

## 100 GENERAL PROVISIONS

### 101 DEFINITIONS AND TERMS

**101.01 General.** This Project shall use a Two-Step Lowest Price & Technically Acceptable Design-Build process to procure, award, and complete the Work. This Project shall use the Alternative Technical Concept process during Bidding.

This Proposal Note replaces, in whole, all sections of the 2019 Construction and Material Specifications 100 GENERAL PROVISIONS sections (C&MS 100 Series Specifications). The applicable SS-800 revisions applying to the C&MS 100 Series Specifications are incorporated in this document. The same order of priority pursuant to 105.04 applies for all other series of specifications addressed in SS-800 and shall be deemed incorporated into the Contract Documents having the same order of priority as the Supplemental Specifications pursuant to 105.04.

The fact that the bid items for this Design-Build project are general rather than specific shall not relieve the DBT of the requirement that all Work performed and all materials furnished shall be in reasonable conformity with the Contract Documents. The Lead Designer shall reference in the plans the appropriate Construction and Materials Specifications for all work to be performed and all materials to be furnished.

These Construction and Material Specifications are written to the Bidder before award of the Contract and to the Contractor after award of the Contract. The sentences that direct the Contractor to perform Work are written as commands. For example, a requirement to provide cold-weather protection would be expressed as, "Provide cold-weather protection for concrete," rather than "The Contractor shall provide cold-weather protection for concrete." In the imperative mood, the subject "the Bidder" or "the Contractor" is understood.

All requirements to be performed by others have been written in the active voice. Sentences written in the active voice identify the party responsible for performing the action. For example, "The Engineer will determine the density of the compacted material." Certain requirements of the Contractor may also be written in the active voice, rather than the active voice and imperative mood, if the sentence includes requirements for others in addition to the Contractor. For example, "After the Contractor provides initial written notice, the Engineer will revise the Contract as specified in 104.02."

Sentences that define terms, describe a product or desired result, or describe a condition that may exist are written in indicative mood. These types of sentences use verbs requiring no action. For example, "The characteristics of the soils actually encountered in the subgrade may affect the quality of the cement and depth of treatment necessary."

**101.02 Abbreviations.** The following abbreviations, when used in the Contract Documents, represent the full text shown.

AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
AC	Asphalt Cement (pavement), Alternating Current (traffic)
ACBFS	Air Cooled Blast Furnace Slag (aggregate)
ACI	American Concrete Institute
ACIA	Asynchronous Communications Interface Adapter (traffic controller)
ADT	Average Daily Traffic
ADTT	Average Daily Truck Traffic
AIC	Amps Interrupting Capacity
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANFO	Ammonium Nitrate and Fuel Oil
ANSI	American National Standards Institute
AOS	Apparent Opening Size (fabric)
AREA	American Railway Engineering Association
AMRL	AASHTO Material Reference Library
ASCE	American Society of Civil Engineers
ASLA	American Society of Landscape Architects
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATC	Alternative Technical Concept
AWG	American Wire Gauge

AWPA	American Wood Preservers' Association
AWS	American Welding Society
AWWA	American Water Works Association
BBR	Bending Beam Rheometer (asphalt binder test)
BMP	Best Management Practice (erosion)
BOF	Basic Oxygen Furnace (aggregate)
BSG	Bulk Specific Gravity
BTEX	Benzene, toluene, ethyl benzene, and xylene (a soil test)
BUSTR	Bureau of Underground Storage Tank Regulations (Division of Fire Marshal)
C&MS	Construction and Material Specifications
CAPWAP	Case Pile Wave Analysis Program
CBAE	Cut Back Asphalt Emulsion
CCRL	Cement and Concrete Reference Laboratory
CCS	Crushed Carbonate Stone
CECI	Contactors Erosion Control Inspector
CFR	Code of Federal Regulations
CIE	Commission Internationale d'Eclairage (illumination)
CPESC	Certified Professional in Erosion and Sediment Control
CRS	Cationic Rapid Set (asphalt emulsion)
CRSI	Concrete Reinforcing Steel Institute
CSS	Cationic Slow Set (asphalt emulsion)
CVN	Charpy V-notch (steel test)
CWT	Hundred Weight (100 lbs)
DB	Design-Build
DBT	Design-Build Team
DC	Direct Current
DCE	District Construction Engineer
DDD	District Deputy Director
DET	District Engineer of Tests
DGE	District Geotechnical Engineer
DLS	Data Logging System (traffic markings)
DNR	Department of Natural Resources
DRC	Dry Rodded Condition (asphalt aggregate test)
DSR	Dynamic Shear Rheometer (asphalt binder test)
DZA	Deficient Zone Average (concrete test)
EAF	Electric Arc Furnace
EDA	Earth Disturbing Activity
EI	Edison Electric Institute
EIA	Electronic Industries Alliance
EPA	Environmental Protection Agency
EQS	Exceptional Quality Solids (compost)
FAA	Fine Aggregate Angularity (asphalt aggregate)
FCM	Fracture Critical Member (steel test)
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration, Department of Transportation
FRP	Fiber Reinforced Polymer
FSS	Federal Specifications and Standards, General Services Administration
GGBFS	Ground Granulated Blast Furnace Slag
GS	Granulated Slag
HDPE	High Density Polyethylene
HMWM	High Molecular Weight Methacrylate
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IMSA	International Municipal Signal Association
IPCEA	Insulated Power Cable Engineers Association
IPS	International Pipe Standard
ISSA	International Slurry Seal Association
ITE	Institute of Transportation Engineers

ITS	Intelligent Transportation System
ITO	Instructions to Offerors
IZEU	Inorganic Zinc Epoxy Urethane
JMF	Job Mix Formula
LED	Light Emitting Diode
LWT	Loaded Wheel Test (asphalt test)
MBF	Thousand Board Feet (wood)
MC	Medium Cure (asphalt emulsion)
MCB	Microchannel Bus (traffic controller)
MOV	Metal Oxide Varistor (traffic controller)
MPI	Magnetic Particle Inspection (steel test)
MSG	Maximum Specific Gravity (asphalt)
MTD	Maximum Theoretical Density (asphalt)
NACE	National Association of Corrosion Engineers
NCHRP	National Cooperative Highway Research Program
NEMA	National Electrical Manufacturers Association
NHI	National Highway Institute
NIST	National Institute of Standards and Technology
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OAC	Ohio Administrative Code
ODOT	Ohio Department of Transportation
OEPA	Ohio Environmental Protection Agency
OH	Open Hearth (aggregate)
OHWM	Ordinary High Water Mark
OJT	On the Job Training
OMM	Office of Materials Management (the Central Office Laboratory)
OMUTCD	Ohio Manual of Uniform Traffic Control Devices
ORC	Ohio Revised Code
ORDC	Ohio Rail Development Commission
OSHA	Occupational Safety and Health Administration
OTE	Office of Traffic Engineering
OWPCA	Ohio Water Pollution Control Act
OZEU	Organic Zinc Epoxy Urethane
PAT	Project Average Thickness (concrete test)
PAV	Pressure Aging Vessel (asphalt binder test)
PB	Polybutylene (conduit)
PCC	Portland Cement Concrete
PCS	Petroleum Contaminated Soil
PDA	Pile Dynamic Analysis (steel piling)
PE	Polyethylene (conduit)
PG	Performance Grade (asphalt binder grading system)
pH	Potential of Hydrogen
PLS	Pure Live Seed
PVC	Polyvinyl chloride
QA	Quality Assurance
QC	Quality Control
QCFS	Quality Control Fabricator Specialist (structures)
QCP	Quality Control Program, or Plan, or Points (steel test)
QPL	Qualified Products List
RAP	Reclaimed Asphalt Pavement
RAS	Reclaimed Asphalt Shingles
RC	Rapid Cure (asphalt emulsion)
REA	Rural Electrification Act
RFC	Released for Construction
RFI	Radio Frequency Interference (traffic controller)
RFP	Request for Proposal
RFQ	Request for Qualifications
RH	Relative Humidity

RMS	Root Mean Square (traffic controller)
RPCC	Recycled Portland Cement Concrete
RPM	Raised Pavement Marker (traffic)
RS	Rapid Set (asphalt emulsion)
RTFO	Rolling Thin-Film Oven (asphalt binder test)
RUS	Rural Utilities Service
SAE	Society of Automotive Engineers
SBA	Styrene Butadiene Amine
SBR	Styrene Butadiene Rubber
SBS	Styrene Butadiene Styrene
SCD	Standard Construction Drawing
SDS	Safety Data Sheets
SF	Standard Fabricated members (structures)
SI	International System of Units (Metric)
SM	AASHTOWare Project Sitemanager™
SMA	Stone Matrix Asphalt
SOQ	Statement of Qualifications
SPD	Surge Protection Device (traffic controller)
SPST	Single Pole / Single Throw (traffic controller)
SS	Slow Set (asphalt emulsion)
SSD	Saturated Surface Dry (aggregate)
SSPC	Society for Protective Coatings
SWPPP	Storm Water Pollution Prevention Plan
TAP	Traffic Authorized Product
TCE	Trichloroethylene
TMPTA	Tri-methylpropane Tri-acrylate (paint)
TNP	Total Neutralizing Power
TODS	Tourist-Oriented Directional Signs
TSEC	Temporary Sediment and Erosion Control
TSR	Tensile Strength Ratio (asphalt mix test)
UF	Unique Fabricated members (structures)
UL	Underwriters' Laboratories, Inc.
USACE	United States Army Corps of Engineers
USC	United States Code
VA	Verification Acceptance
VAC	Volts Alternating Current
VCA	Volume of Coarse Aggregate (asphalt mix test)
VECP	Value Engineering Change Proposal
VMA	Voids in the Mineral Aggregate
VME	VersaModule Eurocard (traffic controller)
WDT	Watchdog Timer
WEAP	Wave Equation Analysis (steel piling)
WPS	Welding Procedure Specification (steel test)
WZRPM	Work Zone Raised Pavement Marker (traffic)
XCU	Explosion, Collapse and Underground

**101.03 Definitions.** The following terms or pronouns, when used in the Contract Documents, are defined as follows:

**Addenda or Addendum.** Any document issued by the Department in connection with this RFP, after the date of the issuance of the initial version of this RFP, reflecting any modification, supplement, amendment or other revision to this RFP and/or the RFP Process.

**Advertisement.** The public announcement, as required by law, inviting Bids for Work to be performed or materials to be furnished.

**Alternative Technical Concept.** An Alternative Technical Concept (ATC) is a Department approved change (as allowed by the Proposal) to the Scope of Services which provides a solution that is equal to or better than what is required by the Scope of Services as determined by the Department in its sole discretion.

**Award.** The written acceptance by the Director of a Bid.

**Basic Configuration.** The Scope of Services in its entirety. The Bid and Technical Proposal must be consistent with the Basic Configuration subject only to such changes approved by the Department in accordance with Alternative Technical Concept procedures and in the Bid Documents.

**Bid.** The offer of a Bidder, on the prescribed form properly signed and guaranteed, to perform the Work and to furnish the labor and materials at the prices quoted.

**Bid Documents.** The Bid Documents include the Instructions to Offerors, Request for Proposals, Project Proposal, Addenda, Scope of Services, approved ATCs included within the Offeror's Technical Proposal, Expedite file, contract form and required bonds, Specifications, Supplemental Specifications, Special Provisions, Plan notes, applicable standard construction drawings, design standards identified in the Scope of Services (including all standards referenced), notices to DBT, notices to contractor, and any other document designated by the Department as a Bid Document, all of which constitute one instrument.

**Bidder.** An individual, firm, or corporation who has been selected as a Short-Listed Design-Build Team (also known as a Shortlisted Offeror) as identified in the Project specific Instructions to Offerors for Request for Proposals (RFP) and Selection Criteria submitting a Bid and Technical Proposal for the advertised Work, acting directly or through the duly authorized representative, and qualified as provided in ORC 5525.02 to 5525.09. Also referred to as Short-listed Offeror.

**Bridge.** A structure, including supports, erected over a depression or an obstruction, such as water, a highway, or a railway, and having a track or passageway for carrying traffic or other moving loads and having a length measured along the center of roadway of 10 feet (3.048 m) or more between undercopings of abutments or extreme limits of openings for multiple boxes.

**A. Length.** The length of a bridge structure is the over-all length measured along the centerline of the roadway surface.

**B. Roadway Width.** The clear width measured at right angles to the longitudinal centerline of the bridge between the bottom of curbs or guard timbers or, in the case of multiple heights of curbs, between the bottoms of the lower risers. For curb widths of 1 foot (0.3 m) or less, the roadway width is measured between parapets or railings.

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

**Certified Test Data.** A test report from a manufacturer's or an independent laboratory approved by the Director listing actual test results of samples tested for compliance with specified Department requirements. The Department will accept certified test data from manufacturers' laboratories if their products have been used satisfactorily on prior Department contracts and their test data has been confirmed. Include a statement that the test data furnished is representative of the material furnished to a Department project or to a supplier. The report is identified by number or date and identifies the Department project or supplier to which the material is shipped. Submit reports signed by a person having legal authority to act for the manufacturer or independent laboratory.

**Change Order.** A written order issued by the Director to the Contractor, covering changes to the terms and conditions, Basic Configuration and/or contract quantities, within or beyond the scope of the Contract and establishing the basis of payment and time adjustments for the work affected by the changes.

**Claims.** Disputes that are not settled through Steps 1 and 2 of the Dispute Resolution and Administrative Claim Process. The Dispute becomes a Claim when the Contractor submits a Notice of Intent to File a Claim.

**Completion Date.** The date, as shown in the Contract Documents, on which the Work contemplated shall be completed.

**Conceptual Plans.** Drawings provided by the Department; portions of which provide Basic Configuration and other information for various aspects of the project.

**Construction Limits.** These limits must encompass all Work. This includes removals, room for construction equipment to complete work, site access, etc.

**Contract.** The written agreement between the Department and the Contractor setting forth the obligations of the parties, including, but not limited to, the performance of the Work and the basis of payment.

**Contract Bond.** The approved forms of security, executed by the Contractor and its Sureties, guaranteeing complete execution of the Work as required by the Contract Documents and the payment of all legal debts pertaining to the construction of the Project which security shall comply with and be subject to ORC 5525.16 and 5525.13, and related provisions.

**Contract Documents.** The Contract Documents include the Bid Documents (excluding approved ATCs which were included within the Offeror's Technical Proposal), portions of the Statement of Qualifications and Technical Proposal that exceed the requirements of other Contract Documents, required bonds, Specifications, Supplemental Specifications, Special Provisions, general and detailed plans, Plan notes, standard construction drawings identified in the Plans, Change Orders, Supplemental Agreements, Extra Work Contracts, "Accepted" and "Accepted as Noted" Working Drawings, and any other document designated by the Department as a Contract Document, all of which constitute one instrument. For avoidance of doubt, this includes all documents listed as contractual in the Scope of Services' Document Inventory as being part of the Contract Documents (including those depicting the Basic Configuration). All documents listed in the Document Inventory shall be considered Contract Documents unless specifically noted as Reference Documents.

**Contract Item (Pay Item).** A specifically described unit of Work for which a price is provided in the Contract.

**Contract Price.** The amount of compensation bid by the Contractor for a Contract Item in the Proposal or the amount of compensation established for a Contract Item added or modified pursuant to the Contract Documents.

**Contract Time.** The number of workdays or calendar days, including authorized adjustments, allowed for completion of the Project. When a specified Completion Date is shown in the Contract Documents instead of the number of workdays or calendar days, completion of the Project shall occur on or before that date. Specified Completion Date and Calendar Day Contracts shall be completed on or before the day indicated even when that date is a Saturday, Sunday, or holiday.

**Contractor.** The individual, firm, or corporation contracting with the Department for performance of prescribed Work, acting directly or through a duly authorized representative and qualified under the provisions of ORC 5525.02 to 5525.09 inclusive, and any amendments thereto. The firm in charge of the physical construction portion of the Work. May be the same entity as the Design-Build Team. May be the same entity as the Designer if qualified under the provisions of ORC 5526.04, and any amendments thereto.

**County.** The designated county in which the Work specified is to be done.

**Culvert.** Any structure not classified as a Bridge that provides an opening under the roadway.

**Department.** The Department of Transportation, State of Ohio.

**Design-Build Contract.** Contract which combines the design and construction phases of project delivery. This term can also encompass contracts involving design, right of way acquisition and construction (i.e., Design Acquire Build).

**Design-Build Team (DBT).** An entity who performs the Work (i.e., design, acquisition, construction, etc.) included in a Design-Build contract. Must be composed of the prequalified Contractor and the prequalified Designer. May be the same entity as the Contractor or the Designer.

**Design Documents.** All drawings (plans), specifications, calculations, records, reports or other documents, including shop drawings and working drawings, prepared by the DBT, which may be used for design, manufacture, fabrication, installation, testing, examination and certification of items and which give a detailed and precise representation of the configurations and arrangements of the materials and items being constructed in connection with the Project based on Contract Documents.

**Design Project Manager.** The Designer's representative to the Project. The Design Project Manager shall be responsible for actively managing the overall design of the Project and is in responsible charge of the design portion of the Work.

**Designer.** The individual, firm, or corporation to whom the Contractor sublets the Design Document(s) portions of the Contract and is in charge of the Design Document(s) portions of the Contract (not necessarily including Work incorporated in the preparation of Working Drawings) who prior to such undertaking receives the written consent of the Director. Must hold a Certificate of Authorization from the Ohio State Board of Registration for Professional Engineers and Surveyors and has fulfilled the Prequalification requirements under ORC 5526.04. May be the same entity as the Contractor if qualified under the provisions of ORC 5525.02 to 5525.09 inclusive, and any amendments thereto. May be the same entity as the Design-Build Team. May also be referred as the Consultant.

**Director.** Administrative head of the Department appointed by the Governor.

**Disputes.** Disagreements, matters in question and differences of opinion between the Department's personnel and the DBT.

**District Testing.** The Departments district testing laboratories.



**Engineer.** Duly authorized agent of the Department acting within the scope of its authority for purposes of engineering and administration of the Contract. In managing the administration of the contract, the Engineer may confer with representatives of Industry including, but not limited to, the designer of record, landscape architects, environmental specialists, etc.

**Engineer of Record.** An individual, or individuals, properly registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors, who seals the construction plans and associated documents/calculations. Also known as Designer of Record.

**Engineered Drawings.** A type of Working Drawing that requires the practice of engineering as defined in ORC 4733.01(E). Examples of Engineered Drawings include: Excavation Bracing Plans, Demolition Plans, Erection Plans, Falsework Plans, Cofferdam Plans, Causeway Plans, Jacking and Temporary Support Plans, Plans for Heavy Equipment on Structures, Plans for structures for Maintaining Traffic, and Corrective Work Plans.

**Equipment.** All machinery and equipment, together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper design, construction, and acceptable completion of the Work.

**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.

**Extra Work Contract.** A Contract concerning the performance of Work or furnishing of materials involving Extra Work. Such Extra Work may be performed at agreed prices or on a force account basis as provided in ORC 5525.14.

**Fabricator.** The individual, firm, or corporation that fabricates structural metals or prestressed concrete members as an agent of the Contractor.

**Final Inspector.** An Engineer appointed by the DDD who inspects the completed Work and accepts it if it complies with the Contract Documents.

**Inspector.** The Engineer's authorized representative assigned to make detailed inspections of Contract performance.

**Instructions to Offerors (ITO).** The directions for Shortlisted Offerors on the requirements of preparing a Technical Proposal, directions describing the ATC process, and directions describing required procedures for submitting a Bid in response to a Request for Proposal and Invitations for Bids.

**Invitation for Bids.** The invitation for Proposals for all Work on which Bids are required. Such Proposal will indicate with reasonable accuracy the quantity and location of the Work to be done or the character and quality of the material to be furnished and the time and place of the opening of Proposals.

**Laboratory.** The testing laboratories of the Department, including the Office of Materials Management (OMM) located at 1600 West Broad Street, Columbus, Ohio, and the District testing facilities.

**Materials.** Any materials or products specified for use in the construction of the Project and its appurtenances.

**Partnering.** A collaborative process for project cooperation and communication meant to achieve effective and efficient contract performance and completion of the Project within budget, on schedule, safely and with requisite quality in accordance with the contract.

**Plans.** The drawings, standard construction drawings and supplemental drawings provided by the Department or produced by the DBT's Designer or the Designer's subconsultants, approved in accordance with the contract, or exact reproductions thereof, that show the location, character, dimensions, and details of the Work.

**Prebid Question.** A written inquiry submitted by a prospective bidder.

**Professional Landscape Architect.** A landscape architect registered with the Ohio Landscape Architects Board to practice landscape architecture in the State of Ohio.

**Profile Grade.** The trace of a vertical plane intersecting the top surface of the proposed wearing surface, usually along the longitudinal centerline of the roadbed. Profile grade means either elevation or gradient of such trace according to the context.

**Project Engineer.** The Department's construction representative to the DBT.

**Project Limits.** Project limits are points on the mainline centerline of construction where the proposed improvement, as described in the project description on the Title Sheet (excluding incidental construction), begins and ends

**Project Manager.** The Department's design representative to the DBT

**Project Right-of-Way.** That portion of the Right-of-Way between the beginning and end of the Project.

**Project.** The specific section of the highway together with all appurtenances and Work to be performed thereon under the Contract.

**Proposal.** The approved form on which the Department requires Bids to be prepared and submitted for the Work.

**Proposal Guaranty.** The security furnished with a Bid to guarantee that the Bidder will enter into the Contract if its Bid is accepted.

**Questionnaire.** The specified forms on which the Contractor shall furnish required information as to its ability to perform and finance the Work required under ORC 5525.01.

**Reasonably Close Conformity.** Reasonably close conformity means compliance with reasonable and customary manufacturing and construction tolerances where working tolerances are not specified. Where working tolerances are specified, reasonably close conformity means compliance with such working tolerances. Without detracting from the complete and absolute discretion of the Engineer to insist upon such tolerances as establishing reasonably close conformity, the Engineer may accept variations beyond such tolerances as reasonably close conformity where they will not materially affect the value or utility of the Work and the interests of the Department.

**Reference Documents.** Documents provided by the Department for informational purposes only. The Department does not represent, warrant, or guarantee the accuracy, completeness or fitness of the Reference Documents.

**Registered Engineer.** An engineer registered with the Ohio State Board of Registration for Professional Engineers and Surveyors to practice professional engineering in the State of Ohio

**Registered Surveyor.** A surveyor registered with the Ohio State Board of Registration for Professional Engineers and Surveyors to practice professional surveying in the State of Ohio.

**Released for Construction Plans.** Design Documents that have been thoroughly checked, reviewed and sealed in accordance with the Scope of Services, prepared per the Scope of Services which adequately describe the construction work required.

**Request for Proposal.** The Scope of Services, attachments to the Scope of Services, Proposal Notes, Bid Documents, and the Expedite Bid Form, which are documents that describe the procurement process and form the basis for the Short-listed Offeror's Bid.

**Request for Qualifications.** A document describing the project in enough detail to allow potential Offerors to determine if they wish to compete for a Design-Build Contract, detailing the instructions to Offerors of the requirements for submitting a Statement of Qualifications, and describes the Department's selection criteria and process for determination of Short-listed Offerors.

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

**Road.** A general term denoting a public way for purposes of vehicular travel, including the entire area within the Right-of-Way, as defined in ORC 5501.01.

**Roadbed.** The graded portion of a highway within top and side slopes, prepared as a foundation for the pavement structure and shoulder.

**Roadside.** The areas between the outside edges of the shoulders and the Right-of-Way boundaries. Unpaved median areas between inside shoulders of divided highways and infield areas of interchanges are included.

**Roadside Development.** Those items necessary to the highway that provide for the preservation of landscape materials and features; the rehabilitation and protection against erosion of all areas disturbed by construction through seeding, sodding, mulching, and the placing of other ground covers; such suitable planting; and other improvements as may increase the effectiveness and enhance the appearance of the highway.

**Roadway.** The portion of a highway within limits of construction.

**Schedule of Values.** A detailed listing of discrete items of work apportioning the original contract lump sum items, along with each discrete item's estimated value or estimated cost the work, developed by the contractor and submitted to the Department for comment.

**Scope of Services.** The document detailing requirements which ensure that the Project is designed and constructed to meet the needs determined by the Department.

**Shop Drawings.** Drawings accepted by the DBT and submitted to the Department that describe portions of the Work fabricated off site that are incorporated permanently with the project. Department acceptance is not required.



**Short-listed Offeror.** One of the legal entities, selected based on their Statement of Qualifications, invited by the Department to submit a Bid and Technical Proposal to the Department to perform the advertised Work. Also known as Bidder or Shortlisted DBT.

**Shoulder.** The portion of the roadway contiguous to the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

**Sidewalk.** That portion of the roadway primarily constructed for the use of pedestrians.

**Signatures on Contract Documents.** All signatures on Contract Documents must meet the requirements of 102.06.

**Special Provisions.** Additions and revisions to the standard and Supplemental Specifications covering conditions peculiar to an individual Project.

**Specifications.** The directions, provisions, and requirements contained herein as supplemented by the Supplemental Specifications and Special Provisions.

**State.** The State of Ohio acting through its authorized representative.

**Statement of Qualifications.** A document submitted by an Offeror detailing the Offeror's capabilities and project understanding in response to Request for Qualifications.

**Street.** A general term denoting a public way for purpose of vehicular travel, including the entire area within the Right-of-Way.

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

**Subconsultant.** Any person or organization to whom the Designer or DBT has sublet or assigned any portion of its contractual obligations for the development of Design Documents, who prior to such undertaking receives the written consent of the Director. Must hold a Certificate of Authorization from the Ohio State Board of Registration for Professional Engineers and has fulfilled the Prequalification requirements under ORC 5526.04.

**Subcontractor.** An individual, firm, or corporation to whom the Contractor sublets part of the Contract to be performed on the job site, who prior to such undertaking receives the written consent of the Director, and who is qualified under ORC 5525.02 through 5525.09 inclusive.

**Subgrade.** The portion of a Roadbed upon which the pavement structure and shoulders are constructed.

**Substructure.** All of that part of the structure below the bearings of simple and continuous spans, skewbacks of arches, and tops of footings of rigid frames, together with backwalls and wings.

**Superintendent.** The Contractor's authorized representative in responsible charge of the Work.

**Superstructure.** The entire structure except the Substructure.

**Supplement.** A list of requirements for fabrication plants, methods of test, or other miscellaneous requirements that are maintained on file in the Office of the Director.

**Supplemental Agreement.** A written agreement executed by the Contractor and by the Director covering necessary alterations.

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

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

**Technical Proposal.** The part of a proposer's offer detailing technical elements of design and construction as required by the Instruction to Offerors.

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

**Waters of the United States.** Waters that are under the jurisdiction of the Corps of Engineers under the Clean Water Act as defined by 33 CFR Ch. II Part 328, which as applied to Ohio means: the Ohio River and Lake Erie and any other river, stream, creek, lake, pond, or wetland that drains directly or indirectly into the Ohio River or Lake Erie.

