RESOLUTION NO. 2013-35

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF SPEEDWAY, INDIANA AUTHORIZING A CONTRACT AWARD FOR INFRASTRUCTURE IMPROVEMENTS ON HOLLISTER DRIVE AND AWARD OF A CONTRACT TO CC&T INC. FOR THE WORK

WHEREAS, the Town of Speedway, Indiana (the "Town") has heretofore established, constructed, maintained and financed a road, sanitary sewer and storm sewer collection system for the benefit of the residents of the Town of Speedway; and

WHEREAS, the Town desires to replace certain infrastructure on Hollister Drive, including but not limited to sidewalks, curbs and approaches, gutters, and related infrastructure as part of a planned upgrade; and

WHEREAS, the Town now desires to award a contract to CC&T Construction Company, Inc, which was the lowest responsive and responsible bidder.

NOW THEREFORE BE IT RESOLVED THAT THE TOWN COUNCIL OF THE TOWN OF SPEEDWAY:

- 1. The Town Council hereby approves the contract for the installation of sidewalks and curbs on Hollister Drive from Parkwood Drive to High School Road with CC&T Construction Company, Inc. in an amount not to exceed \$102,601.
- 2. The funding for this project shall be made from the 2013 Transportation Bond Project Account.
- 3. The Town Manager is authorized to sign the contract and undertake related administrative actions to finalize the contract.

PASSED BY the Town Council of the Town of Speedway this 22nd day of October 2012.

Eileen Fisher, President

Gary Raikes, Vice President

Jeff Hartman, Member

David Lindsey, Member

William Suffel, Member

Attest:

Monty W. Combs, Clerk Treasurer

CONTRACT

HOLLISTER DRIVE SIDEWALK IMPROVEMENTS TOWN OF SPEEDWAY, INDIANA

This Contract is dated as the 11 th day of November, 2013.	
between the Town of Speedway, Indiana	
(hereinafter called OWNER)	
And CC&T Construction	
(hereinafter called CONTRACTOR)	

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

Article 1. WORK

- 1.1 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. Alternate No. 1 work for which proposals are to be received is for 1532 feet of corridor improvements along Hollister Drive from High School Road to Parkwood Drive, including sidewalk, driveway, and curb ramp replacement.
- 1.2 The project for which work is to be performed under the Contract Documents is generally described as: HOLLISTER DRIVE SIDEWALK IMPROVEMENTS

 Article 2. OWNER
- 2.1 The Project is being administered by the Town of Speedway, Indiana. The Town of Speedway will assume all duties and responsibilities and will have the rights and authority assigned to OWNER under the Contract Documents in connection with completion of the Work.

Article 3. CONTRACT TIME

- 3.1 The successful Bidder of the work shall be prepared to complete the furnishing and construction for Final Completion of the Project on or before Wednesday, May 1, 2013.
- 3.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the time specified in Paragraph 3.1. They also recognize the delays, expense and difficulties involved in proving in legal or arbitration proceedings the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not a penalty) CONTRACTOR shall pay OWNER Two Hundred and Fifty Dollars and No Cents (\$250.00) per each calendar day of delay until the work is completed, for the Final Contract Completion Date as specified in Paragraph 3.1.

Article 4. CONTRACT PRICE

4.1 The OWNER shall pay the CONTRACTOR for performance of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the established unit price for each separately identified item of Unit Price Work, as described in the Itemized Proposal, multiplied by the final quantity of that item. Based on the estimated quantities of each item and the submitted unit prices, this amount is

), which the CONTRACTOR agrees to receive and

accept. Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment. Applications for Payment will be processed by **OWNER**.

- 5.1 Progress Payments. OWNER shall make progress payment on account of the Contract Price on the basis of CONTRACTOR's Applications for Payments, on or about the 10th of each month during construction as provided below. All progress payments will be on the basis of the progress of the work measured by the schedule of values listed in the Itemized Proposal.
- 5.2 Final Payment. Upon completion and acceptance of the Work, OWNER shall pay
 the remainder of the Contract Price.

Article 6. INTEREST

All moneys not paid when due hereunder shall bear interest at the maximum rate allowed by law at the place of the Project.

Article 7. CONTRACTOR'S REPRESENTATION

In order to induce **OWNER** to enter into this Contract, **CONTRACTOR** makes the following representations:

- 7.1 CONTRACTOR is familiar with the nature and extent of the Contract Documents, work locality and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress, or performance of the Work.
- 7.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress, or performance of the Work which were relied upon by the Town of Speedway, in the preparation of the Drawings and which have been identified in the Supplementary Conditions.
- 7.3 CONTRACTOR has made or caused to be made examinations, investigations, and tests and studies of such reports and related data in addition to those referred to in Paragraph 7.2 as deemed necessary for the performance of the Work at the Contract price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.
- 7.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.
- 7.5 CONTRACTOR has given OWNER written notice of all conflicts, errors, or discrepancies that have been discovered in the Contract Documents and the written resolution thereof by OWNER is acceptable to CONTRACTOR.

Article 8. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Contract between **OWNER** and **CONTRACTOR** are made a part hereof as is attached to this Contract and consist of the following:

8.1 This Contract (Pages 1 to 6, inclusive)

- 8.2 Advertisement for Bids
- 8.3 Information for Bidders
- 8.4 Bid
- 8.5 Bid Bond or Certified Check
- 8.6 List of Suppliers / Subcontractors
- 8.7 Non-Collusion Affidavit
- 8.8 DBE Packet
- 8.9 EPA Form 6100-3 DBE Subcontractor Performance Form
- 8.10 EPA Form 6100-4 DBE Subcontractor Utilization Form
- 8.11 Form 96 (revised 2000)
- 8.12 General Conditions
- 8.13 Supplemental General Conditions
- 8.14 Special Provisions
- 8.15 Payment Bond
- 8.16 Performance Bond
- 8.17 Notice of Intent to Award
- 8.18 Notice to Proceed
- 8.19 EPA Form 6100-2 DBE Subcontractor Participation Form
- 8.20 EPA Form OEE-1 Certification of Nonsegregated Facilities
- 8.21 EPA Form OEE-2 Notice to Labor Unions or Other Organizations of Workers
- 8.22 Specifications and Drawings prepared and/or issued by the Town of Speedway, dated .

8	.23	Ad	de	nd	a:

No.	. dated	. 20

- 8.24 Documents submitted by CONTRACTOR prior to Notice of Intent to Award.
- 8.25 Any Modifications, including Change Orders, duly delivered after execution of Contract.

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be altered, amended or repealed by a Modification.

Article 9. MISCELLANEOUS

- **9.1** Terms used in this Contract which are defined in Article 1 of the General Conditions shall have the meanings indicated in the Supplemental General Conditions.
- 9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically, but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment.

- No assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3 OWNER and CONTRACTOR each bind themselves, their partners, successors, assigns and legal representatives to the other party hereto, their partners, successors, assigns, and legal representatives in respect to all covenants, contracts and obligations contained in the Contract Documents.

Article 10. SAFETY

10.1 CONTRACTOR shall be responsible for the safety of employees at all times and shall provide all equipment to ensure their safety. CONTRACTOR shall ensure the enforcement of all applicable safety rules, regulations, ordinances and laws, whether federal, state or local. CONTRACTOR shall hold harmless and indemnify the Town of Speedway from, for, and against any claim of any person in tort, contract, or otherwise arising out of a job-related injury, whether physical of otherwise.

IN WITNESS WHEREOF, the parties hereto have signed this Contract in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and TOWN OF SPEEDWAY. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR.

This Contract will be effective on	, 20
OWNER:	CONTRACTOR:
TOWN OF SPEEDWAY	
Barbare A Lawrence	(Corporate Seal)
	Attest
	Address for giving notices
Attest Monty W. Com be	
Address for giving notices	License No. (if applicable)
1450 N. Lynhurst Drive	License No. (ii applicable)
Speedway, IN 46224	Agent for service of process

NOTICE OF INTENT TO AWARD

Project Description: HOLLISTER	DRIVE AND NORFOLK STREET IN	MPROVEMENTS
The OWNER has considered the BII Bidders, and Proposal submitted on	O submitted by you for the above desc	ribed work in Information for
You are hereby notified that your BI for items in the amount of:	D is going to be presented to the Tov	vn of Speedway for award
Dollars (\$).		
the Town of Speedway and furnis	for Bidders to execute the Contract sh the required CONTRACTOR'S les) and Certificate of Insurance within	PERFORMANCE BOND (3
said OWNER will be entitled to cons	nd to furnish said BOND within 10 day ider all your rights arising out of the Open your BID BOND. The OWNER will be	WNER'S acceptance of your
You are required to return an ackn OWNER.	owledged copy of this NOTICE OF	INTENT TO AWARD to the
Dated thisday of	+ 20	
	TOWN OF SPEEDWAY, INDIANA	
	By	
	Barbara A. Lawrence	
	TitleTown Manager	
	ACCEPTANCE OF NOTICE	
Receipt of the above NOTICE OF INT	ENT TO AWARD is hereby acknowled	laed by
•		
41-2-		
	day of	_, 20
Printed:		
Title:		
	₹.	

NOTICE TO PROCEED

TO:	Date:
	Project: HOLLISTER DRIVE AND NORFOLK
	STREET IMPROVEMENTS
	SPEEDWAY, IN
You are hereby notified to co	ommence WORK in accordance with the Contract dated
, <u>20</u> , and y	ou are to complete the WORK on or before
73 73	
Detail requirements of work co	ompleted for each project are found in the Contract.
	TOWN OF SPEEDWAY, INDIANA
	Rv
	By Barbara A, Lawrence
	Title Town Manager
	ACCEPTANCE OF NOTICE
Receipt of the above NOTIC	E TO PROCEED is hereby acknowledged by
	this
day of	
By:	
Title:	
(Please type)	



NAME OF SUBCONTRACTOR¹

OMB Control No: 2090-0030 Approved: 05/01/2008 Approval Expires: 01/31/2011

Disadvantaged Business Enterprise Program DBE Subcontractor Participation Form

	=		
ADDRESS		CONTRACT NO.	×
TELEPHONE NO.		EMAIL ADDRESS	
PRIME CONT	TRACTOR NAME		
	space below to report any concerns regar prime contractor, late payment, etc.).	ding the above EPA-funded pr	oject <u>(e.g.,</u> reason for
CONTRACT ITEM NO.	ITEM OF WORK OR DESCRIPTION OF SE THE PRIME CONTRACTOR	RVICES RECEIVED FROM	AMOUNT SUBCONTRACTOR WAS PAID BY PRIME CONTRACTOR
Subcontractor Signature Title/Date			

PROJECT NAME

Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



OMB Control No: 2090-0030 Approved: 05/01/2008 Approval Expires: 01/31/2011

Disadvantaged Business Enterprise Program DBE Subcontractor Participation Form

The public reporting and recordkeeping burden for this collection of information is estimated to average fifteen (15) minutes. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed EPA DBE Subcontractor Participation Form to this address.

TOWN OF SPEEDWAY

CERTIFICATION OF NONSEGREGATED FACILITIES

(Applicable to Town of Speedway construction contracts and related subcontracts exceeding \$10,000 which are not exempt from the Equal Opportunity clause.)

The construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The construction contractor certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term segregated facilities means any waiting rooms, work areas, rest rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or nation origin, because of habit, local custom, or otherwise. The construction contractor agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certification in his files.

Signature		Date
Name and Title of Signer	(Please type)	
Firm Name		

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C.

1001: OEE-1 (11/79)

NOTICE TO LABOR UNIONS OR OTHER ORGANIZATIONS OF WORKERS NONDISCRIMINATION IN EMPLOYMENT

TO: (Name of union or organization of workers)
The undersigned currently holds contract(s) with
You are advised that under the provisions of the above contract(s) or subcontract(s) and in accordance with Executive Order 11246, as amended, dated September 24, 1965, as amended, the undersigned is obliged not to discriminate against any employee or applicant for employment because of race, color, creed, or national origin. This obligation not to discriminate in employment includes, but is not limited to, the following:
HIRING, PLACEMENT, UPGRADING, TRANSFER, OR DEMOTION, RECRUITMENT, ADVERTISING, OR SOLICITATION FOR EMPLOYMENT, TRAINING DURING EMPLOYMENT, RATES OF PAY OR OTHER FORMS OF COMPENSATION, SELECTION FOR TRAINING INCLUDING APPRENTICESHIP, LAYOFF OR TERMINATION.
This notice is furnished you pursuant to the provisions of the above contract(s) or subcontract(s) and Executive Order 11246, as amended.
Copies of this notice will be posed by the undersigned in conspicuous places available to employees or applicants for employment.
(Contractor or Subcontractor)
(Date)

OEE-2 (11/79)

GENERAL CONDITIONS

GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

- A. Wherever used in the Contract Documents and printed with initial or all capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof.
 - Addenda—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the Contract Documents.
 - Agreement—The written instrument which is evidence of the agreement between OWNER and CONTRACTOR covering the Work.
 - Application for Payment—The form acceptable to ENGINEER which is to be used by CONTRACTOR during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 - Asbestos—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 - Bid—The offer or proposal of a bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 - 6 Bidding Documents—The
 Bidding
 Requirements and the proposed Contract
 Documents (including all Addenda issued
 prior to receipt of Bids)
 - Bidding Requirements—The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.
 - Bonds—Performance and payment bonds and other instruments of security.
 - Change Order—A document recommended by ENGINEER which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective

- Claim—A demand or assertion by OWNER or CONTRACTOR seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
- Contract—The entire and integrated written agreement between the OWNER and CONTRACTOR concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
- Documents—The Contract Contract Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR'S Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER'S written interpretations and clarifications issued on or after the Effective Date of the Agreement, Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents. Only printed or hard copies of the items listed in this paragraph are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR are not Contract Documents.
- Contract Price—The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.03 in the case of Unit Price Work).
- Contract Times—The number of days or the dates stated in the Agreement to: (I) achieve Substantial Completion; and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER'S written recommendation of final payment.
- CONTRACTOR—The individual or entity with whom OWNER has entered into the Agreement.
- Cost of the Work—See paragraph 1.01.A for definition.

- 17. Drawings—That part of the Contract Documents prepared or approved by ENGINEERS which graphically shows the scope, extent and character of the Work to be performed by CONTRACTOR. Shop Drawings and other CONTRACTOR submittals are not Drawings as so defined.
- 18. Effective Date of the Agreement—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- ENGINEER—The individual or entity named as such in the Agreement.
- ENGINEER'S Consultant—An individual or entity having a contract with ENGINEER to furnish services as ENGINEER'S independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.
- 21. Field Order—A written order issued by ENGINEER which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
- General Requirements—Sections of Division of the Specifications. The General Requirements pertain to all sections of the Specifications.
- 23. Hazardous Environmental Condition—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.
- 24. Hazardous Waste—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
- 25. Laws and Regulations; Laws or Regulations— Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- Liens—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
- 27. Milestone—A principal event specified in the Contract Documents relating to an

- intermediate completion date or time prior to Substantial Completion of all the Work.
- 28. Notice of Award—The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Agreement.
- 29. Notice to Proceed—A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform the Work under the Contract Documents.
- Owner—The individual, entity, public body, or authority wit whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.
- Partial Utilization—Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.
- 32. PCBs-Polychlorinated biphenyl's.
- 33. Petroleum—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
- 34. Project-The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part as may be indicated elsewhere in the Contract Documents.
- 35. Project Manual—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
- Radioactive Material—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
- 37. Resident Project Representative—The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

- 38. Samples—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
- 39. Shop Drawings—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.
- 40. Site-Lands or areas indicated in the Contract Documents as being furnished by OWNER upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of CONTRACTOR.
- 41. Specifications—That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.
- Subcontractor—An individual or entity having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.
- 43. Substantial Completion—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
- 44. Supplementary Conditions—That part of the Contract Documents which amends or supplements these General Conditions.
- 45. Supplier—A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.
- 46. Underground Facilities—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that

- convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
- Unit Price Work—Work to be paid for on the basis of unit prices.
- 48. Work—The entire completed construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
- 49. Work Change Directive—A written statement to CONTRACTOR issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.
- 50. Written Amendment—A written statement modifying the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

1.02 Terminology

A. Intent of Certain Terms or Adjectives

1. Whenever in the Contract Documents the terms "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of ENGINEER as to the Work, it is intended that such action or determination will be solely to evaluate, in general, the completed Work for compliance with the

requirements of and information in the Contract documents conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.

