

## 100 GENERAL PROVISIONS

### 101 DEFINITIONS AND TERMS

Whenever in these specifications or in other contract documents the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

**101.01 Abbreviations.** Whenever the following abbreviations are used in these specifications or other contract documents they are to be regarded as if fully written out as follows:

AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
AREA	American Railway Engineering Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWS	American Welding Society
AWWA	American Water Works Association
EEI	Edison Electrical Institute
FHWA	Federal Highway Administration, Department of Transportation
FSS	Federal Specifications and Standards, General Services Administration
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IMSA	International Municipal Signal Association
IPCEA	Insulated Power Cable Engineers Association
ITE	Institute of Transportation Engineers
JMF	Job Mix Formula
NEMA	National Electric Manufacturers Association
NSPE	National Society of Professional Engineers
ODOT	Ohio Department of Transportation
ORC	Ohio Revised Code
OSHA	Occupational Safety Health Administration
PE	Professional Engineer (Licensed to practice in Ohio)
PS	Professional Surveyor (Licensed to practice in Ohio)
SSPC	Steel Structures Painting Council
UL	Underwriters' Laboratories, Inc.

**101.02 Advertisement (Legal Notice).** The public announcement as required by law, inviting bids for Work to be performed or materials to be furnished.

**101.03 Bidder.** An individual, firm or corporation submitting a bid for the advertised Work or materials furnished, acting directly or through a duly authorized representative.

**101.04 Board of Control.** As established by the City Charter a board consisting of the Mayor, the Directors of Law, Finance and Public Service and the President of Council and the Chairman of the Finance Committee of Council with the Director of Public Service as the Chairman thereof.

**101.05 Bureau.** The Akron Engineering Bureau of the City of Akron.

**101.06 Calendar Day or Day.** Every day shown on the Calendar.

**101.07 City.** The City of Akron, Ohio acting through its Director of Public Service and his authorized agents, such agents acting severally within the scope of the particular duties assigned them.

**101.08 Certified Test Data.** A test report from a manufacturer's laboratory or independent laboratory listing test data covering the specified requirements for the samples tested and a statement by a person having legal authority to act for the manufacturer and/or supplier for the material that the test report furnished truly represents the material delivered for incorporation into, or use on, the project. The certifications shall include the Laboratory Report Number and the project name to which the material is delivered. Only laboratory Reports signed by a Registered Professional Engineer will be accepted for this purpose.

**101.09 Contract.** The written agreement between the City of Akron and the Contractor setting forth the obligations of the parties thereunder including, but not limited to, the performance of the Work, the furnishing of labor and materials, and the basis of payment. The contract includes, but is not limited to, the invitation for bids, proposal, contract form and required bonds, specifications, supplemental specifications, special provisions, general and detailed plans, notice to Contractor, and supplemental agreements that are required to complete the construction of the project in an acceptable manner including authorized extensions thereof, all of which constitute one instrument.

**101.10 Contract Performance Bond.** The approved forms of security, executed by the Contractor and/or his Sureties, guaranteeing complete execution of the contract as defined in 101.09 and the payment of all legal debts pertaining to the construction of the project.

**101.11 Contract Item (Pay Item).** A specifically described unit of work for which a price is bid and paid for as provided in the contract.

**101.12 Contractor.** The individual, firm or corporation (known as the party of the second part) contracting with the City of Akron for performance of prescribed Work acting directly or through a duly authorized representative.

**101.13 Engineer.** The City Engineer, Engineering Construction Manager, or other Engineers acting as authorized agents or assistants.

**101.14 Equipment.** All machines, tools and apparatus, together with the necessary supplies for upkeep and maintenance, required for the proper construction and acceptable completion of the Work.

**101.15 Extra Work.** An item of work not provided for in the contract as awarded, but found essential to the satisfactory completion of the contract within its intended scope.

**101.16 Laboratory.** The testing laboratory of the Akron Engineering Bureau, or other testing laboratories authorized by the City of Akron.

**101.17 Materials or Products.** Any substance or substances, or the parts, goods, stock, or the like specified or contemplated for use in the construction of the project and its appurtenances.

**101.18 Plans.** The drawings, including but not limited to profiles, cross sections, working drawings and supplemental drawings, approved by the Service Director, or exact reproductions thereof, which show the location, character, dimensions, and details of the Work.

**101.19 Project.** The specific location together with all appurtenances and construction to be performed thereon under the contract.

**101.20 Proposal.** The offer of a bidder on the prescribed form, properly filled out, signed and guaranteed, to perform the Work and to furnish the labor and materials at the price quoted.

**101.21 Proposal Form.** The approved form on which the City of Akron requires bids to be prepared and submitted to do the Work.

**101.22 Proposal Guarantee.** The security furnished with a bid as a guarantee that the bidder will enter into the contract if his bid is accepted.

**101.23 Resident Project Representative.** The authorized representative of the Engineer assigned to make detailed inspections of contract performance.

**101.24 Right-of-Way.** A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to a street, highway or utility.

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**101.25 Service Director.** The duly appointed Director of Public Service of the City of Akron, Ohio, or his properly authorized agents, to the extent of the powers vested in them.

**101.26 Special Provisions.** Additions and/or revisions to the standard and supplemental specifications covering conditions or procedures peculiar to an individual project.

**101.27 Specifications.** The directions, provisions and requirements contained herein as supplemented by the supplemental specifications and special provisions.

**101.28 Structures.** Bridges, culverts, catch basins, inlets, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation drains, and other features which may be encountered in the Work and not otherwise classed herein.

**101.29 Subcontractor.** An individual, firm or corporation who assumes any part of the Contractor's undertaking to carry on and complete the Work under agreement with the Contractor, who prior to such an undertaking receives the written consent of the Service Director. This does not include those who merely furnish materials.

**101.30 Substructure.** All that part of the structure below the bearing seats of simple spans, truss, through girder and continuous spans, skewbacks of arches and tops of footings or rigid frames together with backwall, wing walls and slope protection.

**101.31 Superintendent.** The Contractor's authorized representative present on the project and in responsible charge of the Work.

**101.32 Superstructure.** The entire structure except the substructure.

**101.33 Supplemental Agreement.** A written agreement executed by the Contractor and the Service Director and approved by the Board of Control and cabinet members as required, specifying necessary alterations in the contract.

**101.34 Supplemental Specifications.** Detailed specifications supplemental to or superseding these specifications.

**101.35 Surety.** The corporation, firm or individual, other than the Contractor, executing a bond furnished by the Contractor.

**101.36 Titles (or Headings).** The titles or headings of the sections or sub-sections herein are intended for convenience of reference only and shall not be considered as having any bearing on their interpretation.

**101.37 The Work.** The Work consists of all elements of the project as described by the Contract and Supplemental Agreements thereto.

**101.38 Working Drawings.** Stress sheets, shop drawings, erection plans, falsework plans, frame work plans, cofferdam plans, bending diagrams for reinforcing steel, traffic detour plans, or any other supplementary plans or similar data which the Contractor is required to submit for approval.

**101.39 Interpretations.** In order to avoid cumbersome and confusing repetition of expressions in these specifications, it is provided that whenever anything is, or is to be, done if, as, or, when or where "contemplated, required, determined, directed, specified, authorized, ordered, given, designated, indicated, considered necessary, deemed necessary, permitted, reserved, suspended, established, approval, approved, disapproved, acceptable, unacceptable, suitable, accepted, satisfactory, sufficient, insufficient, rejected, or condemned," it shall be understood as if the expression were followed by the words "by the Engineer" or "to the Engineer."

## 102 BIDDING REQUIREMENTS AND CONDITIONS

**102.01 Contents of Proposal Form.** Upon request, and payment in the amount specified in the advertisement, copies of the Proposal Form, Contract Documents, Specifications and Plans may be obtained from the City of Akron at the location listed in the advertisement. The proposal will state the location and description of the contemplated construction and will contain the estimate of the various quantities and kinds of work to be performed and/or materials to be furnished, and will have a schedule of items for which unit price bids are invited. The proposal will state the time allowed for completion of the project, the amount of the proposal guarantee, and the date, time and place of the opening of proposals. The form will also include any special provisions or requirements that vary from or are not contained in the plans and specifications.

Other documents contained in the proposal include, but are not limited to, Wages and Payrolls, Notice to Contractors, Equal Employment Opportunity, Non-Collusion Affidavit and Resources and Experience of Bidders.

The plans and specifications and other documents designated in the proposal form will be considered a part of the proposal whether attached or not.

**102.02 Issuance of Proposals.** The City of Akron reserves the right to disqualify or refuse to consider a proposal if a bidder is in default for any of the following reasons:

- (a) Lack of competency and adequate machinery, plant and other equipment as revealed by the Resources and Experience forms.

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- (b) Uncompleted work which, in the judgment of the Engineer, might hinder or prevent the prompt completion of additional work if awarded.
- (c) Failure to comply with any qualification regulation of the City.
- (d) Forfeiture of previous Bid Bond.
- (e) Default under previous contract.
- (f) Failure to comply with Equal Employment Opportunity, Minority Business Enterprise, Prevailing Wages Provisions or other such requirements in a previous contract or contracts.

**102.03 Interpretation of Quantities in Proposal.** The quantities in the proposal are approximate only and are prepared for the comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished and accepted in accordance with the contract except for lump sum contracts, and except for lump sum items in unit price contracts. The scheduled quantities of work to be done and materials to be furnished may each be increased, decreased or deleted as hereinafter provided.

**102.04 Examination of Plans, Specifications, Special Provisions and Site of Work.** The bidder is expected to examine carefully the site of the proposed Work, the proposal, plans and specifications, supplemental specifications, special provisions, and contract forms before submitting a proposal. The submission of a bid shall be considered evidence that the bidder has made such examinations and is satisfied as to the conditions to be encountered in performing the Work and as to the requirements of the plans, specifications, supplemental specifications, special provisions, contract and other related documents. When a prospective bidder is in doubt as to the true meaning of any item contained in the plans, specifications or other contract documents, he may submit to the Engineer a written request for interpretation of same. Any such interpretation will be made an Addendum and a copy shall be mailed or delivered to each person in receipt of a set of bid documents. The City will not be responsible for any other interpretation of the item in question.

**102.05 Preparation of Proposal.** The Bidder shall submit his proposal upon the forms furnished by the City. A unit price for each item shall be printed in the column provided. The products of the respective unit prices and quantities shall be written in figures in the column provided for that purpose and the total amount of the proposal obtained by adding the amounts of the several items. If there is a discrepancy between the unit bid prices and extensions thereof, see 103.01. All the figures shall be in ink or typed. Any erasures, corrections or alterations shall be initialed and dated by the Bidder.

When an item in the proposal contains a choice to be designated by the Bidder, the Bidder shall indicate his choice in accordance with the specifications for that particular item, and thereafter no further choice will be permitted.

The proposal shall include two copies of Bidder Employment Practices Reports properly filled out and signed.

The proposal shall include a properly executed Non-Collusion Affidavit.

The Bidder's proposal must be signed with ink by the individual, by one or more members of the partnership, by one or more members or officers of each firm representing a joint venture, or by one or more officers of a corporation, or by an agent of the Bidder legally qualified to do so. If the proposal is made by an individual, his name and business address must be shown; by a partnership, the name and business address of each partnership member must be shown; as a joint venture, the name and business address of each member or officer of the firms represented by the joint venture must be shown; by a corporation, the name of the state under the laws of which the corporation is chartered and the name and title of the officer or officers having authority under the bylaws to sign contracts, the name of the corporation and the business address of its corporate officials must be shown.

Anyone signing a proposal as an agent must file with it legal evidence of his authority to do so.

**102.06 Irregular Proposals.** Proposals will be considered irregular and may be rejected for the following reasons:

- (a) If the proposal is on a form other than that furnished by the City; or if the form is altered.
- (b) If there are unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning.
- (c) 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. This does not exclude a bid limiting the maximum gross amount of awards acceptable to any one Bidder at any one bid opening, provided that any selection of awards will be made by the City of Akron.
- (d) If the proposal does not contain a unit price for each pay item listed, except in the case of authorized alternate pay items or lump sum items.
- (e) If the proposal does not contain all information required of the bidder.
- (f) If the price proposal contains a bid price which is determined to be unbalanced and not in the best interest of the City.

**102.07 Proposal Guarantee.** No Proposal over \$25,000.00 will be considered unless accompanied by a guarantee of the type and in an amount not less than the amount indicated in the proposal form made payable to the City of Akron, Ohio. Proposals of \$25,000.00 or less need not be accompanied by a guarantee.