**Work.** The entire completed design and construction of the various separately identifiable parts thereof required to be performed or furnished under the Contract Documents that comprise the Project or any portion thereof. Work

includes and is the result of performing or furnishing professional design services and construction required by the Contract Documents.

**Work Limits.** Work Limits are the extreme limits of the Contractor's responsibility on a project, including all temporary and incidental construction, with the exception of work zone traffic control devices required for maintenance of traffic.

**Workday.** A calendar day that the Contractor normally works.

**Working Drawings.** DBT submitted Design Document drawings for work, not otherwise defined in the Bid Documents, and require Department acceptance. Examples of Working Drawings include: Engineered Drawings, installation plans, certified drawings, and any other supplementary plans or similar data that the DBT is required to submit for acceptance. Work incorporated in the preparation of Working Drawings may be performed by the Contractor or the Designer.

**101.04 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, unsatisfactory, 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."

References throughout the C&MS to contractor shall be interpreted as Contractor or Subcontractor (if applicable) except for actions for which another member of the Design-Build Team is applicable. For the determination when the context refers to responsibilities for which another member of the Design-Build Team is applicable, the Contract shall be construed simply, in whole, and in accordance with its fair meaning.

References to DBT throughout the C&MS shall be interpreted as the most appropriate member of the Design-Build Team, but a reference to DBT does not relieve the Contractor of meeting all contractual requirements. For the determination when the context refers to responsibilities of a specific DBT member, the Contract shall be construed simply, in whole, and in accordance with its fair meaning.

## 102 BIDDING REQUIREMENTS AND CONDITIONS

**102.01 Prequalification of Bidders.** A Design-Build Team seeking to bid must be prequalified by the Department according to ORC Chapter 5525, and the rules and regulations governing prequalification in order to submit a Bid. A Design-Build Team must have a member who is prequalified by the Department according to ORC Chapter 5526. Upon request, the Department will provide a prequalification application, applicable rules and regulations, and other relevant information. For prospective Bidders that are not yet prequalified, furnish the Department with a properly completed prequalification application at least 30 days before the date specified for the receipt of Bids. The prequalification certificate according to ORC Chapters 5525 is the Bidder's license to Bid and perform construction work for the Department. The prequalification certificate according to ORC Chapter 5526.04 is the DBT's license to prepare Design Documents.

For foreign DBTs, refer to ORC 5525.18 and Ohio Administrative Rule 5501:2-3-07. The Department will perform contractor performance evaluations for each contractor and subcontractor on every ODOT-let construction project. Evaluations shall be well documented, objective, and performed in a timely manner, in accordance with Supplement 1131. The contractor's average scores for the previous calendar year will be used in the calculation of the contractor's bidding capacity. The contractor has the right to appeal an evaluation.

A Design-Build Team seeking to bid must be identified as a Shortlisted Offeror by submitting a SOQ and shortlisted by the Department.

**102.02 Contents of Bid Documents.** Use the Instruction to Offerors and Project Proposal to prepare and submit a Technical Proposal and a Bid for the Work. Upon request, the Department will provide Bid Documents that include or reference the following:

- A. Location and description of the Project.
- B. Time to complete the Work.
- C. Amount of the Proposal Guaranty.
- D. Department's deadline for receiving a completed Bid.
- E. Schedule of contract items.

- F. Standard Specifications, Special Provisions, Supplemental Specifications, and the Plans.
- G. Project Proposal
- H. Scope of Services
- I. Document Inventory.

### **102.03 Issuance of Proposals.**

**A. General.** Upon request, the Department will provide applicable rates and other relevant information for obtaining bidding information and submitting a Bid.

**B. Department Will Not Issue.** The Department may refuse to sell or issue Bid Documents to a prospective Bidder for any of the following reasons:

1. The prospective Bidder owes the Department for previously issued plans.
2. The prospective Bidder has defaulted on previous contracts.
3. The prospective Bidder is debarred from bidding on and receiving Department contracts.
4. The prospective Bidder is currently in the debarment process.

**102.04 Interpretation of Quantities in Proposal.** The lump sums bid for design and construction of the project, plus any unit bid prices (multiplied by the appropriate quantity) required in the Proposal shall be the sole basis for comparison of bids. These will also be used to determine the progress of the work and to provide guidance in the issuance of partial payments during design and construction.

The quantities in the Bid Documents are approximate and the Department uses them for the comparison of Bids only.

The Department will only pay the Contractor for the actual quantities of Work performed and accepted according to the Contract Documents. The Department may increase, decrease, or omit the scheduled quantities of Work as provided in 109.04 without invalidating the Bid prices.

**102.041 ATC Incorporation into Bids.** The Short-listed Offeror may incorporate zero, one or more approved Offeror's ATCs (or conditionally approved ATCs, if all conditions are met) into their Bid. If the Bid is found to be lowest, the Bidder must clearly state which ATCs have been incorporated and demonstrate how the conditions are met (if the ATC was conditionally approved) in the Pre-Award Conference documentation, as described in the Instruction to Offeror.

The Bid shall reflect all incorporated ATCs. The Department's approval of an ATC does not relieve the DBT of the responsibility of designing and constructing the Project within the submitted Bid nor does it assume the ATC is viable. The DBT shall solely bear the risk of ATC viability. The DBT shall solely bear the risk of any time and cost impacts to the Work related to implementation of an approved ATC. The Department's approval of an ATC is not an indication of the inclusion of an ATC into the Contract Documents but is only an approval of the ATC to be considered a Bid Document. An ATC shall only be considered an accepted part of the Designer developed Plans upon Plan approval in accordance with the Contract per section 104.012.

The Department shall not be obligated or have any responsibilities to acquire or assist the DBT with any permits, design exceptions, right of way or easements in connection with implementation of an ATC, unless expressly stated otherwise within a conditional ATC approval.

**102.05 Examination of Bid Documents and Project Site and Submission of Prebid Questions.** Carefully examine the Bid Documents and perform a reasonable site investigation before submitting a Bid. Submitting a Bid is an affirmative statement that the Bidder has investigated the Project site and is satisfied as to the character, quality, quantities, and the conditions to be encountered in performing the Work. A reasonable site investigation includes investigating the Project site, borrow sites, hauling routes, and all other locations related to the performance of the Work.

When available, the Department will include in the Contract Documents, Reference Documents, or provide for the Bidder's review at the Department's offices or website, one or more of the following:

- A. Record drawings.
- B. Available information relative to subsurface exploration, borings, soundings, water levels, elevations, or profiles.
- C. The results of other preliminary investigations.

A reasonable site investigation includes a review of these documents.

Should a question arise at any time during the examination of Bid Documents or investigation of the site the Bidder may seek clarification by submitting a Prebid Question. Submit all Prebid Questions in writing via the Department’s website. The Department will post a response on its website to all questions submitted before a deadline of 10:00 am four working days prior to the public opening of Bids. Responses to Prebid Questions posted on the Department’s website are not revisions to the Bidding Documents and are not binding. The Department is not obligated to respond to, or otherwise act upon, a Prebid Question submitted after this deadline, but reserves the right to act upon any information received.

**102.06 Preparation of Bids.** Prepare a Bid according to this subsection and the requirements found in the Bid Documents. Properly complete the Expedite file and submit it using the software specified in the Bid Documents rather than completing it by handwriting, typing, or using unauthorized computer-generated forms.

Indicate the total Bid amount by adding the values entered in the “Bid Amount” column for the listed items. Submit the Expedite file using the software specified in the Bid Documents.

Properly execute the Proposal by completing the miscellaneous section and attaching the required signatures in the space provided in the Expedite file.

**ENTITY SUBMITTING PROPOSAL  
REQUIRED SIGNATURE**

Individual	The individual or a duly authorized agent.
Partnership	A partner or a duly authorized agent.
Joint Venture	A member or a duly authorized agent of at least one of the joint venture firms.
Corporation	An authorized officer or duly authorized agent of the corporation. Also, show the name of the state chartering the corporation and affix the corporate seal.
Limited Liability Company	A manager, a member, or a duly authorized agent.

**102.07 Duty to Notify of Errors in Bid Documents.** Notify the Department of errors and omissions in the Bid Documents. Make notification by submitting a question in the manner described in 102.05. The DBT’s duty to disclose errors and omissions is not only a bidding requirement but is also a legal requirement that cannot be ignored.

Failure to provide the required notification prior to the opening of bids shall constitute a waiver by the Contractor and does not obligate the Department for any costs based upon any apparent or patent ambiguity arising from insufficient data or obvious errors in the Bid documents. Knowingly withholding information regarding an error or omission in the Bid Documents, or intentionally misrepresenting an item of Work for financial or competitive gain may result in civil or criminal penalties in excess of the value of the item bid.

**102.08 Unbalanced Bidding.** Bid all items correctly and price each quantity as indicated in the Bid Documents. The Department will reject a Mathematically Unbalanced Bid if the Bid is also Materially Unbalanced. A Mathematically Unbalanced Bid is a Bid containing lump sum or unit price items that do not include reasonable labor, equipment, and material costs plus a reasonable proportionate share of the Shortlisted Offeror’s overhead costs, other indirect costs, and anticipated profit. A Bid is Materially Unbalanced when the Department determines that an Award to the Shortlisted Offeror submitting a Mathematically Unbalanced Bid will not result in the lowest responsive bid to the Department.

**102.09 Proposal Guaranty.** The Department will reject a Bid submitted without a Proposal Guaranty in the amount designated and payable to the Director. Submit the required Proposal Guaranty in one of the following forms:

- A. Properly executed project Bid bond submitted on the Department’s form.
- B. Properly executed electronic bid transfer to the Department's account.
- C. Certified check drawn on the account of the Shortlisted Offeror submitting the Bid.
- D. Cashier’s check.
- E. Properly executed electronic project Bid bond submitted using the software specified in the Bid Documents.

When submitting a Bid bond, ensure that the Surety is licensed to do business in the State.

If the Department invites alternate Bids and the Bidder elects to Bid more than one alternate, the Bidder may submit one Proposal Guaranty in the amount required for a single alternate. The Proposal Guaranty covers each individual Bid.

If the Department invites combined Bids and the Bidder elects to Bid only on one package, then the Bidder must submit only one Proposal Guaranty. If the Bidder bids on the combined Bid package, the Bidder must submit a Proposal Guaranty in the amount required for the combined Bid. The combined Proposal Guaranty covers each individual Bid.

**102.10 Delivery of Bid.** Unless otherwise indicated in the Proposal, all Bids must be submitted using the electronic Bid submission software specified in the Proposal. The Department will accept Bids until the time and date designated in the Notice to Bidders. The Department will return Bids received after the designated time to the Bidders unopened. The Department will return all Bids not prepared and submitted in accordance with the Proposal.

**102.11 Withdrawal of Bids.** After Bids are opened, ORC 5525.01 requires that a Bidder identify a mistake in its Bid within 48 hours of the Bid opening. After Bids are opened the Bidder must provide a written request to withdraw a Bid already filed with the Department. Any Bidder for whom a request to withdraw its Bid is approved by the Department will not be permitted to participate in any manner in a contract awarded for that project for which the Bid was withdrawn.

**102.12 Combination Proposals.** The Department may elect to issue Bid Documents for projects in combination or separately, so that Bids may be submitted either on the combination or on separate units of the combination. The Department reserves the right to make awards on combination Bids or separate Bids to the best advantage of the Department. The Department will not consider combination Bids, other than those it specifically identifies in the Bid Documents. The Department will write separate Contracts for each individual Project included in the combination.

**102.13 Public Opening of Bids.** The Department will publicly open Bids at the time and place indicated in the notice to Contractors. The Department will announce the total Bid amount for each Bid.

Bidders or their authorized agent and other interested persons are invited to the opening.

The Department may postpone the receipt of Bid time or the opening of Bids time. If the Department changes the hour or the date of the receipt of Bids or the opening of Bids, it will issue an addendum or public notice to notify prospective Bidders.

**102.14 Disqualification of Bidders.** The Department will declare a Bid non-responsive and ineligible for award when any of the following occur:

- A. The Bidder lacks sufficient prequalification work types or dollars to be eligible for award.
- B. The Bidder fails to furnish the required Proposal Guaranty in the proper form and amount.
- C. The Bid contains unauthorized alterations or omissions.
- D. The Bid contains conditions or qualifications not provided for in the Bid Documents.
- E. The Proposal is not prepared as specified.
- F. A single entity, under the same name or different names, or affiliated entities submits more than one Bid for the same Project.
- G. The Bidder fails to submit a unit price for each contract item listed, except for lump sum items where the Bidder may show a price in the "Bid Amount" column for that item.
- H. The Bidder fails to submit a lump sum price where required.
- I. The Bidder fails to submit a complete Expedite file using the software specified in the Proposal.
- J. The Bidder is debarred from submitting Bids.
- K. The Bidder has defaulted, has had a Contract terminated for cause by the Department, has either agreed not to Bid or has had debarment proceedings initiated against the Bidder's company and/or its key personnel.
- L. The Bidder submits its Bid or Proposal Guaranty on forms other than those provided by the Department.
- M. The Bidder fails to properly complete the supplemental questionnaire section of the Expedite file.
- N. The Bidder submits a Materially Unbalanced Bid as defined by 102.08.
- O. The Bidder fails to acknowledge addenda.
- P. The Department finds evidence of collusion.
- Q. Any other omission, error, or act that, in the judgment of the Department, renders the Bidder's bid non-responsive.
- R. The Bid is received from an entity who has not been recognized as a Shortlisted Offeror.
- S. The Technical Proposal does not receive a passing evaluation as described in the Instruction to Offerors.

**102.15 Material Guaranty.** Before any Contract is awarded, the Department may require the Bidder 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. The Department may test the samples as specified in these Specifications to determine their quality and fitness for the Work.

**102.16 Certificate of Compliance with Affirmative Action Programs.** Before any Contract is awarded, the Department will require the Bidder to furnish a valid Certificate of Compliance with Affirmative Action Programs, issued by the State EEO Coordinator.

**102.17 Drug-Free Safety Program.** During the life of this project, the Contractor and all its Subcontractors, that provide labor on the Project site, must be enrolled in and remain in good standing in the Ohio Bureau of Worker's Compensation ("OBWC") Drug-Free Safety Program ("DFSP") or a comparable program approved by the OBWC.

In addition to being enrolled in and in good standing in an OBWC-approved DFSP or a comparable program approved by the OBWC, the Department requires each Contractor and Subcontractor that provides labor, to subject its employees who perform labor on the project site to random drug testing of 5 percent of its employees. The random drug testing percentage must also include the on-site supervisors of the Contractors and Subcontractors. Upon request, the Contractor and Subcontractor shall provide evidence of required testing to the Department.

Each Subcontractor shall require all lower-tier Subcontractors that provides labor on the project site with whom the Subcontractor is in contract for the Work to be enrolled in and be in good standing in the OBWC-approved DFSP prior to a lower-tier Subcontractor providing labor at the Site.

The Department will declare a bid non-responsive and ineligible for award if the Contractor is not enrolled and in good standing in the Ohio Bureau of Workers' Compensation's Drug-Free Safety Program (DFSP) Discount Program or a similar program approved by the Bureau of Workers' Compensation within 8 days of the bid opening. Furthermore, the Department will deny all requests to sublet when the subcontractor does not comply with the provisions of this section.

Failure of the Contractor to require a Subcontractor to be enrolled in and be in good standing in the an OBWC-approved DFSP prior to the time that the Subcontractor provides labor at the Site, shall result in the Contractor being found in breach of the Contract and that breach shall be used in the responsibility analysis of that Contractor or the Subcontractor who was not enrolled in a program for future contracts with the State for five years after the date of the breach.

### 103 AWARD AND EXECUTION OF CONTRACT

**103.01 Consideration of Proposals.** After opening and announcing the Bids, the Department will compare the Bidders' proposed prices. The proposed price is the summation of the products of the estimated quantities shown in the Proposal and the unit Bid prices, plus all lump sums bid items. If the amount shown for the proposed product differs from the actual product of the unit Bid price and the estimated quantity, then the actual product will govern.

The Department may reject any or all Bids, waive technicalities, or advertise for new Bids without liability to the Department.

**103.02 Award of Contract.** The Department will award a Contract or reject Bids within 10 days after Bid opening. The Department will mail a letter to the address on the Bid notifying the successful Bidder of Bid acceptance and Contract award. The Department will award to the lowest competent and responsible bidder. The Department will not award a Contract until it completes an investigation of the apparent low Bidder.

If the Department's estimate for the cost of the improvement is not confidential, the Department will not award a Contract for an amount greater than 5 percent more than the Department's estimate. If the Department's estimate is confidential, the Department may award the Contract according to ORC 5525.15.

**103.03 Cancellation of Award.** The Department may cancel a Contract award at any time before all parties sign the Contract without liability to the Department.

**103.04 Return of Proposal Guaranty.** Immediately after the opening and checking of Bids, the Department will return all Proposal Guaranties provided in the form of a certified check or cashier's check, except to the three lowest Bidders. Within 10 days after opening bids, the Department will return the Proposal Guaranties of the two remaining unsuccessful Bidders. After the successful Bidder submits the signed Contract, Contract Bonds, and other Contract Documents, and after the Department signs the Contract, the Department will return the Proposal Guaranty to the successful Bidder. The Department will not return Bid bonds.



**103.05 Requirement of Contract Bond.** Furnish Contract Bonds within 10 days after receiving notice of award. Furnish Contract Bonds to the Director on the prescribed form, in the amount of the Contract, and according to ORC 5525.16.

**103.06 Execution of Contract.** Sign and return the Contract, along with the certificate of compliance, Contract Bonds, and other required Contract Documents, within 10 days after notice of award. The State does not consider a proposal binding until the Director signs the Contract. If the Director does not sign the Contract within 20 days after receiving the successful Bidder's signed Contract, certificates, Contract Bonds, and other Contract Documents, the successful Bidder may withdraw the Bid without prejudice.

**103.07 Failure to Execute Contract.** If the successful Bidder fails to sign the Contract and furnish the Contract Bonds, the Department will have just cause to cancel the award. The successful Bidder shall forfeit the Proposal Guaranty to the Department, not as a penalty, but as liquidated damages. The Department may award the Contract to the next lowest responsive Bidder, re-advertise the Work, or take any other action decided by the Director.

## 104 SCOPE OF WORK

**104.01 Intent of the Contract Documents.** The intent of the Contract Documents is to provide for the design, construction, and completion of the Work. Perform the Work according to the Contract Documents.

**104.011 Design of the Project.** The Designer and subconsultants will provide all necessary services to design all permanent and temporary portions of the Project in accordance with the Contract Documents, not necessarily including Work incorporated in the preparation of Working Drawings or Engineered Drawings. All work shall conform to current Department, FHWA and AASHTO standards, practices, policies, guidelines and specifications. Unless otherwise noted in the Contract Documents, the Department's standards, practices, policies, guidelines and specifications shall control in case of a conflict.

The standard of care for all such services performed or furnished pursuant to the Contract will be the care and skill ordinarily exercised by members of the engineering profession practicing under similar conditions at the same time and locality.

The DBT shall require the Designer to assign only qualified engineers and surveyors, professionally registered in the State of Ohio, in direct responsible charge of engineering and surveying endeavors. When services required are predominantly oriented toward other disciplines such as environmental, landscaping, transportation planning, or architectural applications, the Designer shall assign other professionally competent personnel registered in Ohio or certified as required by law, to be in charge of the work.

Electronic plans will be developed by the Designer in accordance with the Location and Design Manual.

The Designer shall perform all necessary services to design all permanent and temporary portions of the Project, not including Work incorporated in the preparation of Working Drawings or Engineered Drawings, in accordance with the Contract Documents including the following:

- A. Consult with Department to understand the requirements for the Project and review available data.
- B. Advise the Department as to the necessity of providing or obtaining from others additional reports, data or services of the types provided in paragraph 104.012 and assist the Department in obtaining such reports, data, or services.
- C. Develop maintenance of traffic plans in accordance with the current Standard Construction Drawings, Location and Design Manual, OMUTCD and the Scope of Services.
- D. Maintain and make available to ODOT, at ODOT's request, a Project Record which includes a history of significant events (changes, comments, etc.) which influenced the development of the project.
- E. Perform any surveys (see ODOT Survey Manual) required for this project.
- F. Perform hydraulic analysis as set forth in the Scope of Services document. The results of the analyses must show no harmful interference to adjacent riparian vegetation (along streams). Results must be certified by the Designer. The certification must state that the proposed structure will have an equal to or greater hydraulic capacity and that a deletion of existing auxiliary openings and overflow areas is not planned.
- G. Perform any additional needed soils surveys, soils borings, and geotechnical investigations, with appropriate analysis to produce the proposed design.
- H. Reference the appropriate Construction and Materials Specifications in the Plans for all construction work to be performed and all materials to be furnished.

- I. Provide Plans, specifications and supporting documents for review by ODOT at the several stages of plan development review required by the Scope of Services.
- J. Provide written concurrence on DBT accepted Shop Drawing(s). Written concurrence shall be provided with the submission to the Department.
- K. Provide concurrence on acceptability of developed Engineered drawings identified in 501.05.A 1, 501.05A 2, 501.05.A 3, 501.05B 3, & 501.05B 6. Written concurrence shall be provided with the submission to the Department.
- L. Provide concurrence on acceptability of Corrective Work Plan (CWP) as described in 501.05.C. Written concurrence shall be provided with the submission to the Department.
- M. Perform the additional duties and requirements as explained in "Specifications for Consulting Services".

Design services that require prequalification may only be performed by firms that are prequalified for those services at the time of performance of the services.

The Designer and subconsultants that will perform design work must be listed in the appropriate prequalification category on the following website:

<http://www.dot.state.oh.us/Divisions/Engineering/Consultant/Pages/default.aspx>

The Designer and all subconsultant names and addresses must be the same as those on file with the Department. All engineering services must comply with Section 4733.16 of the Ohio Revised Code.

Interpret all references to guidelines, recommendations and considerations within applicable design manuals as minimum requirements except when specifically excluded within the Scope of Services. Perform recommended evaluations if not provided by the Department.

Perform an analysis and submit to the Department for review and concurrence if a recommendation in any design manual cannot be met. This analysis shall indicate the reasons for a deviation from a design recommendation and shall propose an acceptable solution. Cost or an incorrect bid assumption shall not be a reason for a deviation. A deviation from a design recommendation shall not be included in the design without the ODOT Design Project Manager's concurrence.

Determine the engineering properties of all subsurface conditions and materials for design and construction of the Work. Base these determinations on exploration data and information provided by the Department and procured by the DBT, local and regional geologic and hydrogeologic mapping and publications, and experience in similar geologic settings and construction. Perform all interpretation and interpolation of geotechnical information in a manner which would be reasonably exercised by members of the engineering profession practicing under similar geological and regional conditions. All use of, interpretation of, and interpolation of the geotechnical data and information for design and construction, both at specific exploration locations and between locations, are the responsibility of the DBT.

Also see additional requirements regarding Cooperation with Utilities in Section 105.07.

**104.012 Department's Responsibilities for Design Activities.** To facilitate the activities of the Designer, the Department shall furnish to the DBT, as required for performance of services the following, all of which the DBT may use and rely upon when performing services under this Contract:

- A. NEPA documents and associated approvals, including environmental assessment and impact statements,
- B. Engineering surveys to establish reference points for design and construction which in the Department's judgment are necessary to enable the DBT to proceed with the Work.
- C. Department provided information, known to, or in the possession of the Department, relating to the presence of materials and substances at the site which could create a hazardous condition.

The Designer's and subconsultants' Design Documents shall be submitted to the Department. The Department reserves the right to review and comment on the Design Documents. The Designer and subconsultants, if appropriate, shall be available during the duration of the contract to answer questions, issue clarifications, and correct errors and omissions.

The Department shall have the discretion to dictate the level of review for any design. The DBT bears sole responsibility for the quality, accuracy, completeness, and compliance with the Contract regardless of the Department's level of review.

The Department's failure to identify improper or incorrect design shall not, in any way, prevent later rejection when an improper or incorrect design is discovered, or obligate the Department to grant acceptance under 109.11 or 109.12.

**104.02 Revisions to the Contract Documents.**

**A. General.** The Department reserves the right to revise the Contract Documents at any time. Such revisions do not invalidate the Contract or release the Surety, and the DBT agrees to perform the Work as revised.

The provisions of this section are subject to the limitation of ORC 5525.14.

**B. Differing Site Conditions.** Notify the Engineer as specified in C&MS 108.02.F upon discovery of any of the following conditions:

1. subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents and are not discoverable from an investigation and analysis of the site by the DBT meeting the standard of care for such an investigation and analysis,
2. unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the Work provided for in the Contract Documents, are encountered at the site.
3. unknown physical conditions which are rare for the project area and type of project.
4. unknown physical conditions which are not reasonably evident during the design by inspection, or investigations which were performed during the design, or reasonably should have been performed during or before the final design process

Provide required notification before disturbing any differing site condition.

No Differing Site Condition exists unless the DBT demonstrates to the satisfaction of the Engineer that:

1. the conditions were not reasonably evident during the design by inspection or investigations which were performed, or reasonably should have been performed during or before the final design process, and
2. the conditions are rare for the area and type of project.

Upon notification from the DBT, the Engineer will investigate potential differing site conditions. The Engineer will determine if differing site conditions have been encountered and notify the DBT of the Department's determination.

**C. Suspension of Work.** If the performance of all or any portion of the Work is suspended or delayed by the Engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the DBT believes that additional compensation or time is due as a result of such suspension or delay, notify the Engineer as specified in 108.02.

Upon receipt of notice, the Engineer will evaluate the DBT's request. If the Engineer agrees that the cost or time required for the performance of the Work has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the DBT, its suppliers, subconsultant, or subcontractors at any approved tier, and not caused by weather, the Engineer will make an equitable adjustment (excluding profit) and modify the contract as specified in 108.06 and 109.05. The Engineer will notify the DBT of its determination whether or not an adjustment to the Contract Documents is warranted. Failure of the Engineer to suspend or delay the Work in writing does not bar the DBT from receiving a time extension or added compensation according to 108.06 or 109.05.

The Department will not make an adjustment under this subsection in the event that performance is suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this Contract.

**D. Significant Changes in Character of the Work.** The Engineer may increase or decrease bid unit priced item quantities and may alter the Work as necessary to complete the Project. The Engineer will make appropriate adjustments according to 108.06 and 109.05, if such alterations significantly change the character of the Work.

If the DBT disagrees as to whether an alteration constitutes a significant change, use the notification procedures specified in 108.02.F.

The term "significant change" is defined as follows:

1. when the character of the Work as altered differs materially in kind or nature from that involved or included in the Contract Documents; or
2. when the product of the quantity in excess of the estimated quantity of a contract bid unit priced item and the unit price exceeds the limits set forth in Table 104.02-1.

**TABLE 104.02-1**

Contract Price	Contract Limits
Up to \$500,000	\$25,000
\$500,001 to \$2,000,000	5% of Total Contract Price
Over \$2,000,000	\$100,000

A quantity underrun is defined as follows:

- a. the estimated quantity of a bid unit priced Contract Item exceeds four units (this minimum quantity does not apply to pavement markings measured in units of miles),, and
- b. the decrease in quantity of any bid unit priced Contract Item exceeds 25 percent of the estimated bid quantity, and
- c. the total of all such adjustments for all bid unit priced Contract Items is more than \$400.

