



WASHINGTON DEPARTMENT OF  
FISH AND WILDLIFE

ASOTIN CREEK WLA – WEATHERLY UNIT  
ELK FENCE REPLACEMENT  
AN:R13:2022-1

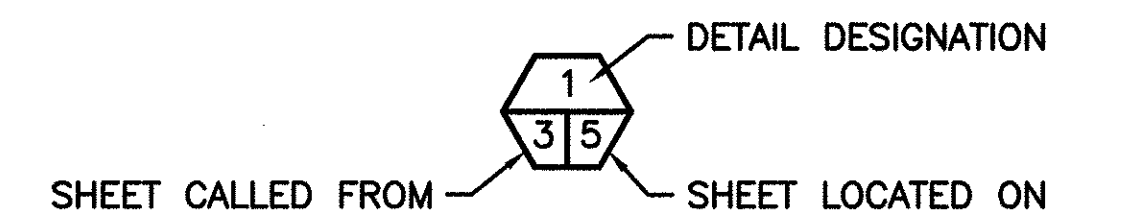
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 8 WIRE HANGER & MISCELLANEOUS DETAILS

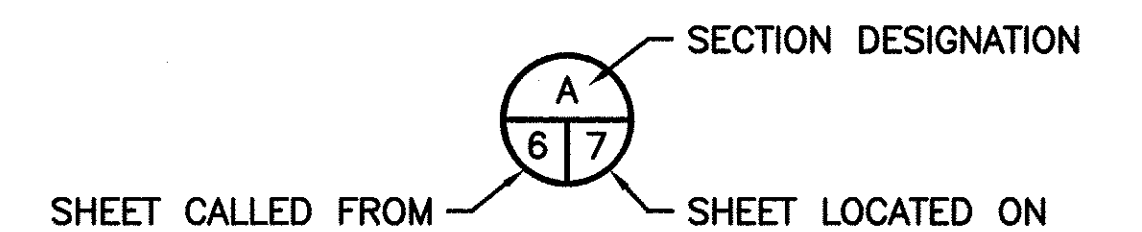
**ABBREVIATIONS**

ALUM	-	ALUMINUM
L	-	ANGLE
APPROX	-	APPROXIMATELY
BM	-	BENCH MARK
CL	-	CENTERLINE
CMP	-	CORRUGATED METAL PIPE
CLR	-	CLEARANCE
CONC	-	CONCRETE
CSBC	-	CRUSHED SURFACE BASE COURSE
CSTC	-	CRUSHED SURFACE TOP COURSE
DIA, Ø	-	DIAMETER
ELEV	-	ELEVATION
FB	-	FLAT BAR
FTG	-	FOOTING
GALV	-	GALVANIZED
ID	-	INSIDE DIAMETER
IE	-	INVERT ELEVATION
LF	-	LINEAR FEET
MAX	-	MAXIMUM
MFG	-	MANUFACTURER'S
MIN	-	MINIMUM
MISC	-	MISCELLANEOUS
OC	-	ON CENTER
OD	-	OUTSIDE DIAMETER
PL	-	PLATE
R	-	RADIUS
REQ'D	-	REQUIRED
SEC	-	SECTION
SPEC'S	-	PROJECT SPECIFICATIONS
SS	-	STAINLESS STEEL
TYP	-	TYPICAL
WS	-	WATER SURFACE

**SHEET SYMBOLS**



**DETAIL**



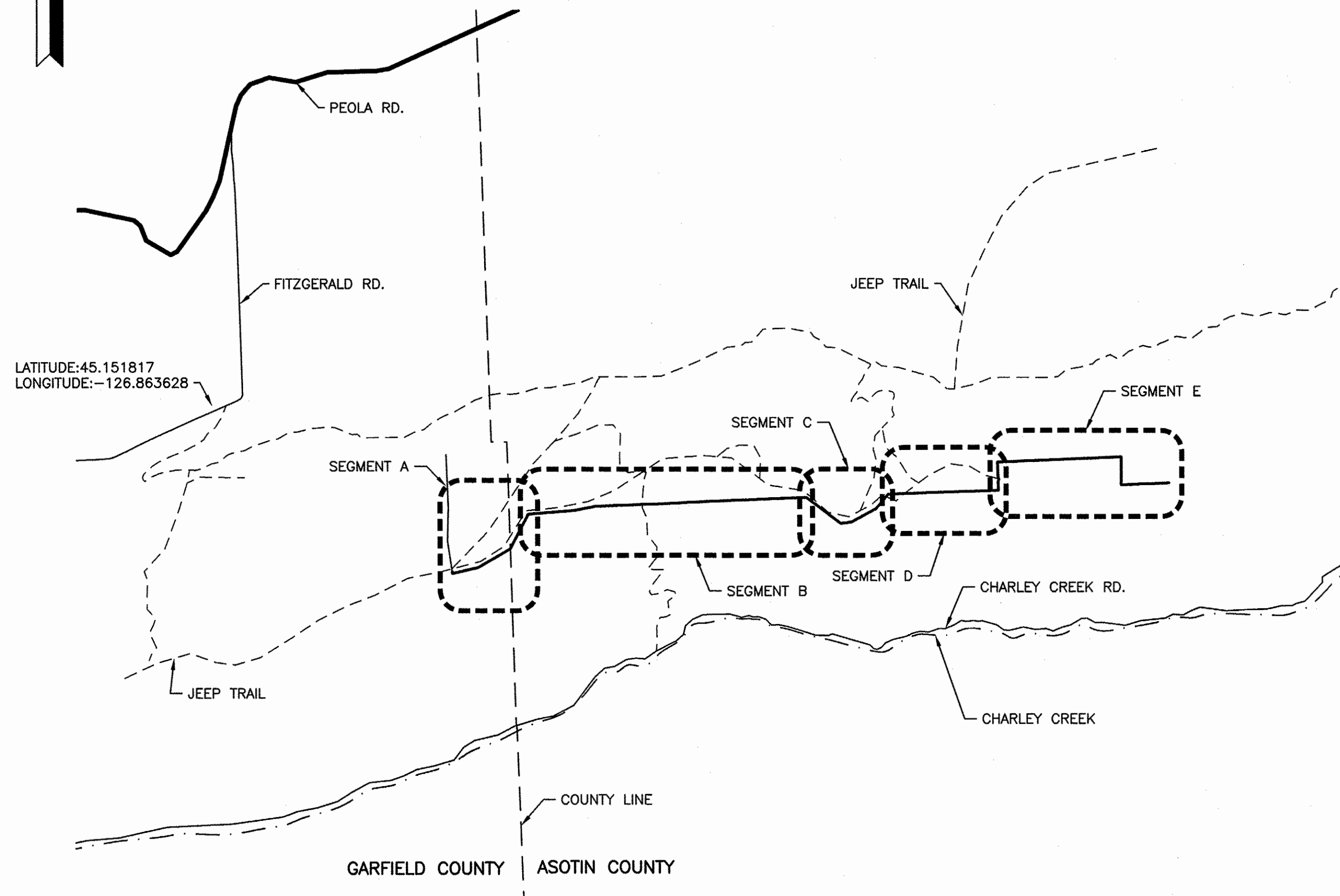
**SECTION**



**NOTE REFERENCE**

REFERENCE DESIGNATION TO A NOTE, A PART, OR MATERIAL IN A SCHEDULE/TABLE

PROJECT NO. AN:R13:2022-1	
SHEET 1	OF 8



**OVERALL SITE PLAN**

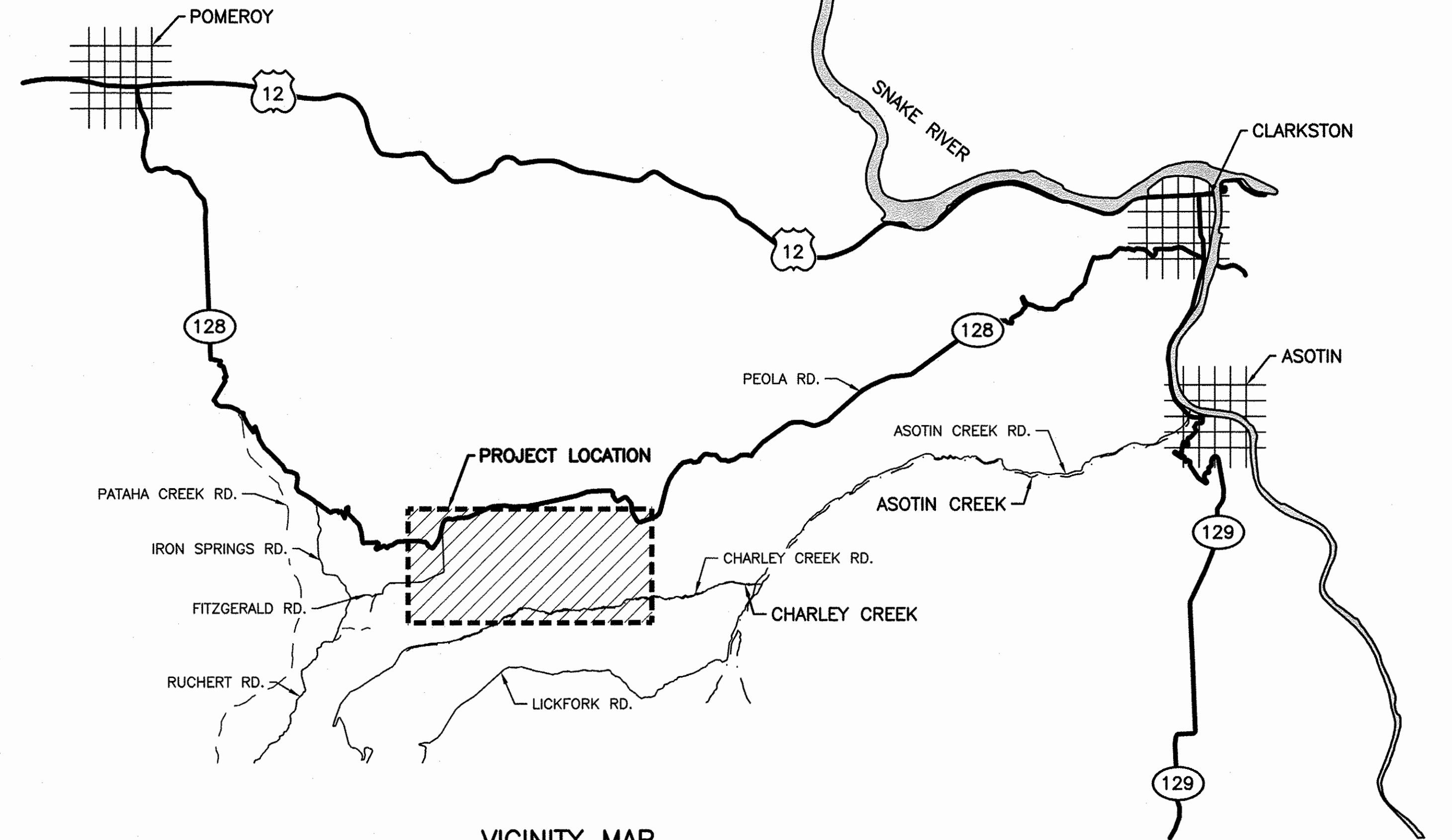


NEW FENCE TO BE INSTALLED APPROXIMATELY 3.4 MILES  
 EXISTING FENCE TO BE REMOVED APPROXIMATELY 3.4 MILES

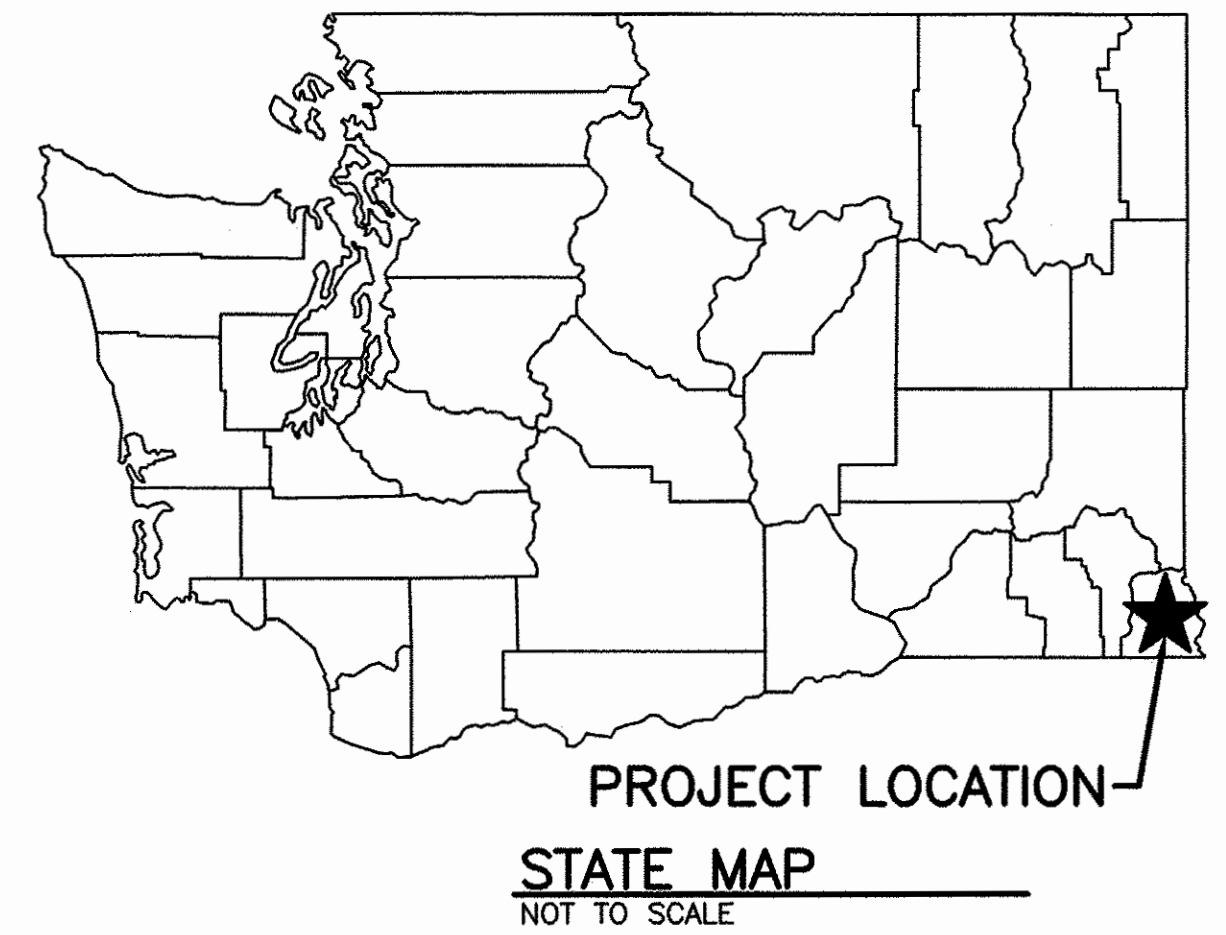
**NOTE:**  
 LOCATIONS ARE APPROXIMATE AND BASED OFF OF  
 AERIAL IMAGES AND GPS. FIELD VERIFY ALL LOCATIONS  
 OF EXISTING REMAINS OF FENCE, GATES, BREAKAWAY,  
 CORNER BRACES AND DRAWS.

