
**SAN DIEGO GAS & ELECTRIC COMPANY
CLEVELAND NATIONAL FOREST
POWER LINE REPLACEMENT PROJECTS
GATE PLAN**

MAY 2017

PREPARED FOR:



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1 – INTRODUCTION

This Gate Plan (Plan) describes San Diego Gas & Electric Company's (SDG&E's) actions to deter unauthorized vehicular access to specifically designated or restricted areas via SDG&E access roads authorized by the Master Special Use Permit (MSUP). The Project includes a variety of activities in support of the following construction components:

- replacement of approximately 1,400 existing wood poles with fire-resistant, weathered steel poles;
- undergrounding of approximately 26 miles of existing 12 kilovolt (kV) distribution lines;
- removal of approximately 30 miles of existing 12 kV and 19 miles of existing 69 kV overhead facilities; and
- closure of approximately 24 miles of access roads.

This Plan was prepared in accordance with Mitigation Measure (MM) REC-1, as described in the Project's Final Environmental Impact Report/Environmental Impact Statement's (FEIR/EIS) Mitigation Monitoring, Compliance, and Reporting Program and the United States Forest Service (USFS) Record of Decision.

2 – OBJECTIVES

The management practices and activities in this Plan are intended to accomplish the following objectives:

- Provide a framework for the review process necessary to determine the locations of gates and/or other barriers needed along SDG&E exclusive-use access roads and on land managed by the USFS.
- Provide gate designs that meet the USFS engineering standards.
- Identify the locations and schedule for the installation of gates and/or other barriers.

3 – MITIGATION MEASURES

The full text of MM REC-1 is provided as follows:

MM REC-1: Installation of Gates and Appropriate Signage:

To deter unauthorized access to specially designated or restricted areas via SDG&E access roads authorized by the MSUP, the project applicant shall submit a plan and schedule for gate (or other barriers, such as pipe rails, where appropriate) installation to the Forest Service for approval. Gates will meet Forest Service engineering standards, and designs will be approved by the Forest Service prior to installation. In addition, appropriate deterrence signage approved by the Forest Service shall be installed on gates to SDG&E access roads. Maintenance of gates and signage shall be the responsibility of the project applicant.

4 – PLAN IMPLEMENTATION

4.0 REVIEW CRITERIA

SDG&E will review the MSUP authorized SDG&E exclusive-use access roads that could potentially provide unauthorized motor vehicle access into specially designated areas within the USFS owned lands for each project component and identify potential gate/barrier locations. These proposed gate/barrier locations will then be reviewed by SDG&E for:

- Site conditions that would allow for effective unauthorized motor vehicle deterrence
- Sensitive environmental resources
- Land rights and potential private landowner conflicts
- Safety constraints (e.g. SDG&E equipment access)

If the proposed gate/barrier location will not conflict with the above criteria, the proposed location will be mapped and submitted to the USFS for review and approval. The submittal will include a map depicting the general location, global positioning system coordinates, short summary of existing site conditions, summary of resource review, and proposed barrier/gate type to be installed as identified in Attachment A: USFS Gate Specifications and Guidelines. The USFS will review and approve the proposed location(s) and gate/barrier type(s) and length for each Project component in accordance with this Plan.

If the review demonstrates a conflict with the above criteria, SDG&E will provide information to the USFS describing why a gate should not be installed in that location. If it is determined that a gate might not be appropriate, then signage may be recommended instead. The USFS will provide SDG&E with the specifications of the requested signage.

4.1 SCHEDULE

Review of the gate/barrier locations will occur in a phased approach based on the construction schedule per Project component. Prior to receiving a notice to proceed/authorization for each line segment, SDG&E will submit the proposed gate/barrier location submittal as described above in Section 4.0 Review Criteria. Once approved by the USFS, SDG&E will incorporate the map into this Plan as an appendix. Gate installation will occur for each Project component once the individual line segments have been completed (new poles installed and strung and poles removed). The timing of gate installation for each Project component is identified in Attachment B: Gate Plan Schedule, but this schedule may be subject to change. In some cases, due to environmental constraints such as bird breeding season, workspace authorizations, or elevated fire conditions, gate/barrier installation may be delayed temporarily.

4.2 MAINTENANCE

Once the gate has been installed as approved by the USFS, SDG&E will be responsible for maintaining the gate, lock, and signage affixed to the gate by SDG&E. However, SDG&E is not responsible for unauthorized access/trespass on USFS land once the gate is installed. The USFS will communicate as necessary regarding identified maintenance issues.

ATTACHMENT A: USFS GATE SPECIFICATIONS AND GUIDELINES

MONSTER GATE SPECIFICATIONS AND GUIDELINES

MONSTER GATE

SECTION 03 20 00 - CONCRETE REINFORCEMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Reinforcing steel bars, wire fabric and accessories for cast-in-place concrete.

1.2 RELATED SECTIONS

- A. Section 03 10 00 - Concrete Formwork.
- B. Section 03 30 00 - Cast-in-Place Concrete.

1.3 REFERENCES

- A. ACI 30 - Structural Concrete for Buildings.
- B. ACI 318 - Building Code Requirements For Reinforced Concrete.
- C. ACI SP-66 - American Concrete Institute – Detailing Manual.
- D. ASTM A82 - Cold Drawn Steel Wire for Concrete Reinforcement.
- E. ASTM A185 - Welded Steel Wire Fabric for Concrete Reinforcement.
- F. ASTM A615 - Deformed and Plain Billet Steel Bars for Concrete Reinforcement.
- G. AWS D 1.4 - Structural Welding Code for Reinforcing Steel.
- H. CRSI - Concrete Reinforcing Steel Institute – Manual of Practice.
- I. CRSI 63 – Recommended Practice For Placing Reinforcing Bars.
- J. CRSI 65 – Recommended Practice For Placing Bar Supports, Specifications and Nomenclature.

1.4 SUBMITTALS FOR REVIEW

- A. Section 01300 – Submittals: Procedures for submittals.
- B. Shop Drawings: Indicate bar sizes, spacing, locations, and quantities of reinforcing steel, Bending and cutting schedules, and supporting.

1.5 SUBMITTALS FOR INFORMATION

- A. Section 01300 – Submittals: Procedures for submittals.

MONSTER GATE

- B. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- C. Submit certified copies of mill report or reinforcement materials analysis.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301 and ACI SP-66.

1.7 MEASUREMENT AND PAYMENT

- A. No separate measurement or payment will be made for work specified in this section.

PART 2 - PRODUCTS

2.1 REINFORCEMENT

- A. Reinforcing Steel: ASTM A615, 60 ksi yield grade; deformed billet steel bars.

2.2 ACCESSORIES

- A. Tie Wire Minimum 16.
- B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions including load bearing pad on bottom to prevent vapor barrier puncture.
- C. Special Chairs, Bolsters, Bar Supports, Spacers Adjacent to Weather Exposed Concrete Surfaces: Stainless steel type; size and shape as required.

2.3 FABRICATION

- A. Fabricate concrete reinforcing in accordance with ACI SP-66.
- B. Locate reinforcing splices not indicated on drawings, at point of minimum stress. Review location of splices with Contracting Officer.

PART 3 - EXECUTION

3.1 PLACEMENT

- A. Place, support and secure reinforcement against displacement. Do not deviate from required position.
- B. Do not displace or damage vapor barrier.
- C. Accommodate placement of formed openings.

MONSTER GATE

D. Maintain concrete cover around reinforcing as follows:

Item:	Coverage:
Footings and Concrete Formed Against Earth	3 inch
Slabs on Grade	3 inch

3.2 FIELD QUALITY CONTROL

- A. Section 01400 - Quality Control: Field inspection.
- B. Inspect for acceptability.

END OF SECTION 03200

MONSTER GATE

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. This section includes reinforced concrete and replacement of reinforced concrete. The work includes preparation of surfaces, mixing, placement, and finishing of concrete.

1.2 RELATED SECTIONS

- A. 03 30 00 CONCRETE REINFORCMENT.

1.3 REFERENCES

- A. ACI 211.1 - Selecting Proportions for Normal, Heavyweight, and Mass Concrete.
- B. ACI 301 - Structural Concrete for Buildings.
- C. ACI 302 - Guide for Concrete Floor and Slab Construction.
- D. ACI 304 - Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete.
- E. ACI 305R - Hot Weather Concreting.
- F. ACI 306R - Cold Weather Concreting.
- G. ACI 308 - Standard Practice for Curing Concrete.
- H. ACI 318 - Building Code Requirements for Reinforced Concrete.
- I. ASTM C33 - Concrete Aggregates.
- J. ASTM C94 - Ready-Mixed Concrete.
- K. ASTM C150 - Portland Cement.
- L. ASTM C260 - Air Entraining Admixtures for Concrete.
- M. ASTM C494 - Chemical Admixtures for Concrete.
- N. ASTM D994 - Preformed Expansion Joint Filler for Concrete (Bituminous Type).
- O. ASTM D1190 - Concrete Joint Sealer, Hot-Poured Elastic Type.
- P. ASTM C231 – Air Content of Freshly Mixed Concrete by the Pressure Method.
- Q. ASTM C1116 – Standard Specification for Fiber Reinforced Concrete and Shotcrete.

MONSTER GATE

1.4 MEASUREMENT AND PAYMENT

- A. Measurement and payment for work performed under this Section will be made under those pay items as listed in the Schedule of Items and will constitute full compensation for all materials, labor, equipment, testing, and incidentals necessary to complete the work as specified herein and AS SHOWN ON THE DRAWINGS.

PART 2 – PRODUCTS

- A. Portland Cement shall conform to ASTM C 150, Type IIA cement. The Contractor shall obtain from his supplier of cement or concrete a certificate stating that the cement complies with this specification.
- B. Aggregates shall conform to ASTM C 33. Maximum size of aggregate shall be either one (1) inch or not larger than three-quarters (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing concrete surface with the smaller size governing.
- C. Water (Used in Mix) shall be clean and free from injurious amounts of acids, alkalis, salts, organic matter or other deleterious substances.
- D. The water/cement ratio of the design mix shall be maintained at all times regardless of making field adjustment due to weather or placement conditions. Maximum allowable mixing water shall not exceed seven (7) gallons per sack. Mixing water shall be reduced by the amount of moisture in the aggregate above saturated surface dry conditions.
- E. The slump of the concrete as designed and placed on the job shall be four inches maximum when tested in accordance with ASTM C143.
- F. Concrete shall be air-entrained, and shall contain 5 percent plus or minus 1 percent entrained air as determined by test procedure ASTM C138. Only air-entrained agents meeting the requirements of ASTM C260 will be permitted and shall be added at the mixer.
- G. Provide concrete to the following criteria: (This data and all admixtures used shall be shown on all tickets for all material delivered to the job site.

FOOTINGS

<u>Unit</u>	<u>Measurement</u>
Compressive Strength (28 day)	3000 psi
Water/Cement Ratio (maximum)	0.45
Aggregate Size (maximum)	1 inch

- H. Admixture: A type that increases the workability and reduces the water demand of the concrete, the brand and amount used subject to the approval of the Contracting Officer and shown in respective mix designs. No admixture containing calcium chloride or salt shall be used.

