

**BOARD OF WATER COMMISSIONERS  
DENVER, COLORADO**

**ADDENDUM NO. 2**

**TO THE CONTRACT DOCUMENTS**

**FURNISH AND INSTALL CONDUIT NO. 302  
30-INCH Ø & 36-INCH Ø  
RECYCLED WATER PIPELINE**

**CONTRACT 12688A**

**May 13, 2010**

**TO ALL PLAN-HOLDERS:**

This Addendum No. 2 consists of Pages AD2-1 to AD2-12. The following changes, additions, and/or deletions are hereby made part of the Contract Documents to Furnish and Install Conduit No. 302, 30-Inch Ø & 36-Inch Ø Recycled Water Pipeline, Contract 12688A, dated April 2010, as fully and completely as if the same were fully set forth therein:

**FRONT END DOCUMENTS:**

**1. COVER PAGE, TITLE:**

**DELETE:** CONTRACT 12688A, CONTRACT DOCUMENTS FOR THE CONSTRUCTION OF CONDUIT NO. 302, 30-INCH Ø & 36-INCH Ø RECYCLED WATER PIPELINE, FROM EAST 47<sup>TH</sup> AVENUE AND PEORIA STREET TO EAST 56<sup>TH</sup> AVENUE AND CHAMBERS ROAD IN THE CITY AND COUNTY OF DENVER AND ADAMS COUNTY THE STATE OF COLORADO

**SUBSTITUTE:** CONTRACT 12688A, CONTRACT DOCUMENTS TO FURNISH AND INSTALL CONDUIT NO. 302, 30-INCH Ø & 36-INCH Ø RECYCLED WATER PIPELINE, FROM EAST 47<sup>TH</sup> AVENUE AND PEORIA STREET TO EAST 56<sup>TH</sup> AVENUE AND PEORIA STREET IN THE CITY AND COUNTY OF DENVER IN THE STATE OF COLORADO

**2. TABLE OF CONTENTS, PAGE TC-3:**

**DELETE:** DRAWINGS DR-1-2

**SUBSTITUTE:** DRAWINGS DR-1

**3. INVITATION TO BID, PARAGRAPH 1, PAGE I-1 (DATE AND LOCATION ALREADY CHANGED PER ADDENDUM NO. 1):**

**DELETE:** Sealed Bids will be received by the City and County of Denver, acting by and through its Board of Water Commissioners (OWNER), at 1600 West 12th Avenue, Denver, Colorado 80204, in the Board Room until 10:00 A.M., local time, Thursday, May 20, 2010, for the construction of Conduit No. 302, 30-Inch Ø & 36-Inch Ø Recycled Water Pipeline, Contract 12688A. At said place and time, all bids that have been duly received will be publicly opened and read aloud.

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(RECYCLED WATER PIPELINE )  
(12688A ) AD2-1

**SUBSTITUTE:** Sealed Bids will be received by the City and County of Denver, acting by and through its Board of Water Commissioners (OWNER), at 1600 West 12th Avenue, Denver, Colorado 80204, in the Board Room until 10:00 A.M., local time, Thursday, May 20, 2010, to furnish and install Conduit No. 302, 30-Inch Ø & 36-Inch Ø Recycled Water Pipeline, Contract 12688A. At said place and time, all bids that have been duly received will be publicly opened and read aloud.

**4. INVITATION TO BID, PARAGRAPH 2, PAGE I-1:**

**DELETE:** The Work to be done, for which Bids are invited, shall consist of furnishing and installing conduit in Denver, Colorado. The project includes approximately 15,900 linear feet of 30-inch diameter recycled water pressure pipe, approximately 1,500 linear feet of 36-inch diameter recycled water pressure pipe and various appurtenances and distribution mains. The Work is to be done in accordance with one of the following two alternatives.

**SUBSTITUTE:** The Work to be done, for which Bids are invited, shall consist of furnishing and installing conduit in Denver, Colorado. The project includes approximately 4,300 linear feet of 30-inch diameter recycled water pressure pipe, approximately 1,400 linear feet of 36-inch diameter recycled water pressure pipe and various appurtenances and distribution mains. The Work is to be done in accordance with one of the following two alternatives.

**5. INVITATION TO BID, DEADLINE SCHEDULE, PAGE I-2:**

<b>DELETE:</b>	<u>Completion Item</u>	<u>Date</u>
	Substantial Completion	May 5, 2011
	Final Completion	June 16, 2011

<b>SUBSTITUTE:</b>	<u>Completion Item</u>	<u>Date</u>
	Substantial Completion	February 25, 2011
	Final Completion	March 25, 2011

**6. BID FORM, PAGES BF-2 AND BF-3:**

**DELETE:** Schedule of Values (BF-2 – BF-3) in its entirety.

**SUBSTITUTE:** Attached Schedule of Values (BF-2 – BF-3) in its entirety.

**7. AGREEMENT FORM, ARTICLE 2, PARAGRAPH 2, PAGE AF-1:**

**DELETE:** The Work to be done, for which Bids are invited, shall consist of furnishing and installing conduit, Denver, Colorado. The project includes approximately 15,900 linear feet of 30-inch diameter recycled water pressure pipe, approximately 1,500 linear feet of 36-inch diameter recycled water pressure pipe and various appurtenances and distribution mains. The Work is to be done in accordance with one of the following two alternatives for the 30-inch and 36-inch pipe.

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**SUBSTITUTE:** The Work to be done, for which Bids are invited, shall consist of furnishing and installing conduit, Denver, Colorado. The project includes approximately 4,300 linear feet of 30-inch diameter recycled water pressure pipe, approximately 1,400 linear feet of 36-inch diameter recycled water pressure pipe and various appurtenances and distribution mains. The Work is to be done in accordance with one of the following two alternatives for the 30-inch and 36-inch pipe.

**8. AGREEMENT FORM, ARTICLE 4, CONTRACT TIME, AF-1:**

**DELETE:** 4.1 Substantial completion of the Work will be made on or before May 5, 2011.

4.2 Final completion of the Work will be made on or before June 16, 2011 and be ready for final payment in accordance with Paragraph 14.13 of the General Conditions.

**SUBSTITUTE:** 4.1 Substantial completion of the Work will be made on or before February 25, 2011.

4.2 Final completion of the Work will be made on or before March 25, 2011 and be ready for final payment in accordance with Paragraph 14.13 of the General Conditions.

**9. AGREEMENT FORM, ARTICLE 8, CONTRACT DOCUMENTS, PAGE AF-3.**

**DELETE:** 8.1 Specifications bearing the title:

CONTRACT 12688A  
BOARD OF WATER COMMISSIONERS  
DENVER, COLORADO  
CONDUIT 302  
30-INCH Ø & 36-INCH Ø  
RECYCLED WATER PIPELINE

and consisting of the divisions and pages, as listed in Table of Contents thereof.

8.2 Drawings, Sheets G-1 thru G-7 and C-1 thru C-28, Project Tracker Number 14697 inclusive.

**SUBSTITUTE:** 8.1 Specifications bearing the title:

CONTRACT 12688A  
BOARD OF WATER COMMISSIONERS  
DENVER, COLORADO  
FURNISH AND INSTALL CONDUIT NO. 302  
30-INCH Ø & 36-INCH Ø  
RECYCLED WATER PIPELINE

and consisting of the divisions and pages, as listed in Table of Contents thereof.

8.2 Drawings, Sheets G-1 through G-7, C-1 through C-6, and C-19 through C-28, Project Tracker Number 14697 inclusive.

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**SPECIFICATIONS:**

**1. SECTION 01 11 00 – SUMMARY OF WORK, PART 1, SUBPARAGRAPH 1.3.A.1, PAGE 1:**

**DELETE:** 1. Butterfly valves (minus nuts, bolts and gaskets):  
a. 24-inch: 2 provided  
b. 30-inch: 6 provided  
c. 36-inch: 2 provided

**SUBSTITUTE:** 1. Butterfly valves (minus nuts, bolts and gaskets):  
a. 24-inch: 1 provided  
b. 30-inch: 3 provided  
c. 36-inch: 2 provided

**2. SECTION 01 11 00 – SUMMARY OF WORK, PART 1, SUBPARAGRAPH 1.3.A.4, PAGE 1:**

**DELETE:** 4. Air valves:  
a. 2-inch, 34 provided

**SUBSTITUTE:** 4. Air valves:  
a. 2-inch, 14 provided

**3. SECTION 01 11 00 – SUMMARY OF WORK, PART 1, SUBPARAGRAPH 1.4.A, PAGE 2:**

**DELETE:** A. Project Site is located in northeast Denver, in Peoria Street from East 47<sup>th</sup> Avenue to East 56<sup>th</sup> Avenue and in East 56<sup>th</sup> Avenue from Peoria Street to approximately 1000 feet east of Chambers Road.

**SUBSTITUTE:** A. Project Site is located in northeast Denver, in Peoria Street from East 47<sup>th</sup> Avenue to East 56<sup>th</sup> Avenue.

**4. SECTION 01 29 00 – PAYMENT PROCEDURES**

**DELETE:** SECTION 01 29 00 – PAYMENT PROCEDURES in its entirety.

**SUBSTITUTE:** Attached SECTION 01 29 00 – PAYMENT PROCEDURES in its entirety.

**5. SECTION 01 31 00.01 – PROJECT MANAGEMENT AND COORDINATION, PART 1, SUBPARAGRAPH 1.3.C.4 THROUGH 1.3.C.5, PAGE 2:**

**DELETE:** 4. Rocky Mountain Arsenal National Wildlife Refuge:  
a. Contact Person: Tom Jackson.  
b. Telephone: 303-289-0538.

5. Plains Rocky Mountain Pipeline Company  
a. Telephone: 303-286-6400  
b. EMERGENCY Telephone: 1-888-800-76774. Air valves:

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6. **SECTION 01 31 00.01 – PROJECT MANAGEMENT AND COORDINATION, PART 1, SUBPARAGRAPH 1.5.A, TABLE, PAGE 4:**

**DELETE:**

MILESTONE	DESCRIPTION	COMPLETION DATE
1	Substantial Completion	May 5, 2011

**SUBSTITUTE:**

MILESTONE	DESCRIPTION	COMPLETION DATE
1	Substantial Completion	February 25, 2011

7. **SECTION 01 45 16 – MATERIALS TESTING, PART 1, PAGE 1:**

**ADD:**

1.5. ASPHALT COMPACTION TESTING:

- A. ENGINEER will provide quality assurance testing of asphalt pavement to determine conformance of Work with the requirements of Contract Documents, and associated street cut and occupancy permits in accordance with ASTM D 2950.
- B. Frequency of ENGINEER's compaction tests shall be in conformance with jurisdictional permits and at the ENGINEER's discretion.
- C. Areas of noncompliance shall be removed and recompacted to conform to requirements of Contract Documents, and any jurisdictional permits, upon receipt of failed test results. Costs for removal compaction, and retesting asphalt pavement to meet requirements of Contract Documents, and jurisdictional permits will be at CONTRACTOR's expense.
- D. Retain a qualified consultant, as needed, to perform field quality assurance and quality control testing to assist CONTRACTOR in determining the state of materials incorporated into the Work.
- E. Areas representing failed compaction tests may be cored and tested for in place density in accordance with ASTM D 5361 and ASTM D 6752 at the CONTRACTOR's expense.

