

Bidding Requirements, Contract Forms and Conditions of the Contract
ADDENDUM
Section 00900

ADDENDUM No. 05

Date MARCH 13, 2013

City of Austin

Project Name SHAW LANE LIME RESIDUAL DISPOSAL FACILITY OVERALL SITE PLAN

C.I.P. No. 8702.003

This Addendum forms a part of Contract and clarifies, corrects or modifies original Bid Documents, dated JANUARY 21, 2013 . Acknowledge receipt of this addendum in space provided on bid form. Failure to do so may subject bidder to disqualification.

A. Project Manual Revisions:

- a. Remove Table of Contents and replace with the attached revised Table of Contents.
- b. Remove Section 00300u in its entirety and replace with the attached revised Section 00300U.
- c. The attached Section 432S shall be included as part of the project manual as indicated on the revised Table of Contents.

B. Drawing Revisions:

- a. Remove and replace drawings G-002, EX-001, and C-007 with the drawings attached to this addendum.
- b. Attach standard detail 432S-5 to Drawing C-903.

C. Clarifications:

None

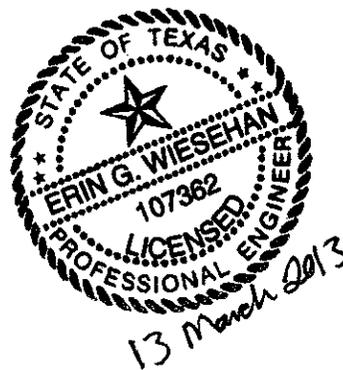
This addendum consists of 28 pages.

Chris Walter

Approved by OWNER

Erin G. Wiesehan

Approved by ENGINEER/ARCHITECT
Erin G. Wiesehan, P.E. TBPE Firm# 13



END

**Document
Number**

Title

VOLUME 1

INTRODUCTORY INFORMATION

	Title Page
01/11/13	Table of Contents

BIDDING REQUIREMENTS, CONTRACT FORMS, & CONDITIONS OF THE CONTRACT

Pre-Bid Information

00020	03/12/12 Invitation for Bids
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Instructions to Bidders

00100	08/09/12 Instructions to Bidders
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Information Available to Bidders

00220	05/06/11 Geotechnical Data
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Bid Forms

00300U	03/12/12 Bid Form (Unit Price)
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Supplements to Bid Forms

00400	08/09/12 Statement of Bidder's Experience
00405	09/25/05 Certificate of Non-Suspension or Debarment
00410	05/06/11 Statement of Bidder's Safety Experience
00440	05/06/11 Affidavit - Prohibited Activities
00475	05/06/11 Nonresident Bidder Provisions

Agreement Form

00500	03/12/12 Agreement
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Bonds and Certificates

00610	02/23/10 Performance Bond
00620	02/23/10 Payment Bond
00630	08/09/12 Nondiscrimination Certificate
00631	03/12/12 Title VI Assurances Appendix A
00650	07/30/12 Certificate of Insurance
00670	08/09/12 Sales Tax Exemption Certificate
00680	06/05/06 Non-Use of Asbestos Affidavit (Prior to Construction)
00681	06/05/06 Non-Use of Asbestos Affidavit (After Construction)

General Conditions

00700	03/12/12 General Conditions
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Supplementary Conditions

00810	08/09/12 Supplemental General Conditions
00819	06/10/05 Security Requirements
00820	03/12/12 Modifications to Bidding Requirements and Contract Forms
00830	03/12/12 Wage Rates and Payroll Reporting
00830BC	01/04/13 Wage Rates Building Construction Trades
00830HH	01/11/13 Wage Rates Highway Heavy

Document Number	Title
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Addenda

00900	02/23/10	Addendum {If any addendum is issued, it will be bound in the front of Contract sets following contract execution.}
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SPECIFICATIONS**Division 1 - General Requirements**

01010	08/09/12	Summary of Work
01030		Alternates
01050	09/13/10	Grades Lines & Levels
01095	07/21/03	Reference Standards and Definitions
01096	05/06/11	Stormwater Pollution Prevention Plan (SWPPP)
01200	08/09/12	Project Meetings
01300	05/06/11	Submittals
01380	08/09/12	Construction Photography & Videos
01500	08/09/12	Temporary Facilities
01505	09/13/10	Construction and Demolition Waste Management
01900	03/12/12	Prohibition of Asbestos Containing Materials
01900a	06/05/06	Statement of Non-Inclusion of Asbestos Containing Material (E/A Prior to Design)
01900b	06/05/06	Statement of Non-Inclusion of Asbestos Containing Material (E/A After Design)

City Standard Technical Specifications**Series 100-Earthwork**

102S	08/20/07	Clearing and Grubbing
104S	08/20/07	Removing Concrete
111S	11/18/04	Excavation
120S	11/18/04	Channel Excavation
130S	03/24/09	Borrow
132S	08/20/07	Embankment

Series 200-Subgrade and Base Construction

201S	08/20/07	Subgrade Preparation
210S	02/24/10	Flexible Base
220S	02/24/10	Sprinkling for Dust Control
230S	08/20/07	Rolling (Flat Wheel)
232S	08/20/07	Rolling (Pneumatic Tire)
236S	08/20/07	Proof Rolling

Series 300-Street Surface Courses

301S	08/20/07	Asphalts, Oils and Emulsions
302S	08/20/07	Aggregates for Surface Treatments
306S	02/24/10	Prime Coat
307S	02/24/10	Tack Coat
312S	02/21/01	Seal Coat
313S	02/24/10	Cleaning and/or Sealing Joints & Cracks (Asphaltic Concrete)
340S	07/01/09	Hot Mix Asphaltic Concrete Pavement
360S	02/24/10	Concrete Pavement

**Document
Number**
Title**Series 400-Concrete Structures and Miscellaneous Concrete**

401S	11/13/07	Structural Excavation and Backfill
403S	06/16/08	Concrete for Structures
405S	11/13/07	Concrete Admixtures
406S	11/13/07	Reinforcing Steel
408S	11/13/07	Concrete Joint Materials
410S	11/13/07	Concrete Structures
411S	11/13/07	Surface Finishes for Concrete
413S	11/13/07	Cleaning and/or Sealing Joints and Cracks (PC Concrete)
420S	11/13/07	Drilled Shaft Foundations
432S	01/04/10	P.C. Concrete Sidewalks
436S	11/13/07	P.C. Concrete Valley Gutters

