS HOT DIP GALVANIZE AFTER FABRICATION
- 3. POST POSITIONS FOLLOW FIELD FEEDBACK IN "ADA HANDRAIL ADJUSTMENTS V2.XLSX" 02.23.2024
- 4. ALL WELDS AND EDGES GROUND SMOOTH
- 5. CONCRETE FEATURES DEPICTED FOR REFERENCE ONLY

REVISION HISTORY		
REV	DESCRIPTION	DATE
1.31	UPDATED MATERIAL TO A500	4/16/2024
1.2	UPDATED POST LOCATIONS	2/27/2024
1.1	ADDED BASEPLATE ATTACH DETAIL	2/16/2024
1.0	INITIAL RELEASE	2/15/2024

Submittal No. 2, Version 6 of Handrail Shop Drawings

ALASKA DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHCOST REGION CONSTRUCTION DIVISION
CONTRACTOR SUBMITTAL REVIEW

Project HNS SFHWY00441

Item 625-1.02

The Submittal has been reviewed for conformance with the design concept and information given in the Contract. The Contractor is responsible for agreement submittals with the Contract. Nothing by this review relieves the Contractor of responsibility for the successful completion of the work in conformance with the Contract.

☒ X

ACCEPTED NO EXCEPTION TAKEN

☐

ACCEPTED AS NOTED

☐

REJECTED

4/18/2024

Matthew Sperber

Date

Project Engineer

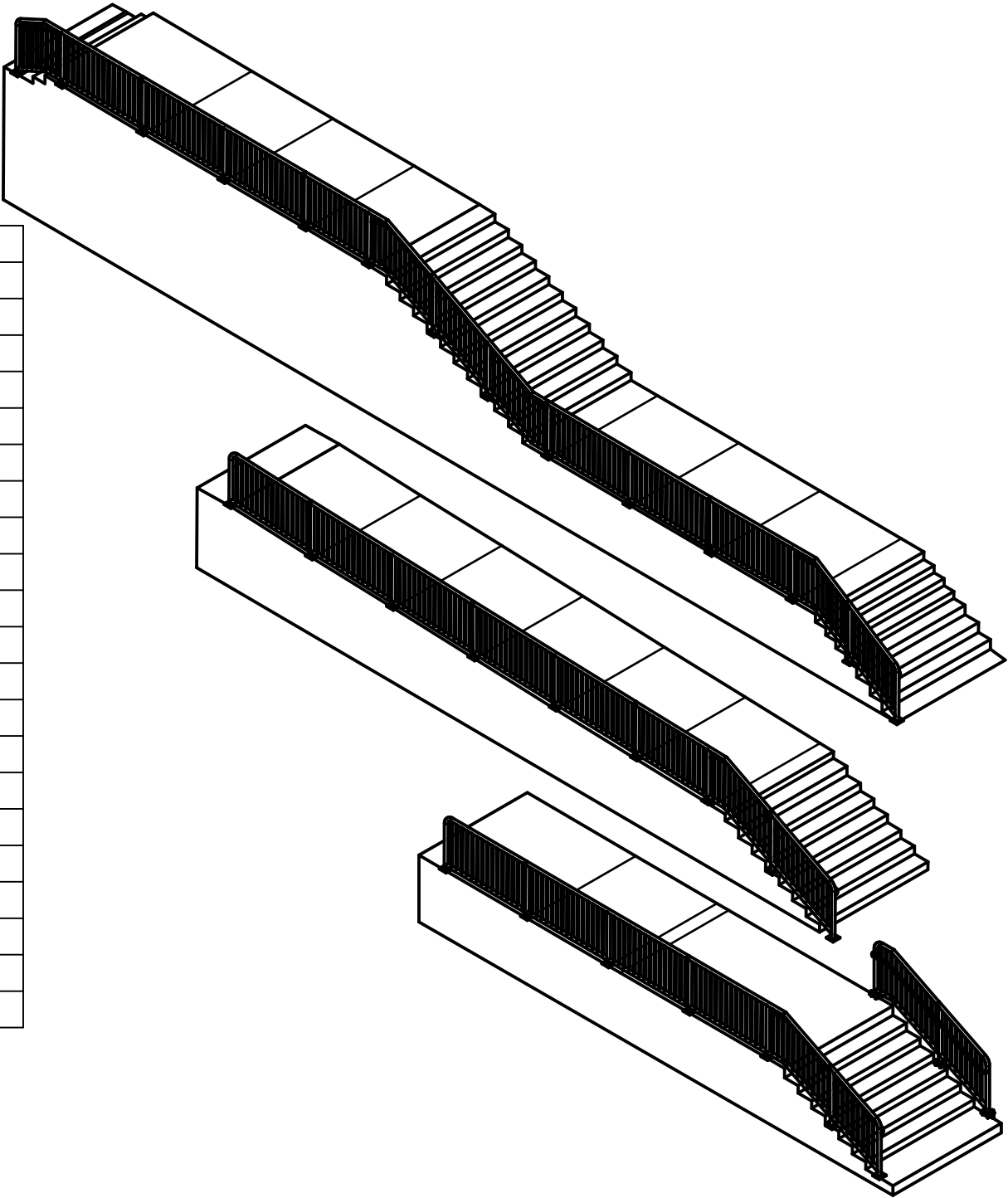
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE

Matthew Sperber

9/10/2025

PARTS LIST	
QTY	PART NUMBER
2	1A-56
1	1A-7
1	1A-43
1	1A-12
1	1B-3
1	1B-12
1	2A-12
1	2A-34
1	2A-56
1	2A-9
1	2A-78
1	3A-12
1	3A-34
1	3A-7
1	3A-910
1	3A-1314
1	3A-56
132	1/2-13 X 8 STUD
264	1/2-13 HEX NUT
264	1/2-13 FLAT WASHER



CUSTOMER REFERENCE DRAWING: HAINES ADA IMPROVEMENTS: MAIN ST HANDRAIL

PROJECTION:

TOLERANCES: X ±0.1 FRACT ±1/8 XX ±0.06 ANGULAR ±1.0°

ALL DIMENSIONS IN INCHES DO NOT SCALE

SIZE: B

REV: 1.31 DATE: 2/26/2024

GRATEMASTER

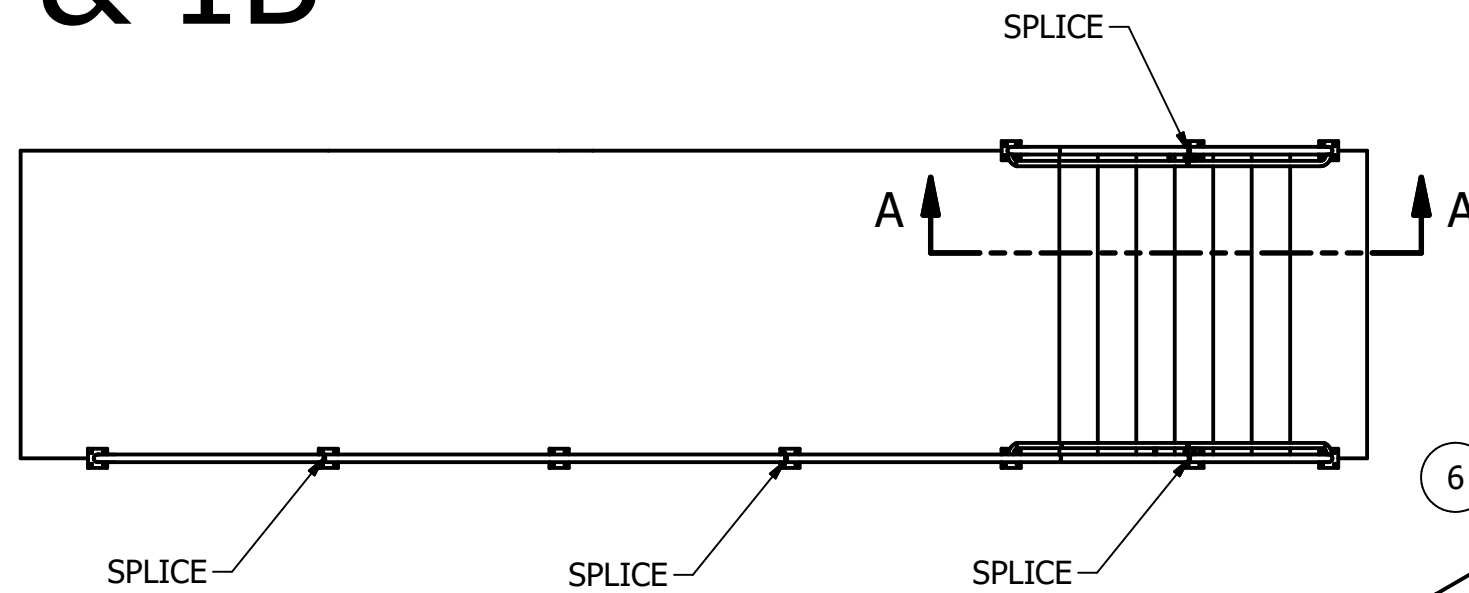
10780 NW 324th AVE PO Box 1040 North Plains, OR 97133