B. Day

 The word "day" shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

C. Defective

1. The word "defective." modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it does not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged ENGINEER'S to recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.04 or 14.05).

D. Furnish Install, Perform, Provide

- The word "fumish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
- The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said

- services, materials, or equipment complete and ready for intended use.
- The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
- 4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of CONTRACTOR, "provide" is implied.
- E. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

2.01 Delivery of Bonds

When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

2.02 Copies of Documents

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 Starting the Work

A. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

- A. CONTRACTOR'S Review of Contract Documents: Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, discrepancy which ambiguity, or CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless CONTRACTOR knew or reasonably should have known thereof.
- B. Preliminary Schedules: Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for its timely review:
 - a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; and
 - 3. a preliminary schedule of values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.
- C. Evidence of Insurance: Before any Work at the Site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with Article 5.

2.06 Preconstruction Conference

A. Within 20 days after the Contract Times start to run, but before any Work at the Site is started, a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.05 B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 Initial Acceptance of Schedules

- A. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in with paragraph 2.05 B accordance CONTRACTOR shall have an additional tendays to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until acceptable schedules are submitted to ENGINEER.
 - The progress schedule will be acceptable to ENGINEER if it provides an orderly progression of the Work to completion within any specified Milestones and the Contract Times. Such acceptance will not impose on ENGINEER responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR'S full responsibility therefor.
 - CONTRACTOR'S schedule of Shop Drawing and Sample submittals will be acceptable to ENGINEER if it provides a workable arrangement for reviewing and processing the required submittals.
 - CONTRACTOR'S schedule of values will be acceptable to ENGINEER as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

- A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to OWNER.
- C. Clarifications and interpretations of the Contract Documents shall e issued by ENGINEER as provided in Article 9.

3.02 Reference Standards

- A. Standards, Specifications, Codes, Laws, and Regulations
 - Reference to standards. specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of OWNER. CONTRACTOR, or ENGINEER, or any of their subcontractors. consultants, agents, or employees from those set forth in the Contract Documents, nor shall any such provision or instruction be effective to assign to OWNER, ENGINEER, or any of ENGINEER'S Consultants, agents, or employees any duty or authority to supervise or direct the performance of the Work or any duty authority to undertake responsibility inconsistent with the provisions the Contract οf Documents.

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies

1. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code. or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as required by paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.04, provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity, or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

B. Resolving Discrepancies

- Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Amending and Supplementing Contract Documents

A. The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:
 (I) a Written Amendment; (ii) a

- Change Order; or (iii) a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways: (I) a Field Order; (ii) ENGINEER'S approval of a Shop Drawing or Sample, or (iii) ENGINEER'S written interpretation or clarification.

3.05 Reuse of Documents

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with OWNER: (I) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER'S Consultant including electronic media editions, and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. preclude herein shall CONTRACTOR from retaining copies of the Contract Documents for record purposes.

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

4.01 Availability of Lands

A. OWNER shall furnish the Site. OWNER shall notify CONTRACTOR of any encumbrances or restrictions not of general application but specifically related to use of the Site wish which CONTRACTOR must comply performing the Work OWNER will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If CONTRACTOR and OWNER are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in OWNER'S furnishing the Site, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

- B. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER'S interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 Subsurface and Physical Conditions

- A. Reports and Drawings: The Supplementary Conditions identify:
 - those reports of explorations and tests of subsurface conditions at or contiguous to the Site that ENGINEER has used in preparing the Contract Documents, and
 - those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Contract Documents.
- B. Limited Reliance by CONTRACTOR on Technical Data Authorized: CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER, or any of ENGINEER'S Consultants with respect to:
 - the completeness of such reports and drawings for CONTRACTOR'S purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, and safety precautions and programs incident thereto; or
 - other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - any CONTRACTOR interpretation of or conclusion drawn from any technical

data" or any such other data, interpretations, opinions, or information.

4.03 Differing Subsurface or Physical Conditions

- A. Notice: If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:
 - is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraph 4.02 is materially inaccurate; or
 - is of such a nature as to require a change in the Contract Documents; or
 - differs materially from that shown or indicated in the Contract Documents; or
 - is of an unusual nature and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents:

then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16 A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. ENGINEER'S Review: After receipt of written notice as required by paragraph 4.03.A ENGINEER will promptly review the pertinent condition, determine the necessity of OWNER'S obtaining additional exploration or tests with respect thereto, and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER'S findings and conclusions.
- C. Possible Price and Times Adjustment
 - The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in CONTRACTOR'S cost of, or time required for, performance of the Work; subject, however, to the following:

- a. such condition must meet any one or more of the categories described in paragraph 4.03.A; and
- with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9,08 and 11,03.
- CONTRACTOR shall not be entitled to any adjustment in the Contract Price of Contract Times if:
 - a. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract or
 - the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR'S making such final commitment; or
 - c. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.03.A.
- 3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, AND ENGINEER'S Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attomeys, and other professionals and all court or arbitration or other dispute resolution costs) sustained CONTRACTOR on or in connection with any other project or anticipated project.

4.04 Underground Facilities

Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing

Underground Facilities at or contiguous to the Site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities, including OWNER, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

- OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and
- the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:
 - reviewing and checking all such information and data.
 - b. locating all Underground Facilities shown or indicated in the Contract Documents,
 - c coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated with reasonable accuracy in Contract Documents. CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility During such time, CONTRACTOR shall be responsible or the safety and

protection of such Underground Facility.

2. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contrast Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract times. OWNER or CONTRACTOR may make a Claim therefore as provided in paragraph 10.05.

4.04 Reference Points

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

4.05 Hazardous Environmental Condition at Site.

A. Reports and Drawings: Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Contact Documents.

- B. Limited Reliance by CONTRACTOR on Technical Data Authorized: CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER'S Consultants with respect to:
 - the completeness of such reports and drawings for CONTRACTOR'S purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto, or
 - other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 - any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data interpretations opinions or information.
- C. CONTRACTOR shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. CONTRACTOR shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers, or anyone else for whom CONTRACTOR is responsible.
- D. If CONTRACTOR encounters a Hazardous Environmental Condition or if CONTRACTOR or anyone for whom CONTRACTOR is responsible creates a Hazardous Environmental Condition, CONTRACTOR shall immediately: (I) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by paragraph 6.16); and (iii) notify OWNER and ENGINEER (and promptly thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such condition or take corrective action, if any.

- E. CONTRACTOR shall not be required to resume Work in connection with such condition or in any affected area until after OWNER has obtained any required permits related thereto and delivered CONTRACTOR written notice: (I) specifying that such condition and any affected area is or has been rendered safe for the presumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by CONTRACTOR, either party may make a Claim therefor as provided in paragraph 10.05.
- F. If after receipt of such written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in paragraph 10.05. OWNER may have such deleted portion of the Work performed by OWNER'S own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold hamless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER Consultants and the officers directors, employees. agents. consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attomeys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.E shall

- obligate OWNER to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER'S Consultants, and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.F shall CONTRACTOR to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
 - The provisions of paragraphs 4.02, 4.03, and 4.04 are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

- A. CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR'S obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Contract Documents.
- B. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond branch, U.S. Department of the Treasury All Bonds signed by an agent must be

- accompanied by a certified copy of such agent" authority to act.
- C. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.01.B,CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

5.02 Certificates of Insurance

A. CONTRACTOR SHALL DELIVER TO owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain.

5.03 CONTRACTOR's Liability Insurance

- A. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance of the Work and CONTRACTOR's other obligations under. the Contract Documents, whether it is to be performed by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

- claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;
- claims for damages insured by reasonable available personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;
- claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
- claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance so required by this paragraph 5.04 to be purchased and maintained shall:
 - with respect to insurance required by paragraphs 5.04.A3 through 5.04.A6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER. ENGINEER. ENGINEER'S Consultants, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby:
 - include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
 - 3. include completed operations insurance:

- include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11, and 6.20;
- 5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been OWNER given to CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by CONTRACTOR pursuant to paragraph 5.03 will so provide);
- remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting removing, or replacing defective Work in accordance with paragraph 13.07; and
- 7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured. identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

5.04 OWNER's Liability Insurance

A. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.04, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise form operations. Under the Contract Documents.

5.05 Property Insurance

A. Unless otherwise provided in the Supplementary Conditions, OWNER shalt purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

- include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER'S Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;
- 2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions:
- include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
- cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER;
- allow for partial utilization of the Work by OWNER;
- 6. include testing and startup; and
- 7. be maintained in effect until final payment is made unless otherwise

agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

- B. OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5 06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.
- D. OWNER shall not be responsible for purchasing and maintaining any property insurance specified in this paragraph 5.06 to protect the interest or CONTRACTOR, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by CONTRACTOR, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.
- E. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to

commencement of the Work at the Site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

5.06 Waiver of Rights

- A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will protect OWNER. CONTRACTOR. Subcontractors. ENGINEER, ENGINEER'S Consultants. and all other individuals or entities the Supplementary identified in Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work, and, in addition, waive all such against Subcontractors, ENGINEER, ENGINEER'S Consultants and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.
- B. OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for:

- loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of, or resulting from fire or other peril whether or not insured by OWNER; and
- loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.05, after Substantial Completion pursuant to paragraph 14.04, or after final payment pursuant to paragraph 14.07.
- C. Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against CONTRACTOR, Subcontractors. ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them.

5.07 Receipt and Application of Insurance Proceeds

- A. Any insured loss under the policies of insurance required by paragraph 5.06 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interest may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.08.B. OWNER shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.
- B. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall

object in writing within 15 days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.

5.08 Acceptance of Bonds and Insurance; Option to Replace

 A. If either OWNER OR contractor HAS ANY OBJECTION TO THE COVERAGE OR OTHER AFFORDED BY PROVISIONS OF THE Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by 2.05.C OWNER paragraph CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonable request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.09 Partial Utilization, Acknowledgment of Property Insurer

A. If either OWNER or CONTRACTOR has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10

days after receipt of the certificates (or other evidence requested) required by paragraph 2.05 C. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 Partial Utilization, Acknowledgement of Property Insurer

A. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to paragraph 5.06 have acknowledged notice thereof and in writing effected any changes I coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or оссиралсу.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

A. CONTRACTOR shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall solely he responsible for the means, methods, techniques, sequences, and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of OWNER or ENGINEER in the design or specification of a specific means, method, technique, sequence, or procedure of

construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR

6.02 Labor, Working Hours

- A. CONTRACTOR shall provide competent, suitable qualified personnel to survey, lay out, and construct the Work as required by the Contract Documents. CONTRACTOR shall at all time maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during working regular hours. and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday, or any legal holiday with OWNER's written consent (which will not be unreasonably withheld) given after prior written notice to ENGINEER.

6.03 Service, Materials, and Equipment

- A. Unless otherwise specified in the General Requirements, CONTRACTOR shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be a specified or, if not specified, shall be of good quality and new, except as otherwise provided in the

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

6.04 Progress Schedule

- A. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.07 as it may be adjusted from time to time as provided below
 - CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.07) proposed adjustments in the progress schedule that will not result in changing the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additional will comply with any provisions of the General Requirements applicable thereto.
 - Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.05 Substitutes and "Or-Equals"

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

- 1. "Or-Equal" Items If in ENGINEER's sole discretion an item of material or proposed equipment CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment ENGINEER determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, and
 - b. CONTRACTOR certifies that (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

- a. If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under paragraph 6.05 A.1, it will be considered a proposed substitute item.
- b. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent tot hat named and an acceptable

- substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR...
- c. The procedure for review by ENGINEER will be as set forth in paragraph 6.05.A.2d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.
- d. CONTRACTOR shall first make written application ENGINEER for review of a proposed substitute item of material or equipment that CONTRACTOR seeks to furnish or use. The application shall certify that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application will state the extent, if any, to which the use of the proposed substitute item will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not incomporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering. sales. maintenance, repair, replacement services will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such

substitute item, including costs of redesign and claims of other contractors affected by any resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

- B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.05.A.2.
- C. Engineer's Evaluation: ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraph 6.05.A and 6.05.B. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or-equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.
- D. Special Guarantee: OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.
- E ENGINEER's Cost Reimbursement ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05 B and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER approves a substitute item so proposed or submitted by CONTRACTOR

CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute.

- F. CONTRACTOR'S Expense:
 CONTRACTOR shall provide all data in
 support of any proposed substitute or "orequal" at CONTRACTOR's expense.
- 6.06 Concerning Subcontractors, Suppliers, and Others
 - A. CONTRACTOR shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to OWNER as indicated in paragraph 6.06.B), whether initially or as a replacement against whom OWNER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against show CONTRACTOR has reasonable objection.
 - B. If the Supplementary Conditions require the identity of certain Subcontractors Suppliers, or other individuals or entities to be submitted to OWNER in advance for acceptance by OWNER by a specified date prior to the Effective Date of the Agreement, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER'S acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier or other individual or entity so identified may be revoked on the basis of reasonable objection after investigation. CONTRACTOR shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued or sighed Written Amendment acceptance by OWNER of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.
 - C. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors.

Suppliers, and other individuals or entities performing or furnishing any of the Work just as CONTRACTOR is responsible for CONTRACTOR'S own acts omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, supplier, or other individual or entity any contractual relationship between OWNER ENGINEER and any such Subcontractor, Supplier or other individual or entity, nor shall it create any obligation on the part of OWNER OR engineer to pay or to see to the payment of any moneys due any such or Subcontractor. Supplier. individual or entity except as may otherwise be required by Laws and Regulations.

- D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR.
- E. CONTRACTOR shall require all Subcontractors, Supplier, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor OΓ Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.06, the agreement between the CONTRACTOR and the Subcontractor or Supplier will provisions whereby contain Subcontractor or Supplier waives all rights CONTRACTOR, against OWNER, ENGINEER ENGINEER'S Consultants. and all other individuals or entities

identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partner, employees, agents, and other consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be sighed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

6.07 Patent Fees and Royalties

A. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such right shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER. ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees or agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract documents.

6.08 Permits

A. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary in obtaining such permits and licenses.

CONTRACTOR shall pay all governmental 6.11 charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto, such as plant investment fees.

6.09 Laws and Regulations

- A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.
- B. If CONTRACTOR PERFORMS ANY Work knowing or having reason to know that it is contrary to Laws or Regulations. CONTRACTOR shall bear all claims, costs losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve of CONTRACTOR CONTRACTOR'S obligations under paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having a effect on the cost or time of performance of the Work may be the subject of an adjustment in Contract Price or Contract Times. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in paragraph 10.05

6.10 Taxes

A. CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

1 Use of Site and Other Areas

- A. Limitation on Use of Site and Other Areas
 - 1. CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonable encumber the Site and other areas with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
 - Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
 - 3. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER. ENGINEER, ENGINEER'S Consultant, and the officers, directors, partners, employees, agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable. brought by any such owner or occupant against OWNER, ENGINEER, or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.
- B. Removal of Debris During Performance of the Work: During the progress of the Work, CONTRACTOR shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. Cleaning: Prior to Substantial Completion of the Work CONTRACTOR shall clean the Site and make it ready for utilization by OWNER. At the completion of the Work CONTRACTOR shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. Loading Structures: CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 Record Documents

CONTRACTOR shall maintain in a safe place at the Site on record copy of all Drawings, Specifications. Addenda. Written Amendments. Change Orders Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction These documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

6.13 Safety and Protection

- A. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - all persons on the Site or who may be affected by the Work;

6.14

- all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
- other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal,

relocation, or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or ioss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperated with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A2 or 6.13.A.3 caused directly or indirectly, in whole or in part, by CONTRACTOR. Subcontractor. апу Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor. Supplier, or other individual or entity directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

Safety Representative

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

6.15 Hazard Communication Programs

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

6.16 Emergencies

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto. CONTRACTOR is obligated to act to prevent threatened damage, injury, or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency. A Work Change Directive or Change Order will be issued.

6.17 Shop Drawings and Samples

- A. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show ENGINEER the services, materials, and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.17.E.
- B. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such a catalog numbers, and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.
- C. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, any related Work performed prior to ENGINEER's

review and approval of the pertinent submittat will be at the sole expense and responsibility of CONTRACTOR.