8. **SECTION 01 50 00 – CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS, PART 1, SUBPARAGRAPH 1.4.A, PAGE 1:**

**DELETE:**

A. Mobilization includes as minimum:

- 1. Obtaining required permits.
- 2. Moving CONTRACTOR's plant and equipment required for operations onto site.

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3. Installing temporary construction power, wiring, and lighting facilities.
4. Providing onsite communication facilities, including telephones.
5. Providing onsite sanitary facilities and potable water facilities as specified and as required by Laws and Regulations, and governing agencies.
6. Arranging for and erection of CONTRACTOR's work and storage yard.
7. Posting OSHA required notices and establishing safety programs and procedures.
8. Having CONTRACTOR's superintendent at site full time.
9. Providing CONTRACTOR and ENGINEER field offices.
10. Providing traffic control as required by street occupancy permit.

**SUBSTITUTE:** A. Mobilization includes as minimum:

1. Obtaining required permits.
2. Moving CONTRACTOR's plant and equipment required for operations onto site.
3. Installing temporary construction power, wiring, and lighting facilities.
4. Providing onsite sanitary facilities and potable water facilities as specified and as required by Laws and Regulations, and governing agencies.
5. Arranging for and erection of CONTRACTOR's work and storage yard.
6. Posting OSHA required notices and establishing safety programs and procedures.
7. Having CONTRACTOR's superintendent at site full time.
8. Providing traffic control as required by street occupancy permit.

**9. SECTION 01 50 00 – CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS, PART 1, SUBPARAGRAPH 1.5.B, PAGE 2:**

**DELETE:** B. CONTRACTOR is responsible for obtaining and paying for all permits including, but not limited to, street occupancy and street cut permits, discharge permit, traffic control permits and hydrant use permits.

**SUBSTITUTE:** B. CONTRACTOR is responsible for obtaining and paying for all permits including, but not limited to, street occupancy and street cut permits, discharge permit, traffic control permits and hydrant use permits.

1. Contact City and County of Denver Department of Public Works: Joe Saejiw 303-446-3486
2. Check website: [www.denvergov.com/permits](http://www.denvergov.com/permits).

**10. SECTION 32 12 16 – ASPHALT PAVING, PART 1, SUBPARAGRAPH 1.2.B, PAGE 1:**

**DELETE:** B. Rotomill and apply a 2-inch overlay from curb to curb to the remaining portion of the public street.

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11. **SECTION 32 12 16 – ASPHALT PAVING, PART 3, SUBPARAGRAPH 3.3, PAGE 2:**

**DELETE:**

3.3. ROTOMILL AND OVERLAY

- A. Rotomill and apply 2-inch overlay from curb to curb including to projected curb lines through intersections.

12. **SECTION 32 12 16 – ASPHALT PAVING, PART 3, SUBPARAGRAPH 3.5, PAGE 2:**

**DELETE:**

3.5. ASPHALT CONCRETE PAVEMENT PLACEMENT AND COMPACTION

- A. Minimum thickness: Maximum of existing or 9-inches.
- B. Lay asphalt concrete over prepared base in equal lifts not to exceed 3-inches in depth to a total compacted thickness as shown.
- C. Collect and dispose of segregated aggregate from raking process. Do not scatter material over finished surface.
- D. Apply tack coat to pavement surface prior to placing succeeding pavement lift.
- E. Roll until roller marks are eliminated.
- F. Compact to 92% to 96% of maximum theoretical density in accordance with 401.17 of the CDOT Standard Specifications.

**SUBSTITUTE:**

3.5. ASPHALT CONCRETE PAVEMENT PLACEMENT and compaction

- A. Minimum thickness: Maximum of existing or 9-inches.
- B. Lay asphalt concrete over prepared base in equal lifts not to exceed 3-inches in depth to a total compacted thickness as shown.
- C. Seams in wheel paths are not allowed.
- D. Collect and dispose of segregated aggregate from raking process. Do not scatter material over finished surface.
- E. Apply tack coat to pavement surface prior to placing succeeding pavement lift.
- F. Roll until roller marks are eliminated.
- G. Compact to 92% to 96% of maximum theoretical density in accordance with 401.17 of the CDOT Standard Specifications.

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13. **SECTION 33 11 01 – PIPING - GENERAL, PART 2, SUBPARAGRAPH 2.1.E.1, PAGE 6:**

**DELETE:** 1. Threaded studs shall be used on all flange connections and shall be in accordance with ASTM A 307, Grade B, with heavy hex nuts.

**SUBSTITUTE:** 1. All-threaded studs in accordance with ASTM A 193, Grade B7 with nuts per ASTM A 194, Grade 2H.

14. **DRAWINGS, PAGES DR-1 AND DR-2:**

**DELETE:** Drawings (DR-1 - DR-2) in its entirety.

**SUBSTITUTE:** Attached Drawings (DR-1) in its entirety.

**DRAWINGS:**

1. **DRAWING G-1:**

**DELETE:** DRAWING G-1

**SUBSTITUTE:** ATTACHED DRAWING G-1

2. **DRAWING G-2:**

**DELETE:** DRAWING G-2

**SUBSTITUTE:** ATTACHED DRAWING G-2

3. **DRAWING G-3, TITLE:**

**DELETE:** CHAMBERS RD

**SUBSTITUTE:** PEORIA ST

4. **DRAWING G-4, TITLE:**

**DELETE:** CHAMBERS RD

**SUBSTITUTE:** PEORIA ST

5. **DRAWING G-5, TITLE:**

**DELETE:** CHAMBERS RD

**SUBSTITUTE:** PEORIA ST

6. **DRAWING G-6, TITLE:**

**DELETE:** CHAMBERS RD

**SUBSTITUTE:** PEORIA ST

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- 7.     **DRAWING G-6:**  
        **DELETE:**             NGVD 29  
        **SUBSTITUTE:**       NGVD 88
  
- 8.     **DRAWING G-7, TITLE:**  
        **DELETE:**             CHAMBERS RD  
        **SUBSTITUTE:**       PEORIA ST
  
- 9.     **DRAWING C-1:**  
        **DELETE:**             DRAWING C-1  
        **SUBSTITUTE:**       ATTACHED DRAWING C-1
  
- 10.    **DRAWING C-2:**  
        **DELETE:**             DRAWING C-2  
        **SUBSTITUTE:**       ATTACHED DRAWING C-2
  
- 11.    **DRAWING C-3:**  
        **DELETE:**             DRAWING C-3  
        **SUBSTITUTE:**       ATTACHED DRAWING C-3
  
- 12.    **DRAWING C-4:**  
        **DELETE:**             DRAWING C-4  
        **SUBSTITUTE:**       ATTACHED DRAWING C-4
  
- 13.    **DRAWING C-5:**  
        **DELETE:**             DRAWING C-5  
        **SUBSTITUTE:**       ATTACHED DRAWING C-5
  
- 14.    **DRAWING C-6:**  
        **DELETE:**             DRAWING C-6  
        **SUBSTITUTE:**       ATTACHED DRAWING C-6
  
- 15.    **DRAWING C-7 THRU C-18:**  
        **DELETE:**             DRAWING SHEETS C-7 THRU C-18
  
- 16.    **DRAWING C-19, TITLE:**  
        **DELETE:**             CHAMBERS RD  
        **SUBSTITUTE:**       PEORIA ST

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17. **DRAWING C-19, 2" AIR VALVE ASSEMBLY W/ 20" ACCESS MANHOLE TABLE:**
- DELETE: STATIONS AT 503+25.00, 509+47.00, 521+54.00, 524+80.00,  
554+55.00, 555+05.00, 569+75.00, 594+00.00, 6055+00.00, 609+30.00,  
613+10.00
18. **DRAWING C-20, TITLE:**
- DELETE: CHAMBERS RD
- SUBSTITUTE: PEORIA ST
19. **DRAWING C-20, ACCESS MANHOLE ASSEMBLY TABLE:**
- DELETE: STATIONS AT 512+00.00, 529+70.00, 539+00.00, 549+00.00,  
561+95.00, 575+90.00 AND 587+00.00
20. **DRAWING C-21, TITLE:**
- DELETE: CHAMBERS RD
- SUBSTITUTE: PEORIA ST
21. **DRAWING C-21, DOUBLE BUTTERFLY VALVE ASSEMBLY W/ BYPASS TABLE:**
- DELETE: VALVE STATION AT 554+75.00
22. **DRAWING C-22, TITLE:**
- DELETE: CHAMBERS RD
- SUBSTITUTE: PEORIA ST
23. **DRAWING C-22, BUTTERFLY VALVE ASSEMBLY W/ BYPASS TABLE:**
- DELETE: VALVE STATIONS AT 613+30.00 AND 605+45.00
24. **DRAWING C-22, 6" BLOWOFF VALVE ASSEMBLY TABLE:**
- DELETE: STATIONS AT 498+70.00, 506+00.00, 513+70.00, 523+70.00,  
529+90.00, 555+90.00, 576+05.00, 597+15.00, 605+90.00 AND  
609+70.00
25. **DRAWING C-23, TITLE:**
- DELETE: CHAMBERS RD
- SUBSTITUTE: PEORIA ST
26. **DRAWING C-24, TITLE:**
- DELETE: CHAMBERS RD
- SUBSTITUTE: PEORIA ST

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27. **DRAWING C-24, CONCRETE KICKBLOCK TABLE:**

DELETE: STATIONS AT 499+80.00, 500+00.00, 506+28.89, 507+58.04,  
550+92.00, 553+93.69, 603+31.25, 603+54.00, 607+04.00, AND  
607+30.00

