

## **ADDENDUM NO. 4**

CITY OF SAN ANTONIO  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES

PROJECT NAME: **Market Street Realignment**

DATE: 2/8/2013

This addendum should be included in and be considered part of the plans and specifications for the Market Street Realignment Project. The contractor shall be required to sign an acknowledgement of the receipt of this addendum and submit it with their bid.

PROJECT NO.: **40-00300**

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### **GENERAL:**

- **Questions and Answers**
- **Receipt of Addendum No. 4 Acknowledgement**

**PROPOSAL / SPECIFICATION UPDATES:** The documents listed below are to replace those previously issued.

- **020 Bid Form Template.** The estimate changed.
- **025 Unit Pricing Form.** This update has additional items of work and updates to quantities.
- **List of Governing Specifications.** Updated CoSA SS 535.XX to 535.99, added CoSA Special Specification 9021 listed below, and removed TxDOT Item 275 (including its special provision 275-003).
- **Updated Special Specifications**
  - **SAWS Technical Specification 332640.** Updated Section 2.06 regarding Butterfly Valves.
  - **SAWS Technical Specification 336313.** Updated requirements for Shop Drawings, Carrier Pipe Insulation, Steel Pipe Wall Thicknesses, and Testing of Chilled Water Piping.
- **Updated Plan Sheets** as listed within the attached Table of Updated Plan Sheets

**PROPOSAL / SPECIFICATION ADDITIONS:** The documents listed below are added:

- **Special Specifications**
  - **COSA SS 9021 Geotechnical Borings and Supplemental Letter Report**

## **Market Street Questions from Prospective Bidders**

February 7, 2013

1. Q: Can you post a revised 025 Form in an Excell format on the City's website?  
A: It has been posted.
2. Q: Bid Items 512-2004 and 512-2005 are indicated as Type I and Type II Single Slope Traffic Barriers. However, TxDOT does not have a Type II Single Slope Traffic Barrier. Please clarify?  
A: The current TxDOT Type I Single Slope Barricade is intended for this project. This will be revised on the plans and Bid Form in Addendum No. 4.
3. Q: The added bid items for non-hazardous soil have duplicate descriptions. Bid Items 9014.3.1 and 9014.3.3 have the same description and 9014.3.2 and 9014.3.4 do too. Is this a mistake on the descriptions or should 2 of the items be deleted? Also, the unit for these items is EA. Should these be CY?  
A: The bid item descriptions and units of measure for Item 9014 are correct in the Special Specification, and the Bid Item Descriptions will be updated on the 025 Bid Form in Addendum No. 4 to show which items pertain to the construction of CPS facilities and which items pertain to the construction of City facilities. The unit of measure is CY.
4. Q: Bid Items 9003.2a and 9016.3 show a quantity of zero on the 025 Bid Form. Is the quantity going to be added to these items or will they be deleted?  
A: Bid Items 9003.2a and 9016.3 will be deleted from the 025 Bid Form in Addendum No. 4.
5. Q: The unit for item 465-2032 is shown as LF. Should this be EA?  
A: Yes. This unit of measure will be revised to EA on the 025 Bid Form in Addendum No. 4.
6. Q: What does Item 400-2008 – Cut/Restore Pavement cover? Are all COSA and TxDOT storm sewers that are outside of the full reconstruction area covered? Are other utilities covered under this item?  
A: There are two sets of cut and restore quantities, including those paid by the City and those paid by others (SAWS). The quantity paid by the City will be to restore the area at Market Street and Commerce intersections where numerous utilities are being installed as part of Phase I Step II. Those paid by SAWS are to re-establish a driving surface where

the chilled waterline is installed under the existing pavement in Phase I Step I. Subsequent phases of the TCP utilize this existing pavement before the planters and sidewalk are constructed. Only the storm sewers and utilities shown on the plans and included in the 400-2008 quantities shown on the summary sheets for each plan are covered under this item.

7. Q: Are the butterfly valves for the chilled waterline to be 150 psi or 250 psi?  
A: Butterfly valves for the chilled waterline are to be Class 150.
  
8. Q: Per the drawings we see that the 30" butterfly valves are required and the Specification Section 332640-2.06 states that butterfly valves are not used. Can you provide specifications for the type of butterfly valves that we need to estimate?  
A: Butterfly valves are included in the construction of the chilled waterline. Specification 332640 will be revised to include the butterfly valve specifications in Addendum No. 4.
  
9. Q: There is no removal item to cover the removal of the MSE walls at the pedestrian bridge. Please clarify.  
A: The removal of the MSE retaining walls at the pedestrian bridge is subsidiary to CoSA Item 101, Preparing Right-of-Way. This will be clarified on sheets 145 and 146 in Addendum No. 4.
  
10. Q: Since directional boring has been eliminated for the CPS duct bank, should the boring item still shown on Bid Form 025 in Addendum No. 3 be removed?  
A: Yes. It will be removed from bid form 025 in Addendum No. 4.
  
11. Q: Since no profile sheets are provided for Time Warner and COSA IT conduit and manholes, it makes it difficult to determine the depths of excavation from existing grade. Do time Warner and COSA IT ducts and manholes get installed before cuts are made?  
A: The sequence of construction operations in the areas where the Time Warner and COSA IT conduits are to be installed is to be determined by the contractor.
  
12. Q: Are Time Warner and COSA IT excavations filled with flowable fill?  
A: The backfill for Time Warner and COSA IT conduits must be approved by the Engineer. Flowable fill is acceptable, but not required.

13. Q: Do Time Warner and COSA IT ducts get concrete encased?

A: No.

14. Q: The Plan and Profile Sheet 196 for Montana Street shows construction to begin at Station 15+81, and there are other places in the plans that show work west of that station to be a future extension of Montana Street. The earthwork quantities for Montana Street on Sheet 23 includes approximately 15,000 CY of excavation in the area of this future extension. Is this excavation supposed to be in this contract?

A: The area west of Station 15+81 on Montana Street is referred to in the Cross Section Sheets 264–267 as the Montana Extension. This earthwork is included in this contract, and removes a portion of the pedestrian walkway ramp that needs to be removed in order to construct the project improvements.

15. Q: Are the 6-inch PVC pipe drains in the interior bents of the bridge to be Schedule 40 or SDR 35? Also, can the PVC fittings be solvent weld or gasket joint?

A: Either Schedule 40 or SDR 35 may be used when encased in concrete. TxDOT Specification 481 requires water tight solvent welding on the fittings.

16. Q: On the short and long water services (Sheets 927 & 928), it refers over to SAWS Detail Drawing DD-824. Should Detail Drawing DD-824-12 or Detail Drawing DD-824-21 be used?

A: The short and long irrigation services will be installed per SAWS Standard Detail DD-824-21. A meter will need to be installed (not shown on detail). Meter Service shall be requested through SAWS counter Services, as indicated on the plans. Contractor shall refer to Landscape Plans for additional water service appurtenance installation requirements.

17. Q: Portions of SAWS Specification 336313 for Underground Chilled Water Distribution Piping, including Informational Submittals in Section 1.6, Insulation Products in Section 2.2, and Field Quality Control in Section 3.7 apply to steam lines instead of chilled water lines. Can you clarify this?

A: SAWS Specification 336313 will be revised in Addendum No. 4 to clarify this.

18. Q: On the grout pipe, is there a certain way this will be welded? A subcontractor has stated that there would not be grout at the welds. Can you clarify this?

A: The contractor shall provide field applied motor coating at all welds in accordance with pipe manufacturer's recommendations.

19. Q: The current specified CHW piping system is typically utilized as a high temperature design for HTHW of HPS. The federal government approved industry standard system for CHW is a bonded foam system incorporating the specified carrier pipe, 2" of spray applied polyurethane foam and a high density polyethylene jacket. Will a bonded foam system be accepted in lieu of the specified "Class A" system?

A: No. The insulation alternatives included in Bid Form 025 and SAWS Specification Section 336313 are the only alternatives that will be considered. A revised version of Section 336313 will be included in Addendum No. 4 to clarify some sections of this specification.

20. Q: There is a bid item for raising an existing bridge structure (TxDOT Specification 495-2001) that we cannot find in the plans except in the removal summary. Can you help point us to what this item is for?

A: This item is for the removal of the existing pedestrian bridge structure over the southbound entrance ramp to IH-37.

**CITY OF SAN ANTONIO  
DEPARTMENT OF CAPITAL IMPROVEMENTS MANAGEMENT SERVICES  
CONTRACT SERVICES DIVISION**

RECEIPT OF ADDENDUM NUMBER 4 IS HEREBY ACKNOWLEDGED FOR PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF Market Street Realignment FOR WHICH BIDS WILL BE OPENED ON TUESDAY, FEBRUARY 12, 2013 AT 2:00 P.M. C.S.T.

THIS ACKNOWLEDGEMENT MUST BE SIGNED AND RETURNED WITH THE BID PACKAGE.

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip Code: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name/Title: \_\_\_\_\_

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# CITY OF SAN ANTONIO

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Project Name: Market Street Realignment  
ID NO.: 40-00300

Date Issued: January 18, 2013  
Page 1 of 2

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**020**  
**BID FORM**

The estimated construction budget for this contract is \$[\$25,500,000.00]

**I. BASE BID**

Amount of Street/Roadway Construction Base Bid (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of SAWS Water Base Bid (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of SAWS Sewer Base Bid (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of SAWS Recycled Water Base Bid (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of SAWS Chilled Water Base Bid (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of AT&T Base Bid (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of CPS Electric Base Bid (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of Time Warner Cable and City IT Conduits Base Bid (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of CPS Gas Base Bid (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

**Total Amount of Base Bid (Insert Amount in Words and Numbers):**

\_\_\_\_\_ \$ \_\_\_\_\_

**II. ALTERNATES**

Amount of each Alternates (if applicable) insert in Numbers: If Applicable, or write N/A, if not applicable

Additive Alternate #1 (Diversion of Traffic) (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Additive Alternate #2 (Retaining Wall 7 Area Improvements) (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of SAWS Chilled Water Alternate 1 (Insulation Lines "A" and "C") (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of SAWS Chilled Water Alternate 2 (Insulation Line "B") (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

Amount of SAWS Chilled Water Alternate 3 (Insulation Line "D") (Insert Amount in Words and Numbers): If Applicable, or write N/A, if not applicable

\_\_\_\_\_ \$ \_\_\_\_\_

**III. UNIT PRICES**

Bidders shall submit unit pricing on the 025 Unit Pricing form, and it shall be attached immediately following this sheet.

**IV. ALLOWANCES (if applicable)**

\_\_\_\_\_  
Official Name of Company (legal)

\_\_\_\_\_  
Telephone No.

\_\_\_\_\_  
Address

\_\_\_\_\_  
Fax No.

\_\_\_\_\_  
City, State and Zip Code

\_\_\_\_\_  
E-mail Address

Name of the proposed **Project Manager:** \_\_\_\_\_

Name of the proposed **Site Superintendent:** \_\_\_\_\_

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	100.1			MOBILIZATION	LS	1			
	100.2			INSURANCE & BOND	LS	1			
	101.1			PREPARATION OF RIGHT OF WAY	LS	1			
	106.1			BOX CULVERT EXCAVATION & BACKFILL	CY	3817			
	202.1			PRIME COAT	GAL	807			
	203.1			TACK COAT	GAL	2785			
	205.3			HMA PAVEMENT, TYPE C (2" COMP. DEPTH)	SY	10913			
	208.1			SALV, HAUL & STKPL RCL APH PV (2")	SY	34457			
	209.1			CONCRETE PAVEMENT (BUS PAD) (10")	SY	178			
	307.1			CONCRETE STRUCTURE (MISCELLANEOUS)	CY	7.7			
	308.1			DRILLED SHAFTS (18")	LF	512			
	308.1			DRILLED SHAFTS (24")	LF	153			
	308.1			DRILLED SHAFTS (30")	LF	78			
	308.1			DRILLED SHAFTS (36")	LF	49			
	308.1			DRILLED SHAFTS (48")	LF	50			
	309.1			PRECAST REINFORCED CONCRETE CULVERT (4' x 3')	LF	152			
	309.1			PRECAST REINFORCED CONCRETE CULVERT (4' x 4')	LF	486			
	309.1			PRECAST REINFORCED CONCRETE CULVERT (5' x 3')	LF	110			
	309.1			PRECAST REINFORCED CONCRETE CULVERT (6' x 4')	LF	393			
	401.1			REINFORCED CONCRETE PIPE (CLASS III)(18" DIA)	LF	7			
	401.1			REINFORCED CONCRETE PIPE (CLASS III)(24" DIA)	LF	1190			
	401.1			REINFORCED CONCRETE PIPE (CLASS III)(30" DIA)	LF	304			
	401.1			REINFORCED CONCRETE PIPE (CLASS III)(36" DIA)	LF	461			
	401.1			REINFORCED CONCRETE PIPE (CLASS III)(42" DIA)	LF	303			
	401.1			REINFORCED CONCRETE PIPE (CLASS III)(48" DIA)	LF	60			
	403.1			JUNCTION BOX 4'X4'X4'	EA	9			
	403.2			JUNCTION BOX 5'X5'X5'	EA	2			
	403.3			JUNCTION BOX 6'X6'X6'	EA	5			
	403.4			JUNCTION BOX 7'X7'X7'	EA	3			
	403.7			INLET TYPE I (COMPLETE)(10FT)	EA	7			
	403.91			INLET TYPE X-1	EA	2			
	403.92			INLET TYPE Y-1	EA	1			
	403.93			CI TYPE IL-C	EA	10			
	403.94			DOMED GRATE INLET (24")	EA	3			

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO.	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	403.95			51' X 8" TRENCH DRAIN	EA	1			
	403.96			MANHOLES (STAGE II)	EA	10			
	410.2			GRAVEL SUBGRADE FILLER (100 CY< X < 1,000 C.Y.)	CY	565			
	413.1			FLOWABLE BACKFILL (LOW STRENGTH)	CY	3325			
	500.4			CONCRETE CURB & GUTTER (> 1,000 L.F.)	LF	9490			
	502.1			CONCRETE SIDEWALKS(1,000 S.Y.< X <10,000S.Y.)	SY	8676			
	503.1			PORTLAND CEMENT CONCRETE DRIVEWAY	SY	200			
	505.1			CONCRETE RIPRAP (5" THICK) (< 100 S.Y.)	SY	8.6			
	506.1			CONCRETE RETAINING WALLS-COMB. TYPE (< 20 C.Y.)	CY	10			
	507.2A			TEMPORARY CHAIN LINK WIRE FENCE (6' HIGH)	LF	2300			
	520.1			HYDROMULCH	SY	28862			
	524			CONCRETE STEPS	CY	3			
	531			OBJECT MARKER ASSEMBLY	EA	15			
	531.13R			R3-7R RIGHT LANE MUST TURN RIGHT (30" X 30")	EA	1			
	531.14SPL			R3-8SPL LANE-USE CONTROL SPECIAL (VARIES)	EA	1			
	531.17			R4-7 KEEP RIGHT (24" X 30")	EA	1			
	531.18			R5-1 DO NOT ENTER (30" X 30")	EA	4			
	531.19			R6-1R ONE WAY (36" X 12")	EA	1			
	531.43			W1-7T LARGE ARROW (48" X 24")	EA	1			
	531.49			W9-2L LANE ENDS MERGE LEFT (30" X 30")	EA	1			
	531.7			R3-1R NO RIGHT TURN (24" X24")	EA	1			
	531.D11-1			D11-1 BIKE ROUTE (24" X 18")	EA	12			
	531.D1-2			D11-2 DESTINATION (42" X 30")	EA	1			
	531.M1-1			M1-1 INTERSTATE ROUTE MARKER (24" X 24")	EA	1			
	531.M1-4			M1-4 US ROUTE MARKER (24" X 24")	EA	1			
	531.M3-1			M3-1 CARDINAL DIRECTION NORTH (24" X 12")	EA	2			
	531.M4-14			M4-14 BEGIN (12" X " 6")	EA	4			
	531.M4-6			M4-6 END (12" X 6")	EA	1			
	531.M6-1			M6-1 BIKE ARROW SIGN (12" X 9")	EA	1			
	531.M6-2L			M6-2 DIRECTIONAL ARROW LEFT (21" X 15")	EA	2			
	531.M6-2R			M6-2R BIKE ARROW SIGN (12" X 9")	EA	1			
	531.M6-4			M6-4 BIKE ARROW SIGN (12" X 9")	EA	1			
	531.R3-5bP			R3-5bP LEFT LANE (PLAQUE) (30" X 12")	EA	1			

CITY OF SAN ANTONIO

025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT

PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	531.R3-5L			R3-5L LEFT TURN ONLY (30" X 36")	EA	5			
	531.R3-5R			R3-5R RIGHT TURN ONLY (30" X 36")	EA	3			
	531.R3-6L			R3-5R LEFT AND THRU (30" X 36")	EA	1			
	531.R5-1A			R5-1A WRONG WAY (42" X 30")	EA	4			
	531.R5-1B			R5-1B BICYCLE WRONG WAY (12" X 18")	EA	1			
	531.R5-2			R5-2 NO TRUCKS (24" X 24")	EA	1			
	531.R9-6			R9-6 BICYCLE REGULATORY YIELD TO PEDS (12" X "18")	EA	2			
	531.R9-7			R9-7 SHARED USE PATH RESTRICTION (12" X 18")	EA	1			
	531.R10-11A			R10-11A NO TURN ON RED (30" X 36")	EA	5			
	531.R10-6			R10-6 STOP HERE ON RED (24" X 36")	EA	2			
	531.SPL			SPECIAL SIGN (18" X 18")	EA	2			
	531.W12-2A			W12-2A LOW CLEARANCE (78" X 24")	EA	1			
	531.W3-3			W3-3 ADVANCED TRAFFIC CONTROL (30" X 30")	EA	1			
	531.W4-3L			W4-3L ADDED LANE (36" X 36")	EA	1			
	535			24 INCH WIDE YELLOW LINE	LF	62			
	535.1			4 INCH WIDE YELLOW LINE	LF	2577			
	535.12			WORD "ONLY"	EA	10			
	535.16			STRAIGHT WHITE ARROW BICYCLE FACILITY	EA	28			
	535.17			BICYCLE RIDER SYMBOL	EA	28			
	535.2			4 INCH WIDE WHITE LINE	LF	5464			
	535.4			8 INCH WIDE WHITE LINE	LF	1959			
	535.5			12 INCH WIDE WHITE LINE	LF	468			
	535.7			24 INCH WIDE WHITE LINE	LF	1206			
	535.8			RIGHT WHITE ARROW	EA	10			
	535.9			LEFT WHITE ARROW	EA	11			
	535.XX	SS		REFL PAV MRK TY I BIKE LANE(G)(SLD)(100MIL)	SF	3244			
	537.6			TRAFFIC BUTTON TYPE I-C	EA	37			
	537.8			TRAFFIC BUTTON TYPE II-A-A	EA	58			
	537.9			TRAFFIC BUTTON TYPE II-C-R	EA	220			
	540.6			CONSTRUCTION EXITS (INSTALL/REMOVE)	SY	340			
	540.9			TEMPORARY SEDIMENT CONTROL FENCE	LF	970			
	540.10			GRAVEL FILTER BAGS FOR EROSION CONTROL	LF	988			
	550.1			TRENCH EXCAVATION SAFETY PROTECTION	LF	4799			

Description Codes: SS=Special Specification; COSA=City of San Antonio Specification Item; SAWS=San Antonio Water System Specification Item

CITY OF SAN ANTONIO

025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT

PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO.	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	615.1			TRAFFIC SIGNAL CONTROLLER ASSEMBLY (TYPE 332 CABINET)	EA	4			
	618.1			CONDUIT (2 INCH/PVC SCHEDULE 40)	LF	602			
	618.2			CONDUIT (3 INCH/PVC SCHEDULE 40) (BORE)	LF	854			
	618.2			CONDUIT (3 INCH/PVC SCHEDULE 40)	LF	2164			
	620.1			ELECTRICAL CONDUCTORS (NO. 6)(BARE)	LF	37			
	620.2			ELECTRICAL CONDUCTORS (NO. 8)(BARE)	LF	3538			
	620.3			ELECTRICAL CONDUCTORS (NO. 6)(INSULATED)	LF	74			
	624.4			GROUND BOXES TYPE D (162922)	EA	25			
	628.1			ELECTRICAL SERVICES (PER INSTALLATION)	EA	4			
	633.1			BATTERY BACKUP SYSTEM	EA	4			
	655.1			TYPE 332 CONTROLLER FOUNDATION	EA	4			
	680.1		680SPL	INSTALLATION OF HIGHWAY TRAFFIC SIGNALS [ISOLATED]	EA	3			
	680.3		680SPL	INSTALLATION OF HIGHWAY TRAFFIC SIGNALS [SYSTEM]	EA	1			
	682.1			INSTALL VEHICLE SIGNAL SECTION WITH BACK PLATE (3 SECOND)	EA	41			
	682.2			INSTALL VEHICLE SIGNAL SECTION WITH BACK PLATE (4 SECOND)	EA	3			
	682.3			INSTALL VEHICLE SIGNAL SECTION WITH BACK PLATE (5 SECOND)	EA	3			
	683.1			LED COUNTDOWN PEDESTRIAN MODULE	EA	26			
	684.1			TRAFFIC SIGNAL CABLES (TYPE C)(14 AWG)(CONDUCTOR NO. 4)	LF	2976			
	684.1			TRAFFIC SIGNAL CABLES (TYPE A)(14 AWG)(CONDUCTOR NO. 9)	LF	11368			
	686.1			INSTALL TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL)(2 ARM 44-24')	EA	1			
	686.1			INSTALL TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL)(2 ARM 50-36')	EA	2			
	686.1			INSTALL TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL)(1 ARM 24')	EA	2			
	686.1			INSTALL TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL)(1 ARM 32')(LUM)	EA	3			
	686.1			INSTALL TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL)(1 ARM 36')(LUM)	EA	1			

CITY OF SAN ANTONIO

025 UNIT PRICING FORM - ADDENDUM 4

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PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	686.1			INSTALL TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL)(1 ARM 44')(LUM)	EA	1			
	687.1			PEDESTAL POLE ASSEMBLY	EA	20			
	688.2			PEDESTRIAN DETECTORS [2 INCH PUSH BUTTON]	EA	45			
	693.1			INTERNALLY LIGHTED STREET NAME SIGNS [TYPE/SIZE]	LF	14			
	695.3			EMERGENCY PREEMPTION DETECTOR	EA	11			
	695.4			EMERGENCY PREEMPTION DETECTOR CABLE	EA	2317			
	696.1			RADAR ADVANCE DETECTION DEVICE (RADD)	EA	11			
	696.2			RADAR ADVANCE DETECTION DEVICE (RPDD)	EA	14			
	696.3			RADD COMMUNICATION AND POWER CABLE	LF	1778			
	696.3			RPDD COMMUNICATION AND POWER CABLE	LF	3190			
<b>CoSA SPECIAL SPECIFICATION ITEMS</b>									
	9001	SS		GROUT COLUMNS	LF	2353			
	9002.1	SS		TEMPORARY SUSPENSION OF WORK IN WHOLE	DAY	20			
	9002.2	SS		TEMPORARY SUSPENSION OF WORK IN PART	DAY	20			
	9003.1	SS		CAST CONCRETE SEAT (CUSTOM W/INTEGRAL COLOR)	EA	9			
	9003.2b	SS		CAST CONCRETE BENCH, 4' LONG (CUSTOM W/INTEGRAL COLOR)	EA	10			
	9003.3	SS		TRASH/RECYCLING RECEPTACLES	EA	8			
	9003.4	SS		BOLLARDS (FAIRWEATHER, 3' HIGH)	EA	3			
	9003.5	SS		BIKE RACKS (MAGLIN MBR200)	EA	8			
	9003.6	SS		TREE GUARDS (VS IRONSITES, S-6)	EA	32			
	9004A.1	SS		CONCRETE SEATWALL (COLOR, FINISH, JOINT SEALER, AND ANTI-GRAFFITI)	LF	101			
	9004A.2	SS		SPECIAL PAVING #1 UPCHARGE	SF	10822			
	9004A.3	SS		SPECIAL PAVING #2 UPCHARGE	SF	1433			
	9004A.4	SS		SPECIAL PAVING #3 UPCHARGE	SF	324			
	9004A.5	SS		SPECIAL PAVING #4 UPCHARGE	SF	288			
	9004A.6	SS		SPECIAL PAVING #5 (ARTIST DESIGNED PAVING)	SF	168			
	9004B	SS		ANTI-GRAFFITI COATING	SF	1954			
	9005.1	SS		CRUSHED STONE AT TREE WELLS AND PAVING DIVIDERS	SF	2736			
	9005.2	SS		GRAVEL SWALE	SF	444			

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PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO.	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	9005.3	SS		COBBLE DISSIPATORS AT STORMWATER INLETS	SF	265			
	9006.1	SS		WATER TAP AND METER (1" SIZE)	EA	1			
	9006.2	SS		BACKFLOW PREVENTION DEVICE WITH ENCLOSURE (1" SIZE):	EA	1			
	9006.3	SS		IRRIGATION BOOSTER PUMP SYSTEM:	EA	1			
	9006.4	SS		LANDSCAPE INJECTOR SYSTEMS:	EA	1			
	9006.5	SS		AUTOMATIC IRRIGATION CONTROLLER (2-WIRE CENTRAL CONTROL):	EA	1			
	9006.6	SS		CONTROL WIRE (2-WIRE):	LF	6710			
	9006.7	SS		IRRIGATION SLEEVES (MAINLINE):	LF	1376			
	9006.8	SS		IRRIGATION SLEEVES (LATERALS):	LF	1142			
	9006.9	SS		IRRIGATION SLEEVES (WIRES):	LF	1376			
	9006.10	SS		IRRIGATION PRESSURE MAINLINE (2-1/2" SIZE):	LF	3620			
	9006.11	SS		IRRIGATION PRESSURE MAINLINE (2" SIZE):	LF	3090			
	9006.12	SS		IRRIGATION ISOLATION GATE VALVES (2-1/2" SIZE):	EA	14			
	9006.13	SS		IRRIGATION ISOLATION GATE VALVES (2" SIZE):	EA	17			
	9006.14	SS		IRRIGATION QUICK COUPLING VALVE (1" SIZE):	EA	44			
	9006.15	SS		TREE ROOT WATERING SYSTEM (2 PER TREE):	EA	542			
	9006.16	SS		SUBSURFACE DRIP IRRIGATION:	SF	48328			
	9006.17	SS		REMOTE CONTROL VALVE:	EA	26			
	9006.18	SS		DRIP REMOTE CONTROL VALVE:	EA	31			
	9007.1	SS		TREES, 2.5" CALIPER	EA	68			
	9007.2	SS		TREES, 3" CALIPER	EA	130			
	9007.3	SS		TREES, 4" CALIPER	EA	73			
	9007.4-7	SS		SHRUBS AND GROUNDCOVER	SF	42680			
	9007.8a	SS		SOIL PREP + AMENDMENTS (SHRUB/GROUNDCOVER), 12-18" DEEP	SF	26557			
	9007.8b	SS		SOIL FOR TRENCHES	SF	1356			
	9007.8c	SS		SOIL FOR TREE WELLS	SF	2736			
	9007.9	SS		PLANTING AREA SHEET MULCH	SF	26557			
	9007.1	SS		SOIL PREP + AMENDMENTS (STORMWATER)	SF	21771			
	9007.11	SS		STORMWATER PLANTER SHEET MULCH	SF	21771			
	9007.12a	SS		TREE STAKES (9' REDDYSTAKE)	EA	130			
	9007.12b	SS		TREE STAKES (MEGASTAKE)	EA	73			

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	9007.13	SS		SOIL FERTILITY TESTING	EA	12			
	9007.14	SS		SOIL FOOD WEB ANALYSIS TESTING	EA	12			
	9007.15	SS		LANDSCAPE MAINTENANCE, 12 MONTHS	EA	1			
	9008.1a	SS		PERF. PIPE AT STORMWATER PLANTER + TREE WELLS WITH TRENCHING & DRAIN ROCK	LF	3329			
	9008.1b	SS		SOLID PIPE AT TREE WELLS W/TRENCHING & DRAIN ROCK	LF	450			
	9008.1c	SS		CLEANOUTS FOR UNDERDRAIN LINES	EA	61			
	9009	SS		GEOGRID FOR BASE AND EMBANKMENT REINFORCEMENT	SY	22107			
	9010	SS		INS VALMONT 26 FT 2 IN TAVERN GREEN STREET LIGHT ASSEMBLY (INCLUDES POLE, BASE, AND ARM)	EA	78			
	9011	SS		INS GREENSTAR LED LUMINAIRE, GALAXY XD--GLX30 MODEL, 68W	EA	59			
	9011	SS		INS GREENSTAR LED LUMINAIRE, GALAXY XD--GLX48 MODEL, 109W	EA	19			
	9012	SS		INS LANDSCAPEFORMS 12 FT METALLIC BRONZE ALCOTT PEDESTRIAN LIGHT	EA	128			
	9013	SS		INS LANDSCAPEFORMS 3 FT 1 IN METALLIC BRONZE HAWTHORN BOLLARD LIGHT	EA	31			
	9014.3.1	SS		TRANSPORTATION TO DISPOSAL FACILITY (CLASS 2 NON-HAZ SOIL) (COSA)	EA	621			
	9014.3.2	SS		LANDFILL DISPOSAL (CLASS 2 NON-HAZ SOIL) (COSA)	EA	621			
	9014.3.3	SS		TRANSPORTATION TO DISPOSAL FACILITY (CLASS 2 NON-HAZ SOIL) (CPS)	EA	175			
	9014.3.4	SS		LANDFILL DISPOSAL (CLASS 2 NON-HAZ SOIL) (CPS)	EA	175			
	9014.6.1	SS		PREPARATION AND IMPLEMENTATION OF A SITE SPECIFIC HEALTH AND SAFETY PLAN	LS	1			
	9015	SS		VERTICAL CIRCULATOR	LS	1	\$ 250,000.00	\$ 250,000.00	
	9016.1	SS		CONCRETE STRUCTURE (STORM WATER PLANTER - 5'-6' WIDE)	LF	1870			
	9016.2	SS		CONCRETE STRUCTURE (STORM WATER PLANTER - 6'-7' WIDE)	LF	490			
	9016.4	SS		CONCRETE STRUCTURE (STORM WATER PLANTER - 8'-15' WIDE)	LF	670			
	9018.1	SS		ORNAMENTAL FENCE	LF	367			
	9018.2	SS		ORNAMENTAL GATE	EA	1			

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	9019.1	SS		PEDESTRIAN ENHANCEMENTS ON COMMERCE ST	LS	1	\$ 600,000.00	\$ 600,000.00	
	9020	SS		STREET LIGHT FOUNDATION	EA	79			
	9021.1	SS		GEOTECHNICAL BORINGS (25' TO 35') & SUP LTR RPT	LS	1			
	9021.2	SS		GEOTECHNICAL BORING, 35' DEEP	EA	1			
	9021.3	SS		GEOTECHNICAL BORING, ADD OR DEDUCT LENGTH	LF	20			
	814	SAWS		8" DI PIPE	LF	449			
	814	SAWS		30" DI PIPE	LF	449			
	<b>TxDOT ITEMS</b>								
	104	2009		REMOVING CONC (RIPRAP)	SY	2226			
	104	2011		REMOVING CONC (MEDIANS)	SY	165			
	104	2015		REMOVING CONC (SIDEWALKS)	SY	6374			
	104	2021		REMOVING CONC (CURB)	LF	6833			
	110	2001		EXCAVATION (ROADWAY)	CY	64583			
	132	2002	007	EMBANKMENT (FINAL)(DENS CONT)(TY A)	CY	9990			
	160	2003		FURNISHING AND PLACING TOPSOIL (4")	SY	28862			
	247	2041		FL BS (CMP IN PLC)(TY A GR 1)(FNAL POS)	CY	1572			
	340	2011		D-GR HMA(METH) TY-B PG64-22	TON	118			
	340	2014		D-GR HMA(METH) TY-B PG70-22	TON	12053			
	340	2050		D-GR HMA(METH) TY-C PG70-22	TON	5750			
	342	2002		PFC (ASPHALT) PG76-22	TON	506			
	360	2002		CONC PVMT (CONT REINF - CRCP) (9")	SY	563			
	400	2008		CUT & RESTORING PAV (ASPH)	SY	669			
	403	2001		TEMPORARY SPL SHORING	SF	12,311			
	416	2001	001	DRILL SHAFT (18 IN)	LF	40			
	416	2003	001	DRILL SHAFT (30 IN)	LF	168			
	416	2004	001	DRILL SHAFT (36 IN)	LF	7,959			
	416	2006	001	DRILL SHAFT (48 IN)	LF	728			
	416	2016	001	DRILL SHAFT (SIGN MTS)(12 IN)	LF	21			
	416	2029	001	DRILL SHAFT (RDWY ILL POLE) (30 IN)	LF	32			
	420	2003	002	CL C CONC (ABUT)	CY	52.7			
	420	2004	002	CL C CONC (BENT)	CY	182			
	420	2006	002	CL C CONC (RAIL FOUNDATION)	CY	15			
	420	2013	002	CL C CONC (MISC)	CY	27.88			

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	420	2017	002	CL C CONC (BENT)(MASS PLACEMENT)	CY	298.3			
	420	2018	002	CL C CONC (FOOTING)(MASS PLACEMENT)	CY	124.6			
	420	2029	002	CL S CONC (SLAB)	CY	43.5			
	420	2031	002	CL S CONC (SHEAR KEY)	CY	14			
	420	2033	002	CL S CONC (APPR SLAB)	CY	41.7			
	422	2001		REINF CONC SLAB	SF	23,914			
	423	2001		RETAINING WALL (MSE)	SF	10,791			
	423	2012		RETAINING WALL (CAST-IN-PLACE)	SF	503			
	423	2013		RETAINING WALL (TIEBACK)	SF	13,930			
	423	2026		RETAINING WALL (CANT DRILL SHAFT)(FACIA)	SF	620			
	425	2006	001	PRESTR CONC BOX BEAM (4B20)	LF	318			
	425	2040		PRESTR CONC BOX BEAM (5B20)(SPL)	LF	79.5			
	425	2053		PRESTR CONC BOX BEAM (5B20)(MOD)	LF	159			
	425	2068		PRESTR CONC GIRDER (TX54)	LF	3,282.90			
	428	2001		CONC SURF TREAT (CLASS I)	SY	3,142			
	432	2001		RIPRAP (CONC)(4 IN)	CY	195			
	432	2002		RIPRAP (CONC)(5 IN)	CY	8.6			
	432	2039		RIPRAP (MOW STRIP)(4 IN)	CY	22			
	432	2048		RIPRAP (CONC)(FLUME)	CY	44			
	432	2084		RIPRAP (CONC) (CL B) (4")	CY	7.6			
	442	2005		STR STL (MISCELLANEOUS)	LB	1045			
	442	2048		STRUCTURAL STEEL (MISC NON-BRIDGE)	LB	826			
	450	2077		RAIL (PEDESTRIAN RAIL) (TY PR6)	LF	213			
	450	2079	001	RAIL (TY 3-HD) (SPL)	LF	162			
	450	2121	001	RAIL (PEDESTRIAN RAIL) (TY PR3)	LF	244.1			
	450	2210	001	RAIL (TY T551) (MOD)	LF	3000			
	452	2010		REMOV RAIL (PEDESTRIAN)	LF	255			
	454	2001		SEALED EXPANSION JOINT (4 IN)(SEJ-A)	LF	159			
	460	20047		CMP (GAL STL 18 IN)	LF	32			
	460	2004		CMP (GAL STL 24 IN)	LF	11			
	464	2005		RC PIPE (CL III)(24 IN)	LF	876			
	464	2010		RC PIPE (CL III)(42 IN)	LF	55			
	465	2032		INLET (COMPL) (CURB) (TY 1) (10' X 3')	EA	1			
	465	2092		MANH (COMPL)(TY 1)	EA	6			

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	465	2188		INLET (COMPL)(DROP)(TY Y-1)	EA	6			
	465	2478		INLET (COMPL)(TY RWIR)	EA	1			
	465	2999		INLET (COMPL)(TY M)	EA	1			
	471	2003		GRATE & FRAME	EA	4			
	481	2012		PVC PIPE (SCH 40)(6 IN)	LF	123			
	481	2013		PVC PIPE (SCH 40)(8 IN)	LF	241			
	481	2015		PVC PIPE (SCH 40)(12 IN)	LF	110			
	495	2001		RAISE EXIST STR	EA	1			
	496	2011		REMOV STR (BRIDGE 500-999 FT LENGTH)	EA	1			
	496	2067		REMOV STR (LRG PED BRIDGE) (0-50 FT LENGTH)	EA	1			
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	18			
	208	2002		CONSTRUCTING DETOURS	SY	1908			
	512	2004	002	PORT CTB (FUR & INST) (SNGL SLP) (TY 1)	LF	1800			
	512	2008	002	PORT CTB (FUR & INST)(LOW PROF)(TY 1)	LF	1100			
	512	2009	002	PORT CTB (FUR & INST)(LOW PROF)(TY 2)	LF	100			
	512	2022	002	PORT CTB (MOVE)(SNGL SLP) (TY 1)	LF	630			
	512	2026	002	PORT CTB (MOVE)(LOW PROF)(TY 1)	LF	760			
	512	2027	002	PORT CTB (MOVE)(LOW PROF)(TY 2)	LF	200			
	512	2035	002	PORT CTB (STKPL)(LOW PROF)(TY 1)	LF	240			
	512	2040	002	PORT CTB (REMOVE) (SNGL SLP) (TY 1)	LF	1800			
	512	2044	002	PORT CTB (REMOVE)(LOW PROF)(TY 1)	LF	1100			
	512	2045	002	PORT CTB (REMOVE)(LOW PROF)(TY 2)	LF	100			
	512	2052	002	PORT CTB (REMOVE)(F-SHAPE)(TY 1)	LF	1322			
	514	2015	002	PERM CONC TRF BARR (F-SHAPE)(TY 1)	LF	443			
	514	2016	002	PERM CONC TRF BARR (F-SHAPE)(TY 2)	LF	30			
	540	2001	031	MTL W-BEAM GD FEN (TIM POST)	LF	873			
	540	2005	031	TERMINAL ANCHOR SECTION	EA	2			
	540	2044	031	DOWNSTREAM ANCHOR TERMINAL (DAT) SECTION	EA	2			
	542	2001		REMOVING METAL BEAM GUARD FENCE	LF	1660			
	542	2002		REMOVING TERMINAL ANCHOR SECTION	EA	1			
	545	2001		CRASH CUSH ATTEN (INSTL)	EA	1			
	545	2002		CRASH CUSH ATTEN (MOVE & RESET)	EA	1			
	545	2003		CRASH CUSH ATTEN (REMOVE)	EA	1			
	545	2049		CRASH CUSH ATTEN (INSTL) (WORK ZONE)	EA	2			

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	545	2051		CRASH CUSH ATTEN (REMOVE) (WORK ZONE)	EA	2			
	610	2064	005	RELOCATE RD IL ASM (TRANS-BASE)	EA	2			
	610	2072	005	REMOVE RDWY ILL ASSEM	EA	30			
	610	2998	005	INS RD IL AM (TY SA) 40S - 6 (.25 KW) S	EA	8			
	610	2999	005	INS RD IL AM (TY SA) 40T - 6 (.25 KW) S	EA	3			
	617	2003	003	TEMP RD IL (TIMBER POLES W/ARMS)	EA	4			
	618	2018		CONDT (PVC) (SCHD 40) (2")	LF	14459			
	618	2035		CONDT (PVC) (SCHD 80) (2") (BORE)	LF	616			
	620	2003	001	ELEC CONDR (NO. 2) BARE	LF	450			
	620	2004	001	ELEC CONDR (NO. 2) INSULATED	LF	900			
	620	2009	001	ELEC CONDR (NO. 6) BARE	LF	1830			
	620	2010	001	ELEC CONDR (NO. 6) INSULATED	LF	3660			
	620	2011	001	ELEC CONDR (NO. 8) BARE	LF	13887			
	620	2012	001	ELEC CONDR (NO. 8) INSULATED	LF	27774			
	624	2007	014	GROUND BOX TY A (122311)	EA	40			
	624	2008	014	GROUND BOX TY A (122311) W / APRON	EA	37			
	628	2101	003	ELC SRV TY D 120 / 240 070 (NS) SS (E) SP (U)	EA	4			
	636	2001	014	ALUMINUM SIGNS (TY A)	SF	70			
	636	2002	014	ALUMINUM SIGNS (TY G)	SF	6			
	636	2003	014	ALUMINUM SIGNS (TY O)	SF	673			
	644	2022		INS SM RD SN SUP&AM TY S80(1) SA(P)	EA	26			
	644	2025		INS SM RD SN SUP&AM TY S80(1) SA(T)	EA	4			
	644	2027		INS SM RD SN SUP&AM TY S80(1) SA(U)	EA	2			
	644	2056		RELOCATE SM RD SN SUP & AM TY 10BWG	EA	3			
	644	2058		RELOCATE SM RD SN SUP & AM TY S80	EA	3			
	644	2060		REMOVE SM RD SN SUP & AM	EA	41			
	647	2001		INSTALL LRSS (STRUCT STEEL)	LB	516			
	647	2002		RELOCATE LRSA	EA	3			
	650	2053		INS OH SN SUP (50 FT BRDG)	EA	2			
	658	2315		INSTL OM ASSM (OM-2Y)(WC) GND	EA	2			
	662	2001		WK ZN PAV MRK NON-REMOV (W) 4" (BRK)	LF	1540			
	662	2002		WK ZN PAV MRK NON-REMOV (W) 4" (DOT)	LF	64			
	662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD)	LF	6825			
	662	2012		WK ZN PAV MRK NON-REMOV (W) 8" (SLD)	LF	3604			

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	662	2016		WK ZN PAV MRK NON-REMOV (W) 24" (SLD)	LF	1573			
	662	2017		WK ZN PAV MRK NON-REMOV (W) (ARROW)	EA	31			
	662	2018		WK ZN PAV MRK NON-REMOV (W) (DBL ARROW)	EA	2			
	662	2026		WK ZN PAV MRK NON-REMOV(W)(UTURN ARROW)	EA	2			
	662	2027		WK ZN PAV MRK NON-REMOV (W) (WORD)	EA	20			
	662	2028		WK ZN PAV MRK NON-REMOV (W)18"(YLD TRI)	EA	25			
	662	2030		WK ZN PAV MRK NON-REMOV (Y) 4" (BRK)	LF	60			
	662	2032		WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)	LF	6768			
	662	2039		WK ZN PAV MRK NON-REMOV (Y) 24" (SLD)	LF	62			
	662	2064		WK ZN PAV MRK REMOV (W) 4" (BRK)	LF	910			
	662	2067		WK ZN PAV MRK REMOV (W) 4" (SLD)	LF	11926			
	662	2073		WK ZN PAV MRK REMOV (W) 8" (DOT)	LF	24			
	662	2075		WK ZN PAV MRK REMOV (W) 8" (SLD)	LF	5202			
	662	2079		WK ZN PAV MRK REMOV (W) 24" (SLD)	LF	226			
	662	2084		WK ZN PAV MRK REMOV (W) (ARROW)	EA	15			
	662	2085		WK ZN PAV MRK REMOV (W) (DBL ARROW)	EA	8			
	662	2093		WK ZN PAV MRK REMOV (W) (UTURN ARROW)	EA	4			
	662	2094		WK ZN PAV MRK REMOV (W) (WORD)	EA	19			
	662	2095		WK ZN PAV MRK REMOV (W) 18" (YLD TRI)	EA	7			
	662	2099		WK ZN PAV MRK REMOV (Y) 4" (SLD)	LF	6011			
	662	2103		WK ZN PAV MRK REMOV (Y) 8" (SLD)	LF	182			
	662	2113		WK ZN PAV MRK SHT TERM (TAB) TY W	EA	1218			
	662	2115		WK ZN PAV MRK SHT TERM (TAB) TY Y-2	EA	458			
	666	2003	014	REFL PAV MRK TY I (W) 4" (BRK)(100MIL)	LF	190			
	666	2012	014	REFL PAV MRK TY I (W) 4" (SLD)(100MIL)	LF	4287			
	666	2036	014	REFL PAV MRK TY I (W) 8" (SLD)(100MIL)	LF	1333			
	666	2048	014	REFL PAV MRK TY I (W) 24"(SLD)(100MIL)	LF	489			
	666	2054	014	REFL PAV MRK TY I (W) (ARROW) (100MIL)	EA	10			
	666	2069	014	REFL PAV MRK TY I(W)(DBL ARROW)(100MIL)	EA	2			
	666	2093	014	REFL PAV MRK TY I(W)(UTURN ARW)(100MIL)	EA	2			
	666	2096	014	REFL PAV MRK TY I (W) (WORD) (100MIL)	EA	10			
	666	2099	014	REF PAV MRK TY I(W)18"(YLD TRI)(100MIL)	EA	25			
	666	2111	014	REFL PAV MRK TY I (Y) 4" (SLD)(100MIL)	LF	3512			
	666	2141	014	REFL PAV MRK TY I (Y)(MED NOSE)(100MIL)	EA	1			

