

INVITATION FOR BID (IFB) EAST MARKET STREET (ROUTE 7) & BATTLEFIELD PARKWAY INTERCHANGE LANDSCAPING

ISSUE DATE: Thursday, April 27, 2023

IFB NO.: 15303-FY23-51

QUESTIONS DUE: Monday, May 8, 2023; 5:00 p.m.

BIDS DUE: Thursday, May 18, 2023; 3:00 p.m.

DELIVERY ADDRESS: Commonwealth's eProcurement Website

www.eva.virginia.gov

CONTACT: Cindy Steyer, CPPB, VCO

Senior Contract Specialist Phone: 703-779-4007

Email: CapitalBidQuestions@leesburgva.gov

NOTE: Effective January 1, 2021, and until further notice, all bids and proposals in response to a formal solicitation issued by the Town will be securely received via eVA, the Commonwealth's eProcurement website. All formal solicitations, including notices of addenda, will be posted on the Town's Bid Board (http://www.leesburgva.gov/bidboard) and eVA (www.eva.virginia.gov). Courtesy notifications will be provided to interested parties who have registered to receive updates. Interested parties are responsible for providing the correct contact information to the Town.

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TOWN OF LEESBURG ADVERTISEMENT FOR BID

IFB NO. 15303-FY23-51 EAST MARKET STREET (ROUTE 7) & BATTLEFIELD PARKWAY INTERCHANGE LANDSCAPING

**NOTE: Effective January 1, 2021, all bids and proposals in response to a formal solicitation issued by the Town will be securely received via eVA, the Commonwealth's eProcurement website. Additionally, at this time the Town is not conducting in-person public bid openings. **

SEALED BIDS to construct the above project WILL BE RECEIVED by the Town of Leesburg, electronically via the Commonwealth's e-procurement website (www.eva.virginia.gov), **UNTIL BUT NO LATER THAN 3:00 P.M. ON THURSDAY, MAY 18, 2023**. Bids shall be submitted electronically using the following naming convention: the IFB number and the name of the bidder (i.e. "IFB No. 15303-FY23-51_Your Company's Name").

All questions regarding this bid must be <u>submitted</u> in writing via email to CapitalBidQuestions@leesburgva.gov until but no later than 5:00 P.M. on Monday, May 8, 2023.

Bids will be publicly opened via Microsoft Teams using the eVA e-Procurement website at the due date and time listed above. The bid opening will be livestreamed via Microsoft Teams and made available to the public.

- To join the meeting and view the video shared by the Town of Leesburg from your computer, please see the following link(s): Click here to join the meeting or <a href="https://teams.microsoft.com/l/meetup-join/19%3ameeting_YzM2NWQzZmMtYmZjNC000TFkLWI3ZmItNDQ2MGNiZTY30Dc2%40thread.v2/0?context=%7b%22Tid%22%3a%22fcff6f14-98e4-4734-bf54-941f010e77b7%22%2c%22Oid%22%3a%22b08c9db0-f4a3-4eed-87b5-2fe32ac2c53a%22%7d
- To join the meeting via phone, please see the following dial-in info:

Dial In #: +1 689-218-0588

Phone Conference ID: 706 290 207# For more information: <u>Learn More</u>

Work includes landscaping services, including, but not limited to tree plantings, mulching, maintenance including watering, any necessary traffic control and all incidentals related thereto to complete all of the landscape work as shown on the attached plans and specifications. The Town reserves the right to perform all, part, or none of the work.

Bid Documents available for download from the Town's Bid Board are at http://www.leesburgva.gov/bidboard. Any addenda issued for this project will be posted on the Town's Bid Board and eVA (https://eva.virginia.gov) with a courtesy email to those firms who have registered on the Town's Bid Board. It is the bidders' responsibility to provide a correct email address and to be aware of any addenda.

Cindy Steyer, CPPB, VCO Senior Contract Specialist



Bidders shall submit bids to the Town in accordance with the Submission of Bids section of the Bid Documents and shall include the following completed documents with their bid submission:

Checklist

 Bid Submission Form (includes Conflict of Interest and Collusion Certifications)
 Acknowledgement of Addenda
 Bid Form – Pricing (For Reference Only) ** SUBMITTED ELECTRONICALLY
VIA EVA**
 Escrow of Retained Funds
 Bid Bond ** The bid bond includes a certification of consent to electronic signatures
and digital seal. The Town reserves the right to request a wet signature, raised seal
bid bond. See the Bid Bond section of the Bid Documents for details and instructions.
**
 Cashier's Check (in lieu of a Bid Bond) ** When the bid security is in the form of a
cashier's check, a copy of the cashier's check shall be submitted with the bid and the
original cashier's check shall be delivered to the Town within two (2) business days after
the bids are due to the Town. See the Bid Bond section of the Bid Documents for details
and instructions. **
Qualification Form
Reference Form
Subcontractor Form

Bidders shall use the required bid response forms included in the Bid Documents when submitting their bid to the Town. Bidders who do not provide all required bid response forms may be deemed non-responsive.



BID SUBMISSION FORM

IFB NO. 15303-FY23-51 EAST MARKET STREET (ROUTE 7) & BATTLEFIELD PARKWAY INTERCHANGE LANDSCAPING

SUBMIT A SIGNED BID FORM VIA EVA, WWW.EVA.VIRGINIA.GOV

FORMAL BIDS WILL BE DUE NO LATER THAN: 3:00 P.M. ON THURSDAY, MAY 18, 2023

The undersigned agrees to furnish all necessary labor, equipment, materials, and all things necessary to perform the work as set forth in accordance with the plans and specifications at the following prices.

SECTION I – COMPANY IDE	ENTIFICATION AND OWNER	SHIP DISCLOSURE
Company		
Address		
Contact Person	Title	
Telephone No	Fax No	
Email		
Business Type (check one):		
Corporation	Limited Partnership	Limited Liability Company
General Partnership	Unincorporated Assoc.	Sole Proprietorship
Organized under the laws of the	e State of	
State Corp. Commission Regis	tration No	(attach Certificate of Good Standing)
Virginia Contractor's License 1	No	_
Federal Identification No.		

The Town of Leesburg requests, as a matter of policy, that any bidder receiving a contract of award resulting from a formal solicitation issued by the Town shall make certification as specified below. Receipt of such certification, shall be a prerequisite to the award of contract and payment thereof.

SECTION II – EMPLOYEES NOT TO BENEFIT - I (we) hereby certify that if the contract is awarded to our company, partnership, or corporation, that no employee of the Town of Leesburg, or members of his/her immediate family, including spouse, parents or children has received or been promised, directly or indirectly, any financial benefit, by way of fee, commission, finder's fee, political contribution or any similar form of remuneration on account of the act of awarding and/or executing this contract.

SECTION III – CONFLICTS OF INTEREST - This solicitation is subject to the provisions of VA Code Ann. Section 2.1-639.2 et seq., the State and Local Government Conflict of Interests Act.

<u>The Bidder [] is [] is not aware of any information bearing on the existence of any potential organizational conflict of interest.</u> Bidder must select one or the other (not both) by inserting a checkmark (\checkmark) or the letter "X".

SECTION IV – COLLUSION - I certify that this offer is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting an offer for the same services, materials, supplies, or equipment and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of the State and federal law and can result in fines, prison sentences, and civil damage awards. I hereby certify that the responses to the above representations, certifications, and other statements are accurate and complete. I agree to abide by all conditions of this IFB and certify that I am authorized to sign for my company.

Signature	Date
Name (Printed)	Title_

BIDDER MUST RETURN THIS FORM WITH THEIR BID



ACKNOWLEDGEMENT OF ADDENDA IFB NO. 15303-FY23-51 EAST MARKET STREET (ROUTE 7) & BATTLEFIELD PARKWAY INTERCHANGE LANDSCAPING

Bidder acknowledges receipt of the following ADDENDA, which have been considered in the preparation of this bid.

Addendum No	Dated:
Addendum No	Dated:
Addendum No.	Dated:
Addendum No.	Dated:

BIDDER MUST RETURN THIS FORM WITH THEIR BID

<u>BID FORM – FOR REFERENCE ONLY</u>
** Submit bid pricing electronically via eVA. This form is for reference only and should not be submitted with a bid. **

Item	Description	Unit	Quantity	Unit Price	Extended Price
1	Mobilization	Each	1		
2	Acer rubrum 'October Glory' (October Glory Red Maple), 2" Caliper Minimum, Balled and Burlapped or Container	Each	13		
3	Quercus rubra (Northern Red Oak), 2" Caliper Minimum, Balled and Burlapped or Container	Each	27		
4	Nyssa sylvatica (Black Gum), 2" Caliper Minimum, Balled and Burlapped or Container	Each	3		
5	Cersis Canadensis (Eastern Redbud), 1.5" Caliper Minimum, Balled and Burlapped or Container	Each	21		
6	Lagerstroemia indica 'Tuscarora' (Crape Myrtle), #15 Container	Each	15		
7	Juniperus virginiana (Eastern Red Cedar), 6' Height Minimum, Balled and Burlapped	Each	5		
8	Cornus alba 'Sibirica' (Red Twig Dogwood), #3 Container	Each	159		
9	Cornus racemose (Gray Twig Dogwood), #3 Container	Each	109		
10	Juniperus conferta 'Blue Pacific' (Blue Pacific Juniper), #3 Container	Each	358		
11	Rhus aromatica 'Gro-Low' (Gro-Low Sumac), #3 Container	Each	328		
12	Itea Virginica 'Henry Garnet' (Virginia Sweetspire), #3 Container	Each	169		
13	Abelia x grandiflora 'Kaleidoscope' (Glossy Abelia), #3 Container	Each	203		
14	Muhlenbergia capillaris (Muhly Grass), #2 Container	Each	224		
15	Pennisetum alopecuroides 'hameln' (Fountaingrass), #2 Container	Each	55		
16	Perovskia atriplicifolia (Russian Sage "Little Spire"), #2 Container	Each	120		
17	Meadow Mix (Eden Brothers Northeast Wildflower Seed Mix or Approved Equal); includes soil preparation	Square Yard	6,693		

Item	Description	Unit	Quantity	Unit Price	Extended Price
18	Tall Fescue Blend - Aerate and Slit Seed	Square Yard	8,404		
19	Tall Fescue Blend – Hydroseed	Square Yard	2,874		
20	Weekly Watering of all plants and grass for eight (8) months	Each	32		
	TOTAL BID PRICE (SUM OF EXTENDED PRICES OF ITEMS 1 – 20)				

NOT A PART OF THE BID PACKAGE. DO NOT RETURN THIS FORM WITH BID.

ESCROW OF RETAINED FUNDS

In accordance with Section 2.2-4334 of the Virginia Public Procurement Act (VPPA), any Contract valued at \$200,000.00 or more for construction of highways, roads, streets, bridges, parking lots, demolition, clearing, grading, excavating, paving, pile driving miscellaneous drainage structures, and the installation of water, gas, sewer lines and pumping stations where portions of the Contract price are to be retained, at the time of submitting a bid, the CONTRACTOR shall have the option to indicate preference for using the escrow account procedure for utilization of the Town retained funds by so indicating in the space provided in the proposal documents. In the event the successful Contract elects to use the escrow account procedure, the "Escrow Agreement" included in the Contract documents shall be executed and submitted to the Procurement Contact within 15 days after receipt of the Notice to Award. If the "Escrow Agreement" form is not submitted, the CONTRACTOR shall forfeit his rights to the use of the escrow account procedure within the 15-day period.

In order to have retained funds paid to an escrow agent, the CONTRACTOR, the escrow agent, and the surety shall execute the "Escrow Agreement" furnished by the TOWN, and submit same to the Procurement Contact for approval. The CONTRACTOR's escrow agent shall be a trust company, approved bank or savings and loan institution with its principal office located in the Commonwealth of Virginia. The "Escrow Agreement" shall contain the complete address of the escrow agent and surety, and the executed "Escrow Agreement" will be authority for the TOWN to make payment of retained funds to the escrow agent. After approving the agreement, the TOWN will pay to the escrow agent the funds retained as provided herein, except that funds retained for lack of progress or other deficiencies on the part of the CONTRACTOR will not be paid to the escrow agent. The escrow agent may, in accordance with the stipulations contained in the "Escrow Agreement", invest the funds paid into the escrow account and pay earnings on such investments to the CONTRACTOR, or release the funds to the CONTRACTOR, provided such funds are fully secured by approved securities.

Retained funds invested, and securities held as collateral for retainage may be released only as and when directed by the Procurement Contact. When the final estimate is released for payment, the Procurement Contact will direct the escrow agent to settle the escrow amount by paying the CONTRACTOR or the TOWN monies due them as determined by Procurement Contact. The TOWN reserves the right to recall retained funds and to release same to the surety upon receipt of written request from the CONTRACTOR or in the event of default.

- () We elect to use the escrow account procedure for the deposit of retained funds.
- () We elect not to use the escrow account procedure for the deposit of retained funds.

BIDDER MUST RETURN THIS FORM WITH THEIR BID

BID BOND

	BOND NO	•
	AMOUNT:	\$
KNOW ALL MEN BY THES	SE MEN PRESENTS, that	
hereinafter called the PRINCI	PAL, and	a corporation
duly organized under the laws	of the State of	having its principal place of
business at	in the State of	and authorized to
do business in the Commonwe	ealth of Virginia, as SURETY, are he	eld and firmly bound unto
	, as OWNER, hereinafter of	called the OBLIGEE, in the sum of
	DOLLARS (\$) for the payment for
which we bind ourselves, our	r heirs, executors, administrators, s	uccessors, and assigns, jointly and
severally, firmly by these pres	sents.	
THE CONDITION OF THIS	BOND IS SUCH THAT:	
WHEREAS, the PRINCIPAL	is herewith submitting his or its Bid	Proposal for
	said Bid P	roposal, by reference thereto, being
hereby made a part hereof.		
NOW THEREFORE.		

- (A) If the bid shall remain open for a period of not less than 60 days following opening of the bids and be rejected, or in the alternate,
- (B) If the bid shall remain open for a period of not less than 60 days following opening of the bids and be accepted and the PRINCIPAL shall execute and deliver a Contract in the form of Contract attached hereto (properly completed in accordance with the bid) and shall furnish a performance and payment deposit or surety bond for his faithful performance of the Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith,
- (C) THEN, this obligation shall be void; otherwise the same shall remain in force and effect, it being expressly understood and agreed that the liability of the SURETY for any and all claims hereunder shall, in no event, exceed the said amount of this obligation as herein stated. Provided, however, that in addition to the amount of this obligation as herein stated, the SURETY shall be liable for all costs and attorney's fees incurred by the OBLIGEE in enforcing the obligations hereunder.

The SURETY, for value received, hereby stipulates and agrees that the obligation of the SURETY and its bond shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such bid; and the SURETY does hereby waive notice of such extension.

Rev. 6.17.22

Bid Bond – Page 1 of 2

Electronic Signature/Digital Seal

and have executed this instrument and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above. Signed and sealed this day of , 20 . PRINCIPAL SURETY IMPORTANT: The SURETY executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the Commonwealth of Virginia. **CERTIFICATION OF CONSENT TO** ELECTRONIC SIGNATURES AND DIGITAL SEAL Principal and Surety hereby consent to conduct the transaction of execution of this Bond by electronic means pursuant to the provisions of Va. Code Ann. §§ 59.1-479 through 496, and agree that the Obligee (and any other beneficiary) may rely upon electronic signatures on this Bond or copies thereof as the original signature(s) for enforcement of any obligations of Principal and Surety under this Bond, with no necessity to provide a wet signature version. Further, Surety has authorized its Attorney-in-Fact to digitally affix Surety's corporate seal to this bond. Surety hereby agrees that the digital seal below shall be deemed affixed to this Bond to the same extent as if its raised corporate seal was physically affixed to the face of the Bond. Signed and sealed this day of , 20 . For **Principal** by: Name and Title For **Surety** by: Attorney-in-Fact

IN WITNESS WHEREOF, the PRINCIPAL and the SURETY have hereunto set their hands and seals,

BIDDER MUST RETURN THIS FORM WITH THEIR BID

[Digital Seal]

Rev. 6.17.22 Bid Bond – Page 2 of 2 Electronic Signature/Digital Seal

QUALIFICATION FORM

Note: Please refer to the QUALIFICATIONS OF THE LOWEST RESPONSIVE BIDDER SECTION of the Bid Documents. The following information is required as part of your response to this solicitation. Failure to complete and provide this form with your bid response may result in the Town deeming your bid as non-responsive.

1.

Qualification: Bidder must have the capability and capacity in all respects to satisfy fully all of the

	contractual requirements.		
2.	Years in Business: Indic good or service:	ate the length of time you have be	en in business providing this type of
	Years:	Months:	
3.	Contractor's Primary Con	tact(s) for this project:	
	Project Manager:	Email:	Phone:
	Superintendent:	Email:	Phone:
	Other (list title):	Email:	Phone:
4.	(10) years for which both project have successfully	the Project Manager and Superinte worked. Include reference contact	ar size and scope within the past ten endent specified and assigned for this information (name, email, and phone rvice, and the contract value of the
	Company (Owner):	Contac	t:
	Phone: ()	Email Address:	
	Project Description:		
			Value (\$):
	Company (Owner):	Contac	t:
	Phone: ()	Email Address:	····
	Project Description:		
	Dates of Service:		Value (\$):
	Company (Owner):	Contac	t:
	Phone: ()	Email Address:	
	Project Description:		
	Dates of Sarvices		Value (\$):

BIDDER MUST RETURN THIS FORM WITH THEIR BID

REFERENCE FORM

Note: Please refer to the QUALIFICATIONS OF THE LOWEST RESPONSIVE BIDDER SECTION of the Bid Documents. Indicate below a listing of at least three (3) current or recent municipal clients for whom the Contractor has performed and completed this type of work. Include reference contact information (email and phone number), a short description of work performed, the dates of service, and the name, email address, and telephone number of the point of contact. Failure to complete and provide this form with your bid response may result in the Town deeming your bid as non-responsive.

Reference No. 1 (Required):

Customer (Owner) Representative's	Name	
Description of Work Performed & D	Dates of Service	
Representative's Name	Phone Number	Email Address
Reference No. 2 (Required):		
Customer (Owner) Representative's	Name	
Description of Work Performed & D	Dates of Service	
Representative's Name	Phone Number	Email Address
Reference No. 3 (Required):		
Customer (Owner) Representative's	Name	
Description of Work Performed & D	Dates of Service	
Representative's Name	Phone Number	Email Address

Reference No. 4 (Optional):		
Customer (Owner) Representative's	Name	
D ' (' CW 1 D C 10 F	Y. CG	
Description of Work Performed & D	Jates of Service	
Representative's Name	Phone Number	Email Address
Reference No. 5 (Optional):		
Customer (Owner) Representative's	Name	
Description of Work Performed & D	Dates of Service	
•		
Representative's Name	Phone Number	Email Address

BIDDER MUST RETURN THIS FORM WITH THEIR BID

SUBCONTRACTOR FORM

Note: Please note QUALIFICATIONS OF THE LOWEST RESPONSIVE BIDDER SECTION of the Bid Documents. The following information is required as part of your response to this solicitation. Failure to complete and provide this form with your bid response may result in the Town deeming your bid as non-responsive.

If you are NOT using any subcontractor(s), please initial here _____

Subcontractor(s) Name & Address	Contact Name, Email Address, & Phone Number	Type of Work to Be Performed	Percei W
e agree that the info our knowledge.	rmation provided herein is accurate	c, current, and complete	to the bes
nature:			_

BIDDER MUST RETURN THIS FORM WITH THEIR BID

INSTRUCTIONS TO BIDDERS

BACKGROUND

The Town of Leesburg is located 35 miles west of Washington, D.C. The Town encompasses an area of 12 square miles with an estimated population of 62,500. The Town's fiscal year begins on July 1 and ends on June 30. As a government entity, the Town of Leesburg is exempt from being taxed on goods and services.

The Town of Leesburg is a full-service municipal corporation that provides the following services to Town residents and businesses: police, refuse collection and disposal, water and sewer utilities, storm water management, airport, parks and recreation, and maintenance of streets and roadways.

The East Market Street (Route 7) and Battlefield Parkway interchange was opened to traffic in July 2021. The interchange replaced the previously signalized intersection, which was heavily congested and had one of the highest accident rates in the Town.

Landscaping is one of the final portions of the project.

SCOPE OF WORK

The Town of Leesburg, Virginia (Town) is requesting sealed bids from qualified Bidders to provide landscaping services for the East Market Street (Route 7) and Battlefield Parkway Interchange Landscaping project.

The successful bidder, also referred to herein as "Contractor", shall provide landscaping services, including, but not limited to tree plantings, mulching, maintenance including watering, any necessary traffic control and all incidentals related thereto to complete all of the landscape work as shown on the attached plans and specifications. The Town reserves the right to perform all, part, or none of the work.

QUESTIONS AND INQUIRIES (VPPA 2.2-4316)

Unless otherwise instructed, the Procurement Contact is the sole point of contact for questions concerning this IFB. Questions concerning this IFB, including comments concerning specifications, must be made in writing via email to the Procurement Contact listed on the cover page of the IFB. Questions must be received by the date and time listed on the cover page of this IFB.

A formal addendum responding to all questions received by the deadline will be made available no later than five business days before the bid due date. Additional clarifications to the specifications will also be in the form of a written addendum. All addenda will be posted on the Town's website. Such addenda will become part of the contract documents. Verbal instructions are not binding and will not form a part of the bid documents. It is the bidder's responsibility to obtain all addenda from the Town's website: http://www.leesburgva.gov/bidboard.

USE OF BRAND NAMES/SUBSTITUTIONS (VPPA 2.2-4315)

In accordance with Section 2.2-4315 of the VPPA, unless otherwise provided in the Invitation to Bid, the name of a certain brand, make or manufacturer shall not restrict bidders to the specific brand, make or manufacturer named and shall be deemed to convey the general style, type, character, and quality of the article desired. Any article that the Town in its sole discretion determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted. Written requests for approval of substitutions may be submitted to the Town during the bidding period. Approval of substitutions will be made by Addenda. A request for substitution must be received by the Town by the Questions and Inquiries due date and time listed on the cover page of this IFB. The Town may decline to consider requests that are incomplete or not received in accordance with the time limitation.

INCOMPLETE DOCUMENTS

The Contractor, as a bidder, is responsible for having determined the accuracy and completeness of bid documents upon which it relied in making its bid, and having notified the Procurement Contact immediately upon discovery of an apparent inaccuracy, error in, or omission of any pages, drawings, sections, or addenda whose omission from the documents was apparent from a reference or page numbering in the bidding documents.

If the Contractor proceeds with any activity that may be affected by an inaccuracy, error in, or omission described above, of which it has not notified the Procurement Contact, the Contractor hereby agrees to perform any work described in such missing or incomplete documents at no additional cost to the Town.

FORM AND STYLE OF BIDS

Bids shall be submitted electronically via the Commonwealth's electronic procurement website (eVA). Unless otherwise specified or permitted herein, prices shall be submitted on all line items shown in eVA. In addition to submitting bid pricing electronically via eVA, bidder shall also upload all completed bid response forms as required by the Town with their Bid.

Bids shall include the legal name of the Bidder and a statement that the Bidder is a sole proprietor, partnership, corporation, or other legal entity. Bids shall be signed by the person or persons legally authorized to bind the Bidder to a contract. During the COVID-19 State of Emergency, and for the duration of the Emergency or until further notice, electronic signatures will be accepted by the Town; submission of a bid through the eVA system constitutes your representation that your firm authorizes the use of electronic signatures. A Bid by a corporation shall further give the state of incorporation and have the corporate seal affixed. All names shall be typed or printed in ink below the signatures. The address, phone number and email address for communication regarding the bid shall be shown.

BID BOND

NOTE: THIS SECTION CONTAINS REVISED PROCUREMENT PROCEDURES

Each bid shall be accompanied with a copy of the bid security (on enclosed bid bond form or in the form of a cashier's check), in the amount of five percent (5%) of the bidder's Total Bid Price, pledging that the Bidder will enter into a Contract with the TOWN on the terms stated in the Bid. Should the Bidder refuse to enter into such Contract the amount of the bid security shall be forfeited to the TOWN as liquidated damages, not as a penalty. The amount of the bid security shall not be forfeited to the TOWN in the event the TOWN fails to prove financial capability if requested in writing by the successful bidder. Pursuant to VPPA Section 2.2-4336.

The provided bid bond form includes a certification of consent to electronic signatures and digital seal, which must be completed. The Town reserves the right to require any bidder to submit a wet signature, raised seal bid bond at the Town's request.

If bidder's surety does not authorize electronically signed (digitally sealed) bid bonds in the form requested, bidder may satisfy the bid bond requirement by submitting an original wet signature, raised seal bid bond to the Town within two (2) business days after bid opening, provided that bidder also includes the following documentation with the bid submission package via eVA: written confirmation from the surety stating that the surety will not provide an electronically signed (digitally sealed) bid bond in the form requested; AND a .pdf copy of the original wet signature, raised seal bid bond.

When the bid security is in the form of a cashier's check, a copy of the cashier's check shall be submitted with the bid and the original cashier's check shall be delivered to the Town within two (2) business days after the bids are due to the Town. The original cashier's check shall be mailed/delivered to: Town of Leesburg, Virginia, Attn: Procurement Office, 25 W. Market Street, Leesburg, VA 20176. The Town reserves the right to deem bidders non-responsive for failure to provide the original cashier's check within the timeframe specified.

The TOWN will have the right to retain the bid security of Bidders to whom an award is being considered until either (a) the Contract has been executed or (b) the specified time has elapsed so that Bids may be withdrawn, or (c) all Bids have been rejected.

TOWN OF LEESBURG BUSINESS PROFESSIONAL AND OCCUPATION LICENSE (BPOL)

Bidders do not have to obtain a BPOL license in order to submit a bid to the Town; however, the successful bidder must obtain a license, if applicable, prior to award of the contract.

The successful bidder must comply with the provisions of Section 20-233 (License requirement) of the Town of Leesburg Code, if applicable. For information on the provisions of this chapter and its applicability to this Contract, contact the Town of Leesburg Accounting Associate, Finance Department, Town of Leesburg, Virginia, at telephone number 703-771-2753 or email BusinessLic@leesburgva.gov.

SCC IDENTIFICATION NUMBER (VPPA SECTION 2.2-4311.2)

Every Bidder must include their State Corporation Commission (SCC) Identification Number or reason for exemption with his/her bid. If this information is not included, the Bid may be rejected.

<u>VIRGINIA CONTRACTOR'S LICENSE NUMBER (CODE OF VIRGINIA §54.1-1115, A1 AND A6)</u>

Bidder certifies that he/she is properly registered as a licensed Contractor under Title 54 of the Code of Virginia. Bidder shall provide his/her Virginia Contractor's License Number in the designated location on the Bid Response Form or the Bid may be rejected.

SUBMISSION OF BIDS

In order to be considered for a contract award, bidders must complete and submit a response to this IFB via the Commonwealth's electronic procurement website eVA (www.eva.virginia.gov). eVA streamlines and automates government purchasing activities in the Commonwealth. The eVA portal is the gateway for vendors to conduct business with state agencies and public bodies. Bidders desiring to provide goods and/or services to the Town must be a registered vendor in eVA. eVA Vendor Registration is free.

On the eVA website, www.eva.virginia.gov, applicants must login as a vendor using their eVA username and password. Please contact eVA Customer Care for instructions and/or assistance in registering to become a vendor, login, and/or uploading documents. eVA Customer Care:

Hours: 8:00 AM to 4:45 PM, Monday through Friday Phone Toll Free: 866-289-7367 Email: eVACustomerCare@DGS.Virginia.gov

Bids shall be submitted electronically to the Town via the Commonwealth's eVA website **prior** to the bid submission deadline stipulated for this IFB or as amended via any subsequent addenda issued by the Town. Bidders assume full responsibility for the electronic delivery of the completed bid to www.eva.virginia.gov on or before the deadline for submission. The Town is not responsible for any loss or delay with respect to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will not property to the submission of bids. Late bids will <a href="motor property to the submission to the submission of the submission to the submission of the submission to the submission of the submission to the submission to the submission of the submission to the submission of the submission to the submission of the submission to the submission to the submission of the submi

All required forms and documentation submitted in response to this IFB must be uploaded as one (1) pdf attachment to eVA (www.eva.virginia.gov). The attachment should use the following naming convention: the IFB number and the name of the bidder (i.e. IFB No. _______ - Your Company's Name).

NOTE: eVA will not allow a bidder to upload documents after the deadline set for receipt of bids. Any submission partially uploaded at the deadline date and time will be considered incomplete and will not be accepted. ANY BID RECEIVED BY THE TOWN AFTER THE DEADLINE FOR SUBMISSION WILL NOT BE ACCEPTED.

MODIFICATION/WITHDRAWAL OF BID

A Bid may not be modified, withdrawn, or cancelled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid.

Prior to the time and date designated for receipt of Bids, a Bid submitted electronically to the Town via the Commonwealth's eVA website may be modified or withdrawn.

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

Bid security, if required, shall be in an amount sufficient for the Bid as modified or resubmitted.