D. Submittal Procedures

- Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:
 - all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;
 - all information relative to means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto; and
 - d. CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.
- Each submittal shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract DOCUMENTS with respect to CONTRACTOR's review and approval of that submittal.
- 3. At the time of each submittal, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

E. ENGINEER's Review

- 1. ENGINEER will timely review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
- 2. ENGINEER's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- 3. ENGINEER's review and approval of Shop Drawings or Samples shall not CONTRACTOR from responsibility for any variation from the requirements of the contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of each submittal as required by paragraph 6.17.D.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.17.D.1.

F. Resubmittal Procedures

 CONTRACTOR shall make corrections required by ENGINEER and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in wiring to revisions other than the corrections called for by ENGINEER on previous submittals.

6.18 Continuing the Work

A. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.04 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.19 CONTRACTOR's General Warranty and Guarantee

- A. CONTRACTOR warrants and guarantees to OWNER, ENGINEER, and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:
 - abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, Suppliers, or any other individual or entity for whom CONTRACTOR is responsible, or
 - normal wear and tear under normal usage.
- B. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR" obligation to perform the Work in accordance with the Contract Documents:
 - 1. observations by ENGINEER:
 - recommendation by ENGINEER or payment by OWNER of any progress of final payment;
 - the issuance of a certificate of Substantial Completion by ENGINEER or any payment related thereto by OWNER;

- use or occupancy of the Work or any part thereof by OWNER;
- any acceptance by OWNER or any failure to do so;
- any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER;
- any inspection, test, or approval by others; or
- any correction of defective Work by OWNER.

6.20 Indemnification

- To the fullest extent permitted by Laws and Regulations, CONTRACTOR indemnify and hold harmless OWNER. ENGINEER, ENGINEER'S Consultants. and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage:
 - is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom; and
 - 2 is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor. any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such individual or entity.
- In any and all claims against OWNER, or ENGINEER or any of their respective

consultants, agents, officers directors, partners or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages. compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

- The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the liability of ENGINEER and ENGINEER's Consultants or to the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them arising out of:
 - the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications, or
 - giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.01 Related Work at Site

- A. OWNER may perform other work related to the Project at the Site by OWNER's employees, or let other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - written notice thereof will be given to CONTRACTOR prior to starting any such other work; and
 - if OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in paragraph 120.05.
- B. CONTRACTOR shall afford each other contractor who is party to such a direct

contract and each utility owner (and OWNER, if OWNER is performing the other work with OWNER's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

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

7.02 Coordination

- A. If OWNER intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified:

- the specific matters to be covered by such authority and responsibility will be itemized; and
- the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility for such coordination.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 Communications to Contractor

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

8.02 Replacement of ENGINEER

A. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer to whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

8.03 Furnish Data

 A. OWNER shall promptly furnish the data required of OWNER under the Contract Documents.

8.04 Pay Promptly When Due

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

8.05 Lands and Easements; Reports and Tests

A. OWNER'S duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or continuos to the Site that have been utilized by ENGINEER in preparing the Contract Documents.

8.06 Insurance

A. OWNER'S responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 Change Orders

 OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

8.08 Inspections, Tests, and Approvals

 OWNER's responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

8.09 Limitations on OWNER's Responsibilities

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

8.10 Undisclosed Hazardous Environmental Condition

 OWNER's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

8.11 Evidence of Financial Arrangements

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

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 OWNER's Representative

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

9.02 Visits to Site

- A. ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as a experienced and qualified design professional the progress that has been made and the quality of the various aspects CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER, for the benefit of OWNER, will determine in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.
- B. ENGINEER's visits and observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.10, and particularly, but without limitation, during or as a result of ENGINEER's visits or observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work.

9.03 Project Representative

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more extensive observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.10 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the Site who is not ENGINEER's Consultant, agent or employee.

the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 Clarifications and Interpretations

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as engineer may determine necessary, which shall be consistent with the intent of and reasonable inferable form the Contract Documents, Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a written clarification or interpretation, a Claim may be made therefor as provided in paragraph 10.05.

9.05 Authorized Variations in Work

A. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR, who shall perform the Work involved promptly. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.

9.06 Rejection Defective Work

A. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, or that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.07 Shop Drawings, Change Orders and Payments

- A. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraph 6.17.
- B. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.
- In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

9.08 Determinations for Unit Price Work

A. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding (except as modified by ENGINEER to reflect changed factual conditions or more accurate data) upon OWNER and CONTRACTOR, subject to the provisions of paragraph 10.05.

9.09 Decisions on Requirements of Contract Documents and Acceptability of Work

- A. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in accordance with the provisions of paragraph 10.05, with a request for a formal decision.
- B. When functioning as interpreter and judge under this paragraph 9.09, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision. Rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any witch have been waived by the making or acceptance of final payment as provided in paragraph 14.07) will be a condition

precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such Claim, dispute, or other matter.

9.10 Limitations on ENGINEER's Authority and Responsibilities.

- Neither ENGINEER's authority responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking. exercise, or performance of any authority or responsibility by ENGINEER shall create. impose or give rise to any duty in contract, tort, or otherwise owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.
- C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this paragraph 9.10 shall also apply to ENGINEER's Consultants, Resident Project Representative, and assistants

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

- A. Without invalidating the Agreement and without notice to any surety, OWNER may at any time or from time to time, order additions, deletions, or revisions in the Work by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in paragraph 10.05

10.02 Unauthorized Changes in the Work

A. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in paragraph 3.01, except in the case of an emergency as provided in paragraph 6.16 or in the case of uncovering Work as provided in paragraph 13.04.B.

10.03 Execution of Change Orders

- OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:
 - changes in the Work which are: (i)
 ordered by OWNER pursuant to
 paragraph 10.01.A, (ii) required because
 of acceptance of defective Work under
 paragraph 13.08.A or OWNER's
 correction of defective Work under
 paragraph 13.09, or (iii) agreed to by the
 parties:
 - changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in

- accordance with a Work Change Directive, and
- 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 10.05; provided that in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.18.A.

10.04 Notification to Surety

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

10.05 Claims and Disputes

A. Notice: Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by the claimant to ENGINEER and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. Notice of the amount or extent of the Claim dispute, or other matter with supporting data shall be delivered to the ENGINEER and the other party to the Contract within 60 days after the start of such event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of such Claim. dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contact Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to ENGINEER and the claimant within 30 days after receipt of the claimant's

- last submittal (unless ENGINEER allows additional time).
- B. ENGINEER's Decision: ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant, or the last submittal of the opposing party, if any. ENGINEER's written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:
 - an appeal from ENGINEER's decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or
 - 2. if no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within 30 days after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR) to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.
- C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in it's entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.
- D. No Claim for an adjustment in Contract Price or Contract Times (or Milestone) will be valid if not submitted in accordance with this paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

11.01 Cost of the Work

A. Cost Included: The term Cot of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by OWNER, such costs hall be in amount no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B

- 1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR Such employees shall include without limitation superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll cost shall include, but not be limited to salaries and wages plus the cost of fringe benefits, which shall include social security contributions. unemployment, excise, and payroll taxes. workers' compensation health retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holiday, shall be included in the above to the extent authorized by OWNER.
- 2. Cost of all material and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts rebates and refunds and returns from sale of surplus material and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.
- Payments made by CONTRACTOR to Subcontractors for Word performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER, who will then determine, with the advice of

ENGINEER, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the work and fee as provided in this paragraph 11.01.

- Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
- Supplemental costs including the following:
 - a. the proportion of necessary transportation, travel, and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work:
 - b. cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of CONTRACTOR;
 - c. rentals of all construction equipment and machinery, and the parts thereof whether rented CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work;
 - d. sales, consumer, use, and other similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations;
 - e. deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or

- for whose acts any of them may be liable, and royalty payments and fees for permits and licenses;
- f. losses and damages (and related expenses) caused by damage to the Work. not compensated insurance or otherwise, sustained by CONTRACTOR in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with paragraph 5.06.A), provided such losses and damages above resulted from causes other than the negligence of CONTRACTOR, ANY Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee:
- g. the cost of utilities, fuel, and sanitary facilities at the Site,
- minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressage, and similar petty cash items in connection with the Work;
- when the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim; and.
- j. when all the Work is performed on the basis of cost-plus, the costs of premiums for all Bonds and insurance CONTRACTOR is required by the Contract Documents to purchase and maintain.
- B. Costs Excluded: The term Cost of the Work shall not include any of the following items:
 - payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnerships and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors

- accountants. purchasing contracting agents, expediter. timekeepers, clerks, and other personnel employed CONTRACTOR, whether at the Site or in CONTRACTOR's principal or branch office for general administration of the Work and not specifically included in the agree upon schedule of job classifications referred to in paragraph 11,01.A.1 or specifically covered by paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the CONTRACTOR's fee.
- expenses of CONTRACTOR's principal and branch offices other that CONTRACTOR's office at the Site.
- any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.
- 4. costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them any be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraphs 11.01.A and 11.01.B
- C. CONTRACTOR's Fee; When all the Work is performed on the basis of cost-plus, CONTRACTOR's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, CONTRACTOR's fee shall be determined as set forth in paragraph 12.01.C.
- D. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to paragraphs 11.01.A and 11.01.B, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

11.02 Cash Allowances

- A. It is understood that CONTRACTOR had included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:
 - the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes, and
- CONTRACTOR's costs for unloading and handling on the Site, labor, installation costs, overhead, profit, and other expenses contemplated for the allowance shave been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- B. Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

- A. As part of the Proposal review, OWNER shall review each unit price multiplied by the designated quantity for each pay item, as provided in the Itemized Proposal, to verify that there are no mathematical errors. Should a mathematical error exist, OWNER will recognize the submitted unit price as submitted in the Itemized Proposal, and not recognize the submitted Base Bid and/or Alternate Bid Price(s), as submitted in the Proposal. The summation of the submitted Unit Prices, as illustrated in the Itemized Proposal, multiplied by the provided quantities for each respective pay item will be utilized to determine the lowest, responsive and responsible Bidder.
- B. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each items as indicated in the Agreement. The

- estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.
- C. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.
- D. OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with paragraph 10,05 if:
 - the quantity of any item of Unity Price Work performed by CONTRACTOR differs materially and significantly form the estimated quantity of such item indicated in the Agreement, and
 - there is no corresponding adjustment with respect any other item of Work; and
 - if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order or be a Written Amendment. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 - where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items

- involved (subject to the provisions of paragraph 11.03), or
- where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 12.01.C.2); or
- where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. CONTRACTOR's

Fee: The

CONTRACTOR's fee of overhead and profit shall be determined as follows:

- 1. a mutually acceptable fixed fee, or
- if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under paragraphs 11.01.A1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;
 - for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraph 12.01.C.2a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor:
 - d. no fee shall be payable on the basis of costs itemized under paragraphs

- a. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and
- when both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 12.02.C.2.a through 12.01.C.2.e, inclusive.

12.02 Change of Contract Times

- A. The Contract Times (or Milestone) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the contract Times (or Milestones) shall be based on written notice submitted by the party making the claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.
- B. Any adjustment of the Contract Times (or Milestones) covered by a Change Order or of any Claim for an adjustment in the Contract Times (or Milestones) will be determined in accordance with the provisions of this Article 12.

12.03 Delays Beyond CONTRACTOR's Control

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Time (or Milestones) will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in paragraph 12.02.A. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

12.04 Delays Within CONTRACTOR's Control

A. The Contract Times (or Milestones) will not be extended due to delays within the control of CONTRACTOR. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.05 Delays Beyond OWNER's and CONTRACTOR's Control

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, AN EXTENSION OF THE Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay.

12.06 Delay Damages

- A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them for damages arising out of or resulting from:
 - delays caused by or within the control of CONTRACTOR; or
 - delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of Dog, or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.
- B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible.

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

13.01 Notice of Defects

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

13.02 Access to Work

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

13 03 Tests and Inspections

- A. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspection, tests, or approvals required by the Contract Documents except.
 - for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below.
 - that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B; and
 - as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection or approval.
- D. CONTRACTOR shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR" purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to OWNER and ENGINEER.

- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.
- F. Uncovering Work as provided in paragraph 13.03.E shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER had not acted with reasonable promptness in response to such notice.

13.04 Uncovering Work

- A. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.
- B. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective CONTRACTOR shall pay all Claims, cost, losses, and damages (including but not limited to all fees and charges of engineers, and architects, attorneys, professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05...

13.05 OWNER May Stop the Work

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

13.06 Correction or Removal of Defective Work

A CONTRACTOR shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER, remove it from the Project and replace it with Work that is not defective. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.07 Correction Period

A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective. CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other

land or areas resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage. OWNER may have the defective Work Corrected or repaired or any have the rejected Work removed and replaced, and all Claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR

- B. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment
- C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- D. CONTRACTOR's obligations under this paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 Acceptance of Defective Work

A. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment) prefers to accept it, OWNER may do so. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness (and the diminished value of the Work to the extent not otherwise paid by

CONTRACTOR pursuant to this sentence. If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and OWNER shall be entitled to an appropriate decrease in the Contract Price. reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

13.09 OWNER May Correct Defective Work

- A. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.06.A, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days written notice to CONTRACTOR, correct and remedy any such deficiency.
- B. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the Site, take possession of all or part of the Work and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR'S tools, appliances. construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees. OWNER's other contractors. and **ENGINEER** and ENGINEER's Consultants access to the Site to enable OWNER to exercise the rights and remedies under this paragraph.
- C. All Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by OWNER in exercising the rights and remedies under this

paragraph 13.09 will be charged against CONTRACTOR, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, OWNER may make a claim therefor as provided in paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of CONTRACTOR's defective Work.

D. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies under this paragraph 13 09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

A. The schedule of values established as provided in paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments

1. At least 20 days before the date established for each progress payment (but not more often than once a month). CONTRACTOR shall ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation

warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect OWNER's interest therein, all of which must be satisfactory to OWNER.

- Beginning with the second Application for Payment, each Application shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied on account to discharge CONTRACTOR's legitimate obligations associated with prior applications Payment
- The amount of retainage with to progress payments will be as stipulated in the Agreement.

B. Review of Applications

- ENGINEER will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER or return the Application to CONTRACTOR indicating in writing ENGINEER'S reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.
- 2. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's observations on the Site of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules that to the best of ENGINEER's knowledge, information and belief:
 - The Work has progressed to the point indicated.
 - the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and

- classifications for Unit Price Work under paragraph 9.08, and to any other qualifications stated in the recommendation); and
- c. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.
- 3. By recommending any such payment ENGINEER will not thereby be deemed to have represented that (I) inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents; or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.
- 4. Neither ENGINEER's review CONTRACTOR's Work for the purposes recommending payments nor ENGINEER's recommendation of any payment, including final payment will impose responsibility on ENGINEER to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for CONTRACTOR's failure to comply with Laws and Regulations applicable CONTRACTOR's performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or to determine that title to any of the Work, materials, or equipment has passed to OWNER free and clear of any Liens.
- 5. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.02 B.2. ENGINEER may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent

- inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:
- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- the Contract Price has been reduced by Written Amendment or Change Orders;
- OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or
- d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15 02.A.

C. Payment Becomes Due

 Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of paragraph 14.02 D) become due, and when due will be paid by OWNER to CONTRACTOR.

D. Reduction in Payment

- OWNER may refuse to make payment of the full amount recommended by ENGINEER because:
 - claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work;
 - Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens;
 - There are other items entitling OWNER to a set-off against the amount recommended; or
 - OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.02.B.5.a through 14.02.B.5.c or paragraph 15.02.A.

- 2. If OWNER refuses to make payment of the full amount recommended by OWNER give ENGINEER. must CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR any amount remaining after deduction of the amount so withheld. OWNER shall promptly CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.
- If it is subsequently determined that OWNER's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

14.03 CONTRACTOR's Warranty of Title

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

14.04 Substantial Completion

When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete; ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections. ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after

submission of the tentative certificate to OWNER notify CONTRACTOR in writing. stating the reasons therefor, If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final between OWNER CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and quarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion. ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

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

14 05 Partial Utilization

- A. Use by OWNER at OWNER's option of any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER, and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its without significant intended purpose interference with CONTRACTOR'S performance of the remainder of the Work. may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.
 - OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER

and ENGINEER that such part of the work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work Within a reasonable time after either such reauest. OWNER. CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

 No occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of paragraph 5.10 regarding property insurance.