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	666	2189	014	PAVEMENT SEALER 4"	LF	7799			
	666	2191	014	PAVEMENT SEALER 8"	LF	1333			
	666	2195	014	PAVEMENT SEALER 24"	LF	489			
	666	2219	014	PAVEMENT SEALER (ARROW)	EA	10			
	666	2220	014	PAVEMENT SEALER (WORD)	EA	10			
	666	2221	014	PAVEMENT SEALER (MED NOSE)	EA	1			
	666	2224	014	PAVEMENT SEALER (DBL ARROW)	EA	2			
	666	2230	014	PAVEMENT SEALER UTURN ARROW	EA	2			
	666	2257	014	PAVEMENT SEALER (YLD TRI)	EA	25			
	672	2017	034	REFL PAV MRKR TY II-C-R	EA	127			
	677	2001	034	ELIM EXT PAV MRK & MRKS ( 4")	LF	3006			
	677	2003	034	ELIM EXT PAV MRK & MRKS ( 8")	LF	1158			
	677	2005	034	ELIM EXT PAV MRK & MRKS ( 12")	LF	450			
	677	2020	034	ELIM EXT PAV MRK & MRKS (36")(YLD TRI)	EA	7			
	690	2024	009	REMOVAL OF SIGNAL HEAD ASSM	EA	1			
	690	2026	009	INSTALL OF SIGNAL HEAD ASSM	EA	1			
	690	2051	009	REMOVAL OF SIGNAL POLE ASSM	EA	1			
<b>TxDOT SPECIAL SPECIFICATION ITEMS</b>									
	6834	2002	001	PORTABLE CHANGEABLE MESSAGE SIGN	EA	4			
<b>Total Bid Amount:</b>									

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
<b>BID ALTERNATE 1: DIVERSION OF TRAFFIC</b>									
	203.1			TACK COAT	GAL	1076.3			
	205.3			HMA PAVEMENT, TYPE C (2" COMP. DEPTH)	SY	10763			
	208.1			SALV, HAUL & STKPL RCL APH PV (2")	SY	10763			
	535			24 INCH WIDE YELLOW LINE	LF	252			
	535.1			4 INCH WIDE YELLOW LINE	LF	260			
	535.11			COM THRU/LEFT WHITE ARROW	EA	6			
	535.12			WORD "ONLY"	EA	5			
	535.2			4 INCH WIDE WHITE LINE	LF	790			
	535.4			8 INCH WIDE WHITE LINE	LF	1433			
	535.5			12 INCH WIDE WHITE LINE	LF	1669			
	535.7			24 INCH WIDE WHITE LINE	LF	756			
	535.8			RIGHT WHITE ARROW	EA	5			
	535.9			LEFT WHITE ARROW	EA	14			
	537.6			TRAFFIC BUTTON TYPE I-C	EA	19			
	537.8			TRAFFIC BUTTON TYPE II-A-A	EA	14			
	537.9			TRAFFIC BUTTON TYPE II-C-R	EA	116			
	305	2002		SALV, HAUL & STKPL RCL APH PV (0 TO 2")	SY	3336			
	340	2050		D-GR HMA(METH) TY-C PG70-22	TON	367			
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	11			
	662	2064		WK ZN PAV MRK REMOV (W) 4" (BRK)	LF	315			
	662	2065		WK ZN PAV MRK REMOV (W) 4" (DOT)	LF	344			
	662	2067		WK ZN PAV MRK REMOV (W) 4" (SLD)	LF	916			
	662	2075		WK ZN PAV MRK REMOV (W) 8" (SLD)	LF	1967			
	662	2084		WK ZN PAV MRK REMOV (W) (ARROW)	EA	251			
	662	2085		WK ZN PAV MRK REMOV (W) (DBL ARROW)	EA	7			
	662	2094		WK ZN PAV MRK REMOV (W) (WORD)	EA	15			
	662	2113		WK ZN PAV MRK SHT TERM (TAB) TY W	EA	185			
	662	2115		WK ZN PAV MRK SHT TERM (TAB) TY Y-2	EA	32			
	666	2003	014	REFL PAV MRK TY I (W) 4" (BRK)(100MIL)	LF	160			
	666	2036	014	REFL PAV MRK TY I (W) 8" (SLD)(100MIL)	LF	30			
	666	2048	014	REFL PAV MRK TY I (W) 24"(SLD)(100MIL)	LF	357			
	666	2111	014	REFL PAV MRK TY I (Y) 4" (SLD)(100MIL)	LF	812			
	666	2132	014	REFL PAV MRK TY I (Y) 24"(SLD)(100MIL)	LF	155			

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	666	2141	014	REFL PAV MRK TY I (Y)(MED NOSE)(100MIL)	EA	2			
	666	2189	014	PAVEMENT SEALER 4"	LF	972			
	666	2191	014	PAVEMENT SEALER 8"	LF	30			
	666	2195	014	PAVEMENT SEALER 24"	LF	512			
	666	2221	014	PAVEMENT SEALER (MED NOSE)	EA	2			
	672	2012	034	REFL PAV MRKR TY I-C	EA	18			
	672	2015	034	REFL PAV MRKR TY II-A-A	EA	120			
	672	2017	034	REFL PAV MRKR TY II-C-R	EA	3			
	677	2008		ELIM EXT PAV MRK & MRKS (ARROW)	EA	2			
	690	2024	009	REMOVAL OF SIGNAL HEAD ASSM	EA	19			
	690	2026	009	INSTALL OF SIGNAL HEAD ASSM	EA	19			

**Total Bid Amount for Alternate TCP:**

	9017.1	SS		TRAFFIC CONTROL CREDIT DUE TO THE TEMPORARY CLOSURE OF MARKET STREET	LS	1			
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**Total Bid Amount for Bid Alternate 1:**

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
<b>BID ALTERNATE 2: RETAINING WALL 7 AREA IMPROVEMENTS</b>									
	432 2001			RIPRAP (CONC)(4 IN)	CY	46			
	0416 2004			DRILL SHAFT (36 IN)	LF	138			
	0416 2006			DRILL SHAFT (48 IN)	LF	1166			
	0423 2026			RETAINING WALL (CANT DRILL SHAFT)(FACIA)	SF	2960			
	9006.6	SS		CONTROL WIRE (2-WIRE):	LF	240			
	9006.8	SS		IRRIGATION SLEEVES (LATERALS):	LF	15			
	9006.10	SS		IRRIGATION PRESSURE MAINLINE (2-1/2" SIZE):	LF	240			
	9006.14	SS		IRRIGATION QUICK COUPLING VALVE (1" SIZE):	EA	2			
	9006.16	SS		SUBSURFACE DRIP IRRIGATION:	SF	6659			
	9006.18	SS		DRIP REMOTE CONTROL VALVE:	EA	5			
	9007.4-7	SS		SHRUBS AND GROUNDCOVER	SF	6659			
	9007.8a	SS		SOIL PREP + AMENDMENTS (SHRUB/GROUNDCOVER), 12-18" DEEP	SF	6659			
	9007.9	SS		PLANTING AREA SHEET MULCH	SF	6659			

**Total Bid Amount for Bid Alternate 2:**

**City of San Antonio Statement:**

\_\_\_\_\_ certifies that the unit prices shown on this complete computer print-out for all of the bid items and the alternates contained in this proposal are the unit prices intended and that its bid will be tabulated using these unit prices and no other information from this print-out.

\_\_\_\_\_ Acknowledged and agrees that the total bid amount shown will be read as its total bid and further agrees that the official total bid amount will be determined by multiplying the unit bid prices shown in this print-out by the respective estimated quantities shown in the proposal and then totaling all of the extended amounts. \_\_\_\_\_ agrees to the terms, conditions, and requirements of the bidder's bid proposal.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_



CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
<b>SAN ANTONIO WATER SYSTEM - SEWER</b>									
	100			MOBILIZATION	LS	1			
	101			PREPARATION OF RIGHT OF WAY	LS	1			
	550			TRENCH EXCAVATION SAFETY PROTECTION	LF	129			
	858			CONCRETE ENCASEMENT	CY	15.4			
	862			SEWER LINE ABANDONMENT	LF	167			
							<b>Total Sewer Bid Amount:</b>		

<b>SAN ANTONIO WATER SYSTEM - RECYCLED WATER</b>									
ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	100			MOBILIZATION	LS	1			
	101			PREPARING RIGHT OF WAY	LS	1			
	511.2	COSA		ASPHALT PAVEMENT REPLACEMENT, 11" CTB	SY	5			
	550			TRENCH EXCAVATION SAFETY PROTECTION	LF	258			
	818			12" PVC RECYCLED WATER MAIN	LF	258			
	836			PIPE FITTINGS	TON	0.5			
	840			TIE-IN 12"	EA	2			
	841			HYDROSTATIC TEST	EA	1			
	844			2" TEMPORARY BLOW-OFF	EA	1			
	862			ABANDONMENT OF RECYCLED WATER MAIN	LF	342			
							<b>Total Recycled Water Bid Amount:</b>		

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
<b>SAN ANTONIO WATER SYSTEM - CHILLED WATER (CW)</b>									
	<b>LINE "A" &amp; "C": MARKET ST. CHILLED WATER</b>								
	1			20" CHW STEEL PIPE (OPEN CUT)	LF	72			
	2			20" CHW PIPE INSULATION	LF	72			
	3			20" GATE VALVE	EA	2			
	4			20" BUTTERFLY VALVE	EA	2			
	5			30" CHW STEEL PIPE (OPEN CUT)	LF	2484			
	6			30" CHW PIPE PRE-INSULATION	LF	2484			
	7			30" BUTTERFLY VALVE	EA	4			
	8			TRENCH EXCAVATION SAFETY PROTECTION	LF	1242			
	9			TRENCHING, BACKFILLING & COMPACTION	LF	1242			
	10			CONCRETE ANCHOR	EA	4			
	11			30" PIPE STOP (INCLUDE HOT TAPPING)	EA	4			
	12			TIE-IN 30"	EA	4			
	13			2" AIR RELEASE ASSEMBLIES	EA	8			
	14			4" TEMPORARY BLOW-OFF	EA	4			
	15			HYDROSTATIC TEST	EA	2			
	16			CATHODIC PROTECTION	LF	2484			
	17			REINFORCED CONCRETE VAULT	EA	1			
	18			ABANDONMENT OF CHILLED WATER MAIN	LF	1017			
	858			CONCRETE ENCASEMENT	CY	12			
						<b>Line "A" &amp; "C" Subtotal:</b>			

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO.	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
<b>LINE "B": WFR/CHERRY STREET PLANT CHILLED WATER</b>									
	40			20" CHW STEEL PIPE (OPEN CUT)	LF	3264			
	41			20" CHW PIPE PRE-INSULATION	LF	3264			
	42			JACK & BORE 60" DIA	LF	203			
	43			STEEL CASING 60" DIA	LF	213			
	44			20" CHW STEEL CARRIER PIPE	LF	426			
	45			20" CHW CARRIER PIPE INSULATION	LF	426			
	46			20" GATE VALVE	EA	4			
	47			TRENCHING, BACKFILLING & COMPACTION	LF	1632			
	48			TRENCH EXCAVATION SAFETY PROTECTION	LF	1632			
	49			QUICK SETTING FLOWABLE FILL	CY	2000			
	50			24" X 20" HOT TAPPING	EA	2			
	51			30" X 20" HOT TAPPING	EA	2			
	52			2" AIR RELEASE ASSEMBLIES	EA	10			
	53			4" TEMPORARY BLOW-OFF	EA	2			
	54			HYDROSTATIC TEST	EA	2			
	55			CATHODIC PROTECTION	LF	3690			
	56			3" MILL & OVERLAY ASPHALT	SY	440			
	57			ASPHALT PAVEMENT REPLACEMENT	SY	235			
	104	2021		REMOVING CONC (CURB)	LF	819			
	110	2001		EXCAVATION (ROADWAY)	CY	540			
	132	2003	007	EMBANKMENT (FINAL)(ORD COMP)(TY B)	CY	300			
	340	2011		D-GR HMA(METH) TY-B PG64-22	TON	498			
	400	2008		CUT & RESTORING PAV (ASPH)	SY	701			
	512	2004	002	PORT CTB (FUR & INST)(SNGL SLP)(TY 1)	LF	150			
	512	2008	002	PORT CTB (FUR & INST)(LOW PROF)(TY 1)	LF	1580			
	512	2009	002	PORT CTB (FUR & INST)(LOW PROF)(TY 2)	LF	80			
	512	2040	002	PORT CTB (REMOVE)(SNGL SLP) (TY 1)	LF	150			
	512	2044	002	PORT CTB (REMOVE)(LOW PROF)(TY 1)	LF	1580			
	512	2045	002	PORT CTB (REMOVE)(LOW PROF)(TY 2)	LF	80			
	545	2001		CRASH CUSH ATTEN (INSTL)	EA	1			
	545	2003		CRASH CUSH ATTEN (REMOVE)	EA	1			
	644	2058		RELOCATE SM RD SN SUP & AM TY S80	EA	2			
							<b>Line "B" Subtotal:</b>		

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO.	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	<b>LINE "D": MARKET STREET CHILLED WATER</b>								
	3			20" GATE VALVE	EA	3			
	5.1			24" CHW STEEL PIPE (OPEN CUT)	LF	24			
	6.1			24" CHW PIPE PRE-INSULATION	LF	24			
	5.2			30" CHW STEEL PIPE (OPEN CUT)	LF	232			
	6.2			30" CHW PIPE PRE-INSULATION	LF	232			
	7			30" BUTTERFLY VALVE	EA	1			
	8			TRENCH EXCAVATION SAFETY PROTECTION	LF	232			
	9			TRENCHING, BACKFILLING, AND COMPACTION	LF	232			
	12.1			TIE-IN 24"	EA	1			
	12.2			TIE-IN 30"	EA	1			
	13			2" AIR RELEASE ASSEMBLIES	EA	1			
	14			4" TEMPORARY BLOW-OFF	EA	1			
	15			HYDROSTATIC TEST	EA	1			
	16			CATHODIC PROTECTION	LF	232			
	18			ABANDONMENT OF CHILLED WATER MAIN	LF	232			
	50			24" X 20" HOT TAPPING	EA	2			
	50.1			TEMPORARY 20" CHW JUMPER PIPE	LF	90			
									<b>Line "D" Subtotal:</b>
									<b>Line "A", "C", "B" and "D" Subtotal:</b>
	100			MOBILIZATION	LS	1			
	101			PREPARING RIGHT OF WAY	LS	1			
									<b>Total CW Bid Amount:</b>

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
<b>SAN ANTONIO WATER SYSTEM - CHILLED WATER (CW)</b>									
<b>ALTERNATE 1: INSULATION FOR LINE "A" &amp; "C": MARKET ST. CHILLED WATER</b>									
	100			MOBILIZATION	LS	1			
	101			PREPARING RIGHT OF WAY	LS	1			
	30			DEDUCT TRENCHING, BACKFILLING & COMPACTION	LF	1242			
	31			DEDUCT 20 CHW PIPE PRE-INSULATION	LF	72			
	32			DEDUCT 30" CHW PIPE PRE-INSULATION	LF	2484			
	33			DEDUCT CATHODIC PROTECTION	LF	2484			
	34			ADD GILSULATE 500XR INSULATION (MATERIAL ONLY)	CF	29601			
	35			ADD GILSULATE 500XR INSULATION (SHIPPING & HANDLING)	TRUCK	27.6			
	36			ADD GILSULATE 500XR INSULATION (INSTALLATION, COMPLETE)	CF	29601			
						<b>Alt. 1 for Line "A" Bid Amount:</b>			
<b>ALTERNATE 2: INSULATION FOR LINE "B": WFR/CHERRY STREET PLANT CHILLED WATER</b>									
	100			MOBILIZATION	LS	1			
	101			PREPARING RIGHT OF WAY	LS	1			
	70			DEDUCT TRENCHING, BACKFILLING & COMPACTION	LF	1530			
	71			DEDUCT 20" CHW PIPE PRE-INSULATION	LF	3059.4			
	72			DEDUCT CATHODIC PROTECTION	LF	3059.4			
	73			ADD GILSULATE 500XR INSULATION (MATERIAL ONLY)	CF	20954			
	74			ADD GILSULATE 500XR INSULATION (SHIPPING & HANDLING)	TRUCK	19.4			
	75			ADD GILSULATE 500XR INSULATION (INSTALLATION, COMPLETE)	CF	20954			
						<b>Alt. 2 for Line "B" Bid Amount:</b>			

025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT

PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	<b>ALTERNATE 3: INSULATION FOR LINE "D": MARKET STREET CHILLED WATER</b>								
	100			MOBILIZATION	LS	1			
	101			PREPARING RIGHT OF WAY	LS	1			
	30			DEDUCT TRENCHING, BACKFILLING & COMPACTION	LF	232			
	31			DEDUCT 24" CHW PIPE PRE-INSULATION	LF	24			
	32			DEDUCT 30" CHW PIPE PRE-INSULATION	LF	232			
	33			DEDUCT CATHODIC PROTECTION	LF	232			
	34			ADD GILSULATE 500XR INSULATION (MATERIAL ONLY)	CF	2978			
	35			ADD GILSULATE 500XR INSULATION (SHIPPING & HANDLING)	TRUCK	2.7			
	36			ADD GILSULATE 500XR INSULATION (INSTALLATION, COMPLETE)	CF	2978			
									<b>Alt. 3 for Line "D" Bid Amount:</b>

**SAWS Statement:**

\_\_\_\_\_ certifies that the unit prices shown on this complete computer print-out for all of the bid items and the alternates contained in this proposal are the unit prices intended and that its bid will be tabulated using these unit prices and no other information from this print-out.

\_\_\_\_\_ Acknowledged and agrees that the total bid amount shown will be read as its total bid and further agrees that the official total bid amount will be determined by multiplying the unit bid prices shown in this print-out by the respective estimated quantities shown in the proposal and then totaling all of the extended amounts. \_\_\_\_\_ agrees to the terms, conditions, and requirements of the bidder's bid proposal.

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
<b>AT&amp;T - UNDERGROUND UTILITY</b>									
	100.1	COSA		MOBILIZATION	LS	1			
	101.1	COSA		PREPARATION OF RIGHT OF WAY	LS	1			
	1			6-4" PVC CONCRETE ENCASED (TELE)	LF	1678			
	2			DIRECTIONAL BORE	LF	784			
	3			TRENCH PROTECTION	LF	874			
	4			MANHOLE 4'x8'x6'	EA	6			
	4			REMOVAL OF EXIST MANHOLE	EA	9			
	5			COPPER INSTALLATION	LF	2275			
	6			FIBER INSTALLATION	LF	2275			

**Total Bid Amount:**

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CITY OF SAN ANTONIO

025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT

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ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
<b>CPS ELECTRIC</b>									
	100.1	COSA		MOBILIZATION	LS	1			
	101.1	COSA		PREPARATION OF RIGHT OF WAY	LS	1			
	1			CONDUIT CONCRETE ENCASED 12-4" PVC W/3-2" (SCH 40)	L.F.	2579			
	3			TRENCH EXCAVATION	L.F.	2085			
	4			MANHOLE 7'x7'x7' (ELEC)	L.F.	16			
							<b>Total Bid Amount:</b>		

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CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
PROJECT NO. 40-00300

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
<b>TIME WARNER AND CITY IT CONDUITS</b>									
	100.1	COSA		MOBILIZATION	LS	1			
	101.1	COSA		PREPARATION OF RIGHT OF WAY	LS	1			
	618.3	COSA		CONDUIT - PVC (SCH 40) INSTALL ONLY	LF	3680			
	618.3	COSA		CONDUIT - PVC (SCH 40) FURNISH AND INSTALL	LF	3680			
	852	SAWS		MANHOLE 4'x4' INSTALL ONLY	EA	2			
	852	SAWS		MANHOLE 4'x4' FURNISH AND INSTALL	EA	3			
	550.1	COSA		TRENCH EXCAVATION PROTECTION	LF	1840			

**Total Bid Amount:**

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\_\_\_\_\_ Acknowledged and agrees that the total bid amount shown will be read as its total bid and further agrees that the official total bid amount will be determined by multiplying the unit bid prices shown in this print-out by the respective estimated quantities shown in the proposal and then totaling all of the extended amounts. \_\_\_\_\_ agrees to the terms, conditions, and requirements of the bidder's bid proposal.

CITY OF SAN ANTONIO  
025 UNIT PRICING FORM - ADDENDUM 4

PROJECT NAME: MARKET STREET REALIGNMENT  
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ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
<b>CPS - GAS</b>									
	100.1	COSA		MOBILIZATION	LS	1			
	101.1	COSA		PREPARATION OF RIGHT OF WAY	LS	1			
	1			INSTALL GAS MAIN OR CASING (DISTANCE AS MEASURED ALONG THE TOP OF TRENCH)					
	1.1			6" PLASTIC PIPE AND TRACER WIRE	LF	145			
	1.2			8" PLASTIC PIPE AND TRACER WIRE	LF	172			
	1.3			12" STEEL PIPE	LF	470			
	2			CONCRETE/FLATWORK	SY	17			
	3			FLOWABLE FILL	CY	195			
	4			CUT AND RESTORE PAVEMENT (TO BE USED AS DIRECTED)	SY	56			
<b>Total Bid Amount:</b>									

\_\_\_\_\_ certifies that the unit prices shown on this complete computer print-out for all of the bid items and the alternates contained in this proposal are the unit prices intended and that its bid will be tabulated using these unit prices and no other information from this print-out.

\_\_\_\_\_ Acknowledged and agrees that the total bid amount shown will be read as its total bid and further agrees that the official total bid amount will be determined by multiplying the unit bid prices shown in this print-out by the respective estimated quantities shown in the proposal and then totaling all of the extended amounts. \_\_\_\_\_ agrees to the terms, conditions, and requirements of the bidder's bid proposal.

CITY OF SAN ANTONIO, TEXAS  
MARKET STREET REALIGNMENT  
GOVERNING SPECIFICATIONS

All standard City of San Antonio, Texas Department of Transportation, and San Antonio Water System specifications, special provisions and special specifications applicable to this project are identified as follows:

**CITY OF SAN ANTONIO**  
**STANDARD SPECIFICATIONS FOR CONSTRUCTION (JUNE 2008)**

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
100	MOBILIZATION
101	PREPARING RIGHT-OF-WAY
106	BOX CULVERT EXCAVATION AND BACKFILLING
202	PRIME COAT
203	TACK COAT
205	HOT MIX ASPHALTIC CONCRETE PAVEMENT
208	SALVAGING, HAULING & STOCKPILING RECLAIMABLE ASPHALTIC PAVEMENT
209	CONCRETE PAVEMENT
306	STRUCTURAL EXCAVATION
307	CONCRETE STRUCTURES
308	DRILLED SHAFTS AND UNDER-REAMED FOUNDATIONS
309	PRECAST REINFORCED CONCRETE BOX CULVERTS
401	REINFORCED CONCRETE PIPE
403	STORM SEWER JUNCTION BOXES AND INLETS
406	JACKING, BORING AND TUNNELING
407	CONCRETE ENCASEMENT, CRADLES, SADDLES, AND COLLARS
409	CAST IRON CASTINGS
410	SUBGRADE FILLER
413	FLOWABLE FILL
500	CONCRETE CURB, GUTTER, AND CONCRETE CURB AND GUTTER
502	CONCRETE SIDEWALKS AND DRIVEWAYS
503	ASPHALTIC CONCRETE, PORTLAND CEMENT CONCRETE, AND GRAVEL DRIVEWAYS
505	CONCRETE RIPRAP
506	CONCRETE RETAINING WALL – COMBINATION TYPE
507	CHAIN LINK WIRE FENCE
511	CUTTING AND REPLACING PAVEMENTS (TRENCH REPAIR)
520	HYDROMULCH
524	CONCRETE STEPS
526	FIELD OFFICE
531	SIGNS

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
535	HOT APPLIED THERMOPLASTIC PAVEMENT MARKINGS
537	RAISED PAVEMENT MARKERS
540	TEMPORARY EROSION, SEDIMENTATION AND WATER POLLUTION PREVENTION & CONTROL
550	TRENCH EXCAVATION SAFETY PROTECTION
551	SPECIAL SHORING
600	TRAFFIC SIGNAL GENERAL CONDITIONS
615	TRAFFIC SIGNAL CONTROLLER CABINET
618	CONDUIT
620	ELECTRICAL CONDUCTORS
624	GROUND BOXES
628	ELECTRICAL SERVICES
633	BATTERY BACKUP SYSTEM FOR TRAFFIC SIGNAL
655	CONTROLLER FOUNDATION AND PEDESTAL POSTS
680	INSTALLATION OF HIGHWAY TRAFFIC SIGNALS
681	TEMPORARY TRAFFIC SIGNALS
682	VEHICLE AND PEDESTRIAN SIGNAL HEADS
683	LED COUNTDOWN PEDESTRIAN SIGNAL MODULE
684	TRAFFIC SIGNAL CABLES
686	TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL)
687	PEDESTAL POLE ASSEMBLIES
688	PEDESTRIAN DETECTORS AND VEHICLE LOOP DETECTORS
693	INTERNALLY LIGHTED STREET NAME SIGN ASSEMBLIES
695	EMERGENCY VEHICLE TRAFFIC SIGNAL PRIORITY CONTROL SYSTEM
696	RADAR VEHICLE DETECTION DEVICES (RVDD)
700	SCHEDULE
1000	WEB PORTAL

CITY OF SAN ANTONIO SPECIAL PROVISIONS

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
	SPECIAL PROVISION UPDATE MAY 2009
	SPECIAL PROVISION UPDATE FEBRUARY 2010
	SPECIAL PROVISION UPDATE JUNE 2010
	SPECIAL PROVISION UPDATE TO THE GENERAL CONDITIONS
526SPL	FIELD OFFICE
680SPL	INSTALLATION OF HIGHWAY TRAFFIC SIGNALS
9800	PROJECT SIGNS

CITY OF SAN ANTONIO SPECIAL SPECIFICATIONS

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
535.99	BIKE PAVEMENT MARKINGS
9000	PROJECT SIGNS
9001	GROUT COLUMNS
9002	TEMPORARY SUSPENSION OF WORK
9003	SITE FURNISHINGS
9004	LANDSCAPE CONCRETE COLOR AND FINISHES
9005	CRUSHED STONE, GRAVEL, AND COBBLES
9006	IRRIGATION
9007	PLANTING
9008	SUBSURFACE DRAINAGE FOR LANDSCAPE AREAS
9009	GEOGRID FOR BASE AND EMBANKMENT REINFORCEMENT
9010	VALMONT ILLUMINATION STREET LIGHT ASSEMBLY
9011	GREENSTAR LED LUMINAIRE, GALAXY XD – GLX30 & GLX48
9012	LANDSCAPE FORMS PEDESTRIAN LIGHT
9013	LANDSCAPE FORMS HAWTHORN BOLLARD LIGHT
9014	SPECIAL ENVIRONMENTAL SPECIFICATION FOR CLASS 2 NON-HAZARDOUS SOILS
9015	VERTICAL CIRCULATOR
9016	STORMWATER PLANTER
9017	TEMPORARY CLOSURE OF MARKET STREET
9018	ORNAMENTAL FENCE AND GATE
9019	PEDESTRIAN ENHANCEMENTS ON COMMERCE STREET
9020	STREET LIGHT FOUNDATION
9021	GEOTECHNICAL BORINGS AND SUPPLEMENTAL LETTER REPORT

**TEXAS DEPARTMENT OF TRANSPORTATION**  
**STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF**  
**HIGHWAYS, STREETS, AND BRIDGES 2004**

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
0104	REMOVING CONCRETE
0110	EXCAVATION (132)
0132	EMBANKMENT (100)(204)(210)(216)(400)
0160	TOPSOIL
0164	BROADCAST SEED (162)(166)(168)
0168	VEGETATIVE WATERING
0247	FLEXIBLE BASE (105)(204)(210)(216)(520)
0340	DENSE-GRADED HOT-MIX ASPHALT (METHOD) (210)(300)(301)(320)(520)(585)
0342	PERMEABLE FRICTION COURSE (PFC) (210)(300)(301)(320)(520)(585)
0400	EXCAVATION AND BACKFILL FOR STRUCTURES (132)(401)(420)(421)
0401	FLOWABLE BACKFILL
0403	TEMPORARY SPECIAL SHORING (423)
0416	DRILLED SHAFT FOUNDATIONS (420)(421)(440)(448)
0420	CONCRETE STRUCTURES (400)(404)(421)(426)(427)(438)(440)(448)
0422	REINFORCED CONCRETE SLAB (420)(421)(440)
0423	RETAINING WALLS (110)(132)(400)(420)(421)(424)(440)(445)(556)
0425	PRECAST PRESTRESSED CONCRETE STRUCTURAL MEMBERS (420)(421) (424)(426)(427)(434)(440)(442)
0428	CONCRETE SURFACE TREATMENT (427)
0432	RIPRAP (420)(421)(427)(440)
0442	METAL FOR STRUCTURES (441)(445)(446)(447)(448)(449)
0450	RAILING (420)(421)(424)(440)(441)(442)(445)(446)(448)
0452	REMOVE RAILING
0454	BRIDGE EXPANSION JOINTS (429)(442)
0460	CORRUGATED METAL PIPE (400)(445)
0464	REINFORCED CONCRETE PIPE (400)
0465	MANHOLES AND INLETS (400)(420)(421)(440)(471)
0471	FRAMES, GRATES, RINGS, AND COVERS (441)(445)(448)
0481	PVC PIPE FOR DRAINS (400)
0495	RAISING EXISTING STRUCTURES
0496	REMOVING STRUCTURES (430)
0502	BARRICADES, SIGNS, AND TRAFFIC HANDLING
0508	CONSTRUCTING DETOURS
0512	PORTABLE CONCRETE TRAFFIC BARRIER (420)(421)(424)(440)(442)
0514	PERMANENT CONCRETE TRAFFIC BARRIER (400)(416)(420)(421)(424)(440) (442)(448)
0540	METAL BEAM GUARD FENCE (421)(445)(529)(542)(544)
0542	REMOVING METAL BEAM GUARD FENCE
0545	CRUSH CUSHION ATTENUATORS (421)
0610	ROADWAY ILLUMINATION ASSEMBLIES (421)(441)(442)(445)(446)(449)(616) (620)
0617	TEMPORARY ROADWAY ILLUMINATION (416)(610)(613)(614)(618)(620)(621) (622)(624)(627)(628)

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
0618	CONDUIT (400)(445)(476)(622)
0620	ELECTRICAL CONDUCTORS
0624	GROUND BOXES (421)(440)
0628	ELECTRICAL SERVICES (441)(445)(449)(618)(620)(627)(656)
0636	ALUMINUM SIGNS (643)
0644	SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)(441)(442) (445)(634)(636)(643)(656)
0647	LARGE ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)(441)(442) (445)(634)
0650	OVERHEAD SIGN SUPPORTS (416)(420)(421)(441)(442)(445)(449)(618)
0658	DELINEATOR AND OBJECT MARKER ASSEMBLIES (445)
0662	WORKZONE PAVEMENT MARKINGS (666)(668)(672)(677)
0666	REFLECTORIZED PAVEMENT MARKINGS (316)(318)(662)(677)(678)
0672	RAISED PAVEMENT MARKERS (677)(678)
0677	ELIMINATE EXISTING PAVEMENT MARKINGS AND MARKERS (300)(302)(316)
0690	MAINTENANCE OF TRAFFIC SIGNALS (416)(421)(476)(610)(618)(620)(622)(624) (625)(627)

## TxDOT SPECIAL PROVISIONS

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
132-007	EMBANKMENT
416-001	DRILLED SHAFT FOUNDATIONS
420-002	CONCRETE STRUCTURES
421-035	HYDRAULIC CEMENT CONCRETE
424-002	PRECAST CONCRETE STRUCTURES (FABRICATION)
425-001	PRECAST PRESTRESSED CONCRETE STRUCTURAL MEMBERS
448-002	STRUCTURAL FIELD WELDING
450-001	RAILING
502-033	BARRICADES, SIGNS, AND TRAFFIC HANDLING
512-002	PORTABLE CONCRETE TRAFFIC BARRIER
514-002	PERMANENT CONCRETE TRAFFIC BARRIER
540-031	METAL BEAM GUARD FENCE
556-003	PIPE UNDERDRAINS
610-005	ROADWAY ILLUMINATION ASSEMBLIES
617-003	TEMPORARY ROADWAY ILLUMINATION
620-001	ELECTRICAL CONDUCTORS
624-014	GROUND BOXES
628-003	ELECTRICAL SERVICES
636-014	ALUMINUM SIGNS
666-014	REFLECTORIZED PAVEMENT MARKINGS
672-034	RAISED PAVEMENT MARKERS
690-009	MAINTENANCE OF TRAFFIC SIGNALS
6834-001	PORTABLE CHANGEABLE MESSAGE SIGN

## TxDOT SPECIAL SPECIFICATIONS

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
4601	PRESTRESSED GROUND ANCHORS
8260	LED COUNTDOWN PEDESTRIAN SIGNAL MODULE
8615	RADAR ADVANCE DETECTION DEVICES
6007	REMOVING TRAFFIC SIGNALS
6834	PORTABLE CHANGEABLE MESSAGE SIGN

**SAN ANTONIO WATER SYSTEM**  
**SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION**  
**JUNE 2009**

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
100	MOBILIZATION
101	PREPARATION OF RIGHT-OF-WAY
550	TRENCH EXCAVATION SAFETY PROTECTION
804	EXCAVATION, TRENCHING AND BACKFILL
808	REINFORCED CONCRETE VAULTS
814	DUCTILE IRON PIPE
816	STEEL PIPE INSTALLATION
818	PVC (C-900) PIPE INSTALLATION
820	CONCRETE STEEL CYLINDER PIPE INSTALLATION
824	SERVICE SUPPLY LINES
828	GATE VALVES
830	BUTTERFLY VALVES
831	CUT-IN TEES
833	METER AND METER BOX INSTALLATION
834	FIRE HYDRANTS
836	GREY-IRON AND DUCTILE-IRON FITTINGS
839	ANCHORAGE AND THRUST BLOCKING
840	WATER TIE-INS
841	HYDROSTATIC TESTING OPERATIONS
844	BLOWOFF ASSEMBLIES
846	AIR RELEASE ASSEMBLIES
847	DISINFECTION
852	SANITARY SEWER MANHOLES
856	JACKING, BORING OR TUNNELING PIPE
858	CONCRETE ENCASEMENT, CRADLES, SADDLES AND COLLARS
862	ABANDONEMENT OF SEWER MAINS AND MANHOLES

SAWS SPECIAL SPECIFICATIONS

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
3000	REMOVAL, TRANSPORT AND DISPOSAL OF AC PIPE

Chilled Water and Recycled Water

DIVISION 1 - GENERAL REQUIREMENTS

010010	SUMMARY OF WORK
010025	MEASUREMENT AND PAYMENT
010300	SUBMITTALS
010400	QUALITY CONTROL
010720	PROJECT RECORD DOCUMENTS

DIVISION 2 – EXISTING CONDITIONS (NOT USED)

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
DIVISION 3 – CONCRETE	
030600	GROUT
DIVISION 4 – MASONRY (NOT USED)	
DIVISION 5 – METALS (NOT USED)	
DIVISION 6 – WOOD, PLASTICS AND COMPOSITES (NOT USED)	
DIVISION 7 – THERMAL AND MOISTURE PROTECTION (NOT USED)	
DIVISION 8 – OPENINGS (NOT USED)	
DIVISION 9 - FINISHES	
090900	PAINTING
DIVISION 10 – SPECIALTIES (NOT USED)	
DIVISION 11 – EQUIPMENT (NOT USED)	
DIVISION 21 – FIRE SUPPRESSION (NOT USED)	
DIVISION 22 – PLUMBING (NOT USED)	
DIVISION 23 – HEATING VENTILATING AND AIR CONDITIONING (NOT USED)	
DIVISION 26 – ELECTRICAL	
260110	CATHODIC PROTECTION
DIVISION 27 – COMMUNICATION (NOT USED)	
DIVISION 28 – ELECTRIC SAFETY & SECURITY (NOT USED)	
DIVISION 31 – EARTHWORK	
(In Accordance with COSA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND SAWS SPECIFICATIONS FOR WATER & SANITARY SEWER CONSTRUCTION)	
DIVISION 32 – EXTERIOR IMPROVEMENTS	
(In Accordance with COSA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND SAWS SPECIFICATIONS FOR WATER & SANITARY SEWER CONSTRUCTION)	
DIVISION 33 – UTILITIES	
330500	COMMON WORK RESULTS
332600	RECYCLED WATER MAIN PIPE
332640	VALVES
336313	UNDERGROUND CHILLED WATER

**CITY PUBLIC SERVICE**  
**SPECIAL SPECIFICATIONS FOR CONSTRUCTION**

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
9200	CPS ENERGY ELECTRICAL CONDUIT SYSTEM
9201	CPS ENERGY NATURAL GAS DISTRIBUTION SYSTEM

**AT&T**  
**SPECIAL SPECIFICATIONS FOR CONSTRUCTION**

<u>ITEM NO.</u>	<u>DESCRIPTION</u>
9100	AT&T TELECOMMUNICATION SYSTEM

## **SECTION 332640**

### **VALVES**

#### **PART 1 - GENERAL**

##### **1.01 DESCRIPTION**

The CONTRACTOR shall furnish all tools, equipment, materials, and supplies and shall perform all labor required to furnish and install all valves and appurtenances shown on the plans and specified herein.

##### **1.02 SCOPE OF WORK**

The Work of this section shall include the furnishing, installation, and testing of all valves and appurtenances as specified herein, shown on the plans, and as required to make the facility operable and complete. Items to be provided include, but shall not be limited to the following:

- A. Valves
- B. Actuators, operators, and valve boxes.

##### **1.03 RELATED WORK**

Related Work not included in this section can be found in the following sections:

- A. SAWS Specification Item No. 804 – Excavation, Trenching and Backfilling.

##### **1.04 SUBMITTALS**

Provide the following in conformance with applicable requirements contained in Section 010300, Submittals.

- A. Shop Drawings. Submit shop drawings for valves and miscellaneous components. Shop drawings shall be complete with bill-of-materials showing kind and class of materials and catalog and engineering data showing compliance with the specified requirements.
- B. For each type and model of valve provide the following:
  - 1. Assembly instructions and spare parts list.
  - 2. Preventative/corrective maintenance instructions.
  - 3. Certificate of seat exposure with entailed fluid exposure.

- C. Erection Drawings. Erection drawings shall include the procedures to be used in setting, supporting, and anchoring the valves, the fitting of the line pipe to the valves for proper coupling, and for adjusting and testing all valve assemblies.

#### 1.05 QUALITY ASSURANCE

All valves and miscellaneous components shall be new, free from defects or contamination, and wherever possible shall be the standard product of the Manufacturer.

#### 1.06 EQUIPMENT STORAGE AND HANDLING

Valves and miscellaneous components shall be handled with equipment designed to prevent damage to the components.

### **PART 2 - PRODUCTS**

#### 2.01 GENERAL

All valves shall be provided as shown in the plans, schedules, and as specified herein. Unless otherwise shown or specified all aboveground valves shall be flanged, screwed, or welded, non-rising stem and handwheel operated. Buried valves shall be mechanical joint, non-rising stem, and wrench operated. The valve assemblies shall be furnished complete and adequate for the specified or shown purpose, and shall include all essential components of equipment, together with all mountings and other appurtenances normal and necessary for proper installation, whether shown or not.

#### 2.02 OPERATORS

- A. General. The operators shall be sized based on the maximum expected torque as per valve Manufacturer's recommendations and in no case shall the force required to open or close the valve (i.e., rim pull) exceed 40 pounds. The responsibility for proper operation shall reside with the valve supplier.
- B. Manual Operators. Manual operators shall be in compliance with AWWA C504-94 and shall be of the worm gear type and feature a housing that encloses all gearing and can either be buried or is of weatherproof construction for exposed locations. The operator housing shall be constructed of cast iron and shall be permanently grease packed. All housing o-rings, gaskets, and other features shall be designed to ensure permanent watertightness and maintenance free operation. The axis of the worm gear shaft shall remain fixed during operation and stop-limiting devices shall be provided to limit operator travel. Valves scheduled for above ground service shall be equipped with a handwheel. Buried valves shall be equipped with a 2-inch square AWWA operating nut. Suitable Manufacturers include Limitorque, E-I-M, Dezurik, or approved equal.

## 2.03 VALVE BOXES

The CONTRACTOR shall provide cast-iron valve boxes for each buried valve. Each valve box shall be adjustable to fit the depth of cover over the valve and shall be designed to prevent the transmission of surface loads directly to the valve. Valve boxes shall have an interior diameter of not less than 6 inches and be coated with a bituminous coating 2 mils thick. Valve boxes shall be installed to reserve a minimum of 50% of the adjustment for future extension. Extension sections shall be cast-iron only. All valve boxes shall be constructed to prevent tipping and rattling. Boxes shall be a minimum of 3/16 inch thick as manufactured by Western Iron Works, Alamo Iron Works, US Foundry, or approved equal. All valve boxes installed in paved areas shall be provided with a protective concrete collar as shown in the plans. Valve box covers shall be provided with "RECYCLED WATER" cast into the cover. Square covers shall be provided for all recycled water main valve boxes.

## 2.04 GATE VALVES

- A. Except as otherwise noted or specified herein, AWWA Standard C500-93 shall govern the design, physical and chemical properties of component materials, construction, manufacture and testing of all gate valves furnished for this Specification.
- B. All gate valves that have a nominal diameter of 12 inches or less shall be rated at 200 psig. Gate valves that have a nominal diameter of 16 inches or larger shall be rated at 150 psig.
- C. Gate valves shall have resilient seats; bronze mounted with non-rising stems and conform to the requirements of AWWA C509. The valve body shall be cast-iron conforming to ASTM A-126, Class B. It shall be designed for installation in either a horizontal or vertical position and shall be furnished for mounting in a horizontal pipeline, unless otherwise specified.
- D. Valve components of brass or bronze shall be manufactured to ASTM recognized alloy Specifications of low zinc content bronze, with a maximum zinc content of 16% as shown in AWWA Standard C500-93, Table A.
- E. All mechanical joint valves shall be supplied with glands, bolts, and gaskets. Valve body bolts and nuts shall be zinc-plated, ASTM A165 Grade NS, steel grade A307 with dimension conforming to ANSI 8.2.1.
- F. All valves for recycled water mains shall open left (counterclockwise), unless otherwise specified.
- G. Stem seals shall be of the "O-ring" type for valves less than 20 inches nominal pipe size. "O-ring" or stuffing box may be used for valves 20 inches and larger. Packing, if used in the stuffing box, will be non-asbestos; Teflon lubricated fiber, TFE fluorocarbon low-density cord, a multi-lok brain acrylic yarn or packing material. Packing materials shall be non-deteriorating and non-contaminating. Stuffing box glands for valves 12 inch nominal pipe size and smaller shall be

made of low zinc content bronze. Stuffing box glands for valves 16-inch nominal pipe size and larger shall be cast iron with bushings of low zinc content bronze.

