

February 21, 2006

TO: Members of the MAG Specifications and Details Committee

FROM: Robert Herz, Maricopa County DOT, Chairman

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF AGENDA

Wednesday, March 1, 2006, 1:30 p.m.  
MAG Office, Second Floor, Cholla Room  
302 North First Avenue, Phoenix

The meeting of the MAG Specifications and Details Committee will be held at the place and time indicated above. The agenda for the meeting is provided below. **Please park in the garage under the Compass Bank Building. Bring your ticket to the meeting, parking will be validated. For those using transit, the Regional Public Transportation Authority will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage.** Please call me at (602) 506-4760 if you have questions about the upcoming meeting.

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AGENDA

<u>ITEM</u>	<u>COMMITTEE ACTION REQUESTED</u>
1. <u>Call to Order</u>	1. No action required.
2. <u>Approval of February 1, 2006 Meeting Minutes</u>	2. Corrections and approval of February 1, 2006 minutes.
3. <u>2006 Cases</u>	3. For Review, Discussion, and Submission of new cases for consideration.
4. <u>General Discussion</u>	4. For information and discussion.
5. <u>Adjournment</u>	5. No action required.

MEETING MINUTES FROM THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
STANDARD SPECIFICATIONS AND DETAILS COMMITTEE

February 1, 2006

Maricopa Association of Governments Office, Cholla Room  
302 North First Avenue  
Phoenix, Arizona

AGENCY MEMBERS

Jim Badowich, Avondale  
Sheina Hughes, Chandler  
Mark Weiner, Gilbert  
Wade Ansell, Glendale  
Tom Vassallo, Goodyear  
Bob Herz, MCDOT, Chairman  
Steven Borst, MCESD

Kelly Jensen, Mesa  
Maher M. Hazine, Peoria  
Jeff Van Skike, Phoenix (St. Trans.)  
\* Matthew Woodland, Phoenix (Water)  
\* Rodney Ramos, Scottsdale  
\* Don Moseley, Surprise  
James Bond, Tempe

ADVISORY MEMBERS

John Ashley, ACA  
Jeff Benedict, AGC  
Brian Gallimore, AGC  
Peter Kandaris, SRP, Vice Chairman  
\* Don Cornelison, ARPA

Don Green, ARPA  
Paul R. Nebeker, Independent  
William Ast, NUCA  
Dale Phelan, NUCA

MAG ADMINISTRATIVE STAFF

Gordon Tyus

\* Members not attending or represented by proxy.

GUESTS/VISITORS

Tom Holt, Vanguard ADA  
John Shi, MCDOT  
Michael Hook, Hanson Pipe  
Matt Childs, American Concrete Pipe Assoc.  
Alan Bohnenkamp, Arizona Corporation  
Commission, Pipeline Safety

Shari Liserman, ARPA  
N. H. Bennett, CUES  
Stew Waller, ACA  
Tom Rebozo, CUES

1. Call to Order

Chairman, Bob Herz, called the meeting to order at 1:32 p.m.

## 2. Approval of Minutes

The members reviewed the January 4, 2006 meeting minutes. Maher Hazine introduced a motion to accept the minutes as revised. Tom Vassallo seconded the motion. A voice vote of all ayes and no nays was recorded.

## 3. 2006 Cases

- a. **Case 06-01 – Safety Rail addition to Concrete Scupper Detail 206:** Updated revisions to Details 206-1 and 206-2 were handed out by Bob Herz (dated February 1, 2006, see attachments). New changes included a concrete curb at base of the safety rail, cross section detailing and revised construction notes. Committee discussion included possible reorganizing of notes and detailing to better show that the sidewalk and curb will be poured monolithically. Members were requested to review the changes as revised and return with comments for the next meeting.
- b. **Case 06-02 – Clarifications to Detail 440:** Revisions to Details 440-1, 440-2 and 440-3 (dated February 1, 2006, see attachments). Bob Herz proposed detail modifications that would add clarity by depicting electronic markers at the desired locations and using consistent names on drawings and in notes for electronic markers. Committee discussion included noting a maximum depth of 4 feet and a minimum depth of 2 feet for electronic ball markers. Members were requested to review the proposed changes and return with comments for the next meeting.
- c. **Case 06-03 – Miscellaneous Corrections:** Drafting correction to Details 533-3 and 533-4 (dated February 1, 2006, see attachments). Bob Herz proposed detail modifications to correct indicated coverage of section reference arrows. Members were requested to review the proposed changes and return with comments for the next meeting.

## 4. General Discussion:

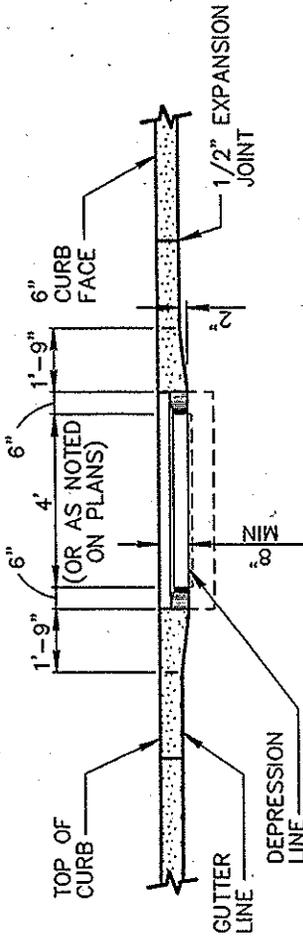
- a. Don Green presented a summary of the Asphalt Paving Technical Committee (APTC) review of MAG asphalt concrete materials and placement specifications. APTC will be recommending revisions to MAG Section 321 and 710 to address concerns raised by the construction and engineering communities. APTC proposes to present specific changes to MAG Section 321 and 710 and add a new Section 230 that will incorporate the remaining suggested changes. Upon completion of the presentation and some discussion, MAG committee members requested APTC prepare for the next meeting a detailed comparison of proposed changes with the existing specifications.
- b. Alan Bohnenkamp of the Arizona Corporation Commission Pipeline Safety Group was present to answer committee member questions on recent changes in the Blue Stake law. Mr. Bohnenkamp noted that the changes mainly focus on areas outside the right-of-way (apartments and mobile home parks) to stress compliance with Blue

Stake requirements. He provided some clarifications on use of multiple identification methods and ways to comply if facilities are difficult to locate. He mentioned that there is no specific definition for when the requirements go into effect for new installations (after January 1, 2006, at the time of permit issue, etc.). Mr. Bohnenkamp said that his office would be glad to provide answers to any other questions and he could be reached at 602-262-5601.