Series 500-Pipe and Appurtenances

503S	02/17/00	Frames, Grates, Rings and Covers
506	02/24/10	Manholes
508S	02/24/10	Miscellaneous Structures and Appurtenances
509S	02/24/10	Excavation Safety Systems
510	02/24/10	Pipe
511S	02/24/10	Water Valves
591S	09/01/11	Rip Rap for Slope Protection
594S	04/05/99	Gabions and Revet Mattresses

Series 600-Environmental Enhancement

601S	03/24/09	Salvaging and Placing Topsoil
604S	10/30/09	Seeding for Erosion Control
605S	06/21/07	Soil Retention Blanket
606S	06/21/7	Fertilizer
609S	03/24/09	Native Grassland Seeding and Planting for Erosion Control
610S	12/09/08	Preservation of Trees and Other Vegetation
639S	11/26/01	Rock Berm
641S	06/21/07	Stabilized Construction Entrance
642S	10/30/09	Silt Fence

Series 700-Incidental Construction

700S	08/18/00	Mobilization
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Special Provisions to City Standard Technical Specifications

SP406S	Reinforcing Steel
SP410S	Concrete Structures
SP604S	Seeding for Erosion Control
SP609S	Native Grassland Seeding and Planting for Erosion Control

Special Specifications

SS02370	Mac-Mat
SS02380	Permanent Grassroad Paving
SS13300	Instrumentation for Dams

**Document
Number****Title****VOL. 2 10/09/00 MBE/WBE Procurement Program Package
List of Specifications Updated to Current Version Prior to and During Advertisement**

00020	03/12/12	Invitation for Bids
00100	08/09/12	Instructions to Bidders
00220	05/06/11	Geotechnical Data
00300U	03/12/12	Bid Form (Unit Price)
00400	08/09/12	Statement of Bidder's Experience
00405	09/25/05	Certificate of Non-Suspension or Debarment
00410	05/06/11	Statement of Bidder's Safety Experience
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340S	07/01/09	Hot Mix Asphaltic Concrete Pavement
403S	06/16/08	Concrete for Structures
506	02/24/10	Manholes
601S	03/24/09	Salvaging and Placing Topsoil
604S	10/30/09	Seeding for Erosion Control
609S	03/24/09	Native Grassland Seeding and Planting for Erosion Control
610S	12/09/08	Preservation of Trees and Other Vegetation
639S	11/26/01	Rock Berm
642S	10/30/09	Silt Fence

List of Special Provisions to City Standard Technical Specifications Added Prior to Advertisement

SP406S	Reinforcing Steel
SP410S	Concrete Structures

END

Erin G. Wiesehan
13 March 2013

Bidding Requirements, Contract Forms and Conditions of the Contract
UNIT PRICE BID FORM
Section 00300U

The undersigned, in compliance with the Invitation for Bids for construction of the following Project: SHAW LANE LIME RESIDUAL DISPOSAL FACILITY OVERALL SITE PLAN

(CIP ID# 8702.003) (IFB# 6100 CLMC412) for the City of Austin, Texas, having examined the Project Manual, Drawings and Addenda, the site of the proposed Work and being familiar with all of the conditions surrounding construction of the proposed Project, having conducted all inquiries, tests and investigations deemed necessary and proper; hereby proposes to furnish all labor, permits, material, machinery, tools, supplies and equipment, and incidentals, and to perform all Work required for construction of the Project in accordance with the Project Manual, Drawings and Addenda within the time indicated for the following prices of:

Note: The Bidder will enter the line item subtotal in the "Amount" column below, which is the product of the estimated "Quantity" multiplied by the "Unit Price". Any mathematical errors will be corrected for the purpose of determining the correct Amount to be entered in the Bid Form. The Amounts, including any corrected Amounts, will then be totaled to determine the actual amount of the Bid.

Bid Item	Quantity	Unit	Item Description	Unit Price	Amount
102S- A	1.73	AC	Clearing and Grubbing Prepare right-of-way, 50' Width	\$_____	\$_____
104S- B	106,370	SF	Remove P.C. Concrete Slab	\$_____	\$_____
111S- A- Swale	225	CY	Excavation 30' Wide Swale with 5:1 Side Slopes	\$_____	\$_____
120S- A	1,910	CY	Channel Excavation 80' Wide Conveyance Channel with 4:1 Side Slopes.	\$_____	\$_____
130S- B	15,642	CY	Borrow 12" Thick Clay Fill for West Pit	\$_____	\$_____

Bid Item	Quantity	Unit	Item Description	Unit Price	Amount
130S-T	15,642	CY	Borrow 12" Thick Topsoil for West Pit (Plan Quantity)	\$ _____	\$ _____
132S-A-4:1	62,750	CY	Embankment Perimeter Access Road/Levee 4:1 SS (On-site materials)	\$ _____	\$ _____
132S-A-Clay	15,642	CY	Embankment 12" Thick Clay Fill for West Pit (On-site materials)	\$ _____	\$ _____
132S-A-Top Soil	15,642	CY	Embankment 12" Top Soil Fill for West Pit (Off-site materials)	\$ _____	\$ _____
210S-A	2,650	CY	Flexible Base 8"	\$ _____	\$ _____
340S-B	8,624	SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type HMAC. 30' width Access Road	\$ _____	\$ _____
360S-A-10	1,714	SY	Concrete Pavement, 10", Two Drives	\$ _____	\$ _____
360S-A-4	17	SY	Concrete Pavement, Splash Pad for hose bib	\$ _____	\$ _____
403S-CY	362	CY	Concrete for Structures Concrete Dump Pad and Apron	\$ _____	\$ _____