- H. Valves 20-inch nominal pipe size and larger shall be geared. Gears shall be cut tooth steel and gear cases shall be the totally enclosed, weathertight type to enclose the gears, stuffing box, and the valve stem, attached to the bonnet.
- I. All valves 20 inch nominal pipe size and larger shall be provided with a bypass and bypass valve.
- J. Exposed valves shall be shop coated inside with an fusion bonded epoxy coating 10 dry mils thick, which meets or exceeds AWWA C550-90. Buried valves shall be shop coated both inside and outside. Top coatings shall have a minimum dry film thickness of 6-mils and shall consist of TNEMEC Series 140 color Pota Pox Plus or approved equal. Total minimum thickness for exterior coatings on buried valves shall not be less than 6 mils. Top and primer coatings shall be compatible. Exterior color shall be Pantone 522.
- K. Approved Manufacturer's of gate valves include:

Sizes Three (3) through Twelve (12) Inch

<u>Approved Manufacturers</u>	<u>Models</u>
American Flow Control	Series 500
Clow Valve Company	2640
Kennedy Valve	Ken-Seal II
M&H Valve Company	4067
Mueller Company	2360 Series Gate Valve
United States Pipe & Foundry Company	A-USPO

2.05 CHECK VALVES – NOT USED

2.06 BUTTERFLY VALVES

- A. Except as otherwise modified or supplemented herein, AWWA Standard C504 or the latest revision thereof, shall govern the design, component material construction, manufacture and testing of all butterfly valves.
- B. Valves furnished under this specification shall be as manufactured by one of the following, or approved equal:
  - 1. American-Darling Valve & Manufacturing Co. - Class 150.
  - 2. M&H Valve Company - Model 450 & 4500
  - 3. Henry Pratt Company - Groundhog & Triton HP-250
  - 4. Clow Corporation
  - 5. Mueller Company - Lineseal III & Lineseal X

6. Kennedy Valve Manufacturing Company
  7. Keystone Valve Company - Fig. 504 and Fig. 47
  8. DeZurik AWWA Valve - No. 9239757
  9. Cla-Val
- C. Valves shall be Class 150B of the short-body type with a 150 psig bi-directional shut-off rating, a 300 psig hydrostatic body shell test and a line velocity rating of 16 feet per second.
- D. Valves shall be for mounting on a horizontal pipe with a wrench nut on top. Valves shall be for buried service unless otherwise noted.
- E. Valve body shall be of cast iron conforming to ASTM Specification A-126, Class B.
- F. Valve body ends shall be flat faced flanged with facing and drilling in accordance with ANSI B16.1, Class 125. All valves shall conform to AWWA C504, Table 2, laying lengths for flanged valves and minimum body shell thickness for all body types.
- G. Valve shall be of such design that the disc will seat at 90 degrees with the pipe axis.
- H. Valve shall be of such design that the disc will not flutter or vibrate when operated in a throttled position.
- I. Valve discs shall be of Cast Iron A48, Cast Iron A126, Class B or Ductile Iron ASTM A536, Grade 65-45-12 and shall be of the disc design to provide 360 degree uninterrupted seating.
- J. The valve seat shall be natural or synthetic rubber and may be applied to the disc or body. For valves 30 inches or larger, the rubber seat shall be capable of mechanical adjustment in the field and shall be field replaceable without the need for special tools. Mechanical adjustment or attachment of the seat and seat ring does not include welding. The mating seat surface shall be Type 304 or Type 316 stainless steel, no-chrome or monel. Sprayed or plate mating seat surface are not acceptable.
- K. Valve shafts shall be Type 304 stainless steel conforming to ASTM A-276 and shall have a diameter equal to or greater than that shown for Class 150B in Table 3 of AWWA C504. Shafts shall conform to the requirements of Section 3.3, Valves Shaft of AWWA C504 for one-piece or stub shaft types. Connection between the shaft and disc shall be dowel or taper pins, which are mechanically secured.

- L. The valve assembly shall be furnished with a factory-set, non-adjustable disc shaft thrust bearing that insures the valve disc is centered within the valve body seat at all times.
- M. Valve shaft bearings shall be permanent, self-lubricated, bearings, which provides continuous, low-friction maintenance-free operation. Shaft bearing shall be contained in integral hubs of the valve body.
- N. Valve shaft seal shall consist of "O" rings or "vee" ring packing where the shaft projects through the valve body for the actuator connection.
- O. The valve shall be provided with a fully enclosed permanently lubricated actuator of the traveling nut or worm gear design. The operator shall be designed such that constant input speed results in variable output speed with slowing down valve closure at the ends of travel. The effect is to maintain the rated output torque throughout the entire travel. The actuator shall be connected to the valve shaft by means of a key and keyway connection.
- P. All actuators shall have adjustable, mechanical stop limits in accordance with C504 Section 3.8.2. All 6" - 42" valve actuators shall be capable of withstanding 450 ft-lbs of input torque against the open or closed stops without damage.
- Q. Valves for below ground applications shall be provided with an AWWA wrench nut. The wrench nut shall have an arrow cast thereon, indicating the direction of the opening. The wrench nut shall be suitably fastened to the actuator-input shaft. If the shaft is smooth, the wrench nut shall be fastened to the input shaft by means of a 5/16" diameter steel pin passing entirely through the shaft and the wrench nut. Key with keyway will be acceptable. If the shaft is splined, the wrench nut shall be formed to fit the splined shaft. The actuator shall be designed to produce the specified torque with a maximum input of 150 ft-lbs applied to the wrench nut.
- R. Valves for above ground applications shall be provided with a handwheel. The handwheel shall have an arrow thereon, indicating the direction of the opening. The handwheel shall be suitably fastened to the actuator-input shaft. Actuators equipped with handwheels shall be designed to produce the specified torque with a maximum pull of 80 pounds of the handwheel rim.
- S. The requirement for either wrench nut or handwheel and the direction of opening will be specified on each purchase order.
- T. The number of turns to open (close) the valve shall be consistent with each valve size for the manufacturer and shall be approved by the OWNER.
- U. All interior wetted ferrous surfaces of the valve, including the disc, shall be shop coated with two coats of epoxy. The epoxy shall have a nominal total thickness of 10 dry mils and shall be in accordance with AWWA C550, latest revision. The exterior surface of the valve shall be shop coated with two coats of epoxy. The epoxy shall have a nominal total thickness of 10 dry mils. The topcoat of epoxy for interior and exterior coated surface shall have a minimum thickness of 6 to a

maximum of 8 dry mils. The topcoat for interior and exterior surface shall be TNEMEC Series 140-color Pota Pox Plus or approved equal. Primer coating shall be compatible with the applied top coating.

- V. The supplier/manufacturer shall provide Affidavit of Compliance with applicable sections of AWWA C504 to include the following: Results of ASTM testing procedures and requirements for materials, Manufacturer's Quality Assurance Program, leak-tightness testing and proof of design testing of representative actuators in accordance with AWWA C504 Section 3.8.5.2 as modified herein (450 ft-lbs). Compliance assurance will be required in accordance with AWWA C504 Section 5.1.2 Affidavits. Results of performance tests, proof of design test, AWWA C504 Section 5.2.4, hydrostatic test, leakage test, and Affidavit of Compliance shall be provided with the bid or with the shipping documents and shall be approved by the OWNER.

## 2.07 AIR AND VACUUM VALVES

- A. General. The air and vacuum valve shall be designed in accordance with AWWA C512-92 to allow large quantities of air to escape out of the orifice during filling and to close tight when the liquid enters the valve. It shall also allow large quantities of air to enter the pipeline through the orifice during draining operations. The discharge orifice area shall be equal to or greater than the inlet area of the valve. It shall consist of a body, cover, baffle, float and seat, and shall be rated at the working pressure as shown on the plans.
- B. The baffle will be designed to protect the float from direct contact of rushing air and water in order to prevent the float from closing the valve prematurely. The seat shall be fastened into the valve cover, without distortion, and shall be easily removed for maintenance.
- C. The float shall be stainless steel and center guided through the guide bushings for positive shutoff into the seat. Valve sizes shall be as shown on the drawings. An isolation valve shall be installed upstream from each air and vacuum valve.
- D. The valve body and cover shall be cast iron fabricated in accordance with ASTM A48-35 or ASTM A126 Class B. Inlet sizes through 3 inch shall be screwed (NPT). Pipe sizes above 3 inches shall have flanged inlets (125# ANSI B.16.1). A protective hood or cowl shall be installed on the outlet of the flange-bodied valves.
- E. Internal seat trim float arm and pivot pin shall be type 303 or 304 stainless steel. Floats shall be stainless steel ASTM A240 or ASTM A276.
- F. Internal seat or orifice button shall be BUNA-N nitrile rubber compounded for water service. Cover gasket shall be composition-type, equal to Armstrong CS-231, Garlock 3000, or Lexide NK-511. Cover bolts shall be alloy steel.
- G. Valve body shall have a test pressure rating of 300 psig and working pressure rating of 150 psig or 200 psig as shown on the plans.

H. All air and vacuum valves shall be as manufactured by:

1. APCO Valve Company
2. GA Industries
3. Multiplex Manufacturing Company
4. Val-Matic Manufacturing Company
5. Powerseal Corporation or approved equal

## 2.08 AIR RELEASE VALVES

A. General. The automatic air release valve shall be designed to operate under a test pressure of 150 psig, and will allow trapped air to escape from a pipeline, pump, tank, or water system. After the air escapes out of the air release valve through the orifice, the valve shall close to prevent water from escaping. The air release valve will then stay closed until more air accumulates and then the cycle repeats itself.

B. The valve body and cover shall be cast iron fabricated in accordance with ASTM A48-35 or ASTM A126 Class B. Inlet sizes through 3 inch shall be screwed (NPT). Pipe sizes above 3 inches shall have flanged inlets (125# ANSI B.16.1). A protective hood or cowl shall be installed on the outlet of the flange-bodied valves.

C. Internal seat trim float arm and pivot pin shall be type 303 or 304 stainless steel. Floats shall be stainless steel ASTM A240 or ASTM A276.

D. Internal seat or orifice button shall be BUNA-N nitrile rubber compounded for water service. Cover gasket shall be composition-type, equal to Armstrong CS-231, Garlock 3000, or Lexide NK-511. Cover bolts shall be alloy steel.

E. Valve body shall have a test pressure rating of 300 psig and working pressure rating of 150 psig.

F. All air release valves shall be as manufactured by:

1. APCO Valve Company
2. GA Industries
3. Multiplex Manufacturing Company
4. Val-Matic Manufacturing Company
5. Powerseal Corporation or approved equal

## 2.09 COMBINATION AIR VALVES

- A. Combination air valves shall provide for both automatic air release under system pressure and to allow air movement during filling or draining operations.
- B. The housing shall be designed to incorporate conventional or kinetic flow principles to properly vent the air without premature closure.
- C. Flanged size (4 inch and larger) may be furnished in a dual housing. When dual casings are used, a bronze manual isolation valve shall be installed.
- D. Suitable Manufacturers include:
  - 1. APCO Valve Company
  - 2. GA Industries
  - 3. Multiplex Manufacturing Company
  - 4. Val-Matic Manufacturing Company
  - 5. Powerseal Corporation or approved equal

## 2.10 BLOWOFF HYDRANTS

- A. Pre-manufactured blowoff hydrants shall be Eclipse No. 85 hydrants as supplied by John C. Kupferle Foundry Company or approved equal. Hydrants shall be self-draining, non-freezing, compression type 2-3/16" main valve opening. Inlet connection shall be 3" MJ. Outlet dimension shall be 2-1/2" NST. Principal interior parts shall be brass and removable from the hydrant without excavating the hydrant.

## **PART 3 - EXECUTION**

### 3.01 INSTALLATION

- A. Valves and valve boxes shall be in true alignment and grade in accordance with the procedures submitted with the shop and erection drawings. All adjustments and operating settings of the valves shall be made in accordance with the procedures and details presented in the erection drawings. All valve boxes and extended bonnets installed in paved areas shall have a concrete collar cast around the box or bonnet once it has been set at proper grade.
- B. Buried valves shall be firmly supported in place by foundations to preclude strain on the pipe connections. The valve boxes shall be checked for centering plumb over the wrench nut to ensure that the box cover is flush with the finished grade. Earth backfill shall be carefully tamped around each valve box on all sides to the undisturbed face of the trench wall. Valves shall have their interiors cleaned of all foreign matter before installation. The valves shall be inspected in opened and closed positions to ensure that all parts are in working condition.

- C. Aboveground valves shall be rigidly held in place using supports and hangers as shown in the plans. The stem orientation of valves in elevated piping shall be approved by the OWNER for accessibility, but no valve shall have the stem in the downward direction. Saddle type supports shall be provided for all valves located in vaults. Supports shall be of rugged construction providing at least 120 degrees under support for the valve body. All supports shall be anchored to concrete foundations using type 316 stainless steel anchor bolts.

### 3.02 PROTECTIVE COATINGS

All interior non-working ferrous surfaces (other than stainless steel), and interior waterway passages shall be given shop applied epoxy coatings. The interior waterway passages of all valves shall be given a shop applied coating system unless provided with a fusion bonded epoxy coating. The exterior surfaces, unless provided with a fusion bonded epoxy coating shall be given a shop prime coating, with finish exterior coating applied in the field. Exterior coatings shall be shop applied epoxy coatings with a minimum thickness of 10 mils. Topcoats shall be a minimum of 6 mils and shall consist of TNEMEC Series 140 color Pota Pox Plus or approved equal. Primer coat shall be compatible with the topcoat.

### 3.03 TESTS

- A. Shop and Laboratory Tests. Perform shop and laboratory tests on valves and appurtenances as follows:
1. Gate Valves - Perform shop tests in accordance with AWWA C500-93, except no leakage shall occur with design pressure held for one minute.
  2. Butterfly Valves - The following applies to all sizes up to 48 inches in diameter:
    - a. Material Tests - Physical and chemical properties tests shall be performed on all material components to be used in the Manufacture of butterfly valves in accordance with AWWA C504-94, including valve seat bearing materials.
    - b. Gear Operator Tests - Manufacturer shall test each model of gear operator and establish torque-rating curves in accordance with AWWA C504-94.
    - c. Performance Tests - Manufacturer shall shop test each butterfly valve for performance, leakage, and hydrostatic pressure in accordance with AWWA C504-94. Results of these tests shall be submitted in accordance with Section 01300, Submittals.
- B. Field-Tests. Test all valves and appurtenances for proper operating adjustments and settings and for freedom from vibration, binding, scraping, and other defects. The adequacy of all pipe hangers, pipe supports, and valve supports to meet

specified requirements shall be verified. Upon installation all valves shall be field tested hydrostatically for 2 hours in the presence of the OWNER.

END OF SECTION

## **SECTION 336313**

### **UNDERGROUND CHILLED WATER DISTRIBUTION PIPING**

#### **PART 1 - GENERAL**

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. Section includes underground piping outside the building for distribution of chilled water.

##### 1.3 DEFINITIONS

- A. HP Systems: High-pressure piping operating at more than 15 psig as required by ASME B31.1.
- B. LP Systems: Low-pressure piping operating at 15 psig or less as required by ASME B31.9.

##### 1.4 PERFORMANCE REQUIREMENTS

- A. Provide components and installation capable of producing chilled water piping systems with the minimum working-pressure ratings of 200 psi.

##### 1.5 ACTION SUBMITTALS

- A. Product Data: For the following:
  - 1. Conduit piping.
  - 2. Loose-fill insulation. (Alternate)
- B. Shop Drawings: For underground chilled water distribution piping. Signed and sealed by a qualified professional engineer.
  - 1. Calculate requirements for expansion compensation for underground piping.
  - 2. ~~Show expansion compensators, offsets, and loops with appropriate materials to allow piping movement in the required locations.~~ Show anchors and guides that restrain piping movement with calculated loads, and show concrete thrust block dimensions.
  - 3. Show pipe sizes, locations, and elevations. Show piping in trench with details showing clearances between piping, and show insulation thickness.

## 1.6 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Show pipe sizes, locations, and elevations. Show other piping in same trench and clearances from ~~steam~~ chilled water distribution piping. Indicate interface and spatial relationship between manholes, piping, and proximate structures.
- B. Profile Drawings: Show system piping in elevation. Draw profiles at horizontal scale of 1 inch equals 20 feet and at vertical scale of 1 inch equals 10 feet. Indicate vaults and piping. Show types, sizes, materials, and elevations of other utilities crossing distribution piping.
- C. Qualification Data: For qualified Installer.
- D. Welding certificates.
- E. Material Test Reports: For conduit piping.
- F. Source quality-control reports.
- G. Field quality-control reports.

## 1.7 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to ASME Boiler and Pressure Vessel Code: Section IX.
  - 1. Comply with provisions in ASME B31.9, "Building Services Piping."
  - 2. Certify that each welder has passed AWS qualification tests for welding processes involved and that certification is current.
- B. ASME Compliance: Comply with ASME B31.9, "Building Services Piping" for materials, products, and installation.
- C. ASME Compliance: Safety valves and pressure vessels shall bear appropriate ASME labels.

## 1.8 PROJECT CONDITIONS

- A. Interruption of Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
  - 1. Notify Owner no fewer than 14 days in advance of proposed interruption of utility.
  - 2. Do not proceed with interruption of utility without Owner's written permission.

## 1.9 COORDINATION

- A. Coordinate pipe-fitting pressure classes with products specified in related Sections.

## **PART 2 - PRODUCTS**

### 2.1 STEEL PIPES AND FITTINGS

- A. Steel Pipe: ASTM A 53/A 53M, Type E, Grade B AWWA Class 200 0.25 wall thickness as indicated in "Piping Application" Article; black with plain ends.
- B. Steel Welding Fittings: ASME B16.9, seamless or welded.
  - 1. Welding Filler Metals: Comply with AWS D10.12M/D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
- C. Nipples: ASTM A 733, Standard Weight, seamless, carbon-steel pipe complying with ASTM A 53/A 53M.
- D. Pipe-Flange Gasket Materials: Suitable for chemical and thermal conditions of piping system contents.
  - 1. ASME B16.21, nonmetallic, flat, asbestos free, 1/8-inch maximum thickness unless thickness or specific material is indicated.
    - a. Full-Face Type: For flat-face, Class 125, cast-iron and cast-bronze flanges.
    - b. Narrow-Face Type: For raised-face, Class 250, cast-iron and steel flanges.
- E. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.

### 2.2 CONDUIT PIPING SYSTEM

- A. ~~Conduit Piping System: Factory fabricated and assembled, airtight and watertight, drainable, pressure tested piping with conduit, inner pipe supports, and insulated carrier piping. Fabricate so insulation can be dried in place by forcing dry air through conduit.~~
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Insul-Tek Piping Systems, Inc.
    - b. Perma-Pipe, Inc.
    - c. Rovanco Piping Systems, Inc.
    - d. Thermacor Process, L.P.
- B. Carrier Pipe: Material as indicated in "Piping Application" Article.

#### Carrier Pipe Insulation:

- 1. ~~Calcium Silicate Pipe Insulation: Flat, curved, and grooved block sections of noncombustible, inorganic, hydrous calcium silicate with a non-asbestos fibrous reinforcement. Comply with ASTM C 533, Type I.~~

- ~~a. Bands: ASTM A 666, Type 304, stainless steel, 3/4 inch wide, 0.020 inch thick.~~
  - 1. Polyisocyanurate Foam Pipe Insulation: Un-faced, preformed, rigid cellular polyisocyanurate material intended for use as thermal insulation.
    - a. Comply with ASTM C 591, Type I or Type IV, except thermal conductivity (k-value) shall not exceed 0.19 Btu x in./h x sq. ft. x deg F at 75 deg F after 180 days of aging.
    - b. Flame-spread index shall be 25 or less and smoke-developed index shall be 50 or less for thickness up to 1-1/2 inches as tested by ASTM E 84.
    - c. Fabricate shapes according to ASTM C 450 and ASTM C 585.
  - 2. Polyurethane Foam Pipe Insulation: Unfaced, preformed, rigid cellular polyurethane material intended for use as thermal insulation.
    - a. Comply with ASTM C 591, Type I or Type IV, except thermal conductivity (k-value) shall not exceed 0.19 Btu x in./h x sq. ft. x deg F at 75 deg F after 180 days of aging.
    - b. Flame-spread index shall be 25 or less and smoke-developed index shall be 50 or less for thickness up to 1-1/2 inches as tested by ASTM E 84.
    - c. Fabricate shapes according to ASTM C 450 and ASTM C 585.
- C. Minimum Clearance:
- ~~1. Between Carrier Pipe Insulation and Conduit: 1 inch.~~
  - 1. Between Insulation of Multiple Carrier Pipes: 3/16 inch.
  - ~~2. Between Bottom of Carrier Pipe Insulation and Conduit: 1 inch.~~
  - 2. Between Bottom of Bare, Carrier Pipe and Casing: 2 inches.
- D. Conduit: Spiral wound, steel.
- 1. Finish: With two coats of fusion-bonded epoxy, minimum 40 mils thick.
  - 2. Cover: With polyurethane foam insulation with an HDPE jacket; thickness indicated in "Piping Application" Article.
  - ~~3. Piping Supports within Conduit: Corrugated galvanized steel with a maximum spacing of 10 feet.~~
  - 3. Fittings: Factory-fabricated and -insulated elbows and tees. Elbows may be bent pipe equal to carrier pipe. Tees shall be factory fabricated and insulated, and shall be compatible with the carrier pipe.
  - ~~4. Expansion Offsets and Loops: Size casing to contain piping expansion.~~
  - 4. Accessories include the following:
    - a. Guides and Anchors: Steel plate welded to carrier pipes and to casing, complete with vent and drainage openings inside casing.
    - ~~b. End Seals: Steel plate welded to carrier pipes and to casing, complete with drain and vent openings on vertical centerline.~~
    - ~~c. Gland Seals: Packed stuffing box and gland follower mounted on steel plate, welded to end of casing, permitting axial movement of carrier piping, with drain and vent connections on vertical centerline.~~

- b. Joint Kit: Half-shell, pourable or split insulation and shrink-wrap sleeve.
- E. Source Quality Control: Factory test the conduit to 15 psig for a minimum of two minutes with no change in pressure. Factory test the carrier pipe to 150 percent of the operating pressure of system. Furnish test certificates.

## 2.2 LOOSE-FILL INSULATION (Alternate)

- A. Granular, Loose-Fill Insulation: Inorganic, nontoxic, nonflammable, sodium potassium aluminum silicate with calcium carbonate filler. Include chemical treatment that renders insulation hydrophobic.
  - 1. Manufacturers: Subject to compliance with requirements:
    - a. Gilsulate International, Inc.
  - 2. Thermal Conductivity (k-Value): 0.60 at 175 deg F and 0.65 at 300 deg F.
  - 3. Application Temperature Range: 35 to 800 deg F.
  - 4. Dry Density: 40 to 42 lb/cu. ft.
  - 5. Strength: 12,000 lb/sq. ft.

## PART 3 - EXECUTION

### 3.1 EARTHWORK

- A. See SAWS construction specification Item 804 – Excavation, Trenching and Backfill.

### 3.2 PIPING APPLICATION

- A. Chilled Water Piping:
  - 1. 20" diameter pipe and larger shall be ~~ASTM 53~~ **AWWA C200**, Grade B, standard weight, 200 psi, ~~0.375~~ **0.25** inch wall, grout lined interior, 1 mm exterior prime-coat.
  - 2. 30" diameter pipe shall conform to AWWA C200 and AWWA M-11, 200 psi, ~~0.375~~ **0.25** inch wall, grout lined interior, 1 mm exterior prime coat.
  - 3. ~~Carrier Piping: Standard weight, steel pipe and fittings Schedule 40, steel pipe and fittings with calcium silicate, polyisocyanurate or polyurethane carrier pipe insulation and with coated conduit.~~
  - 3. Piping Insulation Thickness: 2 inches.
  - 4. Piping with granular, loose-fill insulation (Alternate).

### 3.3 PIPING INSTALLATION

- A. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicate piping locations and arrangements if such were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- B. Remove standing water in the bottom of trench.
- C. Bed the pipe on a minimum 6-inch layer of granular fill material with a minimum 6-inch clearance between the pipes.
- D. Do not insulate piping or backfill piping trench until field quality-control testing has been completed and results approved.
- E. Install piping at uniform grade of 0.2 percent downward in direction of flow or as indicated.
- ~~F. In conduits, install drain valves at low points and manual air vents at high points.~~
- F. Install components with pressure rating equal to or greater than system operating pressure.
- G. Install piping free of sags and bends.
- H. Install fittings for changes in direction and branch connections.
- I. Secure anchors with concrete thrust blocks. Concrete is specified in SAWS Item 300 – Concrete (Natural Aggregate).

### 3.4 LOOSE-FILL INSULATION INSTALLATION (Alternate)

- A. Do not disturb the bottom of trench; otherwise, compact and stabilize it to ensure proper support.
- B. Remove standing water in the bottom of trench.
- C. Bed the pipe on a minimum 6-inch layer of granular fill material with a minimum 6-inch clearance between the pipes.
- D. Form insulation trench by excavation or by installing drywall side forms to establish the required height and width of the insulation.
- E. Support piping with proper pitch, separation, and clearance to backfill or side forms using temporary supporting devices that can be removed after back filling with insulation.
- F. Place insulation and backfill after field quality-control testing has been completed and results approved.

- G. Apply bitumastic coating to carbon-steel anchors and guides. Pour concrete thrust blocks and anchors. See SAWS HEM 300 – Concrete (Natural Aggregate) for concrete and reinforcement.
- H. Wrap piping at expansion loops and offsets with mineral-wool insulation of thickness appropriate for calculated expansion amount.
- I. Pour loose-fill insulation to required dimension agitating insulation to eliminate voids around piping.
- J. Remove temporary hangers and supports.
- K. Cover loose-fill insulation with polyethylene sheet a minimum of 4 mils thick, and empty loose-fill insulation bags on top.
- L. Manually backfill 6 inches of clean backfill. If mechanical compaction is required, manually backfill to 12 inches before using mechanical-compaction equipment.

### 3.5 JOINT CONSTRUCTION

- A. See Section 330500 "Common Work Results for Utilities" for basic piping joint construction.
- B. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- C. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- D. Welded Joints: Construct joints according to AWS D10.12M/D10.12, using qualified processes and welding operators according to "Quality Assurance" Article.
- E. Flanged Joints: Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.
- F. Conduit Piping Joints: Assemble sections and finish joints with pourable or split insulation, exterior jacket sleeve, and apply shrink-wrap seals.

### 3.6 IDENTIFICATION

- A. Install continuous plastic underground warning tapes during back filling of trenches for underground chilled water distribution piping. Locate tapes 6 to 8 inches below finished grade, directly over piping.

### 3.7 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

- B. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
- C. Perform tests and inspections.
  - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- D. Tests and Inspections:
  - 1. Prepare chilled water piping for testing according to ASME B31.1 and ASME B31.9 and as follows:
    - a. Leave joints, including welds, un-insulated and exposed for examination during test.
    - b. Isolate equipment. Do not subject equipment to test pressure.
    - c. Install relief valve set at pressure no more than one-third higher than test pressure.
    - d. Fill system with temperature water. Where there is risk of freezing, air or a safe, compatible liquid may be used.
    - e. Use vents installed at high points to release trapped air while filling system. Use drip legs installed at low points for complete removal of liquid.
  - 2. Test chilled water piping as follows:
    - a. Subject ~~steam and condensate~~ chilled water piping to hydrostatic test pressure that is not less than 1.5 times the design pressure.
    - b. After hydrostatic test pressure has been applied for 10 minutes, examine joints for leakage. Remake leaking joints using new materials and repeat hydrostatic test until no leaks exist.
  - 3. Test conduit as follows:
    - a. Seal vents and drains and subject conduit to 15 psig for four hours with no loss of pressure. Repair leaks and retest as required.
- E. Prepare test and inspection reports, and submit reports to owner.

END OF SECTION

<b>Table of Updated Plan Sheets</b>		
<b>Sheet #</b>	<b>Sheet Title</b>	<b>Update Description</b>
5	Project Layout Sheet	Updated Sheet Numbers referenced.
15	Supplemental General Notes (CoSA)	Added a General Note # 32 concerning working hours.
16	General Notes (TxDOT)	Added a General Note to TxDOT Item 423 (Note 423-4) and enlarged text size
17	General Notes (TxDOT)	Enlarged text size
20	Roadway and Removal Quantities (1 of 2)	Added CoSA Item 9021.1
21	Roadway and Removal Quantities (2 of 2)	Added CoSA Item 9021.1
22	Illumination Quantities	Updated quantities
28-33	Traffic Control Plan Summaries	Updated quantities for TxDOT Item 512
48	Traffic Control Plan Phase 1 Step 1	Updated TCP - Removed quantities for payment by others
50-52	Traffic Control Plan Phase 1 Step 1	Updated TCP - Removed quantities for payment by others
61-62	Traffic Control Plan Phase 2 Step 1	Updated TCP - Removed quantities for payment by others
65	Traffic Control Plan Phase 2 Step 1	Updated TCP - Removed quantities for payment by others
68	Traffic Control Plan Phase 2 Step 1	Updated TCP - Removed quantities for payment by others
70-73	Traffic Control Plan Phase 2 Step 1	Updated TCP - Removed quantities for payment by others
145	Removal Layout	Added Removal of Existing Retaining Walls to be subsidiary to CoSA Item 101
146	Removal Layout	Added Removal of Existing Retaining Walls to be subsidiary to CoSA Item 102
172	Market Street P/P Sheet 3 of 5	Added Removal of Existing Retaining Walls to be subsidiary to CoSA Item 102
531	Retaining Wall No. 3 Layout	Added Notes & Minimum Length of Earth Reinforcement
532	Retaining Wall No. 4 Layout	Added Notes & Minimum Length of Earth Reinforcement
533	Retaining Wall No. 5 Layout	Added Notes & Minimum Length of Earth Reinforcement
534	Retaining Wall No. 6 Layout	Added Notes & Minimum Length of Earth Reinforcement
552	RW (MSE)	Added LL Surcharge for Retaining Walls 5 & 6
832-847	Illumination Layout	Added Accent Lighting Conduit/Modified Associated Quantities
857	Illumination Layout	Added Accent Lighting Conduit
863	Electrical Service Data Summary	Added Accent Lighting Conduit
864-865	Roadway Illumination Electrical Schematics	Updated schematics

## ITEM 9021

### Geotechnical Borings and Supplemental Letter Report

*This specification is an allowance for \$17,000.00 that will be bid by every bidder for additional geotechnical borings and a supplemental letter report. The additional geotechnical borings will be performed by Arias & Associates (142 Chula Vista; San Antonio, TX 78232; Phone: 210.308.5884, Contact is Tim Fox, PE). Arias & Associates will perform the geotechnical borings, perform testing on the borings, and prepare a supplemental letter to their geotechnical report that addresses the borings' test results and recommendations. Arias will include a recommendation regarding the possible need for additional grout columns within their supplemental letter.*

**Description:** Furnish materials, tools, equipment and labor to perform five (5) additional 25' to 35' deep geotechnical borings and prepare a Supplemental Geotechnical Letter Report that provides the borings' test results and provides a recommendation regarding the possible need for additional grout columns.

Based on the test results of the geotechnical borings, additional borings and soil tests may be needed and authorized by the Engineer. If needed and authorized in writing by the Engineer, these additional borings (including soil tests) will be performed at the price shown for Items 9021.2 and 9021.3 as described below. Item 9021.3 will be an add or deduct from Item 9021.2 only and includes additional soil testing or deducts soil testing as needed.

**Measurement and Payment:** Item 9021.1 will be measured and paid for as a Lump Sum Item. Item 9021.2 will be measured and paid for per each. Item 9021.3 will be measured and paid for per foot.

**Bid Items:**

**Item 9021.1** – Geotechnical Borings (25' to 35') & Sup Ltr Rpt – L.S. This item will be bid by all bidders at \$17,000.00.

**Item 9021.2** – Geotechnical Boring, 35' Deep – per Each. This item will be bid by all bidders at \$2,000.00 per boring (including soil testing).

**Item 9021.3** – Geotechnical Boring, add or deduct length – per Foot. This item will be bid by all bidders at \$50.00 per boring foot of added length (depth) or will be deducted at \$50.00 per boring foot of each foot less than 35' deep for Item 9021.2 borings only.



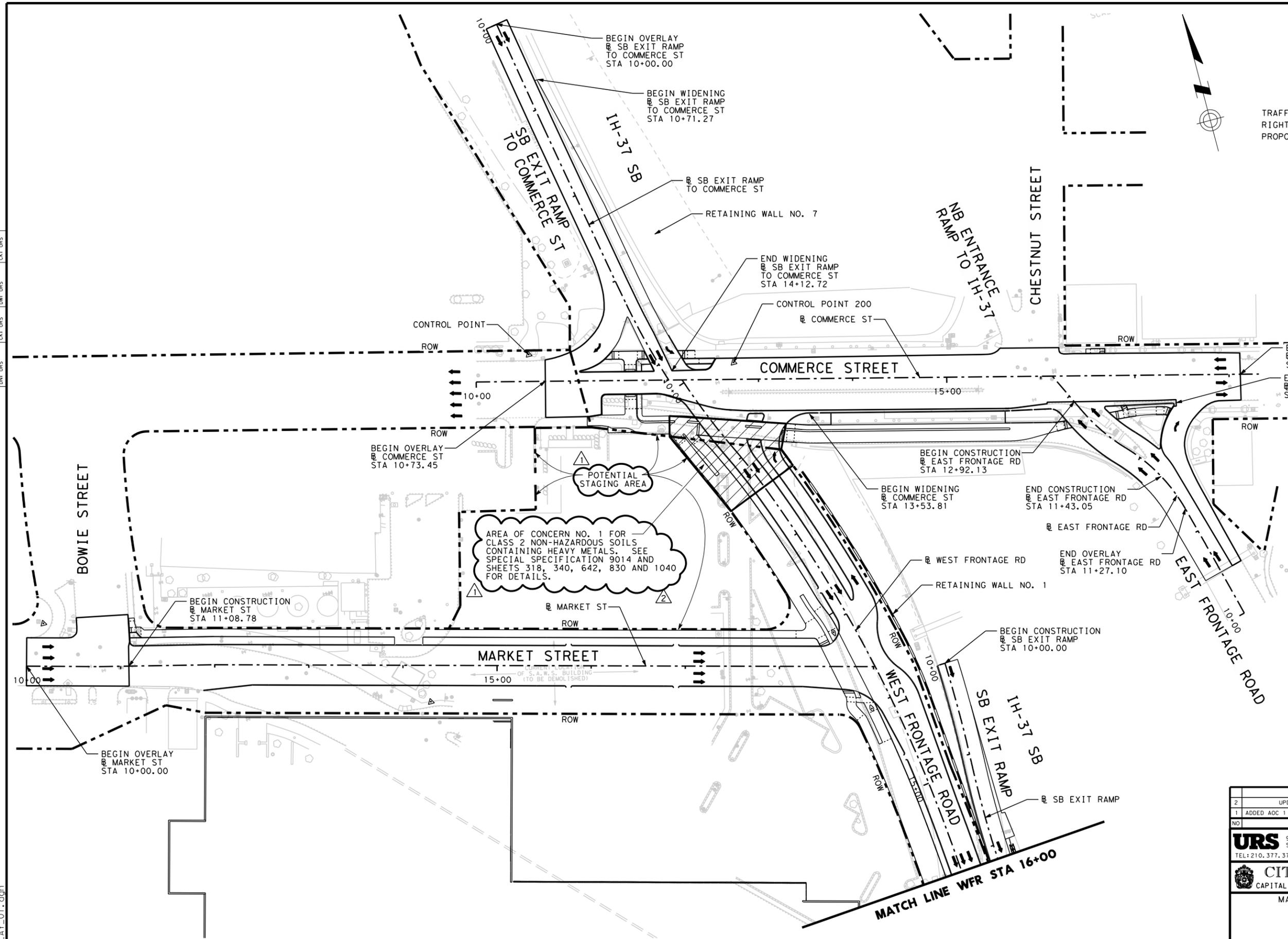
**PLAN VIEW LEGEND**

TRAFFIC FLOW DIRECTION

RIGHT OF WAY (ROW)

PROPOSED RETAINING WALL

DN: URS  
 CK: URS  
 DW: URS  
 CK: URS



*R. Austin*

02/08/2013

2	UPDATED SHEET NUMBERS	SR	RA	02/08/13
1	ADDED AOC 1 AND POTENTIAL STAGING AREAS	SR	RA	01/18/13
NO	REVISION	DRAWN	APPROVED	DATE

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
 SAN ANTONIO, TEXAS 78230  
 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 MARKET STREET REALIGNMENT

**PROJECT LAYOUT**  
 BEGIN PROJECT TO WFR STA 16+00

100% SUBMITTAL	PROJECT NO.:	40-00300	DATE: 2/7/2013
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: 5

DATE: 2/7/2013 9:47:56 PM  
 FILE: PROLAY\_01.dgn

**ADDITIONAL NOTES**

- EXISTING TOPOGRAPHY, PLANS, AND DETAILS REPRESENT AS-BUILT CONDITIONS TO THE BEST OF THE OWNER'S KNOWLEDGE; HOWEVER, ACTUAL AS-BUILT CONDITIONS MAY VARY FROM THE DRAWINGS. ALL DIMENSIONS AND CONDITIONS INDICATED RELATIVE TO THE EXISTING CONSTRUCTION ARE APPROXIMATE BASED ON AVAILABLE AS-BUILT INFORMATION AND LIMITED FIELD VERIFICATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS.
- ELEVATIONS ARE SUBJECT TO FIELD VERIFICATION AND ADJUSTMENT TO MEET ACTUAL FIELD CONDITIONS SHOULD BE EXPECTED. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS, AND PROJECT ENGINEERING REFERENCE POINTS, RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY A REGISTERED PUBLIC SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO THE OWNER.
- ALIGNMENT, CENTERLINE CURVE DATA, AND STATIONING TO BE VERIFIED BY ON-THE-GROUND SURVEY FROM PROJECT CONTROL POINTS AND ELEVATIONS OF ALL CONNECTIONS TO EXISTING FACILITIES TO BE CONFIRMED PRIOR TO WORK START. CONTRACTOR TO NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- THIS SET OF CONSTRUCTION DOCUMENTS SHALL BE CONSIDERED AS A WHOLE AND THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR THE INFORMATION PRESENTED ON ALL SHEETS ON THE SET OF DRAWINGS AND ALL SECTIONS OF THE SPECIFICATIONS.
- CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND ALL ITEMS OF WORK. LACK OF UNDERSTANDING OF WORK REQUIREMENTS OR COMPLEXITY SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION.
- THE CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT SHALL REVIEW THESE PLANS AND THE GEOTECHNICAL REPORT PREPARED BY ARIAS & ASSOCIATES, INC. DATED JANUARY 2, 2013 (AVAILABLE ELECTRONICALLY FROM URS BY E-MAIL REQUEST TO BREGGER.GARRISON@URS.COM) AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO DEVELOP THE CONTRACTOR'S PLANS TO IMPLEMENT THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S PLANS SHALL PROVIDE FOR ADEQUATE TRENCH AND EXCAVATION SAFETY SYSTEMS THAT COMPLY WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS AND TEXAS STATE HEALTH/SAFETY CODES. SPECIFICALLY, CONTRACTOR AND/OR INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT A TRENCH AND EXCAVATION SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. THE TRENCH AND EXCAVATION SAFETY PLAN SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL PERMITS. CONTRACTOR SHALL BARE ALL COST FOR AND RESPONSIBILITIES ATTACHED THERETO AND ANY REPERCUSSIONS OF NOT FOLLOWING SAID PERMITS AND PROJECT REQUIREMENTS. CONTRACTOR TO ASSURE HIMSELF THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK.
- THE AREAS UTILIZED AS CONTRACTOR'S OFFICE, PARKING, LAYDOWN, STORAGE, AND HAUL ROUTES, ARE TO BE RESTORED TO THE ORIGINAL CONDITION AT THE COMPLETION OF THE WORK. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY IMPROVEMENTS HE REQUIRES AT THE STAGING AREA(S) INCLUDING AN ENTRANCE, AGGREGATE SURFACING, TEMPORARY FENCING, ETC. THESE IMPROVEMENTS ARE AS INDICATED IN THE DRAWINGS/SPECS; CONTRACTOR WILL PERFORM ADDITIONAL IMPROVEMENTS AS HE DEEMS NECESSARY, AND AS REQUIRED BY THE WORK.
- ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNER. ALL CONSTRUCTION STORM RUNOFF SHALL COMPLY WITH THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES) REQUIREMENTS AS INDICATED IN THESE PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL CONTROL DUST CAUSED BY THE WORK BY THE APPLICATION OF WATER BY AN APPROVED SPRINKLER IN AMOUNTS SUFFICIENT TO CONTROL THE DUST TO THE SATISFACTION OF THE OWNER, AND IN ACCORDANCE WITH SPECIFICATIONS. THIS MAY REQUIRE ADDITIONAL MEASURES SUCH AS SHIELDING THE WORK FROM WIND OR OTHER APPROPRIATE MEASURES AS REQUIRED.
- THE CONTRACTOR MAY NOT DIRECT, IMPEDE, OR REROUTE PEDESTRIAN AND VEHICULAR TRAFFIC, NOR PLACE A BARRICADE OR OTHER TRAFFIC CONTROL DEVICES IN A RIGHT-OF-WAY WITHOUT FIRST OBTAINING APPROPRIATE PERMITS.
- AT THE END OF EACH WORK DAY THE CONTRACTOR SHALL CLOSE THE TRENCH EXCEPT FOR THE MINIMUM AMOUNT REQUIRED TO BEGIN THE NEXT DAY'S CONSTRUCTION. PROVIDE STEEL PLATES OVER OPEN PORTIONS WITHIN PAVED AREAS. COMPACTION REQUIREMENTS SHALL BE ADHERED WITHIN PLACEMENT OF CLOSURE BACKFILL AND/OR THE STATION WILL BE MARKED AT THE START OF THE NEXT WORK DAY AND BE PLACED AND COMPACTED ACCORDING TO THE SPECIFICATIONS.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION BETWEEN HIMSELF AND OTHER CONTRACTORS AND UTILITIES IN THE VICINITY OF THIS PROJECT. THIS INCLUDES, BUT IS NOT LIMITED TO, GAS, WATER, WASTEWATER, ELECTRICAL, TELEPHONE, COMMUNICATIONS NETWORKS, CABLE TELEVISION, PETROLEUM PIPELINES, AND STREET AND DRAINAGE WORK. ONCE THE CONTRACTOR BECOMES AWARE OF A POSSIBLE CONFLICT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CONSTRUCTION INSPECTOR WITHIN TWENTY-FOUR (24) HOURS.  
  
ONCE AT&T CONDUITS AND MANHOLES ARE CONSTRUCTED, THE CONTRACTOR SHALL COORDINATE THEIR SCHEDULE OF WORK WITH AT&T PERSONNEL THAT WILL PERFORM CABLE INSTALLATION AND SPLICING WORK, ETC.  
  
ONCE ILLUMINATION FACILITIES ARE INSTALLED, THE CONTRACTOR WILL NEED TO COORDINATE THEIR SCHEDULE OF WORK WITH CPS AND WORK WITH CPS TO POWER THE ILLUMINATION FACILITIES (TEMPORARY AND PERMANENT).  
  