MONSTER GATE

1. Air Entrainment: ASTM C260, 5% plus or minus 1%
 2. Chemical: ASTM C494
- I. Limits: The allowable mix design tolerances shall not exceed one percent for cement and water, two percent for each aggregate, or one percent for aggregates weighed cumulatively.
- A. Moisture-Retaining Cover: One of the following, complying with ASTM C171:
1. Waterproof paper.
 2. Polyethylene film.
 3. Polyethylene-coated burlap.
- B. Liquid Membrane-Forming Curing Compound: ASTM C309. Use type 1 or 1-D clear cure compound.
- C. For cold weather protection use curing blankets with a minimum 3.37 R value.

2.1 CONCRETE MIXING

- A. Depending on local conditions, or with approval of the Contracting Officer, the methods of mixing may be limited to one of the following:
1. Batching at a Central Plant or "Ready Mixed Concrete" shall comply with requirements of ASTM C94, and as specified herein.
 2. Job Site Mixing: Mix materials for concrete in appropriate drum type batch mechanical machine mixer. For mixers of one cubic yard or smaller capacity, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that anchors, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not cause hardship in placing concrete.

3.2 MIXING AND HAULING

- A. Batching and Mixing at a Central Plant Conforming to ASTM C94: The method herein contemplated is ordinarily referred to as "Ready-Mixed Concrete", and may only be employed if the time interval between mixing at the plant and discharge into the forms does not exceed 90 minutes. This time limitation may be still further reduced when high ambient air temperature or the high temperature of the batch ingredients indicate a shorter time period is required. The mixture shall be agitated continuously from the time the truck is loaded until time of discharge.

MONSTER GATE

- B. Batching and Mixing at Site of Work: Concrete shall be mixed thoroughly in a batch mixer of approved type and capacity for a period of not less than 1-1/2 minutes after all component materials, including water, are in a drum, or as specified by the manufacturer of the mixer.

3.3 INSTALLATION OF EMBEDDED ITEMS

- A. Secure or insert sleeves, bollards, posts, bolts, anchors, inserts, or other hardware in forms and be responsible for any and all changes in the position of such items after they have been set in forms.

3.4 CONCRETE PLACEMENT

A. Environmental Conditions:

1. Cold Weather Placing: When air temperature has fallen to or is expected to fall below 40 deg F, protect concrete work from physical damage or reduced strength which could be caused by frost, freezing actions, or low temperatures, in compliance with ACI 306R. Do not place concrete on frozen subgrade or subgrade containing frozen materials. Submit cold weather protection product data before concrete is ordered.
2. Hot Weather Placing: When air temperature is above or expected to be above 85 deg For weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305R.

- B. Preplacement Inspection: Before placing concrete, the Contracting Officer shall inspect and approve the complete installation for formwork, reinforcement, and items to be embedded or cast-in. Moisten wood forms immediately before placing concrete where form coatings are not used.

C. Placing Concrete:

1. Concrete shall be placed in such a manner as to avoid segregation but, in no case shall the concrete be dropped freely more than five feet. Deposit concrete as nearly as practicable to its final location to avoid segregation.
2. Concrete shall be placed continuously. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete in a manner to avoid inclined construction joints or the formation of seams or planes of weakness. When placement consists of several layers, place each layer while preceding layer is plastic to avoid cold joints.
3. Protect adjacent finish materials against spatter during concrete placement.
4. Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping to provide a smooth void free surface against formwork.
5. Do not use vibrators to transport concrete inside forms or cause segregation of mix.
6. Ensure reinforcement, inserts, embedded parts, formed expansion and contraction joints are not disturbed during concrete placement.

MONSTER GATE

7. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.

3.5 CONCRETE CURING AND PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury. Concrete shall be cured for a minimum of 7 days by one of the following methods:
 1. Provide moisture curing by keeping surface continuously wet by covering with water or water-fog spray, or absorptive cover.
 2. Moisture-Retaining Cover: Place cover in widest practicable width with sides and ends lapped at least 3 inches and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
 3. Provide curing and sealing compound in accordance with manufacturer's recommendations. Recoat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period.
 4. Do not use plastic sheets or any curing products which discolor.

3.6 CONCRETE SURFACE REPAIRS

- A. Surface repairs shall be made with cement mortar immediately after removal of forms, acceptable to the Contracting Officer. Repairs include filling in holes or openings left for other trades, after work of other trades is in place. Repairs include honeycombs, rock pockets, and void over ¼ inch in any dimension, holes left by ties, rods, and bolts, cracks in excess of 0.01 inch in concrete surfaces.
- B. Remove defective areas to sound concrete with clean square cuts. Thoroughly clean, dampen with water, and brush-coat the area to be patched with an approved bonding agent. Place patching mortar after bonding compound has dried. Compact mortar and keep continuously moist for not less than 72 hours. Alternate repair methods are subject to approval by the Contracting Officer. If defects cannot be repaired to satisfaction of Contracting Officer, concrete shall be removed and replaced.
- C. Correct high areas in slabs after cure period by grinding.

END OF SECTION 03 30 00

MONSTER GATE

SECTION 32 30 00 – SITE IMPROVEMENTS

PART 1 – GENERAL

1.1 SCOPE: This Section includes the following:

A. Fabrication and installation of steel pipe gates and all appurtenances.

1.2 MEASUREMENT AND PAYMENT: Measurement for work performed under this section will be made under those pay items as listed in the Schedule of Items and will constitute full compensation for all materials, labor, equipment, testing and incidentals necessary to complete the work and provide a complete and operational gate for the site as specified herein and AS SHOWN ON THE DRAWINGS. Concrete footings and all signage is considered incidental to line item 32 30 00.

PART 2 – PRODUCTS

2.1 The gate and all components are to be constructed of Schedule 40 and Schedule 80 steel pipe AS SHOWN ON THE DRAWINGS. After the gate is constructed, all welds completed and all exposed cuts shall be ground smooth, gate is to be powder coated white. Final gate posts locations shall be determined by the COR.

2.2 Signs and reflectors shall be installed on both sides of the gates and in locations AS SHOWN ON THE DRAWINGS.

PART 3 – EXECUTION

3.1 Steel Pipe Gate

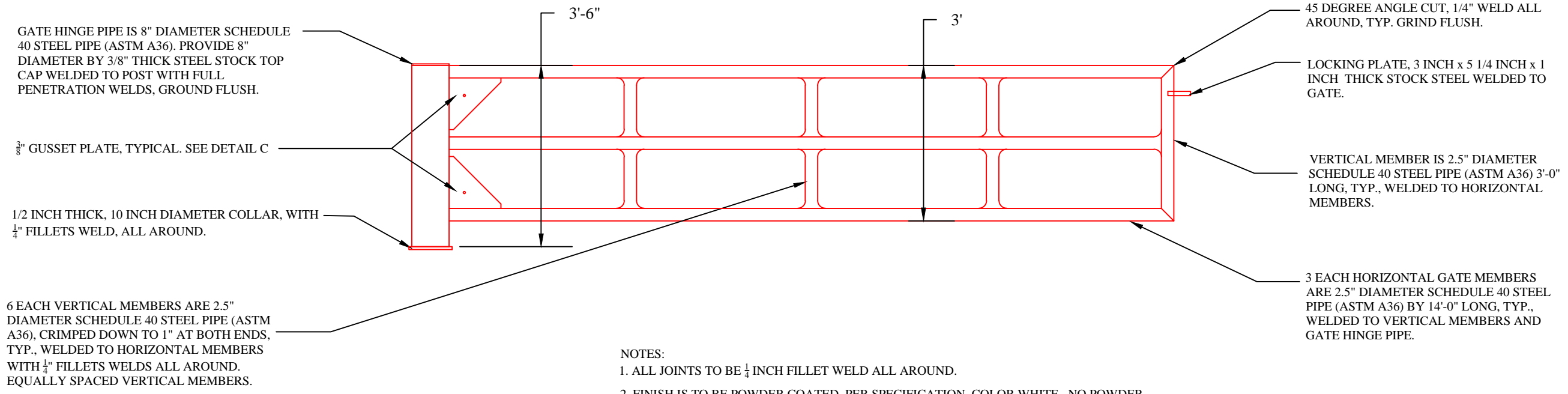
- a. Install gate AS SHOWN ON THE DRAWINGS.
- b. Concrete shall be minimum 3000 psi in accordance with Specification 03 30 00, Cast-In-Place Concrete.
- c. Allow concrete to set a minimum of 7 days before hanging the gate on the gate post.
- d. Remove all construction debris generated by the gate install prior to final approval.

END OF SECTION 32 20 00

NO.	DATE	REVISIONS

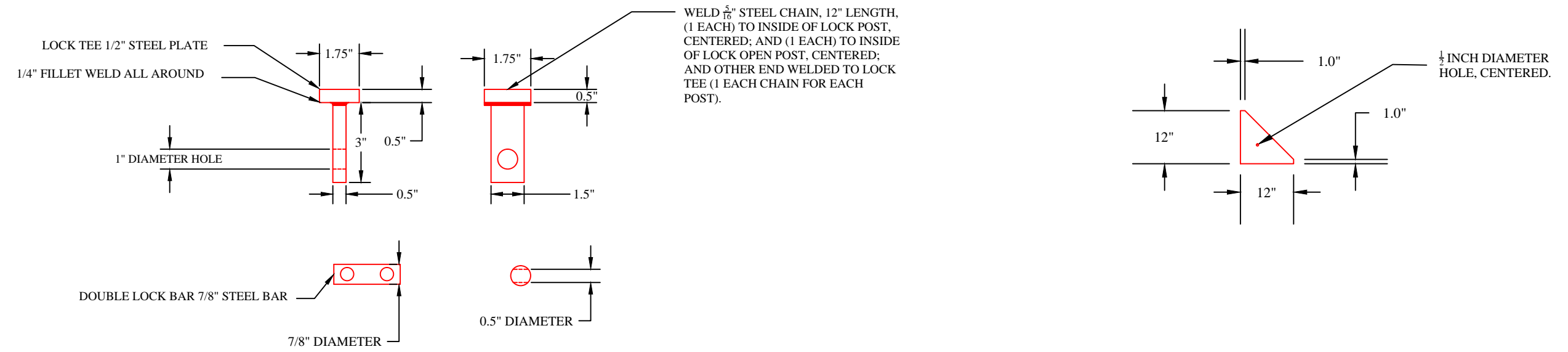
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PROJECT NAME: MONSTER GATE 14' - 9" MAX
DRAWING NAME: GATE FABRICATION DETAILS A - C

PROJECT NUMBER
DESIGNED BY MM
DRAWN BY TM/WH
CHECKED BY
CHECKED BY
DATE 28JUL2016
SCALE AS SHOWN
DRAWING
SHEET 1 OF 3



- NOTES:
1. ALL JOINTS TO BE 1/4 INCH FILLET WELD ALL AROUND.
 2. FINISH IS TO BE POWDER COATED, PER SPECIFICATION, COLOR WHITE. NO POWDER COAT ON BOTTOM 2'-6" OF GATE HINGE POST, LOCK POST AND LOCK OPEN POST.
 3. ALL EXPOSED CUTS ARE TO BE GROUND SMOOTH.

