

ADDENDUM No. 1

Date October 4, 2016

City of Austin

Project Name Water Service Line Replacement Program, Indefinite Delivery/Indefinite Quantity

C.I.P. No. 5309.006 IFB No.: 6100 CLMC621

This Addendum forms a part of the Contract and corrects or modifies original Bid Documents, dated September 12, 2016. Acknowledge receipt of this addendum in space provided on bid form. Failure to do so may subject bidder to disqualification.

A. Project Manual Revisions:

1. Table of Contents: remove and replace with updated Table of Contents attached to this addendum.
2. Section 00020-IDIQ, page 1: revise "Located at: Various locations within the City of Austin's Extraterritorial Jurisdiction" to "Located at: Various locations within the City of Austin's **city limits and** Extraterritorial Jurisdiction".
3. Section 00300-IDIQ: remove and replace with updated 00300-IDIQ attached to this addendum.
4. Section 01010-IDIQ, paragraph 1.1C:

Delete "The CONTRACTOR shall install the new HDPE or copper tubing service lines via trenchless methods. Replacement of service lines by open cutting pavement will be limited to the quantities listed in Section 00300U-IDIQ unless the CONTRACTOR can prove to OWNER that quantities in excess of the Section 00300U-IDIQ quantities require open cut installation."

and replace with "The CONTRACTOR shall install the new HDPE or copper tubing service lines via trenchless methods. Installation of new service lines via open cut shall only be done with OWNER's prior approval."

5. Section 01010-IDIQ, add paragraph 1.1E as follows:
"Number of services to be replaced with each Work Assignment will range from 1 to 250."
6. Section 01020: add attached Section 01020 to the Contract Documents.
7. Section 01020-IDIQ: remove Section 01020-IDIQ from the Contract Documents.
8. Section 01200, paragraph 1.3B: revise "The Owner will schedule a Partnering Workshop..." to "The Owner **may** schedule a Partnering Workshop...".
9. Section 01380: insert the following as paragraph 3.1 and renumber existing paragraph 3.1 to 3.2, 3.2 to 3.3, and 3.3 to 3.4:

"3.1. **PRE-CONSTRUCTION VIDEO**
STREET, RIGHTS-OF-WAY OR WATER/WASTEWATER/STORMWATER PROJECTS

CONTRACTOR shall document by video, within the limits of construction, all pre-existing site conditions/elements as listed for the Pre-construction Photographs below. The video documentation shall provide a clear and continuous view of the project alignment showing all visible utilities and features within the limits of construction. The pre-construction video shall be in a format acceptable to the City and shall be shot prior to the occurrence of any site disturbance after Notice to Proceed. The pre-construction video shall be submitted within ten (10) calendar days of the Notice to Proceed."

- 10. Specification Item No. 402S, Controlled Low Strength Material: add attached Item No. 402S to the Contract Documents.
- 11. Special Provision to Standard Specification Item No. 402S: add attached SP402S to the Contract Documents.
- 12. Special specification SS520: remove and replace with updated SS520 attached to this addendum.
- 13. Standard Detail No. 1100S-2: remove 1100S-2 from the Contract Documents:
- 14. Special Detail No. SD-3: add attached SD-3, Special Detail - Typical Trench With Paved Surface Using CLSM (Flowable Fill) to the Contract Documents.

B. Drawing Revisions: not applicable.

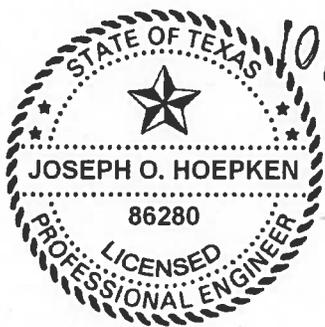
This addendum consists of 25 page(s)/sheet(s).



Approved by OWNER



Approved by ENGINEER/ARCHITECT



END

**Document
Number**

Title

VOLUME 1

INTRODUCTORY INFORMATION

05/06/11 Title Page
09/06/16 Table of Contents

BIDDING REQUIREMENTS, CONTRACT FORMS, & CONDITIONS OF THE CONTRACT

Pre-Bid Information

00020-IDIQ 01/15/16 Invitation for Bids

Instructions to Bidders

00100 09/06/16 Instructions to Bidders

Information Available to Bidders

00220 05/06/11 Geotechnical Data

Bid Forms

00300U-IDIQ 06/01/16 Bid Form (Unit Price)

Supplements to Bid Forms

00400 06/01/16 Statement of Bidder's Experience
00405 09/25/05 Certificate of Non-Suspension or Debarment
00410 01/15/16 Statement of Bidder's Safety Experience
00440 10/19/15 Affidavit - Prohibited Activities
00475 05/11/15 Nonresident Bidder Provisions

Agreement Form

00500-IDIQ 01/15/16 Agreement

Bonds and Certificates

00610 02/23/10 Performance Bond
00620 02/23/10 Payment Bond
00630 05/11/15 Nondiscrimination Certificate
00631 03/06/14 Title VI Assurances Appendix A
00650 06/01/16 Certificate of Insurance
00670 03/20/14 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 09/06/16 General Conditions

Supplementary Conditions

00810-IDIQ 01/15/16 Supplemental General Conditions
00810A 03/06/14 Federal Aid Assurances
00820-IDIQ 03/02/15 Modifications to Bidding Requirements and Contract Forms
00830 05/03/16 Wage Rates and Payroll Reporting
00830HH 05/03/16 Wage Rates Highway Heavy