THE CONTRACTOR SHALL COORDINATE WITH THE CONVENTION CENTER EXPANSION DESIGN-BUILD CONTRACTOR AND ALLOW HIM TO OCCUPY THE MAXIMUM POSSIBLE AMOUNT OF THE PROPOSED CONVENTION CENTER EXPANSION SITE AS POSSIBLE AS SOON AS POSSIBLE ONCE THE DESIGN-BUILD CONTRACTOR COMMENCES WITH HIS WORK IN THE SUMMER OF 2013. THE CONVENTION CENTER EXPANSION SITE WILL EXTEND FROM THE SOUTH MARKET STREET CURB TO THE SOUTH, FROM THE WEST FRONTAGE ROAD\* WEST ROW LINE TO THE WEST, AND FROM THE NORTH SIDE OF MONTANA STREET TO THE NORTH.
- THE WORK ALONG THE FRONTAGE OF THE SAWS HEATING AND COOLING PLANT AT THE NORTHEAST CORNER OF MARKET STREET AND BOWIE STREET CONSISTS OF CONSTRUCTION OF A RELOCATED CHILLED WATER LINE, DRAINAGE PIPES, RETAINING WALLS, WROUGHT IRON FENCING, CONCRETE SIDEWALKS, LANDSCAPE PLANTERS, PEDESTRIAN LIGHTS, AND OTHER RELATED ITEMS. IN THE AREA IN FRONT OF THE BUILDING, THE CONTRACTOR SHALL INSTALL TEMPORARY CHAIN LINK SECURITY FENCING ALONG THE SOUTH SIDE OF THE CIRCULAR PLANTERS, AND IS PERMITTED TO USE THE AREA SOUTH OF THE SECURITY FENCING AS WORKING SPACE FOR THE CONSTRUCTION OF THE IMPROVEMENTS LISTED ABOVE. ANY DAMAGE TO THE BRICK PAVERS IN THIS AREA SHALL BE REPAIRED AND RESTORED TO THEIR ORIGINAL CONDITION. IN THE AREA ALONG THE PARKING LOT EAST OF THE BUILDING, THE CONTRACTOR SHALL PROTECT ONE OF THE TREES IN THE CURBED MEDIAN, REMOVE THE OTHER TREE IN THE MEDIAN, REMOVE THE CONCRETE MEDIAN CURB, REMOVE AND REPLACE ASPHALT PAVEMENT, CONSTRUCT A CONCRETE SIDEWALK AND SEAT WALLS AROUND THE NORTH SIDE OF THE PRESERVED TREE, AND INSTALL PEDESTRIAN LIGHTS AND FENCING AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE ALL WORK IN FRONT OF THE SAWS HEATING AND COOLING PLANT WITH JOHN KAZNOWSKI AT 210.233.3696 OR 210.825.7112.
- THE CONTRACTOR IS ADVISED THAT MANY LARGE EVENTS WILL BE OCCURRING WITHIN THE DOWNTOWN AREA IN THE VICINITY OF THE MARKET STREET REALIGNMENT PROJECT DURING THE COURSE OF THIS CONSTRUCTION CONTRACT. THIS INCLUDES EVENTS AT THE CONVENTION CENTER, ALAMODOME, INSTITUTE OF TEXAN CULTURES (ITC), LA VILLITA, AND NEARBY HOTELS. DURING THESE EVENTS, THE CITY HAS THE PREROGATIVE TO RESTRICT TRAFFIC LANE CLOSURES AND DETOURS WITHIN THE CONSTRUCTION AREA. FOLLOWING IS A PARTIAL LIST OF SCHEDULED EVENTS WHEN THESE RESTRICTIONS MAY OCCUR. OTHER EVENTS MAY ALSO RESULT IN THESE RESTRICTIONS.

EVENT	LOCATION	DATES
NATL. SCIENCE TEACHERS ASSOC.	CONVENTION CENTER	APRIL 10-14, 2013
INTL. READING ASSOCIATION	CONVENTION CENTER	APRIL 19-22, 2013
NIOSA (FIESTA)	DOWNTOWN/LA VILLITA	APRIL 23-26, 2013
TEXAS DENTAL ASSOCIATION	CONVENTION CENTER	MAY 2-4, 2013
TEXAS FOLKLIFE FESTIVAL	ITC	JUNE 7-9, 2013
SOCIETY FOR TECHNOLOGY IN EDUC.	CONVENTION CENTER	JUNE 21-26, 2013
LUTHERAN CHURCH- NATL. YOUTH GATH.	CONVENTION CENTER	JULY 1-5, 2013
PEOPLE EN ESPANOL	DOWNTOWN	AUG. 30-SEPT. 1, 2013
UTSA FOOTBALL	ALAMODOME	SEPTEMBER 7, 2013
WORLD'S FAIR OF COSMETIC ARTS	CONVENTION CENTER	SEPTEMBER 7-9, 2013
PREPAID LEGAL SERVICE, INC.	GRAND HYATT	SEPTEMBER 17-21, 2013
UTSA FOOTBALL	ALAMODOME	SEPTEMBER 28, 2013
S.A. ROCK 'N' ROLL MARATHON	DOWNTOWN	NOVEMBER 15-17, 2013
S.A. AUTOMOBILE DEALERS ASSOC.	CONVENTION CENTER	NOVEMBER 21-24, 2013
ASIAN FESTIVAL	ITC	FEBRUARY 1, 2012
TEXAS MUSIC EDUCATORS ASSOC.	DOWNTOWN	FEBRUARY 12-15, 2014
NIOSA (FIESTA)	DOWNTOWN/LA VILLITA	APRIL 22-25, 2014
TEXAS DENTAL ASSOCIATION	DOWNTOWN	MAY 1-4, 2014
AMER. INDUSTRIAL HYGIENE ASSOC.	GRAND HYATT	MAY 31-JUNE 5, 2014
TEXAS FOLKLIFE FESTIVAL	ITC	JUNE 6-8, 2014

- NOTE: ADDITIONAL UTSA FOOTBALL GAMES THAT ARE NOT CURRENTLY SCHEDULED INCLUDE 2 GAMES IN OCTOBER, 2013, 2 GAMES IN NOVEMBER 2013, AND 4 GAMES IN 2014.
- CITY IT LINES \* CITY IT CONDUITS WILL BE INCLUDED WITHIN THE SAME TRENCH AS TIME WARNER CABLE.
  - SAWS IMPACT FEES ARE THE CONTRACTOR'S RESPONSIBILITY AND ARE SUBSIDIARY TO THE IRRIGATION WORK.
  - TIME WARNER - ALL MATERIAL WILL BE PROVIDED BY TIME WARNER AND MUST BE PICKED UP BY THE CONTRACTOR AT THE TIME AND PLACE INDICATED BY TIME WARNER. CONTRACTOR SHALL NOTIFY TIME WARNER FOUR (4) WEEKS PRIOR TO MATERIAL PICK UP. TIME WARNER CONTACT FOR THIS PROJECT IS STEPHON ROBERTSON, 210-279-1875.
  - THE CITY OF SAN ANTONIO IS USING PRIMAVERA P6 VERSION 6.2. THE CONTRACTOR MUST USE PRIMAVERA P6 VERSION 5.0 OR LATER SO THE CITY OF SAN ANTONIO CAN USE THE CONTRACTOR'S SCHEDULE.
  - AT&T APPROVED CONTRACTORS INCLUDE ZACHRY, BARTEC & TEXSTAR.
  - THE EXISTING GAS METER AND PIPING LOCATED ON THE NORTH SIDE OF MARKET STREET WILL BE REMOVED PRIOR TO CONTRACTOR'S NOTICE TO PROCEED. THE REMAINING CONCRETE SLAB AND BLOCK WALL ARE TO BE REMOVED BY THE CONTRACTOR AND WILL BE SUBSIDIARY TO COSA ITEM 101.
  - STORMWATER PLANTERS ARE TO BE PLACED PRIOR TO ILLUMINATION FOUNDATIONS.
  - ITEM 101 \* PREPARATION OF RIGHT-OF-WAY. THIS ITEM INCLUDES THE PROTECTION AND PRESERVATION OF EXISTING TREES IN ACCORDANCE WITH THE TREE PROTECTION AND PRESERVATION PLANS (SHEETS 801 \* 806). IN ADDITION, CUTTING, PLUGGING, AND REMOVAL OF EXISTING STORM DRAIN PIPE AS CALLED FOR ON THE PLANS IS INCLUDED IN THIS BID ITEM. COMPENSATION FOR THESE ITEMS OF WORK ARE INCLUDED IN THE BID PRICE FOR PREPARATION OF RIGHT OF WAY.
  - ITEM 202 - PRIME COAT SHALL BE APPLIED AT A RATE OF 0.30 GAL. / S.Y. AND SHALL BE PLACED AFTER THE FLEXIBLE BASE HAS BEEN CONSTRUCTED PER TYPOT ITEM 247 AND BEFORE THE LIFT OF MAP TYPE B.

- ITEM 203 \* TACK COAT SHALL BE APPLIED AT A RATE OF 0.10 GAL. / S.Y. AND SHALL BE PLACED AFTER THE MILLING OPERATIONS AND IMMEDIATELY PRIOR TO THE OVERLAY OPERATIONS.
- ITEM 209 \* A CONCRETE BUS PAD SHALL BE CONSTRUCTED ON MARKET STREET IN THE SOUTH LANE AND SHALL BE 10' WIDE X 160' LONG. IT SHALL BE CONSTRUCTED ADJACENT TO THE GUTTER. ITS LOCATION WILL BE DETERMINED BY THE ENGINEER IN THE FIELD ONCE THE CONVENTION CENTER DRIVEWAY LOCATION(S) HAS BEEN DETERMINED.
- ITEM 500 \* CONCRETE CURB AND GUTTER MAY BE MACHINE LAID PER ITEM 501 (MACHINE LAID CURB) IF DESIRED FOR THE STANDARD CURB AND GUTTER. CURB CUTS FOR THE CURB AND GUTTER (AND FOR THE SIDEWALK CURB) WILL BE LOCATED PER THE ROADWAY DETAILS SHEET IN RELATION TO THE STORMWATER PLANTER STRUCTURES.
- ITEM 503 \* THE LOCATION AND NUMBER OF CONCRETE DRIVEWAYS WILL BE ESTABLISHED BY THE ENGINEER IN THE FIELD ONCE THE CONVENTION CENTER EXPANSION PLANS ARE FAR ENOUGH ALONG TO DETERMINE SAID LOCATIONS. PLANS WILL BE UPDATED AND A CHANGE ORDER WILL BE PREPARED TO LOCATE THE DRIVEWAYS.
- ITEM 507 \* A 6' HIGH TEMPORARY CHAIN LINK WIRE FENCE WILL BE CONSTRUCTED ACROSS THE WALKWAY TO THE ALAMODOME JUST EAST OF THE OF THE WALKWAY BRIDGE OVER THE IH37 EAST FRONTAGE ROAD. A 6' HIGH CONSTRUCTION FENCE SCREEN WILL BE ATTACHED TO THE 6' HIGH CHAIN LINK FENCE. THE FENCE SCREEN WILL BE GREEN AND WATER RESISTANT KNITTED POLYETHYLENE 200 SERIES ENVIRO PRIVACY WITH 88" BLOCKAGE AS SPECIFIED AT WWW.FENCESCREEN.COM OR APPROVED EQUAL AND WILL BE SUBSIDIARY TO THE CHAIN LINK FENCE. IT WILL BE PLACED PRIOR TO WALKWAY AND PEDESTRIAN BRIDGE CONSTRUCTION AND REMOVED AFTER RETAINING WALL 3 AND WALKWAY AND PEDESTRIAN BRIDGE CONSTRUCTION IS COMPLETE. HOLES MADE WITHIN THE WALKWAY BY THE FENCE INSTALLATION AND REMOVAL WILL BE REPAIRED SMOOTHLY WITH CONCRETE MEETING THE REQUIREMENTS OF COSA ITEM 502.  
  
A 6' HIGH TEMPORARY CHAIN LINE FENCE WILL BE CONSTRUCTED AROUND THE PERIMETER OF THE CONSTRUCTION STAGING AREA(S). A 6' HIGH FENCE SCREEN (AS SPECIFIED ABOVE) WILL BE ATTACHED AND SUBSIDIARY TO THE TEMPORARY 6' HIGH CHAIN LINK FENCE.  
  
A 6' HIGH TEMPORARY CHAIN LINK WIRE FENCE WILL BE CONSTRUCTED ACROSS THE WALKWAY TO THE ALAMODOME AT THE NORTHWEST END OF THE WALKWAY (WEST OF THE WEST FRONTAGE ROAD). IT WILL BE PLACED PRIOR TO ANY DEMOLITION ON THE WALKWAY AND REMOVED WHEN DIRECTED BY THE ENGINEER. A 6' HIGH FENCE SCREEN (AS SPECIFIED ABOVE) WILL BE ATTACHED AND SUBSIDIARY TO THE TEMPORARY 6' HIGH CHAIN LINK FENCE.
- ITEM 524 \* ALL BIDDERS WILL BID \$250,000 FOR THIS ITEM. THIS \$250,000 WILL BE FOR A VERTICAL CIRCULATOR STRUCTURE THAT WILL PROVIDE ACCESS FROM THE PEDESTRIAN BRIDGE OVER THE WEST FRONTAGE ROAD TO THE GROUND LEVEL. THE VERTICAL CIRCULATOR STRUCTURE WILL INCLUDE STAIRS AND A LARGE FREIGHT ELEVATOR AND WILL BE DESIGNED AT A LATER DATE TO BE AESTHETICALLY AND FUNCTIONALLY CONSISTENT WITH THE CONVENTION CENTER EXPANSION. A CHANGE ORDER WILL BE PREPARED TO INCORPORATE THE VERTICAL CIRCULATOR STRUCTURE AND TO DETERMINE THE FINAL COST.
- ITEM 9014 - THE CITY OF SAN ANTONIO PROJECT MANAGER MAY ALLOW THE CONTRACTOR TO REUSE THE CLASS 2 NON-HAZARDOUS SOIL WITHIN THE TRENCHES AND EMBANKMENT ON THE PROJECT SITE IN LIEU OF TRANSPORTING IT AWAY FROM THE PROJECT SITE TO A LANDFILL.
- WORKING HOURS WITHIN 500 FEET OF THE HYATT HOTEL SHALL BE NO EARLIER THAN 8:00 A.M. AND NO LATER THAN 8:00 P.M. ON MONDAYS THRU FRIDAYS. WORKING HOURS WITHIN 500 FEET OF THE HYATT HOTEL SHALL BE NO EARLIER THAN 9:00 A.M. AND NO LATER THAN 8:00 P.M. ON SATURDAYS AND SUNDAYS.

**DELETED NOTES**

NONE.

**NOTES OF MODIFICATION**

- MODIFY NOTE 3 - ACCESS TO CONTIGUOUS PRIVATE PROPERTIES AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE.
- MODIFY NOTE 11 \* THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM AVAILABLE RECORDS AND ARE NOT GUARANTEED, BUT SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR THE MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND HE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR THE COST INCURRED AS A RESULT OF UTILITY RELOCATIONS PERFORMED FOR CONTRACTOR'S CONVENIENCE.



*R. Austin*

02/08/2013

3	ADDENDUM 4	SR	RDA	02/08/13
2	ADDENDUM 3	BAG	RDA	01/28/13
1	ADDENDUM 2	BAG	RDA	01/18/13
NO.	REVISION	DRAWN	APPROVED	DATE

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
SAN ANTONIO, TEXAS 78230  
TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
MARKET STREET REALIGNMENT

**SUPPLEMENTAL  
GENERAL NOTES**  
CITY OF SAN ANTONIO

100% SUBMITTAL	PROJECT NO.:	#PROJECTNO#	DATE: 2/8/2013
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: 15

DN: URS CK: URS DW: URS CK: URS

DATE: 2/8/2013 11:59:46 AM  
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**BASIS OF ESTIMATE**

**ASPHALT CONCRETE PAVEMENT**

Type	Description	Rate/Area
340-2014	D-GR HMA(METH) TY-B PG70-22	110 lbs/sy/in
340-2050	D-GR HMA(METH) TY-C PG70-22	110 lbs/sy/in
340-2002	PFC (ASPHALT)PG76-22	85 lbs/sy/in

**SURFACE TREATMENT DATA**

- G-2 Steel Wrapped or Asbestos Utility Lines:  
 Existing steel wrapped natural gas and/or asbestos cement (AC) water lines that will no longer be in service are usually abandoned in place (AIP). However, if any of these lines have to be removed for whatever reason (in the way of other construction, to make tie-ins, etc.) comply with all federal, state and local laws, ordinances and regulations regarding the management of these materials. At a minimum:
- Contact the Engineer.
  - Remove the minimum amount of pipe needed to perform the proposed work.
  - Cover and secure the ends of the pipe with a double layer of 6 mil plastic. If the pipe is damaged, cover the entire pipe.
  - Move the pipe to an approved temporary site within the project.
  - The Engineer will determine the owner (utility company) of the pipe and will coordinate removal from the project. The contractor will load the pipe onto the removal vehicles but will NOT be responsible for removing the pipe from the project.
  - Removal of the pipe from the trench is subsidiary to the work that created the need for the removal (excavation for structures, roadway, a new line, tie-ins, etc.). The work performed in handling the pipe after it has been removed from the trench (covering with plastic, hauling to the temporary site and later loading on to the disposal vehicles will be paid for through the Force Account procedure.
- G-3 Contact the Engineer or the City when construction operations are within 400 feet of a signalized intersection to determine/verify the location of loop detectors, conduit, ground-boxes, etc. Repair or replace any signal equipment damaged by construction operations. The method of repair or replacement shall be pre-approved and inspected. Depending on the type and extent of the damage, the Engineer reserves the right to perform the repair or replacement work and the Contractor will be billed for this work.
- G-4 Remove existing raised pavement markings as the work progresses or as approved. This work is subsidiary to the various bid items. Properly dispose materials removed.
- G-5 To better fit field conditions, the cross sections may be varied when approved.
- G-6 If there are waste areas or material source areas, follow the Texas Aggregate Quarry and Pit Safety Act requirements.
- G-7 Any materials removed and not reused and determined to be salvageable shall be stored within the project limits at an approved location or delivered undamaged to the storage yard as directed. Properly dispose unsalvageable materials in accordance with local, state, and federal regulations. Deface traffic signs so that they will not reappear in public as signs.
- G-8 Any sign panels that are adjusted or removed and replaced, shall be done the same workday unless otherwise approved.
- G-9 Notify the Engineer at least two weeks prior to a proposed traffic pattern change(s) that will require a revision to traffic signals.
- G-10 Hurricane Evacuation  
 Hurricane Season is from June 1 thru November 30. As the closest metropolitan city inland from the Texas Coast, the City of San Antonio is a major shelter destination during mandatory hurricane evacuations. As such, planned work zone lane or road closures may be restricted and/or suspended during mandatory hurricane evacuation operations. The District will coordinate these restrictions at a minimum H-120 from any projected impact to the Texas Coast.  
 No time charges will be made if the Engineer determines that work on the project was impacted by the hurricane.  
 The Engineer may order changes in the Traffic Control Plan to accommodate evacuation traffic, and may suspend the work, all or in part, to ensure timely completion of this work. All work to implement changes in the Traffic Control Plan will be paid through existing bid prices. However, the City will not entertain any request for delay damages, loss of efficiency that may be attributed to the restriction or suspension of road or lane closures, or to changes in the Traffic Control Plan.
- G-11 The Contractor should be aware that the "City Public Service" (CPS) and the San Antonio Water System (SAWS) will be consulted by the Engineer in matters concerning the execution of the work, materials and testing related to their work. As such, CPS and SAWS employees may be observing the construction and related operations as they progress.
- 5-1 **-Item 5-**  
 Reference all existing striping and other pavement markings to allow these markings to be re-established. Ensure the markings (lane lines, edge lines, ramp gores, etc.) are in line with signs, TMS arrows, etc. located on overhead sign supports.
- 5-2 Taper ACP placed at curb inlets, traffic inlets and slotted drains.
- 5-4A. Prior to letting, bidders may obtain a computerized transfer of files (from the Engineer's office) that contains the earthwork information.

- 5-5 When working near aerial electrical lines or utility poles, comply with Federal, State and local regulations. For electrical lines and poles shown in the plans, if the lines need to be de-energized or if poles need to be braced, contact the electrical company. Work pertaining to de-energizing lines, bracing poles and other protective measures will not be paid by TxDOT.
- 5-7 Use is required in residential areas.  
 Provide a non-intrusive back-up alarm system on all heavy equipment used in close proximity to if work residential areas or Hotels. This item is subsidiary to various bid items.
- 6-1 **-Item 6-**  
 Show the stockpile lot and/or sub lot numbers on all tickets for all materials.
- 7-1 **-Item 7-**  
 The City will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. Obtain any required authorization from the TCEQ for any PSL's on or off the ROW. When the total area disturbed on the project and PSL's within 1/4 mile of the project exceeds 5 acres, provide a copy of the Contractor NOI for PSL's to the Engineer (to the appropriate MS4 operator when the project is on an off-state system route).
- 7-3 Notify the Engineer of the disturbed acreage within one (1) mile of the project limits. Obtain authorization from the TCEQ for Contractor PSL's for construction support activities on or off ROW.
- 8-3 **-Item 8-**  
 Locate and reference with station and offset all manholes and valves within the construction area. Each manhole and valve shall be identified by its owner (SAWS, CPS, etc.). No roadway will begin until this list has been submitted. Gas valves have to be accessible at all times, therefore; temp. CTB, material stock piles, etc. can not be placed over these valves.
- 8-4 Construct all manholes and valves to final pavement elevations prior to the final mat of ACP. If, between the final elevation adjustment and the final mat of ACP, the manholes and valves are going to be exposed to traffic, place temporary asphalt around the manhole and valve to provide a +/- 50:1 taper. The cost of elevation adjustment will be part of the manhole and valve work, and asphalt tapers are part of the ACP work.
- 110-1 **-Item 110-**  
 Where excavation extends beyond a right of way fence, remove and replace the fence to a comparable condition.
- Item 168-**  
 Apply vegetative watering as needed to supplement natural rainfall during the vegetation establishment period. Plan quantity of irrigation water is based on the application of a total of 1.3 gal of water each week for each sq. yd. of area that is sodded or seeded. Establishment time is estimated to be 12 weeks for both sod and permanent seed mixes. Temporary seeding will require less time for establishment. Provide a schedule and coordinate watering cycles and rates per cycle with the Engineer. Obtain approval if the quantity of water to be applied is expected to exceed the plan quantity. Adjust the amount of water applied with each cycle and the number of cycles each wk. according to actual site conditions. Drought or other conditions, as determined by the Engineer, may require the application of supplemental irrigation during hours other than normal working hours.
- 320-1 **-Item 320-**  
 Construct all longitudinal ACP joints adjacent to a travel lane with a joint maker device that will create a 3:1 to 6:1 taper. For placement of 2 inches or more, the device shall provide a maximum 1/2 inch vertical edge. Taper outside edges (next to the grass) or backfill (shoulder-up) the same day.
- 320-2 Provide a material transfer device capable of providing a continuous flow of material to the paver. The material transfer device will consist of a windrow elevator or better.
- Minimum Roadway Placement Temperature**  
**-Item 340, 342, 344, 346, 3127 & 3142-**
1. Place mixture when the roadway surface temperature is equal to or higher than listed in Table 1 unless otherwise approved or shown on the plans. Measure the roadway surface temperature with a handheld infrared thermometer. Placement may be allowed to begin prior to the roadway surface reaching the required temperature if conditions are such that the roadway surface will reach the required temperature within 2 hrs. of beginning placement operations. Place mixtures only when weather and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

Table 1  
 Minimum Pavement Surface Temperatures

Specification Item Number	High Temperature Binder Grade	Minimum Pavement Surface Temperatures in Degrees Fahrenheit *	
		Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
Items 340 & 344	PG 64	45	50
	PG 70	55	60
	PG 76	60	60
Items 342 and 346 SS 3127 & SS 3142	PG 76	65	70
	Asphalt Rubber (A-R)	65	70

\* Except for PG 64, may pave at temperatures 10° F lower than the values shown in Table 1 when utilizing a paving process or equipment that eliminates thermal segregation. In these cases, use either an infrared bar attached to the paver, or a hand held thermal camera, or a hand held infrared thermometer operated in accordance with Text Method 244-F to demonstrate that the uncompacted mat has no more than 10° F of thermal segregation.

- 401-1 **-Item 401-**  
 A shrinkage compensator is not required for when used for backfilling pipes. Strength of the Flowable Backfill may be field verified by a Laboratory. Field testing is not required, unless deemed necessary.
- 420-1 **-Item 420-**  
 Mass concrete will be measured in place.  
 420-2 Restrict large aggregate size to 3/4" maximum for class "C" concrete used in aesthetic details requiring form liners.
- 421-1 **-Item 421-**  
 Use an automated ticket and submit the ticket for approval prior to use. The concrete producer will contact the Engineer to inform him of scheduled structural concrete batching. Structural concrete includes bridge drill shafts, columns, caps, abutments, deck or top slabs of direct traffic culverts.  
 421-2 Entrained air is required in all slip formed concrete (bridge rail, concrete traffic barrier, pavement etc.), but is not required for other structural concrete. Adjust the dosage of air entraining agent for low air content as directed or allowed by the Engineer. If entrained air is provided where not required, only the upper limits of the Special Provision will be enforced.
- 421-3 The curing facilities and strength testing equipment is not required for this project.  
 Office  
 421-4 Poly-fiber reinforced concrete may be used as an option, with the approval by the Engineer, for riprap, sidewalk, curb/gutter, and mow strip. Use a TxDOT approved manufacturer or producer for the poly-fiber. The poly-fibers shall be combined with the concrete in proportions as recommended by the manufacturer. A concrete mix design must be approved by the Engineer.
- 423-1 **-Item 423-**  
 The backfill material for pre cast retaining walls shall be approved before placement. Build stockpile(s) in lifts not to exceed 2 feet and a minimum working face of not less than 10 feet, but not more than 20 feet. RAP will not be allowed as the backfill material for MSE retaining walls.  
 423-2 Use the approved Concrete Block Retaining wall systems listed at:  
 HTTP://WWW.DOT.STATE.TX.US/BUSINESS/CONTRACTORS\_CONSULTANTS/BRIDGE/RETAINING\_WALL.HTM  
 423-3 Use the approved Mechanically Stabilized Earth (MSE) wall systems listed at:  
 HTTP://WWW.DOT.STATE.TX.US/BUSINESS/CONTRACTORS\_CONSULTANTS/BRIDGE/RETAINING\_WALL.HTM

423-4 Design permanent MSE walls using the information provided in the project drawings and Geotechnical Report (including supplements). During the design process, if any additional boring data is required, the Contractor shall perform this work at no cost to the Owner. The design shall meet the following requirements unless otherwise indicated on the plans:  
 The design shall conform to the latest AASHTO Standard Specifications for Highway Bridges, Federal Highway Administration publication FHWA-NHI-00-043, "Mechanically Stabilized Earth Walls and Reinforced Soil Slopes Design & Construction Guidelines". The design shall consider the internal and external stability of the wall mass, including the actual applied bearing pressure, overturning, sliding of the wall, and global stability including and interim construction phase. Contractor shall submit calculations signed and sealed by a professional engineer registered in the State of Texas.



02/08/2013

1	ADDENDUM 4	SR	RA	02/08/13
NO.	REVISION	DRAWN	APPROVED	DATE
<b>URS</b>		9901 IH10 WEST, SUITE 350 SAN ANTONIO, TEXAS 78230		(FIRM # 3162)
TEL: 210.377.3764		FAX: 210.377.0622		WWW.URSCORP.COM
<b>CITY OF SAN ANTONIO</b>				
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT				
MARKET STREET REALIGNMENT				
<b>GENERAL NOTES</b>				
TEXAS DEPARTMENT OF TRANSPORTATION				
SHEET 1 OF 2				
100% SUBMITTAL	PROJECT NO.:	#PROJECTNO#	DATE: 2/7/2013	
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: 16	

DNE: URS  
 CK: URS  
 DW: URS  
 CK: URS

DATE: 2/7/2013 4:39:15 PM  
 FILE: gen\_notes\_04.dgn

- 432-1 ~~Item 432-~~  
In all riprap slopes, provide 3 inch diameter weep holes at 10 foot maximum spacing and backed with loose graded gravel or crushed stone and galvanized hardware cloth.
- 432-2 In areas where guard fence posts are to be placed in riprap, the riprap shall have an 18 inch +/- blocked out area (round or square).
- 432-3 Match the slope of the Riprap (Mow Strip) to the slope of the adjacent roadway.
- 449-1 ~~Item 449-~~  
The pipe joint compound used to coat the threads of anchor bolts prior to installation of nuts when erecting a high mast pole shall be an electrically conducting protective thread lubricant compound (Crouse-Hinds TL-2, 0z/Gedney STL, Thomas & Betts Kopr-Shield).
- 454-1 ~~Item 454-~~  
The list of approved Header Type Expansion Joints can be found at: [HTTP://WWW.TXDOT.GOV/TXDOT\\_LIBRARY/PUBLICATIONS/PRODUCER\\_LIST.HTM](http://www.txdot.gov/txdot_library/publications/producer_list.htm) title is "Elastomeric Concrete".
- 465-1 ~~Item 465-~~  
Concrete Class B invert shaping is required at all inlets, manholes and junction boxes in order to insure positive flow. The material and work performed for the placement of the inverts shall be considered subsidiary to this item.
- 496-1 ~~Item 496-~~  
The structure(s) to be removed may have surface coatings that contain hazardous materials. Provide for the safety and health of employees and abide by all OSHA Standards and Regulations. All costs incurred for proper management, shall be subsidiary to this Item.
- 502-1 ~~Item 502-~~  
Place standard markings no later than 14 days after surface treatment operations are completed.
- 502-2 When advanced warning flashing arrow panels and/or changeable message sign is specified, have one standby unit in good condition at the job site.
- 502-3 Treat the pavement drop-offs as shown in the TCP.
- 502-4 After written notification, the time frame to provide properly maintained signs and barricades before considered in non-compliance is 48 hours from receipt of the notification.
- 502-6 Moving an existing sign to a temporary location is subsidiary to this Item. Installations with permanent supports at permanent locations will be paid for under the applicable bid item (s).
- 502-7 Mount temporary mailboxes on plastic drum in accordance with Compliant Work Zone Traffic Control Devices, Section K. Mounting and moving the mailbox as needed for the various construction phases is subsidiary to this Item.
- 502-8 Notify the Engineer 5 business days in advance of any temporary or permanent lane, ramp, connector, etc. closures/detours, restrictions to lane widths, alterations to vertical clearances, or modifications to radii. Any other modifications to the roadway that may adversely affect the mobility of oversized/overweight trucks also require 5 business days advance notice to the Engineer. Unless shown in the TCP, no lane, ramp, connector, etc. closures are allowed during special events. At least one lane has to remain open at all times. For all lane closures, provide written closure information by 1:00PM on the business day prior to the closure. For closures on a Monday or following a Holiday, furnish the information the workday prior to the closure. Lane closures will not be allowed if this reporting requirement is not met.
- 502-8A For closures not listed in the TCP; the lane closures are limited to between the hours of 9 a.m. and 4:00 p.m. M-F, and at least one lane has to remain open at all times.
- 502-9 Avoid placing stockpiles within the roadway's horizontal clear zone. If a stockpile is placed within the clear zone, address in accordance with the TMUTCD.
- 502-10 Do not place barricades, signs, or any other traffic control devices where they interfere with sight distance at driveways or side streets.
- 502-11 In addition to providing a Contractor's Responsible Person and a phone number for emergency contact, have an employee available to respond on the project for emergencies and for taking corrective measures within 2 hours or within a reasonable time frame as specified by the Engineer.
- 512-1 ~~Item 512-~~  
More than one type of CTB may be furnished but do not mix the types when placed along the roadway.
- 514-1 ~~Item 514-~~  
The Type 3 CTB taper from the Type 2 at obstructions (OSB's, bridge, columns, etc.) shall be 40:1. If gravel is used between the barriers as shown by the Standard Sheet, the top six inches shall be CL A concrete.
- 540-1 ~~Item 540-~~  
MBGF posts shall be round with domed tops, and not painted. If 10 or less timber posts are needed, they may be purchased locally and will be accepted by visual inspection.
- 540-2 Guard fence posts placed in proposed and/or existing areas of riprap, sidewalks or other concrete shall have an 18 inch +/- (square or round) block out in the concrete. After the posts are installed, the blocked out area shall be topped off with 4 inches of low strength grout/mortar consisting of about 1 sack of cement per cubic yard of mix.
- 540-4 When connecting a Thrie-Beam to a concrete wingwall, bridge rail, CTB, etc., drill the holes for bolt placement using rotary or core type equipment. Use a core type drill when reinforcing steel is encountered. Do not use percussion or impact drilling. Repair damage to the concrete and spalls exceeding 1/2" from the edge of the hole.
- 540-5 The top height shown on SGT (7)H-10 and SGT (8)H-09 may be adjusted to a maximum of 28" (22" center) but not less than 27-3/4" (21-5/8" center).

- 610-1 ~~Item 610-~~  
Fabricate steel roadway illumination poles in accordance with TxDOT standards RIP-07 (Roadway Illumination Poles -2007). Poles fabricated according to RIP-07 require no shop drawings. Alternate designs to RIP-07 or the use of aluminum to fabricate poles will require the submission of shop drawings electronically.  
  
For instructions on submitting shop drawings electronically go to: <http://www.dot.state.tx.us/publications/bridge.htm>. File is titled: Guide to Electronic Shop Drawing Submittal.  
  
Provide lamps from the pre-qualified Materials Producers List, Category is "Roadway Illumination and Electrical Supplies" located on the Construction Divisions (CST) web site.
- 610-2 Ballast/capacitors removed from the light assembly, will remain the property of the State. Assume all ballast/capacitors contain Polychlorinated Biphenyl (PCB), unless a notation appears on the outside of the unit that specifies it does not contain PCB's. All ballast/capacitors with PCB's shall be placed in 55 gallon open top drum in accordance with Department of Transportation (DOT) specifications. Place six (6) inches of sawdust or other absorbent material in the bottom of the drum. Furnish and place a DOT approved PCB warning label on the outside of the drum. Do not fill a drum more than 3/4 of capacity. Avoid rupturing the ballast/capacitor(s). If a ballast/capacitor is ruptured, use proper procedures, specialist trained staff and personal protective equipment for the clean-up operations.
- 610-3 The lamps in light fixtures may contain hazardous levels of mercury, halide, and sodium vapors. Observe and comply with all federal, state and local laws, ordinances and regulations regarding the management of these lamps. Prevent the breakage of the lamps. At a minimum, package all lamps removed from the light fixture(s) in a container that minimizes the breakage of the lamps. Broken lamps shall be collected in a sealed plastic bag (i.e. Ziploc). Broken lamps shall be stored in separate containers from unbroken lamps. Furnish a suitable container and attach a label stating "Universal Waste Lamps" on the container. Write the date the first lamp was placed in the container on the "Universal Waste Lamp" label. Within one (1) week after the first lamp is placed in a container, notify the Engineer. The lamps and PCB containing ballast/capacitors, placed in properly labeled containers, will remain the property of the State. Place the container in an area where it is protected from damage and the elements. The Engineer will make arrangements to collect, transport, and dispose/recycle the container. The ballast/capacitor and lamp's removal and storage is subsidiary to this item.
- 610-4 Stencil each illumination assembly with the circuit, light and relay numbers in black paint on the roadway side of the pole at a 45 degree angle. The numbers shall be in 3" tall and begin 6' from the top of the foundation. This work will be considered subsidiary to this item.
- 613-1 ~~Item 613-~~  
Use an electrically conducting protective thread lubricant compound (Crouse-Hinds TL-2, 0Z/Gedney S TL, Thomas & Betts Kopr-Shield) for the pipe joint compound to coat the threads of the anchor bolts, prior to installation of nuts.
- 614-1 ~~Item 614-~~  
Fabricate high mast ring assemblies in accordance with shop drawings approved by the Department. Submit shop drawings for each project, or use pre-approved standard shop drawings.  
  
For project specific shop drawings, furnish seven sets of drawings of the complete assembly in accordance with Item 441, "Steel Structures". Deliver shop drawings to the Director of Traffic Operations Division, Texas Department of Transportation, 125 East 11<sup>th</sup> Street, Austin, Texas 78701-2483.  
  
To be eligible to use pre-approved standard shop drawings, the shop drawing must be submitted and approved by the Department prior to use on the project. Deviation from the pre-approved standard shop drawing will require resubmission of the shop drawings. The Engineer may approve, in writing, the use of updated standard drawings in cases where the standard drawings have been updated and the updated version has been approved by the Department.  
  
For pre-approval and updates to previously approved standard shop drawings, furnish seven sets of drawings of the complete assembly in accordance with Item 441, "Steel Structures" to the Director of Traffic Operations Division, Texas Department of Transportation, 125 East 11<sup>th</sup> Street, Austin, Texas 78701-2483.  
  
Copies of the standard shop drawings are on file with Traffic Operations Division, Bridge Division, and the Materials Section of Construction Division. Additional shop drawings for high mast illumination assemblies built in accordance with these drawings are not required. Pre-approved shop drawing manufacturers and assembly model numbers can be found on the Materials Produce list of the Construction Divisions (CST) web site.  
  
Category is roadway illumination and electrical supplies.
- 618-1 ~~Item 618-~~  
It might be necessary to cut concrete for placement of conduit. Saw cut existing concrete, remove the concrete from the steel reinforcement (bars or fabric) and bend the steel to install the conduit. After the conduit has been placed, bend the steel back to its original position and back-fill the trench with an approved concrete. This work is subsidiary to this Item.
- 618-2 The conduit depth for illumination under the City of San Antonio streets is 36 inches.
- 618-3 Do not use cast iron junction boxes in single slope traffic barriers. Use materials from Material Producers list as shown on the Construction Division's (CST) web site. Category is "Roadway Illumination and Electrical Supplies."  
  
The polymer concrete barrier box will not be paid for separately, but will be considered subsidiary to ITEM 618, "CONDUIT".

- 620-1 ~~Item 620-~~  
For both transformer and shoe-base type illumination poles, provide double-pole breakaway fuse holder as shown on the Construction Division's (CST) materials producers list Category is "Roadway Illumination and Electrical Supplies." Fuse holder is shown on list under Items 610 & 620.  
  
Provide 10 amp time delay fuses.
- 624-1 ~~Item 624-~~  
Ensure the ground box cover is legibly imprinted by the manufacturer with the words "Danger High Voltage" as required by the "Electrical Details" State Standard Sheet(s). In addition, imprint "Traffic Signal", "TMS", "Illumination", or whatever other system will be housed in the ground box. The ground box locations shown on the plans are approximate and can be adjusted to better fit field conditions when approved.



02/08/2013

1	ADDENDUM 4 - REFORMATTED TEXT	SR	RA	2/08/13
NO	REVISION	DRAWN	APPROVED	DATE
		9901 IH10 WEST, SUITE 350 SAN ANTONIO, TEXAS 78230 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM		(FIRM # 3162)
<b>CITY OF SAN ANTONIO</b> CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT MARKET STREET REALIGNMENT				
<b>GENERAL NOTES</b> TEXAS DEPARTMENT OF TRANSPORTATION				
SHEET 2 OF 2				
100% SUBMITTAL	PROJECT NO.:	#PROJECTNO#	DATE: 2/7/2013	
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: 17	

DNE: URS  
 CK: URS  
 DW: URS  
 CK: URS

CITY OF SAN ANTONIO ITEMS				ROADWAY SHEETS																					
ITEM NO.	BID ITEM DESCRIPTION	UNIT	TOTAL QUANTITIES	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
202.1	PRIME COAT	GAL	807											48											
203.1	TACK COAT	GAL	1,693	76					68	112	141	97	35	196											51
209.1	CONCRETE PAVEMENT (10" DEEP)(BUS PAD)	SY	178																						
500.4	CONCRETE CURB & GUTTER (> 1,000 L.F.)	LF	9,490	52	371	360	309		213	168	230	200	122		671	515	440	440	364	440	445	440	351	310	220
500.5	CONCRETE CURB & GUTTER TY 2	LF	480	0	0	150	180	150	0	0	0				0	0	0	0	0	0	0	0	0	0	0
502.1	CONCRETE SIDEWALKS(1,000 S.Y.< X <10,000S.Y.)	SY	8,676	36	199	178	160	239	178	243	405	64			452	402	554	554	533	414	476	530	408	360	269
503.1	PORTLAND CEMENT CONCRETE DRIVEWAYS (100 S.Y. < X < 10,000 S.Y.)	SY	200																						
506.1	CONCRETE RETAINING WALLS-COMB. TYPE (< 20 C.Y.)	CY	10			6																			
524	CONCRETE STEPS	CY	3		3																				
9001	GROUT COLUMNS	LF	2,353																						
9009	GEOGRID FOR BASE AND EMBANKMENT REINFORCEMENT	SY	22,107	166	1,016	940	940	1,013		27	122	112	1,004	481	837	1,175	895	1,074	1,095	623	789	669	613	638	82
9014.3.1	TRANSPORTATION TO DISPOSAL FACILITY (CLASS 2 NON-HAZ SOIL) (COSA)	CY	621																						
9014.3.2	LANDFILL DISPOSAL (CLASS 2 NON-HAZ SOIL) (COSA)	CY	621																						
9014.3.3	TRANSPORTATION TO DISPOSAL FACILITY (CLASS 2 NON-HAZ SOIL) (CPS)	CY	175																						
9014.3.4	LANDFILL DISPOSAL (CLASS 2 NON-HAZ SOIL) (CPS)	CY	175																						
9016.1	CONCRETE STRUCTURE (STORM WATER PLANTER: 5' - 6' WIDE)	LF	2,115													0	220	220	220	110	220	220	155	220	220
9016.2	CONCRETE STRUCTURE (STORM WATER PLANTER: 6' - 7' WIDE)	LF	240			0	0	0	0						160	80							0	0	
9016.3	CONCRETE STRUCTURE (STORM WATER PLANTER: 7' - 8' WIDE)	LF	670			190	150	180	150																
9016.4	CONCRETE STRUCTURE (STORM WATER PLANTER: 8' - 15' WIDE)	LF	53			0	0	0	0		9	44													
9018.1	ORNAMENTAL FENCE	LF	367		25																				
9018.2	ORNAMENTAL GATE	EA	1		1																				
9021.1	GEOTECHNICAL BORINGS AND SUPPLEMENTAL LETTER REPORT	EA	1																						

TXDOT ITEMS				ROADWAY SHEETS																					
ITEM NO.	BID ITEM DESCRIPTION	UNIT	TOTAL QUANTITIES	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
104 2021	REMOVING CONC (CURB)	LF	250																						
110 2001	EXCAVATION (ROADWAY)	CY																							
*	MOISTURE CONDITIONED SUBGRADE	SY	15,258	166	1,016	940	940	1,013		27	122	112	1,004		837	1,175	895	1,074	1,095	623	789	669	613	638	82
132 2002	EMBANKMENT (FINAL)(DENS CONT)(TY A)	CY																							
247 2041	FL BS (CMP IN PLC) (TY A GR 1) (FNAL POS)	CY	1,572												159										
340 2014	D-GR HMA(METH) TY-B PG70-22	TON	12,053	91	559	517	517	557		15	67	62	552	238	460	646	492	590	602	343	434	368	337	351	45
340 2050	D-GR HMA(METH) TY-C PG70-22	TON	5,750	124	233	250	231	233	75	126	173	128	314	229	177	279	219	262	272	138	183	150	141	127	75
342 2002	PFC (ASPHALT) PG76-22	TON	506											36											
360 2002	CONC PVMT (CONT REINF - CRCP) (9")	SY	563																						
420 2006	CL C CONC (RAIL FOUNDATION)	CY	15																						
423 2012	RETAINING WALL (CAST-IN-PLACE)	SF	503	15	423	65																			
432 2001	RIPRAP (CONC)(4 IN)	CY	241							2				46		3					2	1	1		
432 2039	RIPRAP (MOW STRIP)(4 IN)	CY	22																						
432 2048	RIPRAP (CONC)(FLUME)	CY	44																						
450 2077	RAIL (PEDESTRIAN RAIL) (TY PR6)	LF	213									21											81	111	
450 2079	RAIL (HANDRAIL) (SPL)	LF	167																						
450 2210	RAILING (TY T551) (MOD)	LF	643																						
508 2002	CONSTRUCTING DETOURS	SY	1,908																						
512 2004	PORT CTB (FUR & INST) (SNGL SLP) (TY 1)	LF	1,248																						
512 2040	PORT CTB (REMOVE) (SNGL SLP) (TY 1)	LF	1,248																						
514 2015	PERM CONC TRF BARR (F-SHAPE)(TY 1)	LF	443																						
514 2016	PERM CONC TRF BARR (F-SHAPE)(TY 2)	LF	30																						
540 2001	MTL W-BEAM GD FEN (TIM POST)	LF	873																						
540 2005	TERMINAL ANCHOR SECTION	EA	2																						
540 2044	DOWNSTREAM ANCHOR TERMINAL (DAT) SECTION	EA	2																						
542 2001	REMOVING METAL BEAM GUARD FENCE	LF	200																						
545 2049	CRASH CUSH ATTEN (INSTL) (WORK ZONE)	EA	2																						
545 2051	CRASH CUSH ATTEN (REMOVE) (WORK ZONE)	EA	2																						

\* ITEM FOR CONTRACTOR'S INFO ONLY. MOISTURE TREATMENT IS SUBSIDIARY TO ITEM 110 EXCAVATION (SEE SHEET 23).