14.06 Final Inspection

A Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will promptly make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14,07 Final Payment

A. Application for Payment

 After CONTRACTOR has, in the opinion of ENGINEER, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instruction, schedules, guarantees, Bonds, certificates or other evidence of insurance certificates of inspection, marked-up record

- documents (as provided in paragraph 6.12), and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.
- The final Application for Payment shall be accompanied (except as previously delivered) by (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.7; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.
- 3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that (i) the releases and receipts include all labor. services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equoipment bills, and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

B. Review of Application and Acceptance

1. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing **ENGINEER's** recommendation payment and present the Application for Payment to OWNER for payment. At the same time ENGINEER will also give to OWNER written notice and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.09. Otherwise, ENGINEER will return the Application for Payment to

CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

 Thirty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.

14.08 Final Completion Delayed

A. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if ENGINEER so canfirms, OWNER shall upon receipt CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the Surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not consititue a waiver of Claims.

14.09 Waiver of Claims

- The making and acceptance of final payment will constitute:
 - a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and
 - a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing which are still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 OWNER May Suspend Work

A. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on will be which Work resumed: CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes a Claim therefor as provided in paragraph 10.05

15.02 OWNER May Terminate for Cause

- A. The occurrence of any one or more of the following events will justify termination for cause:
 - CONTRACTOR's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);
 - CONTRACTOR's disregard of Laws or Regulations of any public body having jurisdiction;
 - CONTRACTOR's disregard of the authority of ENGINEER; or
 - CONTRACTOR's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in paragraph 15.02.A occur, OWNER may, after giving CONTRACTOR (and the surety, if any) seven days written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the Site, and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporated in the

Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects. attornevs. and professionals and all court or arbitration or other dispute resolution costs) sustained by OWNER arising out of or relating to completing the Work, such excess will be paid to CONTRACTOR. If such claims. costs, losses, and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims. costs, losses, and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and, when so approved by ENGINEER, incorporated in a Change Order. When exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

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

15.03 OWNER May terminate For Convenience

- A. Upon seven days written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):
 - for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted work, plus fair and

- reasonable sums for overhead and profit on such expenses:
- for all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Supplier, and others; and
- for reasonable expenses directly attributable to termination.
- B. CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 CONTRACTOR May Stop Work or Terminate

A. If, through no act or fault of CONTRACTOR, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, or OWNER fails for 30 days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time. terminate the Contract and recover from OWNER payment on the same terms as provided in paragraph 15.03. In lieu of terminating the Contract and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within 30 days after it is submitted, or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may seven days after written notice is made of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude CONTRACTOR from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping the Work as permitted by this paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 Methods and Procedures

A. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

ARTICLE 17 - MISCELLANEOUS

17,01 Giving Notice

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

17.02 Computation of Times

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 Cumulative Remedies

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 Survival of Obligations

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

17:05 Controlling Law

A. This Contract is to be governed by the law of the state in which the Project is located.

SUPPLEMENTAL GENERAL CONDITIONS

SUPPLEMENTAL GENERAL CONDITIONS

GENERAL

These Supplemental Conditions amend or supplement the General Conditions and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplemental Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplemental Conditions have the meanings indicated below, which are applicable to both the singular and plural thereof.

"Supplementary Conditions" and "Supplemental Conditions" are to be considered interchangeable, and are to be considered these Supplemental General Conditions.

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

SC - 1.01

Add the following language at the end of paragraph 1.01.A.19:

Whenever the word ARCHITECT is used in the Specifications, it shall have the same meaning as the word ENGINEER as defined.

Add the following language at the end of paragraph 1.01.A.20:

ENGINEER's Consultants are defined as:

Not Applicable

ARTICLE 2 – PRELIMINARY MATTERS

SC - 2.02

Delete paragraph 2.02.A. in its entirety and insert the following in its place:

A. ENGINEER shall furnish to CONTRACTOR 5 copies of the Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

SC - 2.05

Add the following language at the end of paragraph 2.05.A.:

A request for written interpretation or clarification of the Contract Documents shall be submitted on the Clarification/Interpretation Request form provided in the Appendix of this Project Manual.

Delete paragraph 2.05.C. in its entirety and insert the following in its place:

C. Evidence of Insurance:

 When CONTRACTOR delivers the executed Agreement to OWNER, CONTRACTOR shall also deliver to OWNER, with a copy to each additional insured, identified certificates of insurance (and other evidence of insurance which OWNER or any additional insured may reasonably request) which CONTRACTOR is required to purchase and maintain in accordance with Article 5.

SC - 2.06

Add the following new paragraphs immediately after paragraph 2.06:

The conference will be held at a location selected by OWNER and shall be attended by:

CONTRACTOR's Office Representative.

CONTRACTOR's Resident Superintendent.

CONTRACTOR's Safety Representative.

Subcontractors' or Suppliers' representatives who CONTRACTOR may invite or ENGINEER may request.

OWNER's Representatives.

Representatives of the Town of Speedway as OWNER may invite.

ENGINEER's Representatives and ENGINEER's Consultants as ENGINEER may invite.

Local Utility Representatives.

A suggested format would include, but is not limited to:

Project Safety.

Presentation of the preliminary progress schedule.

Liquidated damages and bonuses.

Procedures for handling submittals such as Product Data, Shop Drawings and other submittals.

Direction of correspondence, and coordinating responsibility between CONTRACTORS, if any.

Project meetings.

Equal opportunity requirements.

Laboratory testing of material requirements.

Procedures for inventory of material and equipment stored on-site or off-site storage is authorized.

Review schedule of values, application for progress payment, and progress payment procedures.

Work Change Directive, Written Amendment, and Change Order procedures.

Posting of OWNER's sign.

SC - 2.08

Add the following paragraph immediately after Paragraph 2.07

2.08 Out-Of-State Contractor Registration Requirement

Any successful Bidder on Municipal, Township, County or State work in the State of Indiana, whose official address and/or place of business is outside the State of Indiana, must register with the Indiana State Department of Revenue and make arrangements for payment of State Gross or Adjusted Gross Income Tax. Satisfactory evidence of the registration must be submitted to the Owner prior to receipt of any progress payment.

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

SC - 4.02

Add the following new paragraphs immediately after paragraph 4.02.B.:

C. In the preparation of Drawings and Specifications, ENGINEER or ENGINEER'S Consultants have relied upon the following reports of explorations and tests of subsurface conditions at the Site:

The reports and drawings itemized in SC-4.02.C. are not part of the Contract Documents, and the "technical data" contained therein upon which CONTRACTOR may rely as identified and established above are incorporated therein by reference. CONTRACTOR is not entitled to rely upon other information and data utilized by ENGINEER and ENGINEER's Consultants in the preparation of Drawings and Specifications.

SC - 4.06

Add the following new paragraphs immediately after paragraph 4.06.1.:

In the preparation of Drawings and Specifications, ENGINEER or ENGINEER'S Consultants have relied upon the following reports relating to a Hazardous Environmental Condition at the Site, if any:

NONE

The reports itemized in SC-4.06.J. are not part of the Contract Documents, but the "technical data" contained therein upon which CONTRACTOR may rely as identified and established above are incorporated therein by reference. CONTRACTOR is not entitled to rely upon other information and data utilized by ENGINEER and ENGINEER'S Consultants in the preparation of Drawings and Specifications.

ARTICLE 5 - BONDS AND INSURANCE

SC - 5.01

Add the following language at the end of paragraph 5.01.C.:

In addition, OWNER will make no further progress payments under the Agreement until CONTRACTOR complies with the provisions of this paragraph.

SC - 5.02

Add the following language at the end of paragraph 5.02.A.:

Surety or insurance companies shall have an A.M. Best rating of A- or better.

SC - 5.03 - CONTRACTOR'S LIABILITY INSURANCE

Add the following paragraph immediately after paragraph 5,03,B:

CONTRACTOR shall, as a prerequisite to this Contract, purchase and thereafter maintain such insurance as will protect him from the claims set forth below which may arise out of or result from CONTRACTOR's operations under this Contract, whether such operations be by CONTRACTOR or by any SUBCONTRACTORS or by anyone directly or indirectly employed by any or them, or by anyone for whose acts any of them may be liable:

Coverages / Limits Required:

Workers' Compensation, Disability, Etc.

Statutory

Employer's Liability:

Bodily Injury by Accident

\$100,000 each accident \$500,000 policy limit

Bodily Injury by Disease Bodily Injury by Disease

\$100,000 each employee

Comprehensive General Liability

General Liability:

General Aggregate \$2,000,000 Products - Comp/Op Aggregate \$2,000,000 Each Occurrence Limit \$1,000,000

Fire Damage (any one fire) Medical Exp. (any one person) \$5,000

Property Damage Liability Insurance will provide Explosion, Collapse and Underground Coverage where applicable.

Personal Injury with employment exclusion deleted.

Annual Aggregate

\$1,000,000

\$50,000

Comprehensive Automobile Liability - Combined Single Limit (CSL):

Each Occurrence

\$1,000,000

Excess Liability Insurance shall provide an umbrella coverage for both Comprehensive General Liability and Comprehensive Automobile Liability with a combined minimum limit of \$2,000,000.

Railroad Protective Liability Insurance shall be provided where applicable.

Limit of Liability:

Each Occurrence

\$2,000,000

Annual Aggregate

\$6,000,000

With respect to insurance required by this Paragraph include as additional insured (subject to any customary exclusion in respect of professional liability) the Town of Speedway, the Engineer, and any other persons or entities identified in the Information for Bidders all of whom shall be listed as additional insured, and include coverage for the respective officers and employees of all such additional insureds.

Owner's Liability Insurance

The Contractor shall provide such contractual coverage sufficiently broad to ensure the Owner and each of their offices, agents, and employees as additional insureds under the comprehensive general liability insurance required.

Builder's Risk "Alt Risk" Property Insurance

The Contractor shall purchase and maintain until final payment property insurance upon the Work at the site to the full insurable value thereof (subject to such deductible amounts as may be provided in this Information for Bidders or required by Laws and Regulations). This insurance shall include the interest of Owner, Contractor, and Subcontractors (all of whom shall be listed as insureds or additional insured parties), shall insure against the perils of fire and extended coverage, shall include "all risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water damage, and such other perils as may be provided in this Information for Bidders, and shall include damages, losses and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers, architects, attorneys and other professionals). If not covered under the "all risk" insurance or otherwise provided in this Information for Bidders, Contractor shall purchase and maintain similar property insurance on portions of the work stored on and off the site or in transit when such portions of the work are to be included in an Application for Payment.

The Contractor shall deliver to the Owner, with copies to each additional insured identified, certificates of insurance (and other evidence of insurance requested by the Owner or any other additional insured) which the Contractor is required to purchase and maintain.

Insurance is required as a measure of protection and the Contractor's liability is not to be limited by the amounts specified in the required insurance policies. There shall be no additional compensation for complying with these insurance requirements. The Contractor is required to include costs of such insurance in the bid items.

CONTRACTOR's comprehensive general liability insurance shall also provide coverage for the following:

- Premises and operations;
- Contractual liability insurance as applicable to any hold-harmless agreements
- Completed operations and products; which also must be maintained for a minimum period of two years after final payment and CONTRACTOR shall continue to provide evidence of such coverage to town on an annual basis during the aforementioned period; and
- Broad form property damage including completed operations;
- Fellow employee claims under Personal Injury;
- Independent Contractors.

With the prior written approval of TOWN, CONTRACTOR may substitute different types or amounts of coverage for those specified as long as the total amount of required protection is not reduced. Certificates of Insurance, naming the Town of Speedway as an "additional insured", showing such coverage then in force (but not less than the amount shown above) shall be on file with TOWN prior to commencement of work. These Certificates shall contain a provision that coverage's afforded under the policies will not be canceled or non renewed until at least sixty (60) days prior written notice has been received by TOWN.

S.C. - 5.05

Delete paragraph 5.05.A. in its entirety and insert the following in its place:

CONTRACTOR shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. CONTRACTOR shall be responsible for any deductible or self-insured retention. The deductible or self-insured retention shall not exceed \$20,000. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with this paragraph SC-5.05 shall comply with the requirements of paragraph 5.05.C. of the General Conditions.

This insurance shall:

include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER'S consultants and any other individuals or entities identified in the Supplemental Conditions, and the officers, directors,

partners, employees, agents and other consultants and subcontractors of any of them each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured:

be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, false work, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER; and

allow for partial utilization of the Work by OWNER;

include testing and startup; and

be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

Delete paragraph 5.05.D. in its entirety.

Delete paragraph 5.05.E. in its entirety.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

SC - 6.05

Delete the second sentence of Paragraph 6.05.A, in its entirety and insert the following in its place.

Where the specification or description contains or is followed by words reading that no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may not be submitted to ENGINEER for review. Where the specification or description contains or is followed by words reading "or equal", other items of material or equipment or material or equipment of other suppliers may be submitted to ENGINEER for review under the circumstances described below for "or equal" items. Where the specification or description does not contain or is not followed by words reading "or equal" or no substitution permitted, other items of material or equipment or material or equipment of other suppliers may be submitted to ENGINEER for review under the circumstances described for "substitute" items below.

Delete subparagraph 6.05.A.1. in its entirety and replace with the following:

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

Delete subparagraphs 6.05.A.1.a. and 6.05.A.1.b. in their entirety.

Add the following new subparagraph immediately after paragraph 6.05.A.2.d.:

The application for review of a substitute shall be on the CONTRACTOR'S Request for Substitution form provided in the Appendix of the Contract Documents and included with the submittal. The Installation List included with the Request shall include only installations of the proposed substitute in applications of approximately the same size and complexity, and the same design as those to be furnished for this Project. Include in the Installation List, as a minimum, the OWNER's name, address, and telephone number; ENGINEER's name, address and telephone number; location and name of project; installation date, startup date, and date of final acceptance by OWNER; and application of material or equipment. If the experience indicated by the Installation List does not demonstrate at least 5 years of successful operation of the proposed substitute item, OWNER may require CONTRACTOR and Supplier to furnish, at CONTRACTOR'S expense, a special performance guarantee with surety bond as required by paragraph 6.05.D of the General Conditions with respect to the substitute. Only the time period between final approval of the proposed material or equipment on the referenced project and the Bid date for this Project will count towards the required satisfactory experience of the proposed substitute item. ENGINEER will be the sole judge of acceptability of experience, time credited, and whether the special performance guarantee will be required for a substitute item. ENGINEER will notify CONTRACTOR which proposed substitute(s) would require a special performance guarantee with surety bond.

Delete Paragraph 6.05.E. in its entirety and insert the following in its place:

E. ENGINEER'S Cost Reimbursement: ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby.

Add the following new subparagraph immediately after paragraph 6.05.E.:

1. If a substitute item of material or equipment proposed by CONTRACTOR is approved by ENGINEER, and the substitution requires a change in any of the Contract Documents to adapt the design to the proposed substitute, CONTRACTOR shall notify ENGINEER of the changes and be responsible for the costs involved to revise the design and to make modifications or changes to the construction, including the costs associated with the Work of other contractors due to such variance in design or space requirements. ENGINEER and ENGINEER and ENGINEER's Consultants will prepare redesign and drawing revisions. CONTRACTOR shall reimburse OWNER for charges of ENGINEER and ENGINEER'S Consultants for redesign and drawing preparation. Reimbursement of ENGINEER shall be based on ENGINEER'S and ENGINEER's Consultants direct labor costs, indirect labor costs, profit on total labor, and any direct non-labor expenses such as travel and per diem.

SC - 6.06

In paragraph 6.06.B. delete the words "Supplementary Conditions" in two places and insert the words "Information for Bidders" in their place.

SC - 6.13

Add the following requirements to paragraph 6.13:

C. The Contractor shall be responsible for all obligations prescribed as employer obligations under Chapter XVII of Title 29, Code of Federal Regulations, Part 1926, otherwise known as "Safety and Health Regulations for Construction" and CFR, Part 1910.46 "Permit Required for Confined Space". The Contractor shall also be responsible for all obligations under IOSHA regulations 29 CFR 1926, Sub-Part P, Trench Safety Systems, as part of the Contract Documents.