**LEGEND**

- GRAVEL ROAD
- - - JEEP TRAIL
- x - EXISTING FENCE
- x - NEW FENCE



**VICINITY MAP**  
 NOT TO SCALE



**PROJECT LOCATION**  
**STATE MAP**  
 NOT TO SCALE

**DIRECTIONS**  
 FROM POMEROY, WA HEAD SOUTH ON  
 WA-128 E FOR 14 MI. TURN RIGHT  
 ONTO IRON SPRINGS RD FOR 4.1  
 MILES. TURN LEFT ONTO FITZGERALD  
 RD. CONTINUE ON FITZGERALD RD. TO  
 DIRT ACCESS TRAIL COORDINATES.

WASHINGTON DEPARTMENT OF  
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SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	
CHIEF ENGINEER		DATE: 4/10/22	
PROGRAM		DATE: 5/4/2022	

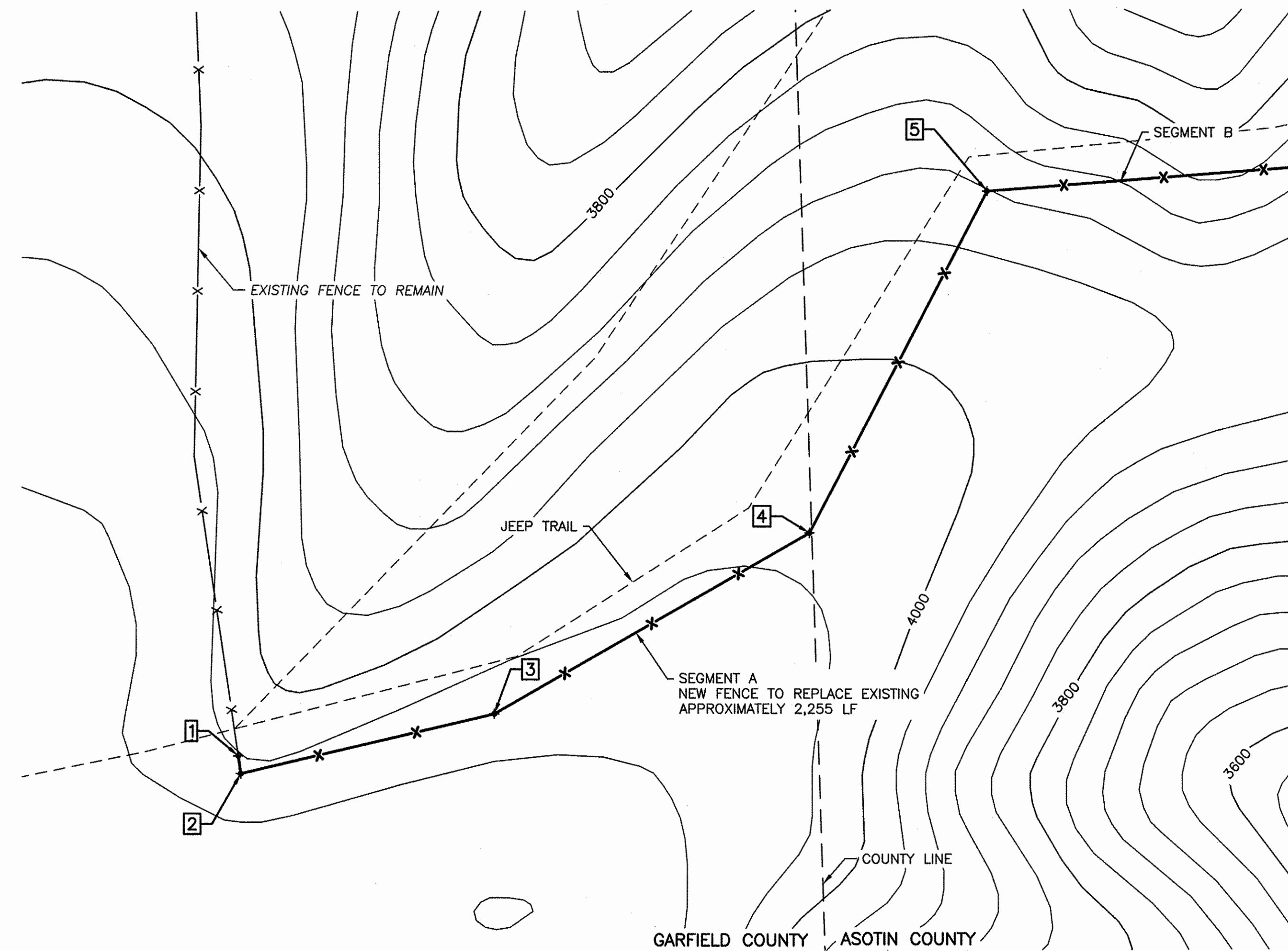
ASOTIN CREEK WLA – WEATHERLY UNIT  
**ELK FENCE REPLACEMENT**  
 STATE, VICINITY MAPS & OVERALL SITE  
 PLAN

PROJECT NO.  
 AN:R13:2022-1

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 2 8



SEGMENT A POINTS			
POINT #	LATITUDE	LONGITUDE	DESCRIPTION
1	N046.171168	W117.252862	16' GATE USE EXISTING GATE CORNER
2	N046.171129	W117.252857	CORNER BRACE
3	N046.171238	W117.252057	CORNER BRACE
4	N046.171604	W117.251050	CORNER BRACE
5	N046.172328	W117.250454	CORNER BRACE



**SEGMENT A PLAN**

1"=200' 22x34  
0 100 200 400 1"=400' 11x17

NEW FENCE TO BE INSTALLED APPROXIMATELY 2,255 LF  
EXISTING FENCE TO BE REMOVED APPROXIMATELY 2,255 LF

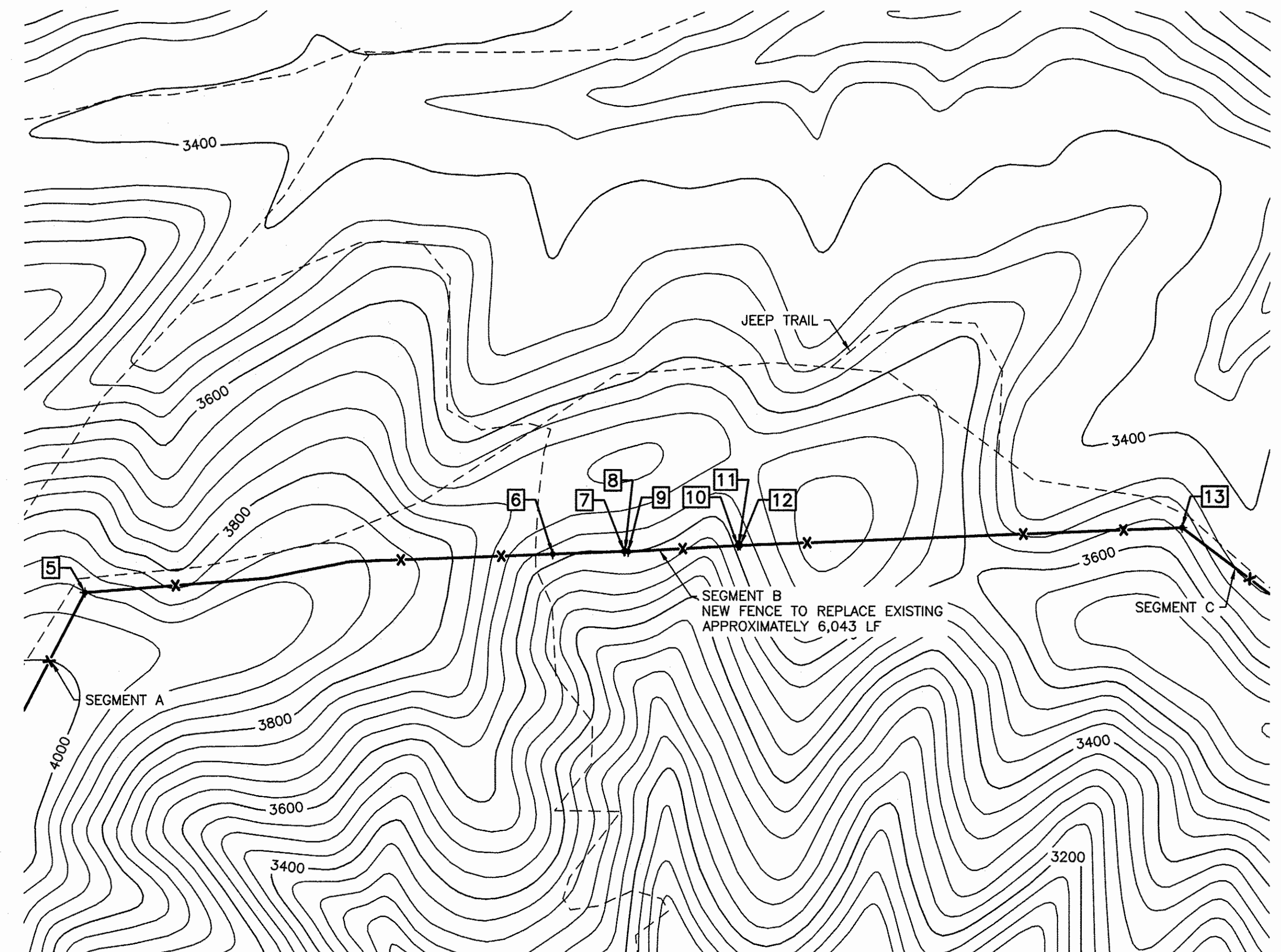
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**LEGEND**

- GRAVEL ROAD
- JEEP TRAIL
- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- x- EXISTING FENCE
- x- EXISTING FENCE TO BE REMOVED
- x- NEW FENCE

**SEGMENT B POINTS**

POINT #	LATITUDE	LONGITUDE	DESCRIPTION
5	N046.172328	W117.250454	CORNER BRACE
6	N046.172440	W117.242793	10' GATE USE EXISTING
7	N046.172440	W117.242235	BREAKAWAY
8	N046.172442	W117.242228	LARGE DRAW FENCE ±24'
9	N046.172438	W117.242203	BREAKAWAY
10	N046.172448	W117.241348	BREAKAWAY
11	N046.172448	W117.241338	SMALL DRAW FENCE ±16'
12	N046.172448	W117.241326	BREAKAWAY
13	N046.172453	W117.233875	CORNER BRACE



**SEGMENT B PLAN**

1"=500' 22x34  
0 100 300 500 1000 1"=1000' 11x17

NEW FENCE TO BE INSTALLED APPROXIMATELY 6,043 LF  
EXISTING FENCE TO BE REMOVED APPROXIMATELY 6,043 LF

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WASHINGTON DEPARTMENT OF  
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APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER		DATE: 5/19/22	DESIGNED BY R. MOSBERGER
PROGRAM		DATE: 5/4/2022	CHECKED BY D. SMITH
			DRAWN BY C. TORSTVET
			DATE 5/4/2022

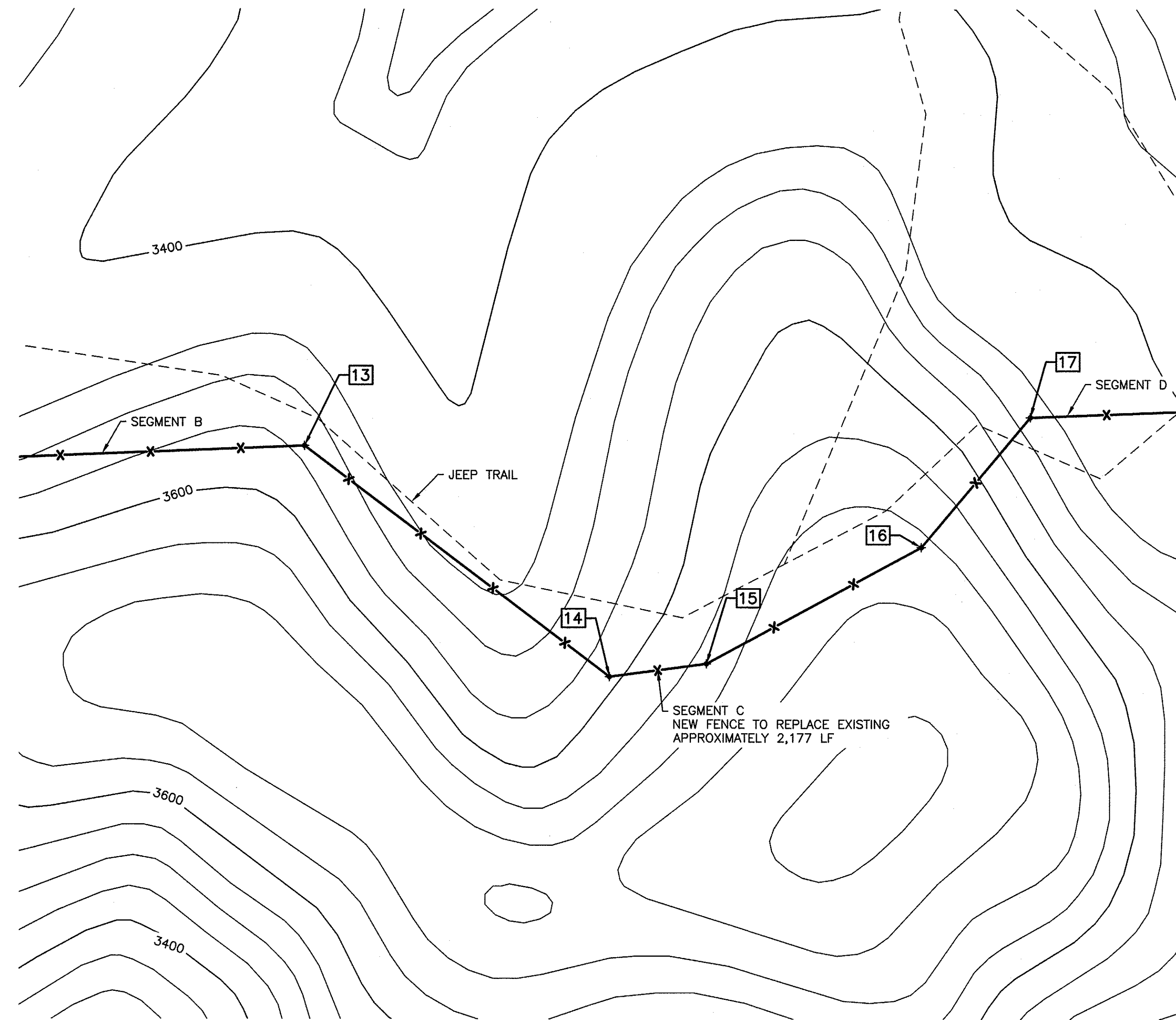
ASOTIN CREEK WLA – WEATHERLY UNIT  
**ELK FENCE REPLACEMENT**  
SEGMENT A & B  
PLANS

