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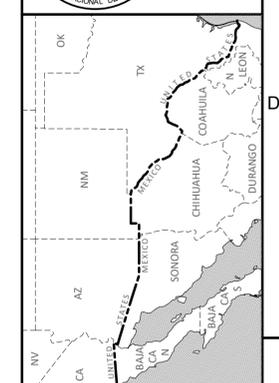
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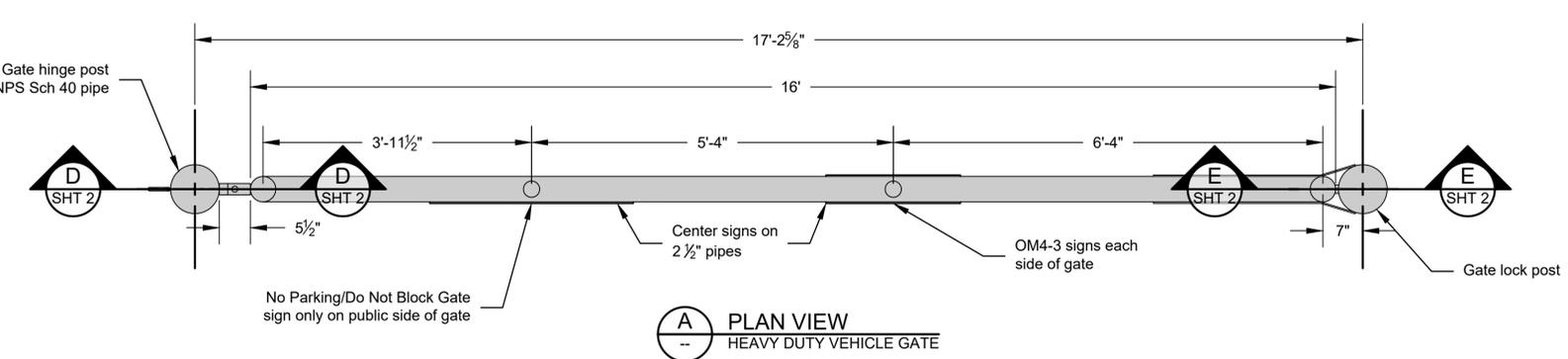
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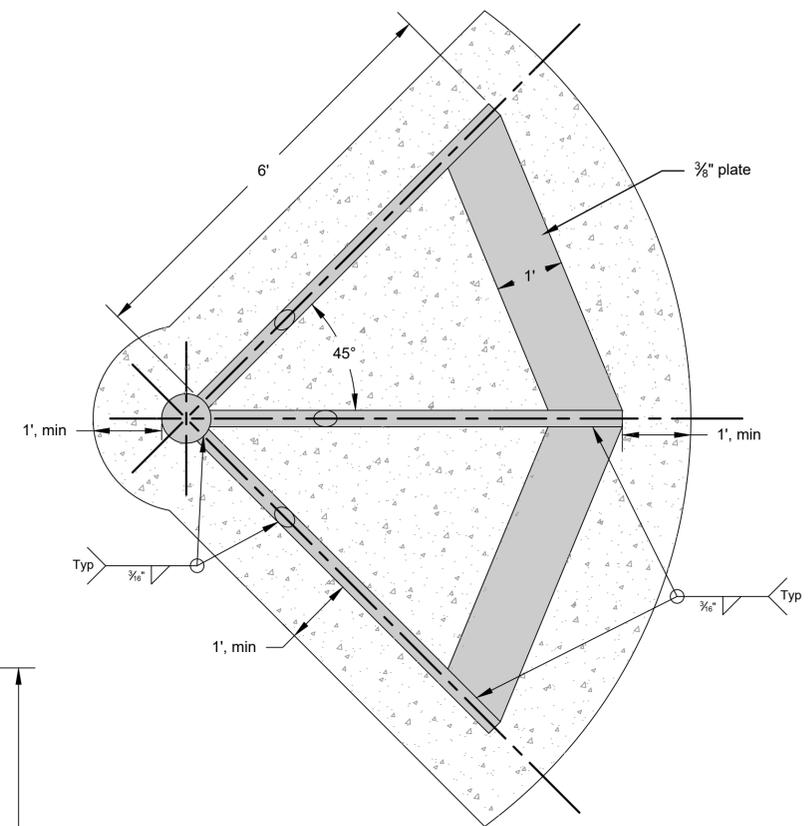
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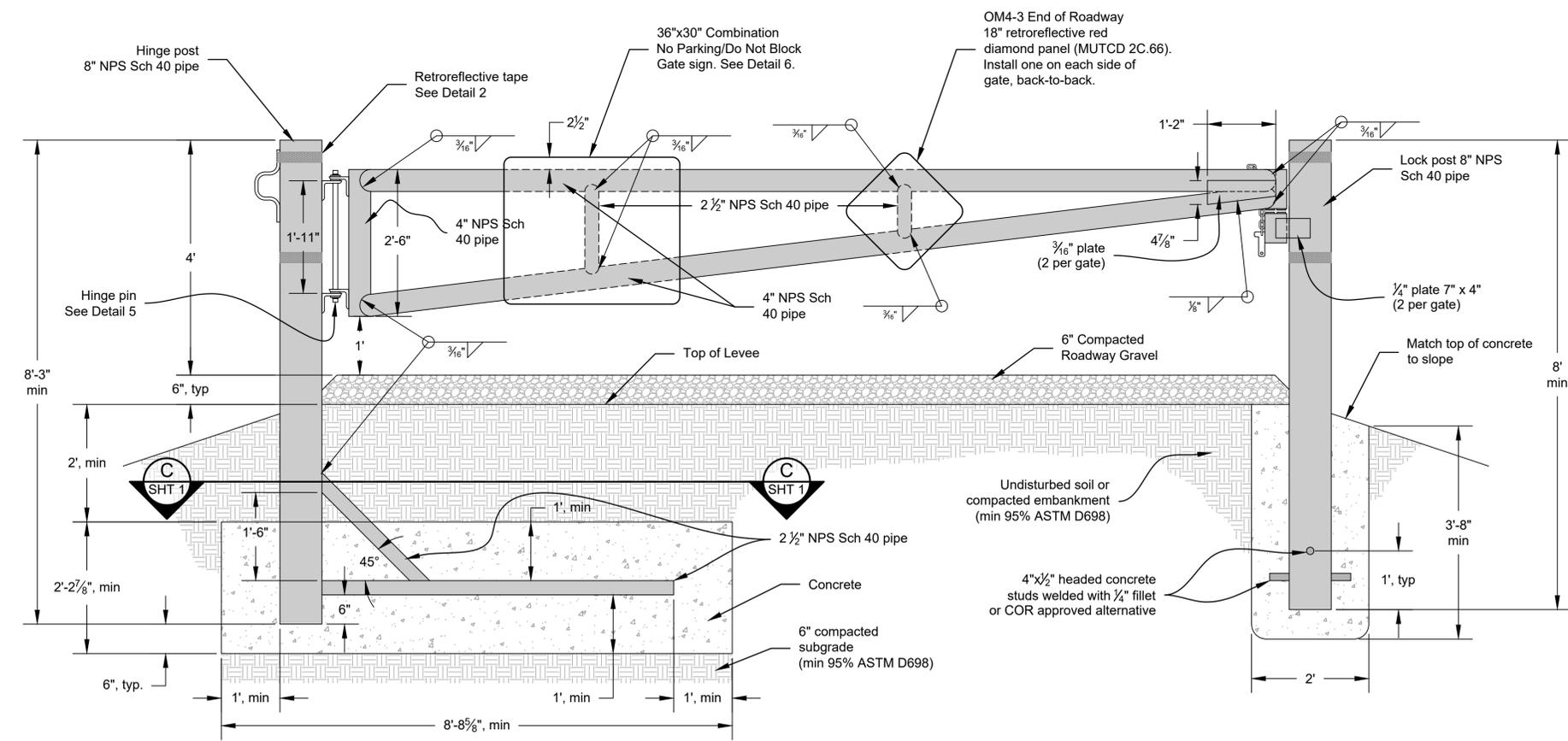
INTERNATIONAL BOUNDARY AND WATER COMMISSION  
UNITED STATES AND MEXICO  
RIO GRANDE CANALIZATION PROJECT  
RIO GRANDE RECTIFICATION PROJECT  
STANDARD DRAWING  
HEAVY DUTY VEHICULAR GATE