CITY OF SAN ANTONIO ITEMS				REMOVAL SHEETS																				
ITEM NO.	BID ITEM DESCRIPTION	UNIT	TOTAL QUANTITIES	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147				
*	REMOVE FENCE	L.F.	823											126	220	231								
208.1	SALVAGING, HAULING & STOCKPILING RECLAIMABLE ASPHALTIC PAVEMENT (2")	S.Y.	23,694	912	1,051	793		265	749	1,380	1,918	1,031	562	989	663	623	589	1,078	635	927				

\* ITEM FOR CONTRACTOR'S INFO ONLY. FENCE REMOVAL IS SUBSIDIARY TO ITEM 101 PREPARING RIGHT-OF-WAY

TXDOT ITEMS				REMOVAL SHEETS																				
ITEM NO.	BID ITEM DESCRIPTION	UNIT	TOTAL QUANTITIES	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147				
104 2009	REMOVE RIPRAP	S.Y.	2,226							47	73	29				919	150	98	418					
104 2011	REMOVE CONCRETE MEDIANS	SY	165							61	62	25												
104 2015	REMOVING CONC (SIDEWALKS)	SY	6,374	66	447	251		62	58	286	234	157					898							
104 2021	REMOVING CONC (CURB)	L.F.	6,583	30	360	260		235	102	497	500	488	237	418	238		125	290						340
110 2001	EXCAVATION (ROADWAY)	CY																						
452 2010	REMOV RAIL (PEDESTRIAN)	L.F.	255		180	75																		
495 2001	RAISING EXIST STRUCT	EA	1			1																		
496 2011	REMOV STR (BRIDGE 500-999 FT LENGTH)	EA	1																					
496 2067	REMOV STR (LRG PED BRIDGE) (0-50 FT LENGTH)	EA	1																					
512 2052	PORT CTB (REMOVE)(F-SHAPE)(TY 1)	LF	1,322							44	220	62												
542 2001	REMOVE METAL BEAM GUARD FENCE	L.F.	1,180											193	229	306	79	235	445	307				
610 2072	REMOVE ROADWAY ILLUMINATION ASSEMBLY	EA	30		1	1		1		1	1	1		2	1	1		1	1	2				
644 2060	REMOVE SMALL ROADSIDE SIGN ASSEMBLY	EA	29		1	1		3	1	3	1	4	3				4	3						
644 2056	RELOCATE SM RD SN SUP & AM TY 10BWG	EA	3																					
647 2002	RELOCATE LRSA	EA	1		1																			
690 2051	REMOVAL OF SIGNAL POLE ASSM	EA	1									1												

3	ADDENDUM 4	SR	RDA	2/07/13
2	ADDENDUM 3	BAG	RDA	1/28/13
1	ADDENDUM 2	BAG	RDA	1/18/13
NO	REVISION	DRAWN	APPROVED	

DATE: 2/7/2013 1:53:12 PM  
 FILE: GEN\_SUMM\_04.dgn

CK: URS  
 DW: URS  
 EN: URS

CITY OF SAN ANTONIO ITEMS		ROADWAY SHEETS																											
ITEM NO.	BID ITEM DESCRIPTION	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	PROJECT
202.1	PRIME COAT			62	112				67	90	0	49	64	74	46							110	84						
203.1	TACK COAT	81	83	48	101		10	91	64	87	0	47	61	86	69						51	39							
209.1	CONCRETE PAVEMENT (10" DEEP)(BUS PAD)										0																		178
500.4	CONCRETE CURB & GUTTER (> 1,000 L.F.)	220	125	463	352	365	320	256			0	65	385	35							104		139						
500.5	CONCRETE CURB & GUTTER TY 2	0	0								0																		
502.1	CONCRETE SIDEWALKS(1,000 S.Y.< X <10,000S.Y.)	269	202			347	480	338			0			20										364					
503.1	PORTLAND CEMENT CONCRETE DRIVEWAYS (100 S.Y. < X < 10,000 S.Y.)										0																		200
506.1	CONCRETE RETAINING WALLS-COMB. TYPE (< 20 C.Y.)							4			0																		
524	CONCRETE STEPS										0																		
9001	GROUT COLUMNS										0	2,353																	
9009	GEOGRID FOR BASE AND EMBANKMENT REINFORCEMENT			625	1,122	616	553		666	904	0	491	642	726	226						546	421	260						
9014.3.1	TRANSPORTATION TO DISPOSAL FACILITY (CLASS 2 NON-HAZ SOIL) (COSA)																												621
9014.3.2	LANDFILL DISPOSAL (CLASS 2 NON-HAZ SOIL) (COSA)																												621
9014.3.3	TRANSPORTATION TO DISPOSAL FACILITY (CLASS 2 NON-HAZ SOIL) (CPS)																												175
9014.3.4	LANDFILL DISPOSAL (CLASS 2 NON-HAZ SOIL) (CPS)																												175
9016.1	CONCRETE STRUCTURE (STORM WATER PLANTER: 5' - 6' WIDE)	220	90								0																		
9016.2	CONCRETE STRUCTURE (STORM WATER PLANTER: 6' - 7' WIDE)										0																		
9016.3	CONCRETE STRUCTURE (STORM WATER PLANTER: 7' - 8' WIDE)										0																		
9016.4	CONCRETE STRUCTURE (STORM WATER PLANTER: 8' - 15' WIDE)										0																		
9018.1	ORNAMENTAL FENCE																												
9018.2	ORNAMENTAL GATE																												
9021.1	GEOTECHNICAL BORINGS AND SUPPLEMENTAL LETTER REPORT										1																		1

TXDOT ITEMS		ROADWAY SHEETS																											
ITEM NO.	BID ITEM DESCRIPTION	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	PROJECT
104 2021	REMOVING CONC (CURB)										0																		
110 2001	EXCAVATION (ROADWAY)																			195	55								
*	MOISTURE CONDITIONED SUBGRADE					616	553				0																		260
132 2002	EMBANKMENT (FINAL)(DENS CONT)(TY A)																												
247 2041	FL BS (CMP IN PLC) (TY A GR 1) (FNAL POS)								220	298	0	162	212	123	75							182	141						
340 2014	D-GR HMA(METH) TY-B PG70-22					339	304		330	447	0	243	318	183	112	259	30	547	460	16	271	208	143						
340 2050	D-GR HMA(METH) TY-C PG70-22	89	91			158	141	100	89	121	0	66	85	43	23	129	15	172	101	3	69	55	62						
342 2002	PFC (ASPHALT) PG76-22			40					53	72	0	39	50	71	71														
360 2002	CONC PVMT (CONT REINF - CRCP) (9")										0															180	160	223	
420 2006	CL C CONC (RAIL FOUNDATION)										0																		
423 2012	RETAINING WALL (CAST-IN-PLACE)										0																		
432 2001	RIPRAP (CONC)(4 IN)			9					43	15	7	30		4							39	41							
432 2039	RIPRAP (MOW STRIP)(4 IN)										0			10	12														
432 2048	RIPRAP (CONC)(FLUME)			27	17						0																		
450 2077	RAIL (PEDESTRIAN RAIL) (TY PR6)										0																		
450 2079	RAIL (HANDRAIL) (SPL)										0																		
450 2210	RAILING (TY T551) (MOD)										0																		
508 2002	CONSTRUCTING DETOURS										0								826	1,046	36								
512 2004	PORT CTB (FUR & INST) (SNGL SLP) (TY 1)										0								538	656	54								
512 2040	PORT CTB (REMOVE) (SNGL SLP) (TY 1)										0								538	656	54								
514 2015	PERM CONC TRF BARR (F-SHAPE)(TY 1)								160	283	0																		
514 2016	PERM CONC TRF BARR (F-SHAPE)(TY 2)								25	5	0																		
540 2001	MTL W-BEAM GD FEN (TIM POST)			180	30					125	0			210	265														63
540 2005	TERMINAL ANCHOR SECTION				1						0				1														
540 2044	DOWNSTREAM ANCHOR TERMINAL (DAT) SECTION										0			1															1
542 2001	REMOVING METAL BEAM GUARD FENCE										0																		200
545 2049	CRASH CUSH ATTEN (INSTL) (WORK ZONE)										0																		1
545 2051	CRASH CUSH ATTEN (REMOVE) (WORK ZONE)										0																		1

\* ITEM FOR CONTRACTOR'S INFO ONLY. MOISTURE TREATMENT IS SUBSIDIARY TO ITEM 110 EXCAVATION (SEE SHEET 23).

CITY OF SAN ANTONIO ITEMS		REMOVAL SHEETS														PROJECT
ITEM NO.	BID ITEM DESCRIPTION	UNIT	148	149	150	151	152	153	154	155	156	157	158	159	160	PROJECT
*	REMOVE FENCE	L.F.													126	
208.1	SALVAGING, HAULING & STOCKPILING RECLAIMABLE ASPHALTIC PAVEMENT (2")	S.Y.	794	1,132	962	1,101	1,000	1,514		722	908	495	489	411		348

\* ITEM FOR CONTRACTOR'S INFO ONLY. FENCE REMOVAL IS SUBSIDIARY TO ITEM 101 PREPARING RIGHT-OF-WAY

TXDOT ITEMS		REMOVAL SHEETS														PROJECT
ITEM NO.	BID ITEM DESCRIPTION	UNIT	148	149	150	151	152	153	154	155	156	157	158	159	160	PROJECT
104 2009	REMOVE RIPRAP	S.Y.			10					301	181					
104 2011	REMOVE CONCRETE MEDIANS	SY										16				
104 2015	REMOVING CONC (SIDEWALKS)	SY	31	156		147	106								3,477	
104 2021	REMOVING CONC (CURB)	L.F.	570	614	271	220	154			348	251	35				
110 2001	EXCAVATION (ROADWAY)	CY														
452 2010	REMOV RAIL (PEDESTRIAN)	L.F.														
495 2001	RAISING EXIST STRUCT	EA														
496 2011	REMOV STR (BRIDGE 500-999 FT LENGTH)	EA														1
496 2067	REMOV STR (LRG PED BRIDGE) (0-50 FT LENGTH)	EA														1
512 2052	PORT CTB (REMOVE)(F-SHAPE)(TY 1)	LF														
542 2001	REMOVE METAL BEAM GUARD FENCE	L.F.	66													
610 2072	REMOVE ROADWAY ILLUMINATION ASSEMBLY	EA	2	2	1	1			2	3					5	
644 2060	REMOVE SMALL ROADSIDE SIGN ASSEMBLY	EA			2	2					1					
644 2056	RELOCATE SM RD SN SUP & AM TY 10BWG	EA									3					
647 2002	RELOCATE LRSA	EA														

1	ADDENDUM 4	SR	RDA	2/08/13
1	ADDENDUM 3	BAG	RDA	1/28/13
1	ADDENDUM 2	BAG	RDA	1/18/13
NO	REVISION	DRAWN	APPROVED	DATE

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
 SAN ANTONIO, TEXAS 78230  
 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 MARKET STREET REALIGNMENT

## ROADWAY AND REMOVAL QUANTITIES

SHEET 2 OF 2

100% SUBMITTAL	PROJECT NO.:	#PROJECTNO#	DATE: 2/7/2013
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: 21

DNE: URS  
 CK: URS  
 DW: URS  
 CK: URS

LOCATION	COSA 9020	COSA 308.1	COSA 308.1	COSA 9010	COSA 9011	COSA 9011	COSA 9012	COSA 9013	TXDOT 416 2029	TXDOT 420 2013	TXDOT 610 XXXX	TXDOT 610 XXXX	TXDOT 610 2064	TXDOT 618 2018	TXDOT 618 2035	TXDOT 620 2009	TXDOT 620 2010	TXDOT 620 2011	TXDOT 620 2012	TXDOT 624 2007	TXDOT 624 2008	TXDOT 628 2101	TXDOT XXXX	TXDOT 617 2003
	5 FT CPS ENERGY STEEL ANCHOR FOUNDATION (18 IN DIAM) WITH HUBBELL DIRECT EMBEDDED FOUNDATION FOR VALMONT STREET LIGHT	DRILL SHAFT FOUNDATION FOR LANDSCAPE FORMS PEDESTRIAN LIGHT (18 IN DIAM)	DRILL SHAFT FOUNDATION FOR LANDSCAPE FORMS BOLLARD LIGHT (18 IN DIAM)	INS VALMONT 26 FT 2 IN TAVERN GREEN STREET LIGHT ASSEMBLY (INCLUDES POLE, BASE, AND ARM)	INS GREENSTAR LED LUMINAIRE, GALAXY XD-- GLX30 MODEL, 68W	INS GREENSTAR LED LUMINAIRE, GALAXY XD-- GLX48 MODEL, 109W	INS LANDSCAPE FORMS 12 FT METALLIC BRONZE ALCOTT PEDESTRIAN LIGHT	INS LANDSCAPE FORMS 3 FT 1 IN METALLIC BRONZE HAWTHORN BOLLARD LIGHT	DRILL SHAFT (RDWY ILL POLE) (30 IN)	CL C CONC (MISC) **	INS RD ILL AM (TY SA) 40S - 6 (.25 KW) S	INS RD ILL AM (TY SA) 40T - 6 (.25 KW) S	RELOCATE RD ILL ASM (TRANS - BASE)	CONDT (PVC) (SCHD 80) (2") (BORE)	CONDT (PVC) (SCHD 80) (2") (BORE)	ELEC CONDR (NO. 6) BARE	ELEC CONDR (NO. 6) INSULATED	ELEC CONDR (NO. 8) BARE	ELEC CONDR (NO. 8) INSULATED	GROUND BOX TY A (122311)	GROUND BOX TY A (122311) W / APRON	ELC SRV TY D 120 / 240 070 (NS) SS (E) SP (U)	JUNCTION BOX*	TEMP RD ILL (TIMBER POLES W/ ARMS)
	EA	LF	LF	EA	EA	EA	EA	EA	LF	CY	EA	EA	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA
MARKET ST SHEET 1 OF 9	1	4					1						1	32				32	64					
MARKET ST SHEETS 2 & 3 OF 9	3	36		3	3		9			0.82				582				582	1164	2				
MARKET ST SHEETS 4 & 5 OF 9	4	28		4	4		7			1.64				658				658	1316	3	1			
MARKET ST SHEETS 6 & 7 OF 9	4	32		4	4		8			1.64				548				561	1122	4				
MARKET ST SHEETS 8 & 9 OF 9	4	24		4	3	1	6			0.82				809				1109	2218	4	1			
COMMERCE ST SHEET 1 OF 7																								
COMMERCE ST SHEETS 2 & 3 OF 7	1	4	6	1		1	1	2						162				162	324	1				
COMMERCE ST SHEETS 4 & 5 OF 7	2	32	21	2		2	8	7		0.82				582	144			744	1488	1	1	1	1	
COMMERCE ST SHEETS 6 & 7 OF 7	2			2		2								28	143			171	342	4	2			
W FRONT RD SHEETS 1 & 2 OF 26	4	24		4	1	3	6			2.46				539				552	1104	2	2			
W FRONT RD SHEETS 3 & 4 OF 26	6	16		6	3	3	4			1.64				885		89	178	1190	2380	4	2	1		
W FRONT RD SHEETS 5 & 6 OF 26	4	36		4	4		9		8	1.64	1	1		1576		253	506	1576	3152	3			1	
W FRONT RD SHEETS 7 & 8 OF 26	4	36		4	4		9			1.64				1502		256	512	1502	3004				1	
W FRONT RD SHEETS 9 & 10 OF 26	5	36		5	5		9			1.64	1			1659		254	508	1686	3372	1	2	3		1
W FRONT RD SHEETS 11 & 12 OF 26	5	12		5	1	4	3			0.82	1			1441		253	506	1350	2700	2	3	2		1
W FRONT RD SHEETS 13 & 14 OF 26	5	40		5	5		10			2.46	2			923		252	504	671	1342				2	
W FRONT RD SHEETS 15 & 16 OF 26	5	36		5	5		9		8	1.64	1		1	879		252	504	627	1254				1	
W FRONT RD SHEETS 17 & 18 OF 26	4	24		4	4		6			1.64	1			975		221	442	754	1508	1	2		1	
W FRONT RD SHEETS 19 & 20 OF 26	3			3	3				8	2.46		1		472	36			508	1016	1	1			
W FRONT RD SHEETS 21 & 22 OF 26	3			3	3				8	1.64		1		437				1015	2030					
W FRONT RD SHEETS 23 & 24 OF 26	5			5	5					1.64				522				522	1044					
W FRONT RD SHEETS 25 & 26 OF 26	2			2	2					0.82				123	55			190	380	1	1	1	1	
SB EXIT TO COMMERCE SHEET 1 OF 1																								
MONTANA ST SHEETS 1 & 2 OF 6		16	6				4	2						122				122	244					
MONTANA ST SHEETS 3 & 4 OF 6		52	39				13	13						380				380	760					
MONTANA ST SHEETS 5 & 6 OF 6	3	24	21	3		3	6	7						365	238			603	1206	4	2	1	1	
SEE TEMP ILLUM SHEETS 1 THRU 2																								4
<b>PROJECT TOTALS</b>	<b>79</b>	<b>512</b>	<b>93</b>	<b>78</b>	<b>59</b>	<b>19</b>	<b>28</b>	<b>31</b>	<b>32</b>	<b>27.88</b>	<b>8</b>	<b>3</b>	<b>2</b>	<b>16201</b>	<b>616</b>	<b>1830</b>	<b>3660</b>	<b>17267</b>	<b>34534</b>	<b>39</b>	<b>15</b>	<b>4</b>	<b>11</b>	<b>4</b>

\* FOR CONTRACTOR INFORMATION ONLY. ITEM WILL NOT BE PAID DIRECTLY BUT SHALL BE CONSIDERED SUBSIDIARY TO ITEM 618.

\*\* TO BE USED FOR FOUNDATION EXTENSION IN STORMWATER PLANTER.

DATE: 2/7/2013 2:36:09 PM  
 FILE: ISUM\_02.dgn

2	ADDEN 4. ADDED CIRCUITS U,V,W, & X	J.M.	J.S.	2/07/13
1	ADDENDUM 3. UPDATED QUANTITIES.	J.M.	J.S.	1/28/13
NO	REVISION	DRAWN	APPROVED	DATE
<b>URS</b> 9901 IH10 WEST, SUITE 350 (FIRM # 3162) SAN ANTONIO, TEXAS 78230 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM				
<b>CITY OF SAN ANTONIO</b> CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT MARKET STREET REALIGNMENT				
<b>ILLUMINATION SUMMARY OF QUANTITIES</b>				
SHEET 1 OF 1				
100% SUBMITTAL	PROJECT NO.:	40-00300	DATE: 2/7/2013	
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.:	



**REMOVAL LEGEND**

- SIDEWALK AND DRIVEWAY REMOVAL
- ASPHALT PAVEMENT REMOVAL
- CONCRETE MEDIAN REMOVAL
- RIPRAP REMOVAL
- 2" MILL & OVERLAY
- EXIST RDSG SGN ASSEM
- 1 REMOVE CONCRETE CURB
- 2 REMOVE CONCRETE TRAFFIC BARRIER
- 3 REMOVE FENCE
- 4 REMOVE METAL BEAM GUARD FENCE (MBGF)
- 5 REMOVE ROADWAY ILLUMINATION ASSEMBLY
- 6 REMOVE SMALL RDSG SIGN ASSEMBLY
- 7 RELOCATE RDSG SIGN ASSEMBLY
- 8 REMOVE TREE (SEE TREE PRESERVATION PLANS)

**NOTES**

1. CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT, SIDEWALK AND CURB PRIOR TO BEGINNING REMOVAL OPERATIONS.
2. SEE TREE PRESERVATION PLAN SHEETS FOR TREE PROTECTION AND REMOVAL DETAILS.
3. SEE DRAINAGE PLANS FOR INLETS, MANHOLES AND PIPE REMOVALS.



*R. Austin*

02/08/2013

2	ADDENDUM 4	SR	RDA	2/07/13
1	ADDENDUM 2 - ADDED SEAL	CXO	RDA	1/18/13
NO	REVISION	DRAWN	APPROVED	DATE

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
 SAN ANTONIO, TEXAS 78230  
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**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MARKET STREET REALIGNMENT  
 WEST FRONTAGE ROAD  
**REMOVAL LAYOUT**  
 STA 21+00 TO STA 23+20

100% SUBMITTAL	PROJECT NO.:	40-00300	DATE: 2/7/2013
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: 145

DNE: URS  
 CK: URS  
 DW: URS  
 CK: URS

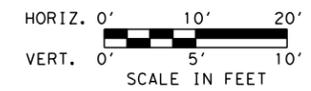
DATE: 2/7/2013 9:39:21 PM  
 FILE: REMOVAL\_14.dgn



MATCH LINE STA 21+00

MATCH LINE STA 23+20

MATCH LINE STA 15+65



**REMOVAL LEGEND**

- SIDEWALK AND DRIVEWAY REMOVAL
- ASPHALT PAVEMENT REMOVAL
- CONCRETE MEDIAN REMOVAL
- RIPRAP REMOVAL
- 2" MILL & OVERLAY
- EXIST RDSG SGN ASSEM
- 1 REMOVE CONCRETE CURB
- 2 REMOVE CONCRETE TRAFFIC BARRIER
- 3 REMOVE FENCE
- 4 REMOVE METAL BEAM GUARD FENCE (MBGF)
- 5 REMOVE ROADWAY ILLUMINATION ASSEMBLY
- 6 REMOVE SMALL RDSG SIGN ASSEMBLY
- 7 RELOCATE RDSG SIGN ASSEMBLY
- 8 REMOVE TREE (SEE TREE PRESERVATION PLANS)

**NOTES**

1. CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT, SIDEWALK AND CURB PRIOR TO BEGINNING REMOVAL OPERATIONS.
2. SEE TREE PRESERVATION PLAN SHEETS FOR TREE PROTECTION AND REMOVAL DETAILS.
3. SEE DRAINAGE PLANS FOR INLETS, MANHOLES AND PIPE REMOVALS.



02/08/2013

*R. Austin*

2	ADDENDUM 4	SR	RDA	2/07/13
1	ADDENDUM 2 - ADDED SEAL	CKO	RDA	1/18/13
NO	REVISION	DRAWN	APPROVED	DATE

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
 SAN ANTONIO, TEXAS 78230  
 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MARKET STREET REALIGNMENT  
 WEST FRONTAGE ROAD  
**REMOVAL LAYOUT**  
 STA 23+20 TO STA 25+40

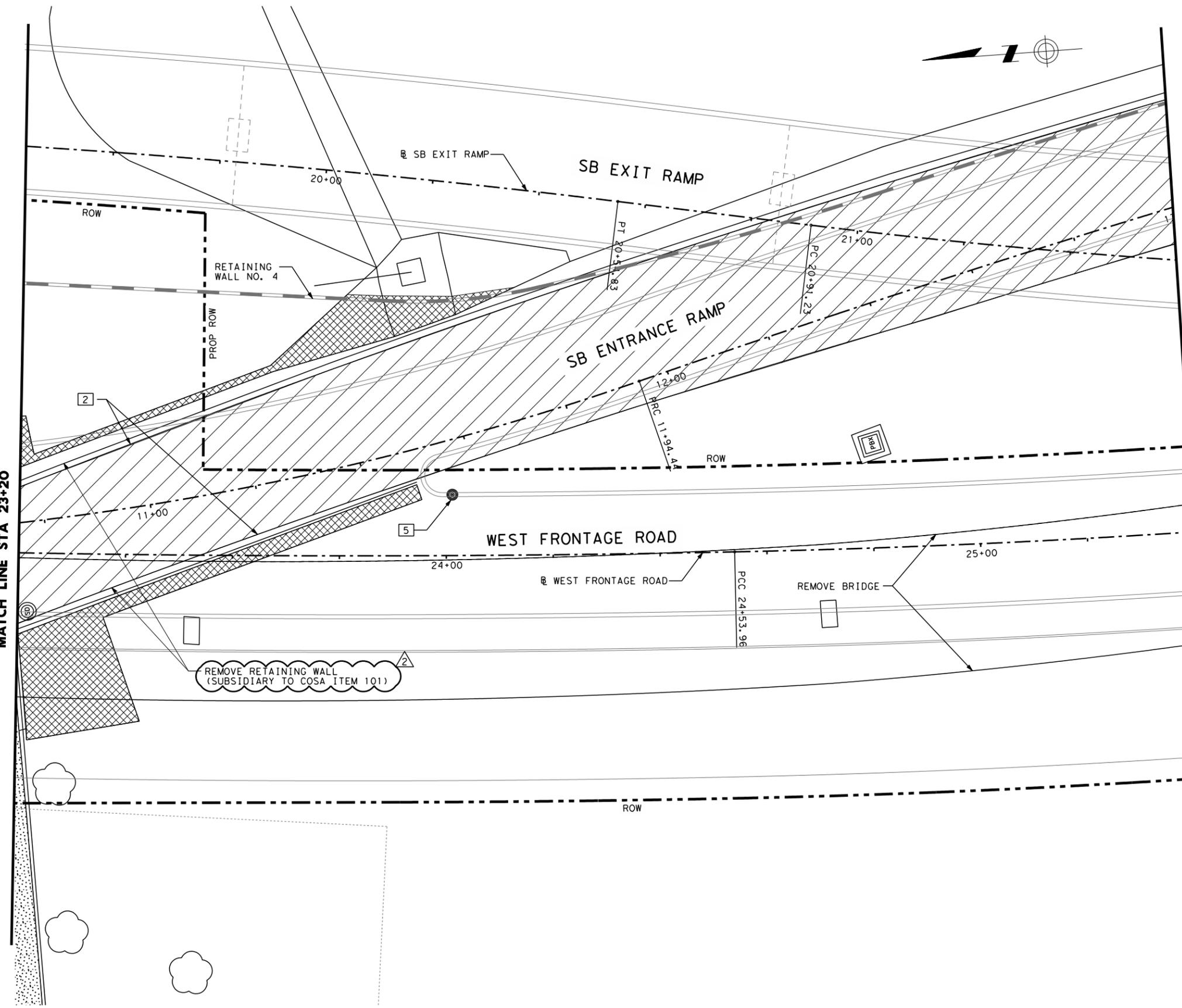
100% SUBMITTAL	PROJECT NO.:	40-00300	DATE: 2/7/2013
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: 146

DNE: URS  
 CK: URS  
 DW: URS  
 CK: URS

DATE: 2/7/2013 9:41:53 PM  
 FILE: REMOVAL\_15.dgn

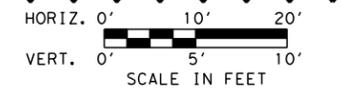
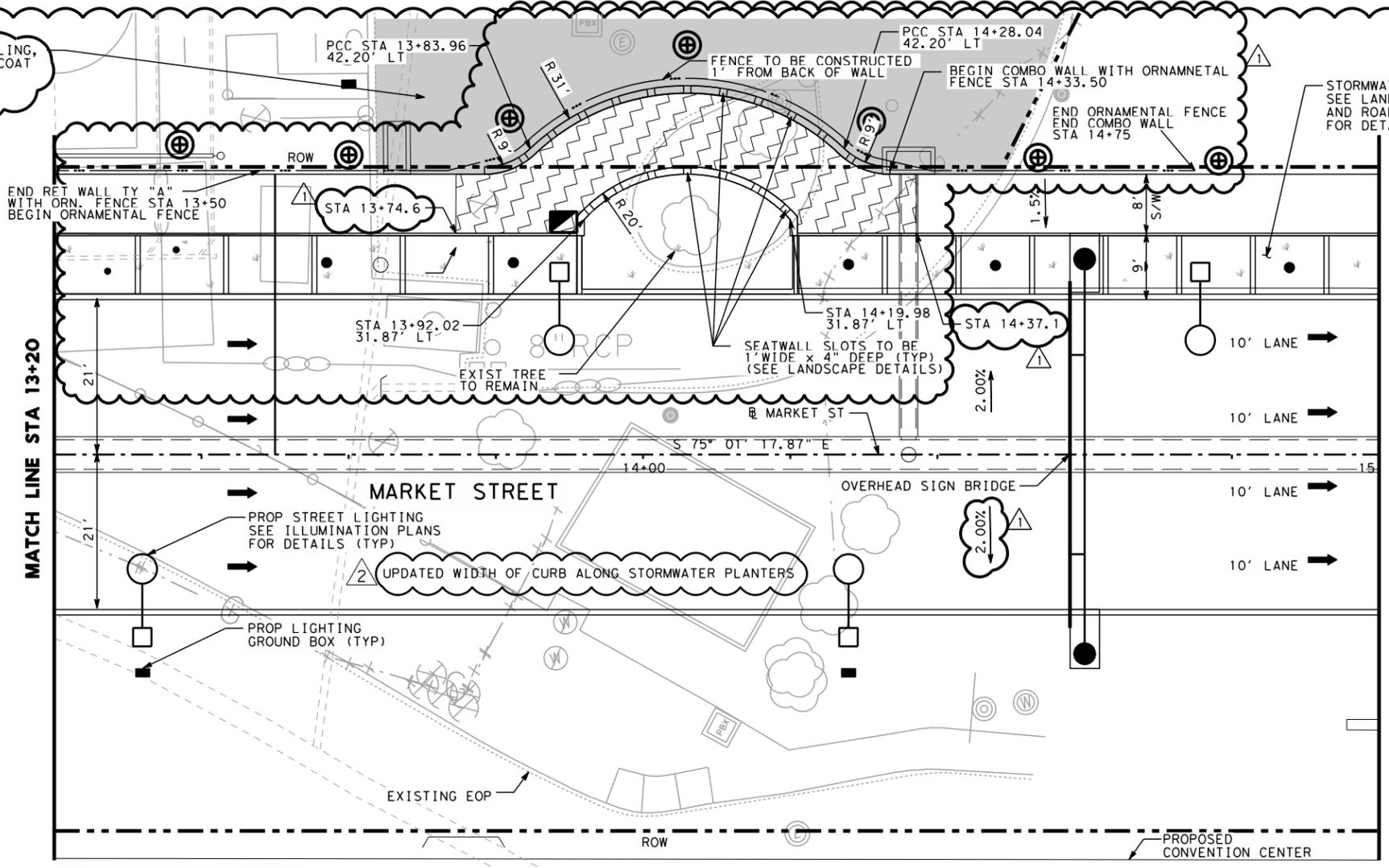
MATCH LINE STA 23+20

MATCH LINE STA 25+40



DYN: URS    CK: URS    DW: URS    CK: URS

AFTER 2" MILLING,  
 PLACE PRIME COAT  
 & 2" OVERLAY  
 (TXDOT ITEM  
 340-2050)



**PLAN VIEW LEGEND**

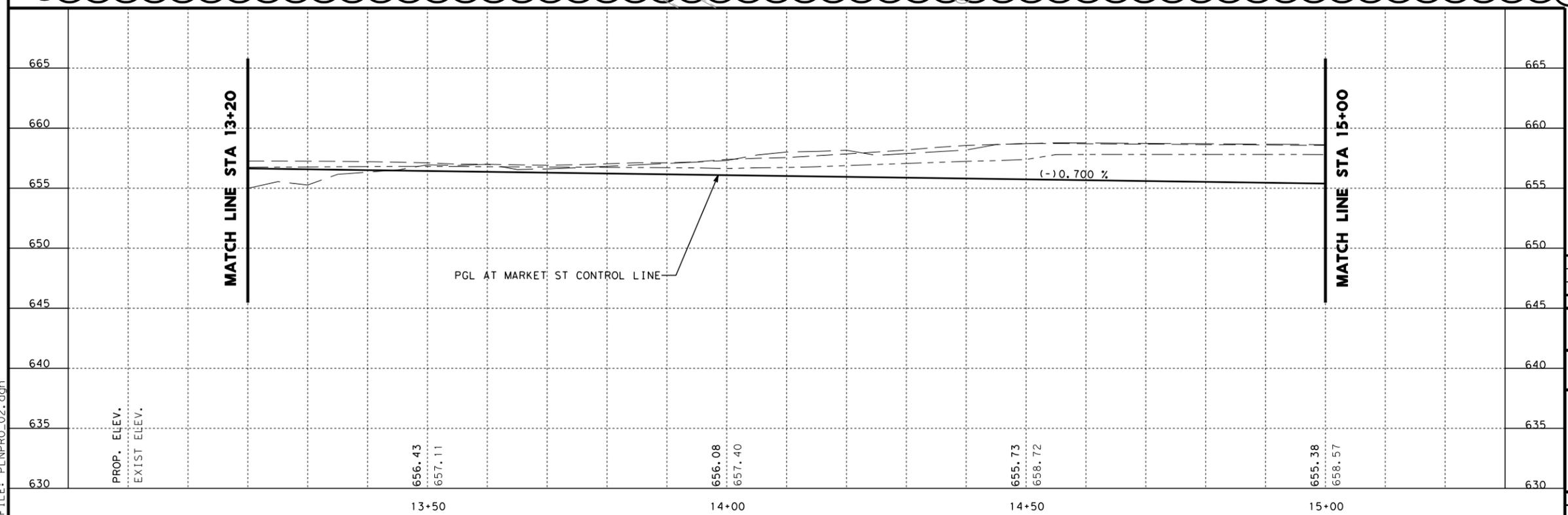
- TRAFFIC FLOW DIRECTION →
- CURB RAMP (TYPE) ♿ (#)
- TREE PROTECTION ○
- EXISTING EDGE OF ROADWAY - - - - -
- EXISTING FEATURES □
- RIGHT OF WAY (ROW) - - - - -
- PROPOSED CONCRETE CURB = = = = =
- PROPOSED RETAINING WALL = = = = =
- PROPOSED PAVEMENT OVERLAY [Pattern]
- SPECIAL PAVING AREAS [Pattern]
- PROPOSED BIKE RACK [Symbol]
- PROPOSED BOLLARD [Symbol]
- PROPOSED TRASH RECEPTACLE [Symbol]
- PROPOSED PEDESTRIAN LIGHT [Symbol]
- PROPOSED TREE ●

**PROFILE VIEW LEGEND**

- PROPOSED PGL ————
- EXISTING GROUND AT PGL - - - - -
- EXIST AT ROW (RIGHT) - - - - -
- EXIST AT ROW (LEFT) - - - - -

**NOTES**

1. SEE REMOVAL LAYOUTS FOR REMOVAL OF EXISTING MATERIAL.
2. ALL CURB RAMPS SHALL CONFORM TO TXDOT PED-12A STANDARD AND SHALL BE TYPE 7 UNLESS OTHERWISE NOTED.
3. SEE UTILITY LAYOUTS FOR ALL UTILITY LOCATIONS.
4. ALL ROADWAY MEASUREMENTS ARE FROM FACE OF CURB AND INCLUDE A 1' OFFSET FROM FACE OF CURB.
5. SEE LANDSCAPE SHEETS FOR DETAILED INFORMATION ON SIDEWALK FINISHES, SOIL TRENCH DETAILS, SITE FURNISHINGS, AND PLANTINGS.
6. SEE ROADWAY DETAILS FOR CURB AND SIDEWALK CUT DETAILS.



*R. Austin*

3	ADDENDUM 4	SR	RA	2/08/13
2	ADDENDUM 3	SR	RA	1/28/13
1	ADDED STATION LABELS	SR	RA	1/18/13
NO.	REVISION	DRAWN	APPROVED	DATE

**URS** 9901 IHIO WEST, SUITE 350 (FIRM # 3162)  
 SAN ANTONIO, TEXAS 78230  
 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MARKET STREET REALIGNMENT  
 MARKET STREET  
**PLAN & PROFILE**  
 STA 13+20 TO STA 15+00

100% SUBMITTAL	PROJECT NO.:	40-00300	DATE: 2/7/2013
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: 172

DATE: 2/7/2013 7:55:46 PM  
 FILE: PLNPRO\_02.dgn

SHT NO	ITEM INTERSECTION	0104-2021*	0110-2001*	0132-2003*	0340-2011	0340-2011*	0400-2008	0400-2008*	0512-2004	0512-2004*	0512-2008	0512-2008*
		REMOVING CONC (CURB) LF	EXCAVATION (ROADWAY) CY	EMBANKMENT (FINAL) (ORD COMP) (TY B) CY	D-GR HMA (METH) TY-B PG64-22 TON	D-GR HMA (METH) TY-B PG64-22 TON	CUT & RESTORING PAV (ASPH) SY	CUT & RESTORING PAV (ASPH) SY	PORT CTB (FUR & INST) (SNGL SLP) (TY 1) LF	PORT CTB (FUR & INST) (SNGL SLP) (TY 1) LF	PORT CTB (FUR & INST) (LOW PROF) (TY 1) LF	PORT CTB (FUR & INST) (LOW PROF) (TY 1) LF
40	PHASE 1 STEP 1 SHEET 1 OF 15											
41	PHASE 1 STEP 1 SHEET 2 OF 15											
42	PHASE 1 STEP 1 SHEET 3 OF 15											
43	PHASE 1 STEP 1 SHEET 4 OF 15											
44	PHASE 1 STEP 1 SHEET 5 OF 15											
45	PHASE 1 STEP 1 SHEET 6 OF 15											
46	PHASE 1 STEP 1 SHEET 7 OF 15											
47	PHASE 1 STEP 1 SHEET 8 OF 15						47					
48	PHASE 1 STEP 1 SHEET 9 OF 15	145	135.0	75.0		68.7						120
49	PHASE 1 STEP 1 SHEET 10 OF 15											
50	PHASE 1 STEP 1 SHEET 11 OF 15	329	270.0	150.0		275.8		311		150		685
51	PHASE 1 STEP 1 SHEET 12 OF 15	345	135.0	75.0		153.5		120				400
52	PHASE 1 STEP 1 SHEET 13 OF 15							270				375
55	PHASE 1 STEP 2 SHEET 1 OF 15											
56	PHASE 1 STEP 2 SHEET 2 OF 15											
57	PHASE 1 STEP 2 SHEET 3 OF 15											
58	PHASE 1 STEP 2 SHEET 4 OF 15											
59	PHASE 1 STEP 2 SHEET 5 OF 15						507				340	
60	PHASE 1 STEP 2 SHEET 6 OF 15						40					
61	PHASE 1 STEP 2 SHEET 7 OF 15											
62	PHASE 1 STEP 2 SHEET 8 OF 15								37			
63	PHASE 1 STEP 2 SHEET 9 OF 15								420			
64	PHASE 1 STEP 2 SHEET 10 OF 15											
65	PHASE 1 STEP 2 SHEET 11 OF 15									173		
65A	PHASE 1 STEP 2 SHEET 12 OF 15											
65B	PHASE 1 STEP 2 SHEET 13 OF 15											
66	PHASE 2 STEP 1 SHEET 1 OF 13											
67	PHASE 2 STEP 1 SHEET 2 OF 13											
68	PHASE 2 STEP 1 SHEET 3 OF 13											
69	PHASE 2 STEP 1 SHEET 4 OF 13									387		
70	PHASE 2 STEP 1 SHEET 5 OF 13									280		
71	PHASE 2 STEP 1 SHEET 6 OF 13									413		
72	PHASE 2 STEP 1 SHEET 7 OF 13											
73	PHASE 2 STEP 1 SHEET 8 OF 13									90		
74	PHASE 2 STEP 1 SHEET 9 OF 13											
82	PHASE 2 STEP 2 SHEET 4 OF 11				118.0							
83	PHASE 2 STEP 2 SHEET 5 OF 11											
84	PHASE 2 STEP 2 SHEET 6 OF 11											
85	PHASE 2 STEP 2 SHEET 7 OF 11											
86	PHASE 2 STEP 2 SHEET 8 OF 11											
87	PHASE 2 STEP 2 SHEET 9 OF 11											
88	PHASE 2 STEP 2 SHEET 10 OF 11											
89	PHASE 2 STEP 2 SHEET 11 OF 11											
90	PHASE 3 SHEET 1 OF 5											
91	PHASE 3 SHEET 2 OF 5											
92	PHASE 3 SHEET 3 OF 5											220
93	PHASE 3 SHEET 4 OF 5											420
94	PHASE 3 SHEET 5 OF 5											120
-	FINAL STRIPING LAYOUT											
--	FORCE ACCOUNT						75					
	TOTALS	819	540.0	300.0	118.0	498.0	669	701	1800	150	1100	1580

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REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2-04-13
MARKET ST SDWLK BIKE MKRS & SIGNS REVISED	JAS	JAT	1-23-13
S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1-17-13
NO	REVISION	DRAWN	APPROVED
			DATE

**REVISIONS**

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 31621)  
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**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 MARKET STREET REALIGNMENT