If within two (2) business days after Bids are opened and Bidder files a duly signed written notice, accompanied by original work papers, with the TOWN that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Withdrawal of bids submitted to the TOWN is governed by Section 2.2-4330 of the Virginia Public Procurement Act (VPPA).

ACCEPTANCE OF BID (VPPA 2.2-4337)

The bids received shall be open to acceptance and is irrevocable for sixty (60) days from the Bid Closing date.

If the bid is accepted by the Town within the period specified above, the Contractor shall provide a certificate of insurance, Payment Bond, and Performance Bond within 10 days of the Notice of Award or Notice of Intent to Award. Each bond, the Performance Bond and the Payment Bond, shall be in the amount of 100% of the Contract Amount. The bonds shall be corporate surety bonds issued by a surety company authorized to do business in the Commonwealth of Virginia and acceptable to the Town. The Performance Bond will be conditioned upon the faithful performance of all of the work shown, described and required in the Contract Documents. The Payment Bond will be conditioned upon the payment of all persons who have and fulfill contracts for the Contractor for providing labor, equipment of material in the performance of the work provided for in the Contract Documents.

If this bid is accepted within the time stated, and the Contractor fails to provide the required Bonds, or commence the project as directed, the security deposit shall be forfeited as damages to the Town by reason or failure, limited in amount to the lesser of the face value of the security deposit or the difference between this Bid and the Bid upon which the Contract is signed.

CONSIDERATION OF BIDS & BID OPENING

The TOWN shall have the right to reject any or all Bids, reject a Bid not accompanied by a required bid security or by other data required by the Bidding Documents, or reject a Bid, which is in any way incomplete or irregular. Though the eVA website does not reject multiple bid submissions, the TOWN permits only one bid to be submitted by the same firm in response to this IFB. Accordingly, the Town reserves the right to reject multiple bids submitted by the same firm in eVA. If a bidder submits more than one bid in response to this IFB, only the most recent submission

will be considered, and previously submitted bids will be rejected.

All bids received will be opened publicly and read aloud utilizing the Commonwealth's eVA website. The bid opening for this project will be held at date and time specified in the Advertisement for Bid. The bid opening will be livestreamed via Microsoft Teams for accessibility to the public.

After the bids are opened and publicly read aloud, the Town will recalculate the arithmetic of all bids. The recalculation will consist of the following:

- 1. The Extended Price will be the Quantity x Unit Price. The accuracy of this calculation will be verified for all unit price items of work. All mathematical errors will be corrected to arrive at the correct extended price. If a bidder submits "NO BID" or no price is shown or entered for the Unit Price, the bidder shall be deemed non-responsive. If a bidder submits a price of "0" for the Unit Price, it will be understood to be at a unit price of zero or no cost to the Town.
- 2. The sum of all extensions will be calculated and any mathematical errors will be corrected.
- 3. If there are multiple sections to the bid, for example the Total Base Bid = Section 'A' + 'B', the sum of the sections will be calculated. All mathematical errors will be corrected.

The corrected price and correct sum thereof will be used to determine the lowest responsive, responsible bidder and will become the value of the recommended contract award.

NEGOTIATIONS WITH THE LOWEST RESPONSIVE BIDDER

Unless all bids are cancelled or rejected, the Town reserves the right granted by 2.2-4318 of the *Code of Virginia* to negotiate with the lowest responsive, responsible bidder to obtain a contract price within the funds available. Funds available shall mean those funds, which were budgeted for this contract prior to the issuance of the written Invitation for Bids. Negotiations with the low bidder may include both modifications of the bid price and the Scope of Work/Specifications to be performed. The Town shall initiate such negotiations by written notice to the lowest responsive, responsible bidder that its bid exceeds the available funds and the Town wishes to negotiate a lower contract price. The times, places, and manner of negotiating shall be agreed to by the Town and the lowest responsive, responsible bidder.

QUALIFICATIONS OF THE LOWEST RESPONSIVE BIDDER

This project requires specialized knowledge and expertise. The Contractor shall be well versed in the scope of work for this project. If the Contractor does not have specific experience with regards to projects similar in complexity they will not be considered for the award of this project. The Contractor must submit written information demonstrating experience by having completed a minimum of three (3) similar projects within the last ten (10) years and commit to the availability of key, skilled personnel necessary to complete the entire scope of work required for the project.

All qualification documentation shall be submitted as part of the bidder's bid package. Bids received without the required documentation shall be deemed non-responsive.

- 1. On the **Qualification Form**, the Contractor shall submit a minimum of three (3) similarly sized projects, and similar in scope, in the past ten (10) years, indicating client, project scope, location, and time frame.
 - The Superintendent and the Project Manager specified by the Contractor and assigned to this contract shall each have successfully worked on three (3) projects, similar in both size and scope, within the past ten (10) years. For work to be considered similar, work must be comparable to that shown in the scope of work.
- 2. On the **Reference Form**, provide a minimum of three (3) municipal clients for whom the Contractor has performed and completed this type of work. Include reference contact information (email and phone number), and a description of work.
- 3. The Contractor shall self-perform a majority of the work. At the time of the bid, the Contractor shall name any anticipated subcontractors and define the work expected to be performed on the contract by each subcontractor on the **Subcontractor Form**.

AWARD

It is the intent of the TOWN to award a Contract to the lowest responsive and responsible Bidder, up to the budgeted funding approved each Fiscal Year by the Town Council. The Town reserves the right to accept or to reject any or all bids in whole or in part, to make multiple awards, and to waive informalities in the process of awarding this contract. The Notice of Intent to Award a contract resulting from this Invitation for Bid will be posted on the Public Notice Board at 25 W. Market Street, Leesburg, VA and on the Town's Bid Board (https://www.leesburgva.gov/bidboard).

PROTEST

Any bidder or offeror who desires to protest the award or decision to award a contract shall submit such protest in writing to the TOWN, no later than 10 days after public notice of award or the announcement of the decision to award, whichever occurs first, pursuant to Section 2.2-4360 of the VPPA.

COMPENSATION AND PAYMENT

Payments are due and payable forty-five (45) days from the date of the Contractor's invoice. Amounts unpaid sixty (60) days after the invoice date shall bear interest at the base rate on corporate loans (prime rate) at large United States money center commercial banks as reported daily in the Publication entitled The Wall Street Journal.

COORDINATION WITH UTILITIES

The Contractor shall coordinate the work of his forces with the utility companies during the contract to ensure the continuing progress of all work to be performed within the project area. The Contractor shall notify "MISS UTILITY" at 1-800-552-7001, 72 hours prior to beginning construction.

It shall be the responsibility of the Contractor to notify operators who maintain underground utility lines in the area of proposed excavation or blasting at least five (5) business days prior to any construction, subsequent maintenance or repair.

The Contractor shall dig test holes over all existing utilities prior to construction to determine their exact location and shall notify the construction manager of any necessity for redesign.

CONTRACT TIME

Substantial Completion: 60 calendar days from Notice to Proceed Final Completion: 15 calendar days from Substantial Completion

Liquidated Damages: \$500.00 per day

Work is scheduled to begin in the fall of 2023.

TREES

In the event that a tree is injured or damaged, the Contractor should contact the Town's inspector immediately.

TREE INSTALLATION INSTRUCTIONS

- 1. Prior to the start of work, Contractor must have an initial onsite pre-construction meeting with the Urban Forester and other staff to outline the work area.
- 2. Contractor must give 48-hour notice before installation occurs.
- 3. Trees shall be inspected and approved by Urban Forester or Landscape Architect prior to installation.
- 4. Refer to the Town of Leesburg's Design and Construction Standards Manual (DCSM) for more instructions on proper tree storage, installation and maintenance. The DCSM is available on the Town of Leesburg's website: https://www.leesburgva.gov/government/browse-documents/-folder-554.
- 5. During inspection and/or installation, the Urban Forester shall have the right to inspect and/or reject up to 100% of all plant material that doesn't meet specifications.

SPECIAL PROJECT WARRANTY

Warranty for trees will be for a period of one year after date of final completion against defects including unsatisfactory growth or decline from improper handling, inadequate watering, poor installation, and death, but excepting defects resulting from neglect by Town, abuse or damage by others which are beyond Contractor's control.

Maintenance Required During Special Project Warranty Period

General: Prune dead, crossing, and diseased branches; water and irrigate the plant material at least once per week for the entire growing season of eight (8) months; remove competition (weeds and other noxious plants) during the one-year maintenance period as required for optimal health. Mulch with chips or nuggets (NOT finely shredded), to a depth, on average, of three (3) inches and not within 12 inches of the root collar, root flare, or topmost root. Tighten and repair stake

and guy supports (if supports are installed), and reset trees to proper grades or vertical position as required. Restore or replace damaged wrappings for the prevention of sun scald. Use integrated pest management techniques as required to keep trees free of insects and disease.

<u>Tree Replacement:</u> During the one-year warranty period, Contractor is responsible to replace trees if death occurs other than by vehicular traffic or act of God (any act which could not be foreseen or mitigated through human interaction, e.g., tornado, hurricane, flooding, straight line winds).

Remove trees found to be in poor, extreme poor health or dead during the one-year warranty period and notify the Urban Forester or other Town Staff of planned replanting during the next available spring or fall planting season. Urban Forester shall conduct a final inspection prior to bond release and make recommendations for removal and replacement of trees which shall occur during the next spring or fall planting season.

<u>Staking and Supports:</u> Contractor shall remove all above ground stakes and guy supports at the end of the 365-day warranty period. Below ground staking material shall be left in place if the material is biodegradable. If the below ground staking material is not biodegradable, then it shall be removed after the 365-day warranty period. If the tree cannot stand on its own accord after this warranty period, additional staking may occur at the responsibility of the Contractor to install or tighten and remove after an additional 365 days.

Watering: During the one-year warranty period, watering to be equivalent to 0.5 to 0.75 inches of precipitation per week. Regardless of precipitation the Contractor must manually water trees weekly during the growing season to ensure survival. Contractor shall provide a schedule of dates for the watering so the Urban Forester can inspect applications. If sufficient natural precipitation has fallen during a calendar week, then the Contractor may request from the Urban Forester that no watering should be performed during that week. The Urban Forester's decision will be final. The Urban Forester will from time to time on an as needed basis, inspect the trees and plants and may require the contractor to address any ongoing concerns that may affect the survivability.

CONTRACT ITEMS OF WORK

Tree Standards: Trees shall be free of pests and defects with no broken, crossing, or dead branches in the canopy. If the tree is to be a single stem, then only one central lead trunk shall be present with no damage to the trunk. If the tree is to be multi-stemmed, each stem must be robust and healthy. Roots greater than 0.25 inches in diameter shall not circle the outer most edge of the container and roots shall be healthy, with no rot or splitting. Roots should be transferred with a moderately hydrated root mass. Girdling roots shall be handled using the Rootball Correction Detail VS-12 and specification.

Tree Planting Season: Initial Trees shall be installed during the fall (generally October 15 to December 15). Replacement trees may be planted in the spring (generally March 15 to June 15) or fall (generally October 15 to December 15). Due to changing climatic weather conditions, these dates are not set; Contractor shall contact Urban Forester for approval of installation dates.

Additional Mulching Direction: Once the tree has been installed and a soil berm encircling the root

mass has been created, a layer of composted mulch shall be applied, not to exceed three (3) inches in depth at any place, in a round fashion. The diameter of the round mulch area will extend one (1) foot past the dripline of the tree being installed. There shall be no mulch within 6-8 inches of the trunk/stem of the tree and a visible flare shall be intact. All advantageous roots or circling/girdling roots at the surface of the root mass shall be cut cleanly and removed via the Rootball Correction Detail VS-12 and specifications.

Watering: Trees shall be watered twice during planting. After digging the planting hole, the hole shall be filled with water and allowed to percolate. Then after the tree is planted in the saturated hole, the root ball shall be watered again. Furthermore, within 72 hours of installation the trees shall be watered a third time. Then weekly waterings shall follow for the remaining growing season. For trees, approximately 25-35 gallons of potable water will be used to slowly and thoroughly hydrate the root mass at each watering.

Work Hour Restrictions: Work hours will be 9:00 a.m. to 4:00 p.m. Monday through Friday to avoid peak traffic hours. The Town must approve any other time of work.

Traffic Lanes: Any required traffic control is the responsibility of the contractor to be in accordance with the current edition of the Work Area Protection Manual. MOT devices will be provided by the Town of Leesburg for the Contractor to install and use on a daily basis. All traffic lanes affected by construction shall be opened to traffic at the conclusion of each workday. Town of Leesburg Streets Division shall provide MOT signage & cones at the mobilization. The Contractor is responsible for installing and adjusting the MOT each day as necessary as well as removing MOT each afternoon to open traffic lanes back up. All MOT is to be returned to the Streets Division upon completion. Any MOT that is not returned to Streets Division shall be back charged to Contractor.

Private Entrances and Driveways: The Contractor shall minimize the duration of any blockage to private entrances and driveways. The affected property owner shall be notified a minimum of 24 hours in advance of such activities and the Contractor shall make all private entrances and driveways accessible at the conclusion of each workday.

Construction Survey or Layout: The Contractor is responsible for its own survey or layout as required to build the project per plans.

Excavation: Haul-off excavation material shall be incidental to work items and Contractor shall include its cost in relevant pay items.

Hydrant Meter: If use of a fire hydrant if needed during construction, the Contractor is required to obtain a fire hydrant meter from Town's Utility Department to be used for withdrawing water. Any illegal hookup to a fire hydrant will result in a \$1,000 fine for the first offense and a \$2,500 fine for each subsequent offense on the same job.

Damage to Existing Fence: In the event that a fence is damaged, the Contractor shall replace in kind at no additional cost to the Town.

Test Pits: Test pits, if needed and as described on the plans in the General Notes and as required by Miss Utility, are to be considered incidental to all other line items of work.

MAINTENANCE OF TRAFFIC

The Contractor shall conduct its operations in a manner that will ensure that traffic will be uninterrupted except as approved by the Town. At the close of each workday, the Contractor shall make all private entrances and driveways accessible. The Contractor shall make provisions to maintain a safe area for pedestrian traffic at all times during the project. No excavation shall remain open within the roadway without the approval of the Town except when the excavation can be safely bridged with the use of steel plates or other materials acceptable to the Town. When areas of excavation outside of the roadway do remain open, the area shall be barricaded and warning signs shall be posted.

At all times the Contractor shall use the Town-provided traffic control signs and devices necessary to comply with Part VI of the "National Manual on Uniform Traffic Control Devices". During the progress of the work when, in addition to the Town provided devices, the street may be obstructed to any extent by construction equipment or construction operations, in addition to the signs and barricades, special workers provided by the Contractor, equipped with VDOT required "STOP\SLOW" double-sided traffic control paddles, shall be designated by the Contractor to direct traffic. These workers so designated shall not be assigned to any other duties while directly engaged in directing traffic. They may resume other work and responsibilities after directing traffic. The workers assigned to the flagging duties shall be VDOT-certified. The Contractor has sole responsibility for ensuring that its operations are conducted in a safe manner and notwithstanding any other provision to the contrary, shall fully indemnify the Town of Leesburg, its officers, agents and employees for any damage or injury related to traffic operations which is caused by negligent or otherwise improper or deficient performance under the Contract or nonperformance of the terms of the Contract.

- 1. All personnel for installing, adjusting and removing MOT shall be provided by the Contractor. All signs, barricades and any other items necessary for the maintenance of traffic and safety shall be provided by the Town of Leesburg.
- 2. The Contractor will not be permitted to work on the following holidays:
 - Annual Flower and Garden Show
 - Memorial Day
 - Independence Day
 - Labor Day
 - Thanksgiving

- Day after Thanksgiving
- Christmas Day
- Day after Christmas
- New Year's Day
- 3. The Contractor is required to submit a Maintenance of Traffic Plan for review and approval. Approval of the Maintenance of Traffic Plan is required prior to beginning any construction activities on the project. The Maintenance of Traffic Plan is required for the issuance of the required right-of-way permit issued by the Town of Leesburg. The right-of-way permit application can be found here: https://www.leesburgva.gov/departments/public-works/traffic-management-services/right-of-way-permits Since part of the work is in the VDOT right-of-ways, a VDOT right-of-way permit must also be obtained before mobilization. The VDOT permit application may be found here: https://www.virginiadot.org/business/resources/land_use_regs/newPermitPackages/LUP-LS.pdf

END OF SECTION

TREE PROTECTION SPECIFICATIONS

SITE CLEARING, DEMOLITION

The following work must be accomplished before any demolition or site-clearing activity occurs within 100 feet of the tree(s) to be saved.

- 1. The site Contractor is required to meet with the Town Urban Forester at the site prior to beginning work to review all work procedures, access and haul routes, and tree protection measures.
- 2. The limits of all tree protection zones shall be staked in the field.
- 3. Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain must be removed by a qualified arborist and not by demolition or construction contractors. A qualified arborist shall remove the tree in a manner that causes no damage to the tree(s) and understory to remain.
- 4. Any brush clearing required within the tree protection zone shall be accomplished with hand-operated equipment.
- 5. Trees to be removed shall be felled so as to fall away from tree protection zones and to avoid pulling and breaking of roots of trees to remain. If roots are entwined, the Town Urban Forester may require first severing the major woody root mass before extracting the trees. This may be accomplished by cutting through the roots by hand, with a vibrating knife, rock saw, narrow trencher with sharp blades, and other approved root-pruning equipment.
- 6. Trees to be removed from within the tree protection zone shall be removed by a qualified arborist. The trees shall be cut near ground level and the stump ground out.
- 7. All downed brush and trees shall be removed from the tree protection zone either by hand or with equipment sitting outside the tree protection zone. Extraction shall occur by lifting the material out, not by skidding it across the ground.
- 8. Brush shall be chipped and placed in the tree protection zone to a maximum depth of 6 inches leaving the trunk clear of mulch.
- 9. Structures and underground features to be removed within the tree protection zone shall use the smallest equipment possible, and operate from outside the tree protection zone. The Town Urban Forester shall be on site during all operations within the tree protection zone to monitor demolition activity.
- 10. All trees shall be pruned in accordance with the provided Pruning Specifications.
- 11. A 4-foot high, welded wire fence with steel T-posts shall be erected to enclose the tree protection zone.

- 12. Any damage to trees due to demolition activities, shall be reported to the Town Urban Forester within 6-hours so that remedial action can be taken. Timeliness is critical to tree health.
- 13. If temporary haul or access roads must pass over the root area of trees to be retained, a road bed of 6 inches of mulch with ½ inch sheets of plywood on top shall be created to protect the soil. The roadbed material shall be replenished as necessary to maintain a 6-inch depth.

PRUNING SPECIFICATIONS

- 1. Specifications for individual trees, indicated by tree identification number, and describing which branches should be pruned and how, may be needed. Also consider requirements for crown reduction and crown raising where structures will be close to trees.
- 2. All trees within the project area shall be pruned to:
 - 2.1 Clear the crown of diseased, crossing, weak, and dead wood to a minimum size of 1-inch diameter;
 - 2.2 Provide 14 feet of vertical clearance over streets and 8 feet of vertical clearance over sidewalks;
 - 2.3 Remove stubs, cutting outside the wound wood tissue that has formed around the branch;
 - 2.4 Reduce end weight on heavy, horizontal branches by selectively removing small diameter branches, no greater than 2 to 3 inches, near the ends of the scaffolds.
 - 2.5 Where temporary clearance is needed for access, branches shall be tied back to hold them out of the clearance zone.
 - 2.6 Pruning shall not be performed during periods of flight of adult boring insects because fresh wounds attract pests. Pruning shall be performed only when the danger of infestation is past.
 - 2.7 An ISA Certified arborist shall perform all pruning.
 - 2.8 All pruning shall be in accordance with the International Society of Arboriculture Tree-Pruning Guidelines and/or the ANSI A300 Pruning Standard (American National Standard for Tree Care Operations) and adhere to the most recent edition of ANSI Z133.1.
 - 2.9 Interior branches shall not be stripped out.
 - 3.0 Pruning cuts larger than 4 inches in diameter, except for dead wood, shall be avoided.
 - 3.1 Pruning cuts that expose heartwood shall be avoided whenever possible.

- 3.2 No more than 20 percent of live foliage shall be removed within the trees.
- 3.3. While in the tree, the arborist shall perform an aerial inspection to identify defects that require treatment. Any additional work needed shall be reported to the Town Urban Forester.
- 3.4 Brush shall be chipped and chips shall be spread underneath trees within the tree protection zone to a maximum depth of 6 inches leaving the trunk clear of mulch.

CONSTRUCTION SPECIFICATIONS

- 1. Fences have been erected to protect trees to be preserved. Fences define a specific protection zone for each tree or group of trees. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without the written permission of the Town Urban Forester.
- 2. Construction trailers and traffic and storage areas must remain outside fenced areas at all times.
- 3. All underground utilities and drain or irrigation lines shall be routed outside the tree protection zone. If lines must traverse the protection area, they shall be tunneled or bored under the tree(s).
- 4. No materials, equipment, spoil, or waste or washout water may be deposited, stored, or parked within the tree protection zone (fenced area).
- 5. Additional tree pruning required for clearance during construction must be performed by a qualified arborist and not by construction personnel.
- 6. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use. Any pesticides used on site must be tree-safe and not easily transported by water.
- 7. If injury should occur to any retained tree during construction, it shall be reported to the Town Urban Forester within 6-hours so that remedial action can be taken.
- 8. All trees shall be irrigated. Each irrigation event shall wet the soil within the tree protection zone to a depth of 12 inches.
- 9. Erosion control devices such as silt fencing, debris basins, and water diversion structures shall be installed to prevent siltation and/or erosion within the tree protection zone.
- 10. Before grading, pad preparation, or excavation for foundations, footings, walls, or trenching, trees shall be root pruned 1 foot outside the tree protection zone by cutting all roots cleanly to a depth of 24 inches. Roots shall be cut by manually digging a trench and cutting exposed 1" roots with a saw, vibrating knife, rock saw, narrow trencher with sharp

- blades or other approved root-pruning equipment.
- 11. Any roots damaged during grading or construction shall be exposed to sound tissue and cut cleanly with a saw.
- 12. If temporary haul or access roads must pass over the root area of trees to be retained, a roadbed of 6 inches of mulch with ½ plywood over the mulch shall be created to protect the soil. The roadbed material shall be replenished as necessary to maintain a 6-inch depth.
- 13. Spoil from trenches, basements, or other excavations shall not be placed within the tree protection zone, either temporarily or permanently.
- 14. No burn piles or debris pits shall be placed within the tree protection zone. No ashes, debris, or garbage may be dumped or buried within the tree protection zone.
- 15. Maintain fire-safe areas around fenced areas. Also, no heat sources, flames, ignition sources, or smoking is allowed near mulch or trees.

END OF SECTION

*The Sample Contract herein is for reference only. The Town of Leesburg may modify any provisions as the Town deems appropriate.

		CONTRACT NO [PROJECT NAME]
the		AGREEMENT, dated this day of, 20 is between
follo		RACTOR, in consideration of the mutual covenants hereinafter set forth, agree as
1.	WOR	<u>K</u>
	1.1	The project's name is, project #
	1.2	CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:
	The p	roject includes
2.	OWN	ER'S REPRESENTATIVES
	2.1	All references to the Owner's Chief Procurement Officer shall mean:
	2.2	All references to the Owner's Project Manager or ENGINEER shall mean:, who shall have the sole responsibility for clarifying any ambiguities.
3.	<u>CON</u>	TRACT TIME AND LIQUIDATED DAMAGES
	3.1	Time of the Essence
		A. All time limits for Interim Completion, Milestones, Substantial Completion, and Final Completion as stated in the Contract Documents are of the essence of the Contract.
		B. Contract Time:
		a. The Work to be performed under this Contract shall be commenced after issuance of the Notice to Proceed and Substantial Completion shall be achieved within calendar days.
		b. Final Completion shall be achieved within calendar days.

c. [Insert Interim or Milestone dates as appropriate.]

3.2	Lio	uidated	Damages

A.	TOWN and CONTRACTOR recognize that time is of the essence of this
	Agreement and the TOWN will suffer financial loss if the Work is not
	completed within the time specified in Paragraph 3.1 above, plus any
	extensions thereof allowed in accordance with the General Conditions, Article
	8, "TIME." Contractor recognizes the delays, expense, and difficulties
	involved in proving in a legal or other dispute resolution proceeding the actual
	loss suffered by TOWN if the Work is not completed on time. Accordingly,
	instead of requiring any such proof, TOWN and CONTRACTOR agree that as
	liquidated damages for delay, but not as a penalty, CONTRACTOR shall pay
	the TOWN as follows:

a.	For each day	that	expires a	ifter the	time established to	achiev	e Su	bstantia
	Completion a	as :	specified	above,	CONTRACTOR	shall	pay	TOWN
	liquidated dan	nag	es in the a	ımount o	of \$			

- b. For each day that expires after the time established to achieve Final Completion as specified above, CONTRACTOR shall pay TOWN liquidated damages in the amount of \$_____.
- c. [Insert liquidated damage rate for and Interim or Milestone dates.]
- B. CONTRACTOR hereby waives any defense as to the validity of any liquidated damages stated in this Agreement as they may appear on the ground that such liquidated damages are void as penalties or are not reasonably related to actual damages.
- C. TOWN may recover liquidated damages by deducting the amount owed from progress payments, final payment or retainage.

4. **CONTRACT PRICE**

4.1.	[If Fixed Price] In considerati	on of the Performance	ce of the Contract,	the Owner
	agrees to pay the Contractor as	compensation for his	s services the firm,	fixed price
	of:	Dollars and	Cents (\$).

- 4.2 *[If Unit Price]* In consideration of the Performance of the Contract, the Owner agrees to pay the Contractor as compensation for his services in accordance with the Bid Form and Contract Documents, which are included as Exhibits to this Agreement, an amount equal to the sum of the itemized prices as shown for each item of work multiplied by the actual quantity of each item completed:
 - A. Total Computed Price used for Comparison and Award:

(Words)	
\$	
 (Figures)	

All specific cash allowances are included in the above price and have been computed to include the Contractors profit, overhead, all furnishing and installation charges.

This is a unit price contract and the estimated quantities are not guaranteed and are given only as a basis of calculation for comparing and awarding the project. The determinations of actual quantities and classifications are to be made by Project Manager, as provided in the General Conditions, Article 9. The Total Computed Price used for Comparison and Award will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately defined item times the estimated quantity for each item as indicated on the bid form. Notwithstanding the language of this paragraph, the contract price shall not exceed without further authorization.

5. <u>INTEREST</u>

- 5.1 The TOWN will pay on all amounts owed to the CONTRACTOR accordance with Sections 2.2-4354 and 2.2-4355 of the Virginia Public Procurement Act.
- 5.2 The rate of interest charged shall be the base rate on corporate loans (prime rate) at large United States money center commercial banks as reported daily in the publication entitled The Wall Street Journal. Whenever a split prime rate is published, the lower of the two rates shall be used.

6. **CONTRACT DOCUMENTS**

- 6.1 The Contract Documents which comprise the entire Agreement between TOWN and CONTRACTOR concerning the Work are defined as follows:
 - A. The body of this Agreement;
 - B. Payment Bond (attached);
 - C. Performance Bond (attached);
 - D. Insurance Certificate (attached);
 - E. CONTRACTOR'S Bid (attached);
 - F. Bidding Documents (by reference) including:

		2. 3. 4. 5.		Bidders; tions; Specifications; Orawings prepar	red by		bearing the		
			following title:		(Sheets	through _) approved		
		7.	Addenda						
	G.		eliverables issue ached hereto:	d on or after th	e effective date o	f the Agreem	ent and are not		
		2. 3.	Notice to Proc Written Amen Work Change Change Orders	dments Directives					
7.	NOTICE								
	The term "Notice" as used herein shall mean and include written notice. Any legal notice by any party shall be deemed to have been duly given if either delivered personally or enclosed in a certified mail, postage paid envelope addressed to:								
	The Owne	r:							
	The Owne	r's I	Project Manager	: :					
	The Contr	acto	or:						

IN WITNESS WHEREOF, TOWN and CONTRACTOR have signed two copies of this Agreement. All portions of the Contract Documents have been signed or identified by TOWN and CONTRACTOR.

OWNER TOWN OF LEESBURG 25 West Market Street Leesburg, VA 20176	CONTRACTOR
By Town Manager	By President
Date	
	License No:
	[CORPORATE SEAL]
Approved as to Form:	
Town Attorney	
Resolution authorizing execution of Agreement is attached hereto.	Agent for service of process:
	(If CONTRACTOR is a corporation attach evidence of authority to sign.)