Bid Item	Quantity	Unit	Item Description	Unit Price	Amount
420S-A	600	LF	Drilled Shaft, 2' Dia. Concrete Pier for Dump Pads - 40'	\$ _____	\$ _____
432S-4	9,900	SF	P.C. Concrete Sidewalks 4"	\$ _____	\$ _____
432S-RP-2A	2	EA	P.C. Concrete Sidewalk Curb Ramp with Pavers	\$ _____	\$ _____
436S	6,000	SF	P.C. Concrete Valley Gutters for Conveyance Channel	\$ _____	\$ _____
506S-MSW-4	3	EA	Standard Pre-cast Manhole w/Pre-cast Base, 4' Dia.	\$ _____	\$ _____
506S-MSW-5	1	EA	Standard Pre-cast Manhole w/Pre-cast Base, 5' Dia.	\$ _____	\$ _____
508S-SET	2	EA	Safety End Treatment, Type Safety End Treatment, Size 18"	\$ _____	\$ _____
508S-H	1	EA	Headwalls, Type Gabion Energy Dissipator, 24" Dia.	\$ _____	\$ _____
509S-1	3,677	LF	Trench Excavation Safety Protective Systems, (all depths)	\$ _____	\$ _____

Bid Item	Quantity	Unit	Item Description	Unit Price	Amount
510- ASD 12" Dia.	100	LF	Pipe, 12" Dia. RCP	\$ _____	\$ _____
510- ASD 18" Dia.	215	LF	Pipe, 18" Dia. RCP	\$ _____	\$ _____
510- ASD 24" Dia.	558	LF	Pipe, 24" Dia. RCP	\$ _____	\$ _____
510- ISD	2	EA	Tie Existing 8" PVC line to 18" RCP and Manhole	\$ _____	\$ _____
510- AWRJ 6" Dia.	2,804	LF	Factory Restrained Joint Pipe, 6" Dia., Class 350 Ductile Iron, (all depths) including Excavation and Backfill	\$ _____	\$ _____
510- JW 6"x6" Dia.	2	EA	Wet Connections, 6" Dia. x 6" Dia.	\$ _____	\$ _____
510- KW	1.1	TN	Ductile Iron Fittings	\$ _____	\$ _____

Bid Item	Quantity	Unit	Item Description	Unit Price	Amount
510-LW	4	EA	Hose Bib including Riser Pipe and Fittings	\$ _____	\$ _____
511S-A	3	EA	Valves, Gate Valve Type, 6" Diameter	\$ _____	\$ _____
511S-B	1	EA	Fire Hydrant	\$ _____	\$ _____
511S-C-2	3	EA	Reduced Pressure Zone Valves, 2"	\$ _____	\$ _____
511S-C-4	1	EA	Reduced Pressure Zone Valves, 4"	\$ _____	\$ _____
511S-C-6	1	EA	Reduced Pressure Zone Valves, 6"	\$ _____	\$ _____
591S-A	315	SY	Riprap for Slope Protection, Conveyance Channel Ends	\$ _____	\$ _____
610S-A	2290	LF	Preservation of Trees And Other Vegetation	\$ _____	\$ _____
610S-R	63	EA	Preservation of Trees And Other Vegetation	\$ _____	\$ _____

Bid Item	Quantity	Unit	Item Description	Unit Price	Amount
641S	2	EA	Stabilized Construction Entrance	\$ _____	\$ _____
642S	7,000	LF	Silt Fence for Erosion Control	\$ _____	\$ _____
700S-TM	1	LS	Total Mobilization Payment	\$ _____	\$ _____
SP604 S-C	3,342	SY	Seeding for Erosion Control Right-of-way	\$ _____	\$ _____
SP604 S-D	38	AC	Seeding for Erosion Control Levee and West Pit	\$ _____	\$ _____
SP609 S-RC	7.0	AC	Riparian Corridor Planting	\$ _____	\$ _____
SS237 0-A	640	SY	Permanent Soil Erosion Control Mat	\$ _____	\$ _____
S-001	3	EA	Dump Pad Wheel Stop/Bumper	\$ _____	\$ _____
00819	1	LS	Security Requirements	\$ _____	\$ _____

BASE BID: \$ _____

ALTERNATE 1

Contractor shall adjust sequence of construction to allow for no access or work to be performed on the portion of the Far West Pit occupied by Lauren Concrete starting from the Notice to Proceed and continuing for up to **90 CALENDAR DAYS**. This alternate shall cover any and all costs associated with schedule and/or sequence changes resulting from having access restricted for a portion of the project site. Additional days will be added to the contract for time lost as a result of this alternate.

\$ _____

TOTAL BID (BASE BID PLUS ALTERNATE 1): \$ _____

ALTERNATE 2

Contractor shall adjust sequence of construction to allow for no access or work to be performed on the portion of the Far West Pit occupied by Lauren Concrete starting from the Notice to Proceed and continuing for up to **180 CALENDAR DAYS**. This alternate shall cover any and all costs associated with schedule and/or sequence changes resulting from having access restricted for a portion of the project site. Additional days will be added to the contract for time lost as a result of this alternate.

\$ _____

TOTAL BID (BASE BID PLUS ALTERNATE 2): \$ _____

In the event of a mathematical error, the correct product, determined by using the "Unit Price" and "Quantity", and the correct sum, determined by totaling the correct line item Amounts, will prevail over the amount entered by the Bidder. The unit prices shown above will be the unit prices used to tabulate the Bid and used in the Contract, if awarded by the City.

Notes:

- For information pertaining to Bid alternate prioritization, see Section 00820.
- For a more detailed explanation of Bid alternates, see Section 01030.

Optional Information on Bid Prices Submitted by Computer Printout

In lieu of handwritten unit prices in figures in ink on the Bid forms above, Bidders, at their option, may submit an original computer printout sheet bearing certification by, and signature for, the Bidding firm. The unit prices shown on acceptable printouts will be the unit prices used to tabulate the Bid and used in the Contract if awarded by the City. As a minimum, computer printouts must contain all information and in the format shown on the attached page: "Example of Bid Prices Submitted by Computer Printout" form.

If a computer printout is used, the Bidder must still execute that portion of the unit price Bid form which acknowledges the Bid Guaranty, Time of Completion, Liquidated Damages, and all addenda that may have been issued.

Bids with unit prices by computer printout may be rejected, if:

1. The computer printout does not include the required certification, set forth in the attached "Example".

2. The computer printout is not signed in the name of the firm to whom the Project Manual was issued.
3. The computer printout is non-responsive or otherwise omits required Bid items or includes items not shown on the Bid forms in the Project Manual.
4. The other required Bid documents issued by the City are not fully executed as provided above.
5. The signed Section 00300U is not returned with the signed computer printout.

