#### **Contract Documents**

and

Specifications

for

### **Giessing Lake Dock and ADA Sidewalk**



OIMAGE MAKER MARKETING

City of Farmington

110 West Columbia

Farmington, Missouri 63640



#### **TABLE OF CONTENTS**

Advertisement for Bids

Information for Bidders

Contractor's Qualifications

Signature and Identity of Bidder

**Anti-Collusion Statement** 

Anti-Collusion Affidavit

Affidavit of Work Authorization

Bid Form

Bidder's Acknowledgement

**Construction Contract** 

Wage Rates

Performance Bond

Labor and Material Payment Bond

Notice of Award

Notice to Proceed

Lien Waiver

Standard General Conditions

**Specifications** 



#### ADVERTISEMENT FOR BIDS

Sealed bids for **Giessing Lake Dock and Sidewalk Project**, will be received at City Hall, 110 West Columbia, Farmington, MO 63640, telephone 573-756-1701, until 1:30 P.M. (Prevailing Local Time) on May 11, 2015, and at that time will be publicly opened and read.

The proposed work includes the construction of a concrete sidewalk and dock anchor and related work such as grading, seeding, and erosion control.

Digital plans and specifications may be obtained free of cost from Bud Norman, bnorman@farmington-mo.gov. Hard-Copy plans and specifications may be obtained at a cost of \$35 from Bud Norman at the City of Farmington Parks Department Building, 407 Boyce Street, Farmington, MO 63640.

All labor used in the construction of this public improvement shall be paid a wage no less than the prevailing hourly rate of wages of work of a similar character in this locality as established by the Department of Labor and Industrial Relations (Federal Wage Rate), or state wage rate, whichever is higher.

All bids shall be submitted on paper using the Bid Form included with the Bid Document, in ink, and in a sealed envelope identifying the name of the Bidder, and the project number and name as follows: **Giessing Lake Dock and Sidewalk Project**.

Payment will be made in cash in accordance with the provision of the terms of payment in the Contract. Proposals shall be submitted on the blank forms in the Contract Documents provided for that purpose by the first of the month. Pay Requests submitted to the City on a monthly basis for review shall be accompanied by all Lien waivers from all material suppliers; subcontractors etc., before any payment will be issued.

The bidder(s) to whom a contract is awarded will be required to furnish a performance bond and a payment bond on the forms provided, acceptable to the City of Farmington, Missouri, each in the amount of 100 percent (100%) of the contract price, in conformity with the requirements of the General Conditions.

Wage rates paid on work for this project shall be at least equal to the prevailing wage rates as determined by the Division of Labor Standards of Missouri.

The Contractor and his subcontractors will be obligated not to discriminate in employment practices.

Contract time will be specified in the Bid Form. No Bid may be withdrawn within a period of 90 days after the date fixed for opening Bids.

The Owner reserves the right to reject any or all Bids, to waive informalities or minor defects in any bid, and to reject nonconforming, non-responsive, or conditional bids.



#### **INFORMATION FOR BIDDERS**

Sealed bids will be received by the City of Farmington, Director of Facility Maintenance, Bud Norman, 110 West Columbia, Farmington, Missouri 63640 until 1:30 p.m. local time May 11, 2015 for the **Giessing Lake Dock and Sidewalk Project** in Farmington, Missouri and then publicly opened and read aloud.

Each bid must be submitted in a sealed envelope, addressed to the City of Farmington. Each sealed envelope containing a Bid must be plainly marked on the outside as Bid for the type of improvements noted on the Bid sheets and the envelope should bear on the outside the name of the Bidder, his address, his license number, if applicable, and the name of the project for which the Bid is submitted. If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed the Director of Facility Maintenance, Bud Norman.

All Bids must be made on the required Bid form. All blank spaces for Bid prices must be filled in, with ink or typewritten, and the Bid form must be fully completed and executed when submitted. Only one copy of the Bid form is required.

The City of Farmington may waive any informalities or minor defects or reject any and all Bids. Any Bid may be withdrawn prior to the above scheduled time for the opening of Bids or authorized postponement thereof. Any Bid received after the time and date specified shall not be considered. No Bidder may withdraw a Bid within 90 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period; the time may be extended by mutual Agreement between the City of Farmington and the Bidder.

Bidders shall familiarize themselves with the contemplated Work to insure the fulfillment of the intent of the Contact Documents. Any bidder who is in doubt as to the true meaning of any part of the Contract Documents shall promptly request an interpretation from Director of Facility Maintenance. Interpretations will be made only by Addendum, duly issued, and a copy of each addendum will be mailed or delivered to each party who has received a set of these Contract Documents. No Interpretation addendum will be issued within the last one (1) day before the bid date unless the bid date is changed accordingly to allow time for bidder's consideration. The bidder shall be solely responsible for any explanation or interpretation of the Contract Documents other than by duly issued addenda.

Bidders must satisfy themselves of the accuracy of the estimated quantities in the Bid schedule by examination of the site and a review of the specifications including addenda. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the quantities of work or of the nature of the work to be done.

The Contract documents contain the provisions required for the construction of the project. Information obtained from an officer, agent, or employee of the City of Farmington, or any other person shall not affect the risks or obligations assumed by the Contractor or relieve him from fulfilling any of the conditions of the contract.

All applicable taxes, sales, use, compensating or other taxes, imposed by any taxing authority, on material, equipment or supplies to be incorporated in the Work, shall be included in the bid price. The Bidder shall include all such taxes except those on materials, if any, furnished by the City of Farmington, and he shall be required to furnish taxing authorities any necessary information or reports pertaining thereto, as required. All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout. Missouri State Statutes 144.062 allows for a sales tax exemption to contractors constructing, repairing or remodeling facilities or purchasing personal property and materials to be incorporated into and consumed in the construction of projects for a tax exemption entity. The tax exempt entity shall furnish a signed exemption certification to each contractor and/or subcontractor.

Tied bids will not be considered by the City of Farmington. A preference shall be given to those person doing business as Missouri firms, corporations, or individuals, or which maintain Missouri offices or places of business, when the quality of performance promised is equal or better and the price quoted is the same or less. In addition, in order for a nondomiciliary bidder to be successful, the bid must be that same percentage lower than a domiciliary Missouri bidder's bid as would be required for a Missouri bidder to successfully bid in the nondomiciliary's state.

Preference shall be given to Missouri products.

A performance bond and a payment bond, each in the amount of 100 percent of the contract price, with a corporate surety approved by the City of Farmington, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign bid bonds or payment bonds and performance bonds must file with each bond a certified and effective dated copy of their power of attorney.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance bond and payment bond within ten (10) calendar days from the date when Notice of Award is delivered to the Bidder. The Notice of Award shall be accompanied by the necessary Agreement and Bond forms. In case of failure of the Bidder to execute the Agreement, the City of Farmington may, at his option, consider the bidder in default, in which case the bid bond accompanying the proposal shall become the property of the City of Farmington.

The City of Farmington, within ten (10) days of receipt of acceptable performance bond, payment bond and Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the City of Farmington not execute the Agreement within such period, the Bidder may, by written notice, withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the Notice by the City of Farmington.

The City of Farmington may make such investigations as it deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the City of Farmington all such information and data for this purpose as the City of Farmington may request. The City of Farmington reserve the right to reject any Bid if the evidence submitted by, or investigation of such Bidder fails to satisfy the City of Farmington that such Bidder is properly qualified to carry out the obligations of the Agreement and to complete the work contemplated therein. Bidders will be required to submit a summary of their qualifications on the forms included in these contract documents.

In any section of the contract documents or plans and specifications, if any article, material or equipment is defined by describing a proprietary product, or by using the name of a manufacturer or vendor, the term "or approved equal" if not inserted shall be implied.

No substitution shall be made unless supporting information is submitted in writing to the Public Works Director a minimum of one (1) weeks prior to Bid opening date. Such information shall contain sufficient data so that the City of Farmington can determine if the substitution is equal to design, strength, durability, usefulness and convenience for the purpose intended including design calculations and drawings prepared by a registered engineer. If the substitute material or equipment is found to be equal in performance to that specified and if the substitute requires modifications to the design plans, the Contractor shall be responsible for the additional design and construction costs. The Director of Facility Maintenance will notify all prospective Bidders by addendum to the Specifications prior to the Bid opening date, of any approved equal materials or equipment.

The City of Farmington reserves the right to reject any or all Bids, to waive informalities or minor defects in any bid, and to reject nonconforming, non-responsive, or conditional bids.

A conditional qualified Bid will not be accepted.

Award will be made to the lowest responsive, responsible Bidder for the project.

All applicable laws, ordinances and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout.

Each prospective Bidder is expected to examine all of the Contract Documents before submitting a proposal. The conditions indicated on the design plans and elsewhere in the contract documents represent information available from surveys and studies and original construction plans, but the submission of a proposal shall be considered proof that the prospective Bidder has made his own examination and is satisfied as to the conditions to be encountered in performing the work, and as to the requirements of the design plans and within the terms of the other contract documents.



# CONTRACTOR'S QUALIFICATIONS

Name of firm and address with zip code						
Date	Area Code & Tele	Corporation  Partnership				
CONSTRUCTION CAPABILITIES: General   Electrical   Plumbing						
Mechanical □ Other □						
	FOR CO	RPORATION ONLY				
Date of Incorpora	ation Nam	ne of State(s) in which incorporated				
-	d in Missouri give hority to do business i	Certificate Number Date				
President's Name	e	Vice-President's Name				
Secretary's Nam	e	 Treasurer's Name				

#### FOR PARTNERSHIP ONLY

Name and address of all parti		
1 2		
	NERAL INFORMATION	
Percent (%) of work done by	No. of permanent Employees	Geographical limits of operation
No. of years in business	If you have done busir name, please give nar	
Has firm ever failed to complete   where and why.	project or defaulted on a co	ontract? If so, state

List of projects currently under construction, including cost of each:

Note: List a contact person with address and telephone number for each project.



#### SIGNATURE AND IDENTITY OF BIDDER

The undersigned states that the correct LEGAL NAME and ADDRESS of (1) the individual Bidder, (2) each partner or joint venture (whether individuals or corporations, and whether doing business under fictitious name), or (3) the corporation (with the state in which it is incorporated) are shown below; that (if not signing with the intention of binding himself to become the responsible and sole contractor) he is the agent of, and duly authorized in writing to sign for the Bidder or Bidders; and that he is signing and executing this (as indicated in the proper spaces below) as the proposal of a

( ) sole individual	( ) partnership	( ) joint venture
( ) corporation, incorporate	ed under laws of th	e state of
Dated	, 20	·
Name of individual, all partr or joint ventures:	ners,	Address of each:
	_	
	_	
doing business under the na	ame of:	Address of principal place of business in Missouri
_		
(if using a fictitious name, s this name above in additi to legal names)		
(if a corporation show its na	ıme above)	

ATTEST:	
(Secretary)	(Title)

(NOTE: If the Bidder is doing business under a FICTITIOUS NAME, the Proposal shall be executed in the legal name of the individual, partners, joint ventures, or corporation, with the legal address shown, and REGISTRATION OF FICTITIOUS NAME filed with the Secretary of State, as required by Section 417.200 to 417.230, RSMo. If the Bidder is a CORPORATION NOT ORGANIZED UNDER THE LAWS OF MISSOURI, it shall procure a CERTIFICATE OF AUTHORITY TO DO BUSINESS IN MISSOURI, as required by Section 351.570 and following, RSMo. A CERTIFIED COPY of such Registration of Fictitious Name or Certificate of Authority to do Business in Missouri shall be filed with the Engineer.



# ANTI-COLLUSION STATEMENT STATE OF MISSOURI

CITY OF _	Farmington
	Being first duly sworn, deposes and says that he is
	Title of Person Signing
of	
	Name of Bidder
and the bid	ements made and facts set out in the proposal for the above project are true and correct; der (The person, firm, association, or corporation making said bid) has not, either directly and entered into any agreement, participated in any collusion, or otherwise taken any action of free competitive bidding in connection with said bid or any contract which may result ceptance.
Affiant furth	ner certifies that bidder is not financially interested in, or financially affiliated with, any other
bidder for tl	he above project.
	Ву
	MISSOURI ) ) ss.
COUNTY	OFST. FRANCOIS )
On this	day of 2015, before me, a Notary Public in and for said State, personally appeared
	ted the foregoing instrument and acknowledged that they executed the same as their free ary act and deed for the purposes therein stated.
	IONY WHEREOF, I have hereunto set my hand and affixed my official seal in the County aforesaid, the day and year first above written.
My commis	Notary Public



#### **NON-COLLUSIVE AFFIDAVIT**

STATE OF MISSOURI	)	
COUNTY OF ST. FRANC	OIS )	
		, being first duly Sworn,
(Type name he	re)	
deposes and says:		
That he is		
	(a Partner, Officer, or Owner)	
indirectly, with any bidder manner, directly or indirect any person, to fix the bid pelement of said bid price,	or person, to put in a sham bid of tly, sought by agreement or colloprice of affiant or of any other bid for that of any other bidder, or to	onspired, connived, or agreed, directly or or refrain from bidding, and has not in any usion, or communication or conference, with dder, or to fix any overhead, profit or cost secure any advantage against the City of ract; and that all statements in s aid
Signature: _		
_	(Type name here)	(Title)
STATE OF MISSOURI	)	
COUNTY OF ST. FRANC	) ss. DIS )	
On this day of 201	5, before me, a Notary Public in	and for said State, personally appeared known to be the persons described in and
who executed the foregoing	ng instrument and acknowledged d for the purposes therein stated	that they executed the same as their free
	OF, I have hereunto set my hand ay and year first above written.	and affixed my official seal in the County
My commission expires:	Notary Public	

#### AFFIDAVIT OF WORK AUTHORIZATION

The bidder/contractor who meets the section 285.525, RSMo definition of a business entity must complete and return the following Affidavit of Work Authorization. (Name of Business Entity Authorized Representative) as Comes now \_ (Position/Title) first being duly sworn on my oath, affirm (Business Entity Name) is enrolled and will continue to participate in the E-Verify federal work authorization program with respect to employees hired after enrollment in the program who are proposed to work in connection with the services related to contract(s) with the State for the duration of the contract(s), if awarded in accordance with subsection 2 of section 285.530, RSMo. I (Business Entity Name) does not and will not knowingly employ a person who is an unauthorized alien in connection with the contracted services provided to the contract(s) for the duration of the contract(s), if awarded. In Affirmation thereof, the facts stated above are true and correct. (The undersigned understands that false statements made in this filing are subject to the penalties provided under section 575.040, RSMo.) Printed Name Authorized Representative's Signature Title Date E-Mail Address Subscribed and sworn to before me this  $\underline{\hspace{1cm}}$  of  $\underline{\hspace{1cm}}$  (MONTH, YEAR) commissioned as a notary public within the County of \_\_\_\_\_\_, State of , and my commission expires on \_\_\_\_\_ (NAME OF STATE) Signature of Notary Date



Project:

CITY OF FARMINGTON Department of Parks 407 Boyce Street Farmington, Missouri 63640 573.756.0601

#### **BID FORM**

**Giessing Lake Dock and Sidewalk Project** 

Location:	Farmington, Missouri	
	ription: The proposed work includes the construction dock anchor and related work such as grading, see	
	Contractor Information	
Contractor:		
Address:		
Phone:		
Fax:		
Total Consti	ruction Bid: \$	in numbers
\$		in words.
	cknowledges receipt of Addenda No(s)	
Signa	ture:	
Title: _		



#### **BIDDER'S ACKNOWLEDGMENT**

-	
(Complete and fill out all par	ts applicable, and strike out all parts not applicable.)
State of	
County of	
On this day of _	, 20
Proposal with full knowledg the specification: that the co	, to me personally first duly sworn, did say that he executed the foregoing e and understanding of all its terms and provisions and orrect legal name and address of the Bidder (including those res) if fully and correctly set out above: that all statements idder are true: and
(if a sole individual) acknowl	edged that he executed the same as his free act and deed.
	nture) acknowledged that he executed same, with writter ee act and deed of, all said partners or joint ventures.
(if a corporation) that he is the	ne (President or other agent)
	; that the above Proposal was of said corporation by authority of its board of directors; and osal to be the free act and deed of said corporation.
Witness my hand and seal a day and year first above writ	tt,the ten.
(SEAL)	Notary Public
My Commission expires	



#### STANDARD FORM OF AGREEMENT BETWEEN CITY AND CONTRACTOR

THIS AGREEMENT is made and entered into by and between the City of Farmington, Missouri, a municipal corporation, hereinafter referred to as the CITY, and hereinafter referred to as the CONTRACTOR, based upon the bid submitted to the CITY on \_\_\_\_\_\_, 2015 and incorporated here by reference.

#### 1.00 DEFINITIONS

#### 1.01 Project

The project is defined as the work to be performed, including but not limited to providing all labor and/or materials as set forth in the CITY's request for sealed bids concerning **Giessing Lake Dock and Sidewalk Project** according to the performance specifications attached herewith.

#### 1.02 Specifications

The specifications followed in completion of the work related to this contract shall be consistent with the performance specifications provided with the request for bids including any addenda or change orders prepared by the City of Farmington.

#### 1.03 Working Days

Working days shall be defined as weekdays, which are not Federal Holidays OR ten consecutive days, beginning on the first Monday of the work cycle and ending on the second Wednesday of the work cycle, which are not Federal Holidays. The ten consecutive days work will be followed by four non-work days.

#### 2.00 GENERAL CONDITIONS

The Contractor agrees to provide all labor and/or materials as set forth in the Specifications and to complete the Project within the time specified by the contract documents.

That in consideration of the Contractor's providing said labor and materials the City shall pay the Contractor per unit as defined in the attached bid submittal. In the event there is a discrepancy between this document and the bid submittal, this document shall govern.

In the event there is a discrepancy between the Standard General Conditions and the remainder of the Contract Documents or Specifications, the Contract Documents and Specifications shall govern.

#### 3.00 PROGRESS PAYMENTS

Payments shall be made as follows:

- 3.01 The City shall make progress payments on the 1st and 15th of each month based on Applications for Payment made by the Contractor.
- 3.02 Each Application shall be based on a percentage of the work completed or if the contract is for a unit price the number of units completed on the date of the submittal.
- 3.03 The City shall pay the Contractor for the portion of the Project substantially completed in any given pay period less ten percent (10%) retainage.
- 3.04 The portion of the project substantially completed shall be determined in the sole discretion of the City Administrator or his designee.
- 3.05 In the event the Contractor elects to submit a single request for payment upon completion of the work, the City will pay the full contract amount in a single lump sum payment within fifteen (15) days.

#### 4.00 COMMENCEMENT AND COMPLETION OF WORK

The Contractor shall commence work within () days after	forma	al
notification by the City. All work shall be completed within		
() calendar days, or as extended by the City Administrator	or hi	s
designee, and shall be included as an addendum to this agreement.		

#### 5.00 MITIGATED DAMAGES

In the event the Contractor has failed to complete the project within said period, it (he/they) shall pay the City a penalty sum of one-hundred dollars (\$100.00) per day until the project is completed.

#### 6.00 INSURANCE

6.01 The Contractor shall be required to furnish Public Liability and Property Damage LIABILITY Insurance with coverage to name and protect the City and the Contractor from all claims for damages for personal injury, including accidental death, as well as claims for property damages, which may arise from work performed under this agreement, whether such claim be a result of actions by the Contractor or any sub-contractor performing work under this agreement. The insurance policy shall be not less than \$500,000 personal injury per occurrence and not less than \$500,000 aggregate property damage.

6.02 A certificate of insurance shall be submitted upon execution of this agreement in the form provided by the insurance provider, and shall contain a statement of the substantial language:

"The issuer of this certificate shall notify the City of Farmington within 48 hours prior to cancellation of the policy for which this certificate has been issued".

6.03 In the event the insurance coverage required under this section is cancelled by the Contractor during the performance of the work under this agreement, the City may at its option employ another Contractor to complete the project, and the Contractor shall indemnify and hold the City harmless from any and all damages it sustains as a result of the Contractor's failure to maintain insurance coverage.