Addenda

00900 01/15/16 Addendum

**Document
Number**
Title**SPECIFICATIONS****Division 1 - General Requirements**

01010-IDIQ	03/02/15	Summary of Work
01020	09/06/16	Allowances
01050	10/19/15	Grades Lines & Levels
01095	07/21/03	Reference Standards and Definitions
01200	08/09/12	Project Meetings
01300	04/22/13	Submittals
01352	04/22/13	Sustainable Construction Requirements
01353	08/09/12	Construction Equipment Emissions Reduction Plan
01380	08/09/12	Construction Photography & Videos
01500	08/09/12	Temporary Facilities
01505	04/22/13	Construction and Demolition Waste Management
01550	08/09/12	Public Safety and Convenience
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

210S	02/24/10	Flexible Base
340S	09/26/12	Hot Mix Asphaltic Concrete Pavement
402S	11/13/07	Controlled Low Strength Material
430S	11/15/11	P.C. Concrete Curb and Gutter
432S	01/04/10	P.C. Concrete Sidewalk
509S	09/26/12	Excavation Safety Systems
510	10/03/13	Pipe
602S	06/16/08	Sodding for Erosion Control
628S	12/31/13	Sediment Containment Dikes
700S	09/26/12	Mobilization
803S	11/15/11	Barricades, Signs and Traffic Handling

Special Provisions to City Standard Technical Specifications
SP402S 12/29/05 Controlled Low Strength Material
Special Specifications

SS520	05/19/16	Water Services
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Standard Details

430S-4	09/29/99	Concrete Backfill Under Curb & Gutter
432S-1	03/26/08	Sidewalk
520S-1A	08/31/11	Modified Water Service & Wastewater Service Connection Detail
520S-3	08/31/11	Double Water/Wastewater Service Connection Detail
520S-9	08/31/11	Installation Detail for Two 5/8", 3/4", and 1" Meters
520S-9B	08/31/11	Potable HDPE Double Service Installation & 5/8", 3/4", and 1" Meters
520S-11	08/31/11	Installation for a 5/8", 3/4", or 1" Potable Meter
520S-11B	08/31/11	Potable HDPE Service & 5/8", 3/4", and 1" Meter Installation
520S-13B	08/31/11	Potable HDPE Service Installation for 1-1/2" Meter Installation
628S	03/27/00	Triangular Sediment Filter Dike

Special Details

SD-3	05/05/08	Typical Trench with Paved Surface Using CLSM (Flowable Fill)
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Austin Water General Construction Notes

**Document
Number**

Title

VOL. 2 10/09/00 **MBE/WBE Procurement Program Package**

END

Bidding Requirements, Contract Forms and Conditions of the Contract

UNIT PRICE BID FORM

Section 00300U-IDIQ

The undersigned, in compliance with the Invitation for Bids for construction of the following Project: Water Service Line Replacement Program, Indefinite Delivery/Indefinite Quantity

(CIP ID#5309.006) (IFB#6100 CLMC621) for the City of Austin, Texas, having examined the Project Manual, Drawings and Addenda, and 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 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.

MINIMUM WAGES: Workers on Project shall be paid not less than wage rates, including fringe benefits, as published by the Department of Labor (DOL) for Building Construction and Heavy and Highway Trades "AS APPLICABLE" and/or the \$13.03 minimum Wage required by City of Austin Ordinance No. 20160324-015, whichever is higher. The Total Minimum Wage required can be met using any combination of cash and non-cash qualified fringe benefits provided the cash component meets or exceeds the \$13.03 minimum wage required.

Bid Item	Quantity	Unit	Item Description	Unit Price	Amount
210S-A	100	CY	Flexible Base	\$_____	\$_____
340S-A	1,500	Ton	Hot Mix Asphaltic Concrete, Type D	\$_____	\$_____
430S-A	150	LF	P.C. Concrete Curb and Gutter (Excavation)	\$_____	\$_____
432SR-4	250	SF	Reconstruct Concrete Sidewalks to 4 Inch thickness, including removal of existing sidewalk	\$_____	\$_____
432SR-6	150	SF	Reconstruct Concrete Sidewalks to 6 Inch thickness, including removal of existing sidewalk	\$_____	\$_____
509S-1	1,000	LF	Trench Excavation Safety Protective Systems, (all depths)	\$_____	\$_____

628S-B	100	LF	Sediment Containment with Filter Fabric	Dikes	\$_____	\$_____
803S-WD	200	Working Day	Barricades, Signs, and Handling	Traffic	\$_____	\$_____
803S-SF	500	LF	Safety Fence		\$_____	\$_____
SP402S-AF	1,000	CY	Controlled Low Strength Material, Fast Setting, to be used in lieu of Excavated Trench Material and Flexible Base, Including Disposal of Spoils, Complete in Place		\$_____	\$_____
SP402S-AN	100	CY	Controlled Low Strength Material, Normal Setting, to be used in lieu of Excavated Trench Material and Flexible Base, Including Disposal of Spoils, Complete in Place		\$_____	\$_____
SS520-A	5,000	LF	Install 1.5" HDPE tubing to replace 1.5" service, trenchless		\$_____	\$_____
SS520-B	2,500	LF	Install 1" HDPE tubing to replace 1" service, trenchless		\$_____	\$_____
SS520-C	500	LF	Install 1.5" HDPE tubing to replace 1.5" service, open cut		\$_____	\$_____
SS520-D	250	LF	Install 1" HDPE tubing to replace 1" service, open cut		\$_____	\$_____
SS520-E	500	LF	Install 1.5" copper tubing to replace 1.5" service, trenchless		\$_____	\$_____
SS520-F	250	LF	Install 1" copper tubing to replace 1" service, trenchless		\$_____	\$_____