PHONE: 503-647-2050 EMAIL: SALES@GRATEMASTER.COM WEBSITE: GRATEMASTER.COM

JOB NUMBER: SHEET 1 OF 11

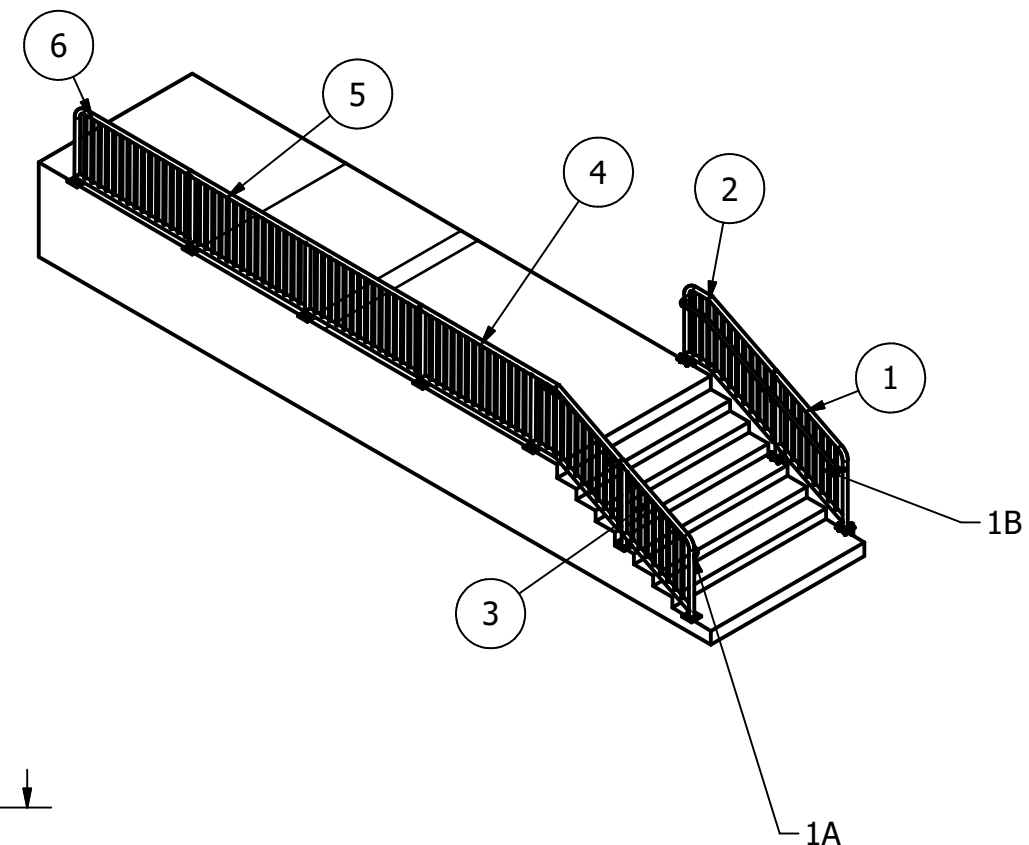
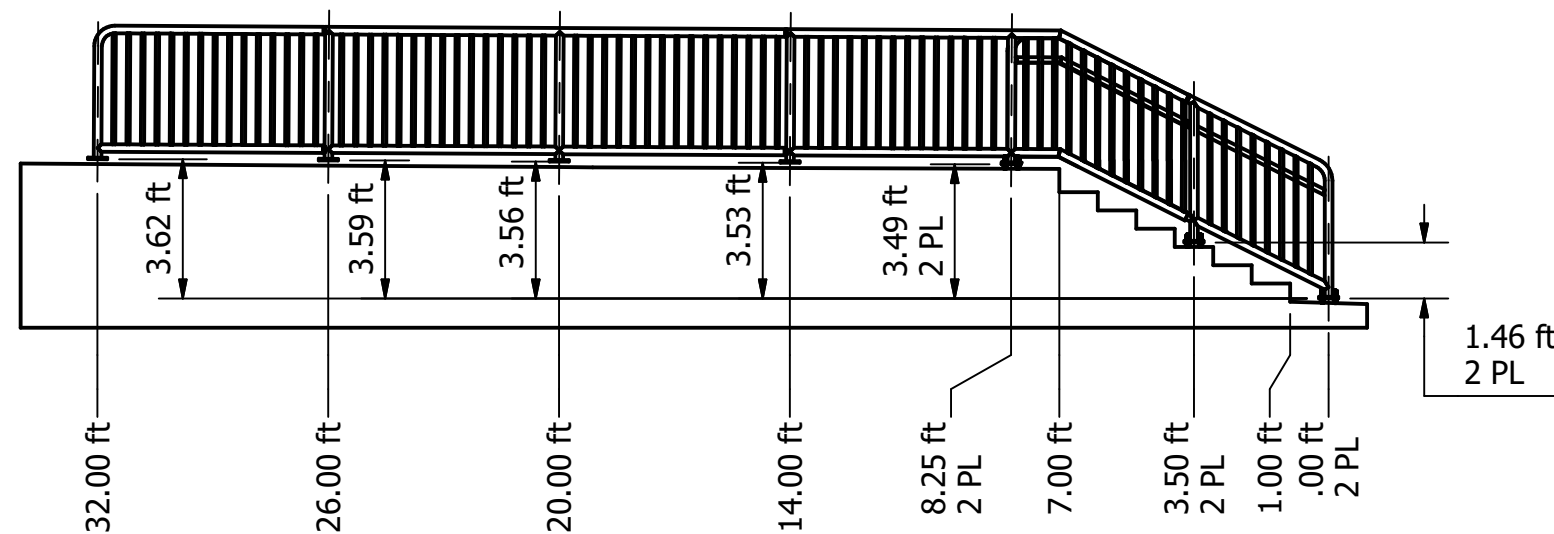
1A & 1B

PARTS LIST		
ITEM	QTY	PART NUMBER
1	1	1B-12
2	1	1B-3
3	1	1A-12
4	1	1A-43
5	1	1A-56
6	1	1A-7
7	40	STUD-NUT-WASHER ASM



Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025



TOLERANCES:	PROJECTIONS:	ALL DIMENSIONS:	SIZE: D
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PO Box 1040
10780 NW 324th Ave
North Plains, OR 97133

PHONE: 503-647-2050
800-397-2053
SHEET 2 OF 11

EMAIL: SALES@GRATEMASTER.COM
WEBSITE: GRATEMASTER.COM

JOB NUMBER: 17 2050 **EMAIL:**

PHONE: 303-847-2030
800-397-2053
SHEET 2 OF 11

10780 NW 324th AVE
PO Box 1040
North Plains, OR 97133



GRATEMASTER

REV: 1.31

ALL DIMENSIONS
IN INCHES

PROJECTION:CT $\pm 1/8$

TOLERANCES:
X ±0.1 FRA

4 3 2 1

B

1/2-13 HDG A193-B7 THREADED ROD
4PL PER POST
CUT TO LENGTH AND GRIND SMOOTH AS NEEDED IN FIELD
COAT WITH COLD GALV COMPOUND OR EQUIV PER ASTM 780 AFTER GRINDING

1/2-13 HDG A563-A HEX NUT
8 PL PER PER POST

1 1/2 NOM GROUT HEIGHT

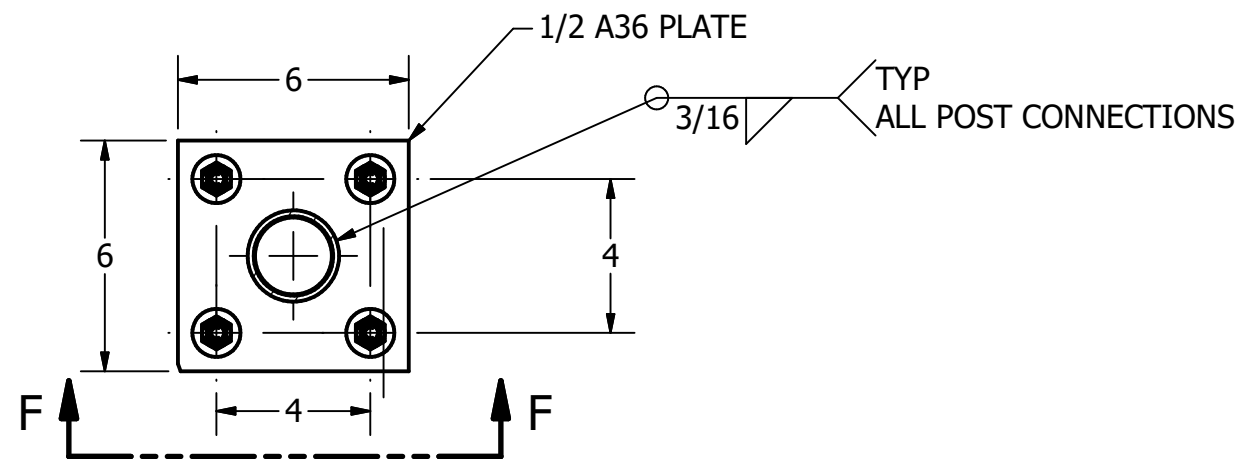
8

3 1/2 MIN
EMBED DEPTH

1/2 HDG F844 WASHER
8 PL PER POST

EXISTING CONCRETE

VIEW F-F
SCALE 1/5



SECTION E-E
SCALE 1/5

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

A

4 3 2 1

JOB NUMBER:

PHONE: 503-647-2050 EMAIL: SALES@GRATEMASTER.COM
800-397-2053 WEBSITE: GRATEMASTER.COM
SHEET 4 OF 11

10780 NW 324th AVE
PO Box 1040
North Plains, OR 97133

CUSTOMER REFERENCE DRAWING: HAINES ADA IMPROVEMENTS: MAIN ST HANDRAIL



ALL DIMENSIONS
IN INCHES
DO NOT SCALE

SIZE: B
REV: 1.31
DATE: 2/26/2024



PROJECTION:
FRACT ±1/8
ANGULAR ±1.0°

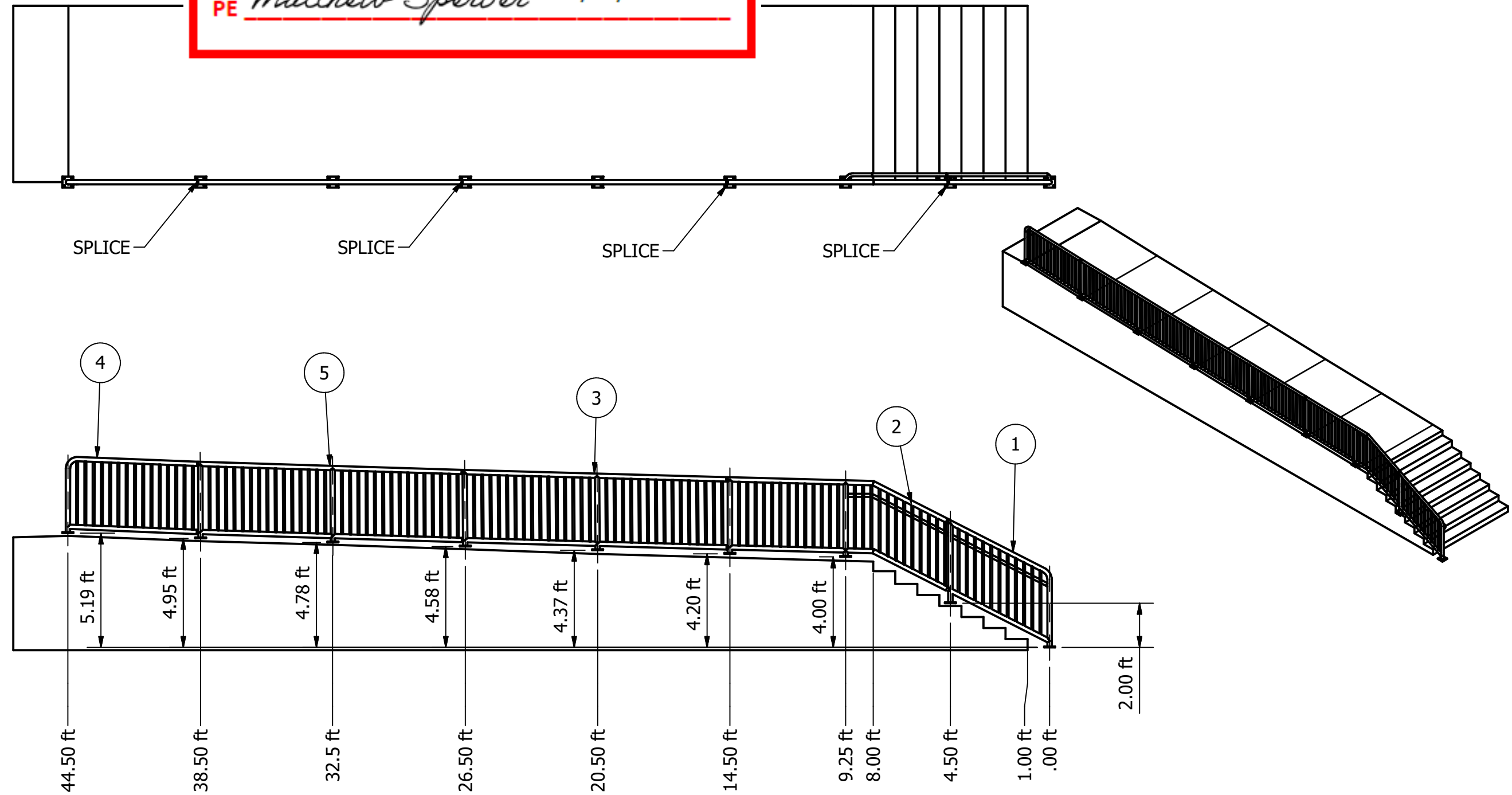
TOLERANCES:
X ±0.1
XX ±0.06

2A

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

PARTS LIST		
ITEM	QTY	RAIL ID
1	1	2A-12
2	1	2A-34
3	1	2A-56
4	1	2A-9
5	1	2A-78
6	36	STUD-NUT-WASHER ASM



COLLAPSE.	PROJECTION.	ALL DIMENSIONS	SIZE. D
CUSTOMER REFERENCE DRAWING: HAINES ADA IMPROVEMENTS; MAIN ST HANDRAIL			

TOLERANCES: .X ±0.1 .XX ±0.06	FRACT ±1/8 ANGULAR ±1.0°	 	PROJECTION: 	ALL DIMENSIONS IN INCHES	DO NOT SCALE	REV: 1.31 DATE: 2/26/2024		PO Box 1040 North Plains, OR 97133	PHONE: 800-397-2053 WEBSITE: GRATEMASTER.COM	SHEET 5 OF 11
	SIZE: D 107/80 NW 324TH AVE 800-397-2053 WEBSITE: GRATEMASTER.COM									

JOB NUMBER:

PHONE: 503-847-7050
800-397-2053
SHEET 5 OF 11
EMAIL: SALES@GRATEMASTER.COM
WEBSITE: GRATEMASTER.COM

10780 NW 324th AVE
PO Box 1040
North Plains, OR 97133



GRATEMASTER

SIZE: B
REV: 1.31
DATE: 2/26/2024

ALL DIMENSIONS
IN INCHES
DO NOT SCALE

PROJECTION:		
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T	±1/8	
ULAR	±1.0°	

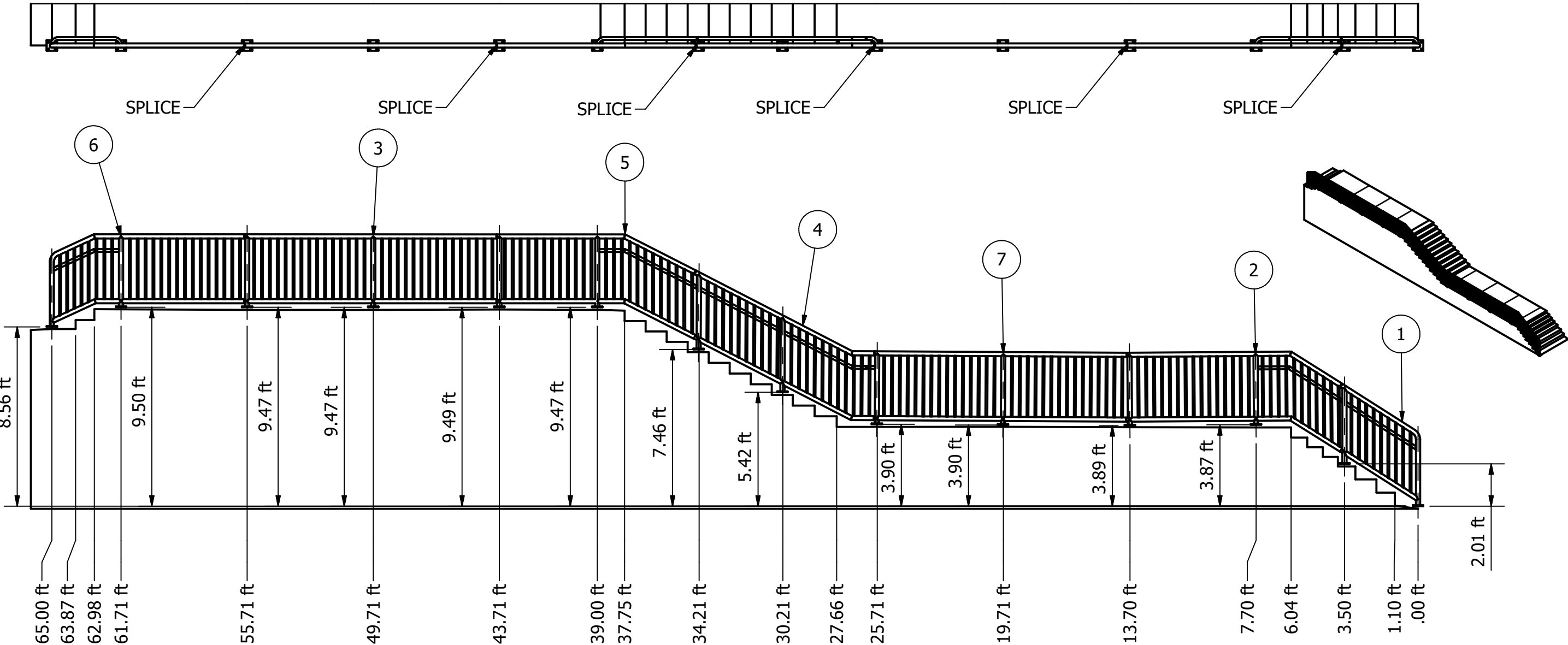
TOLERANCES:	
.X	±0.1
.XX	±0.06

3A

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

PARTS LIST		
ITEM	QTY	RAIL ID
1	1	3A-12
2	1	3A-34
3	1	1A-56
4	1	3A-7
5	1	3A-910
6	1	3A-1314
7	1	3A-56
8	56	STUD-NUT-WASHER ASM



CUSTOMER REFERENCE DRAWING: HAINES ADA IMPROVEMENTS: MAIN ST HANDRAIL

PROJECTION:

ALL DIMENSIONS IN INCHES

DO NOT SCALE

SIZE: B

REV: 1.31

DATE: 2/26/2024

FRACT ±1/8

ANGULAR ±1.0°

TOLERANCES:

XX ±0.06

XX ±0.1

10780 NW 324th AVE

PO Box 1040

North Plains, OR 97133

PHONE: 503-647-2050

800-397-2053

EMAIL: SALES@GRATEMASTER.COM

WEBSITE: GRATEMASTER.COM

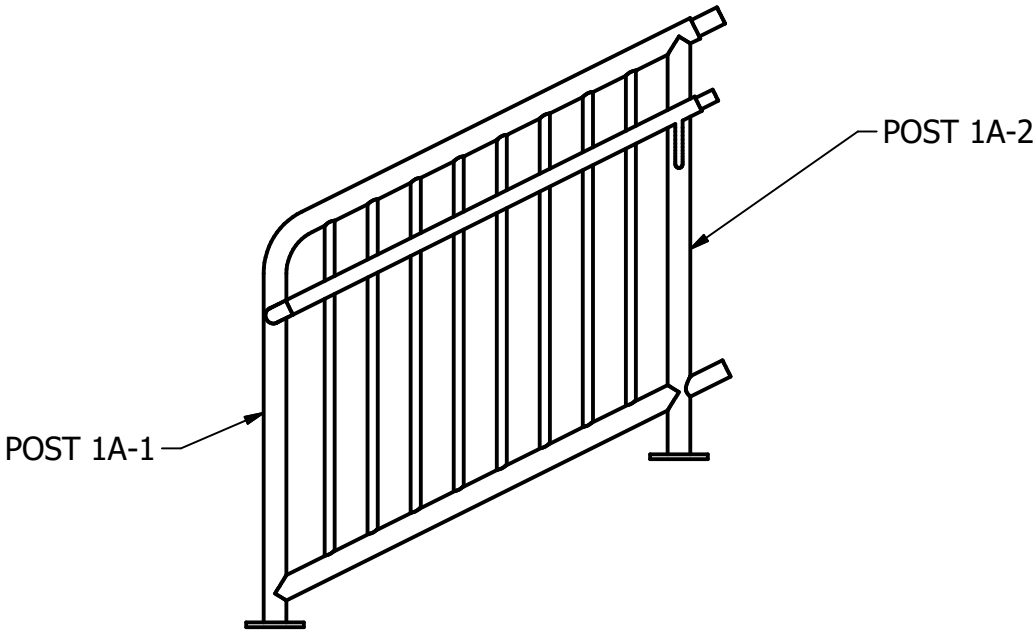
GRATEMASTER

SHEET 6 OF 11

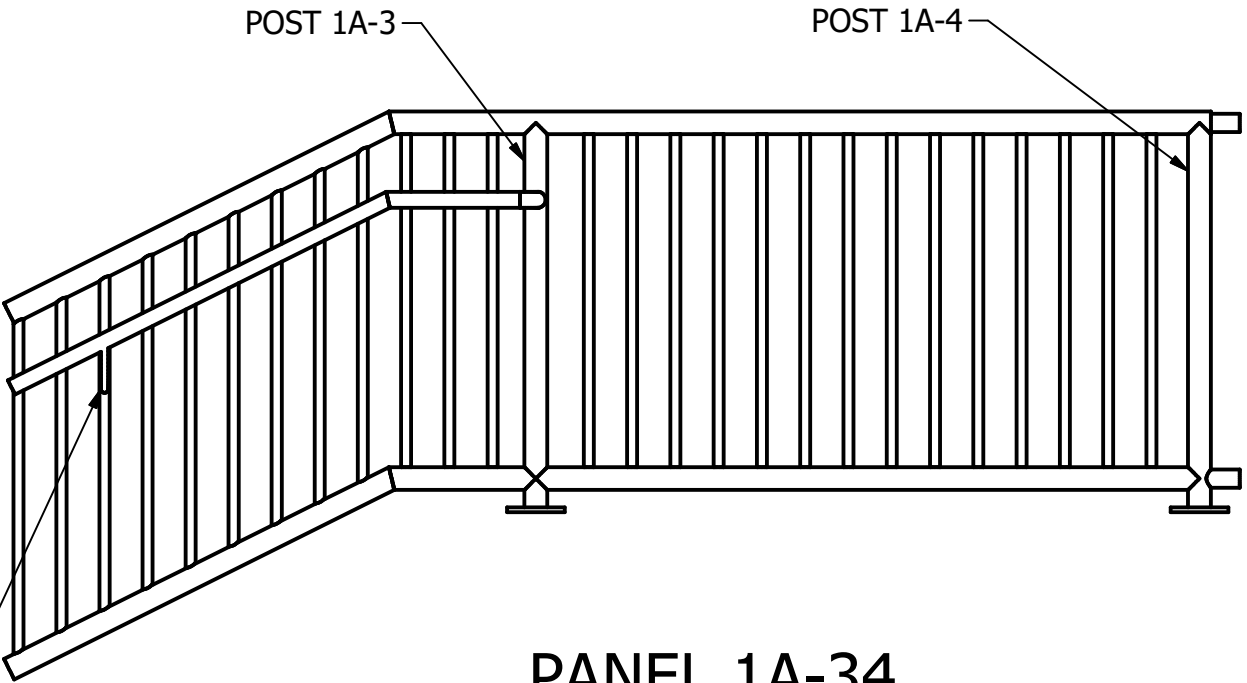
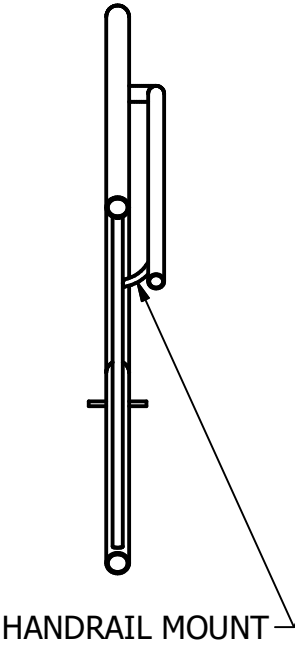
JOB NUMBER:

NOTES

SEE SHEET 3 FOR TYP WELD DETAILS
SEE SHEET 2 FOR PANEL DIMENSIONS



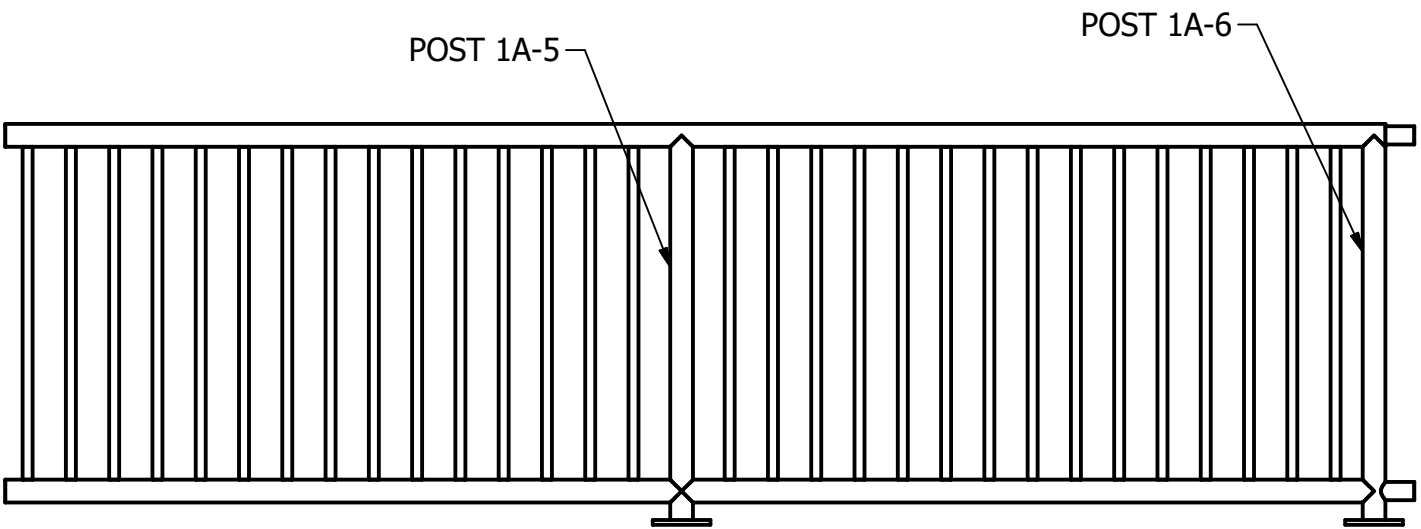
PANEL 1A-12



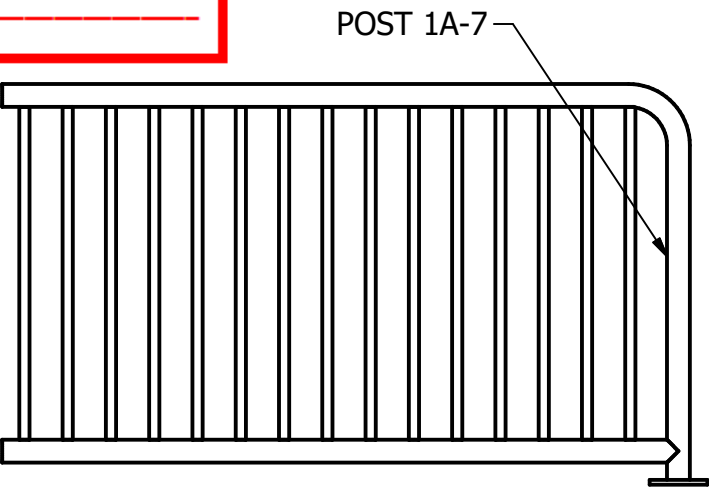
PANEL 1A-34

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025



PANEL 1A-56



PANEL 1A-7

CUSTOMER REFERENCE DRAWING: HAINES ADA IMPROVEMENTS: MAIN ST HANDRAIL

TOLERANCES:	PROJECTION:	ALL DIMENSIONS	SIZE: B	DATE: 2/26/2024
.X ±0.1	FRACT ±1/8	IN INCHES	REV: 1.31	
.XX ±0.06	ANGULAR ±1.0°	DO NOT SCALE		