SC - 6.16

Add the following new paragraph immediately after paragraph 6.16.A.:

B. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, and CONTRACTOR cannot be reached, OWNER may act to attempt to prevent threatened damage, injury, or loss, OWNER will give CONTRACTOR and ENGINEER prompt written notice of such action and the cost of the correction or remedy shall be charged against CONTRACTOR. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by OWNER in response to such an emergency, a Work Change Directive or Change Order will be issued.

SC-6.17

Add the following new subparagraph immediately after subparagraph 6.17.E.3:

After ENGINEER has reviewed and approved a Shop Drawing or Sample, CONTRACTOR shall provide the material or equipment approved. ENGINEER will not review subsequent submittals of a different manufacturer or Supplier unless CONTRACTOR provides sufficient information to ENGINEER that the approved material or equipment is unavailable, time of delivery will delay the construction progress, or OWNER requests a different manufacturer or Supplier.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

SC - 9.10

Add the following new paragraph immediately after Paragraph 9.10.E.:

F. When ENGINEER is on the Project site to perform the duties and responsibilities as set forth in the Contract Documents, ENGINEER will comply with CONTRACTOR'S safety plans, programs, and procedures. In the event ENGINEER determines that CONTRACTOR'S safety plans, programs, and procedures do not provide adequate protection for ENGINEER, ENGINEER may direct its employees to leave the Project site or implement additional safeguards for ENGINEER'S protection. If taken, these actions will be in furtherance of ENGINEER'S responsibility to its own employees only, and ENGINEER will not assume any responsibility for protection of any other persons affected by the Work. In the event ENGINEER may wam the persons who appear to have potential for immediate and serious injury to persons, ENGINEER may wam the persons who appear to be affected by such situations. Such wamings, if issued, shall be given based on general humanitarian concerns, and ENGINEER will not, by the issuance of any such waming, assume any responsibility to issue future warnings or any general responsibility for protection of persons affected by the Work.

ARTICLE 10 - CHANGES IN THE WORK, CLAIMS

SC - 10.03

Add the following new paragraph immediately after subparagraph 10.03.A.3:

Change Orders will be prepared on the form included in the Appendix of this Project Manual.

SC - 10.05

Add the following new subparagraph immediately after paragraph 10.05.A:

Notice of the amount or extent of the claim shall include the following certification:

"CONTRACTOR certifies that this claim is made in good faith, that the supporting data are accurate and complete to the best of CONTRACTOR'S knowledge and belief, and that the amount or time requested accurately reflects the Contract adjustment for which CONTRACTOR believes OWNER is liable."

ARTICLE 11 - COST OF WORK; CASH ALLOWANCES; UNIT PRICE WORK

SC - 11.03

Delete Paragraph 11.03.C. in its entirety and insert the following in its place:

C. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:

if the total cost of a particular item of Unit Price Work amounts to 5% or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 25% from the estimated quantity of such item indicated in the Agreement; and

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

if CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof; or if OWNER believes that the quantity variation entitles OWNER to an adjustment in the unit price, either OWNER or CONTRACTOR may make a claim for an adjustment in the Contract Price in accordance with Article 10 if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

Add the following paragraphs immediately prior to paragraph 12.01 in Article 12:

The Owner may at any time, without notice to any surety, by written order designated or indicated to be a Change Order, make any change in the work within the general scope of the subagreement, including, but not limited to, changes:

In the Specifications (including drawings and designs)
In the time, method or manner of performance of the work.
In the recipient-fumished facilities, equipment, materials, services, or site, or Directing acceleration in the performance of the work.

A Change Order shall also be any other written order (including direction, instruction, interpretation or determination) from the Owner which causes any change, provided the Contractor gives the Owner written notice stating the date, circumstances and source of the order and that the Contractor regards the order as a Change Order.

Except as provided in this clause, no order, statement or conduct of the Owner shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

If any change under this clause causes an increase or decrease in the Contractor's cost or the time required to perform any part of the work under this Contract, whether or not changed by any order, the Owner shall make an equitable adjustment and modify the subagreement in writing. Except for claims based on defective Specifications, no claim for any change shall be allowed for any costs incurred more than 20 days before the Contractor gives written notice. In the case of defective Specifications for which the Owner is responsible, the

equitable adjustment shall include any increased cost the Contractor reasonably incurred in attempting to comply with those defective Specifications.

If the Contractor intends to assert a claim for an equitable adjustment under this clause, then the Contractor must, within 30 days after receipt of a written Change Order or the furnishing of a written notice, submit a written statement to the Owner setting forth the general nature and monetary extent of such claim. The Owner may extend the 30-day period. The Contractor may include the statement of claim in the written notice.

No claim by the Contractor for an equitable adjustment shall be allowed, if made after final payment under this subagreement.

SC - 12.01

Delete paragraph 12.01.B.2. in its entirety and insert the following in its place:

2. Where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum which includes an allowance for overhead and profit in accordance with Paragraph 12.01.C.2., or

SC - 12.02

Add the following new paragraph immediately after paragraph 12.02.B.:

C. Time extensions provided under paragraphs 12.03 and 12.05 of the General Conditions will only be allowed for controlling items of Work (critical path).

SC - 12.06

Delete paragraph 12.06.B. in its entirety and insert the following in its place:

B. Except as provided for in paragraph 15.01, CONTRACTOR shall make no claim for damages for delay in the performance of the Work occasioned by acts or neglect by OWNER or any of its representatives, including ENGINEER, or ENGINEER's Consultants, or because of any injunction which may be brought against OWNER or its representative, including ENGINEER or ENGINEER's Consultants, and agrees that any such claim shall be fully compensated for by an extension of time in an amount equal to the time lost due to such delay, and that such time extension shall be CONTRACTOR's sole and exclusive remedy for such delay.

SC 12.07

Under Article 12 of the General Conditions, Change of Contract Price, the following paragraphs shall be inserted:

12.07 Other

For such work performed by a subcontractor, the subcontractor may add up to 10 percent (10%) of the actual net increase in costs for combined overhead and profit, and the Contractor may add up to five percent (5%) of the subcontractor's actual net increase in costs less profit and overhead.

The term "costs" shall include wages paid to labor and pro rata charges for foreman required under the specific order; labor cost burden; cost of materials and supplies; equipment rental and other direct costs that may be approved by the Owner.

Among the items considered overhead are included insurance except unemployment, workmen's compensation and social security; bond premiums, superintendence, timekeeper, clerks, watchmen, use of small tools, incidental job burdens, general office and administrative expense.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

SC - 14.02

Amend the first sentence of subparagraph 14.02.A.1. by striking out the words "20 days" and inserting the words "30 days" in their place.

Amend the first sentence of paragraph 14.02.C. by striking out the words "Ten days" and inserting the words "Twenty days" in their place.

SC - 14.04

Add the following new subparagraphs immediately after paragraph 14.04.A.:

- 1. CONTRACTOR'S request for issuance of a Certificate of Substantial Completion shall occur after CONTRACTOR has, in the opinion of the ENGINEER, satisfactorily delivered all schedules, guarantees, maintenance and operations instructions, Bonds, certificates or other evidence of insurance required by ARTICLE 5, certificates of inspection, marked-up record documents (as provided in paragraph GC 6.12) and other documents.
- 2. The Work will be considered substantially complete when all storm sewer, structures, culverts, ditches and drainage features; all asphalt and concrete paving including all roads, approaches, drives, and bike paths; all landscaping including seeding, sodding, rain gardens and plantings; and street lighting, signs, pavement markings, sanitary sewer, water mains and lateral connections for both have been provided and the work is completed to the point where the site is fully accessible to public vehicular and pedestrian traffic.

SC - 14.07

Amend the first sentence of subparagraph 14.07.A.1. by striking out the following words: "and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance certificates of inspection, marked up record documents (as provided in paragraph 6.12), and other documents"

SC - 14.10

Add the following new paragraph immediately after paragraph

14.09.A.2.: 14.10 Additional Engineering Costs:

A. In addition to the liquidated damages set forth in the Agreement, CONTRACTOR shall be liable for all additional costs for ENGINEER'S services beyond Substantial and Final Completion dates.

OWNER will deduct these costs from any moneys due or that may become due CONTRACTOR or Surety and pay ENGINEER for said services.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

SC - 15.04

Amend paragraph 15.04.A. by striking out the words "30 days" in four places and inserting the words "60 days" in their place and by striking out the words "seven days" in two places and inserting the words "ten days" in their place.

ARTICLE 16 - DISPUTE RESOLUTION

Add the following new paragraph immediately after paragraph 16.01:

A. OWNER and CONTRACTOR agree that they shall submit any and all unsettled Claims or counterclaims, disputes, or other matters in question between them arising out of or relation to the Contract Document or the breach thereof to mediation by the Construction Industry Mediation Rules of the American Arbitration Association.

ARTICLE 17 – MISCELLANEOUS

SC - 6.06

Add the following new section immediately after 6.06 G.:

H. <u>Employment Eligibility Verification.</u> The CONTRACTOR affirms under the penalties of perjury that he/she/it does not knowingly employ an unauthorized alien.

The CONTRACTOR shall enroll in and verify the work eligibility status of all his/her/its newly hired employees through the E-Verify program as defined in IC 22-5-1.7-3. The CONTRACTOR is not required to participate should the E-Verify program cease to exist. Additionally, the CONTRACTOR is not required to participate if the CONTRACTOR is self-employed and does not employ any employees.

The CONTRACTOR shall not knowingly employ or contract with an unauthorized alien. The CONTRACTOR shall not retain an employee or contract with a person that the CONTRACTOR subsequently learns is an unauthorized alien.

The CONTRACTOR shall require his/her/its subcontractors, who perform work under this Contract, to certify to the CONTRACTOR that the SUB-CONTRACTOR does not knowingly employ or contract with an unauthorized alien and that the SUB-CONTRACTOR has enrolled and is participating in the E-Verify program. The CONTRACTOR agrees to maintain this certification throughout the duration of the term of a contract with a SUB-CONTRACTOR.

The LPA may terminate for default if the CONTRACTOR fails to cure a breach of this provision no later than thirty (30) days after being notified by the LPA.

SC - 17.01

Delete Paragraph 17.01.A in its entirety and insert the following in its place:

A. Whenever any provision of the Contract Documents requires the giving of a written notice or the delivery of any Bond, Agreement, Certificate of Insurance or any other item, it will be deemed to have been validly given if delivered in person to the individual, to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail (return receipt), postage prepaid, to the last business address known to the giver of the article.

SC - 17.06

Add the following new paragraph immediately after paragraph

17.05: 17.06 Lien Waivers:

A. OWNER may at any time require CONTRACTOR to furnish lien waivers for labor and materials covered by specified Applications for Payment.

*** END OF SUPPLEMENTARY CONDITIONS ***

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SP 1 DEFINITIONS OF TERMS

Wherever the Standard Specifications use the word "State" in reference to the Owner, the word "Town of Speedway" shall be included.

Wherever the Standard Specifications made reference to "Indiana Department of Transportation", "Department" or "Director", it shall be interpreted as including the "Owner" and the "Town of Speedway", except when in reference to prequalification. In addition the following inclusions to the Standard Specifications are made;

Whenever in these Specifications and Contract the following terms are used, the intent and meaning shall be interpreted as follows;

OWNER The Town of Speedway

ENGINEER A Professional Engineer retained and authorized to make any

or all necessary inspections of work performed and materials

furnished under the Contract.

INSPECTOR An authorized representative of the OWNER.

SP 2 NOTICE TO PROCEED

Work on this project may not begin until a Notice to Proceed is issued by the Town of Speedway.

SP 3 RIGHT OF WAY AND RIGHT-OF-ENTRY

The Town of Speedway will be responsible for securing Rights-of-Way and Rights-of-Entry for this project if required.

SP 4 CONTRACT COMPLETION DATE

The work has a Final Completion date of Wednesday, May 1, 2013. Final Completion shall mean that all contract items are 100% complete.

SP 5 STANDARD SPECIFICATIONS AND STANDARD DRAWINGS

The Indiana Department of Transportation Standard Specifications dated 2012, and the Indiana Department of Transportation English Standard Drawings effective for lettings on or after September 4, 2012 shall govern and be in full force for use with this project except where modified by the plans or these Special Provisions or as directed by the Engineer. If no guidance can be found in the above mentioned the Contractor shall reference and follow the Town of Speedway Standards unless directed otherwise by ENGINEER.

The Contractor is responsible for obtaining a copy of the Standard Specifications, Supplemental Specifications, Standard Drawings and Town of Speedway Standards applicable to this contract. The Standard Specifications,

Supplemental Specifications, and Standard Drawings are available to the Contractor at the Indiana Department of Transportation's website at:

http://www.in.gov/dot/div/contracts/standards/book/index.html

http://www.in.gov/dot/div/contracts/standards/drawings/index.html

SP 6 STANDARD SPECIFICATIONS

Wherever in the contract documents the 1999, 2006, 2008, or 2010 Standard Specifications are referenced, it shall be interpreted to mean the 2012 Standard Specifications.

SP 7 SHOP DRAWINGS AND FALSEWORK

All shop drawings, falsework plans, and any other working drawings or plans necessary for completion of the work shall be submitted as directed by the OWNER.

SP 8 BASIS FOR USE OF APPROVED OR PREQUALIFIED MATERIALS

The Standard Specifications are revised as follows:

SECTION 106, AFTER LINE 45, INSERT AS FOLLOWS:

The basis for use of materials shown in the List of Approved or Prequalified Materials will be the Engineer's verification that the materials provided are included in the List of Approved or Prequalified Materials.

SP 9 PERMITS

The Contractor is responsible for securing all permits that may be required for this project in accordance with the Standard Specifications and Federal, State, and Local requirements.

The Contractor is responsible for completing the work identified in the special provision TEMPORARY EROSION AND SEDIMENT CONTROL as it relates to the Rule 5.

SP 10 TRAFFIC CONTROL DEVICE REPORT The

Standard Specifications are revised as follows:

SECTION 107, AFTER LINE 389, INSERT AS FOLLOWS:

A traffic control device report shall be completed weekly by the Contractor and a signed copy given to the ENGINEER. The cost of the report will not be paid for directly but shall be included in the cost of other items.

SP 11. STATEMENTS ABOUT EXISTING CONDITIONS OF UTILITIES, ADDITIONAL RIGHT-OF-WAY, AND ENCROACHMENTS

The Standard Specifications are revised as follows:

SECTION 107, AFTER LINE 740, INSERT AS FOLLOWS:

107.26 Existing Conditions of Utilities, Additional Right-of-Way, and Encroachments

Such existing conditions are as described below.

(a) Utilities

The status of all utility companies and organizations potentially involved with the work to be performed are described below as known at the time this contract was prepared.

The facilities of AT&T exist within the project limits, but are not expected to be affected by the proposed project. If questions arise, Michael Haynes of the utility may be contacted at 317-252-4007 or via e-mail at mh2632@att.com.

The facilities of <u>Citizens Gas</u> exist within the project limits, but are not expected to be affected by the proposed project. If questions arise <u>Rich Miller</u> of the utility may be contacted at <u>317-927-4684</u> or via e-mail <u>at rmiller@cgcu.com</u>. During the project around the existing laterals, <u>Bob Kirpatrick</u> of the utility shall be contacted at <u>317-691-3123</u>. In case of emergency, the Citizens Dispatch line shall be contacted at <u>317-927-6000</u>.

The facilities of <u>IPL</u> exist within the project limits, but are not expected to be affected by the proposed project. If questions arise <u>Rhonda Williams</u> of the utility may be contacted at <u>317-261-5203</u> or via e-mail at <u>rhonda.williams@aes.com</u>. In case of emergency, the IPL dispatch line may be contacted at <u>317-261-8111</u>.

The facilities of MCI/Verizon Business exist within the project area, but are not expected to be affected by the proposed project. If questions arise <u>Chris Fowler</u> of the utility may be contacted at <u>317-685-8050</u> or via e-mail at chris.fowler@verizonbusiness.com.