SS520-G	500	LF	Install 1.5" copper tubing to replace 1.5" service, open cut	\$ _____	\$ _____
SS520-H	250	LF	Install 1" copper tubing to replace 1" service, open cut	\$ _____	\$ _____
SS520-I	50	EA	Locate existing copper service	\$ _____	\$ _____
SS520-J	20	EA	Reconnect single water service	\$ _____	\$ _____
SS520-K	200	EA	Reconnect double water service	\$ _____	\$ _____
SS520-L	10	EA	Tap existing water main for 1.5" service	\$ _____	\$ _____
SS520-M	10	EA	Tap existing water main for 1" service	\$ _____	\$ _____
SS520-N	20	EA	Abandon existing water service	\$ _____	\$ _____

Allowance – Mobilization _____ \$50,000.00

Allowance – Right of Way Permit Fees _____ \$50,000.00

TOTAL BID (INCLUDING ALLOWANCE(S))..... \$ _____

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.

The CONTRACTOR will base its bid amount on the CONTRACTOR'S unit prices and the estimated quantities of Work set forth in the Bid Form, which will only be used for the purpose of comparison and evaluation of Bids. The OWNER will subsequently issue Work Assignments based on the OWNER's needs and not in accordance with the estimated quantities contained in the Bid documents up to the aggregated Contract Amount of \$5,000,000, subject to further appropriations. The unit prices bid by the successful bidder shall remain firm throughout the initial term of the CONTRACT.

Bid prices may be adjusted for the Contract extension on the basis of an increase or decrease of the existing prices upwards or downwards in accordance with the 20 City average Engineering

News Record Construction Cost Index (CCI) (at the time of notice of contract extension) divided by the current area CCI at the time of bid. The adjusted prices will be included in a change order and will remain firm throughout the Contract extension period. Upon receipt of the notice of the exercise of the option for an additional contract term by the OWNER, the CONTRACTOR must request a Bid price adjustment in writing or the then current Bid prices will remain in force and effect.

Note: For a more detailed explanation of Bid Allowances, see Section 00810-IDIQ and 01020-IDIQ.

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-IDIQ 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-IDIQ, 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 **120** 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 00020-IDIQ 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) Working 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 each 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 the time indicated in each Work Assignment. The Bidder further agrees that

should the Bidder fail to **substantially complete the Work or to** complete the Work within the number of days indicated in the Work Assignment 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 in each Work Assignment 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 three-hundred dollars (\$300) 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 _____

BID DOCUMENT EXECUTION AND ACKNOWLEDGEMENT:

The undersigned Bidder certifies that he/she has read and understands the Section IDIQ 00020 Invitation for Bids, the Section 00100 Instructions to Bidders, and all other requirements applicable to the bidding process provided in the Bid and Contract Documents.

Bidder will initial each of the blanks set forth below to represent and certify that the Bidder has completed, executed, and enclosed the corresponding supplemental Bid Documents with its Bid.

Bidder acknowledges and agrees by its signature below that in addition to any signatures required to be set forth in the following supplemental Bid Documents, Bidder is bound to the terms and conditions of each of the following documents, which are incorporated herein by reference:

___ 00425A Insurance Cost Form (*ROCIP projects only*)

___ 00440 Affidavit - Prohibited Activities

___ 00475 Nonresident Bidder Provisions

___ 00630 Non-Discrimination and Non-Retaliation Certificate

(NOTE: THIS FORM MUST STILL BE SEPARATELY SIGNED AND PROPERLY NOTARIZED)

___ MBE/WBE Compliance Document

Secretary, *if Bidder is a Corporation

Bidder

(Seal)

Authorized Signature

Title

Date

Address

Telephone Number / FAX Number

Email Address for Person Signing Bid

Email Address for Bidder's Primary Contact Person

* 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

<i>Project Name:</i>
<i>CIP ID #:</i>
<i>IFB #:</i>

<i>Bid Item #</i>	<i>Bid Item Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Unit Bid Price</i>	<i>Total Amount</i>
<i>Total Bid:</i>					

(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

ALLOWANCES
Section 01020

Part 1 – GENERAL

1.1 RELATED DOCUMENTS

Applicable portions of the Project Manual including but not limited to the Drawings and Specifications.

1.2 SUMMARY

This Section includes administrative and procedural requirements governing allowances.

Definition

Allowances. "Allowance" is defined as "a not-to-be-exceeded amount", either individually or in the aggregate, which is established between the Owner and the CONTRACTOR as part of the bid documents when the precise scope of a particular line item(s) has not been defined to a level which is adequate for the CONTRACTOR to provide a definitive line item pricing for that particular scope of Work.

1.3 COORDINATION

At the earliest practical date after award of the Contract, the Contractor shall advise Owner of the date when final selection and purchase of each product or Work described by an Allowance must be completed to avoid delaying the Work.