A GATE DETAIL
1" = 1'-0"



B LOCK TEE DETAIL
NOT TO SCALE

C 3/8" GUSSET PLATE DETAIL
1" = 1'-0"

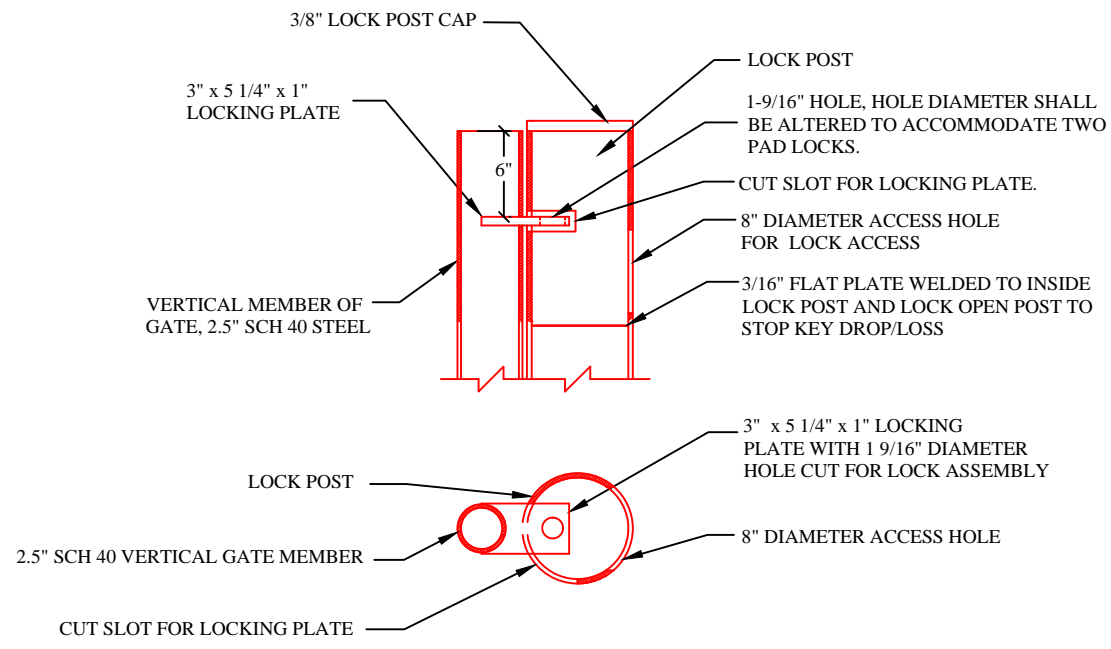
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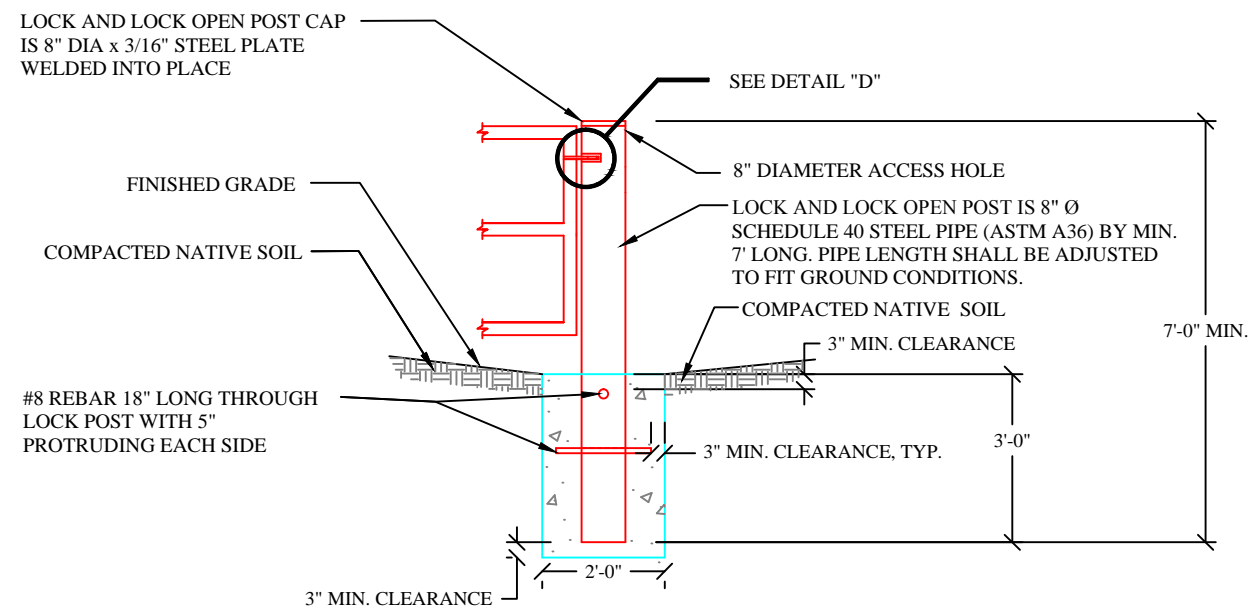
NO.	DATE	REVISIONS

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PROJECT NAME: MONSTER GATE 1'4" - 9" MAX
DRAWING NAME: GATE FABRICATION DETAILS D - G

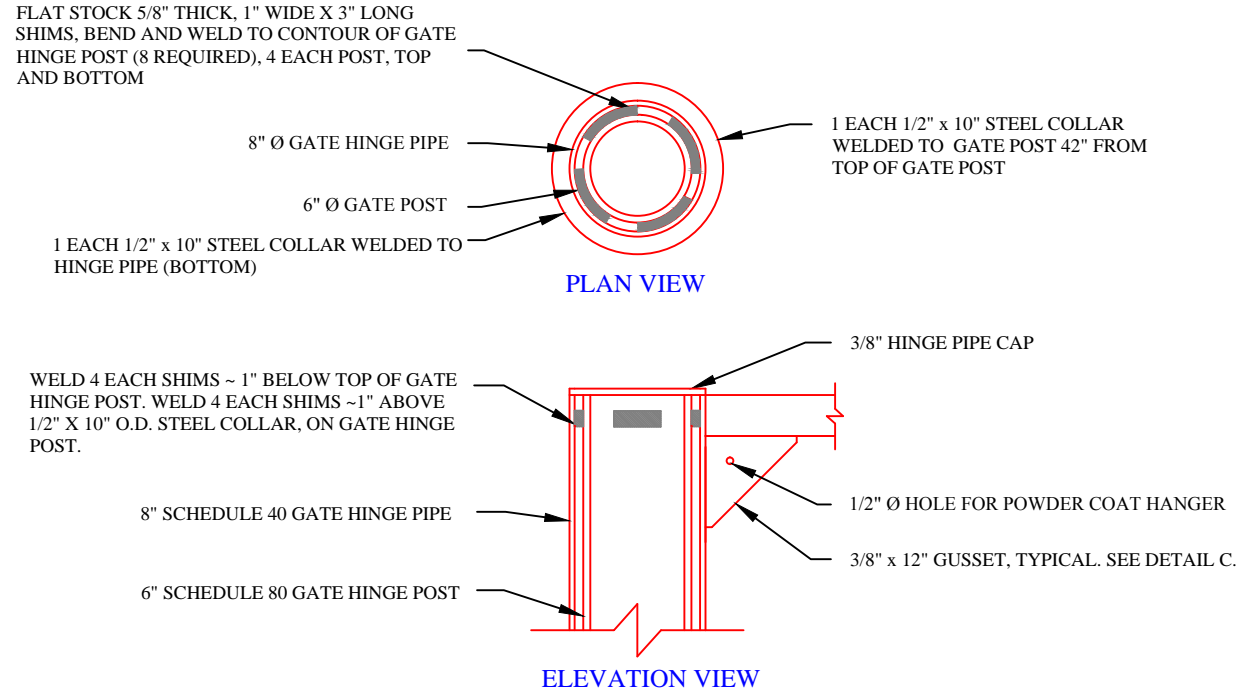
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DESIGNED BY MM
DRAWN BY TM/WH
CHECKED BY
CHECKED BY
DATE 28JUL2016
SCALE AS SHOWN
DRAWING