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**3 8**



SEGMENT C POINTS			
POINT #	LATITUDE	LONGITUDE	DESCRIPTION
13	N046.172453	W117.233875	CORNER BRACE
14	N046.171871	W117.232849	CORNER ELK W RETURN GATE OWNER SUPPLIED
15	N046.171892	W117.232511	CORNER BRACE
16	N046.172151	W117.231750	CORNER BRACE
17	N046.172453	W117.231355	CORNER BRACE



**SEGMENT C PLAN**

0 100 200 400 1"=200' 22x34  
1"=400' 11x17

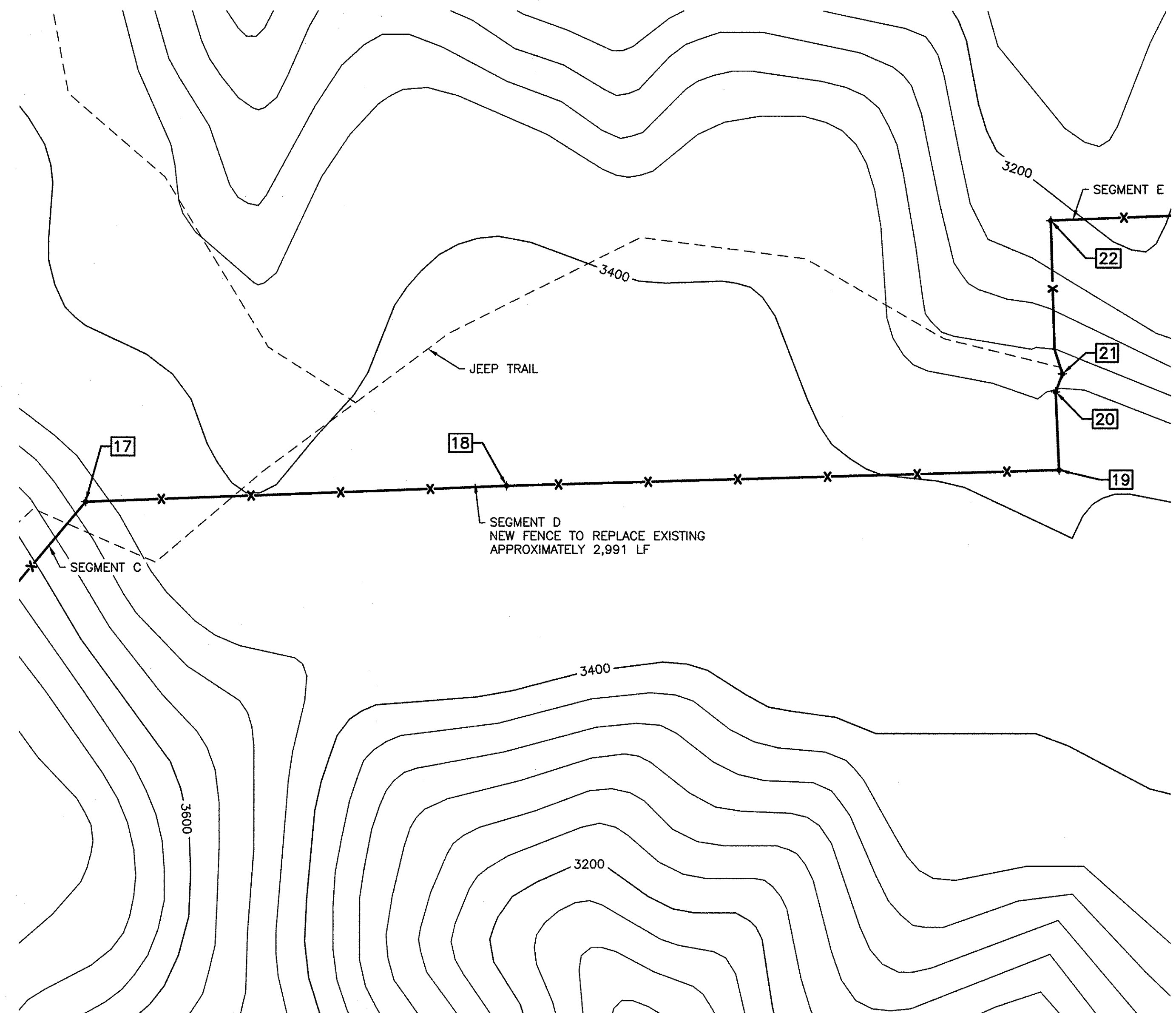
NEW FENCE TO BE INSTALLED APPROXIMATELY 2,177 LF  
EXISTING FENCE TO BE REMOVED APPROXIMATELY 2,177 LF

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**LEGEND**

- GRAVEL ROAD
- ... JEEP TRAIL
- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- x- EXISTING FENCE
- x- EXISTING FENCE TO BE REMOVED
- x- NEW FENCE

SEGMENT D POINTS			
POINT #	LATITUDE	LONGITUDE	DESCRIPTION
17	N046.172453	W117.231355	CORNER BRACE
18	N046.172452	W117.225884	EXISTING 8' GATE TO BE SALVAGED. REMOVE AND TURN OVER TO OWNER
19	N046.172438	W117.223954	MODIFIED CORNER BRACE
20	N046.172627	W117.223955	EXISTING 8' GATE
21	N046.172670	W117.223929	ELK RETURN GATE
22	N046.173041	W117.223949	MODIFIED CORNER BRACE



**SEGMENT D PLAN**

0 100 200 400 1"=200' 22x34  
1"=400' 11x17

NEW FENCE TO BE INSTALLED APPROXIMATELY 2,991 LF  
EXISTING FENCE TO BE REMOVED APPROXIMATELY 2,991 LF

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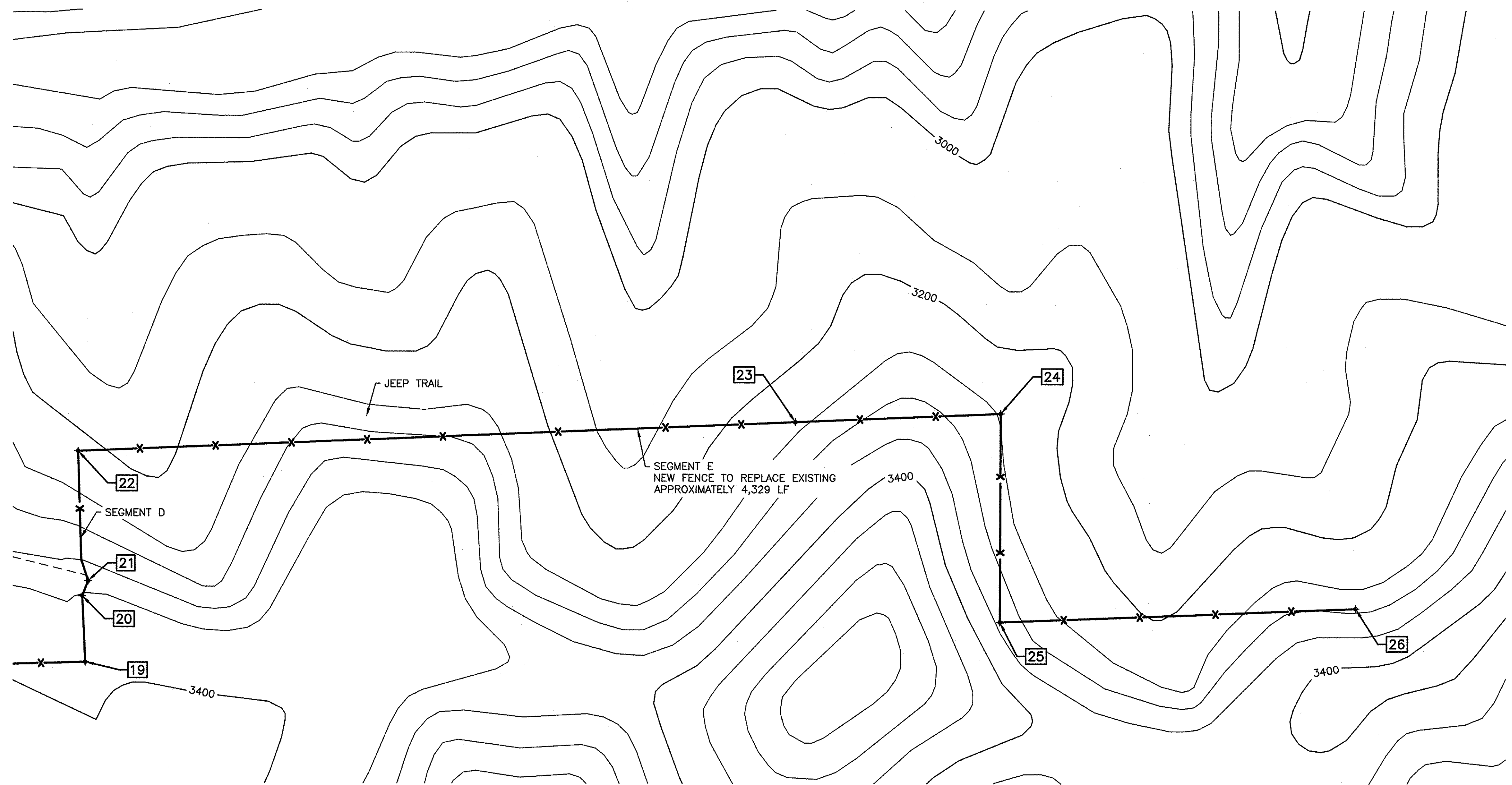
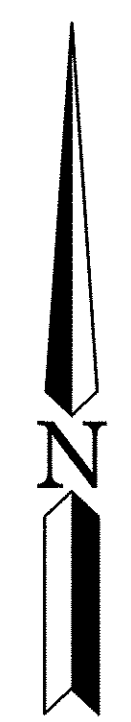
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APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER	<i>[Signature]</i>	DATE: 5/10/22	
PROGRAM		DATE: 5/4/2022	

DESIGNED BY R. MOSBERGER  
CHECKED BY D. SMITH  
DRAWN BY C. TORSTVET  
DATE 5/4/2022

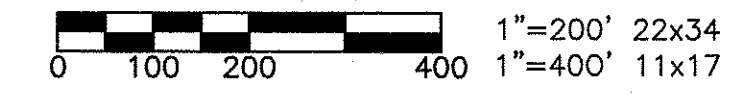
ASOTIN CREEK WLA - WEATHERLY UNIT  
ELK FENCE REPLACEMENT  
SEGMENT C & D  
PLANS

PROJECT NO.  
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SEGMENT E POINTS			
POINT #	LATITUDE	LONGITUDE	DESCRIPTION
22	N046.173041	W117.223949	MODIFIED CORNER BRACE
23	N046.173046	W117.220983	EXISTING 14' GATE TO BE REUSED
24	N046.173047	W117.220134	MODIFIED CORNER BRACE
25	N046.172451	W117.220170	CORNER WITH ELK RETURN
26	N046.172450	W117.214700	END BRACE



**SEGMENT E PLAN**

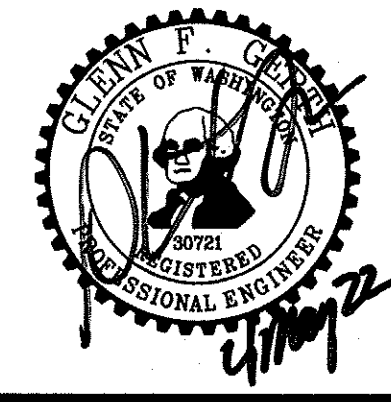


NEW FENCE TO BE INSTALLED APPROXIMATELY 4,329 LF  
 EXISTING FENCE TO BE REMOVED APPROXIMATELY 4,329 LF

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- LEGEND**
- GRAVEL ROAD
  - JEEP TRAIL
  - EXISTING MINOR CONTOURS
  - EXISTING MAJOR CONTOURS
  - x- EXISTING FENCE
  - x- EXISTING FENCE TO BE REMOVED
  - x- NEW FENCE