Coordinate Allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.4 PROCEDURES

Submit cost proposals for purchase of products or work included in Allowances in the form specified for Change Orders.

Coordinate and process submittals for Allowance items in accordance with Section 01300 as for other portions of the Work.

The use of any Allowances by the CONTRACTOR will be subject to the Owner's sole approval and it is the Owner's intent to minimize the use of Allowances to the fullest extent possible.

ALLOWANCES
Section 01020

For any Allowances which the Owner allows the CONTRACTOR to use, the following rules shall apply: (i) the Allowance shall cover the cost to the CONTRACTOR of the cost of Work, as defined in the Agreement and the CONTRACTOR'S portion of overhead and profit associated with the stated Allowance; and (ii) upon completion of the portion of the Work subject to an Allowance, the Contract Amount for that portion of the Work will be adjusted based upon the approved actual Cost of the Work, including the proportionate overhead and profit, provided however that the total amount of payments under the Allowances will not exceed the approved aggregate amount of the Allowances.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 SCHEDULE OF ALLOWANCES

A. Allowance #1, Mobilization, \$50,000

This allowance will cover Contractor's mobilization costs.

B. Allowance #2, Right of Way Permit Fees, \$50,000

This allowance will cover reimbursement to Contractor of right of way permit fees.

3.2 MEASUREMENT

A. Allowance #1, Mobilization

Each individual Work Assignment will typically include one (1) mobilization and, depending on site conditions, may require that the CONTRACTOR demobilize and re-mobilize multiple times to complete the work on a given Work Assignment. Regardless of the number of demobilizations and re-mobilizations only one (1) mobilization payment will be made per assignment based on the approved amount of the individual Work Assignment as follows:

Work Assignment Amount	Mobilization (% of Work Assignment)
Less than \$5,000	10%
\$5,000 - \$25,000	8%
\$25,001 - \$50,000	7%
\$50,001 - \$100,000	6%
\$100,001 - \$250,000	5%
\$250,001 - \$500,000	4%
Greater than \$500,000	3%

ALLOWANCES
Section 01020

In the event that a single Work Assignment is completed by the CONTRACTOR within one pay period (i.e., 30 days), mobilization will be paid by the OWNER as a lump sum at the end of the Work Assignment, and shall be calculated using the table above. In the event that a single Work Assignment is to be paid over multiple pay periods, then the CONTRACTOR shall be paid for mobilization as follows:

1. The CONTRACTOR and OWNER will estimate the total Work Assignment amount based on quantities provided in the Work Assignment and associated bid prices established in 00300U-IDIQ, Bid Form.
2. 50% of the mobilization payment will be calculated based on the table above and will be provided, at the CONTRACTOR's request, within the first pay period of that Work Assignment.
3. The remainder of the mobilization payment will be based on the actual Work Assignment amount, and will be paid upon completion of the Work. If a credit is required, due to reduction on a Work Assignment amount, it will be deducted from payments to the CONTRACTOR.
4. In the event that the work is completed and paid on a single invoice, 100% of the mobilization will be paid on the first, and only, invoice for the subject Work Assignment.
5. The contractor shall track costs for each Work Authorization in a manner acceptable to the OWNER.

The aggregate amount of all Work Assignment payments for Mobilization will not exceed the Allowance. Payment for this Allowance will be made from the Allowance Item on Section 00300U-IDIQ.

B. Allowance #2, Right of Way Permit Fees

Each individual Work Assignment will typically require one right of way permit plus inspection fee per each street right of way. Other right of way permits may be required. Contractor shall obtain and pay up front for any and all required right of way permits prior to performing work on each Work Assignment.

3.3 PAYMENT

Once the cost proposal for the Allowance has been incorporated into the Contract by Change Order, Payment for the Allowance will be based upon either the unit prices or a schedule of values provided with the proposal and incorporated in the Change Order.

END

Item No. 402S
Controlled Low Strength Material

402S.1 Description

This item governs Controlled Low Strength Material (CLSM) used for trench backfill and for filling abandoned culverts, pipes, other enclosures, and for other uses as indicated on the drawings, Standard Details or as approved by the Engineer or designated representative. CLSM is a low strength, self-compacting, flowable, cementitious material used in lieu of soil backfill. It is intentionally prepared at low strength to allow for future removal using conventional excavation equipment.

The CLSM shall be composed of Portland cement or fly ash, or both, filler aggregate and water. The CLSM, specified for use in filling abandoned culverts, pipes, or other enclosures, shall contain a settlement compensator, in addition to the other ingredients, to minimize settlement of the CLSM within the enclosure.

Normal Set CLSM shall be specified whenever the material will remain uncovered or will not be subjected to traffic or other loads within 24 hours after placement. Fast Set CLSM shall be specified whenever the material will be covered, subjected to traffic or other loads within 24 hours, or needed to expedite construction.

CLSM can be used for permanent subgrade repairs below the base layer, but shall not be used for permanent pavement repairs. For temporary traffic applications, a minimum 2 inch (50 mm) cap composed of Hot Mix-Cold Laid Asphaltic Concrete (TxDoT Standard Specification Item 334) shall be placed on the CLSM.

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

402S.2 Submittals

The submittal requirements of this specification item include:

- A. A mix design submittal including the results of unconfined compressive strength tests, air entrainment (if applicable), flow consistency, hardened unit weight, and timed Ball Drop and corresponding Penetrometer tests.
- B. Certifications and test results for the cement fly ash, and admixtures.
- C. Particle-size gradation and specific gravity tests on the filler aggregate.

