City of Louisville

COLORADO • SINCE 1878

2025 CIPP SEWER LINING

PREPARED BY:
CITY OF LOUISVILLE

SEPTEMBER 2025

TABLE OF CONTENTS - 2025 CIPP SEWER LINING PROJECT

SECTION **PAGE**

INVITATION TO BID

Invitation to Bid 1-2

INSTRUCTIONS TO BIDDERS

1. Defined Terms 3
2. Copies of Bidding Documents 3
3. Qualification of Bidders 3
4. Examination of Contract Documents and Site 4-5
5. Availability of Lands for Work, Etc. 6
6. Interpretations and Addenda 6
7. Bid Security 6
8. Contract Time 7
9. Liquidated Damages 7
10. Substitute and Or-equal Terms 7
11. Subcontractors, Suppliers and Others 7
12. Bid Form 8
13. Submission of Bids 9
14. Modification and Withdrawal of Bids 9
15. Opening of Bids 9
16. Bid to Remain Open Subject to Acceptance 10
17. Award of Contract 10-12
18. Contract Security 12
19. Signing of Agreement 12
20. Special Legal Requirements 12
21. Sales and Use Taxes 12
22. Retainage 12
23. Mistakes in Bidding Instructions 13

BID FORM

Bid Form 14-15
Schedule of Unit Prices 16-19
Bid Bond 20-21
Schedule of Subcontractors 22
Anti-Collusion Affidavit 23
Certificate of EEO Compliance 24
Prohibition Against Employing Workers Without Authorization 25
Contractor's Pre-Contract Certification 26

AGREEMENT

Article 1 Work 27
Article 2 Contract Times 27

TABLE OF CONTENTS - 2025 CIPP SEWER LINING PROJECT

SECTION **PAGE**

AGREEMENT CONTINUED

Article 3 Contract Price 28
Article 4 Payment Procedures....28
Article 5 Contractor's Representations 29-30
Article 6 Contract Documents 30-31
Article 7 Miscellaneous 31-32
Article 8 Other Provisions 32
Performance Bond 33-34
Labor and Material Payment Bond.... 35-36
Notice of Award....37
Notice to Proceed....38
Change Order Form 39
Field Order Form 40
Work Change Directive Instructions 41
Work Change Directive Form....42
Application for Payment Form 43
Contractor's Proposal Request Form....44
Contractor's Overtime Request Form 45
Certificate of Substantial Completion Form.... 46-47
Final Inspection Report Form 48
Certificate of Final Completion Form....49
Claim Release – Subcontractors/Supplier....50
Final Claim Release and Acceptance.... 51-52
Guarantee Period Inspection Report Form 53

GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS.... 54-57

Abnormal Weather....54
Addenda 54
Agreement....54
Application for Payment....54
Asbestos 54
Bid....54
Bidding Documents 54
Bidding Requirements 54
Bonds 54
Change Order....54
Contract Day 54
Contract Documents.... 54-55
Contract Price....55
Contract Times....55

SECTION **PAGE**

ARTICLE 1 - DEFINITIONS CONTINUED

CONTRACTOR 55
Defective 55
Drawings 55
Effective Date of the Agreement 55
ENGINEER 55
OWNER'S Consultant 55
Field Order 55
General Requirements 55
Hazardous Waste 55
Laws and Regulation: Laws or Regulations 55
Liens 55
Milestone 56
Notice of Award 56
Notice to Proceed 56
OWNER 56
Partial Utilization 56
PCBs 56
Petroleum 56
Plans 56
Product 56
Project 56
Provide 56
Radioactive Material 56
Resident Project Representative 56
Samples 56
Shop Drawings 56
Specifications 56
Subcontractor 57
Substantial Completion 57
Supplementary Conditions 57
Supplier 57
Underground Facilities 57
Unit Price Work 57
Work 57
Work Change Directive 57
Written Amendment 57

ARTICLE 2 - PRELIMINARY MATTERS 58-59

Delivery of Bonds 58
Copies of Documents 58
Commencement of Contract Times; Notice to Proceed 58
Proposed Project Schedule 58

SECTION **PAGE**

ARTICLE 2 - PRELIMINARY MATTERS CONTINUED

Starting the Work....58
Before Starting Construction....58-59
Preconstruction Conference....59
Initially Acceptable Schedules....59

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE....59-61

Intent....59-60
Reference to Standards & Specifications of Technical Societies; Reporting and Resolving Discrepancies....60-61
Amending and Supplementing Contract Documents....61
Reuse of Documents....61

ARTICLE 4 - AVAILABILITY OF LANDS: SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS....61-65

Availability of Lands....61-62
Subsurface and Physical Conditions....62
Reports and Drawings....62
Sub Surface Conditions....62
Limited Reliance by CONTRACTOR authorized; Technical Data....63
Physical Conditions - Underground Facilities....63
Shown or Indicated....63-64
Not Shown or Indicated....64
Reference Points....64
Asbestos, PCB's, Petroleum, Hazardous Waste or Radioactive Material....64-65

ARTICLE 5 - BONDS AND INSURANCE....65-68

Performance, Payment and Other Bonds....65-66
Licensed Sureties and Insurers; Certificates of Insurance....66
CONTRACTOR's Liability Insurance....66-68
OWNER's Liability Insurance....68
Property Insurance....68

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES....68-79

Supervision and Superintendence....68
Labor, Materials and Equipment....68-69
Progress Schedule....69-70
Substitutes and Or-Equal Items....70
Or-Equal....70

SECTION **PAGE**

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES CONTINUED

Substitute Items 70-71
CONTRACTOR's Expense 71
Substitute Construction Methods or Procedures 71
ENGINEER's Evaluation 71
Concerning Subcontractors, Suppliers and Others 71-72
Patent Fees and Royalties 72-73
Permits 73
Laws and Regulations 73
Taxes 73-74
Use of Premises 74
Record Documents 74-75
Safety and Protection 75
Safety Representative 75
Hazard Communication Programs 76
Emergencies 76
Shop Drawings and Samples 76
Submittal Procedures 76-77
Continuing the Work 77
CONTRACTOR's General Warranty and Guarantee 77-78
Indemnification 79
Survival of Obligations 79

ARTICLE 7 - OTHER WORK 79-80

Related Work at Site 79-80
Coordination 80

ARTICLE 8 - OWNER'S RESPONSIBILITIES 80-81

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION 81-87

OWNER's Representative 81
Visits to Site 81-82
Project Representative 82
Duties and Responsibilities 82
Schedules 82
Conferences and Meetings 82
Liaison 82
Shop Drawings and Samples 83
Review of Work, Rejection of Defective Work, Inspections and Tests 83
Interpretation of Contract Documents 83
Modifications 83
Records 83-84

SECTION **PAGE**

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION CONTINUE

Reports 84
Payment Requests 84
Certificates, Maintenance and Operations Manuals 84
Completion 84
Limitation of Authority 84-85
Clarifications and Interpretations 85
Authorized Variations in Work 85
Rejecting Defective Work 85
Shop Drawings, Change Orders and Payments 85-86
Determinations for Unit Prices 86
Decisions on Disputes 86
Limitations on ENGINEER's Authority and Responsibilities 86-87

ARTICLE 10 - CHANGES IN THE WORK 87

ARTICLE 11 - CHANGE OF CONTRACT PRICE 88-93

Cost of the Work 88-92
Cash Allowances 92
Unit Price Work 92-93

ARTICLE 12 - CHANGE OF CONTRACT TIMES 93-94

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK 95-98

Notice of Defects 95
Access to Work 95
Tests and Inspections 95-96
Uncovering Work 96
OWNER May Stop the Work 96
Correction or Removal of Defective Work 96
Correction Period 96-97
Acceptance of Defective Work 97
OWNER May Correct Defective Work 97-98

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION 98-103

Schedule of Values 98
Application for Progress Payment 98
CONTRACTOR's Warranty of Title 98
Review of Applications for Progress Payment 98-100
Substantial Completion 100-101

TABLE OF CONTENTS - 2025 CIPP SEWER LINING PROJECT

SECTION **PAGE**

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION CONTINUED

Partial Utilization 101
Final Inspection 101-102
Final Application for Payment 102
Final Payment and Acceptance 102-103
Waiver of Claims 103

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION 103-106

OWNER May Suspend Work 103
OWNER May Terminate 103-104
CONTRACTOR May Stop Work or Terminate 104-105

ARTICLE 16 - MISCELLANEOUS 106-107

Giving Notice 106
Computation of Times 106
Notice of Claim 106
Cumulative Remedies 106
Professional Fees and Court Costs Included 106
Interest 106
Third Parties 107
Severability 107
Equal Opportunity Employer 107

SUPPLEMENTARY CONDITIONS SC-1-4

GENERAL REQUIREMENTS

SECTION

01010 - Summary of Work 1
01025 - Measurement and Payment 1-3
01091 - Reference Standards 1-8
01300 – Submittals 1-6
01410 - Testing and Inspections 1-5
01500 - Temporary Facilities and Controls 1-4
01700 – Contract Closeout 1-4

TABLE OF CONTENTS - 2025 CIPP SEWER LINING PROJECT

SECTION **PAGE**

TECHNICAL SPECIFICATIONS

02200 – Sanitary Sewer Replacement 1-9
02600 – Construction Zone Traffic Control 1-8
02765 – CIPP 1-13

INVITATION TO BID

Sealed Bids will be received by the

CITY OF LOUISVILLE, STATE OF COLORADO

Hereinafter referred to as OWNER, at the office of the City Engineer, 749 Main Street, Louisville, Colorado 80027, until **10:00 a.m.**, Mountain Daylight Time, **October 7, 2025** for the

2025 CIPP SEWER LINING PROJECT

At said place and time, all Bids that have been duly received will be publicly opened and read aloud. Bids received after said closing time of 10:00 a.m., MDT will not be accepted and be returned unopened. Bids shall be in a sealed envelope plainly marked with the Project Name and Date and addressed:

City of Louisville
Office of City Engineer
749 Main Street
Louisville, Colorado 80027

The Work for which the Bid is requested consists of but is not limited to sanitary sewer main CIPP lining, sanitary sewer video and cleaning, sanitary sewer service connections, traffic control, incidentals and work appurtenant thereto.

Digital copies of the Bidding Documents will be available after Friday, September 26, online through Rocky Mountain Bid System located at https://www.bidnetdirect.com/ and also viewable via the City of Louisville's website https://www.louisvilleco.gov/doing-business/bidding-opportunities-requests-for-proposals.

The Bidding Documents may be examined at the office of the City Engineer at:

Louisville City Hall
Public Works Department
749 Main Street
Louisville, Colorado 80027

Bids will only be accepted from BIDDER's who are prequalified as a General Contractor by the City of Louisville City Engineer, and who are recorded by Rocky Mountain Bid System and by the City Engineer as having received the Bidding Documents. City Engineer will verify with Rocky Mountain Bid System for Plan Holder list. City of Louisville Pre-qualification forms must be received at the office of the City Engineer by close of business (5:00 p.m.) on Friday October 3, 2025. Pre-qualification forms received after this date and time are not guaranteed to be approved by the required date.

Bids will be received on a unit and lump sum price basis as described in the Bidding Documents.

When a BIDDER submits a Bid, that Bid shall include the Schedule of Subcontractors, which shall identify each element of the Work to be subcontracted. Subcontractors whose subcontract exceeds five percent of the Total Bid Price shall be prequalified by the City of Louisville, City Engineer for their specific portion of the Work.

Each Bid shall contain evidence of BIDDER'S qualification to do business in the state of Colorado or covenant to obtain such qualification.

Each Bid must be accompanied by a Bid security consisting of a properly Certified Check, Cashier's Check, or Bid Bond, in the amount of five (5) percent of BIDDER'S Total Bid Price, without conditions, payable to the City of Louisville. Bid security will be retained by the City until the seventh day after the Effective Date of the Agreement whereupon Bid security furnished by such Bidder's will be returned. Bid security with Bids, which are not competitive, will be returned within fourteen days after the Bid opening. No Bid will be considered unless accompanied by such Bid security.

The successful BIDDER will be required to furnish a performance bond and a labor and material payment bond to the City of Louisville guaranteeing faithful performance and the payment of all bills and obligations arising from the performance of the Contract.

No Bid may be withdrawn within a period of sixty (60) days after the date fixed for opening Bids.

The City of Louisville reserves the right to award the contract by sections, to reject any or all Bids, and to waive any informalities and irregularities therein.

The City of Louisville assumes no responsibility for payment of any expenses incurred by any respondent to this Invitation to Bid.

Preference is hereby given to materials, supplies, and provisions produced, manufactured, or grown in Colorado, quality and price being equal to articles offered by competitors outside of the State.

A mandatory pre-bid conference with representatives of prospective BIDDERs will be held at **10:00 a.m.**, MDT via Microsoft Teams conference call on **Tuesday September 30, 2025.** Representatives of the City will be present to discuss the Project. Perspective BIDDERs are invited to attend and present their questions relative to this Bid at this conference. **Attendance at this pre-bid conference will be required to submit a Bid.**

Join on your computer or mobile app
Join the meeting now
Meeting ID: 278 321 596 225 6
Passcode: s7Ee2qz3
Dial in by phone
+1 321-430-0794,,685977959# United States, Orlando
Find a local number
Phone conference ID: 685 977 959#

The City of Louisville is an Equal Opportunity Employer.

City of Louisville, Colorado
City Engineer

1st Publication: Friday, September 19, 2025

2nd Publication: Friday, September 26, 2025

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS

Terms used in these Instructions to BIDDERs, which are defined in the General Conditions of this Manual have the meanings assigned to them in the General Conditions.

Certain additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.

1.1 The term "BIDDER" means one who submits a Bid directly to OWNER, as distinct from a sub-bidder, who submits a bid to a BIDDER.

1.2 The term "ISSUING OFFICE" means the office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

1.3 The term "SUCCESSFUL BIDDER" means the lowest, qualified, responsible and responsive BIDDER to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

1.4 The term "Bidding Documents" includes the Invitation to Bid, Instructions to Bidders, the Bid Form, and the Contract Documents (including all Addenda issued prior to receipt of Bids).

2. COPIES OF BIDDING DOCUMENTS

2.1 Complete sets of Bidding Documents stated in the Invitation to Bid may be obtained from the Issuing Office. No partial sets will be issued. The Bidding Documents may be examined at the locations identified in the Invitation to Bid.

2.2 Complete sets of Bidding Documents shall be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.3 OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

3. QUALIFICATION OF BIDDERS

3.1 **Bids will only be accepted from qualified BIDDER's who are prequalified as a General contractor by the City of Louisville, City Engineer, and who are recorded by the City Engineer as having received the Bidding Documents. City of Louisville Prequalification forms must be received at the office of the City Engineer by close of business (5:00 p.m.) on <u>Friday October 3, 2025.</u> Prequalification forms received after this date and time are not guaranteed to be approved by the required date.**

3.2 Each Bid shall contain evidence of BIDDER's qualification to do business in the state of Colorado or covenant to obtain such qualification.

3.3 The apparent low BIDDER shall be required to show that he has handled former work of similar type and that no just claims are pending against such work. No Bid will be awarded to a BIDDER who is engaged on any other work, which would impair his ability to perform or finance this Work.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

4.1 It is the responsibility of each BIDDER before submitting a Bid:

4.1.1 To examine thoroughly the Contract Documents and related data identified in the Bidding Documents;

4.1.2 To visit the site to become familiar with and satisfy BIDDER as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work;

4.1.3 To consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;

4.1.4 To study and carefully correlate BIDDER's knowledge and observations with the Contract Documents and other related data; and

4.1.5 **To promptly notify ENGINEER of all conflicts, errors, ambiguities or discrepancies, which Bidder has discovered in or between the Contract Documents and such other related documents.**

4.2 BIDDERS are responsible for examining and determining for themselves the location and nature of the proposed Work, the amount and character of the labor and materials required therefor, and the difficulties, which may be encountered. BIDDERS may not rely on oral or written representations made by the OWNER, including any reports and drawings identified pursuant to paragraph 4.2.1 and subparagraphs thereof of the General Conditions, unless the OWNER has guaranteed in writing that such representation is factually accurate, and by submitting a Bid, each Bidder waives all liability for any error in any representation made by the OWNER to the BIDDER. BIDDERS shall, at BIDDER'S own expense, inspect the site and its surroundings and conduct such supplementary examinations, investigations, and tests concerning conditions at or contiguous to the site (including surface, and subsurface) which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto for performing the Work in accordance with the Contract Documents. By failing to make such an inspection, the BIDDER waives all rights to claim extra payment or time extensions due to unexpected conditions, which could have been determined had the site been reasonably inspected. If concealed or unknown conditions differ materially from those ordinarily encountered and generally recognized as inherent in the Work, or differ materially from the conditions indicated in the Contract Documents, then an equitable adjustment in the Contract Price or in the Contract Time will be allowed by change order as provided in Article 11 or Article 12 respectively of the General Conditions. By submitting a Bid, the BIDDER represents that the BIDDER'S observations at the site are not inconsistent with the requirements of the proposed Contract Documents, unless otherwise noted by the BIDDER.

4.2.1 Refer to General Conditions for identification of those reports of explorations and tests of subsurface conditions at or contiguous to the site, which have been utilized by ENGINEER in preparation of the Contract Documents. BIDDER may not rely upon the general accuracy of the "technical data" contained in such reports or upon non-technical data, interpretations, opinions or information contained in such reports or otherwise relating to the subsurface conditions at the site, nor upon the completeness

thereof for the purposes of bidding or construction unless OWNER has guaranteed in writing that such data or representations are accurate.

4.2.2 Refer to General Conditions for identification of those drawings of physical conditions in or relating to existing surface and subsurface conditions (except Underground Facilities) which are at or contiguous to the site that have been utilized by ENGINEER in preparation of the Contract Documents. BIDDER may not rely upon the general accuracy of the "technical data" contained in such drawings or upon other data, interpretations, opinions or information shown or indicated in such drawings or otherwise relating to such structures, nor upon the completeness thereof for the purposes of bidding or construction unless OWNER has guaranteed in writing that such data or representations are accurate.

Copies of such reports and drawings will be made available by OWNER to any BIDDER on request. Those reports and drawings are not part of the Contract Documents, but the technical data contained therein, upon which BIDDER is entitled to rely upon as factually accurate as provided in Paragraphs 4.2.1 of the General Conditions. BIDDER is responsible for any interpretation or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information.

4.3 Information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based upon information and data furnished to OWNER by OWNERS of such Underground Facilities or others, and OWNER and ENGINEER do not assume responsibility for the accuracy or completeness thereof.

4.4 On request in advance, OWNER will provide each BIDDER access to the site to conduct such examinations, investigations, explorations, tests and studies as each BIDDER deems necessary for submission of a Bid. BIDDER shall fill all holes, clean up and restore the site to its former conditions upon completion of such explorations, investigations, tests and studies.

4.5 Reference is made to the General Conditions for the identification of the general nature of work that is to be performed at the site by OWNER or others (such as utilities and other prime contractors) that relates to work for which a Bid is to be submitted. On request, OWNER will provide to each BIDDER for examination access to or copies of Contract Documents (other than portions thereof related to price) for such work.

4.6 The submission of a Bid will constitute an incontrovertible representation by BIDDER that BIDDER has complied with every requirement of this Article 4, that the BIDDER warrants that it is familiar with all provisions of the Contract Documents, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying the specific means, methods, techniques, sequences or procedures of construction that may be shown or indicated in or expressly required by the Contract Documents, **that BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities and discrepancies that BIDDER has discovered in the Contract Documents and the written resolutions thereof by ENGINEER is acceptable to BIDDER**, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing of the Work.

4.7 The provisions of 4.1 through 4.7 of this section, inclusive, do not apply to Asbestos, Polychlorinated biphenyl's (PCB's), Petroleum, Hazardous Waste or Radioactive Material covered by paragraph 4.5 of the General Conditions.

5. AVAILABILITY OF LANDS FOR WORK, ETC.

5.1 The lands upon which the Work is to be performed will be in the confines of City right of way. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be obtained and paid for by CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by OWNER unless otherwise provided in the Contract Documents.

6. INTERPRETATIONS AND ADDENDA

6.1 All questions about the meaning or intent of the Bidding Documents are to be submitted in writing to the ENGINEER. Interpretation or clarifications considered necessary by ENGINEER in response to such questions will be issued only by Addenda mailed or delivered to all parties recorded by ENGINEER as having received Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. **Oral and other interpretations or clarifications will be without legal effect.**

6.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by ENGINEER.

7. BID SECURITY

7.1 Each Bid must be accompanied by a Bid Security consisting of a properly Certified Check, Cashier's Check, or Bid Bond on the form enclosed herewith, in the amount of five (5) percent of BIDDER's Total Bid Price, without conditions, payable to the City of Louisville, Colorado. The Bid Bond must be executed by a surety meeting the requirements of Paragraph 5.3 of the General Conditions. The cost of the Bid Security shall be included in the bid. The submission of the Bid and Bid Security is a pledge by the BIDDER that he will enter into an Agreement with the Owner on the terms stated in his Bid and will, if required, furnish required insurance certificates and bonds, covering the faithful performance of the Agreement and the payment of all obligations arising thereunder.

7.2 The Bid Security of the Successful BIDDER will be retained until such BIDDER has executed the Agreement, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid Security will be returned. If the successful BIDDER fails to execute, enter into or deliver an Agreement in accordance with an accepted bid proposal, or fails to furnish the required bonds or certificates, within ten (10) days from the mailing of the Notice of Award, or if the BIDDER has been guilty of collusion with other BIDDERS in submitting the Bid, the OWNER may annul the Notice of Award and the Bid Security shall be forfeited to and retained by the OWNER as liquidated damages and not as a penalty. By submitting the Bid security with the bid proposal, the BIDDER agrees to liquidated damages in the event the BIDDER fails to enter into the Agreement with the OWNER. The OWNER shall not have to prove actual damages suffered in order to retain the Bid Security as liquidated damages. The OWNER and the BIDDER agree that liquidated damages are appropriate because the anticipated actual damages are uncertain in amount and difficult to forecast accurately. The OWNER and the BIDDER agree that the amount of the Bid Security is a reasonable estimate of damages and not disproportionate to the anticipated loss or injury. The Bid Security of other BIDDER'S whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the seventh day after the Effective Date of the Agreement whereupon Bid Security furnished by such BIDDER'S will be returned. Bid Security with Bids that are not competitive will be returned within fourteen days after the Bid opening.

8. CONTRACT TIME

8.1 The number of days within which, or the dates by which, the Work is to be completed (the Contract Time) is set forth in the Agreement.

9. LIQUIDATED DAMAGES

9.1 Provisions for liquidated damages, if any, are set forth in the Agreement and General Conditions.

10. SUBSTITUTE AND "OR-EQUAL" ITEMS

10.1 The Contract, if awarded, will be on the basis of materials and equipment described on the Drawings or specified in the Specifications without consideration of possible substitute or "or equal" items. Whenever it is indicated on the Drawings or specified in the Specifications that a substitute or "or - equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in paragraphs 6.7.1, 6.7.2 and 6.7.3 of the General Conditions and may be supplemented in the General Requirements.

11. SUBCONTRACTORS, SUPPLIERS AND OTHERS

11.1 **When a BIDDER submits a Bid, that Bid shall include the Schedule of Subcontractors, which shall identify each element of the Work to be subcontracted. Subcontractors whose subcontract exceeds five percent of the Total Bid Price shall be prequalified by the City of Louisville, City Engineer for their specific portion of the Work.**

11.2 If OWNER, who after due investigation has reasonable objection to any proposed Subcontractor, other person or organization, may before the Notice of Award is given, request the apparent Successful BIDDER to submit a substitute Subcontractor acceptable to the City without an increase in Bid price. If the apparent Successful BIDDER declines to make any such substitution, OWNER may award the contract to the next lowest BIDDER that proposes to use acceptable Subcontractors and other persons and organizations. The declining to make requested substitutions will not constitute grounds for sacrificing the Bid security of any BIDDER. Any Subcontractor or other person or organization listed and to whom OWNER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.8.2. of the General Conditions.

11.3 CONTRACTOR shall not be required to employ any Subcontractor, Supplier, other person or organization against whom CONTRACTOR has reasonable objection.

11.4 The Contract Documents will take precedence over any nonconforming data submitted. Any Bid specifically conditioned upon furnishing equipment or materials, which are not responsive to the Contract Documents, will not be considered.

12. BID FORM

12.1 The Bid Form is included in the Contract Documents. A spreadsheet is available upon request, but a hard copy must be submitted with the sealed bids.

12.2 All blanks on the Bid Form must be completed by printing in ink or by typewriter. All unit prices including lump sums in the unit price schedule are to be expressed in numerals only.

12.3 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal shall be affixed and attested by the secretary or an assistant secretary. The state of incorporation shall be shown below the corporate name.

12.4 Bids by partnerships must be executed in the partnership name and signed by a duly authorized general partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature. A partnership shall give the full names and addresses of all partners and their interest and role in the partnership business.

12.5 All names must be typed or printed in ink below the signature.

12.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).

12.7 The BIDDER's business address and telephone number for communications regarding the Bid must be shown.

12.8 Each Bid shall contain evidence of BIDDER's qualification to do business in the state of Colorado or covenant to obtain such qualification.

12.9 No alterations in Bids, or in the printed forms therefor, by erasures, interpolations, or otherwise will be accepted unless each such alteration is signed or initialed by the BIDDER; if initialed, OWNER may require the BIDDER to identify any alteration so initialed.

12.10 Bids will be based on a combination of unit price and lump sum schedules including alternatives. Unit price schedules shall be bid as provided in Paragraph 12.10.1 below. Lump sum schedules shall be bid as provided in paragraph 12.10.2 below.

12.10.1 Bids for unit price schedules shall be based on a unit price basis. The Total Bid Price will be determined as the sum of the products of the estimated quantity of each item and the unit price set forth in the Schedule of Unit Prices. The final Contract Price will be subject to adjustment according to final measured, used or delivered quantities as provided in the Specifications and the unit prices in the Bid Form will apply to such final quantities except that unit prices may be subject to change by Change Order if a variation in actual quantities used and subsequent amount does equal or exceed 25 percent (25%) of the total bid price.

12.10.2 Bids for lump sum schedules shall be based on a lump sum basis for each lump sum item.

13. SUBMISSION OF BIDS

13.1 Bids shall be submitted at the time and place indicated in the Advertisement of Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the Project Title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of the BIDDER, and addressed to the City of Louisville as indicated in the Advertisement of Invitation to Bid accompanied by the Bid Security and other required documents. If the Bid is sent through the mail or other delivery system the sealed Bid shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of the separate sealed envelope.

13.2 Bids shall be deposited at the designated location prior to the time and date for receipt of Bids indicated in the Invitation to Bid, or any extension thereof made by Addendum. Bids received after the time and date for receipt of Bids will be returned unopened. BIDDER shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

13.3 Oral, telephonic, or telegraphic Bids are invalid and will not receive consideration.

13.4 No BIDDER may submit more than one Bid. Multiple Bids under different names will not be accepted from one firm or association.

14. MODIFICATION AND WITHDRAWAL OF BIDS

14.1 Bids may be modified or withdrawn by an appropriate document duly executed (in a manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

14.2 Bids may also be modified or withdrawn in person by the BIDDER or an authorized representative provided he can prove his identity and authority.

14.3 Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to BIDDERs.

14.4 If, within twenty-four hours after Bids are opened, any BIDDER files a duly signed, written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that BIDDER may withdraw its Bid and the Bid security will be returned. Thereafter, that BIDDER will be disqualified from further bidding on the Work to be provided under the Contract Documents.

15. OPENING OF BIDS

15.1 Bids will be opened and (unless obviously non-responsive) read aloud publicly as indicated in the Invitation to Bid. An abstract of the amounts of the base Bids and major alternates (if any) will be made available to BIDDERS.

16. BIDS TO REMAIN OPEN SUBJECT TO ACCEPTANCE

16.1 All Bids shall remain open for sixty (60) days after the day of the Bid opening, but OWNER may, in its sole discretion, release any Bid and return the Bid Security prior to that date.

17. AWARD OF CONTRACT

17.1 OWNER reserves the right to reject any or all Bids, including without limitation the rights to reject any or all irregular, nonconforming, nonresponsive, unbalanced or conditional Bids and to reject the Bid of any BIDDER if OWNER believes that it would not be in the best interest of the Project to make an award to that BIDDER, whether because the Bid is not responsive or the BIDDER is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by OWNER. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

17.2 In evaluating Bids, OWNER will consider the qualifications of the BIDDERs, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

17.3 OWNER will consider the qualifications and experience of Subcontractors and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors and other persons and organizations must be submitted. OWNER also will consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

17.4 OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the BIDDER, proposed Subcontractors and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to OWNER's satisfaction within the prescribed time.

17.5 If the contract is to be awarded, it will be awarded to the lowest responsible BIDDER based on the combination of Bid Schedules as determined by OWNER and whose evaluation by OWNER indicates to OWNER that the award will be in the best interest of the Project.

17.6 If the contract is to be awarded, OWNER will accept the Bid within sixty days after the Bid opening and will give the Successful BIDDER a Notice of Award within sixty-five days after the day of the Bid opening. The OWNER's acceptance of the Bid proposal shall bind the successful BIDDER to sign the Contract Documents within ten (10) days after the date of the receipt by the BIDDER of the Notice of Award. The rights and obligations set forth in the Contract Documents shall become effective only with the signature of the **MAYOR** on behalf of the City.

17.7 It is the OWNER'S intention to award the entire contract as bid. The OWNER reserves the right to award a contract that is in the best interest of the OWNER and within the amount budgeted. The OWNER has or will have prior to award appropriated monies at least equal to the contract amount. The Total Bid Price, subject to the other considerations herein, shall be the basis of award. Quantities may be reduced in order to reach budget amount, in that case the unit prices shall govern to determine the lowest Total Bid Price, which shall

then determine the basis of award. If quantity reductions are required, quantities may be reduced from any item. Bid may be awarded by adding (or subtracting) the base bid plus any add alternatives, at the OWNER'S sole discretion.

The BIDDER acknowledges that the OWNER has the right to delete any item of the Schedule of Units Prices or change quantities and locations in any item at OWNER'S sole discretion without affecting the contract prices of any item of the Contract so long as the deletion or change does not exceed twenty-five percent (25%) of the Total Bid Price. Notwithstanding the foregoing, if a reduction is made in Unit Price items or quantities, the lump sum cost for traffic control shall be reduced by the same percentage as the percentage change made from the original unit price cost/quantity to the reduced original unit price cost/quantity.

Quantities listed in the Schedule of Unit Prices are approximate and are for the purpose of comparing bids. These quantities have been estimated and are for the general information of the BIDDER. Quantities are not guaranteed.