Then after the determination of final quantities according to 109.12.C for bid unit priced Contract Items, the Engineer will adjust the unit prices for the affected bid unit priced Contract Item by multiplying the bid unit price by the factor obtained from Table 104.02-2.

**TABLE 104.02-2**

% Decrease	Factor	% Decrease	Factor
25	1.08	57	1.33
26 to 27	1.09	58	1.35
28 to 29	1.10	59	1.36
30 to 31	1.11	60	1.38
32 to 33	1.12	61	1.39
34 to 35	1.13	62	1.41
36	1.14	63	1.43
37 to 38	1.15	64	1.44
39	1.16	65	1.46
40 to 41	1.17	66	1.49
42	1.18	67	1.51
43	1.19	68	1.53
44 to 45	1.20	69	1.56
46	1.21	70	1.58
47	1.22	71	1.61
48	1.23	72	1.64
49	1.24	73	1.68
50	1.25	74	1.71
51	1.26	75	1.75
52	1.27	76	1.79
53	1.28	77	1.84
54	1.29	78	1.89
55	1.31	79	1.94
56	1.32	80 and over	2.00

When the increase in quantity or decrease in quantity of any unit price contract item does not exceed the limits set forth in Tables 104.02-1 and 104.02-2, the change is considered a minor change. The Department will pay for minor changes in the Work at the unit bid price. Table 104.02-2 is not applicable to Lump Sum Contract Items.

**E. Eliminated Items.** The Department may partially or completely eliminate contract items, or may eliminate portions of the Work described in the Basic Configuration.

The Department will only make an adjustment to compensate the DBT for the reasonable cost incurred in preparation to perform significantly changed work as set forth in 104.02.D or work completely eliminated prior to the date of the Engineer’s written order to significantly change or completely eliminate the Work. The adjustment will be determined according to 109.04 and 109.05. Such payment will not exceed the price of the Contract Item.

The Department will not seek a savings for maintaining traffic, mobilization, and construction layout stakes items for Eliminated Items of Work, unless there is a significant change.

**F. Extra Work.** Perform Extra Work as directed by the Engineer. The Department will pay for Extra Work as specified in 109.05. Time extensions, if warranted, will be determined according to 108.06.

**G. Unilateral Authority to Pay.** The Department has unilateral authority to pay the Contractor sums it determines to be due to the DBT for work performed on the project. This unilateral authority to pay by the Department does not preclude or limit the rights of the Department and the Contractor to negotiate and agree to the amounts to be paid to the DBT.

**H. Infeasibility of Design.** Infeasibility of approved DBT ATCs, accepted DBT designs, errors in the DBT's Design Documents, errors in design concepts depicted in the Shortlisted Offeror's Technical Proposal, or improper DBT design assumptions shall not be considered a revision to the Contract Documents.

**104.03 Rights in and Use of Materials Found on the Work.** Upon obtaining the Engineer's approval, the contractor may use material, such as stone, gravel, or sand, found in the plan excavation for another Contract Item. The Department will pay for both the excavation of the material under the corresponding Contract Item and for the placement of the excavated material under the Contract Item(s) for which the excavated material is used. Excavate or remove material only from within the grading limits, as indicated by the slope and grade lines.

Obtain written permission from the Engineer according to 107.11.A.

**104.04 Cleaning Up.** Maintain the Project in a presentable condition. Remove all rubbish, layout stakes, sediment control devices as directed by the Engineer, excess material, temporary structures, and equipment, including stream channels and banks within the Right-of-Way at drainage structures, and all borrow and waste areas, storage sites, temporary plant sites, haul roads, and other ground occupied by the contractor in connection with the Work. Establish suitable vegetative cover in these areas by seeding and mulching according to Item 659, except for cultivated fields. Leave the Project site in an acceptable condition as determined by the Engineer. The cost of cleanup is incidental to all contract items. The Department may withhold 10 percent of the Bid amount for the mobilization contract item, if included, until performance under this section is complete. See 624.04.

**104.05 Pay Adjustments.** Pay adjustments will be made according to the applicable governing Contract Documents and requirements. Pay adjustments shall be based on the required adjustment computation method or procedure as defined by the applicable specification or contract provision.

For pay adjustments based on a unit bid price/cost or a contract unit price/bid price, the Office of Estimating Historical Bid Data adjusted for inflation for the calendar year immediately preceding the calendar year in which the project is let shall be used unless such price/cost data is specifically contained within the bid or Contract Documents. The applicable average awarded bid amount shall be used as the unit price/cost component when calculating the applicable pay adjustment. Moreover, the actual adjustment will be the difference between the average awarded bid amount and the computed adjustment to that amount for the applicable number of units as appropriate.

Pay adjustments will be paid or deducted on the DBT progress estimates through the change order process. The Office of Estimating Historical Bid Data is located at the following web address: [http://www.dot.state.oh.us/Divisions/ConstructionMgt/Estimating/Pages/Bid\\_Histories.aspx](http://www.dot.state.oh.us/Divisions/ConstructionMgt/Estimating/Pages/Bid_Histories.aspx)

## 105 CONTROL OF WORK

**105.01 Authority of the Engineer.** The Engineer will decide questions concerning all of the following:

- A. The quality and acceptability of Materials furnished.
- B. The quantity of Work performed.
- C. The DBT's rate of progress.
- D. The interpretation of the Contract Documents.
- E. Acceptable fulfillment of the Contract.
- F. Contractor compensation.
- G. The acceptability of the DBT's Design and Design Documents

The Engineer may suspend all or part of the Work when the DBT fails to correct conditions that are unsafe for the workers or the general public, fails to comply with the Contract Documents, or fails to comply with the Engineer's orders. The Engineer may suspend the Work due to adverse weather conditions, conditions considered adverse to the prosecution of the Work, or other conditions or reasons in the public interest.

The Engineer's acceptance does not constitute a waiver of the Department's right to pursue any and all legal remedies for defective Work or Work performed by the DBT in an un-workmanlike manner.

The Department shall not supervise, direct or have control or authority over, nor be responsible for the DBT's contractors', subcontractors', designers', or subconsultants' means, methods, techniques, sequences or procedures of construction, design, or the safety precautions and programs incident thereto, or for any failure of DBT to comply with Laws and Regulations applicable to the furnishing or performance of the Work.

The Department will not be responsible except that the Department may order immediate remediation of conditions which endanger the public welfare as required in 105.14/105.15/107.07/107.10/107.11/107.12. The Department will not be responsible for DBT's failure to perform or furnish the Work in accordance with the Contract Documents.

**105.02 Plans and Working Drawings.** The Plans shall show details of structures, the lines and grades, typical cross-sections of the Roadway, and the location and design of structures. Keep at least one set of Plans at the Project at all times.

Prepare Working Drawings when required by the Contract Documents and after verifying applicable field and plan elevations, dimensions, and geometries. Where Work consists of repairs, extension, or alteration of existing structures, take measurements of existing structures to accurately join old and new Work.

Unless otherwise indicated, the Department will review Working Drawing submittals to ensure conformance with the Contract and to provide the DBT a written response to document the results of its review as follows:

- A. **“ACCEPTED.”** The Department accepts the submittal for construction, fabrication, or manufacture.
- B. **“ACCEPTED AS NOTED.”** The Department accepts the submittal for construction, fabrication, or manufacture, subject to the DBT's compliance with all Department comments or corrections to the submittal. If also marked “RESUBMIT,” the Department still accepts the submittal, but requires the DBT to provide a corrected submittal to the Department.
- C. **“NOT ACCEPTED.”** The Department does not accept the submittal. The submittal does not conform to Contract requirements. Do not begin construction, fabrication, or manufacture of Work included in the submittal. Revise the submittal to comply with Department comments or corrections and Contract requirements and provide the revised submittal to the Department for another review.

“Accepted” and “Accepted as Noted” Working Drawings are Contract Documents as defined in 101.03. The Department's acceptance or lack of feedback from the Department will not relieve the DBT of responsibility to complete the Work according to the Contract nor relieve a signatory engineer's responsibility as defined by OAC 4733-23. Include the cost of furnishing Working Drawings in the cost of the Work they cover.

**105.03 Conformity with Contract Documents.** Perform all Work and furnish all Materials in reasonably close conformity with the lines, grades, cross-sections, dimensions, and material requirements as shown in the Project Proposal, Basic Configuration, Scope of Service, Specifications, Supplemental Specifications, Special Provisions, and as specified.

If the DCE determines the Work is not in reasonably close conformity with the Contract Documents and determines the DBT produced reasonably acceptable Work, the DCE may accept the Work based on engineering judgment. The DCE will document the basis of acceptance in a Change Order that provides for an appropriate adjustment to the Contract Price of the accepted Work or Materials. If the DCE determines the Work is not in reasonably close conformity with the Contract Documents and determines the Work is inferior or unsatisfactory, remove, replace, or otherwise correct the Work at no expense to the Department.

**105.04 Coordination of the Contract Documents.** The Contract Documents are those defined in 101.03. A requirement appearing in one of these documents is as binding as though it occurs in all. The Engineer will resolve discrepancies using the following descending order of precedence:

- A. Addenda.
- B. Proposal (excluding the Scope of Services and Attachments identified as Contractual) and Special Provisions.
- C. Basic Configuration (including the Scope of Services, Attachments identified as Contract Documents and portions of Attachments that depict Basic Configuration elements defined in the Scope of Services)
- D. Supplemental Specifications.
- E. Standard Construction Drawings.
- F. Standard Specifications.



- G. Statement of Qualification or Technical Proposal elements that exceed the requirements of other Contract Documents if the Statement of Qualifications or Technical Proposal includes statements that can reasonably be interpreted as offers to provide higher quality items or additional services than otherwise required by the by the remaining Contract Documents

Notwithstanding the order of precedence set forth above, in the event and to the extent that elements of Item G expressly specifies that it is intended to supersede specific provisions of the Contract Documents, elements of Item G shall control over the specified provisions. Additionally, if the Statement of Qualifications or Technical Proposal includes statements, offers, terms, concepts and designs that can reasonably be interpreted as offers to provide higher quality items than otherwise required by the Contract Documents or to perform services in addition to those otherwise required, or otherwise contains statements, offers, terms, concepts, or designs which the Department considers to be more advantageous than the requirements of the other Contract Documents, the DBT obligations shall include compliance with all such statements, offers, terms, concepts or designs which shall have the priority of Addenda, as applicable.

Immediately notify the Engineer upon discovering any latent error or omission in the Contract Documents.

**105.05 Cooperation by DBT.** Provide the constant attention necessary to progress the Work according to the Contract Documents. Cooperate with the Engineer, inspectors, ODOT design reviewers, and all other DBTs or contractors on or adjacent to the Project.

**105.06 Key Personnel.** The DBT shall retain, employ and use the Key Personnel along with other individuals specifically named/identified in the Statement of Qualifications to fill the Key Personnel positions and positions relevant to those other individuals named/identified in the Statement of Qualifications. The DBT shall not change or substitute any such individuals except due to retirement, death, disability incapacity, or voluntary or involuntary termination of employment, or as otherwise approved by the Department as described below. Department approval shall not be unreasonably withheld, delayed or conditioned if the proposed substitute individual possesses skill, knowledge and professional experience in the relevant fields that is equal to or greater than the skill, knowledge and professional experience of the person being replaced.

The Key Personnel shall receive instructions from the Project Engineer or the Project Engineer's authorized representatives. The Key Personnel shall promptly execute the Project Engineer's orders or directions, promptly perform Work as required, and promptly supply the required materials, equipment, tools, labor, and incidentals.

The DBT shall notify the Department of any proposed replacement for any Key Personnel position or other individual named in the DBT's Statement of Qualifications. The Department shall have the right to review the qualifications and character of each individual to be appointed to each position and to approve or disapprove use of such individual in such position before the proposed replacement begins work on the Project. The Department shall have the right to contact owners and/or sponsors of projects on which the proposed individual has previously worked to verify work experience and positions held. The DBT shall, upon the Department's request, provide contact information to facilitate this verification.

The DBT shall ensure and maintain the availability of the proposed replacement.

The DBT shall provide the Department with office and cell phone numbers and email addresses for the Key Personnel. The Department shall have the ability to contact any Key Personnel twenty-four (24) hours per day, seven (7) days per week. All Key Personnel shall be immediately accessible during the duration of their tenure as applicable to the stage of the Project and shall be reasonably accessible throughout the duration of the Contract to answer questions as needed.

The DBT shall also retain, employ and use the firms and organizations specifically identified in the Statement of Qualifications as the Lead Contractor, Lead Designer, and any other named subconsultant and subcontractor. The DBT may substitute these firms and organizations after Award only with the prior approval of the Department. The Department may request such information as it deems necessary to evaluate if the replacement firm possess the requisite prequalifications to perform all Work the DBT proposes for it. If the Department determines the replacement is solely because another contractor has offered a lower price, the Department reserves the right to request a contract adjustment if the original firm was determined vital, and document as such, in the SOQ evaluation.

**105.07 Cooperation with Utilities.**

The DBT shall design the project construction work to minimize the scope and extent of utility conflicts and relocations.

Unless otherwise provided for by the Contract Documents, the Department will direct the utility owners to relocate or adjust water lines, gas lines, wire lines, service connections, water and gas meter boxes, water and gas valve boxes,

light standards, cableways, signals, and all other utility appurtenances within the limits of the proposed construction at no cost to the DBT.

Cooperate fully with each utility company and make every effort to avoid delays and conflicts. All reasonable effort required to resolve utility conflicts shall be included in the DBT's schedule. Utility conflicts shall be identified and located by the DBT. When utility relocations are necessary, coordination and scheduling of these relocations with the involved utilities shall be the responsibility of the DBT.

If required by the Bid Documents, the design for relocation or accommodation of any utilities within the project shall be coordinated by the DBT. The DBT shall determine and show on the plans the names of all existing utilities within project limits. The DBT shall identify and resolve utility conflicts and the plans and details shall reflect the resolutions and decisions accepted.

The DBT shall initiate any utility meetings needed to ensure that the concerns are addressed on the plans involving utilities. The DBT shall notify the Engineer at least three working days in advance of any utility meeting. An ODOT representative shall attend all utility meetings.

The Department will authorize project funds for utility relocations eligible for reimbursement and issue permits to the utilities relocating facilities that require relocation within the Right of Way. The DBT will be responsible for working with the individual utilities to ensure that all utility concerns are addressed and that any required utility relocation plans, estimates and support material are developed and copies are provided to the district utility office. The DBT will keep the district utility office aware of all utility coordination information.

If the DBT is directed by a utility company to perform any work not specifically contained in the Bid Documents, the Department will not compensate the DBT for this work unless the Department approves the request in writing before the work begins. If the work is not preapproved by the Department, the DBT will be responsible for obtaining reimbursement for its work from the utility company which directed the DBT to perform the work.

In the event that the DBT requests that additional work not specifically contained in Contract Documents be performed by a utility company, the DBT will be responsible for reimbursing the utility company for the additional work unless the Department has agreed in writing to pay for the additional work before the work begins.

The Contract Documents will indicate various utility items and indicate a time frame or date when the Department expects the owners to complete utility relocation or adjustment. Provide adequate notification to utility owners adjusting facilities during construction to prevent conflict with the DBT's schedule of operations. Indicate the various utility items, impacted utilities and indicate the time frame or date when the utility owners are expected to complete utility relocation or adjustment in the design plans developed by the Designer.

If the utility owners fail to relocate or adjust utilities as provided for in the Contract Documents and the DBT sustains losses or delays that could not have been avoided by the judicious design efforts, and reasonable accommodation or by judicious handling of forces, equipment, and plant, or by reasonable revisions to the schedule of operations, then the Engineer will adjust the Contract according to 108.06 and 109.05. The acceptability of such loss of time will be evaluated as follows:

- A. The Engineer shall be satisfied that the DBT has made every effort to prosecute the design and construction work and mitigate impacts despite any delays encountered or revisions in the DBT's scheduling of work.
- B. If performance of the DBT's work is delayed because the utility owners fail to relocate or adjust their facilities as previously agreed, the contract time will be adjusted in accordance with the provisions of 108.06.
- C. The Engineer shall be satisfied that the DBT has made every reasonable effort to design and construct the work to reasonably avoid the utilities.

When bidding, consider all permanent and temporary utility appurtenances in present and relocated positions as shown in the Contract Documents. According to ORC 153.64 and at least 2 Workdays prior to commencing construction operations in an area that may affect underground utilities shown on the Plans, notify the Engineer, the registered utility protection service, and the owners that are not members of the registered utility protection service.

The owner of the underground utility shall, within 48 hours, excluding Saturdays, Sundays, and legal holidays, after notice is received, start staking, marking, or otherwise designating the location, course,  $\pm 2$  feet ( $\pm 0.6$  m), together with the approximate depth of the underground utilities in the construction area.

#### **105.075 Cooperation with Railroads.**

The DBT shall design the Project construction work to minimize the scope and extent of railroad conflicts, interactions, and railroad flagmen needs as much as possible. The DBT shall proceed with the construction work to minimize the scope and extent of railroad conflicts, interaction, and railroad flagmen needs.

Cooperate fully with each impacted railroad company within the footprint of the Project. Make every effort to avoid delays and conflicts. All reasonable effort required to resolve railroad conflicts shall be included in the DBT's schedule. Include flagmen notifications activities for each construction phase, buildable unit submission reviews, and contractual timeframes for review comments in the schedule. The longest railroad review time within the Contract shall govern if review durations conflict within the Contract.

Design shall be performed to maximize distance from railroad loading influence so to minimize impacts to permanent railroad infrastructure. Do not place permanent improvements (i.e. abutments, piers, etc.) within railroad Right-of-Way.

Coordinate all needed railroad design reviews. Coordinate with the applicable railroad(s) to determine plan package submissions required for railroad review including defining limits of railroad regions of concern. Plan package review submissions shall be developed in the agreed defined limits of railroad regions of concern as applicable to the impacted railroad. Design packages shall be submitted at interim, final, and construction unless otherwise agreed to with the applicable railroad(s). Submissions shall include all work within the applicable railroad region of concern (as agreed with the railroad and DBT) and shall not be segmented partial design pieces of an entity but shall be the overall design phased submission of the entity. Buildable units for railroad review submissions shall not be defined by types of work, but shall be determined by the limits of railroad regions of concern. Construction submissions for track protection, construction erection procedures, and other construction related submissions which require railroad approval and review shall be submitted with the construction design submission to the railroad. These submissions shall be concurrent to the Department.

Coordinate responses to railroad review comments ensuring adequate and reasonable responses to all railroad review comments. Coordinate, with the Department's assistance, all identified railroad flagmen needed operations.

The DBT shall initiate any railroad coordination meetings needed to ensure that the technical design and physical construction concerns are addressed on plans involving the railroad(s). The DBT shall notify the Engineer at least two working days in advance of any meeting with the railroad(s). A Department representative will attempt to attend all railroad coordination meetings. Maintain railroad meeting notes and promptly distribute to all meeting attendees, Project Engineer, and the State and/or District Railroad Coordinator. Proactively keep the Project Engineer and the State and/or District Railroad Coordinator aware of all railroad coordination information and/or issues.

If the DBT is directed by a railroad company to perform work not specifically required by the Contract Documents, the Department will not compensate the DBT for this work unless this work is preapproved by the Department. The Department will not compensate the DBT if the railroad's direction is reasonably and ordinarily expected while considering similar conditions at the same time and locality.

The Contract Documents will indicate various railroad review time frames for technical submittals, which will be validated with the railroad(s) upon award of the Project. Upon approval by the Department of the adjusted railroad's technical submittal review time, this adjustment will be reflected in their schedule. Include needed railroad interaction timings and show in schedule. The Bid Documents will indicate dates when the Department expects the railroad to complete railroad infrastructure relocation or adjustment, if applicable. Provide adequate notification during construction to railroads who may be adjusting infrastructure to prevent conflict with the DBT's schedule of operations. Reasonably adjust operations if planned construction efforts conflict with railroad infrastructure adjustment or relocations. Indicate the various items and indicate the time frame or date when the railroads to complete railroad infrastructure relocations or adjustments in the design plans developed by the Designer. The DBT shall only expect those railroad infrastructure relocations or adjustments as defined in the Bid Documents.

Consider all past railroad interactions when determining phasing, responses times, and past railroad responses when bidding and scheduling. Anticipate and expect railroad actions which potentially may cause resubmissions of plan review packages and Work setbacks. Although the Department and the DBT have a duty to actively mitigate all railroad delays and disruptions, reasonable work resequencing shall be an expectation of the DBT.

If the railroads fail to relocate or adjust infrastructure as provided for in the Bid Documents, or fails to meet reasonable and defined submission review timeframes, and the DBT sustains losses or delays that could not have been avoided by the judicious design efforts, reasonable accommodation or by judicious handling of forces, equipment, and plant, or by reasonable revisions to the schedule of operations, then the Engineer will adjust the Contract according to 108.06 and 109.05. The acceptability of such loss or delays will be evaluated as it compares to the following:

- A. The Engineer shall be satisfied that the DBT has made every effort to prosecute the design and construction work and mitigate impacts despite any delays encountered or revisions in the DBT's scheduling of work.

- B. The Engineer shall be satisfied that the DBT has made every reasonable effort to design and construct the work to reasonably avoid the railroad impact.
- C. The Engineer shall be satisfied that the railroads actions, inactions, or responsiveness is extraordinary when evaluating impacted railroad under similar conditions at the same time and locality

**105.08 Cooperation Between Contractors.** At any time, the Department may contract for other work on or near the Project.

Separate contractors working within the limits of the Project or adjacent to the Project shall conduct their work without interfering with or hindering the progress of Work by other contractors or DBTs, interfering with or hindering completion of Work being performed by other contractors or DBTs, or unknowingly hinder proposed work. Develop the Design Documents to ensure future capability with known designs. The contractors shall cooperate with each other as directed by the Engineer.

**105.09 Authority and Duties of the Inspector.** Inspectors are authorized to inspect the Work and the preparation, fabrication, or manufacture of materials. Inspectors are not authorized to alter or waive requirements of the Contract Documents. Inspectors are authorized to notify the DBT of Work that does not conform to the Contract; reject materials that do not conform to Specification requirements; and until the issue is decided by the Engineer, suspend portions of the Work if there is a question regarding the Contract Documents, use of unapproved material, or safety. Inspectors are not obligated or authorized to provide direction, superintendence, or guidance to the DBT, its crew, its subcontractors, subconsultants, or suppliers to accomplish the Work.

Any action or inaction of the Inspector does not constitute a waiver of the Department's right to pursue any and all legal remedies for defective work or work performed by the DBT in an un-workmanlike manner.

**105.10 Inspection of Work.** The Engineer may inspect materials and the Work. Provide the Engineer or the Engineer's representative access to the Work, information, and assistance necessary to conduct a complete inspection. Notify the Engineer at least 24 hours prior to all required inspections.

When directed by the Engineer, remove or uncover completed Work to allow inspection. After the Engineer's inspection, restore the Work according to the requirements of the Contract Documents. If the inspected Work conformed to the requirements of the Contract Documents, the Department will pay for uncovering or removing and restoring the Work as Extra Work according to 109.05. If the inspected Work did not conform to the Contract Documents, the Department will not pay for uncovering or removing and restoring the Work.

The Department shall have the discretion to dictate the level of inspection for any item of work. The DBT bears sole responsibility for the quality of Work and compliance with the contract regardless of the Department's level of inspection.

The Department's failure to identify defective Work or material shall not, in any way, prevent later rejection when defective Work or material is discovered, or obligate the Department to grant acceptance under 109.11 or 109.12.

Inspection of Work may include inspection by representatives of other government agencies or railroad corporations that pay a portion of the cost of the Work. This inspection will not make other government agencies or railroad corporations a party to the Contract and will not interfere with the rights of the DBT or Department.

**105.11 Removal of Defective and Unauthorized Work.** Work that does not conform to the requirements of the Contract is defective.

Unless the Department formally accepts defective Work according to 105.03, immediately remove and replace defective Work.

Unauthorized Work is Work done contrary to the instructions of the Engineer, beyond the plan lines, or any extra work done without the Department's permission. The Department will not pay for unauthorized Work. The Engineer may order the DBT to remove or replace unauthorized Work at no expense to the Department.

If the DBT fails to comply with the Engineer's orders under the provisions of this subsection, the DCE may correct or remove and replace defective or unauthorized Work and deduct the costs from the Contract Price.

**105.12 Load Restrictions.** Comply with all legal load restrictions when hauling materials on public roads.

Operate equipment of a weight or so loaded as to not cause damage to structures, to the roadway, or to other types of construction. Comply with subsection 501.05.B.6 for allowed loads on bridges.

Do not use off road vehicles on bases or pavements unless permitted by the DCE in writing.

Do not haul on concrete pavement, base, or structures before the expiration of the curing period.

Do not exceed the legal load limits in this section unless permitted by the Director in writing.

**105.13 Haul Roads.** Prior to hauling equipment or materials, provide written notification to the Engineer of the specific roads or streets on the haul route. If the haul route includes roads and streets that are not under the jurisdiction and control of the State and the DCE determines that State controlled roads are not available or practical for a haul route, the Contractor may use local roads and streets that are not restricted by local authorities. If the DCE determines that state controlled roads are available and practical for a haul route, revise the proposed haul route provided in the original written notification and resubmit to the DCE.

If the Engineer determines that haul route roads were properly used during construction to haul equipment and materials and that the haul route roads were damaged, then the Engineer may order the Contractor to perform immediate and practical repairs to ensure reasonably normal traveling conditions. The Engineer will pay for repairs according to applicable provisions of 109.04 and 109.05.

The Contractor shall not file a claim for delays or other impacts to the Work caused by disputes with the local authorities regarding the use of local roads or streets as haul routes. The Contractor shall save the State harmless for any closures or hauling restrictions outside the Project limits beyond the control of the Department.

**105.14 Maintenance During Construction.** Maintain the Work during construction and until Final Inspector accepts the work under 109.12, except for portions of the Work accepted under 109.11. The Contractor is responsible for damage done by its equipment.

Maintain the previous courses or subgrade during all construction operations, when placing a course upon other courses of embankment, base, subgrade, concrete or asphalt pavement, or other similar items previously constructed. This maintenance includes, but is not limited to draining, re-compacting, re-grading, or if destroyed, the removal of Work previously accepted by the Department.

Maintain the Post Construction Storm Water Best Management Practice (BMP) features. Prevent sediment laden surface water from coming in contact with the BMP features during construction.

Maintain the Work during construction and before acceptance of the Work under 109.12, except for portions of the Work accepted under 109.11. The Department will not provide additional compensation for maintenance work. All cost of maintenance work during construction and before the project is accepted shall be included in the Lump Sum Bid Price for the various pay items and the Contractor will not be paid an additional amount for such work.