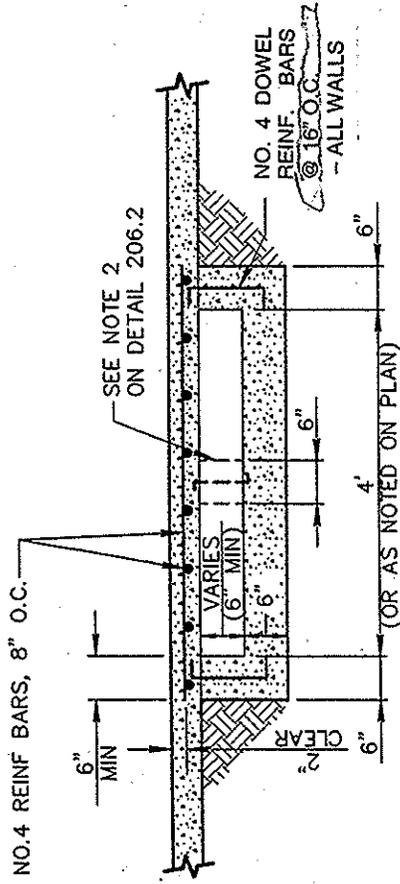
- c. Bob Herz reviewed the status of the RFP to review and inventory agency supplemental specifications and details in relation to MAG Specifications and Details. Gordon Tyus had sent an electronic version of the final RFP draft to committee members earlier in the week. It was agreed that the RFP should be issued as prepared in February. Gordon Tyus noted that a proposer's conference would be held after next month's scheduled committee meeting. Bob Herz asked that members consider being on the proposal evaluation subcommittee. Interested members to contact Bob Herz.
- d. Paul Nebeker noted that there were some printing errors with the new MAG specification supplements. Some replacement pages for ones that were to be discarded did not include text of unchanged specifications on the reverse side. Gordon Tyus said that he would look into the situation.
- e. Michael Hook of Hansen Pipe & Products provided information on a pipeline laser profiler for use with a CUES CCTV survey system and CUES camera.

5. Adjournment:

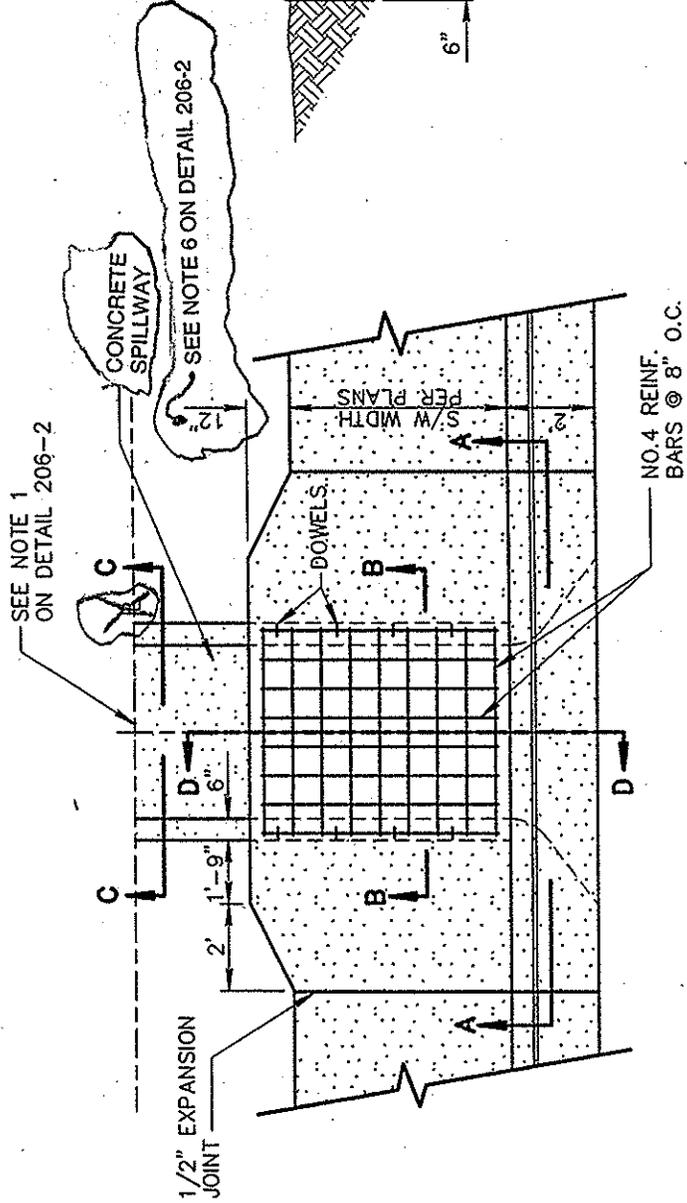
The meeting was adjourned at 3:10 p.m.