17.8 In addition to Paragraph 17.1 of the Instructions to Bidders, in evaluating Bids, the OWNER will consider Bids irregular, and intends to reject Bids, for any of the following substantial reasons:

17.8.1 Unsigned Bid Form;

17.8.2 Bid Forms which have items omitted by the BIDDER;

17.8.3 Altering a Bid as to specified time of commencement of completion of Work;

17.8.4 Bid Forms not accompanied by a Bid Security of character indicated or of an amount less than indicated;

17.8.5 If the Bid Form is on a form other than that provided in Contract Documents, or if the Bid Form is altered;

17.8.6 If there are unauthorized additions, conditional or alternate Bids, or discrepancies of any nature that make the Bid Form incomplete, indefinite, or ambiguous as to its meaning;

17.8.7 If the BIDDER adds any provisions reserving the right to accept or reject an award, or to enter into a Contract pursuant to an award;

17.8.8 If the Schedule of Unit Prices in the Bid Form does not contain a unit price for each item number listed; or,

17.8.9 Submitting more than one Bid, where there is evidence that any BIDDER has an interest in more than one Bid for the same work, or where there is evidence of collusion or other illegal activities between BIDDERS. In addition to any other remedies the OWNER may have, the OWNER may retain as liquidated damages for the disruption of the bidding process the Bid Security of all bidders involved in collusion or other illegal activities. The BIDDER and the OWNER agree that the amount of the Bid Security is a reasonable estimate of damages for collusion and other illegal activities on the part of the BIDDER and not disproportionate to the anticipated loss or injury. A person or entity, which has quoted prices to a

BIDDER, is not hereby disqualified from quoting prices to other BIDDERS or from submitting a direct bid on its own behalf.

17.8.10 In evaluating Bids, the OWNER may consider Bids informal, and may, in its sole discretion, elect to waive informalities for the following minor reasons:

17.8.11 Omission of dates when signed or title of person signing;

17.8.12 Failure to acknowledge an addendum, which does not affect quantity, quality, time, or price;

17.8.13 Submission of a Bid in an unsealed envelope;

17.8.14 Unit price Bids which include reconcilable arithmetic errors may be corrected if it does not change the unit price; or,

17.8.15 Unit price Bids which include reconcilable arithmetic errors may be corrected, if it does not change the amount on which the award will be based.

18. CONTRACT SECURITY

18.1 Paragraph 5.1 of the General Conditions set forth OWNER's requirements as to performance and payment Bonds. When the Successful BIDDER delivers the executed Agreement to OWNER it shall be accompanied by the required performance and payment Bonds.

19. SIGNING OF AGREEMENT

19.1 When OWNER gives a Notice of Award to the Successful BIDDER, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within ten (10) days after CONTRACTOR's receipt of the Notice of Award, CONTRACTOR shall sign and have notarized the required number of counterparts of the Agreement and attached documents and return them to the OWNER along with the required Bonds, insurance certificates and power of attorney authorizations.

20. SPECIAL LEGAL REQUIREMENTS

20.1 OWNER's Finances. OWNER has made adequate financial arrangements for the completion of all Work required by the Contract Documents and welcomes inquiries from prospective BIDDERs on the prime contract.

21. SALES AND USE TAXES

21.1 OWNER is exempt from Colorado State Sales and Use Taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Contract Price. Refer to General Conditions 6.15 for additional information.

22. RETAINAGE

22.1 Provisions concerning retainage and CONTRACTORS' rights to deposit securities in lieu of retainage are set forth in the Agreement.

23. MISTAKES IN BIDDING INSTRUCTIONS

23.1 If the OWNER makes a mistake in drafting the Instructions to Bidders or any other Contract Documents, the OWNER reserves the right to reject any or all Bids, or to require that BIDDERS submit an alternate bid proposal with adjustments made to correct the error(s). Such errors will be set forth in an addendum. If the CONTRACTOR has already been selected and has started performing work under the contract, and the OWNER then discovers a mistake in the Contract Documents for which the OWNER is responsible, the OWNER may opt to reform the contract. If the mistake causes the Contractor to receive compensation for materials not used in the Work or for labor, which would not be required for the Work, the Contract Price shall be decreased proportionally. If the mistake causes the CONTRACTOR to fail to bid on work, which must be performed in order to properly complete the contract, the OWNER may increase the Contract Price to equal the proportionate increase in the cost of required materials and labor caused to the CONTRACTOR. In the alternative, the OWNER may solicit bids for such additional work, or the OWNER may reassign such additional work to another CONTRACTOR, as the OWNER deems appropriate. Nothing in this provision shall apply to mistakes made by the CONTRACTOR in completing the Bid Form or in performing the contract.

BID FORM

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

THIS BID IS SUBMITTED TO: THE CITY OF LOUISVILLE, COLORADO

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

2. BIDDER accepts all of the terms and conditions of the Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid Security. This Bid will remain subject to acceptance for sixty days after the day of Bid opening. BIDDER will sign and submit the Agreement with the Bonds and other documents required by the Bidding Requirements within ten days after the date of OWNER's Notice of Award.

3. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

   (a) BIDDER has examined copies of all the Bidding Documents and of the following Addenda receipt of all which is hereby acknowledged: (List Addenda by Addendum Number and Date):

Date	Number
_____	_____
_____	_____

   (b) BIDDER has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

   (c) BIDDER has studied carefully all reports and drawings of subsurface conditions and drawings of physical conditions which are identified in the General Conditions as provided in paragraph 4.2, and accepts the determination set forth in paragraph 4.2 of the General Conditions. BIDDER has inspected the site and has obtained conducted and carefully studied (or assumes responsibility for obtaining and carefully studying) all examinations, investigations, explorations, tests and studies which pertain to the subsurface or physical conditions at the site or otherwise may affect the cost, progress, performance or furnishing of the Work as BIDDER considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.2 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports or similar information or data are or will be required by BIDDER for such purpose.

(d) BIDDER has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports or similar information or data in respect of said Underground Facilities are or will be required by BIDDER in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of paragraph 4.3 of the General Conditions.

(e) BIDDER has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.

(f) BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that BIDDER has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.

(g) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for himself any advantage over any other Bidder or over OWNER.

4. BIDDER will complete the Work in accordance with Contract Documents for the following price(s):

SCHEDULE OF UNIT PRICES

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

BASE BID:

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
1	CIPP SANITARY SEWER MAIN (6")	LF	720	$	$
2	CIPP SANITARY SEWER MAIN (8")	LF	2110	$	$
3	CIPP SANITARY SEWER MAIN (12")	LF	1120	$	$
4	SANITARY SERVICE CUT OUT (6" MAIN)	EA	17	$	$
5	SANITARY SERVICE CUT OUT (8" MAIN)	EA	37	$	$
6	SANITARY SERVICE CUT OUT (12" MAIN)	EA	11	$	$
7	LATERAL SEAL (6" MAIN)	EA	17	$	$
8	LATERAL SEAL (8" MAIN)	EA	37	$	$
9	LATERAL SEAL (12" MAIN)	EA	11	$	$
10	MANHOLE STEPS	EA	70	$	$
11	CONSTRUCTION ZONE TRAFFIC CONTROL	LS	1	$	$
12	INTERNAL POINT REPAIR	EA	6	$	$

BID SUMMARY

BASE BID TOTAL: $_____

Unit Prices have been computed in accordance with paragraph 11.9.2 of the General Conditions.

BIDDER acknowledges that quantities are not guaranteed and final payment will be based on actual quantities determined as provided in the Contract Documents.

5. BIDDER agrees that the Work;

   will be substantially complete and completed and ready for final payment in accordance with paragraph 14.13 of the General Conditions on or before the dates or within the number of Contract Days indicated in the Agreement.

   BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified in the Agreement.

6. The following documents are attached to and made a condition of this Bid:

   (a) Schedule of Unit Prices;

   (b) Required Bid Security;

   (c) A list of Subcontractors and other persons and organizations proposed to perform the Work are required to be identified on the Schedule of Subcontractors;

   (d) Anti-Collusion Affidavit;

   (e) If BIDDER is a partnership, a list of all partners, their addresses, and their interest and role in the partnership business;

   (f) Certification of EEO Compliance;

   (g) Prohibition Against Employing Illegal Aliens; and

   (h) Contractor's Pre-Contract Certification Regarding Employing Illegal Aliens

7. Communications concerning this Bid shall be addressed to:
   The address of BIDDER indicated below.

   _____

   _____

   _____

8. Terms used in this Bid, which are defined in the General Conditions of the Construction Contract included as part of the Contract Documents, have the meanings assigned to them in the General Conditions.

SUBMITTED on _____, 2025.

If BIDDER is:

An Individual

By _____
(Individual's Name)

(SEAL)

doing business as _____

Business address: _____

_____

_____

Phone No.: _____

A Partnership

By _____
(Firm Name)

(SEAL)

_____
(General Partner)

Business address: _____

_____

_____

Phone No.: _____

A Corporation

By _____
(Corporation Name)

_____
(State of incorporation)

By _____
(Name of person authorized to sign)

_____
(Title)

(CORPORATE SEAL)

Attest _____
(Secretary)

Business address: _____

_____

_____

Phone No.: _____

Date of Qualification to do business: _____

A Joint Venture

By _____
(Name)

_____
(Address)

By _____
(Name)

_____
(Address)

Phone Number and Address for receipt of official communications

_____

_____

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

BID BOND

BIDDER (Name and Address):

_____
_____
_____

SURETY (Name and Address of Principal Place of Business):

_____
_____
_____

OWNER (Name and Address):

_____
_____
_____

BID:

BID DUE DATE: _____
PROJECT (Brief Description Including Location):

_____
_____
_____

BOND:

BOND NUMBER: _____
DATE: (Not later than Bid Due Date): _____
PENAL SUM: _____

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER	**SURETY**
_____(Seal)	_____(Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	By: _____
Signature and Title	Signature and Title (Attach Power of Attorney)
Attest: _____	Attest: _____
Signature and Title	Signature and Title

Note: (1) Above addresses are to be used for giving requiring notice.
(2) Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents the properly executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents.

3. This obligation shall be null and void if:

   3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents, or

   3.2. All bids are rejected by Owner, or

   3.3. Owner fails to issue a notice of award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within thirty (30) calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue notice of award agreed to in writing by Owner and Bidder, provided that the time for issuing notice of award including extensions shall not in the aggregate exceed 120 days from Bid Due Date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to thirty (30) calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety, and in no case later than one year after Bid Due Date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notice required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirements of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of the Bond conflicts with any applicable provision of any applicable statute, then the provision of said statue shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "bid" as used herein includes a bid, offer or proposal as applicable.

SCHEDULE OF SUBCONTRACTORS

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

This Bid is based on subcontracting certain portions of the work to subcontractors as listed below.

Name: _____ Telephone No. _____
Address: _____ _____ _____
City: _____ State: _____ Zip Code: _____
Services/equipment to be provided: _____
_____
_____

Name: _____ Telephone No. _____
Address: _____ _____ _____
City: _____ State: _____ Zip Code: _____
Services/equipment to be provided: _____
_____
_____

Name: _____ Telephone No. _____
Address: _____ _____ _____
City: _____ State: _____ Zip Code: _____
Services/equipment to be provided: _____
_____
_____

Name: _____ Telephone No. _____
Address: _____ _____ _____
City: _____ State: _____ Zip Code: _____
Services/equipment to be provided: _____
_____
_____

Name: _____ Telephone No. _____
Address: _____ _____ _____
City: _____ State: _____ Zip Code: _____
Services/equipment to be provided: _____
_____
_____

Name: _____ Telephone No. _____
Address: _____ _____ _____
City: _____ State: _____ Zip Code: _____
Services/equipment to be provided: _____
_____

ANTI-COLLUSION AFFIDAVIT

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

I hereby attest that I am the person responsible within my firm for the final decision as to the price(s) and amount of this Bid or, if not, that I have written authorization, enclosed herewith, from that person to make the statements set out below on his or her behalf of my firm.

I further attest that:

1. The price(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement for the purpose or with the effect of restricting competition with any other firm or person who is a BIDDER or potential prime BIDDER.

2A. Neither the price(s) nor the amount of this Bid have been disclosed to any other firm or person who is a BIDDER or potential prime BIDDER on this project, and will not be so disclosed prior to bid opening.

2B. Neither the prices nor the amount of the Bid of any other firm or person who is a BIDDER or potential prime BIDDER on this project have been disclosed to me or my firm.

3A. No attempt has been made to solicit, cause or induce any firm or person who is BIDDER or potential prime BIDDER to refrain from bidding on this project, or to submit a Bid higher than the Bid of this firm, or any intentionally high or noncompetitive Bid or other form of complementary Bid.

3B. No agreement has been promised or solicited for any other firm or person who is a BIDDER or potential prime BIDDER on this project to submit an intentionally high, noncompetitive or other form of complementary bid on this project.

4. The Bid of my firm is made in good faith and not pursuant to any consultation, communication, agreement or discussion with, or inducement or solicitation by or from any firm or person to submit any intentionally high, noncompetitive or other form of complementary bid.

5. My firm has not offered or entered into a subcontract or agreement regarding the purchase or sale of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit any intentionally high, noncompetitive or other form of complementary bid or agreeing or promising to do so on this project.

6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting any intentionally high, noncompetitive or other form of complementary bid, or agreeing or promising to do so, on this project.

7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, or other conduct inconsistent with any of the statements and representations made in this affidavit.

8. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as a fraudulent concealment from the OWNER of the true facts relating to submission of bids for this contract.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

CONTRACTOR'S FIRM OR COMPANY NAME	SECOND CONTRACTOR'S FIRM OR COMPANY NAME (IF JOINT VENTURE)
BY: _____	BY: _____
TITLE: _____	TITLE: _____
DATE: _____	DATE: _____

SWORN BEFORE ME THIS _____ DAY OF, _____, 2025

NOTARY PUBLIC: _____ MY COMMISSION EXPIRES: _____

CERTIFICATION OF EEO COMPLIANCE

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

Instructions: BIDDER's and Subcontractors must complete and submit this form with the Bid Form. This is required by the Equal Employment Opportunity Regulations 41 CFR 1.7 (b) (1).

1. ___ Yes ___ No	I have developed and have on file at each establishment an affirmative action program as required by 41 CFR Chapter 60, Part 60-2.
2. ___ Yes ___ No	I have participated in a previous contract/subcontract subject to the equal opportunity clause.
3. ___ Yes ___ No	I have filed with the Joint Reporting Committee, the Director, or the Equal Employment Opportunity Commission all reports due under the applicable filing requirements.

I declare under penalty of perjury in the second degree and any other applicable state or federal laws that the statements made in this document are true and complete to the best of my knowledge.

CONTRACTOR
___ BIDDER ___ PROPOSED SUBCONTRACTOR

BY: _____

TITLE: _____

DATE: _____

City of Louisville Public Services Contract Addendum

Prohibition Against Employing Workers Without Authorization

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

Prohibition Against Employing Workers Without Authorization. Contractor shall not knowingly employ or contract with a worker without authorization to perform work under this contract. Contractor shall not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with a worker without authorization to perform work under this contract.

Contractor will participate in either the E-verify program or the Department program, as defined in C.R.S. § § 8-17.5-101(3.3) and 8-17.5-101(3.7), respectively, in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under the public contract for services. Contractor is prohibited from using the E-verify program or the Department program procedures to undertake pre-employment screening of job applicants while this contract is being performed.

If Contractor obtains actual knowledge that a subcontractor performing work under this contract for services knowingly employs or contracts with a worker without authorization, Contractor shall:

a. Notify the subcontractor and the City within three days that the Contractor has actual knowledge that the subcontractor is employing or contracting with a worker without authorization; and

b. Terminate the subcontract with the subcontractor if within three days of receiving the notice required pursuant to this paragraph the subcontractor does not stop employing or contracting with the worker without authorization; except that the Contractor shall not terminate the contract with the subcontractor if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with a worker without authorization.

Contractor shall comply with any reasonable request by the Department of Labor and Employment made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5).

If Contractor violates a provision of this Contract required pursuant to C.R.S. § 8-17.5-102, City may terminate the contract for breach of contract. If the contract is so terminated, the Contractor shall be liable for actual and consequential damages to the City.

Contractor's Pre-Contract Certification

Regarding Employing Workers Without Authorization

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

The proposer of public services to the City of Louisville identified below (hereafter "the Proposer"), hereby certifies as follows:

That at the time of providing this certification, Proposer does not knowingly employ or contract with an illegal alien; and that Proposer has participated in or attempted to participate in the Basic Pilot Program administered by the United States Department of Homeland Security in order to verify that it does not employ any illegal aliens.

Dated this _____ day of _____, 20____.

Proposer: _____

By: _____

Title: _____

AGREEMENT

THIS AGREEMENT is made and entered into this _____ day of _____ in the year 2025 by and between:

CITY OF LOUISVILLE, COLORADO
(hereinafter called OWNER)

and

_____
(hereinafter called CONTRACTOR)

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows.

ARTICLE 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313

ARTICLE 2. CONTRACT TIMES

2.1 The CONTRACTOR shall substantially complete all work by **Friday, January 30, 2026** and within **74 Contract Days** after the date when the Contract Time commences to run. The Work shall be completed and ready for final payment in accordance with paragraph 14.13 of the General Conditions within **94 Contract Days** after the date when the Contract Times commence to run. The Contract Times shall commence to run on the day indicated in the Notice to Proceed.

2.2 LIQUIDATED DAMAGES. The OWNER and the CONTRACTOR agree and recognize that time is of the essence in this contract and that the OWNER will suffer financial loss if the Work is not substantially complete by the date specified in paragraph 2.1 above, plus any extensions thereof allowed in accordance with the Article 12 of the General Conditions. OWNER and CONTRACTOR also agree that such damages are uncertain in amount and difficult to measure accurately. Accordingly, the OWNER and CONTRACTOR agree that as liquidated damages, and not as a penalty, for delay in performance the CONTRACTOR shall pay the OWNER **ONE THOUSAND FIVE HUNDRED DOLLARS ($1,500)** for each and every **Contract Day** and portion thereof that expires after the time specified above for substantial completion of the Work until the same is finally complete and ready for final payment. The liquidated damages herein specified shall only apply to the CONTRACTOR's delay in performance, and shall not include litigation or attorneys' fees incurred by the OWNER, or other incidental or consequential damages suffered by the OWNER due to the CONTRACTOR's performance. If the OWNER charges liquidated damages to the CONTRACTOR, this shall not preclude the OWNER from commencing an action against the CONTRACTOR for other actual harm resulting from the CONTRACTOR's performance, which is not due to the CONTRACTOR's delay in performance.

ARTICLE 3. CONTRACT PRICE

3.1 The OWNER shall pay in current funds, and the CONTRACTOR agrees to accept in full payment for performance of the Work, subject to additions and deductions from extra and/or omitted work and determinations of actual quantities as provided in the Contract Documents, the Contract Price of _____ ($_____) as set forth in the Bid Form of the CONTRACTOR dated _____, 2025.

As provided in paragraph 11.9 of the General Conditions estimated quantities are not guaranteed, and determinations of actual quantities and classification are to be made by ENGINEER as provided in paragraph 9.10 of the General Conditions. Unit prices have been computed as provided in paragraph 11.9 of the General Conditions.

ARTICLE 4. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by OWNER as provided in the General Conditions.

4.1 PROGRESS PAYMENTS. OWNER shall make progress payments on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER, on or about the third Wednesday of each month during construction as provided below. All progress payments will be on the basis of the progress of the Unit Price Work based on the number of units completed as provided in the General Conditions.

4.1.1.1 Prior to final completion and acceptance, progress payments will be made in the amount equal to 95 percent of the calculated value of completed Work, and/or 95 percent of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in 14.2 of the General Conditions), but in each case, less the aggregate of payments previously made and such less amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.7 of the General Conditions.

If OWNER finds that satisfactory progress is being made in any phase of the Work, it may, in its discretion and upon written request by the CONTRACTOR, authorize final payment from the withheld percentage to the CONTRACTOR or subcontractors who have completed their work in a manner finally acceptable to the OWNER. Before any such payment may be made, the OWNER must, in an exercise of its discretion, determine that satisfactory and substantial reasons exist for the payment and there must be provided to the OWNER written approval from any surety furnishing bonds for the Work.

Nothing contained in this provision shall preclude the OWNER and CONTRACTOR from making other arrangements consistent with C.R.S. 24-91-105 prior to contract award.

4.2 FINAL PAYMENT. Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, OWNER shall pay the remainder of the Contract Price as provided in said paragraph 14.13 of the General Conditions.

ARTICLE 5. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

5.1 CONTRACTOR has examined and carefully studied the Contract Documents, (including the Addenda listed in paragraph 6.10) and the other related data identified in the Bidding Documents including "technical".

5.2 CONTRACTOR has inspected the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.

5.3 CONTRACTOR is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and furnishing of the Work.

5.4 CONTRACTOR has carefully studied all reports of exploration and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions relating to surface or subsurface structures at or contiguous to the site (Except Underground facilities) which have been identified in the General Conditions as provided in paragraph 4.2.1 of the General Conditions. CONTRACTOR accepts the determination set forth in paragraph 4.2 of the General Conditions. CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may not be complete for CONTRACTOR's purposes. CONTRACTOR acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to such reports, drawings or to Underground Facilities at or contiguous to the site. CONTRACTOR has conducted, obtained and carefully studied (or assume responsibility for having done so) all necessary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto. CONTRACTOR does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.

5.5 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.3 of the General Conditions.

5.6 CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the site that relates to the Work as indicated in the Contract Documents.

5.7 CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests studies and data with the Contract Documents.

5.8 CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR, and the Contract Documents are

generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing the Work.

ARTICLE 6. CONTRACT DOCUMENTS

The Contract Documents, which constitute the entire agreement between OWNER and CONTRACTOR concerning the Work, are all written documents, which define the Work and the obligations of the Contractor in performing the Work and the OWNER in providing compensation for the Work. The Contract Documents include the following:

6.1 Invitation to Bid.

6.2 Instruction to Bidders.

6.3 Bid Form.

6.4 This Agreement.

6.5 General Conditions.

6.6 Supplementary Conditions.

6.7 General Requirements.

6.8 Technical Specifications.

6.9 Drawings with each sheet bearing the title: **2025 CIPP SEWER LINING PROJECT**

6.10 Change Orders, Addenda and other documents which may be required or specified including:

6.10.1 Addenda No. __ to __ exclusive
6.10.2 Documentation submitted by CONTRACTOR prior to Notice of Award.
6.10.3 Schedule of Subcontractors
6.10.4 Anti-Collusion Affidavit
6.10.5 Certification of EEO Compliance
6.10.6 Notice of Award
6.10.7 Performance Bond
6.10.8 Labor and Material Payment Bond
6.10.9 Certificates of Insurance
6.10.10 Notice to Proceed
6.10.11 Contractor's Proposal Request
6.10.12 Contractor's Overtime Request
6.10.13 Field Order
6.10.14 Work Change Directive
6.10.15 Change Order
6.10.16 Application for Payment
6.10.17 Certificate of Substantial Completion
6.10.18 Claim Release
6.10.19 Final Inspection Report
6.10.20 Certificate of Final Completion
6.10.21 Guarantee Period Inspection Report

6.11 The following which may be delivered or issued after the Effective Date of the Agreement and are attached hereto: All Written Amendments and other documents amending, modifying, or supplementing the Contract Documents pursuant to paragraphs 3.5 and 3.6 of the General Conditions.

6.12 In the event of conflict between the above documents, the prevailing document shall be as follows:

1. Permits from other agencies as may be required.

2. Special Provisions and Detail Drawings.

3. Technical Specifications and Drawings. Drawings and Technical Specifications are intended to be complementary. Anything shown or called for in one and omitted in another is binding as if called for or shown by both.

4. Supplementary Conditions.

5. General Conditions.

6. City of Louisville Design and Construction Standards.

7. Reference Specifications.

In case of conflict between prevailing references above, the one having the more stringent requirements shall govern.

There are no Contract Documents other than those listed above in this Article 6. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.5 and 3.6 of the General Conditions.

ARTICLE 7. MISCELLANEOUS

7.1 Terms used in this Agreement, which are defined in Article 1 of the General Conditions, shall have the meanings indicated in the General Conditions.

7.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge that assignor from any duty or responsibility under the Contract Documents.

7.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

7.4 OWNER AND CONTRACTOR consent to the use of electronic signatures on the Contract Documents. This Agreement, and any other Contract Documents requiring a signature hereunder, may be signed electronically by the Parties in the manner specified under the Uniform Electronic Transactions Act, Title 24, Article 71.3, Part 1, C.R.S.; provided that, electronic records of, and electronic signatures on, any required bonds, including required Performance, Labor and Material Payment, and Warranty Bonds, must be acceptable to the Contractor's selected surety. The Parties agree not to deny the legal effect or enforceability of a Contract Document solely because the document is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of a Contract Document in the form of an electronic record, or a paper copy of an electronic document, or a

paper copy or electronic record of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

ARTICLE 8. OTHER PROVISIONS

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed, initialed or identified by OWNER and CONTRACTOR.

This Agreement will be effective on _____, 2025.

OWNER: CITY OF LOUISVILLE, COLORADO

By: _____
Christopher M. Leh, Mayor

(CORPORATE SEAL)

Attest: _____
Meredyth Muth, City Clerk

Address for giving notices:

749 Main Street
Louisville, Colorado
80027

Attention: City Engineer

CONTRACTOR: _____

By: _____

(CORPORATE SEAL)

Attest: _____

Address for giving notices:

_____

_____

_____

PERFORMANCE BOND

_____ , as Principal, hereinafter called the Contractor, and

_____, as Surety, with general offices in

_____
a Corporation organized under the laws of the State of _____, and authorized to transact business in the State of Colorado, are hereby bound unto the City of Louisville, Colorado, as Obligee, hereinafter called the City, in the penal sum of _____ ($_____) in the United States currency, for the payment of which sum the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

WHEREAS, the Contractor has entered into a written contract with the City dated _____, 2025, for _____ in accordance with plans and specifications contained in the Contract, a copy of which Contract is attached hereto and made a part hereof and is hereinafter referred to as the Contract;

NOW, THEREFORE, the conditions of this performance bond are such that, if the Contractor shall satisfactorily perform the Contract, then this bond shall be null and void; otherwise, the Surety shall promptly remedy the default, or shall promptly 1) Complete the Contract in accordance with its terms and conditions, or 2) Obtain a Bid or Bids for completing the contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or if the City elects, upon determination by the City and the Surety jointly of the lowest responsible bidder, arrange for a Contract between such Bidder and the City, and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the costs of completion plus liquidated damages additional costs pursuant to Section 12.2 of the General Conditions of the Contract less the balance of the contract price, but not exceeding the amount set forth in the first paragraph hereof. The term "balance of the contract price", as used in this paragraph, shall mean the total amount payable by the City to the Contractor under the Contract and any amendments thereto, less the amount paid by the City to Contractor.

In addition, if the Contractor or a subcontractor shall fail to duly pay for any labor, materials, team hire, sustenance, provisions, provender, or other supplies used or consumed by such Contractor or subcontractor in performance of the Contract, or shall fail to duly pay any person who supplies rental machinery, tools, or equipment, all amounts due as the result of the use of such machinery, tools or equipment in the prosecution of the Work, then the Surety shall pay the same in the amount not exceeding the sum specified in the bond together with interest at a rate of eight percent per annum.

In addition to the other conditions hereof, this bond shall include all provisions set forth in Section 38-26-106, C.R.S.

THE UNDERSIGNED SURETY for value received hereby agrees that no extension of time, change in, addition to, or other modification of the terms of the Contract of Work to be performed thereunder or the specifications of the Contract Documents shall in any way affect its obligation on this bond and the Surety does hereby waive notice of any such extension of time, change, addition, or modifications.

SIGNED AND SEALED this _____ day of _____ , 2025.

_____	_____
(Contractor)	**(Surety Company)**
By: _____	Address: _____
(President)	
_____	By: _____
(Attest)	(Attorney-in-fact)

LABOR AND MATERIAL PAYMENT BOND

BOND NUMBER:

KNOW ALL MEN BY THESE PRESENCES: that

(Firm) _____
(Address) _____
(an Individual), (a Partnership), (a Corporation), hereinafter referred to as "the Principal", and

(Firm)_____
(Address) _____
hereinafter referred to as "the Surety", are held and firmly bound unto the
CITY OF LOUISVILLE, 749 MAIN STREET, LOUISVILLE, COLORADO a Municipal Corporation, hereinafter referred to as "the Owner", in the penal sum of
_____ Dollars
($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION are such that whereas the Principal entered into a certain Agreement with the Owner, dated the _____ day of _____, 2025, a copy of which is hereto attached and made a part hereof for the performance of

---

NOW, THEREFORE, if the Principal shall make payment to all persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in such Agreement, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, repairs on machinery, equipment and tools, consumed, rented or used in connection with the construction of such work, and all insurance premiums on said Work, and for all labor, performed in such Work whether by Subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or to the Work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this Bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or to the Work or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

In addition to the other conditions hereof, this bond shall include all provisions set forth in Section 38-26-105, C.R.S.

IN WITNESS WHEREOF, this instrument is executed in (3) counterparts, each one of which shall be deemed an original, this _____ day of _____, 2025.

IN THE PRESENCE OF:

_____

_____

PRINCIPAL:

BY: _____

_____
(Title)

(Corporate Seal)

Addresses:

_____

_____

_____

IN THE PRESENCE OF:

_____

_____

OTHER PARTNERS:

By: _____

By: _____

IN THE PRESENCE OF:

_____

_____

SURETY:

By: _____
(Attorney-in fact)

Address:

(Surety Seal)

_____

_____

NOTE: Date of Bond must not be prior to date of Agreement.
If Contractor is a Partnership, all partners must execute Bond.

IMPORTANT: Surety Company must be authorized to transact business in the state of Colorado and be acceptable to the Owner.

NOTICE OF AWARD

DATED: _____

TO: _____
_____
_____

PROJECT: 2025 CIPP SEWER LINING PROJECT
OWNER'S PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

Please be advised that on _____, 2025, the City of Louisville, Colorado City Council awarded the 2025 Utility Project to your company in the amount of $_____ per your low unit price bid. In accordance with the Contract Documents, you are required to execute two copies of the Agreement and return both copies with the required bonds and certificates of insurance within **10 days** of the date of this Notice of Award by _____, 2025.

Failure to comply with these conditions within the time specified will entitle OWNER to consider your bid abandoned, to annul this Notice of Award and to declare your Bid Security forfeited.

CITY OF LOUISVILLE, COLORADO	ACCEPTANCE OF NOTICE
By: _____ ___ Tyler Trojan, P.E.	By: _____
Title: Civil Engineer III	Title: _____

NOTICE TO PROCEED

DATED: _____

TO: _____
_____
_____

PROJECT: 2025 CIPP SEWER LINING PROJECT
OWNER'S PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

You are hereby notified that the Contract Time under the above Contract will commence to run on **Monday November 17, 2025**. On that date, you are to begin performing the Work in accordance with the Contract Documents and you are to complete the Work within **74 Contract Days** thereafter. The date of substantial completion of all Work is therefore **Friday January 30, 2026.**

CITY OF LOUISVILLE, COLORADO

By: _____
Tyler Trojan, P.E.

Title: Civil Engineer III

ACKNOWLEDGEMENT

Receipt of the above Notice to Proceed is hereby acknowledged.