VIRGINIA PAYMENT BOND

		BOND NO	_
		AMOUNT: \$_	
KNOW ALL MEN BY THE	ESE PRESENTS, that		
of		hereinafter called th	ne CONTRACTOR
(Principal), and			
a corporation duly organiz			
of	, hereinafter	called the SURETY,	and authorized to
transact business within the	Commonwealth of Virg	inia, as SURETY, are h	eld and firmly bound
unto The Town of Leesburg	as OWNER (Obligee), i	n the sum of:	
	DOLLARS ((\$), lawful money of
the United States of Americ	a, for the payment of wh	nich, well and truly be n	nade to the OWNER.
The CONTRACTOR and	the SURETY bind then	nselves and each of th	eir heirs, executors,
administrators, successors, a	and assigns, jointly and se	everally, firmly by these	presents as follows:
THE CONDITION OF THE	E ABOVE OBLIGATION	N IS SUCH THAT:	
WHEREAS, the CONTRAC	CTOR has executed and e	entered into a certain Con	ntract hereto attached
with	, naming the OW	NER as beneficiary, date	ed this day of
,		20	,
for:			

NOW, THEREFORE, the CONTRACTOR shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in the Contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment, and tools consumed or used in connection with the construction of the work, and all insurance premiums on the work, and for all labor performed in the work, whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

Furthermore, the SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract Documents or to the work to be performed there under, or the Specifications accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract Documents.

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

IN WITNE	ESS W	HERE	OF, the	above partic	s bound	ed togethe	r have	execute	ed th	is in	strument this
day of					, 20, the name and corporate seal of						seal of each
_		_		affixed ar		_	duly	signed	by	its	undersigned
					CONT	RACTOR	-				
Attest					Ву						(Seal)
					SURE	ГΥ					
Attest					Ву						(Seal)

NOTE: Date of bond must not be prior to date of Contract. If CONTRACTOR is a partnership, all partners should execute bond.

IMPORTANT: The SURETY named on this bond shall be one who is licensed to conduct business in the Commonwealth of Virginia, and named in the current list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies, as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All bonds signed by an agent must be accompanied by a certified copy of the authority to act for the SURETY at the time of the signing of this bond.

VIRGINIA PERFORMANCE BOND

		BUND NO.
		AMOUNT: \$
KNOW ALL MEN BY	THESE PRESENTS, that	
of		
hereinafter called the CC	NTRACTOR (Principal), and	
a corporation duly org	anized and existing under and by virtu	ne of the laws of the State
of	, hereinafter called the S	URETY, and authorized to
transact business within	the Commonwealth of Virginia, as SURET	Y, are held and firmly bound
unto The Town of Leesb	urg as OWNER (Obligee), in the sum of:	
	DOLLARS (\$), lawful money of
The CONTRACTOR at	erica, for the payment of which, well and to not the SURETY bind themselves and ears, and assigns, jointly and severally, firmly	ruly be made to the OWNER. ach of their heirs, executors,
THE CONDITION OF T	THE ABOVE OBLIGATION IS SUCH TH	IAT:
WHEREAS, the CONTR	RACTOR has executed and entered into a c	ertain Contract hereto
attached with , nar	ming the OWNER as beneficiary, dated thi	s day of
	, 20 ,	
for:		

NOW, THEREFORE, the CONTRACTOR shall at all times duly, promptly, and faithfully perform the Contract and any alteration in or addition to the obligations of the CONTRACTOR arising there under, including the matter of infringement, if any, of patents or other proprietary rights, and shall assure all guarantees against defective workmanship and materials, including the guarantee period following final completion by the CONTRACTOR and final acceptance by the OWNER and comply with all covenants therein contained in the Specifications, Drawings, and other Documents constituting a part of the Contract required to be performed by the CONTRACTOR, in the manner and within the times provided in the Contract, and shall fully indemnify and save harmless the OWNER from all cost and damage which it may suffer by reason or failure so to do, and shall fully reimburse and repay it all outlay and expenses which it may incur in making good any default, and reasonable counsel fees incurred in the prosecution of or defense of any action arising out of or in connection with any such default, then this obligation shall be void; otherwise to remain in full force and effect.

Furthermore, the SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract Documents or to the work to be performed there under, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract Documents.

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

IN WITNESS WHEREOF, the above partie	s bound	ed togethe	r have	execute	ed th	is in	strument this
day of	, 20	0, the	e name	e and co	orpo	rate	seal of each
corporate party being hereto affixed an	d those	presents	duly	signed	by	its	undersigned
representative, pursuant to authority of its g	overning	g body.					
	CONT	RACTOR					
Attest	Ву						_(Seal)
	SURE	ГΥ					
Attest	Ву						(Seal)

NOTE: Date of bond must not be prior to date of Contract. If CONTRACTOR is a partnership, all partners should execute bond.

IMPORTANT: The SURETY named on this bond shall be one who is licensed to conduct business in the Commonwealth of Virginia, and named in the current list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies, as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All bonds signed by an agent must be accompanied by a certified copy of the authority to act for the SURETY at the time of the signing of this bond.



THE TOWN OF LEESBURG GENERAL CONDITIONS

EAST MARKET STREET (ROUTE 7) & BATTLEFIELD PARKWAY INTERCHANGE LANDSCAPING IFB NO. 15303-FY23-51

THE TOWN OF LEESBURG

GENERAL CONDITIONS

ARTICLE 1: CONTRACT DOCUMENTS

1.1 **DEFINITIONS**

1.1.1 The Contract Documents

The Contract Documents consist of the Advertisement or Invitation for Bids, Request for Proposals, Information for Bidders, Insurance Certificates, Official Bid Form, Offeror's Bid or Proposal, Bonds, the Notice of Award, the Project Manual, the Owner/Contractor Agreement, the General and Special Conditions, the Drawings, the Specifications, all Addenda issued prior to and all Modifications issued after execution of the Agreement. A Modification is either a written Change Order issued pursuant to the provisions of Article 12.5, or a Field Order issued pursuant to Article 12.2.

1.1.2 The Contract

The Contract is the sum of all the Contract Documents. This Contract represents the entire and integrated agreement between the Owner and the Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract may be changed only by a Modification as defined in Article 1.1.1.

1.1.3 The Work

The Work comprises the completed construction required by the Contract Documents and includes all labor, material, equipment, supplies and other facilities or things necessary to produce such construction, and all materials, equipment and supplies incorporated or to be incorporated in such construction.

1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part.

1.1.5 Furnish, Install, Provide

The terms "Furnish", "Install" or "Provide," unless specifically limited in context, mean: furnishing and incorporating a specified item, product or material in the Work, including all labor, materials, and equipment necessary to perform the Work required, ready for intended use.

1.1.6 Firm, Fixed Price or Lump Sum

The terms "Firm, Fixed Price" or "Lump Sum" mean that the Contract Work shall be performed for the price stated in the Contract without any adjustment based on the Contractor's actual costs unless such adjustment is made by a properly executed Contract Change or Modification.

1.1.7 Schedule of Values

The term "Schedule of Values" means the unit prices for portions of the Work submitted by the Contractor and approved by the Owner's Project Manager for use in preparing Applications for Payment and pricing Contract Changes in accordance with Article 9.2. The Schedule of Values shall not alter the Firm, Fixed Price or Lump Sum value of the Contract.

1.1.8 Miscellaneous Words or Terms

Whenever they refer to the Work or its performance, "Directed," "Required," "Permitted," "Ordered," "Designated," "Prescribed," and words of like import shall imply the direction, requirements, permission, order, designation or prescription of the Owner and/or the Owner's Project Manager, and "Approved," "Acceptable," "Satisfactory," "in the judgment of," and words of like import shall mean approved by or acceptable to or satisfactory to or in the judgment of the Owner and/or the Owner's Project Manager. "Approved" means approved in writing, including subsequent written confirmation of prior oral approval and "Approval" means approval in writing, including all aforesaid.

1.2 EXECUTION, CORRELATION AND INTENT

- 1.2.1 The Contract Documents may be signed in duplicate originals by the Owner and the Contractor and each set shall be deemed an original, but all sets shall constitute one and the same instrument.
- 1.2.2 By executing the Contract, the Contractor represents that he has familiarized himself with, and assumes full responsibility for having familiarized himself with, the nature and extent of the Contract Documents, Work, locality, and with all local conditions and federal, state and local laws, ordinances, rules and regulations that may in any manner affect performance of the Work, and represents that his study and observations have been correlated with the requirements of the Contract Documents. The Contractor also represents that he has studied all surveys and investigation reports of subsurface and latent physical conditions referred to in the Contract Documents and made such additional surveys and investigations as he deems necessary for the performance of the Work at the Contract Price in accordance with the requirements of the Contract Documents and that he has correlated the results of all such data with the requirements of the Contract Documents. Failure to make an examination necessary for this determination shall not release the Contractor from the obligations of this Contract nor be grounds for any claim based upon unforeseen conditions.

The Owner assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Owner. The Owner assumes no responsibility for any understanding reached or representation made concerning conditions that can affect the Work by any of its officers or

agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

1.2.3 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. Should any work or material be required which is not denoted in the drawings and specifications either directly or indirectly, but which is nevertheless necessary for the proper carrying out of the intent thereof, it is understood and agreed that the same is implied and required and that the Contractor shall perform such work and furnish such materials as fully as if they were completely delineated and prescribed.

Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings unless otherwise specifically defined herein. The Table of Articles, titles, headings, and running headlines are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light upon the interpretation of the provisions to which they refer.

- 1.2.4 The organization of the specifications into divisions, sections and articles, and the arrangement of drawings are for clarity only, and shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade. The Contractor may subcontract the Work in such divisions as he sees fit and he is ultimately responsible for furnishing all work shown on the drawings and/or in the specifications.
- 1.2.5 Unless otherwise provided for or amended herein, work shall be performed in accordance with the VDOT Road and Bridge Specifications, current edition; the Town of Leesburg Design and Construction Standards Manual (DCSM), current edition; the Virginia Erosion and Sediment Control Handbook; and the Special Provisions, Special Conditions, and Special Designs as may be described on the plans for the project or in this solicitation. Where there is a conflict between the VDOT Road and Bridge Specifications and the DCSM, the most stringent shall take precedence. A copy of the DCSM may be purchased from the Department of Plan Review at the current standard rate.

Anything shown on the drawings and not mentioned in the specifications or mentioned in the specifications and not shown on the drawings shall have the same effect as if shown or mentioned respectively in both. Technical specifications take priority over general specifications and detail drawings take precedence over general drawings. Any work shown on one drawing shall be construed to be shown in all drawings and the Contractor will coordinate the Work and the drawings. If any portion of the Contract Documents shall be in conflict with any other portion, the various documents comprising the Contract Documents shall govern in the following order of precedence: The

Owner/Contractor Agreement; Modifications; Changes; Addenda; the Supplementary Conditions; the General Conditions; the Specifications; the drawings; the Town DCSM; other published construction standards and specifications; the bonds; the advertisement for bids or invitation or request for proposal; information for bidders; bids; the notice of award. As between schedules and information given on drawings and the scaled measurements, the figures shall govern. As between large-scale drawings and small-scale drawings, the larger scale shall govern. Any such conflict or inconsistency between or in the drawings shall be submitted to the Project Manager whose decision thereon shall be final and conclusive.

- 1.2.6 This Contract is not intended to create, nor shall any provision be interpreted as creating, any contractual relationship between the Owner and any third parties including all Subcontractors.
- 1.2.7 The Provisions of this Contract cannot be changed, varied or waived in any respect except by a written Modification or Change Order. No person has authority to orally waive, or to release the Contractor from any of the Contractor's duties or obligations under or arising out of this Contract. Any waiver, approval or consent granted by Changes to the Contractor shall be limited to those matters specifically and expressly stated thereby to be waived, approved or consented to and shall not relieve the Contractor of the obligation to obtain any future waiver, approval or consent.

1.3 OWNERSHIP AND USE OF DOCUMENTS

- 1.3.1 All drawings, specifications, and copies thereof furnished by or to the Owner under this Contract are and shall remain the property of the Owner. They are to be used only with respect to this Project and are not to be used in whole or in part for any other purpose.
- 1.3.2 The Contractor shall be provided five sets of the Contract Documents by the Owner's Project Manager. Additional sets of Drawings and Specifications may be obtained from the Owner's Project Manager by paying the then current and regular printing, mailing and handling charges.

END OF ARTICLE 1

ARTICLE 2: OWNER'S PROJECT MANAGER

2.1 **DEFINITIONS**

- **2.1.1** The term "Project Manager" as used in the Contract Documents, shall mean the entity so identified in the Owner/Contractor Agreement or its duly authorized representatives.
- 2.1.2 The Project Manager is referred to throughout the Contract Documents as if singular in number and masculine in gender.

2.2 SERVICES OF THE OWNER'S PROJECT MANAGER

- 2.2.1 The Owner's Project Manager will serve during construction and until the end of the warranty period. The Owner's Project Manager will advise and consult with the Owner and will have the authority to act on behalf of the Owner only to the extent provided in the Contract Documents. The Owner may identify a substitute Owner's Project Manager at any time by providing written notice to the Contractor.
- 2.2.2 The Owner's Project Manager will inform the Owner and the Contractor whenever in his reasonable opinion any of the Work is proceeding contrary to the requirements of the Contract Documents and will be unacceptable. Failure of the Contractor to take corrective action to make the Work conform to the Contract Documents will subject the Contractor to any and all remedies available to the Owner, including, without limitation, termination pursuant to Article 14. Such notification by the Owner's Project Manager will not be a cause for the Contractor to claim either delay of the Work or any increase in the Contract Price.
- 2.2.3 The Owner, the Owner's Project Manager and other government representatives shall at all times have access to the Work wherever it is in preparation or progress, to include off-site facilities of Subcontractors and suppliers at any tier. The Contractor shall provide safe facilities for such access so the Owner's Project Manager may perform his functions under the Contract Documents.
- All communications, correspondence, submittals and documents exchanged between the Owner's Project Manager and the Contractor in connection with the Project shall be through or in the manner prescribed by the Owner and consistent with the Owner/Contractor Agreement.
- 2.2.5 The Owner's Project Manager shall make decisions on all matters relating to aesthetic effect, which decision shall be final.

END OF ARTICLE 2

ARTICLE 3: OWNER

3.1 **DEFINITIONS**

- 3.1.1 "Owner" means the Town of Leesburg, Virginia, unless the Owner/Contractor Agreement provides otherwise. The Owner shall be referred to as the "Town," or as the "Owner."
- 3.1.2 The term "Owner" or "Owner's Project Manager" specifically excludes any and all inspectors having building code or Town ordinance responsibilities or jurisdiction under the requirements of the Building Permit, unless the Owner designates such person to serve as the Owner's Representative.
- 3.1.3 "Contractor" means the person or persons, firm or company whose bid or proposal has been accepted by the Owner and includes the Contractor's representatives, successors and assigns as permitted by the Owner.

3.2 INFORMATION, SERVICES AND RIGHTS OF THE OWNER

- 3.2.1 The Project Manager will provide administration of the Contract as described below.
- 3.2.2 The Owner or, at the Owner's sole discretion, the Owner's Project Manager or Project Manager, will review and process all Progress Payments, including the Final Payment.
- 3.2.3 The Project/Manager shall have the authority to reject the Work when, in his opinion, the Work does not conform to the Contract Documents.
- 3.2.4 Whenever in the Project Manager's reasonable opinion it is necessary or advisable for the implementation of the Contract Documents, the Project Manager will have authority to require special inspection or testing of the Work in accordance with the provisions of the Contract Documents, whether or not such Work is then fabricated, installed or completed.
- 3.2.5 The Owner or the Owner's Project Manager shall at all times have access to the Work wherever it is in preparation or progress. The Contractor shall provide safe facilities for such access.
- 3.2.6 The Owner, the Owner's Project Manager and the Engineer shall not be responsible for or have control or charge of the construction means, methods, techniques, sequences, or procedures, or for the safety precautions and programs in connection with the Work, and will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

- 3.2.7 The Owner or the Owner's Project Manager shall not be responsible or liable to the Contractor for the acts, errors or omissions of the Contractor, any separate Subcontractor, any separate Contractor or any Contractor's or Subcontractor's agents or employees, or any other persons performing any of the Work.
- 3.2.8 The Owner assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Owner. The Owner assumes no responsibility for any understanding reached or representation made concerning conditions that can affect the Work by any of its officers or agents before the execution of this Contract, unless that understanding or representation is expressly set forth in this Contract.
- 3.2.9 The Owner shall not be held responsible for failure to perform the duties and responsibilities imposed by the Contract if such failure is due to strikes, fires, riots, rebellions, or Force Majeure, beyond the control of the Owner, that make performance impossible or illegal, unless otherwise specified in the Contract.
- 3.2.10 The Owner will, throughout the Contract Time and any extension thereof have the right of reasonable rejection and approval of staff assigned to the project by the Contractor. If the Owner reasonably rejects staff or Subcontractors, the Contractor must provide replacement staff or Subcontractors satisfactory to the Owner in a timely manner and at no additional cost to the Owner.
- 3.2.11 The foregoing rights are in addition to other rights of the Owner enumerated herein and those provided by law.

3.3 OWNER'S RIGHT TO STOP OR TO SUSPEND WORK

- 3.3.1 If the Contractor fails to correct defective Work as required by Article 13.2 "CORRECTION OF WORK," or fails to carry out the Work or supply labor and materials in accordance with the Contract Documents, the Owner by written order may order the Contractor to stop the Work, or any portion thereof, without monetary compensation to the Contractor until the cause for such order has been eliminated.
- 3.3.2 The Owner may order the Contractor in writing to suspend, delay, or interrupt all or any part of the Work for such period of time as he may determine to be appropriate for the convenience of the Owner.
- 3.3.3 If the performance of all or any part of the Work is suspended, delayed, or interrupted by the Owner or the Owner's Project Manager for an unreasonable period of time, or by failure of either of them to act within the time specified (or if no time is specified, within a reasonable time), an adjustment increasing the time of performance of the Work shall be made. Such adjustments will be made solely for unreasonable suspension, delay, or interruption. The Contract shall be modified in writing accordingly. However, no claim for an extension of time

shall be made under this Article 3.3.3 for any suspension, delay, or interruption pursuant to Article 3.4.1, or for which claim is provided or excluded under any other provision of this Contract.

No claim under this Article 3.3.3 shall be allowed for any claim for an extension of time required for performance, unless within twenty days after the act or failure to act involved, the Contractor submits to the Owner's Project Manager a written statement setting forth, as then practicable, the extent of such claimed time extension and unless the claim for an extension of time is submitted with supporting data within thirty days after the termination of such suspension, delay, or interruption.

- 3.3.4 In the event of a suspension of work or delay or interruption of work, the Contractor will and will cause his Subcontractors to protect carefully his, and their, materials and work against damage from the weather and maintain completed and uncompleted portions of the work as required by the Contract Documents. If, in the opinion of the Owner's Project Manager, any work or material shall have been damaged by reason of failure on the part of the Contractor or any of his Subcontractors to protect same, such work and materials shall be removed and replaced at the expense of the Contractor.
- 3.3.5 No claim by the Contractor under Article 3.3.3 shall be allowed if asserted after Final Payment under this Contract.

3.4 OWNER'S RIGHT TO CARRY OUT THE WORK

- 3.4.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may after the seven day period give the Contractor a second written notice to correct the deficiencies within a three day period. If the Contractor fails to commence and continue to correct any deficiencies within the second notice's three day period, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such a case an appropriate Change Order shall be issued pursuant to Article 12 deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for services of the Owner's Project Manager, the Engineer and any other additional services made necessary by such default, neglect or failure. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay on demand the difference to the Owner.
- 3.4.2 The Owner will not be liable or accountable to the Contractor for the method by which the Work, or any portion thereof, performed by the Owner or by separate contractors pursuant to Article 3.4 is accomplished or for the price paid therefor.

Notwithstanding the Owner's right to carry out a portion of the Work, maintenance and protection of the Work remains the Contractor's responsibility.

3.5 EXAMINATION OF RECORDS

- 3.5.1 The Owner, or any duly authorized representative, shall, until the expiration of five years after final payment hereunder, have access to and the right to examine, audit and copy any directly pertinent books, documents, as-builts, papers and records of the Contractor involving transactions related to this Contract. Any audit or examination shall occur during regular business hours and not exceed a reasonable period of time under the circumstances.
- 3.5.2 The Contractor further agrees to include in any subcontract for more than \$10,000 entered into as a result of this Contract, a provision to the effect that the Subcontractor agrees that the Owner or any duly authorized representative shall, until the expiration of three years after final payment under the Contract, have access to and the right to examine, audit and copy, without charge, any directly pertinent books, documents, papers and records of such contractor involved in transactions related to such subcontract, or this Contract. The term subcontract shall exclude subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.
- 3.5.3 The period of access provided in Subparagraphs 3.5.1 and 3.5.2 above shall continue for all contracts and subcontracts until any appeals, litigation, or claims have been finally concluded.
- 3.5.4 Nothing in these General Conditions shall be deemed to modify in any manner any applicable statute of limitations.

END OF ARTICLE 3

ARTICLE 4: CONTRACTOR

4.1 **DEFINITION**

- 4.1.1 The Contractor is the person or organization identified as such in the Owner/Contractor Agreement. The term Contractor means the Contractor or his authorized representative, who shall have authority to bind the Contractor in all matters pertinent to this Contract.
- 4.1.2 The Contractor is not an agent for the Owner but is an independent contractor engaged in the business of providing the services and performing the Work described in the Contract Documents.

4.2 REVIEW OF CONTRACT DOCUMENTS

4.2.1 Before submitting his bid or proposal to the Owner, and continuously after execution of the Contract, the Contractor shall carefully study and compare the Contract Documents and shall at once report to the Owner any error, inconsistency or omission he may discover, including any requirement that may be contrary to any law, ordinance, rule, regulation or order of any public authority bearing on the performance of the Work. By submitting his bid or proposal for the Contract and the Work under it, the Contractor agrees that the Contract Documents are accurate, consistent and complete. The Contractor shall perform no portion of the Work at any time without Contract Documents and, where required, approved Shop Drawings, product data, samples, mock ups or other submittals for such portion of the Work

4.3 SUPERVISION AND CONSTRUCTION PROCEDURES

- 4.3.1 The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for and have control over all construction means, uses, sequences, procedures, safety precautions and programs, and coordination of all portions of the Work under the Contract.
- 4.3.2 The Contractor shall be responsible to the Owner for the acts and omissions of his employees, Subcontractors, Suppliers, their agents and employees, and other persons performing any of the Work and for their compliance with each and every requirement of the Contract Documents, in the same manner as if they were fully employed by the Contractor.
- 4.3.3 The Contractor shall not be relieved from his obligations to perform the Work in accordance with the Contract Documents either by acts, failures to act or duties of the Owner or the Owner's Project Manager in their administration of the Contract, or by inspections, tests, or approvals (or the lack thereof) required or performed under Article 4.4 "INSPECTION OF CONSTRUCTION" or Article 7.5 "TESTS" by persons other than the Contractor.

- **4.3.4** The Contractor shall employ no plant, equipment, materials, methods or persons to which the Owner or Owner's Project Manager reasonably objects.
- 4.3.5 The Contractor shall not remove any portion of the Work or stored materials from the site of the Work, if payment for such was requested or received from the Owner.
- 4.3.6 The Contractor shall at all times so conduct its work as to ensure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the Work. No road or street shall be closed to the public except with the permission of the Town Traffic Engineer and proper governmental authority. Fire hydrants on or adjacent to the Work shall be kept accessible to fire fighting equipment at all times. Temporary provisions shall be made by the Contractor to ensure the use of sidewalks and the proper functioning of all gutters, drainage inlets, drainage ditches, and irrigation ditches, which shall not be obstructed except as approved by the Owner's Project Manager.
- 4.3.7 When construction crosses highways, railroads, streets, or utilities under the jurisdiction of State, County, Town, or other public agency, public utility, or private entity, the Contractor shall secure written permission where necessary from the proper authority before executing such new construction. A copy of such written permission must be filed with the Owner before any work is started. The Contractor shall be required to furnish a release from the proper authority before final acceptance of the Work.
- 4.3.8 The Contractor shall provide and maintain such sanitary accommodations for the use of the Contractor's employees and those of its Subcontractors as may be necessary to comply with the requirements and regulations of the local and State departments of health and where additional accommodations are necessary for a reasonably sanitary activity, then such additional accommodations shall be made by the Contractor.

4.4 INSPECTION OF CONSTRUCTION

4.4.1 The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the Work called for by this Contract conforms to Contract requirements. The Contractor shall maintain complete inspection records and make them available to the Owner and Owner's Project Manager. All work is subject to inspection and testing at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the Contract.

4.5 CONTRACTOR'S REPRESENTATIONS

- **4.5.1** By entering into this Contract with the Owner, the Contractor represents and warrants the following, together with all other representations and warranties in the Contract Documents:
 - .1 That he is experienced in and competent to perform the type of work required and to furnish the plant, materials, supplies or equipment to be so performed or furnished by him;
 - .2 That he is financially solvent, able to pay his debts as they mature, and possessed of sufficient working capital to initiate and complete the Work and Changes required under the Contract;
 - .3 That he is familiar with all laws, ordinances, permits, regulations and resolutions that may in any way affect the Work or those employed therein, including but not limited to any special laws or regulations related to contractor licenses and/or registrations for the Work or any part thereof;
 - .4 That such temporary and permanent work required by the Contract Documents that is to be done by him will be satisfactorily constructed and fit for use for its intended purpose and that such construction will not injure any person, or damage any property;
 - .5 That he will fully comply with all requirements of the Contract Documents;
 - .6 That he will perform the Work in a skillful manner consistent with good workmanship, sound business practice, and in the most expeditious and economical manner consistent with the best interests of the Owner;
 - .7 That he will furnish efficient business administration and experienced superintendence and an adequate supply of workers, equipment, tools, and materials at all times;
 - .8 That he has carefully reviewed the Work required and that the Work can be planned and executed in a normal and orderly sequence and be reasonably scheduled so as to insure completion of the Work in accordance with the Contract Documents, allowing for normal and reasonably foreseeable weather, labor and other delays, interruptions and disruptions of the Work at the site designated;

- .9 That he will complete the Work within the Contract Time and all portions thereof within any required Contract milestones;
- .10 That his Contract Price is based upon the labor, materials, systems and equipment required by the Contract Documents, without exception;
- .11 That he does not and will not during the performance of the Contract violate the provisions of the Federal Immigration Reform and Control Act of 1986, as amended, which prohibits the employment of illegal aliens, and Federal and State employment and wage hour laws;
- .12 That he has taken steps reasonably necessary to ascertain the nature and locations of the Work of the Contract, has investigated and satisfied himself as to the general and local conditions which can affect the Work or its cost, including but not limited to: conditions bearing upon transportation, disposal, handling, and storage of materials; the availability of labor, water, electric power, and roads; uncertainties of weather, river stages, tides, or similar physical conditions at the site; the conformation and conditions of the ground; and the character of equipment and facilities needed before and during work performance;
- .13 That no employee of the Owner shall be admitted to any share or part of this Contract or to any benefit that may arise therefrom which is not available to the general public; and
- .14 That Contractor's bid or offer was made without collusion or fraud and that it has not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer, or Subcontractor and that it has not conferred on any public employee having official responsibility for this purchase any payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised unless consideration of substantially equal or greater value was Contractor acknowledges that this Contract exchanged. incorporates by reference the Virginia Public Procurement Act, VA Code Sect. 2.2-4300 et seq. (VPPA), as well as any state or federal law related to ethics, conflicts of interest, or bribery, including by way of illustration and not limitation, the Virginia State and Local Government Conflict of Interests Act, the Virginia Governmental Frauds Act, and Articles 2 and 3 of Chapter 10 of Title 18.2 of the Virginia Code, as amended.