If the Bid submitted by the Bidder contains both the form furnished by the City, completed according to the instructions, and also a computer printout, completed according to the instructions, unit prices of only one will be considered. In this situation, the unit Bid prices shown on the computer printout will be used to determine the Bid.

BID GUARANTY: A Bid guaranty must be enclosed with this Bid, as required in Section 00020 or Section 00020S, in the amount of not less than five percent (5%) of the total Bid. Following the Bid opening, submitted Bids may not be withdrawn for a period of 90 Calendar Days. Award of Contract will occur within this period, unless mutually agreed between the parties. The Bid guaranty may become the property of the OWNER, or the OWNER may pursue any other action allowed by law, if:

- Bidder withdraws a submitted Bid within the period stated above;
- Bidder fails to submit the required post Bid information within the period specified in Section 00020S or 00100, or any mutually agreed extension of that period;
- or Bidder fails to execute the Contract and furnish the prescribed documentation (bonds, insurance, etc.) needed to complete execution of the Contract within five (5) calendar days after notice of award, or any mutually agreed extension of that period.

TIME OF COMPLETION: The undersigned Bidder agrees to commence work on the date specified in the written "Notice to Proceed" to be issued by the OWNER and to **substantially** complete construction of the improvements, as required by the Project Manual, Drawings and Addenda for the Work within three hundred sixty-five (365) Calendar Days. **If a Substantial Completion date has been specified, the Bidder further agrees to reach Final Completion within thirty (30) Calendar Days after Substantial Completion as required by the Project Manual, Drawings and Addenda for the work.** The Bidder further agrees that should the Bidder fail to **substantially** complete the Work and to finally complete the work within the number of days indicated in the Bid or as subsequently adjusted, Bidder shall pay the liquidated damages for each consecutive day thereafter as provided below; unless the OWNER elects to pursue any other action allowed by law.

WAIVER OF ATTORNEY FEES: In submitting its bid, in consideration for the waiver of its right to attorney's fees by the OWNER, the Bidder knowingly and intentionally agrees to and shall waive the right to attorney's fees under Section 271.153 of the Texas Local Government Code in any administrative proceeding, alternative dispute resolution proceeding, or litigation arising out of or connected to any Contract awarded pursuant to this solicitation process.

LIQUIDATED DAMAGES: The Bidder understands and agrees that the timely completion of the described Work is of the essence. The Bidder and OWNER further agree that the OWNER's actual damages for delay caused by failure to timely complete the Project are difficult, if not impossible to measure. However, with respect to the additional administrative and consultant costs to be incurred by OWNER, the reasonable estimate of such damages has been calculated and agreed to by OWNER and Bidder. Therefore, the Bidder and the OWNER agree that for each and every **Calendar Day** the Work or any portion thereof, remains incomplete after the **substantial Completion** date as established by the above paragraph, "Time of Completion", payment will be due to the Owner in the amount of two-hundred and fifty dollars (\$ 250) per **Calendar Day** as liquidated damages, not as a penalty, but for delay damages to the OWNER.

If both Substantial and Final Completion dates have been specified, the Bidder and the OWNER further agree that for each and every Working Day the Work or any portion thereof, remains incomplete after the Final date as established by the above paragraph , "Time of Completion", payment will be due to the OWNER in the amount of one hundred and sixty dollars (\$ 160) per Calendar Day as liquidated damages, not as a penalty, but for delay damages to the OWNER. Such amount shall be deducted by the OWNER from any Contract payment due. In the event of a default or breach by the CONTRACTOR and demand is made upon the surety to complete the project, in accordance with the Contract Documents, the surety shall be liable for liquidated damages pursuant to the Contract Documents in the same manner as the CONTRACTOR would have been.

OWNER reserves the right to reject any or all Bids and to waive any minor informality in any Bid or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Bids).

The undersigned acknowledges receipt of the following addenda:

- Addendum No. 1 dated _____ Received _____
- Addendum No. 2 dated _____ Received _____
- Addendum No. 3 dated _____ Received _____
- Addendum No. 4 dated _____ Received _____
- Addendum No. 5 dated _____ Received _____

Secretary, *if Bidder is a Corporation

Bidder

(Seal)

Authorized Signature

Title

Date

Address

Telephone Number / FAX Number

Email Address

* Copy of Corporate Resolution and minutes with certificate of officer of Bidder as to authority of signatory to bind Bidder is to be signed and dated no earlier than one week before Bid date, and attached to this document.

EXAMPLE: BID PRICES SUBMITTED BY COMPUTER PRINTOUT

Project Name:
CIP ID #:
IFB #:

Bid Item #	Bid Item Description	Unit	Qty	Unit Bid Price	Total Amount
Total Bid:					

(YOUR FIRM'S NAME) certifies that the unit prices shown on this completed computer printout 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 printout. (YOUR FIRM'S NAME) acknowledges and agrees that the total bid amount shown will be read as its total bid. In the event of a mathematical error, the correct product, determined by using the "Unit Price" and "Quantity", and the correct sum, determined by totaling the correct line item Amounts, will prevail over the amount entered by the Bidder.

Signed: _____

Title: _____

Date: _____

End

Item No. 432S
Portland Cement Concrete Sidewalks

432S.1 Description

This item shall govern the construction of Portland cement concrete sidewalks (Standard Detail No. 432S-1), as herein specified, on an approved subgrade and in conformance with the lines, grades and details indicated on the Drawings or as established by the Engineer or designated representative.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text inch-pound units are given preference followed by SI units shown within parentheses.

432S.2 Submittals

The submittal requirements of this specification item include:

- A. Class A portland cement (p.c). concrete mix design,
- B. Type of Installation (i.e. Type I, Type II, etc.) and construction details (i.e. cushion layer, base, reinforcing steel, joints, curing membrane),
- C. Identification of the type, source, mixture, Pure Live Seed (PLS) and rate of application of the seeding.
- D. Number, manufacturer, model, construction, finish and installation details of streetscape appurtenances of bicycle racks, benches, chairs, trash receptacles, streetlights, tree wells and above grade tree planters [for sidewalks, 12 feet (3.66 meters) or wider].