**A** PLAN VIEW  
HEAVY DUTY VEHICLE GATE



**C** PLAN VIEW  
GATE POST FOOTING



**B** PROFILE  
HEAVY DUTY VEHICLE GATE

- NOTES:**
- All concrete shall be finished to drain water away from posts.
  - Minimum 3,000 psi concrete shall be used to install posts.
  - Top of gate shall be horizontal and both gate posts shall be of equal height above the levee.
  - All posts shall be installed plumb.
  - All pipe shall be Schedule 40 and shall meet ASTM A53 (Grade A or B), ASTM A106 (Grade A, B, or C), or ASTM F1083 (regular or high strength).
  - Welds shall meet American Welding Society (AWS) D1.1.
  - OM4-3 End of Roadway signs shall conform to Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition with revisions 1 and 2.
  - No Parking/Do Not Block Gate sign shall conform to Detail 6 on Sheet 3 based upon MUTCD and Standard Highway Signs (SHS), 2004 Edition.
  - Sign sheeting shall meet or exceed ASTM D4956-09 Type III, IV, VIII, or IX. Engineer Grade material is not allowed.
  - No more than two 3/8" Ø holes may be drilled through each 2 1/2" NPS Sch 40 pipe to install the signs.
  - Prismatic reflective tape shall meet Federal Motor Vehicle Safety Standard 217 (49 CFR 571.217) and shall be yellow, fluorescent yellow, or school bus yellow in color. Tape shall have a minimum 10 year warranty or expected life span.
  - Prismatic reflective tape shall be installed on all posts after paint has completely dried. Tape shall be wrapped completely around posts with a minimum 1" overlap.

Additional notes on Sheet 2.

**STANDARD DRAWING**

REV.	DESCRIPTION	DATE
5	Added subsurface wing post footing. Deleted counterweight. Added No Parking sign. Renumbered sections and details.	Jan 4, 2022 Andrea Glover, PE
4	Added new Do Not Block Gate combination sign. Increased length of 2 1/2" NPS Sch 40 pipe from 1/4" to 1/2". Other minor changes.	Mar 1, 2021 Andrea Glover, PE
3	Changed 1/4" plate to new standard USBWC barrier. Added chain. Corrected level sizes.	Mar 29, 2018 Andrea Glover, PE
2	Released gate from 6' to 1' off ground.	May 6, 2012 Andrea Glover, PE
1	Added deadman counterweight.	Nov 2011 Andrea Glover, PE