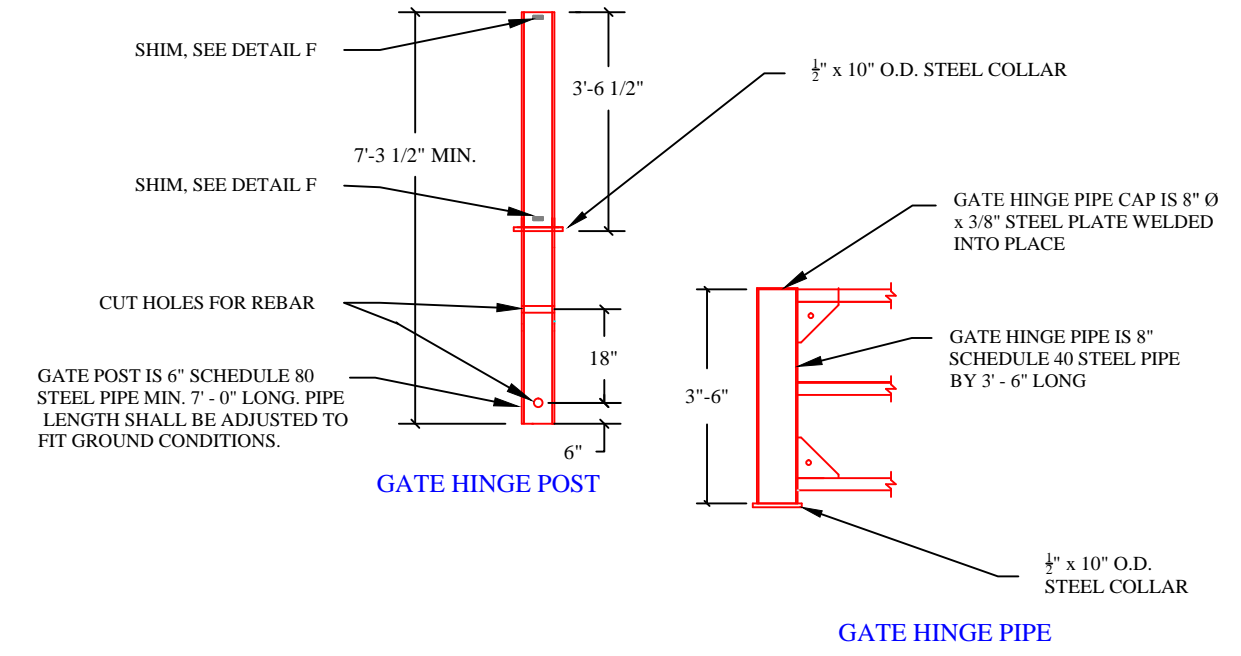
D LOCK POST DETAIL
NOT TO SCALE



E LOCK POST DETAIL
NOT TO SCALE



F GATE HINGE POST SHIM DETAIL
NOT TO SCALE

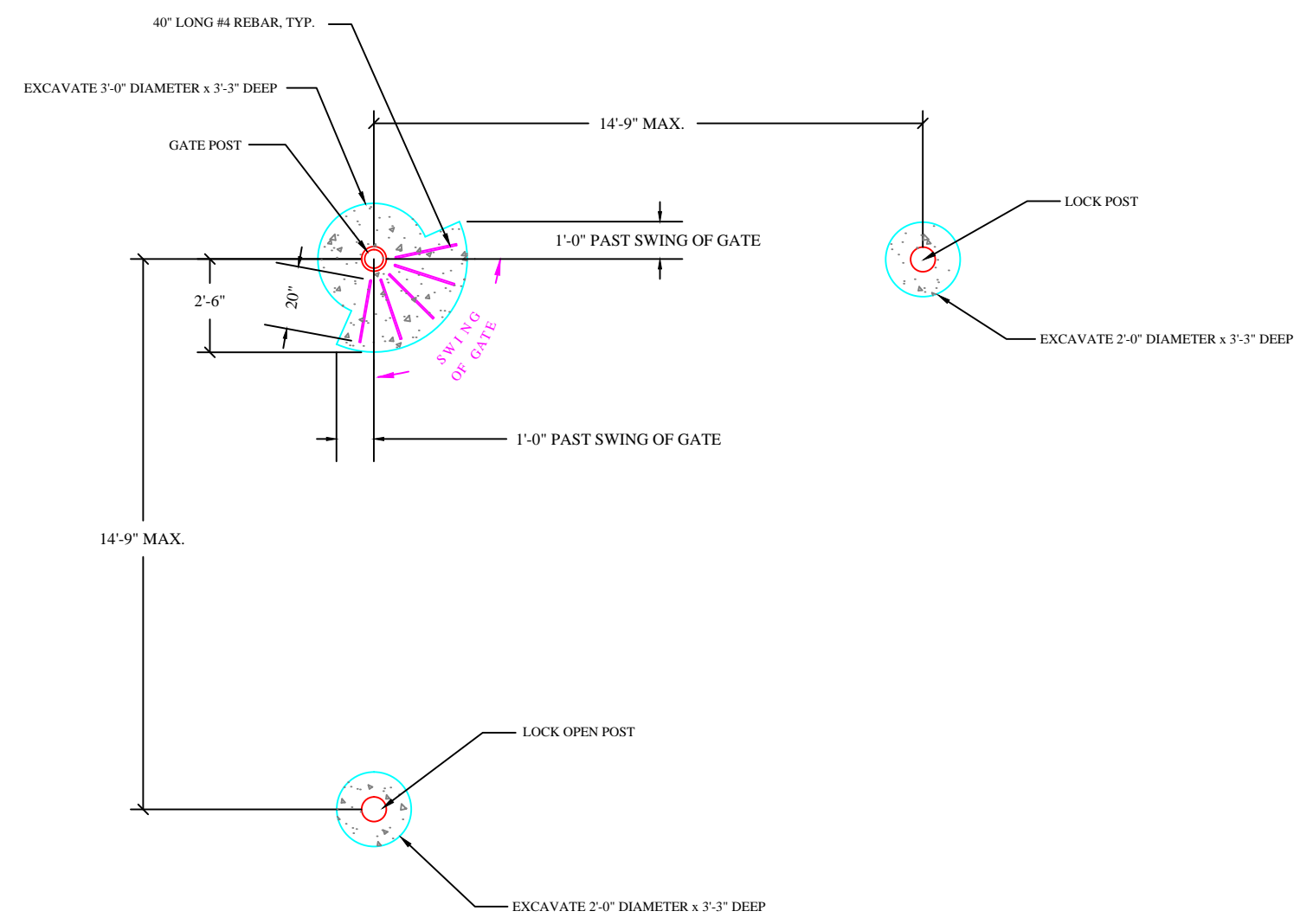
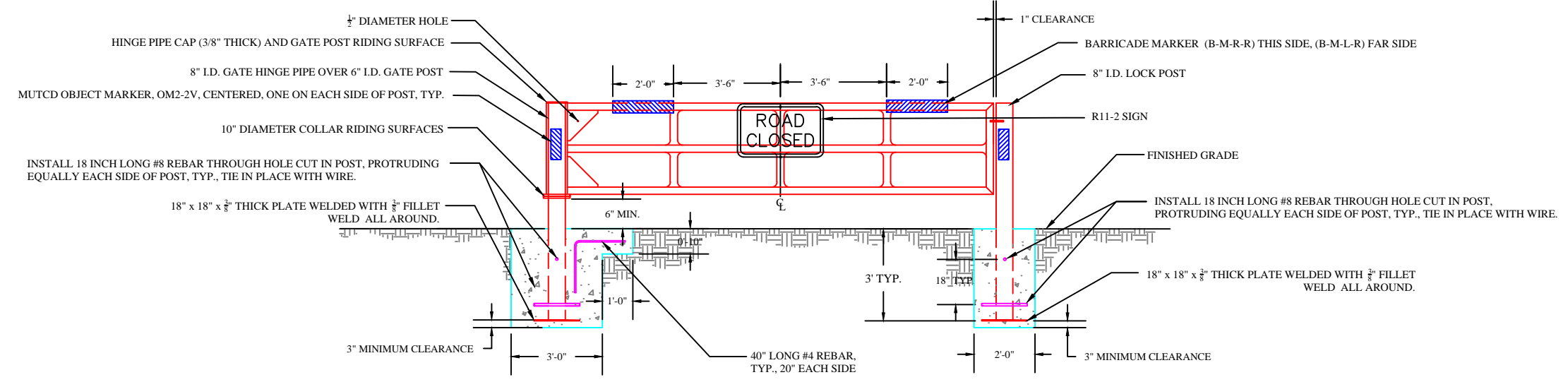


G GATE HINGE POST & HINGE PIPE DETAILS
NOT TO SCALE

Version 2.0 12/19/01 FILE: USFS-DWG(24x36).dgn

NO.	DATE	REVISIONS

FOREST: CLEVELAND NATIONAL FOREST
PROJECT NAME: MONSTER GATE 14'-9" MAX
DRAWING NAME: GATE INSTALL DETAILS H



NOTES:

- TOP AND BOTTOM 12" OF GATE HINGE PIPE AND RIDING SURFACES TO BE LIBERALLY COATED WITH LITHIUM BASED MOLYBDENUM DISULFIDE TYPE GREASE.
- BARRICADE AND OBJECT MARKERS TO BE INSTALLED IN ACCORDANCE WITH MUTCD USING APPROVED PRODUCTS.
- AS STAKED BY COR WITH CONSIDERATION FOR DIRECTION OF SWING AND SIDE OF ROAD PLACEMENT, THE LOCK POST AND LOCK OPEN POST FINAL LOCATIONS SHALL BE MEASURED AND VERIFIED BY CONTRACTOR TO ENSURE PROPER ALIGNMENT OF LATCH. BOTH LOCK POST AND LOCK OPEN POST SHALL BE INSTALLED AS SHOWN ON DRAWING. FIELD CUTTING OF LATCH AND POWDER COAT WILL NOT BE ALLOWED.
- ALL REBAR AND PIPE EMBEDDED IN CONCRETE SHALL HAVE A 3 INCH MINIMUM COVER.
- CONCRETE SHALL BE MINIMUM 3000 PSI AND SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATION SECTION 03 30 00, CAST IN PLACE CONCRETE.
- CONCRETE SUPPORTS SHALL BE USED TO SET ALL POSTS BEFORE CONCRETE PLACEMENT, TO PROVIDE 3 INCH MINIMUM COVER.
- CONTRACTOR SHALL ALLOW CONCRETE TO SET A MINIMUM OF 7 DAYS BEFORE HANGING GATE ON GATE POST.
- CONTRACTOR SHALL PROVIDE AND INSTALL SIGNS USING ANTI-VANDAL HARDWARE.

PROJECT NUMBER
DESIGNED BY MM
DRAWN BY TM
CHECKED BY
CHECKED BY
DATE 14JULY2016
SCALE NOT TO SCALE
DRAWING

Version: 2.0, 12/18/01, FILE: USFS-Ddref(24x36).dwg

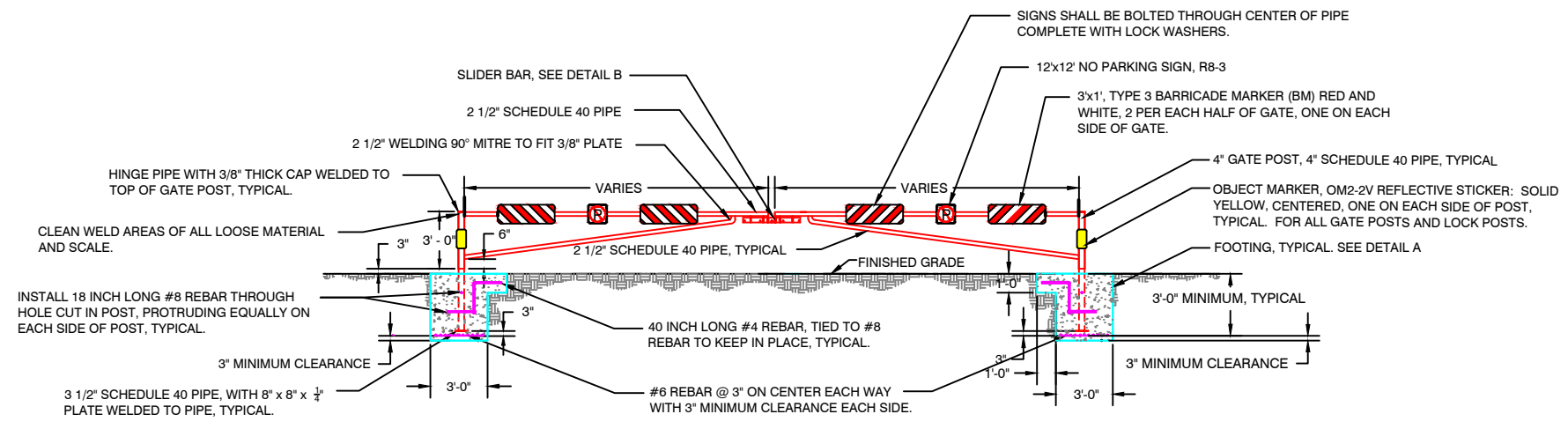
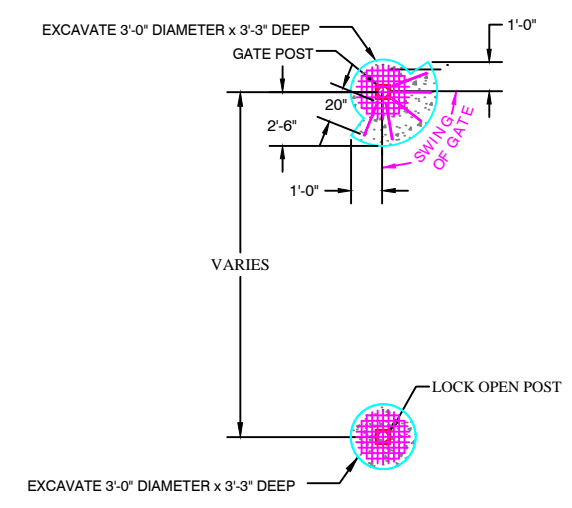
LIGHTWEIGHT GATE SPECIFICATIONS

NO.	DATE	REVISIONS

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PROJECT NAME: CNF LIGHTWEIGHT GATE 32' MAX
DRAWING NAME: DETAILS A-B