432S.3 Materials

- A. Portland Cement Concrete
Portland cement concrete shall be Class A conforming to Specification Item No. 403S, "Concrete for Structures" or Specification Item No. 407S, "Fibrous Concrete".
- B. Reinforcement
Reinforcement shall conform to Specification Item No. 406S, "Reinforcing Steel" or Specification Item No. 407S, "Fibrous Concrete".
- C. Expansion Joint Materials
Expansion joint materials shall conform to Specification Item No. 408S, "Expansion Joint Materials".
- D. Membrane Curing Compound
Membrane curing compound shall conform to Specification Item No. 409S, "Membrane Curing".

432S.4 Construction Methods

The subgrade shall be excavated in accordance with Specification Item No. 111S, "Excavation", prepared in accordance with Specification Item No. 201S, "Subgrade Preparation", shaped to the lines, grades and cross section as indicated on the Drawings or as directed by the Engineer or designated representative and thoroughly compacted in accordance with Specification Item No. 201S. A granular cushion of a minimum thickness of 2 inches (50 mm) but maximum thickness of 5 inches (125 mm), composed of crusher screenings, gravel and sand, crushed rock or coarse sand,

shall be spread, wetted thoroughly, tamped and leveled. The granular cushion shall be moist at the time the Portland cement concrete is placed.

If the subgrade is undercut by more than 4 inches (100 mm) or the elevation of the natural ground is more than 4 inches (100 mm) below "top of subgrade", then a necessary backfill/embankment layer of an approved material shall be placed and compacted with a mechanical tamper. Hand tamping will not be permitted.

Where the subgrade is rock or gravel, 70 percent of which is rock; the 2-inch (50 mm) cushion need not be used. The Engineer or designated representative will determine if the subgrade meets the above requirements.

Sidewalk forms shall be constructed of metal or well-seasoned wood not less than 2 inches (50 mm) in thickness, with a section satisfactory to the Engineer or designated representative. The forms shall be clean, straight, and free from warp with a depth equal to the thickness of the finished work. All forms shall be securely staked to line and grade and maintained in a true position during the deposition of Portland cement concrete. Before p.c. concrete is placed, the forms shall be thoroughly oiled with a light form oil.

Expansion joint material 3/4 inch (19 mm) thick, shall be provided where the new construction abuts an existing structure, sidewalk or driveway. Similar expansion material shall be placed around all obstructions protruding through the sidewalk. The expansion joint material shall be placed vertically and shall extend the full depth of the p.c. concrete. Maximum spacing of expansion joints shall be 40 feet (12 meters) as indicated on the Drawings or as directed by the Engineer or designated representative. Weakened plane joints shall be spaced at 5 feet (1.5 meters) on center. Normal dimensions of the weakened plane joints shall be 1/4 inch wide and 3/4 inch deep (6 mm wide and 19 mm deep). All joints shall be constructed perpendicular (90 degrees) to the centerline of walk and shall match any previously placed concrete joints. For sidewalks with widths exceeding 6 feet (1.83 meters) longitudinal weakened-plane tooled joints shall be provided as indicated on the Drawings or as directed by the Engineer or designated representative.

Reinforcement for sidewalks shall consist either of polypropylene fibrillated fibers or 6" x 6" x W1.4 x W1.4 (150mm x 150mm x MW9 x MW9) welded wire fabric or one layer #3 (10M) reinforcing bars, placed no more than 18 inches (450 mm) on center both directions. All reinforcement shall be accurately placed at slab mid-depth, equidistant from the top and bottom of the p.c. concrete and held firmly in place by means of bar supports of adequate strength and number that will prevent displacement and keep the steel at its proper position during the placement of the p.c. concrete. In no instance shall the steel be placed directly on the subgrade or sand cushion layer.

Prior to placement of the concrete, the reinforcement installation shall be inspected by the Engineer or designated representative to insure conformance with the drawings, specifications and this item. In addition care shall be exercised to keep all steel in its proper position during placement of the p.c. concrete. If during placement of the concrete, the reinforcement is observed to loose bar support, float upward or move in any direction, the placement shall be stopped until corrective action is taken.

Splices in wire fabric shall overlap sufficiently to allow two pairs of transverse wires to be tied together and no splice of less than 6 inches (150 mm) will be permitted. Splices in the #3 (10M) bars shall have a minimum lap of 12 inches (300 mm).

Where driveways cross sidewalks, additional reinforcing shall be placed in the sidewalk as indicated on the Drawings.

Portland cement concrete shall be placed in the forms and spaded, tamped and thoroughly consolidated until it covers the entire surface with a monolithic finish. The top surface shall be floated and troweled to a uniform smooth surface; then finished with a broom or wood float to a gritty texture unless indicated otherwise on the Drawings or as directed by the Engineer or designated representative. The outer edges and joints shall be rounded with approved tools to a

1/4-inch (6 mm) radius. Care will be exercised to prevent loss of dummy joints or rounded edges when applying the brush finish.

Portland cement concrete sidewalk ramps shall be formed to produce a finished surface with detectable warnings (Standard Detail 432S-2A) in accordance with the requirements of the American Disabilities Act and Texas Accessibility Standards (TAS), including Sections 4.29.2 and A4.29.2. The p.c. concrete sidewalk ramps shall be constructed in accordance with appropriate City of Austin Standard Details (Standard Details 432S-3, 432S-3A through 432S-3H, 432S-5, 432S-5A, 432S-5B, etc.).

Detectable warning for the ramps shall consist of raised truncated domes with a diameter of nominal 0.9 inch (23 mm), a height of nominal 0.2 inch (5 mm) and center-to-center spacing of nominal 2.35 inches (60 mm) and shall contrast visually with adjoining surfaces, either light on dark or dark-on-light. The material used to provide contrast shall be an integral part of the walking surface.

When indicated on the Drawings or as directed by the Engineer or designated representative, the construction of the sidewalk ramp shall include the installation of interlocking concrete paving units (Standard Specification Item No. 480S, "Concrete Paving Units"). The concrete paving units shall be constructed in accordance with Standard Specification Item No. 485S, "Concrete Paving Units for Sidewalk Ramps) and appropriate City of Austin Standard Details (Standard Details 432S-2A, 432S-3, 432S-3A through 432S-3H, 432S-5, 432S-5A and 432S-5B).