The facilities of <u>Speedway Utilities</u> exist within the project area. If questions arise <u>Wendell Walters</u> of the street department may be contacted at <u>317-246-4141</u>, <u>Steve Hurst</u> of the water utility at <u>317-241-9766</u> and <u>Norm Berry</u> of the sewer utility at <u>317-241-9766</u>

(e) Preconstruction Conference Notification

The Contractor shall provide notification during the preconstruction conference about known corrections to or omissions of the information presented above. Otherwise, notification shall be provided as required in 105.06. Notifications regarding such corrections or omissions shall not alleviate the Contractor's inquiry or interpretation obligations as contained in 120 IAC 3-6-6.

SP 12 WORK HOURS

The Contractor is allowed to work Monday thru Friday 7 AM to 6 PM. The Contractor shall get approval from ENGINEER and OWNER if requesting to work outside of this timeframe.

Contractor shall get approval to work on Town of Speedway recognized holidays and during special events in the Town of Speedway.

SP 13 STOCKPILED MATERIALS

The Standard Specifications are revised as follows:

SECTION 111, BEGIN LINE 9, DELETE AND INSERT AS FOLLOWS:

be incorporated into the work and delivered in the vicinity of the project, or stored in approved storage facilities. Such materials shall be limited to structural steel, concrete structural members, pavement reinforcement *reinforcing bars*, pavement contraction joints, granular base and subbase materials, aggregates for HMA and concrete pavements, and structural supports for signals, signs, and luminaires.

In addition to the aforementioned, the Department will consider the stockpiling of other steel products, such as guardrail, culvert pipe, etc if it has been determined that a critical shortage of material would cause delay to the project.

SECTION 111, BEGIN LINE 115, DELETE AS FOLLOWS:

Approval of partial payment for stockpiled materials will not constitute final acceptance of such materials for use in completing the work. Structural steel members and pavement reinforcement reinforcing bars may be subjected to additional inspection and testing prior to final acceptance and incorporation into the work. All other stockpiled pay items will be subjected to additional inspection and testing prior to final acceptance and incorporation into the work.

SP 14 FAILURE TO COMPLETE ON TIME FOR CALENDAR COMPLETION DATE

1.1 Work shall be prepared to complete the furnishing and construction of this project for final completion on or before Wednesday, May 1, 2013. If the Hollister Drive and Norfolk Street Improvements Project is not 100% complete and all lanes are not opened to traffic on or before this date, \$250.00 per day for each calendar day of delay until the work is satisfactorily completed will be assessed as liquidated damages, not as a penalty, but as damages sustained for each calendar day that travel lanes, drives, sidewalks, and curb ramps required to be open remain closed after such Contract Completion Date.

SP 15 **MATERIAL TESTING**

The Contractor shall be responsible for all testing and sampling of materials and provide certification of materials in accordance with the Standard Specifications and the Indiana Department of Transportation Materials and Tests Frequency of Sampling and Testing Manual revised January 2012. The Contractor shall select an independent testing service, approved by the Engineer, to provide all laboratory tests and field tests. The Contractor shall provide certified test results and material certifications to the Engineer. The cost of providing samples and testing will not be paid for directly but shall be included in the cost of other items.

SP 16 **OPEN BURNING OF NATURAL GROWTH Open**

burning will not be permitted under this contract.

SP 17. EXISTING CONDITIONS

The Contractor shall verify the elevations and measurements of all points where new construction is to match existing conditions prior to the commencement of any construction activities.

Where new work is to be fitted to old work, the Contractor shall check all dimensions and conditions in the field and report any errors or discrepancies to the Engineer or assume responsibility for their correctness and the fit of new parts to old. If such parts do not fit properly, the Contractor shall make at Contractor's expense such alterations to new parts as may be necessary to assure proper fits and connections which meet the approval of the Engineer.

The Contractor shall check all dimensions and conditions in the field and report any errors, discrepancies, or conflicts to the Engineer for resolution.

No direct payment will be made for this work but the cost thereof shall be included in the costs of other items of the contract.

DISPOSAL OF EXCESS MATERIAL SP 18

The Contractor shall stockpile all excess excavated non-contaminated materials suitable for embankment fill at a location approved by the ENGINEER. The Contractor will not be additionally compensated for stockpiling excavated materials as this work shall be included in the cost of other items.

All non-contaminated excess material not suitable for embankment fill (waste) shall be removed from the project site. Whether a private or public waste site is utilized, such disposal shall comply with all Federal, State and local regulations. ordinances and permit requirements. A copy of all permits obtained or applied for shall be submitted to the Engineer prior to the material leaving the sites.

The Contractor shall submit, in writing, the location of the proposed dumpsite, for review, prior to the commencement of construction.

SP 19. TEMPORARY EROSION AND SEDIMENT CONTROL

Unless otherwise directed or permitted, the work specified shall be arranged and prosecuted in accordance with all applicable provisions of Sections 107.14.1, 108.03, 108-C-192, 205, and as set out herein.

GENERAL: The Contractor shall assign one of his personnel as an Erosion Control Supervisor for this contract. The Erosion Control Supervisor shall assist in preparation of the Erosion Control Plan, coordinate installation and maintenance of erosion and sediment control measures, perform required weekly and post-event inspections and perform any other tasks related to the installation, maintenance and removal of erosion control measures.

A minimum of 5 days prior to commencing work, the Contractor shall prepare and submit to the Engineer for approval an erosion control plan that includes, at a minimum, the following items:

- 1. Locations of all proposed soil stockpiles, borrow areas or disposal areas. If borrow and stockpile sites are used, the Contractor shall indicate the erosion and sediment control measures to be implemented and the sequencing of the erosion and sediment control measures to be used on the sties. The Contractor shall provide this information following the guidelines for Rule 5 (327IAC 15-5).
- 2. Locations of all proposed vehicle and equipment parking areas, vehicle and equipment fueling locations, placement of the site construction trailers, location of all on-site batch plants and designated concrete truck washout areas.
- 3. Proposed construction sequence and phasing of erosion control measures.
- 4. Location of all construction entrances where vehicles and equipment will enter and exit the site. The Contractor shall provide a stable construction entrance at the points where construction traffic will drive onto an existing road. This entrance will serve the purpose to prevent soil from leaving the construction area and keep the existing roadway free of sediment. The radius shall be large enough to accommodate the construction vehicles' turning radius.
- 5. Material handling and spill prevention plan, which shall include a list of expected materials that may be present on the site during construction operations, as well as a written description of how these materials will be handled to minimize the potential that the materials may enter the storm water runoff from the site.

- 6. Statements that the erosion control measures for the project shall, at a minimum, be inspected on a weekly basis and within 24 hours of every $\frac{1}{2}$ inch rain event.
- 7. Monitoring and maintenance plan for erosion control measure.

The Erosion Control Plan shall be signed by the Erosion Control Supervisor.

The Engineer will submit the Erosion Control Plan for approval to:

Norm Berry, Wastewater Superintendent MS4 Coordinator Wastewater Department 1010 Main Street Indianapolis, IN 46224

In the event of a spill, the Indiana Department of Environmental Management shall be contacted immediately at I-888-233-7745.

The standard Specifications are revised as follows:

SECTION 205, BEGIN LINE 107 INSERT AS FOLLOWS:

In addition, the evaluation shall address the maintenance of the existing storm water quality measures, and identify areas where additional measures are necessary to remain in compliance with all applicable statutes and regulations.

SECTION 205, AFTER LINE 247, INSERT AS FOLLOWS:

The costs of inspection of temporary erosion and sediment control measures and of maintaining self-inspection records of each monitoring operation shall be included in the cost of the other temporary erosion and sediment control pay items.

BASIS OF PAYMENT. Preparation of the Erosion Control Plan, the costs of inspection of temporary erosion control and sediment control measures, and of maintaining self-inspection records of each monitoring operation and all costs of material and labor shall not be paid for directly but included in the cost of other items

The cost of constructing and maintaining construction entrances shall not be paid for directly but included in the cost of other items.

SP 20. TERMINATING CURBS

At all street intersections where proposed curb and gutter or curb is terminated at an existing street with curb and gutter or curbs, the Contractor shall transition the vertical curb head from the height shown on the plans down to the existing curb height within the last five feet (5') of the proposed curb and gutter.

At all street intersections where proposed curb and gutter or curb is terminated at an existing street without curb and gutter or curbs, the Contractor shall transition

the vertical curb head from the height shown on the plans down to flush with the gutter within the last five feet (5') of the proposed curb and gutter.

SP 21 MAINTAINING GUTTER FLOWLINE ACROSS CURB OPENINGS

The Contractor shall construct curb openings across driveways and curb ramps in such a manner that maintains the storm water flow across the curb line extended through the curb opening. In cases where the finished pavement, and / or curb and gutter create ponding of storm water along the driveway or curb ramp openings, the Contractor shall remove and reconstruct the pavement, and / or curb and gutter to remedy the problem at the Contractor's expense.

SP 22 PROTECTION OF EXISTING STRUCTURES

There are existing storm drainage and sanitary sewer structures that are to remain in place. The Contractor shall take care that these structures are not damaged.

The cost of locating and protecting the structures shall be included in the cost of other items.

If any of these structures are damaged, the Contractor will be required to repair them with no additional payment.

SP 23 MAINTAINING TRAFFIC AND PEDESTRIAN ACCESS

This work shall consist of maintaining traffic and pedestrian access for all work associated with Norfolk Street and Hollister Drive.

Maintenance of traffic and pedestrian access shall be the sole responsibility of the Contractor. Traffic and pedestrian access to all parcels within the project limits shall be maintained at all times accept when construction operations prohibit access. If it appears that construction operations will close access to a property completely, the OWNER and ENGINEER shall be contacted for approval 48 hours prior to construction. If approved, the property owner and/or resident shall be contacted by the Contractor prior to proceeding with operations. Contractor shall provide OWNER with timeframe when access will be restored. Contractor shall minimize timeframes of closures to parcels. Contractor shall provide minimum of two day notice for closure. A steel plate or compacted aggregate shall be onsite for emergency access requirements.

Pedestrian access, meeting ADA requirements, shall be maintained at all times to parcels. Access will include at a minimum four feet in width and compacted aggregate. Exception to this will be a maximum closure of one day for sidewalk installation.

Furnishing, placing, and maintaining signs, barricades, temporary pavement markings, and other traffic control devices at construction and maintenance operations shall be in accordance with Section 801, 105.03 and 2011 Indiana Manual on Uniform Traffic Control Devices.

Unless otherwise directed or permitted, the work specified shall be arranged and prosecuted in accordance with all applicable provisions of Sections 104.04, 107.12, 801, and as set out herein. Drainage shall be maintained at all times.

All traffic control devices, construction materials used for maintenance of traffic. furnishing, placing, moving, removal and maintenance of all traffic control devices will be paid for at the contract lump sum price for Maintaining Traffic.

BASIS OF PAYMENT

Maintaining traffic and pedestrian access shall be paid for at the contract unit price per LUMP SUM and shall include the cost of all labor, materials, furnishing, delivery, coordination, removal, removal and replacement, and incidental costs related to this work. Payment will be made according to the following units:

> Pay Item Pay Unit Symbol Maintaining traffic and pedestrian access LS

SP 24 **USE OF CONES IN LIEU OF DRUMS**

SECTION 107, BEGIN LINE 428, DELETE AND INSERT AS FOLLOWS:

Pavements and shoulders having an edge drop of more than 3 in. (75 mm) shall be delineated with drums in accordance with 801.09. Delineation shall be at a maximum spacing of 200 ft (60 m). The use of cones in accordance with 801.08 will be permitted during daylight hours in lieu of drums as approved by ENGINEER. except cones shall not be used for interstate lane restrictions.

SECTION 801, BEGIN LINE 267, DELETE AND INSERT AS FOLLOWS:

Cones shall be made of a material to withstand impact without damage to striking vehicles. They shall have a substantial base to restrict overturning. Cones and tubular markers shall be as shown on the plans.

Cones shall be used only during temporary activities where portability is advantageous and they remain in place and do not create a hazard to traffic. The use of cones in lieu of drums will be permitted during daylight hours unless otherwise directed as approved by ENGINEER, except cones shall not be used for interstate lane restrictions.

Tubular markers shall be used for separating two-lane two-way traffic as shown on the plans or as directed.

Cones and tubular markers shall be secured in place either by weighting or adhesives. The use of metal bases will not be permitted.

SP 25 MARION COUNTY BORROW AREAS The

Standard Specifications are revised as follows:

SECTION 203, AFTER LINE 141, INSERT AS FOLLOWS:

Borrow areas in Marion County shall be in accordance with the applicable requirements of the Marion County Master Zone Plan with regard to the establishment of borrow areas and the production of sand and gravel as may be required.

SP 26. APPROVAL OF BORROW AND DISPOSAL SITES The

Standard Specifications are revised as follows:

SECTION 201, BEGIN LINE 3, INSERT AS FOLLOWS:

201.01 Description

This work shall consist of clearing, grubbing, removing, and disposing of all vegetation and debris, except such objects as are designated to remain or are to be removed in accordance with other sections of these specifications, within the construction limits shown on the plans. If no construction limits are shown, the right-of-way and easement areas will be the construction limits. This work shall include the preservation from injury or defacement of all vegetation and objects designated to remain. Disposal of material shall be in accordance with 203.08.

SECTION 201, BEGIN LINE 43, DELETE AND INSERT AS FOLLOWS:

Unless burned in accordance with the requirements herein, perishable materials and debris shall be removed from the right-of-way and disposed of at locations off the construction site and outside the limits of view from the traveled roadway in accordance with 203.08. If permitted, sod. Sod may be disposed of within the right-of-way, but outside the construction limits, if permitted. Written permission shall be obtained from the property owner on whose property the materials and debris are to be placed. All necessary arrangements shall be made with the owner for obtaining suitable disposal locations. The cost involved shall be included in the contract price of pay items.

SECTION 202, BEGIN LINE 13, DELETE AND INSERT AS FOLLOWS:

202.02 General Requirements

All buildings and foundations in accordance with 202.06, structures, fences, tanks, and other obstructions, any portions of which are on the right-of-way shall be razed, removed, and disposed of, except utilities and those features for which other provisions have been made for removal. Designated salvageable material shall be removed without unnecessary damage in sections or pieces which may be transported readily and shall be stored at specified places within the project limits or as otherwise designated. Unless otherwise permitted and except Except for regulated materials, which are defined in shall be disposed of in accordance with 104.06, and bridge painting debris which is subject to 619, non-salvageable material shall be disposed of in accordance with 203.08 State, Federal, and local regulations. Unregulated material that may be disposed of on private property, other than approved landfill sites, shall only be

done with written approval of the Engineer and the property owner with appropriate permits and shall be outside the limits of view from the traveled roadway. Copies of all agreements with property owners shall be furnished. Unsuitable material shall be removed from cisterns, septic tanks, other tanks, basements, and cavities. The disposition of this material shall be in accordance with all applicable and current State, Federal, and Local Regulations.

SECTION 203, BEGIN LINE 51, DELETE AND INSERT AS FOLLOWS:

203.08 Borrow or Disposal

Borrow shall consist of approved material required for the construction of embankments or for other portions of the work and shall be obtained from approved locations and sources outside the right-of-way. Borrow material shall be free of substances that will form deleterious deposits, or produce toxic concentrations or combinations that may be harmful to human, animal, plant or aquatic life, or otherwise impair the designated uses of the *a* stream or area. Unless otherwise designated in the contract, arrangements shall be made for obtaining borrow. Borrow, as designated herein, shall not include material excavated beyond the right-of-way limits at intersecting public roads, private and commercial drive approaches, nor *approaches and* material furnished as B borrow.

Disposal of waste material, other than regulated material, from within the right-of-way shall only be allowed at approved locations either within or outside the right-of-way. Disposal of regulated material shall be in accordance with 104.06.

Proposed borrow sites and proposed disposal sites for excavated material shall be identified before such material is excavated or disposed of within or outside the right of way.

Except where a permitted or a licensed commercial site or a permitted site is utilized for borrow or disposal, the Contractor shall obtain all permits required by local, state and federal laws prior to the start of any operations at the site.

Licensed commercial sites and permitted sites are defined as follows:

- (a) A licensed commercial site is a solid waste facility with a current IDEM operation number.
- (b) A permitted site is a location that is operated under permits required by local, state and federal laws for the activities proposed by the Contractor. A permitted site shall also have documentation that a wetlands delineation and an archaeological survey have been performed by qualified professionals.