A/E

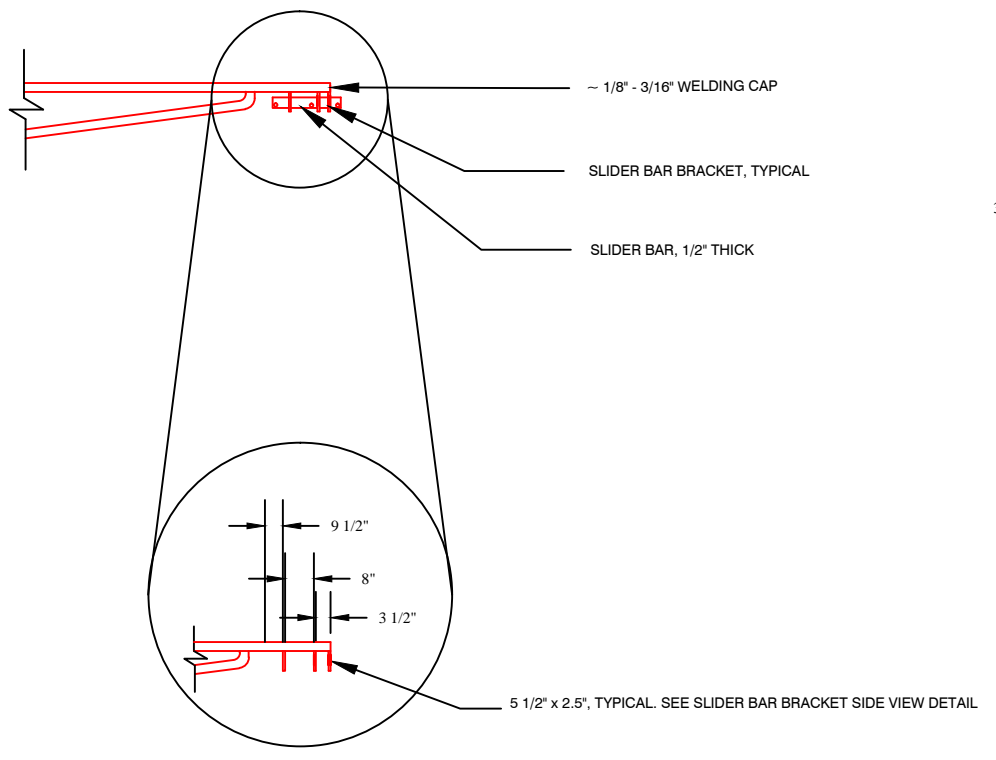
PROJECT NUMBER
DESIGNED BY MM
DRAWN BY TM/WW
CHECKED BY
CHECKED BY
DATE 19APR2016
SCALE AS SHOWN
DRAWING



A GATE & FOOTING LAYOUT
1/4" = 1'-0"

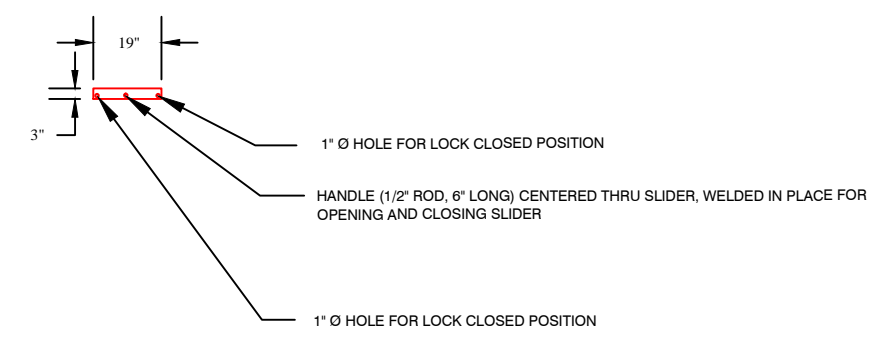
NOTES:

- TOP AND BOTTOM 12" OF GATE HINGE PIPE AND RIDING SURFACES TO BE LIBERALLY COATED WITH LITHIUM BASED MOLYBDENUM DISULFIDE TYPE GREASE.
- BARRICADE AND OBJECT MARKERS TO BE INSTALLED IN ACCORDANCE WITH MUTCD USING PRODUCTS, AS APPROVED BY THE CO.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INVESTIGATE EXISTING SITE CONDITIONS TO ENSURE EACH POST MEETS THE MINIMUM 3 FEET OF EMBEDMENT IN CONCRETE.
- FINAL LOCATION AS APPROVED BY CO WITH CONSIDERATION FOR DIRECTION OF SWING AND SIDE OF ROAD PLACEMENT, THE LOCK POST AND LOCK OPEN POST FINAL LOCATIONS SHALL BE MEASURED AND VERIFIED BY CONTRACTOR TO ENSURE PROPER ALIGNMENT OF LATCH. BOTH LOCK POST AND LOCK OPEN POST SHALL BE INSTALLED AS SHOWN ON DRAWING. FIELD CUTTING OF LATCH AND POWDER COAT WILL NOT BE ALLOWED.
- ALL REBAR AND PIPE EMBEDDED IN CONCRETE SHALL HAVE A 3 INCH MINIMUM COVER.
- CONCRETE SHALL BE MINIMUM 3000 PSI AND SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 03 30 00, CAST-IN-PLACE CONCRETE SPECIFICATION.
- CONCRETE SUPPORTS SHALL BE USED TO SET ALL POSTS AND REBAR BEFORE CONCRETE PLACEMENT, TO PROVIDE 3 INCH MINIMUM COVER.
- POSTS SHALL BE SET VERTICALLY LEVELED AND CENTERED IN THE MIDDLE OF THE FOOTING HOLE.
- CONTRACTOR SHALL ALLOW CONCRETE TO SET A MINIMUM OF 7 DAYS BEFORE HANGING GATE ON GATE POST.
- GATE SHALL BE PROTECTED FROM TRAFFIC AND DAMAGE DURING INSTALLATION AND CURING DAYS.
- GATES AND ALL POSTS FINISH SHALL BE POWDER COATED COLOR WHITE. NO POWDER COAT ON BOTTOM 3' OF GATE POSTS AND LOCK POSTS.
- ALL EXPOSED PIPE ENDS SHALL BE GROUND SMOOTH.
- CONTRACTOR SHALL PROVIDE ALL SIGNS AND REFLECTIVE STICKERS AND ATTACH WITH ANTI-VANDAL HARDWARE.

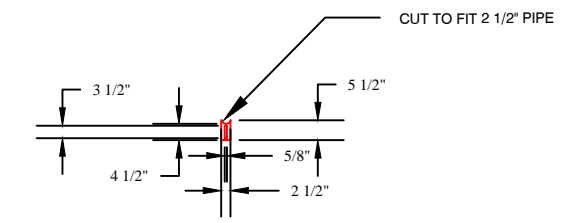


SLIDER BAR BRACKET

B SLIDER BAR DETAILS
1/2" = 1' - 0"



SLIDER BAR



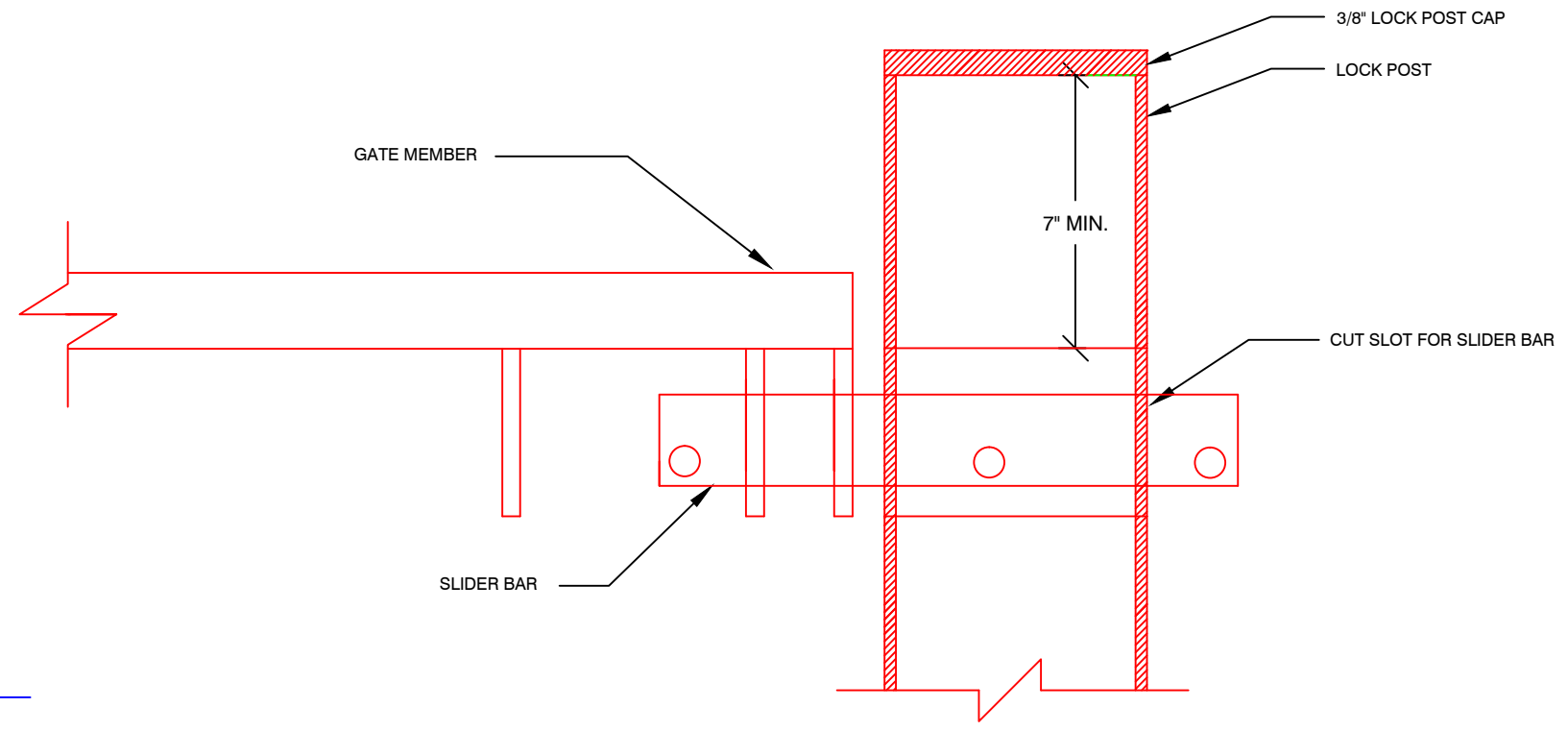
NOTE: 3 PIECES , EACH WELDED TO GATE PIPE