A.D.S./A.G.  
DESIGNED  
Andrea Glover  
DRAWN

CHECKED

TECHNICAL APPROVAL

ADMIN APPROVAL

USIBWC HQ-CON 1-4-2022

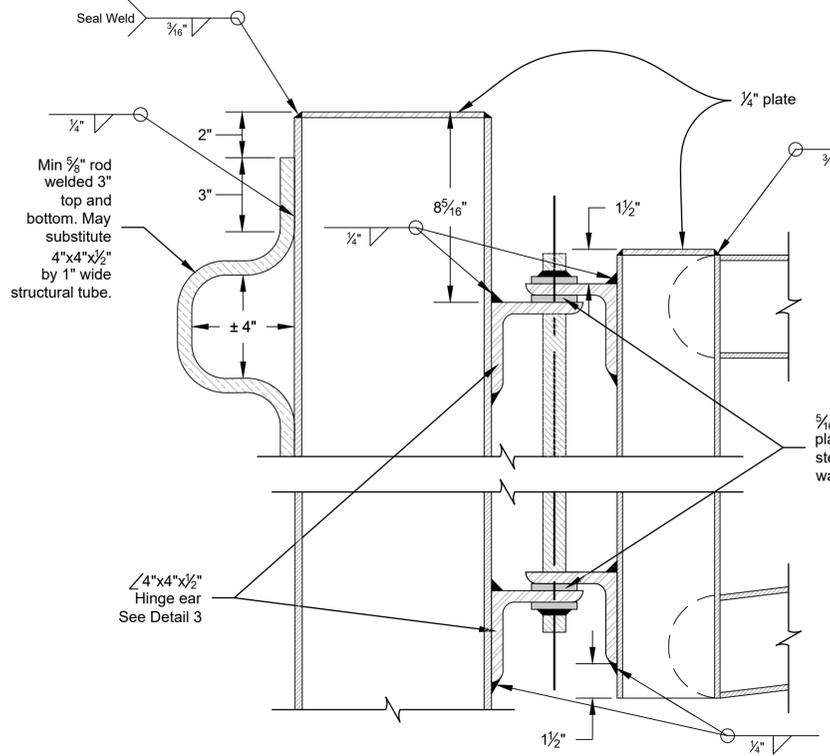
**GATE MANUFACTURE AND INSTALLATION**

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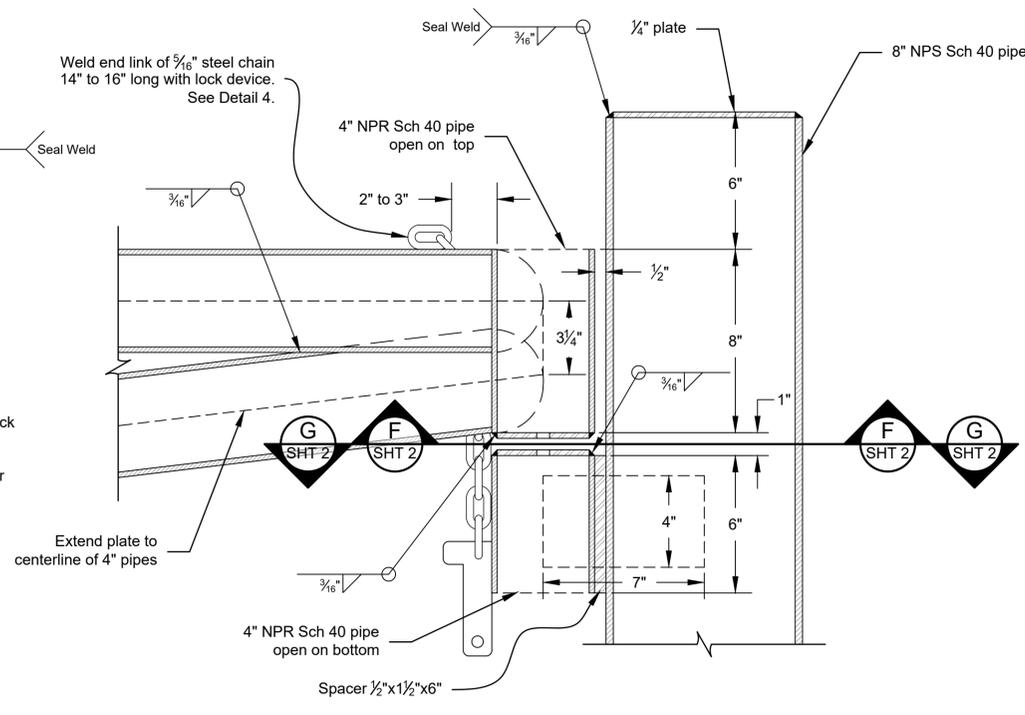
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USIBWC DRAWING NUMBER  
