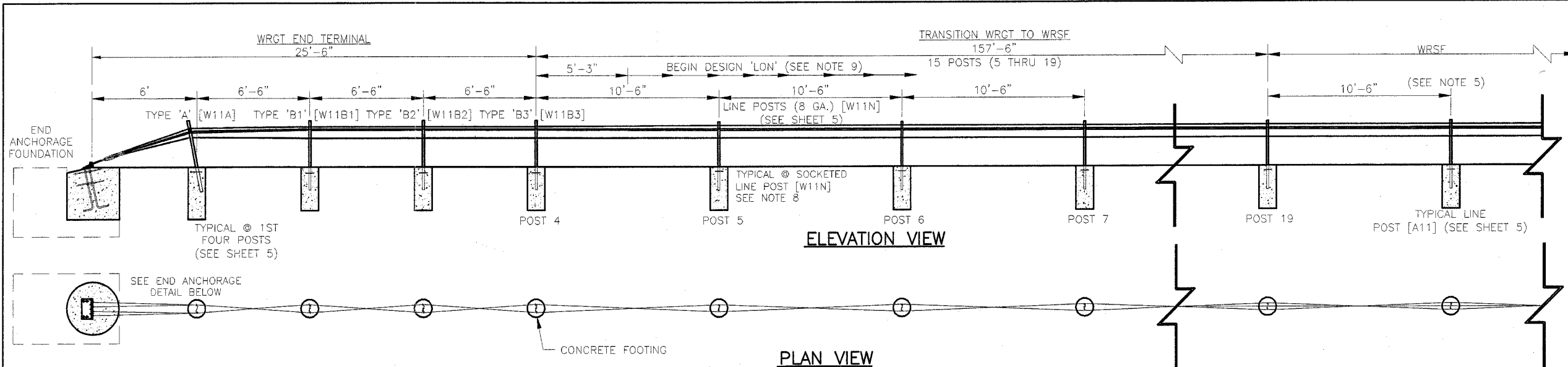


FBI	SECTION	COUNTY	TOTAL SHEETS
57	2005-038 1	COOK/MILL	58
STA.	ILLINOIS	FED. AID PROJECT	48
CONTRACT NO. 60A09			

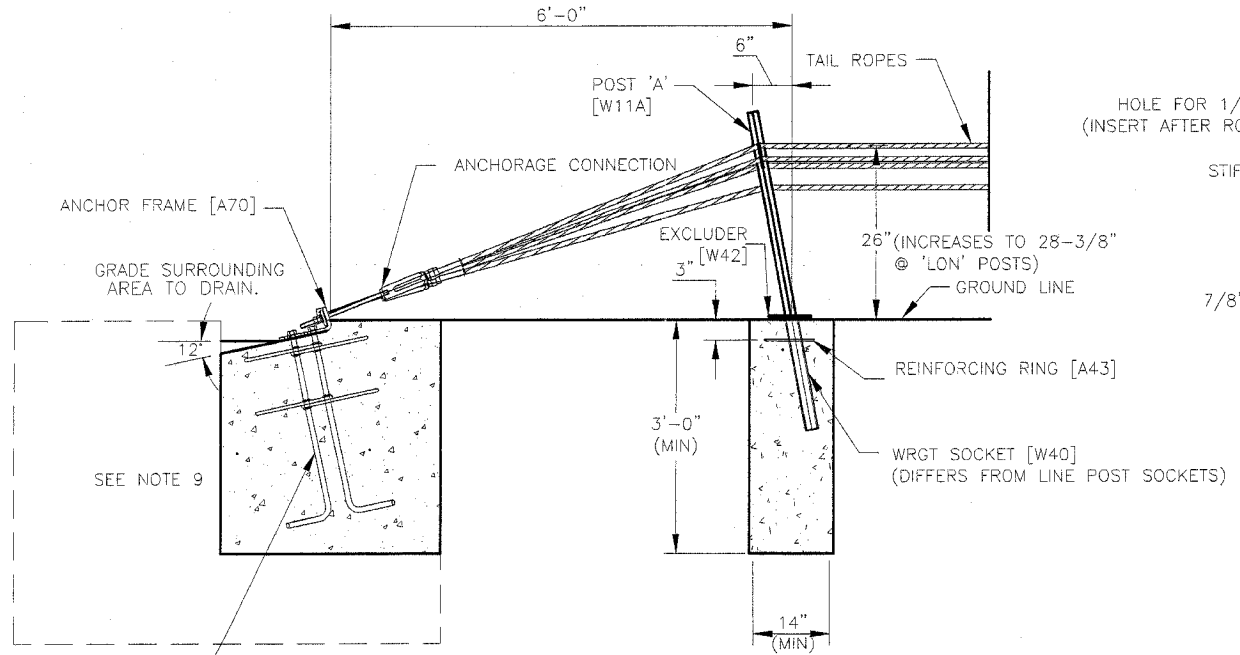
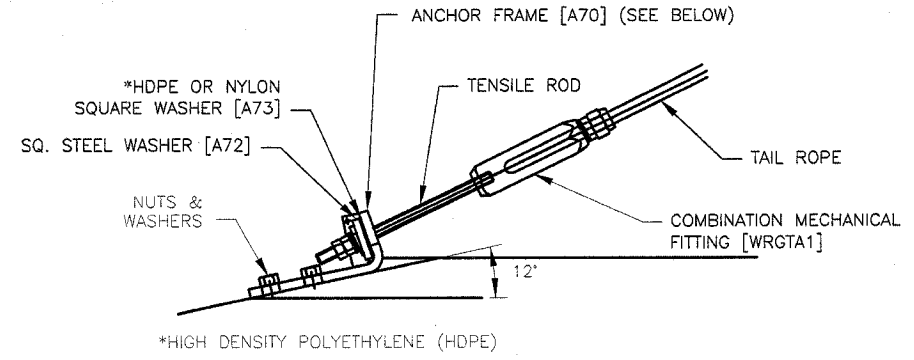


ELEVATION VIEW

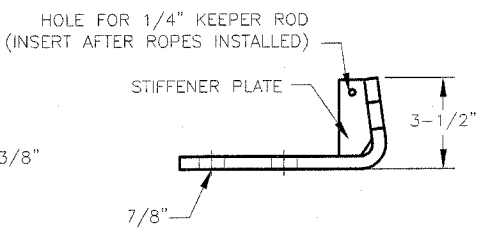
PLAN VIEW

NOTES:

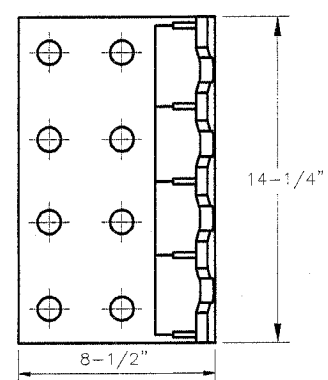
- BRIFEN DRAWINGS, SPECIFICATIONS & PRODUCT MANUAL SHOULD BE REVIEWED PRIOR TO STARTING AN INSTALLATION. FOR ASSISTANCE OR ADDITIONAL INFORMATION CALL 1-866-427-4336 TOLL FREE.
- WIRE ROPE SAFETY FENCE (WRSF) IS RECOMMENDED FOR INSTALLATIONS ON SLOPES OF 6:1 OR FLATTER. THE AREA SHOULD BE RELATIVELY SMOOTH, WITHOUT EDGE DROP-OFFS, ABRUPT SLOPE CHANGES, HOLES, DEBRIS, ETC. THAT COULD PREVENT A VEHICLE FROM IMPACTING THE WRSF WITH ALL WHEELS ON THE GROUND AND SUSPENSION NORMAL. SOME FILLING AND/OR GRADING AND COMPACTION MAY BE NECESSARY. THE ROPES MUST BE PLACED AT DESIGN HEIGHT ABOVE GROUND LINE. TOLERANCE IS $\pm 1"$.
- WRSF MAY BE INSTALLED ON EITHER SIDE OF THE ROADWAY. THE RADIUS EDGE OF POSTS SHALL BE ON THE APPROACH SIDE OF TRAFFIC. WEAKENING CUT (RELIEF NOTCH) AT GROUND LINE ON POST A & B TO BE PLACED TOWARD THE END ANCHOR. ALSO SEE SHEET 5.
- ALL POSTS ARE SET IN SOCKETS UNLESS OTHERWISE SPECIFIED. ALL CONCRETE TO BE 3500 PSI MINIMUM. EXPOSED SURFACES TO BE HAND TROWELED.
- LINE POST SPACING AT 10'-6" SHOWN; MAY BE DECREASED IF NECESSARY. ADEQUATE CLEARANCE TO RIGID OBSTACLES SUCH AS BRIDGE PIERS, SIGN SUPPORTS, POWER POLES, TREES, ETC. IS CRITICAL. SEE PRODUCT MANUAL OR CONTACT MANUFACTURER.
- WRGT END TERMINAL IS NCHRP 350 APPROVED AND MAY BE LOCATED WITHIN THE HORIZONTAL CLEAR ZONE. END TERMINAL FLARE RATE MAY NOT EXCEED 25:1; 50:1 OR LESS IS PREFERRED. USED FOR BOTH TL-3 & TL-4 SYSTEMS. NO MAXIMUM LIMIT TO LENGTH BETWEEN END TERMINALS.
- WRGT END TERMINAL IS SUPPLIED AS A PACKAGE UNLESS SPECIFIED OTHERWISE. INCLUDES ANCHOR FRAME, REINFORCING CAGE, CONNECTION HARDWARE, COMBINATION MECHANICAL FITTING, POSTS TYPE A AND B, WRGT SOCKETS, PEGS, EXCLUDERS AND TAIL ROPES.
- THE 15 TRANSITION LINE POSTS ADJACENT TO WRGT END TERMINAL DO NOT HAVE TOP ROPE SLOT. ALL THE ROPES WEAVE ON EITHER SIDE OF THE POSTS UNTIL THE FIRST LINE POST WITH A SLOT (POST 20). SEE SHEET 5.
- END ANCHORAGE AND POST FOUNDATION SIZES ARE DETERMINED BY SOIL CLASSIFICATION AND CONDITION AS WELL AS TEMPERATURE EXTREMES. REFER TO PRODUCT MANUAL OR CONTACT BRIFEN USA REPRESENTATIVE FOR TECHNICAL ASSISTANCE.