SLIDER BAR BRACKET SIDE VIEW

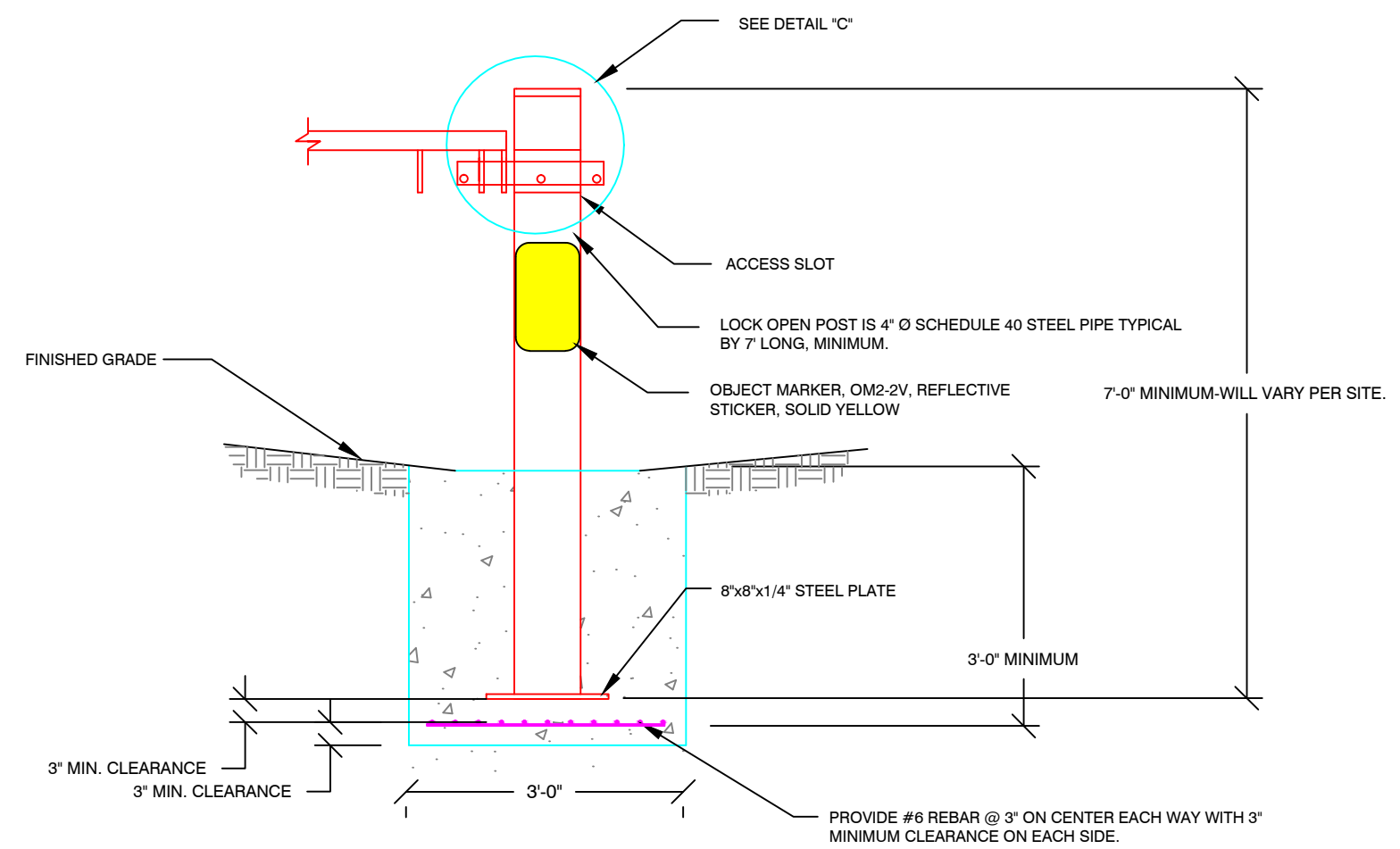
NO.	DATE	REVISIONS

FOREST: CLEVELAND NATIONAL FOREST
PROJECT NAME: CNF LIGHTWEIGHT GATE 32' MAX
DRAWING NAME: DETAILS C-D

PROJECT NUMBER
DESIGNED BY MM
DRAWN BY TM
CHECKED BY
CHECKED BY
DATE 19APR2016
SCALE AS SHOWN
DRAWING



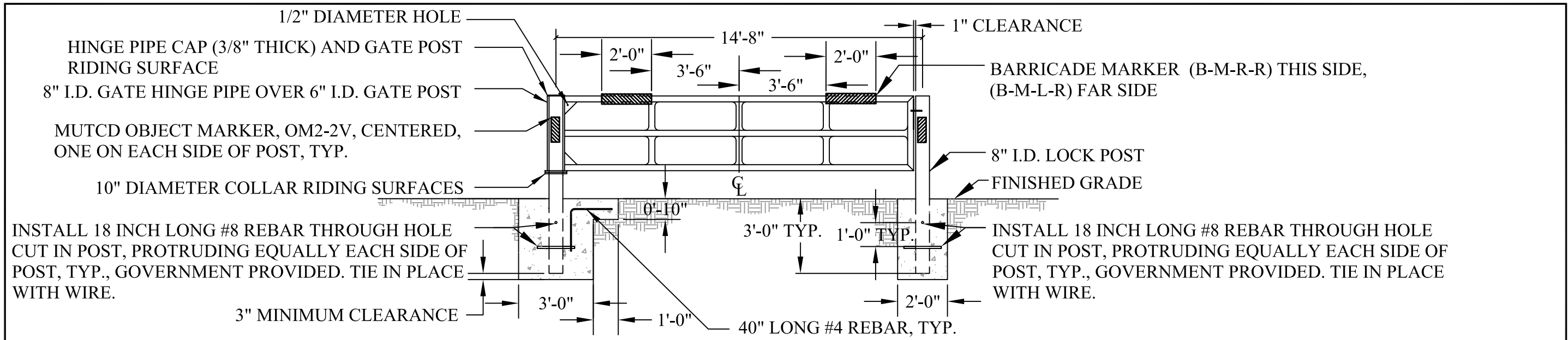
C LOCK POST DETAIL
NOT TO SCALE



D LOCK POST DETAIL
NOT TO SCALE

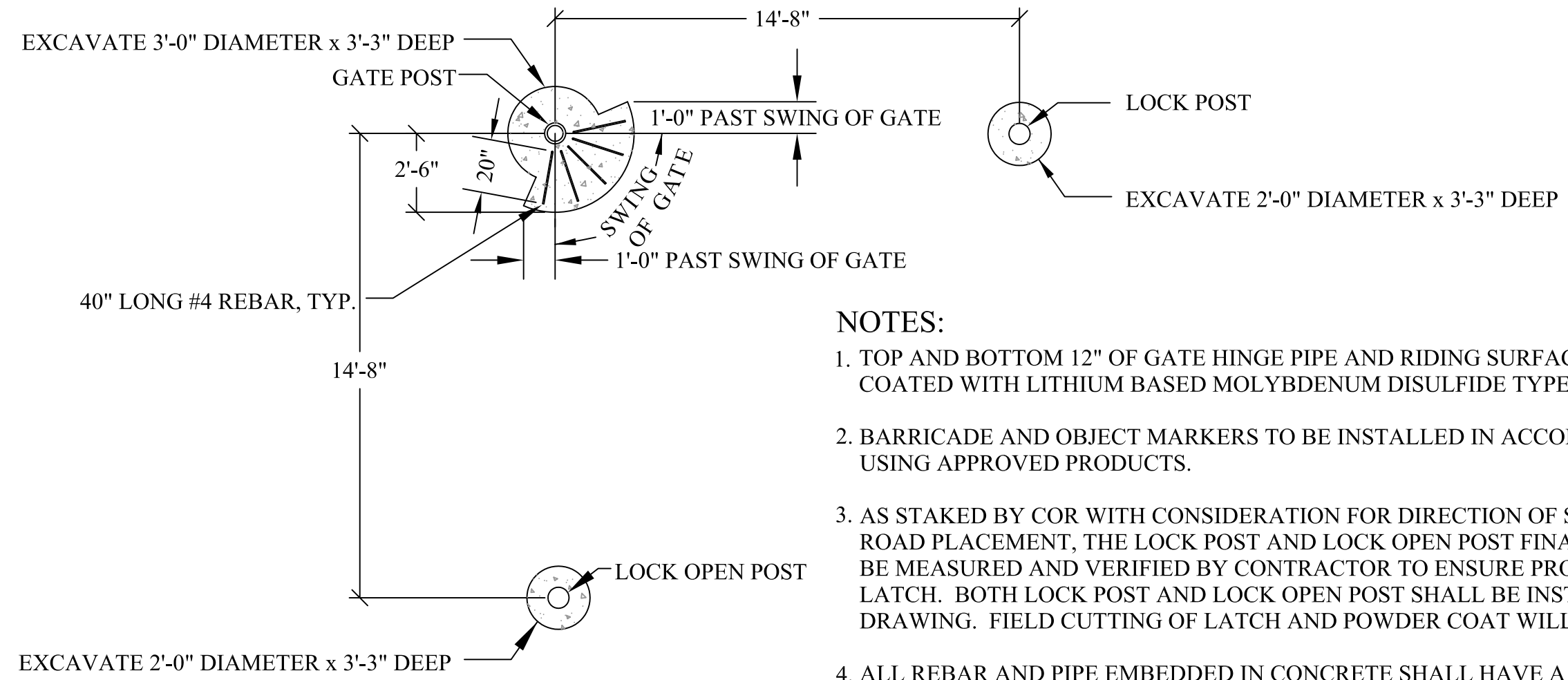
BAER GATE SPECIFICATIONS

Version: 2.0 12/19/01 FILE: USFS-Daizer(24x36).dwg



INSTALL 18 INCH LONG #8 REBAR THROUGH HOLE CUT IN POST, PROTRUDING EQUALLY EACH SIDE OF POST, TYP., GOVERNMENT PROVIDED. TIE IN PLACE WITH WIRE.

INSTALL 18 INCH LONG #8 REBAR THROUGH HOLE CUT IN POST, PROTRUDING EQUALLY EACH SIDE OF POST, TYP., GOVERNMENT PROVIDED. TIE IN PLACE WITH WIRE.



NOTES (CONT'D.):

5. CONCRETE SHALL BE MINIMUM 3000 PSI AND SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 602, METHOD C, IN THE EM-7720-100 FOREST SERVICE SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES.
6. CONCRETE SUPPORTS SHALL BE USED TO SET ALL POSTS BEFORE CONCRETE PLACEMENT, TO PROVIDE 3 INCH MINIMUM COVER.
7. CONTRACTOR SHALL ALLOW CONCRETE TO SET A MINIMUM OF 24 HOURS BEFORE HANGING GATE ON GATE POST.

NOTES:

1. TOP AND BOTTOM 12" OF GATE HINGE PIPE AND RIDING SURFACES TO BE LIBERALLY COATED WITH LITHIUM BASED MOLYBDENUM DISULFIDE TYPE GREASE.
2. BARRICADE AND OBJECT MARKERS TO BE INSTALLED IN ACCORDANCE WITH MUTCD USING APPROVED PRODUCTS.
3. AS STAKED BY COR WITH CONSIDERATION FOR DIRECTION OF SWING AND SIDE OF ROAD PLACEMENT, THE LOCK POST AND LOCK OPEN POST FINAL LOCATIONS SHALL BE MEASURED AND VERIFIED BY CONTRACTOR TO ENSURE PROPER ALIGNMENT OF LATCH. BOTH LOCK POST AND LOCK OPEN POST SHALL BE INSTALLED AS SHOWN ON DRAWING. FIELD CUTTING OF LATCH AND POWDER COAT WILL NOT BE ALLOWED.
4. ALL REBAR AND PIPE EMBEDDED IN CONCRETE SHALL HAVE A 3 INCH MINIMUM COVER.