28. **DRAWING C-25, TITLE:**

DELETE: CHAMBERS RD

SUBSTITUTE: PEORIA ST

29. **DRAWING C-26, TITLE:**

DELETE: CHAMBERS RD

SUBSTITUTE: PEORIA ST

30. **DRAWING C-27, TITLE:**

DELETE: CHAMBERS RD

SUBSTITUTE: PEORIA ST

31. **DRAWING C-27, 8" STUB-OUT CONFIGURATIONS:**

DELETE: 8" STUB-OUT CONFIGURATIONS DRAWING DETAIL – in its entirety

32. **DRAWING C-27, 12" STUB-OUT CONFIGURATIONS:**

DELETE: 12" STUB-OUT CONFIGURATIONS DRAWING DETAIL – in its entirety

33. **DRAWING C-27, 2" COPPER SERVICE LINE:**

DELETE: COVER FOR METER PIT & STOP BOX SHALL BE INSTL &  
MAINTAINED LEVEL W/ THE ADJACENT GROUND

SUBSTITUTE: COVER FOR STOP BOX SHALL BE INSTL & MAINTIANED LEVEL W/  
THE ADJACENT GROUND

34. **DRAWING C-27, 2" COPPER SERVICE LINE TABLE:**

DELETE: STATIONS AT 506+65.00, 524+50.00, 556+90.00 AND 588+35.00

35. **DRAWING C-28, TITLE:**

DELETE: CHAMBERS RD

SUBSTITUTE: PEORIA ST

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**36. DRAWING C-28, MAGNESIUM ANODE INSTALLATION TABLE:**

**DELETE:** STATIONS AT 499+25.00, 500+71.51 501+05.00, 501+76.07,  
502+85.00, 504+65.00, 506+65.00, 510+05.00, 511+85.00, 513+65.00,  
515+45.00, 517+25.00, 519+05.00, 520+85.00, 522+65000, 524+45.00,  
526+25.00, 528+05.00, 529+85.00, 531+55.00, 533+25.00, 534+95.00,  
536+65.00, 538+35.00, 540+05.00, 541+75.00, 543+45.00, 545+15.00,  
546+85.00, 548+55.00, 550+25.00, 551+95.00, 553+65.00, 555+35.00,  
557+05.00, 558+75.00, 560+45.00, 562+15.00, 563+85.00, 565+55.00,  
567+25.00, 558+95.00, 570+85.00, 572+35.00, 574+05.00, 575+75.00,  
577+45.00, 579+15.00, 580+85.00, 582+55.00, 584+25.00, 585+95.00,  
587+65.00, 589+35.00, 590.05.00, 592+75.00, 594+45.00, 596+15.00,  
597+95.00, 599+70.00, 601+50.00, 603+30.00, 605+05.00, 606+85.00,  
608+60.00, 610+39.00, 612+17.00

**SUBSTITUTE:** STATIONS AT 452+00.00/ QTY-SIZE - 1-50#/ TYPE - I  
STATIONS AT 479+00.00/ QTY-SIZE - 1-50#/ TYPE - I  
STATIONS AT 479+50.00/ QTY-SIZE - 1-50#/ TYPE - I

**37. DRAWING C-28, INTERFERENCE PROTECTION TABLE:**

**DELETE:** STATIONS AT 485+70.85, 499+99.66, 500+35.00, 500+64.21,  
500+71.51, 501+76.07, 514+38.93, 577+01.64, 597+83.01, AND  
605+72.09

**38. DRAWING C-28, BOND SITE INSTALLATION TABLE:**

**DELETE:** STATION AT 554+75.00

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 2 in the space provided on the Bid Form.



\_\_\_\_\_  
Steve Reum, P.E.  
Engineering Manager  
Denver Board of Water Commissioners

(BOARD OF WATER COMMISSIONERS )  
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(30-INCH Ø & 36-INCH Ø )  
(RECYCLED WATER PIPELINE )  
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**SCHEDULE OF VALUES**

**CONDUIT NO. 302  
30-INCH Ø & 36-INCH Ø  
RECYCLED WATER PIPELINE**

**FURNISH AND INSTALL CONTRACT**

<b><u>Item Work &amp; Material</u></b>	<b><u>Quantity</u></b>	<b><u>Unit Price</u></b>	<b><u>Total Amount</u></b>
1. Furnish 36-inch recycled water pressure pipe and fittings	1,400 LF	\$ _____ Per LF	\$ _____
2. Install 36-inch recycled water pressure pipe and fittings	1,400 LF	\$ _____ Per LF	\$ _____
3. Furnish 30-inch recycled water pressure pipe and fittings	4,300 LF	\$ _____ Per LF	\$ _____
4. Install 30-inch recycled water pressure pipe and fittings	4,300 LF	\$ _____ Per LF	\$ _____
5. Furnish 24-inch recycled water pressure pipe and fittings	220 LF	\$ _____ Per LF	\$ _____
6. Install 24-inch recycled water pressure pipe and fittings	220 LF	\$ _____ Per LF	\$ _____
7. Furnish and install 20-inch access manhole and appurtenant structure	4 EA	\$ _____ Each	\$ _____
8. Furnish 2-inch Type "K" Copper pipe	30 LF	\$ _____ Per LF	\$ _____
9. Install 2-inch Type "K" Copper pipe	30 LF	\$ _____ Per LF	\$ _____
10. Furnish and install 2-inch air valve assembly with 20-inch access manhole and appurtenant structure	7 EA	\$ _____ Each	\$ _____
11. Furnish and install 6-inch blowoff assembly and appurtenant structure	3 EA	\$ _____ Each	\$ _____
12. Install 36-inch recycled water butterfly valve and furnish and install appurtenant structures	2 EA	\$ _____ Each	\$ _____
13. Install 30-inch recycled water butterfly valve and furnish and install appurtenant structures	3 EA	\$ _____ Each	\$ _____

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(12688A )  
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**SCHEDULE OF VALUES**

**CONDUIT NO. 302  
30-INCH Ø & 36-INCH Ø  
RECYCLED WATER PIPELINE**

**FURNISH AND INSTALL CONTRACT**  
(Continued)

<b>Item Work &amp; Material</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Total Amount</b>
14. Install 24-inch recycled water butterfly valve and furnish and install appurtenant structure	1 EA		\$ _____
15. Furnish and install 6-inch vent pipe	20 Feet	\$ _____ Foot	\$ _____
16. Furnish and place hot mix bituminous pavement including overlay complete in place	7,800 SY	\$ _____ Per SY	\$ _____
17. Cleanup and restoration			\$ _____
18. Mobilization (not to exceed 3% of Total Bid)			\$ _____
		<b>TOTAL BID</b>	\$ _____

NOTE: The Contract will be awarded on an "all or none" basis.

**TYPE OF PIPE TO BE SUPPLIED:** \_\_\_\_\_

**MANUFACTURERS:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(BOARD OF WATER COMMISSIONERS )  
(CONDUIT NO. 302 )  
(30-INCH Ø & 36-INCH Ø )  
(RECYCLED WATER PIPELINE )  
(12688A                      **ADDENDUM NO. 2)**

SECTION 01 29 00  
PAYMENT PROCEDURES

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. Section Includes:
  - 1. Submittals.
  - 2. Schedule of Values.
  - 3. Application for Payment.
  - 4. Payment.
  - 5. Nonpayment for rejected or unused products.
  - 6. Partial payment for stored materials and equipment.
- B. Related Documents:
  - 1. General Conditions.
  - 2. Final Payment Release
  - 3. Contract Agreement Form
- C. Related Sections:
  - 1. SECTION 01 32 16 – COST LOADED SCHEDULES

**1.2 SUBMITTALS**

- A. Schedule of Values: Submit on ENGINEER approved form.
- B. Schedule of Estimated Progress Payments:
  - 1. Submit with Schedule of Values.
  - 2. Submit adjustments with Applications for Payment.
- C. Application for Payment: Submit monthly.
- D. Final Application for Payment: Submit in accordance with Final Payment Release.

**1.3 SCHEDULE OF VALUES**

- A. Prepare Schedule of Values for Work under Agreement in accordance with ARTICLE 2 and ARTICLE 14 of the General Conditions.
- B. Description of Items: Contract Schedule of Values indicates major categories of Work for purpose of comparative proposal analysis, payment breakdown for monthly progress payments, and additions or deductions. Items are not intended to be inclusive descriptions of work categories.
  - 1. Furnish 36-inch recycled water pressure pipe and fittings:
    - a. This item consists of furnishing 36-inch pipe, bends, reducers, corrections pieces, closure pieces and appurtenant materials (such as gaskets and flange bolts).
    - b. Measurement: The laid length of pipe supplied measured in feet.
  - 2. Install 36-inch recycled water pressure pipe:
    - a. This item consists of installing 36-inch pressure pipe, including bends, reducers, correction pieces, closure pieces and furnishing and installing valves (excluding those provided by the OWNER), outlets, joint bonding, tapping saddles, warning tape, corrosion protection (other than items provided by the OWNER), kickblocks, restrained joints, strut removal, tie-ins

**REPLACED DUE TO  
ADDENDUM NO. 2**

- to existing pipe, excavation, backfill, hauling of spoiled material, tree protection and repair, construction fencing, dewatering (from any source), removal of abandoned utilities, rebedding or repair of parallel mains, traffic control, electronic message boards, public notification, preparing traffic control plans, obtaining required permits, coordinating work with various public entities, protect curb and gutter, and all other miscellaneous items not accounted for in other bid items.
- b. Measurement: The computed slope distance along the invert of the pipe in place. The length of pipe will include the laying length of all line valves.
3. Furnish 30-inch recycled water pressure pipe and fittings:
- a. This item consists of furnishing 30-inch pipe, bends, reducers, correction pieces, closure pieces and appurtenant materials (such as gaskets and flange bolts).
  - b. Measurement: The laid length of pipe supplied measured in feet.
4. Install 30-inch recycled water pressure pipe:
- a. This item consists of installing 30-inch pressure pipe, including bends, reducers, correction pieces, closure pieces and furnishing and installing valves (excluding those provided by the OWNER), outlets, joint bonding, tapping saddles, warning tape, corrosion protection (other than items provided by the OWNER), kickblocks, restrained joints, strut removal, tie-ins to existing pipe, excavation, backfill, hauling of spoiled material, tree protection and repair, construction fencing, dewatering (from any source), removal of abandoned utilities, rebedding or repair of parallel mains, traffic control, electronic message boards, public notification, preparing traffic control plans, obtaining required permits, coordinating work with various public entities, protect curb and gutter, and all other miscellaneous items not accounted for in other bid items.
  - b. Measurement: The computed slope distance along the invert of the pipe in place. The length of pipe will include the laying length of all line valves.
5. Furnish 24-inch recycled water pressure pipe and fittings:
- a. This item consists of furnishing 24-inch pipe, bends, reducers, correction pieces, closure pieces and appurtenant materials (such as gaskets and flange bolts)
  - b. Measurement: The laid length of pipe supplied measured in feet.
6. Install 24-inch recycled water pressure pipe:
- a. This item consists of installing 24-inch pressure pipe, including bends, reducers, correction pieces, closure pieces and furnishing and installing valves (excluding those provided by the OWNER), outlets, joint bonding, tapping saddles, warning tape, corrosion protection (other than items provided by the OWNER), kickblocks, restrained joints, strut removal, tie-ins to existing pipe, excavation, backfill, hauling of spoiled material, tree protection and repair, construction fencing, dewatering (from any source), removal of abandoned utilities, rebedding or repair of parallel mains, traffic control, electronic message boards, public notification, preparing traffic control plans, obtaining required permits, coordinating work with various public entities, protect curb and gutter, and all other miscellaneous items not accounted for in other bid items.
  - b. Measurement: The computed slope distance along the invert of the pipe in place. The length of pipe will include the laying length of all line valves.
7. Furnish and install 20-inch access manhole and appurtenant structure:
- a. This item consists of furnishing and installing precast manhole sections, concrete footer, and grade rings and installing ring and cover.
  - b. Measurement: The unit of measurement for this item is quantity of 20-inch access manhole structures.