402S.3 Materials**A. Cement.**

Portland cement shall conform to ASTM C 150, Type I (General Purpose).

Portland cement manufactured in a cement kiln fueled by hazardous waste shall be considered as an approved product if the production facility is authorized to operate under regulation of the Texas Natural Resource Conservation Commission

(TNRCC) and the U. S. Environmental Protection Agency (EPA). Supplier shall provide current TNRCC and EPA authorizations to operate the facility.

B. Fly Ash

Fly ash shall conform to the requirements of Standard Specification Item No. 405, "Concrete Admixtures" and TxDOT Specification Item 437.

C. Filler Aggregate.

Filler aggregate shall consist of sand, stone screenings, pavement milling cuttings or other granular material that is compatible with the other mixture components. The filler aggregate shall be fine enough to stay in suspension to the extent required for proper flow without segregation, and, in the case of filling of enclosures, for minimal settlement. Filler aggregate shall have a Plasticity Index (TxDOT Test Method Tex-106-E) less than 15 and shall conform to the following gradation:

Sieve Designation	US	(SI)	Percent Passing
	No. 200	(75µm)	0 - 10

D. Mixing Water.

Mixing water shall conform to the requirements of Standard Specification Item No. 403, "Concrete for Structures".

E. Settlement Compensator

An air entraining admixture with a higher than usual dosage, which meets the requirements of Standard Specification Item No. 405, "Concrete Admixtures", shall be used as a settlement compensator. The settlement compensator may be introduced to the CLSM at the job site by placement of prepackaged admixture in capsules or bags in the mixing drum in accordance with the admixture manufacturer's recommendations.

402S.4 Mix Design

The proportioning of CLSM shall be the responsibility of the Contractor. The Contractor shall furnish a mix design conforming to the requirements herein, for review and approval by the Engineer or designated representative. The mix design shall be prepared by a qualified commercial laboratory and then reviewed and signed by a registered Professional Engineer licensed in the State of Texas.

The Mix Design submittal must include:

- A. Test results for unconfined compressive strength, air entrainment (if applicable), flow consistency, hardened unit weight, and timed Ball Drop (ASTM C-360) and corresponding Penetrometer tests (with a concrete pocket penetrometer),
- B. Certifications and test results for the cement, fly ash, and admixtures, and
- C. Results of particle-size gradation and specific gravity tests on the filler aggregate. The submittal shall include Penetrometer tests performed every thirty minutes

until the Ball Drop test shows a 2-inch (50 mm) indentation, as well as the predicted Penetrometer reading that corresponds to a 3-inch (75 mm) Ball Drop indentation. Particle-size gradation shall be determined using a series of sieves that gives no fewer than five uniformly spaced points for graphing the entire range of particle sizes larger than a No. 200 sieve (75-µm).

The Contractor shall perform the work required to substantiate the design at no cost to the City, including all testing. Approved mix designs shall be valid for one year, provided there are no changes in the type, source, or characteristics of the materials during that year.

At the end of one year, the mix design may be submitted for renewal, provided that:

- A. field tests of the CLSM during the year have been satisfactory,
- B. there have been no changes in type or source of the materials of the mix, and
- C. the characteristics of the materials have not changed significantly since the original submittal.

The Contractor shall also submit certifications and test results for the cement, fly ash and admixtures, and particle-size gradation and specific gravity test results for the filler aggregate. The Contractor shall compare results of tests made on the filler aggregate at the end of the year to the results of tests reported in the original submittal. Gradation changes less than ten percent in percent passing any sieve and specific gravity changes less than five percent shall not be considered significant.

402S.5 Strength

The CLSM mix designs shall meet the unconfined compressive strength requirements outlined in the table below. The compression tests shall be conducted in accordance with TxDOT Method Tex-418-A, using approved unbonded caps on specimens with four-inch (100 mm) diameter and eight-inch (200 mm) height [or three-inch (75 mm) diameter by six-inch (150 mm) high specimens if a smaller capacity loading device gives more accurate results].

Unconfined Compressive Strength, psi (mPa)		
Age	Normal Set CLSM	Fast Set CLSM
3 hours	—	35 (0.24) minimum
24 hours	35 (0.24) minimum	—
28 days	300 (2.1) maximum	300 (2.1) maximum

402S.6 Flow Consistency

Flow consistency shall be established in tests involving the use of a six-inch (150 mm) length by three-inch (75 mm) diameter open-ended straight tubing made of steel, plastic or other non-absorbent material that is non-reactive with cement or fly ash. The tube shall be placed with one end on a horizontal flat surface and held in a vertical position. The tube shall then be filled to the top with CLSM. The top surface shall be struck off with a suitable straight edge and any spillage shall be removed from the base of the tube. Within five seconds thereafter the tube shall be raised carefully, using a steady

upward lift with no lateral or torsional motion. The entire test, from the start of filling until removal of the tube, shall be completed within 1½ minutes without interruption.

After removal of the tube, the spread of the CLSM shall be measured immediately along two diameters that are perpendicular to one another. The average of those two measurements is defined as the flow consistency of the mix. The flow consistency of the CLSM shall be considered satisfactory if a circular-type spread of the mix occurs without segregation and a flow consistency (average diameter of spread) of 8 inches (200 mm) or more is achieved.