WRGT END ANCHORAGE DETAIL
USED WITH 3-ROPE OR 4-ROPE TL-3 & TL-4 SYSTEMS



ELEVATION VIEW



PLAN VIEW
ANCHORAGE CONNECTION DETAILS

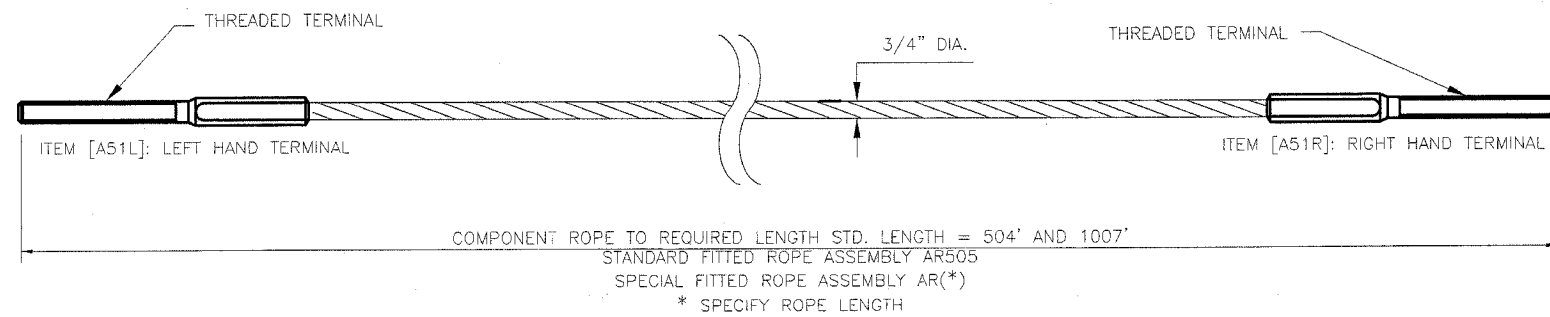
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Revisions			GENERAL LAYOUT		
No.	Date	By	USING WRGT END TERMINAL (NCHRP-350) AND TRANSITION		
1.	7.21.05	MW	Date	Drawn By	Scale
2.	8.01.05	MW	5.17.05	Manita Workman	None
3.	8.04.05	MW	VERSION 8.8		
4.	10.10.05	MW			
5.	12.16.05	MW	Dwg. No.	WRSF-05-201a	Sheet No. 1 of 11

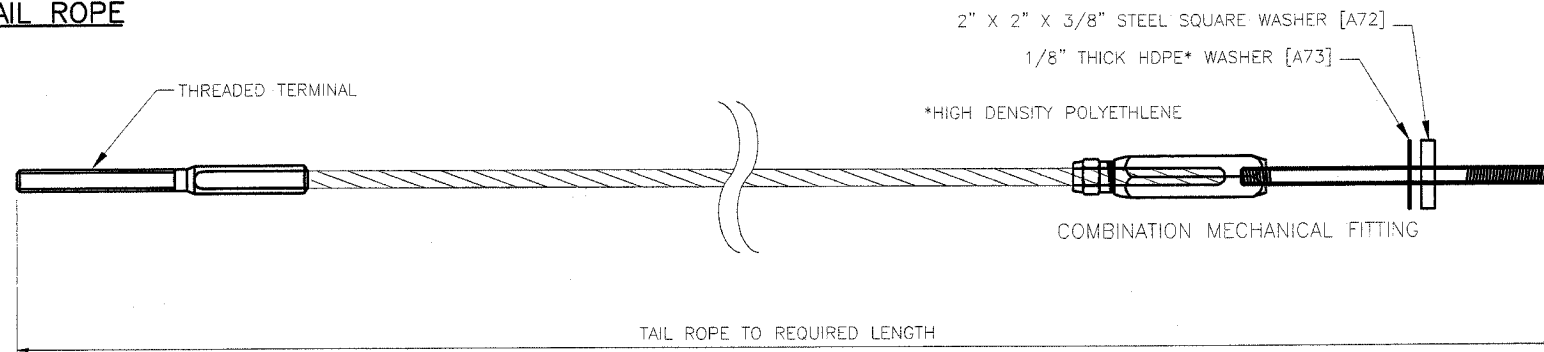
Rev. Sheet 2-28-06

FBI	SECTION	COUNTY	TOTAL
RTE	2005-0381	COOK/MILL	SHEETS
57			58
STA		ILLINOIS	FED. AID PROJECT
			49

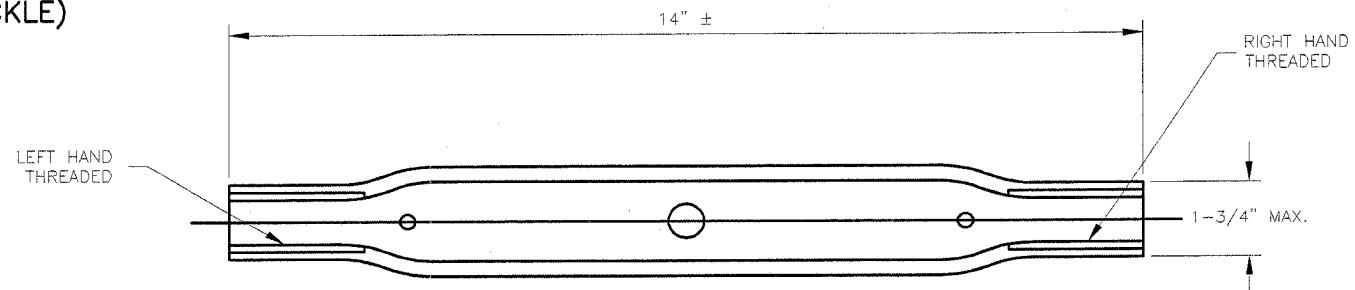
COMPONENT ROPE



TAIL ROPE



**RIGGING SCREW [A52]
(TURNBUCKLE)**



NOTES:

1. BRIFEN WIRE ROPE TO BE 3/4" (19mm) PRE-STRETCHED 3 X 7 CONSTRUCTION.
2. MINIMUM BREAKING LOAD OF FITTED ROPES SHALL BE 36,800 POUNDS (16.7 TONNE F METRIC).
3. COMBINATION MECHANICAL FITTING SHALL DEVELOP MINIMUM BREAKING LOAD AS STATED IN NOTE 2.
4. RIGGING SCREWS SHALL NOT BE LOCATED BETWEEN END ANCHORAGE AND TYPE POST 'A'.
5. WIRE ROPES ARE TO BE TENSIONED AFTER INSTALLATION AND RE-CHECKED AFTER 2-3 WEEKS.

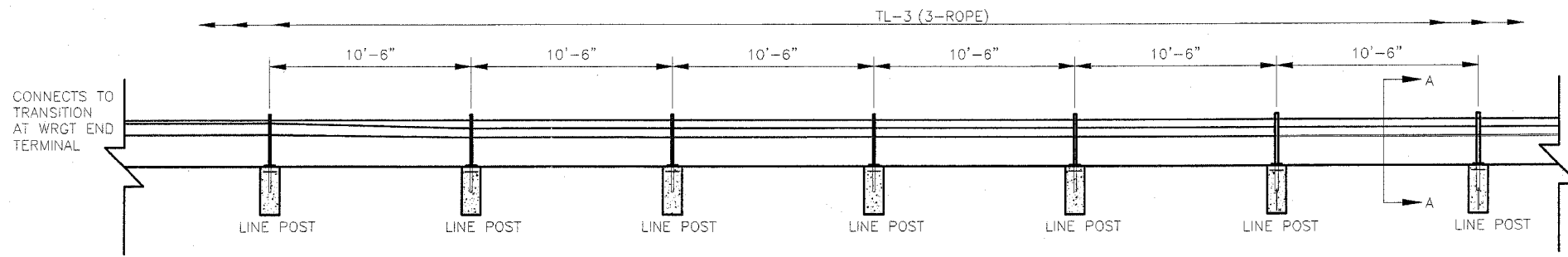
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BRIFEN★USA INC.				
Revisions			WIRE ROPE AND FITTINGS	
No.	Date	By	Date	Drawn By
1.	7.21.05	MW	5.17.05	Aaron Wells
2.	8.01.05	MW		
3.	8.04.05	MW		
4.	10.10.05	MW	VERSION 8.8	
5.	12.16.05	MW	Dwg. No.	WRSF-05-202a
			Scale	Sheet No.
			None	2 of 11

Rev. Sheet 2-28-06

2-27-06

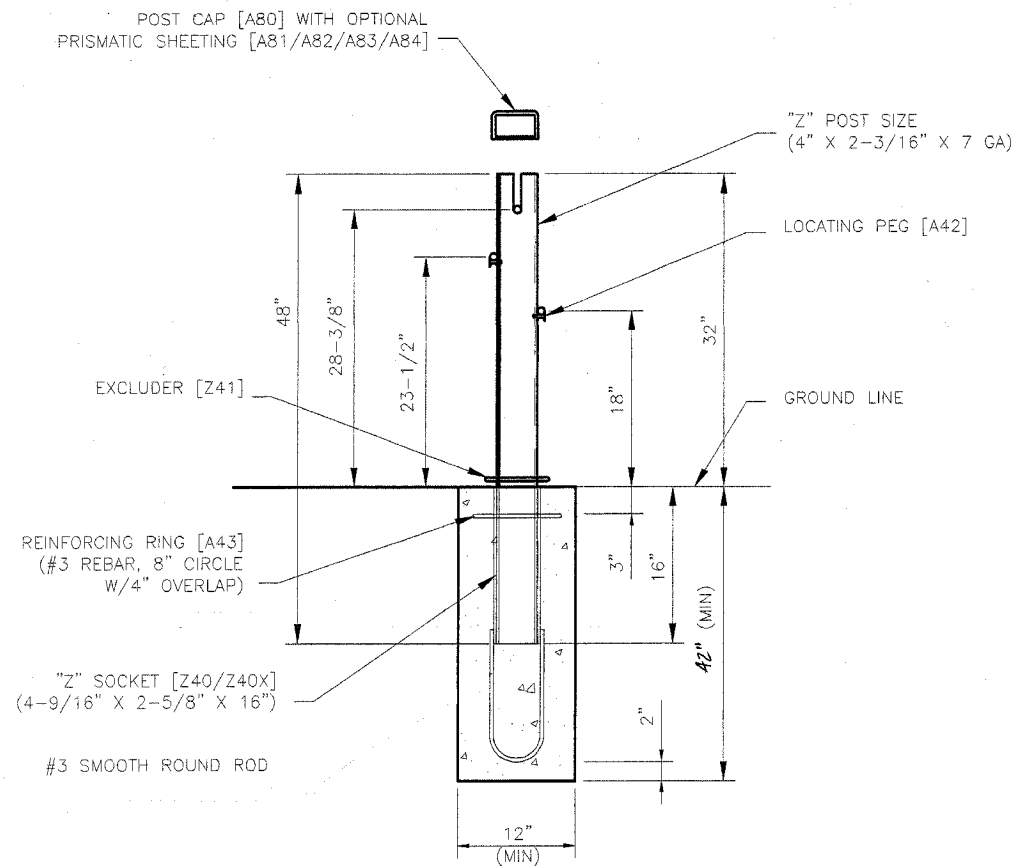
FBI	SECTION	COUNTY	TOTAL SHEETS
57	2005-038 I	COOK/MILL	58
STA		TILMONS	50
FED. ROAD DIST. NO. 60A09			FED. AID PROJECT



TYPICAL ELEVATION
(SEE DETAIL BELOW)

NOTES:

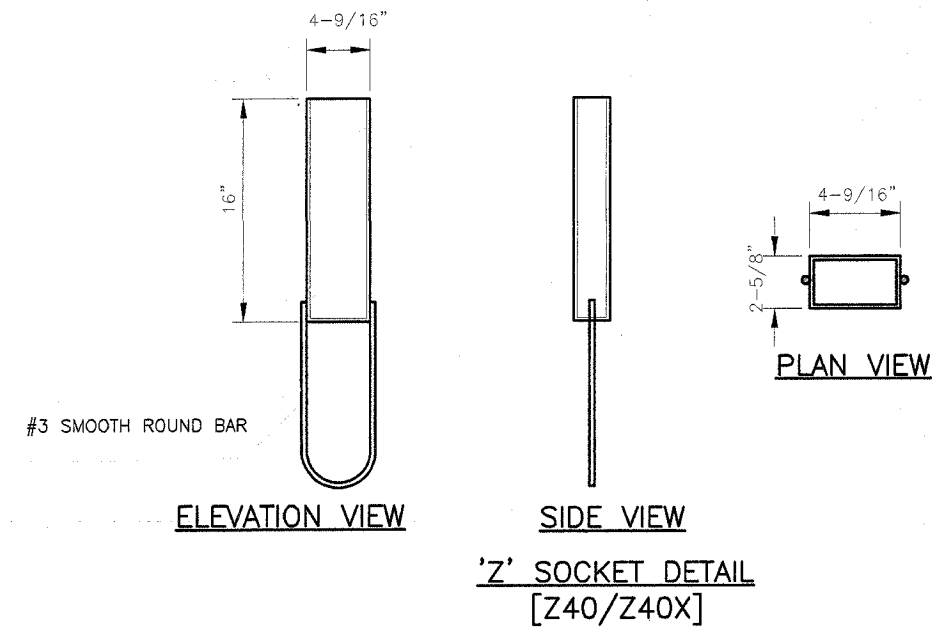
- BRIFEN DRAWINGS, SPECIFICATIONS AND PRODUCT MANUAL SHOULD BE REVIEWED PRIOR TO STARTING AN INSTALLATION. FOR ASSISTANCE OR ADDITIONAL INFORMATION CALL 1-866-427-4336 TOLL FREE.
- WIRE ROPE SAFETY FENCE (WRSF) IS RECOMMENDED FOR INSTALLATIONS ON SLOPES OF 6:1 OR FLATTER. THE AREA SHOULD BE RELATIVELY SMOOTH, WITHOUT EDGE DROP-OFF, ABRUPT SLOPE CHANGES, HOLES, DEBRIS, ETC. THAT COULD PREVENT A VEHICLE FROM IMPACTING THE WRSF WITH ALL WHEELS ON THE GROUND AND SUSPENSION NORMAL. SOME FILLING AND/OR GRADING AND COMPACTION MAY BE NECESSARY. THE ROPES MUST BE PLACED AT DESIGN HEIGHT ABOVE GROUND LINE. TOLERANCE IS $\pm 1"$.
- WRSF MAY BE INSTALLED ON EITHER SIDE OF THE ROADWAY. THE RADIUS EDGE OF POSTS SHALL BE ON APPROACH SIDE OF TRAFFIC. ALSO SEE SHEET 5.
- POSTS SHALL BE SOCKETED DESIGN, UNLESS OTHERWISE SPECIFIED; SPACING MAY BE DECREASED TO AVOID OBSTACLES. ADEQUATE CLEARANCE TO RIGID OBSTACLES SUCH AS BRIDGE PIERS, SIGN SUPPORTS, POWER POLES, AND TREES, IS CRITICAL. SEE PRODUCT MANUAL OR CONTACT MANUFACTURER.
- CONCRETE TO BE 3,500 PSI MINIMUM. EXPOSED SURFACES TO BE HAND TROWELED.
- PRISMATIC REFLECTIVE SHEETING (ADHESIVE BACK) WHEN SPECIFIED SHALL BE FIELD APPLIED. SPECIFY COLOR, POST INTERVAL, AND SINGLE OR DOUBLE SIDED.
- EXCLUDER TO BE PUSHED DOWN TIGHT AGAINST TOP OF SOCKET. SOCKET SHALL BE FLUSH WITH THE TOP OF THE FOUNDATION.
- END ANCHORAGE AND POST FOUNDATION SIZES ARE DETERMINED BY SOIL CLASSIFICATION AND CONDITION AS WELL AS TEMPERATURE EXTREMES. REFER TO PRODUCT MANUAL OR CONTACT BRIFEN USA REPRESENTATIVE FOR TECHNICAL ASSISTANCE.



SECTION A-A
LINE POST
WITH "Z" SOCKET

CONCRETE SOCKETED FOUNDATION
(DRIVEN STEEL SOCKET OPTIONAL)

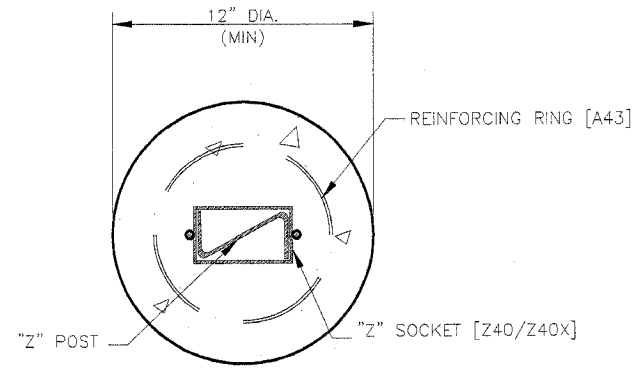
THE PROPOSED DEPTHS OF THE CONCRETE SOCKETED FOUNDATIONS AS SHOWN IN THE BRIFEN USA DETAILS SHALL BE 42" (MINIMUM).



ELEVATION VIEW

SIDE VIEW

'Z' SOCKET DETAIL
[Z40/Z40X]

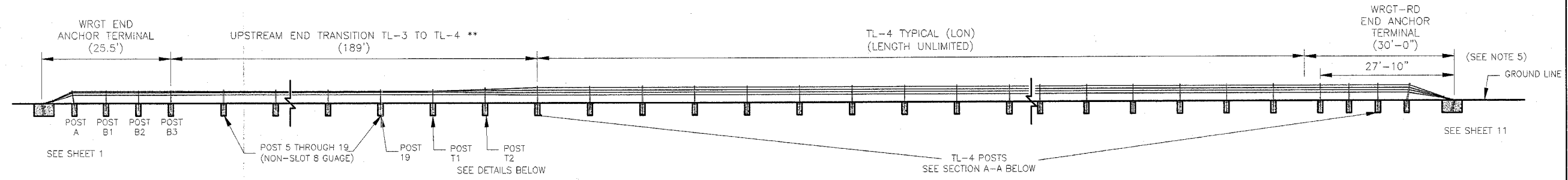


FOUNDATION PLAN VIEW

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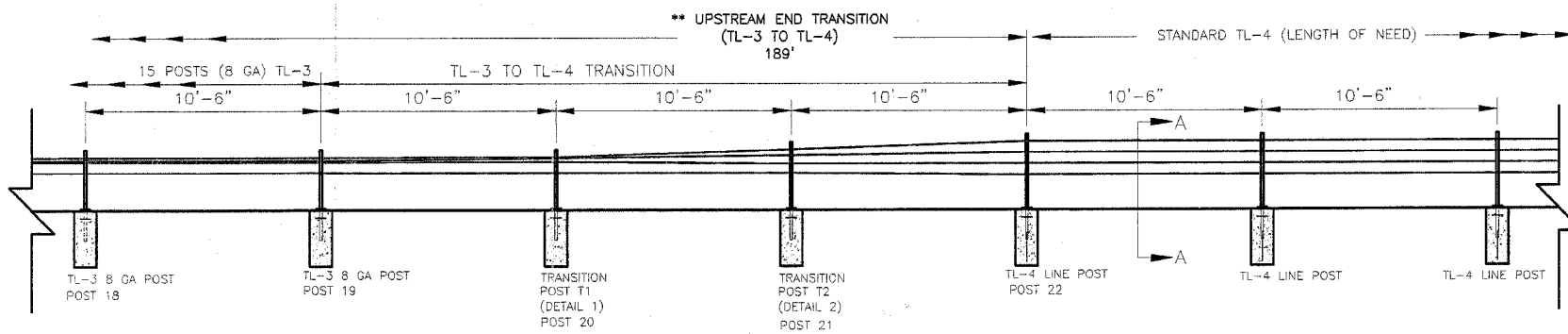
BRIFEN★USA INC.			TL-3 WRSF DETAIL		
			(3-ROPES @ 10'-6" POST SPACING)		
			(INCLUDING TRANSITION TO WRGT)		
Revisions			Date	Drawn By	Scale
No.	Date	By	5.17.05	Manita Workman	None
1.	7.21.05	MW			Sheet No.
2.	8.01.05	MW			
3.	8.04.05	MW	VERSION 8.8		3 of 11
4.	10.10.05	MW			
5.	12.16.05	MW	Dwg. No.	WRSF-05-203a	

FBI	SECTION	TOTAL
57	2005-0381	SHEETS
STA	COOK/MILL	58
CONTRACT NO. 68A09	ILLINOIS	FED AID PROJECT
		51

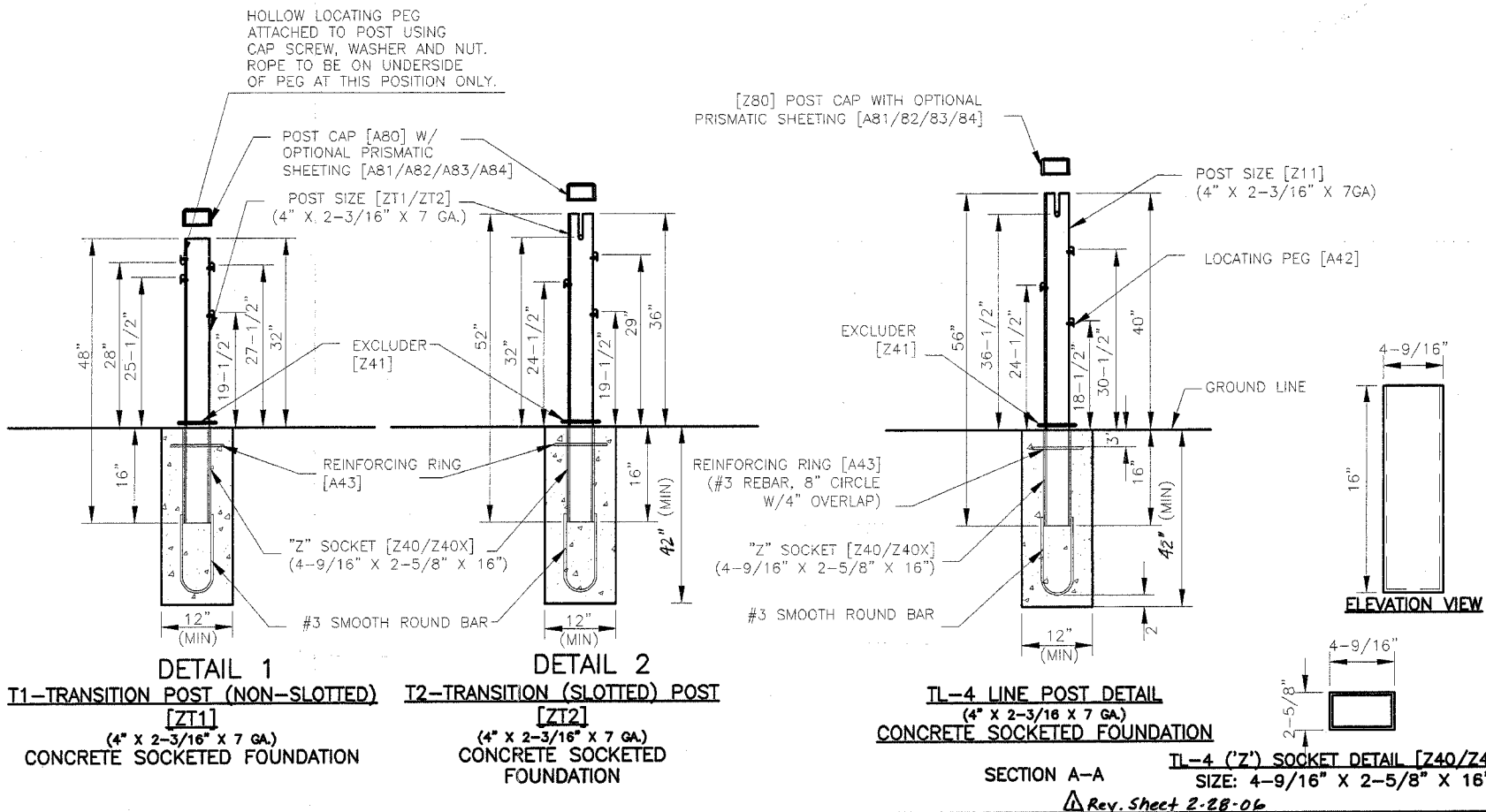


** PAID AS LF OF TL-4 WRSF

TYPICAL TL-4 LAYOUT



ELEVATION AT TRANSITION



NOTES:

- BRIFEN DRAWING, SPECIFICATIONS & PRODUCT MANUAL SHOULD BE REVIEWED PRIOR TO STARTING OF INSTALLATION. FOR ASSISTANCE OR ADDITIONAL INFORMATION CALL 1-866-427-4336 TOLL FREE.
- WIRE ROPE SAFETY FENCE (WRSF) IS RECOMMENDED FOR INSTALLATIONS ON SLOPE OF 6:1 OR FLATTER. THE AREA SHOULD BE RELATIVELY SMOOTH, WITHOUT EDGE DROP-OFFS, ABRUPT SLOPE CHANGES, HOLES, DEBRIS, ETC. THAT COULD PREVENT A VEHICLE FROM IMPACTING THE WRSF WITH ALL WHEELS ON THE GROUND AND SUSPENSION NORMAL. SOME FILLING AND/OR GRADING AND COMPACTION MAY BE NECESSARY. THE ROPES MUST BE PLACED AT DESIGN HEIGHT ABOVE GROUND LINE. TOLERANCE IS $\pm 1"$.
- WRSF MAY BE INSTALLED ON EITHER SIDE OF THE ROADWAY. THE RADIUS EDGE OF POSTS SHOULD BE ON THE APPROACH SIDE OF TRAFFIC. LINE POSTS SHALL BE SOCKETED DESIGN, UNLESS OTHERWISE SPECIFIED (ALSO SEE SHEET 5). SPACING MAY BE DECREASED TO AVOID OBSTACLES.
- WRGT-RD END ANCHOR TERMINAL MAY BE USED ON ANY TL-4 WRSF LOCATION SHIELDED FROM TRAFFIC (EXITING ENDS OF BRIDGES, ETC), OR WITHIN HORIZONTAL CLEAR ZONE ON DOWNSTREAM ENDS ONLY IF HEAD-ON IMPACTS ARE UNLIKELY.
- CONCRETE TO BE 3,500 PSI MINIMUM. EXPOSED SURFACES TO BE HAND TROWELED.
- PRISMATIC REFLECTIVE SHEETING (ADHESIVE BACK) WHEN SPECIFIED TO BE FIELD APPLIED. SPECIFY COLOR, POST INTERVAL AND SINGLE OR DOUBLE SIDED.
- EXCLUDER TO BE PUSHED DOWN TIGHT AGAINST TOP OF SOCKET. SOCKET SHALL BE FLUSH WITH THE TOP OF THE FOUNDATION.
- POST 20 (T1) TO BE PINNED TO SOCKET USING ONE 1/4" GALVANIZED PIN THROUGH FILED DRILLED HOLES IN POST AND SOCKET. SHAPE CONCRETE FOR PIN INSERTION.
- END ANCHORAGE AND POST FOUNDATION SIZES ARE DETERMINED BY SOIL CLASSIFICATION AND CONDITION AS WELL AS TEMPERATURE EXTREMES. REFER TO PRODUCT MANUAL OR CONTACT BRIFEN USA REPRESENTATIVE FOR TECHNICAL ASSISTANCE.

THE PROPOSED DEPTHS OF THE CONCRETE SOCKETED FOUNDATIONS AS SHOWN IN THE BRIFEN USA DETAILS SHALL BE 42" (MINIMUM).

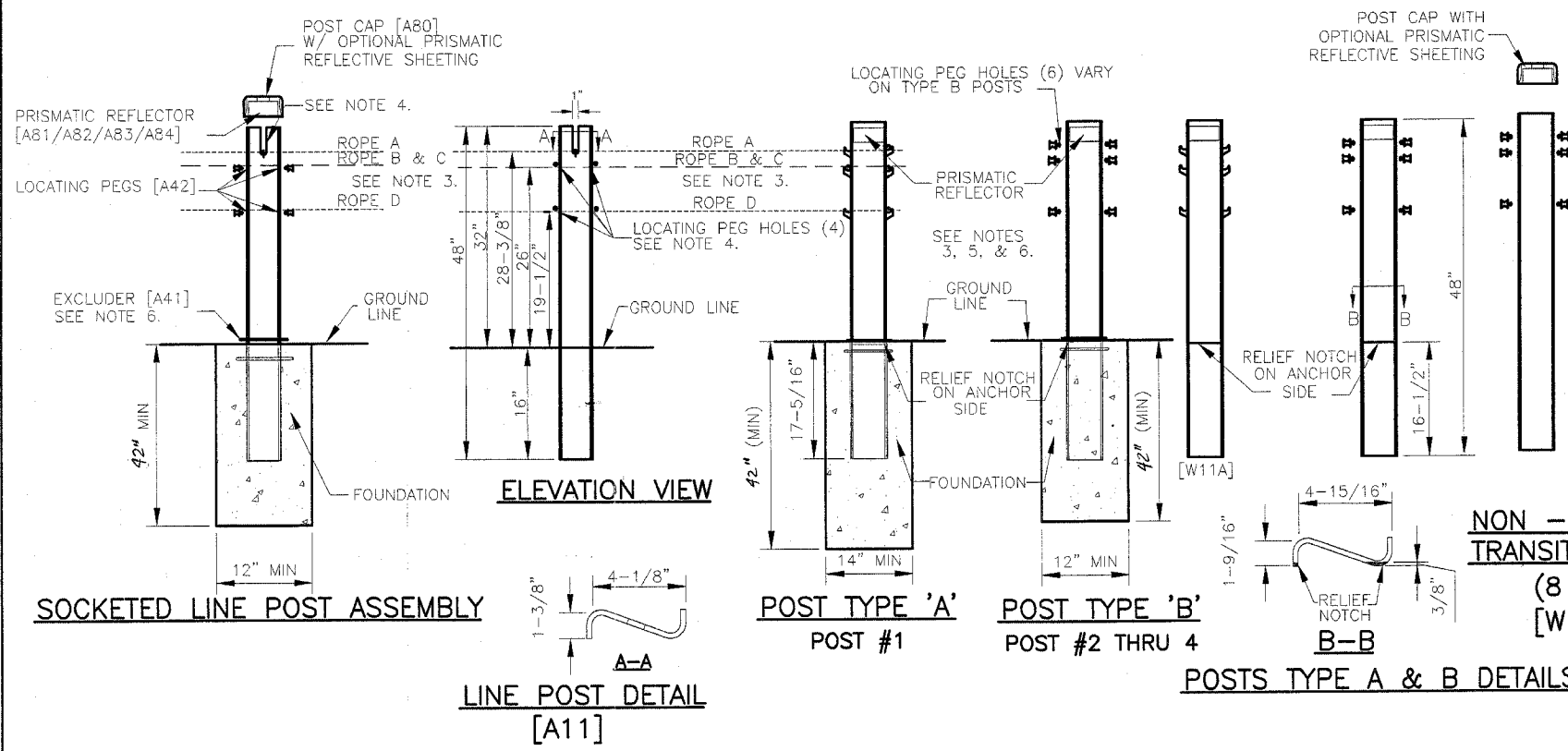
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BRIFEN USA INC.

Revisions			TL-4 WRSF DETAIL (4-ROPE, INCLUDE TRANSITION TO TL-3)		
No.	Date	By	Date	Drawn By	Scale
1.	7.21.05	MW	5.17.05	Manita Workman	None
2.	8.01.05	MW			
3.	8.04.05	MW	VERSION 8.8		
4.	10.10.05	MW			
5.	12.16.05	MW	Dwg. No.	WRSF-05-204a	Sheet No. 4 of 11

SECTION A-A
TL-4 ('Z') SOCKET DETAIL [Z40/Z40X]
SIZE: 4-9/16" X 2-5/8" X 16"
Rev. Sheet 2-28-06

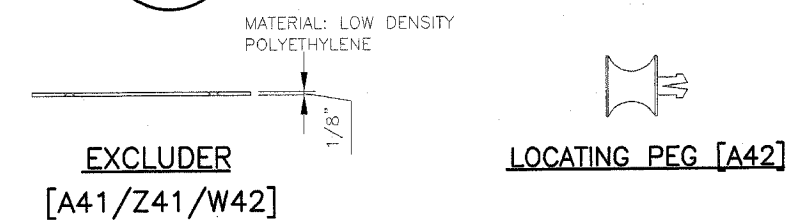
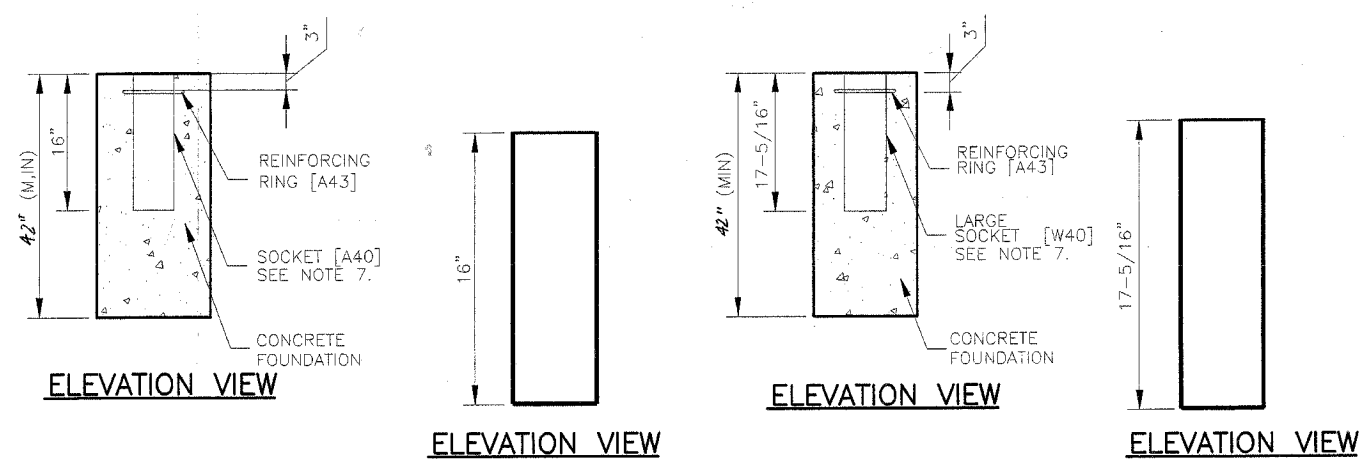
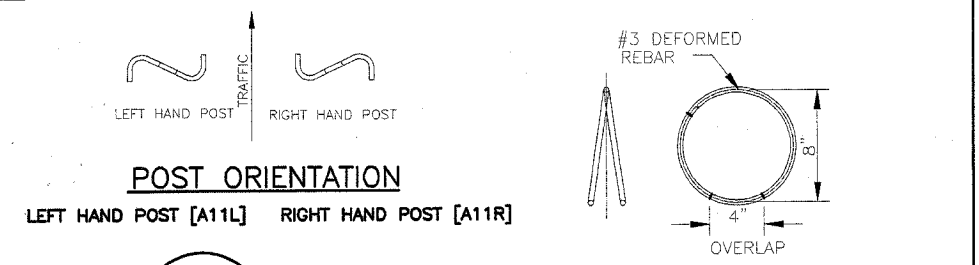
FAI	SECTION	COUNTY	TOTAL SHEETS
57	2005-0381	COOK/MILL	58
STA.		TOWNSHIP	FED. AID PROJECT