8. Furnish 2-inch Type "K" copper pipe:
  - a. This item consists of furnishing 2-inch pipe, bends, reducers, corrections pieces, closure pieces and appurtenant materials (such as gaskets and flange bolts).
  - b. Measurement: The laid length of pipe supplied measured in feet.
9. Install 2-inch Type "K" copper pipe:
  - a. This item consists of installing 2-inch pressure pipe, including bends, reducers, correction pieces, closure pieces and furnishing and installing valves (excluding those provided by the OWNER), outlets, joint bonding, tapping saddles, warning tape, corrosion protection (other than items provided by the OWNER), kickblocks, restrained joints, strut removal, tie-ins to existing pipe, excavation, backfill, hauling of spoiled material, tree protection and repair, construction fencing, dewatering (from any source), removal of abandoned utilities, rebedding or repair of parallel mains, traffic control, electronic message boards, public notification, preparing traffic control plans, obtaining required permits, coordinating work with various public entities, and all other miscellaneous items not accounted for in other bid items.
  - b. Measurement: The computed slope distance along the invert of the pipe in place. The length of pipe will include the laying length of all line valves.
10. Furnish and install 2-inch air valve assembly with 20-inch access and appurtenant structure:
  - a. This item consists of installing combination air release and vacuum valves, and furnishing and installing ring and cover, precast manhole sections, concrete footer, nuts, bolts, gaskets, and grade rings.
  - b. Measurement: The unit of measurement for this item is quantity of 2-inch air valve assembly with 20-inch access manhole structures.
11. Furnish and install 6-inch blowoff assembly and appurtenant structure:
  - a. This item consists of furnishing and installing precast manhole sections, concrete base sections, nuts, bolts, gaskets, grade rings, valve box, supports, valve extensions ring and cover, dewatering (from any source), and valve box lid.
  - b. Measurement: The unit of measurement for this item is quantity of 6-inch blowoff manhole structures.
12. Install 36-inch recycled water butterfly valve and furnish and install appurtenant structure:
  - a. This item consists of furnishing and installing precast manhole sections, concrete base sections, nuts, bolts, gaskets, grade rings, valve boxes, supports, valve extensions, piping for 1-1/2 inch outlets, piping for valve bypass ring and cover, dewatering (from any source), and valve box lid.
  - b. Measurement: The unit of measurement for this item is quantity of 36-inch butterfly valve manhole structures.
13. Install 30-inch recycled water butterfly valve and furnish and install appurtenant structure:
  - a. This item consists of furnishing and installing precast manhole sections, concrete base sections, nuts, bolts, gaskets, grade rings, valve boxes, supports, valve extensions, piping for 1-1/2 inch outlets, piping for valve bypass ring and cover, dewatering (from any source), and valve box lid.
  - b. Measurement: The unit of measurement for this item is quantity of 30-inch butterfly valve manhole structures.
14. Install 24-inch recycled water butterfly valve and furnish and install appurtenant structure:
  - a. This item consists of furnishing and installing precast manhole sections, concrete base sections, nuts, bolts, gaskets, grade rings, valve boxes, supports, valve extensions, piping for 1-1/2 inch outlets, piping for valve bypass ring and cover, dewatering (from any source), and valve box lid.
  - b. Measurement: The unit of measurement for this item is quantity of 24-inch butterfly valve manhole structures.

15. Furnish and install 6-inch vent pipe and install box-type vent assembly:
  - a. This item consists of furnishing and installing 6-inch vent pipe, and vent box assemblies.
  - b. Measurement: The laid length of horizontal pipe installed measured in feet.
16. Furnish and install hot mix bituminous pavement including overlay complete in place:
  - a. This item consists of furnishing and placing of hot mix bituminous pavement including all preparatory work, rotomilling, overlaying, and temporary patching required. Area to be paved shall consist of trench width, areas damaged by construction activity, areas surrounding pipeline appurtenances including blowoff, butterfly valve, and fiber optic pull box manholes, areas disturbed by utility relocation and areas required to be rotomilled and overlaid or otherwise restored.
  - b. Measurement: 7,800 square yards of pavement replaced measured along the centerline of the pipe.
17. Cleanup and restoration:
  - a. This item shall consist of all labor and material not included in other line items necessary to restore surface to grade and condition immediately prior to construction including cleanup of construction debris, replacement of curb, gutter, sidewalk, driveways, medians, and buspads, and replacement of topsoil, and furnishing and installing sod.
  - b. Measurement: The unit of measurement for this item is Lump Sum.
18. Mobilization (not to exceed 3% of Total Bid):
  - a. Perform operations in connection with preparatory work for execution of Contract Work.
  - b. Payment will be based on lump sum price bid not to exceed value stated on Bid Form.
  - c. Progress payments for mobilization will be made as work progresses as follows:
    - 1) When 10% of Contract amount is earned, 25% of mobilization bid item will be paid.
    - 2) When 25% of Contract amount is earned, 50% of mobilization bid item less previous payments will be paid.
    - 3) When 50% of Contract amount is earned, 75% of mobilization bid item less previous payments will be paid.
    - 4) When 75% of Contract amount is earned, 100% of mobilization bid item less previous payments will be paid.
  - d. Retainage as described in Agreement also applies to progress payments for mobilization.

**C. Lump Sum Work:**

1. Reflect Schedule of Values format included in Bid Form, with allowances, alternates, and equipment as selected by OWNER.
2. List Bonds and insurance premiums, mobilization, demobilization, facility startup, and contract closeout separately.
3. Breakdown in accordance with Paragraph 2.6.3. of the General Conditions.

**D. Unbalanced and front-end loaded schedules not acceptable.**

**E. Total of Schedule of Values shall equal Contract Price.**

**1.4 APPLICATION FOR PAYMENT**

- A. Use approved Application for Payment Form.**
- B. Submit on date stated in ARTICLE 14 of the General Conditions.**
  1. Include accepted Schedule of Values.

- C. Submit updated Project Schedule in accordance with SECTION 01 32 16.01 and the General Conditions with each Application for Payment.
  - D. Preparation:
    - 1. Round values to nearest dollar.
    - 2. List each Change Order and Written Amendment executed prior to date of submission as separate line item.
    - 3. Transmittal Summary Form: Attach one Summary Form with each detailed Application for Payment and include Request for Payment of Materials and Equipment on Hand.
    - 4. Execute certification by authorized officer of CONTRACTOR.
- 1.5 **PAYMENT**
- A. Progress payments will be made in accordance with the Contract Agreement Form and ARTICLE 14 of the General Conditions.
  - B. Payment for Lump Sum Work covers all Work required by Contract Documents.
- 1.6 **NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS**
- A. Payment will not be made for following:
    - 1. Loading, hauling, and disposing of rejected material.
    - 2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
    - 3. Rejected loads of material, including material rejected after it has been placed for failure to conform to provisions of Contract Documents.
    - 4. Material not unloaded from transporting vehicle.
    - 5. Defective Work not accepted by OWNER.
    - 6. Material remaining on hand after completion of Work.
- 1.7 **PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT**
- A. Partial Payment: Will be made for materials and equipment delivered or stored only if materials are accepted and the General Conditions requirements are met.
  - B. Final Payment: Will be made only for materials incorporated in Work; remaining materials, for which partial payments have been made, shall revert to Contractor unless otherwise agreed and partial payments made for those items will be deducted from final payment.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

**DRAWINGS**

**REPLACED DUE TO  
ADDENDUM NO. 2**

The Drawings which form a part of the Contract Documents show the work to be done under this Contract. The CONTRACTOR shall check all Drawings carefully and shall advise the ENGINEER of any errors or omissions discovered. The Drawings are as follows:

**CONDUIT 302  
30-INCH Ø & 36-INCH Ø  
RECYCLED WATER PIPELINE**

**PROJECT TRACKER NO. 14697**

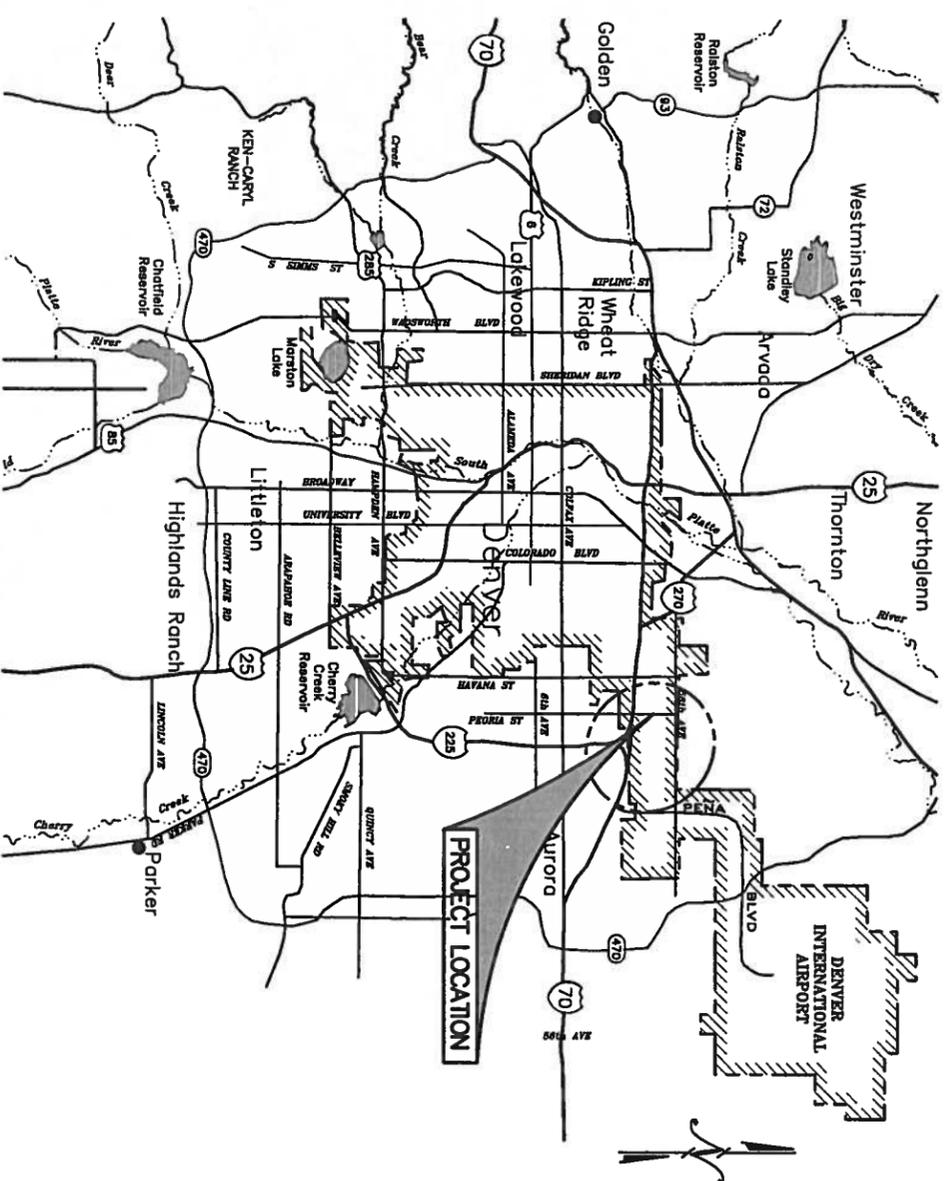
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G-1	COVER SHEET
G-2	VICINITY MAP
G-3	ABBREVIATIONS
G-4	CIVIL LEGEND
G-5	MECHANICAL LEGEND
G-6	VERTICAL DATUM
G-7	CITY & COUNTY OF DENVER CONSTRUCTION NOTES
C-1	PLAN & PROFILE
C-2	PLAN & PROFILE
C-3	PLAN & PROFILE
C-4	PLAN & PROFILE
C-5	PLAN & PROFILE
C-6	PLAN & PROFILE
C-19	DETAILS
C-20	DETAILS
C-21	DETAILS
C-22	DETAILS
C-23	DETAILS
C-24	DETAILS
C-25	DETAILS
C-26	DETAILS
C-27	DETAILS
C-28	DETAILS

# DENVER WATER DENVER, COLORADO

CONDUIT NO 302

30"Ø & 36"Ø RECYCLED WATER PIPELINE  
E 47TH AVE AND PEORIA ST  
TO E 56TH AVE AND PEORIA ST  
CONTRACT 12688A

BOARD OF WATER COMMISSIONERS  
DENVER, COLORADO  
Penfield W. Tate, III – President  
H. J. Barry – Manager  
Robert J. Mahoney – Director of Engineering



LOCATION MAP  
SCALE: 1" = 3 Miles

DRAWING INDEX	
DWG NO	TITLE
<b>GENERAL</b>	
G-1	COVER SHEET
G-2	VICINITY MAP
G-3	ABBREVIATIONS
G-4	CIVIL LEGEND
G-5	MECHANICAL LEGEND
G-6	VERTICAL DATUM
G-7	CITY & COUNTY OF DENVER CONSTRUCTION NOTES
<b>PLAN &amp; PROFILE</b>	
C-1	PLAN & PROFILE STA 441+00 TO STA 451+00.00
C-2	PLAN & PROFILE STA 451+00.00 TO STA 461+00.00
C-3	PLAN & PROFILE STA 461+00.00 TO STA 471+00.00
C-4	PLAN & PROFILE STA 471+00.00 TO STA 481+00.00
C-5	PLAN & PROFILE STA 481+00.00 TO STA 491+00.00
C-6	PLAN & PROFILE STA 491+00.00 TO STA 500+00.00
<b>DETAILS</b>	
C-19	DETAILS
C-20	DETAILS
C-21	DETAILS
C-22	DETAILS
C-23	DETAILS
C-24	DETAILS
C-25	DETAILS
C-26	DETAILS
C-27	DETAILS
C-28	DETAILS

**PROJECT DIRECTORY**  
OWNER/ENGINEER  
DENVER WATER  
1600 W 12TH AVE  
DENVER, CO 80204  
FAX: 303-828-8851  
CONTACTS:  
PROJECT ENGINEER  
LEE CESARIO, PE  
303-628-8581

<p>1600 West 12th Avenue Denver, Colorado 80204 Phone (303)828-4000 Fax (303)928-8851 www.denverwater.org</p> <p>CONSULTANT</p>																
<p>CONDUIT NO 302 30"Ø &amp; 36"Ø RECYCLED WATER PIPELINE E 47TH AVE &amp; PEORIA ST TO E 56TH AVE &amp; PEORIA ST</p>																
<p>PT NO: 14697</p> <p>CAD DWG FILE: ALL</p> <p>DRAWN BY: CESARIO/Late</p> <p>APPD BY: [Signature]</p> <p>DATE: October 2009</p> <p>FIELD BOOK NO:</p> <p>AS BUILT DATE:</p> <p>AS BUILT BY:</p>	<p>VERIFY SCALES BWL IS ONE INCH ON SHEET DRAWING 1" 0 IF NOT ONE INCH ON SHEET ACCORDINGLY</p>															
<p>REVISIONS</p> <table border="1"> <tr> <th>No</th> <th>Date</th> <th>Description</th> </tr> <tr> <td>Δ</td> <td>5/11/10</td> <td>ADDENDUM NO 2</td> </tr> <tr> <td>Δ</td> <td>4/15/10</td> <td>FINAL FOR BID</td> </tr> <tr> <td>Δ</td> <td>3/1/10</td> <td>BID REVIEW</td> </tr> <tr> <td>Δ</td> <td>1/25/10</td> <td>PRELIMINARY NOT FOR CONSTRUCTION</td> </tr> </table>	No	Date	Description	Δ	5/11/10	ADDENDUM NO 2	Δ	4/15/10	FINAL FOR BID	Δ	3/1/10	BID REVIEW	Δ	1/25/10	PRELIMINARY NOT FOR CONSTRUCTION	<p>SHEET TITLE <b>COVER SHEET</b></p> <p>G-1</p>
No	Date	Description														
Δ	5/11/10	ADDENDUM NO 2														
Δ	4/15/10	FINAL FOR BID														
Δ	3/1/10	BID REVIEW														
Δ	1/25/10	PRELIMINARY NOT FOR CONSTRUCTION														





**CONDUIT NO 302**  
 30" φ & 36" φ  
 RECYCLED WATER PIPELINE  
 E 47TH AVE & PEORIA ST TO  
 E 56TH AVE & (PEORIA ST)

No	Date	Description
Δ		
Δ		
Δ		
Δ		
Δ		
Δ	5/13/10	ADDENDUM NO 2
Δ	4/15/10	FINAL FOR BID
Δ	3/1/10	DES REVIEW
Δ	2/16/10	PRELIMINARY NOT FOR CONSTRUCTION

**REVISIONS**

**VERIFY SCALES**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 IF NOT ONE INCH ON ORIGINAL DRAWING  
 SCALES ACCORDINGLY

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 DRAWN BY: *MJA*  
 CKD BY: *CESARIO*  
 APPD BY: \_\_\_\_\_  
 DATE: October 2009  
 CONTRACT: \_\_\_\_\_  
 FIELD BOOK NO: \_\_\_\_\_  
 AS BUILT DATE: \_\_\_\_\_  
 AS BUILT BY: \_\_\_\_\_

**PLAN & PROFILE**  
 STA 451+00 TO  
 STA 461+00  
 C-2

**BUTTERFLY VALVE RECORD**

Valve Manufacturer: \_\_\_\_\_  
 Valve Size & Type: \_\_\_\_\_  
 Valve Size: \_\_\_\_\_  
 Valve Number: \_\_\_\_\_  
 Valve Location or ID: \_\_\_\_\_  
 Valve Location: \_\_\_\_\_  
 Actuator Manufacturer: \_\_\_\_\_  
 Actuator Serial Number: \_\_\_\_\_  
 Actuator Model & ID: \_\_\_\_\_  
 Open LH: \_\_\_\_\_ RH: \_\_\_\_\_