#### 7 WORKER'S COMPENSATION INSURANCE

- 7.02 The Contractor shall be required to provide proof of Worker's Compensation Insurance and maintain said insurance during the performance of the work prescribed in this agreement. The Contractor shall be further required to provide proof of Worker's Compensation Insurance for all sub-contractors performing work under this agreement.
- 7.03 A certificate of insurance shall be submitted upon execution of this agreement in the form provided by the insurance provider, and shall contain a statement of the substantial language:

"The issuer of this certificate shall notify the City of Farmington within 48 hours prior to cancellation of the policy for which this certificate has been issued".

7.04 In the event the insurance coverage required under this section is cancelled by the Contractor during the performance of the work under this agreement, the City may at its option employ another Contractor to complete the project, and the Contractor shall indemnify and hold the City harmless from any and all damages it sustains as a result of the Contractor's failure to maintain Worker's Compensation Insurance coverage.

#### 8.00 BUILDER'S RISK INSURANCE

During the term of this contract, Contractor shall maintain in full force and effect, at its own expense, Builders' Risk Fire and Extended Coverage Insurance covering contractor's materials, fixtures and equipment to be used for completion of the work performed under this contract against all risks of direct physical loss, by reason of fire, wind, theft and vandalism in an amount equal to one hundred percent (100%) of the full contract price. The policy shall name both the Contractor and the City as insureds and the proceeds of the policy shall be payable to the Contractor and the City, as their interests appear.

A certificate of insurance shall be submitted upon execution of this agreement in the form provided by the insurance provider, and shall contain a statement of the substantial language:

"The issuer of this certificate shall notify the City of Farmington within 48 hours prior to cancellation of the policy for which this certificate has been issued".

#### 9.00 COMPLIANCE WITH PREVAILING WAGE

The Contractor shall pay wages not less than the prevailing wage for the type of work performed under this agreement as determined by the Missouri Department of Labor and Industrial Relations, Division of Labor Standards. The Contractor further agrees to comply with Prevailing Wage Laws as prescribed in Section 290.290 RSMo, and to ensure compliance with the aforementioned statutes by all sub-contractors performing work under this agreement. The Contractor will pay the City as and for liquidated damages, one-hundred dollars (\$100.00) per day, or portion of day, if a worker is paid less than the prevailing rate for any work done under the contract by the Contractor or by any subcontractor.

#### 10.0 PERFORMANCE BOND

The Contractor shall submit, upon execution of this agreement, a Performance Bond for the full amount of the contract for the work to be performed under this agreement.

#### 11.0 QUALITY OF WORK

In the event that the City determines that the Contractor's work is not to specifications, or the work cannot be reasonably completed by the Contractor during the period specified, the City may at its option provide the Contractor ten (10) days written notice to remedy said default. In the event that the Contractor has not rectified said default within said ten (10) days, the City may at its option terminate this agreement.

In the event of said termination, the City may at its option employ another contractor to complete the project, and the Contractor shall indemnify and hold the City harmless from any and all damages it sustains as a result of the Contractor's failure to perform.

#### 12.00 UNAUTHORIZED ALIEN AFFIDAVIT AND E-VERIFY

As a condition for the award of any contract or grant in excess of five thousand dollars (\$5,000.00) by the state or by any political subdivision of the state to a business entity (contractor), the business entity shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Every such business entity shall sign an affidavit affirming that it dies not knowingly employ any person who is an unauthorized illegal alien in connection with the contracted services, per RSMO 285.530. Any entity contracting with the state or any political subdivision of the state shall only be required to provide the affidavits required to the state and any political subdivision of the state with which it contracts, on an annual basis. Prior to the award of the bid, the selected contractor must complete and have notarized the attached "Affidavit of Work Authorization - City of Farmington Public Works Projects" and return it to the Director of Public Works.

For vendors that are not already enrolled and participating in a federal work authorization program, E-Verify is an example of this type of program. Information regarding E-Verify is available at: <a href="http://www.dhs.gov">http://www.dhs.gov</a>.

#### 13.00 HEALTH AND SAFETY OF EMPLOYEES

In accordance with RSMO 292.675 any contractor for any public body for purposes of construction of public works and any subcontractor to such contractor shall provide a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program for their on-site employees which includes a course in construction safety and health approved by OSHA of a similar program which is at least as stringent as an approved OSHA program, unless such employees have previously completed the required program. All employees who have not previously completed the program are required to complete the program within sixty days of beginning work on such construction project.

Any employee found on a work site subject to this section without documentation of the successful completion of the course required shall be afforded twenty days to produce such documentation before being subject to removal from the project.

#### 14.00 GUARANTEE

The Contractor hereby expressly guarantees the work performed under this agreement as to workmanship and conformance to the specifications provided. Upon notification by the Owner, the Contractor shall make any and all necessary replacements at his own expense to the satisfaction of the City within ten (10) days, or within a time acceptable to the City. If the Contractor fails to proceed with such corrective action as specified by the

City, the City may at its option employ another contractor to take such corrective action, and to charge the cost thereof to the Contractor.

#### 15.00 HAZARDOUS MATERIALS

The Contractor hereby expressly guarantees that no asbestos or lead paint containing materials will be used in completion of this project.

#### 16.00 ACCEPTANCE AND FINAL PAYMENT

#### 16.01 Final Inspection

When the work performed under this agreement has been fully completed in accordance with the specifications provided a final inspection shall be made by the City and any defects arising out of said inspections shall be remedied by the Contractor.

#### 16.02 Retainage

Retainage shall be paid by the City upon submittal by the Contractor of lien waivers, certified payrolls, and affidavit of compliance with prevailing wage laws.

#### 16.03 Final Payment

Final payment and acceptance of such payment by the Contractor shall release the City from all claims of any liabilities of the Contractor under this agreement, except that the Contractor shall not be released from liability for defects resulting from unacceptable workmanship or failure to follow specifications, where said defects are not readily ascertainable by the City upon final inspection.

The City shall make final payment upon the Contractor's submittal of lien waivers, certified payrolls, and affidavit of compliance with prevailing wage laws.

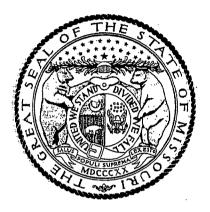
#### 17.00 RECOVERY OF DAMAGES

In the event the City is required to file suit for damages as a result of breach of contract by the Contractor, then the city shall be entitled to collect reasonable attorney fees, costs of litigation, and Court costs from Contractor.

IN WITNESS WHEREOF WE HAVE SET OUR HANDS ON THIS THE DAY						
OF, 201						
CITY OF FARMINGTON:	CONTRACTOR:					
Stuart 'Mit' Landrum Mayor	(Name and Title)					
Date	Date					
EXHIBITS: 1. Bid Form 2. Prevailing Wage Order						

# Missouri Division of Labor Standards

WAGE AND HOUR SECTION



JEREMIAH W. (JAY) NIXON, Governor

# Annual Wage Order No. 21

Section 095

#### ST. FRANCOIS COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

#### Original Signed by

John E. Lindsey, Director Division of Labor Standards

This Is A True And Accurate Copy Which Was Filed With The Secretary of State: March 10, 2014

Last Date Objections May Be Filed: April 9, 2014

Prepared by Missouri Department of Labor and Industrial Relations

#### REPLACEMENT PAGE

Building Construction Rates for ST. FRANCOIS County

	T	П	Basic	Over-		
OCCUPATIONAL TITLE	** Date of	ΙI	Hourly	Time	Holiday	Total Fringe Benefits
	Increase	*	Rates	Schedule	Schedule	·
Asbestos Worker (H & F) Insulator			\$37.66	55	60	\$20.11
Boilermaker			\$31.20	126	7	\$27.01
Bricklayer and Stone Mason		П	\$28.36	75	40	\$9.82
Carpenter		d	\$28.36	74	41	\$14.45
Cement Mason		f	\$29.03	80	6	\$15.36
Communication Technician			\$28.05	44	47	\$8.93 + 29.75%
Electrician (Inside Wireman)			\$32.25	82	71	\$10.28 + 39.5%
Electrician (Outside-Line Construction\Lineman)			\$39.69	43	45	\$5.00 + 37.5%
Lineman Operator			\$34.26	43	45	\$5.00 + 37.5%
Groundman	1		\$26,49	43	45	\$5.00 + 37.5%
Elevator Constructor		а	\$43.715	26	54	\$26.755
Glazier	<u> </u>		\$32.78	87	31	\$21.13 + 13.2%
Ironworker		П	\$32.38	11	8	\$21.975
Laborer (Building):						
General		Ħ	\$21.01	49	7	\$12.07
First Semi-Skilled			\$22.31	49	7	\$12.07
Second Semi-Skilled			\$21.31	49	7	\$12.07
Lather		d	\$28.36	74	41	\$14.45
Linoleum Layer and Cutter		<u> </u>	\$29.58	92	26	\$14.45
Marble Mason	1		\$28.36	75	-40	\$9.82
Marble Mason  Marble Finisher			Ψ20.00			
Millwright	<del> </del>		\$34.97	77	41	\$14.75
Operating Engineer			ΨΟΤΙΟΙ			
Group I			\$27.01	86	66	\$23.43
Group II			\$27.01	86	66	\$23.43
Group III		<del>  </del>	\$25.76	86	66	\$23.43
Group III-A		$\vdash$	\$27.01	86	66	\$23.43
Group IV			\$24.78	86	66	\$23.43
Group V		$\vdash$	\$27.71	86	66	\$23.43
Painter			\$28.75	104	12	\$13.41
Pile Driver		d	\$28.36	74	41	\$14.45
Pipe Fitter		c	\$34.75	91	69	\$26.28
Plasterer		۲	\$30.21	67	3	\$16.38
Plumber		С	\$34.75	91	69	\$26.28
Roofer \ Waterproofer	<del></del>	ا	\$29.50	15	73	\$15.67
Sheet Metal Worker	<del> </del>	$\vdash$	\$37.50	32	25	\$21.35
Sprinkler Fitter - Fire Protection	<del> </del>		\$31.13	33	19	\$18.90
Terrazzo Worker	<del>                                     </del>	-	\$28.36	75	40	\$9.82
Terrazzo Violkei	<del> </del>	<del>                                     </del>	Ψ20.00		-10	40.02
Tile Setter	<del>                                     </del>		\$28.36	75	40	\$9.82
	<del> </del>	<del>  </del>	Ψ20.00		70	Ψ0.02
Tile Finisher		$\vdash$	***			
Truck Driver-Teamster		е	\$26.22	103	77	\$9.40
Group I	<del>                                     </del>	e	\$26.38	103	77	\$9.40
Group II		e	\$26.37	103	77	\$9.40
Group III	<del>                                     </del>	-	\$26.49	103	77	\$9.40
Group IV	<u> </u>	е	<b>⊅∠0.49</b>	103	11	φυ.40

Fringe Benefit Percentage is of the Basic Hourly Rate

Attention Workers: If you are not being paid the appropriate wage rate and fringe benefits contact the Division of Labor Standards at (573) 751-3403.

### Building Construction Rates for ST. FRANCOIS County Footnotes

OCCUPATIONAL TITLE	** Date of Increase	Basic Hourly Rates	Over- Time Schedule	Holiday Schedule	Total Fringe Benefits

<sup>\*</sup> Welders receive rate prescribed for the occupational title performing operation to which welding is incidental.

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

- a Vacation: Employees over 5 years 8%, under 5 years 6%
- b Projects over \$1 Million \$29.66

Projects under \$1 Million - \$27.89

- c All work over \$7 Million Total Mech. Contract \$34.75, Fringes \$26.28 All work under \$7 Million Total Mech. Contract \$33.41 Fringes \$20.89
- d Projects over \$1 1/2 Million \$28.36 Projects under \$1 1/2 Million - \$24.84
- e Group I:

Projects over \$3 3/4 Million - \$26.22 Projects under \$3 3/4 Million - \$22.72

Group II:

Projects over \$3 3/4 Million - \$26.38 Projects under \$3 3/4 Million - \$22.88

Group III:

Projects over \$3 3/4 Million - \$26.37 Projects under \$3 3/4 Million - \$22.87

Group IV:

Projects over \$3 3/4 Million - \$26.49 Projects under \$3 3/4 Million - \$22.99

f - Projects over \$10 Million - \$29.03

Projects under \$10 Million - \$28.33

**FED:** Minimum requirement per Fair Labor Standards Act means time and one-half (1 ½) shall be paid for all work in excess of forty (40) hours per work week.

- NO. 11: Means eight (8) hours shall constitute a day's work, with the starting time to be established between 6:00 a.m. and 8:00 a.m. from Monday to Friday. Time and one-half (1½) shall be paid for first two (2) hours of overtime Monday through Friday and the first eight (8) hours on Saturday. All other overtime hours Monday through Saturday shall be paid at double (2) time rate. Double (2) time shall be paid for all time on Sunday and recognized holidays or the days observed in lieu of these holidays.
- NO. 15: Means the regular working day shall be scheduled to consist of at least eight (8) hours, but no more than ten (10) consecutive hours, exclusive of the lunch period. The regular working day may be scheduled to commence at any time between the hours of 5:00 a.m. and 10:00 a.m. All work performed in excess of forty (40) hours in one work week, or in excess of ten (10) hours in one work day shall be paid at the rate of one and one-half (1½) times the regular hourly wage scale. Any work performed on a Saturday shall be paid for at the rate of one and one-half (1½) times the regular hourly wage scale unless such Saturday work falls under the category of Saturday Make-Up Day. Any work performed by Employees anywhere on Sunday or recognized holidays, shall be paid for at the rate of double (2) time the regular wage scale. If, during the course of a work week, an Employee is unable to work for any reason, and, as a result, that Employee has not accumulated forty (40) hours of compensable time at the straight time rate, the Employer, at his option may offer the Employee on Saturday, the Employee's compensable time at the straight time rate exceeds forty (40) hours, all time worked in excess of the forty (40) hours will be paid at the rate of one and one-half (1½) times the regular hourly wage scale.
- NO. 22: Means a regular work week of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A workday is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time may be advanced or delayed if mutually agreed to by the interest parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.
- NO. 26: Means that the regular working day shall consist of eight (8) hours worked between 6:00 a.m., and 5:00 p.m., five (5) days per week, Monday to Friday, inclusive. Hours of work at each jobsite shall be those established by the general contractor and worked by the majority of trades. (The above working hours may be changed by mutual agreement). Work performed on Construction Work on Saturdays, Sundays and before and after the regular working day on Monday to Friday, inclusive, shall be classified as overtime, and paid for at double (2) the rate of single time. The employer may establish hours worked on a jobsite for a four (4) ten (10) hour day work week at straight time pay for construction work; the regular working day shall consist of ten (10) hours worked consecutively, between 6:00 a.m. and 6:00 p.m., four (4) days per week, Monday to Thursday, inclusive. Any work performed on Friday, Saturday, Sunday and holidays, and before and after the regular working day on Monday to Thursday where a four (4) ten (10) hour day workweek has been established, will be paid at two times (2) the single time rate of pay. The rate of pay for all work performed on holidays shall be at two times (2) the single time rate of pay.
- NO. 32: The regular working day shall consist of seven and one-half (7½) hours of labor on the job between eight (8) a.m. and four (4) p.m. and the regular working week shall consist of five (5) consecutive seven and one-half (7½) hour day's of labor on the job beginning with Monday and ending with Friday of each week. The normal work week is 37½ hours. All full-time or part-time labor performed during such hours shall be recognized as regular working hours and paid for at the regular hourly rate. All work performed during regular work hours on Saturdays shall be paid at time and one-half (1-1/2). All work performed outside of regular working hours and performed during the regular work week, shall be at double (2) times the regular rate, except that the first two (2) hours following the regular work day shall be paid at one and one-half (1½) times the regular rate. And, a flexible starting time as early as 7:00 a.m. may be implemented when mutually agreed upon by the interested parties. An early starting time of 6:00 a.m. may be used during summer months to avoid excessive afternoon temperatures. This early starting time to be used when mutually agreed upon by the interested parties. Shift work would start after 4:00 p.m. to 6:00 a.m. The first 7½ hours would be at 115% of the basic wage rate. Overtime Monday through Friday would be at 1½ of base shift rate. Saturday first 7½ hours of work 1½ of base shift rate. Saturday work after 7½ hours 2 times the basic wage rate. Sunday and Holidays 2 times the basic wage rate. All work performed on recognized holidays and Sundays shall be paid double (2) time. Appropriate overtime rates to be based on fifteen minute increments.

- NO. 33: Means the standard work day and week shall be eight (8) consecutive hours of work between the hours of 6:00 a.m. and 6:00 p.m., excluding the lunch period Monday through Friday, or shall conform to the practice on the job site. Four (4) days at ten (10) hours a day may be worked at straight time, Monday through Friday and need not be consecutive. All overtime, except for Sundays and holidays shall be at the rate of time and one-half (1½). Overtime worked on Sundays and holidays shall be at double (2) time.
- NO. 43: Eight (8) hours shall constitute a work day between the hours of 7:00 a.m. and 4:30 p.m. Forty (40) hours within five (5) days, Monday through Friday inclusive, shall constitute the work week. Work performed in the 9th and 10th hour, Monday through Friday, shall be paid at time and one-half (1½) the regular straight time rate of pay. Contractor has the option to pay two (2) hours per day at the time and one-half (1½) the regular straight time rate of pay between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. Work performed outside the regularly scheduled working hours and on Saturdays, Sundays and recognized legal holidays, or days celebrated as such, shall be paid for at the rate of double (2) time.
- NO. 44: Means forty (40) hours shall constitute a work week, Monday through Friday. Eight (8) hours shall constitute a work day. Hours of work shall be between the hours of 7:00 a.m. and 4:30 p.m. All work performed before 7:00 a.m. and after 4:30 p.m. and all work performed in excess of eight (8) hours in any one work day, over forty (40) hours in any work week and the first eight (8) hours of work on Saturday, shall be paid at the rate of one and one-half (1½) times the regular rate of pay. All hours worked in excess of eight (8) hours on Saturday, all hours worked on Sunday and on holidays, or days that may be celebrated as such, and as designated by the federal government, shall be paid at two (2) times the regular rate of pay. All shifts for work performed between the hours of 4:30 p.m. and 1:00 a.m. shall receive eight (8) hours pay at the regular hourly rate of pay plus two dollars (\$2.00) per clock hour. All work performed between the hours of 12:30 a.m. and 9:00 a.m. on a third shift shall receive eight (8) hours pay at the regular hourly rate plus four dollars (\$4.00) per clock hour. All overtime work required after the completion of a regular shift shall be paid at one and one-half times (1½ x) the "shift" hourly rate.
- NO. 49: Means eight (8) hours shall constitute a day's work to begin at 8:00 a.m. and end at 4:30 p.m. The starting time may be advanced one (1) hour or two (2) hours. Employees shall receive time and one-half (1½) for all time they are required to work before 8:00 a.m., during the lunch period or after 4:30 p.m. unless the starting time is advanced as provided above. Forty (40) hours shall constitute a week's work, Monday through Friday. If an Employer is prevented from working forty (40) hours, Monday through Friday, or any part thereof by reason of inclement weather (rain or mud). Saturday or any part thereof may be worked as a make-up day at the straight time rate. However, in the event that the laborer working such make-up day is assisting another craft drawing overtime pay, the laborer shall received the same overtime multiple as the craft assisted. The Employer shall have the option of working five (5) eight (8) hour days or four (4) ten (10) hour days Monday through Friday. If an Employer elects to work five (5) eight (8) hour days during any work week, hours worked more than eight (8) per day or forty (40) per week shall be paid at time and one-half (11/2) the hourly rate Monday through Friday. If an Employer elects to work four (4) ten (10) hour days in any week, work performed more than ten (10) hours per day or forty (40) hours per week shall be paid at time and one-half (11/2) the hourly rate Monday through Friday. If an Employer is working ten (10) hour days and loses a day due to inclement weather, he may work ten (10) hours Friday at straight time. However, in the event that the laborer working any such make-up day is assisting another craft drawing overtime pay, the laborer shall receive the same overtime multiple as the craft assisted. If workmen are required to work recognized holidays or days observed as such, or on Sunday, they shall receive double (2) the regular rate of pay for such work. Projects that cannot be performed during regular workday: If required by owner, the contractor may perform work outside the normal work hours and employees shall be paid applicable straight time hourly wage rate plus a premium of fifty cents (\$.50) per hour for the first eight (8) hours worked. Any hours worked in excess of eight (8) hours shall be paid at the applicable overtime rate plus the fifty cent (\$.50) per hour premium. Shift work: The Employer may elect to work one (1), two (2) or three (3) shifts on any work. When two (2) or more shifts are worked on any operation, the first shift or day shift will consists of eight (8) hours exclusive for lunch time; the second shift or swing shift shall consists of eight (8) hours work for eight and one-half (81/2) hours pay, exclusive of lunch time; the third or graveyard shift shall consist of eight (8) hours work for nine (9) hours pay exclusive of lunch time.
- NO. 55: Means the regular work day shall be eight (8) hours between 6:00 a.m. and 4:30 p.m. The first two (2) hours of work performed in excess of the eight (8) hour work day, Monday through Friday, and the first ten (10) hours of work on Saturday, shall be paid at one & one-half (1½) times the straight time rate. All work performed on Sunday, observed holidays and in excess of ten (10) hours a day, Monday through Saturday, shall be paid at double (2) the straight time rate.