At the proper time after finishing, the surface shall be protected by a membrane, compound curing agent or by wetted cotton or burlap mats, conforming to Item No.409S, "Membrane Curing". The sides of the p.c. concrete shall be cured in the forms. If the forms are removed during the curing process, the curing shall be continued by the placement of fill against the exposed concrete edges or by other procedures conforming to Item No. 410S, "Concrete Structures". The top 4 inches (100 mm) of fill shall be clean topsoil conforming to Item No. 604S, "Seeding for Erosion Control".

Existing sidewalk that is scheduled for removal and replacement shall be removed and the underlying material shaped to the lines, grades and cross section as indicated in the drawings or as directed by the Engineer or designated representative. The removal and/or relocation of obstructions, including but not limited to signs, trash cans and benches on concrete pads, abandoned manholes, sprinkler control valves and landscaping, shall be performed, as indicated on the drawings, in a manner acceptable to the Engineer or designated representative. Removal and/or relocation of obstructions will be considered incidental work to this item and will not be paid for directly.

Existing PVC pipe drains in and behind curb shall be removed and replaced as required in new sidewalk and/or curb and gutter. In areas of proposed sidewalk construction, where curb and gutter is to remain in place, existing PVC pipe shall be cut far enough behind the back of curb to allow sufficient room for joint fittings to connect to new or salvaged PVC pipe.

The Contractor shall be responsible for removing and replacing mailboxes that are located in the construction area, while assuring that mail delivery will not be interrupted as a result of the construction activities. Mailboxes shall not be laid on the ground.

All necessary excavation, filling and grading of the slopes adjacent to the completed concrete sidewalks will be considered incidental work pertaining to this item and will not be paid for directly. The adjacent excavation and grading of the slopes shall be done in a manner acceptable to the Engineer or designated representative.

432S.5 Streetscape Furniture Installation Requirements

A. General General

Bicycle racks, benches and chairs, trash receptacles, tree wells and above grade tree wells and planters shall only be installed in sidewalks that are 12 feet (3.66 meters) or wider. When installation is indicated on the Drawings or directed by the Engineer or designated representative, these items shall be permanently installed as indicated in Standard Details 710S-4 and 710S-5; 432S-9B; 432S-7C, and 432S-7F; and 432S-8B. Above grade tree wells shall be installed in conformance with Standard Detail 432S-7E, while above grade tree planters shall be installed in conformance with Standard Detail Nos. 432S-7D and 432S-7G.

B. Location Requirements

1. Benches.

Benches shall be placed either perpendicular to the curb with the center of the bench on line with trees and light poles and facing toward the building entry, or parallel to the building and within 6" (150 mm) of the building wall, facing out to the street.

Bench siting shall be in conformance with Standard Detail No. 432S-9C in 12' (3.6 M) or wider sidewalks and Standard Detail No. 432S-9D in sidewalks of width between 12' (3.6 M) and 18' (5.4 M).

2. Bike Racks.

Bike racks are to be placed perpendicular to the curb with the centerline of the rack on line with trees and light poles.

Bike rack siting shall be in conformance with Standard Detail No. 710S-6A in 12' (3.6 M) or wider sidewalks and Standard Detail No. 710S-6B in sidewalks of width between 12' (3.6 M) and 18' (5.4 M).

3. Trash Receptacles.

Trash receptacles shall either be placed along the curb, with the center line of the receptacle on line with the trees and light poles, or shall be located at the building entry in alignment with the structural bay system of the building. If located at the entry there shall be no more than 1 foot (300 mm) clearance between the receptacle and the building wall.

Trash receptacle siting adjacent to curb ramps within an intersection shall be in conformance with Standard Detail No. 432S-8C in 12' (3.6 M) or wider sidewalks.

P432S.6 Pedestrian Railing

When a pedestrian railing installation is required along sidewalks for pedestrian protection as indicated on the Drawings or directed by the Engineer or designated representative, this type of pedestrian railing shall be permanently installed in conformance with one of the following designated Standard Details: 707S-1, 707S-2, 707S-3 or 707S-4.

When a pedestrian railing installation is required along portions of sidewalks identified as 'ramps' for ADA accessibility purposes as indicated on the Drawings or directed by the Engineer or designated representative, this type of pedestrian railing shall be permanently installed in conformance with one of the following designated Standard Details: 707S-2, 707S-3 or 707S-4.

432S.7 Measurement

Accepted work performed as prescribed by this item will be measured by the square foot (square meter: 1 square meter is equal to 10.764 square feet) of surface area of "Concrete Sidewalk".

Accepted work performed as prescribed by "Sidewalk Ramps" will be measured per each for the type of ramp indicated on the Drawings.

Accepted work performed as prescribed by "Streetscape Appurtenances" will be measured per each for the type of appurtenance indicated on the Drawings.

Accepted work performed as prescribed by "Pedestrian Railing" will be measured per lineal foot of the type of railing indicated on the Drawings.

432S.8 Payment

The work performed as prescribed by this item for concrete sidewalk will be paid for at the unit bid price per square foot for "Concrete Sidewalk" and/or "Sidewalks Reconstruction"; per each for "Concrete Sidewalk Ramps" and "Streetscape Appurtenances" or per lineal foot for "Pedestrian Railing".

The unit bid price for new sidewalk shall include full compensation for excavating and/or removal and/or relocating obstructions, vegetating adjacent areas disturbed by sidewalk construction, preparing the subgrade; for furnishing and placing all materials including cushion material, all reinforcement, bar supports, joints, expansion joint materials, and for any other materials, manipulations, labor, tools, equipment, finishing, curing and incidentals necessary to complete the work.

The unit bid price for sidewalk reconstruction shall include full compensation for excavating and/or removal of existing sidewalk and other obstructions, relocating obstructions, replacing PVC drain pipe, re-vegetating adjacent areas disturbed by sidewalk construction, preparing the subgrade; for furnishing and placing all materials including cushion material, all reinforcement, bar supports, joints, expansion joint materials, and for any other materials, manipulations, labor, tools, equipment, finishing, curing and incidentals necessary to complete the work.