10780 NW 324th AVE
PO Box 1040
North Plains, OR 97133

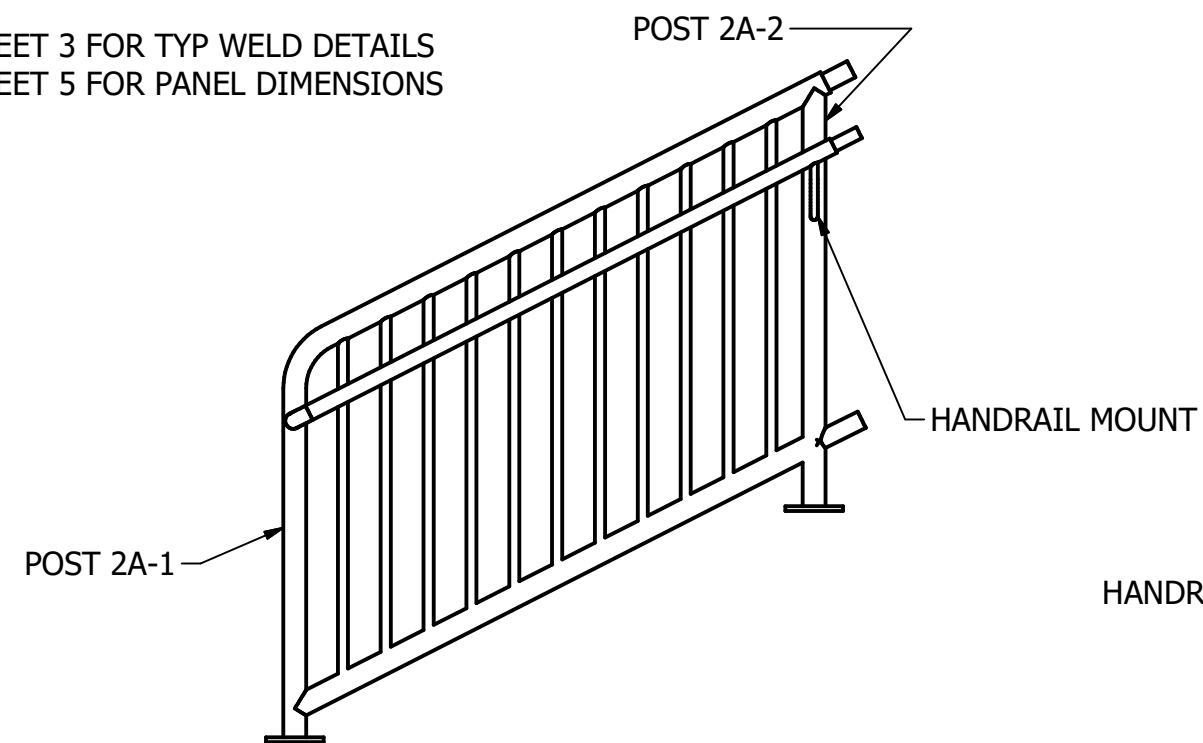
PHONE: 503-647-2050
800-397-2053
SHEET 7 OF 11

EMAIL: SALES@GRATEMASTER.COM
WEBSITE: GRATEMASTER.COM

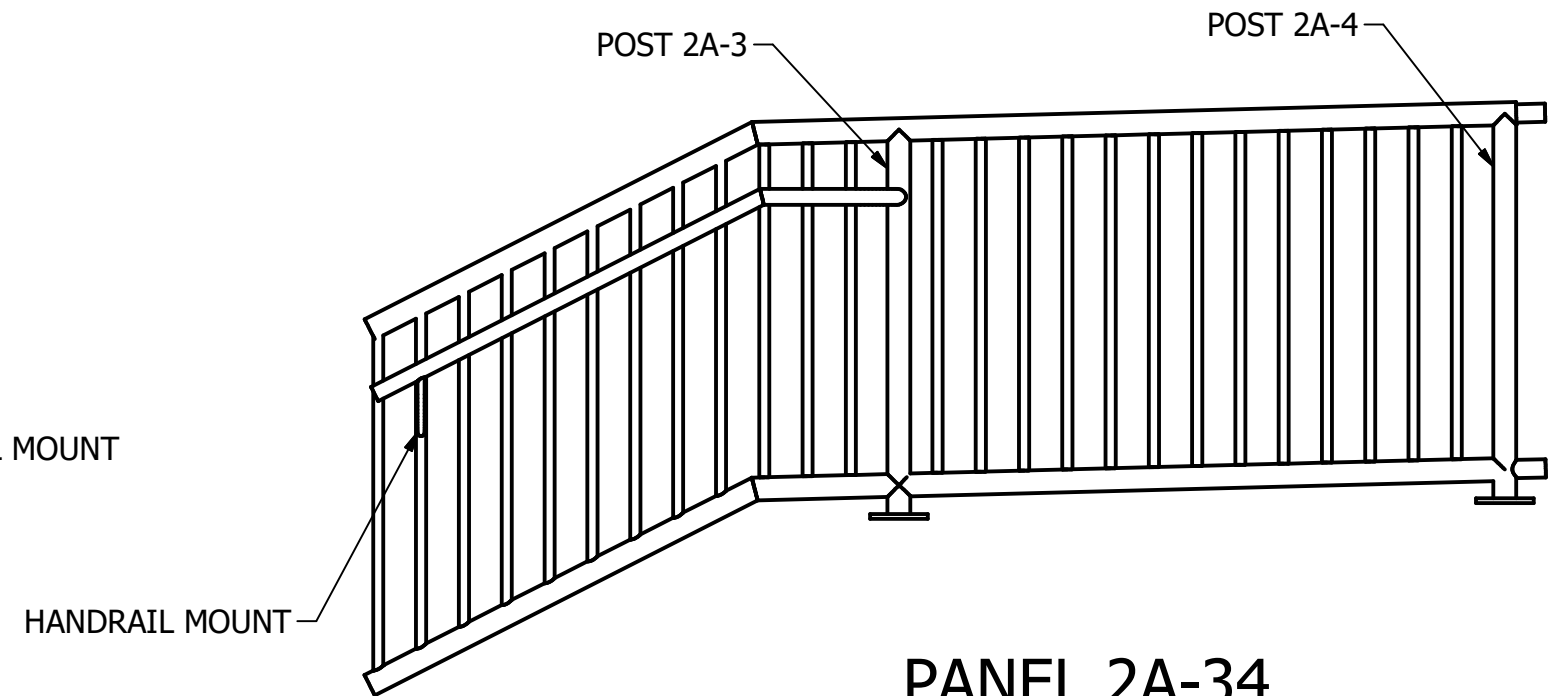
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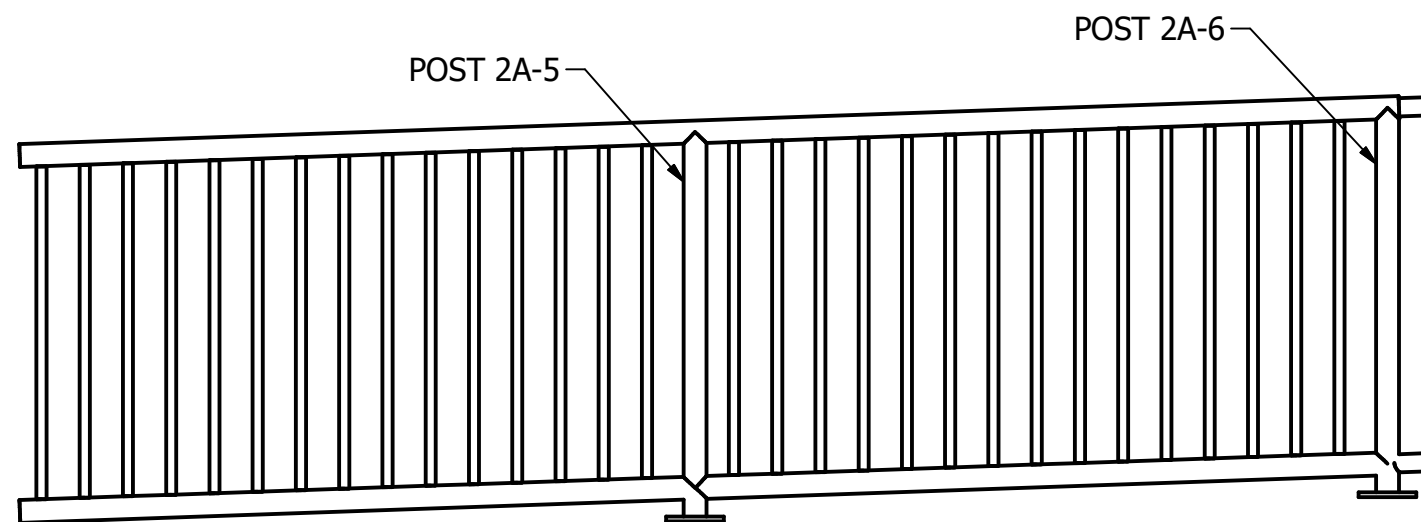
SEE SHEET 3 FOR TYP WELD DETAILS
SEE SHEET 5 FOR PANEL DIMENSIONS



PANEL 2A-12



PANEL 2A-34



PANEL 2A-56

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

CUSTOMER REFERENCE DRAWING: HAINES ADA IMPROVEMENTS: MAIN ST HANDRAIL	PROJECTION:	ALL DIMENSIONAL	SIZE: D
TOLERANCES:			

JOB NUMBER: 17 2050 **EMAIL:**

PHONE: 503-647-2050
800-397-2053
SHEET 8 OF 11
EMAIL: SALES@GRATEMASTER.COM
WEBSITE: GRATEMASTER.COM

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PO Box 1040
North Plains, OR 97133