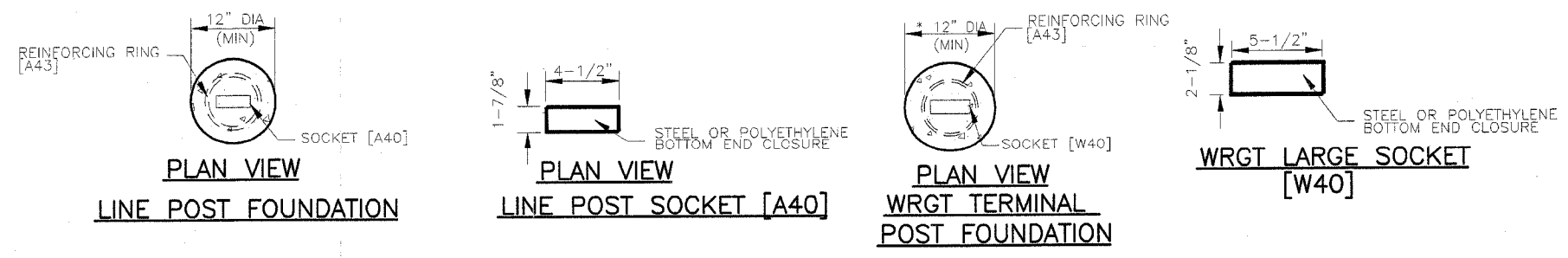
- NOTES:**
- RADIUS EDGE OF POSTS SHALL BE ON THE APPROACH SIDE OF TRAFFIC.
 - ROPES B, C, AND D INTERWEAVE BETWEEN ALL POSTS. SEE NOTE 3.
 - THE 15 TRANSITION LINE POSTS ADJACENT TO WRGT END TERMINAL DO NOT HAVE TOP ROPE SLOTS. THE TOP ROPE WEAVES ON EITHER SIDE OF POSTS UNTIL THE FIRST LINE POST WITH A SLOT.
 - POSTS PEG HOLES ARE PRE-DRILLED SO THAT ROPES MAY BE PLACED ON EITHER SIDE OF POST DEPENDING ON ROPE WEAVE PATTERN.
 - PRISMATIC REFLECTIVE SHEETING (ADHESIVE BACK) WHEN SPECIFIED SHALL BE FIELD APPLIED. SPECIFY COLOR, POST INTERVAL, AND SINGLE OR DOUBLE SIDED. SEE SHEET 6 FOR CAP DETAILS.
 - EXCLUDER TO BE PUSHED DOWN TIGHT AGAINST TOP OF SOCKET. SOCKET SHOULD BE FLUSH WITH THE TOP OF THE FOUNDATION.
 - CONCRETE TO BE 3,500 PSI MINIMUM. EXPOSED SURFACES TO BE HAND TROWELED.
 - WRGT END ANCHOR TERMINAL POSTS (TYPE A & B) TO BE PLACED WITH WEAKENING CUT (RELIEF NOTCH) TOWARD END ANCHOR.
 - END ANCHORAGE AND POST FOUNDATION SIZES ARE DETERMINED BY SOIL CLASSIFICATION AND CONDITION AS WELL AS TEMPERATURE EXTREMES. REFER TO PRODUCT MANUAL OR CONTACT BRIFEN USA REPRESENTATIVE FOR TECHNICAL ASSISTANCE.

THE PROPOSED DEPTHS OF THE CONCRETE SOCKETED FOUNDATIONS AS SHOWN IN THE BRIFEN USA DETAILS SHALL BE 42" (MINIMUM).

WRGT TERMINAL POSTS ASSEMBLY



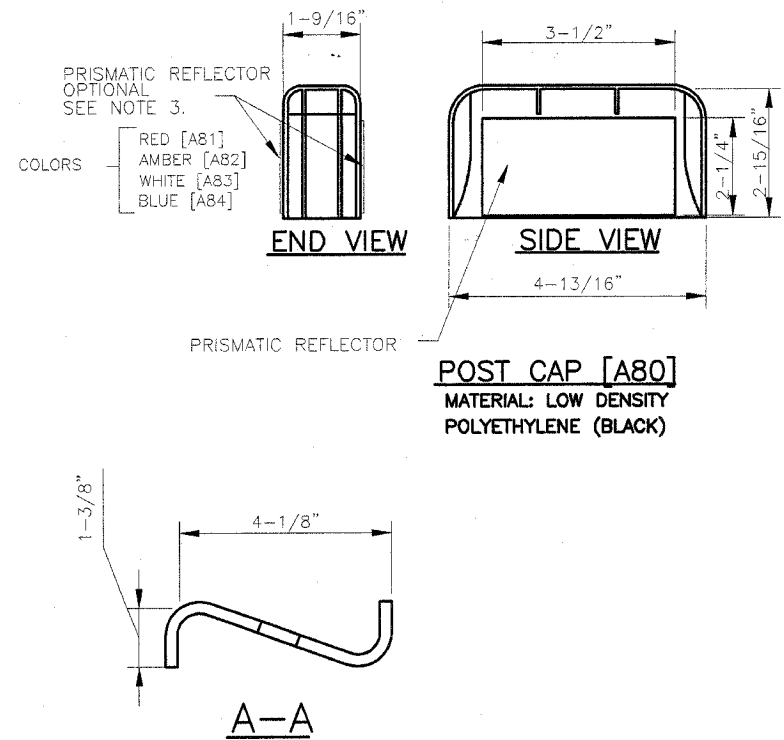
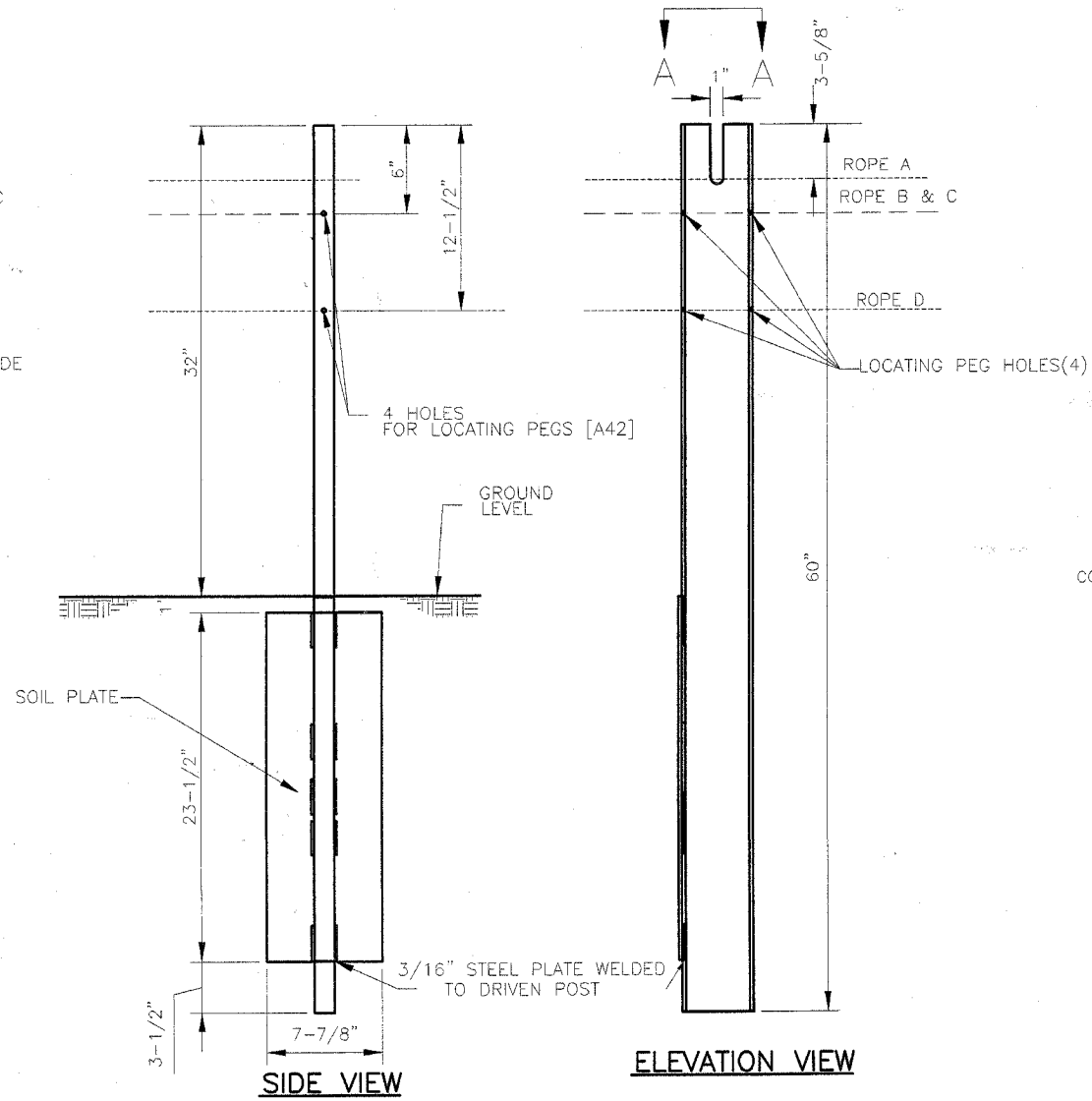
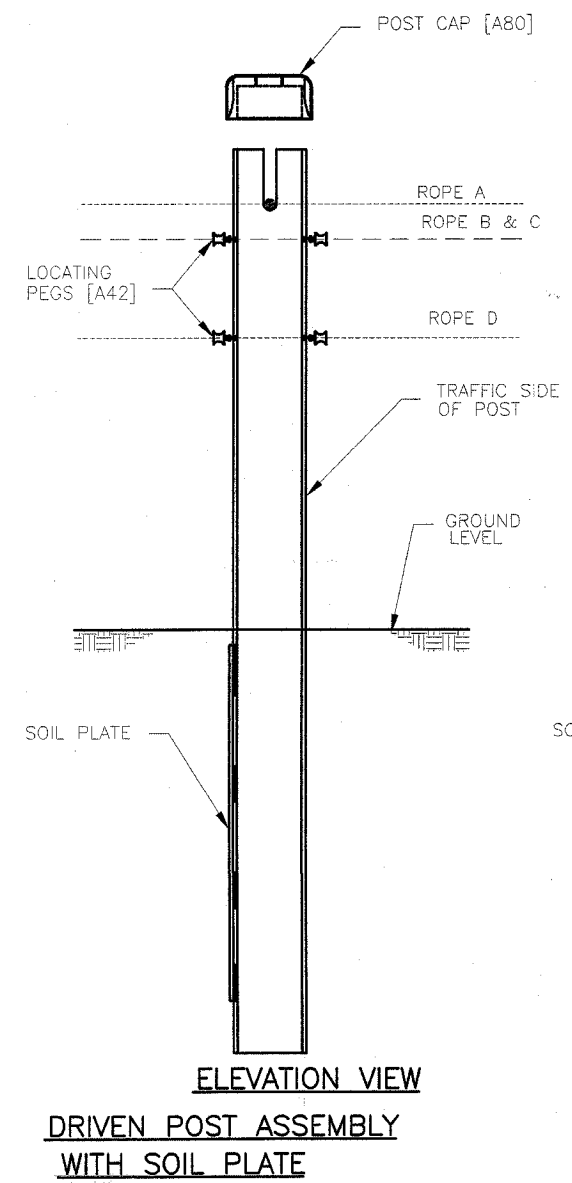
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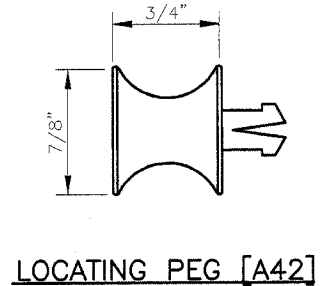
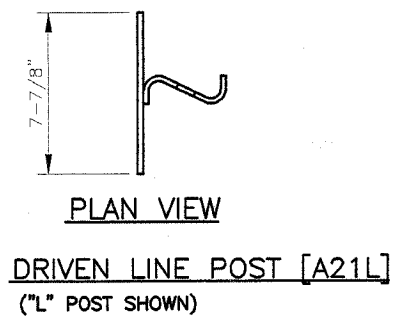
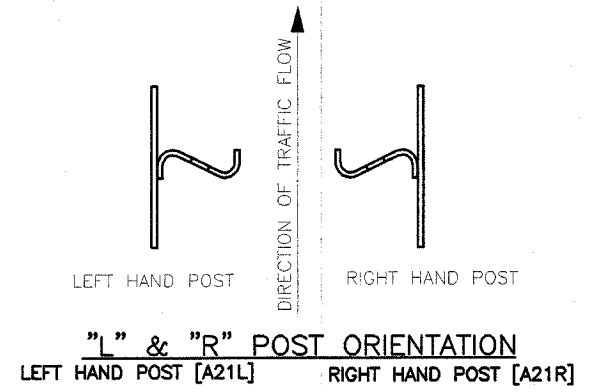
* POST TYPE 'A' FOUNDATION 14" DIA