**SECTION A-A**

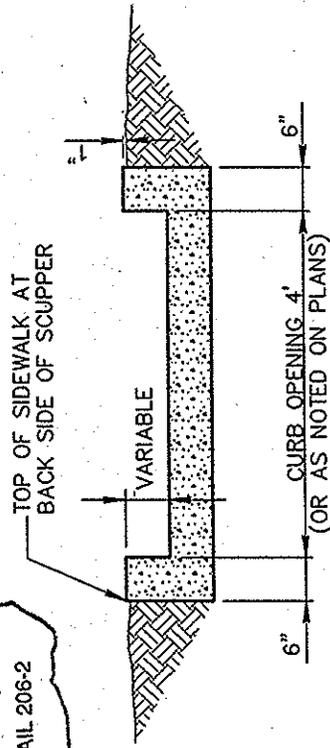


**SECTION B-B**



**SCUPPER PLAN VIEW**

**SECTION C-C**



**SECTION C-C**  
**SPILLWAY**

**NOTE:**

1. UNLESS OTHERWISE NOTED, CONCRETE SHALL BE CLASS 'B' PER SECTION 725.

DETAIL NO.  
**206-1**

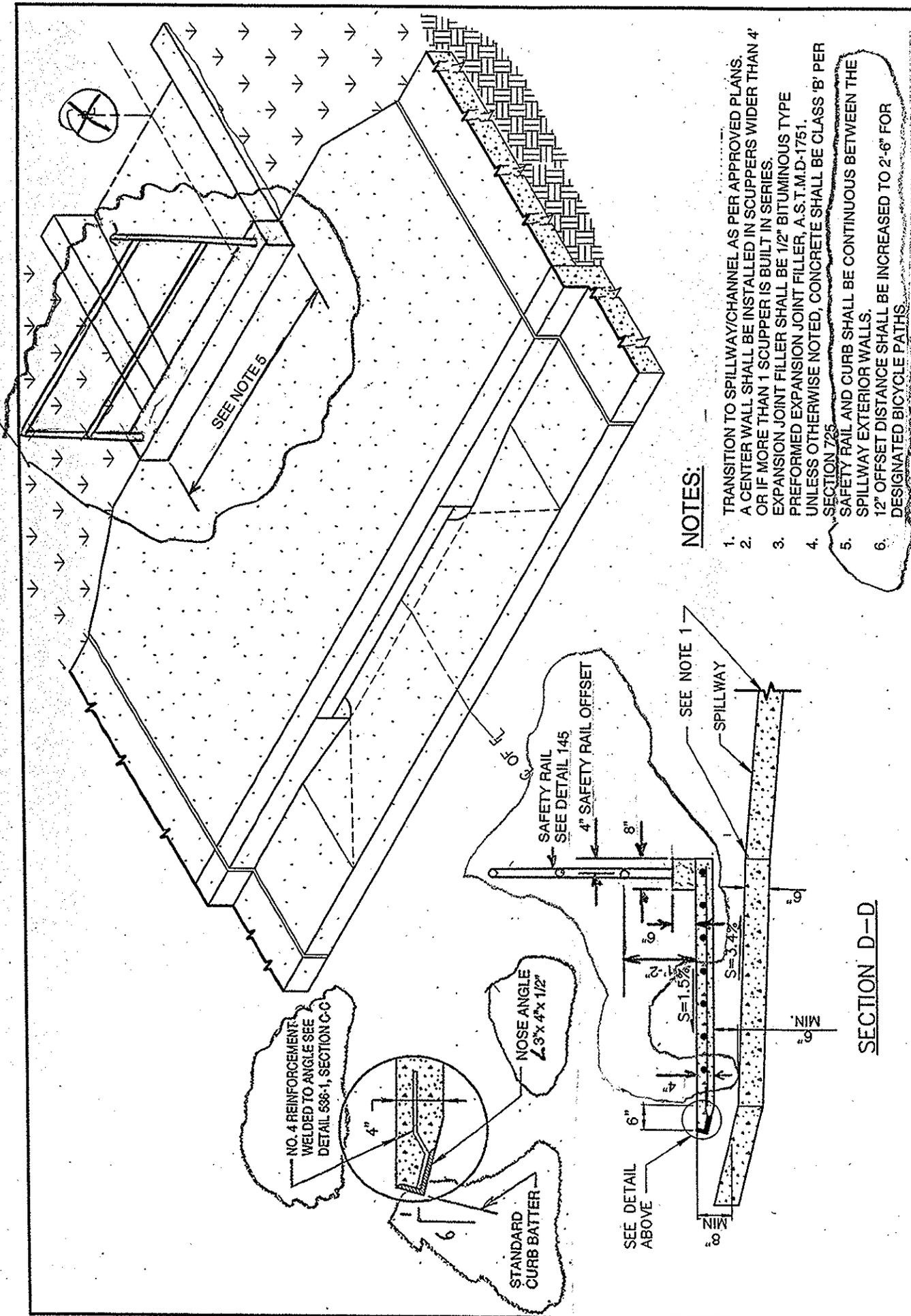
MARICOPA ASSOCIATION OF GOVERNMENTS  
STANDARD DETAIL  
ENGLISH

**CONCRETE SCUPPER**

REVISED  
01-01-2007

DETAIL NO.  
**206-1**

CASE 06-01  
2/1/2006



**NOTES:**

1. TRANSITION TO SPILLWAY CHANNEL AS PER APPROVED PLANS.
2. A CENTER WALL SHALL BE INSTALLED IN SCUPPERS WIDER THAN 4' OR IF MORE THAN 1 SCUPPER IS BUILT IN SERIES.
3. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER, A.S.T.M.D-1751.
4. UNLESS OTHERWISE NOTED, CONCRETE SHALL BE CLASS 'B' PER SECTION 725.
5. SAFETY RAIL AND CURB SHALL BE CONTINUOUS BETWEEN THE SPILLWAY EXTERIOR WALLS.
6. 12" OFFSET DISTANCE SHALL BE INCREASED TO 2'-6" FOR DESIGNATED BICYCLE PATHS.

**SECTION D-D**

DETAIL NO.	206-2
REVISION	01-01-2007
DETAIL NO.	206-2

STANDARD DETAIL  
**ENGLISH**





**MARICOPA COUNTY**  
*Department of Transportation*

**MEMORANDUM**

**Date:** Feb 1, 2006  
**To:** MAG Specifications and Details Committee  
**From:** Robert Herz, MCDOT Representative  
**Subject:** Proposed Corrections to Detail 440

**Case 06-02**

**PURPOSE:** Add clarity to detail 440 sheets 1, 2, and 3 by depicting electronic markers at the desired locations and using consistent names shown on the drawings and in the notes for the electronic markers.

**REVISIONS to Detail 440-1:**

1. Note 8 – change last word from ‘direction’ to ‘deflection’.
2. Plan View
  - Deleted ball marker shown along the side of sewer service.
  - Relocate the ball marker shown at the end of the service stub bend to be at the angle point of the bend.
3. Elevation View
  - Relocate the ball marker shown at the end of the service stub bend to align with the ball marker relocated in the plan view.