NO. 62: Means eight (8) hours shall constitute a working day between 7:00 a.m. to 3:30 p.m. or from 8:00 a.m. to 4:30 p.m. exclusive of a one-half (½) hour lunch break. Monday through Friday shall constitute the regular work week. Starting and quitting time may be moved up or set back where conditions warrant; however, a notification for each project must be made prior to working 4-10's. All time over the regular work day as defined and all hours worked on Saturday shall be paid at the rate of one & one-half (1½) the regular rate of wages. If a job can't work forty (40) hours Monday through Friday because of inclement weather, Friday (if working 4-10's) or Saturday (if working 5-8's), may be worked as a make-up day at straight time. In the event that Friday (if working 4-10's) or Saturday (if working 5-8's) is utilized as a workday, any employee that has been absent from work during the week shall be paid the straight time rate until such time that the employee has earned forty (40) hours of straight time pay. If any employee is required to work recognized holidays or days observed as such, or on Sunday, they shall receive double (2) the regular rate of pay for such work.

NO. 67: Means eight (8) hours shall constitute a day's work, with a flexible starting time to begin between 6:00 a.m. to 8:00 a.m., five (5) days a week, Monday through Friday. Any work over eight (8) hours in any one day shall be at the overtime rate, which is time & one-half (1½). Any work on Saturday shall be at time & one-half (1½), unless a Make-Up Day due to inclement weather is in effect. Any work on Sundays or holidays shall be at double (2) time. Four (4) days, ten (10) hours each day to be worked during Monday through Friday, shall be paid at straight time. A Make-Up Day Due To Inclement Weather Only - Employee(s) will be permitted to work an eight (8) hour make-up day on Saturday only, and the employee will receive the regular straight time wage rate.

NO. 74: Means the regular workday shall consist of eight (8) consecutive hours, exclusive of a thirty (30) minute lunch period, with pay at the regular straight time hourly rate. The regular workday shall begin on the job site between the hours of 6:00 a.m. and 8:00 a.m. with the starting time to be determined by the Employer, unless project owner requires different starting time. This adjustable starting can, at the Employer's option, be staggered to permit starting portions of the work force at various times within the prescribed hours. The Employer may establish a four (4) ten (10) hour shift exclusive of the thirty (30) minute unpaid lunch period at the straight time wage rate. Forty (40) hours per week shall constitute a week's work Monday through Thursday. In the event a job is down due to weather conditions, safety or other condition beyond the control of the Employer, then Friday may, at the option of the Employer, be worked as a make-up day at the straight time wage rate. Straight time is not to exceed ten (10) hours a day or forty (40) hours per week. Starting time will be designated by the Employer. Fridays can be worked in lieu of holidays at the employee's option. If an employee is prevented from working forty (40) hours Monday through Friday, or any part thereof, by reason of inclement weather only, Saturday or any part thereof may be worked as a make-up day at the straight time hourly rate based on eight (8) hours work. All work performed in excess of forty (40) hours, or eight (8) hours in any one day will be paid at time and one-half (11/2). If an employee declines to work Saturday as a make-up day, he or she shall not be penalized. Sundays and recognized holidays may not be used as a make-up day. Time and one-half (11/2) shall be paid for all overtime hours during the week, Monday through Friday, and for all work performed on Saturday. Double (2) time shall be paid for all time worked on Sunday and recognized holidays.

NO. 75: Means the standard work day shall consist of eight (8) hours of work between the hours of 8:00 a.m. or C.S.T. or C.D.S.T. and 4:30 p.m., with a thirty (30) minute unpaid lunch period occurring in the middle of the shift. The standard workweek shall consist of five standard workdays commencing on Monday and ending on Friday, inclusive. The normal starting and guitting times may be changed by mutual consent of interested parties. All time worked before and after the established eight (8) hour work day, Monday through Friday, and all time worked on Saturdays, shall be paid for at the rate of one and one-half times the hourly base wage rate in effect. All time worked on Sundays and on recognized holidays shall be paid for at the rate of double the hourly base wage rate in effect. In a work day provided a job runs at least four (4) working days, a ten (10) hour per day, four (4) days per week work schedule may be utilized. Ten (10) hours work per day shall constitute a day's work, forty (40) hours a week, Monday through Thursday, exclusively, shall constitute a week's work. The normal starting time of said day shall be between 6:30 a.m. and 8:30 a.m. The normal quitting time shall be ten and one-half (10½) hours after the starting time. A thirty (30) minute unpaid lunch shall occur in the middle of the day. The normal starting and quitting times may be changed by mutual consent of the interested parties. Provided a job runs at least four (4) working days and in the event, the job is shut down for eight (8) hours or more in one (1) work day Monday through Thursday due to inclement weather at the job site, then, at the option of the employer, Friday of the same work week may be worked as a makeup day. The Friday makeup day will be considered identical in start and stop times as a ten (10) hour work day. (even if some overtime occurs or should ten (10) hours be lost to inclement weather), it would be worked as all other work days.

- NO. 77: Means the regular workday shall consist of eight (8) consecutive hours, exclusive of a thirty (30) minute lunch period, with pay at the regular straight time hourly rate. The regular workday shall begin on the job site between the hours of 6:00 a.m. and 8:00 a.m. with the starting time to be determined by the Employer, unless project owner requires different starting time. This adjustable starting time can, at the Employer's option, be staggered to permit starting portions of the work force at various times within the prescribed hours. The Employer may establish a four (4) ten (10) hour shift exclusive of the thirty (30) minute lunch period at the straight time wage rate. Forty (40) hours per week shall constitute a week's work Monday through Thursday. In the event a job is down due to weather conditions, safety or other conditions beyond the control of the Employer, then Friday may, at the option of the employer, be worked as a make-up day at the straight time wage rate. Straight time is not to exceed ten (10) hours a day or forty (40) hours per week. Time and one-half (1½) shall be paid for all overtime hours worked during the week, Monday through Friday and for all work performed on Saturday. Double (2) time shall be paid for all time worked on Sunday and recognized holidays.
- NO. 80: Means eight (8) hours shall constitute the regular work day and forty (40) hours a work week, Monday through Friday. The Employer shall establish the starting time between 6:30 a.m. through 9:00 a.m. An Employer may further adjust the starting time up to 9:30 a.m. throughout the year. Time and one-half (1½) shall be paid after eight (8) consecutive hours worked after the established starting time and for hours worked before the established starting time. Time and one-half (1½) shall be paid for work performed on Saturdays. Work performed on Sundays and Holidays shall be paid at the double (2) time rate of pay. The Employer when working on Highway and Road Work may have the option to schedule the work week for his paving crew only from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate of time and one-half (1½). If the Employer elects to work from Monday through Thursday and is stopped due to inclement weather (rain, snow, sleet falling), the Employer shall have the option to work Friday at the straight time rate of pay to complete the forty (40) hours.
- NO. 82: Means the work day shall consist of eight (8) hours worked between 7:00 a.m. and 4:30 p.m. Forty (40) hours will constitute the work week from Monday through Friday, inclusive. Up to four (4) hours of overtime work per day performed before or after the assigned normal work day, (twelve (12) continuous hours, starting no earlier than 6:00 a.m., Monday through Friday), shall be paid at a rate of one and one-half times (1.5x) that employee's hourly rate. Any additional overtime, Monday through Friday, shall be paid at two times (2x) the regular rate of pay. The first eight hours of overtime work on Saturday shall be paid at the rate of one and one-half times (1.5x) the regular rate of pay. Hours worked in excess of eight (8) hours on Saturday shall be paid at two times (2x) the regular rate of pay. Double time shall be paid for work performed on Sundays, recognized legal holidays or days that may be celebrated as such as designated by the federal government. All shifts for work performed between the hours of 4:30 p.m. and 1:00 a.m. shall be paid at the regular hourly rate plus two dollars (\$2.00) per clock hour. All shifts for work performed between the hours of 12:30 a.m. and 9:00 a.m. shall be paid at the regular hour rate plus four dollars (\$4.00) per clock hour. All overtime work required after the completion of a regular shift shall be paid at one and one-half times (1.5x) the "shift" hourly rate.
- NO. 86: Means the regular work week shall consist of five (5) days, Monday through Friday, beginning at 8:00 a.m. and ending at 4:30 p.m. The regular work day beginning time may be advanced one or two hours or delayed by one hour. However, the Employer may have the option to schedule his work week from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to circumstances beyond his control, inclement weather or holiday, he shall have the option to work Friday at the straight time rate of pay to complete his forty (40) hours. If an employee declines to work Friday as a make-up day, he shall not be penalized. All overtime work performed on Monday through Saturday shall be paid at time and one-half (1½) of the hourly rate plus an amount equal to one-half (½) of the hourly Total Indicated Fringe Benefits. All work performed on Sundays and recognized holidays shall be paid at double (2) the hourly rate plus an amount equal to the hourly Total Indicated Fringe Benefits.
- NO. 87: Means eight (8) hours starting between 6:00 a.m. and 8:00 a.m. and ending between 2:30 p.m. and 4:30 p.m. at the Employers discretion shall constitute a day's work. Any work prior to 6:00 a.m. or after eight (8) hours shall be paid at the overtime rate. Five (5) days from Monday through Friday inclusive shall constitute a regular work week. All hours before and after these regular hours shall be considered overtime and shall be paid for at the rate of double (2) time. All work on Saturday and Sunday shall be paid at double (2) the prevailing scale of wages.

NO. 91: Means eight (8) hours shall constitute a day's work commencing at 7:00 a.m. and ending at 3:30 p.m., allowing one-half (1/2) hour for lunch. The option exists for the Employer to use a flexible starting time between the hours of 6:00 a.m. and 9:00 a.m. The regular workweek shall consist of forty (40) hours of five (5) workdays, Monday through Friday. The workweek may consist of four (4) ten (10) hour days from Monday through Thursday, with Friday as a make-up day. If the make-up day is a holiday, the employee shall be paid at the double (2) time rate. The employees shall be paid time and one-half (11/2) for work performed on Saturdays, before the regular starting time or after the regular quitting time or over eight (8) hours per work day (unless working a 10-hour work day, then time and one-half (1½) is paid for work performed over ten (10) hours a day) or over forty (40) hours per work week. Work performed on Sundays and recognized holidays shall be paid at the double (2) time rate of pay. SHIFT WORK: When it is necessary for the project to operate in shifts, there will be three (3) eight (8) hour shifts commencing at 8:00 a.m. Shift work must continue for a period of not less than three (3) consecutive work days, two (2) days which must be regular work days (Monday through Friday). In the event the second or third shift of any regular work day shall fall into a Saturday or a holiday, such extension into a Saturday or holiday shall be considered as part of the previous workday and employees shall be paid at the regular shift rate. The first day shift shall work a regular eight (8) hour day at regular rates. The second shift shall be eight (8) hours regular time pay plus \$2.50 per hour premium for eight (8) hours work. Third shift will be for eight (8) hours regular time pay plus \$3.00 per hour premium for eight (8) hours work.

NO. 92: Means all work performed from 8:00 a.m. to 4:30 p.m., Monday through Friday, will be at straight time pay up to forty (40) hours per week. All work performed Monday through Friday before 8:00 a.m. and after 4:30 p.m. will be done at time and one-half (1½). All work done on Saturday will be done at time and one-half (1½), unless the employer and employee agree that Saturday shall be used as a make-up day. The Employer may use a flexible starting time of 7:00 a.m. to 8:00 a.m., and quitting time of 3:30 p.m. to 4:30 p.m., and any such different work starting time shall determine whether wages are payable at the straight rate or the premium rate. All work performed on Saturday shall be paid for at time and one-half (1½), unless the Saturday has been used as a make-up day. All work performed on Sunday and holidays shall be paid for at the rate of double (2) time.

NO. 103: Means a regular workweek of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A Workday is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time may be advanced or delayed if mutually agreed to by the interested parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.

NO. 104: Means eight (8) hours per day shall constitute a standard work day between the hours of 6:00 a.m. and 8:00 p.m. The standard work week shall be forty (40) hours between 6:00 a.m. on Monday and ending 8:00 p.m. on Friday. An overtime rate of time and one-half (1½) the base hourly rate shall be paid on all hours in excess of eight (8) hours in a day Monday through Friday. Saturdays shall be considered overtime and work done on Saturday shall be paid at time and one-half (1½) the prevailing scale. Sundays and holidays shall be considered overtime and work done on these days shall be paid at double (2) the prevailing scale.

NO. 106: Means the normal work week shall consist of five (5) eight (8) hour days for a total of forty (40) hours, starting on Monday at 8:00 a.m. and ending on Friday at 4:30 p.m. The starting time can be flexible between 6:00 a.m. and 8:00 a.m., and ending at 2:30 p.m. or 4:30 p.m. respectively. All work before the designated starting time and after the quitting time shall be paid for at the rate of time and one-half (1½). An overtime rate of time and one-half (1½) the base hourly rate shall be paid on all hours in excess of eight (8) hours in a day Monday through Friday. Any work started after 12:00 midnight Sunday, will be classified as time and one-half (1½) up to the legal starting time on Monday. Saturdays, Sundays and Holidays shall be paid for in the rate of double (2) time the prevailing scale.

NO. 126: Means eight (8) hours per day shall constitute a day's work and forty (40) hours per week, Monday through Friday, shall constitute a week's work. The regular starting time shall be 8:00 a.m. If a second or third shift is used, the regular starting time of the second shift shall be 4:30 p.m. and the regular starting period for the third shift shall be 12:30 a.m. These times may be adjusted by the employer. The day shift shall work a regular eight (8) hours shift as outlined above. Employees working a second shift shall receive an additional \$0.25 above the regular hourly rate and perform seven and one-half (7½) hours work for eight (8) hours pay. Third shift employees shall be paid an additional \$0.50 above the regular hourly rate and work seven (7) hours for eight (8) hours pay. When circumstances warrant, the Employer may change the regular workweek to four (4) ten-hour days at the regular time rate of pay. All time worked before and after the established workday of eight (8) hours, Monday through Friday, and all time worked on Saturday shall be paid at the rate of time and one-half (1½) except in cases where work is part of an employee's regular Friday shift. All time worked on Sunday and recognized holidays shall be paid at the double (2) time rate of pay except in cases where work is part of an employee's previous day's shift. For all overtime hours worked \$25.77 of the fringe benefits portion of the prevailing wage shall be paid at the same overtime rate at which the cash portion of the prevailing wage is to be paid. The remaining \$1.24 of the fringe benefit portion of the prevailing wage may be paid at straight time.

#### ST. FRANCOIS COUNTY HOLIDAY SCHEDULE – BUILDING CONSTRUCTION

- **NO. 3**: All work done on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day (November 11), Thanksgiving Day, and Christmas Day shall be compensated at the double (2) time rate of pay. When any of these holidays fall on a Sunday, the following Monday shall be observed. No work shall be performed on the days set forth except in cases of emergencies to protect life or property.
- **NO. 6:** The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day and any additional holidays which may be mutually agreed upon. Whenever any such holiday falls on a Sunday, the following Monday shall be recognized and observed as the holiday. Work performed on Sundays and holidays shall be paid at the double time rate of pay. No work shall be performed on Labor Day.
- NO. 7: The following days are assigned days and are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. If a holiday falls on a Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This is applied to protect Labor Day. When a holiday falls during the normal workweek, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week. However, no reimbursement for these eight (8) hours is to be paid to the workman unless worked. If workman are required to work the above enumerated holidays or days observed as such, or on Sunday, they shall receive double (2) the regular rate of pay for such work.
- **NO. 8:** All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day, or the days observed in lieu of these holidays, shall be paid at the double time rate of pay.
- **NO. 12:** All work done on New Year's Day, Decoration Day, Independence Day, Veteran's Day, Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. Should any of these days fall on Sunday, then the following day shall be observed as the holiday. Under no circumstances shall employees be permitted to work on Labor Day.
- NO. 19: All work done on New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day shall be paid at the double time rate of pay. The employee may take off Friday following Thanksgiving Day. However, the employee shall notify his or her Foreman, General Foreman or Superintendent on the Wednesday preceding Thanksgiving Day. When one of the above holidays falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double (2) time rate. When one of the holidays falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double (2) time rate.
- **NO. 25:** All work done on New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving, Christmas Day, Presidential Election Day, or days locally observed as such, and Saturday and Sunday shall be recognized as holidays and shall be paid at the double (2) time rate of pay. If a named holiday falls on a Saturday, the holiday will be observed on the preceding Friday. When a named holiday falls on Sunday, the Monday after will be observed as the holiday. Appropriate overtime rates to be based on fifteen minute increments.
- **NO. 26:** All work done on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. When a Holiday occurs on Saturday it shall not be observed on either the previous Friday or the following Monday. Such days shall be regular work days. If such a holiday occurs on Sunday it shall be observed on the following Monday.
- **NO. 31:** All work done on New Year's Day, Presidents Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, and Employee's Birthday shall be paid at the double time rate of pay. If a holiday falls on Sunday, the following Monday will be observed as the recognized holiday. If a holiday falls on Saturday, the preceding Friday will be observed as the recognized holiday.
- **NO. 40:** The employer agrees to recognize the following holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day. If the holiday falls on a Sunday, and is worked, the following work day will be double time wages for the holiday.

### ST. FRANCOIS COUNTY HOLIDAY SCHEDULE - BUILDING CONSTRUCTION

- NO. 41: The following days shall be observed as legal holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. No work shall be performed on the Fourth of July, Labor Day or Christmas Day. Any work performed on the above holidays shall be paid for at two (2) times the regular straight time rate of pay. When any of the above holidays fall on Sunday, the following Monday shall be observed as such holiday. If a holiday falls on Saturday, it shall not be considered to be observed on the previous Friday or following Monday. Such days shall be regular workdays.
- NO. 43: All of the following days or assigned days are recognized as holidays: New Years Day, Memorial Day, Independence Day, Labor Day, Veteran's Day (November 11th), Thanksgiving Day, and Christmas Day. If a holiday falls on Sunday, it shall be observed on the following Monday. If a holiday falls on Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week. However, no reimbursement for these eight (8) hours is to be paid the employee unless worked. If the employee is required to work the above enumerated holidays or days observed as such, or on Sunday, they shall receive double (2) the regular rate of pay for such work.
- **NO. 45:** All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving, the day before Christmas, and Christmas Day, shall be paid at the double time rate of pay.
- NO. 47: The following holidays are recognized: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving and Christmas Day. When a holiday listed above falls on Saturday, it shall be celebrated on the Friday preceding the holiday. When a holiday falls on Sunday, the following Monday shall be observed. Holidays referred to above shall be paid for at the double (2) time rate of pay when worked.
- **NO. 54:** All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day shall be paid at the double (2) time rate of pay. When a holiday falls on Saturday, it shall be observed on Friday. When a holiday falls on Sunday, it shall be observed on Monday.
- NO. 55: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make up day when an observed holiday occurs during the work week. Employees have the option to work that make up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.
- NO. 60: All work performed on New Year's Day, Armistice Day (Veteran's Day), Decoration Day (Memorial Day), Independence Day (Fourth of July), Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. No work shall be performed on Labor Day except when triple (3) time is paid. When a holiday falls on Saturday, Friday will be observed as the holiday. When a holiday falls on Sunday, the following Monday shall be observed as the holiday.
- NO. 62: All work performed on holidays shall be considered overtime and work performed on these days shall be paid at double (2) time rate of pay. The holidays of understanding are: New Years' Day, Decoration Day, Independence Day, Veteran's Day, Thanksgiving Day and Christmas Day. Should any of these holidays fall on Saturday the Friday before shall be observed as the holiday. Should any of these days fall on Sunday, then the following Monday shall be observed as the holiday. Under no circumstance shall employees be permitted to work on Labor Day (the first Monday in September).