**102.08 Delivery of Proposals.** The proposals for each project shall be placed, together with the proposal guarantee, in a separate sealed envelope marked so as to indicate the identity of the project and the name and address of the bidder. Proposals will be received at the location specified in the proposal until the time and date set for the opening thereof and must be in the hands of the Engineer by such time. Proposals received after the time for opening of bids will be returned to the bidder unopened. If City offices are closed on the scheduled bid opening date due to unforeseen conditions, bids will be received and opened the next regular business day at the location and time noted on the Proposal.

**102.09 Withdrawal of Proposals.** A bidder may withdraw his proposal, provided the request in writing is in the hands of the Engineer before the time set for opening of the proposals. When such proposal is reached, at the time of opening the bids, it will be returned to the bidder unopened.

**102.10 Combination or Conditional Proposals.** If the Engineer so elects, proposals may be requested for projects in combination and/or separately, so that bids may be submitted either on the combination or on separate units of the combination. The City reserves the right to make awards on combination bids or separate bids to the best advantage of the City. No combination bids, other than those specifically set up on the proposals by the Engineer, will be considered. Separate contracts will be awarded for each individual project included in the combination.

**102.11 Combined or Separate Proposals.** If the Engineer so elects, bids for a project may be requested in a single proposal containing all of the items of work, or separate bids may be requested for each group of related items of work on a single project.

**102.12 Public Opening of Proposals.** Proposals will be opened and read publicly at the time and place designated by the Engineer. Bidders, their authorized agents, and all other interested parties are invited to be present.

**102.13 Disqualification of Bidders.** Any of the following reasons may be considered as being sufficient for the disqualification of the bidder and the rejection of his proposal or proposals:

- (a) More than one proposal for the same Work from an individual, firm, or corporation under the same or different name.
- (b) Evidence of collusion among bidders. Participants in such collusion will receive no recognition as bidders for any future Work of the City of Akron for a period of three years or as determined by the Service Director.

**102.14 Material Guarantee.** Before any contract is awarded, the bidder may be required to furnish a complete statement of the origin, composition, and manufacture of any or all materials to be used in the construction of the Work

together with samples, which samples may be subjected to the tests provided for in these specifications to determine their quality and fitness for the Work.

## **103 AWARD AND EXECUTION OF CONTRACT**

**103.01 Consideration of Proposals.** The lowest bid will be determined by comparing the total amount of the proposal, excluding alternates, as specified in 102.05. Proposals will be compared on the basis of the summation of the products of the estimated quantities shown in the proposal and the unit bid prices. If there is a discrepancy between unit bid prices and extensions thereof, the unit bid price shall govern.

The right is reserved to reject any or all proposals, to waive technicalities or to advertise for new proposals, if it is in the best interest of the City.

**103.02 Award of Contract.** The award of contract, if it be awarded, will be made as soon as it is reasonably possible after the opening of proposals to the lowest and best bidder whose proposal complies with all the requirements prescribed. In no case will an award be made until all necessary investigations are made as to the responsibility of the bidder to whom it is proposed to award the contract. The successful bidder will be notified, by letter mailed to the address shown on the proposal, that his bid has been accepted and that he has been awarded the contract.

Where the bids exceed the Engineer's Estimate by more than 15 percent, a public hearing may be necessary, in which case the award of the contract, if it be awarded, will not be until after such a hearing.

If a contract is not awarded within 90 calendar days after the opening of bids, the Bidder may withdraw his bid without prejudice.

Where bids are taken in the form of separate proposals on portions of one project, the Work will ordinarily be awarded to the Contractor, otherwise qualified, whose combined bid is the lowest. No Contractor bidding on all such proposals shall be required to enter into a contract covering less than the entire project without his consent.

**103.03 Cancellation of Award.** The City reserves the right to rescind the award of any contract at any time before the execution of said contract by all parties without any liability against the City.

**103.04 Return of Proposal Guarantee.** All proposal guarantees in the form of certified checks and other negotiable securities, except those of the three lowest bidders, will be returned by mail to the bidders at the addresses shown on the

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proposals, immediately following the opening and the checking of the proposals. The retained proposal guarantees of the three lowest bidders will be returned within 30 days following the execution of the contract by the successful bidder. Bid bonds will not be returned.

**103.05 Contract Performance Bond.** The successful bidder shall be required to furnish a Contract Performance Bond in the amount of one hundred percent of the total contract price where such price exceeds \$25,000.00, executed by a Surety Guaranty or Trust Company authorized to do business in the State of Ohio, and having an Akron Agent with authority to execute said bond in the form contained in the Proposal. If through amendment the total contract price is increased from \$25,000.00 or less to an amount more than \$25,000.00, the Contractor shall be required to furnish a Contract Performance Bond or other security in the amount of one hundred percent of the uncompleted contract work. Uncompleted work for purposes of this section shall mean work which has not yet been inspected or which has been inspected and rejected.

**103.06 Execution of Contract.** The successful bidder shall within 10 calendar days after receipt of notice of the award and delivery of the contract form sign the contract and return it, together with the Contract Performance Bond, the Certificate of Compliance from the Industrial Commission, the Power of Attorney of the individual signing the Performance Bond and all other required contract documents. No proposal shall be considered binding upon the City of Akron until the execution of the contract by the duly authorized officials of the City of Akron.

**103.07 Failure to Execute Contract.** Failure to execute the contract and file acceptable bond and required documents within 10 calendar days shall be just cause for the cancellation of the award and the forfeiture of the proposal guarantee which shall become the property of the City, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest and best bidder, or the Work may be readvertised and constructed under contract, or otherwise, as the City may decide.

**103.08 Workers' Compensation Insurance.** The Contractor shall take out and maintain during the life of the contract worker's compensation insurance for all of his employees employed at the site of the project and, in case any work is sublet, the Contractor shall require the subcontractor similarly to provide worker's compensation insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. The Contractor and all subcontractors will be required to furnish certificates of compliance with worker's compensation requirements before proceeding with any work.

**103.09 Public Liability, Property Damage and Automobile Insurance.** The Contractor shall take out and maintain during the life of this contract at his own expense, such public liability and property damage insurance, as shall protect himself, and the City of Akron, their agents, employees, representatives, and subcontractors, from claims for damages for bodily injury, including wrongful death,

as well as from claims for property damage which may arise under this contract. All Contractors that desire to enter into contracts with the City shall provide a copy of all insurance policies properly executed by a duly authorized agent of the insurance company, to be placed on file with the director of law.

The amounts of such insurance shall be no less than the following:

- A. Combined Single Limit - Public Liability Insurance: In an amount not less than \$2,000,000.
- B. Combined Single Limit - Automobile Liability Insurance: In an amount not less than \$2,000,000.

This insurance shall be written with a company authorized and licensed to do business in the State of Ohio and acceptable to the City of Akron, director of law, shall be written in a form acceptable to the director of law of the City of Akron, shall be taken out before any operation of the Contractor is commenced, and shall be kept in effect until all operations have been satisfactorily completed. Copies, or the originals, as the case may be, of such policies shall be furnished to the City of Akron and shall be approved by the City before operations are commenced. The City of Akron shall be named as an additional insured on all such policies and such policies shall provide for thirty (30) days written notice of cancellation to the City. Further, the Contractor shall provide the City with the additional insured endorsement page from each policy, in a form acceptable to the City of Akron, director of law.

A worker's compensation insurance certificate and a facsimile or certified copy of all insurance certificates and additional insured endorsements properly executed by a duly authorized agent of the insurance company shall be attached to each copy of the contract.

## 104 SCOPE OF WORK

**104.01 Intent of Contract.** The intent of the contract is to provide for the construction and completion of every detail of the work described. The Contractor shall perform all items of work covered and stipulated in the proposal and perform altered and extra work, furnish all labor, equipment, tools, transportation and supplies required to complete the Work in accordance with the plans, specifications and terms of the contract. Should any misunderstanding arise as to the intent or meaning of these plans, specifications, special provisions, or proposal, or any discrepancy appear, the decision of the Service Director shall be final and conclusive.

The Contractor shall supervise and direct the Work; shall be solely responsible for the means, methods, techniques and procedures of construction; and shall be solely responsible for the safety, efficiency, and adequacy of his plant, appliances,

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and methods and for any damage which may result from their failure or their improper construction, maintenance or operation.

**104.02 Alteration of Plans or Character of the Work.** The City reserves the right to make, at any time during the bidding or the progress of work, such increases or decreases in quantities and such alterations of the details of construction, including alterations in the grade or alignment in the road or structure or both, as may be found to be necessary or desirable. Such increases or decreases and alterations shall not invalidate the contract nor release the surety and the Contractor agrees to perform the Work as altered, the same as if it had been a part of the original contract.

Unless such alterations and increases or decreases materially change the character of the Work to be performed or the cost thereof, the altered Work shall be paid for at the same unit prices as other parts of the Work. In this case, all expenses for increased alterations and increased cost shall be borne by the Contractor. If, however, the character of the Work or the unit cost thereof are materially changed, an allowance shall be made on such basis as has been agreed upon, either for or against the Contractor, in such amounts as the Service Director may determine to be fair and equitable.

Should the Contractor encounter or discover during the progress of the Work subsurface or latent physical conditions at the site differing materially from those indicated in this contract, or unknown physical conditions at the site of an unusual nature, differing from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the contract, the Engineer shall be promptly notified in writing by the Contractor of such conditions before they are disturbed. The Engineer will thereupon promptly investigate the conditions and if he finds they do so materially differ and cause an increase or decrease in the cost of, or the time required for performance of the contract, an equitable adjustment will be made because of changed conditions other than subsurface soil conditions or rock conditions.

Any adjustment in compensation because of a change or changes resulting from one or more of the conditions described in the foregoing paragraphs will be made in accordance with the provisions of 104.03. Any adjustment in contract time because of changes will be made in accordance with the provisions of 108.06.

**104.03 Extra Work.** The Contractor shall perform unforeseen work, for which there is no price included in the contract, whenever it is deemed necessary or desirable in order to complete fully the Work as contemplated. Such work shall be performed in accordance with the specifications and as directed, and will be paid for as provided under 109.04. In no event, however, shall a Contractor be required to perform additional work if the addition of such work would increase the total contract price from \$25,000.00 or less to more than \$25,000.00.

**104.04 Maintenance of Traffic.** When construction interferes with the normal use of the highway, temporary traffic facilities will be provided. For local traffic, facilities for pedestrian and vehicular egress and ingress shall be provided at all times for the property or properties adjacent to the Work. For through traffic the special provision or plans will designate whether the highway will be closed with detours, temporary roads and run-arounds provided, or whether traffic will be maintained through all or portions of the project.

Temporary traffic facilities shall be furnished, maintained, and paid for in accordance with the provisions of 614 Maintaining Traffic, and 615 Temporary Walks and Pavements. When the proposal does not contain Items 614 or 615 the work shall be performed and payment shall be included in the price bid for the various items which necessitate the work. The provisions of these items and this section shall not relieve in any way the Contractor of any of his legal responsibilities or liabilities for the safety of the public. The attention of the bidder is directed to the provisions of 107.07 of these specifications.

**104.05 Right In and Use of Materials Found on the Work.** The Contractor, with the approval of the Engineer, may use on the project such stone, gravel, sand or other material determined suitable by the Engineer as may be found in the proposed excavation. The Contractor shall not excavate or remove any material within the project limits which is not within the grading limits, as indicated by the slope and grade lines, without the written authorization from the Engineer. No charge for the materials so used will be made against the Contractor. The Contractor shall replace at his own expense with other acceptable material all of that portion of the excavation material so removed and so used, to the satisfaction of the Engineer.

Old paving material, curbing, manhole and inlet castings, etc., on the street or intersections, or so much of it as the Engineer may designate, shall remain the property of the City and shall be removed by the Contractor and neatly piled at such points as the Engineer may direct. These materials may be removed by the City, but in case the City shall have not removed such material before the final cleaning up of the street or streets, the Contractor shall remove and dispose of the same without additional compensation. Manhole, inlet or lamphole castings that are removed but not reused in the Work shall be piled on-site in an area designated by the Engineer. The Contractor shall contact the City of Akron Sewer Maintenance Division to have them inspect and select which castings will be salvaged by the City. The Contractor shall then coordinate and deliver the salvaged castings to Sewer Maintenance, and remove and dispose of any unselected castings.