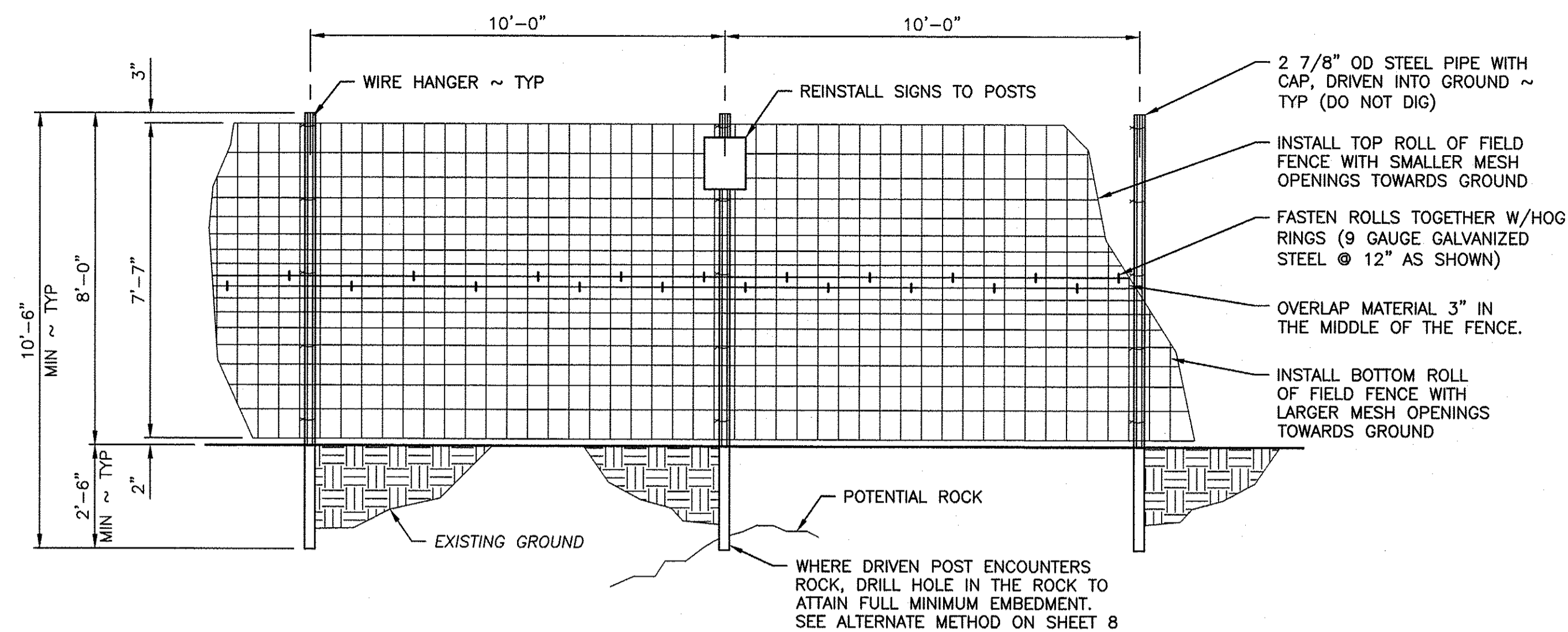
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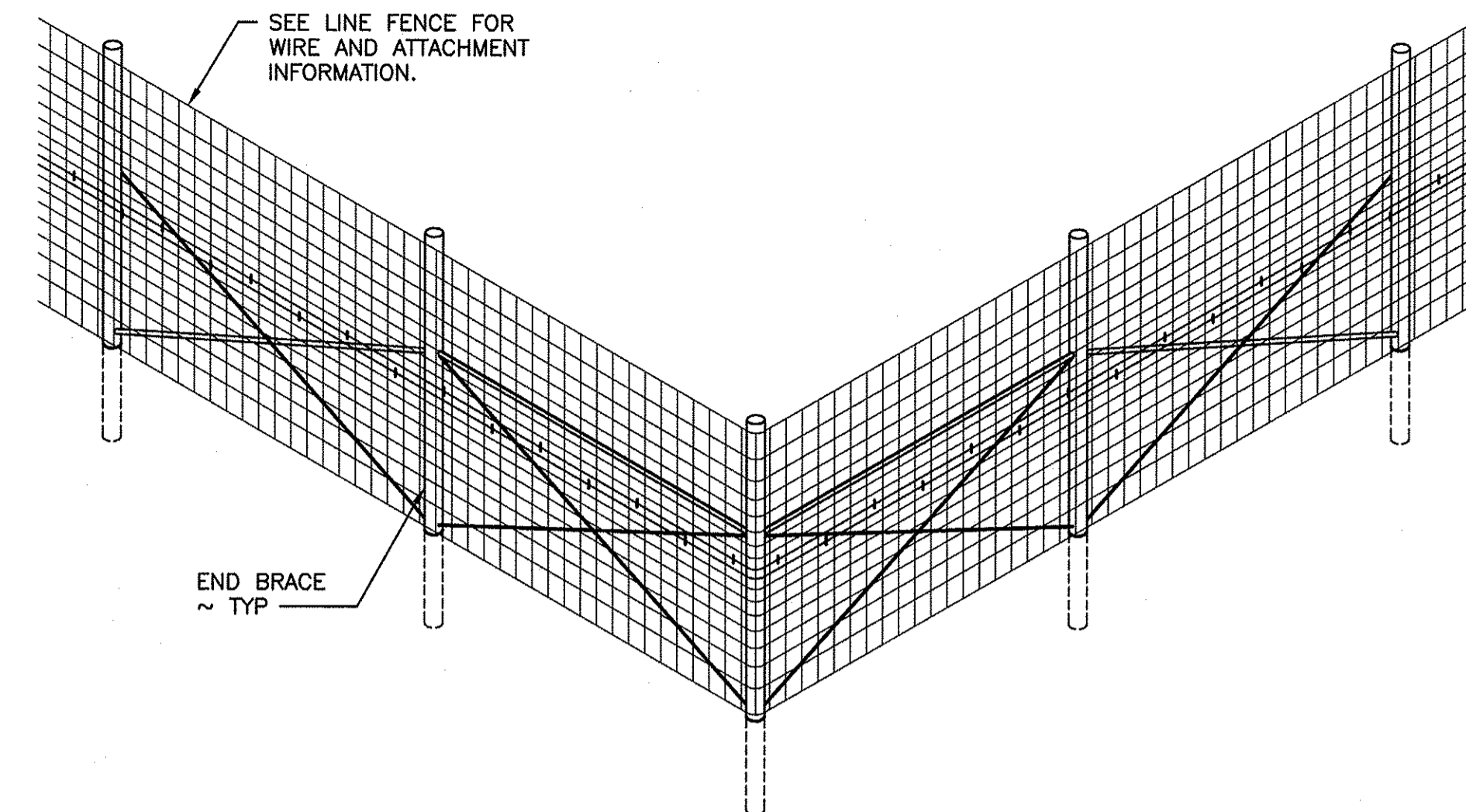
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ASOTIN CREEK WLA – WEATHERLY UNIT  
 ELK FENCE REPLACEMENT  
 SEGMENT E  
 PLAN

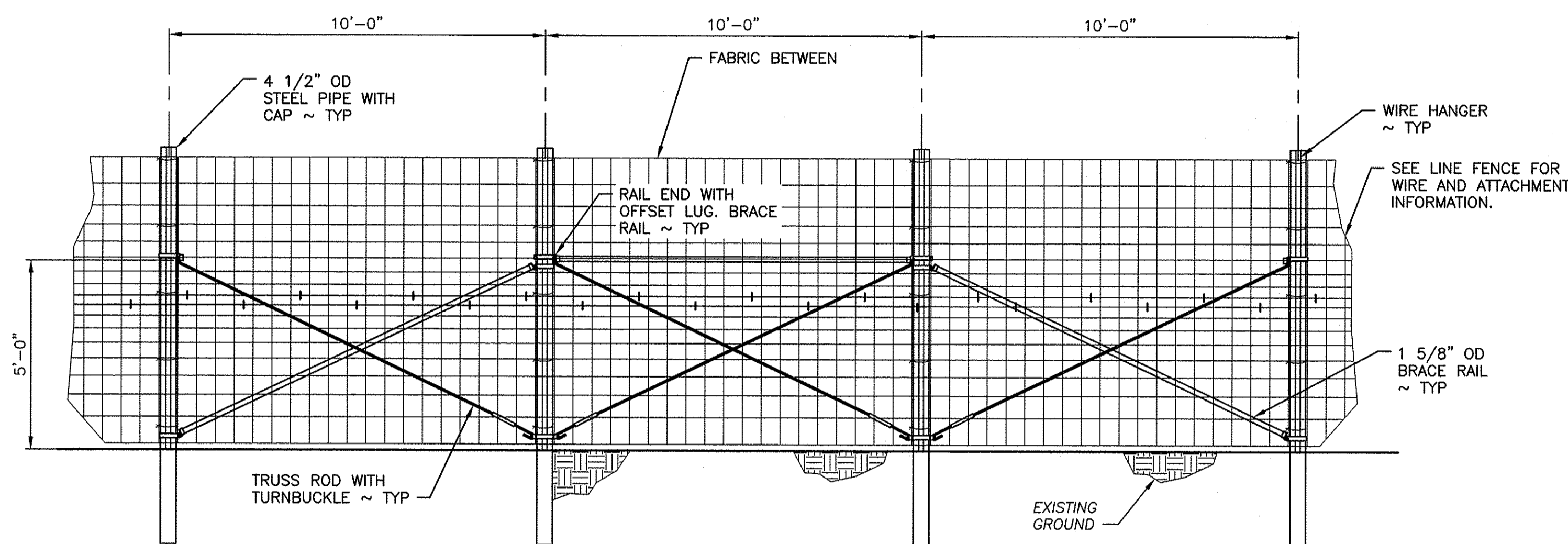
PROJECT NO. AN:R13:2022-1	
SHEET 5	OF 8



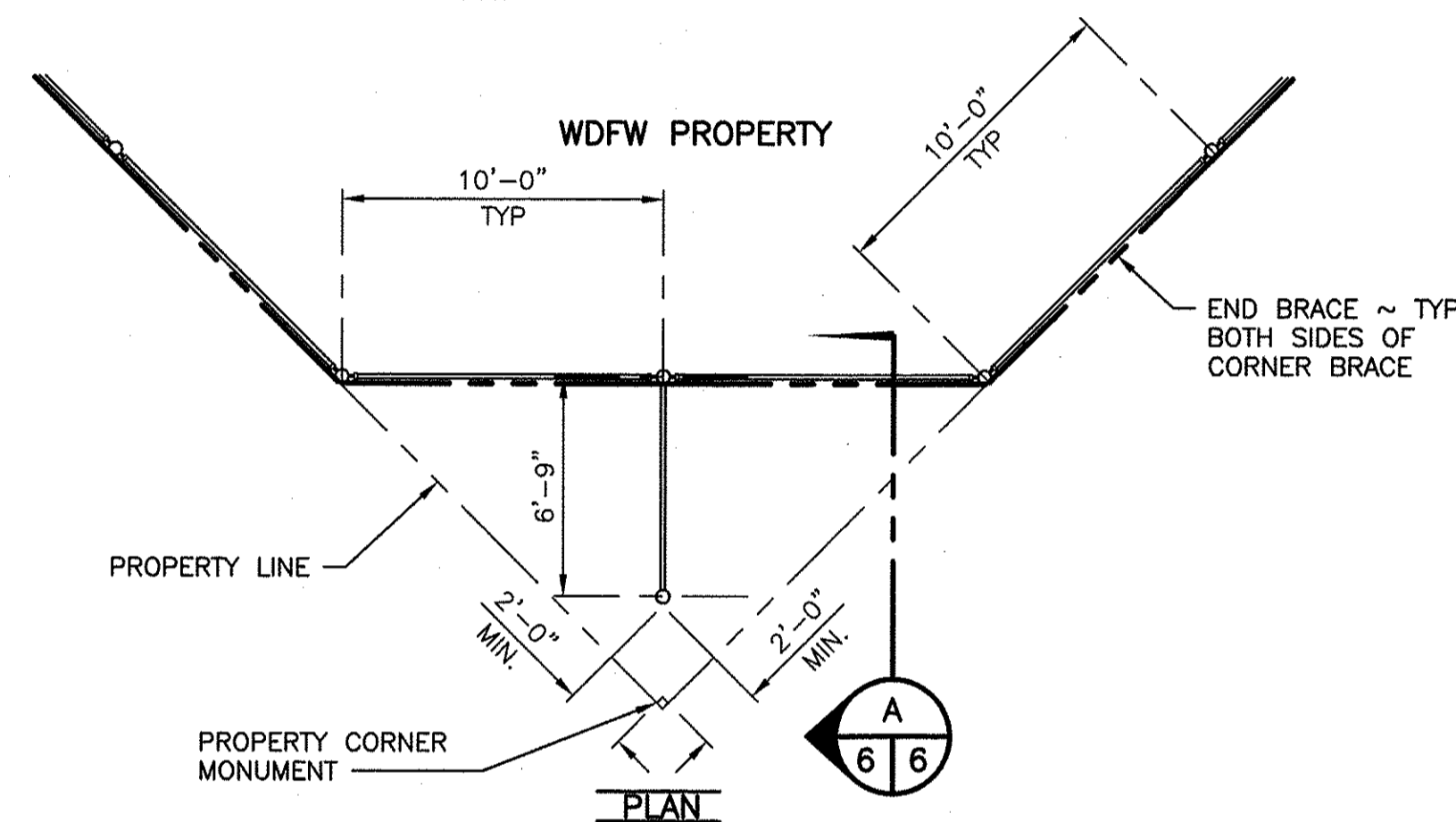
**LINE FENCE**  
SCALE: 3/8" = 1'-0"