#### ST. FRANCOIS COUNTY HOLIDAY SCHEDULE – BUILDING CONSTRUCTION

- **NO. 66:** All work performed on Sundays and the following recognized holidays, or the days observed as such, of New Year's Day, Decoration Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day, shall be paid at double (2) the hourly rate plus an amount equal to the hourly Total Indicated Fringe Benefits. Whenever any such holidays fall on a Sunday, the following Monday shall be observed as a holiday.
- NO. 69: All work performed on New Year's Day, Memorial Day, July Fourth, Labor Day, Veteran's Day, Thanksgiving Day or Christmas Day shall be compensated at double (2) their straight-time hourly rate of pay. Friday after Thanksgiving and the day before Christmas are also holidays, however, if the employer chooses to work the normal work hours on these days, the employee will be paid at straight -time rate of pay. If a holiday falls on a Saturday, the holiday will be observed on the following Monday.
- NO. 71: All work performed on the following recognized holidays, or days that may be celebrated as such, shall be paid at the double (2) time rate of pay: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving and Christmas Day. If a holiday falls on Sunday, it shall be celebrated on Monday. If a holiday falls on Saturday, it shall be celebrated on the Friday proceeding such Saturday.
- NO. 73: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day (or mutually agreed date of the Friday after Thanksgiving Day may be substituted for Veteran's Day), Thanksgiving Day and Christmas Day, or in the event that any of said Holidays falls on Sunday, then the day or days generally recognized as such. Any work performed anywhere on any of the aforesaid Holidays, or on the day or days recognized and observed as such, shall be paid for at double (2) time the regular hourly rate.
- NO. 77: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make up day when an observed holiday occurs during the work week. Employees have the option to work that make up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

Heavy Construction Rates for ST. FRANCOIS County

		I Basic	Over-		
OCCUPATIONAL TITLE	* Date of	Hourly	Time	Holiday	Total Fringe Benefits
OCCUPATIONAL TITLE	Increase	Rates	1	Schedule	Total I finge Deficits
	Increase			16	01.4 CE
Carpenter		\$30.19	23		\$14.65
Cement Mason		\$27.04	6	6	\$15.28
Electrician (Outside-Line Construction\Lineman)		\$39.69	9	12	\$5.00 + 37.5%
Lineman Operator		\$34.26	9	12	\$5.00 + 37.5%
Lineman - Tree Trimmer		\$24.25	32	31	\$5.00 + 23%
Groundman		\$26.49	9	12	\$5.00 + 37.5%
Groundman - Tree Trimmer		\$19.22	32	31	\$5.00 + 23%
Laborer					
General Laborer		\$26.51	2	4	\$12.07
Skilled Laborer		\$27.11	2	4	\$12.07
Millwright		\$30.19	23	16	\$14.65
Operating Engineer					
Group I		\$26.09	21	5	\$23.32
Group II		\$25.74	21	5	\$23.32
Group III		\$25.54	21	5	\$23.32
Group IV		\$21.89	21	5	\$23.32
Oiler-Driver		\$21.89	21	5	\$23.32
Pile Driver		\$30.19	23	16	\$14.65
Traffic Control Service Driver		\$26.415	28	27	\$9.045
Truck Driver-Teamster					
Group I		\$27.52	22	19	\$10.90
Group II		\$27.68	22	19	\$10.90
Group III		\$27.67	22	19	\$10.90
Group IV		\$27.79	22	19	\$10.90

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate sheet.

# ST. FRANCOIS COUNTY OVERTIME SCHEDULE - HEAVY CONSTRUCTION

FED: Minimum requirement per Fair Labor Standards Act means time and one-half (1 ½) shall be paid for all work in excess of forty (40) hours per work week.

- NO. 2: Means a regular workweek shall be forty (40) hours and will start on Monday and end on Friday. The Employer shall have the option of working five 8-hour days or four 10-hour days Monday through Friday. If an Employer elects to work five 8-hour days during any workweek, hours worked more than eight (8) per day or 40 per week shall be paid at time and one-half the hourly rate Monday through Friday. If an Employer elects to work four 10-hour days in a week, work performed more than ten (10) hours per day or 40 hours per week shall be paid at time and one-half the hourly rate Monday through Friday. When working a five 8-hour day schedule and an Employer is prevented from working forty (40) hours Monday through Friday, or any part thereof, by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. If an Employer is working a four 10-hour day schedule and loses a day due to inclement weather, he may work 10 hours Friday at straight time. All hours worked over the 40 hours Monday through Friday will be paid at 1 ½ overtime rate. A workday shift is to begin at the option of the Employer, between 6:00 a.m. and not later than 9:00 a.m. However, the project starting time may be advanced or delayed if required. If workmen are required to work the enumerated holidays or days observed as such or Sundays, they shall receive double (2) the regular rate of pay for such work. Overtime shall be computed at one-half (1/2) hour intervals. Shift: The Contractor may elect to work one, two or three shifts on any work. When operating on more than one shift, the shifts shall be known as the day shift, swing shift, and graveyard shift as such terms are recognized in the industry. When two shifts are worked on any operation, the shifts will consist of eight (8) or ten (10) hours exclusive of lunchtime. When three shifts are worked the first day or day shift will consist of eight (8) hours exclusive of lunchtime. The second or swing shift shall consist of seven and one-half (7 1/2) hours work for eight hours pay, exclusive of lunchtime, and the third or the graveyard shift shall consist of seven (7) hours work for eight (8) hours pay, exclusive of the lunchtime. All time in excess of normal shifts shall be considered overtime. Multiple shift (the two or three shift) operation will not be construed on the entire project if at anytime it is deemed advisable and necessary for the Employer to multiple shift a specific operation. However, no shift shall be started between midnight and six a.m. except the graveyard shift on a three-shift operation, or except in an unusual or emergency situation. If an Employer starts a shift between midnight and 6 a.m. except the graveyard shift on a three-shift operation, he shall reimburse all employees for the entire shift at the double time rate. Completion of the second shift on a two-shift operation or completion of the graveyard shift on a three-shift operation that carries over into Saturday morning, shall be at the straight time rate. Overtime shall be computed at ½ hour intervals.
- NO. 6: Means eight (8) hours shall constitute the regular work day and forty (40) hours a work week, Monday through Friday. The Employer shall establish the starting time between 7:00 a.m. and 9:00 a.m. Time and one-half (1½) shall be paid for work performed on a regular work day before the regular starting time and after the regular quitting time. Double (2) time shall be paid for work performed on Sunday and holidays. At the discretion of the Employer, Saturday can be used for a make-up day. The Employer when working on highway and road work may have the option to schedule the work week for his paving crew only from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to inclement weather (rain, snow, sleet falling) he shall have the option to work Friday at the straight time rate of pay to complete his or her forty (40) hours.
- NO. 9: Eight (8) hours shall constitute a work day between the hours of 7:00 a.m. and 4:30 p.m. Forty (40) hours within five (5) days, Monday through Friday inclusive, shall constitute the work week. Work performed in the 9th and 10th hour, Monday through Friday, shall be paid at time and one-half (1½) the regular straight time rate of pay. Contractor has the option to pay two (2) hours per day at the time and one-half (1½) the regular straight time rate of pay between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. Worked performed in the first eight (8) hours on Saturday shall be paid at the rate of one and eight tenths (1.8) the regular straight time rate. Work performed outside these hours and on Sundays and recognized legal holidays, or days celebrated as such, shall be paid for at the rate of double (2) time.

# ST. FRANCOIS COUNTY OVERTIME SCHEDULE - HEAVY CONSTRUCTION

- NO. 21: Means the regular workday for which employees shall be compensated at straight time hourly rate of pay shall, unless otherwise provided for, begin at 8:00 a.m. and end at 4:30 p.m. However, the project starting time may be advanced or delayed at the discretion of the Employer. At the discretion of the Employer, when working a five (5) day eight (8) hour schedule, Saturday may be used for a make-up day. If an Employer is prohibited from working on a holiday, that employer may work the following Saturday at the straight time rate. However, the Employer may have the option to schedule his work from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be paid at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to circumstances beyond his control, he shall have the option to work Friday or Saturday at the straight time rate of pay to complete his forty (40) hours. If an Employer is prohibited from working on a holiday, that Employer may work the following Friday or Saturday at the straight time rate. Overtime will be at one and one-half (1½) times the regular rate. If workmen are required to work the enumerated holidays or days observed as such, or Sundays, they shall receive double (2) the regular rate of pay for such work.
- NO. 22: Means a regular work week of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A workday is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time may be advanced or delayed if mutually agreed to by the interested parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.
- NO. 23: Means the regular workweek shall start on Monday and end on Friday, except where the Employer elects to work Monday through Thursday, (10) hours per day. All work over ten (10) hours in a day or forty (40) hours in a week shall be at the overtime rate of one and one-half (1½) times the regular hourly rate. The regular workday shall be either eight (8) or ten (10) hours. If a job can't work forty (40) hours Monday through Friday because of inclement weather or other conditions beyond the control of the Employer, Friday or Saturday may be worked as a make-up day at straight time (if working 5-8's). An Employer, who is working a four (4) ten (10) hour day work schedule may use Friday as a make-up day when a workday is lost due to a holiday. A workday is to begin at the option of the Employer but not later than 11:00 a.m. except when inclement weather, requirements of the owner or other conditions beyond the reasonable control of the Employer prevent work. Except as worked as a make-up day, time on Saturday shall be worked at one and one-half (1½) times the regular rate. Work performed on Sunday shall be paid at two (2) times the regular rate. Work performed on recognized holidays or days observed as such, shall also be paid at the double (2) time rate of pay.
- NO. 28: Means a regular work week of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A workday is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time may be advanced or delayed if mutually agreed to by the interest parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.
- **No. 32:** Means the overtime rate shall be time and one-half the regular rate for work over forty (40) hours per week. Sundays and Holidays shall be paid at double the straight time rate.

# ST. FRANCOIS COUNTY HOLIDAY SCHEDULE – HEAVY CONSTRUCTION

- **NO. 4:** All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, or observed as such, shall be paid at the double time rate of pay. When a Holiday falls on a Sunday, Monday shall be observed. No work shall be performed on Labor Day, except in case of jeopardy to life or property. This is applied to protect Labor Day.
- NO. 5: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. If a holiday falls on a Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward a forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workman unless worked. If workmen are required to work the above recognized holidays or days observed as such, or Sundays, they shall receive double (2) the regular rate of pay for such work. The above shall apply to the four 10's Monday through Friday work week. The ten (10) hours shall be applied to the forty (40) hour work week.
- **NO. 6:** All work done on New Year's Day, Decoration Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving and Christmas shall be compensated at the double (2) time rate of pay. When a holiday occurs on Saturday, it shall not be observed on either the previous Friday or the following Monday. Such days shall be a regular workday. If such a holiday occurs on Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day.
- **NO. 12:** All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day, or days celebrated as such, shall be paid at the double time rate of pay. When one of the foregoing holidays falls on Sunday, it shall be celebrated on the following Monday. When one of the foregoing holidays falls on Saturday, it shall be celebrated on the Friday before the holiday.
- NO. 16: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on Sunday, it shall be observed on the following Monday. If a holiday falls on Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid to the worker unless worked. If workers are required to work the above recognized holidays or days observed as such, they shall receive double (2) the regular rate of pay for such work.
- NO. 19: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make up day when an observed holiday occurs during the work week. Employees have the option to work that make up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.
- NO. 27: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make up day when an observed holiday occurs during the work week. Employees have the option to work that make up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

# ST. FRANCOIS COUNTY HOLIDAY SCHEDULE – HEAVY CONSTRUCTION

NO. 31: All work performed on New Year's Day, Presidents' Day, Veterans' Day, Good Friday, Decoration Day, Fourth of July, Labor Day, Christmas Eve Day, Christmas Day, Thanksgiving Day and Day after Thanksgiving or days celebrated for the same.



# PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we
(Contractor)
as principal, and (Bonding Co.)
(Bonding Co.)
as surety, are held and firmly bound unto the City_of_Farmington, St. Francois County, Missouri
, in the penal sum of
DOLLARS (\$)
lawful money of the United States, to be paid to the said Owner or to its certain agents, attorneys, assigns, for which sums of money, will and truly to be paid, we bind ourselves, or heirs, successors, assigns executors, and administrators, jointly and severally, firm by these presents.
SEALED with our seals and dated
The condition of this obligation is such that
WHEREAS, the said bounded principal has entered into certain contract with the
City of Farmington, St. Francois County, Missouri, acting by and (Owner)
through the, said contract being (Agency)
marked: "Giessing Lake Dock and Sidewalk Project", a copy of said contract being hereto attached and made a part hereof and bearing date of

NOW, THEREFORE, if the said principal shall comply with and fulfill all the conditions of said contract, including those under which principal agrees to pay the prevailing hourly rate of wages for each craft or type of workman required to execute the contract in the locality as determined by State and Federal authority, as applicable, or by final judicial determination, and properly and promptly completed work in accordance with the provisions of said contract and specifications without any hidden defects, and furnish all the labor and materials required by said contract, and any and all changes in, or additions in said contract, which may hereafter be

made, and shall perform all the undertakings stipulated by said bounden principal to be performed and within the time mentioned in said contract, or within any additional time granted by the owner, or its engineer, under the authority from said owner, which may be granted without notice to or consent from the surety, and shall pay for all materials, lubricants, fuel, coal and coke, repairs on machinery, groceries and foodstuff, equipment and tools consumed or used in connection with the construction of such work, and all insurance premiums, both compensation, and all other kinds of insurance, on said work, and for all labor performed in such work, whether by subcontractor or claimant in person or by his employees, agent, servant, bailee, or bailor, then this is to be voided; otherwise it shall be and remain in full force and effect.

ATTEST: (SEAL)	
Secretary	Principal
	By: Signature
	By: Title
	Surety
ATTEST (SEAL)	By: Signature
	Ву:
	Address – Missouri Agent
	City

Name and address of agent to whom all corresponding contract and bond.	condences should be directed relating to the
	Name (Print or type)
	Street
	City, State, Zip Code



# LABOR & MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS	: That we
	(Contractor)
as p	orincipal, and (Bonding Co.)
	(Dollaing Gol)
as surety, are held and firmly bound unto the	City of Farmington, St. François County
	, in the penal sum of
Wildocati	DOLLARS (\$
) lawful money of the United States, to be	· ·
•	
attorneys, assigns, for which sums of money, w	·
heirs, successors, assigns executors, and admi	nistrators, jointly and severally, firm by these
presents.	
SEALED with our seals and dated	·
The condition of this obligation is such tha	ıt
WHEREAS, the said bounded principal ha	as entered into certain contract with the
City of Farmington, St. Francois County, N	<u>/lissouri</u> , acting by and
(Owner)	
through the	, said contract being
(Agency)	
marked:	
"Giossing Lake Dook and Sidowalk Project"	
"Giessing Lake Dock and Sidewalk Project ",	
a copy of said contract being hereto attached and	I made a part hereof and bearing date of
	·

NOW, THEREFORE, if the said principal shall comply with and fulfill all the conditions of said contract, including those under which principal agrees to pay the prevailing hourly rate of wages for each craft or type of workman required to execute the contract in the locality as determined by State and Federal authority, as applicable, or by final judicial determination, and properly and promptly completed work in accordance with the provisions of said contract and

specifications without any hidden defects, and furnish all the labor and materials required by said contract, and any and all changes in, or additions in said contract, which may hereafter be made, and shall perform all the undertakings stipulated by said bounden principal to be performed and within the time mentioned in said contract, or within any additional time granted by the owner, or its engineer, under the authority from said owner, which may be granted without notice to or consent from the surety, and shall pay for all materials, lubricants, fuel, coal and coke, repairs on machinery, groceries and foodstuff, equipment and tools consumed or used in connection with the construction of such work, and all insurance premiums, both compensation, and all other kinds of insurance, on said work, and for all labor performed in such work, whether by subcontractor or claimant in person or by his employees, agent, servant, bailee, or bailor, then this is to be voided; otherwise it shall be and remain in full force and effect.