**104.06 Final Cleaning Up.** Before sub-final acceptance, the Project, including stream channels and banks within the right-of-way at drainage structures, and all borrow and waste areas, storage sites, temporary plant sites, all roads and other ground occupied by the Contractor in connection with the Work shall be cleaned of all rubbish, excess materials, temporary structures, and equipment. These areas shall have vegetative cover established by seeding and mulching in accordance

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with 659 at no additional cost to the City, and all parts of the Work shall be left in an acceptable condition. Furthermore, the sewers, manholes, inlets, etc. shall be cleared of all scaffolding, centering, rubbish, dirt, dams or other obstructions.

Upon completion of the Work, the Contractor shall be responsible for a final cleaning of all Work areas. Cleaning shall include the removal of grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces as resulting from work on the project to the satisfaction of the Engineer. Cleaning materials and methods used shall not create hazards to health or property and shall not damage surfaces.

**104.07 Restoration of Disturbed Surfaces.** All areas affected by the Contractor's operations shall be completely restored at such time as may be designated by the Engineer.

On brick, block, or asphalt paved streets, the area over trenches shall be restored with materials of same kind as existing, over an 8 inch concrete, class "C" base. For further details see City of Akron Construction standard drawing and "Regulations for Construction and Special Activities in Street Right-of-Ways" (available from the Akron Plans and Permits Center). The concrete base shall extend at least 12 inches beyond the undisturbed soil. On brick and block surface streets all pieces of brick or blocks at the sides of the trench shall be removed and the repaving neatly toothed into the existing brick or block pavement.

On concrete paved streets, the area over trenches shall be restored with concrete, class "C"; same thickness as existing but no less than 8 inches, and extending a minimum of 12 inches beyond the undisturbed soil. Where an existing pavement joint is within 3 feet of the trench, the pavement restoration shall extend to the nearest existing joint. In no case shall the replacement consist of less than one half of an existing pavement block.

On unpaved, dust treated, chip and seal, cinder or gravel streets, the area over trenches shall be restored with a minimum of 4 inches of Item 301 - Bituminous Aggregate base extending at least 12 inches beyond the undisturbed soil.

Where the roadway surface cracks, settles, or gets damaged otherwise beyond the restoration limits stated above due to the Contractor's operations, such additional areas shall be restored in the same manner as areas over the trench. The Contractor will be required to remove all surplus excavation, open all gutters and existing drains, and shape or blade the existing roadways to the same condition as found prior to the start of construction, and in a manner satisfactory to the Engineer.

All curbs, sidewalks, and driveways affected by the Work of this contract shall be restored completely and in accordance with these specifications for constructing curbs, sidewalks and driveways. Restoration of curbs, sidewalks and driveways shall be done in full blocks. Patching or piecing of blocks will not be permitted.

The cost of all restoration, unless otherwise provided on the plans or in the specifications, shall be included and paid for in the price bid for the Work, the construction of which made necessary the restoration.

Should any settlement in the street surface occur after the pavement restoration has been made which is the result of trench settlements, poor workmanship, defective materials, etc., the Contractor or his surety will be required within the guarantee period and in accordance with provisions thereof to remedy the defects in the trenches and to restore the street surface to its proper condition.

Failure of the Contractor to follow the order of the Engineer pursuant to this section, shall give the City the unqualified right to supply the materials and perform the labor or cause it to be performed and any and all expense chargeable thereto, directly or indirectly, shall be deducted from monies due the Contractor or billed to the Contractor.

**104.08 Record Documents.** The Contractor shall keep one record copy of all Specifications, Plans, addenda, change orders and shop drawings at the project site in an approved location. These record documents shall be annotated by the Contractor to show all changes made during the construction process and to note and accurately locate all existing 104.09 underground utilities encountered during construction, whether shown on the Plans or not. The record documents shall be kept current, and shall be available to the Engineer for inspection at all times. Record documents shall be properly labeled, shall be kept in a clean, dry and legible condition, with the Contractor to provide files and racks for storage, and shall not be used for construction purposes.

Prior to the sub-final estimate, the Contractor shall deliver the record documents to the Engineer with certification that each document as submitted is complete and accurate.

**104.09 Cutting and Patching, Protection.** Cutting and patching in existing structures, as required to complete Work under this Contract, shall be completed in a manner acceptable to the Engineer. Patches shall not show in the finished Work. During cutting and patching and other operations, the Contractor shall be responsible for protecting all existing equipment and facilities from dust and debris created, and, immediately upon completing same, all dust and debris shall be cleaned up and disposed of by the Contractor. Protection of existing equipment and facilities shall be to the satisfaction of the Engineer, and may require isolation of the work area by providing temporary screens, etc. Particular attention shall be given to the protection of existing motors.

**104.10 Changes to Accommodate Materials and Equipment to be Provided.** The Contractor shall provide materials and equipment to fit and be capable of use and/or operation within the structure dimensions shown. If materials and equipment provided by the Contractor require changes in his Work, the Contractor shall make the required changes at his expense and shall be responsible

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for all additional expense of the Engineer, incurred by the City, to accommodate the changes.

## **105 CONTROL OF WORK**

**105.01 Authority of the Engineer.** The Engineer will decide all questions which may arise as to the quality and acceptability of materials furnished and work performed and as to the rate of progress of the Work; all questions which may arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor, and as to compensation.

The Engineer will have the authority to suspend the work wholly or in part due to the failure of the Contractor to correct conditions deemed unsafe for the workers or the general public, for failure to carry out provisions of the contract and to carry out orders. The Engineer may suspend the work for such periods as deemed necessary due to adverse weather conditions, for conditions considered adverse to the prosecution of the work or for any other condition or reason deemed to be in the public interest.

**105.02 Plans and Working Drawings.** Plans will show location and design details of all structures, lines, grades and typical cross-sections of roadways, conduits and other items appearing on the proposal. The Contractor shall keep one set of plans available on the Work site at all times.

It is mutually agreed that all authorized alterations affecting the requirements and information given on the approved plans shall be in writing. No changes shall be made of any plan or drawing after the same has been approved by the Service Director except by the Engineer with the approval of the Service Director.

The Contractor shall be responsible for the furnishing of copies of plans, specifications and special provisions, or the necessary portions thereof, to Subcontractors and parties furnishing labor, materials and equipment for such a project.

The plans will be supplemented by such working drawings as are necessary to adequately control the Work. Working drawings for structures shall be furnished by the Contractor and shall consist of such detailed plans as may be required to adequately control the Work and which are not included in the plans furnished by the City. They shall include stress sheets, shop drawings, erection plans, falsework plans, cofferdam plans, bending diagrams for reinforcing steel or any other supplementary plans or similar data required of the Contractor. All drawings must be approved by the Engineer prior to commencement of work, and such approval shall not operate to relieve the Contractor of any of his responsibility under the contract for the successful completion of the Work. Where the Work consists of

repairs or extension to or alteration of existing structures, the Contractor shall make such measurements of original construction as may be required to accurately joint old and new Work. Any measurements which may appear upon the plans to indicate the extent and nature of such repairs or extension shall not relieve the Contractor of this responsibility.

In order that the Engineer may be assured of complete compliance with the Plans and Specifications, the Contractor shall cause to be prepared and shall submit to the Engineer Working Drawings of piping; detail drawings or steel reinforcing, both bars and mesh, showing size and arrangement; details of machinery, apparatus and materials; outline drawings, connection diagrams and other data for all electrical, communication, instrumentation, control and related equipment, and proposed layout drawings of the complete electrical work; and installation/erection drawings. Drawings shall designate the complete installation and shall be suitable for coordinating work of the various trades.

Layout drawings for electrical work shall show locations and sizes of conduit runs, pull and junction boxes, outlets, lighting fixtures, panel boards, switches, motor controls, disconnects, etc. and will be used by the Engineer to verify the location and size of the conduit, wire and equipment. Shop drawings regarding pumps, blowers, etc. shall include all information on electrical components and characteristics, appropriate curve data at various operating and efficiency levels, manufacturer's motor data sheets, hardware and accessories. Shop drawings will not be reviewed and returned until all such information is received.

Sufficient shop drawings shall be submitted to provide for the retaining by the Engineer of four copies. Drawings will be reviewed and returned by the Engineer with appropriate comments. Neither fabrication, shipment nor installation shall begin until such drawings have been returned (with review stamp affixed) by the Engineer. If the Contractor installs any piping, reinforcing steel, electrical work, machinery, apparatus or material prior to the returning of the shop drawings (with review stamp affixed) by the Engineer, the Contractor will be required to remove all or any part of the items which are not satisfactory.

All shop drawings shall be checked, approved and certified by the Contractor as being in conformance with the requirements of the drawings and specifications before being forwarded to the Engineer. The Engineer's review of any shop drawing shall not release the Contractor from responsibility for deviations from the drawings and specifications.

The contract price will include the cost of furnishing all working drawings.

**105.03 Conformity with Plans and Specifications** . All work performed and all materials furnished shall be in conformity with the lines, grades, cross sections, dimensions and material requirements shown on the plans or indicated in the specifications.

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In the event the Engineer finds the materials or the finished product in which the materials are used not in conformity with the plans and specifications but that reasonably acceptable Work has been produced, he shall then make a determination if the Work shall be accepted and remain in place. In this event, the Engineer will document the basis of acceptance by contract modification which will provide for any appropriate adjustment in the contract price for such Work or materials as he deems necessary to conform to his determination based on engineering judgment.

Failure of the Contractor to follow the order of the Engineer, pursuant to this section, shall give the City the unqualified right to supply the materials for the finished product and perform the labor or cause it to be performed and any and all expense chargeable thereto, directly or indirectly, shall be deducted or billed to the Contractor at the option of the Engineer.

**105.04 Coordination of Plans, Specifications, Supplemental Specifications and Special Provisions.** These specifications, the supplemental specifications, the plans, special provisions and all supplementary documents are essential parts of the contract, and a requirement appearing in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for complete Work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; plans will govern over specifications; supplemental specifications will govern over specifications; proposals and special provisions will govern over both specifications and plans.

The Contractor shall take no advantage of any apparent error or omission in the plans or specifications. In the event the Contractor discovers such an error or omission, he shall immediately notify the Engineer. The Engineer will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the plans and specifications.

**105.05 Cooperation by Contractor.** The Contractor will be supplied five sets of approved plans, two unsigned proposal and contract books and two signed proposal and contract books; one complete set of which the Contractor shall keep available on the Job Site at all times. In addition, one set of approved plans will be supplied for each subcontractor listed in the proposal, and approved by the Akron Engineering Bureau, and any extra sets of plans or proposal and contract books, or any part thereof required by the Contractor must be purchased at the price set by the Administrative Division of the Akron Engineering Bureau.

The City shall have the right to enter the premises for the purpose of doing Work not covered by the contract documents. This provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the Work, or the restoration of any damaged Work except such as may be caused by agents or employees of the City.

The Contractor shall attend progress meetings when requested by the Engineer. These meetings will be held once every two weeks or as deemed necessary.

The Contractor shall have on the Work Site at all times, as his agent, a competent Superintendent capable of reading and thoroughly understanding the plans and specifications and thoroughly experienced in the type of Work being performed, who shall receive instructions from the Engineer or his authorized representatives. The superintendent shall have the full authority to execute orders or directions of the Engineer without delay and to promptly supply such materials, equipment, tools, labor and incidentals as may be required. Such supervision shall be furnished irrespective of the amount of work sublet. The City will not permit any work to be performed unless there is a competent Superintendent on the Job Site.

The Contractor agrees to confine the work under this contract to the strict dimensions of easements, rights-of-way, or other Work area authorized in writing by the City or shown on the plans. Any failure of the Contractor, his agents, servants and employees to restrict the Work to the defined area shall be his sole liability and responsibility and the Contractor further agrees to save the City and its agents harmless from any activity of his agents, servants, employees and Subcontractors where such activity concerning work under this contract extends beyond the defined Work area.

**105.06 Night and Holiday Work.** The Contractor agrees that all work on this contract which includes any and all Subcontractors shall be only during the period from 1/2 hour before sunrise to 1/2 hour after sunset as sunrise and sunset are determined by the US National Weather Service. Any special provisions shall be noted in the plans and specifications.

Authorization of work during any other time shall only be upon written permission by the Engineer.

In addition, no work will be permitted on Sundays and City Holidays except as authorized or directed by the Engineer.

**105.07 Cooperation with Utilities.** The Contractor will notify all utility companies, all line owners or other parties affected and endeavor to have all necessary adjustments of the public or private utility fixtures, pipe line and other appurtenances within or adjacent to the limits of construction made as soon as possible so as not to interfere with the progress of the Work.