402S.7 Air Entrainment

Air entraining admixture shall be added as a settlement compensator, whenever the CLSM will be used to fill an enclosure (Section 402S-1). The dosage shall be sufficient to result in an air content of 15 to 25 percent (as determined by TxDOT Method Tex-416-A) at the time of placement of the CLSM.

402S.8 Field Strength Tests

Ball Drop or Penetrometer tests shall be used to determine, when the CLSM has developed sufficient strength to be covered or subjected to traffic or other loads as approved by the Engineer or designated representative.

The Ball Drop test shall be performed according to the latest version of ASTM C-360. An indentation diameter of three inches (75 mm) or less, and the absence of a sheen or any visible surface water in the indentation area shall indicate that the CLSM has achieved the desired strength. Because trench width and depth may affect the test results, the Contractor may perform this test on a control sample of CLSM in a two-foot (600 mm) square by six-inch (150 mm) deep container.

Penetrometer tests using a hand-held, spring reaction-type device commonly called a concrete pocket penetrometer, shall be performed on the surface of the CLSM. A Penetrometer reading, equal to or greater than the value established in the mix design (Section 402S.4) for a Ball Drop test indentation of 3-inches (75 mm), shall indicate that the CLSM has achieved the desired strength.

402S.9 Construction Methods

A. General

The height of free fall placement of the CLSM shall not exceed four feet (1.2 meters). Since CLSM is considered to be self-compacting, a vibrator shall not be allowed. The CLSM shall not be covered with any overlying materials or subjected to traffic or other loads until the Ball Drop test or the Penetrometer test shows acceptable results (Section 402S.8) or until the CLSM has been in place a minimum of 24 hours for Normal Set CLSM and a minimum of 3 hours for Fast Set CLSM. Curing of the CLSM will not be required.

B. Utility Line Backfill

After the utility pipe has been placed and the proper bedding material placed in accordance with the details on the drawings, the trench may be immediately backfilled with the CLSM to the subgrade level shown on the drawings, Standard Details 1100S-6A, B, C & D, 430S-4, 511S-13A and 511S-13B or as directed by the Engineer or designated representative.

C. Culvert Backfill

Care shall be taken to prevent movement of the structure. If the pipe or structure moves either horizontally or vertically, the CLSM and the structure shall be immediately removed and the pipe or structure re-laid to proper line and grade.

D. Other Backfill

CLSM may be used for backfill material in lieu of soil as shown on the drawings, Standard Details or as approved by the Engineer or designated representative.

E. Filling Abandoned Culverts, Pipe, or other Enclosures

The CLSM shall be placed in a manner that allows all air or water, or both, to be displaced readily as the CLSM fills the enclosure.

402S.10 Acceptance Testing During Construction

The Engineer or designated representative may perform flow consistency, air entrainment, and unconfined compressive strength tests to determine if the CLSM meets the specification requirements. The number and frequency of acceptance tests will be determined by the Engineer or designated representative.

402S.11 Measurement and Payment

The work and materials presented herein will generally not be paid for directly, but shall be included in the unit price bid for the item of construction in which this item is used.

When specified in the contract bid form as a separate pay item, the item will be paid for at the contract unit bid price(s) for "Controlled Low Strength Material". The bid prices shall include full compensation for all Work herein specified, including the furnishing of all materials, equipment, tools, labor and incidentals necessary to complete the Work.

Payment will be made under the following:

Pay Item No. 402S-A: Controlled Low Strength Material Per Cubic Yard.

End

<i>SPECIFIC</i> CROSS REFERENCE MATERIALS
Standard Specification Item 402S, "Controlled Low Strength Material"

City of Austin Standard Details

<u>Designation</u>	<u>Description</u>
430S-4	Concrete Backfill Under Curb & Gutter
506S-14	Control or Mini Manhole
511S-13A	Water Valve Box Adjustment to Grade W/ Full Depth Concrete
511S-13B	Water Valve Box Adjustment to Grade W/ Concrete and H.M.A.C.

1100S-6A	Narrow Excavation Next to C&G - Trench Width 0.3 M (12") & Less
1100S-6B	Narrow Excavations - Trench Width 0.3 M (12") & Less
1100S-6C	Excavation Next to C&G - Trench Width Greater than 0.3 M (12")
1100S-6D	Excavations - Trench Width Greater than 0.3 M (12")

City of Austin Standard Specification Items

<u>Designation</u>	<u>Description</u>
Item No 403S	Concrete for Structures
Item No 405S	Concrete Admixtures

Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

<u>Designation</u>	<u>Description</u>
Item No. 334	Hot Mix-Cold Laid Asphaltic Concrete Pavement
Item No. 420	Concrete Structures
Item No. 421	Portland Cement Concrete
Item No. 437	Concrete Admixtures

<i>RELATED</i> CROSS REFERENCE MATERIALS
Standard Specification Item 402S, "Controlled Low Strength Material"

Texas Department of Transportation: Manual of Testing Procedures

<u>Designation</u>	<u>Description</u>
Tex-106-E	Method Of Calculating the Plasticity Index of Soils
Tex-416-A	Air Content of Freshly Mixed Concrete By The Pressure Method
Tex-418-A	Compressive Strength of Cylindrical Concrete

American Society for Testing and Materials (ASTM)