ATTEST: (SEAL)	
Secretary	Principal
	By: Signature
	By: Title
	Surety
ATTEST (SEAL)	By: Signature
	Ву:
	<del></del>
	Address – Missouri Agent
	City

Name and address of agent to whom all correscontract and bond.	spondences should be directed relating to the
	Name (Print or type)
	Street
	City, State, Zip Code



# **NOTICE OF AWARD**

			, 201
TO: _			
AT: _			
RE: G	iessing Lake Dock and Sidewalk	Project	
refere	are notified that your Bid dated enced Contract has been evaluated ng Bidder, and has been awarded the	l. Your organization has b	
The C	Contract Price of your Contract is		
		(\$	).
days	organization shall comply with the after receipt of the Notice of Award (15) calendar days, you shall:		
1:	Sign and return to the Engineer that as per the Project Manual.	ne executed Notice of Awar	d and required documents
Issue	d By The Owner:	Received On	, 20
Ву:		By:	
	(Authorized Signature)	(Tr	ne Contractor)
	(Title	(Au	uthorized Signature)

Return to:

Bud Norman, Director of Facility Maintenance Farmington City Hall 110 West Columbia, Farmington, Missouri 63640



# **NOTICE TO PROCEED**

	, 2015
TO:	-
AT:	-
RE: Giessing Lake Dock and Sidewalk Project	
You are notified that the Contract Time for Work under the above on, 2015. On that date, your organization furnishing of the Work.	
In accordance with the Agreement, you will fully complete the project	ect by, 2015.
By:	
(Authorized Signature)	(Title)



# **LIEN WAIVER**

DATE	
ТО	
Re:	Giessing Lake Dock and Sidewalk Project
Dear \$	Sir:
perfor under	fy that I have paid in full for all materials purchased and all labor employed in the mance of this contract, and that there are no claims against me as an employer this contract on account of injuries sustained by workmen employed by me under. I hereby release you from any claims arising by virtue of this contract.
purcha	attaching form "Release by Claimants", signed by all persons from whom I have ased materials and by all persons employed in connection with my contract with bove named owner.
Contra	actor

# **RELEASE BY CLAIMANTS**

	DATE
STATE OF	
COUNTY OF	
WHEREAS, we the und	ersigned
has (have) been employed by	
to furnish	for the
construction project known as	
	now ye, that I (we) the undersigned for and in ords)
	and other good and valuable considerations, the receipt
	ged do hereby waive and release any and all lien, and
•	construction project and premises under the statutes of
the State of	relating to Mechanic's Liens, on account of labor, or
	d by the undersigned to or on account of the said
	for said construction project and
premises.	
Given under our hands 20	and seals this day of,
Signature	
WITNESS:	
My Commission Expires:	



# STANDARD GENERAL CONDITIONS

# **TABLE OF CONTENTS**

	<u>PAGE</u>
ARTICLE 1 -	DEFINITIONS AND TERMINOLOGY
1.01	Defined Terms
1.02	Terminology
	PRELIMINARY MATTERS
2.01	Delivery of Bonds
2.02	Copies of Documents
2.03	Commencement of Contract Times: Notice to Proceed
2.04	Starting the Work
2.05	Before Starting Construction
2.06	Preconstruction Conference
2.07	Initial Acceptance of Schedules
	CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE
3.01	Intent
3.02	Reference Standards
3.03	Reporting and Resolving Discrepancies
3.04	Amending and Supplementing Contract Documents
3.05	Reuse of Documents
ARTICLE 4 -	AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS:
	REFERENCE POINTS
4.01	Availability of Lands
4.02	Differing Subsurface and Physical Conditions
4.03	Differing Subsurface or Physical Conditions
4.04	Underground Facilities
4.05	Reference Points
4.06	Hazardous Environmental Condition at Site
ARTICLE 5 -	BONDS AND INSURANCE
5.01	Performance, payment, and Other Bonds
5.02	Licensed Sureties and Insurers
5.03	Certificates of Insurance
5.04	CONTRACTOR's Liability Insurance
5.05	OWNER's Liability Insurance
5.06	Property Insurance
5.07	Waiver of Rights
5.08	Receipt and Application of Insurance Proceeds
5.09	Acceptance of Bonds and Insurance; Option to Replace
5.10	Partial Utilization, Acknowledgment of Property Insurer
	CONTRACTOR'S RESPONSIBILITIES
6.01	Supervision and Superintendence
6.02	Labor; Working Hours
6.03	Services, Materials, and Equipment
6.04	Progress Schedule

	6.05	Substitutes and "Or-Equals"	14
	6.06	Concerning Subcontractors, Suppliers and Others	
	6.07	Patent Fees and Royalties	
	6.08	•	
	6.09	Laws and Regulations	
	6.10	Taxes	
	6.11	Use of Site and Other Areas.	
	6.12	Record Documents	
	6.13	Safety and Protection	
	6.14	Safety Representative	18
	6.15	Hazard Communication Programs	18
	6.16	Emergencies	
	6.17	Shop Drawings and Samples	18
	6.18	Continuing the Work	19
	6.19	CONTRACTOR's General Warranty and Guarantee	. 19
	6.20	Indemnification	
		OTHER WORK	
,	7.01	Related Work at Site	
	7.02	Coordination	
∧DTICI		OWNER'S RESPONSIBILITIES	
AKTICL			
	8.01	Communications to Contractor	
	8.02	Replacement of ENGINEER	
	8.03	Furnish Data	
	8.04	Pay Promptly When Due	
	8.05	Lands and Easements; Reports and Tests	
	8.06	Insurance	21
	8.07	Change Orders	21
	8.08	Inspections, Tests, and Approvals	21
	8.09	Limitations on OWNER's Responsibilities	
	8.10	Undisclosed Hazardous Environmental Conditions	
	8.11	Evidence of Financial Arrangements	
	-	ENGINEER'S STATUS DURING CONSTRUCTION	
	9.01	OWNER'S Representative	
	9.02	Visits to Site	
	9.03	Project Representative	22
	9.04	Clarifications and Interpretations	
	9.05	Authorized Variations in Work	
	9.06	Rejecting Defective Work	
	9.07	Shop Drawings, Change Orders and Payments	
	9.08	Determinations for Unit Price Work	23
	9.09	Decisions on Requirements of Contract Documents and Acceptability of Work	. 23
	9.10	Limitations on ENGINEER's Authority and Responsibilities	
ARTICL		CHANGES IN THE WORK; CLAIMS	
,	10.01	Authorized Changes in the Work	
	10.02	Unauthorized Changes in the Work	24
	10.02	Execution of Change Orders	24
	10.04	Notification to Surety	24
۸ D.T.C:	10.05	Claims and Disputes	24
ARTICL		COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK	
	11.01	Cost of the Work	25
	11.02	Cash Allowances	26
	11.03	Unit Price Work	27
ARTICL	E 12 –	CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES	27
	12.01	Change of Contract Price	27
	12.02		28
	12.03	Delays Beyond CONTRACTOR's Control.	

12.04	Delays Within CONTRACTOR's Control	
12.05	Delays Beyond OWNER's and CONTRACTOR's Control	28
12.06	Delay Damages	28
ARTICLE 13 -	TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF	
	DEFECTIVE WORK	28
13.01	Notice of Defects	28
13.02	Access to Work	28
13.03	Tests and Inspections	29
13.04	Uncovering Work	29
13.05	OWNER May Stop the Work	
13.06	Correction or Removal of Defective Work	29
13.07	Correction Period	30
13.08	Acceptance of Defective Work	30
13.09	OWNER May Correct Defective Work	30
ARTICLE 14 -	PAYMENTS TO CONTRACTOR AND COMPLETION	31
14.01	Schedule of Values	31
14.02	Progress Payments	31
14.03	CONTRACTOR's Warranty of Title	32
14.04	Substantial Completion	32
14.05	Partial Utilization	33
14.06	Final Inspection	33
14.07	Final Payment	33
14.08	Final Completion Delayed	34
14.09	Waiver of Claims	34
ARTICLE 15 -	SUSPENSION OF WORK AND TERMINATION	34
15.01	OWNER May Suspend Work	34
15.02	OWNER May Terminate for Cause	34
15.03	OWNER May Terminate For Convenience	35
15.04	CONTRACTOR May Stop Work or Terminate	35
ARTICLE 16 -	DISPUTE RESOLUTION	
16.01	Methods and Procedures	36
ARTICLE 17 -	ARTICLE 17 – MISCELLANEOUS	
17.01	Giving Notice	36
17.02	Computation of Times	
17.03	Cumulative Remedies	
17.04	Survival of Obligations	36
17.05	Controlling Law	36

#### **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.
  - 4. Asbestos Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
  - 5. *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).
  - 7. Bidding Requirements The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.
  - 8. Bonds Performance and payment bonds and other instruments of security.
  - 9. Change Order A document recommended by ENGINEER which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
  - 10. 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.
  - 11. 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.
  - 12. Contract Documents The 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 Supplemental 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.
  - 13. 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).
  - 14. 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.

- 15. CONTRACTOR The individual or entity with whom OWNER has entered into the Agreement.
- 16. Cost of the Work See paragraph 11.01.A for definition.
- 17. Drawings That part of the Contract Documents prepared or approved by ENGINEER 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.
- 19. ENGINEER The individual or entity named as such in the Agreement.
- 20. *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.
- 22. *General Requirements* Sections of Division 1 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.
- 26. 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.
- 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.
- 30. *OWNER* The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.
- 31. 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 Work.
- 32. *PCBs* Polychlorinated biphenyls.
- 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.

- 36. 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.
- 42. 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, materialman, 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.
- 47. 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 and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the 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

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

#### C. Defective

1. The word "defective," when 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 has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.04 or 14.05).

## D. Furnish, Install, Perform, Provide

- 1. The word "furnish," 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.
- 2. 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.
- 3. 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.

#### ARTICLE 2 - PRELIMINARY MATTERS

# 2.01 Delivery of Bonds

A. 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, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless CONTRACTOR knew or reasonably should have known thereof.
- 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.
  - 2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; 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 accordance with paragraph 2.05.B. CONTRACTOR shall have an additional ten days 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.
  - 2. 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

#### 3.01 Intent

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 be 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 or authority to undertake responsibility inconsistent with the provisions of the Contract 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 know thereof.

# B. Resolving Discrepancies

- 1. 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
  - 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. Nothing herein shall preclude 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 with which CONTRACTOR must comply in 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
  - 2. 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
  - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
  - 3. 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;
  - 1. 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

- 2. is of such a nature as to require a change in the Contract Documents; or
- 3. differs materially from that shown or indicated in the Contract Documents; or
- 4. 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 Adjustments

- 1. 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
  - b. 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.
- 2. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or 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, attorneys and other professionals and all court or arbitration or other dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

# 4.04 Underground Facilities

- A. 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
  - 2. the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:
    - a. 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, or not shown or indicated with reasonable accuracy in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.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 for 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 of 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 Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

#### 4.05 Reference Points

A. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and 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.

#### 4.06 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 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
  - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
  - 3. 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 to CONTRACTOR written notice: (i) specify that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specify 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 harmless CONTRACTOR, Subcontractors, 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, provided that 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 obligate CONTRACTOR to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. 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's 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 Licensed Sureties and Insurers

A. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

# 5.03 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.

#### 5.04 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:
  - 1. 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;
  - 4. claims for damages insured by reasonably 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;
  - 5. 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.A.3 through 5.04.A.6 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;
  - 2. 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;
  - 4. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11 and 6.20:
  - 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 given to OWNER and 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 the CONTRACTOR pursuant to paragraph 5.03 will so provide);
- 6. 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).

#### 5.05 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 from operations under the Contract Documents.

#### 5.06 Property Insurance

- A. Unless otherwise provided in the Supplementary Conditions, OWNER shall 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;
  - 3. 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;
  - 5. allow for partial utilization of the Work by OWNER;
  - 6. 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.
- 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 interests of 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.

#### 5.07 Waiver of Rights

- A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will protect OWNER, CONTRACTER, 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) 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. 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 rights against Subcontractors, ENGINEER, ENGINEER's Consultants and any 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 of 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.

### 5.08 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 interests 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.

#### 5.09 Acceptance of Bonds and Insurance; Option to Replace

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. Acknowledgment 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 in 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 occupancy.

### 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 be solely 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, suitably qualified personnel to survey, lay out, and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times 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 regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER's written consent (which will not be unreasonably withheld) given after prior written notice to ENGINEER.

#### 6.03 Services, 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 as 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, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provide 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 additionally will comply with any
    provisions of the General Requirements applicable thereto.
  - 2. 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 equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for 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 to that 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.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.
- d. CONTRACTOR shall first make written application to 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 incorporation 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, and 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 items, 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 paragraphs 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 "or-equal" 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 whom 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 due 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 Written Amendment signed. No 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 and 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 or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other 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, Suppliers 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 or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. 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 contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, 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) 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 signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

# 6.07 Parent 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 rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, 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 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 CONTRACTOR of 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 an 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.

#### 6.11 Use of Site and Other Areas

#### A. Limitation on Use of Site and Other Areas

- 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
  unreasonably 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

A. CONTRACTOR shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good

order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

### 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:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. 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 loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any

property referred to in paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, 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).

### 6.14 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 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 as
  - catalog numbers and the use for which intended and otherwise as ENGINEER may require enabling 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 submittal will be at the sole expense and responsibility of CONTRACTOR.

#### D. Submittal Procedures

- 1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:
  - a. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
  - b. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work;

- c. 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.
- 2. 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, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

#### 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 relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of 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 writing 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
  - 2. 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's obligation to perform the Work in accordance with the Contract Documents:

- 1. observations by ENGINEER;
- 2. recommendation by ENGINEER or payment by OWNER of any progress or final payment;
- the issuance of a certificate of Substantial Completion by ENGINEER or any payment related thereto by OWNER;
- 4. use or occupancy of the Work or any part thereof by OWNER;
- 5. any acceptance by OWNER or any failure to do so;
- 6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER;
- 7. any inspection, test, or approval by others; or
- 8. any correction of defective Work by OWNER.

#### 6.20 Indemnification

- A. 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 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:
  - 1. 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.
- B. 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.
- C. 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:
  - 1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs or Specifications; or
  - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

#### ARTICLE 7 - OTHER WORK

# 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 Document, then:
  - 1. written notice thereof will be given to CONTRACTOR prior to starting any such other work; and

- 2. 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 10.05.
- B. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the 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 of 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's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure 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;
  - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
  - 3. 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 contiguous 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

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

# 8.08 Inspections, Tests, and Approvals

A. 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

A. 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 an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER, 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 reasonably inferable from 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 Rejecting 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.
- C. 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 by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.07) 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

- A. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by ENGINEER shall create, impose, or give rise to any duty 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 3.04, 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

- A. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:
  - 1. 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;
  - 2. 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 Contract Times 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 its 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 Milestones) 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. Costs Included: The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. 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 shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.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 costs 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 and 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 holidays shall be included in the above to the extent authorized by OWNER.

- 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.
- 3. Payments made by CONTRACTOR to Subcontractors for Work 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.
- 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
- 5. 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 from 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 by 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.D), provided such losses and damages have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee.
  - g. The cost of utilities, fuel, and sanitary facilities at the Site.
  - h. 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.
  - 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:
  - 1. 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 and contracting agents, expediters, timekeepers, clerks and other personnel employed by

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 agreed 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.

- 2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.
- 3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.
- 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 may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in 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 has 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:
  - 1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
  - 2. CONTRACTOR's costs for unloading and handling on the Site, labor, installation costs, overhead, profit, and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- 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. 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 item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.
- B. 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.
- C. OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with paragraph 10.05 if:
  - 1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
  - 2. there is no corresponding adjustment with respect any other item of Work; and

3. 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 by 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:
  - 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of 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 12.02.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 for overhead and profit shall be determined as follows:
  - 1. a mutually acceptable fixed fee; or
  - 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be fifteen percent;
    - b. 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.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of fifteen 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 11.01.A.4, 11.01.A.5, and 11.01.B;
    - e. 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
    - f. 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 12.01.C.2.a through 12.01.C.2.e, inclusive.

#### 12.02 Change of Contract Times

- A. The Contract Times (or Milestones) 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 Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in paragraph 12.02.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:
  - 1. delays caused by or within the control of CONTRACTOR; or
  - 2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.
- B. Nothing in 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's, 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 inspections, tests, or approvals required by the Contract Documents except:
  - 1. for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below:
  - 2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B; and

- 3. 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, test, 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's 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 has 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, 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 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 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 Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or 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 other).

# 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 may 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 limitations 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, ENGINEER) 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 or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors, and ENGINEER and ENGINEER's consultants access to the Site to enable OWNER to exercise the rights and remedies under this paragraph.
- 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 submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens 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.
- 2. 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 for Payment.
- 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

#### B. Review of Applications

- 1. 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:
  - a. the Work has progressed to the point indicated:
  - b. 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 of CONTRACTOR's Work for the purposes of 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 to 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:
  - b. the Contract Price has been reduced by Written Amendment or Change Orders;
  - c. 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

1. 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

- 1. 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;
  - b. 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;
  - c. there are other items entitling OWNER to a set-off against the amount recommended; or
  - d. 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 ENGINEER, OWNER must give 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 pay 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.
- 3. 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

A. 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 payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

B. 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 intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.
  - 1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of 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 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, CONTRACTOR
  may make application for final payment following the procedure for progress payments.
- 2. 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 equipment 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 and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application for Payment to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.09. 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 confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, 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 by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 Waiver of Claims

- A. 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 the 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 which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes 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;
- 3. CONTRACTOR's disregard of the authority of ENGINEER; or
- 4. 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 the CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (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) 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 right 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):
  - 1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  - 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, Suppliers, and others; and
  - 4. for reasonable expense 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 to OWNER and ENGINEER, stop the Work until payment 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

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

#### **SECTION 02300 - EARTHWORK**

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Trenching and backfilling for sidewalk.
  - 2. Dewatering.

#### 1.2 QUALITY ASSURANCE

- A. An Independent Testing Laboratory (ITL), selected and paid for by the Owner, may be retained to perform construction testing on site.
  - 1. The ITL shall prepare test reports that indicate test location, elevation data, and test results. Owner, Engineer, and Contractor shall be provided with copies of reports within 96 hours of time that test was performed. In event that test performed fails to meet Specifications, the independent testing laboratory shall notify Owner and Contractor immediately.
  - 2. Costs related to retesting due to failures shall be paid for by the Contractor at no additional expense to Owner. Contractor shall provide free access to site for testing activities.
  - Quality assurance testing will be conducted in accordance with Paragraph "Field Testing" in Part 3 hereinafter.

#### 1.3 DEFINITIONS

- A. Satisfactory Materials: ASTM D 2487 soil classification groups GW, GP, GM, SW, SP, SM, ML, CL, or a combination of these group symbols.
  - 1. Fill material shall further conform to the plasticity index and liquid limits (PI and LL) specified in Paragraph FILLING hereinafter.
  - 2. Satisfactory materials shall be free of rock or gravel larger than allowed for fill or backfill material as specified hereinafter or as shown on the drawings.
  - Satisfactory materials shall contain no debris, waste, frozen materials, vegetation, and other deleterious matter.
  - 4. The following table stipulates maximum allowable values for plasticity index (PI) and liquid limit (LL) of satisfactory materials to be used as fill in specified areas:

Location	<u> PI                                   </u>	LL_
All areas	15	45

- B. Unsatisfactory Materials: Materials which do not comply with the requirements for satisfactory materials are unsatisfactory.
  - 1. Unsatisfactory materials also include man-made fills; trash; refuse; backfills from previous construction; and material classified as satisfactory materials which contains root and other organic matter or frozen material. The ITL shall be notified of any contaminated materials.
  - Unsatisfactory materials also include satisfactory materials not maintained within 2 percent of optimum moisture content at time of compaction.
- C. Rock: Rock shall be incidental to the Contract.

# 1.4 SUBMITTALS

- A. Submit name of each material supplier and specific type and source of each material. Change in source throughout project requires approval of Owner.
- B. Submit certification that all material obtained from off-site sources complies with specification requirements.
- C. Shop drawings or details pertaining to excavating and filling are not required unless otherwise shown on the Drawings or if contrary procedures to Construction Documents are proposed.

D. Contact utility companies and determine if additional easements will be required to complete project.

# PART 2 - PRODUCTS

#### 2.1 SOIL AND ROCK MATERIALS

- A. Fill and Backfill. Satisfactory materials excavated from the site.
- B. Imported Fill Material: Satisfactory material provided from offsite borrow areas when sufficient satisfactory materials are not available from required excavations.
- C. Topsoil: Topsoil shall consist of stripping material excavated from the site. Topsoil shall consist of organic surficial soil found in depth of not more than 6-inches. Topsoil shall be as further defined in Section 02920 Finish Grading and Seeding.

#### 2.2 EQUIPMENT

A. Transport off-site materials to project using well-maintained and operating vehicles. Once on site, transporting vehicles shall stay on designated haul roads and shall at no time endanger improvements by rutting, overloading, or pumping.

#### 2.3 SOURCE QUALITY CONTROL

- Following tests shall be performed on each type of on-site or imported soil material used as compacted fill:
  - 1. Moisture and Density Relationship: ASTM D 698 or ASTM D 1557.
  - 2. Mechanical Analysis: AASHTO T 88 or ASTM D422.
  - 3. Plasticity Index: ASTM D 4318.

#### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Identify required lines, levels, contours, datum, elevations, and grades necessary for construction as shown on the drawings.
- B. Notify utility companies to remove or relocate public utilities that are in conflict with proposed improvements.
- C. Protect plant life, lawns, fences, existing structures, sidewalks, paving, and curbs, unless otherwise noted on the drawings from excavating equipment and vehicular traffic.
- D. Protect benchmarks, property corners, and other survey monuments from damage or displacement. If marker needs to be removed it shall be referenced by licensed land surveyor and replaced, as necessary, by same.
- E. Remove from site, material encountered in grading operations that, in opinion of Owner or the Owner's Independent Testing Laboratory (ITL) is unsatisfactory material or undesirable for backfilling, subgrade, or foundation purposes. Dispose of in manner satisfactory to Owner and local governing agencies. Backfill areas with layers of satisfactory material and compact as specified herein.
- F. Locate and identify utilities that have previously been installed and protect from damage.
- G. Locate and identify existing utilities that are to remain and protect from damage.
- H. Maintain in operating condition existing utilities, previously installed utilities, and drainage systems encountered in utility installation. Repair surface or subsurface improvements shown on The Drawings.
- I. Verify location, size, elevation, and other pertinent data required making connections to existing utilities and drainage systems as indicated on The Drawings.