Existing surface or overhead structures or utility lines are not necessarily shown on the drawings and those shown are only approximately correct. The Contractor shall make such investigations as are necessary to determine the extent to which existing surface or overhead structures may interfere with the prosecution of the Work contemplated under this contract.

Existing subsurface structures or utility lines (including sewer service connections but excluding all other subsurface connections) which may be encountered during the construction of the Work embraced under this contract or are

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located in such close proximity to the Work to be done under this contract so as to require special precautions and methods for their protection, such as sewers, drains, sewage force mains, water mains, gas mains, telephone and electric conduits, together with appurtenances, are shown in plan on the drawings, insofar as there is public record of their existence.

The sizes, locations and depths shown are, however, only approximately correct and the Contractor shall make such investigations or explorations as may be necessary to verify their accuracy. The Contractor shall, if so ordered, uncover and locate these structures in advance of the excavation for the work required by these specifications.

In order to avoid damages to private subsurface utility lines and services as a result of excavating operations, the Contractor shall give advance notice of each line or service crossing to the particular company concerned.

Water lines, gas lines, wire lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cable ways, signals and all other utility appurtenances within the limits of the proposed construction which are to be relocated or adjusted are to be moved by the owners at their expense, except as otherwise provided for in the special provisions or as noted on the plans.

It is understood and agreed that the Contractor has considered in his bid all of the known permanent and temporary utility appurtenances in their present or relocated positions and that no additional compensation will be allowed for any delays, inconvenience or damage sustained by him due to any interference from the known said utility appurtenance or the operation of moving them.

If through no fault of the Contractor, the progress of his work is delayed for an unreasonable length of time from that proposed in his progress schedule as required in Section 108.02, because of failure of a Utility to relocate or adjust its lines, the Contractor shall immediately file with the City a detailed statement describing the nature of the delay and its effect upon his work progress. Compensation shall be considered by granting reasonable extension of time. No request for additional compensation, for added expense or loss of profit will be considered.

It is the complete responsibility of the Contractor to determine the exact location of each, every and all substructures and utility lines including but not limited to water, sewer, gas, electricity and pipes or conduits whether or not located on private property, public property, public or private rights-of-way, or public or private easements and of all surface or overhead structures, including but not limited to utility lines, telephone or electrical poles, sidewalks, driveways and growing things such as trees, shrubbery, etc.

If the Work of the Contractor is delayed because of any acts or omissions of any other Contractor of the Owner, the Contractor shall, on that account, have no claim

against the owner other than for an equitable adjustment in the time required for performance of the Work.

**105.08 Cooperation Between Contractors.** The City reserves the right at any time to contract for and perform other or additional work on or near the Work covered by the contract. When separate contracts are let within the limits of any one project, each Contractor shall conduct his work so as not to interfere with or hinder the progress or completion of the Work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with his contract and shall protect and save harmless the City from any and all damages or claims that may arise because of inconvenience, delay, or loss experienced by him because of the presence and operations of other Contractors working within the limits of the same project.

The Contractor shall arrange his work and shall place and dispose of the materials being used so as not to interfere with the operations of the other Contractors within the limits of the same project. He shall coordinate his work with that of the others in an acceptable manner and shall perform it in proper sequence with that of the others.

**105.09 Construction Stakes, Lines and Grades.** When the proposal does not contain a Lump Sum for 623 Construction Layout Stakes, the Engineer will set construction stakes establishing lines, slopes and continuous profile-grade in road work, and centerline and bench marks for bridge work, culvert work, protective and accessory structures and appurtenances as he may deem necessary, and will furnish the Contractor with all necessary information relating to lines, slopes and grades. These stakes and marks shall constitute the field control by and in accordance with which the Contractor shall establish other necessary control and perform the Work. The City will be responsible for the accuracy of lines, slopes, grades and other work which is performed by the Engineer as set forth under this section.

The Contractor shall be held responsible for the preservation of all stakes and marks, and if any of the construction stakes or marks have been carelessly or willfully destroyed or disturbed by the Contractor, the cost of replacing them will be charged against him and will be deducted from the payment for the Work.

When the proposal contains a Lump Sum for 623 Construction Layout Stakes, the Engineer will locate and reference the centerline of the project outside the construction limits and establish benchmarks, and the Contractor shall furnish and place all necessary construction layout stakes for the project, all in accordance with the provisions of 623.

**105.10 Authority and Duties of Engineering Projects Coordinator.** The Engineering Projects Coordinator has immediate charge of the engineering details of each construction project. He is responsible for administration and satisfactory

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completion of the project. The Engineering Projects Coordinator has the authority to reject defective material and to immediately suspend any work that is being improperly performed.

The Engineering Projects Coordinator will have the authority to suspend the Work wholly or in part due to the failure of the Contractor to correct conditions deemed unsafe for the workmen or the general public; for failure to carry out provisions of the contract; for failure to carry out orders; or for such periods as he may deem necessary due to unsuitable weather. The suspension of the Work for the above reasons does not relieve the Contractor of his responsibility according to 107.12.

In the event the Engineering Projects Coordinator orders the Work suspended for unsafe conditions, whether they be unsafe to workmen or the public, or unsuitable weather, use of defective material not in conformity with the specifications or because work is being improperly performed, the expense, whether direct or indirect for such suspension shall be borne solely by the Contractor.

### **105.11 Authority and Duties of the Resident Project Representative.**

Resident Project Representatives are authorized to inspect all work done and material furnished. Such inspection may extend to all or any part of the Work and to the preparation, fabrication or manufacture of the materials to be used. The Resident Project Representative is not authorized to alter or waive the provisions of the contract. The Resident Project Representative shall have the authority to reject materials which do not meet specification requirements or suspend the portions of the Work involved until such question and issue can be referred to and decided by the Engineer. The Resident Project Representative is not authorized to issue instructions contrary to the plans and specifications, or to act for the Contractor.

**105.12 Inspection of Work.** All materials and each part or detail of the Work shall be subject to inspection by the Engineer. The Engineer or his representative shall be allowed access to all parts of the Work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

If the Engineer requests it, the Contractor at any time before final acceptance of the Work shall remove or uncover such portions of the finished Work as may be directed. After examination, the Contractor shall restore said portions of the Work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work as provided for in 109.04; but should the work so exposed or examined prove unacceptable, the uncovering or removing and replacing of the covering or making good of the parts removed, will be at the Contractor's expense.

Any work done, or materials used, without supervision or inspection by an authorized City representative may be ordered removed and replaced at the

Contractor's expense. Failure to reject any defective work or materials shall not in any way prevent later rejections when such defects are discovered, nor shall it obligate the City to final acceptance.

When any other unit of government or political subdivision or any corporation has jurisdiction within limits of the project, or is to pay a portion of the cost of the Work covered by this contract, its respective representatives shall have the right to inspect the Work. Such inspection shall in no sense make any other unit of government or political subdivision or any companies a part of this contract, and shall in no way interfere with the rights of either party hereunder.

**105.13 Removal of Unacceptable and Unauthorized Work.** All work which does not conform to the requirements of the contract may be considered unacceptable work.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, found to exist prior to the final acceptance of the Work, shall be removed immediately and replaced in an acceptable manner.

No work shall be done without lines and grades having been given by the Engineer except as specified in Section 105.09. Work done contrary to the instructions of the Engineer, work done beyond the lines shown on the plans, or as given, except as herein specified, or any extra work done without written authority, will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply with any order of the Engineer under the provisions of this section, the Engineer will have authority to cause unacceptable work to be remedied or removed and replaced, and unauthorized work to be removed, and to deduct the cost from any monies due or to become due the Contractor.

**105.14 Load Restrictions.** The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads. A special permit will not relieve the Contractor from his sole liability for damage which may result from the moving of equipment or materials, whether caused by his equipment or that of his Subcontractor.

The operation of equipment of such weight, or so loaded, as to cause damage to structures or the roadway or to any other type of construction will not be permitted. Hauling of materials over the subbase, base course or surface course of the roadway under construction shall be limited as directed by the Engineer. No loads will be permitted on a concrete pavement, sidewalk, driveway, base or structure before the expiration of the curing period. In no case shall legal load limits be exceeded unless

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permitted by the Engineer in writing. The Contractor shall be responsible for all damage done by his equipment.

Engineer may prohibit the use of certain public streets by construction equipment or delivery vehicles.

**105.15 Maintenance During Construction.** The Contractor shall maintain the Work during construction and until the project is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces to the end that the roadway, conduits or structures are kept in satisfactory condition at all times.

In the case of a contract for the placing of a course upon a roadway subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

Temporary restoration of street surfaces shall be made promptly on completion of underground lines and structures, surplus excavation shall be removed, and the street graded and put in a safe and passable condition. Settlements occurring in or adjacent to trenches shall be immediately refilled to a proper grade. Failure on the part of the Contractor to promptly restore the street surface to the satisfaction of the Engineer shall be considered a cause sufficient for stopping the construction work until such restoration shall be made and no extension of contract time will be granted for the resulting delay on account of stopping the construction work.

All cost of maintenance work and dust control, if the contract does not contain an Item 616, during construction and before the project is accepted shall be included in the unit prices bid on the various pay items, and the Contractor will not be paid an additional amount for such work.

Contractor shall repair, restore and clean streets and other public facilities outside the work limits that are affected by his operations, including hauling and delivery of materials.

**105.16 Failure to Maintain Roadway or Structures.** If the Contractor at any time fails to comply with the provisions of 105.15, the Engineer will immediately notify the Contractor in writing of such non-compliance. If the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of such notice, the Engineer may immediately proceed to maintain the project and the entire cost of this maintenance will be deducted from monies due or to become due the Contractor on his contract.

**105.17 Borrow and Waste Areas.** The terms borrow area and waste area as used in this section refer to locations outside the right-of-way, the particular City property or the project work limits, from which natural materials are removed for use in the Work or upon which materials from the Work are to be deposited as waste.

Before any borrow or waste disposal operations are begun, the Contractor shall provide evidence of a current grading permit for the land to be used. The grading permit shall be from the City of Akron division of building inspection or if the area is outside of Akron from the authority having jurisdiction. Contractors requiring permits from the City of Akron shall make application to the City of Akron plan center in a timely manner. Applications shall be in conformance with subchapter 193.11 of the Akron building code.

In cases where the Contractor is not the permit holder and is not directly responsible for grading operations, sediment control, site restoration, etc., a letter signed by the land owner and/or permit holder shall be submitted to the Engineer. The letter shall identify the location, permit authority, permit number and state the permission granted to the Contractor.

The Contractor shall file a "Notice of Intent to Fill" with the local approval agency of the Ohio Environmental Protection Agency for any clean hard fill that is to be removed from the site and used as fill at a different site.

This subsection is not intended to apply to minor filling, topsoil, seeding or resurfacing of areas immediately outside of the project limits, that may have been inadvertently disturbed in the pursuit of the work.

The cost of work described herein necessary to secure these results shall be included in the contract price bid for the items to which they apply.

**105.18 Claims for Adjustment and Disputes.** If in any case the Contractor deems that additional compensation is due him for work or material not clearly covered in the contract or not ordered by the Engineer as extra work, as defined herein, the Contractor shall notify the Engineer in writing of his intention to make claim for such additional compensation before he begins the work on which he bases his claim. If such notification is not given, or the Engineer is not afforded proper facilities by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor, and the fact that the Engineer has kept account of the cost as aforesaid, shall not in any way be construed as proving or substantiating the validity of the claim. If the claim after consideration by the Engineer is found to be just, it will be paid as extra work as provided herein for force account work. Nothing in this subsection shall be construed as establishing any claim contrary to the terms of 104.02.

## **106 CONTROL OF MATERIAL**

**106.01 Source of Supply and Quality Requirements.** The materials used on the Work shall meet all requirements of the contract. In order to expedite the

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inspection and testing of materials, the Contractor shall notify the Engineer of his proposed sources of materials prior to delivery. At the option of the Engineer, materials may be inspected at the source of supply before delivery. If it is determined by the Engineer, after trial, that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources which shall, in turn, be subject to the controls set forth herein.

**106.02 Samples, Tests, Cited Specifications.** All materials may be inspected and/or tested, in compliance with the Specifications determined by the Engineer before incorporation into the Work. Unless otherwise designated, tests in accordance with AASHTO, ASTM or other methods on file in the office of the Engineer will be made by the City. Samples will be taken by a qualified representative of the City. References included in the specifications to AASHTO, ASTM, AWWA, ANSI or federal specifications shall be the test method, sampling method or specification, amended to bid date of the contract. All materials being used are subject to inspection, test or rejection at any time prior to incorporation into the Work. Copies of all tests will be furnished to the Contractor's representative if requested. The Contractor, in all cases, shall furnish the required samples and/or materials certifications as requested without charge.