**REVISIONS to Detail 440-2:**

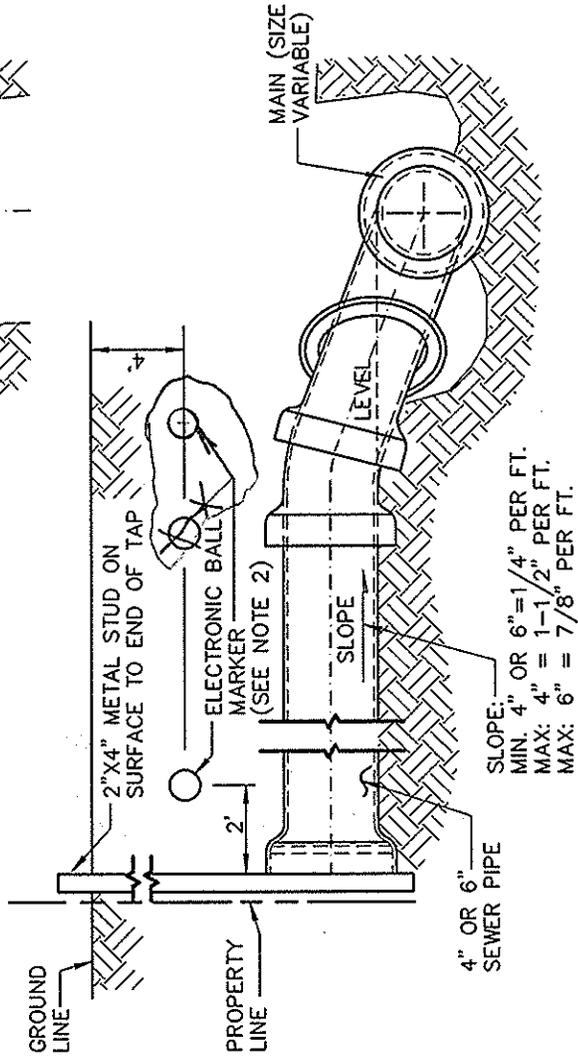
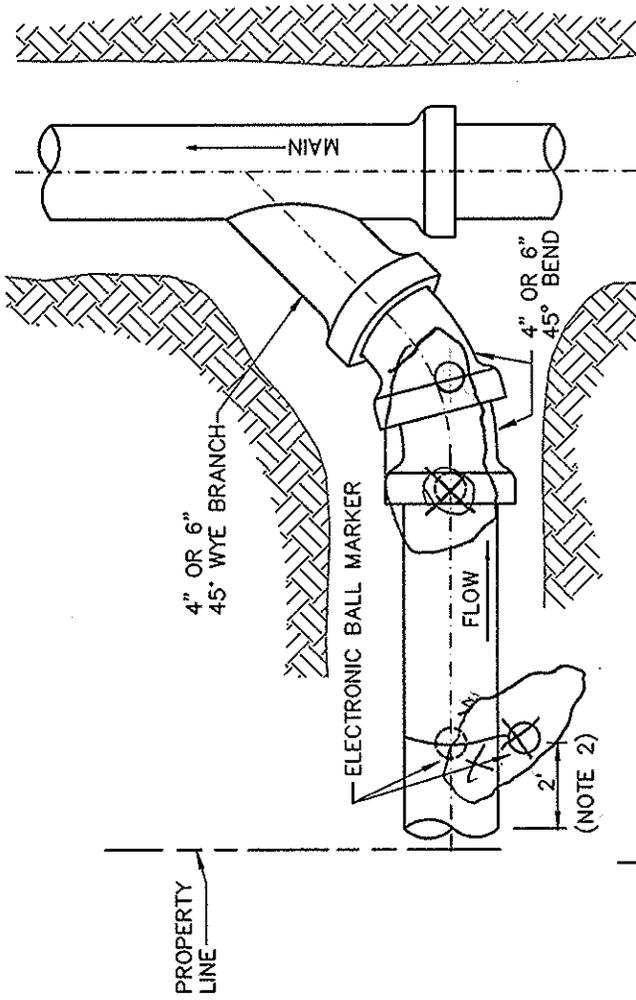
1. Plan View – Relocate the ball marker shown at the end of the service stub bend to be at the angle point of the bend.
2. Elevation View – Relocate the ball marker shown at the end of the service stub bend to align with the ball marker relocated in the plan view. Show the sewer main.
3. Revise in two places the drawing label ELECTRONIC LOCATOR BALL to read: ELECTRONIC MARKER.
4. Note 7 – Delete the second word (BALL).

**REVISIONS to Detail 440-3:**

1. Plan View – Relocate the ball marker shown at the end of the service stub bend to be at the angle point of the bend. Revise note to read: ELECTRONIC MARKER, SEE NOTE 7.
2. Elevation View – Relocate the ball marker shown at the end of the service stub bend to align with the ball marker relocated in the plan view.
3. Note 7 – Delete the second word (BALL).

**NOTES:**

1. ELECTRONIC BALL MARKER SHALL BE A 3M MODEL 1424-XR/ID [4" DIAMETER SELF LEVELING MARKER BALL GREEN IN COLOR] OR APPROVED EQUAL OR AS REQUIRED BY THE LOCAL AGENCY.
2. MARKER SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS, 2' BACK FROM THE END OF THE SEWER SERVICE STUB AND CINCH TIED TO PIPE OR ABOVE PIPE AS REQUIRED BY LOCAL AGENCY. AN ADDITIONAL MARKER SHALL BE INSTALLED AT EACH SERVICE STUB BEND.
3. ELECTRONIC MARKER SHALL BE RESTORED BY CONTRACTOR IF DISTURBED WHEN PRIVATE SERVICE LINE CONNECTION IS INSTALLED.
4. MARKER SHALL BE USED IN ADDITION TO A 2"x4" METAL STUD.
5. CONSTRUCTION DETAIL APPLIES WHERE CONTRACTOR BUILDS HOUSE CONNECTION. TAP EXTENDS TO PROPERTY LINE IN ALLEYS OR STREETS OR TO EASEMENT LINE.
6. SIZE OF TAP SHALL BE DESIGNATED ON PLANS.
7. CONSTRUCT TAP AT MINIMUM SLOPE IF COVER WILL BE LESS THAN 5' AT PROPERTY LINE.
8. ALL FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D-2321. THE CONTRACTOR MAY VARY FROM THE DRAWING TO USE THE APPROPRIATE WYES, TEE-WYES AND BENDS TO ENSURE NO MISALIGNMENT OF THE PIPE AND FITTINGS. BLOCK OR BRACE FITTINGS JOINTS TO ENSURE ZERO DEGREES ANGULAR JOINT DIRECTION. *DEFLECTION*
9. END OF TAP TO BE SEALED AND MARKED AS NOTED.