**105.15 Failure to Maintain Roadway or Structure.** If the Contractor, at any time, fails to comply with the provisions of 105.14, the Engineer will immediately notify the Contractor of such noncompliance. 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 deduct the entire cost of this maintenance from monies due or to become due the Contractor on the Contract.

**105.16 Borrow and Waste Areas.** Prior to beginning borrow or wasting operations, obtain the Engineer's written approval of a detailed operation plan that addresses the following concerns:

- A. Control of drainage water.
- B. Cleanup, shaping, and restoration of disturbed areas.
- C. Disposal of regulated materials.
- D. Avoidance of regulated areas.
- E. Excavation and filling of waste and borrow areas.
- F. Saving of topsoil.
- G. Temporary Sediment and Erosion Control BMPs required for compliance under the Clean Water Act, Ohio Water Pollution Control Act, (OWPCA) (ORC Chapter 6111) and the NPDES permit.

Perform all engineering necessary to ensure long term stability of all side slopes and foundations of all borrow and waste areas. Furnish a certification by a Registered Engineer attesting to the stability of all borrow and waste areas. All damage resulting from the instability of borrow and waste areas, the removal of borrow materials, the placement of waste materials, or the hauling of material to and from these areas is the sole responsibility of the DBT. Repairs to approved haul roads will be made in accordance with 105.13.

Perform all engineering, including any field investigation, necessary to ensure long term stability of all side slopes and foundations of all borrow and waste areas.



Ensure that all side slopes of all waste areas do not reduce horizontal sight distance as defined by the current version of the Department's *Location and Design Manual*.

Have the proposed borrow and waste areas reviewed by an environmental consultant that is pre-qualified by the Department for ecological work. Have the environmental consultant certify that the proposed borrow and waste operations will not impact the "Waters of the United States" or an isolated wetland. If consultant certification is not provided, obtain the 404/401 permits necessary to perform the operations as proposed. Have the environmental consultant certify that the work conforms to the requirements of the permit(s). Provide all documentation submitted to obtain the appropriate permit(s) and a copy of the permit(s) to the Department's Office of Environmental Services.

If burning is permitted under the OAC-3745-19 and ORC 1503.18, submit a copy of the Ohio EPA permit and the Ohio DNR permit to the Engineer and copies of all information used to obtain the permit.

Prior to the disposal of waste materials, submit to the Department an executed copy of the Contract or permission statement from the property owner. The Contract or permission statement must indicate that the waste materials are not the property of the Department. Further, it must expressly state that the Department is not a party to the Contract or permission statement and that the Contractor and property owner will hold the Department harmless from claims that may arise from their contract or permission statement.

Restoration of all borrow or waste areas includes cleanup, shaping, replacement of topsoil, and establishment of vegetative cover by seeding and mulching according to 104.04 and Item 659. Ensure the restored area is well drained unless approval is given by the Engineer to convert a pit area into a pond or lake, in which case confine restoration measures to the disturbed areas above the anticipated normal water level.

For waste sites shown on the plan, the plan will indicate if the clearances have or have not been obtained for the project right-of-way locations. No extension of time or additional compensation will be paid for any delays due to not having the written permit(s) to waste in a floodplain.

The allowed use of Project Right-of-Way and other Department property for borrow and waste is detailed in 104.03 and 107.11.

Borrow and Waste Area shall adhere to 107.10.

The cost of work described herein is incidental to the Contract, unless included under another item of work.

**105.17 Construction and Demolition Debris.** OAC-3745-37, OAC-3745-400, and ORC Chapter 3714 regulates the use and disposal of construction and demolition debris. Notify the local Board of Health or the local Ohio EPA office 7 days before placing Clean Hard Fill off the Right-of-Way. Submit copies of this notification to the Engineer.

Legally dispose of debris containing wood, road metal, or plaster at a licensed construction and demolition debris site.

Under the regulations cited above the disposal of brush, trees, stumps, tree trimmings, branches, weeds, leaves, grass, shrubbery, yard trimmings, crop residue, and other plant matter is restricted. If allowed by the Contract Documents, the Contractor may waste brush, trees, stumps, tree trimming, branches, weeds, leaves, grass, shrubbery, yard trimmings, crop residue, and other plant matter within the Right-of-Way. Otherwise, submit a plan and any required permits to legally dispose of these materials off the Right-of-Way to the Engineer. Provide all documents submitted to obtain this permit to the Engineer.

If the Project contains garbage or solid and hazardous waste, the Contract Documents will detail the removal of these items.

When wasting PCC, mix the PCC with at least 30 percent natural soil to construct an inner core in the waste area. Cover this inner core with 3 feet (1.0 m) of natural soil on the top and 8 feet (2.4 m) on the side slopes. Place and compact the material according to 203.06.D to prevent future settlement and sliding.

Clean Hard Fill consisting of reinforced or non-reinforced concrete, asphalt concrete, brick, block, tile or stone that is free of all steel as per 703.16 shall be managed in one or more of the following ways:

- A. Recycled into a usable construction material.
- B. Disposed in licensed construction and demolition debris facility.
- C. Used in legitimate fill operations on the site of generation according to 105.16.
- D. Used in legitimate fill operations on a site other than the site of generation to bring a site up to grade.

A Beneficial Reuse Certification form needs to be properly executed by the Recipient prior to any material leaving the project.



**105.18 Acceptance.** The Department will accept Work according to 109.12 or completed sections of the Project according to 109.11.

**105.19 Value Engineering Change Proposals.** The Department will Partner with the Design Build Team (DBT) by considering the DBT's submission of a Value Engineering Change Proposal (VECP) which will reduce costs. The purpose of this provision is to encourage the use of the ingenuity and expertise of the DBT in arriving at alternate concepts, specifications or other requirements of the contract. Savings in costs will be shared equally between the DBT and the Department. The DBT's costs for development, design and implementation of the VECP are not eligible for reimbursement. The VECP must not impair any of the essential functions and characteristics of the project such as service life, reliability, economy of operation, ease of maintenance, safety, necessary standardized features, or any other provision in the Contract Documents that the Department deems necessary. The submission of the value engineering change proposal shall conform with Supplement 1113. Acceptance of a VECP is at the sole discretion of the Director.

The Department will not approve VECPs with any of the following characteristics:

- A. Consist only of non-performing items of Work contained in the Contract.
- B. Include Contract errors identified by the DBT as part of the cost reduction.
- C. Changes to any special architectural or aesthetic treatments.
- D. Requires concrete beams to be installed with less than 17' vertical clearance over a state highway.
- E. Reduces required clearance to railroads
- F. Changes the type or buildup of permanent pavement.
- G. Reasonably or primarily consists of an approved ATC from another shortlisted Offeror, as determined by the Department.

Engineering and drawing development and implementation costs for the VECP are not recoverable.

The DBT shall have no claim against the Department for any costs or delays due to the Department's review or rejection of the VECP.

If the Department already is considering revisions to the Contract Documents which are subsequently proposed as a VECP, the Department may reject the DBT's VECP or portions thereof and may proceed with such revisions without any obligations to the DBT.

## 106 CONTROL OF MATERIAL

**106.01 Source of Supply and Quality Requirements.** Notify the Engineer of the proposed sources of supply before the delivery of materials. The Engineer may approve materials at the source of supply before delivery. If the proposed sources of supply cannot produce the specified material, then furnish materials from alternate sources without adjustment to the Contract Price or Completion Date.

**106.02 Samples, Tests, and Cited Specifications.** The Engineer will inspect and determine whether the materials comply with the specified requirements before they are incorporated into the Work. The Department may sample and test materials or require certifications. Unless specified, the Department will pay for and test materials according to AASHTO, ASTM, or the methods on file in the office of the Engineer. A qualified representative of the Department will take test samples according to Departmental procedures. Read any reference to other specifications or testing methods to mean the version in effect at the pertinent Project Advertisement date. All materials being used are subject to inspection, test, or rejection at any time before their incorporation into the Work. The Department will furnish copies of the tests to the Contractor's representative upon request. Furnish the required samples and specified material certifications at no expense to the Department other than provided in 109.03.

Equip all transports and distributors hauling asphalt material with an approved submerged asphalt material sampling device.

**106.03 Small Quantities and Materials for Temporary Application.** The Engineer may accept small quantities and materials for temporary application that are not intended for permanent incorporation in the Work. The Engineer may accept these small quantities and materials for temporary application in either of the following cases:

- A. Where similar materials from the same source have recently been approved.
- B. Where the materials, in the judgment of the Engineer, will serve the intended purpose.

**106.04 Plant Sampling and Testing Plan.** The Engineer may undertake the inspection of materials at the source.

In the event plant sampling and testing is undertaken, the Contractor and its material provider shall meet the following conditions:

- A. Cooperate and assist the Engineer with the inspection of materials. Provide full entry to the Engineer at all times to such parts of the plant as may concern the manufacture or production of the materials being furnished. Agree to all documentation and inspection requirements of the TE-24 plant sampling and testing plan.
- B. If required by the Engineer, arrange for the inspector to use an approved building on site. The building should be located near the plant and independent of any building used by the material producer.
- C. Maintain and provide adequate safety measures at the plant at all times.

The Department reserves the right to retest all materials that have been tested and accepted at the source of supply before their incorporation into the Work. After the approved materials have been delivered to the site, the Department may reject all materials that when retested do not meet the requirements of the Contract Documents.

**106.05 Storage of Materials.** Properly store all materials to ensure the preservation of their quality and fitness for the Work. The Engineer may re-inspect stored materials before their incorporation into the Work, even though they were approved before storage. Locate stored materials to facilitate their prompt inspection. The Contractor may use approved portions of the Project Right-of-Way for storage; however, if any additional space is required, the Contractor must provide it at the Contractor's expense. Do not use private property for storage purposes without written permission from the owner or lessee. If requested by the Engineer, furnish copies of the written permission. Restore all storage sites to their original condition at no expense to the Department. The Contractor and property owner will hold the Department harmless from claims that may arise from their contract or permission statement. This subsection does not apply to the stripping and storing of topsoil, or to other materials salvaged from the Work.

Areas used to Store Materials shall conform to 107.10.

**106.06 Handling Materials.** Handle all materials in such manner as to preserve their quality and fitness for the Work. Transport aggregates from the storage site to the project site in vehicles constructed to prevent loss or segregation of materials after loading and measuring. Ensure that there are no inconsistencies in the quantities of materials loaded for delivery and the quantities actually received at the place of operations.

**106.07 Unacceptable Materials.** Unacceptable materials are all materials not conforming to the requirements of these Specifications at the time they are used. Immediately remove all unacceptable materials from the project site unless otherwise instructed by the DCE. The DCE will determine if unacceptable materials may remain conforming to Supplement 1102. The DCE must approve the use of previously identified unacceptable materials that have been corrected or repaired. If the Contractor fails to comply immediately with any order of the DCE made under the provisions of this subsection, the DCE will 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 to the Contractor.

**106.08 Department-Furnished Material.** Furnish all materials required to complete the Work, except when otherwise provided in the Proposal.

The Department will deliver the Department-furnished materials to the Contractor at the points specified in the Contract Documents.

Include the cost of handling and placing of all Department-furnished materials in the contract price for the contract item for which they are used.

The Department will hold the Contractor responsible for all material upon delivery of the materials to the Project site. The Department will make deductions from any monies due the Contractor to make good any shortages and deficiencies, for any cause whatsoever, and for any damage that may occur after such delivery, and for any demurrage charges.

**106.09 Steel and Iron Products Made in the United States.** Furnish steel and iron products that are made in the United States according to the applicable provisions of Federal regulations stated in 23 CFR 635.410 and State of Ohio laws, and ORC 153.011 and 5525.21. "United States" means the United States of America and includes all territory, continental or insular, subject to the jurisdiction of the United States.

**A. Federal Requirements.** All steel or iron products incorporated permanently into the Work must be made of steel or iron produced in the United States and all subsequent manufacturing must be performed in the United States. Manufacturing is any process that modifies the chemical content; physical shape or size; or final finish of a product. Manufacturing begins with the initial melting and mixing, and continues through the bending and coating stages. If a domestic product is taken out of the United States for any process, it becomes a foreign source material.

**B. State Requirements.** All steel products used in the Work for load-bearing structural purposes must be made from steel produced in the United States. State requirements do not apply to iron.

**C. Applications.**

1. When the Work is federally funded both the Federal and State requirements apply. This includes all portions of the Work, including portions that are not federally funded.
2. When the Work has no Federal funds, only the State requirements apply.

**D. Exceptions.** The Director may grant specific written permission to use foreign steel or iron products in bridge construction and foreign iron products in any type of construction. The Director may grant such exceptions under either of the following conditions:

1. The cost of products to be used does not exceed 0.1 percent of the total Contract cost, or \$2,500, whichever is greater. The cost is the value of the product as delivered to the project.
2. The specified products are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet the requirements of the Contract Documents. The Director may require the Contractor to obtain letters from three different suppliers documenting the unavailability of a product from a domestic source, if the shortage is not previously established.

**E. Proof of Domestic Origin.** Furnish documentation to the Engineer showing the domestic origin of all steel and iron products covered by this section, before they are incorporated into the Work. Products without a traceable domestic origin will be treated as a non-domestic product.

**106.10 Qualified Products List.** The Department may use Qualified Product Lists (QPL) for approval of manufactured materials. The Office of Materials Management (OMM) will maintain the QPL and the standard procedure for the QPL process. Inclusion of a material onto the QPL will be determined by OMM with support from other Department offices. To be kept on the QPL, manufacturers must recertify their material according to the Department's standard procedure by January 1 of each year. When a material requires QPL acceptance, only provide materials listed on the QPL at the time of delivery of the material to the project. Provide the Engineer documentation according to the Department's standard procedure that, at the time of delivery, the material provided is on the QPL.

**106.11 Maritime Transportation.** On federal-aid projects, ensure that project-specific materials or equipment transported by ocean vessel are in compliance with 46 CFR 381 and the Cargo Preference Act. Transport at least 50% of any equipment or materials on privately owned United States-flag commercial vessels, if available.

**106.12 Traffic Authorized Product.** The Department may use Traffic Authorized Product (TAP) List for approval of products used in Intelligent Transportation Systems (ITS) or Traffic Signal Systems. The Office of Traffic Operations will maintain the TAP and the standard procedure for the TAP process. Inclusion of a product onto the TAP will be determined by Office of Traffic Operations with support from other Department offices. To be kept on the TAP, manufacturers must recertify their product according to the Department's standard procedure by February 28 of each year. When a product requires TAP acceptance, only provide products listed on the TAP at the time of delivery of the product to the project. Provide the Engineer documentation according to the Department's standard procedure that, at the time of delivery, the material provided is on the TAP.

## 107 LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

**107.01 Laws to be Observed.** Stay fully informed of all Federal and State laws, all local laws, ordinances, and regulations, and all orders and decrees of authorities having any jurisdiction or authority that affect those engaged or employed on the Work, or that affect the conduct of the Work. Observe and comply with all such laws, ordinances, regulations, orders, and decrees. The DBT shall protect and indemnify the State 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 the Contractor, Designer, subconsultants, employees, subcontractors, or agents.

The DBT, under Title VI of the Civil Rights Act and related statutes, agrees that in the hiring of employees for the performance of Work under this Contract or any subcontract hereunder, the DBT, consultant, subconsultant, contractor, subcontractor, nor any person acting on behalf of the DBT shall, by reasons of race, religion, color, sex, national origin, disability or age, discriminate against any citizen of the United States in the employment of labor or workers, who is qualified and available to perform the Work to which the employment relates.

The DBT, contractor, subcontractor, consultant, subconsultant, nor any person on their behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of Work under this Contract on account of race, religion, color, sex, national origin, disability or age.

Comply with OAC-4123:1-3, entitled "Specific Safety Requirements of the Industrial Commission of Ohio Relating to Construction," as amended, and with the Federal Occupational Safety and Health Act of 1970 and Code of Federal Regulations, Title 29, Chapter XVII, Part 1926 and as amended.

**107.02 Permits, Licenses, and Taxes.** Procure all permits and licenses; pay all charges, fees, and taxes; and provide all notices necessary and incidental to the due and lawful prosecution of the Work. It is the responsibility of the DBT to obtain any permits, bonds, or costs required by the local road or street agency for the road use.

**107.03 Patented Devices, Materials, and Processes.** Before employing any design, device, material, or process covered by letters of patent or copyright, provide for its use by suitable legal agreement with the patentee or owner. The DBT and the Surety shall indemnify and save harmless the State, any affected third party, or political subdivision from any and all claims for infringement of patented design, device, material, process, or any trademark or copyright, and shall indemnify the State for any costs, expenses, and damages that it may be obliged to pay by reason of any infringement, at any time during the prosecution or after the completion of the Work.

**107.04 Restoration of Surfaces Opened by Permit.** The Director may grant to the municipality in which the Work is performed a reservation of rights to construct or reconstruct any utility service in the highway or street or to grant permits for same, at any time.

Any individual, firm, or corporation wishing to make an opening in the highway must secure a permit. Allow parties bearing such permits, and only those parties, to make openings in the highway. When ordered by the Engineer, make in an acceptable manner all necessary repairs due to such openings. The necessary repairs will be paid for as Extra Work, or as provided in the Contract Documents, and will be subject to the same conditions as the original Work performed.

**107.05 Federal-Aid Provisions.** When the United States Government pays for all or any portion of the Project's cost, the Work is subject to the inspection of the appropriate Federal agency.

Such inspections will not make the Federal Government a party to this Contract. The inspections will in no way interfere with the rights of either party to the Contract.

**107.06 Sanitary Provisions.** Provide and maintain sanitary accommodations in a neat condition for the use of employees and Department representatives that comply with the requirements of the State and local Boards of Health, or of other authorities having jurisdiction over the Project.

**107.07 Public Convenience and Safety.** At all times, ensure that the Work interferes as little as possible with the traffic. Provide for the safety and convenience of the general public and the residents along the highway and the protection of persons and property. Do not close any highways or streets unless specifically allowed by the Contract.

Any illegal drugs, drug paraphernalia, mobile drug labs or dumps, weapons or firearms found on the Project Right of Way shall be considered a potential crime scene and shall not be handled or moved. Immediately notify law enforcement and the Engineer.

**107.08 Bridges Over Navigable Waters.** Conduct all Work on navigable waters so that it does not interfere with free navigation of the waterways and that it does not alter the existing navigable depths, except as allowed by permit issued by the U.S. Coast Guard. Work within the flood plain of a navigable stream may require a permit from the U.S. Army Corps of Engineers. If an U.S. Army Corps of Engineers permit is required, provide all documentation submitted to obtain the permit(s) and a copy of the permit(s) to the Department.

**107.09 Use of Explosives.** When the use of explosives is necessary for the prosecution of the Work, exercise the utmost care not to endanger life or property, including new Work. The Contractor is responsible for all damage resulting from the use of explosives.

Obtain written permission to perform in-stream blasting from the Chief of the Division of Wildlife, Ohio DNR according to ORC 1533.58. Provide the Engineer with all documentation submitted to obtain this permit and with a copy of the permit.

The Contractor agrees, warrants, and certifies that it will observe State laws and local ordinances and regulations relative to the use and storing of explosives kept on the Project site.

Perform all blasting operations according to Item 208.

**107.10 Protection and Restoration of Property.** The Contractor is responsible for the preservation of all public and private property impacted by the Contractor's operations.

The Contractor is responsible for all damage or injury to property, during the prosecution of the Work, resulting from any act, omission, neglect, defective work or materials, or misconduct in the manner or method of executing the Work. The DBT will remain responsible for all damage and injury to property until the Project is accepted under 109.12, except for portions of the Work accepted under 109.11.

If the DBT causes any direct or indirect damage or injury to public or private property by any act, omission, neglect, or misconduct in the execution or the non-execution of the Work, then it must restore, at its own expense, the property to a condition similar or equal to that existing before the damage or injury.

If mail boxes, road, or street name signs and supports interfere with the Work, then remove and erect them in a temporary location during construction in a manner satisfactory to and as directed by the Engineer. After completion of the Work and before final acceptance of the Project, erect the mailboxes, road, or street name signs and supports in their permanent locations according to the plans unless otherwise directed by the Engineer. Consider the cost of this Work as incidental to the affected items.

Cooperate with the Engineer in protecting and preserving survey monuments that are affected by the Work as required by ORC 5519.05. At the beginning of the Work, verify the position of all survey monuments in the area to be improved, according to 623. If survey monuments not shown in the Contract Documents are unexpectedly encountered, then protect, reference, and preserve them in the same manner as survey monuments that are shown in the Contract Documents.

Do not create staging areas, store materials and equipment, or borrow or waste materials in areas labeled as an environmental resources areas in the Contract Documents. All properties to be utilized by the Contractor outside the project Work Limits must be cleared for all environmental resource impacts prior to the beginning of work. Environmental resources include but may not be limited to:

1. Cultural Resources
  - a. Buildings, structures, objects, and sites eligible for or listed on the National Register of Historic Places
  - b. Historic or prehistoric human remains, cemeteries, and/or burial sites (pursuant with ORC 2909.05 and 2927.11)
2. Ecological Resources
  - a. Wetlands
  - b. Streams
  - c. Wooded areas with trees to be removed in excess of 8 inches diameter at breast height
3. Public Lands
  - a. Lands meeting the criteria of 49 U.S.C. 303, 23 CFR 771.135: 4(f).
  - b. Lands meeting the criteria of 16 U.S.C. 4601-4, 36 CFR59.1: 6(f).
4. FEMA Mapped 100 year Floodplains
5. Hazardous Waste Areas

Except for locations utilized specifically for:

1. Parking of equipment between workdays for maintenance type projects:
2. Reuse of Clean Hard Fill as described in CA-EW-20 (ODOT Beneficial Reuse Form). Prior to transferring Clean Hard Fill from the project, fully execute form CA-EW-20 and provide appropriate documentation to the Engineer as described for each reuse option.

All areas proposed to be utilized by the Contractor outside the project construction limits and not described above shall be reviewed by environmental Contractor(s) that are prequalified by the Department for each environmental resource. Exception (1.) noted above only applies to projects with “maintenance” in the project description. Have the consultant(s) certify that the proposed site to be utilized for the Contractor will not impact:

1. Cultural Resources
2. Ecological Resources
3. Public Lands
4. FEMA Mapped 100 year Floodplains



## 5. Hazardous Waste Areas

Provide all documentation and the consultant certification to the Office of Environmental Services with a copy to the Engineer.

Should the areas proposed for use by the Contractor outside the project right of way limits contain environmental resources the Contractor is responsible to the Department for all environmental clearances and permits prior to the beginning of work.

### **107.11 Contractor's Use of the Project Right-of-Way or Other Department-Owned Property.**

**A. Disposal of Waste Material and Construction Debris and Excavation of Borrow on the Project Right-of-Way or on Other Department-Owned Property.** Dispose of waste material according to 105.16 and dispose of construction debris according to 105.17. In addition to the rights granted in 104.03, the Contractor's use of the Project Right-of-Way or other Department-owned property for the disposal of waste material and construction debris and excavation of borrow material is restricted as follows:

1. If the Contract Documents identify locations for the disposal of waste material and construction debris or excavation of borrow material within the Project Right-of-Way or on other Department-owned property, then only perform these operations in these designated locations.

2. If the Contract Documents do not identify locations for the disposal of waste material and construction debris or excavation of borrow material within the Project Right-of-Way or on other Department-owned property, then do not Bid assuming that the Department will make such locations available.

If the Contractor's request to use locations within the Project Right-of-Way or on other Department-owned property is approved by the Engineer, then the Department may allow the Contractor to dispose of waste material and construction debris or excavate borrow material for a fee of \$0.50 per cubic yard.

**B. Contractor's Use of Portable Plants Within the Project Right-of-Way or on Other Department-Owned Property.** The Contractor's use of portable plants within the Project Right-of-Way or on other Department-owned property is limited as follows:

1. If the Contract Documents identify locations within the Project Right-of-Way or on other Department-owned property to place a portable plant, then only place a portable plant in these designated locations subject to the requirements of 107.11.C.

2. If the Contract Documents do not identify locations within the Project Right-of-Way or on other Department-owned property to place a portable plant, then do not bid assuming that the Department will make such locations available.

**C. Placement of a Portable Plant within the Project Right-of-Way or on Other Department-Owned Property.** To place a portable plant within the Project Right-of-Way or on other Department-owned property, comply with the following requirements:

1. Local noise ordinances.

2. Obtain any necessary EPA permits for the operation of the plant. Provide the Department with a copy of the information submitted to obtain the permit and a copy of the permit.

3. Provide the Engineer written certification that the plant will supply material only for the Project for which it was approved. Do not use the plant to supply any other project or to sell materials commercially.

4. Submit a traffic control plan to the Engineer for approval that details the anticipated truck movements and provides acceptable protection, warning, and guidance to motorists, pedestrians, and the workers.

**D. Equipment Storage and Staging.** The Contractor may use, fee-free, any portion of the Project within the Project Right-of-Way for staging, equipment storage, or an office site with the approval of the Engineer, provided such usages do not interfere with the Work and are not prohibited by the Contract Documents. Do not bid in anticipation of using any properties within the Project Right-of-Way or Department-owned property outside the Project Right-of-Way for equipment storage or staging.

**E. Equipment Removal and Site Restoration.** Remove all Contractor equipment and completely restore all utilized sites used as required by 104.04 before Final Acceptance as provided in 109.12.

**107.12 Responsibility for Damage Claims and Liability Insurance.** The Contractor shall indemnify and save harmless the State and all of its representatives, municipalities, counties, public utilities, any affected railroad or railway company, and any fee owner from whom a temporary Right-of-Way was acquired for the Project from all



suits, actions, claims, damages, or costs of any character brought on account of any injuries or damages sustained by any person or property on account of any negligent act or omission by the Contractor or its subcontractors or agents in the prosecution or safeguarding of the Work.

The Contractor shall procure and maintain insurance for liability for damages imposed by law and assumed under this Contract, of the kinds and in the amounts hereinafter provided from insurance companies authorized to do business in the State by the Ohio Department of Insurance. The cost of insurance is incidental to all contract items. Before the execution of the Contract by the Director, furnish to the Department a certificate or certificates of insurance in the form satisfactory to the Department demonstrating compliance with this subsection. Provide an insurance certificate or certificates that show that the Contractor's liability and auto policies coverage are not reduced, restricted, or canceled until 30 days written notice has been given to the Department by the insurer. Mail all certificates and notices to: Administrator, Office of Contracts, Ohio Department of Transportation, 1980 West Broad Street, Columbus, Ohio 43223. Upon request, the Contractor shall furnish the Department with a certified copy of each policy, including the provisions establishing premiums.

The types and minimum limits of insurance are as follows:

**A. Workers' Compensation Insurance.** Comply with all provisions of the laws and rules of the Ohio Bureau of Workers' Compensation covering all operations under Contract with the Department whether performed by it or its subcontractors. In addition, if a portion of the Work is performed from a barge or ship or requires unloading material from a barge or ship on a navigable waterway of the United States, it is the responsibility of the Contractor to arrange coverage for that portion of the Work under the Longshore and Harborworkers' Compensation Act [33 USC Section 901 *et seq.*] and the Jones Act [5 USC Section 751 *et seq.*] and provide proof of coverage to the Department.