Transports and distributors hauling bituminous material shall be equipped with an approved submerged bituminous material sampling device.

**106.03 Plant Inspection.** The Engineer may undertake the inspection of materials at the source. In the event plant inspection is undertaken, the following conditions shall be met:

- (a) The Engineer shall have the cooperation and assistance of the Contractor and the producer with whom he has contracted for materials.
- (b) The Engineer shall have full entry at all times to such parts of the plant as may concern the manufacture or production of the materials being furnished.
- (c) If required by the Engineer, the Contractor shall arrange at no cost to the City for an approved building for the use of the inspectors; such building to be located conveniently near the plant, independent of any building used by the material producer.
- (d) Adequate safety measures shall be provided and maintained.

It is understood that the City reserves the right to retest all materials prior to incorporation into the Work which have been tested and accepted at the source of supply after the same have been delivered, and to reject all materials which when retested do not meet the requirements of these specifications, or those established for the specified project.

**106.04 Storage of Materials.** Materials shall be so stored as to assure the preservation of their quality and fitness for the Work. Stored materials, even though approved before storage, may again be inspected prior to their use in the Work. Stored materials shall be located so as to facilitate their prompt inspection. Approved portions of the right-of-way may be used for storage purposes and for the placing of the Contractors plant and equipment, but any additional space required must be provided by the Contractor at his expense. Private property shall not be used for storage purposes without written permission of the owner or leasee, and if requested by the Engineer, copies of such written permission shall be furnished to him. Such permission shall not relieve the Contractor of his responsibilities under 107.01 and 107.11. All storage sites shall be restored to their original condition by the Contractor at his expense. This shall not apply to the stripping and storing of topsoil, or to other materials salvaged from the work.

**106.05 Handling Materials.** All materials shall be handled in such a manner as to preserve their quality and fitness for the Work. Aggregate shall be transported from the storage site to the Work in tight vehicles so constructed as to prevent loss or segregation of materials after loading and measuring in order that there may be no inconsistencies in the quantities of materials intended for incorporation in the Work as loaded, and the quantities as actually received at the place of operation.

Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer

**106.06 Unacceptable Materials.** All materials not conforming to the requirement of the specifications at the time they are to be used shall be considered unacceptable and shall be removed immediately from the site of the Work unless otherwise instructed by the Engineer. No materials, defects of which have been corrected, shall be used until approval has been given. Upon failure on the part of the Contractor to comply immediately with any order of the Engineer made under the provisions of this section, the Engineer shall have authority to remove and replace defective materials and to deduct the cost of removal and replacement from any monies due or to become due the Contractor.

**106.07 City-Furnished Material.** The Contractor shall furnish all materials required to complete the Work, except when otherwise provided in the contract. If the contract documents specify that the City will furnish materials for the project, those materials shall be picked up by the Contractor at a location specified in the contract documents, with 24-hour advance notice. The cost of handling and placing all materials shall be considered as included in the contract price for the item in connection with which they are used. The Contractor will be held responsible for all materials, and deductions will be made from any monies due him to make good any shortages and deficiencies, from any cause whatsoever, and for any damage which may occur, and for any demurrage charges.

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**106.08 Protection of Materials.** All concrete shall be placed during cold weather in accordance with 451.07, 511.12 or 515.06. No concrete shall be placed when the ambient temperature may be expected to drop below 35°F during the normal curing period, without the approval of the Engineer.

**106.09 Substitutions.** A substitution is a change in product, material, equipment, and/or method of construction required by the contract documents proposed by the contractor after award of the project. Substitution requests are not required for items accepted by addendum prior to bidding, revisions to the contract documents requested by the Owner or Engineer, or specified options of products and construction methods included in the contract documents. Substitutions will not be considered prior to or during the bidding process.

The suitability of substitutions will be considered based on equality of substance and function, economy of maintenance and operation, availability of repair parts, and duration of life. In those instances in which a particular brand, make of material, device, or equipment is required to be used as a base bid, the Contractor will be required to provide the item so indicated.

A substitution request constitutes a representation that the requesting party has investigated the proposed substitution and determined that it meets or exceeds the quality level of the specified work. No submittals will be reviewed by the Engineer unless accompanied by a transmittal, first reviewed by the Contractor and bearing date, stamps, and signatures so stating. There shall be a limit of one proposed substitution per request. The request shall include the following items, as appropriate:

1. Identify the product, fabrication, or installation method to be replaced with each request. Also include related specification section and drawing numbers.
2. A minimum of five legible (5) copies, plus the original, with complete documentation showing compliance with the requirements for substitutions.
3. Coordination information, including changes or modifications needed to other parts of the work and to construction performed by the Owner and separate Contractors that will be necessary to accommodate the proposed substitution.
4. A statement indicating that if the substitution is approved, the Contractor must warrant that no major changes in the function of general design of the project will result.
5. A detailed comparison of all qualities of the proposed substitution with those of the work specified. Qualities may include elements such as performance, weight, size, durability, and visual effect.
6. Product data, including drawings and descriptions of products and fabrication and installation procedures.

7. Samples where applicable or requested.
8. A statement indicating the effect on the Contractor's construction schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on the overall contract time.
9. Cost information, including a proposal of the net change, if any, in the contract sum. The City should receive a credit if an approved substitution represents a significant project savings. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without change in the contract price or contract time.
10. The same warranty for the proposed substitution as for the specified product.
11. The Contractor's certification that the proposed substitution conforms to the requirements in the contract documents in every respect and is appropriate for the applications indicated. Submit shop drawings and certified test results attesting to the proposed product equivalence.
12. The Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of the substitution to perform adequately.

The substitution request will be returned to the Contractor without consideration if any of the following conditions apply:

1. Extensive revisions to the contract documents are required.
2. Proposed changes are not in keeping with the general intent of the contract documents.
3. The request is not timely, fully documented, or properly submitted.
4. If the specified product or method of construction cannot be provided due to the Contractor's failure to pursue the work promptly or coordinate activities properly.
5. The substitution does not offer the Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities the Owner must assume. The Owner's additional responsibilities may include compensation to Consultant(s) for redesign and evaluation services, increase in cost of maintenance by the Owner, and similar considerations.
6. Substitutions will not be considered when they are indicated or implied on shop drawings or product data submittals, without a separate written request.

## **107.01**

The contractor will be notified in writing by the City as to the approval or denial of the substitution request.

## **107 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**

**107.01 Laws to be Observed.** The Contractor shall keep fully informed of all federal, state and local laws, ordinances, and regulations and all orders and decrees of authorities having any jurisdiction or authority, which in any manner affect those engaged or employed on the Work or which in any way affects the conduct of the Work; and he shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the City and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself, his employees or his subcontractors.

Particular attention is called to the requirements of the State of Ohio relative to licensing of Corporations organized under the laws of any other State.

**107.02 Permits, Licenses and Taxes.** The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the Work, except for permit fees from City offices such as Plans and Permits and Building Department, which will be paid by the City of Akron. All Work shall be constructed in accordance with the City of Akron Building Code, the "Regulations for Construction and Special Activities in Street Right-of-Ways" (available from the City of Akron Plans and Permits Center), City of Akron Health Code, State of Ohio Codes, U.S. Army Corps. Of Engineers permits, and Ohio Environmental Protection Agency Notification requirements. The Contractor shall include in his bid the prices for each permit required to perform the Work, including but not limited to: General, Plumbing, HVAC, Electrical, water well abandonment, septic tank and vault abandonment, grading, asbestos abatement, dewatering, etc. Only Contractors licensed in the City of Akron may perform the Work.

The Contractor further agrees that all City income taxes due or payable under chapter 99 of the Akron code of ordinances shall be withheld by the Contractor pursuant to section 99.09 and further agrees that any of its subcontractors shall be required to withhold income taxes as set forth in chapter 99.

**107.03 Patented Devices, Materials and Processes.** If the Contractor employs any design, device, material, or process covered by letters of patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the Surety shall indemnify and save harmless the City, any affected third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or

process, or any trademark or copyright, and shall indemnify the City for any costs, expenses, and damages which it may be obliged to pay by reason for any infringement, at any time during the prosecution or after the completion of the Work.

It is intended that the bidder, in addition thereto, bid on one or more patented or unpatented devices, materials and processes as alternates when provided in the proposal which may be bid upon and furnished by the bidder in lieu of the patented devices, materials and processes specified in the proposal.

**107.04 Restoration of Surfaces Opened By Permit.** The right to construct or reconstruct any utility service in the highway or street or to grant permits for same, at any time, is hereby expressly reserved by the City, and the Contractor shall not be entitled to any damages either for the digging up of the street or any delay occasioned thereby.

Any individual, firm, public agency or corporation wishing to make an opening in the street must obtain a permit. The Contractor shall allow parties bearing such permits, and only those parties, to make openings in the highway. When ordered by the Engineer, the Contractor shall make in an acceptable manner all necessary repairs due to such openings in accordance with the "Regulations for Construction and Special Activities in Street Right-of-Ways" , and such necessary work will be paid for as extra work, or as provided for in the specifications, and will be subject to the same conditions as original work performed.

**107.05 Federal Aid Provisions.** When the United States Government or the State of Ohio pays all or any portion of the cost of a project, the Federal and State laws, and the rules and regulations made pursuant to such laws, must be observed by the Contractor and the Work shall be subject to the inspection of the appropriate Federal or State agency.

Such inspection shall in no sense make the Federal or State Governments a party to this contract, and will in no way interfere with the rights of either party hereunder.

**107.06 Sanitary Provisions.** The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his employees and City representatives, and must comply with the requirements of the State and local boards of health, or of other authorities having jurisdiction.

**107.07 Public Convenience and Safety.** The Contractor shall at all times so conduct his work as to assure the least possible obstruction to traffic. The safety and convenience of the general public and the residents along the street and the protection of persons and property shall be provided for by the Contractor as specified under 104.04 and 105.15.

The Contractor shall provide and maintain safeguards, safety devices and protective equipment, and take any other needed actions as may be necessary to protect the public and property in connection with the Work.

## 107.08

The presence of barricades or lights, provided and maintained by any party other than the Contractor, shall not relieve the Contractor of his responsibility.

It is a condition of this contract, and shall be made a condition of each sub-contract entered into pursuant to this contract, that the Contractor and any Subcontractor shall not require any laborer or mechanic employed in the performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety and health standards (Title 29, Code of Federal Regulations, Part 1518 - published in the Federal Register on April 17, 1971) promulgated by the United States Secretary of Labor, in accordance with Section 107 of the contract Work Hours and Safety Standards Act (83 Sta. 96).

**107.08 Barricades and Warning Devices.** Temporary traffic control devices and facilities shall be furnished, erected, maintained and paid for in accordance with the provisions of Item 614, Maintaining Traffic. When the proposal does not include Item 614, payment for this work shall be included in the various items requiring the work. All traffic control devices shall conform to the Ohio Manual as required under Section 4511.09 ORC, and as supplemented by the City of Akron Barricade and Signing Manual for Construction and Maintenance. The provisions of this item and this section shall not in any way relieve the Contractor of any of his legal responsibilities or liabilities for the safety of the public.

**107.09 Use of Explosives.** When it is necessary to resort to blasting with explosives, and approved by the Engineer, the Contractor shall use the highest degree of care and adequate protective measures so as not to endanger life, completed portions of the project, and all other property, both public and private. Before conducting any blasting operations, the Contractor shall furnish the Engineer, in writing, a schedule of intended blasting operations and he shall give the Engineer prior written notification of any changes in such schedule. The Contractor shall secure a written permit from the Chief of the Fire Department of the City of Akron before any blasting work is begun.

The use, handling, storage and transportation of explosives shall conform and be in accordance with the applicable requirements and/or provisions:

- (a) of the latest "Bulletin 202, Specific Safety Requirements Relating to Building and Construction Work", issued by the Department of Industrial Relations and the Industrial Commission of the State of Ohio;
- (b) of the Ohio Explosive Laws common Section 3743.01 - 3743.26 of the Ohio Revised Code and amendments thereto;
- (c) of local regulations;
- (d) and as specified herein.

All blasting operations shall be covered by public liability and property damage insurance as elsewhere specified herein. Except in the case of continuous tunnel operations, all blasting shall be conducted in daylight hours only with the provision

that, when required by the Engineer, blasting shall be limited to certain daylight hours.

All firing shall be done by electrical means only. The Contractor shall make suitable provisions to prevent the scattering of broken brick, earth, stones or other material during blasting operations.