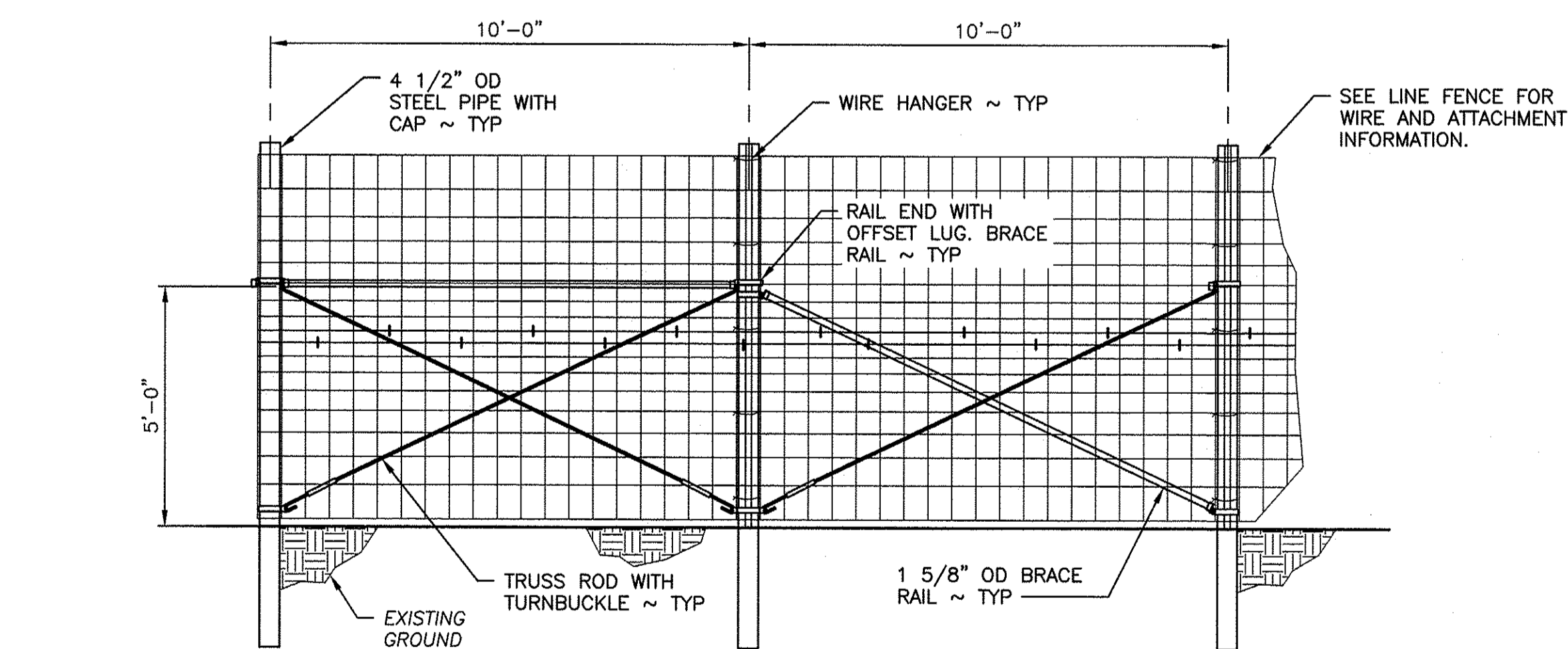
**CORNER BRACE**  
NOT TO SCALE



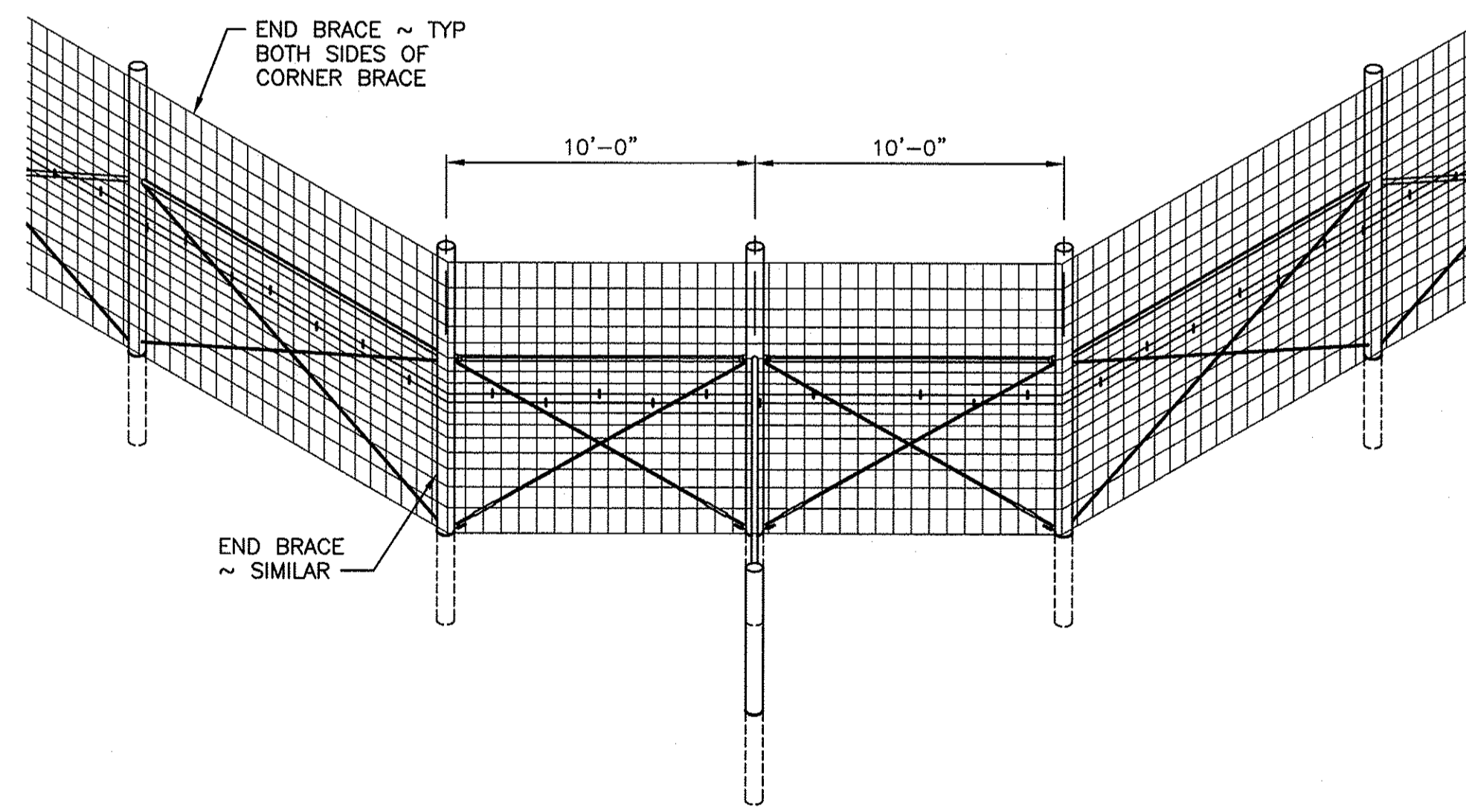
**STRETCH BRACE**  
SCALE: 3/8" = 1'-0"



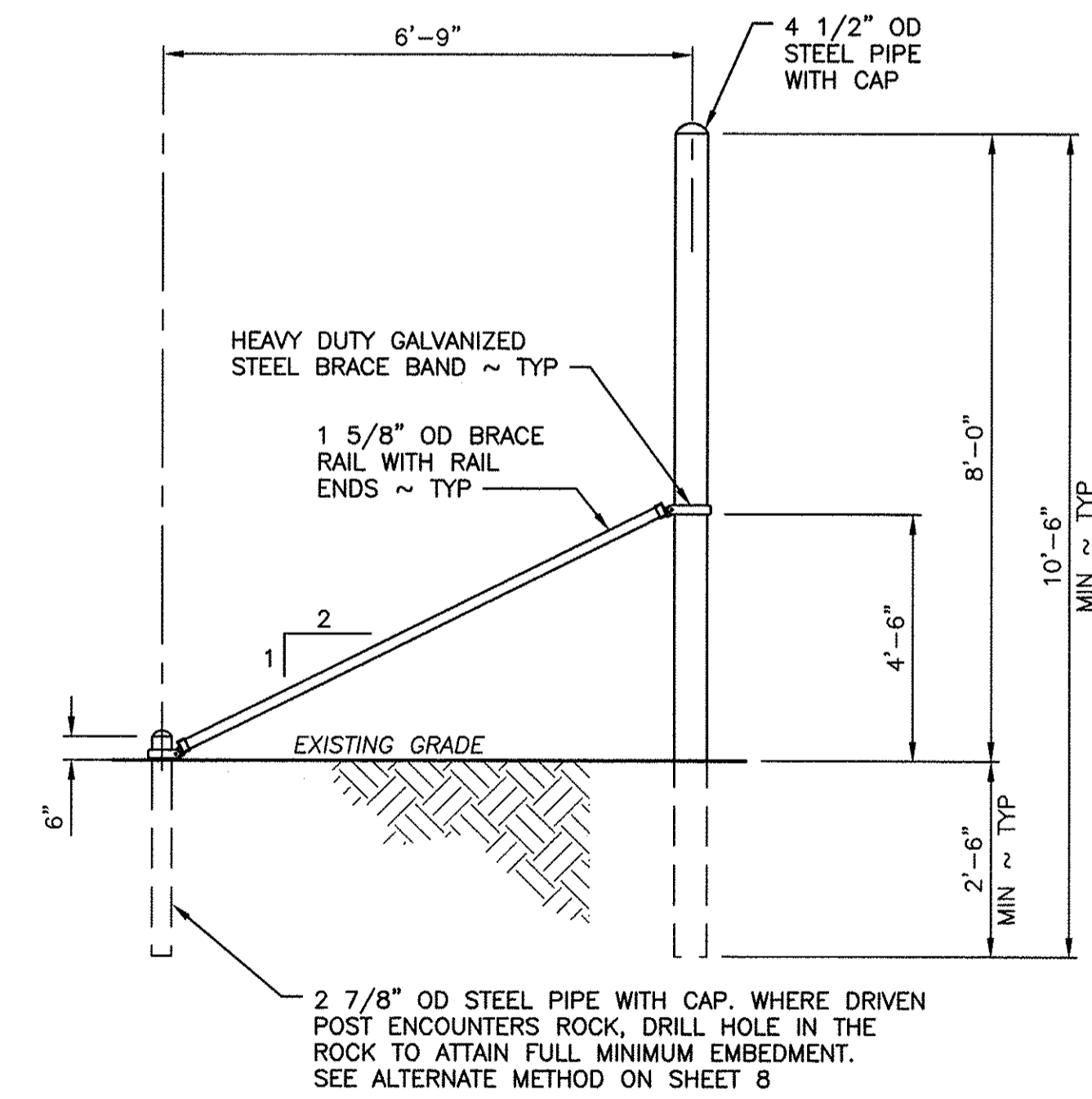
**PLAN**



**END OR GATE BRACE**  
SCALE: 3/8" = 1'-0"



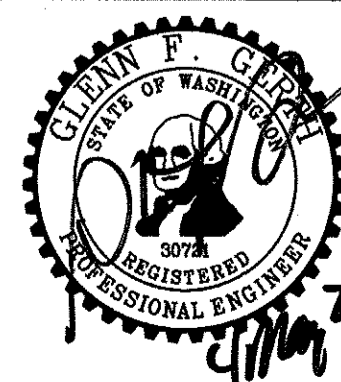
**ISOMETRIC**  
**MODIFIED CORNER BRACE**  
NOT TO SCALE



**SECTION**  
SCALE: 3/8" = 1'-0" (A 6 6)

- GENERAL NOTES:**
- ALL VERTICAL STEEL PIPE SHALL HAVE A GALVANIZED METAL POST CAP, OR APPROVED EQUIVALENT.
  - CATTLE PANELS AND HOG PANELS SHALL BE 4 GAUGE WIRE.
  - TRUSS ROD SHALL BE 3/8 INCH DIAMETER WITH A TURNBUCKLE INSTALLED.
  - FIELD FENCE SHALL BE TWO 47 INCH TALL SECTIONS OF FABRIC, 3 INCHES OVERLAPPED IN THE MIDDLE. INSTALL THE TOP ROLL OF FIELD FENCE FABRIC SO THAT THE SMALLER MESH OPENINGS ARE TOWARDS THE GROUND. INSTALL THE BOTTOM ROLL OF FIELD FENCE FABRIC SO THAT THE LARGER MESH OPENINGS ARE TOWARDS THE GROUND.
  - FASTEN FENCE FABRIC ROLLS TOGETHER WITH 9 GAUGE GALVANIZED HOG RINGS AT 12 INCH MAXIMUM SPACING.
  - SEE SPECIFICATIONS FOR FIELD FENCE TERMINATION.
  - INSTALL END BRACES ON EITHER SIDE OF DRAWS, GATES, OR STREAM CROSSINGS.
  - WHERE DRIVEN POST ENCOUNTERS ROCK, DRILL HOLE IN THE ROCK TO ATTAIN FULL MINIMUM EMBEDMENT
- LINE FENCE:**
- LINE FENCE POSTS SHALL BE 10 FEET 6 INCHES LONG X 2 7/8 INCHES IN DIAMETER, POSTS SHALL BE DRIVEN (DO NOT DIG) TO A MINIMUM DEPTH OF 30 INCHES.
- STRETCH BRACE:**
- CORNER AND STRETCH BRACE POSTS SHALL BE AT LEAST 10 FEET 6 INCHES LONG X 4 1/2 INCHES IN DIAMETER, POSTS SHALL BE DRIVEN (DO NOT DIG) TO A MINIMUM DEPTH OF 30 INCHES.
  - HEAVY DUTY BRACE BAND SHALL BE FIXED IN PLACE WITH ON 0.27 CALIBER POWER ACTUATED NAIL OR 1/4 INCH SELF TAPPING SCREW.
  - SEE SPECIFICATIONS FOR MAXIMUM DISTANCE BETWEEN STRETCH BRACES.
  - INSTALL STRETCH BRACES AT CHANGES OF GRADE OF 10 DEGREES (1.75 RISE OR DROP ON 10 FEET OF RUN) OR MORE.
  - CHANGES IN ALIGNMENT OF 10 DEGREES OR MORE (1.75 FEET OF DIRECTION CHANGE IN 10 FEET OF RUN) SHALL BE CONSIDERED AS CORNERS, AND A CORNER BRACE STRUCTURE SHALL BE INSTALLED.