CONTRACTOR:

By: _____

Title: _____

Date: _____

CHANGE ORDER NO. __

DATED: _____

PROJECT: 2025 CIPP SEWER LINING PROJECT

AGREEMENT DATE:_____

PROJECT NUMBER**:** 502498-660313

OWNER: CITY OF LOUISVILLE, COLORADO

The following changes are hereby made to the Contract Documents:

Description: _____

Purpose: _____

Attachments: _____

ADJUSTMENT TO CONTRACT PRICE:

Original contract price	$_____
Set change previous Change Orders No. 0 to 0	$_____
Contract price prior to this Change Order	$_____
Net adjustment resulting from this Change Order (+/-)	$_____
Current contract price including this Change Order	$_____

ADJUSTMENT TO CONTRACT TIME:

Original contract time (days or date)	-
Net change previous Change Orders No. 0 to 0 (days)	-
Contract time prior to this Change Order (days or date)	-
Net Adjustment Resulting from this Change Order (days)	-
Current contract time including this Change Order (days or date)	-

---

The Contractor's signature below indicates acceptance of full settlement for the work described, both direct and indirect costs. Any claims for additional costs associated with this Change Order will not be considered.

Recommended:	Approved:	Accepted:
_____	CITY OF LOUISVILLE, COLORADO	_____
ENGINEER	OWNER	CONTRACTOR
By: _____	By: _____	By: _____
Date: _____	Date: _____	Date: _____

FIELD ORDER

FIELD ORDER NO. ____

TO: _____

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

DATE ISSUED: _____

You are hereby directed and instructed to execute promptly minor variations in the Work by this Field Order as follows:

Attachments:

This form shall be used to authorize minor variations in the Work from the requirements of the Contract Documents, which do not include an adjustment in the Contract Price or the Contract Times.

CITY OF LOUISVILLE		**ACCEPTED BY CONTRACTOR**	
BY:	_____	BY:	_____
TITLE:	_____	TITLE:	_____
DATE:	_____	DATE:	_____

A. GENERAL INFORMATION

This document was developed for use in situations involving changes in the Work that, if not processed expeditiously, might delay the Project. These changes are often initiated in the field and may affect the Contract Price or the Contract Times. This is not a Change Order, but only a directive to proceed with Work that may be included in a subsequent Change Order.

For supplemental instructions and minor changes not involving a possible change in the Contract Price or the contract Times a Field Order may be used.

B. COMPLETING THE WORK CHANGE DIRECTIVE FORM

Engineer initiates the form, including a description of the items involved and attachments.

Based on conversations between Engineer and Contractor, Engineer completes the following:

METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT PRICE. Mark the method to be used in determining the final cost of Work involved and the estimated net effect on the Contract Price. If the change involves an increase in the Contract Price and the estimated amount is approached before the additional or changed Work is completed, another Work Change Directive must be issued to change the estimated price or Contractor may stop the changed Work when the estimated price is reached. If the Work Change Directive is not likely to change the Contract Price, the space for estimated increase (decrease) should be marked "Not Applicable.

METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT TIMES: Mark the method to be used in determining the change in Contract Times and the estimated increase or decrease in Contract Times. If the change involves an increase in the Contract Times and the estimated times are approached before the additional or changed Work is completed, another Work Change Directive must be issued to change the times or Contractor may stop the changed Work when the estimated times are reached. If the Work Change Directive is not likely to change the Contract Times, the space for estimated increase (decrease) should be marked "Not Applicable".

Once authorized by Engineer a copy will be sent to Contractor. Price and Times may only be changed by Change Order signed by Owner and Contractor.

Once the Work covered by this directive is completed or final cost and times are determined, Contractor should submit documentation for inclusion in a Change Order.

THIS IS A DIRECTIVE TO PROCEED WITH A CHANGE THAT MAY AFFECT THE CONTRACT PRICE OR THE CONTRACT TIMES. A CHANGE ORDER, IF ANY, SHOULD BE CONSIDERED PROMPTLY.

WORK CHANGE DIRECTIVE

WORKING CHANGE DIRECTIVE NO. _____

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

DATE ISSUED: _____ EFFECTIVE DATE: _____

You are directed to proceed promptly with the following change(s):

Description:

_____
_____
_____

Purpose of Work Change Directive:

_____
_____
_____

Attachments (List documents supporting change):

_____
_____
_____

If a claim is made that the above change(s) have affected Contract Price of Contract Times any claim for a Change Order based thereon will involve one or more of the following methods of determining the effect of the change(s).

Method of determining change in Contract Price:

____ Unit Prices
____ Lump Sum
____ Other _____
_____
_____

Method of determining change in Contract Times:

____ Contractor's Records
____ Engineer's Records
____ Other _____
_____
_____

Estimated increase in Contract Price:
$_____
If the change involves an increase, the estimated amount is not to be exceeded without further authorization.

Estimated increase Contract Times
Substantial Completion: _____days;
Ready for final payment: _____days.
If the change involves an increase, the estimated times are not to be exceeded without further authorization.

RECOMMENDED:

City of Louisville
ENGINEER

BY:_____

ACCEPTED:

_____
CONTRACTOR

BY: _____

APPLICATION FOR PAYMENT

PROGRESS PAYMENT NO. _____ FOR WORK THROUGH THE DATE OF: _____, 2025
PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313

DATE SUBMITTED: _____, 2025

OWNER: CITY OF LOUISVILLE
749 MAIN STREET
LOUISVILLE, COLORADO 80027

CONTRACTOR: _____
_____
_____

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY (QUANTITY PREVIOUS PERIOD)	QUANTITY (QUANTITY THIS PERIOD)	QUANTITY (QUANTITY TOTAL TO DATE)	AMOUNT (PREVIOUS PAYMENT)	AMOUNT (THIS PAYMENT)	AMOUNT (TOTAL PAYMENT)	PERCENT (%) COMPLETE
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	
				$_____	$_____				$_____	$_____	$_____	

TOTAL BID PRICE $_____

TOTAL AMOUNT TO DATE $_____
AMOUNT PREVIOUS PAYMENT(S) $_____
RETAINAGE TO DATE $_____
PROGRESS PAYMENT NO. ____ AMOUNT TO CONTRACTOR THIS INVOICE $_____

CONTRACTOR'S CERTIFICATION:

The undersigned CONTRACTOR certifies that:

1. All previous progress payments received from OWNER on account of Work completed under the Contract referred to above have been applied to discharge in full all obligations of CONTRACTOR incurred in connection with Work covered by prior Applications for Payment numbered 1 through _____ inclusive.
2. Title to all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all liens, claims, security interest and encumbrances (except such as are covered by Bond acceptable to OWNER indemnifying OWNER against any such claim, security interest or encumbrance.)
3. Work covered by this Application for Payment is in accordance with the Contract Documents and not DEFECTIVE as that term is defined in the Contract Documents.

OWNER: CITY OF LOUISVILLE
APPROVED FOR PAYMENT

NAME: _____ DATE: _____

TITLE: _____

CONTRACTOR: _____
TOTAL AMOUNT ACCEPTED FOR COMPLETED WORK DESCRIBED ABOVE.

NAME: _____ DATE: _____

TITLE: _____

CONTRACTOR'S PROPOSAL REQUEST

(Not a Change Order)

Date Submitted: _____, 2025 No. _____

TO: _____

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

We hereby request the cost of the following proposed change in the Contract. A breakdown of the proposed cost is attached.

Description of the proposed change:

All work shall be in accordance with the terms, stipulations, and conditions of the Contract Documents. If the Work herein requested is approved by Change Order, the time of completion will be (increased), (decreased), (unchanged) by _____ calendar days.

New Substantial Completion Date: _____, 2025

This change will:

___ Increase the Contract by $ _____
___ Decrease the Contract by $ _____
___ No change in the Contract

SUBMITTED BY CONTRACTOR

BY: _____

DATE: _____

DATE: _____

CITY OF LOUISVILLE

___ Contractor's Proposal Request Accepted

___ Contractor's Proposal Request Not Accepted

BY: _____

DATE: _____

TITLE: _____

CONTRACTOR'S OVERTIME REQUEST

Date Submitted: _____, 2025

TO: _____

PROJECT: 2025 CIPP SEWER LINING PROJECT
PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

We hereby request to perform work on overtime in accordance with the terms, stipulations, and conditions of the Contract Documents.

Requested date of overtime work: _____, 2025

Requested hours of overtime work: _____ (a. m./p. m.) to _____ (a. m./p. m.)

Description of proposed overtime work:

No extra payment will be paid to the CONTRACTOR by the OWNER due to labor overtime or other increased costs of performing the Work. Should the CONTRACTOR desire to work between the hours of 5:00 p.m. and 8:00 p.m., Monday-Thursday or from 3:30 p.m. to 8:00 p.m. Friday, the CONTRACTOR shall submit a written request to the ENGINEER 24 hours prior. If approval is given by ENGINEER to CONTRACTOR for authorized overtime work, ENGINEERs and ENGINEER's authorized personnel will charge overtime and other incidental administrative expenses necessary for performing inspections between the hours of 5:00 p. m. and 8:00 p.m., Monday-Thursday and 3:30 p.m. to 8:00 p.m. Friday, the CONTRACTOR will be responsible to pay for all such rates and charges, and shall not be granted a Contract Price increase for such charges.

Hours of overtime work shall only be allowed from 5:00 p.m. to 8:00 p.m. Monday thru Thursday and from 3:30 p.m. to 8:00 p.m. Friday.

SUBMITTED BY CONTRACTOR

BY: _____

TITLE: _____

DATE: _____

CITY OF LOUISVILLE

_____ Contractors Proposal Request Accepted

_____ Contractors Proposal Request Not Accepted

BY: _____

TITLE: _____

DATE: _____

CERTIFICATE OF SUBSTANTIAL COMPLETION

TO: _____

PROJECT: 2025 CIPP SEWER LINING PROJECT
OWNER'S PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

The Work to which this Certificate applies has been inspected by authorized representatives of OWNER, and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on

DATE OF SUBSTANTIAL COMPLETION

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in the list does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within **twenty (20)** days of the issuance of this Certificate of Substantial Completion.

CONTRACTOR shall maintain all contractual responsibilities until Final Acceptance.

The following documents are attached to and made a part of this Certificate of Substantial Completion:

Attachments:

(For items to be attached see definition of Substantial Completion as supplemented and other specifically noted conditions precedent to achieving Substantial Completion as required by the Contract Documents.)

This certificate does not constitute an acceptance of Work or start of the guarantee period nor its release of CONTRACTOR's obligation to complete the Work in accordance with the Contract Documents. Issuance of Substantial Completion does not commence the guarantee period with this certificate.

CITY OF LOUISVILLE, COLORADO		**ACCEPTED BY CONTRACTOR**	
BY:	_____	BY:	_____
TITLE:	_____	TITLE:	_____
DATE:	_____	DATE:	_____

FINAL INSPECTION REPORT

DATE: _____, 2025

TO: _____

PROJECT: 2025 CIPP SEWER LINING PROJECT
OWNER'S PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

The ENGINEER has performed final inspection of the Work, and accepts the Work subject to the Contractor's performance and completion of the following repairs, corrections and/or replacements:

_____

_____

_____

_____

_____

_____

_____

The ENGINEER does/does not (circle) hereby finally accept the work,

and the ENGINEER does/does not (circle one) hereby finally accept the Work and hereby certifies that the Contractor is eligible to receive final payment of the Work.

CITY OF LOUISVILLE, COLORADO		**CONTRACTOR**	
BY:	_____	BY:	_____
TITLE:	_____	TITLE:	_____
DATE:	_____	DATE:	_____

CERTIFICATE OF FINAL COMPLETION

DATE: _____, 2025

TO: _____
PROJECT: 2025 CIPP SEWER LINING PROJECT
OWNER'S PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

This Certificate of Final Completion applies to all Work under the Contract Documents, or to the following specified parts thereof:

(specify) _____

_____

_____

The Work to which this Certificate applies has been inspected by authorized representatives of the ENGINEER and the Work is hereby declared to be complete in accordance with the Contract Documents on

_____
DATE OF FINAL COMPLETION

In consideration therefor, the OWNER agrees to make Final Payment to Contractor of all amounts retained by OWNER, except such amounts that are subject to verified claims pursuant to Section 38-26-107, C.R.S, if any.

CITY OF LOUISVILLE, COLORADO	**CONTRACTOR**
BY: _____	BY: _____
TITLE: _____	TITLE: _____
DATE: _____	DATE: _____

CLAIM RELEASE – SUBCONTRACTOR/SUPPLIER

PROJECT: 2025 CIPP SEWER LINING PROJECT
OWNER'S PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

For valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned hereby releases the City of Louisville, Colorado, and waives all rights of the undersigned to file a claim for material, equipment, tools, machinery or services heretofore furnished for use in and for labor heretofore performed upon the construction, alteration, addition to or repair of the structure or improvements described in the Contract Documents as:

Project: 2025 CIPP SEWER LINING PROJECT

Description of Property: _____

Owner: CITY OF LOUISVILLE, COLORADO

We acknowledge that the foregoing is an adequate description of the real property and improvements to which this Claim Release pertains inasmuch as the foregoing description is the description given in the Contract Documents, which govern the performance of the Work for which consideration has been received.

In executing this release, we certify that all claims for labor or materials, or both, furnished or performed by the undersigned or on our behalf by our material suppliers or subcontractors have been paid or that satisfactory arrangements for payment have been made, and we hereby waive and release any and all rights, claims and liens which the undersigned may now or hereafter have, claim or assert against the project, the Owner, or any funds in Owner's possession or control concerning the project, or against all land and any improvements and appurtenances to the land improved by the project.

In consideration of the final payment made or to be made to the undersigned and to induce said payment, we hereby further release and forever discharge the City of Louisville, its officers and employees, from any and all liability, actions, causes of action, claims, demands, damages, costs, loss of services, loss of properties, expenses, compensation and any and all consequential damages or injuries, which the undersigned may now or hereafter have, claim or assert on account of, relating to, or in any way arising out of the above described project.

In further consideration of the payment made or to be made to the undersigned and to induce said payment, we agree to defend and indemnify the City of Louisville, its officers and employees from any claim or claims on the part of our material suppliers, laborers, employees, servants, and agents, or subcontractors arising from our work on this project, and we further agree to fully satisfy any such claim brought against the City of Louisville and reimburse the City of Louisville for any and all costs, including reasonable attorney fees, which it may incur as a result of such claims.

SUPPLIER OR SUBCONTRACTOR	**PRIME CONTRACTOR**
By: _____	By: _____
President	President
Date: _____	Date: _____

FINAL CLAIM RELEASE & ACCEPTANCE

PROJECT: 2025 CIPP SEWER LINING PROJECT
OWNER'S PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

Application for Payment Number: _____
Application for Payment Amount: _____
Application for Payment Date: _____

For valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned hereby releases the City of Louisville, Colorado, and waives all rights of the undersigned to file a claim for material, equipment, tools, machinery or services heretofore furnished for use in and for labor heretofore performed upon the construction, alteration, addition to or repair of the structure or improvements described in the Contract Documents as:

Project: 2025 CIPP SEWER LINING PROJECT

Description of Property: _____

Owner: CITY OF LOUISVILLE, COLORADO

We acknowledge that the foregoing is an adequate description of the real property and improvements to which this Claim Release pertains inasmuch as the foregoing description is the description given in the Contract Documents, which govern the performance of the Work for which consideration has been received.

In executing this release, we certify that all claims for labor or materials, or both, furnished or performed by the undersigned or on our behalf by our material suppliers or subcontractors have been paid or that satisfactory arrangements for payment have been made and we hereby waive and release any and all rights, claims and liens which the undersigned may now or hereafter have, claim or assert against the project, the Owner, or any funds in Owner's possession or control concerning the project, or against all land and any improvements and appurtenances to the land improved by the project.

In consideration of the final payment made or to be made to the undersigned and to induce said payment, we hereby further release and forever discharge the City of Louisville, its officers and employees, from any and all liability, actions, causes of action, claims, demands, damages, costs, loss of services, loss of properties, expenses, compensation and any and all consequential damages or injuries, which the undersigned may now or hereafter have, claim or assert on account of, relating to, or in any way arising out of the above described project.

In further consideration of the payment made or to be made to the undersigned and to induce said payment, we agree to defend and indemnify the City of Louisville, its officers and employees from any claim or claims on the part of our material suppliers, laborers, employees, servants, and agents, or subcontractors arising from our work on this project, and we further agree to fully satisfy any such claim brought against the City of Louisville and reimburse the City of Louisville for any and all costs, including reasonable attorney fees, which it may incur as a result of such claims.

FINAL CLAIM RELEASE & ACCEPTANCE CONTINUED

As contactor on the above described project, we further accept the pay quantities and final payment indicated on the final payment application as correct. The above noted final payment of $_____ results in total cumulative payment of $_____ for this project. By accepting this final payment, we accept that the final payment application is full and complete, that no other or further amounts are due to the undersigned, and we hereby waive and release all rights, claims and liens arising from the completion of work under the Contract Documents.

The undersigned representative certifies to have full authority to execute this instrument and to bind the contractor to all statement and provisions herein contained.

PRIME CONTRACTOR

By: _____

President

Date: _____

GUARANTEE PERIOD INSPECTION REPORT

DATE: _____, 2025

TO: _____

PROJECT: 2025 SEWER LINING PROJECT
OWNER'S PROJECT NUMBER: 502498-660313
OWNER: CITY OF LOUISVILLE, COLORADO

The ENGINEER's authorized representative performed the guarantee period inspection on _____, 20 ___, which guarantee was originally due to expire on _____, 20___.

The ENGINEER hereby determines that the project has ___/ has not ___ satisfactorily met the conditions required to pass the guarantee period inspection.

The identified following items of Work are defective and must be repaired, corrected and/or replaced:

_____

_____

_____

_____

_____

The guarantee period shall be extended for the items listed above until the following date:

_____, 2025

CITY OF LOUISVILLE, COLORADO	**CONTRACTOR**
BY: _____	BY: _____
TITLE: _____	TITLE: _____
DATE: _____	DATE: _____

GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

1.0 **Abnormal Weather** - Snowfall, rainfall, freezing temperatures, or wind conditions, in excess of those encountered in the project area of Boulder County during the past 10 years that necessitates cessation of Work and causes consequence to the project.

1.1 **Addenda** - Written or graphic instruments issued prior to the opening of Bids, which clarify, correct or change the Bidding Requirements or the Contract Documents.

1.2 **Agreement** - The written contract between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.3 **Application for Payment** - The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

1.4 **Asbestos** - Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

1.5 **Bid** - The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.6 **Bidding Documents** - The advertisement or invitation to Bid, instructions to Bidders, the Bid form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

1.7 **Bidding Requirements** - The advertisement or invitation to Bid, instructions to bidders, and the Bid form.

1.8 **Bonds** - Performance and Payment bonds and other instruments of security.

1.9 **Change Order** - A document recommended by ENGINEER, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

1.9.1 **Contract Day** – A Contract Day specifies that construction will be completed Monday through Friday, excluding OWNER-observed holidays and Abnormal Weather days.

1.10 **Contract Documents** - The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders and ENGINEER's written interpretations and clarifications issued pursuant to paragraphs 3.5, 3.6.1, and 3.6.3 on or after the Effective Date of the Agreement. Shop Drawing submittals approved pursuant to

paragraphs 6.26 and 6.27 and the reports and drawings referred to in paragraphs 4.2.1.1 and 4.2.2.2 are not Contract Documents.

1.11 **Contract Price** - The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.9.1 in the case of Unit Price Work).

1.12 **Contract Times** - The numbers of days or the dates stated in the Agreement: (i) to achieve Substantial Completion, and (ii) to complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.13.

1.13 **CONTRACTOR** - The person, firm or corporation with whom OWNER has entered into the Agreement.

1.14 **Defective** - An adjective which when modifying the work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.8 or 14.10).

1.15 **Drawings** - The drawings that show the scope, extent and character of the Work to be furnished and performed by CONTRACTOR and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents. Shop drawings are not Drawings as so defined.

1.16 **Effective Date of the Agreement** - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

1.17 **ENGINEER** - The word "ENGINEER" refers to the City of Louisville, Director of Public Works or his authorized representative, designated by the OWNER as its Engineering representative.

1.18 **OWNER'S Consultant** - A person, firm or corporation having a contract with OWNER to furnish services as OWNER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

1.19 **Field Order** - A written order issued by ENGINEER which orders minor changes in the Work in accordance with paragraph 9.5 but which does not involve a change in the Contract Price or the Contract Times.

1.20 **General Requirements** - Sections of Division 1 of the Specifications.

1.21 **Hazardous Waste** - The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

1.22 **Laws and Regulation: Laws or Regulations** - Any and all applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

1.23 **Liens** - Liens, charges, security interests or encumbrances upon real property or personal property.

1.24 **Milestone** - A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

1.25 **Notice of Award** - The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

1.26 **Notice to Proceed** - A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.

1.27 **OWNER** - The public body or authority, corporation, association, firm or person with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be provided.

1.28 **Partial Utilization** - Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

1.29 **PCBs** - Polychlorinated biphenyls.

1.30 **Petroleum** - Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.

1.31 **Plans** - The term plans as used in these Contract Documents shall have the same meaning as Drawings.

1.32 **Product** - Includes materials, equipment and systems.

1.33 **Project** - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

1.34 **Provide** - Furnish and install specified materials and equipment, unless the context requires otherwise.

1.35 **Radioactive Material** - Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

1.36 **Resident Project Representative** - The authorized representative of ENGINEER who may be assigned to the site or any part thereof.

1.37 **Samples** - Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

1.38 **Shop Drawings** - All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

1.39 **Specifications** - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

1.40 **Subcontractor** - An individual, firm or corporation having a contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

1.41 **Substantial Completion** - The Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by ENGINEER's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

1.42 **Supplementary Conditions** - The part of the Contract Documents, which amends or supplements these General Conditions.

1.43 **Supplier** - A manufacturer, fabricator, supplier, distributor, material man or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

1.44 **Underground Facilities** - All pipeline, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

1.45 **Unit Price Work** - Work to be paid for on the basis of unit prices.

1.46 **Work** - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

1.47 **Work Change Directive** - A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 4.2 or 4.3 or emergencies under paragraph 6.23. A Work Change Directive will not change the Contract Price or the Contract Times, but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times as provided in paragraph 10.2.

1.48 **Written Amendment** - A written amendment of the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly construction-related aspects of the Contract Documents.

ARTICLE 2 - PRELIMINARY MATTERS

Delivery of Bonds:

2.1 When CONTRACTOR delivers the executed Agreement to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds and Certificates of Insurance as CONTRACTOR may be required to furnish in accordance with Article 5.

Copies of Documents:

2.2 OWNER shall furnish to CONTRACTOR up to four copies of the contract documents for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

Commencement of Contract Times; Notice to Proceed:

2.3 The Contract Times will commence to run on the day indicated in the Notice to Proceed. Timing and completion of the **2025 CIPP Sewer Lining Project** is required on or prior to **Friday, January 30, 2026**. The OWNER has set the proposed project schedule and plans to implement the following schedule for this project. The CONTRACTOR shall be required to start construction on or before the start date listed below:

PROPOSED PROJECT SCHEDULE:

Pre-Bid Conference	September 30, 2025
Last Day for Questions	October 2, 2025
Bid Opening	October 7, 2025
Recommendation of Award to Council	November 3, 2025
Notice of Award Issued	November 4, 2025
Pre-Construction Conference	November 11, 2025
Bonds & Insurance Certificates due	November 14, 2025
Contract Agreement Executed	November 14, 2025
Notice to Proceed Issued	November 17, 2025
Contract Time Commences to run	November 17, 2025
Substantial Completion	January 30, 2026
Final Completion	February 19, 2026

2.3.1 The Contractor shall substantially complete all work by **Friday January 30, 2026** and within **74** contract days after the date when the Contract Time commences to run. Should work not be completed by the date and within the time period specified, the Owner shall assess the Contractor liquidated damages in conformance with the Agreement, Article 2 – Contract Times, paragraph 2.2 Liquidated Damages.

Starting the Work:

2.4 CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run, but no Work shall be done at the site prior to the date on which the Contract Times commence to run.

Before Starting Construction:

2.5 Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error,

ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents, unless CONTRACTOR knew or reasonably should have known thereof.

2.6 Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for review:

2.6.1 a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestone specified in the Contract Documents;

2.6.2 a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing and processing such submittal.

Preconstruction Conference:

2.7 Before any Work at the site is started, a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.6, procedures for handling Shop Drawings and other submittal, processing Applications for Payment and maintaining required records.

Initially Acceptable Schedules:

2.8 Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to review the Application for Payment for acceptability to ENGINEER. No progress payment shall be made to CONTRACTOR until the schedules are submitted to and acceptable to ENGINEER as provided below. The progress schedule will be acceptable to ENGINEER as providing an orderly progression of the Work to completion within any specified Milestones and the Contract Times, but such acceptance will neither impose on ENGINEER responsibility for the sequencing, scheduling or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor. CONTRACTOR's schedule of Shop Drawing and Sample submissions will be acceptable to ENGINEER as providing a workable arrangement for reviewing and processing the required submittals.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

Intent:

3.1 The Contract Documents comprise the entire agreement OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

3.2 It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed whether or not specifically called for. When words or phrases, which have a well-known technical or construction

industry or trade meaning, are used to describe Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in paragraph 9.4.

3.3 Reference to Standards & Specifications of Technical Societies; Reporting and Resolving Discrepancies:

3.3.1. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

3.3.2 If, during the performance of the Work, CONTRACTOR discovers any conflict, error ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such Law or Regulation applicable to the performance of the Work or of any such standard, specification, manual or code or of any instruction of any Supplier referred to in paragraph 6.5, CONTRACTOR shall report it to ENGINEER in writing at once, and, CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as authorized by paragraph 6.23) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.5 or 3.6; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity or discrepancy unless CONTRACTOR knew or reasonably should have known thereof. Upon notification to the ENGINEER, the CONTRACTOR shall proceed with other parts of the Work not affected by the conflict, error, ambiguity or discrepancy.

3.3.3 Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement thereto issued by one of the methods indicated in paragraph 3.5 or 3.6, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the Contract Documents and:

3.3.3.1 The provisions of any such standard, specification, manual, code or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

3.3.3.2 The provisions of any such Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

No provision of any such standard, specification, manual, code or instruction shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to OWNER, ENGINEER or any of ENGINEER's Consultants, agents or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of paragraph 9.13 or any other provision of the Contract Documents.

3.4 Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory" or adjectives of like effect or import are used to

describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.13 or any other provision of the Contract Documents.

Amending and Supplementing Contract Documents:

3.5 The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

3.5.1 a formal Written Amendment,
3.5.2 a Change Order (pursuant to paragraph 10.4), or
3.5.3 a Work Change Directive (pursuant to paragraph 10.1)

3.6 In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

3.6.1 a Field Order (pursuant to paragraph 9.5)
3.6.2 ENGINEER's approval of a Shop Drawing or Sample (pursuant to paragraphs 6.26 and 6.27), or
3.6.3 ENGINEER's written interpretation or clarification (pursuant to paragraph 9.4).

Reuse of Documents:

3.7 CONTRACTOR, and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's Consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

Availability of Lands:

4.1 OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. OWNER shall identify any encumbrances or restrictions not of general application but specifically related to use of lands so furnished with which CONTRACTOR will have to comply in performing the Work. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR and OWNER are unable to agree on entitlement to or the amount or extent of any adjustments in the Contract Price or the Contract Times as a result of any delay in OWNER's furnishing these lands, rights-of-way or easements, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12. CONTRACTOR

shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

Subsurface and Physical Conditions:

4.2 BIDDER'S are responsible for examining and determining for themselves the location and nature of the proposed Work, the amount and character of the labor and materials required therefor, and the difficulties, which may be encountered. BIDDER's may not rely on oral or written representations made by the OWNER, including reports and drawings identified pursuant to 4.2.1 and subparagraphs thereof, unless the OWNER has guaranteed in writing that such representation is factually accurate, and by submitting a Bid, each BIDDER waives all liability for any error in any representation made by the OWNER to the BIDDER. BIDDER's shall inspect the site and its surroundings and conduct such supplementary examinations, investigations, and tests concerning conditions at or contiguous to the site (including surface, and subsurface) which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto for performing the Work in accordance with the Contract Documents. By failing to make such an inspection, the BIDDER waives all rights to claim extra payment or time extensions due to unexpected conditions, which could have been determined had the site been reasonably inspected. If concealed or unknown conditions differ materially from those ordinarily encountered and generally recognized as inherent in the Work, or differ materially from the conditions indicated in the Contract Documents, then an equitable adjustment in the Contract Price or in the Contract Time will be allowed by change order as provided in Article 11 or Article 12 respectively. By submitting a Bid, the BIDDER represents that the BIDDER's observations at the site are not inconsistent with the requirements of the proposed Contract Documents, unless otherwise noted by the BIDDER.

4.2.1 **Reports and Drawings:** Reference is made to the Supplementary Conditions for identification of:

The following reports of explorations and tests of subsurface conditions at the site of the Work:

4.2.1.1 **Subsurface Conditions:** Those reports of explorations and tests of subsurface conditions at or contiguous to the site that have been utilized by ENGINEER in preparing the Contract Documents; and

Report dated **N/A**, prepared by **N/A** entitled: **N/A**. The technical data contained in such report upon which CONTRACTOR may rely is **N/A**.

Copies of these reports that are not included with Bidding Documents may be examined at ENGINEER's office during regular business hours. Please call for appointment. Copies of such reports are not available for distribution. These reports and drawings are not part of the Contract Documents, but the technical data contained therein upon which CONTRACTOR is entitled to rely as provided in GC-4.2 and as identified and established above are incorporated therein by reference.

4.2.1.2 **Physical Conditions:** Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) that have been utilized by ENGINEER in preparing the Contract Documents.

4.2.2 **Limited Reliance by CONTRACTOR authorized; Technical Data:** Reports and drawings identified pursuant to paragraph 4.2 are not Contract Documents. Unless otherwise set forth in the Contract Documents or OWNER has otherwise guaranteed in writing that such representation is factually accurate, CONTRACTOR may not rely upon or make any claim against the OWNER, ENGINEER or ENGINEER's consultants with respect to the accuracy of any "technical data" contained in reports and drawings and CONTRACTOR may not rely upon or make any claim against the OWNER, ENGINEER or ENGINEER's consultants with respect to:

4.2.2.1 The completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto, or

4.2.2.2 other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings, or

4.2.2.3 any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information.

4.2.3 CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Times if:

4.2.3.1 CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a bid or becoming bound under a negotiated contract; or

4.2.3.2 the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test or study of the site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment.

If OWNER and CONTRACTOR are unable to agree on entitlement to or as to the amount or length of any such equitable adjustment in the Contract Price or Contract Times, a claim may be made therefor as provided in Articles 11 and 12. However, OWNER, ENGINEER and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.3 Physical Conditions - Underground Facilities:

4.3.1 **Shown or Indicated:** The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities or by others.