4.6 LABOR AND MATERIALS

- Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, supplies, tools, construction equipment and machinery, heat, utilities, transportation, and other facilities and services necessary or proper for or incidental to the execution and completion of the Work required by and in accordance with the Contract Documents and any applicable code or statute, whether specifically required by the Contract Documents, or whether their provision may reasonably be inferred as necessary to produce the intended results, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Unless otherwise specified, all materials and equipment incorporated in the Work under the Contract shall be new. All work performed, shall be accomplished by persons qualified in the respective trades. Final Payment will not be made until the Work is so completed.
- Whenever materials or equipment are specified or described in the Drawings or Specifications by using the name of a proprietary item or the name of a particular manufacturer, fabricator, supplier, or distributor, the naming of the item is intended to establish the type, function, and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other manufacturers, fabricators, suppliers or distributors may be accepted by the Owner's Project Manager if sufficient information is submitted by the Contractor to allow the Owner's Project Manager to determine that the material or equipment proposed is equivalent to that name.
- 4.6.3 Requests for review of substitute items of material and equipment will not be accepted by the Owner's Project Manager from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute item of material or equipment, the Contractor shall make written application to the Owner's Project Manager for acceptance thereof, certifying that the proposed substitute will perform adequately the functions called for by the general design, be similar and of equal or better substance to that specified, and be suited to the same use and capable of performing the same or better function as that specified. The application shall state whether or not acceptance of the substitute for use in the Work will require a change in the drawings or specifications to adapt the design to the substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of a license fee or royalty. All variations of the proposed substitute from that specified shall be identified in the application and available maintenance, repair, and replacement service shall be indicated.
- The Contractor shall submit complete data substantiating compliance of the proposed substitution with the Contract Documents, including:

- .1 Product identification including manufacturer's name, address and phone number;
- .2 Manufacturer's literature showing complete product description, performance and test data, and all reference standards;
- .3 Samples and colors in the case of articles or products;
- .4 Name and address of similar projects on which the product was used and date of installation;
- .5 For construction methods, include a detailed description for the proposed method and drawings illustrating same;
- .6 Itemized comparison of proposed substitution with product or method specified and any cost reduction which shall benefit the Owner;
- .7 Accurate cost data on proposed substitution with product or method specified and any cost reduction which shall benefit the Owner:
- .8 All directions, specifications and recommendations by manufacturers for installation, handling, storing, adjustment and operation; and
- .9 A mock up if determined necessary by the Project Manager.
- 4.6.5 The Contractor shall also submit with his request for approval a sworn and notarized statement that shall include the following representations:
 - .1 That he has investigated the proposed product or method and determined that it is equal or better in all respects to that specified and that it fully complies with all requirements of the Contract Documents;
 - .2 That he will meet all Contract obligations with regard to the substitution;
 - .3 That he will coordinate installation of accepted substitutions into the Work, making all such changes and any required schedule adjustment, at no additional cost to the Owner, as may be required for the Work to be complete in all respects;
 - .4 He waives all claims for additional costs and additional time related to substitutions which consequently become apparent. He

also agrees to hold the Owner harmless from claims for extra costs and time incurred by other Subcontractors and suppliers, or additional services which may have to be performed by the Owner's Project Manager, for changes or extra work that may, at some later date, be determined to be necessary in order for Work to function in the manner intended in the Contract Documents;

- .5 He will provide the same warranty and guarantee, and perform any work required in accordance therewith, for the substitution that is applicable to the specified item for which the substitution is requested;
- .6 Material will be installed, handled, stored, adjusted, tested, and operated in accordance with the manufacturers' recommendations and as specified in the Contract Documents;
- .7 In all cases new materials will be used unless this provision is waived by notice from the Owner or the Owner's Project Manager or unless otherwise specified in the Contract Documents;
- .8 All material and workmanship will be in every respect in accordance with that which, in the opinion of the Owner or the Owner's Project Manager, is in conformity with approved current practice;
- .9 He has provided accurate cost data on the proposed substitution in comparison with the product or method specified; and
- .10 He has taken into consideration the necessary adjustment, relocation and/or installation of public utilities in areas within the limits of this Contract. No additional compensation will be paid to the Contractor for delays to the project schedule, work interruptions, changes in construction sequences, changes in handling excavation, drainage or paving, or for changes in types of equipment used, etc., caused by complying with the provisions of this statement. The Contractor shall include activities in its initial schedule indicating the utility relocation necessary to complete the Work. Delays to the project schedule caused by untimely relocations of utilities will not be considered a compensable delay, but if supported in accordance with the provisions of Article 8.3, may entitle the Contractor to a noncompensable time extension. The Contractor shall assume all responsibility for coordinating with the various utility companies to verify their relocation schedules, determine the anticipated duration to complete the respective utility relocations, and to

facilitate utility relocations to minimize the impact to the project schedule upon notification of being named the apparent low bidder.

- 4.6.6 The application shall also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change. All of the foregoing shall be considered by the Owner's Project Manager in evaluating the proposed substitute. The Owner's Project Manager may require the Contractor to furnish at the Contractor's expense additional data about the proposed substitute. The Owner shall be the sole judge of acceptability, and no substitute shall be ordered or installed without the Owner's prior written acceptance. The Owner may require the Contractor to furnish at the Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- 4.6.7 If a substitution is approved, no additional change in brand or make will be permitted unless satisfactory written evidence is presented to and approved by the Owner showing that the manufacturer cannot make scheduled delivery of the approved substituted item. Substitutions will not be considered by the Owner if:
 - .1 The proposed substitution is indicated or implied on the Contractor's shop drawing or product data submittals and has not been formally submitted for approval by the Contractor in accordance with the above-stated requirement; or
 - .2 Acceptance of the proposed substitution will require substantial revisions to the Contract Document or is otherwise not acceptable to the Owner or his authorized representative.
- **4.6.8** The Contractor shall not have any right of appeal from the decision of the Project Manager rejecting any materials submittal.
- 4.6.9 Manufactured articles, material and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer unless herein specified to the contrary.
- 4.6.10 Any material specified by reference to the number, symbol or title of a specific standard, such as a Commercial Standard, a Federal Specification, a Trade Association Standard, or other similar standard, shall comply with the requirements in the latest revision of the standards or specification and any amendment or supplement, except as limited to type, class or grade, or as modified in such reference. The standard referred to, except as modified in the Specifications, shall have full force and effect as though printed in the Specifications.

- .1 Reference in the Specifications or on the Drawings to any article, device, product, material, fixture, form or type of construction by name, make or catalog number shall be interpreted as establishing a standard of quality and shall not be construed as eliminating from competition other products of equal or better quality by other manufacturers where fully suitable, as approved by the Owner's Project Manager. Applications for approval of substitutions for the specified items will be considered only upon request of the Contractor, not of individuals, trades or suppliers, and only for a specific purpose; no blanket approvals will be granted. No approval of a substitution shall be valid unless it is in written form and signed by the Owner's Project Manager.
- .2 If any proposed substitution will affect a correlated function, adjacent construction or the work of other contractors, then the necessary changes and modifications to the affected work shall be considered as an essential part of the proposed substitution, to be accomplished by the Contractor without additional expense to the Owner, if and when approved. Detail drawings and other information necessary to show and explain the proposed modifications shall be submitted with the request for approval of the substitution.
- 4.6.11 All equipment, apparatus, or devices of any kind to be incorporated into the Work that are shown or indicated on the drawings or called for in the specifications or required for the completion of the Work shall be entirely satisfactory to the Owner's Project Manager as regards operations, capacity, or performance. No approval, either written or oral, of any drawings, descriptive data, or samples of such equipment, apparatus, or device shall relieve the Contractor of his responsibility to turn over the same in good working order for its intended purpose at the completion of the Work in complete accordance with the Contract Documents. Any equipment, apparatus and/or device not fulfilling these requirements shall be removed and replaced by proper and acceptable equipment, or put in good working order satisfactory to the Owner's Project Manager without additional cost to the Owner.
- 4.6.12 The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him. The Owner may, by written notice, require the Contractor to remove from the Work any employee the Owner deems incompetent, careless or otherwise objectionable.

4.7 WARRANTY

- **4.7.1** The Contractor guarantees and warrants to the Owner all work as follows:
 - .1 That all materials and equipment furnished under this Contract will be new and the best of its respective kind unless otherwise specified;
 - .2 That all Work will comply with or exceed industry standards and be free of omissions and faulty, poor quality, imperfect or defective materials or workmanship;
 - .3 That where no standard is specified for such workmanship or materials, they shall be the best of their respective kinds;
 - .4 That all applicable Work shall be entirely watertight and leakproof in accordance with all applicable industry customs and practices, and shall be free of shrinkage and settlement;
 - .5 That the Work, including but not limited to, mechanical and electrical machines, devices and equipment shall be fit and fully usable for its intended and specified purpose and shall operate satisfactorily with ordinary care;
 - .6 That consistent with requirements of the Contract Documents, the Work shall be installed and oriented in such a manner as to facilitate unrestricted access for the operation and maintenance of fixed equipment; and
 - .7 That the Work will be free of abnormal or unusual deterioration that occurs because of poor quality materials, workmanship or unsuitable storage.
- 4.7.2 All work not conforming to guarantees and warranties specified in the Contract Documents, including substitutions not properly approved and authorized, may be considered defective. If required by the Owner's Project Manager, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of Article 13 "UNCOVERING AND CORRECTION OF WORK."
- 4.7.3 The warranties set forth in this Article 4.7 and elsewhere in the Contract Documents shall survive Final Completion of the Work under Article 9.8 "FINAL COMPLETION AND FINAL PAYMENT."
- 4.7.4 If, within one year after the Date of Final Acceptance of the Work or designated portion thereof or within one year after acceptance by the Owner of designated

equipment or within such longer period as may be prescribed by law or by the terms of the applicable special warranty required by the Contract Documents, any of the Work is found to be defective, not in accordance with the Contract Documents, or not in accordance with the guarantees and warranties specified in the Contract Documents, the Contractor shall correct it within five working days, or such other period as agreed, after receipt of written notice from the Owner or Owner's Project Manager to do so.

- 4.7.5 If at any time deficiencies in the Work are discovered that are found to have resulted from latent defects, gross mistakes, fraud or misrepresentation by the Contractor, any Subcontractor or Supplier, the Contractor will be liable for replacement or correction of such Work or any damage that the Owner has incurred, or will incur, related thereto, regardless of the time limit of any guarantees or warranty.
- 4.7.6 Any materials or other portions of the Work, installed, furnished, or stored on site that are not of the character or quality required by the specifications, or are otherwise not acceptable to the Owner's Project Manager shall be immediately removed and replaced by the Contractor to the satisfaction of the Owner's Project Manager when notified to do so by the Owner's Project Manager.
- 4.7.7 If the Contractor fails to correct defective or nonconforming Work as required by Article 4.7.4 or Article 4.7.5 or, if the Contractor fails to remove defective or nonconforming Work from the site, as required by Article 4.7.6, the Owner may elect to either correct such Work in accordance with Article 3.4 "OWNER'S RIGHT TO CARRY OUT THE WORK" or remove and store materials and equipment at the expense of the Contractor.
- 4.7.8 The Contractor shall bear the cost of making good all work of the Owner, separate contractors or others, destroyed or damaged by such correction or removal required under this Article, Article 13 "UNCOVERING AND CORRECTION OF WORK" or elsewhere in the Contract Documents.

4.8 TAXES

4.8.1 The Contractor shall pay all applicable Federal, State, and local taxes and duties for the Work or portions thereof provided by the Contractor that are legally enacted at the time the Contract is awarded, whether or not yet effective. Increases in the rates of such taxes and duties during performance of the Contract shall be the responsibility of the Contractor.

4.9 PERMITS, FEES AND NOTICES

4.9.1 The Contractor shall secure and pay for all permits, fees, licenses and inspections necessary for the proper execution and completion of the Work that are legally required at the time the proposals are received.

- **4.9.2** The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work.
- 4.9.3 The Contractor shall have personnel on site that are qualified and have the proper certifications for Erosion and Sedimentation Control, Best Management Practice (BMP), and Storm Water Management (SWM), or any other Department of Environmental Quality (DEQ) certifications as required for any and all permits issued and/or required by the Work.

4.10 SUPERINTENDENT

- 4.10.1 The Contractor shall employ a competent Superintendent and necessary assistants who shall be in attendance at the Project site during the progress of the Work. The Superintendent shall be an authorized representative of the Contractor and all communications given to the Superintendent shall be as binding as if given to the Contractor.
- 4.10.2 The Superintendent shall be in attendance at the Project site not less than eight hours per day, five days per week, unless the job is closed down due to a general strike or conditions beyond the control of the Contractor or until termination of the Contract in accordance with the Contract Documents. It is understood that such Superintendent shall be approved in writing by the Owner and shall be the one who will continue in that capacity for the duration of the Project, unless the Superintendent ceases to be on the Contractor's payroll or his withdrawal is required or approved by the Owner. The Superintendent shall not be employed on any other project for or by the Contractor or any other entity during the course of the Work.
- 4.10.3 Such Superintendent shall be fluent in English and in such other languages as may be necessary to communicate effectively with all owner's representatives, employees and Subcontractors of the Contractor. This requirement may be satisfied by the on-site presence of a competent foreign language interpreter to English interpreter. Any costs associated with foreign language interpretation shall be borne by the Contractor.
- 4.10.4 Any and all project documents, including but not limited to daily reports and logs, maintained by the Superintendent or the Contractor's employees or Subcontractors shall be in English. Any costs of foreign language translation shall be borne solely by the Contractor and shall not be a basis for any additional compensation or time extension from the Owner.

4.11 PROJECT SCHEDULES

4.11.1 The Schedule of Completion shall consist of the Contractor planning, scheduling, and constructing this project by using a Critical Path Method Project Schedule (CPM). The CPM shall be used for coordinating and monitoring all the Work specified in the Contract Documents including all activities of subcontractors, vendors, suppliers, utilities, and all other parties associated with the construction of the project. The CPM shall be based upon the entirety of the Contract Documents. All physical work and major procurement activities shall be included. The CPM shall be the Activity-On-Arrow type. The Contractor shall use either Primavera or SureTrak scheduling software.

The CPM utilized float: Float is defined as the amount of time between when an activity "can start" (the early start) and when an activity "must start" (the late start). Float is a shared commodity for the Owner and the Contractor and is not for the exclusive use or financial benefit of either party. Either party has the full use of the float until it is depleted.

- **4.11.2** Initial Critical Path Method Project Schedule (ICPM) shall consist of the following:
 - a. Activity-On-Arrow Time Scale Diagram
 - b. Total Float Computer sort
 - c. Written Narrative (WN)
 - d. Printed calendars. The painted calendars shall include a listing, description, and calendar form tabulation of all calendars used in the ICPM. The calendars shall contain the total number of anticipated work days required to complete all the Work required in the Contract. The calendars shall delineate the holidays, anticipated nonwork days, and bad weather days. An explanation of the Contractor's basis for determining nonwork and bad weather days shall be included with the calendars.
 - e. Data disc containing all of the information for (a) thru (d). The format shall be compatible with the Owner's computer software.

The ICPM diagram shall be drafted to a scale that allows the I node and J node numbers of each activity to be printed adjacent to that activity. The activities shall be clearly defined. All restraints between activities shall be shown.

The Contractor shall expend the entire Contract time specified in this Invitation for Bids. On Contracts with calendar date completions or calendar day durations, all planned activities shall have durations not exceeding 14 calendar days, except the activities required for the Owner's review and approval of the working drawings and material sources which shall be given a duration of not less than 30 calendar days. On Contracts with working day durations, these time periods shall be 10 working days and 25 working days.

All activities in the Contract Documents along with a written narrative explanation shall be identified in the ICPM. The Project Manager reserves the right to specify the number of activities, and to require at any time additional breakdown of the activities.

The Contractor shall provide a written narrative as part of the ICPM describing the original critical path, the sequence of work, number of shifts per day, number of hours per shift, composition and number of crews, and the equipment to be utilized on each activity. Subcontracting activities shall be listed and identified by activity number. Each activity shall be identified by physical location and phase of work. Abbreviations used in preparing the ICPM shall be explained in the written narrative.

The Contractor shall complete the proposed ICPM within 14 calendar days after receiving the Notice of Award and submit 5 sets to the Project Manager for review and approval. The Project Manager will review the Contractor's ICPM within 5 calendar days after the submittal. If required, the Project Manager will convene a Joint Review Conference at which time the Project Manager and Contractor may make corrections and adjustments to the proposed ICPM. If a revision is necessary due to the Project Manager's review or the Joint Review Conference, the proposed revisions shall be submitted, by the Contractor, within 7 calendar days after the initial review date to the Project Manager for another review. Revisions shall conform to the format used in the ICPM. The Project Manager will respond to the revised ICPM within seven calendar days after its receipt.

No construction work shall begin until the Project Manager has accepted the ICPM. Time charges shall begin no later than the on or before date of the Notice to Proceed. Any delay in starting work caused by the acceptance of the ICPM by the Project Manager will not be a basis for any monetary claim.

4.11.3 When the Project Manager notifies the Contractor that the ICPM has been accepted, that document will become the CPM of Record (CPMR). The Contractor shall be responsible for implementing and executing the Work specified in the Contract in strict conformance with the CPMR. The CPMR shall be the Contractor's work plan for completing the entire Contract as specified in the Contract Documents.

Failure of the Contractor to adhere to the latest approved CPMR will be cause for the Owner to deny any and all requests for additional compensation or extensions of the Contract duration.

- **4.11.4** Revisions to the CPMR shall consist of one or more of the following:
 - a. A change in duration of an activity.
 - b. A change in the logic of the schedule.
 - c. A change in the calendars.
 - d. The deletion or addition of one or more activities.

The Contractor may submit a proposed revision to the CPMR at any time during the life of the Contract.

The Contractor shall submit a proposed revision to the CPMR whenever the activities differ from the accepted CPMR. Proposed revisions shall be submitted by the Contractor within 30-calendar days from the date on which the Contractor's activities deviated from the accepted CPMR. The revisions shall be submitted to the Project Manager in the same format used for the ICPM. The revisions shall include data from all CPMR Updates, which have been accepted by the Administration. The Written Narrative accompanying the revision shall describe the reason for the revisions, the critical path, and all logic and duration modifications to the CPMR. These shall include, but not be limited to, changes in the method or manner of the Work, changes in Specifications, extra work, addition or deletion of work, increased or decreased quantities, defective work and acceleration of the Work.

The Project Manager will review the CPMR and respond to the Contractor's proposed revision within 5 calendar days after its receipt. The Project Manager reserves the right to deny any proposed revision which adversely impacts the Owner, utilities, or other interested parties.

4.11.5 Any written request for an extension of time or change in incentive/disincentive date (if applicable) shall be accompanied by a revised CPMR, which documents the actual delay to the Contract completion date or incentive/disincentive date. The request shall include a written narrative of the events which would require an extension of the Contract time or incentive/disincentive date.

Only delays to activities, which affect the Contract completion date or incentive/disincentive date will be considered for a time extension. The extension of the specified Contract completion date or incentive/disincentive date will be based upon the actual number of calendar days the Contract completion date or incentive/disincentive date is adjusted. No extensions of the specified Contract completion date will be issued for work performed on activities with float.

4.11.6 Monthly updates of the CPMR are required. CPMR update submissions shall contain the activity data as specified in (a) thru (e) of the ICPM. The update shall describe the progress of the project to date. It shall include a description of the current critical path, the amount of float on the critical path, any delays or disruptions experienced by the Contractor during the period of the update, any change in manpower or equipment, the inclusion of any schedule revisions, and any potential delays or disruptions.

When a delay or a disruption to the Work is identified in the Written Narrative, which the Contractor believes to be the responsibility of the Owner, the

Contractor shall submit a revision to the CPMR within 30 calendar days after the submittal of the updates.

4.11.7 The Owner and the Contractor will hold monthly job site progress meetings to discuss the progress of the project and update the CPMR. The Contractor shall arrange to have a representative of each subcontractor currently working on the project in attendance. The Contractor shall submit to the Project Manager the CPMR updates within 14 calendar days form the date of the monthly meeting. The Project Manager will review the update and advise the Contractor of its acceptability prior to the next monthly meeting.

4.12 RESPONSIBILITY FOR COMPLETION

- 4.12.1 The Contractor shall furnish such labor, materials, tools, equipment, and professional services and shall work such hours, including night shifts, overtime operations and Sundays and holidays, as may be necessary to ensure the performance of the Work within Milestone and Completion dates specified in the Owner/Contractor Agreement. If it becomes apparent to the Owner's Project Manager that the Work will not be completed within required Milestone or Completion dates, the Contractor agrees to undertake some or all of the following actions, at no additional cost to the Owner, in order to ensure, in the opinion of the Owner's Project Manager, that the Contractor will comply with all Milestone and Completion date requirements:
 - .1 Increase labor, materials, tools, equipment and professional services;
 - .2 Increase the number of working hours per shift, shifts per working day, working days per week, or any combination of the foregoing; and
 - .3 Reschedule activities to achieve maximum practical concurrency of accomplishment of activities.
- 4.12.2 If the actions taken by the Contractor are not satisfactory, the Owner or the Owner's Project Manager may direct the Contractor to take any and all actions necessary to ensure completion within the required completion dates, without additional cost to the Owner. In such event, the Contractor shall continue to assume responsibility for his performance and for completion within the required dates.
- 4.12.3 If, in the opinion of the Project Manager, the actions taken by the Contractor pursuant to this Agreement or the progress or sequence of work are not accurately reflected on the Construction schedule, the Contractor shall revise such schedule to accurately reflect the actual progress and sequence of work.

This provision does not eliminate the Contractor's responsibility to comply with the Town noise ordinances, all Town permit requirements and all other applicable laws, regulations, rules, ordinances, resolutions, and permit requirements.

4.13 DOCUMENTS, OTHER SUBMITTALS AT THE SITE; AS-BUILT DRAWINGS

- 4.13.1 The Contractor and his Subcontractors shall maintain at the site, and at all times make available to the Owner and the Owner's Project Manager one record copy of all Drawings, Specifications, Addenda, Change Orders, and other Modifications, in good order and marked currently to record all changes made during construction, and approved Shop Drawings, Product Data, Samples, Mock Ups and other Submittals ("as-built drawings").
- 4.13.2 The Contractor shall prepare the as-built drawings by marking up two sets of prints and one electronic copy of the applicable Contract Drawings to portray asbuilt construction, in conformance with the DCSM. The prints shall be neatly and clearly marked to show all variations between the Work actually provided and that indicated on the Contract Drawings, and all utilities encountered in the Work. All drafting shall conform to good drafting practice and shall include such supplementary notes, legends and details as may be necessary for legibility and clear portrayal of the as-built construction. These drawings shall be marked promptly at the completion of the project and shall be turned over the Owner prior to Final Payment.

4.14 SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND OTHER SUBMITTALS

- **4.14.1** The term "Shop Drawings" shall mean all drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by Contractor, a Subcontractor, manufacturer, supplier or distributor and which illustrate the equipment, material or some portion of the Work.
- 4.14.2 The Contractor shall submit with reasonable promptness and in such sequence as to cause no delay in the Work or in the work of the Owner or any separate Contractor, all Shop Drawings, Product Data, Manuals, Samples, and Submittals required by the Contract Documents. All such submissions shall be made so as to cause no delay in the project, allowing the Owner or his designated representative fourteen (14) working days for review and checking.
- 4.14.3 By approving and submitting Shop Drawings, Product Data, Manuals, Samples and Submittals, the Contractor represents that he has determined and verified all materials, field measurements, and field construction criteria related thereto, and that he has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

The Contractor shall adhere to any supplementary processing and scheduling instructions pertaining to any submittals that may be issued by the Owner's Project Manager.

- 4.14.4 Parts and details not fully indicated on the Contract Drawings shall be detailed by the Contractor in accordance with standard engineering practice. Dimensions on the Contract Drawings, as well as detailed drawings themselves, are subject in every case to measurements of existing, adjacent, incorporated and completed work that shall be taken by the Contractor before undertaking any work dependent on such data.
- 4.14.5 Where the Contract Documents call for the submittal of manufacturer's data to the Owner or the Owner's Project Manager for information only, such submittals shall be made before the commencement of any portion of the Work requiring such submission.
- 4.14.6 The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by virtue of the review by the Owner or the Owner's Project Manager of Shop Drawings, Product Data, Samples or Manuals unless the Contractor has specifically informed the Owner's Project Manager in writing of such deviation at the time of submission and the Owner's Project Manager has given written approval to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omissions in the Shop Drawings, Product Data, Samples or Manuals by the Owner or Owner's Project Manager's review thereof.
- 4.14.7 Shop drawings shall be submitted in such number of copies that three copies may be retained by the Project Manager or his designee after approval. Each submission shall be accompanied by a letter of transmittal in duplicate, listing the contents of the submission and identifying each item by reference to specification section or drawing. All Shop Drawings shall be clearly labeled with the name of the project and such information as may be necessary to enable their complete review by the Project Manager or his designee. Catalog plates and other similar material that cannot be so labeled conveniently shall be bound in suitable covers bearing the identifying data.
- 4.14.8 Shop drawings shall be accompanied by all required certifications and other such supporting material, and shall be submitted in such sequence or in such groups that all related items may be checked together. When Shop Drawings cannot be checked because a submission is not complete, or because Shop Drawings on related items have not been received by the Project Manager or his designee, such Shop Drawings will be returned without action, and marked 'rejected' with the reason for rejection clearly stated. Incomplete or defective submittals shall also be returned without action, and marked 'rejected' with the reason for rejection clearly stated.

- 4.14.9 Shop Drawings shall have been reviewed by the Contractor and coordinated with all other related or affected work before they are submitted for approval and shall bear the Contractor's certification that the Contractor has checked and approved them as complying with all relevant information in the Contract Documents. Shop Drawings submitted without such certification and coordination will be returned to the Contractor without action and will be considered not a formal submission.
- 4.14.10 SAMPLES required by the specifications or requested by the Project Manager or his designee shall be submitted for approval. Samples shall be submitted in single units only, unless the Contractor desires additional units for the Contractor's own use. Each sample shall bear a label indicating the material represented, the name of the producer and the title of the Project. Approval of a sample shall be only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents, and only for the characteristics or use named in such approval. Such approval shall not be construed to change or modify any Contract requirements or the Contract Price. Materials and equipment incorporated in the Work shall match the approved samples.
- 4.14.11 All TESTS of materials and finished articles shall be made by bureaus, laboratories or agencies approved by the Project Manager or his designee, and the certified reports of such tests shall be submitted to the Project Manager. All costs in connection with the testing shall be borne by the Contractor. Failure of any material to pass the specified tests or any test performed by the Project Manager or his designee will be sufficient cause for refusal to consider, under this Contract, any further materials of the same brand or make of that material. Samples of various materials delivered on the site or in place may be taken by the Project Manager or his designee for testing. Samples failing to meet the requirements of the Contract Documents will automatically void previous approvals of the items tested. See Article 7.5 for additional test requirements.

Unless otherwise specified, testing for soil compaction, soil suitability, concrete testing, etc. will be performed by or on behalf of the Contractor at the Contractor's expense. The Contractor shall furnish copies of all test results or related reports or documents to the Project Manager.

4.15 CUTTING AND PATCHING OF WORK

- 4.15.1 The Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the Work and to make its several parts fit properly and in accordance with the Contract Documents.
- 4.15.2 The Contractor shall not damage or endanger any portion of the Work or the work of the Owner or any separate Contractors by cutting, patching or otherwise altering any work, or by excavation. The Contractor shall not cut or otherwise

alter the work of the Owner or any separate Contractor except with the written consent of the Owner and of such separate Contractor. The Contractor shall not unreasonably withhold from the Owner or any separate Contractor his consent to cutting or otherwise altering the Work. The Owner shall not be required to accept work with a cut, a splice, or patch when such cut, splice or patch is not generally accepted practice for the particular work involved or is otherwise unworkmanlike in the opinion of the Owner or the Owner's Project Manager.

4.16 DRUG-FREE WORKPLACE

During the performance of this contract, the Contractor agrees as follows:

- .1 The Contractor will provide a drug-free workplace for the Contractor's employees. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- .2 The Contractor shall state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace.
- .3 The Contractor will include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each Subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a Contractor in accordance with the VPPA Section 2.2-4312, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

4.17 NON-DISCRIMINATION IN EMPLOYMENT

During the performance of this Contract, the Contractor agrees to comply fully with VPPA § 2.2-4201 and § 2.2-4343.1 as follows:

.1 The Contractor will not discriminate against any employee or applicant for employment because of race, religion, disability, color, sex or national origin, except where religion, sex or national origin is a bona fide occupational qualification

reasonably necessary to the normal operation of the Contractor and the Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause;

- .2 The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer;
- .3 Notices, advertisements and solicitations placed in accordance with Federal law, rule or regulation, shall be deemed sufficient for the purpose of meeting the requirements of this provision; and
- .4 The Contractor will include the provisions of paragraphs .1, .2, .3 above in every subcontract or purchase order of over \$10,000 so that the provisions will be binding upon every Subcontractor or vendor.
- .5 The Contractor will comply with the requirements VPPA Section 2.2-4343.1, Permitted Contracts with Certain Religious Organizations, as applicable.

4.18 SIGNS

The Contractor may at his option and without cost to the Owner, erect signs acceptable to the Owner on the site of the Contract for the purpose of identifying and giving directions to the job. No signs shall be erected without prior approval of the Owner as to design and location.

4.19 CLEANING UP

- 4.19.1 The Contractor at all times shall keep the project site and all surrounding public streets and neighboring property free from accumulation of waste materials or rubbish caused by his operations. At the completion of the Work and before Final Payment is made, he shall remove all his waste materials and rubbish from and about the Project as well as all his tools, equipment and surplus materials. The Contractor shall also thoroughly clean and leave reasonably dust free all interior of all buildings included in the Contract, and thoroughly clean all glass installed under the Contract including the removal of all paint and mortar splatters and other defacements.
- 4.19.2 If the Contractor fails to clean up during or at the completion of the Work, the Owner may do so as provided in Article 6.3 "OWNER'S RIGHT TO PERFORM DISPUTED WORK" and the cost thereof shall be charged to the Contractor.

- 4.19.3 The Contractor shall take all reasonable steps, including but not limited to providing a wash down area, to prevent mud, dirt, and other material from accumulating upon the public streets.
- 4.19.4 During and at the completion of the Work, the Contractor shall prevent site soil erosion, the runoff of silt or debris carrying water from the site, and the blowing of debris off the site in accordance with the applicable requirements and standards of the Virginia Erosion and Sediment Control Handbook, latest edition, and the Contract Documents.