USDA
FOREST
SERVICE

PACIFIC
SOUTHWEST
REGION
R5

NO.	DATE	REVISIONS

FOREST: CLEVELAND NATIONAL FOREST
PROJECT NAME: 2007 BAER GATE INSTALLATION
HARRIS, POOMACHA/WITCH
DRAWING NAME: GATE INSTALLATION DETAILS

A/E

PROJECT NUMBER

DESIGNED BY
MM

DRAWN BY
TM

CHECKED BY

CHECKED BY

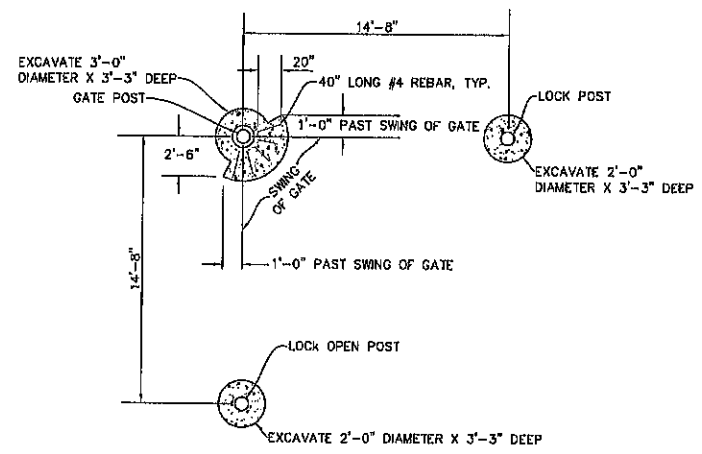
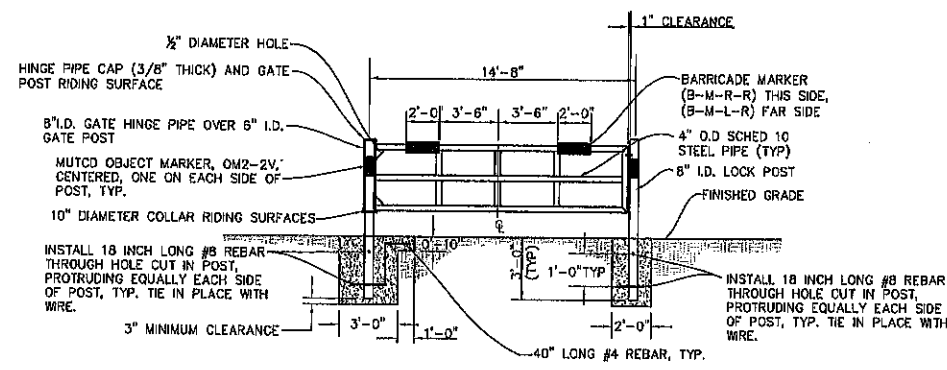
DATE
10DEC2007

SCALE
1/4" = 1' - 0"

DRAWING

SHEET **1** OF **1**

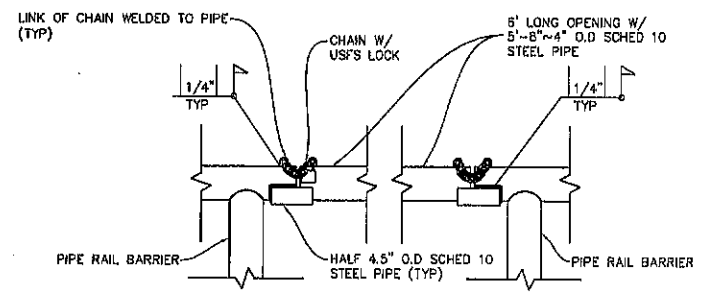
ADDITIONAL USFS GATE SPECIFICATIONS



USFS GATE

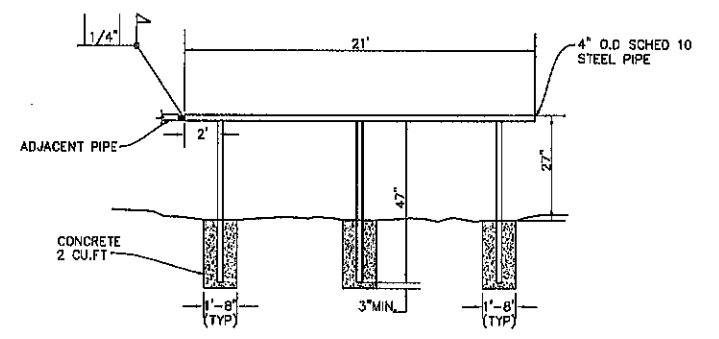
NOTES:

1. TOP AND BOTTOM 12" OF GATE HINGE PIPE AND RIDING SURFACES TO BE LIBERALLY COATED WITH LITHIUM BASED MOLYBDENUM DISULFIDE TYPE GREASE.
2. BARRICADE AND OBJECT MARKERS TO BE INSTALLED IN ACCORDANCE WITH MUTCD USING APPROVED PRODUCTS.
3. AS STAKED WITH CONSIDERATION FOR DIRECTION OF SWING AND SIDE OF ROAD PLACEMENT, THE LOCK POST AND LOCK OPEN POST FINAL LOCATIONS SHALL BE MEASURED AND VERIFIED BY CONTRACTOR TO ENSURE PROPER ALIGNMENT OF LATCH. BOTH LOCK POST AND LOCK OPEN POST SHALL BE INSTALLED AS SHOWN ON DRAWING. FIELD CUTTING OF LATCH AND POWER COAT WILL NOT BE ALLOWED.
4. ALL REBAR AND PIPE EMBEDDED IN CONCRETE SHALL HAVE A 3 INCH MINIMUM COVER.
5. CONCRETE SHALL BE MINIMUM 3000 PSI AND SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 602, METHOD C, IN THE EM-7720-100 FOREST SERVICE SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES.
6. CONCRETE SUPPORTS SHALL BE USED TO SET ALL POSTS BEFORE CONCRETE PLACEMENT, TO PROVIDE 3 INCH MINIMUM COVER.
7. CONTRACTOR SHALL ALLOW CONCRETE TO SET A MINIMUM OF 24 HOURS BEFORE HANGING GATE ON GATE POST.
8. USFS SHALL SUPPLY LOCKS FOR ALL USFS GATES.



PIPE RAIL BARRIER MAINTENANCE OPENING

NTS

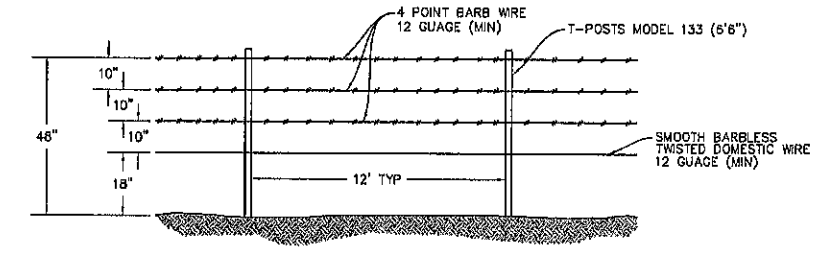


NOTES:

1. 21-FOOT SECTION W/3 POSTS AND RAIL ARE 4" O.D. SCHEDULE 10 STEEL PIPE

PIPE RAIL BARRIERS

NTS

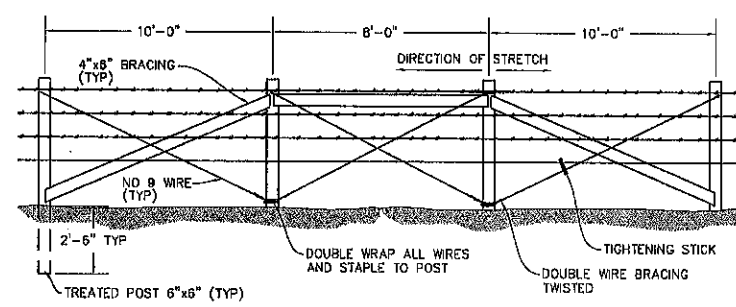


BARB WIRE FENCE

NTS

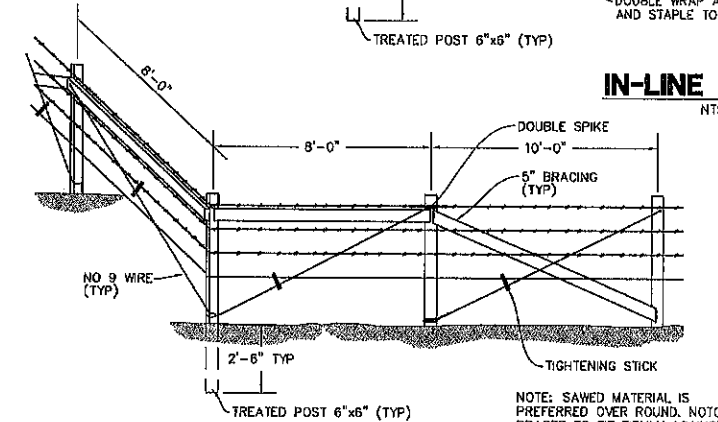
THE CONTRACTOR WILL BE REQUIRED TO PROVIDE ALL EQUIPMENT, SUPPLIES, MATERIALS, AND LABOR TO INSTALL BARB WIRE FENCE.

1. H-BRACES WILL BE INSTALLED, AT A MINIMUM, EVERY 500'
2. H-BRACES WILL BE INSTALLED AT TOP AND BOTTOM OF GRADES WHERE THE GRADE IS GREATER THAN 12 PERCENT.



IN-LINE H-BRACE

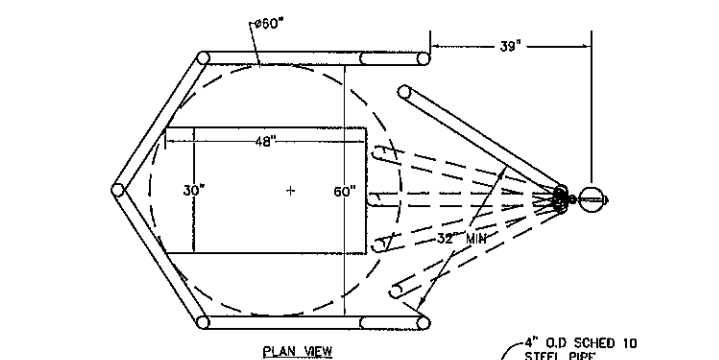
NTS



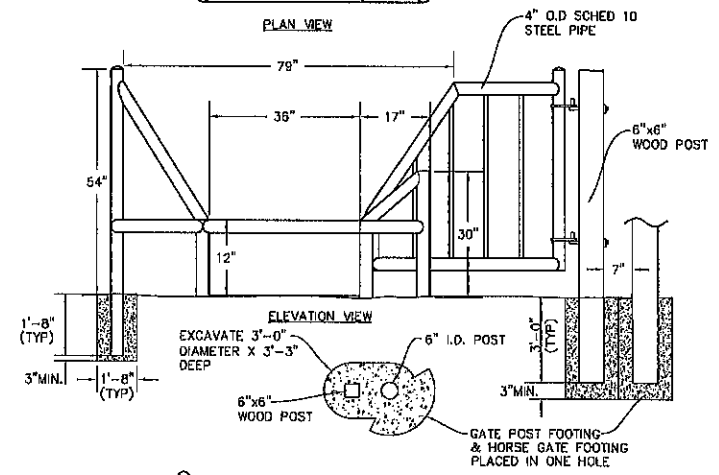
CORNER BRACE

NTS

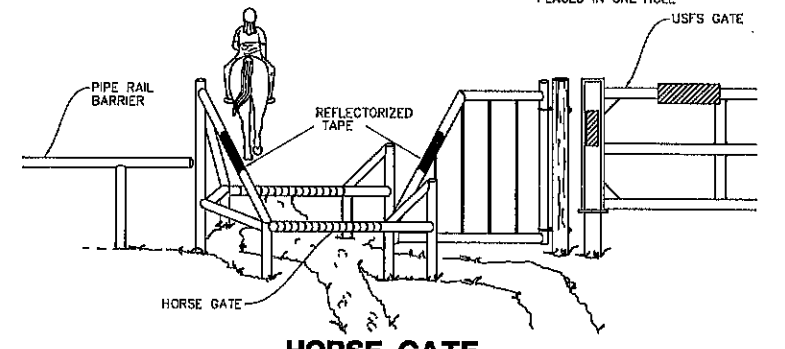
NOTE: SAWED MATERIAL IS PREFERRED OVER ROUND. NOTCH BRACES TO FIT FIRMLY AGAINST POSTS.