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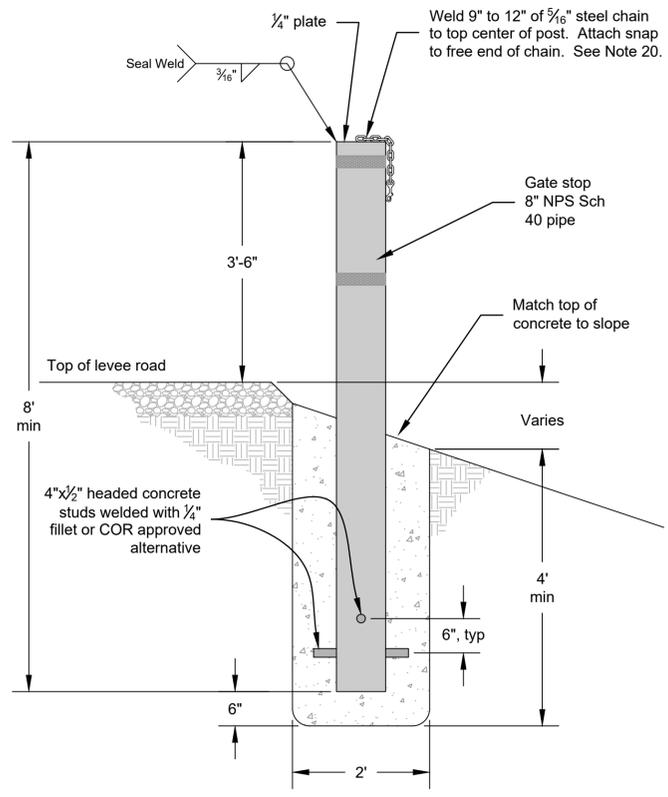
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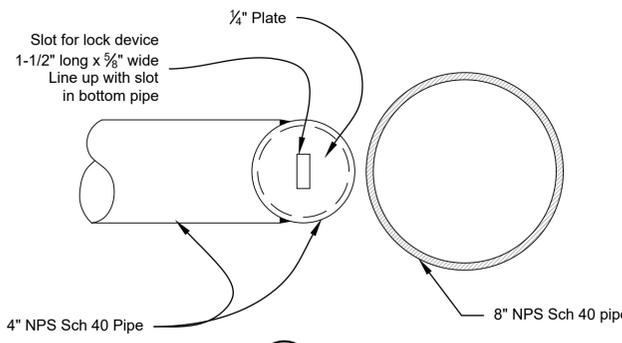
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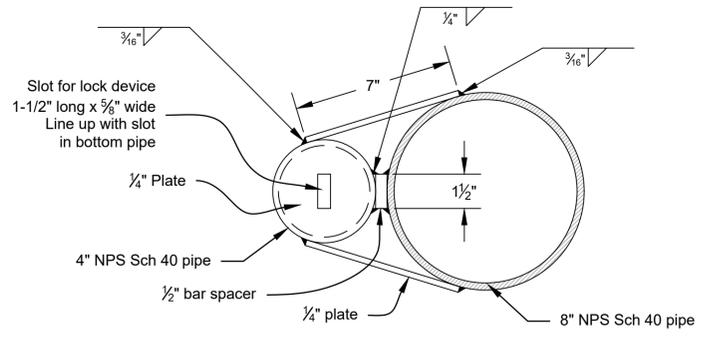
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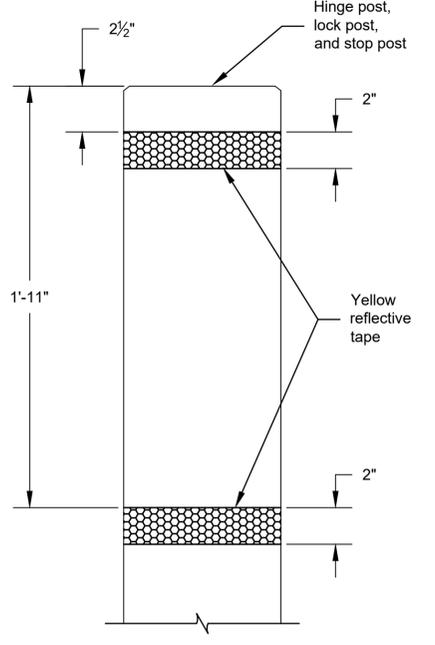
**1 GATE STOP POST**  
(Two per gate)