**ELECTRONIC MARKER PLACEMENT**

DETAIL NO.  
**440-1**

MARICOPA  
ASSOCIATION of  
GOVERNMENTS

STANDARD DETAIL  
**ENGLISH**

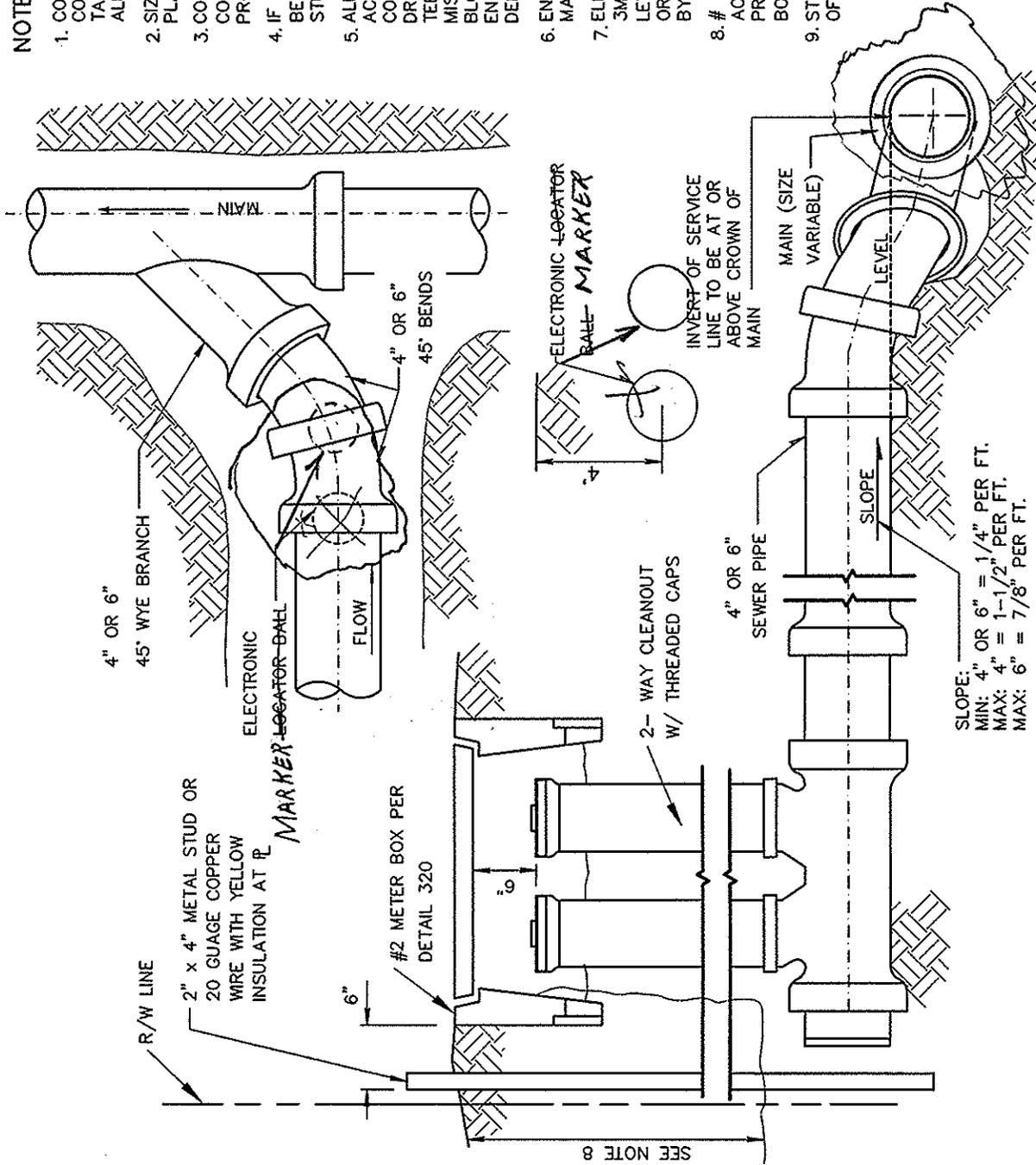
TYPE 'A' - SEWER BUILDING CONNECTION  
ELECTRONIC BALL MARKERS (STANDARD)

REVISED  
**2007**  
01-01-2006

DETAIL NO.  
**440-1**

**NOTES:**

1. CONSTRUCTION DETAIL APPLIES WHERE CONTRACTOR BUILDS HOUSE CONNECTION. TAP EXTENDS TO PROPERTY LINE IN ALLEYS OR STREETS OR TO EASEMENT LINE.
2. SIZE OF TAP SHALL BE DESIGNATED ON PLANS.
3. CONSTRUCT TAP AT MINIMUM SLOPE IF COVER WILL BE LESS THAN 5' AT PROPERTY LINE.
4. IF DEPTH REQUIRES, MINIMUM SLOPE CAN BE REDUCED TO 1/8" PER FOOT PROVIDED STUB IS STAKED TO GRADE.
5. ALL FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D-2321. THE CONTRACTOR MAY VARY FROM THE DRAWING TO USE THE APPROPRIATE WYES, TEE-WYES AND BENDS TO ENSURE NO MISALIGNMENT OF THE PIPE AND FITTINGS. BLOCK OR BRACE FITTING JOINTS TO ENSURE ZERO DEGREES ANGULAR JOINT DEFLECTION.
6. END OF TAP TO BE SEALED AND MARKED AS NOTED.
7. ELECTRONIC BALL MARKER SHALL BE A 3M MODEL 1424-XR/ID [4" DIAMETER SELF LEVELING MARKER BALL GREEN IN COLOR] OR APPROVED EQUAL OR AS REQUIRED BY THE LOCAL AGENCY.
8. # 14 BARE COPPER LOCATOR WIRE ACCESSIBLE AT R/W AND AT PROPERTY OWNER CLEANOUT BOX NO GREATER THAN 4' DEEP.
9. STAMP OR WELD THE LETTER "S" ON LID OF METER BOX.