**107.10 Protection and Restoration of Property.** The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the Work resulting from any act, omission, neglect, or misconduct in his manner or method of executing the Work. Dust, mud, noise or other nuisance originating from any planned operations either inside or outside the right-of-way shall be controlled by the Contractor in accordance with local ordinances and regulations at the sole expense of the Contractor.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the Work, or in consequence of the nonexecution thereof by the Contractor, he shall restore, at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as directed by the Engineer, or he shall make good such damage or injury in an acceptable manner.

The Contractor shall cooperate with the Engineer and shall exercise special care to protect and preserve all survey monuments such as stones, concrete monuments, iron pipe monuments, lot corners and benchmarks. Whenever the nature of the work necessitates the removal of any type of survey monument, the Contractor shall notify the Engineer before disturbing said monument. In the event that the Contractor damages, destroys or removes any monuments, stone, lot corner, iron pipe or other survey point without permission of the Engineer, the Contractor shall engage a registered surveyor to replace all such survey points or markers at no cost to the City.

The Contractor's attention is directed to the fact that a large number of monuments have been installed within the corporate limits of the City of Akron for both horizontal and vertical control of precise surveying operations. Before beginning the Work, the Contractor shall contact the Akron Engineering Bureau and determine whether or not any such monuments are in the vicinity of his work. Any monuments destroyed or damaged by the Contractor's operations will be replaced by the City at the Contractor's expense.

The cost to the City for repair, redetermination of location and replacement of any cornerstone, monument or landmarker within the project, damaged, destroyed or made inaccessible during the progress of the Work by the Contractor or his employees will be deducted from monies due or to become due the Contractor.

## 107.11

**107.11 Responsibility for Damage Claims.** The Contractor and his Surety shall save harmless the City of Akron and all of its representatives from all suits, actions, or claims of any character brought on account of any injuries or damages sustained by any person or property in consequence of any neglect in safeguarding the Work or through the use of unacceptable materials in the construction of the improvement or because of any act or omission by the Contractor or his agents, and he shall pay any judgment obtained or growing out of any claims or suits.

**107.12 Contractor's Responsibility.** Until sub-final acceptance of the Work by the Engineer, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof by the action of the elements, from vandalism or from any other cause, whether arising from the execution or from the nonexecution of the Work. The Contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the Work occasioned by any of the above causes before sub-final acceptance and shall bear the expense thereof except damage to the Work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, of the public enemy or governmental authorities.

The Contractor shall not suspend the Work unless approved by the Engineer and in such case or under the provisions of 105.10, the Contractor shall be responsible for the project and shall take such precautions as may be necessary to prevent damage to the project, provide for adequate drainage and shall erect any necessary temporary signs, structures, or other facilities at his expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seedings and soddings furnished under this contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

**107.13 Contractor's Responsibility for Utility Property and Services.** At points where the Contractor's operations are adjacent to properties of railway, telegraph, telephone, and power companies, or are adjacent to other utilities or property, damage to which might result in considerable expense, loss, or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made. The Contractor shall, within forty-eight hours after execution of the contract, notify all owners of public utilities known to be in the area or which may be affected by the Work of the name and address of the Contractor.

The Contractor shall, at least two but not more than ten days prior to commencing construction operations, cause notice to be given to the owners of the underground utility facilities, their designated representatives, or notification centers subscribed to by the owners of the underground utilities, in writing, by telephone, or in person. Where notice is given in writing by certified mail, the signed return receipt shall be conclusive proof of notice.

The Contractor shall cooperate with the owners of any underground or overhead utility lines in their protection, and in removal and rearrangement operations, in order that these operations may progress in a reasonable manner, the duplication of rearrangement work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted.

The Contractor shall be responsible for the identification, location and protection of all underground utilities. Any damage to or interruption of service of any utilities due to the Contractor's operations shall be the sole responsibility of the Contractor and shall be remedied as directed by the Engineer at no cost to the City. In the event of interruption to water or utility services as a result of accidental breakage, or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate with the said authority in the restoration of service. If water, steam or sewer service is interrupted, repair work shall be continuous until the service is restored.

The Contractor's responsibilities under this section are to be part of the initial contract price, and the Contractor is not entitled to any increase in the contract price for any additional cost.

**107.14 Furnishing Right-of-Way.** The City will be responsible for the securing of all necessary rights-of-entry in advance of construction. Any exceptions will be indicated in the contract.

**107.15 Personal Liability of Public Officials.** In carrying out any of the provisions of these specifications, or in exercising any power or authority granted to them by or within the scope of the contract, there shall be no liability upon the Service Director or his authorized representatives, either personally or as officials of the City, it being understood that in all such matters they act solely as agents and representatives of the City.

**107.16 No Waiver of Legal Rights.** Neither the inspection by the Engineer, nor by any of his duly authorized representatives, nor any order, measurement, or certificate by the Service Director, or said representatives, nor any order by the Engineer for the payments of money, nor any payment for, nor acceptance of any work by the Engineer, nor any extension of time, nor any possession taken by the City or its duly authorized representatives, shall operate as a waiver of any provision of this contract, or any power herein reserved to the City, or any right to damages herein provided; nor shall any waiver of any breach of this contract be held to be a waiver of any other subsequent breach.

**107.17 Negligence of the City.** Nothing stated in Sections 107.01 through 107.16 shall be construed as making the Contractor responsible for the negligence of the City.

**107.18 Environmental Protection.** The Contractor shall comply with all Federal, State and local laws and regulations controlling pollution of the

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environment. Pollution of streams, lakes, ponds and reservoirs with fuels, oils, bitumens, chemicals or other harmful materials and pollution of the atmosphere from particulate and gaseous matter shall be avoided.

When work areas or pits are located in or adjacent to streams, such areas shall be separated from the main stream by a dike or barrier to keep sediment from entering the stream. Care shall be taken during the construction and removal of such barriers to minimize siltation of the stream.

Control of ground water and water in excavations shall be accomplished in a manner that will prevent the degradation of the water quality of any surface water. Wells and well points shall be installed with suitable screens and filters where necessary to prevent the continuous pumping of fines. The discharge of sediment-laden water from pumping shall be performed in a manner to prevent degradation of streams, lakes, ponds, or other areas of water impoundment. Such prevention may involve but is not limited to the use of ditch checks, sediment traps, sediment basins, sediment pits, or other control devices and methods necessary to prevent adverse effects to surface waters. The cost of constructing and maintaining these measures shall be included in the price bid for the contract items requiring de-watering.

Water from aggregate washing or other operations containing sediment shall be treated by filtration, settling basins, or other means sufficient to reduce the sediment concentration to not more than that of the stream or lake into which it is discharged.

**107.19 Civil Rights.** The Contractor shall comply with Federal, State, and local laws, rules and regulations which set forth unlawful employment practices including that of discrimination because of race, religion, color, sex or national origin and which define actions required for Affirmative Action and Minority or Disadvantaged Business programs.

## **108 PROSECUTION AND PROGRESS**

**108.01 Subletting of Contract.** The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the contract or contracts or any portion thereof, or of his right, title, or interest therein, without written consent of the Service Director. A copy of any such subcontracts must be furnished to the City. In case such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with his own organization, work amounting to not less than 50 percent of the total contract cost, except as set forth in paragraphs (3) and (4) hereof. The term "his own organization" shall be construed to include only workers employed and paid directly by the Contractor and equipment owned or rented by him with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime Contractor. An assignment of contract work is considered synonymous with a subcontract to perform work. To determine whether the Contractor is in compliance with the requirement that he

perform with his own organization contract work amounting to not less than 50 percent of the total contract price, the following criteria shall apply:

- (1) The contract amount upon which the 50 percent requirement is computed shall include the cost of materials and manufactured products which are to be purchased or procured under the contract provisions.
- (2) The percentage of subcontracted work, for purposes of this section, shall always be based on original contract prices rather than actual subcontract prices. Actual subcontract prices will be used for the purpose of calculating compliance with any Minority Business Enterprise (MBE) or Disadvantaged Business Enterprise (DBE) percentage subcontracting obligations. If only a part of a contract item is to be sublet, its proportional value shall be determined administratively on the same basis. This procedure should be followed even when the part not sublet consists only of procuring the materials. However, when a firm both sells materials to a Contractor and performs the work of incorporating the materials in the project, these two phases must be considered in combination and as constituting a single subcontract.
- (3) The cost of any specialty items performed by subcontract may be deducted from the total cost before computing the amount of work required to be performed by the Contractor with his own organization. However, in no event shall the Contractor perform less than 35 percent of the total contract cost. No subcontract, or transfer of contract, shall release the Contractor of his liability under the contract and bonds, unless release is granted by the Service Director.
- (4) When bidding on a particular project has been restricted to Disadvantaged Business Enterprises or Minority Business Enterprises, the Disadvantaged Business Enterprise or Minority Business Enterprise contractor shall perform with his/her own organization, work amounting to not less than 51 percent of the remainder obtained by subtracting from the total original contract amount the sum of any "specialty items."

Section 34.10 of the Codified Ordinance of the City of Akron, Ohio, 1985, requires that where a Contractor intends to subcontract 10 percent or more of the total value of the contract, 15 percent of the subcontracted demolition, construction, erection, alteration or repair of City buildings or other improvements and services shall be subcontracted to Minority Business Enterprises; 7 percent of the subcontracted equipment, supplies, materials and services other than professional services procurements shall be subcontracted to Minority Business Enterprises; and 5 percent of the subcontracted professional services shall be subcontracted to Minority Business Enterprises unless the Contractor obtains a waiver from the Contract Compliance Officer. The Contractor shall show to the satisfaction of the Contract Compliance Officer that these requirements will be met before any subcontracts which, when added to all previously approved and all other currently proposed subcontracts, exceed 10 percent of the value of the contract.

## 108.02

**108.02 Prosecution and Progress.** The Contractor shall meet with the Engineer for a pre-construction conference prior to commencing work. Prior to the conference or at a time agreed to by the Engineer, the Contractor shall submit a CPM progress schedule. The schedule shall show the Contractor's plan to carry out the work, the dates on which the Contractor and subcontractors will start the critical features of the work, including procurement of materials and equipment, ordering special manufactured articles, trees, shrubs, sod, working drawing submittals required under Subsection 105.02 for review and approval, and the planned completion dates of the critical features.

The Contractor shall furnish a list of the Contractor's proposed subcontractors and major material suppliers not included in the list submitted prior to the signing of the contract. If the Contractor fails to provide the required submissions, the Engineer may order the conference suspended until such time as they are furnished and work shall not begin until the conference has been reconvened and concluded or the Engineer has given specific written permission to proceed.

If the Contractor's operations are materially affected by changes in the plan or in the amount of the work or if he has failed to comply with the approved schedule, the Contractor shall submit a revised progress schedule, if requested by the Engineer, which schedule shall show how he proposes to prosecute the balance of the Work. The Contractor shall begin the Work on such date as the Engineer shall notify him to begin, provided the Contractor shall have at least five days notice. The Contractor shall use all practical means to make the progress of the Work conform to that shown on the progress schedule which is in effect. No payment will be made to the Contractor while he is delinquent in the submission of a progress schedule. Should the prosecution of the Work, for any reason, be discontinued, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations. All time limits stated in the Proposal are of the essence of the Contract.

**108.03 Suspension of Work or Termination of Contract.** The Engineer may instruct the Contractor to delay the start of his operation or suspend the Contractor's operations in whole or in part for the length of time the Engineer may deem necessary for the convenience of the City or due to inclement weather conditions. The Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional section if the opening of such section is deemed essential to public convenience.

In preparation for winter conditions, all concrete work shall stop on October 31 unless otherwise approved in writing by the Engineer. All other work shall stop when the Engineer so directs, but not later than November 15, and shall resume on April 15. The Engineer may allow or order work to continue beyond November 15, and to resume before April 15, if deemed necessary for public convenience and safety.

When ordered by the Engineer to suspend the work in whole or in part, or to delay starting his operation due to no fault of the Contractor, the Contractor shall be

compensated by granting an extension of the completion time by the number of days that the Engineer's order delays the completion of the work. No request for additional compensation, for added expense or loss of profit will be considered, except for idle machinery or equipment. Payment will be allowed only for machinery or equipment on the project site actually required for those phases of the construction work to which such order applies and such payment shall be made at the following rates: For idled machinery or equipment owned by the Contractor, 50 percent of the Rental Rate Blue Book (current edition) rental price; and for idled machinery or equipment rented by the Contractor, the actual rental invoice cost plus 15 percent thereof.