4.20 ROYALTIES AND PATENTS

4.20.1 Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of 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 the Owner or Owner's Project Manager 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. Contractor shall indemnify, defend and hold harmless Owner and Owner's Project Manager and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorneys' fees) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work of any invention, design, process, product or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

4.21 ANTITRUST

By entering into a contract Contractor conveys sells assigns and transfers to the Owner all rights, title and interest in and to all causes of the action it now may have or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular good(s) or service(s) purchased or acquired by the Owner under this contract.

4.22 INDEMNIFICATION

4.22.1 To the fullest extent permitted by law, the Contractor shall, at his sole cost and expense, indemnify, defend, and hold harmless the Owner, the Owner's Project Manager, their agents, representatives, employees, successors and assigns from and against all claims, actions, judgments, costs, liabilities, penalties, damages, losses and expenses, including but not limited to, attorneys' fees, arising out of or resulting from the performance of the Work, provided that any such claim, action, judgment, cost, liability, penalty, damage, loss or expense:

- .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 loss of use resulting therefrom; and
- .2 Is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor or supplier, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

The Contractor shall not be obligated to indemnify the Owner or the Owner's Project Manager hereunder for any damages or injuries, including death, the proximate cause of which is the sole negligence of the Owner or the Owner's Project Manager, consistent with Va. Code § 11-4.1.

Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity that would otherwise exist as to any party or person described in this Article 4.22

- 4.22.2 In any and all claims against the Owner and the Owner's Project Manager or any of their agents, representatives, or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this Article 4.22 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.
- **4.22.3** No provision of Article 4.22 shall give rise to any duties on the part of the Owner or the Owner's Project Manager, or any of their agents, representatives or employees.
- 4.22.4 The obligations of the Contractor under Article 4.22 shall not extend to the liability of the Owner's Project Manager, or the Owner's design architect or engineers, their agents or employees arising out of (a) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or (b) the giving of or the failure to give directions or instructions by Owner's Project Manager, his agents or employees provided such giving or failure to give is the primary cause of injury or damage.

4.23 PERSONS AUTHORIZED TO SIGN DOCUMENTS

The Contractor, within five days after the earlier of the date of a Notice to Proceed or the date of the Owner/Contractor Agreement shall file with the Owner's Project Manager a list of all persons who are authorized to sign

documents such as contracts, certificates and affidavits on behalf of the Contractor and to fully bind the Contractor to all the conditions and provisions of such documents.

4.24 ASBESTOS AND OTHER HAZARDOUS SUBSTANCES

- 4.24.1 Whenever and wherever during the course of performing any work under this contract, the Contractor discovers the presence of asbestos or other hazardous substances or suspects the presence of any hazardous substances, he shall stop the work immediately, secure the area, notify the Owner and await positive identification of the suspect material. During the downtime in such a case, the Contractor shall not disturb any surrounding surfaces but shall protect the area with suitable dust covers. In the event the Contractor is delayed due to the discovery of asbestos, suspected asbestos or any other hazardous or suspected hazardous substances, then a mutually agreed extension of time to perform the Work shall be allowed the Contractor.
- 4.24.2 Any claims for extension of time shall be subject to the provisions of Article 8
- 4.24.3 If the items/products to be purchased are "Hazardous Substances" as defined by 15 U.S.C. § 1261, then the Contractor certifies and warrants that the items or products to be delivered under the Contract shall be properly labeled as required by the foregoing sections and that by delivering the items/products, the Bidder does not violate any of the prohibitions of 15 U.S.C. § 1263.
- 4.24.4 Material Safety Data Sheets (MSDS) and descriptive literature shall be provided with the submittal or delivery of each chemical and/or compound subject to Article 4.24.3. Failure on the part of the Contractor to submit such data may be cause for termination in accordance with Article 14.3.

4.25 RIGHT TO PUBLISH

The Contractor otherwise agrees that he will not publish, cause to be published, or otherwise disseminate any information of any nature relating to the Work performed under this Contract, except as may be approved by the Owner in writing.

4.26 MATERIALS AND EQUIPMENT LIST

4.26.1 At least ten (10) working days before the start of construction the Contractor shall submit to the Project Manager for approval a complete list of materials and equipment proposed for use in connection with the project. Partial lists submitted from time to time will not be considered.

4.26.2 After any material or piece of equipment has been approved, no change in brand or make will be permitted unless satisfactory written evidence is presented to prove that the manufacturer cannot make scheduled delivery of the approved material, or that material delivered has been rejected and the substitution of a suitable material is an urgent necessity, or that other conditions have become apparent which indicate that approval of such other material is in the best interest of the Owner.

END OF ARTICLE 4

ARTICLE 5: SUBCONTRACTORS

5.1 **DEFINITIONS**

- A Subcontractor is any firm, supplier, distributor or vendor that performs work for or furnishes services, equipment or supplies to or for the Contractor or another Subcontractor in conjunction with the Contract. The term Subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Subcontractor or his authorized representative. Although the term Sub-subcontractor may appear within the Contract Documents, the term Subcontractor includes any person or entity that has a direct or indirect contract with the Contractor to perform any of the Work.
- 5.1.2 The Contractor shall be fully responsible to the Owner for all acts and omissions of his Subcontractors, and of persons and organizations directly or indirectly employed by them, and of persons and organizations for whose acts any of them may be liable, to the same extent that he is responsible for the acts and omissions of persons directly employed by him.
- 5.1.3 Nothing contained in the Contract Documents is intended to, nor shall it create, any contractual relationship between the Owner, the Owner's Project Manager, or any of their agents, consultants, employees, independent contractors, or representatives and any Subcontractor, but the Owner shall be entitled to performance of all obligations intended for its benefit, and to enforcement thereof.
- 5.1.4 The Owner's Project Manager will not deal directly with any Subcontractor. Communication will be made only through the Contractor. Subcontractors shall route requests for information or clarification through the Contractor to the Owner's Project Manager.

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

- The Contractor shall within fourteen days after award of the Contract furnish to the Owner's Project Manager in writing the names of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work. The Owner's Project Manager will promptly reply to the Contractor in writing stating whether the Owner has objection to any such proposed person or entity.
- 5.2.2 The Contractor shall not contract with any such proposed Subcontractor to whom the Owner has made objection under the provisions of Article 5.2.1. The Contractor shall not be required to contract with anyone to whom he has an objection.

- **5.2.3** If the Owner objects to any proposed Subcontractor under Article 5.2.1, the Contractor shall name a substitute to whom the Owner has no objection within fifteen days.
- 5.2.4 The Contractor shall make no substitution for any Subcontractor previously proposed by the Contractor and not objected to by the Owner's Project Manager if the Owner makes objection to such substitution.

5.3 SUBCONTRACTUAL RELATIONS

5.3.1 By an appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities that the Contractor, by these Documents, assumes toward the Owner.

This agreement shall preserve and protect the rights of the Owner under the Contract Documents with respect to the Work to be performed by the Subcontractor. The subcontracting will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the Contractor-Subcontractor Agreements, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by these Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with his Subcontractors.

The Contractor shall make available to each proposed Subcontractor, prior to the execution of the Subcontract, copies of the Contract Documents to which the Subcontractor will be bound by this Article 5.3, and identify to the Subcontractor any terms and conditions of the proposed Subcontract that may be at variance with the Contract Documents. Each Subcontractor shall similarly make copies of such Contract Documents available to his Sub-subcontractors or Suppliers.

5.3.2 The Contractor shall be liable to and indemnify, defend and hold the Owner harmless from all costs, expenses, fees, attorney's fees, accountant's fees, damages and claims arising because of the Contractor's failure to comply with the provisions of this Article 5.3.

5.4 QUALIFICATION SUBMITTALS

5.4.1 Specific qualification submittals may be required of Subcontractors for certain critical items of the Work. Required qualification submittals are set forth in detail in the Contract Documents and shall be collected and submitted by the Contractor to the Owner's Project Manager for review and approval by the Owner and Owner's Project Manager. All information required of a single Subcontractor shall be contained in a single, complete submittal. The Contractor

- shall submit the required qualification information within ten days after receipt of the Owner's Project Manager's request.
- 5.4.2 The Owner may reject any proposed Subcontractor, or any qualification submittals related thereto, for the following reasons:
 - .1 The Contractor's failure to submit requested information within the specified time; or
 - .2 The Contractor's failure to provide all of the requested information; or
 - .3 The Contractor's submission of a Subcontractor, or its qualifications, that are unacceptable to the Owner.
- 5.4.3 Should the Owner have objection to any proposed Subcontractor, the Contractor shall submit another firm for approval within fifteen days.

END OF ARTICLE 5

ARTICLE 6: WORK BY OWNER OR BY SEPARATE CONTRACTORS

6.1 OWNER'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

- 6.1.1 The Owner reserves the right to perform work related to the Project with its own forces, and to award separate contracts in connection with other portions of the Project or other work on the site.
- When separate contracts are awarded for different portions of the Project or other work on the site, the term Contractor in the Contract Documents in each case shall mean the Contractor who executes each separate Owner/Contractor Agreement.

6.2 MUTUAL RESPONSIBILITY

- 6.2.1 The Contractor shall afford other Contractors and the Owner reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work and shall properly connect and coordinate the Work with that of the Owner and other Contractors, to store his tools, materials and equipment in such orderly fashion at the site of the Work as will not unduly or unreasonably interfere with the progress of the Work or the work of any other Contractors.
- 6.2.2 If the execution or result of any part of the Work depends upon any work of the Owner or of any separate Contractor, the Contractor shall, prior to proceeding with the Work, inspect and promptly report in writing to the Owner's Project Manager any apparent discrepancies or defects in such work of the Owner or of any separate Contractor that render it unsuitable for such proper execution or result of any part of the Work under this Contract.
- 6.2.3 Failure of the Contractor to so inspect and report shall constitute an acceptance of the Owner or separate Contractor's work as fit and proper to receive the Work, except as to defects that may develop in the Owner's or separate Contractor's work after completion of the Work, and that the Contractor could not have discovered by its inspection prior to completion of the Work under this Contract.
- 6.2.4 Should the Contractor cause damage to the Work or property of the Owner or of any separate Contractor on the Project, or to other work on the site, or delay or interfere with the Owner's work on ongoing operations or facilities or adjacent facilities of the Contractor's work, the Contractor shall be liable for the same and, in the case of another Contractor, the Contractor shall attempt to settle such claim with such Contractor prior to such other Contractor's institution of litigation.

6.3 OWNER'S RIGHT TO PERFORM DISPUTED WORK

6.3.1 If a dispute arises between the Contractor and separate Contractors as to their responsibility for cleaning up as required by Article 4.19 "CLEANING UP" or for accomplishing coordination as required by Article 6.4 "COORDINATION OF THE WORK," the Owner may carry out such Work and charge the cost thereof to the Contractors responsible therefor as the Owner's Project Manager shall determine.

6.4 COORDINATION OF THE WORK

By entering into this Contract, Contractor acknowledges that there may be separate Contractors on the Site whose work will be coordinated with that of his own. Contractor warrants and guarantees that he will cooperate with separate Contractors, and will do nothing to delay, hinder or interfere with the Work of other separate Contractors, the Owner or the Owner's Project Manager.

END OF ARTICLE 6

ARTICLE 7: MISCELLANEOUS PROVISIONS

7.1 GOVERNING LAW

- 7.1.1 The Contract shall be governed by the law of the Commonwealth of Virginia, and shall be performed in accordance with the laws, ordinances, regulations, permits and resolutions of the Town of Leesburg. The sole venue for any litigation under this Contract shall be the Circuit Court of Loudoun County, Virginia. The conflicts of law provisions shall not be employed to apply the laws of any state other than those of the Commonwealth of Virginia to this Contract.
- **7.1.2** Each provision of law required to be inserted in this Contract shall be deemed inserted. If through mistake or otherwise, any provision is not properly inserted, the Contract shall be modified to include such provision upon the application of either party.
- 7.1.3 Where applicable, the Contractor shall meet or exceed all requirements of the Town of Leesburg Design and Construction Standards Manual and all other local, state and federal building codes.

7.2 SUCCESSORS AND ASSIGNS

- 7.2.1 The Contractor binds himself, his partners, successors, assigns and legal representatives to the Owner, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents. The Contractor shall not assign the Contract or sublet it as a whole without the written consent of the Owner, nor shall the Contractor assign any monies due or to become due to him under the Contract, without the previous written consent of the Owner and the Contractor's Surety. Nor shall any contract be entered into or assigned to any party that is debarred from doing business with or in the Commonwealth of Virginia.
- 7.2.2 In the event the Contractor desires to make an assignment of all or part of the contract or any monies due or to become due under this Contract, the Contractor shall file a written consent of Surety, together with a copy of the proposed Assignment with the Owner or the Owner's Project Manager. In the event the Contractor assigns all or any part of the monies due or to become due under this Contract, the instrument or assignment shall state that the right of assignees in and to any monies due to or to become due to the Contractor shall be subject to prior liens and claims of all persons, firms and corporations that provided labor, services, or furnished material and equipment during the performance of the Work. The rights of assignees shall further be subject to the payment of any liens, claims or amounts due to Federal or State governments, and to all rights of retention and set-off granted to the Owner by the Contract Documents.

7.3 CLAIMS FOR DAMAGES

7.3.1 Should the Contractor suffer injury or damage to person or property because of any act or omission of the Owner or of any of its employees, agents or others for whose acts either is legally liable, claim shall be made in writing to the Owner within thirty days after the first observance of such injury or damage; otherwise, the Contractor shall have waived any and all rights he may have against the Owner, or its employees, representatives and agents.

7.4 DISPUTES

- 7.4.1 A claim, if any, shall be made in writing and submitted by the Contractor to the Owner, the Project Manager and the Leesburg Town Attorney within ten calendar days after the occurrence of events giving rise to the claim. A claim is limited to events rising out of or relating to the Contract. Failure to file a written claim as required herein shall constitute an absolute waiver of any claim of any sort.
- 7.4.2 The parties shall first endeavor to resolve any disputes, claims or other matters in question between them through direct negotiations, and if such direct negotiations fail, by non-binding mediation, with the site of the mediation being the Town of Leesburg, Virginia.
- 7.4.3 If the procedures of subparagraph 7.4.2 have been followed, but more than 90 days have passed since a party has requested mediation, and the dispute, claim or matter in question remains unresolved, then either party may institute a lawsuit in the Circuit Court of Loudoun County, Virginia, which is agreed to be the sole and exclusive venue, and may pursue all available appeals in Virginia state courts, to the extent they have jurisdiction.
- 7.4.4 Nothing in paragraphs 7.4.1 or 7.4.2 shall prevent a party from seeking temporary injunctive or other temporary equitable relief in the Loudoun County Circuit Court if circumstances so warrant.
- 7.4.5 In the event of any dispute, claim, or other matter in question arising, Contractor shall continue its performance diligently during its pendency as if no dispute, claim or other matter in question had arisen. During the pendency of any dispute in connection with the payment of moneys, Contractor shall be entitled to receive payments for non-disputed items.
- 7.4.6 Notwithstanding any other provision hereof, the Contractor expressly waives all claims against the Owner for consequential damages arising out of or relating to this Contract. This waiver includes losses of financing, business and reputation, bonding capacity, and loss of profit other than profit arising directly from the Work where otherwise permitted in the Contract.

7.5 TESTS

- 7.5.1 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested, or approved, the Contractor shall give the Owner's Project Manager five days notice of its readiness so the Owner's Project Manager may observe such inspection, testing, or approval. The Contractor shall bear all costs of such inspections, tests or approvals conducted by public authorities.
- 7.5.2 If the Owner's Project Manager determines that any Work requires special inspection, testing, or approval that Article 7.5.1 does not include, the Owner's Project Manager will order the Contractor to make arrangements for such special inspection, testing or approval, and the Contractor shall give the Owner's Project Manager five days notice of such inspection. If such special inspection or testing reveals a failure of the Work to comply with:
 - .1 The requirements of the Contract Documents, or
 - .2 The conformance of the Work with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction.

The Contractor shall bear all costs of the Work, including compensation for the Owner's Project Manager and any additional services made necessary by such failure.

- 7.5.3 Inspections and tests required under Article 7.5.2 to establish compliance with the Contract Documents will be made by a testing agency employed by the Owner. If the initial tests indicate non-compliance with the Contract Documents, the Contractor shall bear the costs thereof and any subsequent testing occasioned by non-compliance shall be performed by the same agency and the cost thereof shall be borne by the Contractor. Representatives of the testing agency shall have access to the Work at all times. The Contractor shall provide facilities for such access in order that the agency may properly perform its functions.
- 7.5.4 Certificates of inspection, testing or approval required by public authorities shall be secured by the Contractor and promptly delivered by him to the Owner's Project Manager, in adequate time to avoid delays in the Work or Final Payment.
- 7.5.5 The Contractor shall pay for and have sole responsibility for inspection or testing performed exclusively for his own convenience and for tests necessary because of Contractor's or Subcontractor's errors, omission, or noncompliance with Contract Documents.
- 7.5.6 All materials and workmanship (if not otherwise designated by the specifications) shall be subject to inspection, examination and test by the Owner

or the Owner's Project Manager, at any time during the manufacture or construction and at any place where such manufacture or construction are carried on. Special, full-sized and performance tests shall be described in the specifications. Without additional charge, the Contractor shall furnish promptly all reasonable facilities, labor and materials necessary to make tests safe and convenient.

7.5.7 It is specifically understood and agreed that an inspection and approval of the materials or work by the Owner or the Owner's Project Manager shall not in any way subject the Owner to pay for the said materials or work or any portion thereof, even though incorporated in the Work, if said materials or work shall in fact turn out to be not in compliance with the Contract Documents or otherwise defective.

7.6 UNENFORCEABILITY OF ANY PROVISION

7.6.1 If any provision of this Contract is held as a matter of law to be unenforceable or unconscionable, the remainder of the Contract shall be enforceable without such provision.

7.7 AVAILABILITY OF LANDS

- 7.7.1 Owner shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be done, rights-of-way or easements for access thereto. The Owner reserves the right to delay the notice to proceed with the Contract Work in order to secure rights of way, easements or to relocate utilities, such as sewer, water, gas, electricity, cable television and other services.
- 7.7.2 If the Contractor requires additional land for temporary construction facilities and for storage of materials and equipment other than the areas available on the site or right-of-way, or as otherwise furnished by the Owner, the Contractor shall provide such other lands and access thereto entirely at the Contractor's own expense and without liability to the Owner. The Contractor shall not enter upon private property for any purpose without written permission. The contractor shall provide to the Owner evidence of written permission for entry onto private property for the purpose of temporary construction facilities and/or storage of materials and equipment.

7.8 NONEXCLUSIVITY OF REMEDIES

All remedies available to the Owner under the Contract are cumulative and no such remedy shall be exclusive of any other remedy available to the Owner.

END OF ARTICLE 7

ARTICLE 8: TIME

8.1 **DEFINITIONS**

- **8.1.1** The Contract Time is the period set forth in the Owner/Contractor Agreement for Final Completion of the Work as defined in Article 8.1.4, including authorized extensions thereto.
- **8.1.2** The date of commencement of the Work is the date established in the Notice to Proceed issued by the Owner.

Submission by the Contractor of all Certificates of Insurance, Performance and Payment Bonds and their approval by the Owner are conditions precedent to the issuance of the Notice to Proceed. Availability of lands under Article 7.7 is also a condition precedent to the issuance of the Notice to Proceed. The Contractor shall not commence the Work or store materials or equipment on site until written Notice to Proceed is issued or until the Contractor otherwise receives the written consent of the Owner.

- 8.1.3 The date of Substantial Completion of the Work or designated portion thereof is the date certified by the Owner's Project Manager that the Work or a designated portion thereof is sufficiently complete, in accordance with the Contract Documents, so the Owner can fully occupy or utilize the Work or designated portion thereof for the use for which it is intended, with all of the Project's parts and systems operable as required by the Contract Documents. Only punch list work and any final cleaning beyond that needed for the Owner's full use may remain for Final Completion.
- 8.1.4 The date of Final Completion of the Work is the date certified by the Owner's Project Manager when the Work is complete, to include punch list work and final clean up, in accordance with the Contract Documents and the Owner may fully occupy or fully utilize the Work for the use for which it is intended.
- **8.1.5** If the date or time of completion is included in the Contract, it shall be the Date of Final Completion as defined in Article 8.1.4, including authorized extensions thereto, unless otherwise provided.
- 8.1.6 The term Day as used in the Contract Documents shall mean calendar day unless otherwise specifically designated. All dates shall mean midnight of the indicated day unless otherwise stipulated.

8.2 PROGRESS AND COMPLETION

- **8.2.1** All time limits stated in the Contract Documents are of the essence of this Contract.
- **8.2.2** The Contractor shall prosecute the Work diligently to Final Completion.

8.3 DELAYS AND EXTENSIONS OF TIME

- 8.3.1 The time during which the Contractor is delayed in the performance of the Work, by the acts or omissions of the Owner, the Owner's Project Manager or their employees or agents, acts of God, unusually severe and abnormal climatic conditions, fires, floods, epidemics, quarantine restrictions, strikes (not to exceed the actual duration of the strike), riots, terrorism, civil commotions, war or freight embargoes, or other conditions beyond the Contractor's control and that the Contractor could not reasonably have foreseen and provided against, shall be added to the Contract Time; provided, however, that no claim by the Contractor for an extension of time for delays will be considered unless made in compliance with the requirements of this Article and other provisions of the Contract Documents.
- 8.3.2 The Contract Time shall be adjusted only for Change Orders pursuant to Article 12, "CHANGES IN THE WORK," Article 3.3, "OWNER'S RIGHT TO STOP OR SUSPEND THE WORK," and Article 8.3, "DELAYS AND EXTENSIONS OF TIME." If the Contractor requests an extension of the Contract Time, he shall furnish such justification and supporting evidence as the Owner's Project Manager may deem necessary for a determination of whether the Contractor is entitled to an extension of time under the provisions of the Contract.
- **8.3.3** The burden of proof to substantiate a claim for an extension of the Contract Time shall rest with the Contractor, including evidence that the cause was beyond his control. The Owner's Project Manager shall base his findings of fact and decision on such justification and supporting evidence and shall advise the Contractor in writing thereof.
- **8.3.4** The Contractor shall not be entitled to and hereby expressly waives any extension of time resulting from any condition or cause unless the request for an extension of time is made in writing to the Owner's Project Manager within seven days of the first instance of delay.
- 8.3.5 Any claim for an extension of time for a delay for any cause shall be made by filing a written notice of claim with the Owner and the Owner's Project Manager at the beginning of the occurrence or within seven days thereafter if the resulting delay was not reasonably foreseeable. If the asserted cause of delay is weather, such notice shall be given within seven days after asserted commencement of the

claim delayed. The notice of claim shall state the circumstances of the occurrence, the justification for the delay and for the extension of time, and the estimated duration of the delay and of the extension requested. The claim for an extension of time for weather delays shall be further substantiated by weather data collected during the period of delay at the construction site. Said data must demonstrate that an actual department from normal weather occurred at the work site during the dates in question. Within seven days after the cause of delay has been remedied, the Contractor shall give written notice to the Owner and the Owner's Project Manager of the actual time extension requested as a result of the claimed delay. Failure to file either of the notices as required herein shall constitute an absolute waiver of any claims resulting from a delay or any sort.

The anticipated adverse weather days per month are shown in the chart below.

The above chart will constitute the base line for monthly weather time evaluations. Actual adverse weather days will be recorded on a calendar day basis (including holidays and weekends), and compared to the anticipated monthly adverse monthly days based on the above chart. The number of actual adverse weather days shall be calculated chronologically from the first day to the last day in each month.

- **8.3.6** Any extension of time beyond the date of completion fixed by the Contract shall not be effective unless granted in writing, signed by the Owner.
- 8.3.7 The Contractor shall be entitled to an extension of time for delay which in the opinion of the Owner is entirely beyond the expectation and control of the Contractor by suspension of work pursuant to Article 3, or by strikes, lockouts, fire, insurrection, war, lightning, hurricane, and tornado. The Contractor shall be entitled to an extension of time for such causes only for the number of days of delay that the Owner may determine to be due solely to such causes and only to the extent that such occurrences actually delay the completion of the Project. Any request for extension of time shall be accompanied by detailed documentation of which specific schedule activities were affected, when they were affected and for what duration.
- **8.3.8** No extension of time will be granted to the Contractor for delays occurring to parts of the Work that have no measurable impact on the competition of the total Work under this Contract; nor will extension of time be granted for delays to parts of the Work that are not located on the Critical Path as reflected on the approved construction schedule at the time of such delay.

- 8.3.9 Delays in the delivery of equipment or material purchased by the Contractor or his Subcontractors (including Owner-selected equipment), or in the submission of required drawings or specifications by the Contractor's or its Subcontractor's materialmen, manufacturers or dealers, or in the performance of any of the Contractor's Subcontractors or caused by the performance of any of the Contractor's Subcontractors, shall not be considered as a just cause for delay. The Contractor shall be fully responsible for the timely submission, ordering, scheduling, expediting, delivery and installation of all equipment, materials and drawings.
- 8.3.10 Within sixty days after the Contractor files the notice of the actual duration of the extension of time as required herein, the Owner's Project Manager shall present his written opinion to the Owner as to whether an extension of time is justified, and, if so, his recommendation as to the number of days for time extension. The Owner will make the final decision on all requests for extension of time. The Owner's written decision shall be presented to the Contractor within thirty days from receipt of the Owner's Project Manager's recommendation. All such decisions made by the Owner shall be binding and conclusive upon the Contractor.
- **8.3.11** With respect to suspensions of work under Article 3, the Contractor may be entitled to an extension of time if the claim for such extension is submitted in accordance with the requirements of this Article, and if the suspension is not due to any act or omission of the Contractor, any Subcontractor or Sub-subcontractor or any other person or organization for whose acts or omission the Contractor may be liable.
- 8.3.12 An extension of time shall be the sole remedy under this Contract for any reasonable delay caused by any reason or occurrence. The Contractor acknowledges such extension of time to be its sole remedy hereunder, and agrees to make no claim for monetary damages of any sort for delay in the performance of this Contract occasioned by or in any way related to or arising from any act or omission to act of the Owner or the Owner's Project Manager or any representatives of the Owner or any representatives of the Owner's Project Manager, or because of any injunction which may be brought against the Owner or the Owner's Project Manager.
- **8.3.13** As a condition precedent to such additional compensation for unreasonable delay, the Contractor shall satisfy all notice and submission requirements set forth in the Contract Documents for approval of any extension of Contract Time or any change in the Contract Price.
- **8.3.14** If the Contractor asserts an unwarranted claim for additional compensation for unreasonable delay, the Contractor shall be liable to the Owner and shall pay the Owner all costs incurred by the Owner in investigating, analyzing, negotiating, and litigating the claim.

8.3.15 This Article shall be construed to be included where applicable in every portion of the Contract Documents regardless of whether or not it is specifically referenced therein.

END OF ARTICLE 8

ARTICLE 9: PAYMENTS AND COMPLETION

9.1 CONTRACT PRICE

9.1.1 Unless all or a part of the Contract is based on unit prices, the Contract Price is stated in the Contract and, including authorized adjustments thereto, is the firm, fixed price amount payable by the Owner to the Contractor for the performance of the Work under the Contract Documents. The Contract Price includes, but is not limited to, the Contractor's profits and general overhead and all costs and expenses of any nature whatsoever (including without limitation taxes, labor and materials), foreseen or unforeseen, and any increases in said costs and expenses, foreseen and unforeseen, incurred by the Contractor on this project. The Contractor agrees to assume all increases in costs of any nature whatsoever that may develop during the performance of the Work. The Contract Price includes all applicable Federal, State and local taxes and duties.

9.2 SCHEDULE OF VALUES

- 9.2.1 Within ten days after the Notice to Proceed is issued, the Contractor shall submit to the Owner's Project Manager a Schedule of Values, allocated to the various portions of the Work including mobilization and demobilization. This schedule, supported by data from the approved Progress Schedule, shall be used as a basis for the Contractor's Applications for Payment upon approval by the Owner's Project Manager. The Schedule of Values shall not alter in any way the firm, fixed price or lump sum contract price. The Contractor shall not front-end load or otherwise assign disproportionate amounts to the Schedule of Values.
- 9.2.2 If at any time the Contractor expects to receive an amount for a monthly progress payment larger than that indicated by the Schedule of Values and the approved Construction Schedule, the Contractor shall notify the Owner at least thirty days in advance of that payment so that the necessary allocation of funds can be processed. If the Contractor fails to give such notice, the Owner may defer such excess payment to the following progress payment.
- 9.2.3 With respect to any portion of the Contract subject to unit prices, the schedule of unit prices in the accepted bid shall be used as the basis for preparing Applications for Payment, and each partial payment shall represent the total value of all units of work completed, computed at the unit prices stated in the Contract, less the aggregate of previous payments and retainage. Final payment will be based on the actual quantities performed and justified on as-built drawings.