Revisions			SOCKETED POST DETAIL (TL-3, 4-ROPE SHOWN)		
No.	Date	By	Date	Drawn By	Scale
1.	7.21.05		5.17.05	Manita Workman	None
2.	8.01.05	MW			
3.	8.04.05	MW	VERSION 8.8		Sheet No.
4.	10.10.05	MW			
5.	12.16.05	MW	Dwg. No.	WRSF-05-205a	5 of 11

FBI	SECTION	TOTAL	SHEET
RTE	2005-0381	SHEETS	NO.
STA	COOKWILL	58	53
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 60A09			



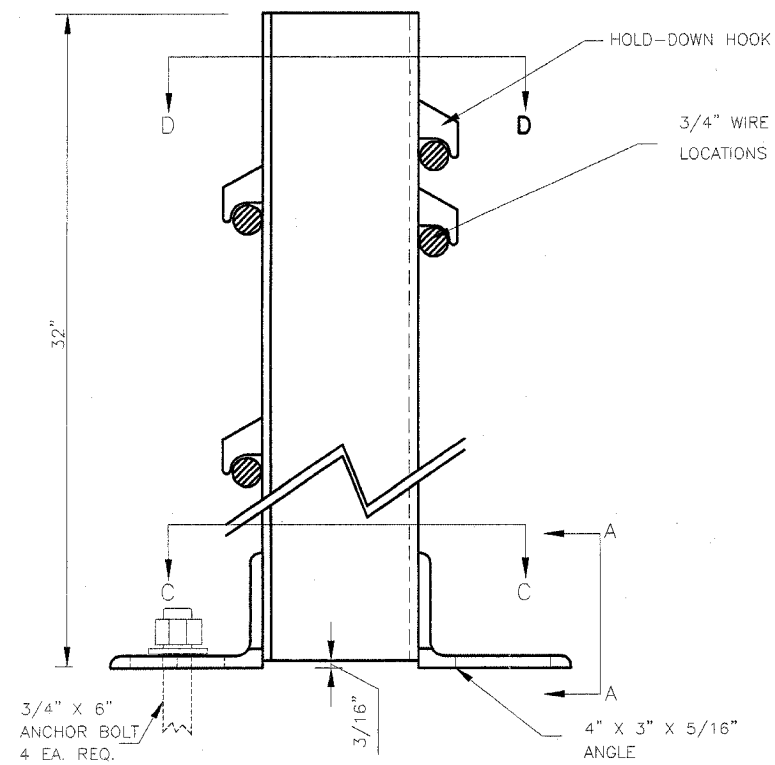
- NOTES:**
1. RADIUS EDGE OF POSTS SHALL BE ON THE APPROACH SIDE OF TRAFFIC.
 2. THREE LOCATING PEGS PER POST ARE USED FOR 4-ROPES & TWO FOR 3-ROPES.
 3. PRISMATIC REFLECTIVE SHEETING (ADHESIVE BACK) WHEN SPECIFIED SHALL BE FIELD APPLIED. SPECIFY COLOR, POST INTERVAL AND SINGLE OR DOUBLE SIDED.
 4. ROPES B, C, AND D INTERWEAVE BETWEEN POSTS (4-ROPES).



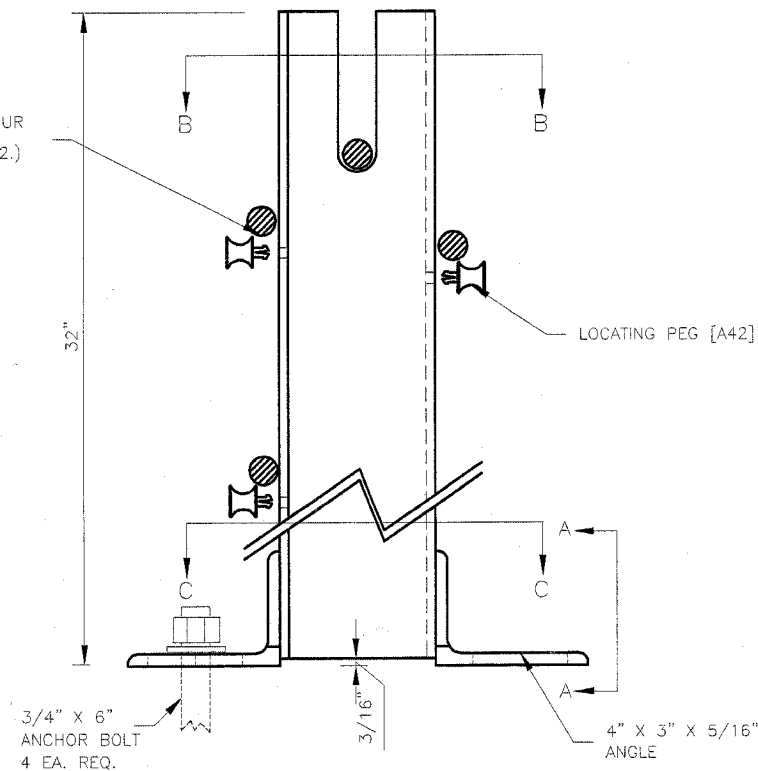
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Revisions			DRIVEN LINE POST DETAIL (TL-3, 4 -ROPES SHOWN)		
No.	Date	By	Date	Drawn By	Scale
1.	7.21.05		5.17.05	Manita Workman	None
2.	8.01.05	MW			
3.	8.04.05	MW	VERSION 8.8		
4.	10.10.05	MW			
5.	12.07.05	MW	Dwg. No.	WRSF-05-206a	Sheet No. 6 of 11

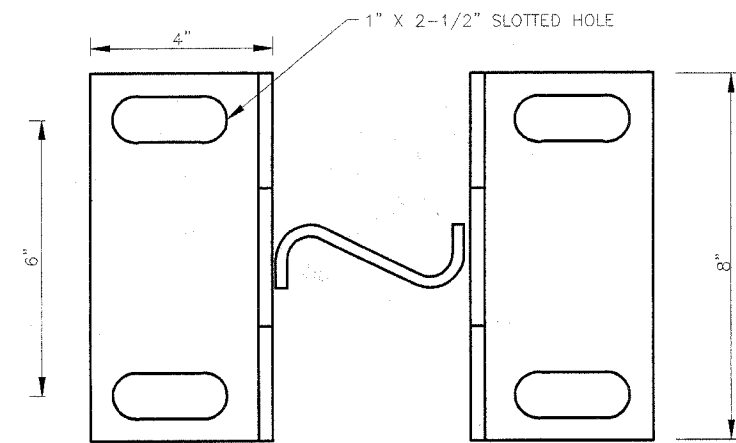
FBI	SECTION	COUNTY	TOTAL SHEETS
RTE 57	2006-0391	COOK/MILL	58
STA. 600+00			54
CONTRACT NO. 60A09			



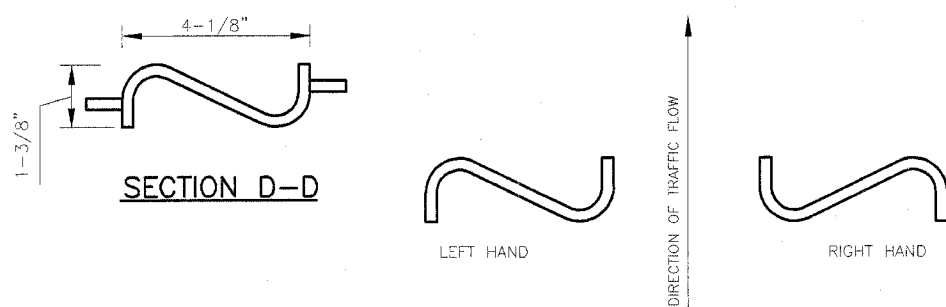
HOLD-DOWN SURFACE MOUNT POST
(LEFT-HAND SHOWN)



STANDARD SURFACE MOUNT POST
(LEFT-HAND SHOWN)

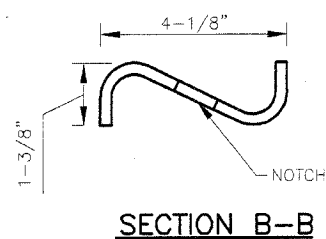


SECTION C-C

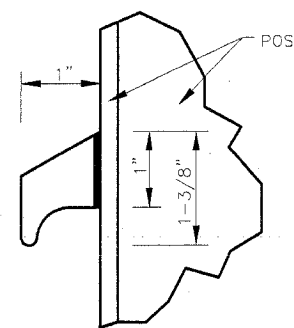


SECTION D-D

POST ORIENTATION



SECTION B-B



SECTION A-A

HOLD-DOWN HOOK

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NOTES:

- ANCHOR BOLTS SHALL BE B7, GALVANIZED ALL-THREAD, SET INTO SURFACE WITH AN APPROVE EPOXY PER MANUFACTURER'S RECOMMENDATIONS. EACH BOLT TO HAVE ONE ASTM-194 GALVANIZED HS HEX NUT AND ONE GALVANIZED HARD ROUND FLAT ASTM-F436 WASHER.
- ROPE HEIGHTS PER BRIFEN USA DRAWING NO. 3, 4 OR 5 (TL-3 OR TL-4).
- DETAILS SHOWN ARE FOR 4-ROPES TL-3 SYSTEM. SIMILAR DESIGN USED FOR 3-ROPES TL-3 AND FOR TL-4 SYSTEMS (ROPE HEIGHTS & POST SIZE VARY).

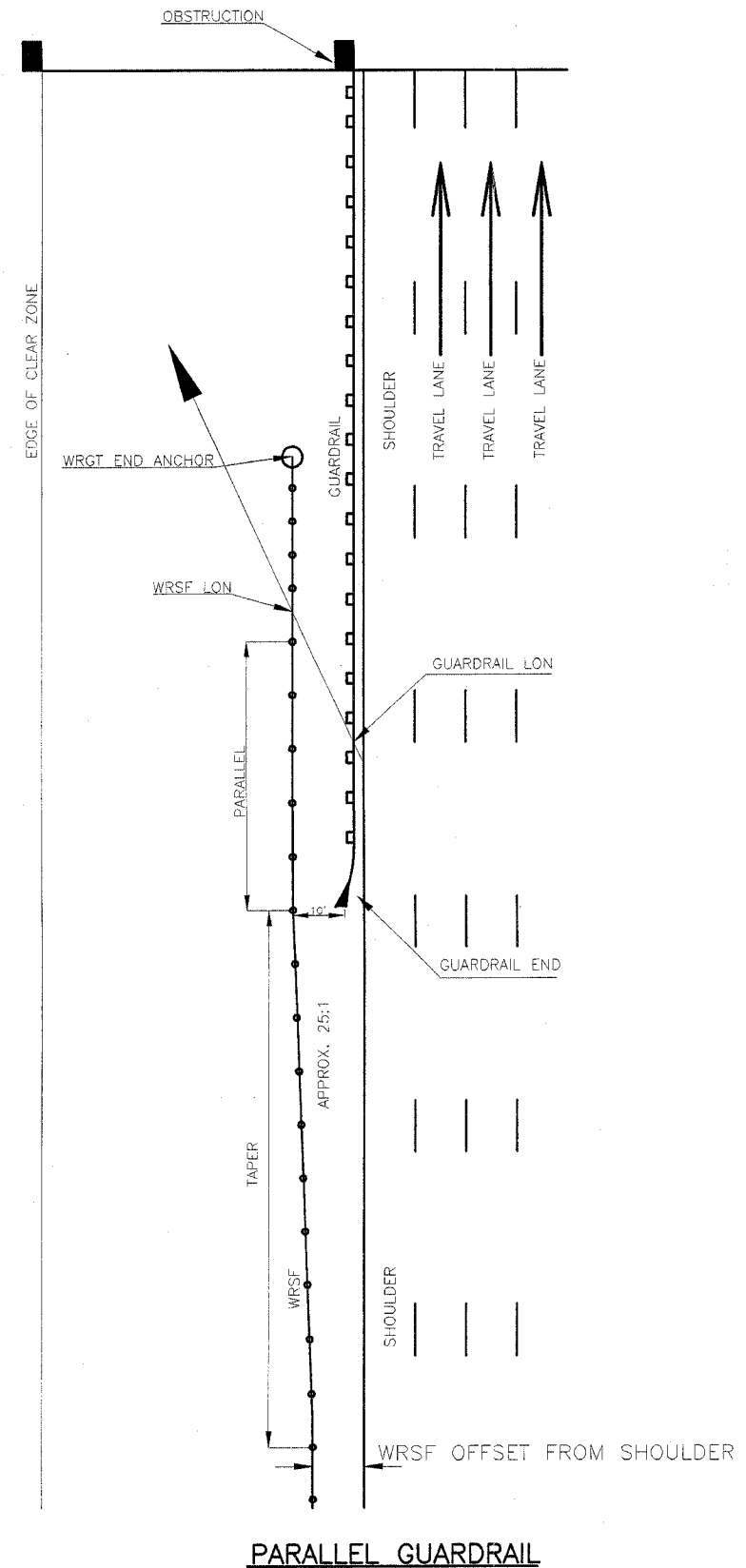
Rev. Sheet 2-28-06

BRIFEN★USA INC.