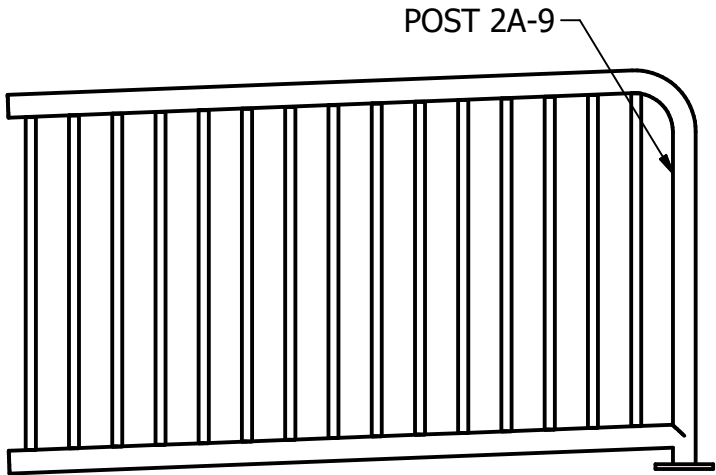
ALL DIMENSIONS IN INCHES	SIZE: B
DO NOT SCALE	REV: 1.31
	DATE: 2/26/2024

PROJECTION:

FRACT	$\pm 1/8$
ANGULAR	$\pm 1.0^\circ$

TOLERANCES:
 .X ±0.1
 .XX ±0.06

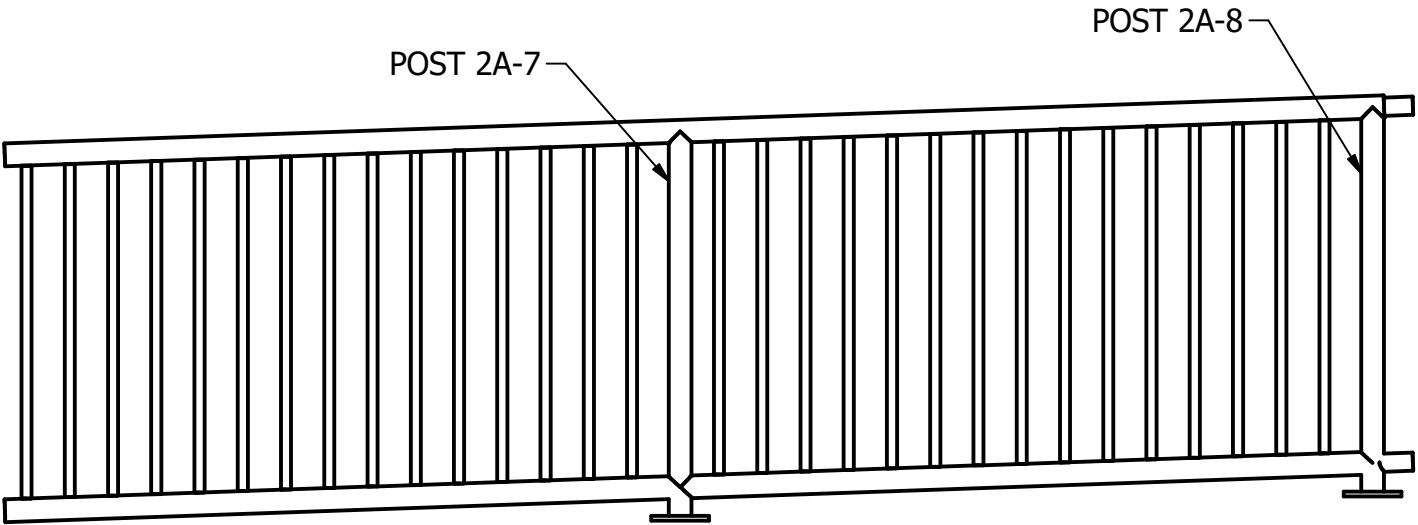
NOTES
SEE SHEET 3 FOR TYP WELD DETAILS
SEE SHEET 5 FOR PANEL DIMENSIONS



PANEL 2A-9

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

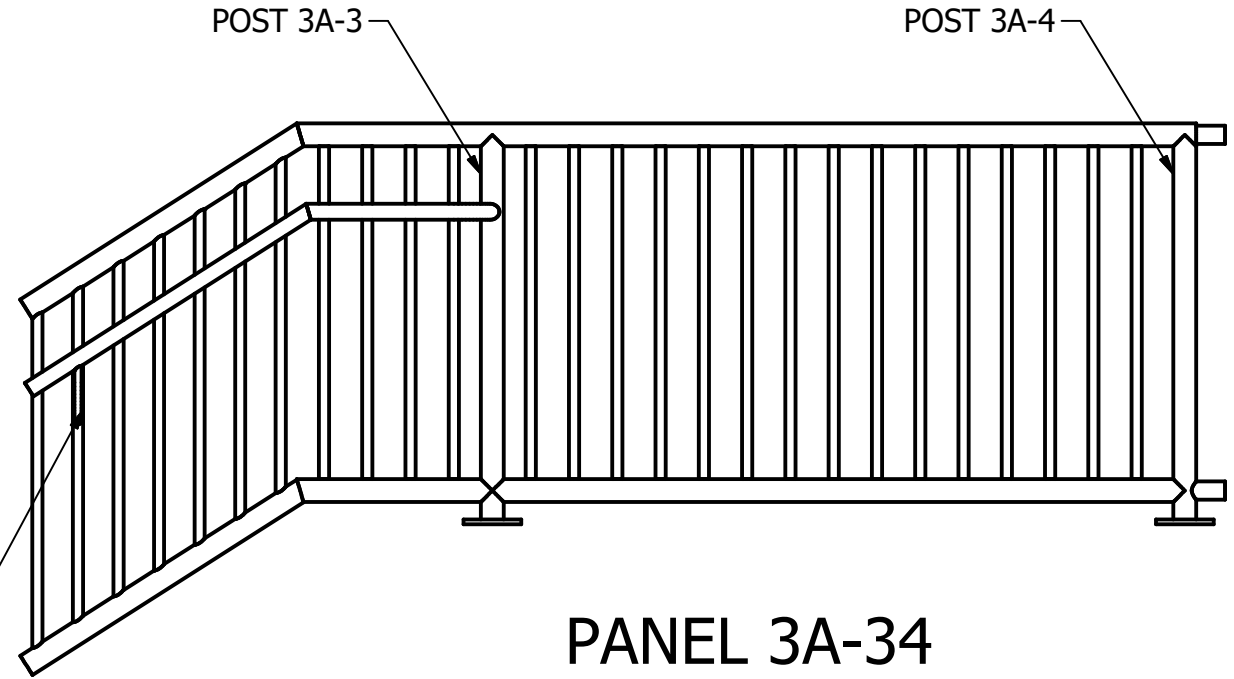
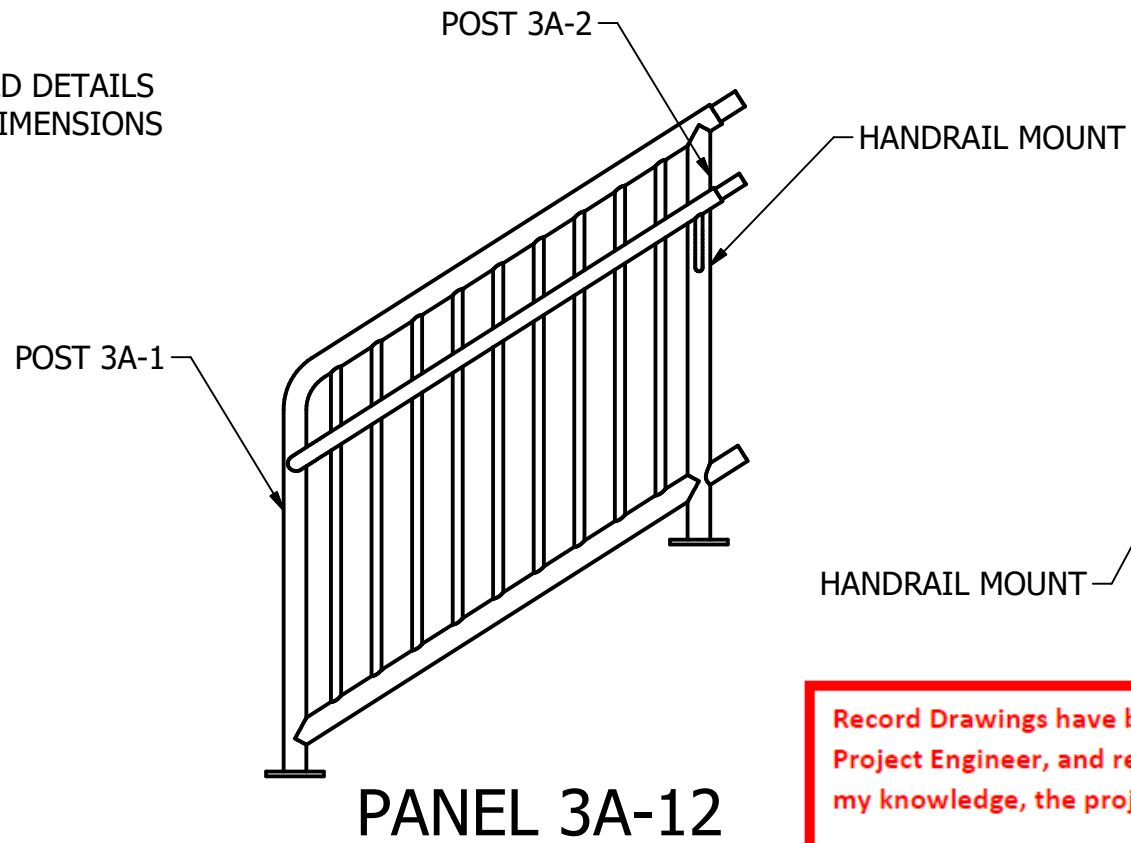


PANEL 2A-78

CUSTOMER REFERENCE DRAWING: HAINES ADA IMPROVEMENTS: MAIN ST HANDRAIL				JOB NUMBER:	
TOLERANCES:		PROJECTION:	ALL DIMENSIONS	SIZE: B	10780 NW 324th AVE
.X ±0.1	FRACT ±1/8	IN INCHES	DO NOT SCALE	REV: 1.31	PO Box 1040
.XX ±0.06	ANGULAR ±1.0°			DATE: 2/26/2024	North Plains, OR 97133
GRATEMASTER			PHONE: 503-647-2050 EMAIL: SALES@GRATEMASTER.COM		
			800-397-2053 WEBSITE: GRATEMASTER.COM		
			SHEET 9 OF 11		