The Service Director may, at any time upon written notice to the Contractor, terminate the contract in whole or in part when it is determined to be in the best interest of the City.

Upon receipt of the notice of termination, the Contractor shall immediately proceed with the performance of the following:

- A. Stop work as specified in the notice;
- B. Place no further orders and enter into no further subcontracts for materials, labor, services, etc., except as necessary to complete work not affected by the notice of termination;
- C. Terminate all subcontracts and orders for materials or services to the extent they relate to the work terminated;
- D. Remove from site all equipment to the extent they relate to the performance of terminated work;
- E. Proceed to complete the portion of work not affected by the notice of termination;
- F. Take actions that may be necessary, or that the Engineer may direct, for the protection and preservation of the terminated work.

Upon such termination, the Contractor shall be compensated for the portions of work completed and accepted, at the contract unit prices, or as mutually agreed upon for items of work partially completed, and all other costs incurred by the Contractor attributable to the termination of contract. No claim for loss of anticipated profit will be considered.

Acceptable materials or equipment already procured by the Contractor for the work, that have been inspected, tested, and approved by the Engineer, and that are not incorporated in the work, may be purchased from the Contractor at actual cost, as evidenced by receipted bills and actual cost records, at such points of delivery as may be designated by the Engineer.

Within 90 calendar days from the effective date of termination notice, unless extended by the Service Director in writing, the Contractor shall submit a settlement proposal to the Engineer for review and approval. The settlement proposal shall include detailed cost breakdowns supported by cost data employed in submitting his

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bid, and actual costs incurred in performance of the contract from the date of award through the date of termination.

If the Contractor fails to submit the termination settlement proposal within the time allowed, the Service Director may determine, on the basis of information available, a fair and equitable amount due the Contractor because of the termination and shall pay the amount so determined.

In no event shall be Contractor's total compensation exceed the total contract amount.

Termination of a contract or a portion thereof, under the provisions of this clause, shall not relieve the Contractor of his responsibilities for the completed portion, nor shall it relieve his surety of its obligation for and concerning any just claims arising out of the work performed.

**108.04 Limitation of Operations.** The Contractor shall conduct the Work at all times in such a manner and in such sequence as will assure the least interference with traffic and other operations of the public. He shall have due regard to the location of detours and to the provisions for handling traffic. He shall not open up work to the prejudice or detriment of work already started. The Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional sections if the opening of such section is essential to public convenience.

The Contractor shall take all necessary precautions and actions to prevent pollution of streams, lakes and reservoirs and private water systems with fuels, oils, bitumens, calcium chloride or other harmful materials, and to prevent pollution of the atmosphere from particulate and gaseous matter. The Contractor, if requested by the Engineer, shall also, as an attachment to the progress schedule required by 108.02, submit: his schedules and methods for accomplishment of temporary and permanent erosion control work as are applicable for clearing and grubbing, grading operations, borrow pits and haul roads; his plan for disposal of waste materials; and a schedule of his operation at locations of high siltation potential in sufficient detail to clearly indicate how siltation of streams, lakes and reservoirs and the interruption of normal stream flows will be held to a practical and feasible minimum. Proposed erosion control items provided in the contract, exclusive of seeding, shall be constructed concurrently with or immediately following earthwork or structure work of which they are a part. Seeding, mulching and protecting of major exposed slopes shall not be delayed until such time as they can be performed on a project wide basis. This work shall be performed in stages and shall be accomplished as soon as finished grade for seeding can be established in any significant portion of the project. The Contractor shall finish and seed, consistent with the general requirements of the specifications, significant portions of the project where, as determined by the Engineer, the grading has reached a stage that finishing thereof is incidental. Temporary control of water pollution, soil erosion, siltation and additional

limitations of areas of erodible earth material exposed by clearing, grubbing and earthwork operations shall be in accordance with 207. The Contractor shall at all times conduct his operations in accordance with the approved schedule. Whenever any excavation, embankment or earth cofferdam work is to be performed in or immediately adjacent to a live stream, the Contractor shall submit details of such operations so that the Engineer may obtain any necessary approvals from the appropriate State or Federal agencies.

**108.05 Character of Workers, Methods and Equipment.** The Contractor shall at all times employ sufficient competent labor and equipment for prosecuting the several classes of work to full completion in the manner and time required by these specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform all work properly and satisfactorily. Any person employed by the Contractor or by any Subcontractor who, in the opinion of the Engineer, does not perform the work in a proper and skillful manner or is intemperate or disorderly, shall at the written request of the Engineer, be removed forthwith by the Contractor or Subcontractor employing such person, and shall not be employed again in any portion of the Work without the approval of the Engineer.

Should the Contractor fail to remove such person or persons as required above, or fail to furnish suitable and sufficient personnel for the proper prosecution of the Work, the Engineer will withhold all estimates, which are or may become due, or may suspend the Work by written notice at no cost to the City until the Contractor complies with such orders. No extension of the contract completion date will be considered for such a suspension of the Work.

All equipment which is proposed to be used on the Work shall be of sufficient size and in such mechanical condition as to meet requirements of the Work and produce a satisfactory quality of work. Equipment used on any portion of the project shall be such that no injury to the roadway, adjacent property, or other streets or highways will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the Work are not prescribed in the contract, the Contractor is free to use any methods or equipment that, demonstrated to the satisfaction of the Engineer, will accomplish the Work in conformity with the requirements of the contract.

When the contract specifies that the construction be performed by the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Engineer. If the Contractor desires to use a method or type of equipment other than those specified in the contract, he may request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed to be used and an explanation of

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the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing construction work in conformity with contract requirements. If, after trial use of the substituted methods of equipment, the Engineer determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute methods or equipment and shall complete the remaining construction with the specified methods and equipment. The Contractor shall remove the deficient work and replace it with work of specified quality, or take such other corrective action as directed. No change will be made in basis of payment for the construction items involved nor, in contract time as a result of authorizing a change in methods or equipment under these provisions.

**108.06 Time for Completion.** The Contractor shall have completed the Work on or before the time specified in the proposal, or on or before a later date determined as specified herein, otherwise the Service Director shall proceed as provided in 108.07 or 108.08. Time is of the essence of the Contract.

If the Contractor finds it impossible for reasons beyond his control to complete the Work by the date as specified, or as extended in accordance with the provisions of this subsection, he may, at any time prior to the expiration of the contract time as extended, make a written request to the Engineer for an extension of time setting forth therein the reasons which he believes will justify the granting of his request. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the Engineer finds that the Work was delayed because of conditions beyond the control and without the fault of the Contractor, he may extend the time for completion in such amount as the conditions justify. The extended time for completion shall then be in full force and effect the same as though it were the original time for completion.

Delays caused by weather or seasonal conditions should be anticipated and will be considered as the basis for an extension of time only when the actual workdays lost exceeds the number of work days lost each month due to inclement weather as determined by the following schedule:

<u>Month</u>	<u>Number of Work Days Lost Due to Weather</u>
May .....	5
June .....	5
July .....	4
August .....	4
September.....	5
October.....	6
November.....	6

The time between December 1 and April 30 is considered winter months and no extensions will be granted for this time. A workday will be counted as lost if the Contractor's efficiency is reduced more than 50 percent on the critical item under

construction at that time. Weekends and holidays will not be counted as lost workdays.

If the Contractor is delayed at any time in the progress of the Work by changes ordered in the Work by the Engineer, or for any reason deemed necessary by the City, then the time for completion shall be extended for such reasonable time as the Engineer may determine. The Contractor agrees to complete the Work within the Contract time as thus extended. Such delays or extensions shall not be grounds for claims by the Contractor for damages for additional cost, expenses, overhead or loss of profit, or any other compensation, except for idle machinery or equipment as provided under 108.03 herein.

**108.07 Failure to Complete on Time.** For each calendar day that any Work shall remain uncompleted after the contract completion date, the sum specified herein will be deducted from any money due the Contractor, not as a penalty but as liquidated damages provided, however, that due account shall be taken of any adjustment of the completion date granted under the provisions of 108.03 and 108.06. The liquidated damages shall cease when the project is substantially completed as determined by the Engineer.

Permitting the Contractor to continue and finish the Work or any part of it after the date fixed for its completion, or after the date to which completion may have been extended, will in no way operate as a waiver on the part of the City of any of its rights under the contract.

The project shall be considered substantially complete when all work required by the contract documents has been satisfactorily completed except those items that are seasonally restricted, such as tree planting or sodding, and minor punch list items not affecting operational integrity and functional use of the project as determined by the Engineer.

#### SCHEDULE OF LIQUIDATED DAMAGES

Original Contract Amount (Total Amount of the Bid)		Amount of Liquidated Damages to be Deducted for Each Calendar Day of Overrun in Time
From More Than	To and Including	
\$0	\$50,000	\$200.00
\$50,000	\$100,000	\$400.00
\$100,000	\$500,000	\$600.00
\$500,000	\$1,000,000	\$800.00
\$1,000,000	\$2,000,000	\$1,000.00
\$2,000,000	\$5,000,000	\$1,200.00
\$5,000,000	\$10,000,000	\$1,600.00
Over	\$10,000,000	\$2,000.00

**108.08 Cancellation of Contract.** If the Work to be done under contract shall be abandoned by the Contractor, or if the contract shall be assigned or the Work under contract sublet by the Contractor, otherwise than herein specified, or if before the completion of the work under this contract, the Contractor shall become financially unable to meet his current obligations or shall become bankrupt or shall make a general assignment for the benefit of the creditors or shall have a receiver appointed to take charge of his affairs or shall have his property levied upon or taken in execution or under attachment, or if at any time the Service Director shall be of the opinion that the performance of the contract is unnecessarily or unreasonably delayed, or that the Contractor is violating any of the conditions or agreements of the contract, or is executing the same in bad faith or is not fulfilling the terms thereof, or is not making such progress in the execution of the Work as to indicate its completion within the time specified in the contract, or within the time to which the completion of the contract may have been extended by the Engineer, then the Service Director, at his discretion, acting for the City, may at any time declare the contract or any portion thereof terminated, by a written notice served upon the Contractor, a copy of which shall be given to the Surety or the authorized agent of the Surety.

Upon the service of such notice, the Contractor shall discontinue the Work or such part thereof as the Service Director shall designate, whereupon the Surety may, with the written permission of the Service Director and at its option, assume the contract or that portion thereof on which the Service Director has ordered the Contractor to discontinue work and to proceed to perform the same and may, with the written consent of the Service Director, sublet the Work, or portion of same taken over, provided, however, that the Surety shall exercise its option, if at all, within two weeks after written notice to discontinue work has been served upon the Contractor and upon the Surety or its authorized agent.

The Surety, in such event, shall take the Contractor's place in all respects and shall be paid by the City for all work performed by it in accordance with the terms of the contract and if the Surety, under the provisions hereof, shall assume said entire contract, all monies remaining due the Contractor at the time of his default, shall thereupon become due and payable to the Surety as the work progresses, subject to all of the terms of the contract.

In the event the Service Director has ordered the Contractor to discontinue work on the project, the City shall have the absolute right, without liability on the part of the City to the Contractor or his Surety, to continue and complete the project. The Surety and the Contractor shall then be jointly and severally liable for all expenditures made by the City to complete the said project excepting and providing that the Surety shall not be liable for any amount over the obligation of its bond.

Any and all balances of payments due the Contractor by the City shall be forfeited to the City and the Contractor agrees that he shall lose all right, title and interest to said balances, excepting and providing that said balances shall be used,

after forfeiture, for a set-off to the benefit of the Contractor and his Surety on the expenditures of the City to complete the project.

**108.09 Payroll Records.** Payroll records shall be open to inspection of authorized representatives of the Service Director. Upon completion of the Work and prior to the payment of the sub-final estimate, the Contractor and all subcontractors shall submit an affidavit stating that wages have been paid in conformance with the minimum rates set forth in the contract for construction of the project.

A certified copy of the Contractor's and Subcontractor's payrolls including wages, Employee's name, current address, social security number, number of hours worked each day during the pay period and the total for each week, his hourly rate of pay, his job classification, fringe payments, and deductions from his wages shall be submitted monthly during the period in which construction is performed to the Akron Engineering Bureau, Administrative Services Division - Attention: Wage Rate Coordinator. No monthly payments will be processed until payrolls have been received.

When Subcontractors have not worked on the project, the Contractor shall submit a certified statement along with his payroll stating no Subcontractors worked during the previous pay period.