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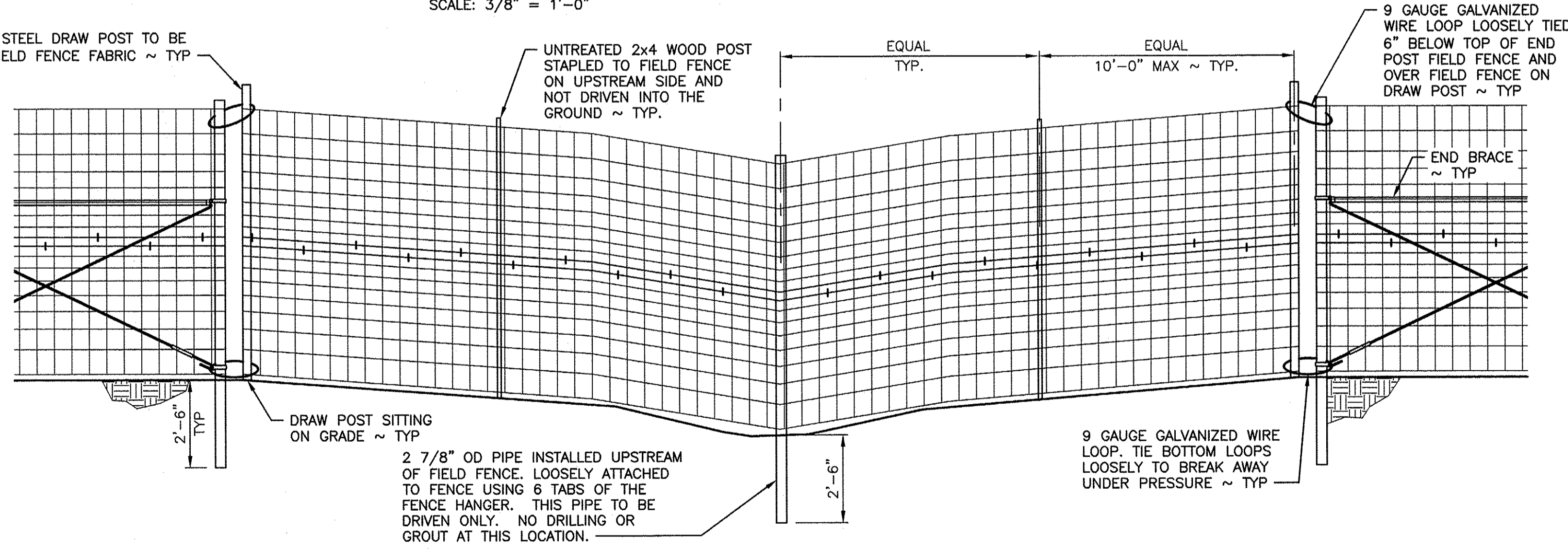
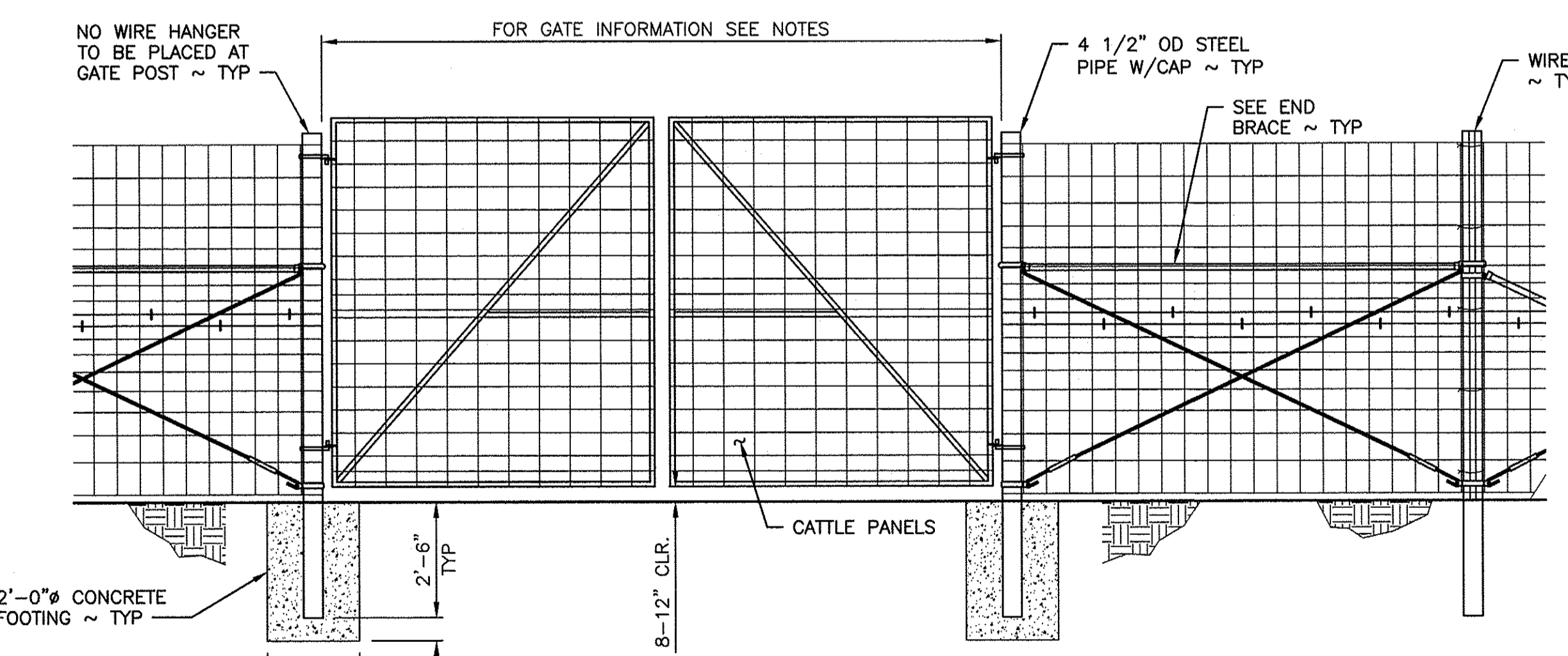
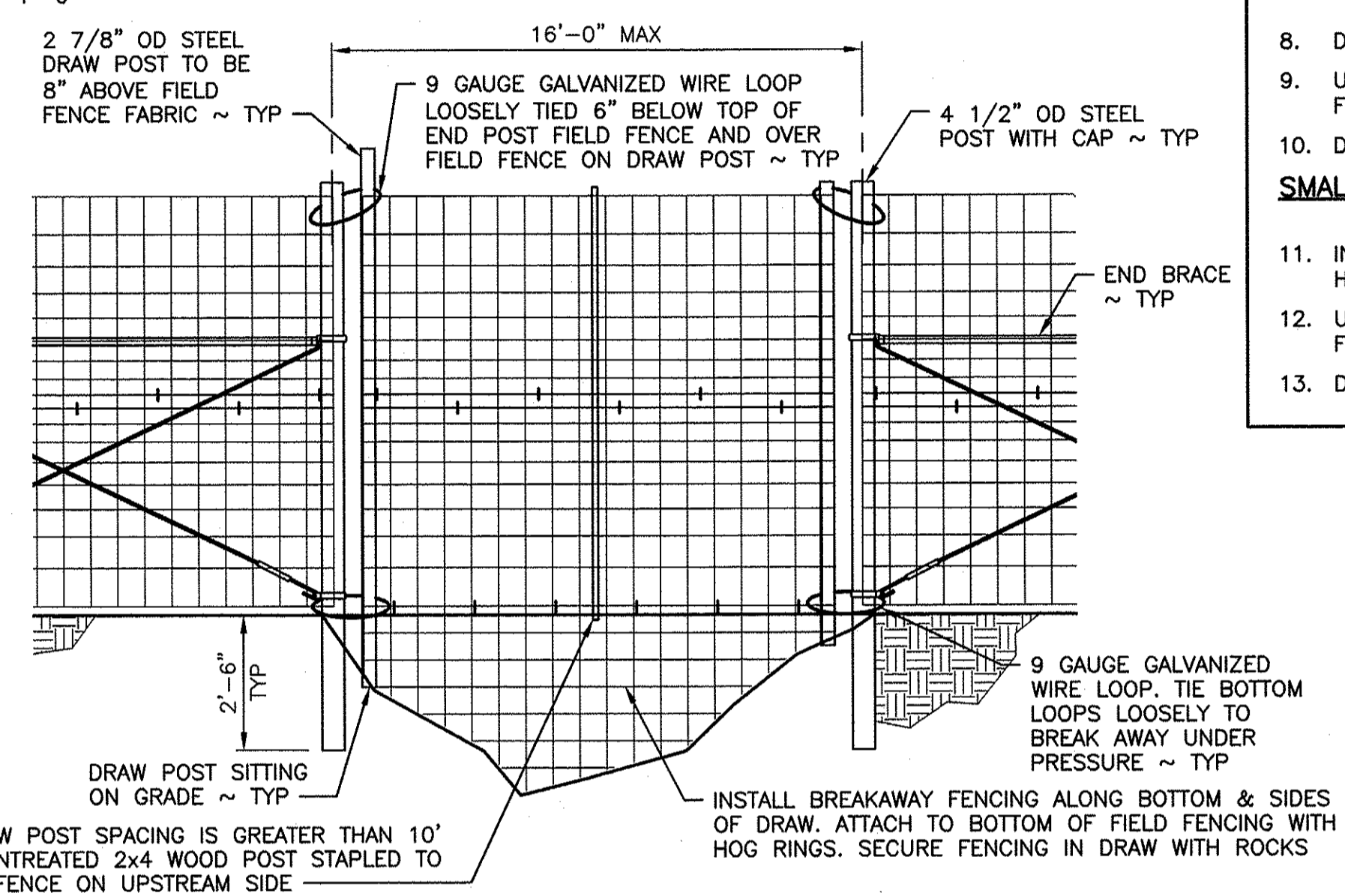
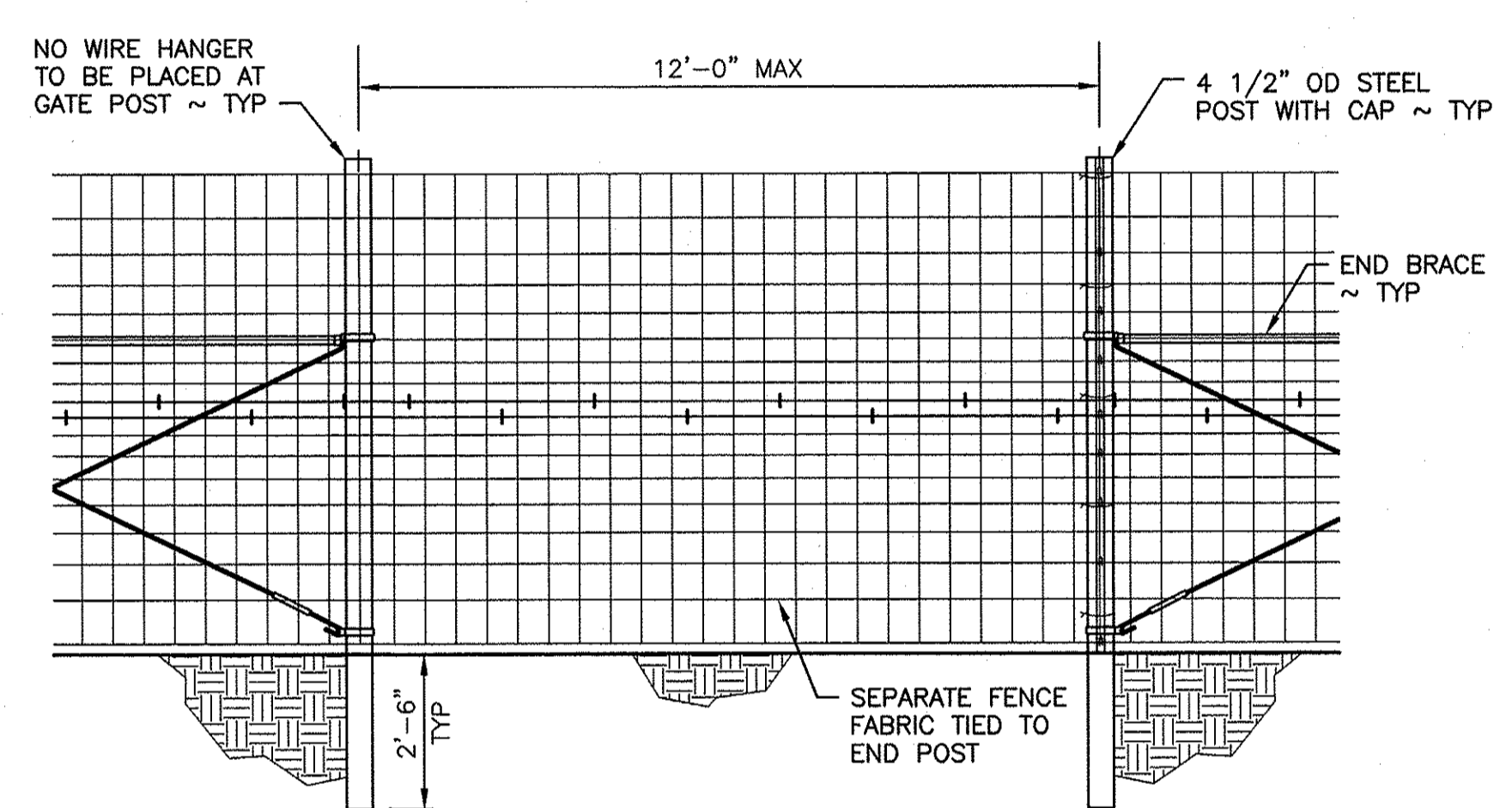
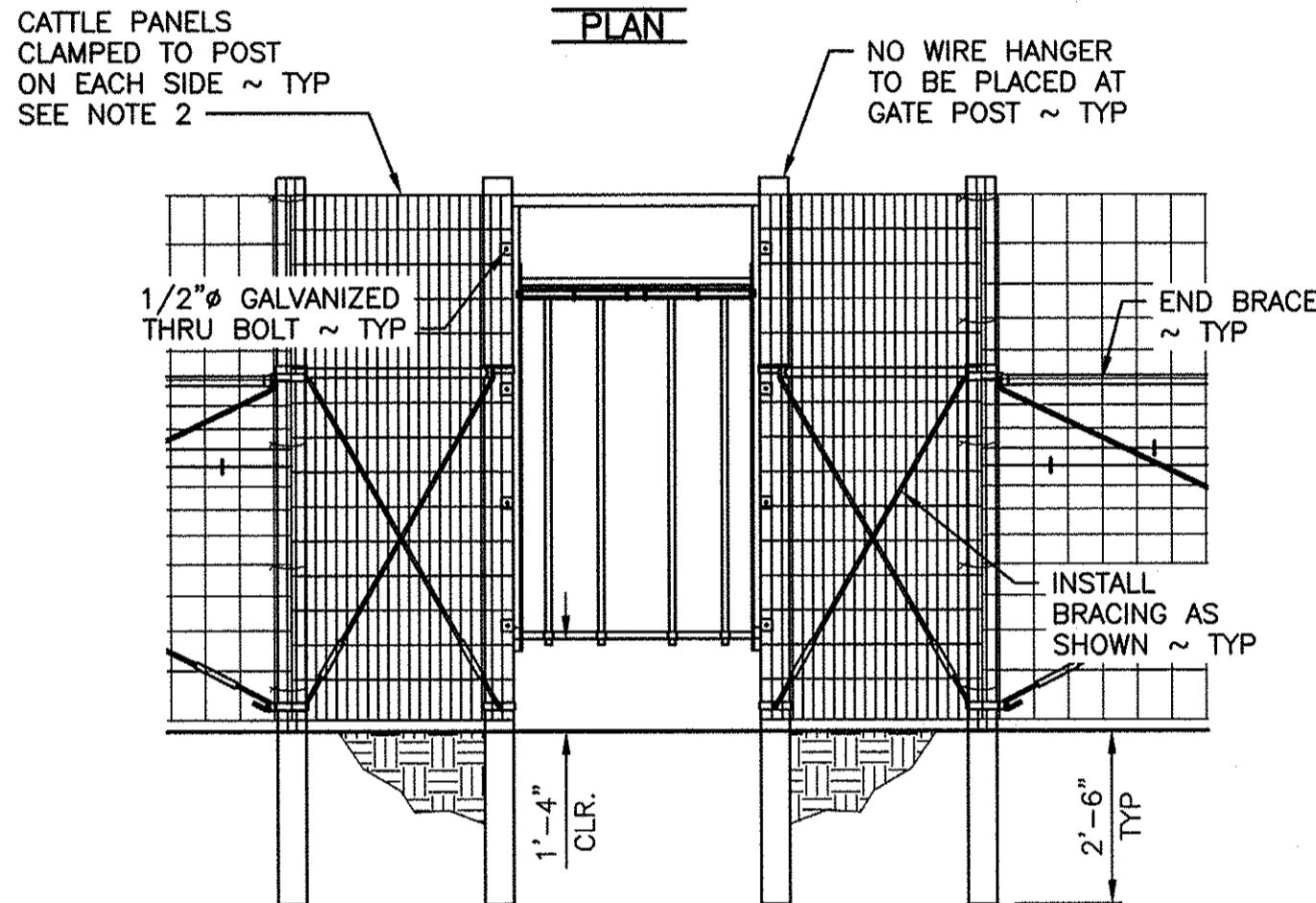
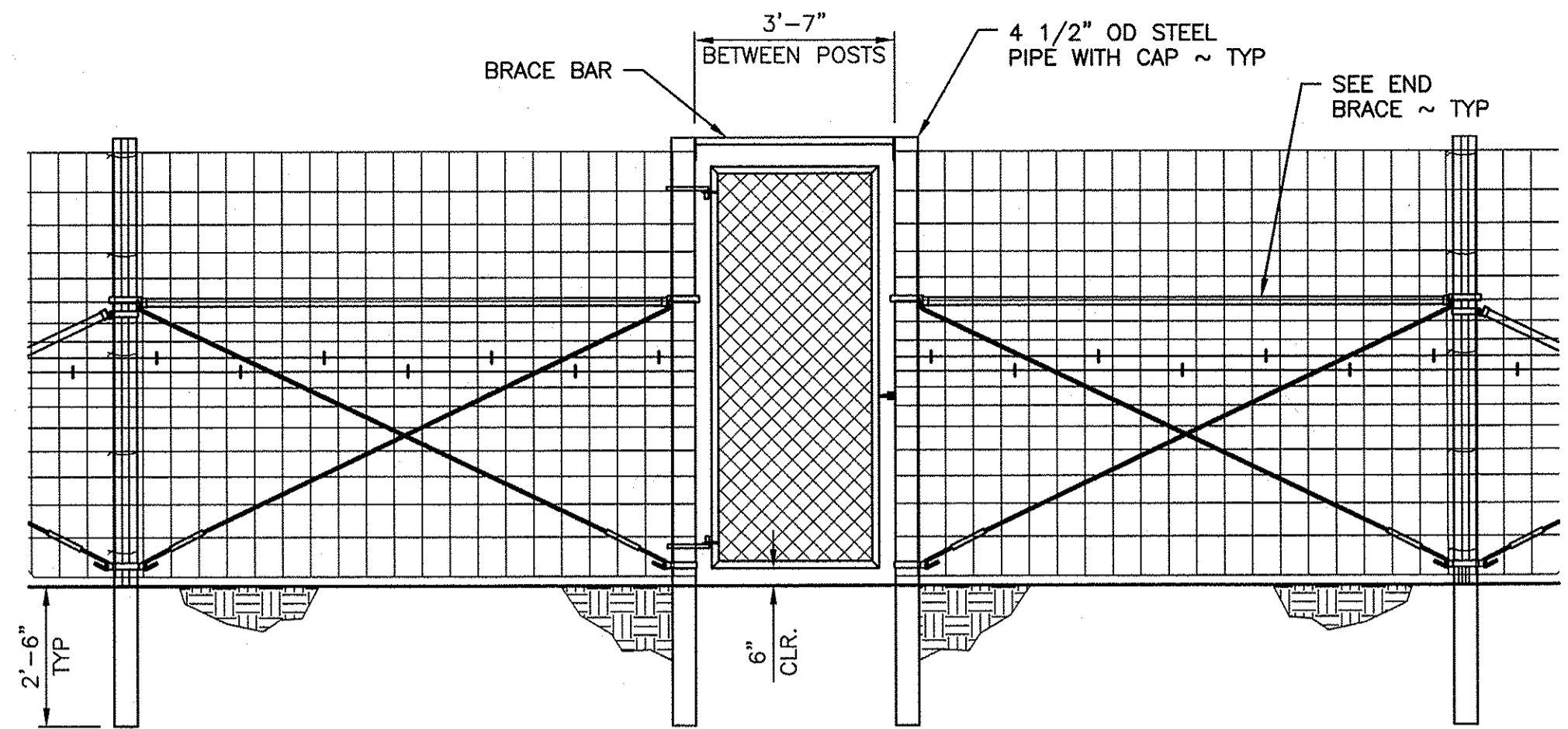
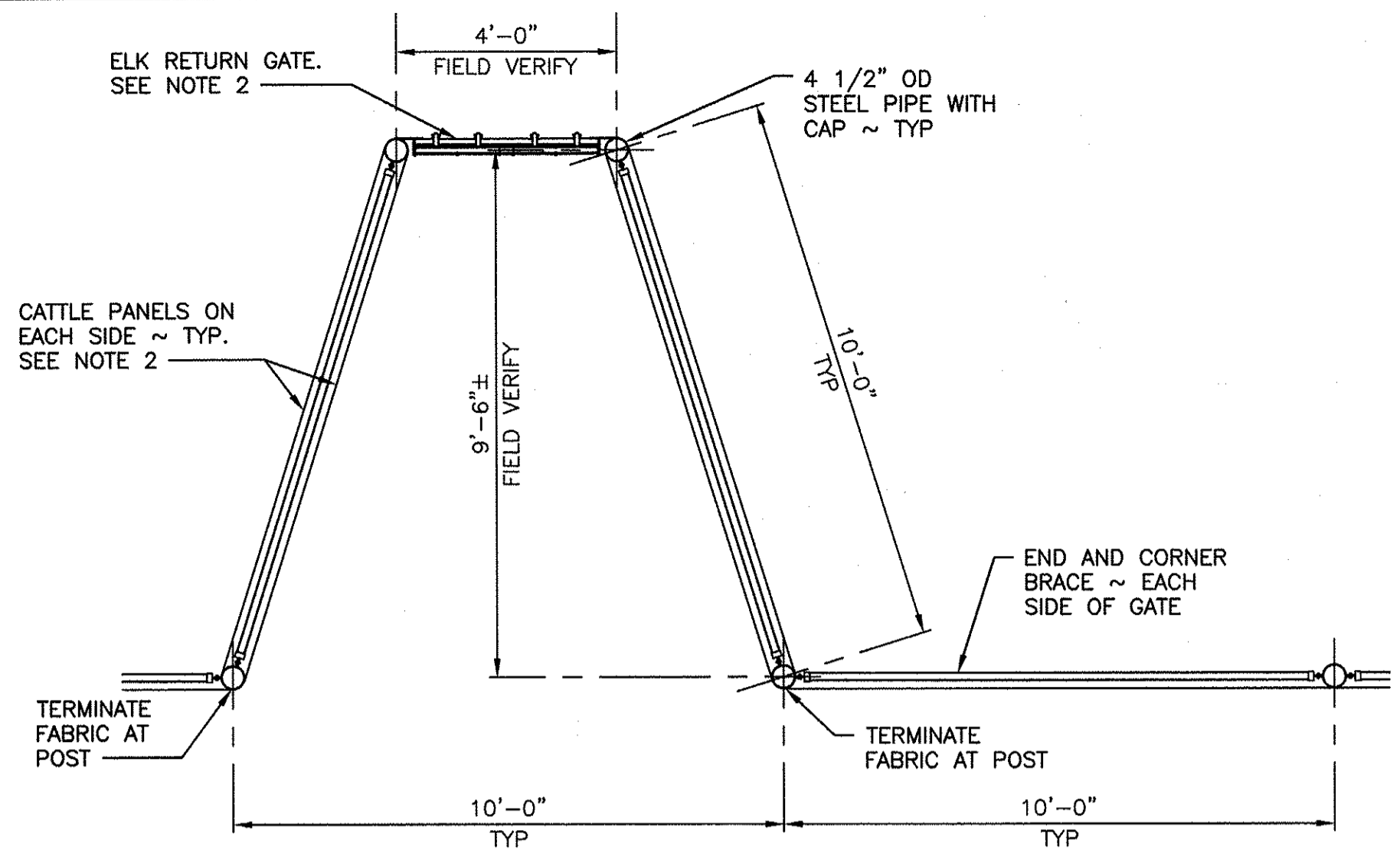