4.3.1.1 OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

4.3.1.2 The cost of all of the following will be included in the Contract Price and CONTRACTOR shall have full responsibility for: (i) reviewing and checking all such information and data, (ii) locating all Underground

Facilities shown or indicated in the Contract Documents, (iii) coordination of the Work with the owners of such Underground Facilities during construction, and (iv) the safety and protection of all such Underground Facilities as provided in paragraph 6.20 and repairing any damage thereto resulting from the Work.

4.3.2 **Not Shown or Indicated:** If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.23), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. CONTRACTOR shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 6.20. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, to the extent that they are attributable to the existence of any Underground Facility that was not shown or indicated in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or the amount or length of any such adjustment in Contract Price or Contract Times, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12. However, OWNER, ENGINEER and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages incurred or sustained by CONTRACTOR on or in connection with any other project or anticipated project.

Reference Points:

4.4 OWNER shall provide engineering surveys to establish baseline and benchmarks for construction, which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER, CONTRACTOR shall report to ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.

OWNER shall provide survey reference points, construction stakes, lines and grades required for the completion of the work specified in the specifications, on the plans, or in the Special Conditions. Additional staking requested by the Contractor will be at the CONTRACTOR'S expense. When the CONTRACTOR requires staking, he shall notify the OWNER of his requirements in writing a reasonable length of time in advance of starting work that require construction staking. Under no circumstances, shall a notice of less than 2 contract days be considered a reasonable length of time. Failure of the CONTRACTOR to provide 2 contract days written notice to the OWNER of his staking requests shall relieve the OWNER from any responsibility for additional costs or delays caused by such failure. The CONTRACTOR shall carefully preserve stakes set by the OWNER. When stakes are destroyed or damaged, the CONTRACTOR will be charged for the cost of necessary replacement or restoration of stakes. The charge for replacement and restoration of stakes will be deducted from any moneys due or to become due the CONTRACTOR.

4.5 Asbestos, PCB's Petroleum, Hazardous Waste or Radioactive Material:

4.5.1 OWNER shall be responsible for any Asbestos, PCB's, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of

the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. OWNER shall not be responsible for any such materials brought to the site by CONTRACTOR, Subcontractor, Suppliers or anyone else for whom CONTRACTOR is responsible.

4.5.2 CONTRACTOR shall immediately: (i) stop all Work in connection with such hazardous condition and in any area affected thereby (except in an emergency as required by paragraph 6.23), and (ii) notify OWNER and ENGINEER (and thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such hazardous condition or take corrective action, if any. CONTRACTOR shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR special written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of such Work stoppage or such special conditions under which Work is agreed by CONTRACTOR to be resumed, either party may make a claim therefor as provided Articles 11 and 12.

4.5.3 If after receipt of such special written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a claim therefor as provided in Articles 11 and 12. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

4.5.4 The provisions of paragraphs 4.2 and 4.3 are not intended to apply to Asbestos, PCB's, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site.

ARTICLE 5 - BONDS AND INSURANCE

Performance, Payment and Other Bonds:

5.1 CONTRACTOR shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACT-OR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act. The CONTRACTOR shall furnish the performance and payment bond in the form provided in the Contract Documents or approved by the OWNER; the earlier of ten (10) days after the OWNER has issued the notice of award or delivery of the executed Agreement. The

OWNER reserves the right to exclude any Surety Company on any ground it deems appropriate. The cost of the bonds shall be included in the bid.

5.2 If the surety on any Bond furnished by CONTRACTOR is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.1, CONTRACTOR shall within ten days thereafter substitute another Bond and surety, both of which must be acceptable to OWNER.

5.3 Licensed Sureties and Insurers; Certificates of Insurance:

5.3.1 All Bonds and insurance required by the Contract Documents to be purchased and maintained by CONTRACTOR shall be obtained from surety or insurance companies acceptable to OWNER that are duly licensed to transact business in the State of Colorado and to issue Bonds or insurance policies for the limits and coverage so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.3.2 CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain accordance with paragraph 5.4. The certificates shall be reviewed and approved by OWNER prior to execution of the Agreement. The OWNER shall have the right to request and obtain copies of any insurance policies required under paragraph 5.4 of the General Conditions. The completed certificates of insurance shall be sent to: City of Louisville, 749 Main Street, Louisville, Colorado 80027, attention: CITY ENGINEER.

CONTRACTOR's Liability Insurance:

5.4 (a) The CONTRACTOR agrees to procure and maintain, at its own cost, a policy or policies of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by the CONTRACTOR pursuant to paragraphs 6.12, 6.16, 6.31, 6.32 and 6.33, and 6.5 in addition to any other insurance requirements imposed by the Contract Documents or by law. The CONTRACTOR shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to paragraphs 6.12, 6.16, 6.31, and 6.33 by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.

(b) CONTRACTOR shall procure and maintain, and shall cause any Subcontractor or Supplier of the CONTRACTOR to procure and maintain or insure the activity of his Subcontractors and Suppliers in his own policy, the minimum insurance coverages listed below. Such coverages shall be procured and maintained with forms and insurers acceptable to the OWNER. All coverages shall be continuously maintained from the date of commencement of the Work to cover all liability, claims, demands, and other obligations assumed by the CONTRACTOR pursuant to paragraphs 6.31 and 6.33. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

(1) Workers' Compensation insurance to cover obligations imposed by the Workers' Compensation Act of Colorado and any other applicable laws for any employee engaged in the performance of Work under this contract, and Employers' Liability insurance with minimum limits of FIVE HUNDRED THOUSAND DOLLARS ($500,000) each accident, FIVE HUNDRED THOUSAND DOLLARS ($500,000) disease - policy limit, and FIVE HUNDRED THOUSAND DOLLARS ($500,000) disease - each employee.

Evidence of qualified self-insured status may be substituted for the Workers' Compensation requirements of this paragraph.

(2) Comprehensive General Liability insurance with minimum combined single limits of ONE MILLION DOLLARS ($1,000,000) each occurrence and TWO MILLION DOLLARS ($2,000,000) aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, independent contractors, products, and completed operations. The policy shall include coverage for explosion, collapse, and underground hazards. The policy shall contain a severability of interests' provision.

(3) Comprehensive Automobile Liability insurance with minimum combined single limits for bodily injury and property damage of not less than ONE MILLION DOLLARS ($1,000,000) each occurrence and ONE MILLION DOLLARS ($1,000,000) aggregate with respect to each of CONTRACTOR's owned, hired or non-owned vehicles assigned to or used in performance of the services. The policy shall contain a severability of interests' provision.

(4) The CONTRACTOR shall provide and maintain builder's risk insurance upon the entire project equal to one hundred percent (100%) of the insurable value thereof. Such insurance shall cover any and all physical damage including, without limitation, damage caused by fire, vandalism, malicious mischief, blasting, excessive surface runoff or storm water, high winds and other occurrences covered in a standard extended coverage endorsement. The policy shall remain in effect until the Work is accepted as substantially complete.

(c) The policy required by paragraph (2) above, by paragraph (3) and by (4) above shall be endorsed to include the OWNER, the ENGINEER and its consultants, and each of their officers, agents and employees as additional insureds. Every policy required above shall be primary insurance, and any insurance carried by the OWNER, its officers, or its employees, shall be excess and not contributory insurance to that provided by CONTRACTOR. No additional insured endorsement to the policy required by paragraph (1) above shall contain any exclusion for bodily injury or property damage arising from completed operations. The CONTRACTOR shall be solely responsible for any deductible losses under any policy required above.

(d) The certificate of insurance provided to OWNER shall be completed by the CONTRACTOR's insurance agent as evidence that policies providing the required coverages, conditions, and minimum limits are in full force and effect, and shall be reviewed and approved by the OWNER prior to commencement of the contract.

(e) Failure on the part of the CONTRACTOR to procure or maintain policies providing the required coverages, conditions, and minimum limits shall constitute a material breach of contract upon which the OWNER may immediately terminate this contract, or at its discretion may procure or renew any such policy or any extended reporting period thereto and may pay any and all premiums in connection therewith, and all monies so paid by the OWNER shall be repaid by CONTRACTOR to the OWNER upon demand, or the OWNER may offset the cost of the premiums against any monies due to CONTRACTOR from the Owner.

(f) The OWNER reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

(g) The parties hereto understand and agree that the OWNER, the City of Louisville, is relying on, and does not waive or intend to waive by any provision of this contract, the monetary limitations (presently $150,000 per person and $600,000 per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, § 24-10-101 et seq., 10 C.R.S., as from time to time amended, or otherwise available to the City of Louisville, its officers, or its employees.

OWNER's Liability Insurance:

5.5 In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.4, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

Property Insurance:

5.6 The OWNER shall be responsible for maintaining its own property insurance and, at its option, may maintain such insurance as will protect it against claims which may arise from operations under the Contract Documents.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

Supervision and Superintendence:

6.1 CONTRACTOR shall supervise, inspect and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or specification of a specific means, method, technique, sequence or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

6.2 CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications to the superintendent shall be as binding as if given to CONTRACTOR.

Labor, Materials and Equipment:

6.3 CONTRACTOR shall provide competent, suitably qualified personnel to survey, layout and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except as otherwise required for the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER's written consent given after prior written notice to ENGINEER. No extra payment will be paid to the CONTRACTOR by the OWNER due to labor overtime or other increased costs of performing the Work on Saturdays, Sundays, OWNER- observed holidays, or at night. Should the CONTRACTOR desire to work on Saturdays, Sundays, OWNER-observed

holidays, or at night between the hours of 5:00 p.m. and 7:00 a.m. on **Contract Days** the CONTRACTOR shall submit a written request to the ENGINEER 24 hours prior. If approval is given by ENGINEER to CONTRACTOR for authorized overtime work, ENGINEER's and ENGINEER's authorized personnel will charge overtime and other incidental administrative expenses necessary for performing inspections on Saturdays, Sundays, OWNER-observed holidays, or at night between the hours of 5:00 p. m. and 7:00 a. m., the CONTRACTOR will be responsible to pay for all such rates and charges, and shall not be granted a Contract Price increase for such charges. Overtime and other incidental administrative expenses for Engineer and Engineer's authorized personnel are as follows:

DESCRIPTION	HOURLY RATE
Engineer	$70.00
Construction Inspector	$55.00
Operations Supervisor	$55.00
Operations Technician	$40.00
Clerical	$35.00
Vehicle	$25.00

6.4 Unless otherwise specified in the General Requirements, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

6.5 All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

Progress Schedule:

6.6 CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.8 as it may be adjusted from time to time as provided below:

6.6.1 CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.8) proposed adjustments in the progress schedule that will not change the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

6.6.2 Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of paragraph 12.1. Such

adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.7 Substitutes and "Or-Equal" Items:

6.7.1 Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment of other Suppliers may be accepted by ENGINEER under the following circumstances:

6.7.1.1 **"Or-Equal"**: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed substitute items.

6.7.1.2 **Substitute Items:** If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under subparagraph 6.7.1.1, it will be considered a proposed substitute item. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. The procedure for review by the ENGINEER will include the following as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute items of material or equipment, CONTRACTOR shall first make written application to ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by ENGINEER in

evaluating the proposed substitute. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute.

6.7.1.3 **CONTRACTOR's Expense:** All data to be provided by CONTRACTOR in support of any proposed "or-equal" or substitute item will be at CONTRACTOR's expense.

6.7.2 **Substitute Construction Methods or Procedures:** If a specific means, method, technique, sequence or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence or procedure of construction acceptable to ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.7.1.2.

6.7.3 **ENGINEER's Evaluation**: ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.7.1.2 and 6.7.2. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized without ENGINEER's prior written acceptance, which will be evidenced, by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any "or-equal" or substitute. ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitutes proposed or submitted by CONTRACTOR pursuant to paragraphs 6.7.1.2 and 6.7.2 and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER accepts a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute item.

6.8 Concerning Subcontractors, Suppliers and Others:

6.8.1 CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization, whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

6.8.2 The Contract Documents require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials or equipment) to be submitted to OWNER with the Bid in the Bid Form prior to the Effective Date of the Agreement for acceptance by OWNER and ENGINEER, and if CONTRACTOR has submitted a list thereof in accordance with the Contract Documents, OWNER'S or ENGINEER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in Contract Documents) of any such Subcontractor, Supplier, or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit an acceptable substitute. No acceptance by OWNER or ENGINEER of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

6.8.3 Subletting of Contract. The CONTRACTOR shall not sublet, sell, transfer, assign, or dispose of the Contract or Contracts, or any portion thereof without written consent of the Engineer. The CONTRACTOR will be permitted to sublet a portion of the Contract, however, the CONTRACTOR'S organization shall perform work amounting to not less than 50 percent of the total contract cost.

The calculation of the percentage of subcontracted work shall be based on the prime contract unit prices rather than subcontract unit prices. Proportional value for a subcontracted partial contract item shall be verified by the ENGINEER. For the purpose of calculating the value of subcontracted work, the cost of procuring materials and manufactured products can be included in either the prime contract or subcontract. However, when a firm both sells material to a prime contractor and performs the work of incorporating the materials into the project, these two phases shall be considered in combination and as constituting a single subcontract.

Subcontracts, or transfer of Contract shall not release the CONTRACTOR of liability under the Contract and bonds.

6.8.4 CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors. Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. OWNER or ENGINEER may furnish to any such Subcontractor, Supplier or other person or organization, to the extent practicable, evidence of amounts paid to CONTRACTOR in accordance with CONTRACTOR's Applications for Payment. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

6.8.5 CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR. CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with the ENGINEER through CONTRACTOR.

6.9 The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

6.10 All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier, which specifically binds the Subcontractor or Supplier to the applicable terms and, conditions of the Contract Documents for the benefit of OWNER and ENGINEER.

Patent Fees and Royalties:

6.11 CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance

of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents.

Permits:

6.12 Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

6.12.1 Prior to the commencement date for the Work set forth in the Notice to Proceed, The CONTRACTOR and all subcontractors shall be or shall become a CONTRACTOR licensed in accordance with the applicable ordinance of the City of Louisville, Colorado.

6.12.2 If water is required for the project, CONTRACTOR shall obtain a bulk water permit from the City of Louisville, Public Works Department in accordance with the permit requirements.

6.12.3 CONTRACTOR shall obtain a Right-of-Way Permit from the City of Louisville, Public Works Department for all Work to be completed within the City right-of-way.

6.12.4 CONTRACTOR shall obtain and pay for all other necessary construction permits and licenses.

6.13 Laws and Regulations:

6.13.1 CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

6.13.2 If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses and damages caused by, arising out of or resulting therefrom: however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.3.2.

Taxes:

6.14 CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project, which are applicable during the performance of the Work. City of Louisville municipal taxes shall be waived upon application for and acceptance of "tax exemption."

The CONTRACTOR shall apply for and receive a Certificate of Exemption from the Colorado Department of Revenue for construction materials to be physically incorporated into the Work. This Certificate of Exemption provides that the CONTRACTOR shall neither pay nor include in his bid prices Sales and Use Taxes collected by the State of Colorado on those building and construction materials physically incorporated into the Work. Sales and Use Taxes of the State of Colorado, RTD and the County are collected by the State of Colorado. All applicable Sales and Use Taxes (including State collected taxes) on any items other than construction and building materials physically incorporated into the Work are to be paid by the Contractor and are to be included in the appropriate bid items. CONTRACTOR and any Subcontractor assume all liability for the nonpayment of taxes, or the payment of exempt taxes resulting from a failure to use the Certificate of Exemption required by this paragraph.

Use of Premises:

6.15 CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, ENGINEER, or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

6.16 During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. CONTRACTOR shall leave the site clean and ready for occupancy by OWNER at Substantial Completion of the Work. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

6.17 CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

Record Documents:

6.18 CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to

ENGINEER for reference. Upon completion of the Work, these record documents, Samples and Shop Drawings will be delivered to ENGINEER for OWNER.

Safety and Protection:

6.19 CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.19.1 all persons on the Work site or who may be affected by the Work:

6.19.2 all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

6.19.3 other property at the site or adjacent thereto, including but not limited to trees, shrubs, lawns, walks, pavements, roadways, structures, fences, gates, ditches, utilities, and underground facilities not designated for removal, relocation, or replacement in and during the course of construction.

6.19.4 The CONTRACTOR shall take all measures necessary to mitigate the impact of weather so that the project may continue on schedule. In no event shall OWNER be liable for extra costs incurred on materials and any part of the Work due to CONTRACTOR's failing to take all measures necessary protect the Work from weather and CONTRACTOR shall not be entitled to such claims. Also, no extension of the Contract Time shall be allowed if the CONTRACTOR is able, notwithstanding the weather, to proceed with other Work of the Contract.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.20.2 or 6.20.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR. CONTRACTOR's duties and responsibilities for safety and for protection of the work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.13 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

Safety Representative:

6.20 CONTRACTOR shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

Hazard Communication Programs:

6.21 CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with Laws or Regulations.

Emergencies:

6.22 In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or ENGINEER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change directive or Change order will be issued to document the consequences of such action.

6.23 Shop Drawings and Samples:

6.23.1 After checking and verifying all field measurements, CONTRACTOR shall submit to ENGINEER for review and approval in accordance with the accepted schedule of shop drawings and sample submittal (see paragraph 2.8), three copies (or at ENGINEERS option, one reproducible copy) of all shop drawings, which shall have been checked and approved by the CONTRACTOR. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to show ENGINEER the materials and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.26.

6.23.2 CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with said accepted schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.26. The numbers of each Sample to be submitted will be as specified in the Specifications.

6.24 Submittal Procedures:

6.24.1 Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

6.24.1.1 all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto,

6.24.1.2 all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work, and

6.24.1.3 all information relative to CONTRACTOR's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

6.24.2 Each submittal will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

6.24.3 At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

6.25 ENGINEER will review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals accepted by ENGINEER as required by paragraph 2.8. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER's review and approval will not extend to means, methods, techniques, sequences or procedures of construction (except where a particular means, method, technique, sequence or procedure of construction is specifically and expressly called for by the Contract documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by ENGINEER, and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.26 ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of submission as required by paragraph 6.25.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.24.1.

6.27 Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submissions accepted by ENGINEER as required by paragraph 2.8, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

Continuing the Work:

6.28 CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.5 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.29 CONTRACTOR's General Warranty and Guarantee:

6.29.1 CONTRACTOR warrants and guarantees to OWNER, ENGINEER and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be

defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

6.29.1.1 abuse, modification or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors or Suppliers; or

6.29.1.2 normal wear and tear under normal usage.

6.29.2 CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the work in accordance with the Contract Documents:

6.29.2.1 observations by ENGINEER;

6.29.2.2 recommendation of any progress or final payment by ENGINEER;

6.29.2.3 the issuance of a certificate of Substantial Completion or any payment by OWNER to CONTRACTOR under the Contract Documents;

6.29.2.4 use or occupancy of the Work or any part thereof by OWNER;

6.29.2.5 any acceptance by OWNER or any failure to do so;

6.29.2.6 any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.13;

6.29.2.7 any inspection, test or approval by others; or

6.29.2.8 any correction of **defective** Work by OWNER.

6.29.3 The CONTRACTOR warrants that, unless otherwise specified in the Contract Documents, the materials and equipment installed in the Work will be new, merchantable, and fit for the purpose for which they are intended, and that the Work will be performed in a workmanlike manner. The CONTRACTOR also warrants the workers who perform the Work will be sufficiently skilled to produce a high quality product which is free of blemishes, (surface defects) and flaws (internal defects).

The CONTRACTOR is under a continuing duty to warn the OWNER and ENGINEER of any possible defect in the design of the Work and materials incorporated in the Work and against potentially unsafe uses of products incorporated in the Work which may cause personal injury or property damage, as soon as the CONTRACTOR discovers the possible defect or has notice that the product may be unsafe. The CONTRACTOR's duty under this paragraph shall be continuing, and shall not expire when the OWNER accepts the Work or when the CONTRACTOR's guarantee expires. If the CONTRACTOR fails to warn the Owner of a design or product defect of which the CONTRACTOR is aware, and if personal or property damage thereafter results from such design or product defect, the CONTRACTOR shall be liable jointly and severally with any other party responsible at law for all damages resulting from such defect.

6.30 Indemnification:

The CONTRACTOR agrees to indemnify and hold harmless the OWNER (City of Louisville), ENGINEER, ENGINEER's consultants, and their officers, employees, agents and insurers, from and against all liability, claims, and demands, on account of injury, loss, or damage, including without limitation claims arising from bodily injury, personal injury, sickness, disease, death, property loss or damage, or any other loss of any kind whatsoever, which arise out of or are in any manner connected with this contract, if such injury, loss, or damage is caused in whole or in part by, or is claimed to be caused in whole or in part by, the act, omission, error, professional error, mistake, negligence, or other fault of the CONTRACTOR, any Subcontractor of the CONTRACTOR, or any officer, employee, representative, or agent of the CONTRACTOR or of any Subcontractor of the CONTRACTOR, or which arise out of any workers' compensation claim of any employee of the CONTRACTOR or of any employee of any subcontractor of the CONTRACTOR. The CONTRACTOR agrees to investigate, handle, respond to, and to provide defense for and defend against, any such liability, claims or demands at the sole expense of the CONTRACTOR. The CONTRACTOR also agrees to bear all other costs and expenses related thereto, including court costs and attorney fees, whether or not any such liability, claims, or demands alleged are groundless, false, or fraudulent.

6.31 In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.31 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.

Survival of Obligations:

6.32 All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the work and termination or completion of the Agreement.

ARTICLE 7 - OTHER WORK

Related Work at Site:

7.1 OWNER may perform other work related to the Project at the site by OWNER's own forces, or let other direct contracts therefor which shall contain General Conditions similar to these, or have other work performed by utility owners. If the fact that such other work is to be performed was not noted in the Contract Documents, then: (i) written notice thereof will be given to CONTRACTOR prior to starting any such other work, and (ii) CONTRACTOR may make a claim therefor as provided in Articles 11 and 12 if CONTRACTOR believes that such performance will involve additional expense to CONTRACTOR or requires additional time and the parties are unable to agree as to the amount or extent thereof.

7.2 CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect

and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

7.3 If the proper execution or results of any part of CONTRACTOR's work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure so to report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent or non-apparent defects and deficiencies in such other work.

Coordination:

7.4 Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility in respect of such coordination.

Should CONTRACTOR cause damage to the Work or property of any separate CONTRACTOR at the site, or should any claim arising out of CONTRACTOR's performance of the Work at the site be made by any separate contractor against CONTRACTOR, OWNER, ENGINEER, or any other person, CONTRACTOR shall promptly attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by arbitration or at law. CONTRACTOR shall, to the fullest extent permitted by Laws, and Regulations, indemnify and hold OWNER and ENGINEER harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any separate contractor against OWNER or ENGINEER to the extent based on a claim arising out of CONTRACTOR's performance of the Work. Should a separate contractor cause damage to the Work or property of CONTRACTOR or should the performance of Work by any separate CONTRACTOR at the site give rise to any other claim, CONTRACTOR shall not institute any action, legal or equitable, against OWNER or ENGINEER or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from OWNER or ENGINEER on account of any such damage or claim. If CONTRACTOR is delayed at any time in performing or furnishing Work by any act or neglect of a separate contractor and OWNER and CONTRACTOR are unable to agree as to the extent of any adjustment in Contract Time attributable thereto, CONTRACTOR may make a claim for an extension of time in accordance with Article 12. An extension of the Contract Time shall be CONTRACTOR's exclusive remedy with respect to OWNER and ENGINEER for any delay, disruption, interference or hindrance cause by any separate contractor. This paragraph does not prevent recovery from OWNER or ENGINEER for activities that are their respective responsibilities.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.1 Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.2 In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer whose status under the Contract Documents shall be that of the former ENGINEER.

8.3 OWNER shall furnish the data required of OWNER under the Contract documents promptly and shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.4 and 14.13.

8.4 OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4.

8.5 OWNER is obligated to execute Change Orders as indicated in paragraph 10.4.

8.6 OWNER's responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 13.4.

8.7 In connection with OWNER's right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with OWNER's right to terminate services of CONTRACTOR under certain circumstances.

8.8 The OWNER shall not supervise, direct or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

8.9 OWNER's responsibility in respect of undisclosed Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Materials uncovered or revealed at the site is set forth in paragraph 4.5.

8.10 If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

OWNER's Representative:

9.1 ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and ENGINEER.

Visits to Site:

9.2 ENGINEER will make visits to the site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER will endeavor for the benefit of OWNER to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work.

ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against **defective** Work. ENGINEER's visits and on-site observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.13 and particularly, but without limitation, during or as a result of ENGINEER's on-site visits or observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work.

Project Representative:

9.3 ENGINEER will furnish a Resident Project Representative, assistants and other field staff to assist ENGINEER in observing the performance of the Work of the CONTRACTOR. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.13 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other person will be as provided in the Supplementary Conditions.

9.3.1 Resident Project Representative is ENGINEER's Agent and will act as directed by and under the supervision of ENGINEER, and will confer with ENGINEER regarding his actions. His dealings in matters pertaining to the on-site Work will in general be with ENGINEER and CONTRACTOR keeping the ENGINEER advised as necessary. His dealings with Subcontractors will only be through or with the full knowledge and approval of CONTRACTOR.

Duties and Responsibilities:

Resident Project Representative will:

Schedules:

Review the progress schedule, schedule of Shop Drawing submittal, schedule of values and other schedules prepared by CONTRACTOR and consult with ENGINEER concerning acceptability.

Conferences and Meetings:

Attend meetings with CONTRACTOR, such as preconstruction conferences, progress meetings and other job conferences and other project related meetings.

Liaison:

Serve as ENGINEER's liaison with CONTRACTOR, working principally through CONTRACTOR's superintendent and assist him in understanding the intent of the Contract Documents. Assist ENGINEER in serving as OWNER's liaison with CONTRACTOR when CONTRACTOR's operations affect OWNER's on-site operations.

Assist in obtaining from ENGINEER additional details or information, when required for proper execution of the Work.

Shop Drawings and Samples:

Record date of receipt of Shop Drawings and samples.
Receive samples, which are furnished at the site by CONTRACTOR for ENGINEER's review, and notify ENGINEER of their availability for examination.

Advise ENGINEER and CONTRACTOR of the commencement of any Work requiring a Shop Drawing or sample submission if the submission has not been approved by ENGINEER.

Review of Work, Rejection of Defective Work, Inspections and Tests:

Conduct on-site observations of the Work in progress to assist ENGINEER in determining that the Work is proceeding in accordance with the Contract Documents.

Report to ENGINEER whenever he believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspections, tests or approvals required to be made; and advise ENGINEER when he believes Work should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

Verify that tests, equipment and systems startups and operating and maintenance training are conducted in presence of the appropriate personnel, and that CONTRACTOR maintains adequate records thereof; observe, record and report to ENGINEER appropriate details relative to the test procedures and start-ups.

Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to ENGINEER.

Interpretation of Contract Documents:

Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed and Transmit to CONTRACTOR clarification and interpretation of the Contract Documents as issued by ENGINEER.

Modifications:

Consider and evaluate CONTRACTOR's suggestions for modification in Drawings or Specifications and report with his recommendations to ENGINEER. Transmit to CONTRACTOR decisions issued by ENGINEER.

Records:

Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions or original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Agreement, ENGINEER's clarifications and interpretations of the Contract Documents, progress reports and other Project related documents.

Keep a diary, daily report form, or log book, recording hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders, or changed

conditions, list of job site visitors, daily activities, decisions, observations in general and specific observations in more detail as in the case of observing test procedures.

Record names, addresses and telephone numbers of all CONTRACTOR's, subcontractors and major suppliers of equipment and materials.

Reports:

Furnish ENGINEER periodic reports as required of progress of the Work and of CONTRACTOR's compliance with the progress schedule and schedule of Shop Drawings and sample submittal.

Consult with ENGINEER in advance of scheduled major tests, inspections or start of important phases of the Work.

Draft proposed Change Orders and Work Directive Changes, obtaining backup material from CONTRACTOR and recommend to ENGINEER Change Orders, Work Directive Changes, and Field Orders.

Report immediately to ENGINEER upon the occurrence of any accident.

Payment Requests:

Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with his recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.

Certificates, Maintenance and Operations Manuals:

During the Course of Work verify that certifications, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to ENGINEER for review and forwarding to OWNER prior to final payment of the Work.

Completion:

Before ENGINEER issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring correction or completion.

Conduct final inspection in the company of ENGINEER and CONTRACTOR and prepare a final list of items to be corrected or completed.

Observe that all items on final list have been corrected or completed and make recommendations to ENGINEER concerning acceptance.

Limitation of Authority:

Resident Project Representative shall not:

Authorize any deviations from the Contract Documents or accept any substitute materials or equipment, unless authorized by ENGINEER.

Exceed limitations of ENGINEER's authority as set forth in the Contract Documents.

Undertake any of the responsibilities of CONTRACTOR, Subcontractors, or CONTRACTOR's superintendent.
Advise on, or issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures for construction unless such is specifically called for in the Contract Documents.

Advise on or issue directions regarding or assume control over safety precautions and programs in connection with the Work.

Shall not accept Shop Drawings or sample submittals from anyone other than CONTRACTOR.

Authorize OWNER to occupy the Work in whole or in part.

Participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by ENGINEER.

Clarifications and Interpretations:

9.4 ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree to the amount or extent thereof, if any, OWNER or CONTRACTOR may make a written claim therefor as provided in Article 11 or Article 12.

Authorized Variations in Work:

9.5 ENGINEER may authorize minor variations in the work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR who shall perform the Work involved promptly.

Rejecting Defective Work:

9.6 ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be **defective**, or that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the work as provided in paragraph 13.9, whether or not the work is fabricated, installed or completed.

Shop Drawings, Change Orders and Payments:

9.7 In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraphs 6.24 through 6.28 inclusive.

9.8 In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

9.9 In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

Determinations for Unit Prices:

9.10 ENGINEER will have authority to determine the actual quantities and classifications of items of Unit Price Work performed by CONTRACTOR, and the written decisions of ENGINEER on such matters will be final, binding on OWNER and CONTRACTOR and not subject to appeal (except as modified by ENGINEER to reflect changed factual conditions).

Decisions on Disputes:

9.11 ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and Claims under Articles 11 and 12 in respect of changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph. Written notice of each such claim, dispute or other matter will be delivered by the claimant to ENGINEER and the other party to the Agreement promptly (but in no event later than fifteen days) after the start of the occurrence or event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within thirty days after the start of such occurrence or event unless ENGINEER allows an additional period of time for the submission of additional or more accurate data in support of such claim, dispute of other matter. The opposing party shall submit any response to ENGINEER and the claimant within thirty days after receipt of the claimant's last submittal (unless ENGINEER allows additional time). ENGINEER will render a formal decision in writing within thirty days after receipt of the opposing party's submittal, if any, in accordance with this paragraph. ENGINEER's written decision on such claim, dispute or other matter will be final and binding upon OWNER and CONTRACTOR.

9.12 When functioning under paragraphs 9.10 and 9.11, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to paragraphs 9.10 or 9.11 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.15) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations.