PLAN VIEW



ELEVATION VIEW



HORSE GATE

NTS

- NOTES:
1. INSIDE DIMENSIONS ARE MINIMUM CLEAR DISTANCES REQUIRED TO MEET ACCESSIBILITY STANDARDS.

REVISIONS

NO.	WORK DONE	DATE	BY	APPR.	NO.	WORK DONE	DATE	BY	APPR.	NO.	WORK DONE	DATE	BY	APPR.	NO.

SAN DIEGO GAS & ELECTRIC COMPANY
SAN DIEGO, CALIFORNIA

PROPOSED USFS GATE DETAILS

DRAWN BY: PB	DATE:	SCALE: NTS	NO.:	REV. 0
CHECKED BY: MB	DATE:			
APPROVED BY:	DATE:			
CAD NO.:				

SPL-G-DETAILS

P:\0519\0508E SPL-G-DETAILS\PLANS\USFS GATES\BARRIERS\SPL-G-DETAILS.dwg [Oct 07 2010] 10:53



Bureau Veritas North America
11850 West Elmwood Court Suite 100
San Diego, CA 92127-1624
Tel: (650) 451-9100 Fax: (650) 451-2846
www.us.bureauveritas.com

ATTACHMENT B: GATE PLAN SCHEDULE

CNF Gate Plan Submittal			Gate Plan																01-May-17	
Activity ID	Activity Name	Start	Finish	2017				2018				2019				2020				2021
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
CNF Gate Plan Submittal		01-Sep-16 A	16-Oct-19	▼ 16-Oct-19, CNF Gate Plan Submittal																
Power Line		01-Sep-16 A	16-Oct-19	▼ 16-Oct-19, Power Line																
TL625B		01-Sep-16 A	02-Aug-17	▼ 02-Aug-17, TL625B																
625B-1000	Prepare and Submit NTP Request	01-Sep-16 A		◆ Prepare and Submit NTP Request																
625B-1010	Complete overhead and/or underground construction	21-Sep-16 A	30-Jun-17	■ Complete overhead and/or underground construction																
625B-1020	Complete required road restoration	03-Jul-17	02-Aug-17	■ Complete required road restoration																
625B-1040	Segment complete		02-Aug-17	◆ Segment complete																
TL629E		01-Sep-16 A	28-Aug-17	▼ 28-Aug-17, TL629E																
629E-1000	Prepare and Submit NTP Request	01-Sep-16 A		◆ Prepare and Submit NTP Request																
629E-1010	Complete overhead and/or underground construction	26-Sep-16 A	26-Jul-17	■ Complete overhead and/or underground construction																
629E-1020	Complete required road restoration	27-Jul-17	28-Aug-17	■ Complete required road restoration																
629E-1040	Segment complete		28-Aug-17	◆ Segment complete																
TL6931		12-Dec-16 A	07-Aug-17	▼ 07-Aug-17, TL6931																
6931-1000	Prepare and Submit NTP Request	12-Dec-16 A	14-Mar-17 A	■ Prepare and Submit NTP Request																
6931-1010	Complete overhead and/or underground construction	15-Mar-17 A	17-Jul-17	■ Complete overhead and/or underground construction																
6931-1020	Complete required road restoration	06-Jul-17	07-Aug-17	■ Complete required road restoration																
6931-1040	Segment complete		07-Aug-17	◆ Segment complete																
TL682		30-Jan-17 A	28-Sep-18	▼ 28-Sep-18, TL682																
682-1000	Prepare and Submit NTP Request	30-Jan-17 A	05-May-17	■ Prepare and Submit NTP Request																
682-1010	Complete overhead and/or underground construction	08-May-17	07-Sep-18	■ Complete overhead and/or underground construction																
682-1020	Complete required road restoration	02-Jul-18	28-Sep-18	■ Complete required road restoration																
682-1040	Segment complete		28-Sep-18	◆ Segment complete																
TL629A		18-Jan-18	09-Oct-18	▼ 09-Oct-18, TL629A																
629A-1000	Prepare and Submit NTP Request	18-Jan-18*	06-Feb-18	■ Prepare and Submit NTP Request																
629A-1010	Complete overhead and/or underground construction	07-Feb-18	28-Aug-18	■ Complete overhead and/or underground construction																
629A-1020	Complete required road restoration	08-Aug-18	18-Sep-18	■ Complete required road restoration																
629A-1030	Install Forest Service approved gate locations	19-Sep-18	09-Oct-18	■ Install Forest Service approved gate locations																
629A-1040	Segment complete		09-Oct-18	◆ Segment complete																
TL625D		05-Feb-18	19-Oct-18	▼ 19-Oct-18, TL625D																
625D-1000	Prepare and Submit NTP Request	05-Feb-18*	24-Feb-18	■ Prepare and Submit NTP Request																
625D-1010	Complete overhead and/or underground construction	26-Feb-18	07-Sep-18	■ Complete overhead and/or underground construction																
625D-1020	Complete required road restoration	20-Aug-18	28-Sep-18	■ Complete required road restoration																
625D-1030	Install Forest Service approved gate locations	01-Oct-18	19-Oct-18	■ Install Forest Service approved gate locations																
625D-1040	Segment complete		19-Oct-18	◆ Segment complete																
TL629D		23-May-18	26-Dec-18	▼ 26-Dec-18, TL629D																
629D-1000	Prepare and Submit NTP Request	23-May-18*	11-Jun-18	■ Prepare and Submit NTP Request																
629D-1010	Complete overhead and/or underground construction	12-Jun-18	14-Nov-18	■ Complete overhead and/or underground construction																
629D-1020	Complete required road restoration	25-Oct-18	05-Dec-18	■ Complete required road restoration																
629D-1030	Install Forest Service approved gate locations	06-Dec-18	26-Dec-18	■ Install Forest Service approved gate locations																
629D-1040	Segment complete		26-Dec-18	◆ Segment complete																

◆ Milestone ■ Construction
 ▼ Summary ■ Restoration
 ■ NTP ■ Forest Service Gates (If Applicable)



Activity ID	Activity Name	Start	Finish	Gate Plan																			
				2017				2018				2019				2020				2021			
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
TL629C 13-Feb-19, TL629C																							
629C-1000	Prepare and Submit NTP Request	06-Jul-18*	25-Jul-18	■ Prepare and Submit NTP Request																			
629C-1010	Complete overhead and/or underground construction	26-Jul-18	02-Jan-19	■ Complete overhead and/or underground construction																			
629C-1020	Complete required road restoration	13-Dec-18	23-Jan-19	■ Complete required road restoration																			
629C-1030	Install Forest Service approved gate locations	24-Jan-19	13-Feb-19	■ Install Forest Service approved gate locations																			
629C-1040	Segment complete		13-Feb-19	◆ Segment complete																			
TL625C 24-May-19, TL625C																							
625C-1000	Prepare and Submit NTP Request	23-Aug-18*	11-Sep-18	■ Prepare and Submit NTP Request																			
625C-1010	Complete overhead and/or underground construction	12-Sep-18	12-Apr-19	■ Complete overhead and/or underground construction																			
625C-1020	Complete required road restoration	25-Mar-19	03-May-19	■ Complete required road restoration																			
625C-1030	Install Forest Service approved gate locations	06-May-19	24-May-19	■ Install Forest Service approved gate locations																			
625C-1040	Segment complete		24-May-19	◆ Segment complete																			
RFS TL626 22-May-19, RFS TL626																							
RFS626-1000	Prepare and Submit NTP Request	02-Nov-18*	21-Nov-18	■ Prepare and Submit NTP Request																			
RFS626-1010	Complete RFS	22-Nov-18	10-Apr-19	■ Complete RFS																			
RFS626-1020	Complete required road restoration	21-Mar-19	01-May-19	■ Complete required road restoration																			
RFS626-1030	Install Forest Service approved gate locations	02-May-19	22-May-19	■ Install Forest Service approved gate locations																			
RFS626-1040	Segment complete		22-May-19	◆ Segment complete																			
TL6923 16-Oct-19, TL6923																							
6923-1000	Prepare and Submit NTP Request	28-Jan-19*	16-Feb-19	■ Prepare and Submit NTP Request																			
6923-1010	Complete overhead and/or underground construction	18-Feb-19	04-Sep-19	■ Complete overhead and/or underground construction																			
6923-1020	Complete required road restoration	15-Aug-19	25-Sep-19	■ Complete required road restoration																			
6923-1030	Install Forest Service approved gate locations	26-Sep-19	16-Oct-19	■ Install Forest Service approved gate locations																			
6923-1040	Segment complete		16-Oct-19	◆ Segment complete																			

◆ Milestone ■ Construction
 ▼ Summary ■ Restoration
 ■ NTP ■ Forest Service Gates (If Applicable)



APPENDIX A: TL 629E GATE MAP BOOK

Per the USFS, the two gates that were previously proposed for this segment are no longer required.

APPENDIX B: TL 625B GATE MAP BOOK

Per the USFS, no gates are required for this segment.

APPENDIX C: TL 682 GATE MAP BOOK

Per the USFS, no gates are required for this segment.

APPENDIX D: TL 6931 GATE MAP BOOK

**SDG&E exclusive-use access roads along this segment do not occur on USFS-managed land;
therefore, no gates are required.**

APPENDIX E: TL 626 GATE MAP BOOK

(WILL BE PROVIDED AS NEEDED PRIOR TO CONSTRUCTION OF PROJECT COMPONENT)

APPENDIX F: TL 625D GATE MAP BOOK

(WILL BE PROVIDED AS NEEDED PRIOR TO CONSTRUCTION OF PROJECT COMPONENT)

APPENDIX G: TL 629A GATE MAP BOOK

(WILL BE PROVIDED AS NEEDED PRIOR TO CONSTRUCTION OF PROJECT COMPONENT)

APPENDIX H: TL 629C GATE MAP BOOK

(WILL BE PROVIDED AS NEEDED PRIOR TO CONSTRUCTION OF PROJECT COMPONENT)

APPENDIX I: TL 629D GATE MAP BOOK

(WILL BE PROVIDED AS NEEDED PRIOR TO CONSTRUCTION OF PROJECT COMPONENT)

APPENDIX J: TL 6923 GATE MAP BOOK

(WILL BE PROVIDED AS NEEDED PRIOR TO CONSTRUCTION OF PROJECT COMPONENT)

APPENDIX K: TL 625C GATE MAP BOOK

(WILL BE PROVIDED AS NEEDED PRIOR TO CONSTRUCTION OF PROJECT COMPONENT)