Project No. 13-5544 Earthwork 02300 - 2

J. Over excavate and properly prepare areas of subgrade that are not capable of supporting proposed systems.

# 3.2 DEWATERING

#### A. General:

- 1. Maintain site using accepted and professional methods consistent with current industry practice to eliminate water entering the excavation under hydrostatic head from the bottom or sides. Design system to prevent differential hydrostatic head, which would result in floating out soil particles in a manner, termed as a "quick" or "boiling" condition. System shall not be dependent solely upon sumps or pumping water from within the excavation where differential head would result in a quick condition, which would continue to worsen the integrity of the excavation's stability.
- Maintain site to prevent ground and surface water flow into the excavation and to allow Work to be installed in a dry condition.
- Control, by acceptable means, all water regardless of source. Contractor shall be responsible for disposal of the water.
- Confine discharge piping or ditches to available easement or to additional easement obtained by Contractor. Provide necessary permits or easement.
- 5. Control groundwater in a manner that preserves strength of foundation soils, does not cause instability or raveling of excavation slopes, and does not result in damage to existing structures.
- Commence dewatering prior to any appearance of water in excavation and continue until Work is complete to the extent that no damage results from hydrostatic pressure, flotation, or other causes.
- 7. Open pumping with sumps and ditches will be allowed provided it does not result in boils, loss of fines, softening of the ground, or instability of slopes.
- 8. Control grading around excavations to prevent surface water from flowing into excavation areas.
- No additional payment will be made for any supplemental measures to control seepage, groundwater, or artesian head.

# B. Damages:

- 1. Contractor shall be responsible for and shall repair any damage to work in place, other contractor's equipment, utilities, residences, highways, roads, railroads, private and municipal well systems, adjacent structures, natural resources, habitat, existing wells, and the excavation. Contractor responsibility shall also include, damage to the bottom due to heave and including but not limited to, removal and pumping out of the excavated area that may result from Contractor's negligence, inadequate or improper design and operation of the dewatering system, and any mechanical or electrical failure of the dewatering system.
- 2. Remove subgrade materials rendered unsatisfactory by excessive wetting and replace with approved backfill material at no additional cost to the Owner.

# C. Maintaining Excavation in Dewatering Condition:

- 1. Dewatering shall be a continuous operation. Interruptions due to power outages, or any other reason will not be permitted.
- 2. Continuously maintain excavation in a dry condition with positive dewatering methods during preparation of subgrade, installation of pipe, and construction of structures until the critical period of construction or backfill is completed to prevent damage of subgrade support, piping, structure, side slopes, or adjacent facilities from flotation or other hydrostatic pressure imbalance.
- 3. Provide standby equipment on site, installed, wired, and available for immediate operation if required to maintain dewatering on a continuous basis in the event any part of the system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, perform such work as may be required to restore damaged structures and foundation soils at no additional cost to Owner.
- D. System Removal: Upon completion of the work, remove dewatering equipment from the site, including related temporary electrical service.

# 3.3 TOPSOIL EXCAVATION

A. Cut heavy growths of grass from areas before stripping and remove cuttings with remainder of cleared vegetative material.

Project No. 13-5544 Earthwork 02300 - 3

- B. Strip topsoil to a depth of not less than 6 inches from areas that are to be filled, excavated, landscaped, or re-graded to such depth that it prevents intermingling with underlying subsoil or questionable material.
- C. Stockpile topsoil in storage piles in areas shown on The Drawings or where directed by Owner. Construct storage piles to freely drain surface water. Cover storage piles as required to prevent windblown dust. Dispose of unsuitable topsoil as specified for waste material, unless otherwise specified by Owner. Remove excess topsoil from site unless specifically noted otherwise on The Drawings.

# 3.4 GENERAL EXCAVATION

- A. Classification of Excavation:
  - 1. The contractor shall assure himself by site investigation or other necessary means that he is familiar with the type, quantity, quality, and character of excavation work to be performed.
- B. When performing grading operations during periods of wet weather, provide adequate dewatering, drainage and ground water management to control moisture of soils.
- C. Shore, brace, and drain excavations as necessary to maintain excavation as safe, secure, and free of water at all times.
- D. Place satisfactory excavated material into project fill areas.
- E. Unsatisfactory excavated material shall be disposed of in manner and location that is acceptable to Owner and local governing agencies.
- F. Perform excavation using capable, well-maintained equipment and methods acceptable to Owner and local governing agencies.

# 3.5 SUBGRADE PREPARATION

A. Scarification and Compaction: Areas exposed by excavation or stripping and on which subgrade preparations are to be performed shall be scarified to minimum depth of 8 inches and compacted.

# 3.6 COMPACTION

A. Compact as follows:

	Percent of Maximum Laboratory Density
Location	ASTM D698

Subgrade & Fill Below Structures and Pavement 95 Subgrade & Fill in All other Areas 95

- B. Maintain moisture content of not less than 1 percent below and not more than 3 percent above optimum moisture content of fill materials to attain required compaction density.
- C. Exercise proper caution when compacting immediately over top of pipes or conduits. Water jetting or flooding is not permitted as method of compaction.
- D. Corrective Measures for Non-Complying Compaction: Remove and recompact deficient areas until proper compaction is obtained. Continual failure areas shall be properly stabilized, at no additional cost to Owner.

#### 3.7 MAINTENANCE OF SUBGRADE

A. Verify finished subgrades to ensure proper elevation and conditions for construction above subgrade.

- B. Protect subgrade from excessive wheel loading during construction, including concrete trucks, dump trucks, and other construction equipment.
- C. Remove areas of finished subgrade found to have insufficient compaction density to depth necessary and replace in manner that will comply with compaction requirements by use of material with CBR equal to or better than that specified on the drawings. Surface of subgrade after compaction shall be firm, uniform, smooth, stable, and true to grade and cross-section.
- D. Construct temporary ditches and perform such grading as necessary to maintain positive drainage away from subgrade at all times.

#### 3.8 BORROW AND SPOIL SITES

A. Comply with NPDES and local erosion control permitting requirements for any and all on-site and offsite, disturbed spoil and borrow areas. Upon completion of spoil or borrow operations, clean up spoil or borrow areas in a neat and reasonable manner to the satisfaction of Owner or off-site property owner, if applicable.

#### 3.9 FINISH GRADING

- A. Grade areas where finish grade elevations or contours are indicated on the Drawings, other than paved areas, including excavated areas, filled and transition areas, and landscaped areas. Graded areas shall be uniform and smooth, free from rock, debris, or irregular surface changes. Ground surfaces shall vary uniformly between indicated elevations. Grade finished ditches to allow for proper drainage without ponding and in manner that will minimize erosion potential. For topsoil, sodding, and seeding requirements refer to Section 02920 Finish Grading and Seeding.
- B. Correct settled and eroded areas within 1 year after date of completion at no additional expense to Owner. Bring grades to proper elevation.

# 3.13 QUALITY ASSURANCE TESTING AND INSPECTION

- A. Responsibilities: Unless otherwise specified, quality control tests and inspection specified below may be conducted by the Owner's Independent Testing Laboratory (ITL) at no cost to the Contractor. The Contractor shall perform additional testing or inspection as considered necessary by the Contractor for assurance of quality control.
- B. Field testing, frequency, and methods may vary as determined by and between the Owner and the ITL.
- C. Work shall be performed by Qualified Inspector. Report of testing and inspection results shall be made upon the completion of testing.
- D. Classification of Materials: Perform test for classification of materials used and encountered during construction in accordance with ASTM D2488 and ASTM D2487.
- E. Laboratory Testing Of Materials: Perform laboratory testing of materials (Proctor, Sieve Analysis, Atterberg Limits, Consolidation Test, etc.) as specified.
- F. Field Density Tests.
  - Areas of Construction Exclusive of Building Subgrade Areas: In cut areas, not less than 1 compaction test for every 10,000 sq. ft. In fill areas, same rate of testing for each 8-inch lift, measured loose.
  - Utility Trench Backfill: Intervals not exceeding 200-feet of trench for first and every other 8-inch lift of compacted trench backfill.
  - 3. Test Method: In-place nuclear density, ASTM D 2922 (Method B-Direct Transmission).
- G. Corrective Measures For Non-Complying Compaction: Remove and recompact deficient areas until proper compaction is obtained at no additional expense to Owner. Adjust moisture content as necessary to conform to the requirements of this section.

Project No. 13-5544 Earthwork 02300 - 5

- H. Observation and Inspection:
  - Observe all subgrades/excavation bases below footings and slabs and verify design bearing capacity is achieved as required. Work shall be preformed by a Qualified Inspector.
     Observe and document presence of groundwater within excavations.

  - 3. Verify cut and fill slopes as specified in the contract documents. Work shall be preformed by a Qualified Inspector.

**END OF SECTION** 

#### **SECTION 02920 - FINISH GRADING AND SEEDING**

#### PART 1 GENERAL

#### 1.1 SUMMARY

A. Section Includes: Seeding.

# 1.2 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Manufactured Soil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- C. Planting Soil: Native or imported topsoil, manufactured topsoil, or surface soil modified to become topsoil; mixed with soil amendments.
- D. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill immediately beneath planting soil.
- E. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

# 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Certification of grass seed.
  - Certification of each seed mixture for turf grass sod.
- C. Product certificates.
- D. Planting Schedule: Indicating anticipated planting dates for each type of planting.

# 1.4 QUALITY ASSURANCE

- A. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when planting is in progress.
  - Report suitability of topsoil for lawn growth. State-recommended quantities of nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory topsoil.

# 1.5 MAINTENANCE SERVICE

- A. Initial Lawn Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:
  - 1. Seeded Lawns: 60 days from date of Substantial Completion.
    - a. When initial maintenance period has not elapsed before end of planting season, or if lawn is not fully established, continue maintenance during next planting season.

## PART 2 PRODUCTS

#### 2.1 SEED

A. Grass Seed: Fresh, clean, dry, new-crop seed complying with United States Department of Agriculture Rules and Regulations under the Federal Seed Act. for purity and germination tolerances.

- B. Seed Species: State-certified seed of grass species, as follows:
  - 1. Proportioned by weight as follows:
    - a. 20% Adventure Fescue
    - b. 20% Jaguar IV Fescue
    - c. 20% Olympic Fescue
    - d. 20% Arid Fescue
    - e. 20% Regal Perennial

# 2.2 TOPSOIL

- A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 4 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth.
- B. Topsoil Source: Reuse surface soil stockpiled on-site. Verify suitability of stockpiled surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
- C. Supplement with imported or manufactured topsoil from off-site sources when quantities are insufficient.

#### 2.3 INORGANIC SOIL AMENDMENTS

- A. Lime: ASTM C 602, agricultural limestone containing a minimum of 80 percent calcium carbonate equivalent and as follows:
  - 1. Class: T, with a minimum of 99 percent passing through No. 8 sieve and a minimum of 75 percent passing through No. 60 sieve.
- B. Perlite: Horticultural perlite, soil amendment grade.
- C. Agricultural Gypsum: Finely ground, containing a minimum of 90 percent calcium sulfate.
- D. Sand: Clean, washed, natural or manufactured, free of toxic materials.

#### 2.4 ORGANIC SOIL AMENDMENTS

- A. Peat: Sphagnum peat moss, partially decomposed, finely divided or granular texture, with a pH range of 3.4 to 4.8.
- B. Peat: Finely divided or granular texture, with a pH range of 6 to 7.5, containing partially decomposed moss peat, native peat, or reed-sedge peat and having a water-absorbing capacity of 1100 to 2000 percent.

# 2.5 FERTILIZER

- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
- B. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
- C. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
- D. Composition: 12 percent nitrogen, 12 percent phosphoric acid, and 10 percent potash, by weight.

# 2.6 MULCHES

A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.

# PART 3 - EXECUTION

#### 3.1 LAWN PREPARATION

- A. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
- B. Thoroughly blend planting soil mix off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil mix.
- C. Spread planting soil mix to a depth of 4 inches but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
- D. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the immediate future.
- E. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- F. Before planting, restore areas if eroded or otherwise disturbed after finish grading.

## 3.2 SEEDING

- A. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
- B. Sow seed at a total rate of 7 to 8 lb./1000 square feet or 350 lb./acre.
- C. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose depth over seeded areas. Spread by hand, blower, or other suitable equipment.
- E. Anchor straw mulch by crimping into soil with suitable mechanical equipment.

# 3.3 LAWN MAINTENANCE

- A. Maintain and establish lawn by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn. Provide materials and installation the same as those used in the original installation.
- B. Mow lawn as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings.

# 3.4 SATISFACTORY LAWNS

- A. Satisfactory Seeded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any and bare spots not exceeding 5 by 5 inches.
- B. Use specified materials to reestablish lawns that do not comply with requirements and continue maintenance until lawns are satisfactory.

# **END SECTION**

# **SECTION 5000 - CONCRETE SIDEWALK**

#### GENERAL

A. This Section includes the installation of concrete sidewalk sections and all associated reinforcing steel and welded wire fabric. The Work shall be accomplished in accordance with these Specifications and the applicable drawings.

# 2. SUMMARY

- A. The extent of concrete sidewalk paving is shown on drawings.
- B. Concrete and related materials are specified herein.

# SUBMITTALS

- A. Provide samples, manufacturer's product data, test reports, and materials' certifications as required in referenced sections for concrete and joint fillers and sealers.
- B. For reinforcing steel provide:
  - 1. Bending lists.
  - 2. Placing drawings.
  - 3. Certified Mill Test Reports

# 4. FORMS

- A. Forms. Steel, 2 inch dimensional wood or other suitable material of size and strength to resist movement during concrete placement and to retain horizontal and vertical alignment until removal. Use straight forms, free of distortion and defects.
  - 1. Use flexible spring steel forms or laminated boards to form radius bends as required.
  - 2. Provide stakes and bracing materials as required to hold forms securely in place.
  - 3. Tops of forms shall not depart from grade line more than 1/8 inch when checked with a 10-foot straightedge. Alignment of straight sections shall not vary more than 1/8 inch in 10 feet.
- B. Coat forms with a nonstaining form release agent that will not discolor or deface surface of concrete.

# 5. CONCRETE MATERIALS

- A. Portland Cement: ASTM C 150, Type I.
  - 1. Use one brand of cement throughout project, unless otherwise acceptable to Engineer.
  - 2. Normal Weight Aggregates: ASTM C 33, and as herein specified. Provide aggregates from a single source. Do not use fine or coarse aggregates containing spall-causing or other deleterious substances. Aggregates shall be "Meramec Sand and Gravel."
  - 3. Lightweight Aggregates: ASTM C 330.
- B. Water: Potable.
- C. Pozzolanic Admixtures: Pozzolanic admixtures or fly ash may not be used or substituted for other elements in the concrete mix.

- D. Air-Entraining Admixtures: Air-entraining admixtures shall meet the requirements of ASTM C 260 and shall be added to the mixer in the amount necessary to produce the specified air content. The air-entrainment agent and the water reducer admixture shall be compatible.
- E. Water-Reducing Admixtures: Only if approved by the Engineer; water-reducing, set-controlling admixtures shall meet the requirements of ASTM C 494, Type A, water-reducing or Type D, water-reducing and retarding admixtures, and shall be added at the mixer separately from air-entraining admixtures in accordance with the manufacturer's printed instructions.
- F. Grout: The grout mixture can be any commercially made product for highway patching made of an epoxy base. The grout shall be compatible with concrete and steel and capable of binding the dowel with the concrete. The matrix may be extended with hard durable aggregate following the manufacturer's recommendations. The grout shall be discarded after 45 minutes and shall not be retempered. The minimum strength shall be equal to the strength of the concrete pavement. Samples of the grout shall be submitted to the Engineer before grouting begins. Grout shall have a minimum strength of 4,000 psi in 28 days.
- G. Liquid-Membrane Forming and Sealing Curing Compound: Comply with ASTM C 309, Type I, Class A unless otherwise specified by the Engineer. Moisture loss no more than 0.055 gr./sq. cm. when applied at 150 sq. ft./gal. Only white-pigmented compound may be used.
- H. Joint Fillers: All expansion joints shall be "non-gassing."
  - 1. Expansion joint filler shall be 1/2-inch thick, preformed and nongassing. It shall be Homex Plus expansion joint material or approved equal.

#### 6. CONCRETE SIDEWALK

# A. CONCRETE MIX, DESIGN, AND TESTING

- Design mix to produce normal-weight concrete consisting of Portland cement, aggregate, waterreducing or set retarding admixture, air-entraining admixture, and water to produce the following properties:
  - a) Compressive Strength: 4,000 psi, minimum at 28 days, unless otherwise indicated.
  - b) Air Content: 6 percent ± 1 percent.

#### B. SUBGRADE PREPARATION

1. Bring the areas on which sidewalks are to be constructed to required grade and compact by sprinkling and rolling or mechanical tamping. As depressions occur, refill with suitable material and recompact until the surface is at the proper grade. The top 6 inches of the subgrade shall be compacted to 95 percent of standard proctor. Remove loose material from compacted subbase surface immediately before placing aggregate base.

# 2. Aggregate Base

- a) The material to be used in the aggregate base shall be Type 5 Aggregate, unless otherwise approved by the Owner.
- b) Aggregate shall be placed on the subgrade in a layer of uniform thickness 2 inches in compacted depth. The aggregate shall be handled and spread in a manner that will prevent segregation of sizes.
- c) The aggregate base shall be cleaned of loose and foreign matter.
- d) The aggregate shall be compacted to not less than 95 percent of the maximum laboratory density as determined by the Standard Proctor Test AASHTO T-99 (ASTM D-698).
- Top surface of the compacted aggregate base course shall be finished by blading or with automated equipment specially designed for the purpose and compacted using vibratory compaction plates.

- f) Surfaces of the completed aggregate base shall not deviate more than ¼ inch when tested with a 4 foot straightedge. The completed compacted thickness of any course shall be within plus or minus ½ inch of indicated thickness, and the average thickness shall not be less than the design thickness indicated.
- g) Do not order concrete until the Owner has approved the compacted subbase and inspected all forms.

#### C. FORM CONSTRUCTION

- Sidewalks shall be installed at the width specified in the drawings and shall be five (5") inches thick, with expansion joints at thirty-five (35') foot intervals for the full width and depth with control joints at five (5') foot intervals or as directed by the Engineer.
- 2. Extend expansion joint fillers the full width and depth of the joint, not less than 1/2 inch nor more than 1 inch below finished surface where joint sealer is indicated.
- 3. Set forms to required grades and lines, braced and secured. Install forms to allow continuous progress of work and so that forms can remain in place at least 24 hours after concrete placement.
- 4. Clean forms after each use and coat with form release agent as required to ensure separation from concrete without damage.

#### D. CONCRETE PLACEMENT

- Do not place concrete until subbase and forms have been checked by the Engineer for line and grade.
   Moisten subbase, if required, to provide a uniform dampened condition at time concrete is placed.
- Place concrete by methods that prevent segregation of mix. Consolidate concrete along face of forms and adjacent to transverse joints with vibrator. Use only square-faced shovels for hand spreading and consolidation.
- If applicable, match existing texture and finish of pavement being replaced.
- 4. Mixing and concreting operations shall be discontinued when a descending ambient temperature away from artificial heat reaches 40 degrees Fahrenheit and not resumed until an ascending ambient temperature away from artificial heat reaches 35 degrees Fahrenheit. Concrete shall not be placed on subgrade with a temperature less than 35 degrees Fahrenheit. Concrete temperature shall not drop below 65 degrees Fahrenheit for a period of no less than 6 days after placement. Concrete exposed to melting snow during daytime and freezing during nighttime shall be protected from freezing until strength of at least 3500-psi has been attained.
- 5. If approval has been granted for the Contractor to place the concrete while the ambient temperature is at or lower than 40 degrees Fahrenheit, the Contractor shall take precautionary measures to prevent damage by freezing, such as heating mixing water, heating aggregates, or applying heat directly to the contents of the mixer. Aggregates shall not be heated higher than 150 degrees Fahrenheit, and the temperature of the aggregates and mixing water combined shall be not higher than 100 degrees Fahrenheit, when the cement is added. Unless otherwise authorized, the temperature of the mixed concrete when heating is employed shall not be less than 50 degrees Fahrenheit and not more than 80 degrees Fahrenheit at the time of placement. Cement or fine aggregate containing lumps or crusts of hardened material or frost shall not be used. Concrete shall not be placed upon a frozen subgrade.