For proposed borrow or disposal sites other than licensed commercial or permitted sites, an inspection of areas outside the construction limits shall be conducted by a qualified wetland professional approved by the Department to determine if wetlands are present on the site. An approved wetland professional

shall be prequalified with the Department to perform environmental services work type 5.4 Ecological Surveys or shall be certified by the Society of Wetland Scientists as a wetland professional-in-training or professional wetland scientist. A list of approved wetland professionals is maintained on the Department's website. This The wetlands inspection shall be in accordance with the Federal Manual for Identifying and Delineating Jurisdictional Wetlands. The inspection shall also determine if isolated wetlands as defined by the IDEM are present. The Contractor shall submit a document, signed by the wetland professional, verifying that the site has been inspected for the presence of wetlands in accordance with the federal manual and for isolated wetlands and, if any are present, specifying the area to be demarcated as jurisdictional waters and/or wetland. The Contractor shall demarcate in a method approved by the Engineer the boundary of all wetlands identified within the proposed borrow or disposal site. Once the area to be used for borrow or for disposal of excavated material has been shown not to contain jurisdictional or isolated wetlands, the boundary of the area cleared shall be demarcated. The methods of demarcation shall be as approved by the Engineer.

For proposed borrow or disposal sites other than licensed commercial or permitted sites, a qualified archaeologist shall perform a record check and field survey to determine if any significant archaeological sites exist within the proposed site. The Indiana Department of Natural Resources Division of Historic Preservation and Archeology maintains a roster of qualified archeological consultants. If any archaeological sites are identified, the archaeologist shall establish the limits of the site along with a reasonable border. The Contractor shall demarcate in a method approved by the Engineer the border of all archeological sites identified within the proposed borrow or disposal site.

Identified archeological sites shall not be disturbed unless the site is cleared by established procedures and written authorization to enter the site has been obtained by the Contractor.

The Department maintains a <u>list of professional consultants</u> who are prequalified to perform various types of work. A qualified wetland professional shall <u>be</u> a professional consultant who <u>is prequalified with the Department to perform Environmental Services work type 5.4 Ecological Surveys, or is <u>certified by the Society of Wetland Scientists</u>, SWS, as a wetland professional <u>in training or professional wetland scientist</u>.</u>

Previously approved sites may <u>be utilized</u> for borrow or disposal operations if the Contractor furnishes a <u>valid</u> permit or document signed <u>by</u> a wetland professional prior to utilizing the site.

Borrow and disposal sites shall be approved by the Engineer prior to the start of any earth disturbing operations at the site. A request for approval of a borrow or disposal site shall be submitted to the Engineer a minimum of 14 days prior to the Contractor's planned start of operations at the site. All requests for approval of a borrow or disposal site shall include a description of

the Contractor's planned operations at the site. In the case of disposal sites, the description shall include a listing of the types of material to be disposed of at the site.

A request for approval of a licensed commercial site shall include the following:

- (a) The name and address of the facility.
- (b) The IDEM operating number.
- (c) The expiration date of the IDEM operating permit.

A request for approval of a permitted site shall include the following:

- (a) Name of the site owner.
- (b) Address of the site.
- (c) A list of the permits, permit numbers and permit expiration dates for all permits under which the site operates.
- (d) Documentation that a wetlands delineation and an archaeological survey have been performed by qualified professionals.

A request for approval of a site, other than a licensed commercial or permitted site, shall include the following:

- (a) Name of the property owner.
- (b) Address or location of the site.
- (c) A copy of a right-of-entry obtained from the property owner. Rights-of- entry shall include rights for access by Department personnel to the site for the purposes of monitoring, measurement and sampling.
- (d) A site plan showing the site location, site dimensions, adjacent property and right-of-way lines, all demarcated jurisdictional wetlands or isolated wetlands, all demarcated archeological sites, existing and proposed finished contours and proposed finished slope grades.
- (e) A site operations plan detailing the operations proposed for the site, what equipment will be utilized, how the site will be accessed and any other information relevant to the operation of the site.
- (f) A copy of the Rule 5 Notice of Intent, if required under 327 IAC 15-5.
- (g) An erosion control plan for the site including the types of erosion control measures to be incorporated and the sequencing of the measures in respect to the operations plan for the site.
- (h) Documentation signed by a wetlands professional verifying that the site has been inspected for the presence of both wetlands and isolated wetlands and, if any are present, specifying the area to be demarcated as jurisdictional or isolated wetlands.
- (i) Documentation of the archeological record check and field survey signed by a qualified archeologist including the limits and border of any archeological site discovered.
- (j) Copies of all other permits obtained by the Contractor to perform operations at the site.

The Contractor shall provide the Engineer a minimum of 14 days notice prior to opening borrow areas for the purpose of obtaining original cross section elevations and measurements and to sample the borrow material prior to use.

The Contractor shall install temporary erosion and sediment control measures at borrow or disposal sites other than licensed commercial and permitted sites prior to the start of any earth disturbing activity. If the Contractor elects to use the site, all required permits shall be obtained. The Contractor shall develop and construct all mitigation measures necessary to and fulfill all the requirements detailed by such of all permits obtained by the Contractor for operation of a borrow or disposal site. The Contractor shall also obtain written permission from the land owner for Department personnel to

access the site for monitoring.

No excavation shall occur or no material shall be disposed of beyond within the boundaries of the demarcated wetlands and archeological areas unless the operations are in compliance with all required permits and these specifications. No extension of completion time will be granted due to any delays by the Contractor in securing approval of borrow or disposal sites.

Before borrow or disposal operations are begun, the Contractor shall submit operation plans for approval. Such plans shall include the following:

- (a) a detailed sketch showing the limits relative to property and right of way lines:
- (b) the grade of all slopes;
- (c) an erosion control<u>plan</u> in accordance with the requirements of 327 IAC 15 5:
- (d) the encasement, finished grading, and seeding procedures; and
- (e) archaeological clearance.

Notice shall be given in advance of opening borrow areas so that cross section elevations and measurements of the ground surface after stripping may be taken and the borrow material may be tested before being used.

Except when a commercial source is utilized, a qualified archaeologist shall perform a record check and field survey of borrow or disposal limits to

determine if any significant archaeological sites are within the limits. Results of the_record check and survey shall be furnished in writing prior to the excavation of any material. If any archaeological sites are identified, the archaeologist shall establish the limits of the site along with a reasonable border. The site shall

not

be disturbed unless the archaeological site is cleared by established procedures and written authorization to enter the site has been issued. No extension of completion time will be granted due to any delays in securing approval of a borrow or disposal site.

Approval of a proposed borrow or disposal site by the Engineer, whether the proposed site is commercial, permitted, or otherwise, shall not relieve the

Contractor of its responsibility to utilize an appropriate site and to comply with all Local, State and Federal laws and regulations.

SECTION 203, BEGIN LINE 289, DELETE AND INSERT AS FOLLOWS:

203.10 Disposal of Excavated Material Except Waterway and Peat Excavation

Excavation material shall be used for the construction of embankments, shoulders, special fill, or other places as may be specified or directed, depending on the nature of the material. Excavated material that is suitable for embankment construction that is not required for maintenance of traffic shall be placed in the embankment before placing any borrow material, unless otherwise authorized in writing.

If more material is excavated from within required cut slopelines than is needed to construct embankments or special fills, the excess may be used to widen embankments, flatten fill slopes, or be used otherwise as directed. All excess excavated material that cannot be used constructively within the project limits shall be disposed of off the right-of-way in accordance with 201.03 and 203.08.

Excavation obtained from the right-of-way and planned to be used in fills may be wasted and replaced with borrow with no additional payment only after written permission is obtained. All required samples of the borrow or the excavation materials involved shall be furnished with no additional payment.

203.11 Disposal of Waterway Excavation

Unless otherwise provided, material resulting from waterway excavation shall be

used to fill old channels and, if suitable, in embankment, special fill, and approach embankments, or any combination of these, as specified or directed.

A *Any* portion of waterway excavation *material* which is unsuitable for the above uses, a *any* portion which is suitable but is in excess of that required for such uses, or if *when* locations for such disposal *uses* are not available, the disposal *material* shall be *disposed of* in accordance with 201.03 203.08.

203.12 Disposal of Peat

All material removed as peat excavation, removed or displaced by machine

operation, or displaced by the advancing backfilling material shall be uniformly spread between the toes of fill slopes and the swamp ditches or beyond, or otherwise disposed of in accordance with 203.08.

SP 27. HMA PROVISIONS

The Standard Specifications are revised as follows:

SECTION 401, BEGIN LINE 9, INSERT AS FOLLOWS:

401.02 Quality Control

The HMA shall be supplied from a certified HMA plant in accordance with

ITM 583; Certified Hot Mix Asphalt Producer Program. The HMA shall be transported and placed according to a Quality Control Plan, QCP, prepared and submitted by the Contractor in accordance with ITM 803; Contractor Quality Control Plans for Hot Mix Asphalt Pavements. The QCP shall be submitted to the Engineer at least 15 days prior to commencing HMA paving operations.

When a safety edge is required for a project, the QCP shall identify the device or devices in accordance with 409.03(c) to be used for constructing the safety edge.

SECTION 401, BEGIN LINE 48, DELETE AND INSERT AS FOLLOWS:

The plant discharge temperature for any mixture shall not be more than 315°F

whenever PG 58-28, PG 64-22, PG 64-28 or PG 70-22 binders are used or 325°F whenever PG 70-28 or PG 76-22 binders are used. QC/QA HMA may be produced as warm mix asphalt, WMA, by using a water-injection foaming device. for ESAL category 1, 2 and 3 mixtures. The DMF shall list the minimum and maximum plant discharge temperatures for HMA and WMA as applicable to the mixture.

401.05 Volumetric Mix Design

The DMF shall be determined for each mixture from a volumetric mix design by

design laboratory selected from the Department's list of approved Mix Design Laboratories. A volumetric mixture shall be designed in accordance with AASHTO R 35 and the respective AASHTO reference as listed below.

Bulk Specific Gravity and Density of Compacted Asphalt
Mixtures Using Automatic Vacuum Sealing AASHTO T 331

The single percentage of aggregate passing each required sieve shall be within the limits of the following gradation tables:

Dense Graded, Mixture Designation – Control Point (Percent Passing)							
	25.0 mm	19.0 mm	12.5 mm	9.5 mm	4.75 mm		
Sieve Size							
50.0 mm		, i		-	·		
37.5 mm	100.0			[]			
25.0 mm	90.0 - 100.0	100.0					
19.0 mm	< 90.0	90.0 - 100.0	100.0				
12.5 mm		< 90.0	90.0 - 100.0	100.0	100.0		
9.5 mm			< 90.0	90.0 - 100.0	95.0 - 100.0		
4.75 mm				< 90.0	90.0 - 100.0		
2.36 mm	19.0 - 45.0	23.0 - 49.0	28.0 - 58.0	32.0 - 67.0*			
1.18 mm					30.0 - 60.0		

600 μm							
300 μm							
75 μm	75 μm 1.0 - 7.0 2.0 - 8.0			- 10.0 2.0 - 10.0		6.0 - 12.0	
* The mix de	* The mix design gradation shall be less than or equal to the PCS control point for 9.5 mm category 3, 4						
	and 5 surface mixtures.						
	PCS Control Point for Mixture Designation (Percent Passing)						
Mixture Des	ignation	25.0 mm	19.0 mm	12.5 mm	9.5 mm	4.75 mm	
Primary Cont	rol Sieve	4.75 mm	4.75 mm	2.36 mm	2.36 mm	NA	
PCS Control	Point	40	47	39	47	NA	

SECTION 401, BEGIN LINE 79, INSERT AS FOLLOWS:

determined in water in accordance with AASHTO T 209. The bulk specific gravity of the gyratory specimens shall be determined in accordance with AASHTO T 166, Method A *or AASHTO T 275, if required,* for dense graded mixtures and AASHTO T 331 for open graded mixtures.

The percent draindown of open graded mixtures shall not exceed 0.30% in accordance with AASHTO T 305. Open graded mixtures may incorporate recycled materials and fibers. The recycled materials shall be in accordance with 401.06, and the fiber type and minimum dosage rate shall be in accordance with AASHTO M 325. The binder for open graded mixtures containing fibers

may be reduced by 1 temperature classification, 6°C, for the upper temperature classification. The fiber type and minimum dosage rate shall be in accordance with AASHTO M 325have the upper temperature classification reduced by 6°C from the specified binder grade if fibers are incorporated into the mixture or if a minimum of 3.0% reclaimed asphalt shingles by weight of the total mixture are used.

Dense graded mixture shall be tested for moisture susceptibility in accordance with AASHTO T 283 except that the loose mixture curing shall be replaced by mixture conditioning for 2 h in accordance with AASHTO R 30. The minimum tensile strength ratio, TSR, shall be 80%. The 6 in. (150 mm) mixture specimens shall be compacted in accordance with AASHTO T 312. If anti-stripping additives are added to the mixture to be in accordance with the minimum TSR requirements, the dosage rate shall be submitted with the DMF.

A PG binder grade or source change will not require a new mix design. If the upper temperature classification of the PG binder is lower than the original PG grade, a new TSR value is required. A new DMF shall be submitted for a binder grade change and shall reference the originating DMF/JMF number.

SECTION 401, BEGIN LINE 157, DELETE AND INSERT AS FOLLOWS: The recycled material percentages shall be as specified on the DMF. HMA

mixtures utilizing recycled materials shall be limited to the binder replacement percentages in the following table:

HMA mixtures utilizing RAP or RAS or a blend of RAP and RAS

MAXIMUM BINDER REPLACEMENT, %									
Minter Cotton	Base and Interme				ediate		Surface		
Mixture Category	Dense Graded			Open Graded		Dense Graded			
	25.0 19.0 12.5 9.5			25.0	19.0	12.5	9.5	4.75	
	mm	mm	mm	mm	mm	mm	mm	mm	mm
1	40.0*			25.0		40.0*		ķ	
2	40.0*			25.0		40.0*			
3	40.0*			3 40.0* 25.0		5.0	15.025.0		5.0
4	40.0*			25.0		15.025.0		5.0	
5	40.0*			25.0		15.025.0			

^{*}RAS materials shall not contribute more than 25% by weight (mass) of the total binder content for any HMA mixture.

SECTION 401, BEGIN LINE 189, DELETE AND INSERT AS FOLLOWS: 401.08 Job Mix Formula

A job mix formula, JMF, shall be developed by a certified HMA producer. A JMF used in the current or previous calendar year that was developed to Ndes will be allowed. The mixture compaction temperature shall be $300 \pm 9^{\circ}F$ (150 \pm 5 °C) for dense graded mixtures and $260 \pm 9^{\circ}F$ (125 \pm 5 °C) for open graded mixtures. The JMF shall list the minimum and maximum plant discharge temperatures for HMA and WMA as applicable to the mixture. The JMF for each mixture shall be submitted to the Engineer and shall use the same MAF as the DMF.

SECTION 401, BEGIN LINE 222, INSERT AS FOLLOWS:

The bulk specific gravity of gyratory specimens for dense graded mixtures will be determined in accordance with AASHTO T 166, Method A or AASHTO T 275, if required, except samples are not required to be dried overnight. The bulk specific gravity of gyratory specimens for open graded mixtures, OG19.0, OG25.0 will be determined in accordance with AASHTO T 331.

SECTION 401, BEGIN LINE 304, INSERT AS FOLLOWS:

401.11 Preparation of Surfaces to be Overlaid

The subgrade shall be shaped to the required grade and sections, free from all ruts, corrugations, or other irregularities, and uniformly compacted and approved in accordance with 207. Milling of an existing pavement surface shall be in accordance with 306. Surfaces on which a mixture is placed shall be free from objectionable or foreign materials at the time of placement.

Prior to placing an open graded mixture, the underlying HMA course shall have a full width base seal applied in accordance with 415. The base seal materials shall be applied within 3 calendar days after all density cores in accordance with 401.16 have been obtained.

Rubblized concrete pavements shall be primed in accordance with 405. PCCP, milled asphalt surfaces, and asphalt surfaces shall be tacked in

accordance with 406. Contact surfaces of curbing, gutters, manholes, and other structures shall be tacked in accordance with 406.

All partially completed sections of roadway that are 8 in. or less in thickness shall be prooffolled prior to the placement of additional materials unless otherwise directed by the Engineer. Prooffolling shall be accomplished in accordance with 203.26. The contact pressure shall be 70 to 80 psi, Soft yielding areas shall be removed and replaced.