## **109 ACCEPTANCE, MEASUREMENT AND PAYMENT**

**109.01 Measurement of Quantities.** For all contracts, except lump sum contracts, after an item of the work is completed and before final payment is made therefor, the Engineer will determine the quantities of various items of work performed as the basis for final settlement. The Contractor, in case of unit price items, will be paid for the actual amount of work performed in accordance with these specifications as provided under the various items. The Engineer's measurements and determination of quantities shall be final.

The term "gage" when used in connection with the measurement of plates, will mean the U.S. Standard Gage (ounces per square foot), except that when the reference is made to the measurement of galvanized sheets used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing, then the term "gage" will mean that specified in AASHTO M 36, M 167 or M 197. When the term "gage" refers to the measurement of wire, it will mean the wire gage specified in AASHTO M 32.

The term "ton" will mean the short ton consisting of 2,000 pounds avoirdupois. All materials which are measured or proportioned by weight shall be weighed on accurate, approved scales by competent, qualified personnel at locations approved by the Engineer. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material be paid for. However, car weights will not be

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acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty at least once daily, at such time as the Engineer directs, and each truck shall bear a plainly legible identification mark.

All materials which are specified for measurement by the cubic yard "loose measurement" or "measured in the vehicle" shall be hauled in approved vehicles and measured therein at the point of delivery on the project. Approved vehicles for this purpose may be of any type or size satisfactory to the Engineer, provided that the body is of such type that the actual contents may be readily and accurately determined. Unless all approved vehicles on a job are of uniform capacity, each approved vehicle must bear a plainly legible identification mark indicating the specific approved capacity. The Inspector may reject all loads not hauled in such approved vehicles.

For work on a tonnage basis, the Contractor shall file with the Engineer receipted freight bills where railroad shipments are made, and certified weight-bills when materials are received by any other method, showing the actual tonnage used. For work on a yardage basis, the Contractor shall furnish itemized evidence of the yardage used. Freight bills, weigh-bills, and yardage certificates shall be furnished as requested.

The following materials will be paid for by the gallon at the following temperatures:

At 60°F; Creosote for Priming Coat, Creosote Oil and Creosote Solutions for Timber Preservatives, Asphalt Primer for Waterproofing, and Liquifier.

At 100°F; RC, MC, Asphalt Emulsions, RT-1, 2, 3, 4, 5, 6 and CBAE, Primer 20 and 100.

Tank car outage of bituminous material shall be measured at destination before any material has been removed from the tank car.

For shipments for bituminous materials the net weight shall be converted to gallons at the specified pay temperature.

Companies or Contractors furnishing bituminous material in calibrated distributors or tank trucks shall provide the Engineer a certified list of the capacities of this equipment.

Timber will be measured according to 504.04 actually incorporated in the structure.

The term "lump sum" when used as an item of payment will mean complete payment for the work described in the item. When a complete structure or structural

unit is specified as a unit of measurement, the unit will be construed to include all necessary fittings and accessories.

When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gage, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions.

**109.02 Scope of Payment.** The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all labor, materials and equipment for performing all work under the contract in a complete and acceptable manner, and for all risks, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof, except as otherwise provided in 104.02, 105.18, and 107.12.

If the specifications relating to any unit price in the bid schedule requires that the said unit price cover and be considered compensation for certain work or material essential to the item, this same work or material will not also be measured or paid for under any other pay item which may appear elsewhere in the specifications.

**109.03 Compensation for Altered Quantities.** When the accepted quantities of work vary from the quantities in the bid schedule, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract unit prices for the accepted quantities of work done. No allowance except as provided in 104.02 will be made for any increased expense, loss of the expected reimbursement, or loss of anticipated profit suffered or claimed by the Contractor, resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense on the part of the bidder and subsequent loss of expected reimbursements therefor or from any other cause.

Work involving supplemental agreements shall be paid for as stipulated in such agreements. The Contractor shall furnish substantiating data required in the preparation of these agreements.

**109.04 Extra and Force Account Work.** Extra Work performed in accordance with the requirements and provisions of 104.03 and 105.12 will be paid for at the unit prices or lump sum stipulated in the order authorizing the work or the City may require the Contractor to do such work on a force account basis to be compensated in the following manner:

- (a) Labor - for all labor and foremen in direct charge of the specific operations, the Contractor shall receive the rate of wage and fringe benefits currently in effect at the time the work is performed for each and every hour that said labor and foreman are actually engaged in such work, to which may be added an amount equal to 38 percent of the sum thereof. The term fringe benefits shall be defined

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as the actual cost paid to or in behalf of workmen by reason of health and welfare benefits, pension fund benefits or other benefits, when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the class of labor employed on the Work. In addition to the above, the Contractor shall receive the actual cost of Social Security Tax, Worker's Compensation and State and Federal Unemployment Insurance. In lieu of itemizing these four items, 21 percent of the base wages may be added.

The wages of any foreman who is employed partly on force account work and partly in other work, shall be prorated between two classes of work according to the number of men employed on each class of work as shown by the payrolls.

The estimated rate of wage and labor cost is to be agreed upon in writing before beginning work.

The Contractor shall receive the actual cost paid for subsistence and travel allowance when such payments are required by collective bargaining agreements or other employment contract generally applicable to the classes of labor employed on the Work. No percentage may be added to these costs.

- (b) Materials - For materials provided by the Contractor for the extra work, accepted by the Engineer and used, the Contractor shall receive the actual cost of such materials delivered on the Work, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth), to which cost 15 percent may be added.
- (c) Equipment - For any machinery or special equipment other than small tools, which the Engineer considers necessary for the performance of the work, the Contractor shall be allowed a reasonable rental price to be agreed upon in writing before such work is begun, for the time that such equipment is in use on the Work. No profit or overhead shall be added to any charges in connection with the use of owned equipment, however, 15 percent of the base amount payable for rented equipment may be added for overhead and profit. Proper invoices will be required for rental equipment.

Equipment that is in operational condition and is standing by with the Engineer's approval for participation in force account work will be paid for at 50 percent of the appropriate hourly rate. Payment for such "stand-by" will be limited to not more than eight hours in a 24 hour day or 40 hours in a normal work week.

No compensation will be allowed for equipment that is inoperable due to breakdown.

No payment will be allowed for equipment that is not operating because the work has been suspended in accordance with the specifications unless the suspension is for the convenience of the City. No payment will be allowed for

equipment that is not operating because the work has been suspended by the Contractor for the Contractor's own reasons.

The time for which such compensation will be paid will be the actual normal working time during which such delay condition exists, but will in no case exceed eight hours in any one day.

The days for which compensation will be paid will be the number of working days charged during the existence of such delay. No compensation will be made for days that are considered lost due to weather as determined by the Engineer.

Compensation will only be made for equipment physically located at the work site that would be used to prosecute the delayed work during the existence of such delay.

- (d) Operating Costs - For all equipment, the Contractor shall be allowed a reasonable operating rate to be agreed upon in writing before such work is begun, for the time that such equipment is in use on the Work.
- (e) Subcontract Work - For work performed by an approved Subcontractor the prime Contractor will be allowed to cover administrative cost equal to 5 percent of the compensation provided in (a), (b), (c) and (d) but not exceeding \$5,000. No additional markup is allowed for work performed by a subcontractor.
- (f) Compensation - The compensation to the Contractor as above provided in (a), (b), (c), (d) and (e) shall constitute payment in full for extra work done on a force account basis including administration, superintendence, overhead, use of hand tools and equipment for which no rental is allowed, profit, taxes other than sales tax, premium on insurance, demurrage charges and/or any other expense incidental to performing the force account work. Sales tax will not be allowed on any item for which tax exemption may be obtained.
- (g) Statements - No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with itemized statements and/or invoices of the cost of such force account work detailed as follows:
  - (1) Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman.
  - (2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment, except for hand tools and equipment for which no compensation is allowed.
  - (3) Quantities of materials, prices and extensions.

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- (4) Transportation of materials, excepting demurrage charge for which no compensation will be allowed.

The Contractor's representative and the Engineer shall compare records daily of the extra work done as ordered on a force account basis, and they shall certify that these records are correct, and no subsequent additions, deletions or alterations of these records shall be permitted.

Statements shall be accompanied and supported by receipted invoices for all materials used and transportation charges, and rented equipment performing work on force account operations. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then, in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor. Statements shall be filed not later than the 20th day of the month following that in which the work was actually performed.

The above-described force account provisions will also apply to work performed at agreed unit prices and agreed lump sum when the agreed prices are based on analysis of cost of labor, material and equipment.

**109.05 Eliminated Items.** Should any items contained in the proposal be found unnecessary for the proper completion of the Work, the Engineer may, upon written order to the Contractor, eliminate such items from the contract, and such action shall in no way invalidate the contract. When a Contractor is notified of the elimination of items, he will be reimbursed for actual work done and all costs incurred in connection with such items including mobilization of materials prior to said notification. Any claim for loss of profit shall not be considered.

**109.06 Partial Payments.** If satisfactory progress is being made, the Contractor will receive monthly payments amounting to ninety percent of the value of work and materials in place, less any previous payments made. The monthly payment is approximate only, and all partial estimates and payments shall be subject to correction in the sub-final estimate and payment.

Should any defective work or material or acceptable work that has been damaged by the Contractor's operations be discovered previous to sub-final estimate, or should a reasonable doubt arise previous to the sub-final estimate as to the integrity of any part of the completed Work, the estimate and payment for such defective or questioned work shall not be allowed until the defect has been remedied and cause for doubt removed.

**109.07 Payment for Material on Hand.** Partial payments may be made to the extent of the delivered cost of approved materials to be incorporated in the Work, when delivered to the project or stored in acceptable storage places in the vicinity of the project.

Partial payments may be made to the extent of the cost of approved materials to be incorporated in the Work when assigned to the Contractor, if the Engineer determines that it is not practical to deliver the material to the project site. This provision shall be applicable only to bulky materials that are durable in nature and represent a significant portion of the project cost, such as steel and pre-cast concrete. Small warehouse items shall not be included.

No partial payment will be made on living or perishable plant material until planted.

**109.08 Sub-Final Estimate.** As soon as practicable after the Contractor completes all Work and is found to be acceptable to the Engineer, there shall be issued a letter of sub-final acceptance and the sub-final estimate for payment based on the actual quantities of completed and accepted work performed under this contract. Such sub-final estimate shall be approved by the Engineer, after which the City shall pay the entire sum found to be due, after deducting all previous payments made under 109.06, and 109.07, and deducting the retainer as provided for in 109.09. All prior estimates are subject to correction in the sub-final estimate payment.

Before payment of the sub-final estimate, sworn affidavits attesting that all work has been completed and that all labor, materials, services and equipment have been paid for and that all subcontractors, suppliers, etc. have been paid in full, will be required from the Contractor and all subcontractors.

**109.09 Retainer.** The City will retain three percent of the entire cost of the work done by the Contractor under this contract for the specified guarantee period of one year from the date of the sub-final acceptance of the project by the Engineer. At the end of the specified guarantee period the Contractor shall fill all joints in rigid pavement and seal all cracks in flexible pavement with approved materials as directed by the Engineer, and repair all other defects as determined by the Engineer to the Engineer's satisfaction.

If the Contractor shall have complied with all the requirements of his contract in keeping said Work in good and proper repair, then at the end of his guarantee period, upon order of the Director of Public Service, the Contractor shall receive his retainer; but if the Contractor shall fail to make all necessary repairs, as indicated by the Engineer, at any time during the above period, then the Director of Public Service shall have power to expend all or such part of the amount so retained as the said Director of Public Service may see fit, and apply the same to making the necessary repairs. Should the amount retained not be sufficient to make the required repairs, the Contractor shall at once make good the deficiency. At the expiration of the guarantee period, whatever remains to the credit of the Contractor, provided all repairs shall have been made satisfactory to the Engineer, shall be paid to the Contractor as final estimate and full settlement of any balance due on said contract,

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as herein provided, whereupon and not until then, shall the Contractor be released from the obligation assumed in this contract and his Surety discharged.

**109.10 Guarantee.** The Contractor hereby agrees that all defects in the work done under this contract arising, in the opinion of the Engineer, out of the use of defective material, settlement of foundation, or improper workmanship in the construction thereof, and from which said causes may be in need of repair during the period of one year from the date of the sub-final acceptance of the project shall be repaired by the Contractor without expense to the City, and the Contractor agrees to make such repairs when and as directed by the Engineer, by a written notice, and if after having received such notice, the Contractor fails to make such repairs within the specified time from the receipt of such written notice, the City may thereupon cause said repairs to be made and charge the expense thereof to the Contractor or his Surety.