9.13 Limitations on ENGINEER's Authority and Responsibilities:

9.13.1 Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise or performance of any authority or responsibility by ENGINEER shall create, impose or give rise to any duty owned by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them.

9.13.2 ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work.

ENGINEER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

9.13.3 ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9.13.4 ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and other documentation required to be delivered by paragraph 14.12 will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.

9.13.5 The limitations upon authority and responsibility set forth in this paragraph 9.13 shall also apply to ENGINEER's Consultants, Resident Project Representative and Assistants.

ARTICLE 10 - CHANGES IN THE WORK

10.1 Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work. A Written Amendment, a Change Order, or a Work Change Directive will authorize such additions, deletions or revisions. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved, which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

10.2 If OWNER and CONTRACTOR are unable to agree as to the extent, if any, of an adjustment in the Contract Price or an adjustment of the Contract Times that should be allowed as a result of a Work Change Directive, a claim may be made therefor as provided in Article 11 or Article 12.

10.3 CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.5 and 3.6 except in the case of an emergency as provided in paragraph 6.23 or in the case of uncovering Work as provided in paragraph 13.9.

10.4 OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

10.4.1 changes in the Work which are (i) ordered by OWNER pursuant to paragraph 10.1., (ii) required because of acceptance of **defective** Work under paragraph 13.13 or correcting **defective** Work under paragraph 13.14, or (iii) agreed to by the parties:

10.4.2 changes in the Contract Price or Contract Times which are agreed to by the parties; and

10.4.3 changes in the Contract Price or Contract Times, which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 9.11;

10.5 If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

ARTICLE 11 - CHANGE OF CONTRACT PRICE

11.1 The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at CONTRACTOR's expense without change in the Contract Price.

11.2 The Contract Price may only be changed by a Change Order or by a Written Amendment. Any claim for an adjustment in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than fifteen days) after the start of the occurrence or event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within thirty days after the start of such occurrence or event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the adjustment claimed covers all known amounts to which the claimant is entitled as a result of said occurrence or event. ENGINEER shall determine all claims for adjustment in the Contract Price in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree on the amount involved. No claim for ad adjustment in the Contract Price will be valid if not submitted in accordance with this paragraph 11.2.

11.3 The value of any Work covered by a Change Order or of any claim for an adjustment in the Contract Price will be determined as follows:

11.3.1 where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraphs 11.9.1 through 11.9.3 inclusive);

11.3.2 where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 11.6.2);

11.3.3 where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 11.3.2, on the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 11.6).

Cost of the Work:

11.4 The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5:

11.4.1 Certified payroll record costs for employees in the direct employment of CONTRACTOR in the performance of the Work under schedules of job classifications shall be submitted to the ENGINEER with the claim. Such employees shall include without limitation superintendents, foremen and other personnel employed full-time at the site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemploy-

ment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays shall be included in the above to the extent authorized by OWNER.

11.4.2 Invoices for cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith shall be submitted to the ENGINEER with the claim. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall be in accordance with the State Department of Highways, Division of Highways, and State of Colorado Standard Specifications for Road and Bridge Construction 1991 Edition. If the materials used in performing the extra Work are taken from the CONTRACTOR's stock, then in lieu of invoices the CONTRACTOR shall furnish an affidavit, certifying that such materials were taken from its stock, that the quantity claimed was actually used in the Work, and that the price and transportation claimed represent the actual cost to the CONTRACTOR shall be submitted to the ENGINEER with the claim.

11.4.3 Payments made by CONTRACTOR to the Subcontractors for Work performed or furnished by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of ENGINEER, which bids, if any, will be accepted. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in paragraphs 11.4, 11.5, 11.6 and 11.7. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4 Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

11.4.5 Supplemental costs including the following:

11.4.5.1 The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

11.4.5.2 Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

11.4.5.3 Rentals rates of all construction equipment and machinery and the parts thereof which has been authorized by the ENGINEER, the CONTRACTOR will be paid for the use of equipment in the manner hereinafter specified. Rental rates will be from the current edition of the Rental Rate Blue Book for Construction Equipment and will be determined as follows:

Hourly rate: $RR = (ADJ\ BB/176)(RF)(SAF)+EOC$

Standby rate: SR = (ADJ BB/176)(RF)(0.5)
Where: RR = Hourly rental rate
ADJ BB/176 = Blue Book Monthly Rate adjusted for year of manufacture/176
RF = Regional Factor of 1.06
SAF = State Adjustment Factor of 1.05
EOC = Estimated Hourly Operating Costs from Blue Book

With each claim, the CONTRACTOR shall submit the rental rate calculations including copies of the appropriate pages of the Blue Book for each piece of equipment listed in the claim.

Rental of equipment not owned by the CONTRACTOR will be paid for by invoice cost plus operating cost (EOC). Copies of the applicable pages of the Rental Rate Blue Book for Construction Equipment shall be submitted to the ENGINEER with the claim.

The costs of transportation, loading, unloading, installation, dismantling, and removal thereof all in accordance with the terms of said rental agreements. If equipment is used intermittently and when not in use could be returned to its rental source at less expense to the OWNER than holding it at the Work site, it shall be returned unless the CONTRACTOR elects to keep it at the Work site at no expense to the OWNER. The rental of any such equipment, machinery or parts shall cease when the use of the equipment is no longer necessary for the Work. No payment will be made for the use of tools, which have a replacement value of $200.00 or less. Operators will be paid for separately as provided in paragraph 11.4.1. Certified invoices for rental cost of all construction equipment and machinery incorporated in the Work shall be submitted to the ENGINEER with the claim.

11.4.5.4 Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

11.4.5.5 Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable.

11.4.5.6 Losses and damages (and related expenses) caused by damage to the work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance and furnishing of the Work, (except losses and damages within the deductible amounts of property insurance established by OWNER in accordance with paragraph 5.9), provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.

11.4.5.7 The cost of utilities, fuel and sanitary facilities at the site.

11.4.5.8 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

11.5 The term Cost of the Work shall not include any of the following:

11.5.1 Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.4.1 or specifically covered by paragraph 11.4.4--all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

11.5.2 Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.

11.5.3 Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

11.5.4 Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same. (except for the cost of premiums covered by subparagraph 11.4.5.9 above).

11.5.5 Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of **defective** Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

11.6 The CONTRACTOR's fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

11.6.1 a mutually acceptable fixed fee; or

11.6.2 if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the work:

11.6.2.1 for costs incurred under paragraphs 11.4.1 and 11.4.2, the CONTRACTOR's fee shall be fifteen percent;

11.6.2.2 for costs incurred under paragraph 11.4.3, the CONTRACTOR's fee shall be five percent;

11.6.2.3 where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraphs 11.4.1, 11.4.2, 11.4.3 and 11.6.2 is that the Subcontractor who actually performs or

furnishes the Work, at whatever tier, will be paid a fee of fifteen percent of the costs incurred by such Subcontractor under paragraphs 11.4.1 and 11.4.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

11.6.2.4 no fee shall be payable on the basis of costs itemized under paragraphs 11.4.4, 11.4.5 and 11.5;

11.6.2.5 the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and

11.6.2.6 when both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 11.6.2.1 through 11.6.2.5, inclusive.

11.7 Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4 and 11.5, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

Cash Allowances:

11.8 It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be furnished and performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

11.8.1 the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and

11.8.2 CONTRACTOR's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances and no demand for additional payment on account of any of the foregoing will be valid.

Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.9 Unit Price Work:

11.9.1 Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER in accordance with paragraph 9.10.

11.9.2 Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

11.9.3 OWNER or CONTRACTOR may make a claim for an adjustment in the contract Price in accordance with Article 11 if:

11.9.3.1 the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

11.9.3.2 there is no corresponding adjustment with respect to any other item of Work; and

11.9.3.3 if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result of having incurred additional expense of, OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

11.9.4 In no event shall a claim be made or an adjustment of Unit Price allowed if a variation in actual quantities used does not equal or exceed 25 percent (25%) of the total Bid Price.

ARTICLE 12 - CHANGE OF CONTRACT TIMES

12.1 The Contract Times (or Milestones) may only be changed by a Change Order or a Written Amendment. Any claim for an adjustment of the Contract Times (or Milestones) shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than fifteen days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within thirty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Times (or Milestones) shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this paragraph 12.1.

12.2 Liquidated damages. The OWNER and the CONTRACTOR agree and recognize that time is of the essence for every time period set forth in the Contract Documents and that the OWNER will suffer financial loss if the Work is not substantially complete within the time set forth in the Contract Documents, plus any extensions thereof allowed in accordance with this Article 12 of the General Conditions. If the CONTRACTOR fails to perform the Work within the specified time set forth in the Contract Documents as adjusted pursuant to Article 12, the OWNER and CONTRACTOR agree that as liquidated damages, and not as a penalty, for delay in performance the Contractor shall pay OWNER in the amount stipulated below for each and every contract day that expires after the time set forth in the Contract Documents for Substantial Completion of the Work until the same is finally complete and ready for Final Payment. The OWNER shall have the right to deduct liquidated damages from any amount due or that may become due to the CONTRACTOR, or to collect such liquidated damages from the CONTRACTOR or the Surety. The OWNER has the option to enforce liquidated damages or to waive such damages. The liquidated damages herein specified shall only

apply to the CONTRACTOR's delay in performance. Liquidated damages are intended only to compensate the OWNER for additional OWNER personnel efforts in administering the Contract after normally scheduled completion dates, and for City governmental and citizen inconvenience, lost opportunities, and lost confidence in government and morale of government when work is not completed on time. Such damages are uncertain in amount and difficult to measure and prove accurately. By executing this contract, the CONTRACTOR agrees that the liquidated damages specified in the Contract Documents are reasonable in amount and are not disproportionate to actual anticipated damages. Liquidated damages do not include any sums of money to reimburse the OWNER for extra costs which the OWNER may become obligated to pay on other contracts which are delayed or extended because of CONTRACTOR's failure to complete the Work within the time periods set forth in the Contract Documents. Liquidated damages are not intended to include litigation or attorneys' fees incurred by the OWNER, or other incidental or consequential damages suffered by the OWNER due to the Contractor's performance. If the OWNER charges liquidated damages to the CONTRACTOR, this shall not preclude the Owner from commencing an action against the CONTRACTOR for other actual harm resulting from the CONTRACTOR's performance, which is not due to the CONTRACTOR's delay in performance. In order to recover liquidated damages, OWNER is under no obligation to prove the actual damages sustained by OWNER due to the CONTRACTOR's delay in performance. In no event shall the CONTRACTOR be assessed liquidated damages if the contract is suspended or terminated for events beyond the control of the CONTRACTOR for which a time extension beyond the original schedule of performance could be granted under 12.3.

The parties agree that liquidated damages shall be in the amount set forth in Article 2 of the Agreement.

12.3 Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a claim is made therefor as provided in paragraph 12.1. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.4 The CONTRACTOR specifically waives any and all claims against the OWNER for damages resulting from any hindrance or delay caused by circumstances beyond the control of CONTRACTOR that prevents completing any part of the Work within the Contract Times (or Milestones), whether or not caused by the OWNER. The CONTRACTOR may instead be granted an extension of the Contract Times for which the OWNER will not claim liquidated damages, provided that the hindrance or delay is beyond the control of the CONTRACTOR. An extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. In no event shall OWNER be liable to CONTRACTOR, any subcontractor, any supplier, any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from delays caused by or within the control of Contractor, or delays beyond the control of CONTRACTOR whether or not caused by the OWNER.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

Notice of Defects:

13.1 Prompt notice of all **defective** Work of which OWNER or ENGINEER has actual knowledge will be given to CONTRACTOR. All **defective** Work may be rejected, corrected or accepted as provided in this Article 13.

Access to Work:

13.2 OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

Tests and Inspections:

13.3 CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

13.4 OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

13.4.1 for inspections, tests or approvals covered by paragraph 13.5 below:

13.4.2 that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.9 below shall be paid as provided in said paragraph 13.9; and

13.4.3 as otherwise specifically provided in the Contract Documents.

13.4.4 any and all retesting of soil necessitated by the CONTRACTOR's operations or inability to obtain specified density test results on the first attempt shall be the sole responsibility and costs of the CONTRACTOR to achieve required passing test results. Retesting required because of non-conformance to specified requirements shall be performed by the independent firm employed by the OWNER. Payment for retesting will be charged to the CONTRACTOR by deducting inspection, testing and administrative charges from the Contract Price.

13.5 If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection, or approval. CONTRACTOR shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work.

13.6 If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

13.7 Uncovering Work as provided in paragraph 13.6 shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

Uncovering Work:

13.8 If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

13.9 If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is **defective,** CONTRACTOR shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefor as provided in Article 11.

OWNER May Stop the Work:

13.10 If the Work is **defective**, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any surety or other party.

Correction or Removal of Defective Work:

13.11 If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all **defective** Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the site and replace it with Work that is not **defective.** CONTRACTOR shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.12 Correction Period:

13.12.1 If within one year after the date of Final Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, CONTRACTOR shall within seven calendar days after receiving notice from OWNER, without cost to OWNER and in accordance with OWNER's written instructions: (i) correct such defective Work, or if its has been rejected by OWNER, remove it from the site and replace it with WORK that is not defective, and (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If CONTRACTOR does not within seven calendar days after receiving notice from

OWNER comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

13.12.2 In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

13.12.3 Where **defective** Work (and damage to other Work resulting therefrom) has been corrected, removed or replaced under this paragraph 13.12, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

Acceptance of Defective Work:

13.13 If, instead of requiring correction or removal and replacement of **defective** Work, OWNER (and, prior to ENGINEER's recommendation of final payment, also ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall play all claims, costs, losses and damages attributable to OWNER's evaluation of and determination to accept such **defective** Work (such costs to be approved by ENGINEER as to reasonableness). If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. If the acceptance occurs after such recommendation, CONTRACTOR will pay an appropriate amount to OWNER.

OWNER May Correct Defective Work:

13.14 If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct **defective** Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.11, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors and ENGINEER and ENGINEER's Consultants access to the site to enable OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by OWNER in exercising such rights and remedies will be charged against CONTRACTOR and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others

destroyed or damaged by correction, removal or replacement of CONTRACTOR's **defective** Work. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies hereunder.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

Schedule of Values:

14.1 Progress payments on account of Unit Price Work will be based on the number of units completed.

Application for Progress Payment:

14.2 At least twenty days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens, claims, security interests, or encumbrances and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER's interest therein, all of which will be satisfactory to OWNER. The amount of retainage with respect to progress payments will be as stipulated in the Agreement. With each application for payment the CONTRACTOR shall submit a notarized waiver(s) of claim signed by the CONTRACTOR acceptable in form to the ENGINEER. The waiver of claim for payment for the work of the CONTRACTOR shall equal the amount of the previous payment distributed to the CONTRACTOR for work of the CONTRACTOR and the amount of the total previous payment distributed to the CONTRACTOR.

CONTRACTOR's Warranty of Title:

14.3 CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

Review of Applications for Progress Payment:

14.4 ENGINEER will, within ten days after receipt of each Application for Payment, either indicate, in writing, a recommendation of payment and present the Application to OWNER, or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of the last sentence of paragraph 14.7) become due and when due will be paid by OWNER to CONTRACTOR.

14.5 ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's on-site observations of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

14.5.1 the Work has progressed to the point indicated.

14.5.2 the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.10 and to any other qualifications stated in the recommendation), and

14.5.3 the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled insofar as it is ENGINEER's responsibility to observe the Work.

However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

14.6 ENGINEER's recommendation of any payment, including final payment, shall not mean that ENGINEER is responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of Work, or for any failure of CONTRACTOR to perform or furnish Work in accordance with the Contract Documents.

14.7 ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.5. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

14.7.1 the Work is **defective**, or completed Work has been damaged requiring correction or replacement,

14.7.2 the Contract Price has been reduced by Written Amendment or Change Order,

14.7.3 OWNER has been required to correct **defective** Work or complete Work in accordance with paragraph 13.14, or

14.7.4 ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2.3 inclusive.

In addition to the retainages set forth in the Contract Documents, the Owner may retain one hundred percent (100%) of all progress payments for any unsatisfactory performance of the Work and any payment recommended by the ENGINEER, including without limitation:

Defective work or failure to repair or replace defective work;

Claims filed against the CONTRACTOR, or reasonable evidence indicating probable filing of such claims;

Failure of the CONTRACTOR to make adequate or proper payments to subcontractors or suppliers for materials, equipment or labor;

Failure to obtain necessary permits or licenses, or to comply with applicable laws, ordinances, codes, or regulations, unless such noncompliance is due to reasons beyond the control of the CONTRACTOR, or due to act of the OWNER or and ENGINEER hired by the OWNER, or agents or employees thereof:

Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price then unpaid;

Reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;

Persistent failure to carry out the Work in accordance with the Contract Documents;

As a set off for amounts due the Owner on other items;

Collusion with other bidders in preparing the bid;

Actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.7.1 through 14.7.3 or paragraphs 15.2.1 through 15.2.4 inclusive.

When the above reasons for withholding payment are removed and corrected to the OWNER's satisfaction, OWNER shall make payment to the CONTRACTOR of the sums withheld pursuant to this paragraph, subject to the amounts required to be retained by the Contract Documents.

Progress Payments to Suppliers and Subcontractors. The CONTRACTOR shall make partial payments of the amount due to each of the CONTRACTOR's suppliers and subcontractors in the same manner as the OWNER is required to pay the CONTRACTOR under Article 4 of the Agreement and Article 14 of the General Conditions, provided that the suppliers and subcontractors are performing to the CONTRACTOR's satisfaction. If the OWNER is notified that the CONTRACTOR is in arrears in payments to the CONTRACTOR's suppliers or subcontractors, the OWNER shall notify the CONTRACTOR and determine why such funds are being withheld. If the OWNER determines that no legitimate basis exists for the CONTRACTOR's withholding of such payments, the OWNER may, five (5) days after the mailing of written notice to the CONTRACTOR, make such payments directly to the CONTRACTOR's suppliers or subcontractors from funds which otherwise would be due the CONTRACTOR.

Substantial Completion:

14.8 When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter, OWNER, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion, which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such

objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within fourteen days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said fourteen days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion, ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion. ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

14.9 OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

Partial Utilization:

14.10 Use by OWNER at OWNER's option of any substantially completed part of the Work which: (i) has specifically been identified in the Contract Documents, or (ii) OWNER, ENGINEER, and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.10.1 OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraphs 14.8 and 14.9 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof land access thereto.

Final Inspection:

14.11 Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is

incomplete or **defective.** CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

Final Application for Payment:

14.12 After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance required by paragraph 5.4, certificates of inspection, marked-up record documents (as provided in paragraph 6.19) and other documents. CONTRACTOR may make application for final payment following the procedure for progress payments. The final application for payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence satisfactory to the OWNER of the continuation of completed operations insurance and any insurance coverage written on a claims-made basis at final payment and one year thereafter; (ii) the consent of surety to final payment and that the performance bond shall remain in effect throughout the guarantee period; (iii) complete and legally effective claim releases signed by all suppliers and subcontractors in the form provided in the Contract Documents certifying that all outstanding claims for payment have been paid. The CONTRACTOR shall not receive final payment due under the Agreement until the CONTRACTOR obtains and files the foregoing items (i), (ii), and (iii).

14.12.1 LIENS. Colorado Statutes do not provide for any right of lien against public buildings. In lieu thereof, §38-26-107, Colorado Revised Statutes, as amended, provides adequate relief for any claimant having furnished labor, materials, rental machinery, tools, equipment, or services toward construction of the particular public work in that final payment may not be made to a CONTRACTOR until all such creditors have been put on notice by publication of such pending payment and given opportunity to stop payment to the CONTRACTOR in the amount of such claims. Pursuant to §38-26-107, C.R.S., any supplier may bring a suit and file a notice of lis pendens against the OWNER within ninety (90) days after the date set for final settlement. If any such supplier or person files any such claim and notice of lis pendens, the OWNER shall withhold retained amounts from final payments to the CONTRACTOR as are necessary to satisfy fully such claims. References to liens appearing in Article 14 shall be deemed as references to claims made pursuant to C.R.S §38-26-101 et seq. unless the context requires otherwise.

Final Payment and Acceptance:

14.13 If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.15. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Upon receipt of the ENGINEER's recommendation for payment and the final Application for Payment, OWNER shall order the publication of Notice of Final Payment as required by C.R.S. §38-26-107(1) and shall make final payment in accordance with C.R.S. 38-26-107(3).

14.14 If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

Waiver of Claims:

14.15 The making and acceptance of final payment will constitute:

14.15.1 a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from **defective** Work appearing after final inspection pursuant to paragraph 14.11, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

14.15.2 a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

OWNER May Suspend Work:

15.1 At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and ENGINEER, which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 11 and 12.

OWNER May Terminate:

15.2 Upon the occurrence of any one or more of the following events:

15.2.1 if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.8 as adjusted from time to time pursuant to paragraph 6.6);

15.2.2 if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

15.2.3 if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

OWNER may, after giving CONTRACTOR (and the surety, if any,) seven days' written notice and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses and damages sustained by OWNER arising out of or resulting from completing the Work such excess will be paid to CONTRACTOR. If such claims, costs, losses and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and when so approved by ENGINEER incorporated in a Change Order, provided that when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

15.3 Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.4 Upon seven days' written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Agreement. In such case, CONTRACTOR shall be paid (without duplication of any items):

15.4.1 for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

15.4.2 for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

15.4.3 for all claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and

15.4.4 for reasonable expenses directly attributable to termination.

CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

CONTRACTOR May Stop Work or Terminate:

15.5 If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within thirty days after it is submitted or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.4. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within thirty days after it is submitted, or OWNER has failed for thirty days

to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may upon seven days' written notice to OWNER and ENGINEER stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.5 are not intended to preclude CONTRACTOR from making claim under Articles 11 and 12 for an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this paragraph.

Giving Notice:

16.1 Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

Computation of Times:

16.2.1 When any period of time is referred to in the Contract Documents by days, it will be computed to include the first and the last day of such period.

Notice of Claim:

16.3 Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 16.3 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

Cumulative Remedies:

16.4 The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 6.12, 6.16, 6.30, 6.31, 6.32, 13.1, 13.12, 13.14, 14.3 and 15.2 and all of the rights and remedies available to OWNER and ENGINEER thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

Professional Fees and Court Costs Included:

16.5 Whenever reference is made to "claims, costs, losses and damages," it shall include in each case, but not be limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs.

Interest:

16.6 In the event that any payment of interest is to be made pursuant to any provision of the Contract Documents, excluding any bid bond, labor and materials bond or performance bond entered into by the CONTRACTOR, interest shall be paid at the average rate earned by the City of Louisville on its invested funds during the quarterly fiscal period prior to the period during which the interest was accrued.

Third Parties:

16.7 The contract is not intended to create any right in or for the public or any member thereof, any subcontractor or supplier, or any other third party, or to authorize anyone not a party to the contract to maintain a suit to enforce its terms. The duties, obligations, and responsibilities of the parties to the contract, with respect to third parties, shall remain as imposed by law. This paragraph shall not apply to any surety to the extent it is acting under any labor and materials bond or performance bond entered into by the CONTRACTOR.

Severability:

16.8 To the extent that the performance of the parties' obligations may be accomplished within the intent of the contract, the terms of the contract are severable, and should any term or provision of the contract be declared invalid or become inoperative for any reason, such invalidity or failure shall not affect the validity of any other contract term or provision.

Equal Opportunity Employer:

16.9 The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, age, sex, disability or national origin. The CONTRACTOR will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard for their race, color, religion, age, sex, disability or national origin. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notice to be provided by an agency of the federal government, setting forth the provisions of the Equal Opportunity Laws.

The CONTRACTOR shall be in compliance with the appropriate areas of the Americans with Disabilities Act of 1990 as enacted and from time to time amended and any other applicable federal regulation. A signed, written certificate stating compliance with the Americans with Disabilities Act may be requested at any time during the life of any contract and with any contract entered by the OWNER.

CONDITIONS OF THE CONTRACT

These Supplementary Conditions amend or supplement the General Conditions of the Project Manual as indicated below. All provisions, which are not so amended or supplemented, remain in full force and effect.

1. GC-1 DEFINITIONS

A. Section 1.9.1, **CONTRACT DAY** of Article 1 of the General Conditions, delete the definition in its entirety and add the following language:

CONTRACT DAY - A calendar day of 24 hours each, excluding Saturdays, Sundays, OWNER observed holidays and Abnormal Weather days.

B. Section 1.41, **SUBSTANTIAL COMPLETION** of Article 1 of the General Conditions,

Add the following language:

The Work will not be considered suitable for Substantial Completion review until all project Bid Items and incidentals in the Work are completed and operational as designed, all designated or required governmental inspections and certifications have been made and posted, designated instruction of Owner's personnel in the operation of systems has been completed, and all final finishes within the Contract are in place. In general, the only remaining work shall be minor in nature, so that the Owner could occupy the building or utilize the improvements on that date and the completion of the Work by the Contractor would not materially interfere or hamper the Owner's normal operations. As a further condition of Substantial Completion acceptance, the Contractor shall certify that all remaining work will be completed within twenty (20) consecutive contract days or as agreed upon following the date of issuance of Certificate of Substantial Completion.

2. GC-2 PRELIMINARY MATTERS

Add the following language to Section 2.3 of Article 2 of the General Conditions:

For construction phasing for the project refer to sheet 3 on the plans.

3. GC-4 AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS

A. Section 4.4, **REFERENCE POINTS,** of Article 4 of the General Conditions, delete the second paragraph in its entirety and add the following language: The OWNER shall not provide survey reference points, construction stakes, lines and grade for the work unless otherwise noted.

4. GC-6 CONTRACTOR'S RESPONSIBILITIES

A. **Labor, Materials and Equipment**, delete paragraph 6.3 in its entirety and insert the following:

6.3 CONTRACTOR shall provide competent, suitably qualified personnel to survey, layout and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except as otherwise required for the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, or at night without OWNER's written consent given after prior written notice to ENGINEER. No extra payment will be paid to the CONTRACTOR by the OWNER due to labor overtime or other increased costs of performing the Work on Friday afternoons, or at night. Should the CONTRACTOR desire to work at night between the hours of 5:00 p.m. and 8:00 p.m., Monday-Thursday, from 3:30 p.m. to 8:00 p.m. Friday, the CONTRACTOR shall submit a written request to the ENGINEER 24 hours prior. If approval is given by ENGINEER to CONTRACTOR for authorized overtime work, ENGINEER's and ENGINEER's authorized personnel will charge overtime and other incidental administrative expenses necessary for performing inspections between the hours of 5:00 p. m. and 8:00 p.m., Monday-Thursday and 3:30 p.m. to 8:00 p.m. Friday, the CONTRACTOR will be responsible to pay for all such rates and charges, and shall not be granted a Contract Price increase for such charges. Overtime and other incidental administrative expenses for Engineer's and Engineer's authorized personnel are as follows:

DESCRIPTION	HOURLY RATE
Engineer	$70.00
Construction Inspector	$55.00
Operations Supervisor	$55.00
Operations Technician	$40.00
Clerical	$35.00
Vehicle	$25.00

ARTICLE 6 – Page 78, Permits:

a. Paragraph 6.13.2, add the following language

"A deposit is required for the 2" water meter in an amount of $2500 and the deposit is reimbursed when the 2" meter is returned, in good condition. Charges for water

consumption are waived when water is used for this project. Bulk Water Permit and meter are available from the City of Louisville Operations Division, located at 1600 Empire Road."

b. Paragraph 6.13.3, add the following language:

"Right of Way Permit is required however the fee is waived for this project."

5. GC-12 CHANGES OF CONTRACT TIMES

A. Add the following language to Article 12 of the General Conditions:

12.5 EXTENSIONS OF TIME

a. The OWNER and CONTRACTOR are both aware that construction will be conducted during spring and summer and that variable weather conditions are typical for the site of the work.

b. The CONTRACTOR expressly agrees that the Contract Price is based on completion of the work within the times specified in the Agreement and under weather conditions typically encountered during the contemplated construction period at the site of the work.

c. For purposes of evaluating requests for extensions of time due to abnormal weather conditions, the following conditions, and no others, will be considered unusually severe:

1) Precipitation volume exceeding the historical mean for the months of the construction period by more than one standard deviation.

2) Isolated abnormal weather occurrences of a severely destructive nature, which in fact, cause such destruction at the site of the work.

d. For the purpose of determining mean conditions, all available data contained in the records of the National Weather Service for reporting from Denver, as well as data available from the State Climatologist for the same areas.

e. The CONTRACTOR further agrees that should a request for time extension due to abnormal weather conditions, the CONTRACTOR shall submit all necessary historical and detailed daily data during the construction period to support the claim.

6. C-13 TESTS AND INPSECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

Section 13.11, **CORRECTION OR REMOVAL OF DEFECTIVE WORK** of Article 13 of the General Conditions, add the following language:

Failure or neglect on the part of the ENGINEER to condemn unsatisfactory material or reject inferior workmanship will in no way release the CONTRACTOR, nor shall it be construed to mean the acceptance of such work, nor shall Final Acceptance bar the OWNER from recovering damages in case fraud was practiced, or for defective work resulting from the CONTRACTOR'S dishonesty.

Work done contrary to or regardless of the instructions of the ENGINEER, work done without lines, grade and/or cross section stakes and grades shown on the Plans or as given by the ENGINEER, or any deviation made from the Plans and Specifications without written authority will be considered unauthorized and at the expense of the CONTRACTOR, and will not be measured or paid for by the OWNER. Any and all work so done may be ordered, removed, and replaced immediately at the CONTRACTOR'S expense.

- END OF SECTION -

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY:

1.1.1 PROJECT NAME: 2025 CIPP Sewer Lining Project

1.1.2 PROJECT NUMBER: 502498-660313
PROJECT LOCATION: Louisville, Colorado

1.1.3 OWNER: City of Louisville

1.1.4 WORK INCLUDED: The Work for which the Bid is requested consists of but is not limited to sanitary sewer main CIPP lining, sanitary sewer video and cleaning, sanitary sewer service connections, traffic control, incidentals and work appurtenant thereto.

- Base Bid – COUNTY RD
- Base Bid – FRONT STREET
- Base Bid – CANNON ST
- Base Bid – JOHNSON ST
- Base Bid – SPRUCE ST/ALLEY

SECTION 01025

MEASUREMENT AND PAYMENT

1.1 GENERAL

A. Measurement and payment criteria applicable to (portions of) the Work performed under a unit price payment method.

B. Defect assessment and non-payment for rejected work.

1.2 AUTHORITY

A. Measurement methods delineated in the individual specification sections complements the criteria of this section. (In the event of conflict, the requirements of the individual specification section govern.)

B. Take all measurements and compute quantities. The Engineer will verify measurements and quantities.

1.3 UNIT QUANTITIES SPECIFIED

A. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements supplied or placed in the Work and verified by the Engineer determine payment.

B. If the actual Work requires more or fewer quantities than those quantities indicated, provide the required quantities at the unit/lump sum prices contracted.