DETAIL NO.  
**440-2**

**STANDARD DETAIL**  
**ENGLISH**

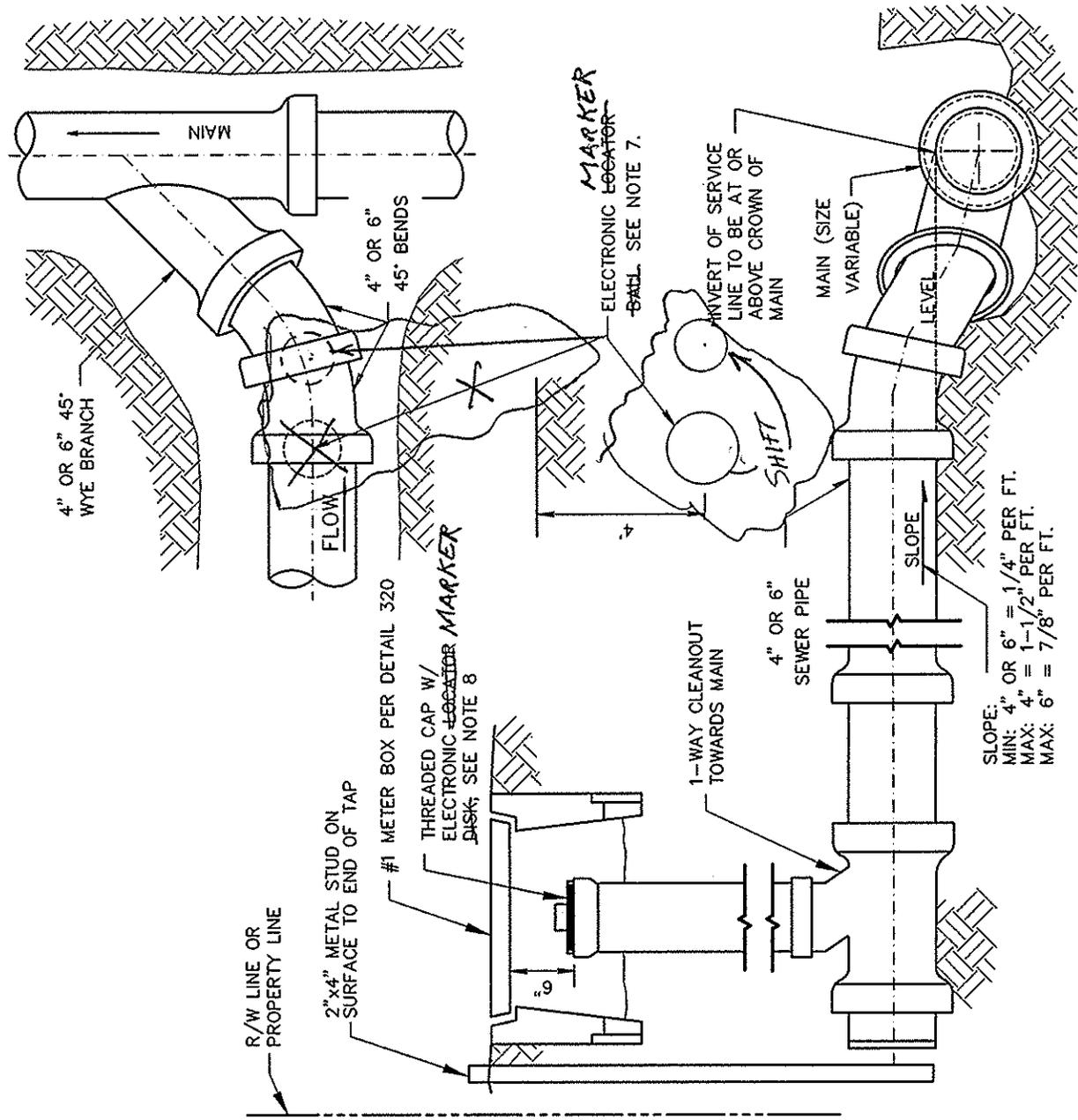
**TYPE 'B' - SEWER BUILDING CONNECTION**  
**TWO-WAY CLEANOUT AND METER BOX AT R/W**  
(WHEN SPECIFIED BY LOCAL AGENCY)

REVISED  
**2.007**  
01-01-2006

DETAIL NO.  
**440-2**

**NOTES:**

1. CONSTRUCTION DETAIL APPLIES WHERE CONTRACTOR BUILDS HOUSE CONNECTION. TAP EXTENDS TO PROPERTY LINE IN ALLEYS OR STREETS OR TO EASEMENT LINE.
2. SIZE OF TAP SHALL BE DESIGNATED ON PLANS.
3. CONSTRUCT TAP AT MIN. SLOPE IF COVER WILL BE LESS THAN 5' AT PROPERTY LINE.
4. IF DEPTH REQUIRES, MINIMUM SLOPE CAN BE REDUCED TO 1/8" PER FOOT PROVIDED STUB IS STAKED TO GRADE.
5. ALL FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D-2321. THE CONTRACTOR MAY VARY FROM THE DRAWING TO USE THE APPROPRIATE WYES, TEE-WYES AND BENDS TO ENSURE NO MISALIGNMENT OF THE PIPE AND FITTINGS. BLOCK OR BRACE FITTING JOINTS TO ENSURE ZERO DEGREES ANGULAR JOINT DEFLECTION.
6. END OF TAP TO BE SEALED AND MARKED.
7. ELECTRONIC ~~LOCATOR~~ MARKER SHALL BE A 3M MODEL 1424-XR/ID [4" DIAMETER SELF LEVELING MARKER BALL GREEN IN COLOR] OR APPROVED EQUAL OR AS REQUIRED BY THE LOCAL AGENCY.
8. INSTALL RAISED 4" THREADED PLUG IN CLEANOUT INCORPORATING 3M MODEL 1414 ELECTRONIC DISC MARKER, GREEN IN COLOR. LOCATOR PLUG TO BE GPK PRODUCTS MODEL #228-0004 DM OR APPROVED EQUAL.
9. STAMP OR WELD THE LETTER "S" ON LID OF METER BOX.