9.3 APPLICATIONS FOR PAYMENT

- **9.3.1** The Owner shall make progress payments monthly as the Work proceeds on Applications for Payment approved by the Owner's Project Manager.
- Prior to the date for each progress payment established in the Contract, the Contractor, in accordance with any Supplementary Conditions concerning schedules or payments, shall submit to the Owner's Project Manager an itemized Application for Payment, supported by such data substantiating the Contractor's right to payment as the Owner's Project Manager may require, including but not limited to the Contractor's certification that all work for which payment is requested has been completed in full accordance with the Contract Documents, copies of requisitions from Subcontractors and reflecting retainage, if any, as provided elsewhere in the Contract Documents. The Contractor shall certify that he has paid all due and payable amounts for which previous Certificates for Payment were issued and payments received from the Owner.
- 9.3.3 The Owner will retain five percent of the amount of all progress payments until the Work is substantially completed and accepted, whether or not the Owner has occupied any or all of the Project before such time.
- 9.3.4 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Payment will pass to the Owner either by incorporation in the construction or upon the receipt of payment by the Contractor, whichever occurs first, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in this Article 9 as "LIENS". The Contractor further warrants that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any other person performing Work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.
- 9.3.5 Unless otherwise provided in the specifications the Owner will make partial payments to the Contractor on the basis of a duly certified and approved estimate of the Work performed during the preceding calendar month as certified by the Owner's Project Manager.
- 9.3.6 The Contractor may, in preparing estimates, take into consideration the material delivered on site and preparatory work done, if properly documented as required by this Contract, or as may be required by the Owner or the Owner's Project Manager so that the quantities may be verified.
- 9.3.7 The Contractor may, in preparing estimates, take into consideration material such as large pieces of equipment and items purchased specifically for the project, but stored off the site within the Commonwealth of Virginia, and these items may be

considered for payment at the sole discretion of the Owner, provided that all of the following are accomplished prior to the submission of the monthly payment request in which payment for such materials is requested:

- 1 The Contractor must notify the Owner in writing at least ten days prior to the submission of the payment request, through the Owner's Project Manager, that specific items will be stored off site in a designated secure place within the Commonwealth of Virginia. The Schedule of Values must be detailed to separately indicate both the value of the material and of the labor/installation for trades requesting payment for stored materials. The Contractor warrants by giving such notification and by requesting payment for material stored off-site that the storage location is safe and suitable for the type of material stored and agrees that loss of such material shall not relieve him of the obligation to furnish these types and quantities of materials for the project and on a schedule to meet the time completion requirements of the Contract, subject to Article 8.
- .2 Such notification, as well as the payment request, shall:
 - a. itemize the quantity of such materials, and document with invoices the cost of said materials;
 - indicate the identification markings used on the materials.
 Such markings shall clearly reference the materials to the Project;
 - c. State the specific location of the materials. The location must be within reasonable proximity to the job site within the Commonwealth of Virginia;
 - d. State that the Surety on the Performance Bond and the Labor and Material Payment Bond has been notified of the request for payment of materials stored off the site and is agreeable to such payment;
 - e. Certify that adequate all-risk insurance has been obtained by the Contractor on the materials. Such insurance shall be in the name of the Owner and the Contractor.
- .3 The Owner's Project Manager shall indicate, in writing, to the Owner that submittals for such materials have been reviewed and meet the requirements of the drawings and specifications of the Contract documents, that the stored materials meet the

- requirement of the drawings and specifications, and that such material conforms to the approved submittals.
- .4 The Owner, through the Owner's Project Manager, shall notify the Contractor in writing of his agreement to prepayment for materials.
- .5 The Contractor shall notify the Owner in writing, through the Owner's Project Manager, when the materials are to be transferred to the site and when the materials are received at the site
- .6 No partial payment shall be made until the appropriate Certificates of Insurance have been provided.
- .7 All material and Work for which partial payments are made shall thereupon become the sole property of the Owner, but this provision shall not relieve the Contractor from the sole responsibility for all materials and Work, including those for which payment has been made, or the restoration of any damaged Work or as a waiver of the right of the Owner to require the fulfillment of all the terms of the Contract.

9.4 CERTIFICATES FOR PAYMENT

- 9.4.1 The Owner's Project Manager will within ten days after receipt of the Contractor's Application for Payment, either approve the Application for Payment for such amount as he determines is properly due, or notify the Contractor in writing of his reasons for not approving the Application for Payment as provided in Article 9.6 "PAYMENTS WITHHELD."
- 9.4.2 The submission and approval of the Progress Schedule and monthly updates thereof, as required by any Supplementary Conditions concerning Schedules, shall be part of the application upon which progress payment shall be made. The Contractor shall be entitled to progress payments only as determined from the currently Approved and Updated Progress Schedule.

9.5 PROGRESS PAYMENTS

- 9.5.1 After an Application for Payment has been approved by the Owner's Project Manager, the Owner shall make payment in the manner and within the time provided in the Contract Documents.
- **9.5.2** In accordance with Title 2.2-4354, Va. Code. Ann., Contractor is obligated to take one of the two following actions within seven (7) days after receipt of

amounts paid to the Contractor by the Owner for work performed by any Subcontractor under this Contract:

- .1 Pay the subcontractor for the proportionate share of the total payment received from the Owner attributable to the Work performed by the Subcontractor under this Contract; or
- .2. Notify the Owner and the Subcontractor, in writing, of the Contractor's intention to withhold all or a part of the Subcontractor's payment with the reason for nonpayment.

The Contractor is obligated to provide its social security numbers and if a proprietorship, partnership, or corporation, they must provide its federal employer identification number.

The Contractor is obligated to pay interest to Subcontractors on all amounts owed by the Contractor that remain unpaid after seven (7) days following receipt by the Contractor of payment from the Owner for Work performed by the Subcontractor under this Contract, except for amounts withheld as allowed in Article 9.5.2.2, above. It is herewith provided that interest shall accrue at the base rate on corporate loans (prime rate) at large United States money center commercial banks as reported daily in the publication entitled The Wall Street Journal.

The Contractor shall include in each of its subcontracts a provision requiring each Subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier Subcontractor.

The Contractor's obligation to pay an interest charge to a Subcontractor pursuant to the above provisions shall not be construed to be an obligation of the Owner. A Contract modification may not be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

9.5.3 In accordance with Title 2.2-4354, Va. Code. as amended, Contractor shall be liable for the entire amount owed to any subcontractor with which Contractor contracts. Contractor shall not be liable for amounts otherwise reducible due to the subcontractor's noncompliance with the terms of the contract between Contractor and such subcontractor. However, in the event that the Contractor withholds all or a part of the amount promised to the subcontractor under the contract, the Contractor shall notify the subcontractor, in writing, of the Contractor's intention to withhold all or a part of the subcontractor's payment with the reason(s) for nonpayment. Notwithstanding any provision to the contrary in the contract between Contractor and any lower-tier subcontractor(s), payment(s) by the Town shall not be a condition precedent to payment(s) to any lower-tier subcontractor(s), regardless of whether the Contractor receives payment(s) for amounts owed to that subcontractor.

- **9.5.4** The Owner's Project Manager may, on request and at his discretion, furnish to any Subcontractor, if practicable, information regarding the percentages of completion or the amounts applied for by the Contractor, and the action taken thereon by the Owner's Project Manager on account of Work done by such Subcontractor.
- **9.5.5** The Owner has no obligation to pay or to see to the payment of any monies to any Subcontractor except as may otherwise be required by law.
- 9.5.6 No Application for Payment, nor any progress payment, nor any partial or entire use or occupancy of the Project by the Owner, shall constitute an acceptance of any Work that is not in accordance with the Contract Documents.
- 9.5.7 In the event of disputes, payment shall be mailed on or before the Payment date for amounts and Work not in dispute, subject to any set-offs claimed by the Owner; except in instances where further appropriations are required by the Owner or where the issuance of further bonds is required, in which case, payment shall be made within thirty days after the effective date of such appropriation or within thirty days after receipt of bond proceeds by the Owner.

9.6 PAYMENTS WITHHELD

- 9.6.1 The Owner's Project Manager may decline to approve the Application for Payment or reduce payment or because of subsequently discovered evidence or subsequent observations, he may nullify the whole or any part of any Application for Payment previously approved to such extent as may be necessary in his opinion to protect the Owner from loss, because of:
 - .1 Defective Work not remedied;
 - .2 Third party claims filed, whether in court, in arbitration or otherwise, or reasonable evidence indicating probable filing of such claims;
 - .3 Failure of the Contractor to make payments properly to Subcontractors;
 - .4 Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;
 - .5 Damage to the Owner or to a separate contractor;
 - .6 Reasonable evidence that the Work will not be completed within the Contract Time, or within any Contract Milestones as established in the Contract Documents;

- .7 Failure or refusal of the Contractor to carry out the Work in accordance with or to otherwise substantially or materially comply with the Contract Documents;
- .8 Failure or refusal of the Contractor to properly schedule and coordinate the Work, or to provide Progress Schedules, reports and updates; and
- .9 Failure or refusal of the Contractor to fully comply with the provisions of Article 4.13 "DOCUMENTS, OTHER SUBMITTALS AT THE SITE; AS-BUILT DRAWINGS."
- **9.6.2** When the above grounds in Article 9.6.1 are removed, payment shall be made for amounts withheld because of them.

9.7 SUBSTANTIAL COMPLETION

9.7.1 When the Contractor considers that the Work, or a designated portion thereof which is acceptable to the Owner's Project Manager, is substantially complete as defined in Article 8.1.3, the Contractor shall prepare for submission to the Owner's Project Manager a list of items that in his opinion are to be completed or corrected and shall request in writing that the Owner's Project Manager perform a Substantial Completion inspection. The Owner's Project Manager shall review the Contractor's list and will compile a punch list of items to be corrected and completed. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Owner's Project Manager on the basis of an inspection determines that the Work or designated portion thereof is substantially complete, he will then prepare a Certificate of Substantial Completion that will establish the Date of Substantial Completion, state the responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed.

The Certificate of Substantial Completion shall be issued to the Contractor for his written acceptance of the responsibilities assigned to him in such Certificate and returned to the Owner's Project Manager within five days after issuance

9.7.2 The Contractor shall have thirty days from the Date of Substantial Completion to complete all items on the punch list to the satisfaction of the Owner's Project Manager. The Owner's Project Manager shall have the option to correct any and all punch list items not completed by the Contractor within thirty days from the Date of Substantial Completion by utilizing his own forces, those of the Owner, or by a separate Contractor. The cost of such correction of remaining punch list items by the Owner or others shall be deducted from the Final Payment to the Contractor.

- 9.7.3 The issuance of the Certificate of Substantial Completion does not indicate final acceptance of the Project by the Owner, and the Contractor is not relieved of any responsibility for the Project except as specifically stated in the Certificate of Substantial Completion.
- 9.7.4 Should the Owner's Project Manager determine that the Work or a designated portion thereof is not substantially complete, he shall provide the Contractor a written notice stating why the project or designated portion is not substantially complete. The Contractor shall expeditiously complete the Work and shall request in writing that the Owner's Project Manager perform a Substantial Completion reinspection and the costs, if any, associated with such reinspection shall be assessed to the Contractor.

9.8 FINAL COMPLETION AND FINAL PAYMENT

- 9.8.1 Upon receipt of the documentation required by Article 9.8.3, and of written notice that the Work is ready for final inspection and acceptance, the Owner's Project Manager will promptly make such inspection and, when he finds the Work acceptable under the Contract Documents and the Contract fully performed, he will issue a Certificate of Final Completion to the Contractor. Upon his receipt of the Final Completion Certificate, the Contractor may submit his Application for Final Payment to the Owner's Project Manager for his approval. Final Payment shall be made in full to the Contractor within thirty calendar days after the approval by the Owner's Project Manager of the Application for Final Payment provided that the requirements of Article 9 have been fulfilled, except for an amount agreed upon for any Work remaining uncompleted for which the Owner is entitled a credit under the Contract Documents.
- 9.8.2 Should the Owner's Project Manager determine that the Work or a designated portion thereof is not complete, he shall provide the Contractor a written notice stating why the Project or designated portion is not complete. The Contractor shall expeditiously complete the Work and shall request in writing that the Owner's Project Manager perform a Final Completion reinspection and the costs, if any, associated with such reinspection shall be assessed to the Contractor.
- **9.8.3** Neither the Final Payment nor the remaining retained percentage shall become due until the Work is free and clear of any and all Liens and the Contractor submits to the Owner's Project Manager:
 - .1 An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or its property might in any way be responsible, have been paid or otherwise satisfied:

- .2 Consent of surety to Final Payment, if necessary;
- .3 As-built drawings, operation and maintenance manuals and other project closeout submittals, as required by the Contract Documents;
- .4 A fully executed and notarized Release of claims in such form as may be designated by the Owner; and
- .5 A written certification that:
 - a. the Contractor has reviewed the requirements of the Contract Documents;
 - b. the Work has been inspected by the Contractor for compliance with all requirements of the Contract Documents;
 - c. pursuant to this inspection, the Contractor certifies and represents that the Work complies in all respects with the requirements of the Contract Documents;
 - d. the Contractor further certifies and represents that all equipment and systems have been installed and tested in accordance with the Contract Documents and the Owner personnel training in the proper operation and maintenance of equipment is complete; and
 - e. the Contractor provides construction releases as required by the Contract Documents from each property owner on whose property an easement for construction of this project has been obtained by the Owner, such release to be in the forms to be provided by the Owner. This release is for the purpose of releasing the Owner and the Contractor from liability, claims, and damages arising from construction operations on or adjacent to the easement and includes proper restoration of the property after construction. It shall be the Contractor's sole responsibility to obtain all such releases and furnish them to the Owner.
- **9.8.4** The making of Final Payment shall constitute a waiver of all claims by the Owner against the Contractor except those arising from:
 - .1 Unsettled liens and claims against the Owner;
 - .2 Faulty, defective or non-conforming Work discovered or appearing after Substantial or Final Completion;

- .3 Failure of Work to comply with the requirements of the Contract Documents; and
- .4 Terms of any warranties contained in or required by the Contract Documents.
- 9.8.5 The acceptance of Final Payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the Application for Final Payment.
- **9.8.6** Warranties required by the Contract Documents shall commence on the Date of Final Acceptance of the Work or designated portion thereof unless otherwise provided in writing.

9.9 PARTIAL OCCUPANCY OR USE

- 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Article 11.2.8 and authorized by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and the Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Owner's Project Manager as provided under Article 9.7. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner's Project Manager and the Contractor or, if no agreement is reached, by decision of the Owner's Project Manager.
- 9.9.2 Immediately prior to such partial occupancy or use, the Owner or the Owner's Project Manager, and the Contractor shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.
- 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

END OF ARTICLE 9

ARTICLE 10: PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

10.1.1 The Owner and the Owner's Project Manager are not responsible for the means, methods, techniques, sequences or procedures utilized by the Contractor, or for safety precautions and programs in connection with the Work. The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. This requirement applies continuously throughout the Contract performance, until Final Payment is made, and is not limited to regular working hours.

10.2 SAFETY OF PERSONS AND PROPERTY

- 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss, to:
 - .1 All employees on the Work and other persons who may be affected thereby;
 - All the Work and materials and equipment to be incorporated therein whether in storage off the site, under the care, custody or control of the Contractor or any of his Subcontractors, machinery and equipment. The Contractor shall comply with, and ensure that the Contractor's personnel and subcontracted personnel comply with all current applicable local, state and federal policies, regulations and standards relating to safety and health, including, by way of illustration and not limitation, the standards of the Virginia Occupational Safety and Health Administration for the General Industry and for the Construction Industry, the Federal Environmental Protection Agency Standards, the Manual of Accident Prevention in Construction published by the Associated General Contractors of America and the applicable standards of the Virginia Department of Environmental Quality.
 - .3 Other property at or adjacent to the Work, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- 10.2.2 The Contractor shall give all notices and comply with applicable laws, ordinances, permits, rules, regulations and orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

- 10.2.3 The Contractor shall at all times safely guard the Owner's property from injury or losses in connection with this Contract. He shall at all times safely guard and protect his own work and adjacent property as provided by law and the Contract Documents from damage. All security personnel, passageways, guard fences, lights, and other facilities required for protection of the property and the Work described herein shall be provided and maintained at the Contractor's expense.
- 10.2.4 The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.
- When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.
- 10.2.6 The Contractor shall promptly remedy at his own cost and expense all damage or loss to any property referred to in Articles 10.2.1.2 and 10.2.1.3. The Contractor shall perform such restoration by underpinning, repainting, rebuilding, replanting, or otherwise restoring as may be required or directed by the Owner's Project Manager or shall make good such damage in a satisfactory and acceptable manner. In case of failure on the part of the Contractor to promptly restore such property or make good such damage, the Owner may, upon two days written notice, proceed to repair, rebuild or otherwise restore such property as may be necessary, and the cost thereof will be deducted from any monies due or to become due to the Contractor under the Contract.
- The Contractor shall give notice in writing at least 48 hours before breaking ground, to the Owner, all persons, Public Utility Companies, superintendents, inspectors or those otherwise in charge of property, streets, water pipes, gas pipes, sewer pipes, telephone cables, electric cables, railroads or otherwise, who may be affected by the Contractor's operation, in order that they may remove any obstruction for which they are responsible and have a representative on site to see that their property is properly protected. The Contractor is responsible for any damages or claims resulting from any excavation and shall defend, fully indemnify, and hold harmless the Owner from all actions resulting from such work regardless of whether the Contractor gave proper notice under this clause.
- 10.2.8 The Contractor shall protect all utilities encountered while performing its work, whether indicated on the Contract Documents or not. The Contractor shall maintain utilities in service until moved or abandoned. The Contractor shall exercise due care when excavating around utilities and shall restore any damaged utilities to the same condition or better as existed prior to starting the Work, at no cost to the Owner. The Contractor shall maintain operating utilities or other

- services, even if they are shown to be abandoned on the Contract Drawings, in service until new facilities are provided, tested and ready for use.
- 10.2.9 The Contractor shall return all improvements on or about the site and adjacent property that are not shown to be altered, removed or otherwise changed to conditions that existed prior to starting work.
- 10.2.10 The Contractor shall protect the Work, including but not limited to, the site, stored materials and equipment, excavations, and excavated or stockpiled soil or other material, intended for use in the Work, and shall take all necessary precautions to prevent or minimize damage to same or detrimental effect upon his performance or that of his Subcontractors, caused by or due to rain, run-off, floods, temperature, wind, dust, sand, and flying debris. For example, but not by way of limitation, Contractor shall, when necessary, utilize temporary dikes, channels or pumping to carry-off, divert or drain water, and as necessary tiedown or otherwise secure the Work and employ appropriate covers and screens.
- 10.2.11 The Contractor shall be responsible for the prevention of accidents and the protection of material, equipment and property.
- 10.2.12 The Contractor shall not load or permit any part of the Work to be loaded so as to endanger the safety of the Work, persons or adjacent property.
- 10.2.13 The Contractor has sole and complete responsibility for the correction of any safety violation and sole liability for the consequences of the violation. The Contractor shall give prompt written notice of any safety violation to the Owner's Project Manager.
- 10.2.14 The Contractor shall provide, or cause to be provided, all technical expertise, qualified personnel, equipment, tools and material to safely accomplish the Work, specified to be performed by the Contractor and Subcontractor(s).
- 10.2.15 The Contractor shall be responsible for the preservation of all public and private property, trees, monuments, etc., along and adjacent to the street and/or right-of-way, and shall use every precaution to prevent damage to pipes, conduits and other underground structures, curbs, pavements, etc., except those to be removed or abandoned in place and shall protect carefully from disturbance or damage all monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed. Any damage which occurs by reason of the operations under this Contract shall be completely repaired by the Contractor at the Contractor's expense.
- 10.2.16 The Contractor shall shore, brace, underpin, secure, and protect, as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site that may be affected in any way by

excavations or other operations connected with the Work contained in this Contract. The Contractor shall be responsible for the giving of any and all required notices to any adjoining or adjacent property owned or other party before commencement of any Work. The Contractor shall indemnify and save the Owner harmless from any damages on account of settlements or loss of all damages for which the Owner may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.

- 10.2.17 The Contractor shall identify to the Owner's Project Manager at least one on-site person who is the Contractor's competent, qualified, and authorized person on the worksite and who is, by training or experience, familiar with policies, regulations and standards applicable to the Work being performed. The competent, qualified and authorized person must be capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees, shall be capable of ensuring that applicable safety regulations are complied with, and shall have the authority and responsibility to take prompt corrective measures, which may include removal of the Contractor's personnel from the work site.
- 10.2.18 The Contractor shall provide to the Owner's Project Manager, a copy of the Contractor's written safety policies and safety procedures applicable to the Work within seven (7) days of the issuance of the Notice to Proceed.

10.3 EMERGENCIES

- 10.3.1 In any emergency affecting the safety of persons or property, the Contractor shall act to prevent threatened damage, injury, or loss to the Owner. The Contractor shall notify the Owner's Project Manager of the situation and all actions taken immediately thereafter. If, in the opinion of the Contractor, immediate action is not required, the Contractor shall notify the Owner's Project Manager of the emergency situation and take necessary steps. If any loss, damage, injury or death occurs that could have been prevented by the Contractor's prompt and immediate action or the emergency resulted from acts or omissions of the Contractor or his Subcontractors, or anyone directly or indirectly employed by any of them, or by anyone whose acts any of them may be liable, the Contractor shall defend, fully indemnify and hold harmless the Owner (including attorneys' fees) from all actions resulting from the emergency. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 12 "CHANGES IN THE WORK."
- 10.3.2 Prior to commencing his work and at all times during the performance of the Work, the Contractor shall provide the Owner with two, 24-hour emergency phone numbers where his representatives can be contacted.

END OF ARTICLE 10

ARTICLE 11: BONDS AND INSURANCE

11.1 BONDS

- 11.1.1 The Contractor shall furnish to the Owner a performance bond in the sum of the contract price executed by a surety authorized to do business in Virginia, payable to the Town of Leesburg, Virginia, or such other entity as may be identified in the Contract, and conditioned upon the faithful performance of the contract in strict conformity with the plans, specifications, and conditions of the Contract Documents.
- 11.1.2 The Contractor shall furnish to the Owner a payment bond in the amount of the contract price payable to the Town of Leesburg or such other entity as may be identified in the Contract, and executed by a surety authorized to do business in Virginia. Such bond shall be conditioned on the prompt payment to all claimants who have and fulfill contracts to supply labor or materials to the Contractor for all material furnished or labor supplied or performed in the prosecution of the Work. "Labor and materials" shall include public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the project site.
- 11.1.3 If the amount of all Work subcontracted to any one Subcontractor is in excess of \$10,000, the Contractor may at his option require the Subcontractor to furnish a Labor and Material Payment Bond with surety thereon, in the amount of fifty percent of the amount of the Subcontract.
- 11.1.4 The Contractor shall ensure that all sureties providing bonds for the Project will give written notice to the Owner, at least thirty days prior to expiration or termination of the bond(s).
- 11.1.5 If the surety on any Bond furnished by the 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, the Contractor shall within five days thereafter substitute another Bond and surety, both of which shall be acceptable to the Owner.
- 11.1.6 If at any time, the Owner shall be or become dissatisfied with any surety or sureties then upon the Performance and Labor and Materials Payment Bonds, or if for any other reason, such bond shall cease to be adequate security to the Owner, the Contractor shall within five days after notice from the Owner to do so, substitute an acceptable bond(s) in such form and sum and signed by such other sureties as may be satisfactory to the Owner. The premium on such bond(s) shall be paid by the Contractor. No further payment shall be deemed due nor shall be made until the new sureties have been qualified and accepted by the Owner.
- 11.1.7 If more than one surety executes a bond, each shall be jointly and severally liable to the Owner for the entire amount of the bond.

11.2 CONTRACTOR'S LIABILITY INSURANCE

- 11.2.1 The Contractor shall provide to the Owner, a Certificate of Insurance indicating that the Contractor has in force the coverage below prior to the start of any Work under this Contract. The Contractor agrees to maintain such insurance until the completion of this Contract. All required insurance coverages must be acquired from insurers authorized to do business in the Commonwealth of Virginia and acceptable to the Owner. The minimum insurance coverage shall be:
 - .1 Workers Compensation Insurance as required by federal, state, and municipal laws for the protection of all Contractors' employees working on or in connection with the project, shall be in accordance with Title, 2.2-4332, Va. Code Ann.
 - .2 Comprehensive General Liability Bodily Injury and Property Damage: \$3,000,000 combined single limit/each occurrence in the primary policy or through the use of Umbrella or Excess Limits.

The General Liability Insurance shall include the following coverages; comprehensive form, premises-operations, explosion and collapse hazard, underground hazard, products/completed operations hazard, contractual liability insurance, broad form property damage including completed operations, contractors protective liability, personal injury (all insuring agreements) deleting the employee exclusion, and owners protective liability.

- .3 Contractor's Automobile Liability (Bodily Injury and Property Damage):
 - \$3,000,000 combined single limit per occurrence in the primary policy or through the use of Umbrella or Excess Limit
 - The Automobile Liability Insurance shall include the following coverages; comprehensive form, owned, hired, and non-owned.
- .4 Property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Article 9.8 or until no person or entity other than the Owner has an insurable interest in the property required by this Article 11.5 to

be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Subsubcontractors in the Project. The property insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements.

If the liability insurance purchased by the Corporation has been issued on a "claims made" basis, the Corporation must comply with the following additional conditions. The limits of liability and the extensions to be included as described previously in these provisions, remain the same.

The Corporation must either:

- 1. Agree to provide certificates of insurance evidencing the above coverage for a period of two (2) years after final payment for the Agreement for General Liability policies. This certificate shall evidence a "retroactive date" no later than the beginning of the Corporation's work under this Agreement, or
- 2. Purchase the extended reporting period endorsement for the policy or policies in force during the term of this Agreement and evidence the purchase of this extended reporting period endorsement by means of a certificate of insurance or a copy of the endorsement itself.
- Additional Insured The Owner, its officers, elected and appointed officials, and employees shall be named as an additional insured in the Contractor's Commercial General Liability policy; evidence of the Additional Insured endorsement shall be typed on the certificate and a copy of the additional insured endorsement shall be forwarded to the Owner along with the copy of the insurance certificate.
- 11.2.3 Contract Identification The insurance certificate shall state this Contract's number and title.
- 11.2.4 The Contractor shall secure and maintain until all work required under the Contract is accepted, such insurance as will protect the Contractor and the Owner from claims directly or indirectly arising or alleged to arise out of the performance of, or failure to perform the Work, or the condition of the Work or the jobsite, from claims by workers, suppliers, Subcontractors, and the general public; from claims made under safe place laws, or any law with respect to protection of adjacent landowners; and from any other claims for damages to property from operations by the Contractor or any Subcontractor, or anyone directly or indirectly employed by either of them.

The Contractor assumes all risks for direct and indirect damage or injury to the property or persons used or employed on or in connection with the Work contracted for, and of all damage or injury to any person or property wherever located, resulting from any action, omission, commission or operation under the Contract, or in connection in any way whatsoever with the contracted Work.

No acceptance or approval of any insurance by the Owner shall be construed as relieving or excusing the Contractor from any liability or obligation imposed upon the Contractor by the provisions of the Contract Documents.

- These certificates and the insurance policies required by Article 11.2 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least thirty days prior written notice has been given to the Owner. If any of the foregoing insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Article 9.8. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.
- 11.2.6 Neither the Owner nor the Owner's Project Manager shall have any obligation to review any Certificates of Insurance provided by the Contractor or to check or verify the Contractor's compliance with any and all requirements regarding insurance imposed by the Contract. The Contractor is fully liable for the amounts and types of insurance required herein and is not excused should any policy or Certificate of Insurance provided by the Contractor not comply with the Contract's insurance requirements.
- 11.2.7 If the Contractor fails to comply with the Contract's insurance requirements, the Owner shall be entitled to recover all amounts payable as a matter of law to the Owner or any other parties, including but not limited to the Owner's Project Manager, had the insurance coverage been in effect. Any recovery shall include but is not limited to interest for the loss of the use of such amounts of money, attorneys' fees, costs and expenses incurred in securing such determination and any other consequential damages.
- 11.2.8 Partial occupancy or use in accordance with Article 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

11.3 WAIVERS OF SUBROGATION

11.3.1 The Owner and Contractor waive all rights against (1) each other and any of the Subcontractors, Sub-subcontractors, agents and employees, each of the other, and (2) the Owner's Project Manager and Engineer or Architect or their consultants, separate contractors, if any, and any of their Subcontractors, Sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Article 11.5 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of his consultants, separate contractors, if any, and the Subcontractors, Subsubcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

11.4 ADDITIONAL INSURANCE PROVISIONS

- A loss insured under Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Article 11.5.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.
- 11.4.2 If required in writing by a party in interest, the Owner as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor after notification of a Change in the Work in accordance with Article 12.
- 11.4.3 The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved as provided in Article 7.4. The Owner as fiduciary shall, in the case of disputes, make settlement with insurers in accordance with orders of the Court.