SECTION 401, AFTER LINE 361, INSERT AS FOLLOWS:

A safety edge shall be constructed at locations where a dense graded intermediate mixture or a surface mixture is constructed adjacent to an aggregate or earth shoulder.

SECTION 401, BEGIN LINE 423, INSERT AS FOLLOWS:

The Engineer will determine the bulk specific gravity of the cores in accordance with AASHTO T 166, Method A or AASHTO T 275, if required. The maximum specific gravity will be mass determined in water in accordance with AASHTO T 209.

SECTION 401, BEGIN LINE 728, INSERT AS FOLLOWS:

(d) BSG of the Density Core

Additional cores shall be taken within 7 calendar days unless otherwise directed. Additional core locations will be determined by adding 1 ft (0.3 m) longitudinally of the cores tested using the same transverse offset. The appeal density cores will be dried in accordance with 1TM 572 and tested in accordance with AASHTO T 166, Method A or AASHTO T 275, if required.

SECTION 401, AFTER LINE 779, INSERT AS FOLLOWS:

The cost of removing and replacing soft and yielding areas shall be included in the cost of other pay items in this section.

SECTION 402, BEGIN LINE 8, INSERT AS FOLLOWS:

402.02 Quality Control

The HMA shall be supplied from a certified HMA plant in accordance with ITM 583; Certified Hot Mix Asphalt Producer Program. The HMA shall be transported and placed according to a Quality Control Plan, QCP, prepared and submitted by the Contractor in accordance with ITM 803; Contractor Quality Control Plans for Hot Mix Asphalt Pavements. The QCP shall be submitted to the Engineer at least 15 days prior to commencing HMA paving operations.

When a safety edge is required for a project, the QCP shall identify the device or devices in accordance with 409.03(c) to be used for constructing the safety edge.

SECTION 402, BEGIN LINE 30, DELETE AND INSERT AS FOLLOWS:

402.04 Design Mix Formula

A DMF shall be prepared in accordance with 402.05 and submitted in a format acceptable to the Engineer I week prior to use. The DMF shall state the maximum particle size in the mixture, the calibration factor and test temperature to be used for the determination of

binder content using ITM 586 or ITM 571, and a MAF. Approval of the DMF will be based on the ESAL and mixture designation as follows.

Type A	Type B	Type C	Type D
200,000	2,000,000	9,000,000	11,000,000
4.75 mm	4.75 mm	4.75 mm	4.75 mm
9.5 mm 9.5 mm 9.5		9.5 mm	9.5 mm
12.5 mm	12.5 mm	12.5 mm	12.5 mm
64-22	64-22	70-22	70-22
9.5 mm	9.5 mm	9.5 mm	9.5 mm
12.5 mm	12.5 mm	12.5 mm	12.5 mm
19.0 mm	19.0 mm	19.0 mm	19.0 mm
25.0 mm	25.0 mm	25.0 mm	25.0 mm
64-22	64-22	64-22	70-22
19.0 mm	19.0 mm	19.0 mm	19.0 mm
25.0 mm	25.0 mm	25.0 mm	25.0 mm
64-22	64-22	64-22	64-22
	200,000 4.75 mm 9.5 mm 12.5 mm 64-22 9.5 mm 12.5 mm 19.0 mm 25.0 mm 64-22 19.0 mm 25.0 mm	200,000 2,000,000 4.75 mm 4.75 mm 9.5 mm 9.5 mm 12.5 mm 12.5 mm 64-22 64-22 9.5 mm 9.5 mm 12.5 mm 12.5 mm 19.0 mm 19.0 mm 25.0 mm 25.0 mm 64-22 64-22 19.0 mm 19.0 mm 25.0 mm 25.0 mm 25.0 mm 25.0 mm	200,000 2,000,000 9,000,000 4.75 mm 4.75 mm 4.75 mm 9.5 mm 9.5 mm 9.5 mm 12.5 mm 12.5 mm 12.5 mm 64-22 64-22 70-22 9.5 mm 9.5 mm 9.5 mm 12.5 mm 12.5 mm 12.5 mm 19.0 mm 19.0 mm 19.0 mm 25.0 mm 25.0 mm 25.0 mm 25.0 mm 19.0 mm 19.0 mm 25.0 mm 25.0 mm 25.0 mm

Surface 4.75 mm mixtures shall not be used when the required lay rate shown on the plans is greater than 100 lb/sq yd. Surface 12.5 mm mixtures shall not be used when the required lay rate shown on the plans is less than 195 lb/sq yd.

The plant discharge temperature for any mixture shall not be more than 315°F whenever PG 58-28, PG 64-22, PG 64-28 or PG 70-22 binders are used or 325°F whenever PG 70-28 or PG 76-22 binders are used. HMA may be produced as warm mix asphalt, WMA, by using a water-injection foaming device. for temporary HMA mixtures and type A. B and C mixtures. The DMF shall list the minimum and maximum plant discharge temperatures for HMA and WMA as applicable to the mixture.

The Engineer will assign a mixture number. No mixture will be accepted until the DMF has been approved.

SECTION 402, BEGIN LINE 74, DELETE AS FOLLOWS:

For mixtures containing 0.0% to 15.0% RAP, changes in the source and grade of specified binders will be permitted; however, the high temperature grade shall meet the minimum W requirements f 402.04.

SECTION 402, BEGIN LINE 204, INSERT AS FOLLOWS:

Prior to placing an open graded mixture, the underlying HMA course shall have a full width base seal applied in accordance with 415. The base seal materials shall be applied within 3 calendar days upon completion of paving the underlying HMA course.

SECTION 402, BEGIN LINE 220, DELETE AND INSERT AS FOLLOWS:

All partially completed sections of roadway that are 8 in. (200 mm) or less in thickness shall be proofrolled prior to the placement of additional materials the following springunless otherwise directed by the Engineer. Proofrolling shall be accomplished in accordance with 203.26. The contact pressure shall be 70 to 80 psi (480 to 550 kPa). Soft yielding areas shall be removed and replaced.

SECTION 402, AFTER LINE 275, INSERT AS FOLLOWS:

A safety edge shall be constructed at locations where an intermediate mixture or a surface mixture is constructed adjacent to an aggregate or earth shoulder.

SECTION 402, BEGIN LINE 296, DELETE AND INSERT AS FOLLOWS:

ECTION 402, BEGIN LINE 290, DELETE AND INSERT AS FOLLOWS:								
NUMBER OF ROLLER APPLICATIONS								
Rollers		Courses	Courses > 440 lb/sq yd (240 kg/m²)					
Kollers	Option	Option	Option	Option	Option	Option	Option	
		2	3	4	5	1	2	
Three Wheel	2		4			4		
Pneumatic Tire	2	4			11	4	= 1	
Tandem	2	2	2			4		
VIDIATORY NUMER				6			8	
Oscillatory					6	-	-	

SECTION 402, BEGIN LINE 380, INSERT AS FOLLOWS:

The Engineer will determine the bulk specific gravity of the cores in accordance with AASHTO T 166, Method A *or AASHTO T 275, if required*. The maximum specific gravity will be mass determined in water in accordance with AASHTO T 209. Density shall not be less than 92.0%.

SECTION 402, BEGIN LINE 431, DELETE AS FOLLOWS:

The cost of removing and replacing soft yielding areas discovered by proofrolling shall be included in the cost of other pay items in this section.

SECTION 403, BEGIN LINE 52, INSERT AS FOLLOWS:

403.07 Spreading Mixture

The CMA mixture shall be spread in accordance with 402.13.

A safety edge shall be constructed at locations where an intermediate mixture or a surface mixture is constructed adjacent to an aggregate or earth shoulder.

SECTION 409. AFTER LINE 67. INSERT AS FOLLOWS:

When a dense graded intermediate or a surface mixture is placed adjacent to an aggregate or earth shoulder, the side of the paver adjacent to the aggregate or earth shoulder shall be equipped with a device capable of constructing a safety edge. The following devices are approved for this application:

- (a) Advent-EdgeTM, Advent-Edge Paving Equipment LLC
- (b) Safety Edge End Gate, Carlson Paving Products, Inc.
- (c) TransTech Shoulder Wedge MakerTM, TransTech Systems, Inc.
- (d) SafeTSlope Edge SmootherTM, Troxler Electronic Laboratories, Inc.

SECTION 409, BEGIN LINE 104, DELETE AND INSERT AS FOLLOWS:

4. Vibratory Roller

A vibratory roller shall be equipped with is a roller that has both drums equipped for vertical impact forces, a variable amplitude system, a speed control device, and have a minimum vibration frequency of 2,000 vibrations per min. A reed tachometer shall be provided for verifying the frequency of vibrations.

5. Oscillatory Roller

An oscillatory roller is a roller that has both drums equipped for horizontal and vertical shear forces or I drum equipped for horizontal and vertical shear force and the other drum equipped for a vertical impact force.

5.6. Trench Roller

A trench roller shall have a compaction wheel bearing of no less than 300 lb/in. (5.3 kg/mm).

6.7. Specialty Roller/Compactor

Inaccessible or short sections of HMA may be compacted with specialty equipment approved by the Engineer.

SECTION 410, BEGIN LINE 8, INSERT AS FOLLOWS:

410.02 Quality Control

The SMA mixture shall be supplied from a certified HMA plant in accordance with ITM 583; Certified Hot Mix Asphalt Producer Program. The QCP shall be modified to include the requirements for the SMA mixtures. The SMA shall be transported and placed according to a Quality Control Plan, QCP, prepared and submitted by the Contractor in accordance with ITM 803; Contractor Quality Control Plans for Hot Mix Asphalt Pavements. The QCP shall be submitted to the Engineer at least 15 days prior to commencing SMA paving operations.

When a safety edge is required for a project, the QCP shall identify the device or devices in accordance with 409.03(c) to be used for constructing the safety edge.

SECTION 410, BEGIN LINE 123, DELETE AND INSERT AS FOLLOWS:

The recycled material percentages shall be as specified on the DMF. SMA mixtures utilizing recycled materials shall be limited to the binder replacement percentages in the following table:

SMA mixtures utilizing RAP or RAS or a blend of RAP and RAS

MAXIMUM BINDER REPLACEMENT, %						
SMA Surface						
Mixture	Mixture 12.5 9.5					
Category	mm	mm				
1	40.0*	40.0*				
2	40.0*	40.0*				
3	15.025.0	15.025.0				
4 15.025.0		15.025.0				
5	15.025.0	15.025.0				

^{*} RAS materials shall not contribute more than 25% by weight (mass) of the total binder content for any HMA mixture.

SECTION 410, BEGIN LINE 153, INSERT AS FOLLOWS:

410.08 Job Mix Formula

A job mix formula, JMF, shall be developed by a certified HMA producer in accordance with ITM 583. A JMF used for SMA mixture the current or previous calendar year will be allowed. The mixture compaction temperature shall be $300 \pm 9^{\circ}F$ (150 $\pm 5^{\circ}C$). The JMF shall list the minimum and maximum plant discharge temperatures as applicable to the mixture. The JMF for each mixture shall be submitted to the Engineer.

SECTION 410, AFTER LINE 294, INSERT AS FOLLOWS:

A safety edge shall be constructed at locations where the surface mixture is constructed adjacent to an aggregate or earth shoulder.

SECTION 410, BEGIN LINE 344, DELETE AND INSERT AS FOLLOWS:

The Engineer will determine the BSG bulk specific gravity of the cores in accordance with AASHTO T 166, Method A or AASHTO T 275, if required. The maximum specific gravity will be mass determined in water in accordance with AASHTO T 209. The target value for density of SMA mixtures of each sublot shall be 93.0%.

The Engineer will determine the bulk specific gravity of the cores in accordance with AASHTO T 166. Method A. The maximum specific gravity will be mass determined in water in accordance with AASHTO T 209. Density shall not be less than 92.0%.

SECTION 410, BEGIN LINE 465, INSERT AS FOLLOWS:

(c) BSG of the Density Core

Cores shall be taken within 7 calendar days unless otherwise directed. Additional core locations will be determined by adding 1 ft (0.3m) longitudinally of the cores tested using the same transverse offset. The cores will be dried in accordance with ITM 572 and tested in accordance with AASHTO T 166, Method A or AASHTO T 275, if required. The Contractor shall clean, dry, and refill the core holes with SMA or HMA surface materials within I work day of the coring operations.

SECTION 410, AFTER LINE 521, INSERT AS FOLLOWS:

SECTION 415 - BASE SEAL

415.01 Description

This work shall consist of applying asphalt emulsion to the pavement surface in accordance with 105.03.

MATERIALS

415.02 Materials

Base seal materials shall be in accordance with the following:

CONSTRUCTION REQUIREMENTS

415.03 Equipment

A distributor in accordance with 409.03(a) shall be used.

415.04 Weather Limitations

Base sealing operations shall not be conducted on a wet pavement or when the ambient air or pavement temperature is below 32°F.

415.05 Preparation of Surface

Surfaces shall be clean and free of any foreign or loose material.

415.06 Application of Asphalt Material

The base seal materials shall be applied to the pavement surface uniformly with a distributor at an application rate of 0.22 ± 0.02 gal/sq yd.

415.07 Protection of Surface

The base seal materials shall cure a minimum of 2 hours after application before resuming paving operations.

415.08 Method of Measurement

The base seal will be measured by the ton complete in place.

415.09 Basis of Payment

The base seal will be paid for at the contract unit price per ton. Payment will be made under:

Pay Item	Pay Unit Symbol
Base Seal	

The costs of all asphalt materials, surface preparation and all other necessary incidentals shall be included in the cost of the pay item.

SP 28 DRAINAGE STRUCTURES

All existing structures damaged during construction shall be replaced with no additional payment.

SP 29 DETECTABLE WARNING ELEMENTS

Brick detectable warning elements shall be used at all curb ramps.

SP 30 TREE PROTECTION

Contractor shall take care in protecting all trees along Norfolk Street and Hollister Drive.

If Contractor damages existing tree or root system without prior approval from OWNER Contractor shall replace tree with a minimum 3" caliper tree. Type of tree and planting method will be provided by OWNER. The cost for this work and replacement will not be additional cost to the project but be the sole responsibility of the Contractor.

SP 31 POSITIVE DRAINAGE ON NORFOLK STREET AND HOLLISTER DRIVE

This work shall consist of contractor providing positive drainage in all locations of sidewalk, drive, curb, and curb ramp replacement along Norfolk Street and Hollister Drive.

Special attention should be taken on the east side of Norfolk Street from the existing inlet at approximate Station 44+25 north to the existing inlet at Speedway Drive.

Contractor may have to perform survey shots to develop plan for positive drainage prior to curb layout and construction. This work may involve adjusting grades at front face of curb to ensure positive drainage. Upon completion water shall drain to existing drainage system.

The Contractor shall construct curb openings across driveways and curb ramps in such a manner that maintains the storm water flow across the curb line extended through the curb opening. In cases where the finished pavement, and/or curb and gutter create ponding of storm water along the driveway or curb ramp openings, the Contractor shall remove and reconstruct the pavement, and/or curb and gutter to remedy the problem at the Contractor's expense.

All drives shall have positive drainage towards Hollister Drive and Norfolk Street.

Providing positive drainage for proposed sidewalks may involve raising sidewalk grades to slope towards driveways and across utility strips to street curbs and eventually to existing drainage system. Contractor may have to perform survey shots to develop plan for positive drainage.

All labor and material required to ensure Positive Drainage on Norfolk Street and Hollister Drive will not be paid for directly but shall be included in the cost of other items.

SP 32 COORDINATION WITH OWNER

This work involves walking project with OWNER marking areas to be removed, areas to remain in place, and limits of replacement. Areas of impact to existing asphalt pavement, yards, driveways, curbs, curb ramps outside of the limits for proposed curbs, sidewalks, driveways, and curb ramps shall be approved by OWNER prior to installation or removal shall be the sole responsibility of the Contractor at no cost to the project.

This work will not be paid for directly but included in the cost of other items.

SP 33 CONCRETE CURB

All excavation (including but not limited to earthwork, HMA removal, aggregate removal, etc.) associated with installing Concrete Curb shall be included in the cost of Curb, Concrete, Remove.

SP 34 DRIVE REMOVAL

Concrete drive removal will not be paid for directly but included in the cost of PCCP for Approaches, 6".