# E. CONCRETE FINISHING

All edges and joints shall be finished with an edging tool having a radius of 1/4 inch.

# 1. Expansion Joints

a) Transverse expansion joints, 1/2-inch thick, shall be installed at a maximum 35-foot interval along sidewalks and where ends of sidewalks abutting buildings, walls, steps, other rigid structures, poles, other protrusions through the sidewalk, or other sidewalks.

#### 2. Contraction Joints

- a) Transverse contraction joints shall be 1/4 inches wide by 1-inch deep weakened plane joints. They shall be straight and at right angles to the surface of the sidewalks.
- 3. Broom the surface with a fine-hair broom at right angles to the length of the sidewalk and tool at all edges, joints, and markings as shown on the drawings. Mark the sidewalks transversely as shown on the drawings with a jointing tool. All sidewalks shall have a magnesium float finish prior to brooming. The Contractor shall prepare a sample of the broom finish for approval by the Owner prior to the placement of any sidewalks, at the Owner's request.
- 4. Any markings in the sidewalk of any sort shall be removed or the defective sidewalk removed and replaced by the Contractor at his cost as directed by the Engineer.
- Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point-up any minor honeycombed areas. Remove and replace areas or sections with major defects, as directed by the Engineer.

#### F. CURING

- 1. Protect and cure finished concrete paving using white pigmented membrane-forming curing and sealing compound applied at a minimum of one gallon per 150 square feet or approved moist-curing methods. Apply per manufacturer's recommendations.
- 2. Protect pavement from rain by an approved means during the curing process.

#### 7. REINFORCING STEEL

# A. DEFORMED REINFORCING BARS

 Deformed billet-steel bars conforming to ASTM A 615, Grade 60, including Supplemental Requirements S1 where welding is not required, or deformed bars conforming to ASTM A 706, Grade 60, including Supplemental Requirements for all reinforcing to be welded. All welding shall be prequalified in accordance with AWS D1.4, Structural Welding Code. Welding not prequalified shall not be used.

#### B. SPLICES AND MECHANICAL CONNECTIONS

1. Splices other than lap slices or Cadweld T splices shall not be used except where specifically permitted in writing by the Engineer.

# C. WELDED WIRE FABRIC FOR SINGLE-LAYER REINFORCED SLAB ON GRADE APPLICATIONS

1. Wide spaces standard, flat sheets, structural welded wire fabric as manufactured by Davis Walker Corporation, or equal, with the same steel areas as bars shown; minimum yield strength 75 ksi may be used in lieu of ASTM A 615 reinforcing bars, 60 ksi provided that the panels conform in all respects to ASTM A 185 or A 497 and ACI 318, latest revisions, and provided details approved by the Engineer on reviewed shop drawings. Use flat sheets only.

# D. ACCESSORIES

1. Tie wire shall be 16-gauge, black, soft-annealed wire. Bar supports shall be of proper type for intended use. Bar supports in slabs shall be small rectangular concrete blocks made up of the same color and same strength concrete being placed around them. Wire bar supports shall be coated with dielectric material for a minimum distance of 2 inches from the point of contact with the reinforcing bars. Proprietary combination bar clips and spreaders used in walls with reinforcing bars shall be made of corrosion-resistant material. Use concrete supports for reinforcing in concrete placed on grade. Conform to requirements of "Placing Reinforcing Bars" published by CRSI.

# E. EXECUTION

1. Conform to "Placing Reinforcing Bars," Recommended Practices, Joint Effort of CRSI-WCRSI,

prepared under the direction of the CRSI Committee on Engineering Practice. All bars shall be bent cold.

2. Notify the Engineer when reinforcing is ready for inspection and allow sufficient time for this inspection prior to casting concrete.

# F. DELIVERY AND STORAGE

1. Deliver steel with suitable hauling and handling equipment. Tag steel for easy identification. Store to prevent contact with the ground. The unloading, storing, and handling of bars on the job shall conform to CRSI publication "Placing Reinforcing Bars."

#### G. PLACING REINFORCING STEEL

- 1. Cleaning. Clean material reinforcement of any loose mill scale, oil, earth and other contaminants.
- Straightening and Rebending. Do no straighten or rebend metal reinforcement. Where construction
  access through reinforcing is a problem, bundling or spacing of bars instead of bending shall be used.
  Submit details and obtain Engineer's review prior to placing.
- 3. Protection, Spacing and Positioning. Conform to the current edition of the ACI Standard Building Code Requirements for Reinforced Concrete (ACI 318), reviewed placing drawings, and design drawings.
- 4. Location Tolerances. Conform to the current edition of "Placing Reinforcing Bars" published by Concrete Reinforcing Steel Institute and to the details and notes on the drawings.
- Splicing. Conform to drawings and current edition of ACI Code 318. Splices in adjacent bars shall be staggered.
- 6. Tying Deformed Reinforcing Bars. Conform to the current edition of "Placing Reinforcing Bars" published by Concrete Reinforcing Steel Institute and to the details and notes on the drawings. Mats made up of #3 #4 #5 #6 shall have every other intersection tied in such a manner to hold bars at required spacing.
- 7. Reinforcement around Openings. Place an equivalent area of steel around the pipe or opening and extend on each side sufficiently to develop bond in each bar. See the details on drawings for bar extension length each side of opening. Where welded wire fabric is used, provide extra reinforcing using fabric or deformed bars.

# H. PLACING WELDED WIRE FABRIC

1. Extend fabric to within 2 inches of the edges of the slab, and lap splices at least 1-1/2 courses at the fabric and a minimum of 8 inches. Tie laps and splices securely at ends and at least every 24 inches with 16-gauge black annealed steel wire. Ensure that the welded wire fabric is placed on concrete blocks at the proper distance above the bottom of the slab and supported rigidly equal to that furnished for typical deformed bar reinforced steel. Conform also to current ACI 318 and to the current Manual of Standard Practice, Welded Wire Fabric, by the Wire Reinforcement Institute regarding placement, bends, laps, and other requirements. Fabric that has been rolled shall not be used; use flat sheets only.

# I. FIELD BENDING

 Field bending of reinforcing steel bars is not permitted when rebending will later be required to straighten bars. Rebending of bars at the same place where strain hardening has taken place due to the original bend will damage the bar. Consult with the Engineer prior to any pour if the Contractor foresees a need to work out a solution to prevent field bending.

# **END OF SECTION 5000**

#### SECTION 03300 - CAST-IN-PLACE CONCRETE

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section specifies cast-in place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.
- B. See Section 5000 Concrete Sidewalks.

# 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture.
- C. Material Certificates.

# 1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
  - Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- B. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
  - 1. ACI 301, "Specification for Structural Concrete."
  - 2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

# PART 2 - PRODUCTS

#### 2.1 FORM-FACING MATERIALS

A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.

# 2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.
- B. Plain-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from as-drawn steel wire into flat sheets.
- C. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice."

#### 2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
  - 1. Portland Cement: ASTM C 150, Type I
- B. Normal-Weight Aggregates: ASTM C 33, graded, 3/4-inch, nominal maximum coarse-aggregate size.
  - 1. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- C. Water: ASTM C 94/C 94M and potable.
- D. Air-Entraining Admixture: ASTM C 260.
- E. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
  - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
  - 2. Retarding Admixture: ASTM C 494/C 494M, Type B.
  - 3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
  - 4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
  - 5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
  - 6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

# 2.4 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, nondissipating, certified by curing compound manufacturer to not interfere with bonding of floor covering.
- F. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

# 2.5 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber. Provide with ½" thick removable "cap" to allow installation of caulk.

# 2.6 CONCRETE MIXTURES

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
- B. Proportion normal-weight concrete mixture as follows:

- 1. Minimum Compressive Strength: 4000 psi at 28 days.
- 2. Maximum Water-Cementitious Materials Ratio: 0.40.
- 3. Slump Limit: 4 inches for concrete with verified slump of 2 to 4 inches before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch.
- 4. Air Content for Exterior Exposed Concrete: 6 percent plus or minus 1 percent.
- 5. Air Content for Interior Exposed Concrete: 4.0 percent plus or minus 0.5 percent.
- 6. Air Content: Do not allow air content of troweled finished floors to exceed 2.5 percent.

#### 2.7 FABRICATING REINFORCEMENT

A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

#### 2.8 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.
  - When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

#### PART 3 - EXECUTION

# 3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork according to ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Chamfer exterior corners and edges of permanently exposed concrete.

#### 3.2 EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

# 3.3 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Engineer.
- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:

- Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/2 inch. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
- 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/4-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.

#### 3.4 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.
- B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
  - 1. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
- C. Cold-Weather Placement: Comply with ACI 306.1.
- D. Hot-Weather Placement: Comply with ACI 301.

#### 3.5 FINISHING FORMED SURFACES

- A. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities. Grind patched areas smooth.
  - 1. Apply to concrete surfaces exposed to public view, to receive a rubbed finish, to be covered with a coating or covering material applied directly to concrete.

#### 3.6 FINISHING SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, and ramps, and elsewhere as indicated.

# 3.7 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
  - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days.

- 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
- 3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
  - a. After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer unless manufacturer certifies curing compound will not interfere with bonding of floor covering used on Project.
- 4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

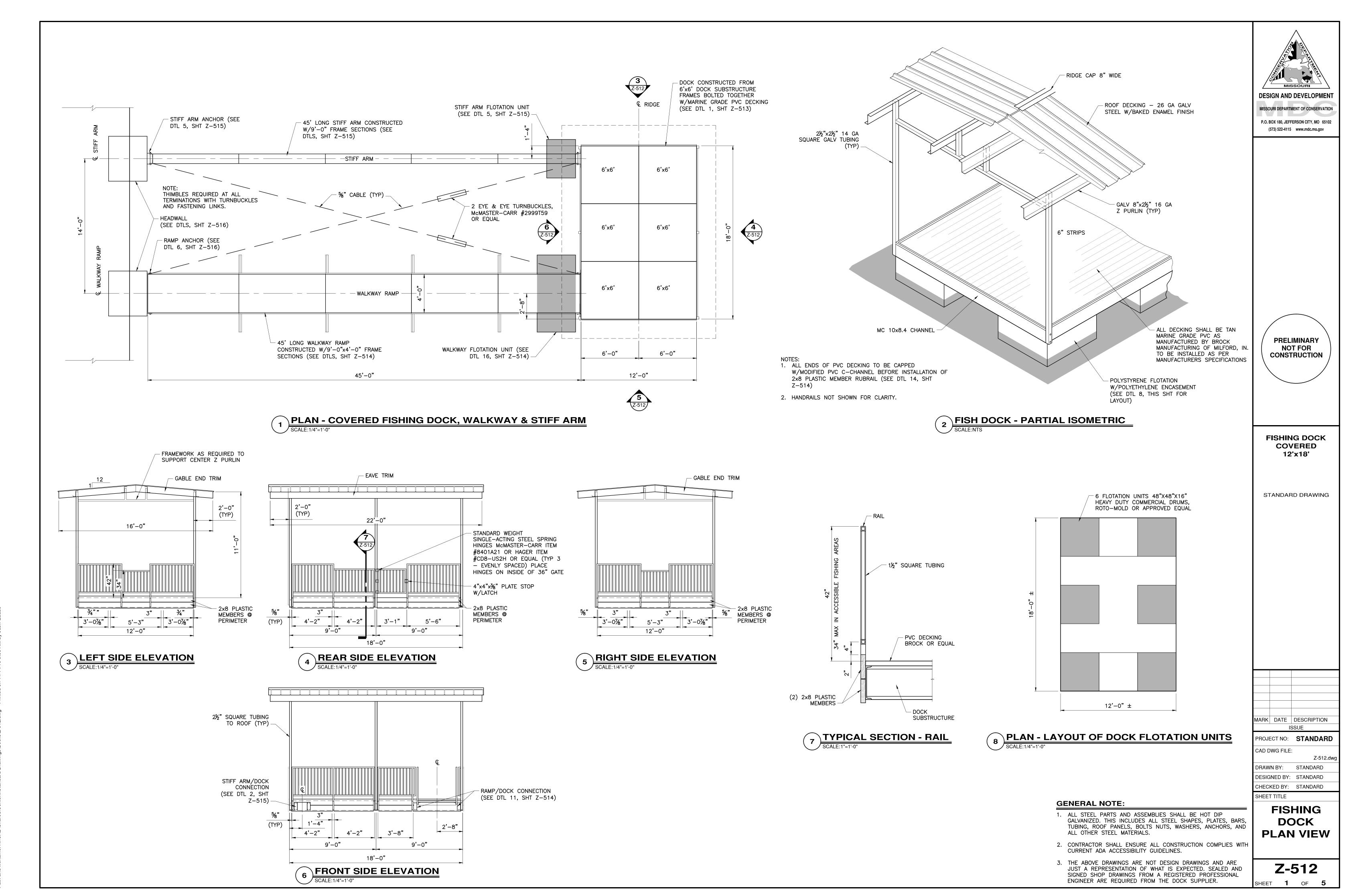
# 3.8 CONCRETE SURFACE REPAIRS

A. Defective Concrete: Repair and patch defective areas when approved by Owner. Remove and replace concrete that cannot be repaired and patched to Owner's approval.

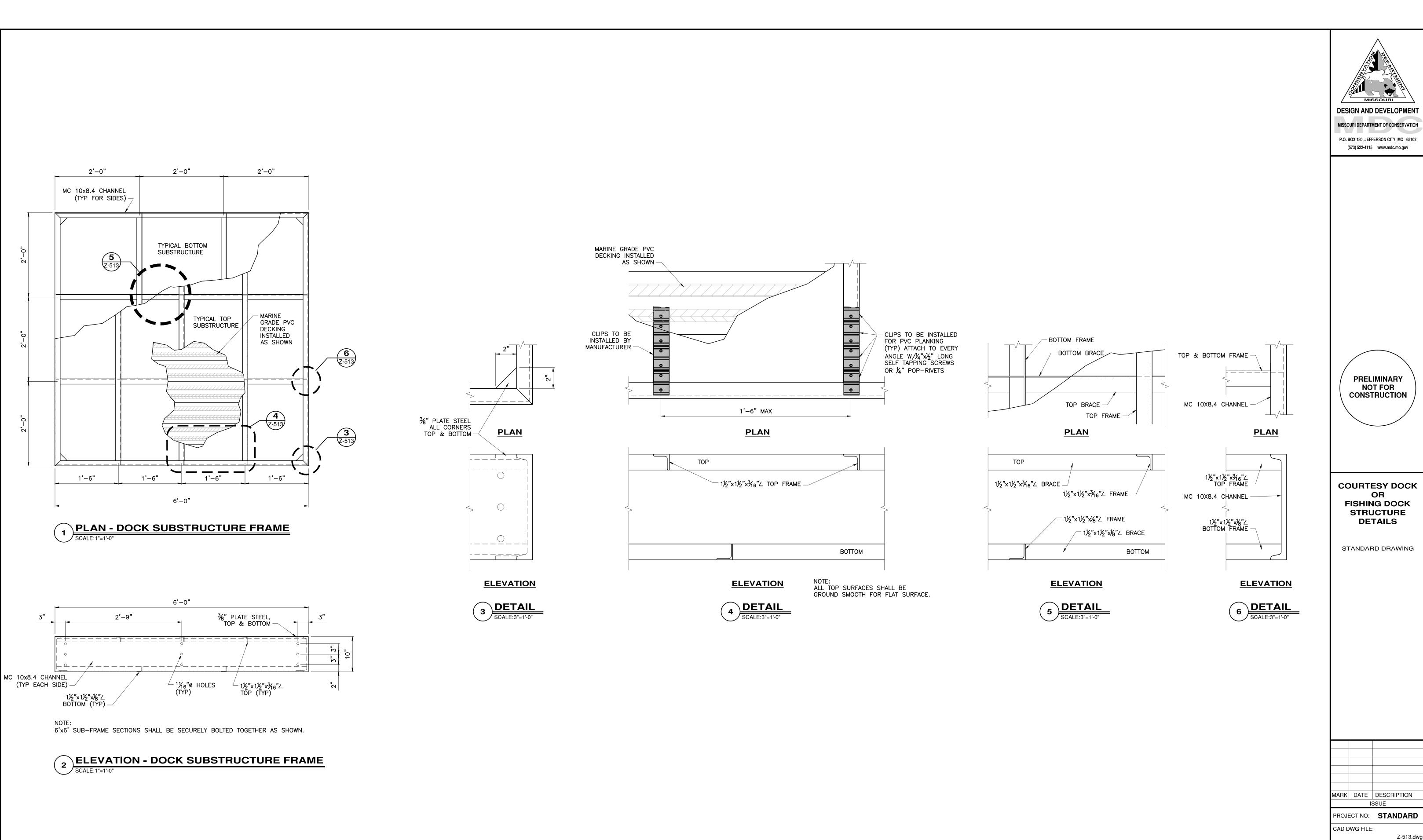
#### 3.9 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner may engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
  - 1. Testing Services: Tests shall be performed according to ACI 301.

END OF SECTION 03300



Path and filename: N\CAD\Shared\Content\Standard Drawing\Docks\Z-512 dwg Printed on 11/14/13 8:55 AM bv .lack O



# **GENERAL NOTE:**

- 1. ALL STEEL PARTS AND ASSEMBLIES SHALL BE HOT DIP GALVANIZED. THIS INCLUDES ALL STEEL SHAPES, PLATES, BARS, TUBING, ROOF PANELS, BOLTS NUTS, WASHERS, ANCHORS, AND ALL OTHER STEEL MATERIALS.
- 2. CONTRACTOR SHALL ENSURE ALL CONSTRUCTION COMPLIES WITH CURRENT ADA ACCESSIBILITY GUIDELINES.
- 3. THE ABOVE DRAWINGS ARE NOT DESIGN DRAWINGS AND ARE JUST A REPRESENTATION OF WHAT IS EXPECTED. SEALED AND SIGNED SHOP DRAWINGS FROM A REGISTERED PROFESSIONAL ENGINEER ARE REQUIRED FROM THE DOCK SUPPLIER.