**TRAFFIC CONTROL PLAN SUMMARIES**

NOTES:  
 \* ITEM PAID BY OTHERS

100% SUBMITTAL PROJECT NO.: DATE: 2/4/2013  
 DRWN. BY: DSGH. BY: CHFD. BY: SHEET NO.: 28

SHT NO	ITEM INTERSECTION	0512-2009	0512-2009*	0512-2022	0512-2026	0512-2027	0512-2035	0512-2040	0512-2040*	0512-2044	0512-2044*	0512-2045
		PORT CTB (FUR & INST) (LOW PROF) (TY 2) LF	PORT CTB (FUR & INST) (LOW PROF) (TY 2) LF	PORT CTB (MOVE) (SNGL SLP) (TY 1) LF	PORT CTB (MOVE) (LOW PROF) (TY 1) LF	PORT CTB (MOVE) (LOW PROF) (TY 2) LF	PORT CTB (STKPL) (LOW PROF) (TY 1) LF	PORT CTB (REMOVE) (SNGL SLP) (TY 1) LF	PORT CTB (REMOVE) (SNGL SLP) (TY 1) LF	PORT CTB (REMOVE) (LOW PROF) (TY 1) LF	PORT CTB (REMOVE) (LOW PROF) (TY 1) LF	PORT CTB (REMOVE) (LOW PROF) (TY 1) LF
40	PHASE 1 STEP 1 SHEET 1 OF 15											
41	PHASE 1 STEP 1 SHEET 2 OF 15											
42	PHASE 1 STEP 1 SHEET 3 OF 15											
43	PHASE 1 STEP 1 SHEET 4 OF 15											
44	PHASE 1 STEP 1 SHEET 5 OF 15											
45	PHASE 1 STEP 1 SHEET 6 OF 15											
46	PHASE 1 STEP 1 SHEET 7 OF 15											
47	PHASE 1 STEP 1 SHEET 8 OF 15											
48	PHASE 1 STEP 1 SHEET 9 OF 15		20									120
49	PHASE 1 STEP 1 SHEET 10 OF 15											
50	PHASE 1 STEP 1 SHEET 11 OF 15		20									685
51	PHASE 1 STEP 1 SHEET 12 OF 15								150			400
52	PHASE 1 STEP 1 SHEET 13 OF 15		40									375
55	PHASE 1 STEP 2 SHEET 1 OF 15											
56	PHASE 1 STEP 2 SHEET 2 OF 15											
57	PHASE 1 STEP 2 SHEET 3 OF 15											
58	PHASE 1 STEP 2 SHEET 4 OF 15	60			760	200	240			340		60
59	PHASE 1 STEP 2 SHEET 5 OF 15											
60	PHASE 1 STEP 2 SHEET 6 OF 15											
61	PHASE 1 STEP 2 SHEET 7 OF 15											
62	PHASE 1 STEP 2 SHEET 8 OF 15											
63	PHASE 1 STEP 2 SHEET 9 OF 15											
64	PHASE 1 STEP 2 SHEET 10 OF 15											
65	PHASE 1 STEP 2 SHEET 11 OF 15											
65A	PHASE 1 STEP 2 SHEET 12 OF 15											
65B	PHASE 1 STEP 2 SHEET 13 OF 15											
66	PHASE 2 STEP 1 SHEET 1 OF 13											
67	PHASE 2 STEP 1 SHEET 2 OF 13											
68	PHASE 2 STEP 1 SHEET 3 OF 13			37								
69	PHASE 2 STEP 1 SHEET 4 OF 13											
70	PHASE 2 STEP 1 SHEET 5 OF 13											
71	PHASE 2 STEP 1 SHEET 6 OF 13											
72	PHASE 2 STEP 1 SHEET 7 OF 13				420							
73	PHASE 2 STEP 1 SHEET 8 OF 13				173							
74	PHASE 2 STEP 1 SHEET 9 OF 13											
82	PHASE 2 STEP 2 SHEET 4 OF 11											
83	PHASE 2 STEP 2 SHEET 5 OF 11											
84	PHASE 2 STEP 2 SHEET 6 OF 11											
85	PHASE 2 STEP 2 SHEET 7 OF 11											
86	PHASE 2 STEP 2 SHEET 8 OF 11											
87	PHASE 2 STEP 2 SHEET 9 OF 11											
88	PHASE 2 STEP 2 SHEET 10 OF 11											
89	PHASE 2 STEP 2 SHEET 11 OF 11											
90	PHASE 3 SHEET 1 OF 5											
91	PHASE 3 SHEET 2 OF 5											
92	PHASE 3 SHEET 3 OF 5	20										
93	PHASE 3 SHEET 4 OF 5											
94	PHASE 3 SHEET 5 OF 5	20										
-	FINAL STRIPING LAYOUT							1800		760		40
--	FORCE ACCOUNT											
	TOTALS	100	80	630	760	200	240	1800	150	1100	1580	100

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REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
MARKET ST SBWLK BIKE MKRS & SIGNS REVISED	JAS	JAT	1/23/13
S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13
NO	REVISION	DRAWN	APPROVED

**REVISIONS**

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**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 MARKET STREET REALIGNMENT

**TRAFFIC CONTROL PLAN SUMMARIES**

100% SUBMITTAL PROJECT NO. 1 DATE: 2/4/2013 SHEET 2 OF 6  
 DRWN. BY: DSGN. BY: CHFD. BY: SHEET NO. 29

NOTES:  
 \* ITEM PAID BY OTHERS

SHT NO	ITEM INTERSECTION	0512-2045*	0542-2001	0542-2002	0545-2001	0545-2001*	0545-2002	0545-2003	0545-2003*	0644-2058*	0662-2001	0662-2002
		PORT CTB (REMOVE) (LOW PROF) (TY 2) LF	REMOVING METAL BEAM GUARD FENCE LF	REMOVING TERMINAL ANCHOR SECTION EA	CRASH CUSH ATTEN (INSTL) EA	CRASH CUSH ATTEN (INSTL) EA	CRASH CUSH ATTEN (MOVE & RESET) EA	CRASH CUSH ATTEN (REMOVE) EA	CRASH CUSH ATTEN (REMOVE) EA	CRASH CUSH ATTEN (REMOVE) EA	RELOCATE SM RD SN SUP & AM TY S80 EA	WK ZN PAV MRK NON-REMOV (W) 4" (BRK) LF
40	PHASE 1 STEP 1 SHEET 1 OF 15											
41	PHASE 1 STEP 1 SHEET 2 OF 15											
42	PHASE 1 STEP 1 SHEET 3 OF 15											
43	PHASE 1 STEP 1 SHEET 4 OF 15											
44	PHASE 1 STEP 1 SHEET 5 OF 15											
45	PHASE 1 STEP 1 SHEET 6 OF 15											
46	PHASE 1 STEP 1 SHEET 7 OF 15											
47	PHASE 1 STEP 1 SHEET 8 OF 15											
48	PHASE 1 STEP 1 SHEET 9 OF 15	20										
49	PHASE 1 STEP 1 SHEET 10 OF 15											
50	PHASE 1 STEP 1 SHEET 11 OF 15	20										
51	PHASE 1 STEP 1 SHEET 12 OF 15					1				1		
52	PHASE 1 STEP 1 SHEET 13 OF 15	40										
55	PHASE 1 STEP 2 SHEET 1 OF 15											
56	PHASE 1 STEP 2 SHEET 2 OF 15											
57	PHASE 1 STEP 2 SHEET 3 OF 15											
58	PHASE 1 STEP 2 SHEET 4 OF 15											
59	PHASE 1 STEP 2 SHEET 5 OF 15											
60	PHASE 1 STEP 2 SHEET 6 OF 15											
61	PHASE 1 STEP 2 SHEET 7 OF 15					1						
62	PHASE 1 STEP 2 SHEET 8 OF 15		280	1								
63	PHASE 1 STEP 2 SHEET 9 OF 15											
64	PHASE 1 STEP 2 SHEET 10 OF 15											
65	PHASE 1 STEP 2 SHEET 11 OF 15										110	
65A	PHASE 1 STEP 2 SHEET 12 OF 15										90	
65B	PHASE 1 STEP 2 SHEET 13 OF 15											
66	PHASE 2 STEP 1 SHEET 1 OF 13											
67	PHASE 2 STEP 1 SHEET 2 OF 13											
68	PHASE 2 STEP 1 SHEET 3 OF 13											
69	PHASE 2 STEP 1 SHEET 4 OF 13											
70	PHASE 2 STEP 1 SHEET 5 OF 13											
71	PHASE 2 STEP 1 SHEET 6 OF 13											
72	PHASE 2 STEP 1 SHEET 7 OF 13											
73	PHASE 2 STEP 1 SHEET 8 OF 13											
74	PHASE 2 STEP 1 SHEET 9 OF 13											
82	PHASE 2 STEP 2 SHEET 4 OF 11											
83	PHASE 2 STEP 2 SHEET 5 OF 11											
84	PHASE 2 STEP 2 SHEET 6 OF 11											
85	PHASE 2 STEP 2 SHEET 7 OF 11											
86	PHASE 2 STEP 2 SHEET 8 OF 11											
87	PHASE 2 STEP 2 SHEET 9 OF 11											
88	PHASE 2 STEP 2 SHEET 10 OF 11											
89	PHASE 2 STEP 2 SHEET 11 OF 11											
90	PHASE 3 SHEET 1 OF 5											
91	PHASE 3 SHEET 2 OF 5											
92	PHASE 3 SHEET 3 OF 5											
93	PHASE 3 SHEET 4 OF 5											
94	PHASE 3 SHEET 5 OF 5											
-	FINAL STRIPING LAYOUT										1340	64
--	FORCE ACCOUNT								1			
	TOTALS	80	280	1	1	1	1	1	1	2	1540	64

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REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
MARKET ST SOWLK BIKE MRKS & SIGNS REVISED	JAS	JAT	1/23/13
S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13
REVISION	DRAWN	APPROVED	DATE
REVISIONS			
 9901 IH10 WEST, SUITE 350 (FIRM # 3162) SAN ANTONIO, TEXAS 78230 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM			
 555 EAST HUNLEY 1 SAN ANTONIO, TEXAS 78216 PHONE: 210.375.9000 FAX: 210.375.9010 <small>TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 470</small>			
 <b>CITY OF SAN ANTONIO</b> CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT MARKET STREET REALIGNMENT			
<b>TRAFFIC CONTROL PLAN SUMMARIES</b>			
100: SUBMITTAL	PROJECT NO.:	SHEET 3 OF 6	
DATE: 2/4/2013	DRWN. BY:	DSGN. BY:	CHECK. BY:
			SHEET NO.: 30

NOTES:  
\* ITEM PAID BY OTHERS

SHT NO	ITEM INTERSECTION	0662-2004	0662-2012	0662-2016	0662-2017	0662-2018	0662-2026	0662-2027	0662-2028	0662-2030	0662-2032	0662-2039
		WK ZN PAV MRK NON-REMOV (W) 4" (SLD) LF	WK ZN PAV MRK NON-REMOV (W) 8" (SLD) LF	WK ZN PAV MRK NON-REMOV (W) 24" (SLD) LF	WK ZN PAV MRK NON-REMOV (W) (ARROW) EA	WK ZN PAV MRK NON-REMOV (W) (DBL ARROW) EA	WK ZN PAV MRK NON-REMOV (W) (UTURN ARROW) EA	WK ZN PAV MRK NON-REMOV (W) (WORD) EA	WK ZN PAV MRK NON-REMOV (W) 18" (YLD TRI) EA	WK ZN PAV MRK NON-REMOV (Y) 4" (BRK) LF	WK ZN PAV MRK NON-REMOV (Y) 4" (SLD) LF	WK ZN PAV MRK NON-REMOV (Y) 24" (SLD) LF
40	PHASE 1 STEP 1 SHEET 1 OF 15											
41	PHASE 1 STEP 1 SHEET 2 OF 15											
42	PHASE 1 STEP 1 SHEET 3 OF 15											
43	PHASE 1 STEP 1 SHEET 4 OF 15											
44	PHASE 1 STEP 1 SHEET 5 OF 15											
45	PHASE 1 STEP 1 SHEET 6 OF 15											
46	PHASE 1 STEP 1 SHEET 7 OF 15											
47	PHASE 1 STEP 1 SHEET 8 OF 15											
48	PHASE 1 STEP 1 SHEET 9 OF 15											
49	PHASE 1 STEP 1 SHEET 10 OF 15											
50	PHASE 1 STEP 1 SHEET 11 OF 15	338									190	
51	PHASE 1 STEP 1 SHEET 12 OF 15										345	
52	PHASE 1 STEP 1 SHEET 13 OF 15											
55	PHASE 1 STEP 2 SHEET 1 OF 15											
56	PHASE 1 STEP 2 SHEET 2 OF 15											
57	PHASE 1 STEP 2 SHEET 3 OF 15											
58	PHASE 1 STEP 2 SHEET 4 OF 15											
59	PHASE 1 STEP 2 SHEET 5 OF 15	56										
60	PHASE 1 STEP 2 SHEET 6 OF 15	490										
61	PHASE 1 STEP 2 SHEET 7 OF 15											
62	PHASE 1 STEP 2 SHEET 8 OF 15											
63	PHASE 1 STEP 2 SHEET 9 OF 15	438										
64	PHASE 1 STEP 2 SHEET 10 OF 15	365										
65	PHASE 1 STEP 2 SHEET 11 OF 15	227	312								252	
65A	PHASE 1 STEP 2 SHEET 12 OF 15										232	
65B	PHASE 1 STEP 2 SHEET 13 OF 15											
66	PHASE 2 STEP 1 SHEET 1 OF 13											
67	PHASE 2 STEP 1 SHEET 2 OF 13											
68	PHASE 2 STEP 1 SHEET 3 OF 13											
69	PHASE 2 STEP 1 SHEET 4 OF 13											
70	PHASE 2 STEP 1 SHEET 5 OF 13											
71	PHASE 2 STEP 1 SHEET 6 OF 13											
72	PHASE 2 STEP 1 SHEET 7 OF 13											
73	PHASE 2 STEP 1 SHEET 8 OF 13											
74	PHASE 2 STEP 1 SHEET 9 OF 13											
82	PHASE 2 STEP 2 SHEET 4 OF 11											
83	PHASE 2 STEP 2 SHEET 5 OF 11											
84	PHASE 2 STEP 2 SHEET 6 OF 11											
85	PHASE 2 STEP 2 SHEET 7 OF 11											
86	PHASE 2 STEP 2 SHEET 8 OF 11											
87	PHASE 2 STEP 2 SHEET 9 OF 11											
88	PHASE 2 STEP 2 SHEET 10 OF 11											
89	PHASE 2 STEP 2 SHEET 11 OF 11											
90	PHASE 3 SHEET 1 OF 5											
91	PHASE 3 SHEET 2 OF 5											
92	PHASE 3 SHEET 3 OF 5											
93	PHASE 3 SHEET 4 OF 5											
94	PHASE 3 SHEET 5 OF 5											
-	FINAL STRIPING LAYOUT	4911	3292	1695	31	2	2	20	25	60	5749	62
--	FORCE ACCOUNT											
	TOTALS	6825	3604	1695	31	2	2	20	25	60	6768	62

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REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
MARKET ST SDWLK BIKE MKRS & SIGNS REVISED	JAS	JAT	1/23/13
S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13
NO	REVISION	DRAWN	APPROVED
			DATE

**REVISIONS**

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**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 MARKET STREET REALIGNMENT

**TRAFFIC CONTROL PLAN  
 SUMMARIES**

100% SUBMITTAL PROJECT NO. 1 DATE: 2/4/2013  
 DRWN. BY: DSGH, BY: CHFD, BY: SHEET NO. 31

NOTES:  
 \* ITEM PAID BY OTHERS

SHT NO	ITEM INTERSECTION	0662-2041	0662-2064	0662-2067	0662-2073	0662-2075	0662-2079	0662-2084	0662-2085	0662-2093	0662-2094	0662-2095
		WK ZN PAV MRK NON-REMOV (Y) (MED NOSE) EA	WK ZN PAV MRK REMOV (W) 4" (BRK1) LF	WK ZN PAV MRK REMOV (W) 4" (SLD) LF	WK ZN PAV MRK REMOV (W) 8" (DOT) LF	WK ZN PAV MRK REMOV (W) 8" (SLD) LF	WK ZN PAV MRK REMOV (W) 24" (SLD) LF	WK ZN PAV MRK REMOV (W) (ARROW) EA	WK ZN PAV MRK REMOV (W) (DBL ARROW) EA	WK ZN PAV MRK REMOV (W) (UTURN ARROW) EA	WK ZN PAV MRK REMOV (W) (WORD) EA	WK ZN PAV MRK REMOV (W) 18" (YLD TRI) EA
40	PHASE 1 STEP 1 SHEET 1 OF 15					160			2			4
41	PHASE 1 STEP 1 SHEET 2 OF 15		20	471		151	23		3			1
42	PHASE 1 STEP 1 SHEET 3 OF 15			658		253			2			1
43	PHASE 1 STEP 1 SHEET 4 OF 15					14						1
44	PHASE 1 STEP 1 SHEET 5 OF 15			140								
45	PHASE 1 STEP 1 SHEET 6 OF 15			357		315						
46	PHASE 1 STEP 1 SHEET 7 OF 15			567								
47	PHASE 1 STEP 1 SHEET 8 OF 15			446								
48	PHASE 1 STEP 1 SHEET 9 OF 15			441								
49	PHASE 1 STEP 1 SHEET 10 OF 15			65								
50	PHASE 1 STEP 1 SHEET 11 OF 15			230								
51	PHASE 1 STEP 1 SHEET 12 OF 15		20			6						1
52	PHASE 1 STEP 1 SHEET 13 OF 15		100			195	28		2			1
55	PHASE 1 STEP 2 SHEET 1 OF 15											
56	PHASE 1 STEP 2 SHEET 2 OF 15		20	328		268	20		1			1
57	PHASE 1 STEP 2 SHEET 3 OF 15		130	1018		29						
58	PHASE 1 STEP 2 SHEET 4 OF 15			139								
59	PHASE 1 STEP 2 SHEET 5 OF 15			196								
60	PHASE 1 STEP 2 SHEET 6 OF 15		20	470								
61	PHASE 1 STEP 2 SHEET 7 OF 15											
62	PHASE 1 STEP 2 SHEET 8 OF 15											
63	PHASE 1 STEP 2 SHEET 9 OF 15											
64	PHASE 1 STEP 2 SHEET 10 OF 15											
65	PHASE 1 STEP 2 SHEET 11 OF 15											
65A	PHASE 1 STEP 2 SHEET 12 OF 15		50			96						2
65B	PHASE 1 STEP 2 SHEET 13 OF 15		20			506	35		4	2		2
66	PHASE 2 STEP 1 SHEET 1 OF 13			80								
67	PHASE 2 STEP 1 SHEET 2 OF 13			505								
68	PHASE 2 STEP 1 SHEET 3 OF 13			839		424						
69	PHASE 2 STEP 1 SHEET 4 OF 13			224	24		30					
70	PHASE 2 STEP 1 SHEET 5 OF 13			241								
71	PHASE 2 STEP 1 SHEET 6 OF 13			412		412						
72	PHASE 2 STEP 1 SHEET 7 OF 13			423		634	50					
73	PHASE 2 STEP 1 SHEET 8 OF 13			429								
74	PHASE 2 STEP 1 SHEET 9 OF 13					207						7
82	PHASE 2 STEP 2 SHEET 4 OF 11			242		117						
83	PHASE 2 STEP 2 SHEET 5 OF 11											
84	PHASE 2 STEP 2 SHEET 6 OF 11			225								
85	PHASE 2 STEP 2 SHEET 7 OF 11			300								
86	PHASE 2 STEP 2 SHEET 8 OF 11		50	137								
87	PHASE 2 STEP 2 SHEET 9 OF 11		100	280								
88	PHASE 2 STEP 2 SHEET 10 OF 11		60			425			1			1
89	PHASE 2 STEP 2 SHEET 11 OF 11		40				12					
90	PHASE 3 SHEET 1 OF 5		160	970								
91	PHASE 3 SHEET 2 OF 5		40	137								
92	PHASE 3 SHEET 3 OF 5			384		379						
93	PHASE 3 SHEET 4 OF 5		80	420		198			2			2
94	PHASE 3 SHEET 5 OF 5			152		413	28		2			2
-	FINAL STRIPING LAYOUT	60										
--	FORCE ACCOUNT											
	TOTALS	60	910	11926	24	5202	226	15	8	4	19	7

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NOTES:  
\* ITEM PAID BY OTHERS

REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2-04-13
MARKET ST SOWLK BIKE MRKS & SIGNS REVISED	JAS	JAT	1-23-13
S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13
NO	REVISION	DRAWN	APPROVED
DATE			
REVISIONS			
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 <b>CITY OF SAN ANTONIO</b> CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT MARKET STREET REALIGNMENT			
<b>TRAFFIC CONTROL PLAN SUMMARIES</b>			
100% SUBMITTAL	PROJECT NO.:	SHEET 5 OF 6	
DATE: 2/4/2013	DRWN. BY:	DSGN. BY:	CHKD. BY:
			SHEET NO.: 32

SHT NO	INTERSECTION	0662-2099	0662-2103	0662-2113	0662-2115	0677-2001	0677-2003	0677-2005	0677-2020	0690-2024	0690-2026	6834-2002
		Wk ZN PAV MRK REMOV (Y) 4" (SLD)	Wk ZN PAV MRK REMOV (Y) 8" (SLD)	Wk ZN PAV MRK SHT TERM (TAB) TY W	Wk ZN PAV MRK SHT TERM (TAB) TY Y-2	ELIM EXT PAV MRK & MRKS ( 4")	ELIM EXT PAV MRK & MRKS ( 8")	ELIM EXT PAV MRK & MRKS (12")	ELIM EXT PAV MRK & MRKS (36") (YLD TRI)	REMOVAL OF SIGNAL HEAD ASSM	INSTALL OF SIGNAL HEAD ASSM	PORTABLE CHANGEABLE MESSAGE SIGN
		LF	LF	EA	EA	LF	LF	LF	EA	EA	EA	EA
40	PHASE 1 STEP 1 SHEET 1 OF 15	230				70	160					
41	PHASE 1 STEP 1 SHEET 2 OF 15	528				20	181					
42	PHASE 1 STEP 1 SHEET 3 OF 15	525				50	100					
43	PHASE 1 STEP 1 SHEET 4 OF 15	360				40	100					
44	PHASE 1 STEP 1 SHEET 5 OF 15											
45	PHASE 1 STEP 1 SHEET 6 OF 15	124					160					
46	PHASE 1 STEP 1 SHEET 7 OF 15					70						
47	PHASE 1 STEP 1 SHEET 8 OF 15					130						
48	PHASE 1 STEP 1 SHEET 9 OF 15	257				490		450				
49	PHASE 1 STEP 1 SHEET 10 OF 15					65						
50	PHASE 1 STEP 1 SHEET 11 OF 15	203				27						
51	PHASE 1 STEP 1 SHEET 12 OF 15											
52	PHASE 1 STEP 1 SHEET 13 OF 15					82						
55	PHASE 1 STEP 2 SHEET 1 OF 15									1	1	
56	PHASE 1 STEP 2 SHEET 2 OF 15	56					70					
57	PHASE 1 STEP 2 SHEET 3 OF 15					160						
58	PHASE 1 STEP 2 SHEET 4 OF 15											
59	PHASE 1 STEP 2 SHEET 5 OF 15					20						
60	PHASE 1 STEP 2 SHEET 6 OF 15					120						
61	PHASE 1 STEP 2 SHEET 7 OF 15											
62	PHASE 1 STEP 2 SHEET 8 OF 15											
63	PHASE 1 STEP 2 SHEET 9 OF 15											
64	PHASE 1 STEP 2 SHEET 10 OF 15	252				30						
65	PHASE 1 STEP 2 SHEET 11 OF 15	240				250						
65A	PHASE 1 STEP 2 SHEET 12 OF 15	153				196						
65B	PHASE 1 STEP 2 SHEET 13 OF 15	87										
66	PHASE 2 STEP 1 SHEET 1 OF 13					20						
67	PHASE 2 STEP 1 SHEET 2 OF 13					459						
68	PHASE 2 STEP 1 SHEET 3 OF 13											
69	PHASE 2 STEP 1 SHEET 4 OF 13	170				84						
70	PHASE 2 STEP 1 SHEET 5 OF 13						296					
71	PHASE 2 STEP 1 SHEET 6 OF 13											
72	PHASE 2 STEP 1 SHEET 7 OF 13											
73	PHASE 2 STEP 1 SHEET 8 OF 13	430				75						
74	PHASE 2 STEP 1 SHEET 9 OF 13	78				78		7				
82	PHASE 2 STEP 2 SHEET 4 OF 11	600										
83	PHASE 2 STEP 2 SHEET 5 OF 11	40										
84	PHASE 2 STEP 2 SHEET 6 OF 11		182									
85	PHASE 2 STEP 2 SHEET 7 OF 11											
86	PHASE 2 STEP 2 SHEET 8 OF 11	574				130						
87	PHASE 2 STEP 2 SHEET 9 OF 11	368				190						
88	PHASE 2 STEP 2 SHEET 10 OF 11	510				130	91					
89	PHASE 2 STEP 2 SHEET 11 OF 11	226										
90	PHASE 3 SHEET 1 OF 5					20						
91	PHASE 3 SHEET 2 OF 5											
92	PHASE 3 SHEET 3 OF 5											
93	PHASE 3 SHEET 4 OF 5											
94	PHASE 3 SHEET 5 OF 5											
-	FINAL STRIPING LAYOUT			1218	458							
--	FORCE ACCOUNT											4
	TOTALS	6011	182	1218	458	3006	1158	450	7	1	1	4

Ck: PD  
 Dnr: PD  
 Ck: PD  
 Dnr: PD

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REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
MARKET ST SIDEWALK BIKE MARKS & SIGNS REVISED	JAS	JAT	1/23/13
S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13
NO	REVISION	DRAWN	APPROVED
			DATE

REVISIONS

**URS** 9901 IHIO WEST, SUITE 350 (FIRM # 3162)  
 SAN ANTONIO, TEXAS 78230  
 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**PAPE-DAWSON ENGINEERS**  
 555 EAST RANNEY ST. SAN ANTONIO, TEXAS 78216  
 PHONE: 210.375.9000 FAX: 210.375.9018  
 TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 478

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 MARKET STREET REALIGNMENT

**TRAFFIC CONTROL PLAN  
 SUMMARIES**

SHEET 6 OF 6

100% SUBMITTAL	PROJECT NO.:	DATE: 2/4/2013
DRWN. BY:	DSGN. BY:	CHK'D. BY:
		SHEET NO.: 33

NOTES:  
 \* ITEM PAID BY OTHERS

3

I.D.	ITEM	DESCRIPTION	UNIT	QTY
	0104-2021*	REMOVING CONC (CURB)	LF	145
	0110-2001*	EXCAVATION (ROADWAY)	CY	135.0
	0132-2003*	EMBANKMENT (FINAL) (ORD COMP) (TY B)	CY	75.0
	0340-2011*	D-GR HMA (METH) TY-B PG64-22	TON	68.7
	0512-2008*	PORT CTB (FUR & INST) (LOW PROF) (TY 1)	LF	120
	0512-2009*	PORT CTB (FUR & INST) (LOW PROF) (TY 2)	LF	20
	0512-2044*	PORT CTB (REMOVE) (LOW PROF) (TY 1)	LF	120
	0512-2045*	PORT CTB (REMOVE) (LOW PROF) (TY 2)	LF	20
C	0662-2067	WK ZN PAV MRK REMOV (W) 4" (SLD)	LF	441
J	0662-2099	WK ZN PAV MRK REMOV (Y) 4" (SLD)	LF	257
	0677-2001	ELIM EXT PAV MRK & MRKS ( 4")	LF	490
	0677-2005	ELIM EXT PAV MRK & MRKS (12")	LF	450

**LEGEND**

- FULL DEPTH CONSTRUCTION
- TEMPORARY HMA
- SIGN POST
- TRAFFIC FLOW ARROWS
- TY III BARRICADE
- PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
- LOW PROFILE CONCRETE BARRIER, TY I & TY II
- CHANNELIZING DEVICES

- NOTES:**
- FOR ADDITIONAL DETAILS SEE STANDARD DETAIL SHEETS.
  - EXISTING FEATURES ARE SHOWN SCREENED BACK, IE FADED.
  - EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED.
  - MAINTAIN 30' TURNING RADII AT INTERSECTION DURING CONSTRUCTION.
  - ACCESS TO ADJOINING PROPERTIES MUST BE MAINTAINED AT ALL TIMES.
  - ONE SECTION OF LPCB TY II MUST BE AT EACH END OF BARRIER. THIS IS INCLUDED IN OVERALL BARRIER LENGTH.
  - SEE TxDOT BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARDS BC(19)-07 FOR BARREL SPACING.
- \* ITEM PAID BY OTHERS

ADDENDUM: REMOVED QUANTITY FOR PAYMENT BY OTHERS

DESIGN

JOHN A. TYLER, P.E. 105193 2/4/2013

REVIEW & APPROVAL

JAMES A. LOTZ, P.E. 84722 2/4/2013

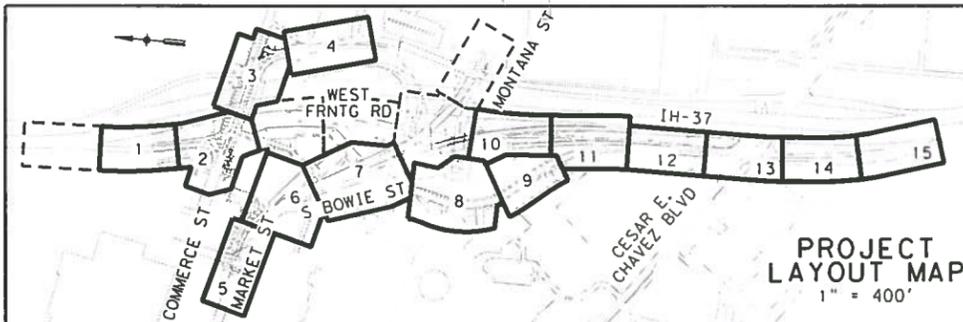
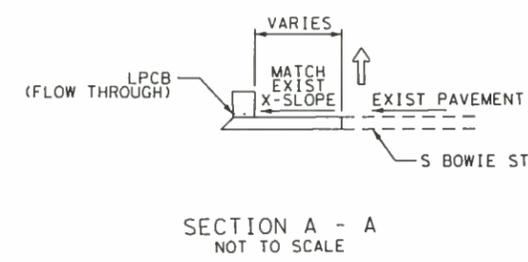
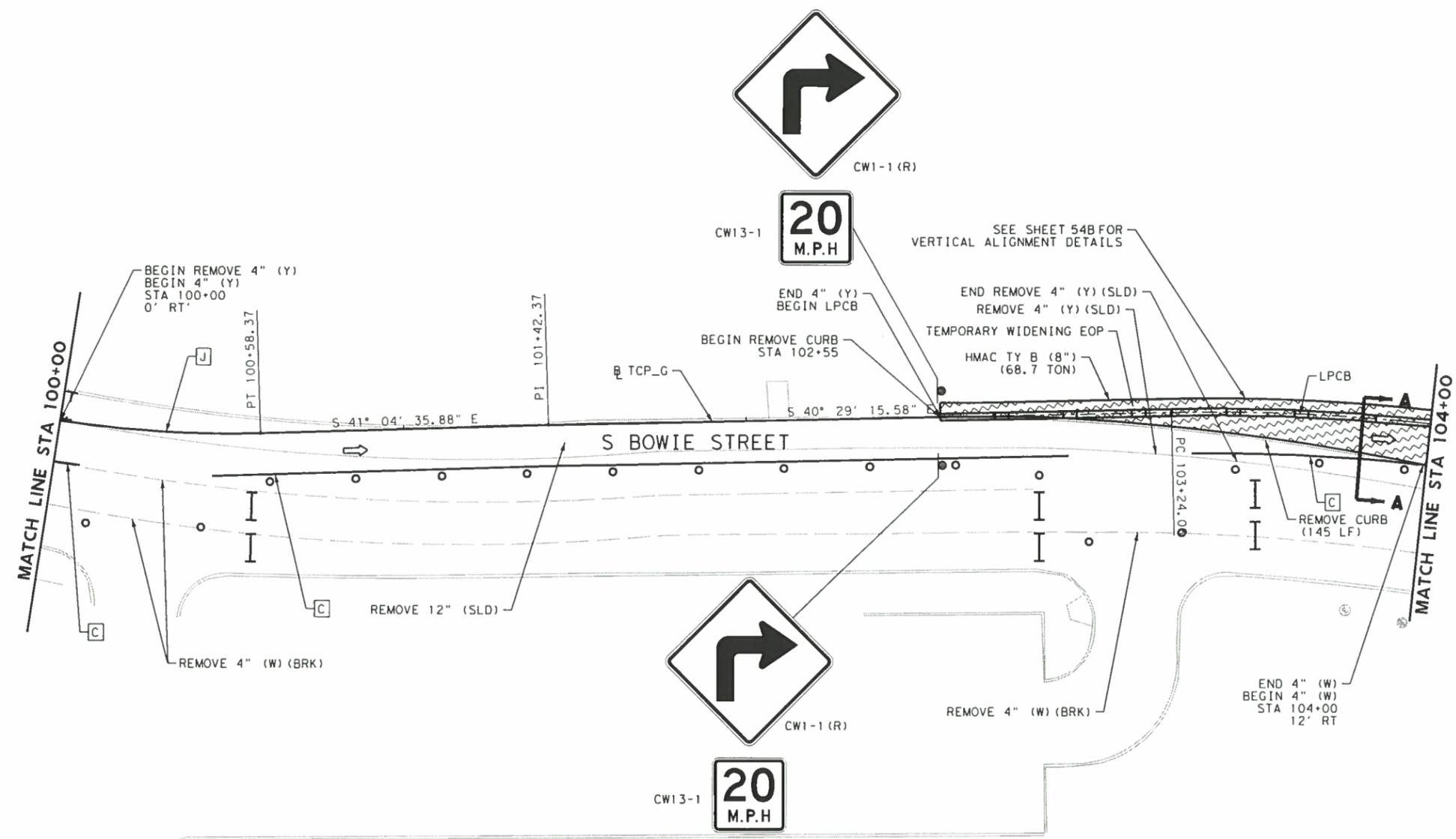
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1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2-04-13
2	MARKET ST SOWLK BIKE MRKS & SIGNS REVISED	JAS	JAT	1-23-13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1-17-13

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
 SAN ANTONIO, TEXAS 78230  
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**PAPE-DAWSON ENGINEERS**  
 555 EAST HANCOCK | SAN ANTONIO, TEXAS 78214  
 PHONE: 210.375.9000 FAX: 210.375.9010  
 TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 470

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 MARKET STREET REALIGNMENT  
 S BOWIE STREET  
 TRAFFIC CONTROL PLAN  
 PHASE 1 STEP 1  
 STA 100+00 TO STA 104+00

100% SUBMITTAL	PROJECT NO.:	DATE: 2/4/2013
DRWN. BY:	DSGN. BY:	CHKD. BY:



DATE: 2/4/2013 5:55:54 PM  
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I.D.	ITEM	DESCRIPTION	UNIT	QTY
0104-2021*	REMOVING CONC (CURB)		LF	329
0110-2001*	EXCAVATION (ROADWAY)		CY	270.0
0132-2003*	EMBANKMENT (FINAL) (ORD COMP) (TY B)		CY	150.0
0340-2011*	D-GR HMA (METH) TY-B PG64-22		TON	275.8
0400-2008*	CUT & RESTORING PAV (ASPH)		SY	311
0512-2004*	PORT CTB (FUR & INST) (SNGL SLP) (TY 1)		LF	150
0512-2008*	PORT CTB (FUR & INST) (LOW PROF) (TY 1)		LF	685
0512-2009*	PORT CTB (FUR & INST) (LOW PROF) (TY 2)		LF	20
0512-2040*	PORT CTB (REMOVE) (SNGL SLP) (TY 1)		LF	150
0512-2044*	PORT CTB (REMOVE) (LOW PROF) (TY 1)		LF	685
0512-2045*	PORT CTB (REMOVE) (LOW PROF) (TY 2)		LF	20
0545-2001*	CRASH CUSH ATTN (INSTL)		EA	1
0545-2003*	CRASH CUSH ATTN (REMOVE)		EA	1
N 0662-2004	WK ZN PAV MRK NON-REMOV (W) 4" (SLD)		LF	338
T 0662-2032	WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)		LF	190
A 0662-2064	WK ZN PAV MRK REMOV (W) 4" (BRK)		LF	20
C 0662-2067	WK ZN PAV MRK REMOV (W) 4" (SLD)		LF	230
J 0662-2099	WK ZN PAV MRK REMOV (Y) 4" (SLD)		LF	203
0677-2001	ELIM EXT PAV MRK & MRKS ( 4")		LF	27

**LEGEND**

FULL DEPTH CONSTRUCTION  
 TEMPORARY HMAC  
 SIGN POST  
 TRAFFIC FLOW ARROWS  
 TY III BARRICADE  
 PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE  
 LOW PROFILE CONCRETE BARRIER, TY I & TY II  
 CHANNELIZING DEVICES

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  - SEE TxDOT BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARDS BC(9)-07 FOR BARREL SPACING.
- \* ITEM PAID BY OTHERS

ADDENDUM: REMOVED QUANTITY FOR PAYMENT BY OTHERS

DESIGN

JOHN A. TYLER, P.E.  
 DATE: 2/4/2013

JAMES A. LUTZ, P.E.  
 DATE: 2/4/2013

NO	REVISION	TPD	JAT	DATE
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
2	MARKET ST SOWLK BIKE MRKS & SIGNS REVISED	JAS	JAT	1/23/13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13

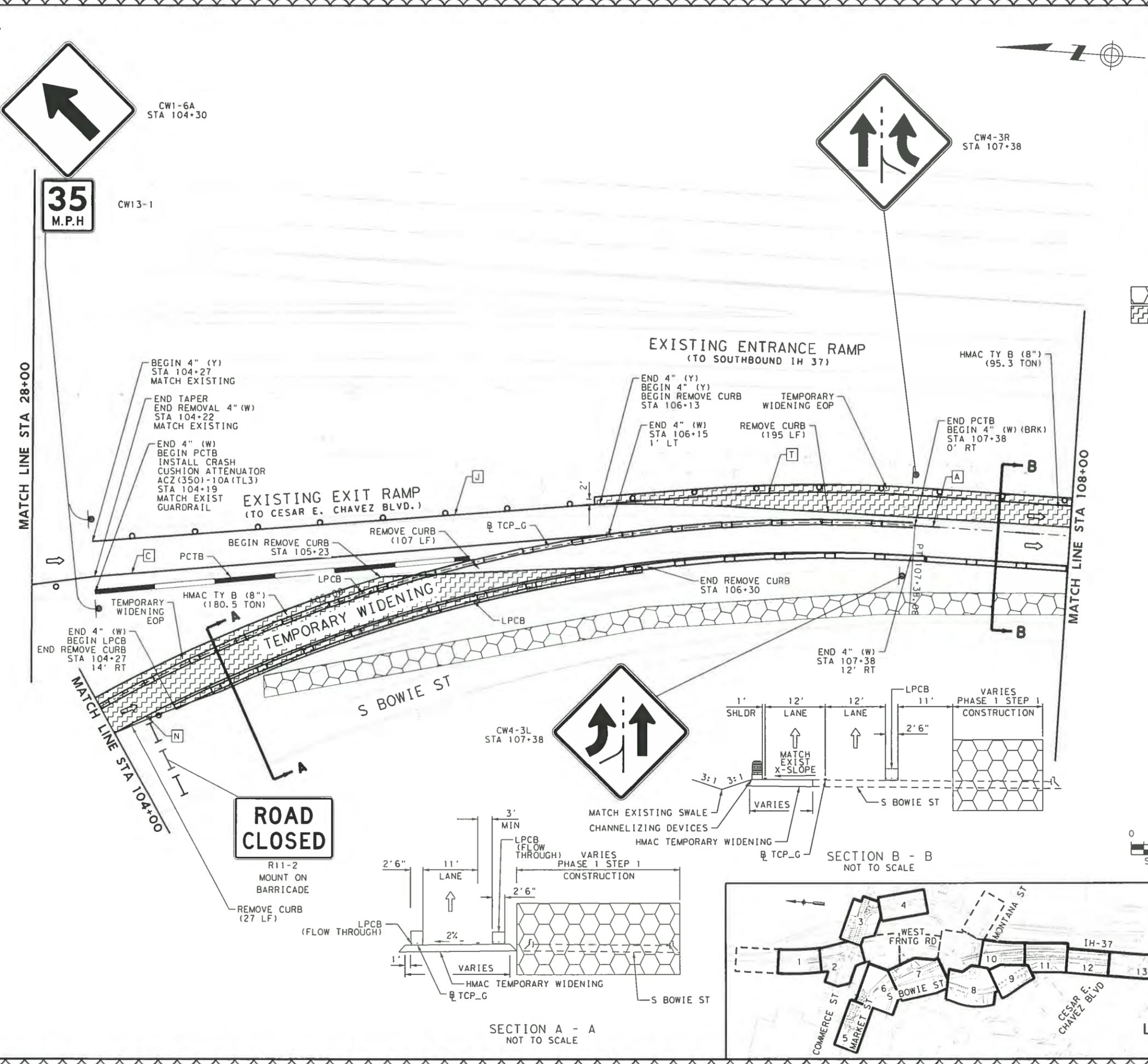
**REVISIONS**

URS  
 9901 IH10 WEST, SUITE 350  
 SAN ANTONIO, TEXAS 78230  
 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

PAPE-DAWSON ENGINEERS  
 555 EAST RAINGER | SAN ANTONIO, TEXAS 78216  
 PHONE: 210.375.9000 | FAX: 210.375.9010  
 TEXAS BOARD OF PROFESSIONAL ENGINEERING LICENSE # 478

CITY OF SAN ANTONIO  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 MARKET STREET REALIGNMENT  
 WEST FRONTAGE ROAD  
 TRAFFIC CONTROL PLAN  
 PHASE 1 STEP 1  
 STA 104+00 TO STA 108+00

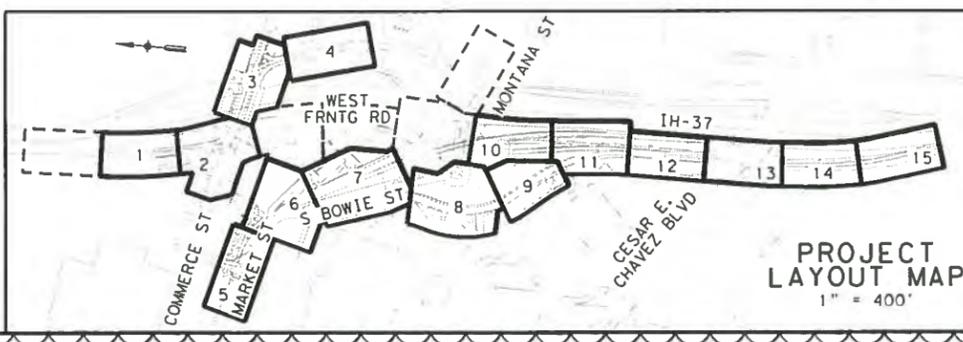
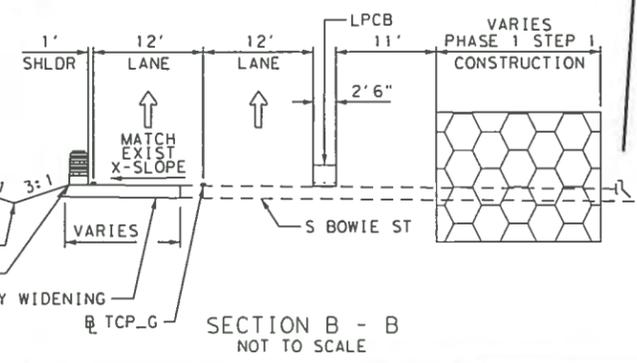
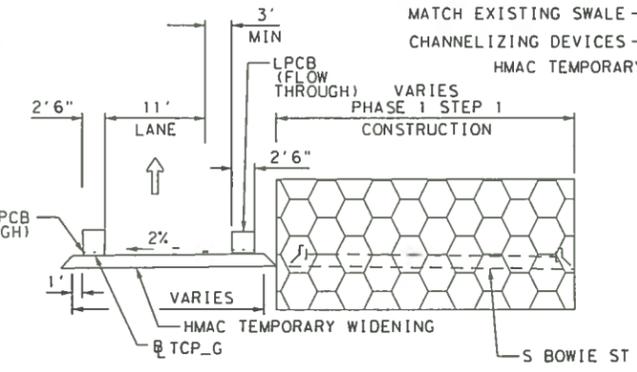
100% SUBMITTAL	PROJECT NO.:	DATE: 2/4/2013
DRWN. BY:	DSGN. BY:	CHEK. BY:



**ROAD CLOSED**

R11-2 MOUNT ON BARRICADE

REMOVE CURB (27 LF)



DATE: 2/4/2013 5:55:56 PM  
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3

I.D.	ITEM	DESCRIPTION	UNIT	QTY
0104-2021*	REMOVING CONC (CURB)		LF	345
0110-2001*	EXCAVATION (ROADWAY)		CY	135.0
0132-2003*	EMBANKMENT (FINAL) (ORD COMP) (TY B)		CY	75.0
0340-2011*	D-GR HMA (METH) TY-B PG64-22		TON	153.5
0400-2008*	CUT & RESTORING PAV (ASPH)		SY	120
0512-2008*	PORT CTB (FUR & INST) (LOW PROF) (TY 1)		LF	400
0512-2044*	PORT CTB (REMOVE) (LOW PROF) (TY 1)		LF	400
T 0662-2032	WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)		LF	345
A 0662-2064	WK ZN PAV MRK REMOV (W) 4" (BRK)		LF	100
E 0662-2075	WK ZN PAV MRK REMOV (W) 8" (SLD)		LF	6
H 0662-2094	WK ZN PAV MRK REMOV (W) (WORD)		EA	1



EXISTING SIGN TO BE REMOVED



R3-8  
STA 111+30

END 4" (Y)  
TIE TO EXISTING  
END REMOVE CURB  
STA 111+41  
12' LT

END 4" (W) (BRK)  
BEGIN 8" (W) (SLD)  
STA 111+95  
0' RT



R3-8  
STA 111+30

EXISTING SIGN TO BE REMOVED

**LEGEND**

- FULL DEPTH CONSTRUCTION
- TEMPORARY HMAc
- SIGN POST
- TRAFFIC FLOW ARROWS
- TY III BARRICADE
- PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
- LOW PROFILE CONCRETE BARRIER, TY I & TY II
- CHANNELIZING DEVICES

- NOTES:**
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  - SEE TxDOT BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARDS BC(9)-07 FOR BARREL SPACING.