**F SECTION**  
SHT 2



**G SECTION**  
SHT 2



**2 REFLECTIVE TAPE DETAILS**  
Apply to all posts

- NOTES:**  
Continued from Sheet 1.
17. The gate and all posts shall be painted. Locking device, hinge pin, snaps, and chains shall not be painted.
    - 17.1. To ensure the greatest adhesion with the concrete, the portions of the gate being embedded in concrete shall not be painted. An overlap on one to two inches of concrete onto the paint is acceptable to ensure that primer is not exposed to the elements.
  18. Coating System (Paint) Requirements
    - 18.1. Color shall be ANSI Z535.1 safety yellow (Pantone 109C), gloss or high-gloss finish.
    - 18.2. Based upon South Florida, Central Arizona, ASTM D4141, ASTM D4364, or ASTM D7869 testing representing a five (5) year minimum test cycle, coating shall meet the following requirements:
 

18.2.1. Fading (ASTM D2244)	max, 5E color change
18.2.2. Chalking (ASTM D4214)	max, 8 chalk rating
18.2.3. Gloss retention (ASTM D523)	greater than 30%
18.2.4. Erosion (ASTM B244)	max, 10% loss
18.2.5. Dry Film Hardness (ASTM D3363)	F with no rupture
18.2.6. Film Adhesion (ASTM D3359)	4B or 5B
18.2.7. Abrasion Resistance (ASTM D968)	greater than 20