COURTESY DOCK **FISHING DOCK** STRUCTURE

MARK DATE DESCRIPTION

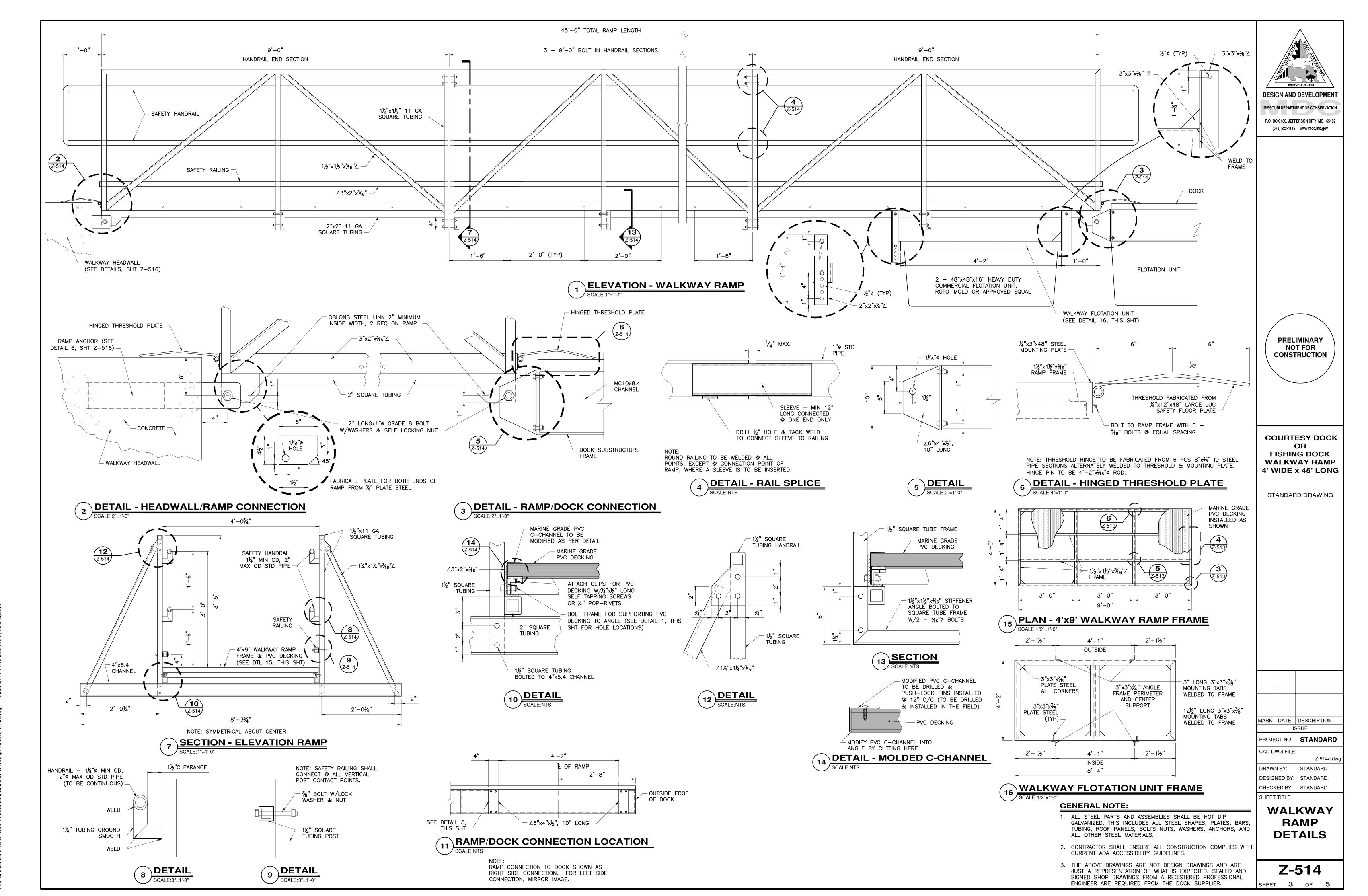
DRAWN BY: STANDARD DESIGNED BY: STANDARD CHECKED BY: STANDARD

SHEET TITLE

DOCK STRUCTURE **DETAILS** 

**Z-513** 

SHEET **2** OF **5** 



Path and filename: N-\CAD\Shared\Content\Standard Drawings\Docks\Z-514a dwg Printed on 11/14/13 9:02 AM by Jack Ous

MISSOURI

DESIGN AND DEVELOPMENT

P.O. BOX 180, JEFFERSON CITY, MO 65102 (573) 522-4115 www.mdc.mo.gov

PRELIMINARY
NOT FOR
CONSTRUCTION

COURTESY DOCK
OR
FISHING DOCK
STIFF ARM

STRUCTURE DETAILS

STANDARD DRAWING

MARK DATE DESCRIPTION
ISSUE

PROJECT NO: STANDARD

CAD DWG FILE:

Z-515.dwg
DRAWN BY: STANDARD
DESIGNED BY: STANDARD
CHECKED BY: STANDARD
SHEET TITLE

STIFF ARM STRUCTURE DETAILS

**Z-515**SHEET **4** OF **5** 

PROFESSIONAL ENGINEER ARE REQUIRED FROM THE DOCK SUPPLIER.

# **CONTACT INFORMATION**

OWNER / WATER / SEWER

OWNER: CITY OF FARMINGTON

REPRESENTATIVE: LARRY LACY, P.E.

ADDRESS: 12 SOUTH FRANKLIN ST. FARMINGTON, MO 63640

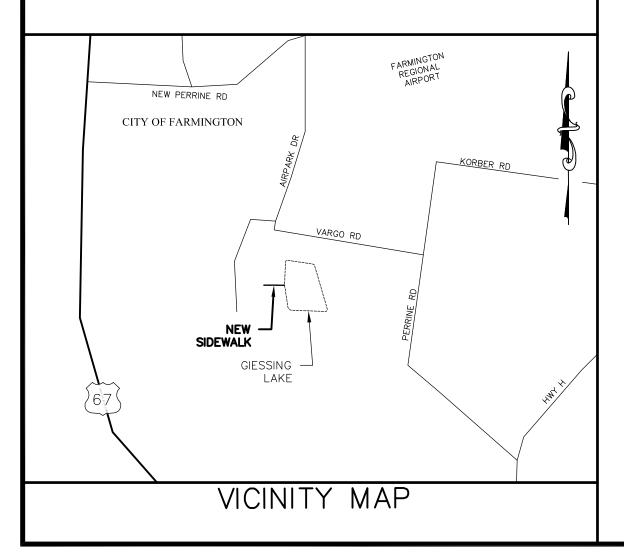
PHONE: 573-756-0608

SPECIAL NOTES :

FOR QUESTIONS OR CLARIFICATION PLEASE CALL DAVE VAN LEER

# GIESSING LAKE DOCK ADA ACCESSIBLE SIDEWALK CITY OF FARMINGTON





**EROSION CONTROL NOTES:** 

All unsurfaced areas are to receive four inches of topsoil.
 Contractor to seed, mulch, and fertilize all areas outside of paved

areas that were disturbed during construction until an acceptable stand of grass is established.

2. Underground facilities, structures, and utilities have been plotted from

available surveys and records. Therefore, their locations must be considered approximate only. There may be others, the existence of which is presently not known.
No land clearing or grading shall begin until all erosion control measures have been installed.

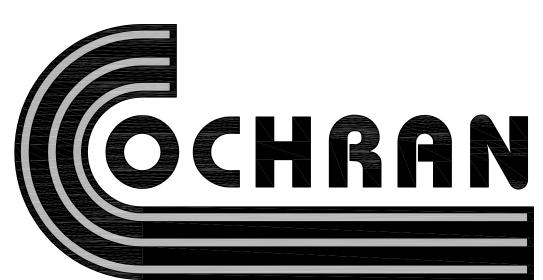
6. This plan shall not be considered all inclusive as the contractor shall take all necessary precautions to prevent soil sediment from leaving

deemed necessary by on site inspection.

9. Contractor shall be responsible to take whatever means necessary establish permanent soil stabilization.

seeded by temporary seeding mix.

Maintain erosion control measures after each



PROJECT NO. 13-5544

- CIVIL ENGINEERING
- LAND SURVEYING
- ARCHITECTURE
- SITE DEVELOPMENT
- MASTER PLANNING
- GENERAL CONSULTING

530A E. INDEPENDENCE DRIVE, UNION, MISSOURI 63084
TELEPHONE (636) 584-0540
FAX (636) 584-0512
E-MAIL mail@cochraneng.com

**MARCH, 2014** 

# PRELIMINARY DRAWING

SHEET INDEX

SIDEWALK PLAN & PROFILE

FISHING DOCK PLAN VIEW(STANDARD MDC DETAILS)

WALKWAY RAMP DETAILS (STANDARD MDC DETAILS)

HEAD WALL DETAILS (STANDARD MDC DETAILS)

DOCK STRUCTURE DETAILS (STANDARD MDC DETAILS)

STIFF ARM STRUCTURE DETAILS (STANDARD MDC DETAILS)

FOR REVIEW PURPOSES ONLY
NOT TO BE USED FOR CONSTRUCTION

Two working days prior to the start of any excavation on this site, contractor shall call 1—800—DIG—RITE for utility location information.

All OSHA rules & regulations

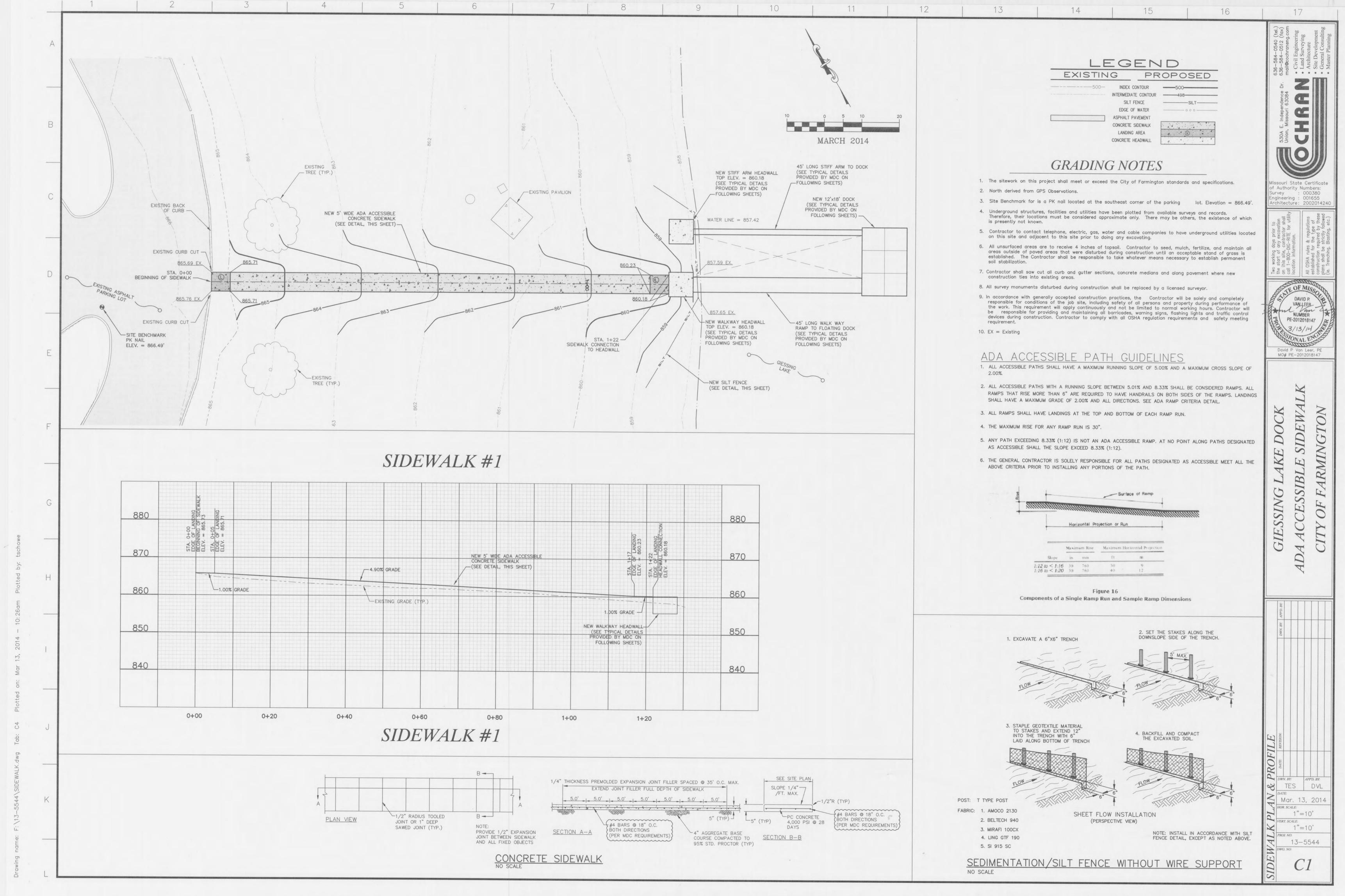
All OSHA rules & regulations established for the type of construction required by these plans shall be strictly followed (ie. Trenching, Blasting, etc.)

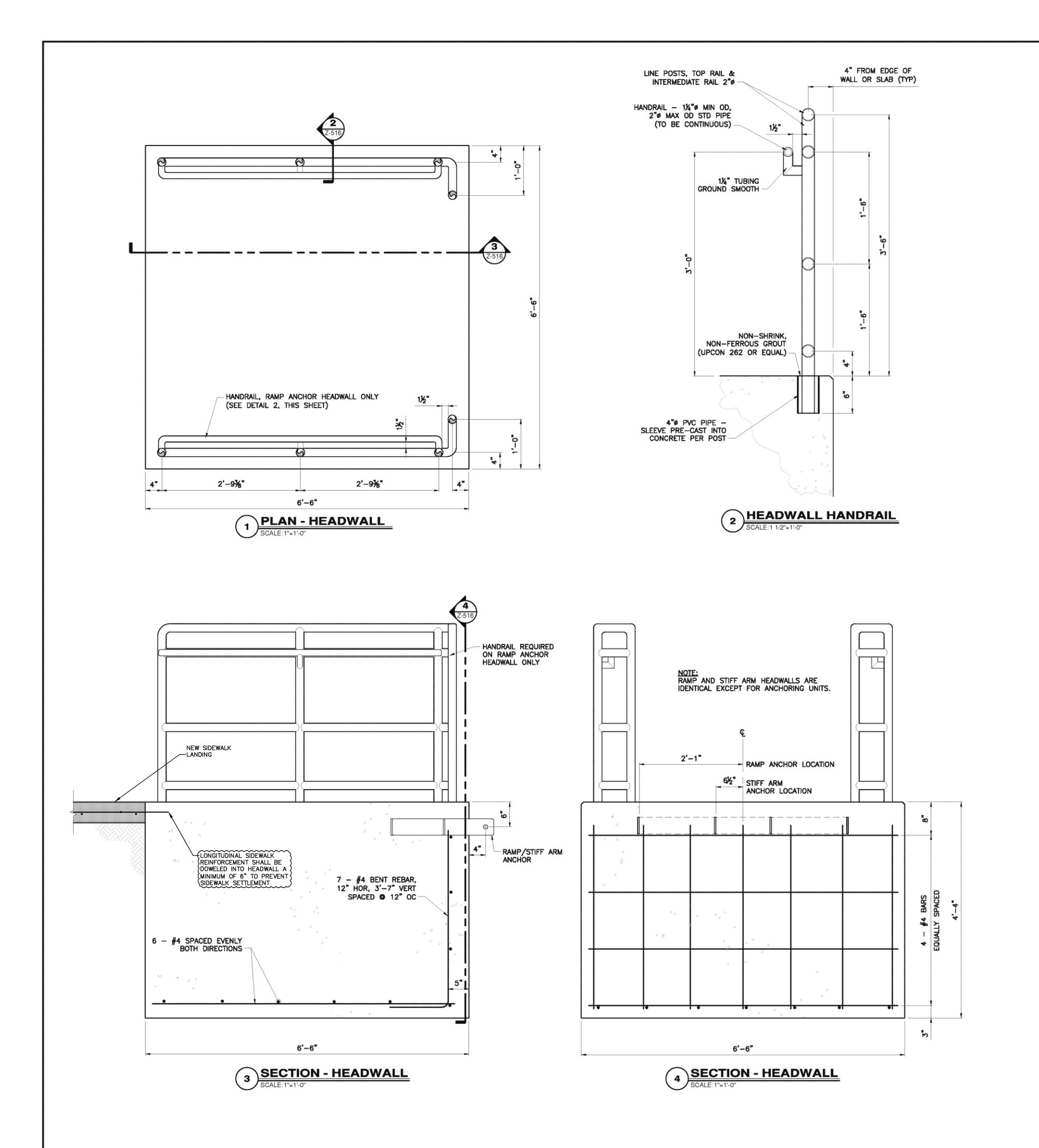
C1 Z-512

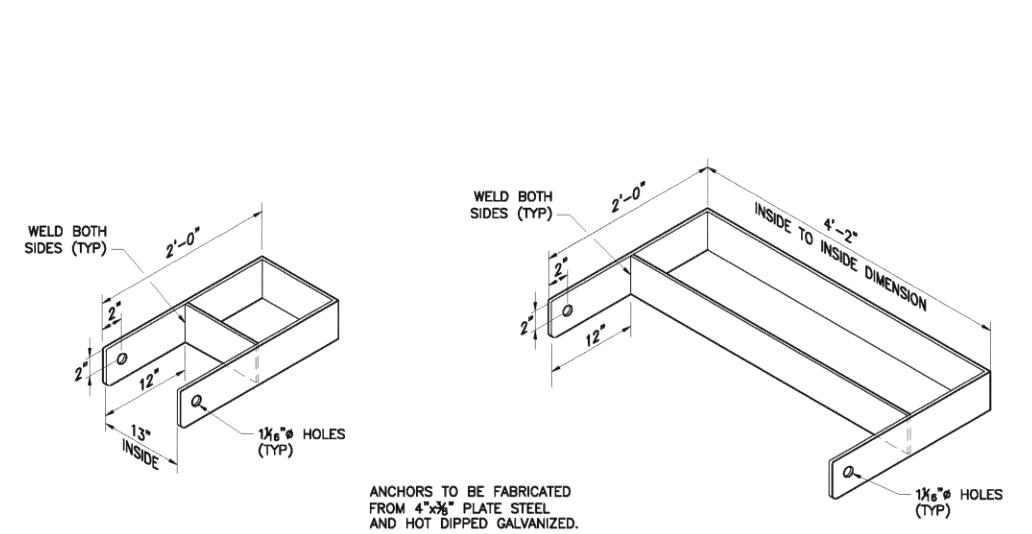
Z-513

Z-514

Z-515 Z-516







6 RAMP ANCHOR SCALE:NTS

MISSOURI DEPARTMENT OF CONSERVATION P.O. BOX 180, JEFFERSON CITY, MO 65102 (573) 522-4115 www.mdc.mo.gov

> **PRELIMINARY** NOT FOR CONSTRUCTION

**COURTESY DOCK OR FISHING DOCK HEAD WALL DETAILS** 

STANDARD DRAWING

# HANDRAIL SPECIFICATIONS

5 STIFF ARM ANCHOR SCALE:NTS

- 1. LINE POSTS, TOP RAIL & INTERMEDIATE RAIL TO BE 2" STD PIPE (.154 WT).
- 2. HANDRAIL SHALL BE 11/4" MIN 2" MAX STD PIPE (.140 WT)(1.315" OD).
- 3. ENDS OF PIPE FOR HANDRAIL TO BE CAPPED, WELDED & GROUND SMOOTH.
- 4. HANDRAIL TO BE GROUND SMOOTH AND GALVANIZED AS PER SPECIFICATIONS.

AS PER SPECIFICATIONS AND AS APPROVED BY ENGINEER.

5. HANDRAIL SHALL BE SHOP FABRICATED AND GALVANIZED AS PER SPECIFICATIONS.

- 6. 2"x2" SQUARE STRUCTURAL TUBING WITH ¾6" MIN WALL MAY BE USED FOR POSTS AND RAIL IN LIEU STD ROUND PIPE. 7. ALL HOLES AND/OR OPENINGS IN FABRICATED HANDRAIL SHALL BE FILLED AND PAINTED
- 8. NO FIELD WELD SPLICES SHALL BE ALLOWED UNLESS APPROVED IN WRITING BY THE

# GENERAL NOTE:

- 1. ALL STEEL PARTS AND ASSEMBLIES SHALL BE HOT DIP GALVANIZED. THIS INCLUDES ALL STEEL SHAPES, PLATES, BARS, TUBING, ROOF PANELS, BOLTS NUTS, WASHERS, ANCHORS, AND ALL OTHER STEEL MATERIALS.
- 2. CONTRACTOR SHALL ENSURE ALL CONSTRUCTION COMPLIES WITH CURRENT ADA ACCESSIBILITY GUIDELINES.
- 3. THE ABOVE DRAWINGS ARE NOT DESIGN DRAWINGS AND ARE JUST A REPRESENTATION OF WHAT IS EXPECTED. SEALED AND SIGNED SHOP DRAWINGS FROM A REGISTERED PROFESSIONAL ENGINEER ARE REQUIRED FROM THE DOCK SUPPLIER.

MARK DATE DESCRIPTION ISSUE

PROJECT NO: STANDARD

CAD DWG FILE:

Z-516.dwg DRAWN BY: STANDARD DESIGNED BY: STANDARD

CHECKED BY: STANDARD SHEET TITLE

**HEAD WALL DETAILS** 

**Z-516**