<u>Designation</u>	<u>Description</u>
ASTM C 150	Portland Cement
ASTM C 360	Ball Penetration in Fresh Portland Cement Concrete
ASTM C 403	Time of Setting of Concrete Mixtures by Penetration Resistance

City of Austin Standard Specification Items

<u>Designation</u>	<u>Description</u>
Item No. 504S	Adjusting Structures
Item No. 506S	Manholes
Item No. 508S	Miscellaneous Structures and Appurtenances
Item No. 510	Pipe

**SPECIAL PROVISION
To Standard Specification Item No. 402S (Version 11/13/2007)
Controlled Low Strength Material**

For this project, Item No. 402S, Controlled Low Strength Material, of the City of Austin Standard Technical Specifications is hereby amended with respect to the clauses cited below. No other clauses or requirements of this section of the City of Austin Standard Technical Specification are waived or changed.

1. 402S.11 Measurement and Payment

Add the following pay items:

Payment will be made under:

Pay Item No.	Item Description	Unit
SP402S-AF:	Controlled Low Strength Material, Fast Setting, To Be Used as Backfill in lieu of Excavated Trench Material and Flexible Base, Including Disposal of Spoils, Complete in Place.	Per Cubic Yard
SP402S-AN:	Controlled Low Strength Material, Normal Setting, To Be Used as Backfill in lieu of Excavated Trench Material and Flexible Base, Including Disposal of Spoils, Complete in Place.	Per Cubic Yard

END

**SPECIAL SPECIFICATION
SS520
WATER SERVICES**

SS520.1 Description

This item shall govern (1) the replacement of an existing water service with HDPE or copper tubing and (2) connection of the new water service to an existing corporation, connection of a new meter yoke to the existing meter, and resetting the meter box following water service line replacement.

SS520.2 Materials

A. Pipe and fittings: shall conform to Item No. 510, Pipe.

SS520.3 Construction Methods

A. General

1. Replace all valves, fittings, and other appurtenances as needed to complete the Work. The existing corporation on the main line may be utilized for the new service. All replaced services shall conform to details 520S-9, 520S-9B, 520S-11, and 520S-11B.
2. **In cases where Owner determines that connecting a new water service to the existing corporation stop is not desired, Contractor shall make a new tap to the existing main and abandon the existing corporation stop.**
3. **Contractor shall furnish and install new meterboxes in same location as existing meterboxes after new services have been installed. Meterbox replacement shall be subsidiary to this Item. Restoration of sod, in accordance with Item 602S, shall also be subsidiary to this Item.**
4. **Permanent pavement repair shall conform to detail SD-3 and will be paid for according to bid items 340S-A, SP402S-AF, and SP402S-AN.** Refer to detail 430S-4 for backfill under curbs or curb replacement.
5. Environmental Controls: Contractor shall provide adequate controls to prevent run-off of silt or erosion. Sediment containment dikes shall be installed where needed as directed by Owner.
6. Testing: All connections shall be free of leaks or other defects.

SS520.4 Measurement

1. Replacement of water services will be measured as per linear foot replaced (measured horizontally), from the corporation on the main to **isolation ball valve 'E' (reference details 520S-9, 520S-9B, 520S-11, and 520S-11B)** complete and in place.
2. Reconnection of water services will be measured as per each replaced, **from and including isolation ball valve 'E' (reference details 520S-9, 520S-9B, 520S-11, and 520S-11B) to meter(s)**, complete and in place.
3. **Tapping the existing water main will be measured as per each, including furnishing and installation of new service clamp and corporation stop, complete and in place.**

4. **Abandonment of an existing water service will be measured as per each and shall include the following:**
 - a. **Remove all pipe and fittings from and including isolation ball valve ‘E’ (reference details 520S-9, 520S-9B, 520S-11, and 520S-11B) to the meter. If the isolation ball valve does not exist, remove all materials to 36 inches below grade.**
 - b. **Make a physical separation between the corporation stop at the main and service pipe.**
 - c. **Turn corporation stop to the OFF position.**
 - d. **Wrap the corporation stop and water main with 8 mil thick polyethylene.**