**B. Commercial General Liability Insurance.** The minimum limits for liability insurance are as follows:

General Aggregate Limit	\$2,000,000
Products - Completed Operations Aggregate Limit	\$2,000,000
Personal and Advertising Injury Limit	\$1,000,000
Each Occurrence Limit	\$1,000,000

Obtain the above minimum coverages through primary insurance or any combination of primary and umbrella insurance. In addition, the Department will require the General Aggregate Limit on a per project basis.

Ensure that the Commercial General Liability Insurance policy names the State of Ohio, Department of Transportation, its officers, agents, and employees as additional insureds with all rights to due notices in the manner set out above. Obtain Explosion, Collapse, and Underground (XCU) coverage at the same limits as the commercial general liability insurance policy. In addition, if blasting is to be performed, obtain XCU coverage providing a minimum Aggregate Limit of \$5,000,000 and Each Occurrence Limit of \$1,000,000. Submit proof of insurance, endorsements, and attachments to the Engineer prior to starting the Work.

**C. Comprehensive Automobile Liability Insurance.** The Comprehensive Automobile Liability policy shall cover owned, non-owned, and hired vehicles with minimum limits as follows:

Bodily Injury and Property Damage Liability Limit	
Each Occurrence	\$1,000,000

Insurance coverage in the minimum amounts set forth neither relieves the Contractor from liability in excess of such coverage, nor precludes the Department from taking such other actions as are available to it under any other provisions of this Contract or otherwise in law.

Clearly set forth all exclusions and deductible clauses in all proof of insurance submitted to the Department. The Contractor is responsible for the deductible limit of the policy and all exclusions consistent with the risks it assumes under this Contract and as imposed by law.

If the Contractor provides evidence of insurance in the form of certificates of insurance, valid for a period of time less than the period during which the Contractor is required by terms of this Contract, then the Department will accept the certificates, but the Contractor is obligated to renew its insurance policies as necessary. Provide new certificates of insurance from time to time, so that the Department is continuously in possession of evidence that the Contractor's insurance is according to the foregoing provisions.

If the Contractor fails or refuses to renew its insurance policies or the policies are canceled or terminated, or if aggregate limits have been impaired by claims so that the amount available is under the minimum aggregate required, or modified so that the insurance does not meet the requirements of 107.12.C, the Department may refuse to make payment of any further monies due under this Contract or refuse to make payment of monies due or coming due under

other contracts between the Contractor and the Department. The Department in its sole discretion may use monies retained pursuant to this subsection to renew or increase the Contractor's insurance as necessary for the periods and amounts referred to above. Alternatively, should the Contractor fail to comply with these requirements, the Department may default the Contractor and call upon the Contractor's Surety to remedy any deficiencies. During any period when the required insurance is not in effect, the Engineer may suspend performance of the Contract. If the Contract is so suspended, the Contractor is not entitled to additional compensation or an extension of time on account thereof.

Nothing in the Contract Documents and insurance requirements is intended to create in the public or any member thereof a third party beneficiary hereunder, nor is any term and condition or other provision of the Contract intended to establish a standard of care owed to the public or any member thereof.

**D. Professional Liability Insurance.** The DBT must secure and maintain professional liability insurance as specified in 107.12 (E), for the minimum limits indicated. Policies written on a claims-made basis shall have a retroactive date which covers the period in which the design work began. The insurance policy shall be written by an insurance company authorized to transact business in the State of Ohio and licensed by the Department of Insurance as either admitted or non-admitted insurers and shall be rated A- or better by A.M. Best at the time the contract is executed by the Director.

The DBT must immediately notify the Department in writing if it, the Designer, or any of its subconsultants fails or refuses to renew its Professional Liability Insurance, or Workers' Compensation Insurance. Furthermore, the DBT must notify the Department in writing if it's, the Designer's, or any of its subconsultants' policies are canceled, lapse, terminated or modified so that the insurance does not meet the requirements set forth here-in.

Prior to the payment of the first pay estimate, the DBT shall provide the Department with one copy of the required insurance policy.

The cost of this policy will be incidental to the Work.

The failure to comply with any of the provisions contained here-in shall be considered a breach of contract.

**E. Practice Professional Liability Insurance.** The Contractor providing in-house professional services shall carry Practice Professional Liability Insurance in the amount of not less than \$1,000,000.00 per claim and \$1,000,000.00 annual aggregate to protect against claims arising from the performance of its professional services caused by the negligent acts, errors, or omissions for which the Contractor is legally liable. The coverage shall be maintained for a minimum of 3 years after substantial completion of the project as long as it is commercially available. A certificate of insurance evidencing such coverage must be submitted for the entity providing professional services prior to the execution of the Contract.

When the DBT retains the Designer and subconsultants to provide professional services, the DBT shall ensure that the Designer and subconsultants maintain Practice Professional Liability Insurance in the amount of \$1,000,000.00 per claim and \$1,000,000.00 annual aggregate for a period of 3 years after substantial completion of the project, as long as it is commercially available. A certificate of insurance evidencing such coverage must be submitted for the entity providing professional services prior to the execution of the Contract.

Prior to the payment of the first pay estimate, the DBT shall provide the Department with one copy of the required insurance policy.

The cost of this policy will be incidental to the Work.

**107.13 Reporting, Investigating, and Resolving Motorist Damage Claims.** The Contractor and the Department are required to report, investigate, and resolve motorist damage claims according to 107.10 and 107.12 and as follows.

When a motorist reports damage to its vehicle either verbally or in writing to the Contractor, the Contractor shall within 3 days make and file a written report to the District's construction office. In the event that the Department directly receives the motorist's claim, the Department shall within 3 days send the claim report to the Contractor. In the event the Contractor has not agreed to resolve the motorist claim, the District's construction office shall forward the report to the Department's Court of Claims Coordinator who, as a co-insured party, may then contact the Contractor's insurance company and request that the insurance company investigate and resolve the claim. If the Contractor or their insurance company does not resolve the claim in a timely manner, the Department may advise the motorist of the option of pursuing the claim in the Ohio Court of Claims.

In the event of a lawsuit filed against the Department in the Ohio Court of Claims by the motorist, the Department, as co-insured party, may request the Contractor's insurance company to defend this lawsuit and hold the Department harmless according to 107.12.

If the lawsuit claim amount is \$2,500 or less and the Court of Claims Coordinator determines that the Contractor is responsible for the claimed damages then the Department's Court of Claims Coordinator may, after notifying the Contractor, determine that it would be in the best interest of the Department to settle the claim. Any settlement amount including court costs may be assessed to the Contractor and deducted from the project. The Engineer will notify the Contractor prior to executing the deduction. The Contractor or the Contractor's insurance company may within 14 days appeal the assessment decision of the Court of Claims Coordinator to the District Construction Engineer. The decision of the DCE will be made within 14 days and will be administratively final.

**107.14 Opening Sections of Project to Traffic.** The Engineer may order the Contractor to open a section of the Work to the safe use of traffic at any time. The Department will make an adjustment according 108.06 and 109.05 to compensate the DBT for the added costs and delay, if any, resulting from such an opening.

**107.15 DBT's Responsibility for Work.** Until the Final Inspector accepts the Work during the Final Inspection according to 109.12.A, the DBT is responsible for the Project and will take every precaution against injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the Work. Rebuild, repair, restore, and make good all injuries or damages to any portion of the Work occasioned by any of the above causes before final acceptance. Bear the expense of the repairs except when damage to the Work was due to unforeseeable causes beyond the control of and without the fault or negligence of the DBT. Unforeseeable causes include but are not restricted to; (a) earthquake, floods, tornados, high winds, lightning or other catastrophes proclaimed a disaster or emergency, (b) slides, (c) civil disturbances, or (d) governmental acts.

In the event that the Engineer determines that damage to completed permanent items of Work results from traffic using a substantially completed section of Roadway, the Department may compensate the DBT for repair of the damage as authorized by Change Order. Additionally, if traffic permanently damages beyond use and of the following temporary maintenance of traffic items, the Department may compensate the Contractor for replacement of the item as authorized by Change Order:

1. Arrow board.
2. Work zone signal, pole, or controller.
3. Lighting unit or pole.
4. Changeable message sign.
5. Work Zone Impact Attenuator
6. Truck Mounted Impact Attenuator
7. Digital Speed Limit Sign Assembly.

To receive compensation for the damage to permanent items of Work or temporary maintenance of traffic items named above, the DBT must first meet the following requirements.

- A.** Notify the Engineer of each occurrence of damage in writing within 10 Calendar Days.
- B.** Contact the local law enforcement agency to determine if the accident was investigated and a report filed. If an accident report was filed, obtain the report and notify the motorist, and copy their insurance company, via certified mail informing both that the motorist is responsible for the cost of damage repairs. If the motorist does not respond within 30 days, make a second attempt to contact the motorist and copy the insurance company via certified mail.
- C.** If no response is received from the motorist or insurance company within 30 days of the motorist receipt of the second notice, send a letter to the Engineer within eighteen months of the event and include documentation of good faith effort to seek recovery from responsible parties.
- D.** The Department will make an adjustment according to 108.06 and 109.05 to compensate the Contractor for the added costs and delays, if any, resulting from the repair or replacement of damaged Work.

If there is no accident report on file and no means of identifying the responsible motorist, the Contractor may likewise be compensated to repair the damaged Work.

In case of suspension of Work by the DBT or under the provisions of 105.01, the Contractor is responsible for the Project and shall take necessary precautions to prevent damage to the Project; provide for normal drainage; and erect any necessary temporary structures, signs, or other facilities at its expense. During such period of suspension of Work, properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seedings, and soddings furnished under the Contract, and take adequate precautions to protect new tree growth and other important vegetative growth against injury.

The Engineer may direct the Contractor to remove graffiti any time during the Work. The Department will make an adjustment according to 108.06 and 109.05 to compensate the Contractor for the added costs and delays, if any, resulting from all ordered graffiti removal.

**107.16 Contractor's Responsibility for Utility Property and Services.** At points where the Contractor's operations are adjacent to properties of railway, cable, telephone, and power companies, or are adjacent to other property, and any damage to their property may result in considerable expense, loss, or inconvenience, do not commence with the operation until all arrangements necessary for the protection of the property have been made.

Cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations to ensure these operations progress in a reasonable manner, that duplication of rearrangement Work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted.

In the event interruption to underground or overhead utility services results from an accidental breakage or from being exposed or unsupported, immediately alert the occupants of nearby premises as to any emergency that the accidental breakage may create at or near such premises. Then notify the Engineer and the owner or operator of the utility facility of the disruption and cooperate with the said utility owner or operator in the restoration of service. If water service is interrupted, perform the repair work continuously until the service is restored unless the repair work is performed by the local governmental authority. Do not begin Work around fire hydrants until the local fire authority approves provisions for continued service.

**107.17 Furnishing Right-of-Way.** The Department is responsible for securing all necessary Right-of-Way in advance of construction. The Bid Documents will indicate any exceptions. The Department will notify all prospective Bidders in writing before the date scheduled for receipt of Bids regarding the specific dates certain parcels will be made available to the DBT.

Where proposed work is beyond existing right-of-way limits, the Contractor shall not commence any construction work outside of the right-of-way until notified by the Department that the needed additional right-of-way has been acquired and is otherwise available for construction work.

**107.18 No Waiver of Legal Rights.** The following Department actions do not waive the Department's rights or powers under the Contract, or any right to damages herein provided:

- A. Inspection by the Engineer or by any of Engineer's duly authorized representatives.
- B. Review of Design Documents by the Project Manager, Engineer, or any of the Department's duly authorized representatives.
- C. Any order, measurements, or certificate by the Director, or Department representatives.
- D. Any order by the Director or Department representatives for the payments of money or the withholding of money.
- E. Acceptance of any Work.
- F. Any extension of time.
- G. Any possession taken by the State or its duly authorized representatives.
- H. Review of Technical Proposals or Pre-Award meeting discussions.

The Department will not consider any waiver of a breach of this Contract to be a waiver of any other subsequent breach.

**107.19 Environmental Protection.** Comply with all Federal, State, and local laws and regulations controlling pollution of the environment. Avoid polluting streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, sediments, or other harmful materials, and avoid polluting the atmosphere with particulate and gaseous matter.

By execution of this contract, the DBT, will be deemed to have stipulated as follows:

- A. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

**B.** That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

**C.** That the firm shall promptly notify the Department of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

**D.** That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

Fording of streams is prohibited. Causeways for stream and river crossings or for Work below a bridge are permitted provided:

**A.** The causeway complies with the requirements of the 404 Permit the Department obtained for the Project.

**B.** The DBT obtains a 404 Permit from the U.S. Army Corps of Engineers if the Department has not obtained such a permit. Obtain the 404 Permit prior to beginning construction of the causeway. The Department does not guarantee that the DBT will be able to obtain a 404 Permit.

Comply with all current provisions of the Ohio Water Pollution Control Act (OWPCA), (ORC Chapter 6111). The Department will obtain a storm water permit under the OWPCA provisions when the plan work acreage requires a permit. Apply for a permit to cover operations outside the Project limits shown on the plans as required by the OWPCA provisions. When the Department has not applied for a permit on the Project and a permit is required under the provisions of the OWPCA because of the total area of the Contractor's work, apply for, obtain, and comply with the required permit for both the Work within Project limits and the Contractor's work.

The Department has obtained the required permits from the U.S. Army Corps of Engineers and Ohio EPA for Work in the "Waters of the United States" and isolated wetlands under ORC Chapter 6111. Comply with the requirements of these permits.

When equipment is working next to a stream, lake, pond, or reservoir, appropriate spill response equipment is required. Do not stockpile fine material next to a stream, lake, pond, or reservoir.

Take precautions to avoid demolition debris and discharges associated with the excavation and hauling of material from entering the stream. Remove any material that does fall into the stream as soon as possible.

When excavating in or adjacent to streams, separate such areas from the main stream by a dike or barrier to keep sediment from entering the stream. Take care during the construction and removal of such barriers to minimize sediment entering the stream.

Contain, collect, characterize and legally dispose of all liquid waste and sludge generated during the work. Do not mix wastes with storm water. Do not discharge any liquid waste without the appropriate regulatory permits. Manage liquid waste and sludge in accordance with ORC Chapter 6111 and all other laws, regulations, permits and local ordinances relating to this waste. Liquid waste management is incidental to the Work unless otherwise specified in the contract.

Control the fugitive dust generated by the Work according to OAC-3745-17-07(B), OAC-3745-17-08, OAC-3745-15-07, and OAC-3745-17-03 and local ordinances and regulations. Prior to the initiation of abrasive coating removal, pavement cutting or any other construction operation that generates dust, demonstrate to the Engineer that construction related dust will be controlled with appropriate Reasonable Available Control Measures (RACM) as described in OEPA Engineering Guide #57 (<http://epa.ohio.gov/dapc/engineer/eguides.aspx>).

In addition, use dust control measures when fugitive dust creates unsafe conditions as determined by the Engineer. Perform this work without additional compensation except for Item 616.

Perform open burning according to 105.16.

**107.20 Civil Rights.** Comply with Federal, State, and local laws, rules, and regulations that prohibit unlawful employment practices including that of discrimination because of race, religion, color, sex, national origin, disability or age and that define actions required for Affirmative Action and Disadvantaged Business Enterprise (DBE) programs.

**107.21 Prompt Payment.** In accordance with ORC 4113.61, make payment to each consultant, subcontractor, and supplier within 10 Calendar Days after receipt of payment from the Department for Work performed or materials delivered or incorporated into the Project, provided that the pay estimate prepared by the Engineer includes Work performed or materials delivered or incorporated into the public improvement by the consultant, subcontractor or supplier. Contractors are prohibited from holding retainage from subcontractors that can provide a bond. For unbonded



subcontractors and suppliers, promptly release any retainage held, as set forth in any subcontractor or supplier agreement, 30 days after the work is satisfactory completed. For the purposes of this section, satisfactory completed will be interpreted as when the subcontractor has completed all physical work and submitted any necessary documentation required by the specifications and the Department. No subcontract provision shall permit the Contractor to delay subcontractor's or consultant retainage payments until the Project's final payment.

Also require that this contractual obligation be placed in all consultants, subconsultants, subcontractor and supplier contracts that it enters into and further require that all consultants, subconsultants subcontractor and suppliers place the same payment obligation in each of their lower tier contracts. If the DBT, contractor, subcontractors, consultant, subconsultant or supplier subject to this provision fail to comply with the 10 Calendar Day requirement, the offending party shall pay, in addition to the payment due, interest in the amount of 18 percent per annum of the payment due, beginning on the eleventh Calendar Day following the receipt of payment from the Department and ending on the date of full payment of the payment due plus interest.

Repeated failures to pay consultants, subcontractors or suppliers timely pursuant to this subsection will result in a finding by the Department that the Contractor is in breach of Contract and subject to all legal consequences that such a finding entails. Further, repeated failures to pay timely pursuant to this subsection will result in a lower evaluation score for the Contractor and those subcontractors who are subject to evaluation by the Department.

**107.22 Unmanned Aircraft Systems.** If the project requires or anticipates the use of Unmanned Aircraft Systems within ODOT Right of Way, the Contractor will follow proper risk assessment and federal regulations in accordance with Supplement 1132.

## 108 PROSECUTION AND PROGRESS

**108.01 Subletting of the Contract.** Perform Work amounting to not less than 50 percent of the Contract Price with its own organization, unless otherwise approved by the Director. The phrase "its own organization" includes only workers employed and paid directly, inclusive of employees who are employed by a lease agreement acceptable to the Department, and equipment owned or rented with or without operators by the Contractor. The phrase does not include employees or equipment of a Designer, subconsultant, subcontractor, assignee, or agent of the Contractor. Obtain the Director's written consent to subcontract, subconsult, sublet, sell, transfer, assign, or otherwise relinquish rights, title, or interest in the Work. Provide the Director with a copy of all Disadvantaged Business Enterprise subcontracts.

The Contractor's percentage of the total Contract Price includes the cost of materials and manufactured products purchased by the Contractor, but not the cost of materials and manufactured products purchased by subcontractors.

The Director will calculate the DBT's percentage based on the quantities shown in the Proposal and the unit prices of the contract items to be performed by the DBT's organization. If the DBT performs only a portion of a contract item, then the Director will determine the proportional value administratively on the same basis. The Director will follow this procedure even when the part not subcontracted consists only of the procurement of materials. However, if a firm both sells the materials to the Contractor and performs the Work of incorporating the materials into the Project, then the Department will consider these two phases in combination and as a single subcontract. If an affiliate of the firm either sells the materials or performs the Work, the Department may refuse approval. An affiliate is one who has some common ownership or other close relation to said firm.

Use actual subcontract and subconsult prices for calculating compliance with any Disadvantaged Business Enterprise (DBE) percentage subcontracting and subconsulting obligations. If only a part of a contract item is sublet, then determine its proportional value administratively on the same basis. The Director will follow this procedure even when the part not sublet consists only of procuring materials. However, if a firm both sells the materials to the Contractor and performs the work of incorporating the materials into the Project, then the Department will consider these two phases in combination and as a single subcontract. If an affiliate of the firm either sells the materials or performs the Work, the Department may refuse approval.

**108.02 Partnering.** It is the intent of the Department to partner every project. The purpose of Partnering is to develop a proactive effort and spirit of trust, respect, and cooperation among all stakeholders in a project. Partnering does not affect the terms and conditions of the Contract. The Partnering process in this section is Self-facilitated Partnering performed by the Project personnel. Costs associated with the Self-facilitated Partnering process are incidental to the Contract.

**A. Pre-design and Preconstruction Meeting.** Meet with the Engineer and the Project Manager for a Pre-design Meeting prior to commencing design work. The DBT shall furnish a Progress Schedule for the design process, as



specified, and a list of all sub-consultants and other firms involved in the design process. At or before the Pre-design meeting, furnish a list of proposed subconsultants and the anticipated design work to be performed.

Meet with the Engineer for a Preconstruction Meeting before beginning the construction portion of the Work. At or before the meeting, submit the initial progress schedule to the DCE. Prepare the schedule according to the contract requirements.

At or before the Preconstruction meeting, furnish a list of proposed subcontractors and major material suppliers not included in the list submitted before the execution of the Contract. If the Contractor fails to provide the required submissions at or before at the Pre-design or the Preconstruction Meeting, the Engineer may order the meeting suspended until they are furnished. Do not begin the Work until the meeting is reconvened and concluded or the Engineer gives specific written permission to proceed.

**B. Initial Partnering Session.** In conjunction with the Engineer, determine whether the Initial Partnering Session will be conducted as part of the Preconstruction Meeting, Pre-design Meeting or as a separate meeting. Partnering shall have its own agenda with specific time set aside to develop the necessary partnering protocols. Develop the Partnering agenda with the Engineer.

Identify and invite all stakeholders necessary to make the Project successful including utility companies, other transportation entities (i.e., railroads), community leaders, all Project participants including subcontractors.

During the Initial Partnering Session, consider developing Partnering teams consisting of Department's, Contractor's, and Designer's senior personnel and Project personnel. Consider the following items for discussion:

1. Identifying and developing a consensus on project goals consistent with the contractual obligations, including specific goals concerning safety, quality, schedule, and budget.
2. Deciding how the teams will measure progress on Project goals.
3. Identifying any potential risks to the Project's success, mitigation strategies and an implementation plan for the appropriate strategies.
4. Defining key issues, project concerns, joint expectations, roles of key partnership leaders, lines of decision making authority, and share relevant information to help determine the scope of the Partnering efforts.
5. Identifying any opportunities for project enhancement, enhancement strategies and a specific action plan for implementing strategies.
6. Developing a communication protocol to enhance communication on the Project
7. Developing an issue identification and resolution process that identifies and attempts to resolve issues at the level closest to the work. The issue identification and resolution process will develop all the necessary steps for issue elevation including Notice and Mitigation defined in 108.02.F and the Dispute Resolution and Administrative Claims Process defined in 108.02.G.

**C. Progress Meetings and Design Progress Meetings.** Hold monthly Design Progress meetings unless the frequency is otherwise determined at the Pre-design Meeting. Coordinate with the Project Manager to determine agenda topics prior to each meeting. The purpose of Design Progress Meetings is to keep open communication between the Designer and the Project Manager to discuss anticipated design approaches, anticipated submissions, and status of design submissions being reviewed by the Department. The senior DBT personnel is encouraged to participate in all Design Progress Meetings.

Hold monthly Progress Meetings unless the frequency is otherwise determined at the Preconstruction Meeting. Coordinate with the Engineer to determine agenda topics prior to each meeting. The purpose of Progress Meetings is to keep open communication between the Contractor and the Engineer. The senior DBT personnel team are encouraged to participate in all Progress Meetings. Include Partnering as an agenda item at the Progress Meetings.

**D. Post-milestone Meeting.** In conjunction with the Engineer, determine whether the Post-milestone Meeting will be conducted as part of the Progress Meeting or as a separate meeting for multi-year, multi-phase, or projects with critical items of work or milestone dates. Consider discussing and updating items from the Initial Partnering Session in addition to items specific to the Project. All stakeholders should be invited to attend.

**E. Partnering Monitoring.** Monitor the progress of the Partnering relationship based on the goals decided during the Initial Partnering Session. On-line surveys of Project participants may be used to monitor progress on Project goals and help identify issues as they arise. The on-line surveys are consistent with the Department's Partnering Project Rating Form which is located on the Division of Construction Management's Partnering website:

<http://www.dot.state.oh.us/Divisions/ConstructionMgt/Pages/Partnering.aspx>

**F. Mitigation and Notice.** Mitigation of any issue, whether caused by the Department, DBT, third-party or an intervening event, is a shared contract and legal requirement. Mitigation efforts include, but are not limited to, re-sequencing Work activities, acceleration, differing design concepts, and substitution of materials. The DBT and Engineer must explore and discuss potential mitigation efforts in a timely manner.

1. **DBT Initial Oral Notification.** Provide immediate oral notification to the Engineer upon discovering a circumstance that may require a revision to the Contract Documents or may result in a dispute. Upon notification, the Engineer will attempt to resolve the identified issue as quickly as possible.

2. **DBT Written Early Notice.** If the Engineer has not resolved the identified issue within two (2) working days after receipt of oral notification, provide written notice to the Engineer of any circumstance that may require a revision to the Contract Documents or may result in a dispute. This early notice must be given by the end of the second working day following the occurrence of the circumstance.

The Engineer and DBT shall maintain records of labor, equipment, and materials used on the disputed work or made necessary by the circumstance. Such records will begin when early notice is received by the Engineer. Tracking such information is not an acknowledgement that the Department accepts responsibility for payment for this disputed work.

If an issue is not resolved through the initial mitigation efforts, either abandon or escalate to the Dispute and Administrative Claims Process defined in 108.02.G.

**G. Dispute Resolution and Administrative Claims Process.** Whenever an issue is elevated to a dispute, the parties shall exhaust the Department's Dispute Resolution and Administrative Claim process set forth below as a condition precedent to filing an action in the Ohio Court of Claims. The following procedures do not otherwise compromise the Contractor's right to seek relief in any Ohio Court with legal jurisdiction.

All parties to the dispute must adhere to the Dispute Resolution and Administrative Claim process. Do not contact Department personnel who are to be involved in a Step 2 or Step 3 review until a decision has been issued by the previous tier. Department personnel involved in Step 2 or Step 3 reviews will not consider a dispute until the previous tier has properly reviewed the dispute and issued a decision.

Failure to meet any of the timeframes outlined below or to request an extension will terminate further review of the dispute and serve as a waiver of the DBT's right to file a claim.

Disputes and claims by the Designer, subconsultants, subcontractors and suppliers may be pursued by the DBT on behalf of consultants, subconsultants, subcontractors or suppliers. Disputes and claims by the Designer, subconsultants, subcontractors and suppliers against the Department but not supported by the DBT will not be reviewed by the Department. Disputes and claims of the Designer, subconsultants, subcontractors, and suppliers against the DBT will not be reviewed by the Department.

Continue with all Work during the Dispute Resolution and Administrative Claims process, including that which is in dispute. The Department will continue to pay for Work.

The Department will not make the adjustments allowed by 104.02.B, 104.02.C, and 104.02.D if the DBT did not give notice as specified in 108.02.F.1 and 108.02.F.2. This provision does not apply to adjustments provided in Table 104.02-2.

1. **Step 1 (On-Site Determination).** The Engineer will meet with the DBT's superintendent within two (2) working days of receipt of the DBT Written Early Notice set forth in 108.02.F.2. They will jointly review all pertinent information and contract provisions and negotiate in an effort to reach a resolution. The Engineer will issue a written Step 1 decision within fourteen (14) calendar days of the meeting. If the dispute is not resolved, either abandon or escalate the dispute to Step 2.

2. **Step 2 (District Dispute Resolution Committee).** Each District will establish a District Dispute Resolution Committee (DDRC) which will be responsible for hearing and deciding disputes at the Step 2 level. The DDRC will consist of the District Deputy Director, District Construction Engineer and the Capital Program Administrator or designees (other than the project personnel involved in the dispute). Disputes centering primarily on design related issues may include the District Design Engineer.