C. If the actual Work requires a change that is equal to an increase or decrease that is 25 percent (25%) or more of the Bid Price, then the Owner or Contractor may claim for a Contract Price adjustment.

1.3.1 LUMP SUM SCHEDULES

A. There will be no measurement for lump sum items included in the lump sum schedule.

1.4 MEASUREMENT OF QUANTITIES

A. Measurement by volume: Measured by cubic dimension using mean length, width and height or thickness.

B. Measurement by area: Measured by square dimension, using mean length and width or radius.

C. Linear measurement: Measured by linear dimension, at the item centerline or mean chord.

D. Measurement by weight: The term "ton" will mean the short ton consisting of 2000 pounds avoirdupois.

Materials measured or proportioned by weight shall be weighed on accurate scales. Scales shall be accurate within the allowable tolerances as prescribed by State law. The scales shall be sealed by the measurement Standards Section of the Colorado Department of Agriculture at least once each year, each time the scales are relocated, and as often as the Engineer may deem necessary. Scales shall be furnished by the Contractor or the contractor may utilize commercial scales.

Scales shall be operated according to the Colorado Department of Agriculture's regulations. Weighers, scales, scale tickets, scale house, and verification of the scales' accuracy will not be measured and paid for separately, but shall be included in the work.

The Contractor may use either certified hopper scales or certified platform scales.

When platform scales are used to weigh vehicles carrying material paid for by weight, each vehicle shall be weighed by a certified weigher. Hopper scales used to directly measure material paid for by weight shall be operated by certified weighers and provide an accurate net weight.

The operator of each vehicle carrying material measured and paid for by weight shall obtain a scale ticket (certificate of correct weight) from the certified weigher and deliver the ticket to the Engineer at the point of delivery of the material.

The scale ticket shall include the following information:

1. Project Number
2. Date
3. Ticket Number
4. Haul Unit Number
5. Gross weight
6. Tare Weight
7. Net Weight
8. Material Type
9. Certified Weigher's Name

1.5 PAYMENT

A. Payment includes: Full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

B. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the Engineer multiplied by the unit price for Work which is incorporated in or made necessary by the Work.

1.6 DEFECT ASSESSMENT

A. Replace the Work, or portions of the Work, not conforming to specified requirements.

1.7 NON-PAYMENT FOR REJECTED PRODUCTS

A. Payment will not be made for any of the following:

1. Products wasted or disposed of in a manner that is not acceptable.
2. Products determined as unacceptable before or after placement.
3. Products not completely unloaded from the transporting vehicle.
4. Products placed beyond the lines and levels of the required Work.
5. Products remaining on hand after completion of the Work.
6. Loading, hauling and disposing of rejected Products.

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

SECTION 01091

REFERENCE STANDARDS

PART 1 - SUMMARY

1.1 SUMMARY:

1.1.1 WORK INCLUDED:

A. This Section contains a summary of industry-accepted and recognized standards published by trade associations, government, and institutional organizations, which are referred to in the various sections of these specifications or elsewhere in the Contract Documents.

B. Standards listed herein are included in the Contract Documents by this reference, and become a part of the Contract Documents to the same extent as though included in their entirety unless specific limitations are noted in the individual Specifications Sections.

C. Listings of reference standards include name and address of the organization publishing the standard, plus the full name and designator of each of the standards referenced herein.

D. If a publication date or edition number is listed with the reference standard, that publication date or edition number shall apply; otherwise, the publication date of edition number in effect at the Contract Date shall apply.

E. Inclusion of reference standards herein does not make the Engineer an agent of the publishing agency, nor does it obligate the Engineer to perform inspections required by or enforce rules or regulations contained in the reference standards.

1.2 REFERENCES:

1.2.1 RELATED DOCUMENTS: General Conditions, Supplementary Conditions, and applicable provisions of other Division 1 sections apply to this section.

1.2.2 PRECEDENCE OF REQUIREMENTS: In the event of a conflict between the requirements of a published reference standard and the specific requirements of the general conditions, supplementary conditions, or other Contract Documents, or between one reference standard and another reference standard, the more stringent requirements shall take precedence.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION

3.1.1 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

444 North Capital Street NW, Suite 225, Washington, DC 2002

M103 --	Mild to medium strength carbon-steel castings for general application
M105 --	Gray iron castings
M111 --	Zinc (Hot-Galvanized) coatings on products fabricated from rolled, pressed, and forged steel shapes, plates, bar, and strip
M183 --	Structural steel
T166 --	Bulk specific gravity of compacted bituminous mixtures

3.1.2 AMERICAN CONCRETE INSTITUTE (ACI)

P.O. Box 19150, Redford Station, Detroit, MI 48219
(313) 372-9800

ACI 211.1-	Standard practice for selecting proportions for normal, heavyweight, and mass concrete
ACI 211.2-	Standard practice for selecting proportions for structural lightweight concrete
ACI 301 -	Specifications for structural concrete for buildings
ACI 304 -	Recommended practice for measuring, mixing, transporting, and placing concrete
ACI 304.2R-	Placing concrete by pumping methods
ACI 305R-	Hot weather concreting
ACI 306R-	Cold weather concreting
ACI 315 -	Details and detailing of concrete reinforcement
ACI 318 -	Building codes requirements for reinforced concrete Note: Reference to ACI 318 may be limited by more stringent requirements of local building code
ACI 347 -	Recommended practice for concrete formwork
ACI SP-66-	ACI detailing manual (synopsis)

3.1.9 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

1916 Race Street, Philadelphia, PA 19103
(215) 299-5585

ASTM A27-	Specification for steel castings, carbon, for general application
ASTM A36-	Standard specification for structural steel
ASTM A48-	Specification for gray iron castings
ASTM A53-	Specification for pipe, steel, black and hot-dipped, zinc-coated, welded and seamless
ASTM A82-	Specifications for steel wire, plain, for concrete reinforcement.
ASTM A120-	Specification for pipe, steel, black and hot-dipped zinc-coated (galvanized) welded and seamless, for ordinary uses

ASTM A123-	Specification for zinc (hot dipped-galvanized) coatings on iron and steel products
ASTM A185-	Specifications for steel welded wire, fabric, plain, for concrete reinforcement
ASTM A283-	Specification for low and intermediate tensile strength carbon steel plates, shapes, and bars
ASTM A307-	Specification for carbon steel externally threaded standard fasteners
ASTM A325-	Specification for high-strength bolts for structural steel joints
ASTM A366-	Specification for steel, carbon, cold-rolled sheet, commercial quality
ASTM A416-	Specification for uncoated seven-wire stress-relieved steel strand for pre-stressed concrete
ASTM A421-	Specification for uncoated stress-relieved wire for pre-stressed concrete
ASTM A446-	Specification for steel sheet, zinc-coated (galvanized) by the hot-dip process, structural (physical) quality
ASTM A490-	Specification for heat-treated, steel structural bolts, 150 ksi (1035 map) tensile strength
ASTM A500-	Specification for cold-formed welded and seamless carbon steel structural tubing in rounds and shapes
ASTM A501-	Specification for hot-formed welded and seamless carbon steel structural tubing
ASTM A525-	Specification for general requirements for steel sheet, zinc-coated (galvanized) by the hot-dip process
ASTM A526-	Specification for sheet steel, zinc-coated (galvanized) by the hot-dip process, commercial quality
ASTM A536-	Specification for ductile iron castings
ASTM A568-	Specification for general requirements for steel, carbon and high-strength low-alloy hot-rolled sheet and cold-rolled sheet
ASTM A570-	Specification for hot-rolled carbon steel sheet and strip, structural quality
ASTM A572-	Specification for high-strength low-alloy columbium-vanadium steels of structural quality
ASTM A588-	Specification for high-strength low-alloy structural steel with 50 ksi (345MPa) minimum yield point to 4 inches thick
ASTM A611-	Specification for steel, cold-rolled sheet, carbon, structural
ASTM A615-	Specification for deformed and plain billet-steel bars for concrete reinforcement
ASTM A663-	Specification for steel bars, carbon, merchant quality, mechanical properties
ASTM A775-	Specification for epoxy-coated reinforcing steel bars
ASTM B32 -	Specification for solder metal
ASTM B88 -	Specification for seamless copper water tube
ASTM B209-	Specification for aluminum and aluminum-alloy sheet and plate

ASTM B221-	Specification for aluminum-alloy extruded bars, rods, wire, shapes, and tubes
ASTM C31 -	Methods of making and curing concrete test specimens in the field
ASTM C33 -	Specification for concrete aggregates
ASTM C36 -	Specification for gypsum wall board
ASTM C39 -	Test method for compressive strength of cylindrical concrete specimens
ASTM C42 -	Method of obtaining and testing drilled cores and sawed beams of concrete
ASTM C67 -	Method of testing brick and structural clay tile
ASTM C76 -	Specification for reinforced concrete culvert, storm drain, and sewer pipe
ASTM C79 -	Test method for gypsum sheathing board
ASTM C94 -	Specification for ready mixed concrete
ASTM C109-	Test method for compressive strength of hydraulic cement mortars (using 2-inch or 50 mm cube specimens)
ASTM C110-	Methods for physical testing of quicklime, hydrated lime, and limestone
ASTM C136-	Method for sieve analysis of fine and coarse aggregates
ASTM C138-	Test method for unit weight, yield, and air content (gravimetric) of concrete
ASTM C140-	Method of sampling and testing concrete masonry units
ASTM C143-	Test method for slump or portland cement concrete
ASTM C144-	Specification for aggregate for masonry mortar
ASTM C150-	Specification for portland cement
ASTM C171-	Specification for sheet materials for curing concrete
ASTM C172-	Method of sampling fresh concrete
ASTM C173-	Test method for air content of freshly mixed concrete by the volumetric method
ASTM C207-	Specification for hydrated lime for masonry purposes
ASTM C231-	Test method for a content of freshly mixed concrete by the pressure method
ASTM C260-	Specification for air entraining admixtures for concrete
ASTM C270-	Specification for mortar for unit masonry
ASTM C309-	Specification for liquid membrane-forming compounds for curing concrete
ASTM C330-	Specification for lightweight aggregated for structural concrete
ASTM C425-	Specification for compression joints for vitrified clay pipe and fittings
ASTM C443-	Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
ASTM C476-	Specification for grout for masonry
ASTM C478-	Specification for precast reinforced concrete manhole sections
ASTM C494-	Specification for chemical admixtures for concrete
ASTM C506-	Specification for reinforced concrete arch culvert, storm drain, and sewer pipe

ASTM C507-	Specification for reinforced concrete elliptical culvert, storm drain, or sewer pipe
ASTM C578-	Specification for performed, cellular polystyrene thermal insulation
ASTM C612-	Specification for mineral fiber block and board thermal insulation
ASTM C630-	Specification of water-resistant gypsum backing board
ASTM C641-	Test method for staining materials in lightweight concrete aggregates
ASTM C645-	Specification for non-load (axial) bearing steel studs, runners (track), and furring channels for screw application of gypsum board
ASTM C665-	Specification for mineral fiber blanket thermal insulation for light frame construction and manufactured housing
ASTM C672-	Test method for scaling resistance of concrete surfaces exposed to deicing chemicals
ASTM C700-	Specification for vitrified clay pipe, extra strength, standard strength, and perforated
ASTM C726-	Specification for mineral fiber and mineral fiber, rigid cellular, polyurethane composite roof insulation board
ASTM C803-	Test method for penetration resistance of hardened concrete
ASTM C805-	Test method for rebound number of hardened concrete
ASTM C828-	Recommended practice for low-pressure air test of vitrified clay pipe lines
ASTM C834-	Specification for latex sealing compounds
ASTM C920-	Specification for elastomeric joint sealants
ASTM C936-	Specification for solid concrete interlocking paving units
ASTM D41 -	Specification for asphalt primer used in roofing and waterproofing
ASTM D312-	Specification for asphalt used in roofing
ASTM D422-	Test method for particle size analysis of soils
ASTM D448-	Specification for standard sizes of coarse aggregate for highway construction
ASTM D698-	Test method for moisture density relations of soils and soil-aggregate mixtures using 5.5-lb. rammer and 12 inch drop
ASTM D1188-	Test method for bulk specific gravity and density of compacted bituminous mixtures using paraffin-coated specimens
ASTM D1227-	Specification for emulsified asphalt used as a protective coating for built-up roofing
ASTM D1248-	Polyethylene Plastics Extrusion for Wire and Cable
ASTM D1556-	Test method for density of soil in place by the sand-cone method
ASTM D1557-	Method for moisture density relations of soils and soil-aggregate mixtures using 10-lb. rammer and 18 inch drop
ASTM D1559-	Test method for resistance to plastic flow of bituminous mixtures using marshal apparatus
ASTM D1667-	Specification for flexible cellular materials - vinyl chloride polymers and copolymers (closed-cell vinyl)

ASTM D1751 -	Specification for preformed expansion joint fillers for concrete paving and structural construction (non-extruding and resilient bituminous types)
ASTM D1752-	Specification for preformed sponge rubber and cork expansion joint fillers for concrete paving and structural construction
ASTM D1784-	Specification for rigid poly (vinyl chloride) (PVC) compounds and chlorinated poly (vinyl chloride) (CPVC) compounds
ASTM D1785-	Specification for poly (vinyl chloride) (PVC) pipe, schedules 40, 80 and 120
ASTM D2000-	Classification for rubber products in automotive applications
ASTM D2167-	Test method for density of soil in place by the rubber-balloon method
ASTM D2172-	Test method for quantitative extraction of bitumen from bituminous paving mixtures
ASTM D2178-	Specification for asphalt glass (felt) used in roofing and waterproofing
ASTM D2216-	Method for laboratory determination of water (moisture) content of soil, rock, and soil-aggregate mixtures
ASTM D2241-	Specification for poly (vinyl chloride) (PVC) plastic pipe (SDR-PR)
ASTM D2287-	Specification for nonrigid vinyl chloride polymer and copolymer molding and extrusion compounds
ASTM D2487-	Test method for classification of soils for engineering purposes
ASTM D2564-	Specification for solvent cements for poly (vinyl chloride) (PVC) plastic pipe and fittings
ASTM D2729-	Specification for poly (vinyl chloride) (PVC) sewer pipe and fittings
ASTM D2855-	Recommended practice for making solvent cemented joints with poly (vinyl chloride) (PVC) pipe and fittings
ASTM D2898-	Accelerated weathering of fire-retardant-treated wood for fire testing
ASTM D2922-	Test method for density of soil and soil-aggregate in place by nuclear method
ASTM D2950-	Test method for density of bituminous concrete in place by nuclear method
ASTM D3017-	Test method for moisture content of soil and soil-aggregate in place by nuclear methods (shallow depth)
ASTM D3034-	Specification for type PSM poly (vinyl chloride) (PVC) sewer pipe and fittings
ASTM D3350-	Specification for Polyethylene Plastics Pipe and Fittings Materials
ASTM D3909-	Specification for asphalt roll roofing (glass mat) surfaced with mineral granules
ASTM D4253-	Test method for maximum index density of soils using a vibratory table
ASTM D4254-	Test methods for minimum index density of soils and calculation of relative density

ASTM D4318-	Test method for liquid limit, plastic limit, plasticity index of soils
ASTM D4397-	Specification for polyethylene sheeting for construction, industrial, and agricultural applications
ASTM E84 -	Test method for surface burning characteristics of building materials
ASTM E96 -	Test methods for water vapor transmission of materials
ASTM E136-	Test method for behavior of materials in a vertical tube furnace at 750ºC
ASTM E283-	Test method for rate of air leakage through exterior windows, curtain walls, and doors
ASTM E329-	Recommended practice for inspection and testing agencies for concrete, steel, and bituminous materials as used in construction
ASTM E331-	Test method for water penetration of exterior windows, curtain walls, and doors by uniform static air pressure difference
ASTM E605-	Test method for thickness and density of sprayed fire-resistive material applied to structural members
ASTM E759-	Test method for effect of deflection of sprayed fire-resistive material applied to structural members
ASTM E760-	Test method for effect of impact on bonding of sprayed fire-resistive material applied to structural members
ASTM E761-	Test method for compressive strength of sprayed fee-resistive material applied to structural members
ASTM E859-	Test method for air erosion of sprayed fire-resistive material applied to structural members
ASTM F477-	Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
ASTM F567-	Practice for installation of chain link fence
ASTM F679-	Specification for poly (vinyl chloride) (PVC) large diameter plastic gravity sewer pipe and fittings
ASTM F714-	Specification for polyethylene (PE) Plastic Pipe (DR-PR) based on outside diameter.

3.1.3 AMERICAN WATER WORKS ASSOCIATION (AWWA):
6666 W. Quincy Ave., Denver, CO 80235
(303) 794-7711

Specifications and Test Methods Specifically Referenced Herein.

3.1.4 PORTLAND CEMENT ASSOCIATION (PCA)
5420 Old Orchard Road, Skokie, IL 60077
(312) 966-6200

Design and Control of Concrete Admixtures.

3.1.5 CITY OF LOUISVILLE
Department of Public Works - Engineering Division

749 Main Street
Louisville, Colorado 80027
(303) 335-4608

Design and Construction Standards, 1994 Edition

3.1.6 COLORADO DEPARTMENT OF TRANSPORTATION (CDOT)

4201 E. Arkansas Avenue, Denver, CO 80222
(303) 757-9011

Standard Specification for Road and Bridge Construction, 2011 Edition.

- END OF SECTION -

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.1 SUMMARY:

1.1.1 WORK INCLUDED:

A. This section contains a summary of submittals required by the Contract Documents, and establishes the general procedures and requirements for submittals.

B. Submittals covered under this section include, but are not necessarily limited to, schedules, reports, product data, shop drawings, samples, and miscellaneous data specifically prepared for the work by the Contractor or any subcontractor, manufacturer, or supplier, to illustrate some portion of the work.

1.1.2 RELATED WORK: Specific requirements for submittals are included in the individual specification sections.

1.2 REFERENCES:

1 .2.1 RELATED DOCUMENTS: General conditions, supplementary conditions, and applicable provisions of Division 1 sections apply to this section.

1.3 DEFINITIONS:

1 .3.1 PRODUCT DATA: As used herein, the term "product data" includes standard printed information published by the manufacturer describing materials, products, systems, and installation instruction not specifically prepared for this project, other than designation of selections from among available choices printed.

1.3.2 SHOP DRAWINGS: As used herein, the term "shop drawings" includes specially prepared technical data forms including drawings, diagrams, performance curves, data sheets, schedules templates, patterns, reports, calculations, instructions, measurements and similar information not in standard printed form for application to more tan one project. Supplier's standard component drawings may be submitted if they clearly show the exact items required for the work, in context with adjacent materials and with such relationships clearly shown. Shop drawings are not part of Contract Documents.

1 .3.3 SAMPLES: As used herein, the term "samples" includes fabricated and unfabricated physical examples of materials, products, and units of work; as complete units or smaller portions of units of work; either for limited visual inspection or, where in indicated, for more detailed testing and analysis.

1.3.4 MOCK-UPS: As used herein, the term "mock-ups" means special on-site of off-site forms of samples, which are too large or otherwise inconvenient for handling in transmittal or submittal form.

1.3.5 MISCELLANEOUS DATA: As used herein, the term "miscellaneous data" means various documents related directly to the work, including project photographs, survey data and reports, physical work records, statements of applicability, copies of certificates, bonds, quality testing and certifying reports, copies of industry standards, record drawings, field measurement data, operation and maintenance materials, overrun stock, security/protection/safety keys, and similar information, devices, materials, which are applicable to the work but not processed as shop drawings, product data, or samples.

1.4 QUALITY ASSURANCE:

1.4.1 GENERAL

A. No extension of time will be granted, nor will consideration be given to claims arising out of the Contractor's failure to submit shop drawings, product data, samples, or related submittals which do not allow adequate lead time for Engineer's review, and also do not allow ample time for revision, resubmission, and subsequent review by Engineer as required.

1.4.2 PERFORMANCE: Promptly check each submittal for accuracy, completeness, and applicability, and review, approve, and submit - in sequence according to the submittal schedule so as to cause no delay in the work or in the work of the OWNER or any separate Contractor - all submittals required by the Contract Documents. Identify each submittal to include name of project, specification section, supplier, source, finish, and location of use in the project.

1.4.3 VERIFICATION:

A. By making a submittal to the ENGINEER, the Contractor represents that he has approved such submittals and has determined and verified:

1. The applicability of the submittal to the project,
2. all quantities and sizes of materials, detailed fabricating dimensions, temporary erection connections or closures, tolerances and the proper fit and mating with adjacent materials,
3. related field measurements and field construction criteria, and
4. information pertaining to fabrication process and techniques of construction and erection.

B. The Contractor further represents that he has checked and coordinated information contained within such submittal with requirements of the work and of the Contract Documents.

1.4.4 RESPONSIBILITY: The Contractor shall not be relieved of responsibility for any deviation from requirements of the Contract Documents by the Engineer review of submittals, unless the Contractor has specifically informed the Engineer in writing of such deviation at the time of submission, and the Engineer has taken no written exception to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omissions in submittals by the Engineer's review of or action upon such submittals.

1.4.5 SUBMITTAL VALIDITY: Submittals submitted which are not required to be submitted or are submitted without the Contractor's approval will not be processed by the Engineer, but will be returned to the Contractor for his compliance with Contract Document requirements, in which event it shall be deemed that the Contractor has not complied with requirements of the Contract Documents, and the Contractor shall bear responsibility for all delays as if no submittals had been submitted.

1.4.6 COMMENCEMENT OF WORK: No portion of the work requiring submittals shall be commenced until submittals have been acted on by the Engineer. All such portions of the work shall be in accordance with appropriate, required submittals. **All submittals shall be submitted to the Engineer prior to commencement of project construction**.

1.5 GENERAL SUBMITTAL REQUIREMENTS:

1.5.1 SCHEDULING: Where appropriate in various required administrative submittals (listing of products, manufacturers, suppliers, sub Contractors, and in the progress schedule), show principal work-related submittal requirements and time schedules for coordination and integration of submittal activity with related work.

1.5.2 COORDINATION AND SEQUENCING: Coordinate preparation and processing of submittals with performance of work so that the work will not be delayed by submittals. Coordinate and sequence different categories of submittals for the same work, and for interfacing units of work, so that one will not be delayed by coordination with another. No extension of time will be allowed because of failure to properly coordinate and sequence submittals.

1.5.3 PREPARATION OF SUBMITTALS: Provide permanent marking on each submittal to identify project, date, Contractor, subcontractor, submittal name, applicable specification section, and similar information to distinguish it form other submittals. Show evidence of Contractor's review by clearly exhibiting check marks and stamped approval marking acceptance, and provide space for the Engineer's and Engineer's consultant's review or action marking. Package each submittal appropriately for transmittal and handling.

1.5.4 SPECIFIC CATEGORY SUBMITTAL REQUIREMENTS: Except as otherwise indicated in individual specifications sections, comply with general requirements specified herein for each indicated submittal category. Furnish and process intermediate submittals, where required between initial and final, similar to initial submittals(s).

1.5.5 PROGRESS SCHEDULE: Refer to supplementary conditions for progress schedule requirements.

1.5.6 DAILY REPORTS: Furnish copies of each daily report prepared by the Contractor's Project Superintendent to the Engineer and the OWNER "Transmit reports on a daily basis.

1.5.7 SHOP DRAWINGS:

A. Furnish newly-prepared information, on reproducible sheets, with graphic information at accurate scale (except as otherwise indicated), with name of preparer (firm name) indicated thereon. Affix seal of Contractor's or fabricator's design Engineer where applicable. Show all dimensions, and note which are based on field measurement. Identify materials and products in the work shown. Indicate compliance with standards, and special coordination requirements.

B. Where shop drawings are normally required, and where specifically called for in the specifications, submit to the Engineer four (4) blueline or blackline prints of each shop drawing and/or schedule required. Two prints will be returned.

C. Subsequent submittal(s) if required for correction or confirmation of corrective items shall be same as initial submittal except as otherwise requested by Engineer or specified in conditions of the contract.

D. Shop drawings and schedules will be reviewed for general conformance with the design concept contained within the Contract Documents.

E. Do not allow shop drawing copies into field without appropriate final markings by Engineer.

1.5.8 PRODUCT DATA:

A. Collect required data into one submittal for each unit of work or system. Mark each copy in a legible and reproducible manner to show which choices and options are applicable to the project; "highlighting" with colored markers not acceptable. Include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and special coordination requirements.

B. Do not submit product data, or allow its use on the project, until compliance with requirements of Contract Documents has been confirmed by Contractor. Submittals of product data are for information and record, unless otherwise indicated.

C. The initial submittal will be the only submittal required unless returned promptly by the Engineer, marked with an action which indicated an observed noncompliance. Submit 4 copies, each marked or labeled with project name, date, Contractor, subcontractor, submittal name, applicable specification section, and similar information to distinguish it from other submittals. Provide sufficient space for Engineers action stamp. The Engineer will retain two copies for himself and return the rest.

D. Do not proceed with installation of materials, products, or systems, until a copy of applicable product data is in the possession of the installer.

E. Maintain one set of product data for each submittal at the project site.

1.5.9 PUBLISHED STANDARDS: Where submittal of published standards is required, except where specified integrally with "Product Data" submittals, submit a single copy for the Engineers use. Where workmanship at the project site and elsewhere is governed by published standards, furnish additional copies to fabricators, installers and others involved in performance of the work.

1.5.10 CONSTRUCTION PHOTOGRAPHS: Unless otherwise provided in the Contract Documents, the OWNER will arrange and pay for construction photographs, and/or videotapes.

PART 2- PRODUCTS (Not Used)
(Not Used)

PART 3 - EXECUTION

3.1 SCHEDULES:

3.1.1 SUBMITTAL SCHEDULE: The following scheduled is included as a checklist for convenience only, and may not include all submittals required. Failure to include submittals in this schedule does not relieve the Contractor from providing submittals if required by individual specification sections.

Section Number/Title		Submittals Required
General Requirements		
01410	Testing and Inspections	N/A - City to provide Testing Services
01700	Contract Closeout	Record documents, Certificates of Compliance, Certificates of Inspection, Warranties, Guaranties, Bonds, Insurance Certificates, Consent of Surety, Releases of Liens, List of subcontractors and suppliers Acknowledgment of date of commencement of warranties and guaranties.

Section Number/Title		Submittals Required
Technical Specifications		
Section	**Title**	**Submittals Required**
02200	Sanitary Sewer	Product Data, Shop Drawing, Resident/Business Notification
02600	Construction Zone Traffic Control	Method for Handling Traffic (MHT)
02765	CIPP	Product Data, Shop Drawings, Test Reports, Certificates, Resident-Business Notification

- END OF SECTION -

SECTION 01410

TESTING AND INSPECTIONS

PART 1 - SUMMARY:

1.1.1 WORK INCLUDED:

A. This section defines the responsibilities of the various agencies or parties performing testing and inspection services as specified herein or required by the Contract Documents.

B. Quality assurance testing and inspections will be provided by an independent testing and inspections agency selected and paid for by the OWNER.

C. Cooperate with the selected testing and inspections agency and all others who may be responsible for testing and inspection of the work.

1.1.2 RELATED WORK: Specific testing and inspection requirements are described in the various sections of these specifications. Failure to list specific testing or inspection requirements does not relieve the Contractor from providing all tests, which are indicated to be his responsibility, or from cooperating with the testing and inspections agency.

1.1.3 LIMITATION OF AUTHORITY: The testing and inspections agency is not authorized to release, revoke, or alter the requirements of the Contract Documents, or to approve or accept any portion of the work without the Engineers written consent.

1.2 REFERENCES:

1.2.1 RELATED DOCUMENTS: General conditions, supplementary conditions, and applicable provisions of other Division 1 Sections apply to this Section.

1.2.2 REFERENCE STANDARDS: Comply with the requirements of all reference standards, codes, ordinances, rules, and regulations contained in the various sections of these specifications, except where more stringent requirements are listed herein or otherwise required by the Contract Documents. A complete listing of applicable reference standards, including full name of publishing agency and date or number is contained in section 01091.

1.3 DEFINITIONS:

1.3.1 QUALITY ASSURANCE TESTS AND INSPECTIONS: All tests and inspections specified herein or elsewhere in the Contract Documents which are performed by an independent testing and inspections agency to determine compliance of materials, products, equipment, or completed work with the requirements of the Contract Documents.

1.3.2 CODE COMPLIANCE TESTS AND INSPECTIONS: Mandatory tests or inspections required by codes or ordinances, or other authorities having jurisdiction over the work.

1.3.3 CONTRACTOR'S CONVENIENCE TESTS AND INSPECTIONS: Tests or inspections informed exclusively for the Contractor's convenience or information.

1.3.4 RE-TESTING: Subsequent testing or inspections of the work or any portion of the work for which initial testing has indicated non-compliance with the Contract Documents or with applicable codes, ordinances, rules, and regulations.

1.4 SUBMITTALS:

1.4.1 TEST AND INSPECTION REPORTS: Copies of all test and inspection reports will be promptly delivered by the testing and inspections agency directly to the OWNER and ENGINEER.

1.5 PAYMENT FOR TESTS AND INSPECTIONS:

1.5.1 INITIAL QUALITY ASSURANCE TESTS AND INSPECTIONS: Paid for by the OWNER.

1.5.2 CODE COMPLIANCE TESTS AND INSPECTION: Paid for by the Contractor**.**

1.5.3 CONTRACTOR'S CONVENIENCE TESTS AND INSPECTIONS: Paid for by the Contractor.

1.5.4 ADDITIONAL OR ALTERNATIVE TESTS AND INSPECTIONS: Paid for by the OWNER if the materials or work tested is found to be in compliance with the Contract Documents; otherwise paid for by the Contractor.

1.5.5 RE-TESTING: Paid for by the Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 COOPERATION WITH TESTING AND INSPECTIONS AGENCY:

3.1.1 ACCESS TO THE WORK: Representatives of the testing and inspections agency or other legally constituted testing or inspections personnel shall have unrestricted access to the site and all other locations where the work is in progress, including borrow pits, batch plants, material yards, or other locations where materials are being obtained, fabricated, or stored.

3.1.2 FACILITIES FOR TESTING: Provide all necessary facilities required for testing and inspecting the work, including but not limited to, lifts, and suitable safe storage areas for freshly poured concrete test cylinders.

3.1.3 NOTIFICATION: Notify the ENGINEER not less than forty-eight (48) hours prior to tentative date or time when testing and inspection services will be required. Re-confirm date and time not less than twenty-four (24) hours prior to time when such services will be required. Engineer will schedule testing and inspection agency.

3.2 TEST AND INSPECTION PROCEDURES:

3.2.1 GENERAL: Gathering of specimens or samples, measuring, and testing of all materials, products, or other work shall be performed according to the procedures of the referenced standard test method.

3.2.2 TAKING SPECIMENS: Unless otherwise indicated, all specimens and samples for testing will be taken by the testing and inspections agency personnel, either at the source of the material or at the site for work in progress.

3.2.3 DELIVERY OF SPECIMENS: Unless otherwise indicated, pick-up and delivery of specimens or samples to the testing and inspections agency's laboratory will be done by the agency's personnel. This includes concrete test cylinders, which have been stored on site for the initial curing period.