END OF ARTICLE 11

ARTICLE 12: CHANGES IN THE WORK

12.1 CHANGES IN THE WORK

- The Owner, without invalidating the Contract and without notice to the surety, may order a Change in the Work consisting of additions, deletions, modifications or other revisions to the general scope of the Contract, or changes in the sequence of the performance of the Work. The Contract Price and the Contract Time shall be adjusted accordingly. All such Changes in the Work shall be authorized by written Change Order, and all Work involved in a Change shall be performed in accordance with the terms and conditions of this Contract. If the Contractor should proceed with a Change in the Work upon an oral order, by whomever given, it shall constitute a waiver by the Contractor of any claim for an increase in the Contract Price or Contract Time, on account thereof.
- When the Owner and the Contractor have agreed upon a Change in the Work, but a written Change Order Document has not yet been executed, the Owner may, at its sole discretion and option, direct in writing the Contractor to proceed with the Change in the Work pending the execution of the formal Change Order. Contractor shall proceed in accordance with such direction.
- 12.1.3 The Contractor shall not begin work on any alteration requiring a modification until such modification has been executed by the Owner and the Contractor. If a satisfactory agreement cannot be agreed to for any item requiring a modification, the Owner reserves the right to terminate the contract as it applies to the items in question and make such arrangements as may be deemed necessary to complete the Work.

12.2 FIELD ORDER

A Field Order is a written order to the Contractor signed by the Owner or the Owner's Project Manager interpreting or clarifying the Contract Documents or directing the Contractor to perform minor changes in the Work. Any work relating to the issuance of a Field Order shall be performed promptly and expeditiously and without additional cost to the Owner and within the Contract Time, unless the Contractor submits a Proposed Change Order, defined below, which is approved by the Owner. Field Orders shall be numbered consecutively by date of issuance by the Owner or the Owner's Project Manager.

12.3 REQUEST FOR PROPOSAL

12.3.1 A Request For Proposal ("RFP") describes a proposed Change in the Work. In response to a Request for Proposal issued by the Owner or the Owner's Project Manager, the Contractor is required to submit a complete Proposal for the total cost and additional time, if any, necessary to perform the proposed Change in the

- Work. Requests For Proposals shall be numbered consecutively by date of issuance by the Owner or the Owner's Project Manager.
- 12.3.2 The Contractor's Proposal in response to an RFP shall be in the form prescribed by the Owner's Project Manager, including all appropriate back-up material.

12.4 PROPOSED CHANGE ORDER

- A Proposed Change Order is a written request from the Contractor to the Owner requesting a change in the Contract Price and/or Contract Time. A Proposed Change Order may be submitted as a proposal in response to a Request For Proposal issued by the Owner or as a claim for an increase in the Contract Price and/or Contract Time pursuant to the issuance of a Field Order. A Proposed Change Order must be submitted within twenty days of the issuance of a Request For Proposal or a Field Order. Proposed Change Orders shall be numbered consecutively by date of issuance by the Contractor. The Contractor shall also indicate on the Proposed Change Order the number of the Request For Proposal or the Field Order to which it responds.
- 12.4.2 If a Request for Proposal provides for an adjustment to the Contract Price, the adjustment shall be based on one of the following methods:
 - .1 mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
 - .2 unit prices stated in the Contract Documents or subsequently agreed upon;
 - .3 cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
 - .4 as provided in Articles 12.5.3 and 12.5.4.
- 12.4.3 If it is necessary in this subparagraph to increase the Contract Time to perform the Change in the Work, the Contractor shall provide an estimate of the increase in the Contract Time which shall be negotiated by the parties to the Contract. The Contractor's request for a time extension shall be evaluated in accordance with the criteria described in Article 8.
- 12.4.4 If the Contractor's Proposed Change Order is rejected by the Owner as being within the scope of the Work required by the Contract Documents the Owner may, at its sole option and discretion, direct the Contractor to perform the Work which is the subject of the Proposed Change Order; the Contractor shall then promptly proceed with the Work. Nothing shall excuse the timely performance by the Contractor of the Work because any Proposed Change Order is pending.

12.5 CHANGE ORDER

- A Change Order is a written order to the Contractor signed by the Contractor and the Owner's Project Manager, issued after execution of the Contract, authorizing a Change in the Work or an adjustment in the Contract Price and/or the Contract Time. The Contract Price and the Contract Time may be changed only by Change Order. A Change Order signed by the Contractor indicates his agreement therein, including the adjustment in the Contract Price and/or the Contract Time. Change Orders shall be numbered consecutively by date of issuance by the Owner or the Owner's Project Manager and shall, if applicable, indicate the number of the Field Order(s), Request For Proposal(s) and/or Proposed Change Order(s) to which it relates.
- 12.5.2 If the Owner and the Owner's Project Manager determine that the Contractor's Proposed Change Order, submitted pursuant to Article 12.4 for a change in the Contract Price or Contract Time, is acceptable, the Owner's Project Manager shall prepare and issue, or cause to be prepared and issued, a Change Order which will authorize the Contractor to proceed with the Change in the Work for the cost and time stated in the Proposed Change Order, or as otherwise may be agreed upon by the parties. The amounts stated in the Change Order for the cost and time to perform the Change in the Work shall be binding on the parties.
 - .1 The contractors markup for allowable profit and overhead shall be limited to 10%.
- 12.5.3 After issuance of the Change Order, the Contractor shall ensure that the amount of the Performance and Payment Bond coverage has been revised to reflect the increase in the Contract Price due to the Change Order.
- 12.5.4 If the Contractor's Proposed Change Order is not acceptable to the Owner and the Owner's Project Manager or if the parties are unable to otherwise agree as to the cost and time necessary to perform the Change in the Work, the Owner may, at its sole option and discretion, direct the Contractor to perform the Work on a time and material basis. The Contractor shall then promptly proceed with the Work.
- 12.5.5 If the Owner and the Owner's Project Manager elect to have the Change in the Work performed on a time and material basis, the same shall be performed, whether by the Contractor's forces or the forces of any of his Subcontractors or Sub-subcontractor's, at actual cost to the entity performing the Change in accordance with the time and material provisions included in the Road and Bridge Specifications of the Virginia Department of Transportation, current edition.
- 12.5.6 Prior to starting the work on a time and material basis, the Contractor shall notify the Owner's Project Manager in writing as to what labor, materials, equipment or

rentals are to be used for the Change in the Work. During the performance of the Change, the Contractor shall submit to the Owner daily time and material tickets, which shall list the categories and amounts of labor and equipment for which Change Order compensation is to be charged for the previous work day. Such tickets shall be submitted in strict accordance with the time and material provisions included in the Road and Bridge Specifications of the Virginia Department of Transportation.

- 12.5.7 The Contractor shall commence submission of daily time and material tickets immediately upon commencement of the Change Order Work and continue to submit them until completion of the Change Order Work. The Owner may require authentication of all time and material tickets and invoices by persons designated by the Owner for such purpose.
- 12.5.8 The failure of the Contractor to provide any required authentication shall, if the Owner elects to treat it as such, constitute a waiver by the Contractor of any claim for the cost of that portion of the Change in the Work covered by a non-authenticated ticket or invoice; provided, however, that the authentication of any such ticket or invoice by the Owner shall not constitute an acknowledgment by the Owner that the items thereon were reasonably required for the Change in the Work.
- 12.5.9 The Contractor shall submit his complete submission of the reasonable actual cost and time to perform the Change in the Work within twenty days of the request of the Owner's Project Manager to do so. The Owner and the Owner's Project Manager shall review the costs and time submitted by the Contractor on the basis of reasonable expenditures and savings of those performing the Change in the Work. If such costs and time are acceptable to the Owner and the Owner's Project Manager, or if the parties otherwise agree to the actual reasonable cost to perform the Change in the Work, the Owner's Project Manager shall issue a Change Order for the cost and time agreed upon. The amounts stated in the Change Order for the cost and time to perform the Change in the Work shall be binding upon the parties.
- 12.5.10 The Contractor shall be entitled to costs as provided for in Article 12.4 which the Contractor, or his Subcontractors, may incur as a result of delays, interferences, suspensions, changes in sequence or the like, which are unreasonable, arising from the performance of any and all changes in the Work, caused by acts or omissions of the Owner, performed pursuant to this Article 12.
- 12.5.11 If any dispute should arise between the parties with respect to an increase or decrease in the Contract Price or an extension or reduction in the Contract Time or as a result of a Change in the Work, the Contractor shall not suspend performance of a Change in the Work or the Work itself unless otherwise so ordered by the Owner's Project Manager in writing. Disputes must be resolved pursuant to Article 7.4 of the Contract. The Owner will, however, pay the

Contractor up to the Owner's Project Manager's estimated value of the Change in the Work, regardless of the dispute, if the Change in the Work results in an increase in the Contract Price; and the Owner will have the right to decrease the Contract Price up to the Owner's Project Manager's estimated value of the Change in the Work, regardless of the dispute, if the Change in the Work results in a decrease in the Contract Price.

12.6 UNILATERAL CHANGE ORDER

12.6.1 In the event that the parties are unable to agree as to the reasonable cost and time to perform the Change in the Work and the Owner does not elect to have the Change in the Work performed on a time and material basis, the Owner and the Owner's Project Manager shall make a unilateral determination of the reasonable cost and time to perform the Change in the Work, based upon their own estimates, the Contractor's submission or a combination thereof. A Change Order shall be issued for the amounts of cost and time determined by the Owner and the Owner's Project Manager and shall become binding upon the Contractor unless the Contractor submits his protest in writing to the Owner within ten days of the issuance of the Change Order. The procedure for the resolution of the Contractor's protest shall be as described in Article 12.10. The Owner has the right to direct in writing the Contractor to perform the Change in the Work, which is the subject of such Unilateral Change Order. Failure of the parties to reach an agreement regarding the cost and time of performing the Change in the Work, or any pending protest, shall not relieve the Contractor from performing the Change in the Work promptly and expeditiously.

12.7 DECREASES AND WORK NOT PERFORMED

- 12.7.1 Should it be deemed expedient by the Owner or the Owner's Project Manager at any time that the Contract Work is in progress to decrease the dimensions, quantity of material or work, or vary in any other way the Work herein contracted for, the Owner or the Owner's Project Manager shall have the full power to do so, and shall order, in writing, such decreases to be made or performed without affecting the enforcement of the Contract. The Contractor shall, in pursuance of such written orders and directions from the Owner or the Owner's Project Manager, execute the work ordered, and the difference in expense occasioned by such decrease so ordered shall be deducted from the amount payable under this Contract.
- 12.7.2 If Work is not performed, and such deletion of Work is not approved by the Owner, the Owner's Project Manager shall ascertain the amount of the credit due the Owner, based on the reasonable value of the labor and materials so deleted, for the lesser amount of materials and labor required.
- 12.7.3 If Work is deleted from the Contract by Change Order, the amounts to be credited to the Owner shall reflect the same current pricing as if the Work were

being added to the Contract at the time the deletion is ordered, and documentation will be required for a credit as specified in Article 12.4. If such deleted materials and equipment shall have already been purchased and stored on site and cannot be used in other projects or returned for credit or cannot be returned for credit at the price paid by the Contractor at the time of purchase, the Contractor shall be entitled, upon proper documentation and certification, to an adjustment in the pricing of the credit to avoid hardship to the Contractor. If necessary in order to establish such reasonable value, the Contractor may be required to submit a detailed breakdown of his original bid for the items or Work involved.

12.8 CHANGES IN LINE AND GRADE

- 12.8.1 The Owner reserves the right through the Owner's Project Manager to make such alterations in the line and grade of various structures or pipelines shown on the drawings, as may be necessitated by conditions found during construction or that in the judgment of the Owner's Project Manager appears advisable. The Contractor shall not claim forfeiture of Contract by reason of such changes by the Owner's Project Manager.
- 12.8.2 In case of a fixed price contract, the price of the Work shall be negotiated as herein provided. If such alterations or changes diminish the quantity of Work to be done, they shall not constitute a claim for damages or for loss of anticipated profits in the Work which may be dispensed with, and the Work as constructed shall be paid for in accordance with the Contract prices as established for such Work under this Contract. In the case of a unit price, or partial unit price, contract, the altered Work shall be performed at the appropriate unit price.
- 12.8.3 The Contractor shall employ a certified Land Surveyor to establish a base line and set bench marks for the Contractor's use as necessary to stake the basic layout of the Work. Where new construction connects to existing facilities, it shall be the responsibility of the Contractor to check and establish the location of all existing facilities prior to construction of the new facilities.
- All stakes, bench marks, and other base line information provided by the Owner or the Owner's Project Manager shall be carefully preserved by the Contractor, and in case of their removal by any cause without prior written consent from the Owner, such stakes, bench marks, and other base line information will be replaced by the Contractor at the Contractor's sole expense.
- 12.8.5 The dimensions for lines and elevations for grades of the structures, appurtenances, and utilities are indicated on the Drawings, together with pertinent information required for laying out the Work. Utility locations are approximate and it shall be the Contractor's responsibility to determine the exact location of the utilities prior to commencing Work in all areas where conflicts with utility installations are possible. If site conditions vary from those indicated,

the Contractor shall notify the Owner immediately, who will promptly direct any adjustment as required. The locations of existing utilities, including underground utilities, which may affect the Work, are indicated on the drawings or in the specifications insofar as their existence and location were known at the time of preparation of the drawings. However, nothing in these drawings or specifications shall be construed as a guarantee that such utilities are in the location indicated or that they actually exist, or that other utilities are not within the area of the operations. The Contractor shall make all necessary investigations to determine the existence and locations of such utilities. The Contractor will be held responsible for any damage to and maintenance and protection of existing utilities and structures, of both public and private ownership. Acceptability of restored utility installation shall be determined by the respective utility Owner. All utilities shall remain in service during the construction of this project unless written authorization of interruption of service is received from the respective utility Owner and the interruption is approved by the Project Manager.

12.8.6 Contractor shall notify the Owner immediately upon discovery of any apparent errors in the lines or grades. If Contractor proceeds with knowledge of such apparent error without first receiving written clarification from the Owner's Project Manager, the Contractor does so at his own risk.

12.9 DIFFERING SITE CONDITIONS

- The Contractor shall promptly, and before the conditions are disturbed, give written notice to the Owner's Project Manager of (a) subsurface or latent physical conditions at the site which differ materially from those indicated in the Contract Documents, or (b) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the Contract and which were not reasonably anticipated as a result of the investigation required by Article 1.2.2.
- The Owner's Project Manager shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the cost or time of performance, the provisions of Article 12 "Changes in the Work" shall apply.
- 12.9.3 No request by the Contractor for a Change Order under this Article shall be allowed, unless the Contractor has given the required written notice.
- 12.9.4 No request by the Contractor for a Change Order under this Article shall be allowed if made after final payment under the Contract.

12.10 CLAIMS FOR ADDITIONAL COST AND/OR TIME

- 12.10.1 If the Contractor wishes to make a claim for an increase in the Contract Price and/or Contract Time, he shall give the Owner written notice thereof within seven calendar days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed as provided in Article 10. No claim shall be allowed and no amounts shall be paid for any costs incurred more than ten calendar days prior to the time notice is given to the Owner. Any change in the Contract Price or Contract Time resulting from such claim must be authorized by Change Order. The Contractor's complete claim submittal for an increase in the Contract Price shall be submitted no later than twenty calendar days after the Work for which the claim is made has been completed or after the request of the Owner or the Owner's Project Manager, whichever is earlier.
- 12.10.2 If the Contractor claims that additional cost or time is involved because of, but not limited to, any of the following circumstances, the Contractor shall make such claim as provided in Subparagraph 12.10.1: (1) any written interpretation pursuant to Article 2, (2) any order by the Owner to stop the Work pursuant to Article 3.3 where the Contractor was not at fault, (3) failure of payment by the Owner pursuant to Article 9, or (4) any written order for a minor change in the Work issued pursuant to Article 12.8.1.

12.11 ATTORNEYS' FEES AND OTHER EXPENSES

- In recognition of the public monies being administered by the Owner to fund this 12.11.1 Contract, the Contractor agrees that he will not submit, assert, litigate or otherwise pursue any frivolous or unsubstantiated delay claims. Contractor's delay claim, or any separate item of a delay claim, is determined through litigation or other dispute resolution process to be false or to have no basis in law or fact, the Contractor shall be liable to the Owner and shall pay it for all Investigation Costs incurred by the Owner. These costs include investigating, analyzing, negotiating, appealing, defending, and litigating the false or baseless delay claims, attorneys' fees, audit costs, accountants' fees, expert witness' fees, additional architect/engineer expenses and any other consultant costs. The amount to be paid hereunder to the Owner shall be the percentage of the Owner's total Investigation Costs in an amount equal to the percentage of the Contractor's total delay claim which is determined to be false or to have no basis in fact.
- 12.11.2 If the Contractor breaches any obligation under the Contract Documents, the Contractor shall reimburse the Owner for all costs and expenses incurred by the Owner relating to such breach, including but not limited to, attorneys' fees, audit costs, accountants' fees, expert witness' fees, additional architectural or engineering expenses, and any other consultant costs.

12.11.3 If the Owner prevails in a claim brought against the Contractor, including but not limited to, claims for fraud or misrepresentation, overpayment, defective work, delay damages, and recovery of termination expenses, the Contractor shall reimburse the Owner for all costs and expenses incurred by the Owner relating to such claim, including but not limited to, attorneys' fees, audit costs, accountants' fees, expert witness' fees, additional architect or engineering expenses, and any other consultant costs.

END OF ARTICLE 12

ARTICLE 13: UNCOVERING AND CORRECTION OF WORK

13.1 UNCOVERING OF WORK

- 13.1.1 If any portion of the Work should be covered contrary to the request of the Owner's Project Manager or to requirements specifically expressed in the Contract Documents or to requirements of applicable Construction Permits, it must, if required in writing by the Owner's Project Manager, be uncovered for its observation and shall be replaced at the Contractor's expense.
- 13.1.2 If any portion of the Work has been covered that the Owner's Project Manager has not specifically requested to observe prior to being covered, the Owner's Project Manager may request to see such Work and it shall be uncovered by the Contractor. If such Work complies with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such Work does not comply with the Contract Documents, the Contractor shall pay such costs unless the Owner caused this condition, in which event the Owner shall pay such costs.

13.2 CORRECTION OF WORK

- 13.2.1 The Contractor shall promptly reconstruct, replace or correct all Work rejected by the Owner's Project Manager as defective or as failing to conform to the Contract Documents or as not in accordance with the guarantees and warranties specified in the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including compensation for the Owner's Project Manager and any other additional services made necessary thereby.
- 13.2.2 The Contractor, unless removal is waived by the Owner, shall remove from the site all portions of the Work that are defective or non-conforming, or if permitted or required, he shall correct such Work in place at his own expense promptly after receipt of notice, and such rejected Work shall not thereafter be tendered for acceptance unless the former rejection or requirement for correction is disclosed.
- 13.2.3 If the Contractor does not proceed with the correction of such defective or non-conforming Work within a reasonable time fixed by written notice from the Owner's Project Manager, the Owner may either:
 - .1 By separate contract or otherwise replace or correct such Work and charge the Contractor the cost occasioned the Owner thereby and remove and store the materials or equipment at the expense of the Contractor; or

- .2 Terminate this Contract as provided in Article 14.3 "DEFAULT TERMINATION."
- 13.2.4 The Contractor shall bear the cost of making good all work of the Owner or separate Contractors destroyed or damaged by such correction or removal.
- Nothing contained in this Article 13.2 shall be construed to establish a period of limitation with respect to any other obligation that the Contractor might have under the Contract Documents, including Article 4.7 "WARRANTY" hereof. The establishment of the period of one year after the Date of Final Completion or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which his obligation to comply with the Contract Documents may be sought to be enforced, or to the time within which proceedings may be commenced to establish the Contractor's liability with respect to his obligations other than specifically to correct the Work.

13.3 ACCEPTANCE OF DEFECTIVE OR NON-CONFORMING WORK

13.3.1 If the Owner or its Project Manager prefers to accept defective or non-conforming Work, it may do so instead of requiring its removal and correction. In this case, a Change Order will be issued to reflect a reduction in the Contract Price where appropriate and equitable, or the Owner may elect to accept payment in materials or services, in lieu of a reduction in the Contract Price. If the amount of a reduction is determined after Final Payment, it shall be paid on demand to the Owner by the Contractor.

END OF ARTICLE 13

ARTICLE 14: TERMINATION OF THE CONTRACT

14.1 TERMINATION FOR THE CONVENIENCE OF THE OWNER

- 14.1.1 The Owner may, at any time upon ten days written notice to the Contractor, terminate, without prejudice to any right or remedy of the Owner, the whole or any portion of the Work for the convenience of the Owner. This Notice of Termination shall specify that portion of the Work to be terminated and the effective date of termination. The Contractor's sole remedy, in the event of such termination, will be the allowable termination costs permitted by Article 14.2 "ALLOWABLE CONVENIENCE TERMINATION COSTS."
- 14.1.2 The Contractor shall include termination clauses identical to Article 14 in all subcontracts and purchase orders related to the Work. Failure to include these termination clauses in any subcontracts or purchase orders shall preclude recovery of any termination costs related to that subcontract or purchase order.

14.1.3 Non-appropriation Clause

Notwithstanding anything contained herein to the contrary, this contract shall be terminated if all of the following events shall have occurred:

- 1. Funds are not appropriated for a subsequent fiscal period during the term of this contract for the acquisition of substantially the same functions as provided for herein, and written notice thereof is given to CONTRACTOR at least thirty (30) days prior to the first day of such subsequent fiscal periods or within five (5) days of the approval of the final budget for such fiscal year, whichever occurs later.
- 2. Town has exhausted all funds legally available for payment under this contract.

Upon such termination, Contractor's only remedy shall be to terminate the contract at the end of the fiscal period during which notice is given. Payment in compliance with the contract for materials, goods, and services rendered hereunder during the fiscal year at the end of which termination occurs, without penalty, termination, profit or overhead expenses of any kind shall constitute full performance on the part of the Town.

14.2 ALLOWABLE CONVENIENCE TERMINATION COSTS

14.2.1 After complying with the provisions of Article 14.4, the Contractor may submit a termination claim, not later than six months after the effective date of its termination, unless one or more extensions of three months each are granted by the Owner in response to the Contractor's written request.

- 14.2.2 The Owner shall pay the Contractor's reasonable costs of termination, plus a mark-up of ten percent for profit and overhead. This amount will not exceed the original contract price, reduced by any payments made prior to Notice of Termination, and further reduced by the price of the supplies not delivered, or the service not provided. This Contract shall be amended accordingly, and the Contractor shall be paid the agreed amount.
- 14.2.3 If the parties cannot agree on the amount to be paid to the Contractor by reason of termination under this clause, the Owner shall pay to the Contractor the amounts, as determined by the Owner's Project Manager as follows, without duplicating any amounts which may have already been paid under the preceding paragraph of this clause:
 - .1 With respect to all Contract performance prior to the effective date of Notice of Termination, the total of:
 - a. cost of work performed or supplies delivered;
 - b. the costs of settling and paying any reasonable claims as provided in Article 14.4; and
 - c. a mark-up of ten percent for profit and overhead. Neither the Contractor nor any Subcontractor shall be entitled to profit or overhead associated with the portion of the work not performed, nor to profit associated with costs of demobilization.
 - .2 The total sum to be paid under .1 above shall not exceed the contract price, as reduced by the amount of payments otherwise made, and as further reduced by the contract price of work not done or supplies not delivered. The Owner may subtract from the amount claimed by the Contractor any claim the Owner has against the Contractor
- 14.2.4 If the Contractor is not satisfied with any payments that the Owner's Project Manager shall determine to be due under this clause, the Contractor may proceed in accordance with Article 7.4 "DISPUTES."
- 14.2.5 If the Contractor would have sustained a loss on the entire Contract had it been completed, no profit shall be included or allowed and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss.

14.3 DEFAULT TERMINATION

- 14.3.1 The Owner may, upon ten days written notice to the Contractor, terminate, without prejudice to any right or remedy of the Owner, the Contract for default, in whole or in part, and may take possession of the Work and complete the Work by contract or otherwise in any of the following circumstances:
 - .1 The Contractor refuses or fails to prosecute the Work or any separable part thereof with such diligence as will ensure the Substantial Completion of the Work within the Contract Time, or fails to meet any milestones established in the Contract Documents or fails to substantially complete the Work within this period;
 - .2 The Contractor is in default in carrying out any provision of the Contract for a cause within his or his Subcontractors' control;
 - .3 The Contractor fails to supply a sufficient number of properly skilled workers or proper equipment or materials;
 - .4 The Contractor fails to make prompt payment to Subcontractors or for materials or labor;
 - .5 The Contractor disregards laws, permits, ordinances, rules, regulations, or orders of any public authority having jurisdiction;
 - .6 The Contractor breaches any provision of the Contract Documents;
 - .7 The Contractor voluntary abandons the Project;
 - .8 Upon at least thirty calendar days prior written notice by the Owner to the Contractor, at any time during the term of the Agreement, the Owner determines that maintaining the Agreement in force will harm, bring into disrepute, or affect the integrity of the Owner.
- 14.3.2 Upon termination of this Agreement under this Article, the Contractor shall remove all of his employees and property from the Project in a smooth, orderly, and cooperative manner.
- 14.3.3 The right of the Contractor to proceed shall not be terminated under Article 14.2 because of any delays in the completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor or his Subcontractors as specifically set forth in Article 8, "DELAYS AND EXTENSIONS OF TIME."
- 14.3.4 If, after the Contractor has been terminated for default pursuant to Article 14.3, it is determined that none of the circumstances set forth in Article 14.3.1 exist, then

such termination shall be considered a termination for convenience pursuant to Article 14.1. In such case, the Contractor's sole remedy will be costs permitted by Article 14.2.

- 14.3.5 If the Owner terminates the Contract, the Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the cost of completing the Work including compensation for additional managerial, administrative and inspection services and any damages for delay, such excess amount shall be paid to the Contractor. If such expenses exceed the unpaid balance, the Contractor and his sureties shall be liable to the Owner for such excess amount.
- 14.3.6 If the right of the Contractor to proceed with the Work is partially or fully terminated, the Owner may take possession of and utilize in completing the Work such materials, appliances, supplies, plant and equipment as may be on the site of the terminated portion of the Work and necessary for the completion of the Work. If the Owner does not fully terminate the right of the Contractor to proceed, the Contractor shall continue to perform the part of the Work that is not terminated.

14.4 GENERAL TERMINATION PROVISIONS

- 14.4.1 After receipt of a Notice of Termination from the Owner, pursuant to Article 14.1 or 14.3, and except as otherwise directed by the Owner, the Contractor shall:
 - .1 Stop Work under the Contract on the date and to the extent specified in the Notice of Termination;
 - .2 Place no further purchase orders or subcontracts for materials, services, or facilities, except as may be necessary for completion of such portion of the Work under the Contract that is not terminated;
 - .3 Terminate all purchase orders and subcontracts to the extent that they relate to the performance of Work terminated by the Notice of Termination;
 - .4 At the option of the Owner, assign to the Owner in the manner, at the times and to the extent directed by the Owner, all of the rights in the contracts so terminated, in which case, the Owner shall have the right, at his discretion, to settle or pay any or all claims arising out of the termination of such purchase orders and subcontracts;
 - .5 Settle all outstanding liabilities and all claims arising out of such termination of purchase orders and subcontracts, with the approval or ratification of the Owner, to the extent he may require, which

- approval or ratification shall be final for all the purposes of this Article;
- .6 Transfer title and deliver to the entity or entities designated by the Owner, in the manner, at the times and to the extent directed by the Owner to the extent specifically produced or specifically acquired by the Contractor for the performance of such portion of the Work as has been terminated, the following:
 - a. The fabricated or unfabricated parts, Work in progress, partially completed supplies and equipment, materials, parts, tools, dies, jigs, and other fixtures, completed work, supplies and other material produced as part of, or acquired in connection with the performance of, the Work terminated by the Notice of Termination; and
 - b. The completed or partially completed plans, drawings, Shop Drawings, submittals, information, releases, manuals, and other property related to the Work and which, if the Contract had been completed, would have been required to be furnished to the Owner.
- .7 Use his best efforts to sell, in the manner, at the times, to the extent and at the price or prices directed or authorized by the Owner or Owner's Project Manager, any property of the types referred to in Article 14.4.1.6; provided, however, that the Contractor:
 - a. Shall not be required to extend credit to any buyer; and
 - b. May acquire such property under the conditions prescribed by and at a price or prices approved by the Owner; and provided further that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the Owner to the Contractor under the Contract or shall otherwise be credited to the Contract Price covered by the Contract or paid in such other manner as the Owner may direct;
- .8 Complete performance of such part of the Work as shall not have been terminated by the Notice of Termination; and
- .9 Take such action as may be necessary, or as the Owner or Owner's Project Manager may direct for the protection and preservation of the property related to the Contract that is in the possession of the Contractor and in which the Owner has or may acquire an interest.

- 14.4.2 If the convenience termination, pursuant to Article 14.1, is partial, the Contractor may file with the Owner a claim for an equitable adjustment of the Contract Price relating to the continued portion of the Contract (the portion not terminated by the Notice of Termination) for costs increased because of such partial termination. Such equitable adjustment as may be agreed upon shall be made in the Contract Price. Any claim by the Contractor for an equitable adjustment under this Article must be submitted in writing to the Owner's Project Manager within sixty days from the Notice of Termination.
- 14.4.3 The Contractor shall refund to the Owner any amounts paid by the Owner to the Contractor in excess of costs reimbursed under Article 14.4 within sixty days of receipt of a written request from the Owner to do so.