\* ITEM PAID BY OTHERS

ADDENDUM: REMOVED QUANTITY FOR PAYMENT BY OTHERS  
DESIGN

STATE OF TEXAS  
JOHN A. TYLER  
105193  
LICENSED PROFESSIONAL ENGINEER  
*John Tyler*  
JOHN A. TYLER, P.E. 2/4/2013 DATE

STATE OF TEXAS  
JAMES A. LUTZ  
84722  
LICENSED PROFESSIONAL ENGINEER  
*James A. Lutz*  
JAMES A. LUTZ, P.E. 2/4/2013 DATE

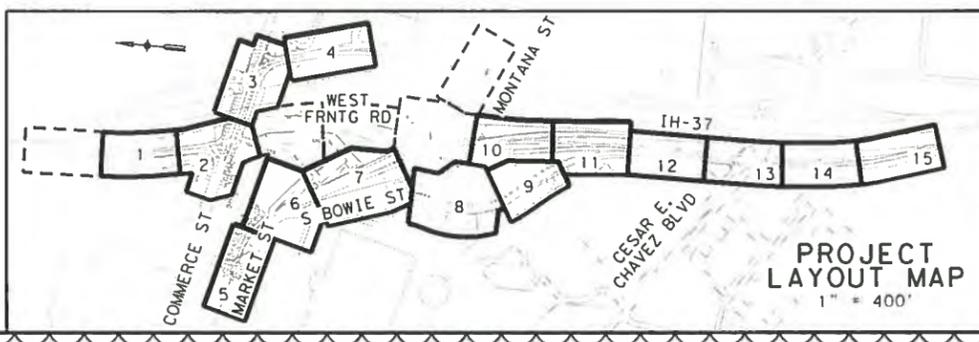
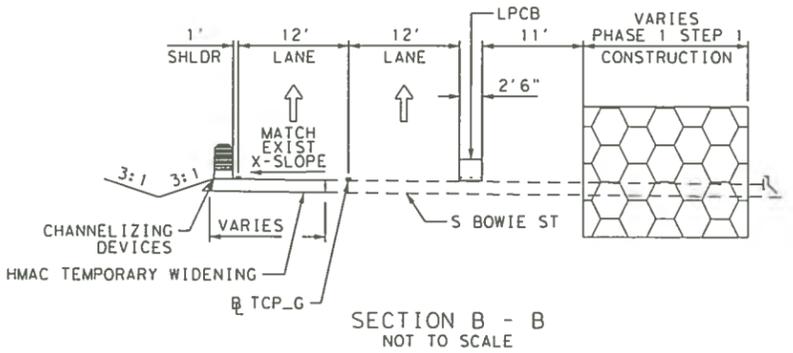
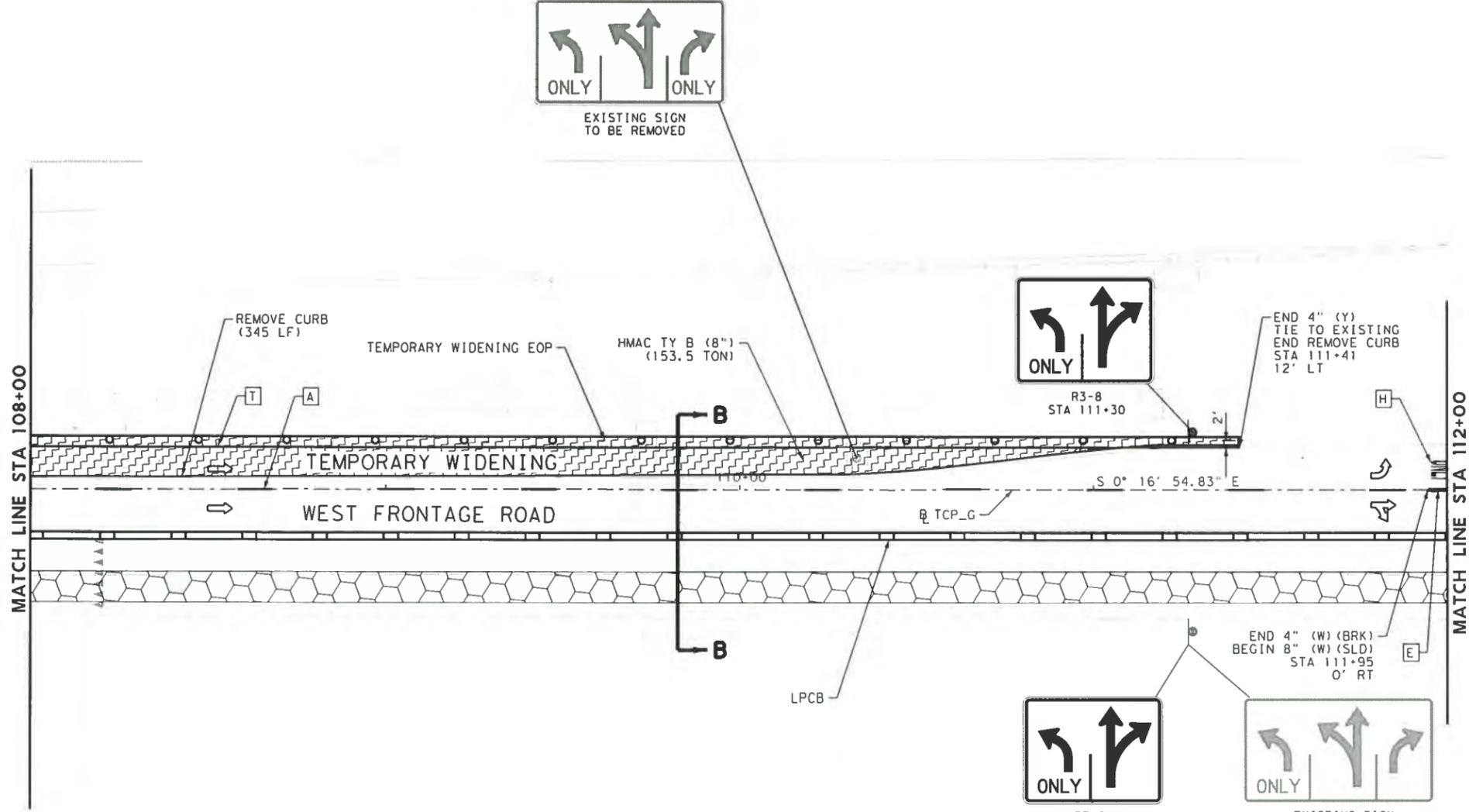
NO	REVISION	DRAWN	APPROVED	DATE
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
2	MARKET ST SDBLK BIKE MKRS & SIGNS REVISED	JAS	JAT	1/23/13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
SAN ANTONIO, TEXAS 78230  
TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**PAPE-DAWSON ENGINEERS**  
555 EAST RANGELI | SAN ANTONIO, TEXAS 78216  
PHONE: 210.375.9000 | FAX: 210.375.9010  
TEXAS BOARD OF PROFESSIONAL ENGINEERING, FIRM REGISTRATION # 478

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
MARKET STREET REALIGNMENT  
WEST FRONTAGE ROAD  
TRAFFIC CONTROL PLAN  
PHASE 1 STEP 1  
STA 108+00 TO STA 112+00

100% SUBMITTAL	PROJECT NO.:	DATE: 2/4/2013
DRWN. BY:	DSGN. BY:	CHKD. BY:



Cr: PD  
 Dwr: PD  
 Ck: PD  
 Dnr: PD

DATE: 2/4/2013 5:55:59 PM  
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3

I.D.	ITEM	DESCRIPTION	UNIT	QTY
0400-2008*	CUT & RESTORING PAV (ASPH)		SY	270
0512-2008*	PORT CTB (FUR & INST) (LOW PROF) (TY 1)		LF	375
0512-2009*	PORT CTB (FUR & INST) (LOW PROF) (TY 2)		LF	40
0512-2044*	PORT CTB (REMOVE) (LOW PROF) (TY 1)		LF	375
0512-2045*	PORT CTB (REMOVE) (LOW PROF) (TY 2)		LF	40
0644-2058*	RELOCATE SM RD SN SUP & AM TY S80		EA	2
E 0662-2075	WK ZN PAV MRK REMOV (W) 8" (SLD)		EA	195
F 0662-2079	WK ZN PAV MRK REMOV (W) 24" (SLD)		LF	28
G 0662-2084	WK ZN PAV MRK REMOV (W) (ARROW)		EA	2
V 0662-2085	WK ZN PAV MRK REMOV (W) (DBL ARROW)		EA	2
H 0662-2094	WK ZN PAV MRK REMOV (W) (WORD)		EA	1
0677-2001	ELIM EXT PAV MRK & MRKS ( 4")		LF	82



**LEGEND**

- FULL DEPTH CONSTRUCTION
- TEMPORARY HMAC
- SIGN POST
- TRAFFIC FLOW ARROWS
- TY III BARRICADE
- PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
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\* ITEM PAID BY OTHERS

ADDENDUM: REMOVED QUANTITY FOR PAYMENT BY OTHERS  
DESIGN

JOHN A. TYLER, P.E.  
105193  
2/4/2013 DATE

REVIEW & APPROVAL  
 JAMES A. LUTZ, P.E.  
84722  
2/4/2013 DATE

NO	REVISION	DATE	BY
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	2-04-13	TPD
2	MARKET ST SOWLK BIKE MRKS & SIGNS REVISED	1-23-13	JAS
3	S BOWIE ST TRAFFIC CONTROL REVISED	1-17-13	TPD

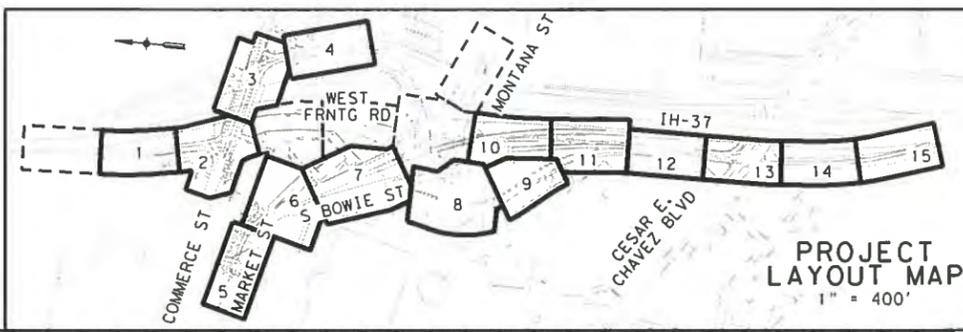
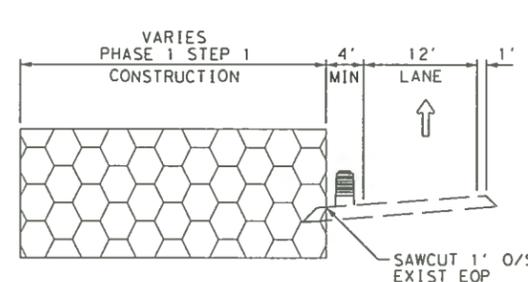
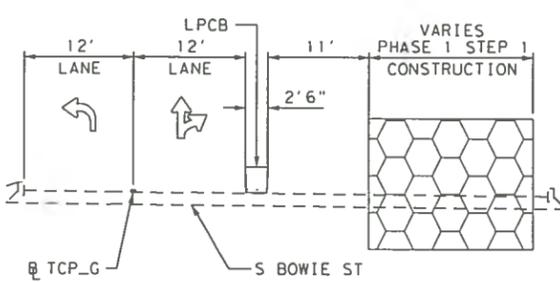
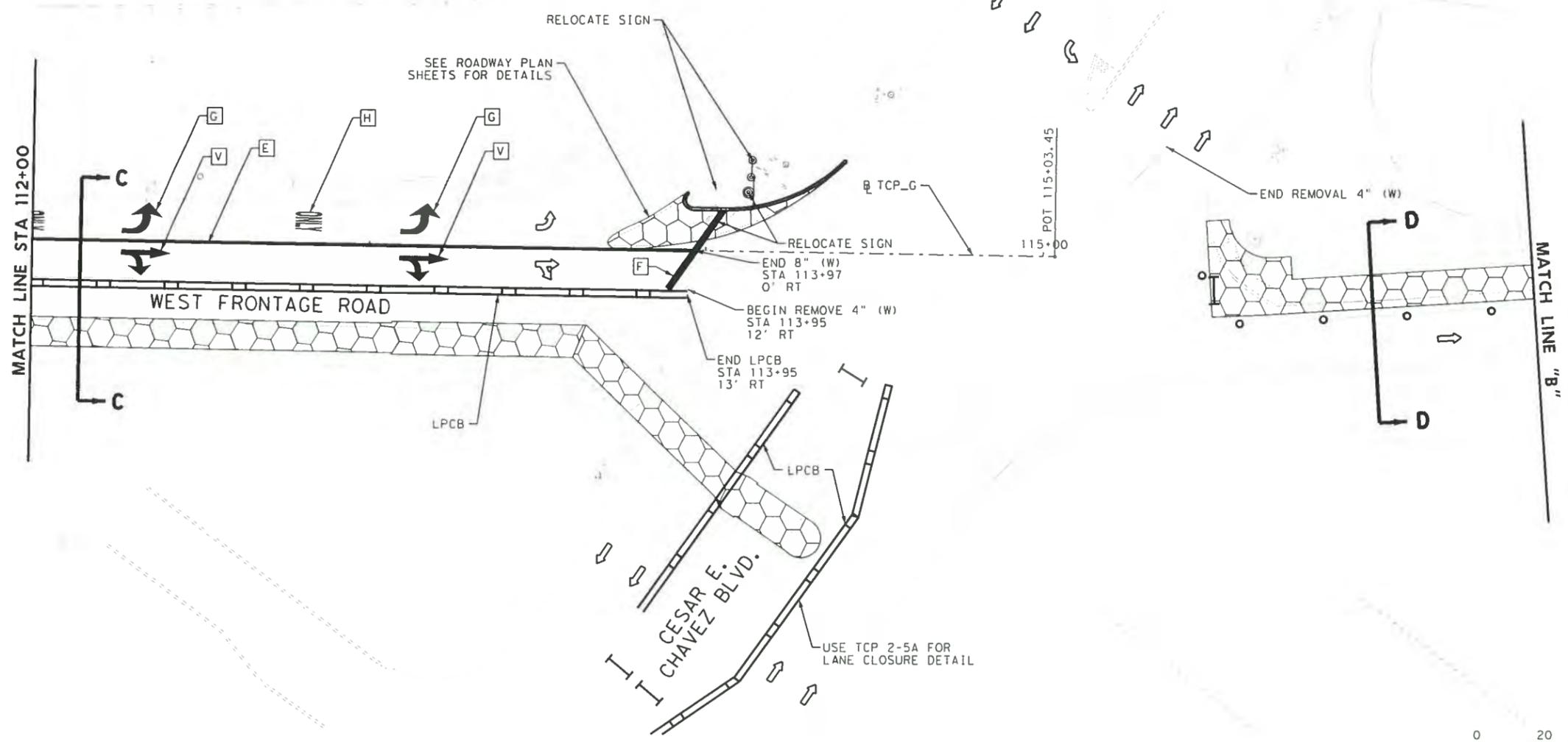
**REVISIONS**

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
SAN ANTONIO, TEXAS 78230  
TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**PAPE-DAWSON ENGINEERS**  
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PHONE: 210.375.9000 | FAX: 210.375.9010  
TEXAS BOARD OF PROFESSIONAL ENGINEERING, LICENSE # 470

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
MARKET STREET REALIGNMENT  
WEST FRONTAGE ROAD  
TRAFFIC CONTROL PLAN  
PHASE 1 STEP 1  
STA 112+00 TO END

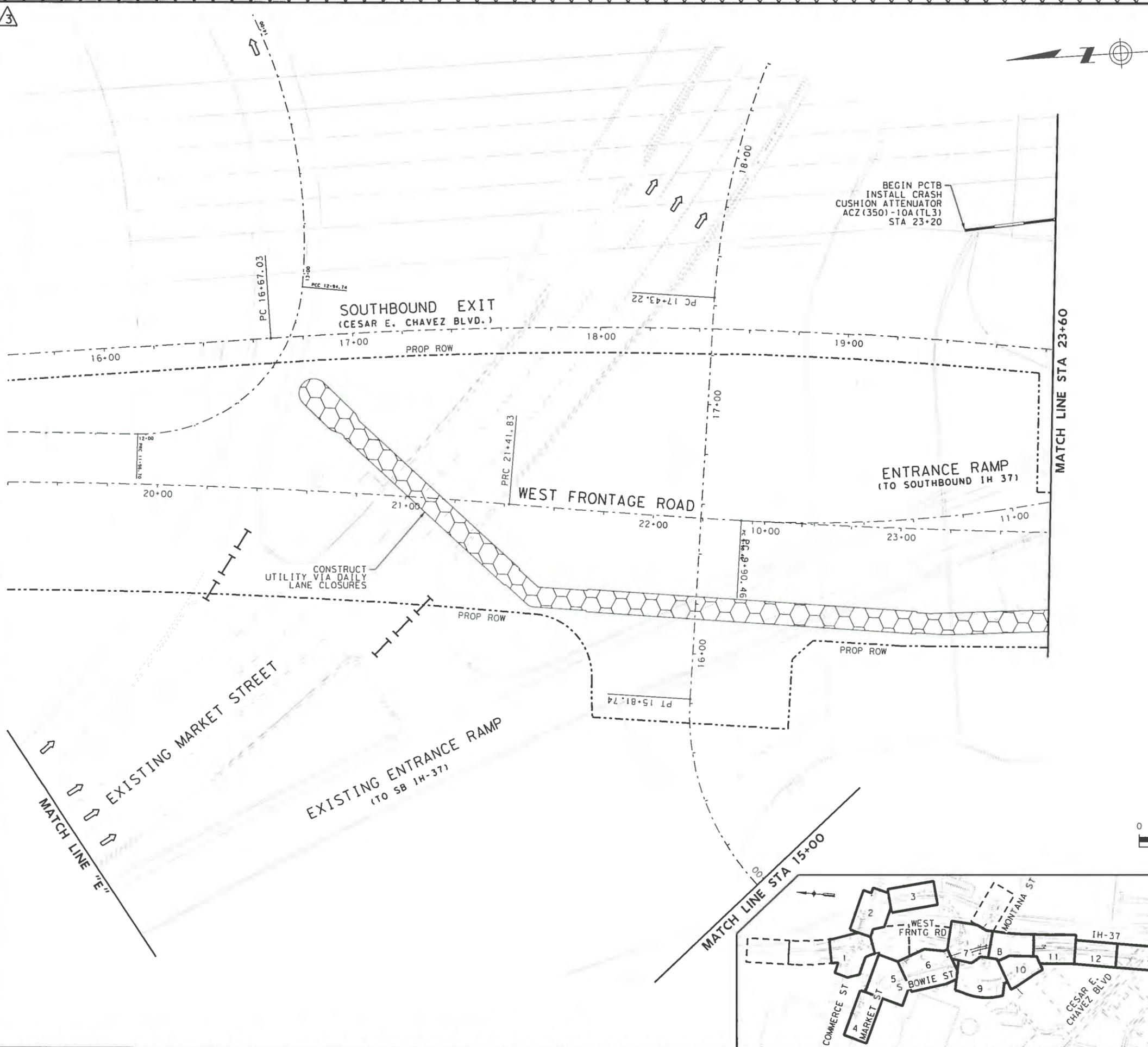
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DRWN. BY:	DSGN. BY:	CHKD. BY:



DATE: 2/4/2013 3:56:00 PM  
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DIN: PD  
CK: PD  
DWR: PD  
CK: PD  
CK: PD

I.D.	ITEM	DESCRIPTION	UNIT	QTY
0512-2004	PORT CTB (FUR & INST) (SNGL SLP) (TY 1)		LF	37
0545-2001	CRASH CUSH ATTEN (INSTL)		EA	1



**LEGEND**

- FULL DEPTH CONSTRUCTION
- TEMPORARY HMAc
- SIGN POST
- TRAFFIC FLOW ARROWS
- TY III BARRICADE
- PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
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7. SEE TxDOT BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARDS BC(9)-07 FOR BARREL SPACING.

\* ITEM PAID BY OTHERS

**ADDENDUM:** REMOVED QUANTITY FOR PAYMENT BY OTHERS DESIGN

JOHN A. TYLER, P.E. 2/4/2013 DATE

**REVIEW & APPROVAL**

JAMES A. LUTZ, P.E. 2/4/2013 DATE

NO.	REVISION	TPD	JAT	DATE
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
2	MARKET ST SDRWK BIKE MKRS & SIGNS REVISED	JAS	JAT	1/23/13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13

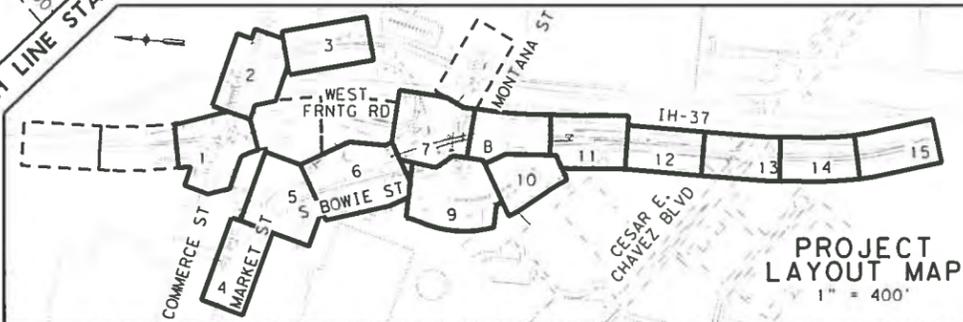
**URSCORP** 9901 IH10 WEST, SUITE 350 (IFIRM = 3162)  
 SAN ANTONIO, TEXAS 78230  
 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**PAPE-DAWSON ENGINEERS** 555 EAST MURPHY | SAN ANTONIO, TEXAS 78216  
 PHONE: 210.375.9000 | FAX: 210.375.9010  
 TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 478

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MARKET STREET REALIGNMENT  
 MARKET STREET  
 TRAFFIC CONTROL PLAN  
 PHASE 1 STEP 2  
 STA 19+40 TO STA 23+60

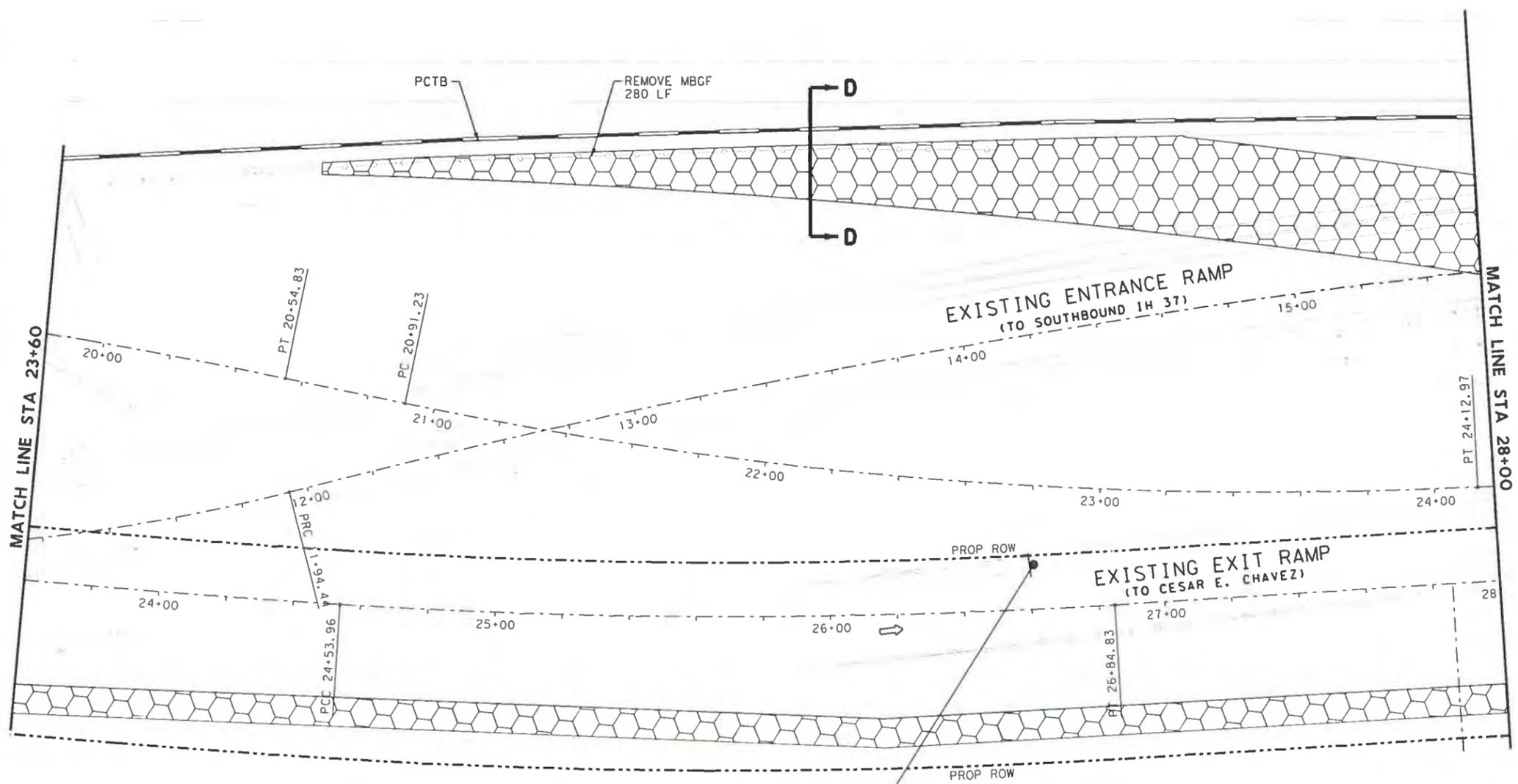
100% SUBMITTAL	PROJECT NO.:	DATE: 2/4/2013
DRWN. BY:	DSGN. BY:	CHGD. BY:



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 DN: PD CK: PD DN: PD CK: PD DN: PD CK: PD

3

I.D.	ITEM	DESCRIPTION	UNIT	QTY
0512-2004	PORT CTB (FUR & INST) (SNGL SLP) (TY 1)		LF	420
0542-2001	REMOVING METAL BEAM GUARD FENCE		LF	280
0542-2002	REMOVING TERMINAL ANCHOR SECTION		EA	1



**LEGEND**

- FULL DEPTH CONSTRUCTION
- TEMPORARY HMA
- SIGN POST
- TRAFFIC FLOW ARROWS
- TY III BARRICADE
- PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
- LOW PROFILE CONCRETE BARRIER, TY I & TY II
- CHANNELIZING DEVICES

- NOTES:**
- FOR ADDITIONAL DETAILS SEE STANDARD DETAIL SHEETS.
  - EXISTING FEATURES ARE SHOWN SCREENED BACK, IE FADED.
  - EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED.
  - MAINTAIN 30' TURNING RADII AT INTERSECTION DURING CONSTRUCTION.
  - ACCESS TO ADJOINING PROPERTIES MUST BE MAINTAINED AT ALL TIMES.
  - ONE SECTION OF LPCB TY II MUST BE AT EACH END OF BARRIER. THIS IS INCLUDED IN OVERALL BARRIER LENGTH.
  - SEE TxDOT BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARDS BC(9) 07 FOR BARREL SPACING.
- \* ITEM PAID BY OTHERS

ADDENDUM: REMOVED QUANTITY FOR PAYMENT BY OTHERS  
DESIGN

*John A. Tyler*  
JOHN A. TYLER, P.E. 2/4/2013 DATE

*James A. Lutz*  
JAMES A. LUTZ, P.E. 2/4/2013 DATE

NO.	REVISION	TPD	JAT	DATE
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
2	MARKET ST SOWLK BIKE MKRS & SIGNS REVISED	JAS	JAT	1/23/13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
SAN ANTONIO, TEXAS 78230  
TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**PAPE-DAWSON ENGINEERS**  
555 EAST RAUSLEY | SAN ANTONIO, TEXAS 78216  
PHONE: 210.375.9000 | FAX: 210.375.9010  
TEXAS BOARD OF PROFESSIONAL ENGINEERS, LICENSE # 470

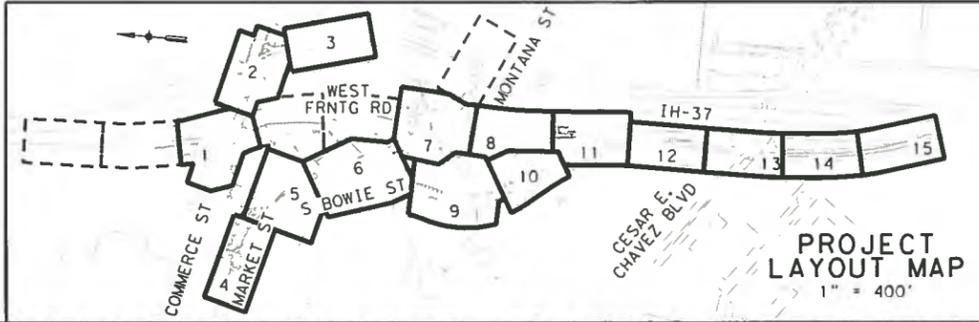
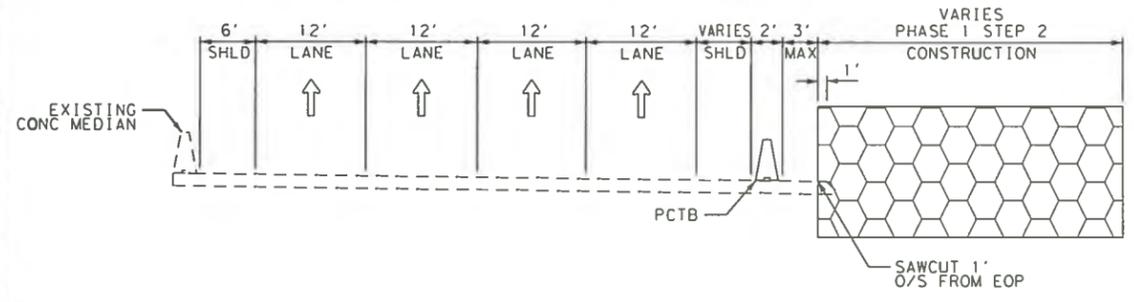
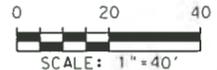
**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MARKET STREET REALIGNMENT  
WEST FRONTAGE ROAD  
**TRAFFIC CONTROL PLAN**  
PHASE 1 STEP 2  
STA 23+60 TO STA 28+00

100% SUBMITTAL	PROJECT NO.:	CHFD, BY:	SHEET 8 OF 15
DRWN, BY:	DSGN, BY:	DATE: 2/4/2013	SHEET NO.: 62



CW21-5a  
STA 26+60

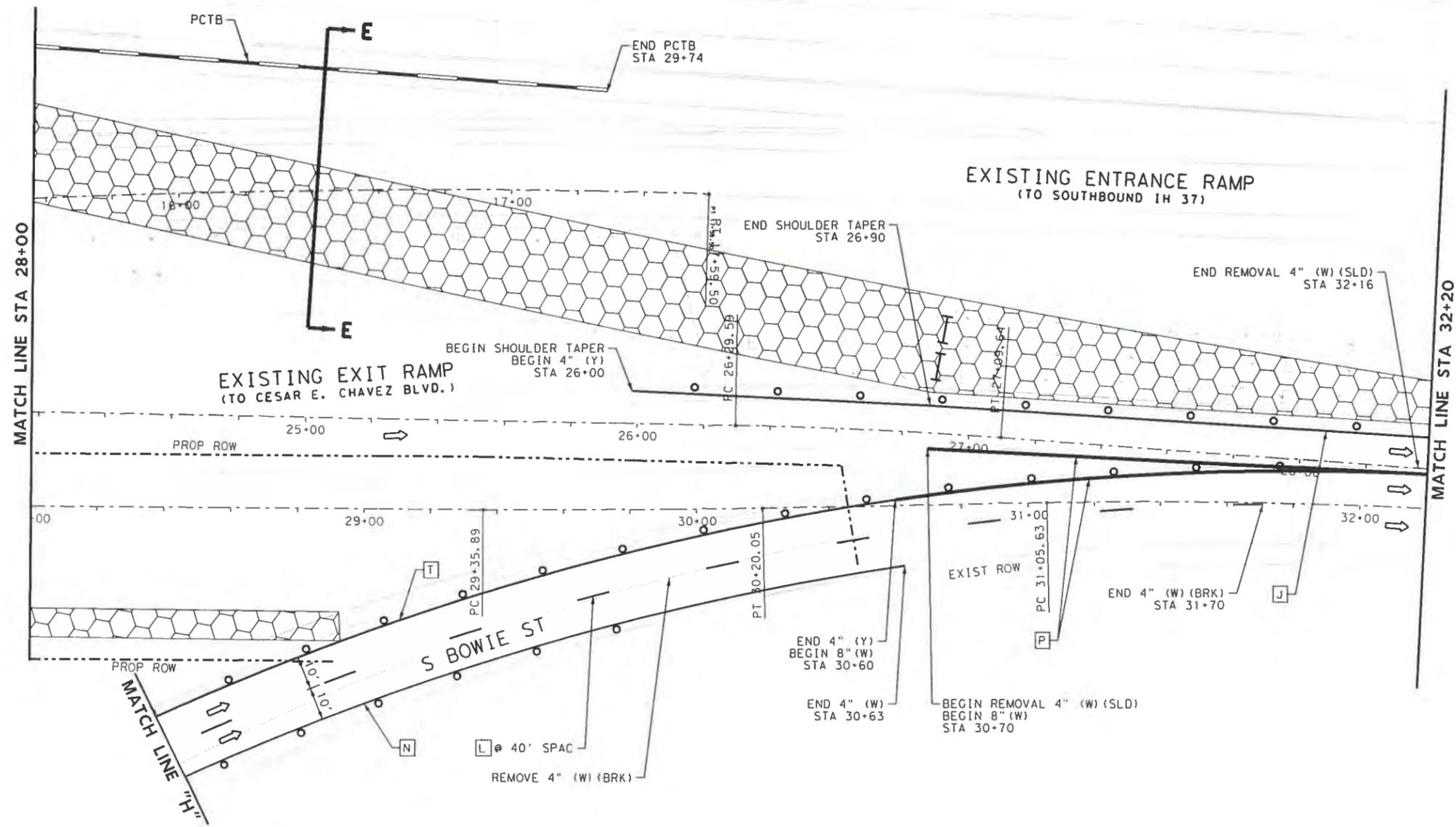


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CHK: PD  
DR: PD  
CHK: PD

3

I.D.	ITEM	DESCRIPTION	UNIT	QTY
0512-2004	PORT CTB (FUR & INST) (SNGL SLP) (TY 1)		LF	173
L 0662-2001	WK ZN PAV MRK NON-REMOV (W) 4" (BRK)		LF	90
N 0662-2004	WK ZN PAV MRK NON-REMOV (W) 4" (SLD)		LF	227
P 0662-2012	WK ZN PAV MRK NON-REMOV (W) 8" (SLD)		LF	312
T 0662-2032	WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)		LF	232
J 0662-2099	WK ZN PAV MRK REMOV (Y) 4" (SLD)		LF	240
0677-2001	ELIM EXT PAV MRK & MRKS ( 4")		LF	250



**LEGEND**

- FULL DEPTH CONSTRUCTION
- TEMPORARY HMA
- SIGN POST
- TRAFFIC FLOW ARROWS
- TY III BARRICADE
- PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
- LOW PROFILE CONCRETE BARRIER, TY I & TY II
- CHANNELIZING DEVICES

- NOTES:**
- FOR ADDITIONAL DETAILS SEE STANDARD DETAIL SHEETS.
  - EXISTING FEATURES ARE SHOWN SCREENED BACK, IE FADED.
  - EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED.
  - MAINTAIN 30' TURNING RADII AT INTERSECTION DURING CONSTRUCTION.
  - ACCESS TO ADJOINING PROPERTIES MUST BE MAINTAINED AT ALL TIMES.
  - ONE SECTION OF LPCB TY II MUST BE AT EACH END OF BARRIER. THIS IS INCLUDED IN OVERALL BARRIER LENGTH.
  - SEE TxDOT BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARDS BC(9)-07 FOR BARREL SPACING.