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		DESIGNED BY R. MOSBERGER	
		CHECKED BY D. SMITH	
		DRAWN BY C. TORSTVET	
		DATE 5/4/2022	

CHIEF ENGINEER: *[Signature]* DATE: 4/10/22  
PROGRAM: \_\_\_\_\_ DATE: \_\_\_\_\_

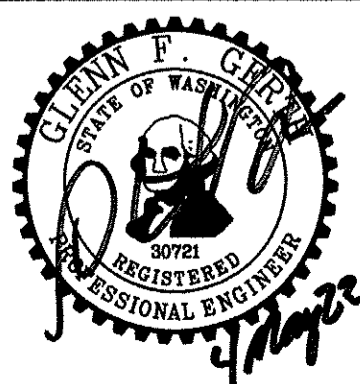
ASOTIN CREEK WLA - WEATHERLY UNIT  
**ELK FENCE REPLACEMENT**  
LINE FENCE, BRACE DETAILS  
& SECTION

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SHEET 6 OF 8



- NOTES:**
- ELK RETURN GATE:**
- USE BRACE BANDS TO FASTEN CATTLE PANELS TO VERTICAL POSTS WITH A MINIMUM OF 4 BRACE BANDS AND HOG WIRE THE PANELS, SEE LINE FENCE.
  - ELK RETURN AND CATTLE PANELS WILL BE PROVIDED BY OWNER.
  - USE 1/2 INCH DIAMETER GALVANIZED THROUGH BOLT TO ATTACH GATE ASSEMBLY TO VERTICAL POSTS.
- VEHICLE ACCESS/HERD GATE:**
- GATE POSTS TO BE SECURED WITH CONCRETE AT BASE. SEE SPECS FOR CONCRETE.
  - GATES SHALL BE PROVIDED BY OWNER.
  - NO WIRE HANGERS TO BE INSTALLED ON VERTICAL POSTS CLOSEST TO GATE ASSEMBLY.
- WALK-THROUGH GATE:**
- NO WIRE HANGERS TO BE INSTALLED ON VERTICAL POSTS CLOSEST TO GATE ASSEMBLY.
- LARGE DRAW FENCE:**
- DRAW OPENING NOT EXCEED 60 FEET.
  - USE 9 GAUGE GALVANIZED WIRE AT TOP AND BOTTOM OF POSTS FOR BREAK AWAY.
  - DO NOT DRILL DRAW POSTS INTO ROCK.
- SMALL DRAW FENCE:**
- INSTALL BREAKAWAY FENCING ALONG BOTTOM OUT OF CATTLE OR HOG PANELS, ATTACH WITH HOG WIRE.
  - USE 9 GAUGE GALVANIZED WIRE AT TOP AND BOTTOM OF POSTS FOR BREAK AWAY. WIRE CANNOT GO THROUGH FABRIC.
  - DO NOT DRILL DRAW POSTS INTO ROCK.