**BUTTERFLY VALVE RECORD**

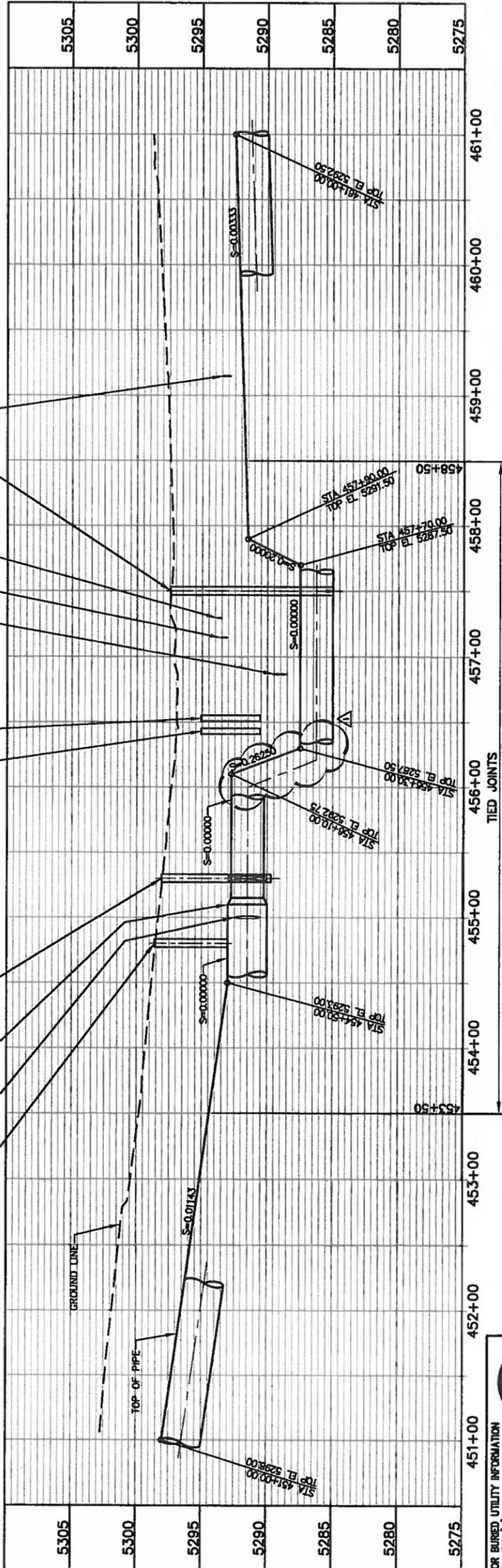
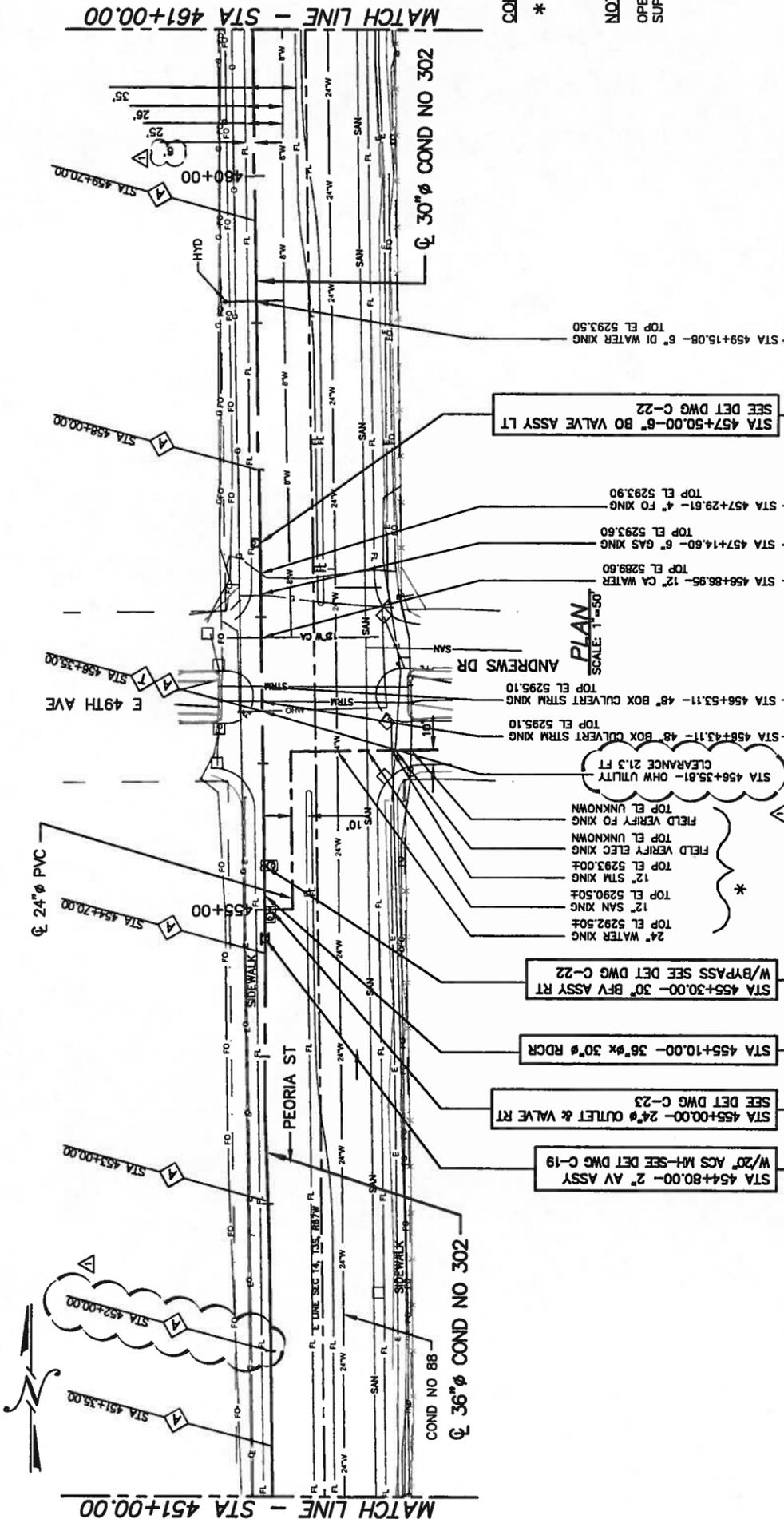
Valve Manufacturer: \_\_\_\_\_  
 Valve Size & Type: \_\_\_\_\_  
 Valve Size: \_\_\_\_\_  
 Valve Number: \_\_\_\_\_  
 Valve Location or ID: \_\_\_\_\_  
 Valve Location: \_\_\_\_\_  
 Actuator Manufacturer: \_\_\_\_\_  
 Actuator Serial Number: \_\_\_\_\_  
 Actuator Model & ID: \_\_\_\_\_  
 Open LH: \_\_\_\_\_ RH: \_\_\_\_\_

**CONSTRUCTION NOTE:**

\* INTERFERENCES TO BE FIELD VERIFIED, AND TO HAVE A DENVER WATER ENGINEER OR INSPECTOR ON SITE AT TIME OF CONSTRUCTION.

**NOTE:**

OPEN CUT UNDER 48-INCH BOX CULVERT. SUPPORT AS NEEDED.



**811**  
 FOR BURIED UTILITY INFORMATION  
 THREE (3) BUSINESS DAYS  
 BEFORE YOU DIG  
 CALL 811  
 (or 1-800-922-1987)  
 UTILITY NOTIFICATION  
 CENTER OF COLORADO (UNCC)  
 www.uncc.org

**CONDUIT NO 302**  
 30"  $\phi$  & 36"  $\phi$   
 RECYCLED WATER PIPELINE  
 E 47TH AVE & PEORIA ST TO  
 E 56TH AVE & PEORIA ST

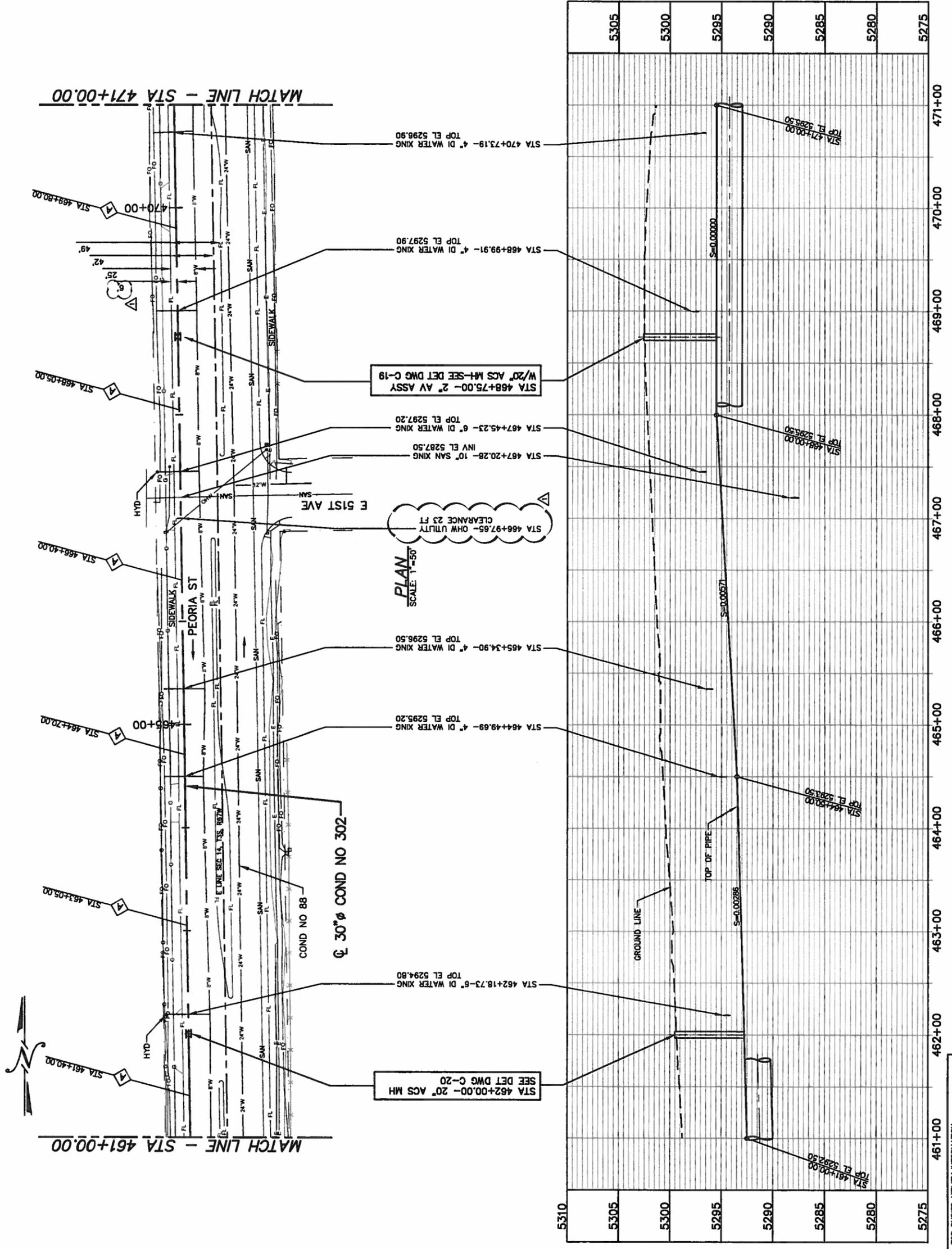
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3	3/1/10	90% REVIEW
4	5/12/10	PRELIMINARY NOT FOR CONSTRUCTION

**REVISIONS**

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING = 1"  
 IF NOT ONE INCH ON ORIGINAL DRAWING SCALES ACCORDINGLY

PT NO: 14697  
 CAD DWG FILE:  
 DRAWN BY: JLL  
 CHD BY: CESARIO  
 APPD BY: [Signature]  
 DATE: October 2009  
 CONTRACT:  
 FIELD BOOK NO:  
 AS BUILT DATE:  
 AS BUILT BY:

**PLAN & PROFILE**  
 STA 461+00 TO  
 STA 471+00  
 C-3



**PROFILE**  
 SCALE: 1"=5' HORIZ  
 SCALE: 1"=5' VERT

**811**

FOR BURIED UTILITY INFORMATION  
 THREE (3) BUSINESS DAYS  
 BEFORE YOU DIG  
 CALL 811  
 (or 1-800-922-1987)  
 UTILITY NOTIFICATION  
 CENTER OF COLORADO (UNCC)  
 www.uncc.org

No	Date	Description
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3	3/1/10	JOB REVIEW
4	5/12/10	PRELIMINARY NOT FOR CONSTRUCTION