Within seven (7) calendar days of receipt of the Step 1 decision, either abandon the dispute or submit a written request for a Step 2 meeting to the District Construction Engineer (DCE). The DCE will assign the dispute a dispute number. Within fourteen (14) calendar days of submitting the request for a Step 2 meeting, submit three (3) complete copies of the Dispute Documentation to the DCE as follows:

- a) Identify the Dispute on a cover page by county, project number, DBT name, consultants, subconsultants, subcontractor or supplier if involved in the dispute, and the dispute number.
- b) Clearly identify each item for which additional compensation and/or time is requested.
- c) Provide a detailed narrative of the disputed work or project circumstance at issue. Include the dates of the disputed work and the date of early notice.
- d) Reference the applicable provisions of the plans, specifications, proposal, or other contract documents in dispute. Include copies of the cited provisions in the Dispute Documentation.
- e) Include the dollar amount of additional compensation and length of contract time extension requested.
- f) Include supporting documents for the requested compensation stated above.
- g) Provide a detailed schedule analysis for any dispute involving additional contract time, actual or constructive acceleration, or delay damages. At a minimum, this schedule analysis must include the Schedule Update immediately preceding the occurrence of the circumstance alleged to have caused delay and must comply with accepted industry practices. Failure to submit the required schedule analysis will result in the denial of that portion of the DBT's request.
- h) Include copies of relevant correspondence and other pertinent documents.

Within fourteen (14) calendar days of receipt of the DBT's Dispute Documentation, the Engineer will provide the DBT with all documentation it intends to rely on at the DDRC meeting to rebut the DBT's dispute.

After allowing at least fourteen (14) calendar days for the DBT to review the Engineer's Dispute Documentation, the DDRC will conduct the Step 2 meeting with DBT personnel who are authorized to resolve the dispute. The DDRC will issue a written Step 2 decision to the DBT and the Dispute Resolution Coordinator within fourteen (14) calendar days of the meeting. If the dispute is not resolved, either abandon or escalate the dispute to Step 3.

3. Step 3 (Director's Claims Board Hearing or Alternative Dispute Resolution). Submit a written Notice of Intent to File a Claim to the Dispute Resolution Coordinator in the Division of Construction Management within fourteen (14) calendar days of receipt of the Step 2 decision. The dispute becomes a claim when the Dispute Resolution Coordinator receives the Notice of Intent to File a Claim. Include the DBT's request for either: 1) a Director's Claim Board hearing on the claim or 2) Alternative Dispute Resolution (ADR).

a) Director's Claims Board Hearing. The Director's Claims Board (the "Board") will consist of the Deputy Director of the Division of Construction Management, Deputy Director of Engineering and a District Capital Program Administrator from a district not involved in the claim, or their designees. A representative from the Division of Chief Legal Counsel and Division of Opportunity, Diversity, and Inclusion may be present to observe the hearing. The Director or designee will be responsible for deciding claims.

(1) Submit six (6) complete copies of the Claim Documentation to the Dispute Resolution Coordinator within thirty (30) calendar days of receipt of the Notice of Intent to File a Claim. This timeframe may be extended with approval of the Dispute Resolution Coordinator.

In addition to the documentation submitted at Step 2:

(a) Enhance the narrative to include sufficient description and information to enable understanding by a third party who has no knowledge of the dispute or familiarity with the project.

(b) Certify the claim in writing and under oath using the following certification:

*"I, (Name and Title of an Officer of the DBT) certify that this claim is made in good faith, that all supporting data is accurate and complete to the best of my knowledge and belief, and that the claim amount accurately reflects the contract amendment for which (DBT Company name) believes the Department is liable."*

Sign and date this claim certification and have the signature notarized pursuant to the laws of the State of Ohio. The date the Dispute Resolution Coordinator receives the certified claim documentation is the date of the Department's Receipt of the Certified Claim for the purpose of the calculation of interest as defined in 108.02.G.4. The Dispute Resolution Coordinator will forward one (1) complete copy of this documentation to the District.

(2) Within thirty (30) calendar days of the District's receipt of the DBT's Claim Documentation, the District will submit six (6) complete copies of its Claim Documentation to the Dispute Resolution Coordinator. This timeframe may be extended with approval from the Dispute Resolution Coordinator. At a minimum, the District's Claim Documentation should include:

(a) An overview of the project

- (b) A narrative of the disputed work or project circumstance at issue with sufficient description and information to enable understanding by a third-party who has no knowledge of the dispute or familiarity with the project
- (c) The dates of the disputed work and the date of early notice
- (d) References to the applicable provisions of the plans, specifications, proposal, or other contract documents. Copies of the cited provisions shall be included in the claim document
- (e) Response to each argument set forth by the DBT
- (f) Any counterclaims, accompanied by supporting documentation, the District wishes to assert
- (g) The status of the negotiations of the Claim that have occurred to-date, including the amount of any offers and counteroffers made by the parties
- (h) Copies of relevant correspondence and other pertinent documents

(3) Within fourteen (14) calendar days of receipt of the District's Claim Documentation, the Dispute Resolution Coordinator will forward one (1) complete copy to the DBT and will schedule a hearing on the dispute.

Once a hearing date has been established, both the DBT and District shall provide the Dispute Resolution Coordinator with a list of names of persons who may be presenting information at the hearing. Unless otherwise permitted by the Board, the exchange of documentation and all disclosures specified in this step of the process shall be completed at least fourteen (14) calendar days prior to the hearing.

Upon request or at the Board's discretion, the Board may delay the hearing to allow more time for preparation and review, or to fulfill requests for more documentation.

The Board will hear the entire claim on behalf of the Director. The Board may have its own technical advisors at the hearing for consultation and assistance in reviewing the claim. The DBT and District will each be allowed adequate time to present their respective positions before the Board. The DBT and District will also each be allowed adequate time for rebuttal, limited to the scope of the opposing party's presentation. The Board may suspend any portion of a presentation or rebuttal it deems to be argumentative, repetitive, or irrelevant to the claim. The DBT's position will be presented by one or more of the DBT's employees who are thoroughly knowledgeable of the claim. The DBT may have legal counsel present during the hearing to observe or for private consultation. Similarly, the District's position will be presented by one or more District representatives who are thoroughly knowledgeable of the claim.

The Board may, on its own initiative, request information in addition to that submitted for the hearing. If the DBT fails to reasonably comply with such request, the Board may render its decision without such information.

Upon completion of the hearing and following consideration of any additional information submitted upon request, the Board will submit a written recommendation on the disposition of the claim to the Director. The Director or designee will ratify, modify, or reject the recommendation of the Board and render a decision within sixty (60) calendar days of the hearing. Within thirty (30) calendar days of receipt of the Board's decision, either accept or reject the decision in writing. In the event the DBT fails to do so, the Board may revoke any offers of settlement contained in the decision.

The decision of the Director is the final step of the Department's Dispute Resolution Process and may not be appealed within the Department. The Director is not bound by any offers of settlement or findings of entitlement made during Steps 1 and 2 of the Dispute Resolution Process.

b) Alternative Dispute Resolution (ADR). In lieu of the Director's Claim Board hearing, the parties may opt to proceed through an Alternative Dispute Resolution (ADR) Process. The parties will then choose either arbitration or mediation in the manner in which those methods are practiced by the Department and allowed by law.

The Dispute Resolution Coordinator will coordinate the agreement of the parties to the ADR method, and the selection of a neutral third-party or technical expert. The fees of the neutral third-party or technical expert will be shared equally between the Department and the DBT. The Dispute Resolution Coordinator will obtain a written agreement, signed by both parties, that establishes the ADR process. The neutral third-party or technical expert will have complete control of the claim upon execution of the ADR agreement.

Prior to any ADR meeting, certify the claim in writing and under oath using the following certification:

*“I, (Name and Title of an Officer of the DBT) certify that this claim is made in good faith, that all supporting data is accurate and complete to the best of my knowledge and belief, and that the claim amount accurately reflects the contract amendment for which (DBT Company name) believes the Department is liable.”*

4. Interest on Claims. The Department will pay interest in accordance with ORC Section 5703.47 on any amount ultimately found due on a claim which is not paid within 30 days of the Dispute Resolution Coordinator's Receipt of the Certified Claim. However, interest will not be paid on the amount of any agreed settlement unless specifically itemized and included in the total settlement prior to agreement.

**H. Post Construction Meeting.** The District will conduct a Post Construction Meeting with the DBT prior to the project finalization. The District will invite the design agency and any other stakeholders deemed necessary including utility companies, other transportation entities (i.e. railroads), community leaders, all Project participants including the Designer, consultants, subconsultants, and subcontractors performing critical work to attend this meeting.

Consider the following items for discussion:

1. Project Safety.
2. How were the goals evaluated or measured?
3. How were foremen/ workers involved in the Partnering process?
4. How were the consultants, subconsultants, and subcontractors involved in the Partnering process?
5. How were relationships with key stakeholders managed?
6. Teambuilding activities or unique motivational activities.
7. Where there any alternative or innovative design approaches utilized on the Project?

**I. Partnering Close-Out Survey.** Complete the final Partnering evaluation to get participants' feedback and improve the Partnering process. The Partnering Close-Out Survey is located on the Division of Construction Management's Partnering website:

<http://www.dot.state.oh.us/Divisions/ConstructionMgt/Pages/Partnering.aspx>

**108.03 Prosecution and Progress.** Start the Work according to 108.02. Notify the Engineer at least 24 hours before starting the Work. If the prosecution of the Work is suspended, notify the Engineer a minimum of 24 hours in advance of resuming operations.

Pursue the Work diligently and continuously as to complete the Project by the Completion Date.

**A. Progress Schedule.**

1. General. Furnish a bar chart progress schedule to the District Construction Engineer for review at or before the Preconstruction Meeting. The Engineer will review the schedule and within 14 calendar days of receipt, will either accept the schedule or provide the DBT with comments. Acceptance of the schedule does not revise the Contract Documents. Provide clarification or any needed additional information within 10 days of a written request by the Engineer. The Department will withhold Estimates until the Engineer accepts the schedule. The Engineer will not measure or pay for the preparation of the schedule and schedule updates directly, but the cost of preparing and updating the schedule is incidental to all Contract Items.

a. Include the following Administrative Identifier Information:

- (1) Project Number
- (2) County
- (3) Route Number
- (4) FHWA Number
- (5) PID Number
- (6) Contract Number
- (7) Date of Contract
- (8) Completion Date
- (9) DBT's Name
- (10) DBT's Dated Signature
- (11) ODOT's Dated Acceptance Signature

Provide a working day schedule that shows the various activities of Work in sufficient detail to demonstrate a reasonable and workable plan to complete the Project by the Completion Date. Show the order and the sequence for accomplishing the Work. Describe all activities in sufficient detail so that the Engineer can readily



identify the Work and measure the progress of each activity. The bar chart schedule must reflect the scope of work, design submittals, Department (and/or other designated agency) design review times, required phasing, maintenance of traffic requirements, interim completion dates, the Completion Date, and other project milestones established in the Contract Documents. Include activities for submittals, working and shop drawing preparation, submittal review time for the Department, material procurement and fabrication, and the delivery of materials, plant, and equipment, and other similar activities. The schedule must be detailed on letter or legal sized paper.

b. Activity requirements are discussed in further detail as follows:

(1) Activity Description. Assign each activity an unambiguous descriptive word or phrase. For example, use "Excavate Area A," not "Start Excavation."

(2) Activity Original Duration. Indicate a planned duration in calendar days for each activity. Do not exceed a duration of 20 working days for any activity unless approved by the Engineer. Do not represent the maintenance of traffic, erosion control, and other similar items as single activities extending to the Completion Date. Break these Contract Items into component activities in order to meet the duration requirements of this paragraph.

2. Early Completion Schedule. An Early Completion Schedule is defined as a baseline schedule or update schedule which anticipates completion of all work prior to the Completion Date established by the contract documents and the DBT submits as an Early Completion Schedule. In the event that an Early Completion Schedule is accepted, the Engineer will initiate a change order amending the Completion Date to the finish date shown on the accepted Early Completion Schedule. The amended Completion Date will be effective upon execution of that change order and all contract provisions concerning the Completion Date such as incentives, disincentives, excusable delays, compensable delays, and liquidated damages will be measured against the amended Completion Date. The DBT may elect not to execute the change order amending the Completion Date; however, in so doing, the DBT waives its rights to delay damages in meeting the projected early Completion Date.

3. Updated Progress Schedule. Submit an updated progress schedule when ordered by the Engineer. The Engineer may request an updated progress schedule when progress on the work has fallen more than 14 calendar days behind the latest accepted progress schedule. Information in the updated schedule must include a "% work completed" value for each activity.

4. Recovery Schedule. If the progress schedule projects a finish date for the Project more than 14 calendar days later than the Completion Date, submit a revised schedule showing a plan to finish by the Completion Date. The Department will withhold Estimates until the Engineer accepts the revised schedule. The Engineer will use the schedule to evaluate time extensions and associated costs requested by the DBT.

**108.04 Limitation of Operations.** Limit operations to prevent unnecessary inconvenience to the traveling public. If the Engineer concludes that the extent of the DBT's Work unnecessarily inconveniences the public or concludes limiting operations are necessary to protect the existing or new construction from damage, the Engineer will require the DBT to finish portions of Work in progress before starting new Work.

**108.05 Character of Workers Methods and Equipment.** Provide personnel with sufficient skills and experience to perform assigned tasks.

Ensure that no debarred individuals listed on the Federal website: [www.epls.gov](http://www.epls.gov) or State debarment list at the website: [www.dot.state.oh.us/divisions/contractadmin/](http://www.dot.state.oh.us/divisions/contractadmin/) act in any ownership, leadership, managerial, or other similar position that could influence the operations of an entity doing business with the Department.

If the Engineer gives written notification that specific contractor, consultants, subconsultants, or subcontractor personnel are improperly performing the Work, intemperate, disorderly, or creating a hostile work environment, remove the identified personnel from the Project. Do not allow removed personnel to return to the Project without the Engineer's approval.

The Engineer may suspend the Work by written notice under this subsection for the following reasons:

- A. The DBT does not furnish sufficient skilled and experienced personnel to complete the Project by the Completion Date.
- B. The DBT does not remove personnel from the Project as directed in writing by the Engineer.

Use equipment of sufficient size and mechanical condition to complete the Project by the Completion Date. Ensure that the equipment does not harm the roadway, adjacent property, other highways, workers, or the public.

If the Contract Documents do not prescribe the design methodologies, construction methods or equipment required to accomplish the Work, determine the design methodologies, construction methods or equipment necessary to complete the Work according to the Contract.



If the Contract Documents specify design methodologies, construction methods or equipment to perform the Work, use such methods and equipment, unless others are authorized by the Engineer. Obtain the Engineer's written approval before substituting alternate design methodology, construction methods or equipment. To obtain the Engineer's approval, submit a written description of the design methodology, construction methods or equipment proposed and an explanation of the reasons for making the change. The Engineer's approval of the substitute design methodology, construction methods and equipment does not relieve the DBT of the obligation to produce Work according to 105.03. If after trial use of the substituted design methodology, construction methods or equipment, the Engineer determines that the Work does not conform to the Contract Documents, then complete the remaining Work using the specified design methodology, construction methods or equipment. Remove all deficient Work and replace it according to the Contract Documents, or take such other corrective action as directed by the Engineer. The Engineer's authorization to substitute alternate methods or equipment will not change the basis of payment for the items involved or the Contract Time.

#### **108.06 Determining a Time Extension to the Completion Date and Payment for Excusable Delays.**

**A. General.** The Department will only extend the Completion Date if an excusable delay, as specified in 108.06.B or 108.06.D, delays Work on the critical path shown on the accepted progress schedule and impacts the Completion Date. The critical path is defined as; the longest path of activities in the project that determines the project schedule completion date. The activities that make-up the critical path of activities are the "Critical Activities." Any extension of the Completion Date will be executed by a change order.

Mitigation of any delay, whether caused by the Department, DBT, third-party or an intervening event, is a shared contract and legal requirement. Mitigation efforts include, but are not limited to, re-sequencing work activities, redesigning efforts, acceleration, and continuation of work through an otherwise planned shutdown period. The DBT and Engineer must explore and discuss potential mitigation efforts in a timely manner.

The Department will not evaluate a request for extension of the Completion Date unless the DBT notifies the Engineer as specified in 108.02.F. Notification shall be in writing to the Engineer within 30 days following the termination of the event giving rise to the request and shall be accompanied by supporting analysis and documentation.

The Engineer will evaluate the DBT's analysis and determine the time extension due, if any. The Engineer will measure all time extensions in Calendar Days. For delays measured in Workdays, the Engineer will convert Workdays to Calendar Days by multiplying by 1.4 for a 5-day work week or less; 1.2 for a 6-day work week; and 1 for a 7-day work week; and extend the Completion Date by the resulting number of Calendar Days plus any holidays the DBT does not normally work that occur in the extension period. When the conversion of Workdays to Calendar Days results in a decimal of 0.5 or greater, the Engineer will round the number of Calendar Days to the next highest whole number. When the conversion results in a decimal less than 0.5, the Engineer will delete the decimal portion of the Calendar Days.

The Engineer will not grant an extension of time for delays incurred from December 1 to April 30 for construction work unless the Contractor's accepted progress schedule depicts work on the critical path occurring during this period.

The Engineer may order the Contractor to continue Work after November 30 and compensate the Contractor for costs incurred due to cold weather Work.

The DBT's plea that insufficient time was specified is not a valid reason for an extension of time.

The Department will relieve the DBT from associated liquidated damages, as specified in 108.07, if the Engineer extends the Completion Date under 108.06.A.

The extended Completion Date shall then have the same standing and effect as though it was the original Completion Date.

If the DBT contends that an excusable delay is also compensable, as specified in 108.06.D, submit a detailed cost analysis of the requested additional compensation along with the request for extension of Completion Date.

**B. Excusable, Non-Compensable Delays.** Excusable, non-compensable delays are delays that are not the DBT's or the Department's fault or responsibility. The Engineer will not grant additional payment for excusable, non-compensable delays.

The following are excusable, non-compensable delays:

1. Delays due to floods, tornadoes, lightning strikes, earthquakes, or other cataclysmic phenomena of nature.
2. Delays due to weather as specified in 108.06.C.

3. Extraordinary delays in material deliveries the DBT or its suppliers cannot foresee or avoid resulting from freight embargoes, government acts, or area-wide material shortages. Delays due to the Contractor’s, subcontractor’s, Designer’s subconsultant, or supplier’s insolvency or mismanagement are not excusable.
4. Delays due to civil disturbances.
5. Delays from fires or epidemics.
6. Delays from labor strikes that are beyond the Contractor’s, subcontractor’s, or supplier’s power to settle and are not caused by improper acts or omissions of the Contractor, subcontractor, or supplier.
7. Added quantities that delay an activity on the critical path.
8. All other delays not the DBT’s and Department’s fault or responsibility.

**C. Extension to the Completion Date for Weather or Seasonal Conditions.** A weather day is defined as a workday that weather or seasonal conditions reduced production by more than 50 percent on items of work on the critical path. Submit the dates and number of weather days in writing to the Engineer at the end of each month. In the event the Contractor fails to submit weather days at the end of each month the Engineer will determine the dates and number of weather days from project records.

Delays caused by weather and seasonal conditions should be anticipated and will be considered as the basis for an extension of time when the Contractor’s accepted progress schedule depicts Work on the critical path and the actual workdays lost exceeds the number of work days lost each month as determined by Table 108.06-1.

**TABLE 108.06-1**

<b>Month</b>	<b>Number of Workdays Lost Due to Weather</b>
January	8
February	8
March	7
April	6
May	5
June	5
July	4
August	4
September	5
October	6
November	6
December	6

This table applies to the duration between contract execution and original completion date. Extensions for weather days beyond the original completion date will be for the actual workdays lost each month.

Lane closures within the project, 60 days or less as indicated in the contract documents, which are impacted by weather will be extended for the actual work days lost each month. Lane closures within the project, 61 days or longer as indicated in the contract documents, which are impacted by weather will be extended when the actual work days lost exceeds the number of anticipated work days lost each month as determined by Table 108.06-1.

The Engineer will not consider weekends and holidays as lost workdays unless the DBT normally works those days or unless the Engineer directs the DBT to work those days.

Delays to the Completion Date for design work for Weather or Seasonal Conditions shall not be considered.

**D. Excusable, Compensable Delays.** Excusable, compensable delays are delays that are not the DBT’s fault or responsibility, and are the Department’s fault or responsibility or are determined by judicial proceeding to be the Department’s sole responsibility or are the fault and responsibility of a local government. For the following excusable, compensable delays, the Engineer will extend the Completion Date if the conditions specified in 108.06.A are met:

1. Delays due to revised Work as specified in 104.02.B, 104.02.D, or 104.02.F.
2. Delays due to utility or railroad interference within the Project limits as specified in 105.07 and 105.075, respectively.
3. Delays due to an Engineer-ordered suspension as specified in 104.02.C.
4. Delays due to acts of the government or a political subdivision other than the Department.

- 5. Delays due to the neglect of the Department or its failure to act in a timely manner.

Compensation for excusable, compensable delays will be determined by the Engineer according to 109.05.D.

**E. Non-Excusable Delays.** Non-excusable delays are delays that are the DBT’s fault or responsibility. All non-excusable delays are non-compensable.

**F. Concurrent Delays.** Concurrent delays are separate critical delays that occur at the same time. When a non-compensable delay is concurrent with a compensable delay, the DBT is entitled to additional time but not entitled to additional compensation.

**108.07 Failure to Complete on Time.** If the DBT fails to complete the Work by the Completion Date, then the Director, if satisfied that the DBT is making reasonable progress, and deems it in the best interest of the public, may allow the DBT to continue in control of the Work. The Department will pay the DBT for Work performed on the Project less any liquidated damages incurred.

If the Work is not completed by the Completion Date and the Director permits the DBT to remain in control, prosecute the Work at as many different places, at such times, and with such forces as the Director requests. Provide a written plan for the completion of the Work.

For each calendar day that Work remains uncompleted after the Completion Date, the Department will deduct the sum specified herein from any money due the DBT, not as a penalty, but as liquidated damages. The Director will adjust the Completion Date or other contractually mandated dates for delays specified in 108.06.B.7 and 108.06.D.

Permitting the DBT to continue and complete the Work or any part of the Work after the Completion Date, or after extensions to the Completion Date, will in no way operate as a waiver on the part of the Department of any of its rights under the Contract.

The Director may stop deducting liquidated damages when:

- A. The Work is substantially complete and the project is available for use as intended by the contract.
- B. The DBT is diligently pursuing the remaining Work.
- C. The Work remaining will not interfere with the intended use of the project and will not impact traffic. For the limited purposes of assessing liquidate damages, the closing of a shoulder is not considered an impact upon traffic.
- D. All contract safety items are complete and operational. These safety items include but are not limited to signs, pavement markings, guardrail, attenuators, and signals. Raised pavement markers (RPM) are required safety items if the roadway section involved had RPMs before the project started.
- E. Deemed reasonable and appropriate by the District Deputy Director.

The Contractor may submit a request for waiver of liquidated damages to the Department within 30 days of the assessment of liquidated damages.

**TABLE 108.07-1 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	
\$0.00	\$500,000	\$450
\$500,000	\$2,000,000	\$650
\$2,000,000	\$10,000,000	\$1,000
\$10,000,000	\$50,000,000	\$1,700
Over \$50,000,000		\$3,100

**108.08 Unsatisfactory Progress and Default of DBT.** The Director will notify the DBT in writing of unsatisfactory progress for any of the following reasons:

- A. The DBT has not commenced the Work by the dates established in the schedule.
- B. The DBT does not proceed with the Work in a manner necessary for completion of the Project by the Completion Date.
- C. The DBT is performing the Work improperly.
- D. The DBT abandons, fails, or refuses to complete the Work.
- E. Any other reason the Director believes jeopardizes completion of the Work by the Completion Date.

If the DBT does not respond to the satisfaction of the Director, the Director may declare the Contractor in default and may notify the Contractor and Surety that the responsibility to complete the Work is transferred to the Surety. Upon receipt of this notification, the DBT's right to control and supervise the Work will immediately cease. In such a case, the Director will proceed as specified in ORC 5525.17. The defaulted Contractor will not be compensated for costs resulting from the default and is not eligible to be retained by the Surety to complete the Work. If it is determined that the Department's default of the Contractor according to 108.08 is wrongful, then the default will revert to a termination of the Contract according to 108.09.

**108.09 Termination of the Contract for Convenience of the Department.** The Director may terminate the Contract at any time for the convenience of the Department. The Department will compensate the DBT for design work under the provisions of the "Specifications for Consulting Services" and for construction work according to 109.04 and 109.05 for termination of the Contract for the convenience of the Department. This subsection is subject to the provisions of ORC 5525.14.

**108.095 Partial Severability Due to Legal Revisions.** If any term of the Contract is to any extent illegal, otherwise invalid, or incapable of being legally enforced, such term shall be excluded to the extent of such invalidity or unenforceability; all other requirements hereof shall remain in full force and effect; and, to the extent permitted and possible, the invalid or legally unenforceable requirement shall be deemed replaced by a requirement that is valid and legally enforceable and that comes closest to expressing the legal intention of such invalid or legally unenforceable requirement.

**108.10 Payroll Records.** Keep payroll records as specified in ORC 4115.07 or as required by Federal law.

Authorized representatives of the Director may inspect the certified payroll and other payroll records. Upon completion of the Work and before receiving the final estimate and when required by ORC 4115.07, submit an affidavit stating that wages have been paid according to the minimum rates specified in the Contract Documents.

## 109 ACCEPTANCE, MEASUREMENT, AND PAYMENT

**109.01 Measurement of Quantities.** The pricing and payment format of this contract is Lump Sum (except for those items with unit bid prices.). All Items covered in the Construction and Material Specifications, Supplemental Specifications, and Special Provision notes with unit price or Lump Sum as a basis of payment will be paid for in accordance with 109.09 under the most appropriate Lump Sum bid item, unless a unit line price item has been established. All items in the Scope of Services shall be paid for under the most appropriate Lump Sum bid item.

The DBT shall furnish the Department with a Schedule of Values showing the complete breakdown (approximate cost and approximate work) of the Lump Sum bid items. It shall show estimated quantities of work in reasonable detail to determine testing and material reporting requirements per C&MS. It may be (and is preferred to be) in an electronic format (i.e. Excel Spreadsheet). The Schedule of Values can be modified during the project as agreed by the Engineer. As a matter of responsibility, the DBT must include specific work items corresponding to the portions of Work subcontracted to DBE subcontractors or DBE consultants. Each DBE subcontractor and DBE consultant must have, at a minimum, one (1) identified work item within the Schedule of Values. The sum total value identified for the DBE specific work items included in the Schedule of Values must equate to the identified subcontracted value found in the C-92s. It shall be submitted and agreed with the Engineer prior to performing the representative Work. The Schedule of Values shall only be used by the Department and the DBT to determine progress payment estimates and material reporting requirements. The Schedule of Values shall not be used to determine compensation for Extra Work nor for Revisions to the Contract Documents as defined in 104.02.