NOTES

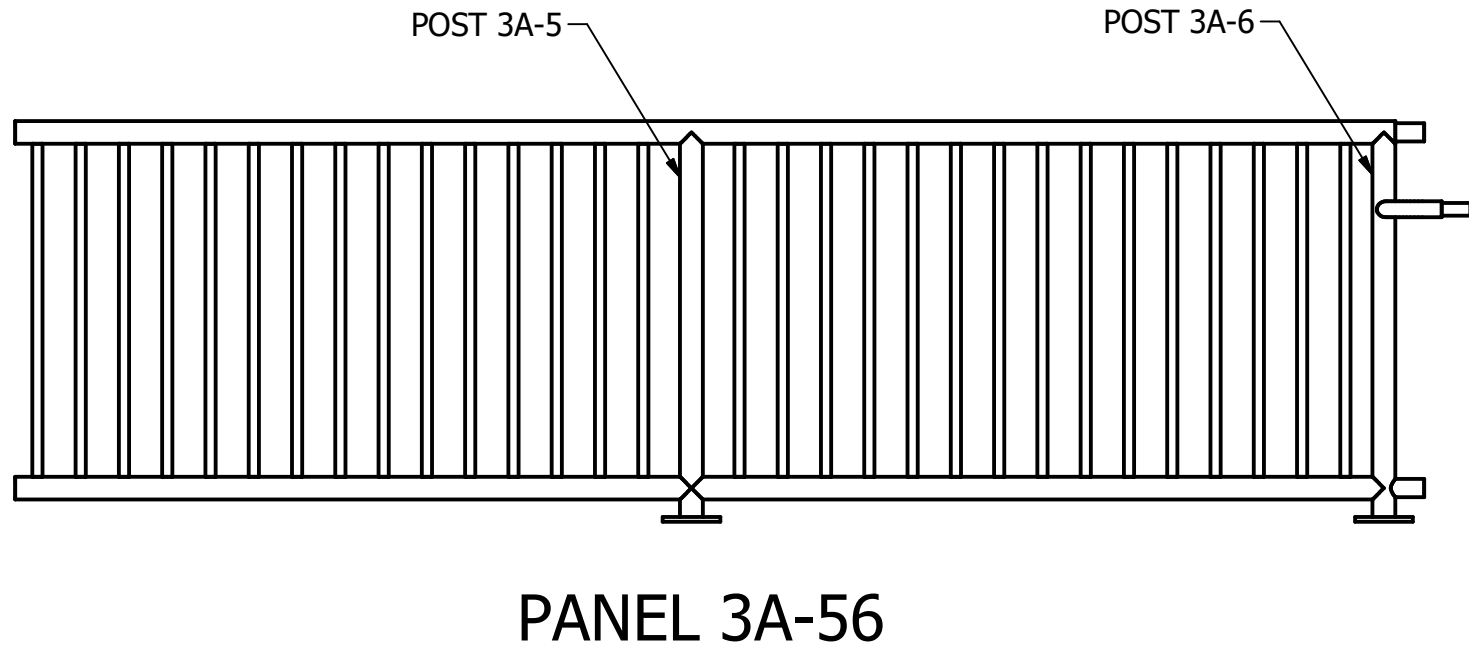
SEE SHEET 3 FOR TYP WELD DETAILS
SEE SHEET 6 FOR PANEL DIMENSIONS



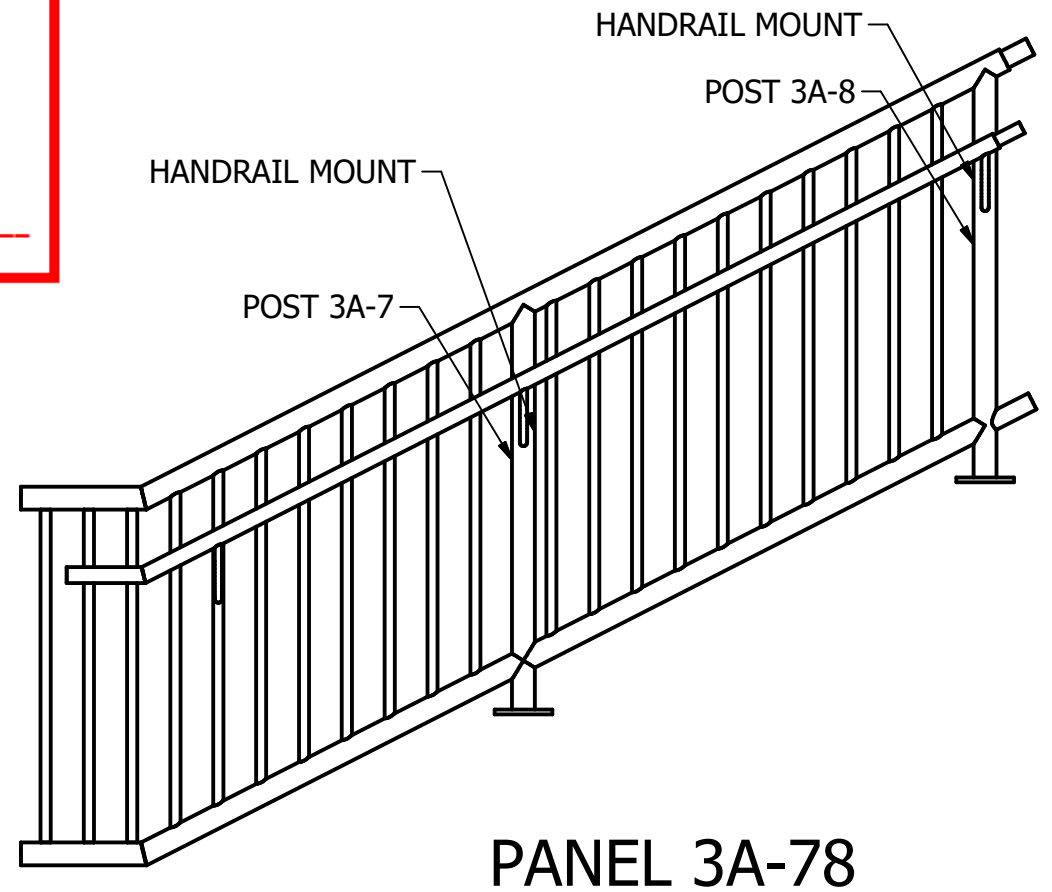
PANEL 3A-34

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025



PANEL 3A-56

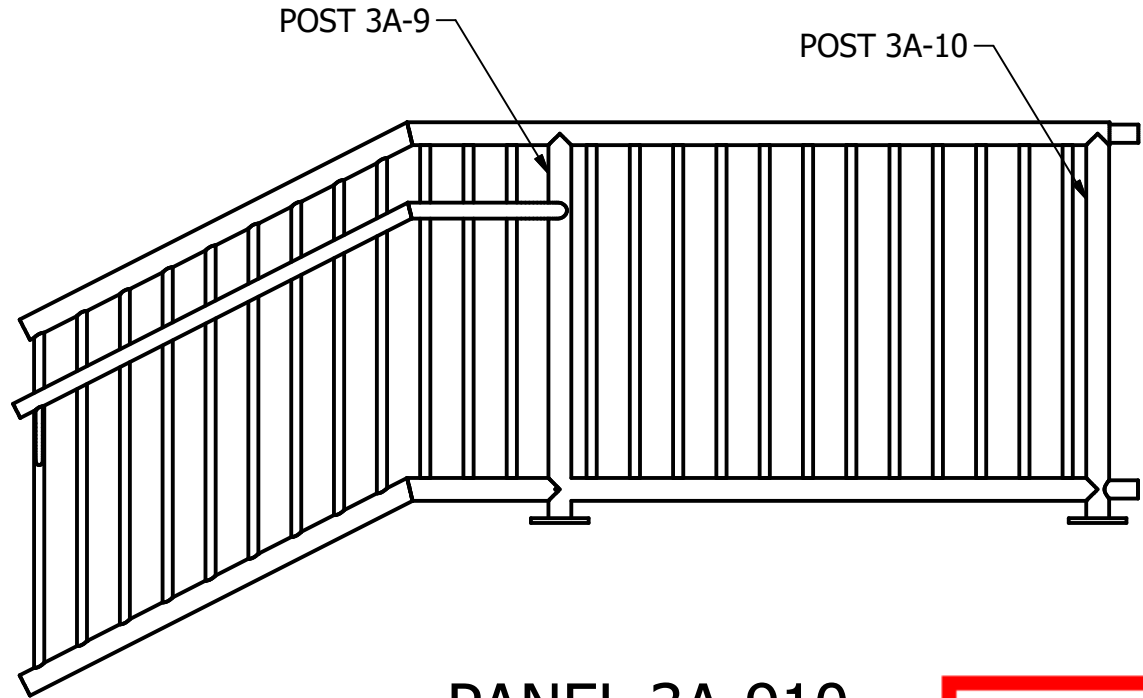


PANEL 3A-78

CUSTOMER REFERENCE DRAWING: HAINES ADA IMPROVEMENTS: MAIN ST HANDRAIL										JOB NUMBER:	
TOLERANCES: X ±0.1 XX ±0.06		PROJECTION: 		ALL DIMENSIONS IN INCHES		SIZE: B				10780 NW 324th AVE	
				DO NOT SCALE		REV: 1.31				PO Box 1040	
						DATE: 2/26/2024				North Plains, OR 97133	
								PHONE: 503-647-2050		EMAIL: SALES@GRATEMASTER.COM	
								800-397-2053		WEBSITE: GRATEMASTER.COM	
								SHEET 10 OF 11			