SLOPE:  
 MIN: 4" OR 6" = 1/4" PER FT.  
 MAX: 4" = 1-1/2" PER FT.  
 MAX: 6" = 7/8" PER FT.

DETAIL NO. 440-3	REVISIONS 2-007 01-01-2006	DETAIL NO. 440-3
<b>TYPE 'C' - SEWER BUILDING CONNECTION ONE-WAY CLEANOUT AND METER BOX (WHEN SPECIFIED BY LOCAL AGENCY)</b>		
DETAIL NO. 440-3	STANDARD DETAIL ENGLISH	MARICOPA ASSOCIATION OF GOVERNMENTS



**MARICOPA COUNTY**  
*Department of Transportation*

**MEMORANDUM**

**Date:** Feb 1, 2006  
**To:** MAG Specifications and Details Committee  
**From:** Robert Herz, MCDOT Representative  
**Subject:** Miscellaneous Bloopers

**Case 06-03**

**PURPOSE:** Drafting Correction to Detail sheets 533-3 and 533-4 – Correct indicated coverage of section reference arrows

**REVISION** to Detail 533-3 Grate Detail:

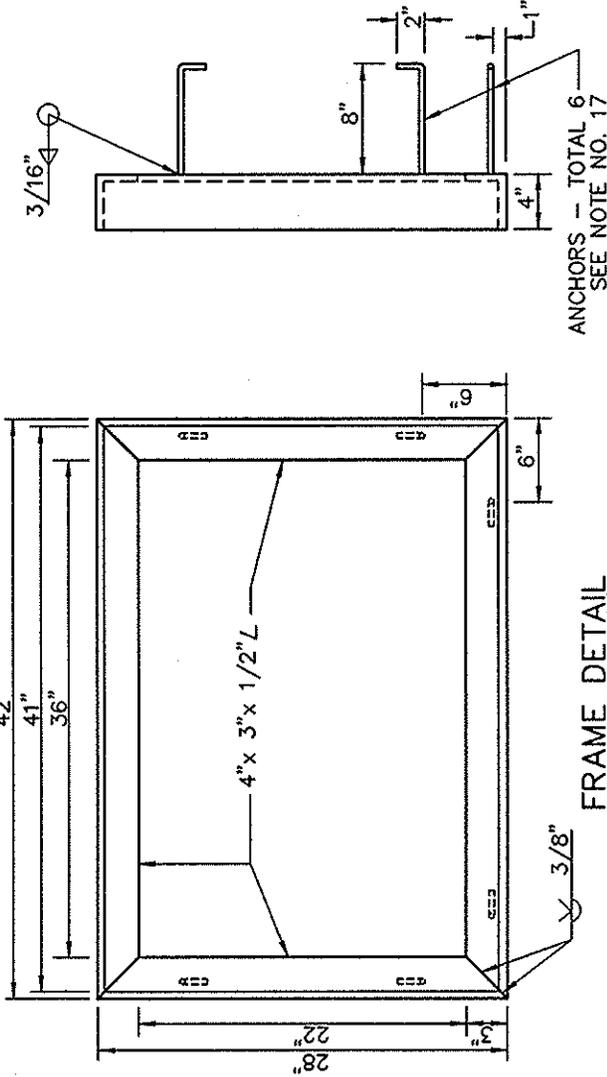
Increase length of Section F-F reference arrows to include two cross bars as shown in Section F-F.

**REVISION** to Detail 533-4 Grate Detail:

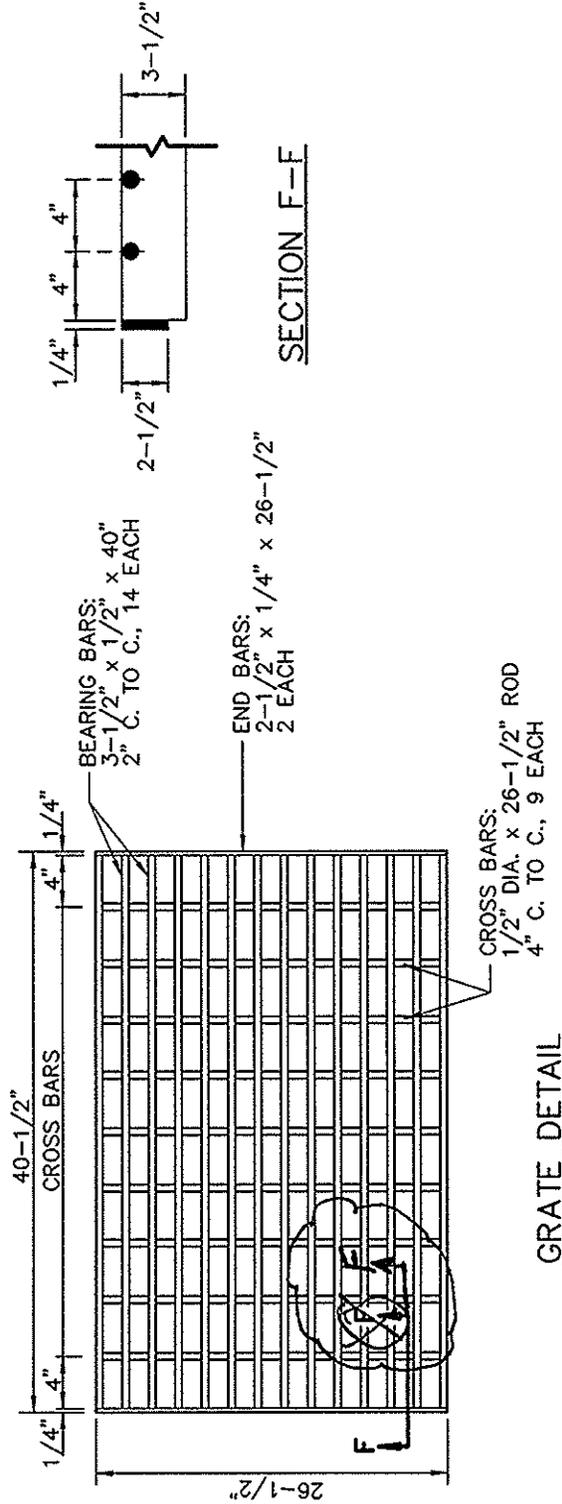
Increase length of Section B-B reference arrows to include two cross bars as shown in Section B-B.