3.2.4 RE-TESTING: When initial tests or inspections indicate non-compliance of the work or any portion thereof, the non-complying portion shall be removed, replaced, or reworked (re-compacted in the case of subgrade, fill, or backfill material), and re-tested by the same agency performing the initial test or inspection. Do not proceed with additional work until the non-complying work has re-tested and found to be in compliance.

3.2.5 ADDITIONAL OR ALTERNATIVE TESTS:

A. The Owner and the Engineer reserve the right to require additional or alternative tests or inspections of materials or work for which either has reason to believe may not be in compliance with the requirements of the Contract Documents.

B Examples of such additional tests may include, but are not limited to, additional sieve analysis of aggregates or granular fill material; additional field density tests of subgrade, fill, or backfill materials; additional slump tests of concrete as it is being placed; core tests of in-place structural concrete; load testing of concrete structures; x-ray or other non-destructive testing of structural steel; and field-cut test strips of membrane roofing.

C. Payment for additional or alternative tests will be determined as provided herein above.

3.3 SCHEDULES:

3.3.1 SCHEDULE OF QUALITY CONTROL TESTS AND INSPECTIONS:

A. The following schedule is included for information only, as a convenience to the Contractor, and is not intended to limit the number and type of tests to be performed by the testing and inspections agency.

B. Carefully examine the individual sections of these specifications for additional or complete quality control testing and inspections requirements. Failure to include any test or inspection in this schedule does not relieve the Contractor from the testing and inspection requirements contained in the individual sections of the specifications.

C. This schedule includes quality control tests and inspections only, which will be performed by the selected testing and inspections agency and paid for as previously mentioned in Article 13 of the General Conditions. Code compliance tests and inspections, Contractor's convenience tests and inspections, and additional or alternative tests and inspections requested by the City are not included.

Section	Description of Test or Inspection	Test Qty/Interval
Earthwork	Fill and Backfill Material (Lab): Moisture Content - ASTM D2216 Max. Index Density - ASTM D4253 Moisture/Density Rel. - ASTM D698 or ASTM D1557 Plasticity Index - ASTM D4318 Particle Size Analysis - ASTM D422	1 each test/soil type
	Field Density Tests - ASTM D 1556, D2167, or D2922, Field Moisture Tests - ASTM D3017:	
	Subgrade:	One/500 sf
	Fill, Bldg and Paved Areas:	One/500 sf per lift
	Backfill:	One/250 sf/2 ft vert.
	Site and Misc. Fills:	One/500 sf/1 ft vert.

Section	Description of Test or Inspection	Test Qty/Interval
Utilities	Bedding material (Laboratory): Particle Size Analysis - ASTM D422	1/soil type
	Backfill Material (Laboratory): Moisture/Density Relation - ASTM D698 or D1557	1/soil type
	Field Density Tests - ASTM D1556, D2167, or D2922; Field Moisture Tests - ASTM D3017:	One/150 lf @ trench bottom at 2 ft. vert intervals, and at top
Paving	Asphalt Content - ASTM D 2172; Asphalt Gradation - ASTM in C136; Bulk specific gravity - ASTM D1188; AASHTO T 166; Marshall Test - ASTM D 1559:	One each/500 tons, min 2/day
Concrete	Concrete Quality: Fresh Concrete - ASTM C172 Compressive Strength - ASTM C39 Unit Weight - ASTM C138	One each/50 C.Y. or major fraction thereof; min 1/pour
	Slump - ASTM C143; Air Content - ASTM C173 or C231:	
	Hardened Concrete (failings only) ASTM C42, C803, C805, or load tests:	One each/truck As determined by Engineer

- END OF SECTION -

SECTION 01500

TEMPORARY FACILITIES, CONTROLS AND SERVICES

PART 1 - GENERAL

1.1 SUMMARY:

1.1.1 WORK INCLUDED: Provide temporary utilities and miscellaneous temporary facilities required during construction, including installation, maintenance, and removal upon completion of the work.

1.2 REFERENCES:

1.2.1 RELATED DOCUMENTS:

A. General conditions, supplementary conditions, and applicable provisions of other Division 1 sections apply to this section.

B. Section 02600 Construction Zone Traffic Control.

PART 2 - PRODUCTS

2.1 TEMPORARY CONSTRUCTION FACILITIES:

2.1.1 STORAGE STRUCTURES: Provide enclosed, weather tight storage facilities for materials and equipment, which require protection from the elements.

2.1.2 SANITARY FACILITIES:

A. Provide temporary toilet facilities for duration of work, for use by any and all employees engaged in the work. Comply with requirements of applicable codes, regulations, laws, and ordinances.

B. **ENGINEER shall approve locations of all temporary toilet facilities for the work. Contractor shall instruct any and all employees engaged in the work to use the designated temporary toilet facility or other approved toilet facility**. **The Police Department building or parking lot is not an approved toilet facility/location.**

2.1.3 FENCES AND BARRICADES:

A. Provide temporary orange fences along the property owner side of the construction limits as shown on the plans. In the remaining work areas and streets provide traffic control devices as may be specified elsewhere within certain sections of the

specifications, and as may be required by local code or authority and as required to maintain safety of work place.

B. Maintain temporary fences, bulkheads, and other protective facilities in good condition throughout the term of the work. Remove at completion of the work and replace or repair all work damaged thereby. Repair or replace on a daily basis safety facilities or devices damaged or removed during the course of the work.

2.1.4 CONSTRUCTION STAGING

A. Coordinate construction activities with the property and business owners to minimize impacts.

B. The Contractor will not be permitted to operate trucks and equipment or store equipment and supplies on private property unless he has written permission to do so.

2.1.5 STORAGE OF MATERIALS/EQUIPMENT ETC.

A. CONTRACTOR shall not be allowed to park any vehicles (including worker's personal vehicles) or equipment in any on-street parking spaces that are open to traffic.

B. No construction trailers or storage yards will be allowed in the work area and neighborhood. Contractor shall locate trailer/storage yard subject to approval of ENGINEER.

2.3 TEMPORARY CONTROLS

A. Noise Control. Equip construction machinery and vehicles with practical sound and muffling devices and operate in a manner to minimize noise consistent with efficient performance of the work.

B. Dust Control.

1. Take reasonable measures to prevent unnecessary dust.

2. Moisten dirt roads used for transportation and haul with water or apply a chemical dust suppressant to control dust.

3. Cover dusty material in transit when necessary to prevent blowing.

C. Pollution Control.

1. Prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris and other substances resulting from construction activities.

2. Retain all spent oils, hydraulic fluids and other petroleum fluids in containers for disposal off the site.

3. Do not perform equipment maintenance or fueling within 50 feet of any water course.

D. Erosion Control.

1. Take such measures as are necessary to prevent erosion of soil on the site and adjacent properties that might result from construction activities.

2. Provide temporary materials such as hay bales, sand bags or plastic sheets, to prevent the erosion of banks or excavation where runoff may be increased or concentrated due to construction activities.

3. Take such measures as are necessary to prevent soil, mud, debris, etc. from entering the storm sewer system. Contractor shall be responsible for cleaning existing storm sewer downstream of the site if any soil, mud, debris, etc. enter it from the site. Engineer shall inspect system prior to final inspection and required cleaning will be noted on the punch list. Contractor shall clean to the satisfaction of the engineer.

2.4 OTHER TEMPORARY SERVICES:

2.4.1 CLEANING:

A. Provide daily sweeping and cleanup of dust, debris, litter, trash containers, and other items required to maintain a clean, orderly, and accessible site. Hauling of debris to legal dump or landfill is required daily as a minimum.

B. Provide daily sweeping or cleaning of adjacent streets and walkways as required to prevent accumulation of mud, dust, or soil thereon from construction traffic and personnel.

C. The CONTRACTOR shall at his/her own expense clean up and removed all refuse and unused materials of any kind resulting from the work. Upon failure to do so within seventy-two (72) hours after request by the ENGINEER, the work may be done by the OWNER and the cost thereof be charged to the CONTRACTOR and deducted from his/her final estimate.

2.4.2 ACCESS RAMPS:

A. During construction activities, provide hard surface ramps as directed by the Engineer to access private property, public property, pedestrian crossings, streets and alleys. Construction will impact emergency response capabilities for Avista Hospital. Construction operations on Health Park Drive shall be coordinated to occur promptly and with least delay in production. Emergency access through the sites shall be provided.

2.4.3 OWNER MAINTAINED FACILITIES:

A. During construction activities including but not limited to demolition, unclassified excavation, and asphalt patching, CONTRACTOR shall protect from damage all OWNER maintained facilities. Street signage, storm sewer inlets and manholes, sanitary sewer manholes, water main valve boxes and water service curb stop boxes damaged or backfilled during construction shall be repaired, replaced and made accessible. Backfilled manholes shall be cleaned immediately. Upon failure to repair, replace or clean OWNER maintained facilities promptly, the work may be completed by the OWNER and the cost thereof be charged to the Contractor and deducted from his/her final estimate.

PART 3 - EXECUTION

3.1 MAINTENANCE OF TEMPORARY FACILITIES:

3.1.1 TEMPORARY STRUCTURES: Maintain temporary offices, storage facilities, sanitary facilities, fire protection facilities, trailers, fences, barricades, and other structures in a neat, orderly appearance for the duration of the work.

3.1.2 REMOVAL OF TEMPORARY FACILITIES: Remove temporary facilities and structures from the site as soon as practicable or when no longer required by the Contractor or subcontractors. Restore areas occupied by temporary facilities to like new condition, or to match surrounding areas.

PART 4 - MEASUREMENT AND PAYMENT

4.1 SUMMARY

4.1.1 Temporary Facilities and Controls and Services will not be paid for separately but shall be included in the work.

- END OF SECTION -

SECTION 01700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 SUMMARY:

1.1.1 WORK INCLUDED: This section includes administrative procedures and closeout submittals required at substantial completion and final completion of the work.

1.1.2 RELATED WORK: Additional specific requirements are specified in the various sections of these specifications.

1.2 REFERENCES:

1.2.1 RELATED DOCUMENTS: General conditions, supplementary conditions, and applicable provisions of these specifications apply to this section.

1.3 DEFINITIONS:

1.3.1 CONTRACT CLOSEOUT: Contract close-out is defined to include general administrative requirements near the end of the contract time, in preparation for final acceptance, final payment, normal completion of the contract, occupancy by Owner, and similar actions evidencing completion of the work. Time of close-out is directly related to substantial completion, and therefore may be either a single time period for the entire work or a series of time periods for individual parts of the work which have been certified as substantially complete at different dates. That time variation, if any, shall be applicable to other provisions of this section.

1.4 SUBMITTALS

1.4.1 RECORD DOCUMENTS - GENERAL:

A. Additional or specific requirements for record documents are indicated in individual sections of these specifications.

B. Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire resistive location.

C. Provide access to record documents for Engineer's or Owner's reference during normal working hours.

D. Review record documents for progress and accuracy at regularly scheduled job progress meetings.

E. Upon completion of mark-up, submit record documents to the Engineer for the Owner's records.

1.4.2 RECORD DRAWINGS (FIELD SET):

A. Maintain at the project site during the course of the work a white print set (blueline or blackline) of contract drawings and shop drawings in clean, undamaged condition, with mark-ups of actual installations which vary substantially form the work as originally shown.

B. Mark whichever drawing is most capable of showing "field" condition fully and accurately; however, where shop drawings are used for mark up, record a cross reference at corresponding locations on the contract drawings.

C. Mark changes or deviations with red erasable pencil. Where feasible, use other colors to distinguish between variations in separate categories of work.

D. Record new information, which is recognized to be of importance to the Owner, but was not shown on either the contract drawings or shop drawings. "Give particular attention to concealed work which would be difficult to measure and record at a later date. Note related change order of field order numbers where applicable.

E. Record all deviations in sizes, locations, or other features of work from the Contract Documents. It shall be possible, using these drawings, to correctly and easily locate, identity, and establish sizes of all piping, directions of flow, and other features of the work which will be concealed in finished work or underground.

F. Establish locations of concealed and underground work by accurate dimensions to column lines or permanent walls, locating all bends or turns, and properly referencing invert elevations and rates of fall.

G. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates, and other identification on cover of each set.

1.4.3 FINAL RECORD DRAWINGS (AS-BUILTS):

A. Submit the final marked-up field copy of record drawings to the Engineer for review and approval.

1.4.4 RECORD SPECIFICATIONS:

A. Maintain one copy of specifications, including addenda, change orders, and similar modifications issued in printed form during construction. Mark up variations of substance in actual work in comparison with text of specifications and modifications as issued.

B. Give particular attention to substitutions, selection of options, and similar information on work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation.

C. Note related record drawing information and product data where applicable.

D. Label record specifications with the words "RECORD COPY" and the date submitted, stamped or neatly printed in block letters on the cover.

1.4.5 OTHER DOCUMENTS: Submit the required number of the following additional documents, which may be required by the various specification sections:

1) Certificates of compliance with applicable reference standards.
2) Certificates of inspection or other evidence of compliance with governmental agencies or authorities having jurisdiction over the work.
3) Warranties, guarantees, and bonds.
4) Certificates of insurance for products and completed operations.
5) Written consent of surety.
6) Evidence of payment and release of liens for subcontractors, suppliers, and other goods and services (Claims Release Forms).
7) Certificate of substantial completion form signed by Contractor accepting the date of substantial completion.
8) Final Inspection report signed by Contractor.
9) Certificate of final completion signed by the CONTRACTOR acknowledging the date of final completion.
10) Operations and maintenance manuals as required.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION

3.1 PREREQUISITES:

3.1.1 FINAL COMPLETION: Prior to requesting the City's final observation for certification of final acceptance and payment, as required by the general and supplemental conditions, complete the following:

1) Submit final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required. List known exceptions to final completion of the work, if any, in the request.

2) Submit updated final statement, accounting for additional changes to contract sum.

3) Submit certified copy of final punch list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance.

4) Submit written consent of surety.

5) Revise and submit evidence of final, continuing insurance coverage complying with insurance requirements.

- END OF SECTION -

SECTION 02200
TECHNICAL SPECIFICATIONS
SANITARY SEWER

1.0 SCOPE OF WORK

2.0 CITY DESIGN CONSTRUCTION STANDARDS AND SPECIFICATIONS

3.0 MATERIALS

4.0 BASIS OF PAYMENT - SANITARY SEWER

1.0 SCOPE OF WORK

The work shall consist of, but not limited to methods and materials for the rehabilitation of partially and fully deteriorated pipelines by the UV Cured-In-Place Pipe (CIPP) PROCESS incidentals at the following location within the City of Louisville:

- Base Bid – COUNTY RD
- Base Bid – FRONT STREET
- Base Bid – CANNON ST
- Base Bid – JOHNSON ST
- Base Bid – SPRUCE ST/ALLEY

ITEM	DESCRIPTION	UNIT	QUANTITY
1	CIPP SANITARY SEWER MAIN (6")	LF	720
2	CIPP SANITARY SEWER MAIN (8")	LF	2110
3	CIPP SANITARY SEWER MAIN (12")	LF	1120
4	SANITARY SERVICE CUT OUT (6" MAIN)	EA	17
5	SANITARY SERVICE CUT OUT (8" MAIN)	EA	37
6	SANITARY SERVICE CUT OUT (12" MAIN)	EA	11
7	LATERAL SEAL (6" MAIN)	EA	17
8	LATERAL SEAL (8" MAIN)	EA	37
9	LATERAL SEAL (12" MAIN)	EA	11
10	MANHOLE STEPS	EA	70
11	CONSTRUCTION ZONE TRAFFIC CONTROL	LS	1
12	INTERNAL POINT REPAIR	EA	6

NEIGHBORHOOD MEETING

Prior to the start of construction, the Contractor will be required to have a representative at a meeting with the residents of the neighborhood. At this meeting the Contractor will be required to define the schedule for construction and to address any special needs and concerns of the residents. The Engineer shall be present at this meeting.

2.0 CITY DESIGN AND CONSTRUCTION STANDARDS

Any and all materials required for this project shall be pursuant to the requirements of the City of Louisville, Colorado "Design and Construction Standards", adopted February 15, 1994 and the latest revisions thereto except as modified by these plans and/or specifications.

3.0 MATERIALS

MISCELLANEOUS

1) During construction, the Contractor shall take whatever measures required to facilitate a continuous flow of wastewater around the project. If required, the Contractor shall pump these flows.

2) Responsibility for any damages incurred during construction by homeowners and businesses with service connections along the project reach and upstream on the project shall be the sole responsibility of the Contractor.

3) At no time shall wastewater flow be pumped at night through the project.

4) Tap locations shown on the plans are general locations. The tap locations have been provided for general information. The Contractor is responsible for locating all existing sanitary sewer taps and services during construction.

SANITARY SEWER MANHOLES

Manholes shall be constructed of precast concrete.

BARREL SIZE

The internal diameter of the manhole barrel shall not be less than 48 inches for sanitary sewers.

MATERIALS

The materials to be used in the construction of manholes shall conform to the following requirements:

CONES

All cones shall be eccentric. Flat top sections may be used, upon written permission of the Engineer, on shallow lines where standard cone sections will not conform to specified elevations. Flat top sections shall be designed for H-20 loadings and conform to ASTM C 478.

PRECAST MANHOLES

Precast manhole risers and cones shall be manufactured to conform with ASTM C 478.

CAST IN PLACE MANHOLES

Cast in place manholes will not be allowed.

CEMENT

All cement used in concrete and mortar shall conform to ASTM Designation C 150 Type II, Type IIA or when deemed necessary, Type V.

AGGREGATE

Aggregate shall conform to Standard Specifications for Concrete Aggregates ASTM Designation C 33.

CONCRETE FOR MANHOLES

Concrete used in precast manhole sections shall conform to ASTM C 478 and the manhole foundation shall have a 28 day strength of 3750 psi and shall have a maximum water cement ratio of 0.45.

MANHOLE STEPS

Manhole steps shall be corrosion resistant and shall be M.A. Industries Inc. PS2-PF or approved equal. Manhole steps shall be no more than 24 inches or less than 18 inches from the top of the manhole ring or from the bench of the manhole.

RING AND COVER

Manhole rings and covers shall be 24 inch diameter for 48 inch diameter manhole barrels. The word "SEWER" shall be marked with raised lettering on sanitary sewer covers. Construction castings #J-1361 or approved equal shall be used. Metal used for castings shall conform to ASTM A48 83 Class 25B gray cast iron, no aluminum castings or riser rings shall be allowed.

The cover shall be machined to fit the ring to exclude surface water and be level with the top of the ring. Covers shall have one lifting notch of 1" x 1 1/4".

The ring shall be held in place by being set on ramneck and by asphalt being placed over the ring from the edge of the support structure to the top edge of the ring. A maximum of 18" of concrete adjustment rings will be allowed between the last manhole section and finished grade.

FLEXIBLE JOINT SEALING COMPOUND

Kent-Seal No. 2 as manufactured by Hamilton-Kent Company, or other approved plastic joint material shall be used in all concrete joints and between the cast iron ring and cover and cone section. Sealing compounds shall conform to Federal Specifications SS-S-00210 and shall remain pliable to -20 degrees Fahrenheit and shall not become excessively pliable at +120 degrees Fahrenheit.

EPOXY COATING

Where required or shown on the drawings, the epoxy coating shall be similar or equal to "PREBOUND CONCRETE BONDING AGENT ET-150H".

CONSTRUCTION

Manholes shall be constructed at the locations and to the elevations indicated on the drawings.

Manholes shall be constructed so as to form a circle in a horizontal plane. The internal diameter of manhole barrels shall be maintained to a distance of not more than five (5) feet below finished grade and vertically plumb. From that point the manhole barrel shall be tapered to the 24 inch internal diameter for 4 foot diameter manholes, and 30 inch internal diameter for 5 foot diameter manholes and larger as shown on the standard manhole drawings. The manhole barrels shall be watertight at all joints.

All manholes under construction shall be sealed tightly to prevent storm or other non-sewage flows from entering the sanitary sewer system.

HORIZONTAL JOINTS

Flexible plastic joint sealing compound in accordance with Section 208.13 of these Design and Construction Standards shall be applied to all manhole joints. The application of the priming compound and the sealing compound shall be accomplished in strict conformance with the manufacturer's instructions. The joint materials shall conform to the approximate manufactured shape at the time of installation. The joint materials shall not be stretched or in any other way distorted.

MANHOLE BASES

Except as otherwise shown on the approved plans, the manhole bases shall be constructed as shown on the Manhole Base Detail. **Precast manhole bases are preferred** over cast-in place manhole bases. Changes in direction of flow through the manhole shall be made with a smooth curved channel having as large a radius as possible. The change in size of channels shall be made gradually and evenly and shall be formed directly in the concrete. The floor of the manhole outside of the channel shall be finished to a smooth surface and shall slope to the channel. The thickness of the base shall not be less than eight (8) inches no more than twelve (12) inches under the invert of the channel and have a mat of #4 rebar 12" o.c. each way. The elevation of the subgrade for the manhole shall not vary more than 0.05 feet.

Concrete bases shall be placed on undisturbed ground. The ground surface below the precast concrete base shall be excavated three inches below the elevation of the bottom of the base and backfilled with 1 1/2" fractured rock or other material approved by the Engineer.

The 1 1/2" rock shall be carefully leveled to give uniform support to the precast base over the entire area. The precast base shall be set at the proper location to center the manhole.

CONNECTIONS TO EXISTING MANHOLES

Sewer pipe connections, to existing manholes where there are no existing pipes stubbed out, shall be made in such a manner that the finished work will conform to the requirements specified for new manholes. The Contractor shall remove existing piping in the manhole and break out as small an opening in the existing manhole as necessary to insert the new water stop gasket and sewer pipe. The existing concrete foundation bench shall be chipped to the cross-section of the new pipe in order to form a smooth continuous invert similar to what would be formed in a new concrete base. Non-shrink, non-metallic grout 3M 5600 or an approved equal shall be used to smoothly finish the new invert and to seal the new line so the junction is watertight.

TRENCH BACKFILLING

Backfilling shall be in accordance with these specifications, with the exception that compaction tests on the service trench within City R.O.W. must be reviewed by the Engineer prior to patching the street.

TESTING AFTER CONSTRUCTION

PVC gravity sewer pipe shall be tested in accordance with this section as well as in accordance with other sections of these Design and Construction Standards. The Engineer may require that alignment, infiltration, exfiltration and deflection tests be completed by the Contractor at the Contractor's expense. **In addition, the Engineer will require the Contractor at the Contractor's expense, to jet the sewer mains and have the pipe inspected with TV equipment (a copy of the DVD must be supplied to the City).**

MAXIMUM DEFLECTION TEST (NOT APPLICABLE)

PVC gravity sewer pipe shall not deflect more than 5% of the diameter of the pipe. The deflection shall be tested in every section by the Contractor with a Pin-Type Go-No-Go Gauge, in no case shall the deflection test be performed within 30 days after the completion of the air test. When the test fails, the line shall be repaired and retested at the Contractors expense. The Inspector shall be present during the test and shall verify the accuracy of the equipment.

211.2 AIR TEST

All lines shall be tested for exfiltration by low pressure air testing in accordance with ASTM C 828. Testing must be completed with the Inspector present.

211.3 MANHOLE LEAKAGE TEST

At the discretion of the Engineer vacuum testing manholes may be required. All pipes entering the manhole shall be plugged and braced and a vacuum of ten inches (10") of mercury shall be drawn. The vacuum pump shall be turned off and the time monitored as the vacuum drops on

inch (1"). The vacuum must not drop more than one inch (1") for the duration of the time indicated in the following table:

Specified Test Duration for Diameter of Manhole
(duration indicated in min:sec)

Manhole Diameter (inches)		
48"	60"	72"
1:00	1:15	1:30

Manholes which fail the vacuum test shall have the defects located and repaired and the test shall be repeated. Repair and retesting shall be continued until the test meets the requirements.

In lieu of vacuum testing of manholes the Engineer may require water testing of manholes. Manholes shall be tested separately from the pipe. The sewer pipe in the manhole will be plugged. If the ground water table is below the invert, the manhole shall be filled to a depth of five (5) feet above the invert. If the ground water level is above the invert of the manhole, then the manhole will be filled to level at least three (3) feet above the ground water level or to the top of the upper most precast manhole section whichever is less, but not less than five (5) feet above the invert. After soaking for one hour, the manhole shall be filled to the original level. It shall then be tested for two hours. The allowable drop of water shall be one quarter (1/4) inch.

No manhole will be accepted when there is any visible infiltration when empty.

At the discretion of the Engineer, at least twenty (20) percent of all manholes installed will be tested. Based on these tests, and visual inspection of all the manholes, additional tests may be required for other manholes. Any manhole whose test is unsatisfactory shall be repaired and retested until satisfactory results are obtained.

Failure of either test is considered failure of the section involved.

CLEANING THE LINE

When all of the work has been installed, the line and manholes shall be cleaned and be free of sand, dirt and debris. If the line must be flushed, it shall be done by the use of a high pressure jet or sewer balling method. Care shall be taken to insure that no non-sewage water enters the existing sanitary system. Should the Contractor allow water to enter the existing system, damages to the system, costs of treating the water, and fines in accordance with the City Code shall be at the Contractor's expense.

MISCELLANEOUS

1. During construction, the Contractor shall take whatever measures required to facilitate a continuous flow of wastewater around the project. If required, the Contractor shall pump these flows.

2. Responsibility for any damages incurred during construction by homeowners and businesses with service connections along the project reach and upstream on the project shall be the sole responsibility of the Contractor.

3. At no time shall wastewater flow be pumped at night through the project.

4. Tap locations shown on the plans are general locations. The tap locations have been provided for general information. The Contractor is responsible for locating all existing sanitary sewer taps and services during construction.

4.0 BASIS OF PAYMENT - SANITARY SEWER

The entire cost of the work and material necessary to complete all terms shown or implied on the drawings or specified herein shall be included and merged into the pay items shown in the Schedule of Unit Price. All associated work necessary for the proper and complete installation of this project and associated bonding, maintenance and guarantees shall be merged into the pay items shown in the Schedule of Unit Prices. All payments shall be subject to the conditions of these specifications. All pay items shall include sales tax, licenses, permits, and other taxes required to complete the work. No additional compensation will be allowed for any item unless the Engineer issues a change order.

Minor items and minor details are not listed but shall be part of the complete contract.

Potholing any potential conflicting utilities to determine construction grade and alignment shall be part of the work and shall be included in the unit prices and no additional compensation shall be provided by the owner to the contractor for this work.

Contractor shall provide a DVD inspection of the sewer mains as part of the completed work. The cost for the DVD inspection shall not be paid for separately but shall be included in the work.

The following items in this section are representatives of all work items required and therefore are not referred to by proposal or item number for each individual work item.

MANHOLE STEPS

1. Scope of Work

Work shall consist of furnishing all labor, materials, equipment for the construction, and construction necessary relating to the installation of MANHOLE STEP and appurtenances per the plans and specifications.

Work shall include existing steel step removal by flush cutting at wall, removal, loading, haul and disposal and miscellaneous material. Work shall include new step, labor, equipment and material to install steps per manufacture recommendation.

2. Method of Measurement and Payment

Payment will be made on an each installed basis for MANHOLE STEP and shall be full compensation for all work necessary to complete the item.

- END OF SECTION -

SECTION 02600

CONSTRUCTION ZONE TRAFFIC CONTROL

PART 1 - GENERAL

1.1 DESCRIPTION

Construction zone traffic control shall apply to any and all construction and related construction on the 2025 CIPP Sewer Lining Project to complete the work.

This work consist of furnishing, installing, moving, maintaining and removing temporary traffic signs, advance warning arrow panels, variable message boards, flashing portable beacons, barricades, channelizing devices, delineators, masking and unmasking existing signs in construction zones, and flagging as required by the Manual on Uniform traffic Control Devices for Streets and Highways and the Colorado Supplement thereto, in accordance with the plans and these specifications. When a device is not in use, the contractor may remove it from the project for the period it is not needed. Devices temporarily not in use shall not be stored in the roadway or walkways.

1.2 GENERAL REQUIREMENTS

Pertinent provisions of the following listed documents shall apply to this work, except as they may be modified herein, and are hereby made a part of this specification to the extent required.

A. Standard Specifications for Road and Bridge Construction by the Colorado Department of Transportation (CDOT), Section 630, Construction Zone Traffic Control, and Section 627, Pavement Marking.

B. Manual on Uniform Traffic Control Devices for Streets and Highways, FHWA, and the latest revision of the Colorado Supplement thereto.

C. CDOT Standard Plan S-630-1 (sheets 8 and 9), S-630-2 and S-630-3.

1.3 SUBMITTALS

A. Five (5) CONTRACT DAYS prior to the start of any construction activity, submit copies of the following:

1. Proposed detour plan and traffic control elements as described under Section 3.2.
2. Schedule of proposed duration and sequence of operations.

PART 2 - PRODUCTS

2.1 MATERIALS

A. In accordance with CDOT Section 627.02 regarding pavement marking tape.
B. In accordance with CDOT Section 630.02 regarding signs and barricades.
C. In accordance with CDOT Section 630.05 regarding traffic cones.

PART 3 - EXECUTION

3.1 GENERAL

In accordance with CDOT, Subsection 630.09 through Subsection 630.13, Construction Zone Traffic Control - Construction Requirements, except as modified herein.

In accordance with CDOT, Section 627.10, Pavement Marking Tape.

3.2 METHOD OF HANDLING TRAFFIC

Delete the second paragraph of Subsection 630.09.

Subsection 630.08 shall include the following:

ALL TRAFFIC CONTROL DEVICES MUST BE IN GOOD AND CLEAR CONDITION, INSTALLED PRIOR TO ALL AND ANY CONSTRUCTION ACTIVITY. THE ENGINEER MAY DIRECT MINOR MODIFICATIONS TO THE APPROVED TRAFFIC CONTROL PLAN BASED ON OBSERVATIONS OF FIELD CONDITIONS AT ANY TIME OR SUSPEND WORK UNTIL APPLICABLE SAFETY MEASURES ARE TAKEN WITHOUT ANY CHANGES TO THE COST OF THE PROJECT.

DEFICIENCIES IN TRAFFIC CONTROL SHALL BE CORRRECTED IMMEDIATELY OR WORK SHALL BE SUSPENDED. THE OWNER WILL REQUEST A REDUCTION IN COST IF TRAFFIC CONTROL IS NOT PROVIDED PER APPROVED METHOD OF HANDLING TRAFFIC.

In Subsection 630.09, add the following:

The City Engineer must approve all street closures. At least 24 hours before a street closure, it shall be the responsibility of the Contractor to notify the following agencies:

1. Police Department.....303-441-4444
2. Louisville Fire Protection District 303-666-8809
3. City of Louisville Operations and Maintenance Department 303-335-4750
4. AMR Ambulance Service.....303-665-6623
5. Boulder Valley School District.....303-447-1010

6. Boulder County Communications 303-441-4444
7. Regional Transportation District 303-443-0100

In addition to the above agencies and organizations, the Contractor shall notify the Post Office and local Trash Companies.