The unit bid price for ramps shall include full compensation for preparing the subgrade when not included as a separate item; for furnishing and placing all materials, manipulation, labor, tools, equipment and incidentals necessary to complete the work. All necessary excavation, filling and grading of the slopes adjacent to the completed concrete paver units will be included in the unit price bid for the item of construction in which this item is used, unless included as a separate pay item in the Contract bid form.

The unit bid price for streetscape appurtenances shall include full compensation for the individual item (i.e. bench, chair, bicycle rack, trash receptacle, street light or above grade tree planter), as well as the removal of existing sidewalk, preparation of footings, furnishing and placing all materials, manipulation and finishing, labor, tools, equipment and incidentals necessary to complete the work.

The unit bid price for pedestrian railing shall include full compensation for the complete installation of the specific pedestrian railing including but not limited to preparation of footings or curb, furnishing and placing all materials, manipulation and finishing, labor, tools, equipment and incidentals necessary to complete the work.

Payment will be made under one of the following:

New Sidewalks

- Pay Item 432S-4: New P.C. Concrete Sidewalks, 4 Inch thickness Per Square Foot.
- Pay Item 432S-5: New P.C. Concrete Sidewalks, 5 Inch thickness Per Square Foot.
- Pay Item 432S-6: New P.C. Concrete Sidewalks, 6 Inch thickness Per Square Foot.
- Pay Item 432S-7: New P.C. Concrete Sidewalks, 7 Inch thickness Per Square Foot.

Sidewalks Reconstruction

- Pay Item 432SR-4: Reconstruct Concrete Sidewalks to 4 Inch thickness,
including removal of existing sidewalk Per Square Foot.
- Pay Item 432SR-5: Reconstruct Concrete Sidewalks to 5 Inch thickness,
including removal of existing sidewalk Per Square Foot.
- Pay Item 432SR-6: Reconstruct Concrete Sidewalks to 6 Inch thickness,
including removal of existing sidewalk Per Square Foot.
- Pay Item 432SR-7: Reconstruct Concrete Sidewalks to 7 Inch thickness,
including removal of existing sidewalk Per Square Foot.

Ramps

- Pay Item 432S - RP-1: P.C. Sidewalk Curb Ramp with Pavers (Type I) Per Each.
- Pay Item 432S-RP-1A: P.C. Sidewalk Curb Ramp with Pavers (Type IA) Per Each.
- Pay Item 432S-RP-1B: P.C. Sidewalk Curb Ramp with Pavers (Type IB) Per Each.

Streetscape Appurtenances

- Pay Item 432S-SAC-1 Streetscape Bench (____ inches in length) Per Each.
- Pay Item 432S-SAC-2 Streetscape Chair Per Each.
- Pay Item 432S-SAC-3 Streetscape Bicycle Rack Per Each.
- Pay Item 432S-SAC-4 Streetscape Trash Receptacle Per Each.
- Pay Item 432S-SAC-5 Streetscape Street Light Per Each.
- Pay Item 432S-SAC-7C Streetscape Tree Well for Concrete Sidewalks Per Each.
- Pay Item 432S-SAC-7D Streetscape Above Grade Tree Planters with Bench Per Each.
- Pay Item 432S-SAC-7E Streetscape Above Grade Tree Well with Seat Per Each.
- Pay Item 432S-SAC-7F Streetscape Tree Well without Grate Per Each.
- Pay Item 432S-SAC-7G Streetscape Above Grade Galvanized Steel Tree Planters Per Each

Pedestrian Railing

- Pay Item 432S-PRC-1 Pedestrian Railing (Standard 707S-1) Per LF.
- Pay Item 432S-PRC-2 Pedestrian ADA Railing – Option 1 (Standard 707S-2) Per LF.
- Pay Item 432S-PRC-3 Pedestrian ADA Railing – Option 2 (Standard 707S-3) Per LF.
- Pay Item 432S-PRC-4 Pedestrian ADA Railing – Option 3 (Standard 707S-4) Per LF.

End

<u>SPECIFIC CROSS REFERENCE MATERIALS</u>
Specification 432S, "P. C. Concrete Sidewalks"

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 111S	Excavation
Item No. 201S	Subgrade Preparation
Item No. 403S	Concrete for Structures
Item No. 406S	Reinforcing Steel
Item No. 407S	Fibrous Concrete
Item No. 408S	Expansion Joint Materials
Item No. 409S	Membrane Curing
Item No. 410S	Concrete Structures
Item No. 480S	Concrete Paving Unit
Item No. 485S	Concrete Paving Units for Sidewalk Ramps
Item No. 604S	Seeding for Erosion Control

City of Austin Standard Details

<u>Designation</u>	<u>Description</u>
432S-1	Sidewalk
432S-2A	Detectable Warning-Paver
432S-3	Type I Curb Ramps-Full Intersection
432S-3A	Type I Curb Ramps-T Intersection
432S-3B	Type IA/IB Curb Ramps-Full Intersection
432S-3C	Type IA/IB Curb Ramps-T Intersection
432S-3D	Combined Curb Ramps-Full Intersection
432S-3E	Combined Curb Ramps-T Intersection
432S-3F	Combined Sidewalk Curb Ramp with Pavers
432S-3G	Combined Sidewalk Curb Ramp with Pavers within Limited ROW
432S-3H	Type I Curb Ramps within PC/PT of Curb and Gutter
432S-5	Type I Sidewalk Curb Ramp
432S-5A	Type IA Sidewalk Curb Ramp
432S-7C	Tree Well for New Trees Planted Within Concrete Sidewalk 3.6 M (12') or Greater
432S-7D	Above Grade Tree Planters
432S-7E	Above Grade Tree Well with Bench
432S-7F	Tree Well Without Grate
432S-7G	Above Grade Galvanized Steel Tree Planters
432S-8B	Trash Receptacle Installation in Concrete Sidewalk
432A-8C	Furnishing Location in 12' (3.6 M) or greater Trash Receptacle Siting
432S-9B	Bench/Chair Installation in Sidewalks
432S-9C	Furnishing Location in 12' (3.6 M) or greater Sidewalks-Bench Siting
432S-9D	Furnishing Location in Greater than 12' (3.6 M) or Less than 18' (5.4 M) Sidewalks-Bench Siting
707S-1	Pedestrian Railing
707S-2	Pedestrian ADA Railing – Option 1
707S-3	Pedestrian ADA Railing – Option 2
707S-4	Pedestrian ADA Railing – Option 3
710S-4	Bicycle Rack Installation in Concrete Sidewalks (Alternate 1)
710S-5	Bicycle Rack Installation in Concrete Sidewalks (Alternate 2)