NOTES

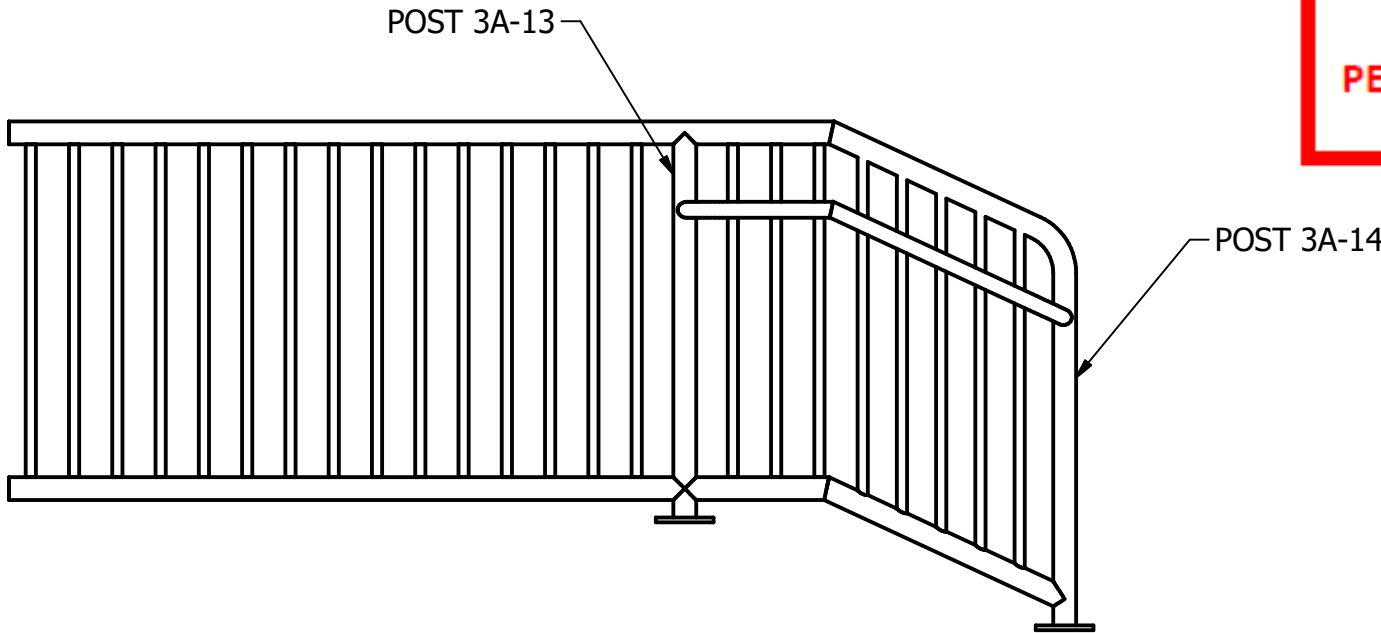
SEE SHEET 3 FOR TYP WELD DETAILS
SEE SHEET 6 FOR PANEL DIMENSIONS



PANEL 3A-910

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025



PANEL 3A-1314

CUSTOMER REFERENCE DRAWING: HAINES ADA IMPROVEMENTS: MAIN ST HANDRAIL

TOLERANCES:		PROJECTION:	ALL DIMENSIONS	SIZE: B	JOB NUMBER:	
.X	±0.1	FRACT	±1/8		PHONE: 503-647-2050	EMAIL: SALES@GRATEMASTER.COM
.XX	±0.06	ANGULAR	±1.0°		10780 NW 324th AVE	WEBSITE: GRATEMASTER.COM
					PO Box 1040	
					North Plains, OR 97133	
					SHEET 11 OF 11	
					DATE: 2/26/2024	
					REV: 1.31	
					DO NOT SCALE	
					IN INCHES	
					GRATEMASTER	

Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

This Week's Hours		
Sun. & Mon.	Closed	
Tues.	2 pm - 8 pm	
Wed.	10:30 AM - 8 pm	
Thur.	2 pm - 8 pm	
Fri.	2 pm - 8 pm	
Sat.	2 pm - 8 pm	



RAIL 1 A

1/4" diameter weep hole,
just above the mounting
plate weld, any side.

Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE *Matthew Sperber* 9/10/2025

1/4" diameter weep hole,
bottom of handrail, see Rail
2 for example

RAIL 1 A

1/4" diameter weep hole,
just above the mounting
plate weld, any side.

Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

RAIL 1 B

1/4" diameter weep hole,
bottom of handrail, see Rail
2 for example

1/4" diameter weep hole,
just above the mounting
plate weld, any side.

Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE *Matthew Sperber* 9/10/2025

RAIL 1 A

PLUG GALVENIZING
VENT HOLE

Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025



RAIL 2

1/4" diameter weep hole,
just above the mounting
plate weld, any side.

Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

RAIL 2

1/4" diameter weep hole,
just above the mounting
plate weld, any side.

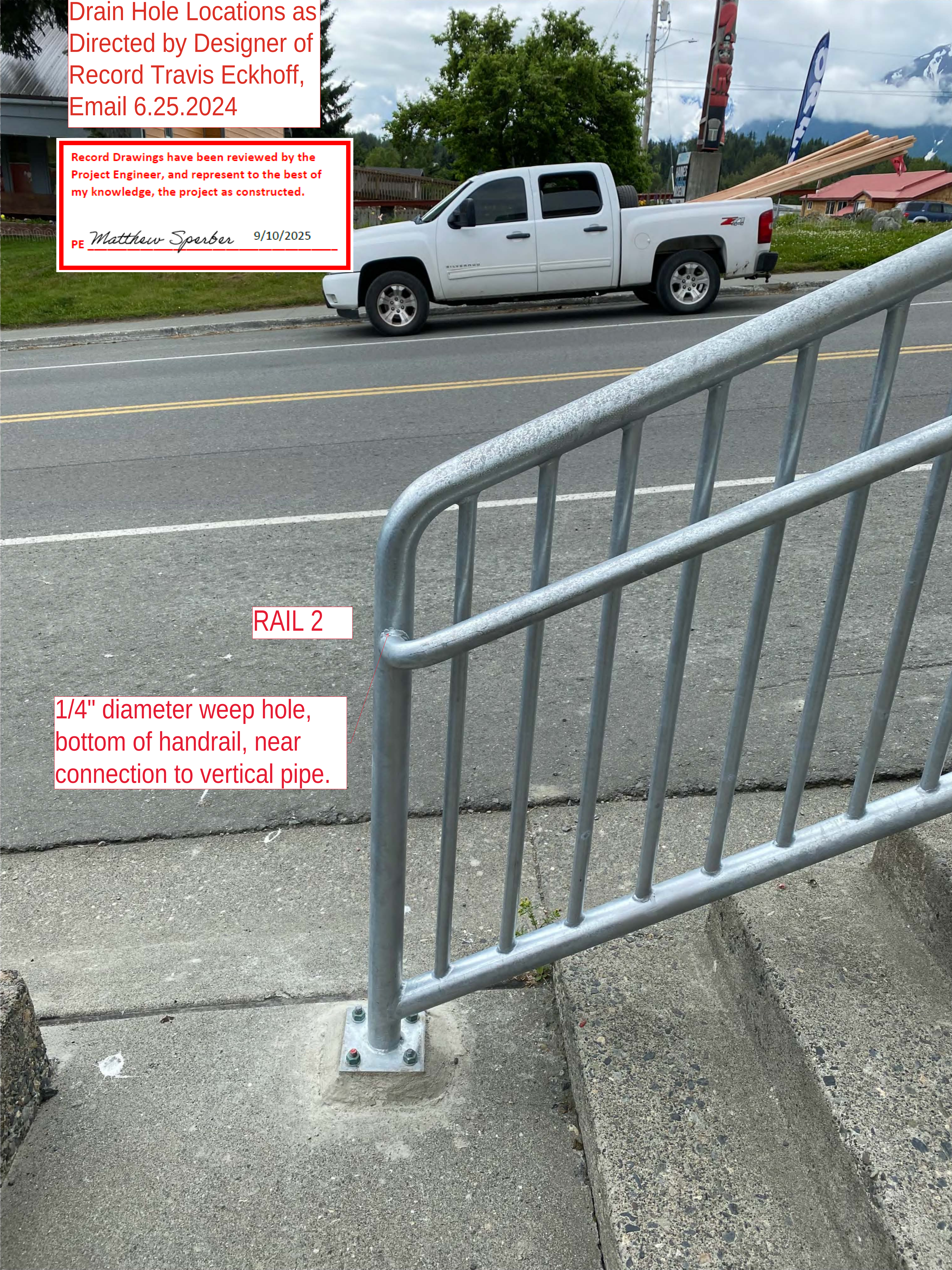
Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

RAIL 2

1/4" diameter weep hole,
bottom of handrail, near
connection to vertical pipe.



Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

RAIL 3

1/4" diameter weep hole,
just above the mounting
plate weld, any side.

Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE Matthew Sperber 9/10/2025

1/4" diameter weep hole,
bottom of 2" pipe, near 3/4"
vertical pipe

RAIL 3

1/4" diameter weep hole,
bottom of handrail, near
connection to vertical pipe.

Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE *Matthew Sperber* 9/10/2025

RAIL 3

1/4" diameter weep hole,
bottom of handrail, near
connection to vertical pipe.



Drain Hole Locations as
Directed by Designer of
Record Travis Eckhoff,
Email 6.25.2024

Record Drawings have been reviewed by the
Project Engineer, and represent to the best of
my knowledge, the project as constructed.

PE *Matthew Sperber* 9/10/2025

RAIL 3

1/4" diameter weep hole,
just above the mounting
plate weld, any side.