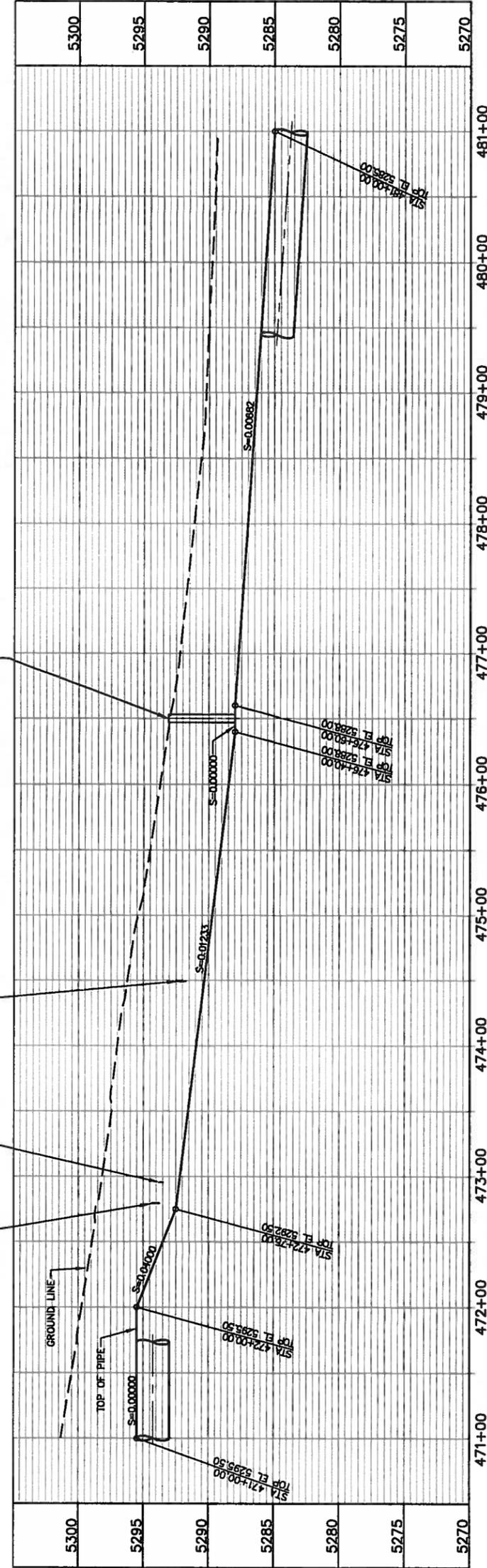
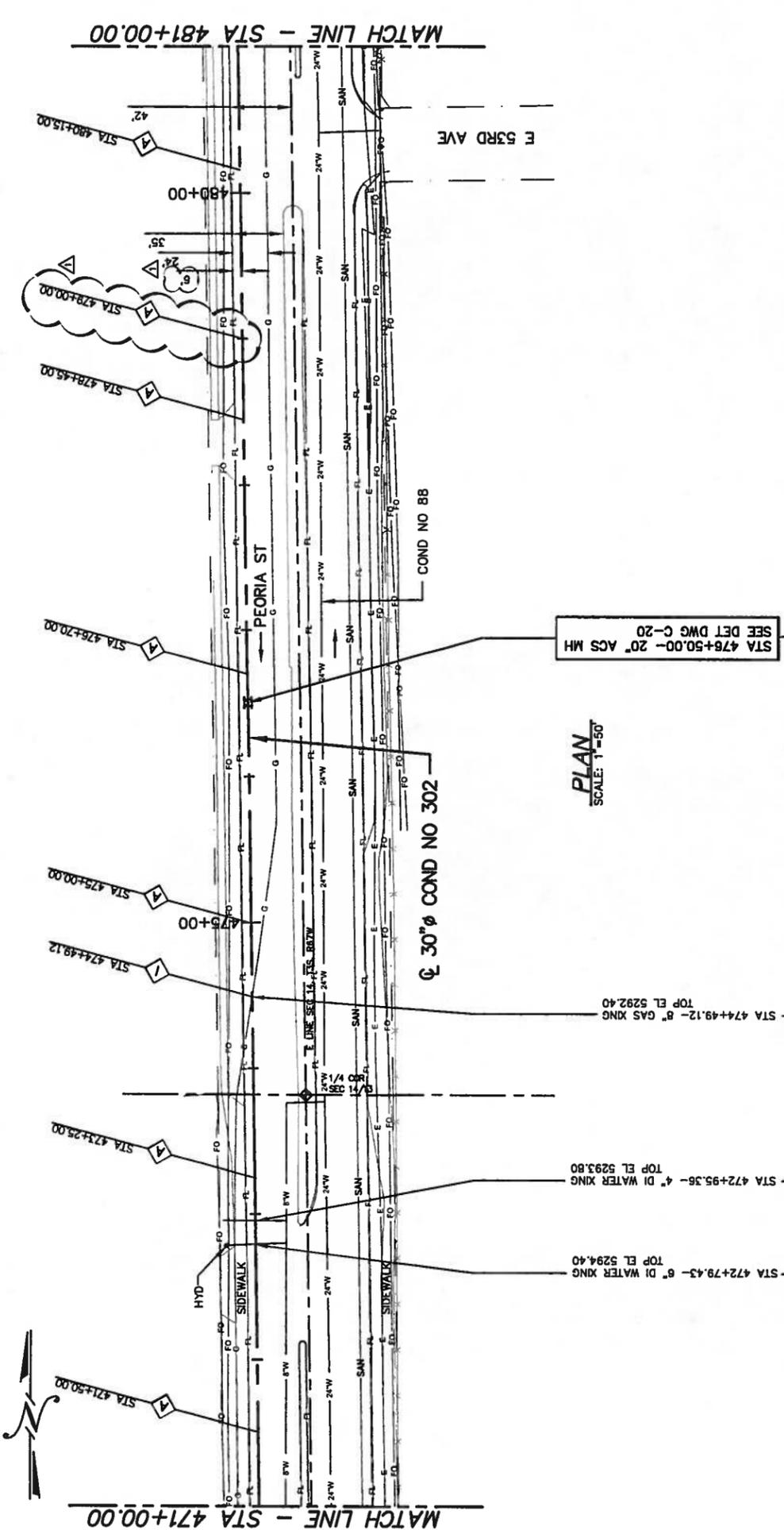
**REVISIONS**

**VERIFY SCALES**

BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 = NOT ONE INCH ON ORIGINAL DRAWING  
 SCALES ACCORDINGLY

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 DRAWN BY: JML  
 CHD BY: CESARIO  
 APP BY: CESARIO  
 DATE: October 2009  
 CONTRACT: -----  
 FIELD BOOK NO: -----  
 AS BUILT DATE: -----  
 AS BUILT BY: -----

**PLAN & PROFILE**  
 STA 471+00 TO  
 STA 481+00  
 C-4



**CONDUIT NO 302**  
 30"  $\phi$  & 36"  $\phi$   
 RECYCLED WATER PIPELINE  
 E 47TH AVE & PEORIA ST TO  
 E 56TH AVE & (PEORIA ST)

No	Date	Description
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3	3/7/10	POE REVIEW
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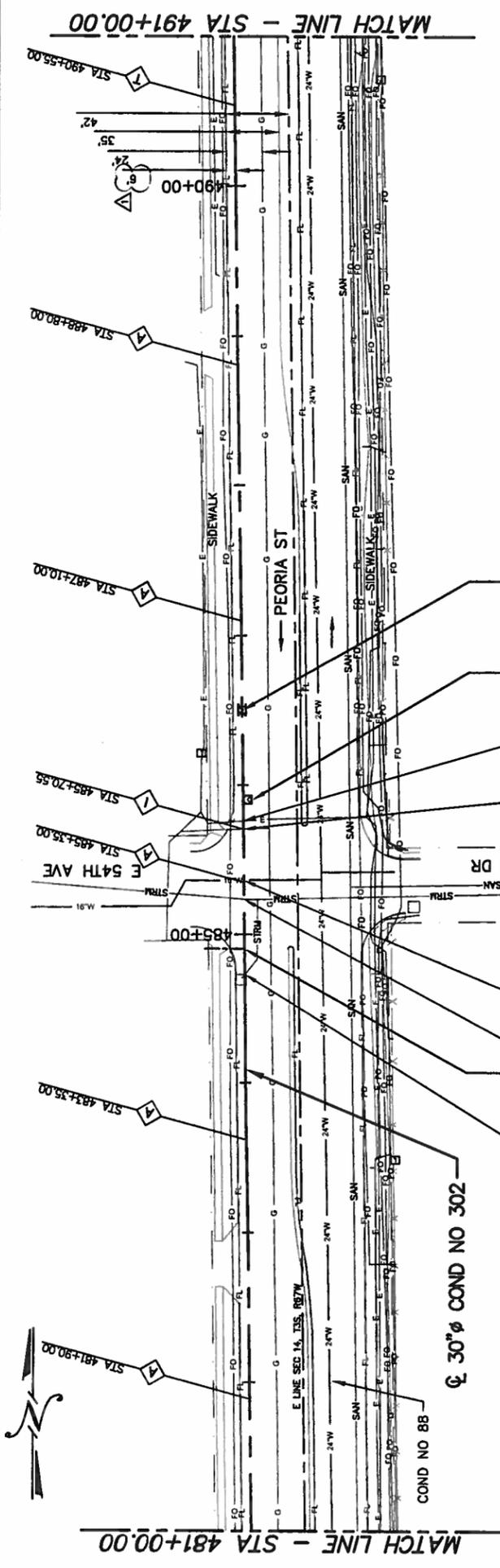
**REVISIONS**

**VERIFY SCALES**  
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 IF NOT ONE INCH ON ORIGINAL DRAWING, SCALES ACCORDINGLY