The Lump Sum item of payment shall mean complete payment for the work described in that item.

For items in the Contract with bid unit prices, the Department will measure the quantities of Work and calculate payments based on the method of measurement and basis of payment provisions provided in these Specifications. When the following units of measure are specified, the Department will measure quantities as described below unless otherwise specified in the Contract Documents. The accuracy of individual pay item estimate payments will be one decimal more accurate than the unit of measure denoted for the pay item.

The Department will monitor the quantities of Work and may verify invoice requests based on the method of measurement and basis of payment provisions provided in these Specifications. When the following units of measure are specified, the Department will monitor quantities as described below unless otherwise specified in the Contract Documents.

**Lump Sum.** Not measured. Describes payment as reimbursement for all resources necessary to complete the Work. When a complete structure or structural unit is specified as the unit of measurement, the unit will include all necessary fittings and accessories.

**Each.** Measured by the number of individual items of Work completed.

**Foot (Meter).** Measured parallel to the longitudinal base or foundation upon which items are placed, or along the longitudinal surface of the item. Measured vertically to the nearest 0.1 foot (0.01 m), with a minimum vertical measurement of 1 foot (0.10 m), at each unit.

**Square Yard or Square Foot (Square Meter).** Measured by a two-dimensional area method on the surface of the item.

**M Square Feet.** One thousand square feet.

**Cubic Yard (Cubic Meter).** Measured by a three-dimensional volume method. Measure all “loose material” or material “measured in the vehicle” by the cubic yard (cubic meter). Haul material “measured in the vehicle” in approved vehicles and measure in the vehicle at the point of delivery. For this purpose, use approved vehicles of any type or size satisfactory to the Engineer, provided the vehicle’s bed is of such type that the actual contents are readily and accurately determined. Unless all approved vehicles on a job are of uniform capacity, each approved vehicle must bear a legible identification mark indicating the specific approved capacity. The Inspector may reject all loads not hauled in such approved vehicles.

Cubic Yard (Cubic Meter) for Asphalt Concrete. Measure as specified in 401.21.

**Acre (Hectare).** Measured by a two-dimensional area method on the surface to the nearest 0.1 acre (0.05 ha).

**Pound (Kilogram).** Measured by actual item net weight avoirdupois (mass).

**Ton (Metric Ton).** The term “ton” means the short ton consisting of 2000 pounds avoirdupois. The term “metric ton” means 1000 kilograms. Weigh all materials that are proportioned by weight on accurate and approved scales that

are operated by competent, qualified personnel at locations approved by the Engineer. However, car weights will not be acceptable for materials to be passed through mixing plants. If trucks are used to haul material being paid for by weight, weigh the empty truck at least once daily and as the Engineer directs and only if the weight of the truck is used in determining the ticket weight. Place a plainly legible identification mark on each truck bearing the weight of the truck.

For Work on a tonnage basis, file with the Engineer receipted freight bills for railroad shipments and certified weight-bills when materials are received by any other method, showing the actual tonnage used. For Work on a volume basis, itemize evidence of the volume used.

**Gallon (Liter).** Measured by actual item liquid volume. The Department will measure the following materials by the gallon (liter) at the following temperatures:

Temperatures	Items
60 °F (16 °C)	Creosote for Priming Coat, Creosote Oil, Creosote Solutions for Timber Preservatives, Asphalt Primer for Water-proofing, and Liquefier
100 °F (38 °C)	RC, MC Asphalt Emulsions, CBAE, Primer 20, and Primer 100
300 °F (149 °C)	Asphalt Binder

Measure tank car outage of asphalt material at its destination before any material has been removed from the tank car according to Supplement 1060.

Convert the net weight of asphalt material shipments to gallons (liters) at the specified pay temperature according to Supplement 1060.

Convert the gallons (liters) at the measured temperature to gallons (liters) of asphalt material at the specified pay temperature according to Supplement 1060.

**M Gallon.** One thousand gallons.

**Thousand Board Feet, MBF (Cubic Meter).** Measure timber by MBF (cubic meter) actually incorporated in the structure. Base the measurement on nominal widths, thicknesses, and the extreme length of each piece.

**Standard Manufactured Items.** When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by size, unit weight, section dimensions, etc., such identification will be to nominal weights or dimensions set by the industry.

**109.02 Measurement Units.** The Department will measure using either English or metric units as indicated in the Contract Documents. Use the Tables 109.02-1 and 109.02-2 to convert units when required. If Tables 109.02-1 and 109.02-2 do not provide a required factor, then use the appropriate factor provided in the IEEE/ASTM SI 10.



TABLE 109.02-1 ENGLISH TO SI (METRIC) CONVERSION FACTORS

Symbol	When You Know	Multiply By	To Find	Symbol
<b>Length</b>				
mil	mils	25.4	micrometers	$\mu\text{m}$
in	inches	25.4	millimeters	mm
ft	feet	0.3048	meters	m
yd	yards	0.9144	meters	m
mi	miles	1.609347	kilometers	km
<b>Area</b>				
$\text{in}^2$	square inches	645.16	square millimeters	$\text{mm}^2$
$\text{ft}^2$	square feet	0.09290304	square meters	$\text{m}^2$
$\text{yd}^2$	square yards	0.8361274	square meters	$\text{m}^2$
ac	acres	0.4046873	hectares	ha
ac	acres	4046.873	square meters	$\text{m}^2$
$\text{mi}^2$	square miles	2.589998	square kilometers	$\text{km}^2$
<b>Volume</b>				
fl oz	fluid ounces	29.57353	milliliters	mL
gal	gallons	3.785412	liters	L
$\text{ft}^3$	cubic feet	0.02831685	cubic meters	$\text{m}^3$
$\text{yd}^3$	cubic yards	0.7645549	cubic meters	$\text{m}^3$
<b>Mass</b>				
oz	ounces	28.34952	grams	g
lb	pounds	0.4535924	kilograms	kg
T	2000 pounds	0.9071847	metric tons	t
<b>Temperature</b>				
$^{\circ}\text{F}$	Fahrenheit	$C = (F-32)/1.8$	Celsius	$^{\circ}\text{C}$
<b>Illumination</b>				
fc	foot-candles	10.76391	lux	lx
fl	foot-lamberts	3.426259	candelas per square meter	$\text{cd}/\text{m}^2$
<b>Force and Pressure or Stress</b>				
lbf·ft	pounds-force foot	1.355818	newton meter	N·m
lbf	pounds force	4.448222	newtons	N
$\text{lbf}/\text{ft}^2$ (psf)	pounds force per square foot	47.88026	pascals	Pa
$\text{lbf}/\text{in}^2$ (psi)	pounds force per square inch	0.006894757	megapascals	MPa

**TABLE 109.02-2 SI (METRIC) TO ENGLISH CONVERSION FACTORS**

Symbol	When You Know	Multiply By	To Find	Symbol
<b>Length</b>				
µm	micrometers	0.03937	mils	mil
mm	millimeters	0.03937	inches	in
m	meters	3.28084	feet	ft
m	meters	1.093613	yards	yd
km	kilometers	0.62137	miles	mi
<b>Area</b>				
mm <sup>2</sup>	square millimeters	0.00155	square inches	in <sup>2</sup>
m <sup>2</sup>	square meters	10.76391	square feet	ft <sup>2</sup>
m <sup>2</sup>	square meters	1.19599	square yards	yd <sup>2</sup>
ha	hectares	2.4710437	acres	ac
m <sup>2</sup>	square meters	0.000247	acres	ac
km <sup>2</sup>	square kilometers	0.3861	square miles	mi <sup>2</sup>
<b>Volume</b>				
mL	milliliters	0.033814	fluid ounces	fl oz
L	liters	0.264172	gallons	gal
m <sup>3</sup>	cubic meters	35.31466	cubic feet	ft <sup>3</sup>
m <sup>3</sup>	cubic meters	1.30795	cubic yard	yd <sup>3</sup>
<b>Mass</b>				
g	grams	0.035274	ounces	oz
kg	kilograms	2.204622	pounds	lb
t	metric tons	1.1023114	2000 pounds	T
<b>Temperature</b>				
°C	Celsius	F = 1.8C + 32	Fahrenheit	°F
<b>Illumination</b>				
lx	lux	0.09290304	foot-candles	fc
cd/m <sup>2</sup>	candelas per square meter	0.29186352	foot-lamberts	fl
<b>Force and Pressure or Stress</b>				
N-m	newton meters	0.7375621	pounds-foot force	lbf ft
N	newtons	0.22480892	pound force	lbf
Pa	pascals	0.02088543	pounds force per square foot	lbf/ft <sup>2</sup> (psf)
MPa	megapascals	145.03774	pounds force per square inch	lbf/in <sup>2</sup> (psi)

**109.03 Scope of Payment.** Payment of the Contract Price is full compensation for all resources necessary to complete the Contract Item and maintain the Work. Assume liability for risk, loss, damage, or expense resulting from the Work. The Contract Price and Contract Time shall only be changed by written Change Order or as determined by the Department in writing in accordance with the contract documents.

**109.04 Compensation for Altered Quantities, Eliminated Items or Termination of the Contract for Convenience of the Department.** If the quantities of unit priced items vary from the quantities in the Contract, the Department will make payment at the original Contract unit prices for the agreed quantities of Work.

**A.** If an portion of the Work is eliminated in accordance with 104.02.E or the contract is terminated in accordance with 108.09 the Department will pay the following in addition to that provided by 104.02.D:

1. Restocking charges supported by paid invoices and an additional 5 percent markup on the compensation for overhead and profit.

2. The cost of material transferred to the Department or a local government agency in lieu of restocking or disposal. The allowed compensation is the paid invoice cost plus 15 percent markup, but no more than the unit bid price for the reference number involved.

3. Hauling costs, if not included in restocking charges, for returned material and for material delivered to the Department.

**B.** If the project is terminated for convenience of the Department, the Department will negotiate compensation with the DBT for actual costs incurred as a result of the termination. The Department will pay for Extra Work as stipulated in approved Extra Work Change Orders or written authorizations subject to the limitations set forth in ORC 5525.14. Such authorizations for emergencies and to avoid Project delays are in advance of an approved Extra Work Change Order and commit the Department only to the terms of the authorizations. The Department will pay for Extra Work after the approval of the subsequent Change Order.

#### **109.05 Changes and Extra Work.**

**A. General.** If the Department revises the Contract under: 104.02, 105.07, 105.10, 105.13, 107.10, 107.14, 107.15, 108.09, 109.06, or 109.07, the Department will pay for changes and Extra Work with a Change Order using the sequence specified in 109.05.B through 109.05.E.

In establishing the method of payment for contract changes or extra work orders, force account procedures shall only be used when strictly necessary, such as when agreement cannot be reached with the DBT on the price of a new work item, or when the extent of work is unknown or is of such character that a price cannot be determined to a reasonable degree of accuracy. The reason or reasons for using force account procedures shall be documented.

Unless otherwise stated in 109.05, the compensation provided in 109.05.B through 109.05.E constitutes payment in full for all changes and Extra Work completed by original Contract Price, agreed unit price, agreed lump sum price, and for work performed on a force account basis, including:

1. Administration.
2. Superintendence.
3. Project and field office overhead.
4. Home office overhead.
5. Use of tools and equipment for which no rental is allowed.
6. Profit.
7. Taxes other than sales tax.
8. Premiums on insurance including additional premiums for Commercial General Liability Insurance required by 107.12.B and any additional coverage carried by the DBT, consultant, subconsultant or subcontractor, excluding pollution and railroad General Liability Insurance. The Department will pay the Contractor's pollution and railroad liability insurance premiums, if required by the contract, by a separate Change Order for the cost of the premium without any markup. When the Contractors or subcontractors basic rate for General Commercial Liability Insurance required by 107.12.B is greater than 5 percent of payroll, the Department will pay directly without markup the portion of the premium in excess of 5 percent and provide copies of paid premiums.

Sales tax will not be allowed on any item for which tax exemption was obtained.

**B. Negotiated Prices.** Negotiated prices for changes and Extra Work shall be comparable to prices that would have resulted from a competitive bid contract. The Engineer and Contractor will negotiate agreed unit or lump sum prices using one or more of the following methods:

1. Original Contract prices for similar work but adjusted for:
  - a. increased or decreased material costs specified in 109.05.C.3.
  - b. increased or decreased labor costs specified in 109.05.C.2
  - c. increased or decreased equipment costs specified in 109.05.C.4

Adjustments of these prices for inflation or markup for subcontractor work is not allowed.
2. State-wide average unit price awarded for the item or items as listed in the Department's annual "Summary of Contracts Awarded." These prices may be adjusted for inflation using factors issued by the Office of Construction Administration. No markup for subcontractor work is allowed.
3. Average price awarded on three different projects of similar work and quantity. These prices may be adjusted for inflation using factors issued by the Office of Construction Administration. No markup for subcontractor work is allowed.
4. Prices computed by the Office of Estimating.

5. Cost analysis of labor, material, equipment, and markups as allowed in 109.05.C.
6. For the cost of compensable delays as defined in 108.06, prepare a cost analysis as allowed by 109.05.D.

Provide proposed pricing and cost justification for changes or Extra Work within 5 business days after the Department's request. The Department will respond within 5 business days after receipt of the Contractor's proposal. The Department and the Contractor can mutually agree to extend these 5-day time limits.

If the Department negotiates with the Contractor but does not agree on a price adjustment, the Engineer may direct the Contractor to perform all or part of the revised Work under force account.

### C. Force Account.

**1. General.** The Engineer may direct the Contractor to perform the revised Work under force account. Submit a written proposal and estimated costs for the Work, including the planned equipment, materials, labor, and a work schedule.

The Department will pay the Contractor as specified in 109.05.C as full compensation for performing the force account Work. The Project and Contractor personnel will document the labor and equipment used on the force account work on a Daily Force Account Record. At the end of each Workday, the Project and Contractor personnel will compare and sign the Daily Force Account Record. The Department will make no force account payment before the Contractor submits an itemized statement of the costs for that work.

The Engineer will examine and, if found to be acceptable, approve all rates and costs submitted by the Contractor.

Provide the following content in itemized statements for all force account work:

- a. Name, classification, date, daily hours, total hours, rate, and amount for all labor.
- b. Designation, dates, daily hours, total hours of actual operation and idle time, Blue Book rate with reference or category, and amount for each unit of equipment and the applicable Blue Book hourly operating cost for each unit of equipment and invoices for all rental equipment. The designation includes the manufacturer's name or trademark, model number, and year of manufacture.
- c. Quantities of materials and prices.
- d. Transportation charges on materials, free on board (F.O.B.) at the job site.
- e. Cost of workers' compensation insurance premiums, all applicable insurance premiums, unemployment insurance contributions, and social security tax and fees or dues required by a collective bargaining agreement. Express each of these items of cost as a percentage of payroll, except fees or dues, which should be expressed as a cost per hour.
- f. Documentation of the following:
  - (1) For surveying or design work in accordance with 109.05.C.9 provide:

Documentation for all work performed by the Designer and any subconsultants that provided services. Documentation shall consist of records of all Actual Allowable Costs broken down as direct labor charges, indirect costs (overhead), non-salary direct costs and facilities capital cost of money. In addition, the Department will pay a profit of twelve percent (12%) of the sum of direct labor costs plus overhead. The Department will not pay an additional percent markup to the DBT on these costs.

"Actual Allowable Costs" are incurred costs based on the cost principles and procedures set forth in Part 31 of the Federal Acquisition Regulation (Codified at 48 CFR Part 31), the ODOT Contract Audit Circulars, the State of Ohio Travel Regulations (Ohio Administrative Code Rule 126-1-02), and the AASHTO Uniform Audit and Accounting Guide, all as amended from time to time.

(2) For all surveying, professional, or similar specialized Work not normally part of a Design-Build contract as set forth in 109.05.C.9, provide documentation showing payment to a firm hired by the DBT.

- g. If materials are taken from Contractor's stock and original receipted invoices for the materials and transportation charges do not exist, provide an affidavit and certify all of the following:
  - (1) The materials were taken from the Contractor's stock.
  - (2) The quantity shown was actually used for the force account work.
  - (3) The price and transportation costs represent the actual cost to the Contractor.

h. Documentation showing payment to trucking firms and owner-operators. Submit documentation showing owner-operations status. When the trucking is subject to prevailing wage, submit payroll and equipment usage records according to 109.05.C.1.a, 109.05.C.1.b, and 109.05.C.1.e.

i. Provide “receipted invoices” for all costs substantiated by an invoice.

If only part of the expenditure represented by an invoice is applicable to force account work, or if the invoice represents expenditure for more than one item of work, clearly indicate the actual amount of expenditure applicable to each item of work.

**2. Labor.** The Department will pay the wages and fringe benefits currently in effect for each hour the Work is performed by all labor employed in the Work and all foremen in direct charge of the specific operation. The Department will pay an additional 38 percent markup on these wages and benefits. “Fringe benefits” are the actual costs paid to, or on behalf of, workmen by reason of health and welfare benefits, pension fund benefits, or other benefits, when such amounts are required by prevailing wage laws or by a collective bargaining agreement or other employment contracts generally applicable to the classes of labor employed on the Project.

The Department will pay the actual itemized cost, without markup, of the following payroll taxes and legally required insurances:

- a. Social Security Tax.
- b. Medicare Tax.
- c. Ohio Workers’ Compensation Premiums.
- d. State and Federal Unemployment Insurance.
- e. Longshore and Harborworkers’ Compensation Insurance for work from a barge or ship, or unloading material from a barge or ship.

Provide itemized statements in addition to the documentation requirements for all labor including the name, classification, date, daily hours, total hours, rate, and amount. If any person is paid more than the one rate, a separate listing shall be made for that person for each rate paid. Provide itemized statements for Ohio Workers’ Compensation insurance premiums, all applicable insurance premiums, State and Federal Unemployment Insurance contributions, and Social Security Tax and fees or dues required by a collective bargaining agreement. Express each of these items of cost as a percentage of payroll, except fees or dues, which shall be expressed as a cost per hour.

Instead of itemizing the cost of Social Security Tax, Ohio Workers’ Compensation, and State and Federal Unemployment Insurance, the Contractor may elect to receive as compensation for these payroll taxes and premiums, an amount equal to 22 percent of the paid wages. If the Contractor pays fringes directly to the worker in lieu of paying into a fringe benefit program, then the Department will treat these fringe payments as paid wages when calculating the allowed 22 percent compensation.

The Department will pay, without markup, the actual itemized cost of fees and dues paid to labor unions or to business associations when they are based on payroll hours and required by a collective bargaining agreement.

The Department will not pay for wages or benefits for personnel connected with the Contractor’s forces above the classification of foreman that have only general supervisory responsibility for the force account work.

If the foreman or timekeeper is employed partly on force account work and partly on other work, the Contractor shall prorate the number of hours between the force and non-force account work according to the number of people on each task as shown on payrolls.

The Department will pay the prevailing wage and fringe rates that apply to the Project for the classifications required for Extra Work. The Contractor must provide payroll records for pay rates higher than the prevailing wages and establish that the higher than prevailing rates are paid for original Contract Work. The Department will pay for foremen and time keepers not covered by prevailing wages not more than the salaried rate they receive when engaged in original Contract Work.

The Department will pay actual costs for subsistence and travel allowances when such payments are required by the collective bargaining agreement or other employment contracts applicable to the classes of labor employed on the Project. The Department will not pay a percent markup on these costs.

**3. Materials.** The Department will pay the Contractor’s actual invoice costs, including applicable taxes and actual freight charges, for Engineer approved materials the Contractor uses in force account Work. The Department will pay an additional 15 percent markup on these costs.

Freight or hauling costs charged to the Contractor and not included in unit prices shall be itemized and supported by invoices. The cost of owned or rented equipment used to haul materials to the project is not part of the materials cost. Such equipment, when used for hauling materials, shall be listed under cost of equipment.

Provide itemized statements in addition to the documentation requirements for all equipment including the quantity and price of each material and transportation charges free on board (F.O.B.) at the job site. Attach invoices to support the quantities of materials used, unit prices paid and transportation charges. If the Contractor uses materials from the Contractor's stock and original receipted invoices for the materials and transportation charges do not exist, the Department and the Contractor will agree on a price that represents the actual cost to the Contractor. Provide an affidavit and certify all of the following:

- a. The materials were taken from the Contractor's stock.
- b. The quantity shown was actually used for the force account work.
- c. The price and transportation costs represent the actual cost to the Contractor.

Do not incorporate materials into the Work without a price agreement.

#### 4. Construction Equipment.

**a. General.** The Department will pay the Contractor's costs for equipment the Engineer deems necessary to perform the force account work for the time directed by the Engineer or until the Contractor completes the force account Work, whichever happens first. The Department will pay the Contractor the established rates for equipment only during the hours that it is operated, except as otherwise allowed elsewhere in these Specifications. The Department will pay for non-operating hours at the idle equipment rate as specified in 109.05.C.4.c. Report equipment hours to the nearest 1/2 hour. The established equipment rates in these Specifications include compensation for overhead and profit except as otherwise specified.

The Department will pay for use of Contractor-owned equipment the Engineer approves for force account Work at established rates. The Department will pay the rates, as modified in 109.05.C.4.b, given in the Equipment Watch Cost Recovery (formerly Rental Rate Blue Book), by EquipmentWatch, a division of Penton Business Media, Inc.

Provide, and the Engineer will confirm, the manufacturer's ratings and manufacturer-approved modifications required to classify equipment for rental rate determination. For equipment with no direct power unit, use a unit of at least the minimum recommended manufacturer's rating.

The Department will not pay rental for small tools or equipment that show a daily rate less than \$5.00 or for unlisted equipment that has a value of less than \$400.

Tool trucks will be allowed for compensation if they are used at the force account site. Only the tools used from the tool truck will be allowed for compensation. Tools in the tool truck that are not used in the force account work will not be compensated. A tool trailer that remains at the Contractor's office or yard will not be allowed on the force account work. Tool trailers that are taken to the force account site will be allowed for compensation along with the tools used on the force account work that were taken from the trailer.

Treat traffic control devices used in Maintaining Traffic and owned by the Contractor as owned equipment. Allowed rates for common traffic control devices and concrete barrier that are not listed in the Blue Book will be as determined by the Department.

Use Engineer approved equipment in good working condition and providing normal output or production. The Engineer may reject equipment not in good working condition or not properly sized for efficient performance of the Work.

For each piece of equipment used, whether owned or rented, provide the Engineer with the following information:

- (1) Manufacturer's name or trademark.
- (2) Equipment type.
- (3) Year of manufacture.
- (4) Model number.
- (5) Type of fuel used.
- (6) Horsepower rating.
- (7) Attachments required, together with their size or capacity.
- (8) All further information necessary to determine the proper rate.
- (9) Dates, daily hours, total hours of actual operation and idle time,



- (10) Blue Book rate with reference or category,
- (11) Amount
- (12) Applicable Blue Book hourly operating cost
- (13) Invoices for all rental equipment.

**b. Hourly Owned Equipment Rates.** The base rate for the machine and attachments represent the major cost of equipment ownership, such as depreciation, interest, taxes, insurance, storage, and major repairs. The hourly operating rate represents the major costs of equipment operation, such as fuel and oil lubrication, field repairs, tires, expendable parts, and supplies.

For all equipment used on force account work, determine, and have the Department confirm, the hourly owned equipment rates as follows:

$$HOER = [RAF \times ARA \times (R / 176)] + HOC$$

Where:

- HOER = hourly owned equipment rate
- RAF = regional adjustment factor shown in the Blue Book
- ARA = age rate adjustment factor shown in the Blue Book
- R = current Blue Book monthly rate
- HOC = estimated hourly operating cost shown in the Blue Book

However, compensation for equipment normally used on a 24 hours per day basis will not exceed the monthly rate plus adjustments and operating costs.

The rate adjustment factor assigned to any attachment will be the yearly factor as determined for the base equipment.

When multiple attachments are included with the rental equipment, only the attachment having the highest rental rate will be eligible for payment, provided that the attachment has been approved by the Engineer as being necessary to the force account Work.

When a piece of owned equipment is not listed in the Blue Book, use the rate for similar equipment found in the Blue Book or use 6 percent of the purchase price as the monthly rate (R) and add the hourly operating rate found in the Blue Book for similar equipment of the same horsepower.

For equipment brought to the Project exclusively for force account work and on the Project for less than a month, multiply the monthly rate (R) by the factor listed below:

**TABLE 109.05-1**

Working Hours	Factor
Less than or equal to 8.0	2.00
8.1 to 175.9	2.048 - (hours/168)
176 or greater	1.00

The term “WORKING HOURS,” as used in Table 109.05-1, includes only those hours the equipment is actually in operation performing force account work; apply the factor, as determined above, to these actual working hours only. Calculate compensation for any idle time according to 109.05.C.4.c without application of the factor.

The Department will pay as working equipment for the entire Workday equipment used intermittently during the Workday. The following criteria qualify for intermittently used equipment:

- (1) Equipment dedicated to the force account exclusively all day and not used on bid work.
- (2) Equipment works before and after the intermittent idle period and its total working time during the Workday is at least 2 hours.

Equipment that is captive to the force account work (i.e. it must remain at the force account site), but does not qualify for intermittently used owned equipment, is paid as idle equipment according to C&MS Section 109.05.C.4.c. for the time it is not working.

**c. Hourly Idle Equipment Rate.** For equipment that is in operational condition, on site, and necessary for force account Work, but is idle, the Department will pay an hourly idle equipment rate. The procedure to determine the hourly idle equipment rate for Contractor owned equipment is as follows:

$$HIER = RAF \times ARA \times (R / 176) \times (1/2)$$

Where:

- HIER = Hourly idle equipment rate.
- RAF = Regional adjustment factor shown in the Blue Book.
- ARA = Age rate adjustment factor shown in the Blue Book.
- R = Current Blue Book monthly rate.

If rented equipment necessary for force account work is idle, the Department will pay the Contractor for the actual invoiced rates prorated for the duration of the idle period. The actual invoiced rates must be reasonably in line with the Blue Book rates and approved by the Engineer. The Department will pay a 15 percent markup for overhead and profit for the actual invoiced rates during the idle period.

The Department will not pay idle owned equipment costs for more than 8 hours in a 24-hour day or 40 hours in a week.

The Department will not pay for inoperable equipment.

The Engineer may order specific equipment to the site up to 5 days before its planned usage. If this equipment is not used for other work, the Department will pay for it as idle equipment until used.

The Department will pay for the cost of idle owned or rented equipment when the Work was suspended for the convenience of the State. The Department will not pay the cost of idle equipment when the Work was suspended by the Contractor for the Contractor's own reasons.

The Department will only pay for the number of Calendar Days during the existence of the suspension. The Department will not compensate the Contractor for days that the Engineer determined were lost to weather.

The Department will only pay for equipment physically located at the Project site that was received to prosecute the scheduled work during the delay.

Compensation for idle equipment will stop at the completion of the force account Work or at the end of the suspension of Work.