- 18.3. To aid in comparisons between tests, a year shall be assumed to equal 275 MJ/m<sup>2</sup>.
- 18.4. Paint that meets AAMA 2604 or AAMA 2605 (2017 or newer) meets these requirements.
19. All gate metal shall be prepared per coating manufacturer's requirements prior to application of primer. If no metal preparation is specified by the coating manufacturer, clean gate metal per SSPC SP-10 or SP10 (WAB).
20. Snap shall be at least 4 1/2" long with 1/2" opening. Snap may be open end snap installed on chain or rigid end with chain link welded closed around snap. Ensure snap will close completely around link welded to top of gate (see Section E).
21. For general distance from crossroads for gate installation, see USIBWC Standard Drawing 26424-005-xx Detail 11. Gates are preferred approximately 75 feet from the crossroad to allow a semi truck and lowboy to park without extending into traffic. For locations where a semi truck and trailer cannot turn onto the levee, gates are preferred 50 feet from the crossroad to allow a pickup truck and flatbed trailer to park without extending into traffic.

International Boundary & Water Commission  
United States Section

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INTERNATIONAL BOUNDARY AND WATER COMMISSION  
 UNITED STATES AND MEXICO  
**RIO GRANDE CANALIZATION PROJECT**  
**RIO GRANDE RECTIFICATION PROJECT**  
**STANDARD DRAWING**  
**HEAVY DUTY VEHICULAR GATE**

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REV.	DESCRIPTION OF REVISION	DATE
5	Added subsurface wing post footing. Deleted counterweight. Added No Parking sign. Renumbered sections and details.	Jan 4, 2022 Andrea Glover, PE
4	Added new Do Not Block Gate combination sign. Increased diameter of lock pins from 1/4" to 3/8". Other minor changes.	Mar 1, 2021 Andrea Glover, PE
3	Changed drawing to use standard USIBWC border. Added chain. Corrected weld sizes.	Mar 29, 2018 Andrea Glover, PE
2	Released gate from 6' to 1' off ground.	May 6, 2012 Andrea Glover, PE
1	Added deadman counterweight.	Nov 2011 Andrea Glover, PE

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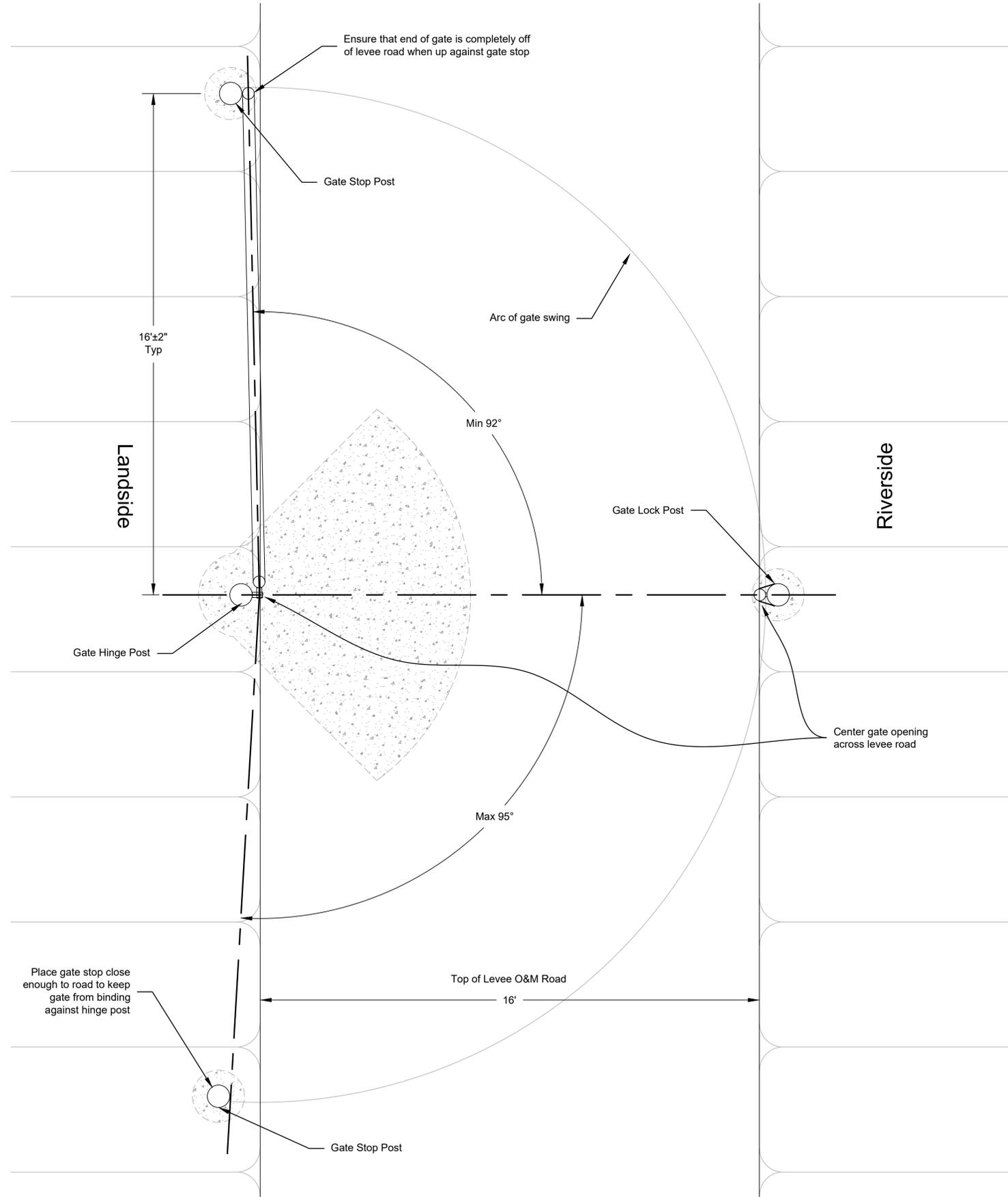
**A.D.S.A.G. DESIGNED**  
 Andrea Glover  
**DRAWN**  
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**TECHNICAL APPROVAL**  
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**ADMIN APPROVAL**  
 USIBWC HQ-COON 1-4-2022