FRAME AND GRATE NOTES

14. FRAME AND GRATING SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY.
15. ALL WELDING SHALL BE IN ACCORDANCE WITH STANDARD WELDING SPECIFICATIONS.
16. CROSS BARS AND END BARS MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTOR FORGED TO BEARING BARS.
17. ANCHORS SHALL BE 3/8" DIA. STEEL ROD, NO. 3 REBAR, 3/8" DIA. x 8" BOLTS OR 8" NELSON STUDS.
18. ALL PARTS SHALL BE OF STRUCTURAL GRADE STEEL.
19. ALL EXPOSED STEEL SHALL BE GALVANIZED OR PAINTED WITH ONE COAT #1 PAINT AND TWO FIELD COATS OF #10 PAINT.

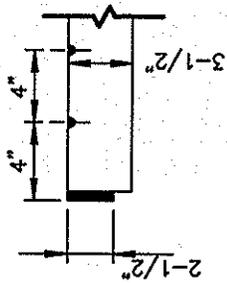
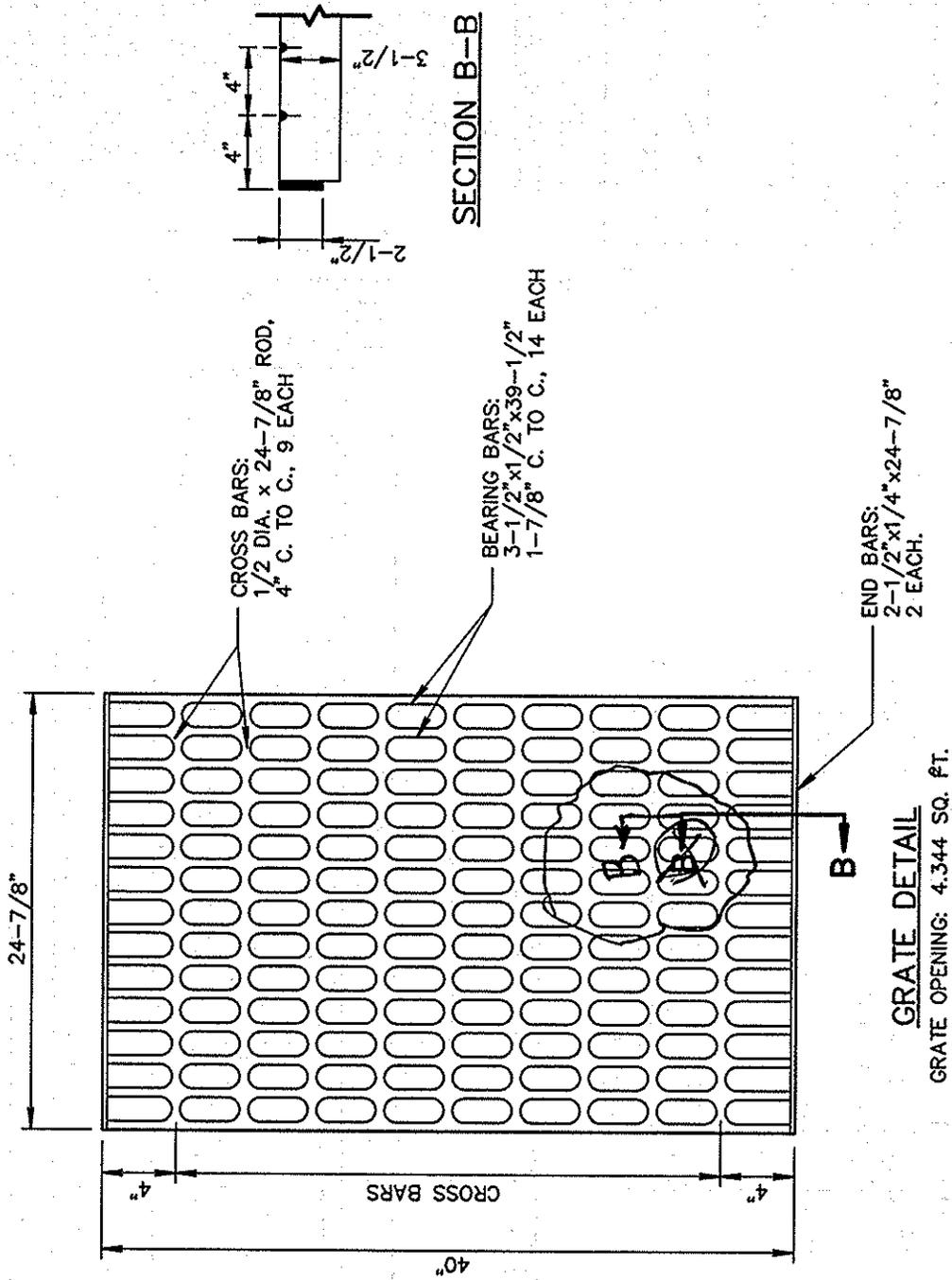


FRAME DETAIL



GRATE DETAIL

DETAIL NO. <b>533-3</b>	STANDARD DETAIL <b>ENGLISH</b>	FRAME AND GRATE FOR TYPE 'D' CATCH BASIN	REVISED	DETAIL NO. <b>533-3</b>
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**SECTION B-B**

DETAIL NO. 533-4

REVISED 7-13-2000

**7'-0" CURB OPENING CATCH BASIN  
TYPE 'D' - GRATE DETAILS**

**STANDARD DETAIL  
ENGLISH**



DETAIL NO. 533-4

CASE 06-03  
2/1/2006