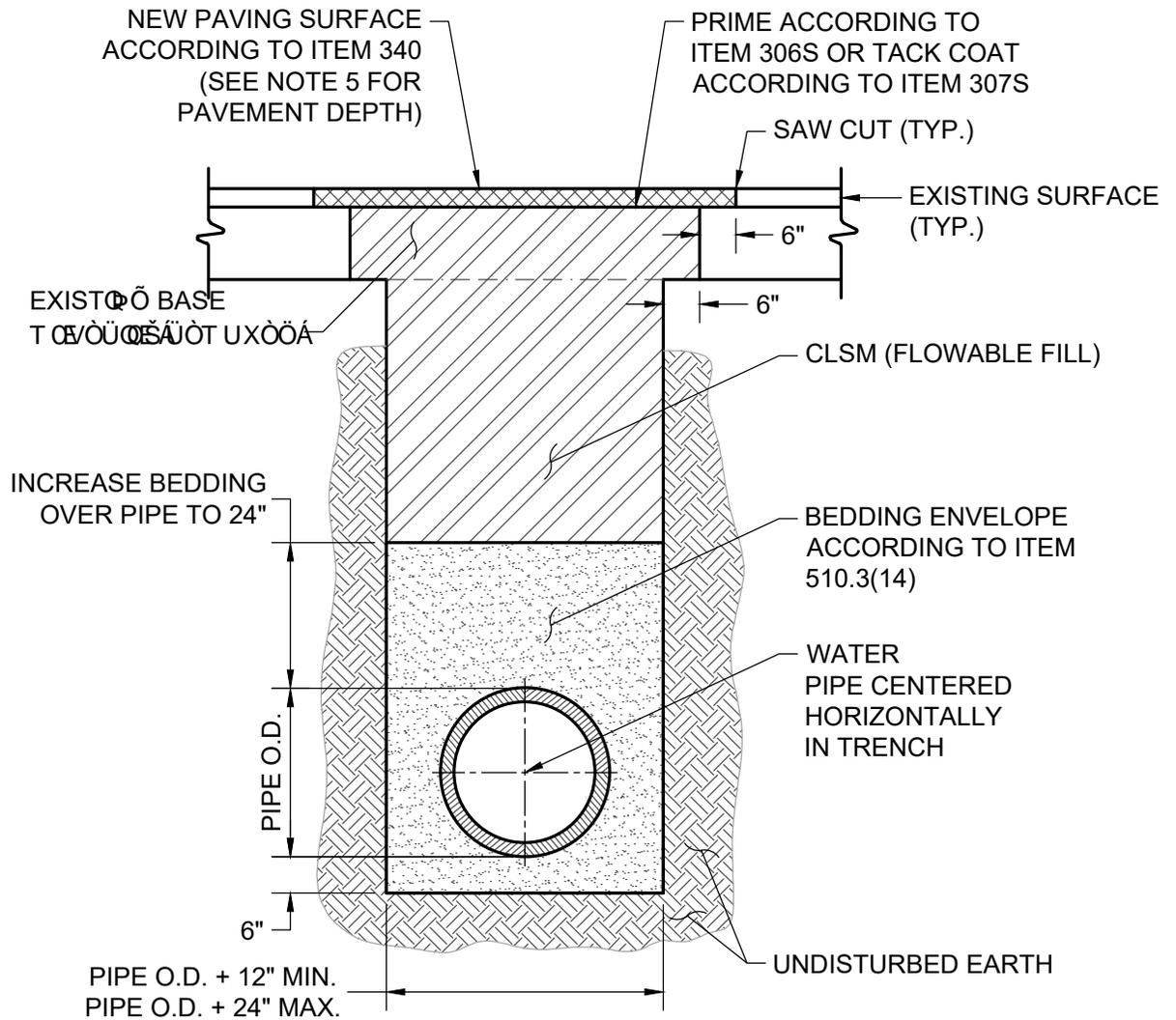
SS520.5 Payment

1. Payment for water services will be made at the unit price bid per linear foot. Sodding and erosion/sedimentation controls, with the exception of sediment containment dikes, are subsidiary to this Item and will not be paid for separately. In the event contractor locates an existing copper service and/or City inspector deems that the existing service does not need to be replaced, payment to Contractor will be made via Pay Item SS520S-I only.
2. Payment for service reconnections will be made at the unit price bid per each. Sodding and erosion/sedimentation controls, with the exception of sediment containment dikes, are subsidiary to this Item and will not be paid for separately.

Payment for installation and connections of new water service pipe will be made at the appropriate unit bid price. The unit bid price shall include all labor, equipment, materials, time and incidentals to complete the Work.

Pay Item No. SS520-A:	Install 1.5" HDPE tubing to replace 1.5" service, trenchless	Per LF
Pay Item No. SS520-B:	Install 1" HDPE tubing to replace 1" service, trenchless	Per LF
Pay Item No. SS520-C:	Install 1.5" HDPE tubing to replace 1.5" service, open cut	Per LF
Pay Item No. SS520-D:	Install 1" HDPE tubing to replace 1" service, open cut	Per LF
Pay Item No. SS520-E:	Install 1.5" copper tubing to replace 1.5" service, trenchless	Per LF
Pay Item No. SS520-F:	Install 1" copper tubing to replace 1" service, trenchless	Per LF
Pay Item No. SS520-G:	Install 1.5" copper tubing to replace 1.5" service, open cut	Per LF
Pay Item No. SS520-H:	Install 1" copper tubing to replace 1" service, open cut	Per LF
Pay Item No. SS520-I:	Locate existing copper service	Per Each
Pay Item No. SS520-J:	Reconnect single water service	Per Each
Pay Item No. SS520-K:	Reconnect double water service	Per Each
Pay Item No. SS520-L:	Tap existing water main for 1.5" service	Per Each
Pay Item No. SS520-M:	Tap existing water main for 1" service	Per Each
Pay Item No. SS520-M:	Abandon existing water service	Per Each

End



NOTES:

1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE A MIN. OF 12" WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. ANY CONCRETE PAVING SHALL BE SAW CUT 6" WIDER THAN UNDISTURBED SIDES OF EXCAVATION.
3. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX ASPHALTIC CONCRETE.
4. ALL DAMAGED AREAS OF PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH MIN. OF 8" OF BASE OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER.
5. SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MIN. 2", WHICHEVER IS GREATER.

CITY OF AUSTIN AUSTIN WATER		SPECIAL DETAIL - TYPICAL TRENCH WITH PAVED SURFACE USING CLSM (FLOWABLE FILL)	
RECORD COPY SIGNED MICHAEL J. RUSS	05/05/2008 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	NO. SD-3 1 OF 1