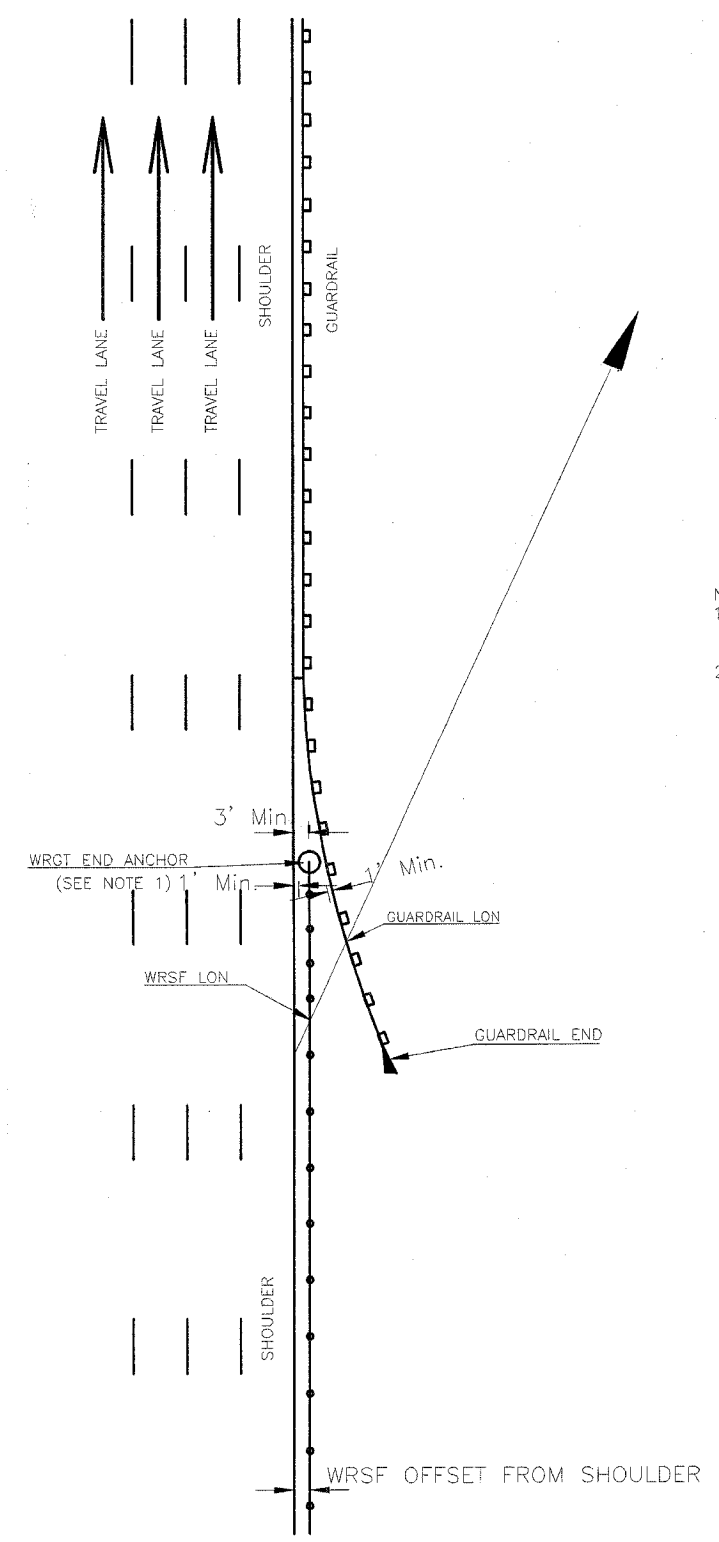
Revisions			SURFACE MOUNT POSTS (4-ROPES, TL-3)		
No.	Date	By	Date	Drawn By	Scale
1.	7.21.05	MW	5.17.05	Manita Workman	None
2.	8.01.05	MW			
3.	8.04.05	MW	VERSION 8.8		
4.	10.10.05	MW			
5.	12.07.05	MW	Dwg. No.	WRSF-05-207a	Sheet No. 7 of 11

2-27-06

FBI	SECTION	COUNTY	TOTAL SHEETS
57	2005-038 1	COOK/MILL	58
STA.		STA.	55
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



PARALLEL GUARDRAIL



FLARED GUARDRAIL

- NOTES:
1. WRSF MAY BE CONNECTED DIRECTLY TO GUARDRAIL; SEE SHEET 11 OR CONTACT BRIFEN USA, INC. AT 1-866-427-4336 TOLL FREE.
 2. FOR TL-4 SYSTEMS, SEE SHEET 9.

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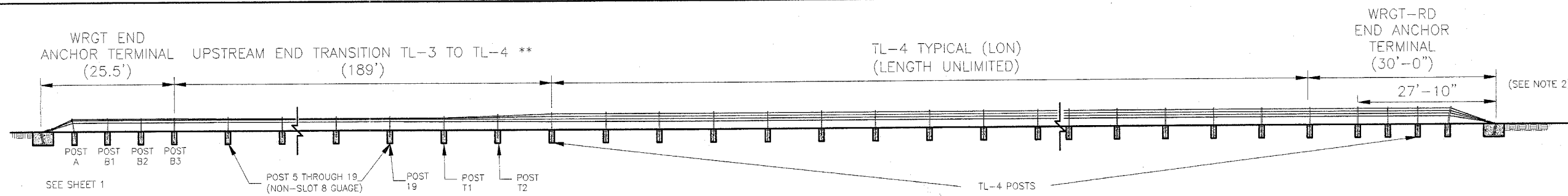
BRIFEN★USA INC.				
Revisions			RECOMMENDED WRSF INTERFACE WITH GUARDRAIL (TL-3)	
No.	Date	By	Date	Drawn By
1.	7.21.05	MW	5.17.05	Manita Workman
2.	8.01.05	MW		
3.	8.04.05	MW	VERSION 8.8	
4.	10.10.05	MW		
5.	12.07.05	MW	Dwg. No.	WRSF-05-208a
			Scale	
			None	
			Sheet No.	
			8 of 11	

△ Rev. Sheet 2-28-06

2-27-06

FBI	SECTION	TOTAL
57	2005-038 1	SHEETS
COOK	COUNTY	NO.
58	COOK	58
59	NO.	59
60	NO.	60

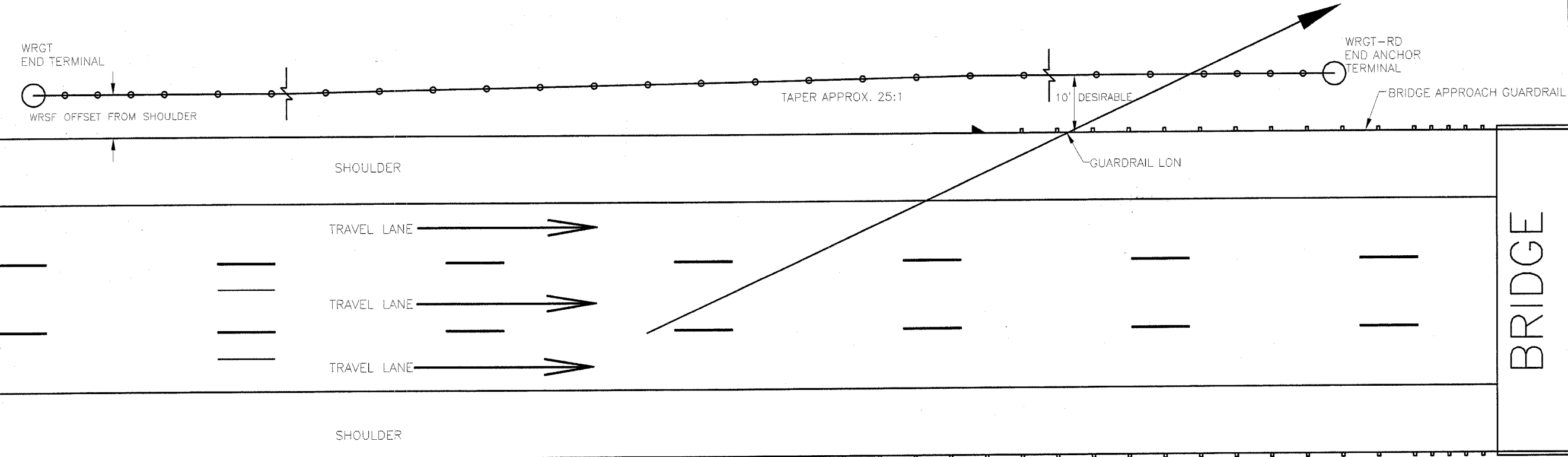
CONTRACT NO. 60A09
 ILLINOIS
 FED. AID PROJECT



** PAID AS LF OF TL-4 WRSF

TYPICAL TL-4 LAYOUT

- NOTE:
- WRGT-RD END ANCHOR TERMINAL MAY BE USED ON ANY TL-4 WRSF LOCATION SHIELDED FROM TRAFFIC (EXITING ENDS OF BRIDGES, ETC), OR WITHIN HORIZONTAL CLEAR ZONE ON DOWNSTREAM ENDS ONLY IF HEAD-ON IMPACTS ARE UNLIKELY.
 - SEE SHEET 11 FOR TL-4 END ANCHOR DETAILS.



PLAN

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BRIFEN USA INC.