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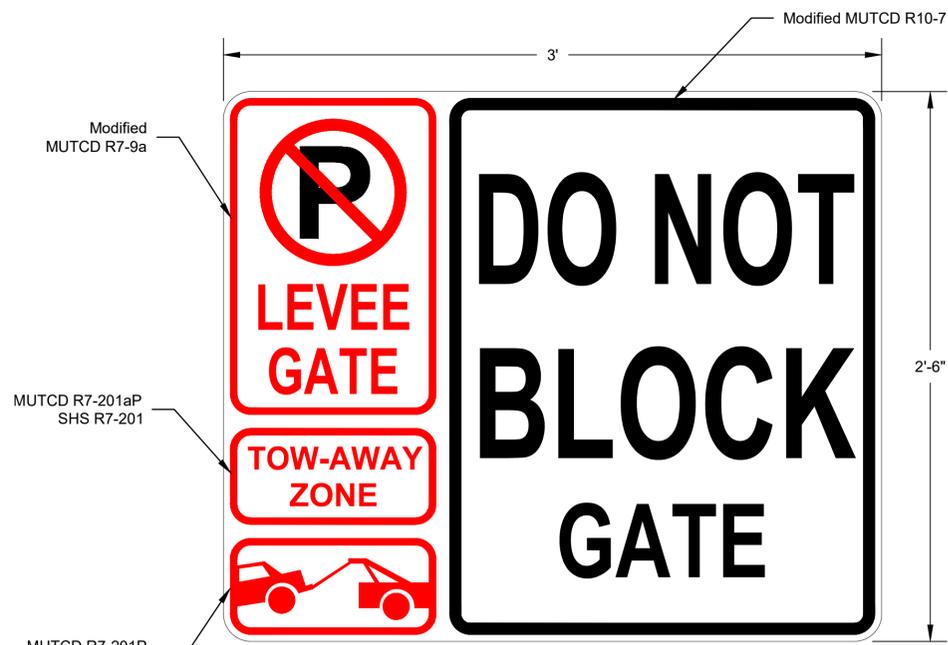
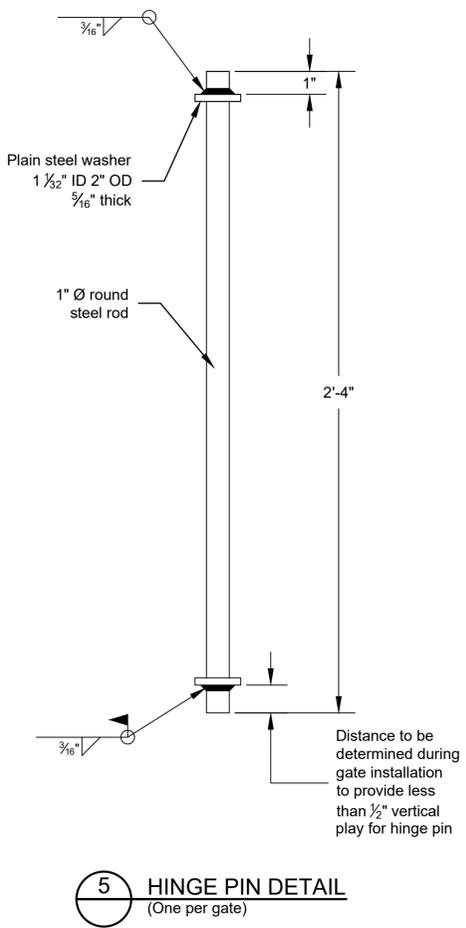
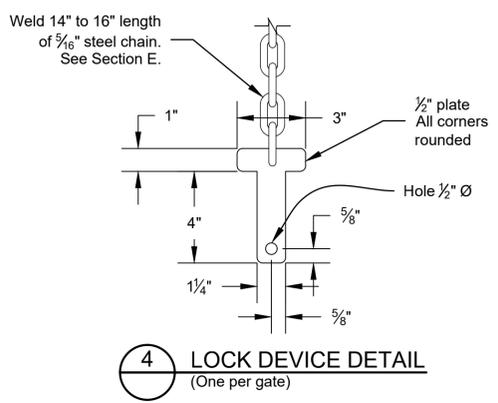
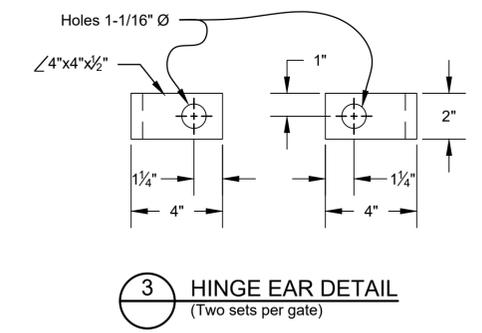
**GATE MANUFACTURE AND INSTALLATION**