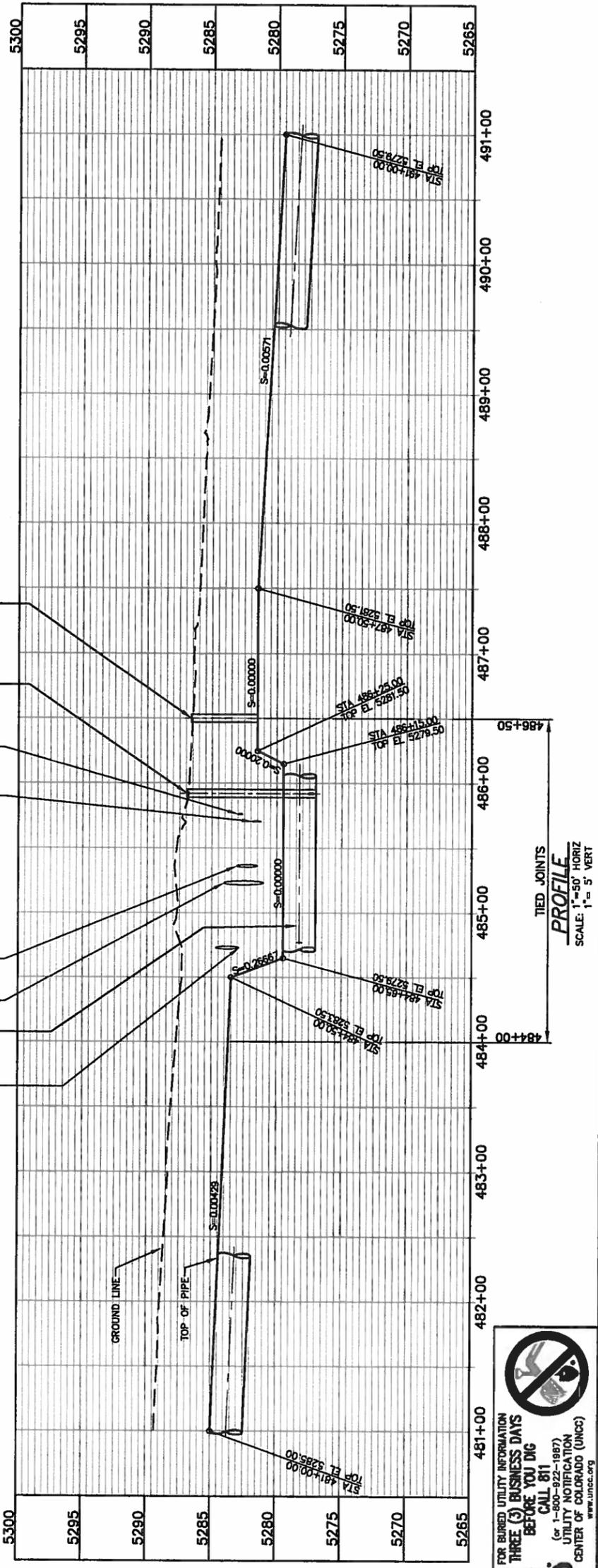
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 DRAWN BY: *ALMA*  
 CHD BY: *CESARIO*  
 APPD BY: *[Signature]*  
 DATE: October 2009  
 CONTRACT:  
 FIELD BOOK NO:  
 AS BUILT DATE:  
 AS BUILT BY:

SHEET TITLE  
**PLAN & PROFILE**  
 STA 481+00 TO  
 STA 491+00  
 C-5

**NOTE:**  
 OPEN CUT UNDER 30-INCH STORM LINE. SUPPORT AS NEEDED.

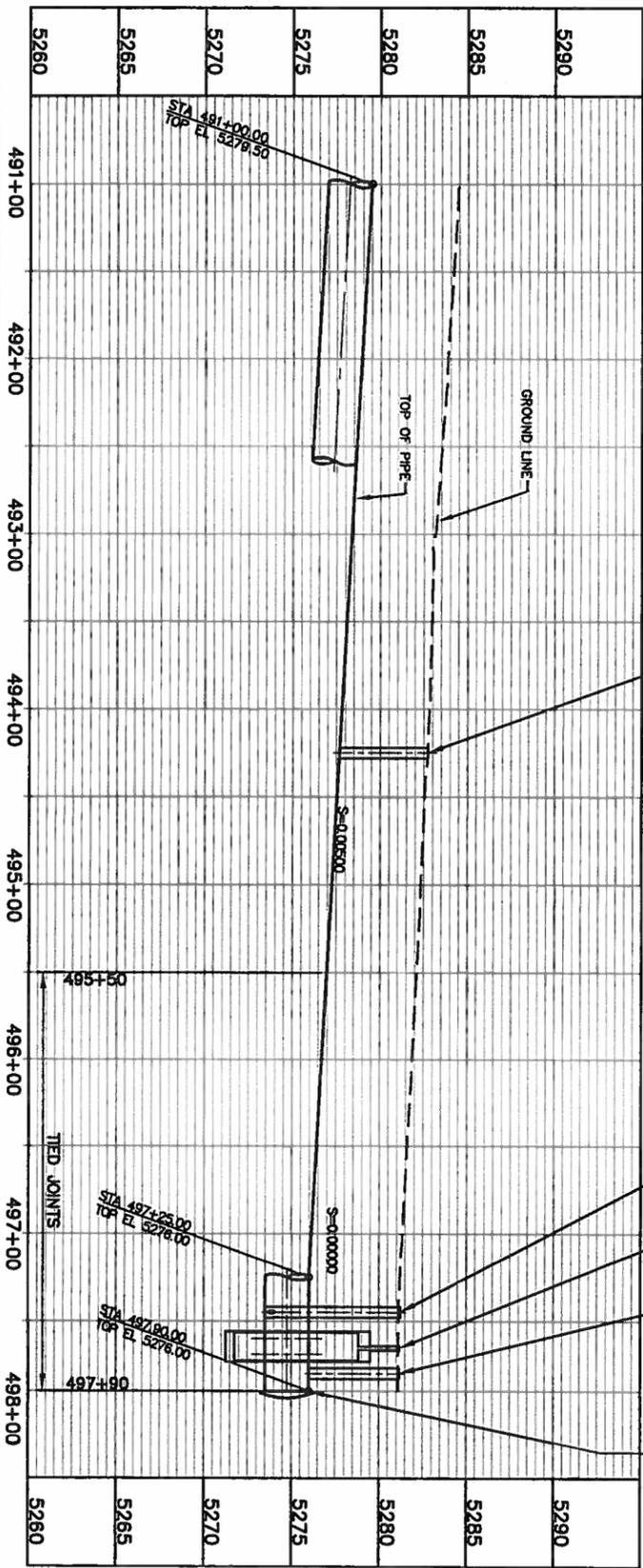


**PLAN**  
 SCALE: 1"=50'



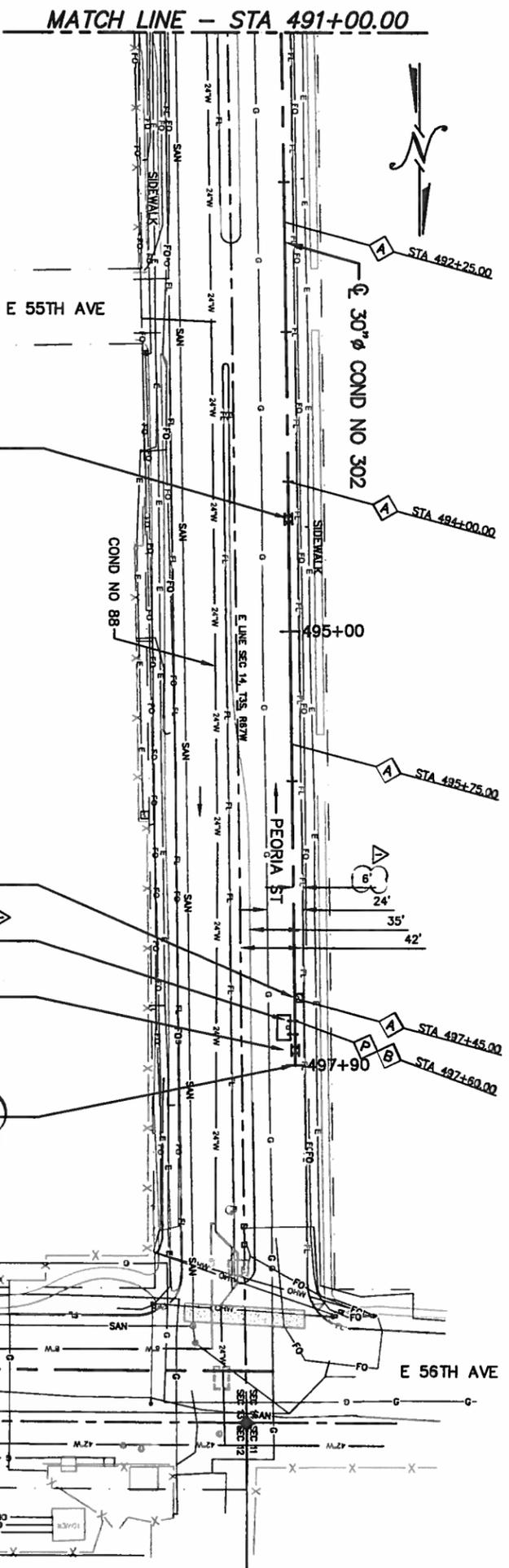
**PROFILE**  
 SCALE: 1"=5' VERT

FOR BURIED UTILITY INFORMATION  
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 (or 1-800-922-1987)  
 UTILITY NOTIFICATION  
 CENTER OF COLORADO (UNCC)  
 www.uncc.org



- STA 494+25.00- 20" ACS MH SEE DET DWG C-20
- STA 497+45.00- 6" BO VALVE ASSY LT SEE DET DWG C-22
- STA 497+60.00- 30" DOUBLE BFV ASSY RT SEE DET DWG C-21
- STA 497+80.00- 2" AV ASSY W/20" ACS MH-SEE DET DWG C-19
- ENDING STA 497+90.00-RING FLG & DISHED BULKHEAD OR BF TOP EL 5304.50 SEE DET DWG C-24

PLAN SCALE: 1"=50'



**BUTTERFLY VALVE RECORD**

Valve Manufacturer:	
Valve Model:	
Valve Size & Type:	
Valve Serial Number:	
Valve Location or ID:	
Actuator Manufacturer:	
Actuator Serial Number:	
Actuator Model & ID:	
Open LH:	
RH:	

**BUTTERFLY VALVE RECORD**

Valve Manufacturer:	
Valve Model:	
Valve Size & Type:	
Valve Serial Number:	
Valve Location or ID:	
Actuator Manufacturer:	
Actuator Serial Number:	
Actuator Model & ID:	
Open LH:	
RH:	

CONDUIT NO 302  
30" & 36" & 30" RECYCLED WATER PIPELINE  
E 47TH AVE & PEORIA ST TO E 56TH AVE & PEORIA ST

**DENVER WATER**  
1800 West 12th Avenue  
Denver, Colorado 80204  
Phone (303)525-6000  
Fax (303)525-6851  
www.denverwater.org  
CONSULTANT

REVISIONS	No	Date	Description
VERIFY SCALES			BAR IS ONE INCH ON ORIGINAL DRAWING 1" & NOT ONE INCH ON THESE DIMENSIONS
PT NO:	14697		
CAD DWG FILE:			
DRAWN BY:	ALLI		
CHECK BY:	CSA/RIO/CPK		
APP'D BY:			
DATE:	October 2009		
CONTRACT:			
FIELD BOOK NO:			
AS BUILT DATE:			
AS BUILT BY:			
SHEET TITLE			
PLAN & PROFILE STA 491+00 TO STA 497+90 C-6			