At the completion of work, the agencies must be notified of resumption of normal service.

Changes to the approved traffic control plan necessitated by unforeseen circumstances, such as utility conflicts, must be reviewed and authorized by the Engineer.

"NO PARKING" signs shall be placed not less than 24 hours in advance of commencement of work in a work zone. The sign shall state, for example "No Parking 7 a.m. to 7 p.m.", together with the day of the week.

A copy of the Right of Way Permit and the approved MHT shall be available at the project site in order that City personnel may verify compliance with the specified traffic control requirements.

The specified elements of the MHT shall also include the number of flag persons to be used.

Approval of the proposed MHT does not relieve the Contractor of liability specifically assigned to him under the contract. The Contractor shall erect and maintain warning lights, signs, barricades, and sufficient safeguards around all excavations, embankments, and obstructions.

The Contractor shall coordinate and cooperate fully with agents of the City of Louisville, utility owners, and other contractors. He shall also coordinate and cooperate fully with agents of other entities to assure adequate and proper traffic control is provided.

The Contractor is advised that other significant construction might be occurring in the area and that he shall cooperate fully with the City of Louisville and all other contractors occupying public right-of-way in terms of work location, work schedule and traffic control requirements.

Through traffic shall be carried on a paved surface at all times unless otherwise approved by the Engineer. The Contractor shall maintain at his own expense that portion of the existing roadway being used to carry traffic so that traffic may readily pass over it.

All traffic control devices supplied by the contractor must be maintained in good and clear condition and meet minimum national standards for reflectivity. Devices shall comply with minimum size and shape as specified in the MUTCD. **No bent, broken, damaged, defaced, dented, dirty, discolored, faded, non-conforming traffic control devices and/or supports shall be used in this project.**

All traffic control devices shall bear the name, address, and phone number of the barricade company that owns them. The phone number shall be a 24-hour a day dispatched hotline in the event an emergency situation occurs where additional devices are needed or existing devices must be removed.

The Contractor shall install construction traffic control devices in locations that do not block or impede sidewalks for pedestrians, or bicyclists or other existing traffic control devices. This strategy shall include, but is not limited to, strapping signs to streetlight or utility poles. Devices may only be attached to wooden street light and utility poles.

All existing traffic control devices, including traffic signs and pavement markings that are compatible with the construction zone traffic control shall remain visible and fully operational. If any devices are incompatible with the temporary construction traffic control devices, they shall be covered, relocated or removed.

The Contractor shall not be allowed to begin operations, which require traffic control until the setup of traffic control devices is completed. Also, the Contractor shall clear his operations allowing 30 minutes for removals of traffic control devices in accordance with the designated hours of work and roadway closures.

During non-working hours, the roadways shall be restored to safe pre-construction travel conditions for the free flow of traffic. Any maintenance required to restore the roadways to this condition, including pavement patching and grading, shall be done prior to opening the areas to traffic or completing work for the day. Temporary pavement markings shall be placed at the direction of the Engineer. All costs incidental to the foregoing requirements in this paragraph shall be included in the original contract prices for the project, including any additional traffic control items required for haul routes into or away from the project.

Any existing signs damaged due to Contractor operations shall be replaced in kind or repaired to the satisfaction of the Engineer by the Contractor at no cost to the project.

Any existing traffic signs removed or relocated during construction as part of the approved traffic control plan are the responsibility of the Contractor to reset upon completion of construction, unless noted otherwise in the plans or specifications. Existing signs may not be removed without prior approval of the Engineer.

The Contractor shall not have construction equipment or materials in the lanes open to traffic at any time. Brief lane closures (of 5 minutes or less), as approved by the Engineer, may be permitted for moving construction equipment. Flaggers will be required for such operations. All personal vehicles and construction equipment parking will be prohibited where it conflicts with safety, access, or flow of traffic.

During non-construction periods (evenings, weekends, holidays, etc.) all work shall be adequately protected to ensure the safety of vehicular and pedestrian traffic, using materials meeting the approval of the Engineer.

Lane widths in work zones shall be 12 feet, minimum.

The vertical cut or fill, including rotomilling over 1" height differences resulting from construction operations adjacent to traffic lanes shall be temporarily sloped at a 3:1 or flatter slope, or as shown on the typical plan section, and barrier protected, or delineated at 25-foot intervals immediately after grading or removal operations. The 3:1 slope requirement applies to roadway construction projects and would not generally apply to utility construction or rehabilitation projects. Slope or shoring requirements for these type projects shall be reviewed on a project by project basis.

The Contractor shall equip all vehicles operating within the moving lanes with flashing amber lights visible from all directions.

Any portable device that requires weight to prevent overturning shall be weighted with appropriate sized sand bags. Rocks, asphalt, or any other debris will not be permitted.

MAINTENANCE OF ACCESS

The Contractor shall maintain access to all roadways, side streets, and alleyways, at all times unless otherwise approved by the Engineer. During non working hours the Contractor shall maintain access to the roadways and driveways within the construction zone with temporary ramps.

Protection of Adjacent Property and Drives. The Contractor shall use extra care so as to minimize disruption to adjacent property and drives and shall leave the construction site clean, with all debris and concrete removed. If the Engineer determines that the Contractor did not exercise reasonable care to protect the parking areas or street sections from unnecessary damage while accomplishing his work, the Contractor will be required to restore the damaged items to their original condition at his own expense. The Contractor will not be permitted to operate trucks and equipment or store equipment and supplies on private property unless he has written permission to do so.

Work Limits. Work limits shall be marked by the Contractor with orange plastic fencing in pedestrian areas and other suitable materials in the street prior to beginning work. He shall confine all work to within these limits except as provided in the contract documents. If work limits are not established by permit or contract documents, said limits shall be determined by the Engineer and shall be suitably marked by the Contractor, prior to beginning work.

Should the Contractor be unable to obtain written approval of property owners or occupants, documentation of a “Good Faith Effort” to obtain said approval must be submitted.

CONTACTS

The Contractor shall notify the following 72 hours prior to beginning construction and 48 hours prior to changing traffic patterns. The Contractor shall also notify these persons in case of an emergency.

City of Louisville Public Works - Craig M. Duffin, P.E. 303-335-4602
City of Louisville Operations Div. – Michael Cleveland 303-335-4750
City of Louisville Police Department – Boulder Dispatch 303-441-4444
City of Louisville Fire Department - Fire Marshal 303-666-6595

3.3 TRAFFIC CONTROL MANAGEMENT

Subsection 630.10(6) shall include the following: A day shall be defined as the time from 12:00 midnight to 12:00 midnight. The log shall list all devices and personnel deployed within the limits of construction for each day and shall be available for review by the Engineer at all times.

In subsection 630.09, first paragraph, delete the first sentence and replace with the following:

The Contractor shall designate an individual, other than the superintendent, to be the traffic control supervisor.

In subsection 630.09, second paragraph, delete parts (1), (5) and (6) and replace with the following:

(1) Preparing, revising, and implementing each required method of handling traffic in accordance with the traffic control plan.

(5) Preparing traffic control diary on every calendar day traffic control devices are in use. This dairy shall be submitted to the Engineer daily and become a part of the Department's project records.

(6) Inspecting traffic control devices on every calendar day that traffic control devices are in use, masked, or turned away from traffic. These inspections shall include at least one night inspection per week. These inspections shall be performed by the traffic control supervisor or another representative who is certified as a worksite traffic supervisor.

(10) Supervising the cleaning and maintenance of all traffic control devices.

In subsection 630.09, delete the third paragraph and replace with the following:

Traffic control management shall be provided by a certified traffic control supervisor on a 24-hour-per-day basis. The traffic control supervisor or another representative who is certified as a worksite traffic supervisor shall be available and reasonably accessible to the job site on every working day, on call at all times,

and available upon The Engineer's request at other than normal working hours. During non-work periods, the traffic control supervisor or another representative shall respond to the job site within 45 minutes. The traffic control supervisor or another representative who is certified as a worksite traffic control supervisor shall arrive at the job site within two hours after notification. The Contractor shall maintain a 24-hour telephone number at which the traffic control supervisor can be contacted. The traffic control supervisor shall not act as a flagger except in an emergency or in relief for short periods of time.

In subsection 630.11, delete the first paragraph and replace with the following:

630.11 General. Portable construction traffic signs shall be removed when temporarily not required. Permanently mounted construction traffic signs shall be masked or turned away form traffic when temporarily not required. When work is suspended, or the project is in free time, and there is no condition requiring traffic control devices or construction traffic signs, all of the construction traffic signs shall be masked or turned away from traffic. If this condition is to exist for more than 30 days, all construction traffic signs shall be removed. When storing portable signs or supports within the project they shall be stored laying flat and the location shall be at least four feet outside the edge of the shoulder and not on landscaped areas or sidewalks. When masking is used, it shall be done in accordance with subsection 630.10.

The retroreflective surfaces of all signs and other traffic control devices shall be cleaned as frequently as necessary to preserve their legibility and retroreflectivity. However, all devices shall be cleaned a minimum of once every two weeks.

In subsection 630.12, first paragraph, delete the fifth sentence and replace with the following:

When storing portable signs or supports within the project they shall be removed beyond the clear zone and shall not be visible to traffic. All storage areas shall be approved. The minimum clear zone distance shall be 18 feet, measured from the edge of traveled way. If the signs cannot be stored at least 18 feet from the traveled way, they shall be removed. Under no circumstances shall signs be stored on the paved surface.

3.4 FLAGGING

Subsection 630.13(a) shall include the following:

The flagger's STOP/SLOW sign paddle shall be 18 inches with letters six inches high.

Delete Subsection 630.13(a) and replace with the following:

(a) The Contractor shall provide all flagging through the project necessary to assure proper safety to traffic. All flagging personnel shall be certified by the American Traffic Safety Services Association (ATSSA).

PART 4 - MEASUREMENT AND PAYMENT

4.1 Delete Subsection 630.14, 630.15 and replace with the following:

4.2 CONSTRUCTION ZONE TRAFFIC CONTROL (WATER MAIN) (SANITARY SEWER) (CONCRETE REPLACEMENT) (ASPHALT)

Construction Zone Traffic Control shall be paid for at the lump sum price indicated in the Schedule of Unit Prices. The lump sum price shall be full compensation for flagging and for furnishing, erecting, cleaning, maintaining, moving, removing and disposing of construction traffic control devices, including labor, material equipment and incidentals necessary to complete the work. All construction traffic control devices, which are not permanently incorporated into the project, will remain the property of the Contractor.

Traffic Control Supervisor will not be paid for separately, but shall be included in the work.

Temporary roadway/driveway ramps will not be paid for separately, but shall be included in the work.

Preparation of the MHT will not be paid for separately but shall be included in the work.

Construction fencing and temporary walkways will not be paid for separately but shall be included in the work.

Construction phasing and staging will not be paid for separately but shall be included in the work.

- END OF SECTION -

SECTION 02765 - Updated
TECHNICAL SPECIFICATIONS
UV CURED-IN-PLACE PIPE (CIPP) PROCESS

1.0 SCOPE OF WORK

2.0 MATERIALS

3.0 CITY DESIGN CONSTRUCTION STANDARDS AND SPECIFICATIONS

4.0 BASIS OF PAYMENT – UV CURED-IN-PLACE PIPE

5.0 FINAL PAYMENT

1.0 SCOPE OF WORK

The work shall consist of, but not limited to methods and materials for the rehabilitation of partially and fully deteriorated pipelines by the UV Cured-In-Place Pipe (CIPP) PROCESS incidentals at the following location within the City of Louisville:

- Base Bid – COUNTY RD
- Base Bid – FRONT STREET
- Base Bid – CANNON ST
- Base Bid – JOHNSON ST
- Base Bid – SPRUCE ST/ALLEY

2025 CIPP SEWER LINING PROJECT
ESTIMATED QUANTITIES AND LOCATION

ITEM	DESCRIPTION	UNIT	QUANTITY
1	CIPP SANITARY SEWER MAIN (6")	LF	720
2	CIPP SANITARY SEWER MAIN (8")	LF	2110
3	CIPP SANITARY SEWER MAIN (12")	LF	1120
4	SANITARY SERVICE CUT OUT (6" MAIN)	EA	17
5	SANITARY SERVICE CUT OUT (8" MAIN)	EA	37
6	SANITARY SERVICE CUT OUT (12" MAIN)	EA	11
7	LATERAL SEAL (6" MAIN)	EA	17
8	LATERAL SEAL (8" MAIN)	EA	37
9	LATERAL SEAL (12" MAIN)	EA	11
10	MANHOLE STEPS	EA	70
11	CONSTRUCTION ZONE TRAFFIC CONTROL	LS	1
12	INTERNAL POINT REPAIR	EA	6

2.0 MATERIALS

REFFERNECES

A. ASTM D-543 Standards Test Method for Resistance of Plastics to Chemical Reagents.
B. ASTM D-790 Standard Test Methods for Flexural Properties of unreinforced and Reinforced Plastics and Electrical Insulating Materials.
C. ASTM D-1682 Test Methods for Breaking Load and Elongation of Textile Fabric.
D. ASTM D-3567 Standard Practices for Determining Dimensions of Reinforced Thermosetting Resin Pipe (RTRP) and Fittings.
E. ASTM D-5813 Standard Specification for Cured-in-Place Thermosetting Resin Sewer Pipe.
F. ASTM F-1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube.
G. ASTM F-1743 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-In-Place Installation of Cured-In-Place Pipe (CIPP).
H. ASTM F-2019 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pulled in Place Installation of Glass Reinforced Plastic (GRP) Cured-in-Place Thermosetting Resin Pipe (CIPP).
I. ASTM F-3110 Standard Practice for Proper Use of Mechanical Trenchless Point Repair Sleeve with Locking Gear Mechanism for Pipes of Varying Inner Diameter and Offset Joints.
J. ASTM D-2990 Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics.
K. DIN EN 761 Plastic Piping System: Glass- Reinforced Thermosetting Plastics (GRP) Pipes – Determination of the Creep Factor Under Dry Conditions
L. APS Water Porosity Standard.

SUBMITALS

A. Product Data: Resin; tube material, qualification testing results for laminated samples, resin enhancer, bond enhancer, certification of applicability of resin; sealant/caulking material, resin curing schedule showing time and temperature for each reach, Manufacture's recommended installation pressures, minimum and maximum for each reach.
B. Design Information: Wall thickness design calculations for each pipe section.
C. Inspection Information: Video Recordings (DVD) of pre and post-insertion inspections and curing logs.
D. Qualifications: Documents for experience of lining manufacturer and installer.
E. Certification: Affidavit for flat plate samples.
F. Public Relations: Notification Flyers.
G. Lateral Reinstatement: Products and Methods.

QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum 3 years' experience or otherwise allowed prior to bid acceptance.
B. Installer: Company specializing in performing the work of this section and who is licensed and approved by the manufacturer. Company shall have experience with projects of similar size and complete and complexity as this project, minimum of 150,000 linear feet of installed UV CIPP product within the last 5 years.
   Product Manufacturer experience shall not be utilized in lieu of actually installer experience. Installer experience refers to the actual Contractor Intending to the work. No exceptions.
C. Project Superintendent: Project Superintendent shall have a minimum of 3 years' experience as a superintendent on UV-Cured CIPP projects within the last 5 years, or otherwise allowed prior to bid acceptance.
   Full Time Project superintendent will be required and MUST be on site at all time throughout the duration of the lining work.

PRODUCTS

A. The tube material shall meet the requirements of ASTM F 2019.
B. The tubes shall have a uniform thickness that when compressed at installation pressures will equal the designed nominal tube thickness.
C. Contractor shall present tube thickness design calculations based on structural requirements.
D. The tube shall be fabricated to a size that when installed, will tightly fit the internal circumference and length of the original pipe. Allowance should be made for circumferential stretching during insertion. The minimum length shall be that deemed necessary by the Contractor to effectively span the distance between respective access points unless otherwise specified. The contractor shall verify the lengths and diameters in the field before fabricated the tube. Individual insertion runs can be made over one or more manhole sections as determined in the field by the Contractor, as long as traffic control restrictions are adhered to.
E. The outside layer of the tube (before insertion) shall be plastic coated with a flexible material.
F. The tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers.
G. The wall color of the interior pipe surface of the CIPP after installation shall be a light reflective color so that a clear detail examination with closed circuit television inspection equipment may be made.
H. Over Expansion Sleeves shall be used in the following locations as directed by the Engineer after the pipeline has cleaned and inspection via CCTV per the contract documents.
   a. Each end of the pipe segment.
   b. At each section of pipe that has complete or significant wall loss.

UV MATERIALS

A. For UV products, the finished UV Light Cured Fiberglass pipe liner in place shall be fabricated from materials which when complete are chemical resistant to and will withstand internal exposure to domestic sewage having a pH range of 5 to 11 and temperature sup to 150 F.
B. The liner thickness shall be sized for a minimum hydrostatic and earth load as per design criteria or per ASTM F1216. The earth load and hydrostatic load shall be increased to the manhole depth unless otherwise noted as shown on the Drawings.
C. The liner shall be structurally designed to the following centers.
    a. Minimum service life: 50 years
    b. Fully deteriorated host pipe/direct bury condition
    c. Prism loading:120 PCF soil
    d. Factor of safety: 2.0
    e. Ovality factor 2%
    f. Maximum deflection: 5%
    g. Soil modulus: 1000 PSI
    h. Maximum lining enhancement factor: 5
    i. H-20 live loading, applicable long term modulus reduction factor
    j. Groundwater: assume the groundwater elevation is at the existing ground surface.
D. All UV cured-in-place fiberglass lining products shall comply with ASTM F 2019-03 or the intent thereof as determined by the Engineer, minimum finished liner thickness as defined by design calculation.
E. The Contractor shall furnish a general purpose polyester or vinyl ester UV curing resin and catalyst system compatible with the Ultra Violet Light Curing process that provides cured physical strengths specified herein.

FELT MATERIALS

A. The Tube. The tube shall consist of one or more layers of a flexible needled felt or an equivalent nonwoven or woven material, or a combination of nonwoven and woven materials, capable of carrying resin and withstanding the installation pressures and curing temperatures. The tube should be compatible with the resin system to be used on this project. The material should be able to stretch to fit irregular pipe sections and negotiate bends.
    a. The tube should be fabricated to a size that, when installed, will tightly fit the internal circumference and the length of the original conduit. Allowances should be made for the longitudinal and circumferential stretching that occurs during placement of the tube.
    b. The tube shall be uniform in thickness and when subjected to the installation pressures will meet or exceed the designed finish wall thickness.
    c. Any plastic film applied to the tube on what will become the interior wall of the finished CIPP shall be compatible with the resin system used, translucent enough that the resin is clearly visible, and shall be firmly bonded to the felt material.
    d. The tube shall be marked for distance at regular intervals along its entire length, not to exceed 5 feet. Such markings shall also include the lining manufacturer's name or identifying symbol.

B. The Resin System. The resin system shall be a corrosion resistant polyester, vinyl ester, or epoxy and catalyst system that when properly cured meets the minimum requirements given herein or those that are to be utilized in the design of the CIPP for this project.

RESIN

A. Submit data certifying that resin system is not recycled.

CALKING SEALANT

A. Sealant shall be a quick-set epoxy mortar or high viscosity epoxy with good adhesion to the liner and concrete. The lateral sealing system shall extend a minimum of six (6) inches into the lateral.

LATERAL SEALS

ASTM F2561 compliant LMK T-Liner lateral sealing system shall be used to reconnect existing service laterals.

CHEMICAL RESISANCE REQUIRMENTS

CIPP samples for testing shall be of tube and resin system same as to that proposed for actual construction. It is required that CIPP samples with and without plastic coating meet these chemical-testing requirements.

STRUCTURAL REQUIREMENTS

The layers of the cured CIP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe or point of a knife blade so that the layers separate cleanly or the probe or knife blade moves freely between the layers; nor shall separation of the layers occur during testing performed under the requirements of this specification. The cured CIPP for fiberglass reinforced tubes shall also conform to the minimum structural standards as listed: Flexural Strength (ASTM D-790): 25,000 PSI, and Modulus of Elasticity (ASTM D-790): 1,000,000 PSI.

3.0 CITY DESIGN CONSTRUCTION STANDARDS AND SPECIFICATIONS

PREPARATION

A. Access Points- Contractor will locate and designate all manhole access points, open and make access points available for the Work.
B. Cleaning of Sewer Lines- the Contractor shall remove all roots and internal debris (including grease) from the sewer line prior to CIPP installation by any means necessary.
C. Inspection of Pipelines- Inspection of pipelines shall be performed by NASSCO PACP-certified personnel, experienced and trained in locating defects, breaks, obstacles and service connection by closed circuit television (CCTV).

D. Infiltration- minor infiltration is a normal condition sometimes encountered during the CIP process. It is not a "changed condition" and should not be regarded as a reason for change orders. If in the opinion of the Engineer, infiltration is significant enough to adversely affect the curing process, chemical grouting or other remedies may be required. This additional work will be paid for by the Owner as a change order.
E. Site Restoration- Areas damaged or modified by the Work for this project shall be repaired or restored to a condition equal to or better than the original condition. Site restoration is incidental to the Work and shall not be regarded as a reason for change orders.
F. Public Relations- A public Information and Notification Program shall, as a minimum, require the Contractor to be responsible for contacting homeowners or businesses wo will be affected by the construction activities and informing them of the Work to be done and the estimated timing for the Work. Written notices shall be delivered to each home or business 1 week prior to installation. A second notice will be required 24 hours before each service will be affected. Notice shall include a local telephone number of the Contractor they can call to discuss the project, and how the homeowner or business will be affected. The written notices must be review by the Owner prior to the start of any work.
G. Service Connections- Determine by dye test, running water or visual inspection whether connections are active or abandoned and proved results to Engineer prior to insertion. Engineer and Contractor shall agree prior to insertion which services are to be reopened. Only reopened services will be paid for.

INSTALLATION

A. CIPP installation shall be in accordance with ASTM F2019 for UV light Curing Installations. Installation shall be in accordance with manufacturer's recommendation, which shall be available for verification by the Engineer.
B. Curing schedules shall be strictly adhered to, per manufacturer requirements.
C. The CIPP liner shall make a tight fitting seal with the existing pipe(s) in the manholes. If the CIPP liner fails to make a tight seal, the Contractor shall apply a seal at that point using a sealant or caulking material that is compatible with CIP materials, watertight, flexible and impervious to hydrogen sulfide. The top half of the CIPP through a manhole shall be neatly cut off and not broken or sheared off. The channel of the manhole shall be a smooth continuation of the pipe(s) and shall be merged with other lines or channels. Void space between liner and channel wall shall be filled with non-shrink grout and sealed with sealant. CIPP and the existing pipe in the manhole must be sealed before proceeding on to the next manhole section and all manholes shall be individual inspected for CIPP cut-offs and sealing works. Liner shall be cut off at the pipes and all liner removed within intermediate manholes with deflection angles greater than 45 degrees.
D. The finished CIPP shall be continuous over the entire length of an insertion run between two manholes and be free from visual defects such as foreign inclusions, dry spots, pinholes, and delamination. If in the opinion of the Engineer, a portion of the liner is inadequate, the Contractor shall correct the defect(s) to the satisfaction of the Engineer.
E. Contactor shall terminate and seal end of CIPP liner to structures using one of the following approved methods:

a. Expanding Hydrophilic Rubber Joint Seal
    i. The rubber joint seal shall be an extended hydrophilic rubber compounded from chloroprene (Neoprene) rubber and a hydrophilic resin, which expand on contact with water.
    ii. The rubber joint seal shall he bonded with adhesive on one face to hold it in place during assembly.
    iii. On contact with water, the rubber shall swell by up to 10 times its original volume if necessary and mold itself to completely fill any gaps and exert pressure evenly to ensure the seal. High compression or bolt up forces shall not be necessary to affect a complete watertight seal.
b. CIPP manufacturer-approved epoxy.

F. A pre-liner will be allowed without prior approval from the Owner.
G. The liner shall be pulled into place via the manufacturer's instructions.
H. The liner shall be inflated with air before curing with Ultra Violet light according to the manufacturer's specifications.
I. The reconstructions tube will be impregnated to meet manufacturer specifications with UV Curing Resins in the manufacturing facility prior to installation. The Contractor shall allow the Owner to inspect the materials before installation.
J. The Pre Impregnated UV Light Fiberglass Liner shall be inserted through the existing manhole or other approved access by means of a pull in place process utilizing a winch which will fully extend it to the next designated manhole or termination point. The Fiberglass Liner shall be inflated in place slightly with air to the manufacturer's specification for installing the UV Chain. Liner cure schedule shall adhere to per manufacturer's specifications. The Fiberglass liner will then be inspected with a camera mounted on the UV Chain as it is pulled to the end of the UV light bulbs will he turned on. The curing will commence at a rate specified by the manufacture according to the total dimensions of the liner.
K. As the liner is curing, the UV Curing System shall record all curing data in DVD format for the viewing of the Owner.
L. Initial cure shall be deemed to be complete when the UV Chain arrives at the initial entry point of insertion.

TESTING

A. Testing will be required for each insertion of CIPP lining. The layers of the cured CIPP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe so that the layers spate cleanly. If separation of the layers occurs during testing of field samples, new samples will be cut from the manhole samples. Any reoccurrence may cause rejection of the work. Contractor shall provide all labor and materials necessary to produce samples for laboratory and or field testing. Contractor shall contact testing lab prior to first insertion and determine samples size requirements. Samples shall be large enough to perform wall thickness test, flexural strength and modulus of elasticity test and porosity test.
B. Sample Preparation:
Samples will be submitted by the Contractor to an independent third party laboratory. The cured samples shall be tested by an independent testing laboratory approved by the City Engineer. Final payment will not be made until acceptable test results are received

by the Engineer.

The Contractor shall be responsible for any deviation from the specified physical properties. Failure to meet the specified physical properties will result in the liner being considered defective work. The Contractor shall be responsible for all costs associated with repair of defective work.

Samples used for testing shall be individually labeled to record the following:

1. Contract number and title
2. Sample number
3. Date of installation
4. Location of installation
5. Contractor Name including person responsible for collecting samples
6. Upstream and downstream manhole numbers from where the samples was taken
7. Type of restraint used

C. The wall thickness will be measured in accordance with the applicable sections of the ASTM Test Method D5813 and D3567. Flexural strength and flexural modulus of elasticity shall be determined in accordance with ASTM D-790. Porosity test will be conducted in accordance with APS Water Porosity Standard. For pipe 15 inch and smaller, a constrained samples will be obtained by inventing through a like diameter inverted half-section of pipe which has been held in place by a suitable heat sink, such as sandbags. Sample location can be either the receiving manhole or an intermediate MH provided a straight through channel exists. For pipe greater than 15 inch but no greater than 24 inch a constrained sample will be obtained from an intermediate MH, if one exists.

D. A post-insertion CCTV log in a format acceptable to the Engineer shall be provided to the Engineer with two weeks of liner curing.

E. Wrinkle height shall not exceed 2% of the host pipe diameter.

F. Non-Conforming Work:

1. If the measured wall thickness of the installed CIPP is more that 5% reduction in payment for that insertion will occur, or an additional liner sufficient to make up the deficiency must be installed, at the determination of the Engineer.
2. If the flexural strength, and/or flexural modulus of elasticity is more than 5% less than specified, a minimum 5% reduction in payment for that insertion will occur, or an additional liner sufficient to make up the deficiency must be installed, at the determination of the Engineer.
3. For all instances where the CIPP is deemed unacceptable the Contractor shall submit a method of repair or replacement for review and approval by the Owner.
4. All Work required to remedy non-conforming work shall be at the sole cost of the Contractor.

PRIVATE PROPERTY

A. Care shall be taken to avoid damage to private property (i.e. sprinkler stems, lawn areas). If damage occurs, repairs shall be completed as soon as possible. Costs associated with repairs shall be the responsibility of the Contractor.

4.0 BASIS OF PAYMENT

Include all costs to perform the work in this section in the Lump Sum bid.

The entire cost of the work and material necessary to complete all terms shown or implied on the drawings or specified herein shall be included and merged into the pay items shown in the Schedule of Unit Price. All associated work necessary for the proper and complete installation of this project and associated bonding, maintenance and guarantees shall be merged into the pay items shown in the Schedule of Unit Prices. All payments shall be subject to the conditions of these specifications. All pay items shall include sales tax, licenses, permits, and other taxes required to complete the work. No additional compensation will be allowed for any item unless the Engineer issues a change order.

Minor items and minor details are not listed but shall be part of the complete contract.

Include the cost of removal of obstructions that appeared on pre bid video documentation and made available prior to the bid opening in the bid price.

CIPP SANITARY SEWER MAIN (6'')(8")(12")

1. Scope of Work

Work shall consist of furnishing all labor, materials, equipment for the construction, and construction necessary relating to the installation of CIPP SANITARY SEWER MAIN (6")(8")(12") and appurtenances per the plans and specifications.

Work shall include all necessary material, equipment, video inspections, labor, installation, and testing. Work shall include mobilization of equipment and miscellaneous material.

2. Method of Measurement and Payment

Payment will be made on a linear foot installed basis for CIPP SANITARY SEWER MAIN (6")(8")(12") and shall be full compensation for all work necessary to complete the item.

SANITARY SERVICE CUT OUT

1. Scope of Work

Work shall consist of furnishing all labor, materials, equipment for the construction, and construction necessary relating to the installation of SANITARY SERVICE CUT OUT and appurtenances per the plans and specifications.

Work shall include cutting at the main, removal, loading, haul and disposal and miscellaneous material.

2. Method of Measurement and Payment

Payment will be made on an each installed basis for SANITARY SERVICE CUT OUT and shall be full compensation for all work necessary to complete the item.

LATERAL SEAL

1. Scope of Work

Work shall consist of furnishing all labor, materials, equipment for the construction, and construction necessary relating to the installation of LATERAL SEAL and appurtenances per the plans and specifications.

Work shall include all necessary material, equipment, video inspections, labor, installation, and testing. Work shall include mobilization of equipment and miscellaneous material.

2. Method of Measurement and Payment

Payment will be made on an each installed basis for SANITARY SERVICE CUT OUT and shall be full compensation for all work necessary to complete the item.

INTERNAL POINT REPAIR

1. Scope of Work

Work shall consist of furnishing all labor, materials, equipment for the construction, and construction necessary relating to the installation of INTERNAL POINT REPAIR and appurtenances per the plans and specifications.

Work shall include all necessary material, equipment, video inspections, labor, installation, and testing. Work shall include mobilization of equipment and miscellaneous material.

2. Method of Measurement and Payment

Payment will be made on each installed basis for INTERNAL POINT REPAIR and shall be full compensation for all work necessary to complete the item.

5.0 FINAL PAYMENT

Final payment for the project will be withheld pending receipt and approval of test results, Post-TV inspection videos, Warranty- TV inspection, and repairs found in the Post-TV and Warranty-TV video inspection. If properties tested to not meet the minimum physical and thickness

requirements as required by the Contract, repair the Cured-In-Place Pipe (CIPP) according to manufacturer's recommendations or remove and replace the lining material.

- END OF SECTION -