IBF/RFP NUMBER	CONTRACT NUMBER
CONTRACTOR/DESIGNER DRAWING NUMBER	
USIBWC DRAWING NUMBER	
<b>26409-002-05</b>	

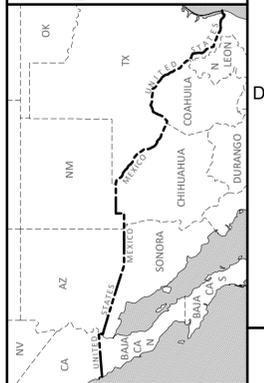
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**H** PLAN VIEW OF GATE INSTALLATION



**NOTES:**  
 See Sheets 1 and 2 for notes.



INTERNATIONAL BOUNDARY AND WATER COMMISSION  
 UNITED STATES AND MEXICO  
 UNITED STATES SECTION

RIO GRANDE CANALIZATION PROJECT  
 RIO GRANDE RECTIFICATION PROJECT

STANDARD DRAWING  
 HEAVY DUTY VEHICULAR GATE

REV.	DESCRIPTION/DATE
5	Jan 4, 2022 Added subsurface swing post footing. Deleted counterweight. Added No Parking sign. Renumbered sections and details. Andrea Glover, PE
4	Mar 1, 2021 Added new Do Not Block Gate combination sign. Increased counterweight. Added new lock pins from 1/4" to 5/8" diameter. Andrea Glover, PE
3	Mar 29, 2018 Changed drawing to use standard USBWC border. Added chain. Corrected level sizes. Andrea Glover, PE
2	May 8, 2012 Released gate from 6' to 1' off ground. Andrea Glover, PE
1	Nov 2011 Added deadman counterweight. Andrea Glover, PE

A.D.S.A.G.  
 DESIGNED  
 Andrea Glover  
 DRAWN

CHECKED

TECHNICAL APPROVAL

ADMIN APPROVAL

USIBWC HQ-CON 1-4-2022

GATE MANUFACTURE AND INSTALLATION

IB/RFP NUMBER CONTRACT NUMBER

CONTRACTOR/DESIGNER DRAWING NUMBER

USIBWC DRAWING NUMBER  
**26409-003-05**