TL-4 WRSF © BRIDGE APPROACHES

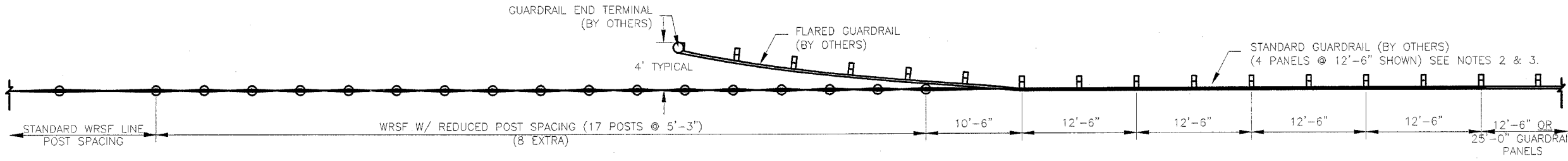
Revisions			TL-4 WRSF AT BRIDGE APPROACHES (PARALLEL GUARDRAIL)		
No.	Date	By	Date	Drawn By	Scale
1.	7.21.05	MW	5.17.05	Manita Workman	None
2.	8.01.05	MW			
3.	8.04.05	MW	VERSION 8.8		
4.	10.10.05	MW			
5.	12.07.05	MW	Dwg. No.	WRSF-05-209a	Sheet No. 9 of 11

Rev. sheet 2-28-06

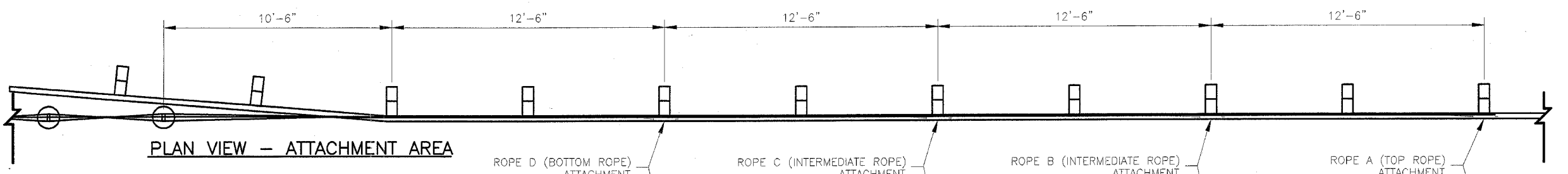
2-27-06

FBI	SECTION	COUNTY	TOTAL SHEETS
57	2005-0381	COOKWILL	98
STATION	STA	STATION	SHEET NO.
			57

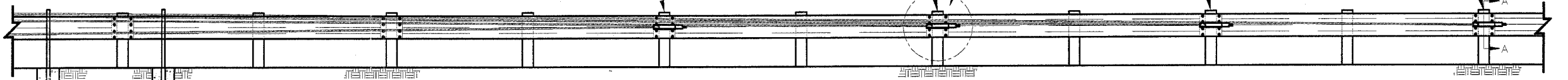
CONTRACT NO. 60A09



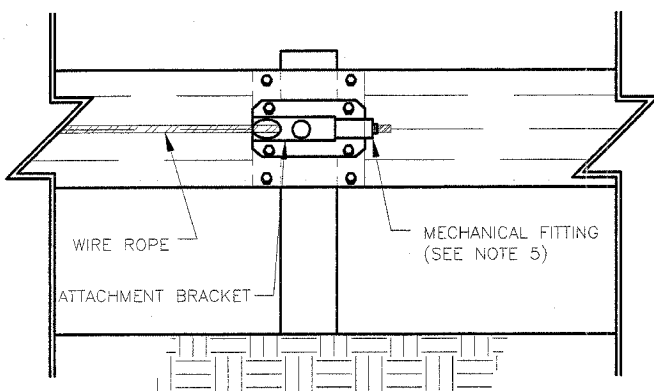
PLAN VIEW



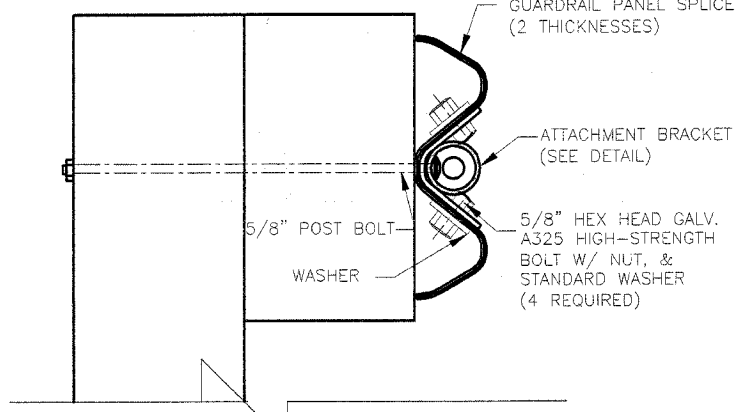
PLAN VIEW - ATTACHMENT AREA



FRONT ELEVATION VIEW - ATTACHMENT AREA (4-ROPES SHOWN; 3-ROPES SIMILAR)

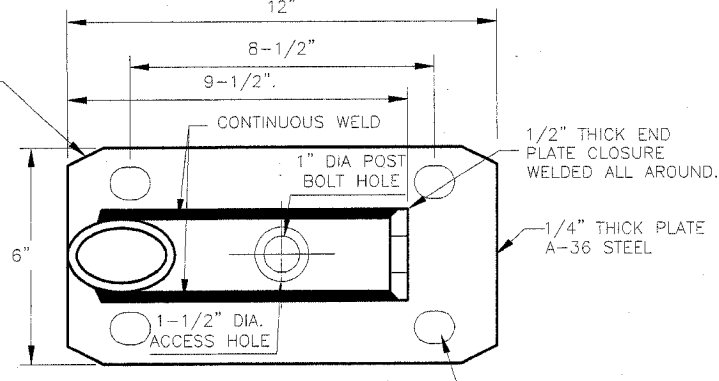


VIEW B

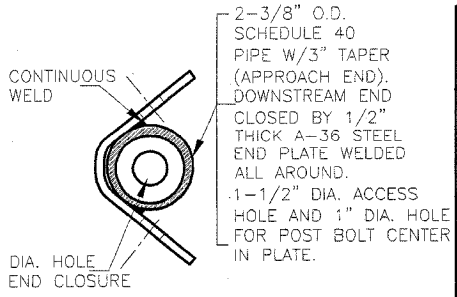


SECTION A-A (WOOD POST SHOWN)

WIRE ROPE ATTACHMENT DETAILS



ATTACHMENT BRACKET DETAIL SIDE VIEW



ATTACHMENT BRACKET DETAIL END VIEW

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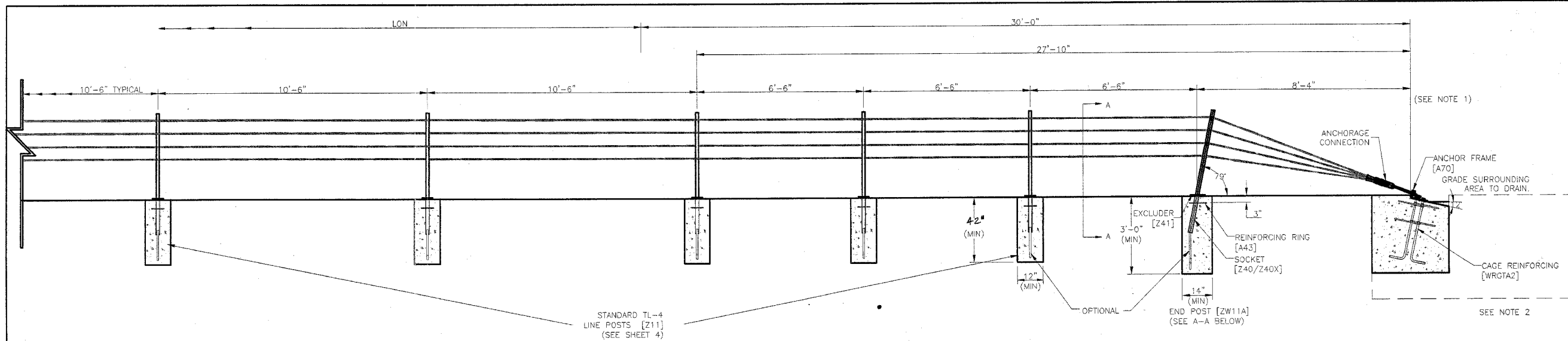
BRIFEN★USA INC.

Revisions			WRSF ATTACHMENT TO GUARDRAIL		
No.	Date	By	Date	Drawn By	Scale
1.	8.04.05	MW	7.06.05	Manita Workman	None
2.	8.31.05	MW			
3.	10.10.05	MW	VERSION 8.8		
4.	12.16.05	MW			
5.			Dwg. No.	WRSF-05-210a	Sheet No. 10 of 11

- NOTES:
1. GUARDRAIL END TERMINAL TO BE CRASHWORTHY (MELT, ELT OR OTHER).
 2. GUARDRAIL PANELS IN WRSF ATTACHMENT AREA TO BE STANDARD 12GA (MIN). PANELS. CONNECTIONS TO BE MADE AT GUARDRAIL PANEL SPLICE POINTS ONLY.
 3. TO ASSURE FIRM ANCHORAGE FOR THE WRSF, SLACK IN GUARDRAIL SPLICES MUST BE REMOVED BY LOOSENING DOWNSTREAM GUARDRAIL SPLICE BOLTS, PULLING GUARDRAIL TOWARD THE WRSF ATTACHMENT AREA & RE-TIGHTENING THE SPLICE BOLTS.
 4. ATTACHMENT BRACKET GALVANIZED TO A-123 AFTER FABRICATION.
 5. FACTORY SWAGED-ON 3/4" THREADED ENDS, TOGETHER WITH HEX NUT AND 2" DIA. FLAT WASHER MAY BE USED IN LIEU OF MECHANICAL FITTING.

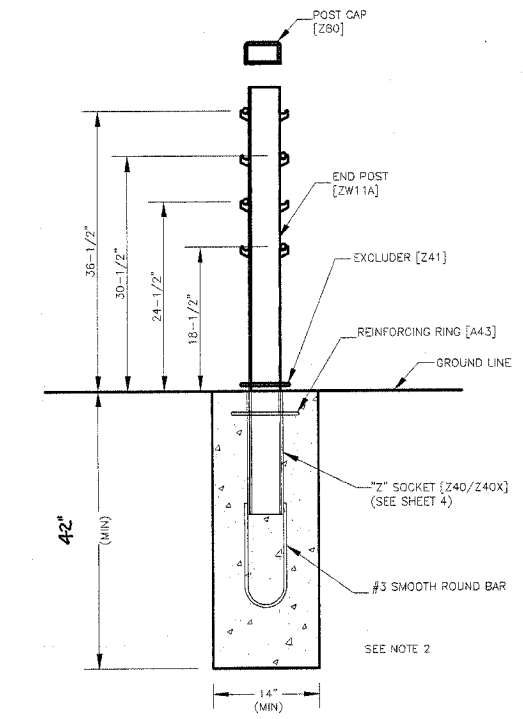
Rev. Sheet 2-28-06

FBI	SECTION	COUNTY	TOTAL
RTE	2005-0381	COOK/MILL	SHEETS
STA.		ILLINOIS	58
CONTRACT NO. 80A08		FED. AID PROJECT	58



WRGT-RD TERMINAL
(SEE NOTE 1)

THE PROPOSED DEPTHS OF THE CONCRETE SOCKETED FOUNDATIONS AS SHOWN IN THE BRIFEN USA DETAILS SHALL BE 42" (MINIMUM).



END POST & FOUNDATION DETAIL
SECTION A-A

- NOTE:
- MAY BE USED ON ANY TL-4 WRSF LOCATION SHIELDED FROM TRAFFIC (EXITING ENDS OF BRIDGES, ETC), OR WITHIN HORIZONTAL CLEAR ZONE ON DOWNSTREAM ENDS ONLY IF HEAD-ON IMPACTS ARE UNLIKELY.
 - END ANCHORAGE AND POST FOUNDATION SIZES ARE DETERMINED BY SOIL CLASSIFICATION AND CONDITION AS WELL AS TEMPERATURE EXTREMES. REFER TO PRODUCT MANUAL OR CONTACT BRIFEN USA REPRESENTATIVE FOR TECHNICAL ASSISTANCE.
 - FOR ADDITIONAL INFORMATION, CONTACT BRIFEN USA, INC. AT 1-866-427-4336 TOLL FREE.

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BRIFEN★USA INC.

Revisions			WRGT-RD END TERMINALS (FOR TL-4 SYSTEM)		
No.	Date	By	Date	Drawn By	Scale
1.	8.01.05	MW	7.21.05	Manita Workman	None
2.	8.08.05	MW	VERSION 8.8		
3.	10.10.05	MW			
4.	12.16.05	MW	Dwg. No. WRSF-05-211a		Sheet No. 11 of 11
5.					