- 710S-6A Furnishing Location in 12' (3.6 M) or greater Sidewalks-Bicycle Rack Siting
- 710S-6B Furnishing Location in Greater than 12' (3.6 M) or Less than 18' (5.4 M) Sidewalks-Bicycle Rack Siting

American Disabilities Act, Federal Register; Volume 56, No. 144; July 26, 1991
ADA Accessibility Guidelines For Building And Facilities

<u>Designation</u>	<u>Description</u>
Section 4.29	Detectable Warnings on Walking Surfaces
Section A4.29.2	Detectable Warnings on Walking Surfaces

Architectural Barriers; Texas Civil Statutes, Article 9102; June 14, 1995
Texas Accessibility Standards (TAS)

<u>Designation</u>	<u>Description</u>
Section 4.29	Detectable Warnings on Walking Surfaces
Section A4.29.2	Detectable Warnings on Walking Surfaces

<i>RELATED</i> CROSS REFERENCE MATERIALS

City of Austin Standard Contract Documents

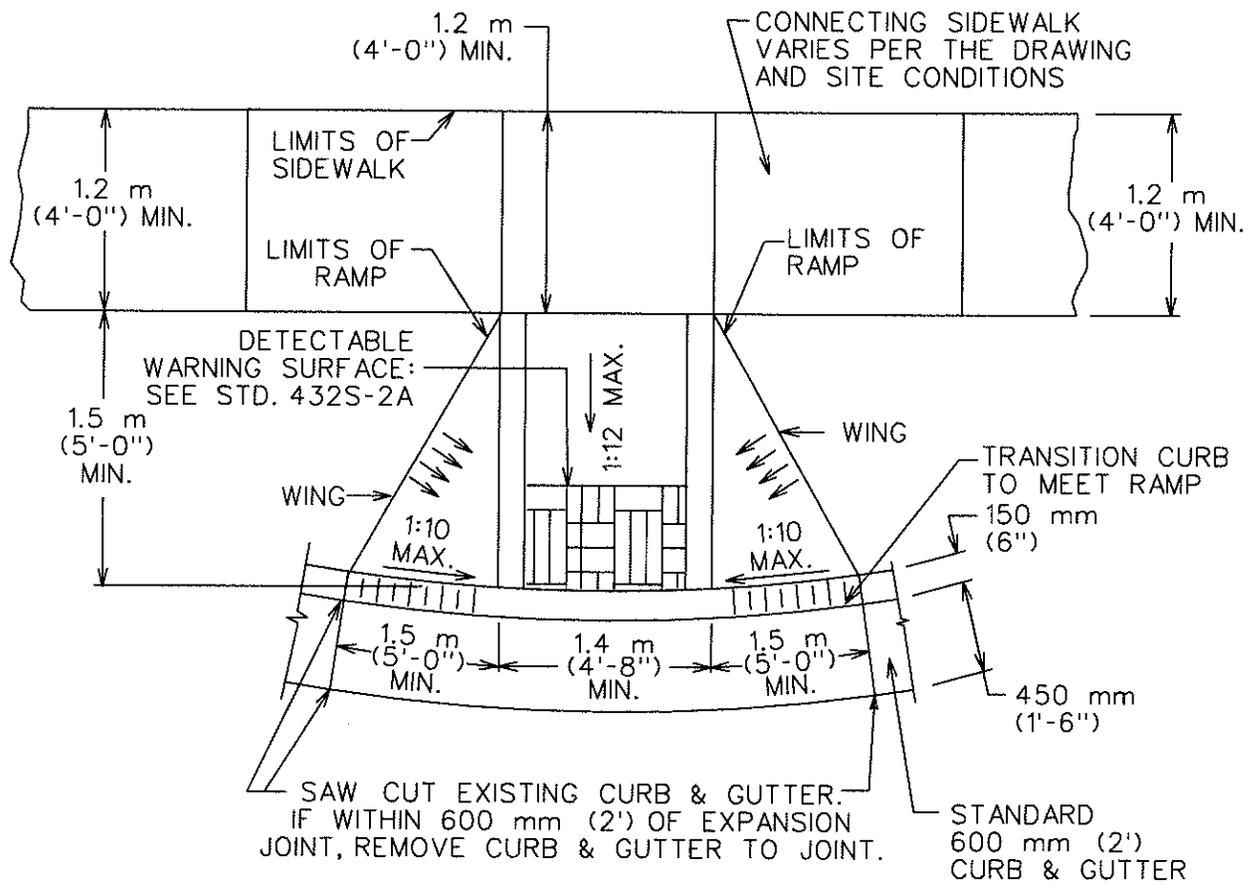
<u>Designation</u>	<u>Description</u>
00700	General Conditions
01500	Temporary Facilities
01550	Public Safety and Convenience

City of Austin Utilities Criteria Manual

<u>Designation</u>	<u>Description</u>
Section 5.2.3	Utility Adjustments For Roadway Construction Projects

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 102S	Clearing and Grubbing
Item No. 104S	Removing Portland Cement Concrete
Item No. 110S	Street Excavation
Item No. 132S	Embankment
Item No. 203S	Lime Treatment for Materials In Place
Item No. 204S	Portland Cement Treatment for Materials In Place
Item No. 230S	Rolling (Flat Wheel)
Item No. 232S	Rolling (Pneumatic Tire)
Item No. 234S	Rolling (Tamping)
Item No. 236S	Rolling (Proof)
Item No. 360S	Concrete Pavement
Item No. 402S	Controlled Low Strength Material
Item No. 404S	Pneumatically Placed Concrete
Item No. 405S	Concrete Admixtures
Item No. 411S	Surface Finishes for Concrete



Addendum No. 5

<p>CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS</p>		<p>TYPE 1 SIDEWALK CURB RAMP</p>	
<p>RECORD COPY SIGNED BY BILL GARDNER</p>	<p>9/14/05 ADOPTED</p>	<p>THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.</p>	<p>STANDARD NO. 432S-5</p>