WASHINGTON DEPARTMENT OF  
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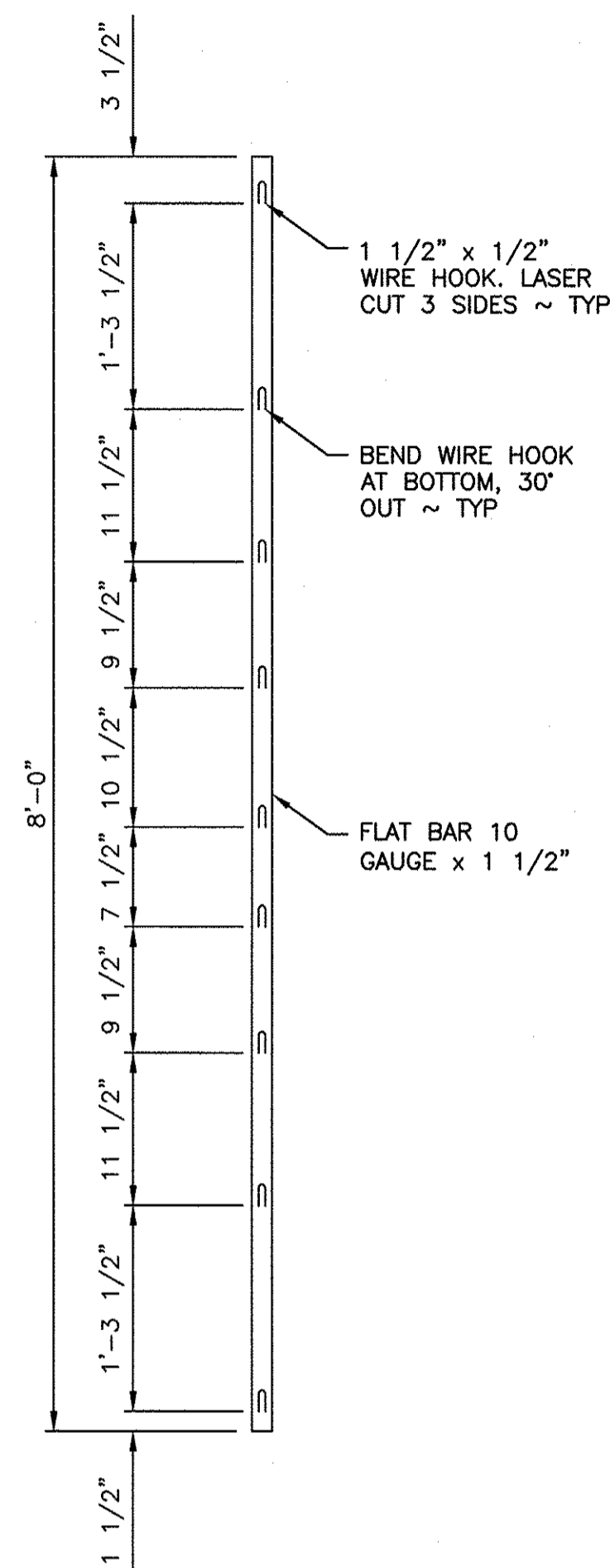
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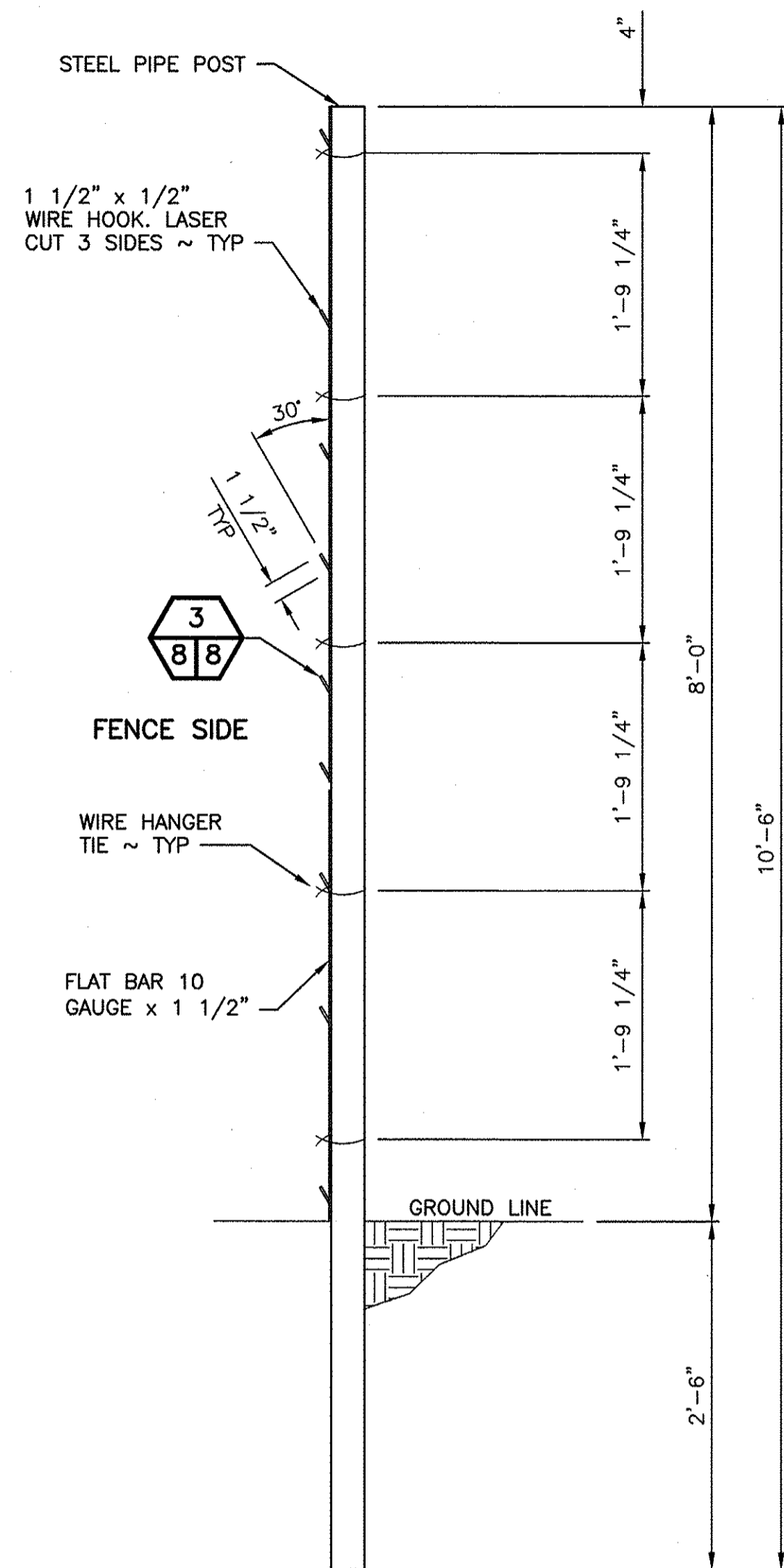
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**ELK FENCE REPLACEMENT**  
 LINE FENCE & GATE  
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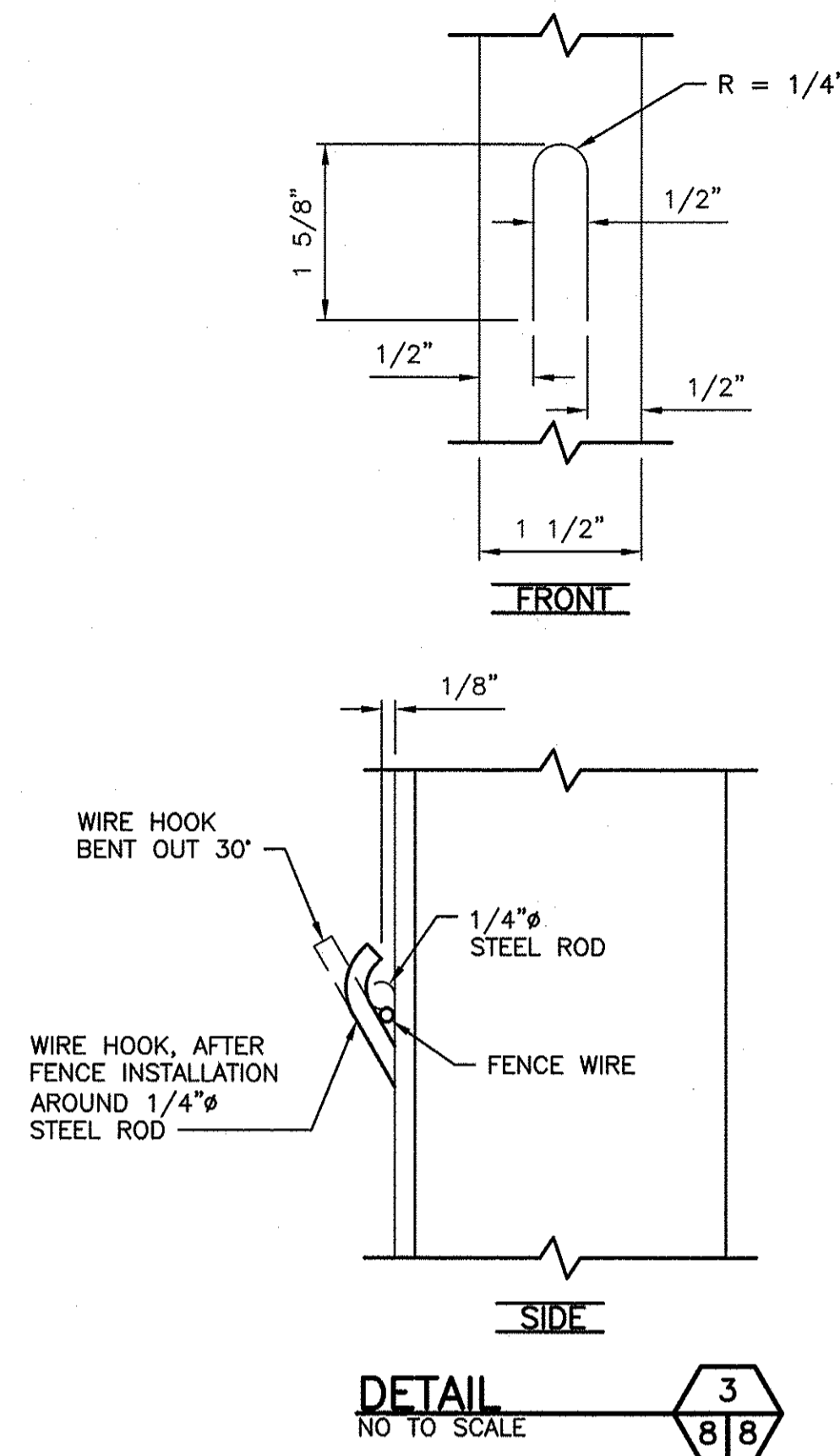
SHEET 7 OF 8



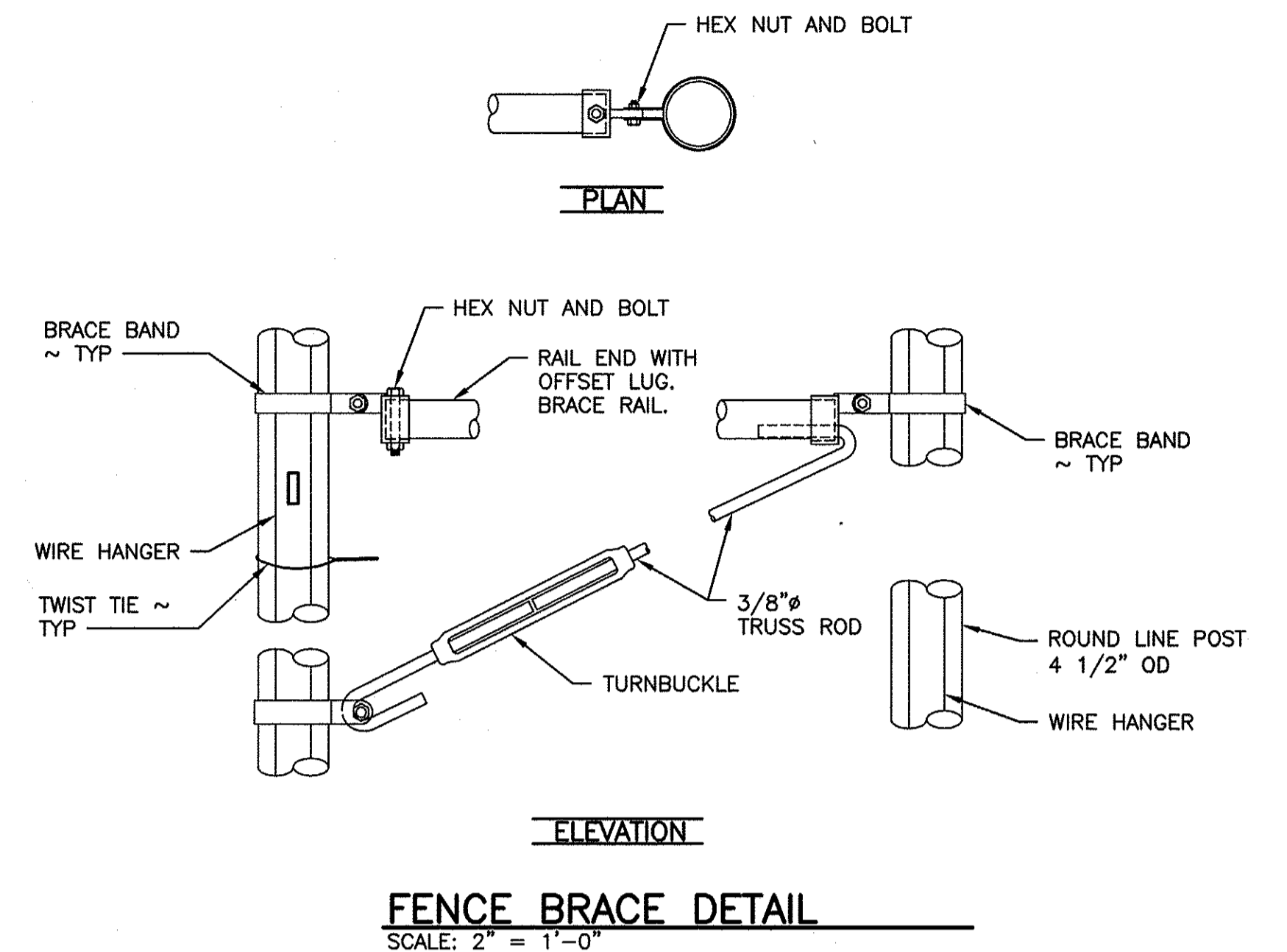
**WIRE HANGER**  
SCALE: 1" = 1'-0"



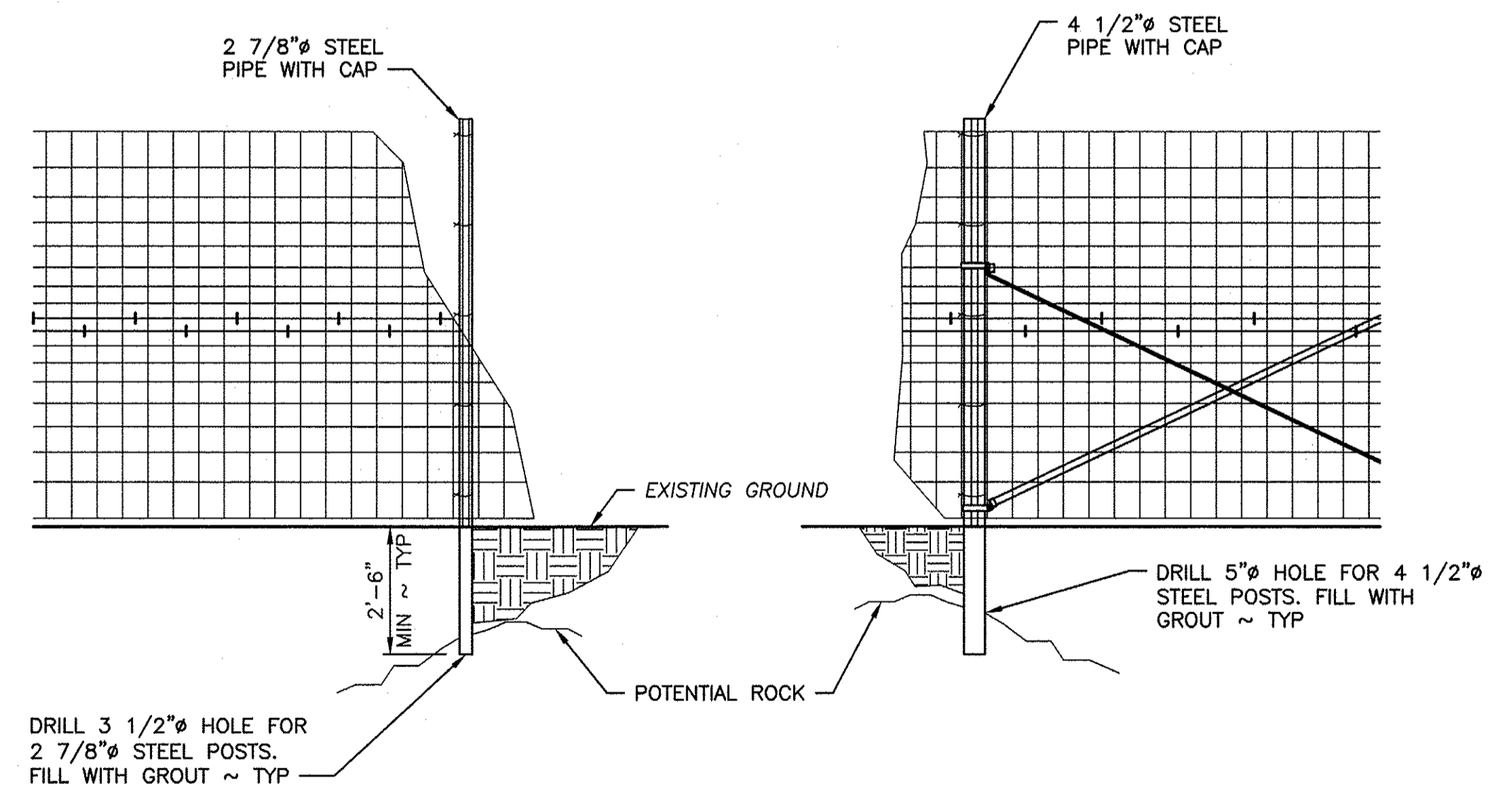
**WIRE HANGER ASSEMBLY**  
SCALE: 1" = 1'-0"



**DETAIL**  
NO TO SCALE



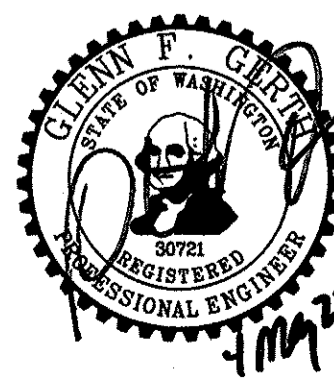
**FENCE BRACE DETAIL**  
SCALE: 2" = 1'-0"



**ALTERNATE POST INSTALL METHOD**

SCALE: 3/8" = 1'-0"  
NOTE: WHERE DRIVEN POST ENCOUNTERS ROCK, DRILL HOLE IN THE ROCK TO ATTAIN FULL MINIMUM EMBEDMENT.

WASHINGTON DEPARTMENT OF  
**FISH & WILDLIFE**



SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	
CHIEF ENGINEER		DATE: 4/11/22	
PROGRAM		DATE: 5/4/2022	

ASOTIN CREEK WLA - WEATHERLY UNIT  
**ELK FENCE REPLACEMENT**  
WIRE HANGER & MISCELLANEOUS  
DETAILS

PROJECT NO.  
AN:R13:2022-1

SHEET OF  
**8 8**