**d. Rented Equipment.** The Department will pay a 15 percent markup for overhead and profit for all rented equipment, its corresponding Blue Book hourly operating costs, and State and Local sales taxes.

**(1) Equipment Rented Solely for Force Account Work.** If the Contractor rents or leases equipment from a third party exclusively for force account Work, the Department will pay the actual invoiced amount. The actual invoiced rates must be reasonably in line with the Blue Book and approved by the Engineer. The Department will pay a 15 percent markup for overhead and profit for all rented equipment paid for by the actual invoices. Add the Blue Book hourly operating cost to the marked up actual invoiced rates.

**(2) Equipment Rented for Original Contract Work, but Used for Force Account Work.** If the Contractor uses rented equipment currently on the Project for original Contract Work to perform force account Work, then determine the hourly outside-rented equipment rate as follows:

$$\text{HRER} = (\text{HRI} \times 115\%) + \text{HOC}$$

Where:

- HRER = hourly rented equipment rate
- HRI = hourly rental invoice costs prorated for the actual number of hours that rented equipment is operated solely on force account work. Use a monthly invoice rate divided by 176, a weekly invoice rate divided by 40, or a daily invoice rate divided by 8.
- HOC = hourly operating cost shown in the Blue Book

The Department will not compensate for rental rates that exceed the Blue Book rates unless approved in advance of the Work by the Engineer.

**e. Moving of Equipment.** The Department will also pay for the time required to move needed equipment to the location of the force account work and to return it to its original location. The Department will pay for loading and transportation costs instead of moving time if equipment is moved by means other than its own power. Moving time back to the original location or loading and transportation costs will not be allowed if the equipment is used at the site of the force account work on contract items or related work.

The Department will consider the actual cost of transferring the equipment to the Project and returning it to the original location as an additional expense and pay for it as specified, for equipment moved on the Project exclusively for force account work.

The Engineer will confirm the original location of the equipment before the Contractor moves and uses it for force account work.

If the equipment is transported by a common carrier, the allowance is the invoiced amount paid for the freight plus 15 percent. However, if the Contractor's forces transport the equipment, the allowable compensation will be Blue Book rate of the hauling unit and hourly Blue Book operating cost plus the driver's wages and the cost of loading and unloading the equipment calculated according to 109.05.C.2.

**5. Foreman's Transportation.** The Department will pay the Blue Book rate for every hour the foreman's truck is on the force account site or moving to or from the site. This rate includes equipment cost, fuel and lubricants, overhead, profit, and mobile phone or two-way radios.

**6. Subcontract Work.** For Work performed by an approved subcontractor, the Department will pay an amount to cover administrative costs of 8% on the first \$10,000 of work and 5% for work in excess of \$10,000 as provided in 109.05.C.2 through 109.05.C.5. No additional mark-up is allowed for work of a sub-subcontractor or trucking services employed by a subcontractor.

**7. Final Adjustment to Premium for Contract Bonds.** The final bond premium amount for the payment and performance bonds will be computed based on the actual final contract value. For the purpose of computing a bond premium adjustment the actual final contract value is defined as the whole sum of money, excluding any bond premium adjustment, which is passed from the Department to the Contractor as a result of the completion of the Work. If the actual final contract value is different from the original contract value, the premium shall be adjusted accordingly; either by refund of part of the original bond premium by the Contractor if the original contract value is larger than the actual final contract value; or by payment of additional bond premium by the Department if the original contract value is smaller than the actual final contract value. Additional payment by the Department or refund by the Contractor will be based on the difference between the invoiced bond premium for the original contract value and the invoiced bond premium for the actual final contract value without any markup. A final bond premium adjustment will not be made when the actual final contract value differs from the original contract value by less than \$ 40,000.00.

**8. Trucking.**

a. Trucking firms and owner operators not subject to prevailing wage will be paid at the invoiced cost plus 8% on the first \$10,000 of trucking and 5% for trucking in excess of \$10,000 to cover administrative costs.

b. Trucking that is subject to the prevailing wage law will be compensated according to 109.05.C.1, 109.05.C.2, 109.05.C.4, 109.05.C.6, and 109.05.C.10.

Provide documentation showing payment to trucking firms and owner-operators and owner-operations status. When the trucking is subject to prevailing wage, submit payroll and equipment usage records according to 109.05.C.2 and 109.05.C.4.

**9. Professional and Specialized Work.** Professional and specialized work will be paid for according to the following:

a. The following work, when performed by the Designer or its subconsultants, is paid as set forth in 109.05.C.1.f

- (1) Design costs
- (2) Surveying costs

b. The following work, when performed by a firm other than the Designer or its subconsultants, is paid at the reasonable and fair market invoiced cost plus a 5 percent markup. The markup is limited to \$10,000 for all the work performed by the firm.

(1) Specialized work that is not part of the Design -Build Contract Documents and is not normally subject to prevailing wage.

(2) Installation, periodic maintenance, and removal of traffic control devices under Item 614 performed by a traffic control service or rental company, provided the workers are not on the Project full-time. Maintenance of Traffic services performed by LEO.

- (3) Other professional or specialized work not contemplated at the time of Bid.

Provide documentation showing payment for professional and specialized Work.

**10. Payment for Force Account Work.** Submit an analysis of estimated cost prepared in accordance with 109.05C for work that will be performed on a force account basis. Attach an original affidavit to the analysis stating:

*“Labor rates shown are the actual rates paid for labor, unit prices for materials and rates for owned and rented equipment have been estimated on the basis they are not in excess of those charged in the area in which the work will be performed.”*

The Engineer will process an Estimated Cost of Force Account (ECFA) if the amount of the force account work is likely to be greater than \$100,000 and is expected to take more than two weeks to complete. The Engineer will process an Actual Cost of Force Account (ACFA) to make any necessary adjustment between the ECFA and the final itemized costs for the force account work.

For force account work estimated to be less than \$100,000 and anticipated to require less than two weeks to perform, the Engineer will process an Actual Cost of Force Account (ACFA) at the conclusion of the work.

Submit biweekly itemized statement of costs prepared from the Daily Force Account Records to the Engineer as the work is being performed. The Engineer will process estimates as the force account work is performed. Payment will only be made upon receipt of the Contractor’s itemized statement of costs.

Upon conclusion of the work performed by an ECFA or work performed by an ACFA submit an itemized statement of the actual costs prepared from the Daily Force Account Record and utilizing the Department’s electronic template titled “Electronic Force Account.” Submit a compact disk (CD), labeled with the Contractor’s name and the project number, and a hard copy of the “Electronic Force Account.” The “Electronic Force Account” template can be downloaded from the following website:

[www.dot.state.oh.us/divisions/constructionmgt/admin/pages/default.aspx](http://www.dot.state.oh.us/divisions/constructionmgt/admin/pages/default.aspx)

The Engineer may approve an alternative electronic template provided all calculations and printouts are equivalent to those generated by the “Electronic Force Account” template.

Attach an original affidavit to the hard copy stating:

*“The name, classification, total hours worked and rates paid each person listed on the Summary of Actual Cost are substantiated by actual records of persons employed on the force account work. All unit prices for materials and rates for owned and rented equipment listed on the Summary of Actual Costs are substantiated by actual records of materials and equipment actually used in performance of the force account work and the price of any owned equipment not previously agreed upon does not exceed prices charged for similar equipment in the area in which the work was performed.”*

Daily Force Account Records signed by both the Department and Contractor will govern over other Department and Contractor records subject to the following:

- a. When the Contractor is subject to a Union Contract that requires a minimum number of paid hours, the compensation will be for the verified contract minimum hours.
- b. Material quantity disagreements will be resolved by field measurements of the installed quantities or the Engineer’s estimate of the amount of temporary or un-measurable material used. The Engineer may also review and consider the Contractor’s material invoices and material certifications to make the final determination.

In the event the Contractor declines to sign the Daily Force Account Record, the Department’s records shall govern. Any resulting dispute must be pursued in accordance with 108.02.G.

#### **D. Delay Costs.**

**1. General.** If the Department agrees that it has caused a delay, the Department will pay for the costs specified in 109.05.D as allowed by 108.06.D, unless these costs have been previously paid as listed in 109.05.B or 109.05.C. Such payment constitutes full compensation for any and all delay costs

The Department will make no payment for delays occurring during the period from December 1 to April 30 unless the Contractor’s approved progress schedule depicts critical Work occurring throughout this period.

The Department will not pay for delay costs until the DBT submits an itemized statement of those costs. Provide the content specified in 109.05.C.1, for the applicable items in this statement and as follows:

- a. Proof of cost of Superintendent, or other project staff salaries, wages, and payroll taxes and insurance.
- b. Proof of cost of office rent, utilities, land rent, and office supplies.
- c. Proof of escalated cost for labor and material.
- d. Proof of material storage costs.

**2. Allowable Delay Costs**

**a. Extended Labor.** Compute labor costs during delays as specified in 109.05.C.2 for all non-salaried personnel remaining on the Project as required under collective bargaining agreements or for other Engineer-approved reasons.

**b. Escalated Labor.** To receive payment for escalated labor costs, demonstrate that the Department-caused delay forced the Work to be performed during a period when labor costs were higher than planned at the time of Bid. Provide adequate support documentation for the costs, allowances, and benefits specified in 109.05.C.2. The Department will pay wages and fringes with a 20 percent mark-up to cover administrative costs.

**c. Idle Equipment or Equipment Demobilization.** The Department will pay the Contractor according to 109.05.C.4.c for idle equipment, other than small tools, that must remain on the Project during the delays. The Department will pay the Contractor’s transportation costs to remove and return equipment not required on the Project during the delays. No other equipment costs are recoverable as a result of delay.

**d. Material Escalation or Material Storage.** The Department will pay the Contractor for increased material costs or material storage costs due to the delay. Obtain the Engineer’s approval before storing materials due to a delay. Payment will be based upon the accepted quantity of work performed during the period for which escalated costs have been approved. The Department will pay increased material costs with an 8 percent mark-up to cover administrative costs and any material waste inherent to the Work.

**e. Field Overhead.** The Department will pay any Contractor or subcontractor for field overhead costs which include the cost of supervision, field office and office supplies, and utilities for which payment is not provided for in 109.05.D.2.f, during a delay period provided all of the following criteria are met:

- (1) The DBT has incurred an excusable, compensable delay that delays the Work at least 10 Calendar Days beyond the original Completion Date. These days are cumulative throughout the project.
- (2) The delay for which payment of field overhead is sought is only due to delays defined in 108.06.D.2, 108.06.D.3, 108.06.D.5 or for delays due to revised Work as specified in 104.02.B or 104.02.F.

The Department will pay the salary and fringes plus a 5 percent markup for field personnel identified in Table 109.05-4.

**TABLE 109.05-4**

<b>Original Contract Amount</b>	<b>Field Personnel</b>
Up to \$5,000,000	One Superintendent
\$5,000,001 to \$50,000,000	One Superintendent, One Assistant Superintendent or One Engineer, One Clerk
Over \$50,000,000	One Superintendent, One Assistant Superintendent, One Engineer, One Clerk

Superintendent’s transportation is compensable at the same rate allowed for foreman’s transportation in Section 109.05.C.5, which includes the cost of mobile communication devices. The allowed hours are when the superintendent is at the project site.

Superintendent’s subsistence, provided this is the company’s terms of compensation to such employees, as documented by the Contractor’s written company policy or contracts with their employees.

The Contractor’s or subcontractor’s field office costs include field office trailers, tool trailers, office equipment rental, temporary toilets, and other incidental facilities and supplies. Compute these costs on a Calendar Day basis. Owned trailers are paid at the Blue Book rate. Rented trailers are paid at the invoiced cost plus a 15 percent markup. Rented office space, toilets, and office equipment are allowed a 5 percent markup. Purchased office supplies are allowed a 5 percent markup.

Office utilities include, but are not limited to, telephone, electric, water, and natural gas. Compute these costs on a Calendar Day basis and allow a 5 percent markup.

**f. Home Office Overhead.** The Department will pay the Contractor for home office overhead, unabsorbed home office overhead, extended home office overhead, and all other overhead costs for which payment is not provided for in 109.05.D.2.e, including overhead costs that would otherwise be calculated using the Eichleay formula or some other apportionment formula, provided all of the following criteria are met:

- (1) The Contractor has incurred an excusable, compensable delay that delays the Work at least 10 Calendar Days beyond the original Completion Date. These days are cumulative throughout the project.

(2) The delay for which payment of home office overhead is sought is only due to delays defined in 108.06.D.2, 108.06.D.3 and 108.06.D.5.

Any subcontractor that has approved C-92's for subcontracted work totaling \$4,000,000 or more is eligible for reimbursement of home office overhead provided the criteria set forth in 109.05.D.2.f.(1) and 109.05.D.2.f.(2) are met.

Payment will be made for every eligible day beyond the original contract completion date at the rate determined by 109.05.D.2.f.i. Payment for eligible days occurring during an unanticipated construction period will be calculated in accordance with 109.05.D.2.f.ii. Payment for eligible days occurring during an unanticipated winter period will be calculated in accordance with 109.05.D.2.f.iii.

**(i) Home Office Overhead Daily Rate**

Calculate the home office overhead daily rate using the following formula:

$$\text{Daily HOOP} = (A \times C)/B$$

Where:

- A = original contract amount
- B = contract duration in Calendar Days
- C = value from Table 109.05-5

**TABLE 109.05-5**

<b>Original Contract Amount</b>	<b>C</b>
Up to \$5,000,000	0.08
\$5,000,001 to \$25,000,000	0.06
Over \$25,000,000	0.05

Daily HOOP = home office overhead daily rate

Contract duration term, B, includes every Calendar Day from the execution of the Contract, unless otherwise specified by the Director, to the original Contract Completion Date.

When the Contractor requests home office overhead compensation for a subcontractor, use the above formula to calculate the subcontractor's Daily HOOP; however, in the subcontractor calculation, A is equal to the subcontractor's portion of the original contract amount as determined by the sum of all approved C-92's issued for the subcontracted work.

**(ii) Home Office Overhead Payment for an Unanticipated Construction Period**

Calculate the home office overhead payment for an unanticipated construction period occurring between May 1 and November 30 using the following formula:

$$\text{CP HOOP} = \text{Daily HOOP} \times D$$

Where:

- D = sum of all excusable, compensable delays in Calendar Days minus the sum of all delays due to 108.06.D.1 and 108.06.D.4 in Calendar Days
- Daily HOOP = daily home office overhead rate
- CP HOOP = home office overhead payment for an unanticipated construction period occurring between May 1 and November 30

The excusable, compensable delay term, D, is the additional, unanticipated extended period for work performed between May 1 and November 30 in Calendar Days.

**(iii) Home Office Overhead Payment for an Unanticipated Winter Period**

Calculate the payment for home office overhead for an unanticipated winter period occurring between December 1 and April 30 using the following formula:

$$\text{WP HOOP} = \text{Daily HOOP} \times F \times D/E$$

Where:

- D = sum of all excusable, compensable delays in Calendar Days minus the sum of all delays due to 108.06.D.1 and 108.06.D.4 in Calendar Days
- E = sum of all excusable, compensable delays in Calendar Days plus the sum of all excusable, non-compensable delays in Calendar Days
- F = 151 for a non-leap year or 152 for a leap year
- Daily HOOP = daily home office overhead rate



WP HOOP = home office overhead payment for an unanticipated winter period occurring between December 1 and April 30

Payment for Home Office Overhead for an unanticipated winter period will not be made when the value of the remaining work is below the lesser of \$500,000.00 or 10 percent of the estimated final contract value.

**(iv) Total Home Office Overhead Payment**

Calculate the total home office overhead payment using the following formula:

$$\text{Total HOOP} = \text{CP HOOP} + \text{WP HOOP}$$

Where:

CP HOOP = home office overhead payment for an unanticipated construction period occurring between May 1 and November 30

WP HOOP = home office overhead payment for an unanticipated winter period occurring between December 1 and April 30

Total HOOP = total home office overhead payment

**g. Subsistence and Travel Allowance.** The Department will pay costs for subsistence and travel allowances for labor that must remain on the Project during the delays, when such payments are required by the collective bargaining agreement or other employment contracts applicable to the classes of labor employed on the project. Overnight lodging will be reimbursed if the person is at a location greater than forty-five miles from their residence up to a maximum of \$106 per day. Meals and incidental expenses will be reimbursed up to a maximum of \$56 per day. The Department will not pay a percent markup on these costs.

**E. Changes in Materials.** Changes in material specifications that result in increased cost to the Contractor are compensated by lump sum adjustment to the reference number. The allowed compensation is equal to the invoice supported material cost increase plus 15 percent markup for profit and overhead.

Material cost savings resulting from a specification change shall be credited to the project by a lump sum adjustment to the reference number plus a 15 percent markup if the originally specified material has not been ordered.

If the original material was ordered before the Contractor was informed of the change, the savings markup allowed is 2.5 percent in order to exclude profit on the original bid price and pay only for incurred overhead.

**109.06 Directed Acceleration.** The Engineer may order the DBT to accelerate the Work to avoid delay costs or to complete the Project early. The Director and the DBT will negotiate acceleration costs.

**109.07 Inefficiency.** The Department will compensate the Contractor for inefficiency or loss of productivity resulting from 104.02 Revisions to the Contract Documents. Use the Measured Mile analysis comparing the productivity of work impacted by a change to the productivity of similar work performed under un-impacted conditions to prove and quantify the inefficiency.

**109.08 Unrecoverable Costs.** The DBT is not entitled to additional compensation for costs not specifically allowed or provided for in 109.05 including, but not limited to, the following:

A. Loss of anticipated profit.

B. Consequential damages, including loss of bonding capacity, loss of bidding opportunities, insolvency, and the effects of force account work on other projects, or business interruption.

C. Indirect costs.

D. Attorney's fees, claim preparation expenses, and the costs of litigation.

**109.09 Estimates.** If satisfactory progress is being made, the Contractor shall submit monthly invoices for payment for Lump Sums items. The DBT shall estimate the current percentage completion of each Lump Sum item of Work as depicted in the approved Schedule of Values (as defined in C&MS 109.01). The estimated current percentage completed shall be reasonably justified by providing the estimated completed quantities of Work as agreed in the Schedule of Values. DBE specific work items shall be separately itemized and shall correspond to the DBE work item breakdown in the Schedule of Values. The Engineer shall make Estimate entries corresponding to the DBE work item breakdown.

The Department shall review each proposed current percentage completion and revise the percentage based on the Department's judgment of the percent completed or Work performed. The Department may make DBE specific work item payments if, in the Department's judgment, DBEs performed Work within the invoiced period. DBE work item payments may be made by the Department regardless of DBE invoice payment requests made by the Contractor and C&MS 107.21 shall apply. The percentage of completion accepted by the Department, multiplied by the portion of

the Contract Price attributable to the invoiced Item of Work as depicted in the approved Schedule of Values, will define the gross amount of the payment due to the Contractor for that item of Work. Each payment is approximate, and all partial estimates and payments are subject to correction after payment by the Department.

The Department shall return to Contractor any invoices that are incomplete and/or incorrect in any material respect for correction and resubmission.

If satisfactory progress is being made for items of Work with bid unit prices, the Contractor will receive monthly payments equaling the Work or materials in place. The monthly payment is approximate, and all partial estimates and payments are subject to correction in the Final Estimate and payment.

Payment for Work and materials shall not, in any way, prevent later rejection when defective Work or material is discovered, or constitute acceptance under 109.11 or 109.12.

Any pay item deficient in material approval can be withheld for payment on an estimate for any item (lump sum or unit priced items).

Except for estimates generated during Project finalization, the Department will not pay an estimate until the DBT certifies to the Engineer that the work for which payment is being made was performed in accordance with the contract. Certification will be made on forms provided by the Department.

The Department may pay estimates twice each month if the Engineer concludes the amount of work performed is sufficient.

No estimate or payment shall be construed as acceptance of defective Work or improper materials.

The Department will not pay the adjusted final estimate until the DBT remedies all defective Work and accepted Work damaged by the Contractor's operations.

Interest will be paid in accordance with ORC 126.30 when warranted.

**109.10 Payment for Delivered Materials.** The Department will pay, up to 75 percent of the applicable contract item, for the invoiced cost of the delivered and approved materials before they are incorporated in the Work, if the approved materials are delivered, accepted, and properly stored on the project or stored in acceptable storage places in the vicinity of the Project.

The Department may pay, up to 75 percent of the applicable representative Schedule of Values item, for the invoiced cost of the delivered and approved materials before they are incorporated in the Work, if the approved materials are delivered, accepted, and properly stored on the project or stored in acceptable storage places in the vicinity of the Project. The Department will use its discretion in determining potential payment for delivered materials for Schedule of Value items dependent upon reasonable cost breakdown of the Schedule of Value items.

The Department will pay for the cost of approved materials before they are incorporated in the Work when asked by the Contractor, if the Engineer determines that it is not practical to deliver the material to the Project site. This provision applies only to bulky materials that are durable in nature and represent a significant portion of the project cost, such as aggregates, steel, and precast concrete. The Department will pay for un-fabricated structural steel if the following requirements are met:

- A. The Contractor has provided both the Engineer and the Office of Materials Management an itemized invoice from the steel mill for the steel for which reimbursement is requested
- B. Project structural Steel design plans are complete with no forthcoming revisions. Provide DBT accepted shop drawings per 501.04.
- C. Contractor accepted certified test data for all steel in question along with mill shipping notices have been received by the Office of Materials Management per 501.06.
- D. The steel is properly stored to allow inspection by the Office of Materials Management. It shall also be properly set apart from other material and identified as belonging to ODOT.
- E. The Contractor will provide the Engineer a written statement that under 106, the Contractor is responsible for the steel that has been paid for until the actual steel is erected and accepted in the field.
- F. Payment shall only be authorized after all the aforementioned documentation has been received by the Office of Materials Management and the steel has been inspected by the Office of Materials Management to verify that all steel listed in the itemized invoice has been received by the fabricator and properly stored. The amount to be paid shall be equivalent to the itemized invoice from the steel mill, but shall not exceed 50% of the bid price for the structural steel.

The Department will not pay delivered materials on small warehouse items or for plant materials.

**109.11 Partial Acceptance.** Upon completion of a portion of the Work, the Contractor may request acceptance of a completed portion of the Work.

- A.** An inspection may be performed on a completed portion of the project roadway section provided:
1. All safety items are in place including permanent pavement markings.
  2. Traffic is in its final pattern.
  3. A completed portion of the project constitutes a completed geographic section of the project or a direction of traffic on a divided highway.
  4. Is in accordance with other contract provisions.
- B.** An inspection may be performed on a completed bridge provided:
1. All work on the bridge and approaches are complete, including all safety items and permanent pavement markings.
  2. The Contractor will not return to the bridge for any work except as allowed in 4.
  3. Traffic is in its final pattern.
  4. Painting of structural steel is either completed or scheduled to be performed.
  5. Is in accordance with other contract provisions.

The Final Inspector will grant written partial acceptance for that portion of the Work or reject the Contractor's request. Such written partial acceptance will designate what portion of the Work is accepted, the date of acceptance, and the warranty provisions started by the partial acceptance.

Partial acceptance will relieve the Contractor of maintenance responsibility for the designated portion of the Work. This does not relieve the Contractor of responsibility to correct defective Work or repair damage caused by the Contractor or waive any other remedy to which the Department is entitled at law or in equity.

**109.12 Final Acceptance.**

**A. Final Inspection.** The Department will perform a Final Inspection for the sole purpose of relieving the Contractor of maintenance responsibility for the Work.

The Final Inspection shall be a limited visual review of the Work and shall only serve as the Department's verification that the Work appears substantially complete. Final Inspection does not waive any available rights or remedies of the Department, nor divest the DBT of any responsibility for compliance with the contract or liability for damages.

Notify the Engineer when the Project is complete and all of the Engineer's punch list items are complete. If the Engineer agrees the Project is complete, then within 10 business days the District Final Inspector will inspect the Work and categorize it as one of the following:

1. Unacceptable or not complete.
2. Substantially complete with punch list items found by the Final Inspector.
3. Substantially complete.

If the Final Inspector finds the Work substantially complete or substantially complete with punch list items, then the Contractor's maintenance responsibilities end on the day of the Final Inspection, except for any maintenance related to unfinished punch list items. This does not relieve the Contractor of responsibility to correct defective Work or repair damage caused by the Contractor or waive any other remedy to which the Department is entitled at law or in equity. The Final Inspector will issue a Final Inspection Report that will document the findings of the inspection and start any warranty period.

**B. Punch List.** The Final Inspector will issue to the Contractor a written punch list of work required as a condition of acceptance. For project involving multiple public agencies, the Final Inspector will receive and compile punch lists from all agencies that have authority to provide one prior to issuing the Department's punch list. The Final Inspector's punch list will stipulate a reasonable time to complete the required Work. Failure of the Contractor to complete the punch list items by the stipulated time will result in the assessment of fifty percent of the Liquidated Damages according to 108.07 for each Calendar Day for every day beyond the stipulated time the punch list work remains incomplete and beyond the revised Completion Date.

**C. Finalization.** The DBT shall accept the final quantities as determined by the Engineer or provide a written notice indicating the reason for disagreement within 30 Calendar Days of receiving the Engineer's list of final quantities. The prescribed 30 Calendar Day period can be modified by mutual agreement of the DBT and the District Construction Engineer. If no notice of disagreement is received, then the final payment will be based on the Engineer's list of final quantities.

Supply all documents necessary for Project finalization within 60 Calendar Days from the date that the Work is physically complete. These documents include:

1. Delinquent material certifications.
2. Delinquent certified payrolls or required revised payrolls.
3. Wage affidavit required by ORC Chapter 4115 on projects without any Federal funding.
4. Delinquent force account records.
5. If applicable, DBE affidavits.
6. Any other document required to complete finalization of the project.

Failure to submit these acceptably completed documents will result in an administrative fee of \$100 per Calendar Day for every day that any of the required documents remain delinquent, starting 30 Calendar Days after receipt of written notification from the Engineer of a document deficiency.

**D. Final Payment.** Final payment is based on:

1. The agreed final quantities or as determined by the Engineer if agreement is not possible, no compensation for unauthorized work is allowed.
2. Finding of substantial completion by the Final Inspector.
3. Receipt of acceptable finalization documents.
4. Contractor's certification that the construction Work was performed in accordance with the Contract.
5. Designer's certification that the detailed design Work was designed in accordance with the Contract.
6. Receipt of all original project files and notes utilized in the preparation of the survey, design and construction of the project
7. Receipt of As-Built Construction Record Drawing Plans

**E. Completion of Contract and Continuation of Contractor's Responsibility.** The Contract is complete, except for items covered by the required bonds, when the Contractor receives final payment. The DCE will issue a letter confirming completion of the contract, noting any exception as provided in Items 659 and 661 and any warranty. The date the final payment is approved by the District constitutes acceptance for the purpose of ORC 5525.16. Neither Completion of the Contract nor substantial completion relieves the DBT of any responsibilities to properly perform or correct the Work or to repair damage or waives any remedies to which the Department is entitled at law or in equity.