\* ITEM PAID BY OTHERS

ADDENDUM: REMOVED QUANTITY FOR PAYMENT BY OTHERS  
DESIGN

JOHN A. TYLER, P.E.  
DATE: 2/4/2013

JAMES A. LUTZ, P.E.  
DATE: 2/4/2013

NO	REVISION	TPD	JAT	DATE
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
2	MARKET ST SOWLK BIKE MRKS & SIGNS REVISED	JAS	JAT	1/23/13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13

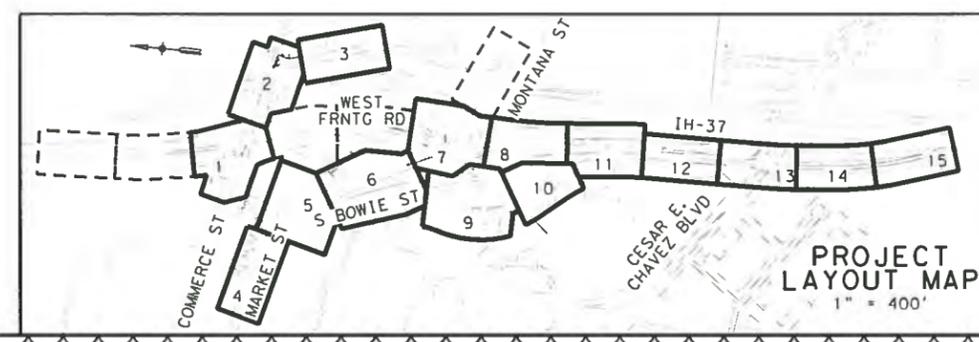
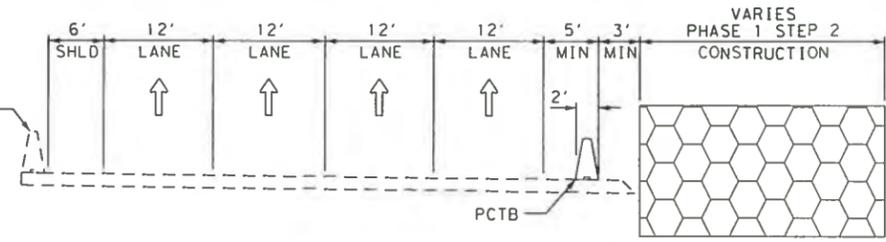
**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
SAN ANTONIO, TEXAS 78230  
TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**PAPE-DAWSON ENGINEERS**  
555 EAST HANLEY | SAN ANTONIO, TEXAS 78216  
PHONE: 210.375.8000 | FAX: 210.375.9010  
TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 410

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MARKET STREET REALIGNMENT  
WEST FRONTAGE ROAD  
TRAFFIC CONTROL PLAN  
PHASE 1 STEP 2  
STA 28+00 TO STA 32+20

100% SUBMITTAL	PROJECT NO.:	DATE: 2/4/2013	SHEET 11 OF 15
DRWL. BY:	DSGL. BY:	CHKD. BY:	SHEET NO.: 65



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CHK: PD  
DR: PD  
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DR: PD  
CHK: PD

I.D.	ITEM	DESCRIPTION	UNIT	QTY
0512-2004	PORT CTB (FUR & INST) (SNGL SLP) (TY 1)		LF	387
0512-2022	PORT CTB (MOVE) (SNGL SLP) (TY 1)		LF	37
C	0662-2067	WK ZN PAV MRK REMOV (W) 4" (SLD)	LF	839
E	0662-2075	WK ZN PAV MRK REMOV (W) 8" (SLD)	LF	424



**LEGEND**

- FULL DEPTH CONSTRUCTION
- TEMPORARY HMAC
- SIGN POST
- TRAFFIC FLOW ARROWS
- TY III BARRICADE
- PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
- LOW PROFILE CONCRETE BARRIER, TY I & TY II
- CHANNELIZING DEVICES

- NOTES:**
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\* ITEM PAID BY OTHERS

ADDENDUM: REMOVED QUANTITY FOR PAYMENT BY OTHERS  
DESIGN

JOHN A. TYLER, P.E.  
DATE: 2/4/2013

REVIEW & APPROVAL  
 JAMES A. LUTZ, P.E.  
DATE: 2/4/2013

NO	REVISION	TPD	JAT	DATE
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2-04-13
2	MARKET ST SOWLK BIKE MKRS & SIGNS REVISED	JAS	JAT	1-23-13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1-17-13

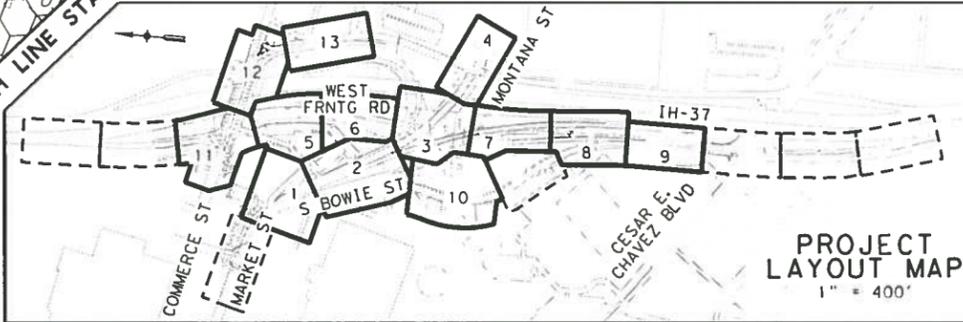
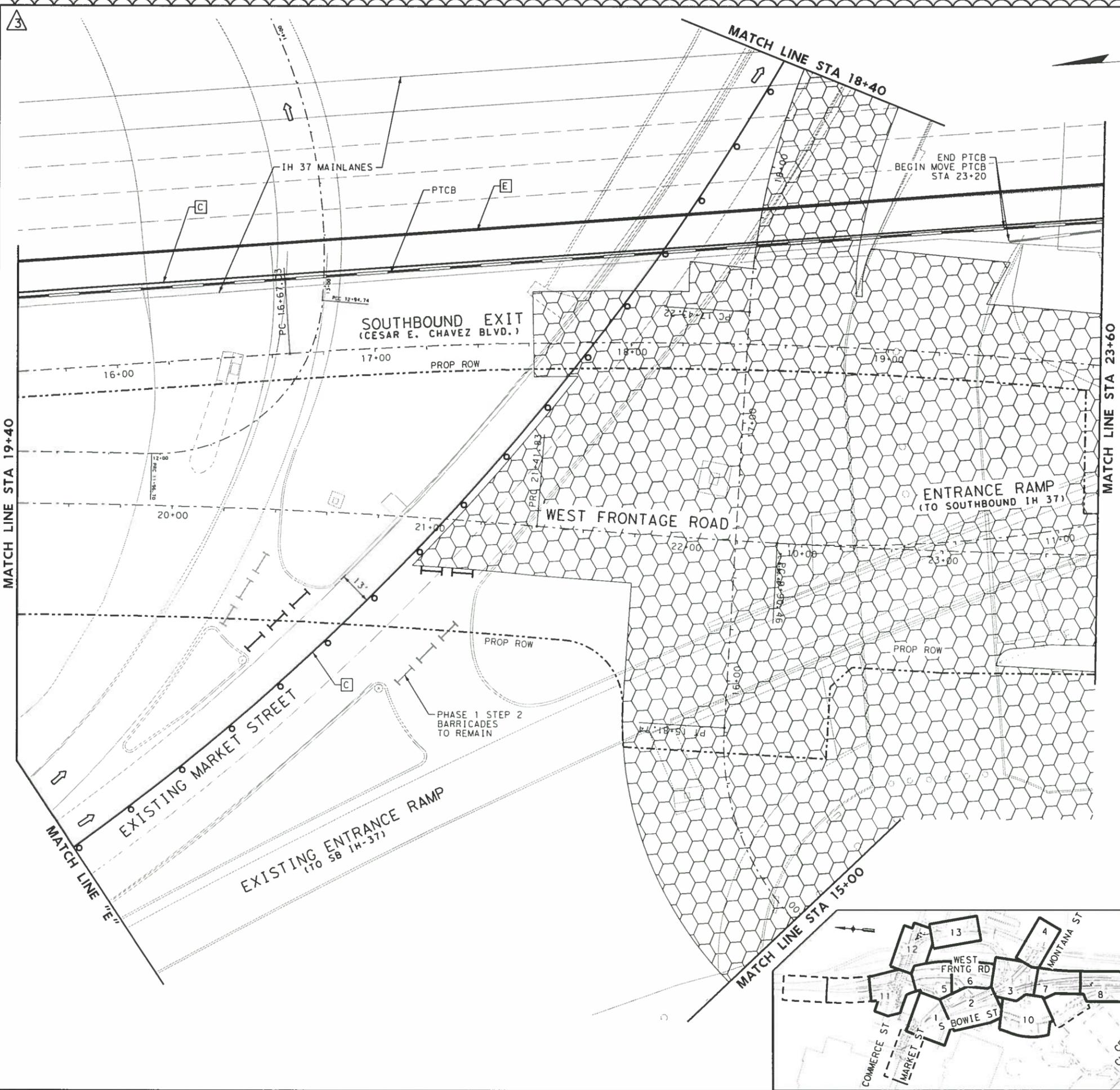
**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
SAN ANTONIO, TEXAS 78230  
TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**PAPE-DAWSON ENGINEERS**  
555 EAST RAUSLEY | SAN ANTONIO, TEXAS 78216  
PHONE: 210.375.9000 | FAX: 210.375.9010  
TEXAS BOARD OF PROFESSIONAL ENGINEERING, FUND REGISTRATION # 410

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MARKET STREET REALIGNMENT  
WEST FRONTAGE ROAD  
TRAFFIC CONTROL PLAN  
PHASE 2 STEP 1  
STA 19+40 TO STA 23+60

100% SUBMITTAL	PROJECT NO.:	DATE: 2/4/2013	SHEET 3 OF 13
DRWN. BY:	DSCH. BY:	CHKD. BY:	SHEET NO.: 68



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MATCH LINE STA 19+40

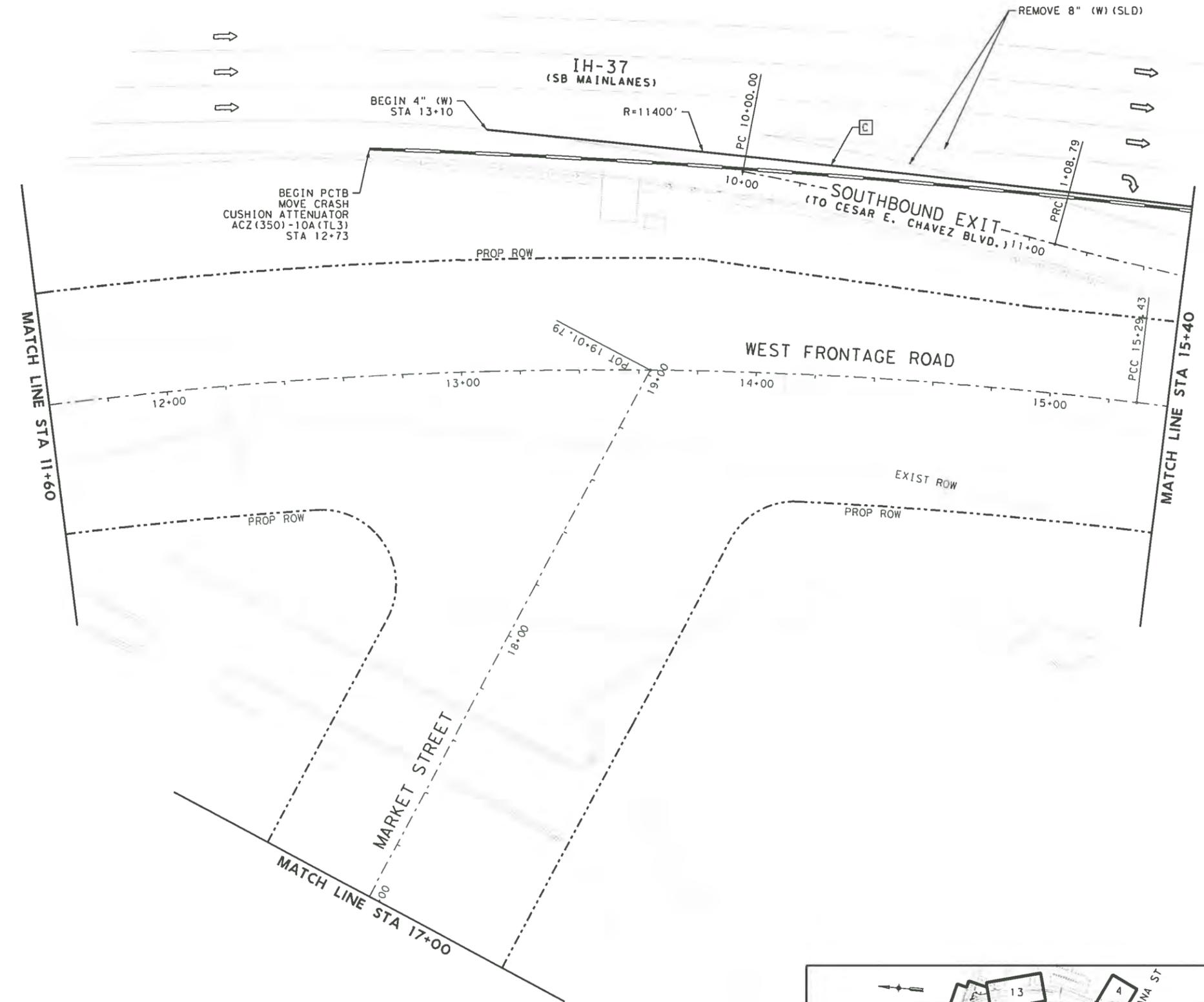
MATCH LINE STA 23+60

MATCH LINE STA 15+00

3

3

I.D.	ITEM	DESCRIPTION	UNIT	QTY
	0512-2004	PORT CTB (FUR & INST) (SNGL SLP) (TY 1)	LF	280
	0545-2002	CRASH CUSH ATTEN (MOVE & RESET)	EA	1
C	0662-2067	WK ZN PAV MRK REMOV (W) 4" (SLD)	LF	241
	0677-2003	ELIM EXT PAV MRK & MRKS ( 8")	LF	296



LEGEND

- FULL DEPTH CONSTRUCTION
- TEMPORARY HMA
- SIGN POST
- TRAFFIC FLOW ARROWS
- TY III BARRICADE
- PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
- LOW PROFILE CONCRETE BARRIER, TY I & TY II
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  - SEE TxDOT BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARDS BC(9)-07 FOR BARREL SPACING.

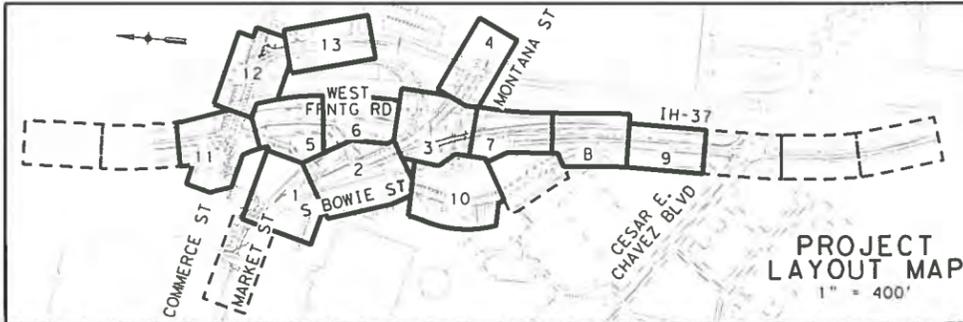
\* ITEM PAID BY OTHERS

ADDENDUM: REMOVED QUANTITY FOR PAYMENT BY OTHERS  
DESIGN

STATE OF TEXAS  
  
 JOHN A. TYLER, P.E.  
 105193  
 LICENSE NO.  
 2/4/2013  
 DATE

STATE OF TEXAS  
  
 JAMES A. LUTZ, P.E.  
 84722  
 LICENSE NO.  
 2/4/2013  
 DATE

NO.	REVISION	TPD	JAT	DATE
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
2	MARKET ST SDRK BKE MRKS & SIGNS REVISED	JAS	JAT	1/23/13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13



**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
 SAN ANTONIO, TEXAS 78230  
 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**PAPE-DAWSON ENGINEERS**  
 555 EAST RAUSETY | SAN ANTONIO, TEXAS 78216  
 PHONE: 210.315.9000 | FAX: 210.315.9010  
 100% BOARD OF PROFESSIONAL ENGINEERS & ARCHITECTS

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

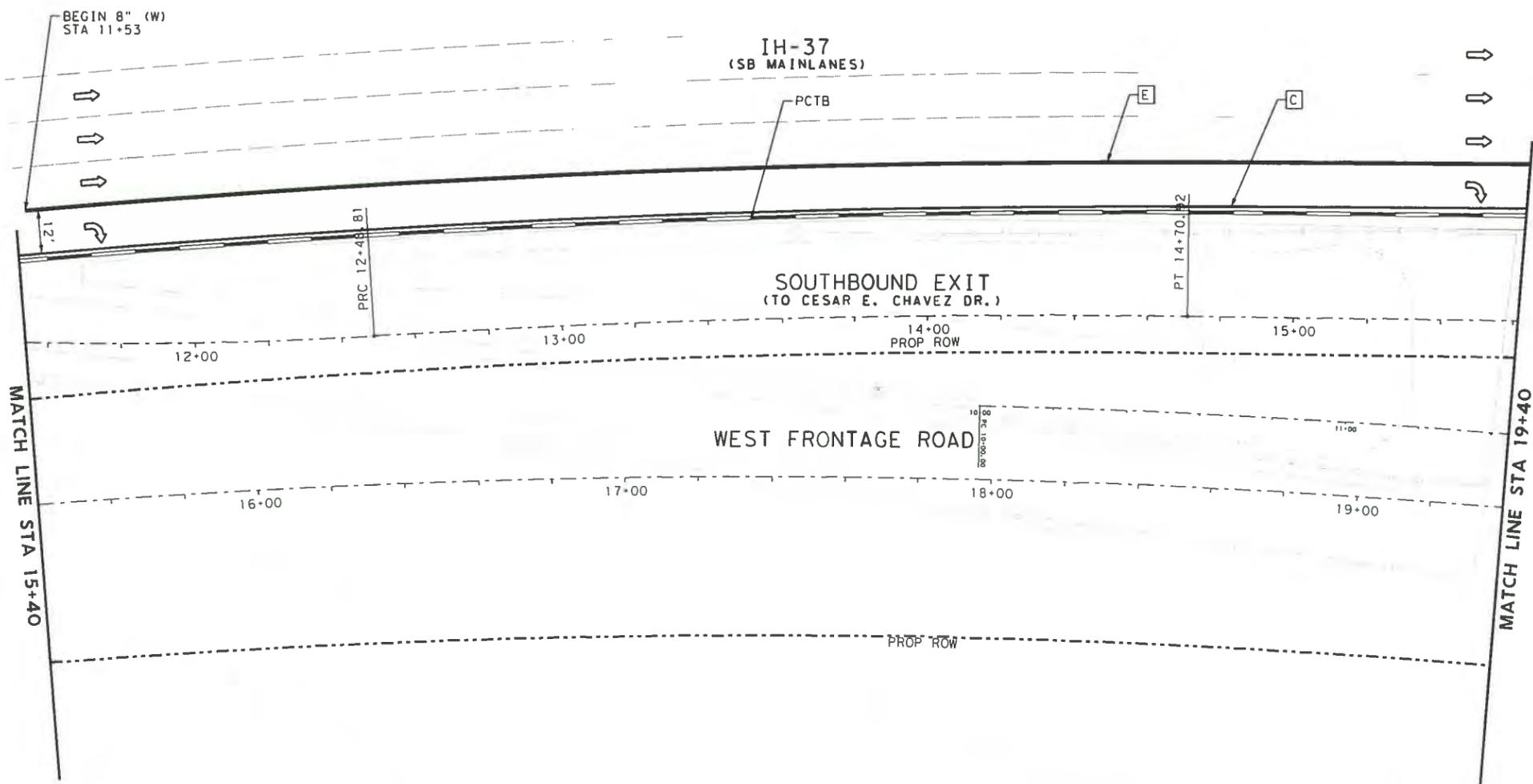
MARKET STREET REALIGNMENT  
 WEST FRONTAGE ROAD  
 TRAFFIC CONTROL PLAN  
 PHASE 2 STEP 1  
 STA 11+60 TO STA 15+40

100% SUBMITTAL	PROJECT NO.:	DATE: 2/4/2013	SHEET 5 OF 13
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: 70

DATE: 2/4/2013 5:56:35 PM  
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I.D.	ITEM	DESCRIPTION	UNIT	QTY
	0512-2004	PORT CTB (FUR & INST) (SNGL SLP) (TY I)	LF	413
C	0662-2067	WK ZN PAV MRK REMOV (W) 4" (SLD)	LF	412
E	0662-2075	WK ZN PAV MRK REMOV (W) 8" (SLD)	LF	412

3



**LEGEND**

- FULL DEPTH CONSTRUCTION
- TEMPORARY HMA
- SIGN POST
- TRAFFIC FLOW ARROWS
- TY III BARRICADE
- PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
- LOW PROFILE CONCRETE BARRIER, TY I & TY II
- CHANNELIZING DEVICES

**NOTES:**

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2. EXISTING FEATURES ARE SHOWN SCREENED BACK, IE FADED.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED.
4. MAINTAIN 30' TURNING RADII AT INTERSECTION DURING CONSTRUCTION.
5. ACCESS TO ADJOINING PROPERTIES MUST BE MAINTAINED AT ALL TIMES.
6. ONE SECTION OF LPCB TY II MUST BE AT EACH END OF BARRIER. THIS IS INCLUDED IN OVERALL BARRIER LENGTH.
7. SEE TxDOT BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARDS BC(9) 07 FOR BARREL SPACING.

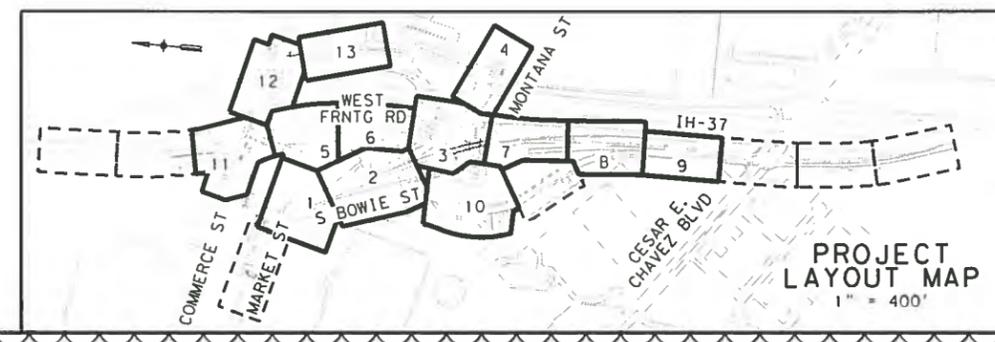
\* ITEM PAID BY OTHERS

ADDENDUM: REMOVED QUANTITY FOR PAYMENT BY OTHERS  
DESIGN

*John A. Tyler*  
JOHN A. TYLER, P.E. 2/4/2013 DATE

*James A. Lutz*  
JAMES A. LUTZ, P.E. 2/4/2013 DATE

NO	REVISION	TPD	JAT	DATE
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
2	MARKET ST SOWLK BIKE MKS & SIGNS REVISED	JAS	JAT	1/23/13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13



**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
SAN ANTONIO, TEXAS 78230  
TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCOPP.COM

**PAPE-DAWSON ENGINEERS**  
555 EAST RANGEL | SAN ANTONIO, TEXAS 78216  
PHONE: 210.375.9000 | FAX: 210.375.9010  
TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 470

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MARKET STREET REALIGNMENT  
WEST FRONTAGE ROAD  
TRAFFIC CONTROL PLAN  
PHASE 2 STEP 1  
STA 15+40 TO STA 19+40

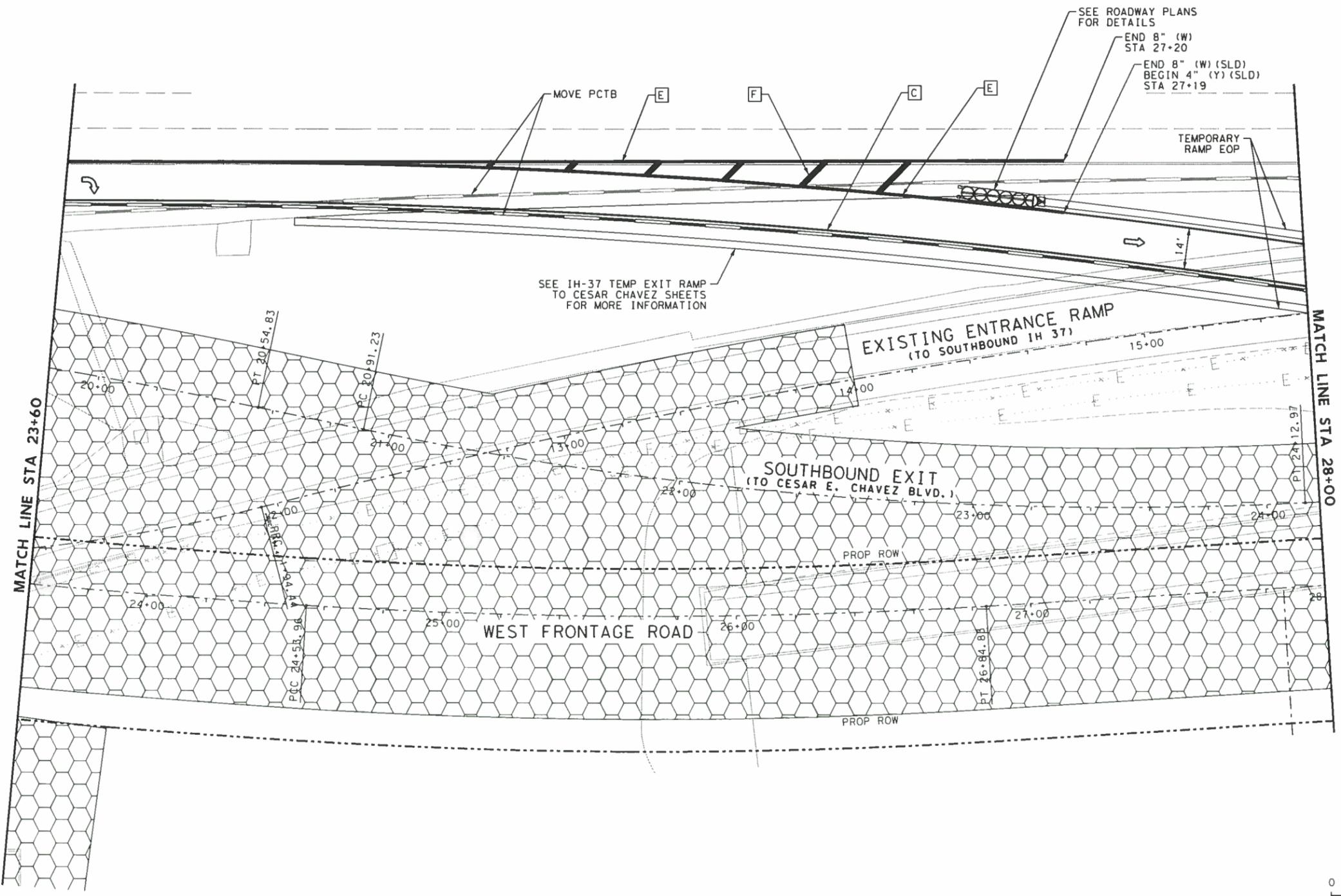
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DIN: PD  
CK: PD  
DWR: PD  
CIC: PD

3

I.D.	ITEM	DESCRIPTION	UNIT	QTY
0512-2022	PORT CTB (MOVE) (SNGL SLP) (TY 1)		LF	420
C	0662-2067	WK ZN PAV MRK REMOV (W) 4" (SLD)	LF	423
E	0662-2075	WK ZN PAV MRK REMOV (W) 8" (SLD)	LF	634
F	0662-2079	WK ZN PAV MRK REMOV (W) 24" (SLD)	LF	50



**LEGEND**

	FULL DEPTH CONSTRUCTION
	TEMPORARY HMAC
	SIGN POST
	TRAFFIC FLOW ARROWS
	TY III BARRICADE
	PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
	LOW PROFILE CONCRETE BARRIER, TY I & TY II
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  - SEE TxDOT BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARDS BC(9)-07 FOR BARREL SPACING.
- \* ITEM PAID BY OTHERS

DATE: 2/4/2013 5:56:38 PM  
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ADDENDUM: REMOVED QUANTITY FOR PAYMENT BY OTHERS

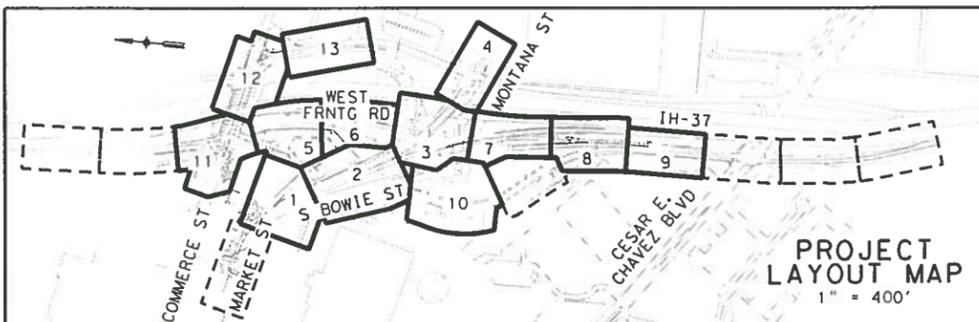
DESIGN

JOHN A. TYLEE, P.E.  
 105193  
 2/4/2013 DATE

REVIEW & APPROVAL

JAMES A. LUTZE, P.E.  
 84722  
 2/4/2013 DATE

NO	REVISION	TPD	JAT	DATE
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
2	MARKET ST SOWLK BIKE MRKS & SIGNS REVISED	JAS	JAT	1/23/13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13



**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
 SAN ANTONIO, TEXAS 78230  
 TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

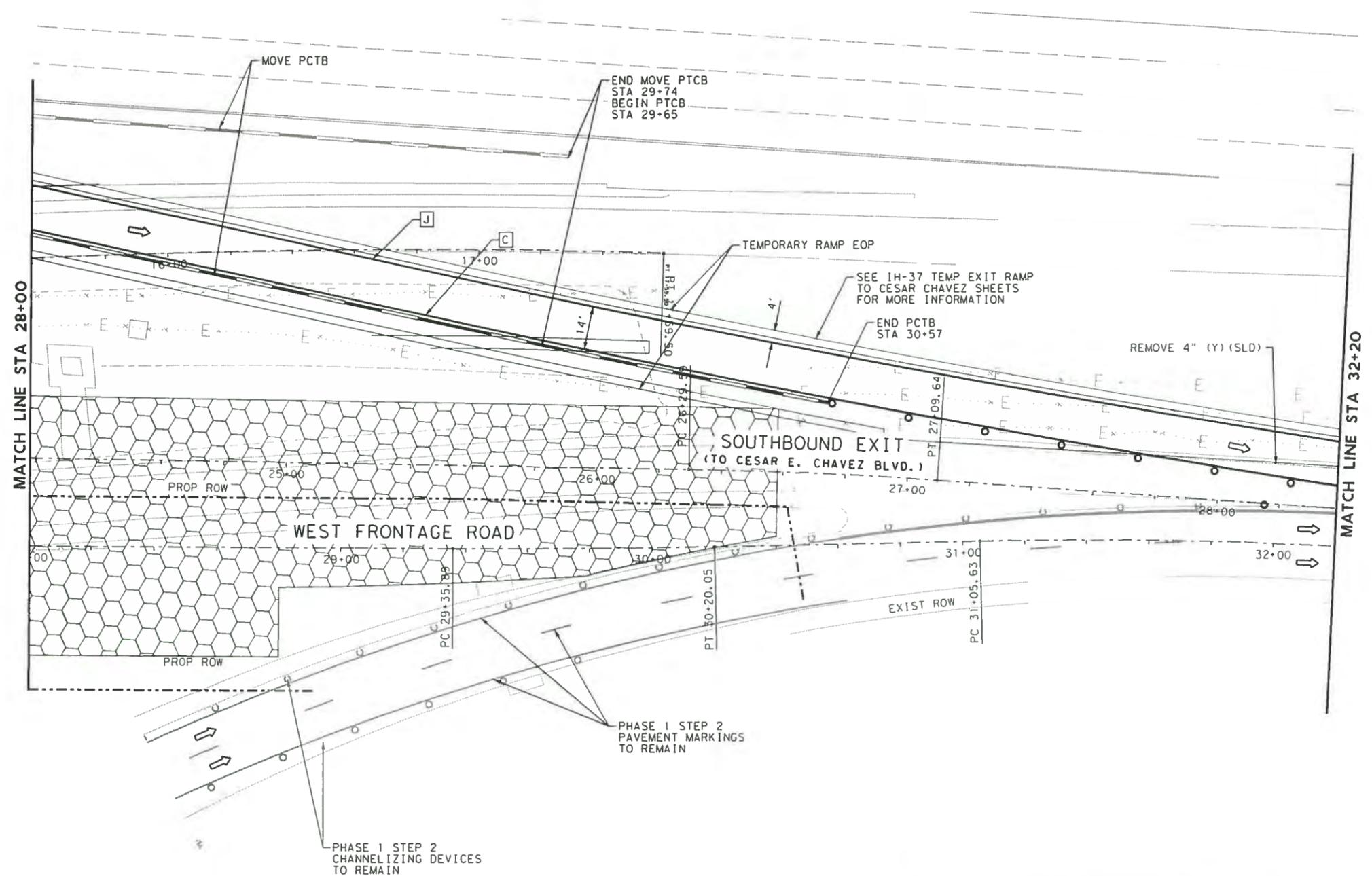
**PAPE-DAWSON ENGINEERS**  
 555 EAST MAHONEY | SAN ANTONIO, TEXAS 78116  
 PHONE: 210.375.9000 | FAX: 210.375.9010  
 TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 410

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 MARKET STREET REALIGNMENT  
 WEST FRONTAGE ROAD  
 TRAFFIC CONTROL PLAN  
 PHASE 2 STEP 1  
 STA 23+60 TO STA 28+00

SHEET 7 OF 13  
 100% SUBMITTAL PROJECT NO.: DATE: 2/4/2013  
 DRWN. BY: DSGH. BY: CHKD. BY: SHEET NO.: 72

3

I.D.	ITEM	DESCRIPTION	UNIT	QTY
	0512-2004	PORT CTB (FUR & INST) (SNGL SLP) (TY 1)	LF	90
	0512-2022	PORT CTB (MOVE) (SNGL SLP) (TY 1)	LF	173
C	0662-2067	WK ZN PAV MRK REMOV (W) 4" (SLD)	LF	429
J	0662-2099	WK ZN PAV MRK REMOV (Y) 4" (SLD)	LF	430
	0677-2001	ELIM EXT PAV MRK & MRKS ( 4")	LF	75



**LEGEND**

- FULL DEPTH CONSTRUCTION
- TEMPORARY HMA
- SIGN POST
- TRAFFIC FLOW ARROWS
- TY III BARRICADE
- PRECAST CONCRETE TRAFFIC BARRIER, SINGLE SLOPE
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  - SEE TxDOT BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARDS B 9 7 FOR BARREL SPACING.
- \* ITEM PAID BY OTHERS

ADDENDUM: **3** REMOVED QUANTITY FOR PAYMENT BY OTHERS

DESIGN

JOHN A. TYLER, P.E. 105193  
DATE: 2/4/2013

REVIEW & APPROVAL

JAMES A. LUTZ, P.E. 84722  
DATE: 2/4/2013

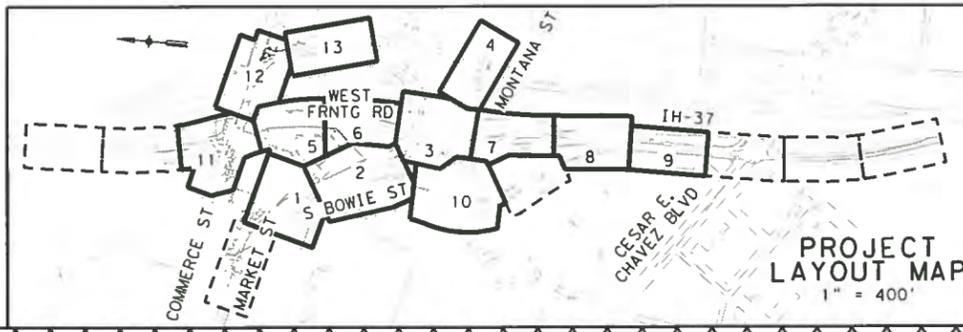
NO	REVISION	TPD	JAT	DATE
1	REMOVED QUANTITY FOR PAYMENT BY OTHERS	TPD	JAT	2/04/13
2	MARKET ST SDWLK BIKE MRKS & SIGNS REVISED	JAS	JAT	1/23/13
3	S BOWIE ST TRAFFIC CONTROL REVISED	TPD	JAT	1/17/13

**URS** 9901 IH10 WEST, SUITE 350 (FIRM # 3162)  
5411 MITCHELL, TEXAS 78230  
TEL: 210.377.3764 FAX: 210.377.0622 WWW.URSCORP.COM

**PAPE-DAWSON ENGINEERS**  
355 EAST BUNGEY | SAN ANTONIO, TEXAS 78218  
PHONE: 210.375.8000 | FAX: 210.375.8010  
TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 470

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
MARKET STREET REALIGNMENT  
WEST FRONTAGE ROAD  
TRAFFIC CONTROL PLAN  
PHASE 2 STEP 1  
STA 28+00 TO STA 32+20

100% SUBMITTAL	PROJECT NO.:	DATE: 2/4/2013
DRWN. BY:	DSGN. BY:	CHEK. BY:
		SHEET NO.: 73

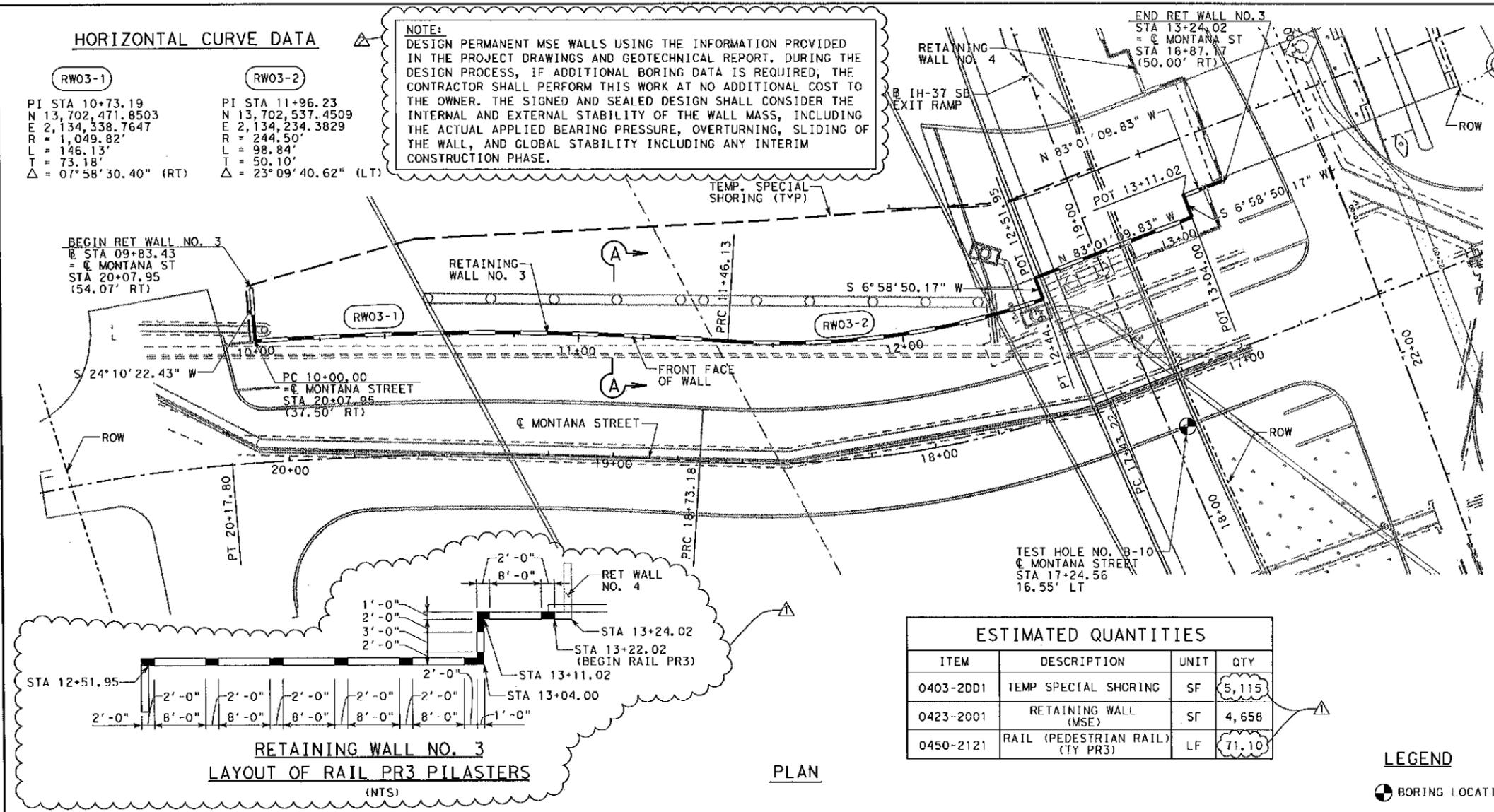


DATE: 2/4/2013 5:56:42 PM  
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**HORIZONTAL CURVE DATA**

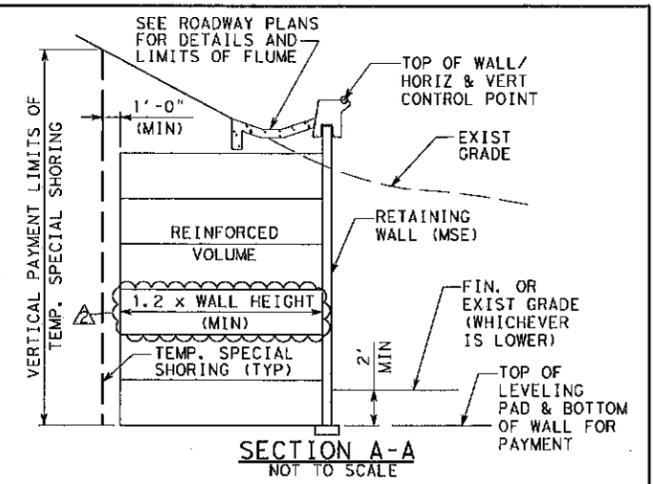
RW03-1		RW03-2	
PI STA 10+73.19	PI STA 11+96.23	PI STA 11+96.23	PI STA 11+96.23
N 13,702,471.8503	N 13,702,537.4509	N 13,702,537.4509	N 13,702,537.4509
E 2,134,338.7647	E 2,134,234.3829	E 2,134,234.3829	E 2,134,234.3829
R = 1,049.82'	R = 244.50'	R = 244.50'	R = 244.50'
L = 146.13'	L = 98.84'	L = 98.84'	L = 98.84'
T = 73.18'	T = 50.10'	T = 50.10'	T = 50.10'
Δ = 07°58'30.40" (RT)	Δ = 23°09'40.62" (LT)	Δ = 23°09'40.62" (LT)	Δ = 23°09'40.62" (LT)

**NOTE:**  
 DESIGN PERMANENT MSE WALLS USING THE INFORMATION PROVIDED IN THE PROJECT DRAWINGS AND GEOTECHNICAL REPORT. DURING THE DESIGN PROCESS, IF ADDITIONAL BORING DATA IS REQUIRED, THE CONTRACTOR SHALL PERFORM THIS WORK AT NO ADDITIONAL COST TO THE OWNER. THE SIGNED AND SEALED DESIGN SHALL CONSIDER THE INTERNAL AND EXTERNAL STABILITY OF THE WALL MASS, INCLUDING THE ACTUAL APPLIED BEARING PRESSURE, OVERTURNING, SLIDING OF THE WALL, AND GLOBAL STABILITY INCLUDING ANY INTERIM CONSTRUCTION PHASE.



**ESTIMATED QUANTITIES**

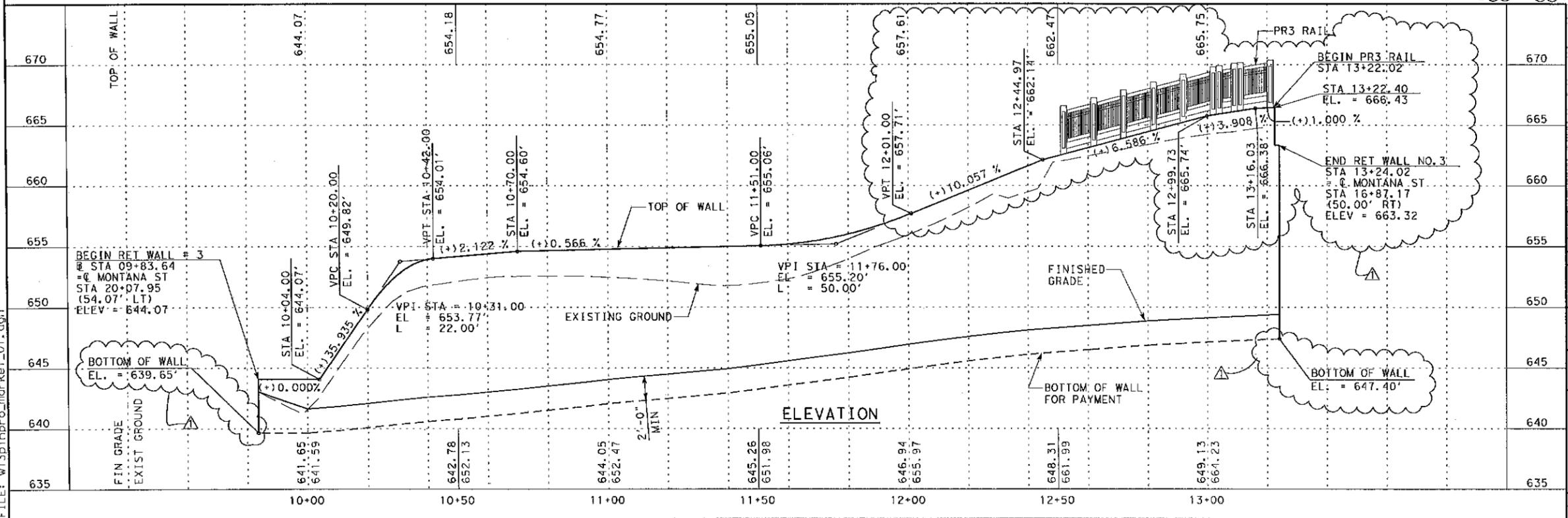
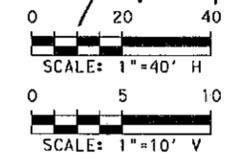
ITEM	DESCRIPTION	UNIT	QTY
0403-2DD1	TEMP SPECIAL SHORING	SF	5,115
0423-2001	RETAINING WALL (MSE)	SF	4,658
0450-2121	RAIL (PEDESTRIAN RAIL) (TY PR3)	LF	71.10



- GENERAL NOTES:**
- ADDITIONAL EXCAVATION FOR TEMPORARY SPECIAL SHORING BEYOND THE LIMITS SHOWN ON THE PLANS FOR MSE WALL CONSTRUCTION, AND RECONSTRUCTION OF WALKWAYS, ETC. WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS.
  - REFER TO RETAINING WALL STANDARDS FOR ADDITIONAL INFORMATION.
  - REFER TO RETAINING WALL BORING DETAILS SHEETS FOR BORING LOG INFORMATION.
  - REFER TO DRAINAGE PLANS FOR LOCATIONS AND ELEVATIONS OF DRAINAGE PIPES AND INLETS.
  - REFER TO SAN ANTONIO DISTRICT AESTHETIC GUIDELINES-DOWNTOWN REGION-SHEETS DT8 & DT25 FOR RETAINING WALL AESTHETIC DETAILS.
  - SQUARE FOOT SURFACE AREA OF RETAINING WALL IS MEASURED FROM THE TOP OF RETAINING WALL, INCLUDING COPING, TO THE TOP OF THE LEVELING PAD. FOOTING ADJUSTMENT MADE TO ACCOMMODATE THE FINISH GRADE ELEVATIONS WILL NOT BE MEASURED.
  - REFER TO PEDESTRIAN WALKWAY PLAN AND PROFILE SHEET FOR LIMITS OF PR3 RAIL ON WALKWAY AND OTHER NOTES PERTAINING TO THE PR3 RAIL.



*Jalal*  
 2/8/13



NO.	REVISION	DATE	APPROVED
1	ADDED NOTES & MIN. LENGTH OF EARTH REINF	2/8/13	JAB
2	ADDENDUM NO. 2	1/18/13	NMB

**URS** 9901 IH10 WEST, SUITE 350  
 SAN ANTONIO, TEXAS 78230  
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**SEA** STRUCTURAL ENGINEERING ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 SAN ANTONIO, TEXAS  
 TYPE REG. NO. F-199

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 MARKET STREET REALIGNMENT

**RETAINING WALL NO. 3 LAYOUT**

SHEET 1 OF 1

100% SUBMITTAL PROJECT NO.: 40-00300 DATE: 2/7/2013  
 DRWN. BY: LC DSGN. BY: NMB CHKD. BY: DMM SHEET NO.: 531

DATE: 2/7/2013 11:19:19 AM  
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