END OF ARTICLE 14

SECTION 32 9300 PLANTING

PART 1 - GENERAL

1.1 SUMMARY

- A. The scope of work includes all labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for, and incidental to performing all operations in connection with furnishing, delivery, and installation of plant (also known as "landscaping") complete as shown on the drawings and as specified herein.
- B. The scope of work in this section includes, but is not limited to, the following:
 - 1. Locate, purchase, deliver and install all specified plants.
 - 2. Water all specified plants.
 - 3. Mulch, fertilize, stake, and prune all specified plants.
 - 4. Maintenance of all specified plants until the beginning of the warranty period.
 - 5. Plant warranty.
 - 6. Clean up and disposal of all excess and surplus material.
 - 7. Maintenance of all specified plants during the warranty period.

1.2 CONTRACT DOCUMENTS

A. Shall consist of specifications and general conditions and the construction drawings. The intent of these documents is to include all labor, materials, and services necessary for the proper execution of the work. The documents are to be considered as one. Whatever is called for by any parts shall be as binding as if called for in all parts.

1.3 RELATED DOCUMENTS AND REFERENCES

- A. Related Documents:
 - 1. Drawings and general provisions of contract including general and supplementary conditions and Division I specifications apply to work of this section
 - 2. Related Specification Sections
 - a. Section Planting Soil
 - b. Section Irrigation
 - c. Section Lawn
 - d. Section Tree Protection and Plant Protection
- B. References: The following specifications and standards of the organizations and documents listed in this paragraph form a part of the specification to the extent required by the references thereto. In the event that the requirements of the following referenced standards and specification conflict with this specification section the requirements of this specification shall prevail. In the event that the requirements of any of the following referenced standards and specifications conflict with each other the more stringent requirement shall prevail or as determined by the Owners Representative.
 - 1. ANSI Z60.1 American Standard for Nursery Stock, most current edition.
 - 2. ANSI A 300 Standard Practices for Tree, Shrub and other Woody Plant Maintenance, most current edition and parts.
 - 3. Interpretation of plant names and descriptions shall reference the following documents. Where the names or plant descriptions disagree between the several documents, the most current document shall prevail.
 - a. USDA The Germplasm Resources Information Network (<u>GRIN</u>) <u>http://www.ars-grin.gov/npgs/searchgrin.html</u>

- b. Manual of Woody Landscape Plants; Michael Dirr; Stipes Publishing, Champaign, Illinois; Most Current Edition.
- c. The New Sunset Western Garden Book, Oxmoor House, most current edition.
- 4. Pruning practices shall conform to recommendations "Structural Pruning: A Guide For The Green Industry" most current edition; published by Urban Tree Foundation, Visalia, California.
- Glossary of Arboricultural Terms, International Society of Arboriculture, Champaign IL, most current edition.

1.4 VERIFICATION

- A. All scaled dimensions on the drawings are approximate. Before proceeding with any work, the Contractor shall carefully check and verify all dimensions and quantities, and shall immediately inform the Owner's Representative of any discrepancies between the information on the drawings and the actual conditions, refraining from doing any work in said areas until given approval to do so by the Owner's Representative.
- B. In the case of a discrepancy in the plant quantities between the plan drawings and the plant call outs, list or plant schedule, the number of plants or square footage of the planting bed actually drawn on the plan drawings shall be deemed correct and prevail.

1.5 PERMITS AND REGULATIONS

- A. The Contractor shall obtain and pay for all permits related to this section of the work unless previously excluded under provision of the contract or general conditions. The Contractor shall comply with all laws and ordinances bearing on the operation or conduct of the work as drawn and specified. If the Contractor observes that a conflict exists between permit requirements and the work outlined in the contract documents, the Contractor shall promptly notify the Owner's Representative in writing including a description of any necessary changes and changes to the contract price resulting from changes in the work.
- B. Wherever references are made to standards or codes in accordance with which work is to be performed or tested, the edition or revision of the standards and codes current on the effective date of this contract shall apply, unless otherwise expressly set forth.
- C. In case of conflict among any referenced standards or codes or between any referenced standards and codes and the specifications, the more restrictive standard shall apply or Owner's Representative shall determine which shall govern.

1.6 PROTECTION OF WORK, PROPERTY AND PERSON

A. The Contractor shall adequately protect the work, adjacent property, and the public, and shall be responsible for any damages or injury due to his/her actions.

1.7 CHANGES IN THE WORK

- A. The Owner's Representative may order changes in the work, and the contract sum should be adjusted accordingly. All such orders and adjustments plus claims by the Contractor for extra compensation must be made and approved in writing before executing the work involved.
- B. All changes in the work, notifications and contractor's request for information (RFI) shall conform to the contract general condition requirements.

1.8 CORRECTION OF WORK

A. The Contractor, at their own cost, shall re-execute any work that fails to conform to the requirements of the contract and shall remedy defects due to faulty materials or workmanship upon written notice from the Owner's Representative, at the soonest as possible time that can be coordinated with other work and seasonal weather demands.

1.9 DEFINITIONS

All terms in this specification shall be as defined in the "Glossary of Arboricultural Terms" or as modified

below.

- A. Boxed trees: A container root ball package made of wood in the shape of a four-sided box.
- B. Container plant: Plants that are grown in and/or are currently in a container including boxed trees.
- C. Defective plant: Any plant that fails to meet the plant quality requirement of this specification.
- D. End of Warranty Final Acceptance: The date when the Owner's Representative accepts that the plants and work in this section meet all the requirements of the warranty. It is intended that the materials and workmanship warranty for Planting, Planting Soil, and Irrigation work run concurrent with each other.
- E. Field grown trees (B&B): Trees growing in field soil for at least 12 months prior to harvest.
- F. Healthy: Plants that are growing in a condition that expresses leaf size, crown density, color; and with annual growth rates typical of the species and cultivar's horticultural description, adjusted for the planting site soil, drainage and weather conditions.
- G. Kinked root: A root within the root package that bends more than 90 degrees.
- H. Maintenance: Actions that preserve the health of plants after installation and as defined in this specification.
- I. Maintenance period: The time period, as defined in this specification, which the Contractor is to provide maintenance.
- J. Normal: the prevailing protocol of industry standard(s).
- K. Owner's Representative: The person appointed by the Owner to represent their interest in the review and approval of the work and to serve as the contracting authority with the Contractor. The Owner's Representative may appoint other persons to review and approve any aspects of the work.
- L. Reasonable and reasonably: When used in this specification relative to plant quality, it is intended to mean that the conditions cited will not affect the establishment or long term stability, health or growth of the plant. This specification recognizes that it is not possible to produce plants free of all defects, but that some accepted industry protocols and standards result in plants unacceptable to this project.
 - When reasonable or reasonably is used in relation to other issues such as weeds, diseased, insects, it shall mean at levels low enough that no treatment would be required when applying recognized Integrated Plant Management practices.
 - This specification recognizes that some decisions cannot be totally based on measured findings and that professional judgment is required. In cases of differing opinion, the Owner's Representative's expert shall determine when conditions are judged as reasonable.
- M. Root ball: The mass of roots including any soil or substrate that is shipped with the tree within the root ball package.
- N. Root ball package. The material that surrounds the root ball during shipping. The root package may include the material in which the plant was grown, or new packaging placed around the root ball for shipping.
- O. Root collar (root crown, root flare, trunk flare, flare): The region at the base of the trunk where the majority of the structural roots join the plant stem, usually at or near ground level.
- P. Shrub: Woody plants with mature height approximately less than 15 feet.
- Q. Spade harvested and transplanted: Field grown trees that are mechanically harvested and immediately transplanted to the final growing site without being removed from the digging machine.
- R. Stem: The trunk of the tree.
- S. Substantial Completion Acceptance: The date at the end of the Planting, Planting Soil, and Irrigation installation where the Owner's Representative accepts that all work in these sections is complete and the Warranty period has begun. This date may be different than the date of substantial completion for

- the other sections of the project.
- T. Stem girdling root: Any root more than ¼ inch diameter currently touching the trunk, or with the potential to touch the trunk, above the root collar approximately tangent to the trunk circumference or circling the trunk. Roots shall be considered as Stem Girdling that have, or are likely to have in the future, root to trunk bark contact.
- U. Structural root: One of the largest roots emerging from the root collar.
- V. Tree: Single and multi-stemmed plants with mature height approximately greater than 15 feet.

1.10 SUBMITTALS

- A. See contract general conditions for policy and procedure related to submittals.
- B. Submit all product submittals 6 weeks prior to installation of plantings.
- C. Product data: Submit manufacturer product data and literature describing all products required by this section to the Owner's Representative for approval. Provide submittal eight weeks before the installation of plants.
- D. Plant growers' certificates: Submit plant growers' certificates for all plants indicating that each meets the requirements of the specification, including the requirements of tree quality, to the Owner's Representative for approval. Provide submittal eight weeks before the installation of plants.
- E. Samples: Submit samples of each product and material where required by the specification to the Owner's Representative for approval. Label samples to indicate product, characteristics, and locations in the work. Samples will be reviewed for appearance only. Compliance with all other requirements is the exclusive responsibility of the Contractor.
- F. Plant sources: Submit sources of all plants as required by Article "Selection of Plants" to the Owner's Representative for approval.
- G. Close out submittals: Submit to the Owner's Representative for approval.
 - 1. Plant maintenance data and requirements.
- H. Installation plan submitted a minimum of 14 days prior to the scheduled installation. Plan should describe the methods, activities, materials and schedule to achieve installation of plants.

1.11 OBSERVATION OF THE WORK

- A. The Owner's Representative may observe the work at any time. They may remove samples of materials for conformity to specifications. Rejected materials shall be immediately removed from the site and replaced at the Contractor's expense. The cost of testing materials not meeting specifications shall be paid by the Contractor.
- B. The Owner's Representative shall be informed of the progress of the work so the work may be observed at the following key times in the construction process. The Owner's Representative shall be afforded sufficient time to schedule visit to the site. Failure of the Owner's Representative to make field observations shall not relieve the Contractor from meeting all the requirements of this specification.
 - SITE CONDITIONS PRIOR TO THE START OF PLANTING: review the soil and drainage conditions.
 - 2. COMPLETION OF THE PLANT LAYOUT STAKING: Review of the plant layout.
 - 3. PLANT QUALITY: Review of plant quality at the time of delivery and prior to installation. Review tree quality prior to unloading where possible, but in all cases prior to planting.
 - 4. COMPLETION OF THE PLANTING: Review the completed planting.

1.12 PRE-CONSTRUCTION CONFERENCE

A. Schedule a pre-construction meeting with the Owner's Representative at least seven (7) days before beginning work to review any questions the Contractor may have regarding the work, administrative procedures during construction and project work schedule.

1.13 QUALITY ASSURANCE

- A. Substantial Completion Acceptance Acceptance of the work prior to the start of the warranty period:
 - Once the Contractor completes the installation of all items in this section, the Owner's Representative will observe all work for Substantial Completion Acceptance upon written request of the Contractor. The request shall be received at least ten calendar days before the anticipated date of the observation.
 - 2. Substantial Completion Acceptance by the Owner's Representative shall be for general conformance to specified size, character and quality and not relieve the Contractor of responsibility for full conformance to the contract documents, including correct species.
 - 3. Any plants that are deemed defective as defined under the provisions below shall not be accepted.
- B. The Owner's Representative will provide the Contractor with written acknowledgment of the date of Substantial Completion Acceptance and the beginning of the warranty period and plant maintenance period (if plant maintenance is included).
- C. Contractor's Quality Assurance Responsibilities: The Contractor is solely responsible for quality control of the work.
- D. Installer Qualifications: The installer shall be a firm having at least 5 years of successful experience of a scope similar to that required for the work, including the handling and planting of large specimen trees in urban areas. The same firm shall install planting soil (where applicable) and plant material.
 - 1. The bidders list for work under this section shall be approved by the Owner's Representative.
 - 2. Installer Field Supervision: When any planting work is in progress, installer shall maintain, on site, a full-time supervisor who can communicate in English with the Owner's Representative.
 - 3. Installer's field supervisor shall have a minimum of five years experience as a field supervisor installing plants and trees of the quality and scale of the proposed project, and can communicate in English with the Owner's Representative.
 - 4. The installer's crew shall have a minimum of 3 years experienced in the installation of Planting Soil, Plantings, and Irrigation (where applicable) and interpretation of soil plans, planting plans and irrigation plans.
 - 5. Submit references of past projects, employee training certifications that support that the Contractors meets all of the above installer qualifications and applicable licensures.

1.14 PLANT WARRANTY

A. Plant Warranty:

1. The Contractor agrees to replace defective work and defective plants. The Owner's Representative shall make the final determination if plants meet these specifications or that plants are defective.

Plants warranty shall begin on the date of Substantial Completion Acceptance and continue for the following periods, classed by plant type:

- a. Trees 1 Year(s).
- b. Shrubs 1 Year(s).
- c. Ground cover and perennial flower plants 1 Year(s).
- d. Bulbs, annual flower and seasonal color plants for the period of expected bloom or primary display.
- 2. When the work is accepted in parts, the warranty periods shall extend from each of the partial

- Substantial Completion Acceptances to the terminal date of the last warranty period. Thus, all warranty periods for each class of plant warranty, shall terminate at one time.
- 3. All plants shall be warrantied to meet all the requirements for plant quality at installation in this specification. Defective plants shall be defined as plants not meeting these requirements. The Owner's representative shall make the final determination that plants are defective.
- 4. Plants determined to be defective shall be removed immediately upon notification by the Owner's Representative and replaced without cost to the Owner, as soon as weather conditions permit and within the specified planting period.
- 5. Any work required by this specification or the Owner's Representative during the progress of the work, to correct plant defects including the removal of roots or branches, or planting plants that have been bare rooted during installation to observe for or correct root defects shall not be considered as grounds to void any conditions of the warranty. In the event that the Contractor decides that such remediation work may compromise the future health of the plant, the plant or plants in question shall be rejected and replaced with plants that do not contain defects that require remediation or correction.
- 6. The Contractor is exempt from replacing plants, after Substantial Completion Acceptance and during the warranty period, that are removed by others, lost or damaged due to occupancy of project, lost or damaged by a third party, vandalism, or any natural disaster.
- 7. Replacements shall closely match adjacent specimens of the same species. Replacements shall be subject to all requirements stated in this specification. Make all necessary repairs due to plant replacements. Such repairs shall be done at no extra cost to the Owner.
- 8. The warranty of all replacement plants shall extend for an additional one-year period from the date of their acceptance after replacement. In the event that a replacement plant is not acceptable during or at the end of the said extended warranty period, the Owner's Representative may elect one more replacement items or credit for each item. These tertiary replacement items are not protected under a warranty period.
- 9. During and by the end of the warranty period, remove all tree wrap, ties, and guying unless agreed to by the Owner's Representative to remain in place. All trees that do not have sufficient caliper to remain upright, or those requiring additional anchorage in windy locations, shall be staked or remain staked, if required by the Owner's Representative.
- B. End of Warranty Final Acceptance Acceptance of plants at the end of the warranty period.
 - 1. At the end of the warranty period, the Owner's Representative shall observe all warranted work, upon written request of the Contractor. The request shall be received at least ten calendar days before the anticipated date for final observation.
 - 2. End of Warranty Final Acceptance will be given only when all the requirements of the work under this specification and in specification sections Planting Soil and Irrigation have been met.

1.15 SELECTION AND OBSERVATION OF PLANTS

- A. The Owner's Representative may review all plants subject to approval of size, health, quality, character, etc. Review or approval of any plant during the process of selection, delivery, installation and establishment period shall not prevent that plant from later rejection in the event that the plant quality changes or previously existing defects become apparent that were not observed.
- B. Plant Selection: The Owner's Representative reserves the right to select and observe all plants at the nursery prior to delivery and to reject plants that do not meet specifications as set forth in this specification. If a particular defect or substandard element can be corrected at the nursery, as determined by the Owner's Representative, the agreed upon remedy may be applied by the nursery or the Contractor provided that the correction allows the plant to meet the requirements set forth in this specification. Any work to correct plant defects shall be at the contractor's expense.
 - 1. The Owner's Representative may make invasive observation of the plant's root system in the area of the root collar and the top of the root ball in general in order to determine that the plant

- meets the quality requirements for depth of the root collar and presence of roots above the root collar. Such observations will not harm the plant.
- 2. Corrections are to be undertaken at the nursery prior to shipping.
- C. The Contractor shall bear all cost related to plant corrections.
- D. All plants that are rejected shall be immediately removed from the site and acceptable replacement plants provided at no cost to the Owner.
- E. Submit to the Owner's Representative, for approval, plant sources including the names and locations of nurseries proposed as sources of acceptable plants, and a list of the plants they will provide. The plant list shall include the botanical and common name and the size at the time of selection. Observe all nursery materials to determine that the materials meet the requirements of this section.
 - 1. Trees shall be purchased from the growing nursery. Re-wholesale plant suppliers shall not be used as sources unless the Contractor can certify that the required trees are not directly available from a growing nursery. When Re-wholesale suppliers are utilized, the Contractor shall submit the name and location of the growing nursery from where the trees were obtained by the re-wholesale seller. The re-wholesale nursery shall be responsible for any required plant quality certifications.
- F. The Contractor shall require the grower or re-wholesale supplier to permit the Owner's Representative to observe the root system of all plants at the nursery or job site prior to planting including random removal of soil or substrate around the base of the plant. Observation may be as frequent and as extensive as needed to verify that the plants meet the requirements of the specifications and conform to requirements.
- G. Each tree shall have a numbered seal applied by the Contractor. The seal shall be placed on a lateral branch on the north side of the tree. The seal shall be a tamper proof plastic seal bearing the Contractors name and a unique seven-digit number embossed on the seal.
 - 1. Do not place seals on branches that are so large that there is not sufficient room for the branch growth over the period of the warranty.
- H. The Owner's Representative may choose to attach their seal to each plant, or a representative sample. Viewing and/or sealing of plants by the Owner's Representative at the nursery does not preclude the Owner's Representative's right to reject material while on site. The Contractor is responsible for paying any up charge for the Owner's Representative to attach their seal to specific plants.
- I. Where requested by the Owner's Representative, submit photographs of plants or representative samples of plants. Photographs shall be legible and clearly depict the plant specimen. Each submitted image shall contain a height reference, such as a measuring stick. The approval of plants by the Owner's Representative via photograph does not preclude the Owner's Representative's right to reject material while on site.

1.16 PLANT SUBSTITUTIONS FOR PLANTS NOT AVAILABLE

A. Submit all requests for substitutions of plant species, or size to the Owner's Representative, for approval, prior to purchasing the proposed substitution. Request for substitution shall be accompanied with a list of nurseries contacted in the search for the required plant and a record of other attempts to locate the required material. Requests shall also include sources of plants found that may be of a smaller or larger size, or a different shape or habit than specified, or plants of the same genus and species but different cultivar origin, or which may otherwise not meet the requirements of the specifications, but which may be available for substitution.

1.17 SITE CONDITIONS

- A. It is the responsibility of the Contractor to be aware of all surface and sub-surface conditions, and to notify the Owner's Representative, in writing, of any circumstances that would negatively impact the health of plantings. Do not proceed with work until unsatisfactory conditions have been corrected.
 - 1. Should subsurface drainage or soil conditions be encountered which would be detrimental to

growth or survival of plant material, the Contractor shall notify the Owner's Representative in writing, stating the conditions and submit a proposal covering cost of corrections. If the Contractor fails to notify the Owner's Representative of such conditions, he/she shall remain responsible for plant material under the warranty clause of the specifications.

- B. It is the responsibility of the Contractor to be familiar with the local growing conditions, and if any specified plants will be in conflict with these conditions. Report any potential conflicts, in writing, to the Owner's Representative.
- C. This specification requires that all Planting Soil and Irrigation (if applicable) work be completed and accepted prior to the installation of any plants.
 - 1. Planting operations shall not begin until such time that the irrigation system is completely operational for the area(s) to be planted, and the irrigation system for that area has been preliminarily observed and approved by the Owner's Representative.
- D. Actual planting shall be performed during those periods when weather and soil conditions are suitable in accordance with locally accepted horticultural practices.
 - 1. Do not install plants into saturated or frozen soils. Do not install plants during inclement weather, such as rain or snow or during extremely hot, cold or windy conditions.

1.18 PLANTING AROUND UTILITIES

- A. Contractor shall carefully examine the civil, record, and survey drawings to become familiar with the existing underground conditions before digging.
- B. Determine location of underground utilities and perform work in a manner that will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by others until parties concerned mutually agree upon removal.
- C. Notification of *Miss Utility Locator Service* is required for all planting areas: The Contractor is responsible for knowing the location and avoiding utilities that are not covered by the *Miss Utility Locator Service*.

PART 2 - PRODUCTS

2.1 PLANTS: GENERAL

- A. Standards and measurement: Provide plants of quantity, size, genus, species, and variety or cultivars as shown and scheduled in contract documents.
 - All plants including the root ball dimensions or container size to trunk caliper ratio shall conform to ANSI Z60.1 "American Standard for Nursery Stock" latest edition, unless modified by provisions in this specification. When there is a conflict between this specification and ANSI Z60.1, this specification section shall be considered correct.
 - 2. Plants larger than specified may be used if acceptable to the Owner's Representative. Use of such plants shall not increase the contract price. If larger plants are accepted the root ball size shall be in accordance with ANSI Z-60.1. Larger plants may not be acceptable if the resulting root ball cannot be fit into the required planting space.
 - 3. If a range of size is given, no plant shall be less than the minimum size and not less than 50 percent of the plants shall be as large as the maximum size specified. The measurements specified are the minimum and maximum size acceptable and are the measurements after pruning, where pruning is required.
- B. Proper Identification: All trees shall be true to name as ordered or shown on planting plans and shall be labeled individually or in groups by genus, species, variety and cultivar.
- C. Compliance: All trees shall comply with federal and state laws and regulations requiring observation for plant disease, pests, and weeds. Observation certificates required by law shall accompany each

shipment of plants.

D. Plant Quality:

 General: Provide healthy stock, grown in a nursery and reasonably free of die-back, disease, insects, eggs, bores, and larvae. At the time of planting all plants shall have a root system, stem, and branch form that will not restrict normal growth, stability and health for the expected life of the plant

2. Plant quality above the soil line:

- a. Plants shall be healthy with the color, shape, size and distribution of trunk, stems, branches, buds and leaves normal to the plant type specified. Tree quality above the soil line shall comply with the project Crown Acceptance details and the following:
 - 1.) Crown: The form and density of the crown shall be typical for a young specimen of the species or cultivar pruned to a central and dominant leader.
 - a.) Crown specifications do not apply to plants that have been specifically trained in the nursery as topiary, espalier, multi-stem, clump, or unique selections such as contorted or weeping cultivars.
 - 2.) Leaves: The size, color, and appearance of leaves shall be typical for the time of year and stage of growth of the species or cultivar. Trees shall not show signs of prolonged moisture stress or over watering as indicated by wilted, shriveled, or dead leaves.
 - 3.) Branches: Shoot growth (length and diameter) throughout the crown should be appropriate for the age and size of the species or cultivar. Trees shall not have dead, diseased, broken, distorted, or otherwise injured branches.
 - a.) Main branches shall be distributed along the central leader not clustered together. They shall form a balanced crown appropriate for the cultivar/species.
 - b.) Branch diameter shall be no larger than two-thirds (one-half is preferred) the diameter of the central leader measured 1 inch above the branch union.
 - c.) The attachment of the largest branches (scaffold branches) shall be free of included bark.
 - 4.) Trunk: The tree trunk shall be relatively straight, vertical, and free of wounds that penetrate to the wood (properly made pruning cuts, closed or not, are acceptable and are not considered wounds), sunburned areas, conks (fungal fruiting bodies), wood cracks, sap leakage, signs of boring insects, galls, cankers, girdling ties, or lesions (mechanical injury).
 - 5.) Temporary branches, unless otherwise specified, can be present along the lower trunk below the lowest main (scaffold) branch, particularly for trees less than 1 inch in caliper. These branches should be no greater than 3/8-inch diameter. Clear trunk should be no more than 40% of the total height of the tree.
- b. Trees shall have one central leader. If the leader was headed, a new leader (with a live terminal bud) at least one-half the diameter of the pruning cut shall be present.
 - 1.) All trees are assumed to have one central leader trees unless a different form is specified in the plant list or drawings.
- c. All graft unions, where applicable, shall be completely closed without visible sign of graft rejection. All grafts shall be visible above the soil line.
- d. Trunk caliper and taper shall be sufficient so that the lower five feet of the trunk remains vertical without a stake. Auxiliary stake may be used to maintain a straight leader in the upper half of the tree.

3. Plant quality at or below the soil line:

- a. Plant roots shall be normal to the plant type specified. Root observations shall take place without impacting tree health. Root quality at or below the soil line shall comply with the project Root Acceptance details and the following:
 - 1.) The roots shall be reasonably free of scrapes, broken or split wood.
 - 2.) The root system shall be reasonably free of injury from biotic (e.g., insects and pathogens) and abiotic (e.g., herbicide toxicity and salt injury) agents. Wounds resulting

- from root pruning used to produce a high quality root system are not considered injuries.
- 3.) A minimum of three structural roots reasonably distributed around the trunk (not clustered on one side) shall be found in each plant. Root distribution shall be uniform throughout the root ball, and growth shall be appropriate for the species.
 - a.) Plants with structural roots on only one side of the trunk (J roots) shall be rejected.
- 4.) The root collar shall be within the upper 2 inches of the substrate/soil. Two structural roots shall reach the side of the root ball near the top surface of the root ball. The grower may request a modification to this requirement for species with roots that rapidly descend, provided that the grower removes all stem girdling roots above the structural roots across the top of the root ball.
- 5.) The root system shall be reasonably free of stem girdling roots over the root collar or kinked roots from nursery production practices.
 - a.) Plant Grower Certification: The final plant grower shall be responsible to have determined that the plants have been root pruned at each step in the plant production process to remove stem girdling roots and kinked roots, or that the previous production system used practices that produce a root system throughout the root ball that meets these specifications. Regardless of the work of previous growers, the plant's root system shall be modified at the final production stage, if needed, to produce the required plant root quality. The final grower shall certify in writing that all plants are reasonably free of stem girdling and kinked roots as defined in this specification, and that the tree has been grown and harvested to produce a plant that meets these specifications.
- 6.) At time of observations and delivery, the root ball shall be moist throughout. Roots shall not show signs of excess soil moisture conditions as indicated by stunted, discolored, distorted, or dead roots.
- E. Submittals: Submit for approval the required plant quality certifications from the grower where plants are to be purchased, for each plant type. The certification must state that each plant meets all the above plant quality requirements.
 - 1. The grower's certification of plant quality does not prohibit the Owner's Representative from observing any plant or rejecting the plant if it is found to not meet the specification requirements.
- 2.2 ROOT BALL PACKAGE OPTIONS: The following root ball packages are permitted. Specific root ball packages shall be required where indicated on the plant list or in this specification. Any type of root ball packages that is not specifically defined in this specification shall not be permitted.

A. BALLED AND BURLAPPED PLANTS

- 1. All Balled and Burlapped Plants shall be field grown, and the root ball packaged in a burlap and twine and/or burlap and wire basket package.
- 2. Plants shall be harvested with the following modifications to standard nursery practices.
 - a. Prior to digging any tree that fails to meet the requirement for maximum soil and roots above the root collar, carefully removed the soil from the top of the root ball of each plant, using hand tools, water or an air spade, to locate the root collar and attain the soil depth over the structural roots requirements. Remove all stem girdling roots above the root collar. Care must be exercised not to damage the surface of the root collar and the top of the structural roots.
 - b. Trees shall be dug for a minimum of 4 weeks and a maximum of 52 weeks prior to shipping. Trees dug 4 to 52 weeks prior to shipping are defined as hardened-off. Digging is defined as cutting all roots and lifting the tree out of the ground and either moving it to a new location in the nursery or placing it back into the same hole. Tress that are stored out of the ground shall be placed in a holding area protected from extremes of wind and sun with the root ball protected by covering with mulch or straw and irrigated sufficiently to keep moisture in the root ball above wilt point and below saturation

- c. If wire baskets are used to support the root ball, a "low profile" basket shall be used. A low profile basket is defined as having the top of the highest loops on the basket no less than 4 inches and no greater than 8 inches below the shoulder of the root ball package.
 - 1.) At nurseries where sandy soils prevent the use of "low profile baskets", baskets that support the entire root ball, including the top, are allowable.
- d. Twine and burlap used for wrapping the root ball package shall be natural, biodegradable material. If the burlap decomposes after digging the tree then the root ball shall be rewrapped prior to shipping if roots have not yet grown to keep root ball intact during shipping.

3. SPADE HARVESTED AND TRANSPLANTED

- 1. Spade Harvested and Transplanted Plants shall meet all the requirements for field grown trees. Root ball diameters shall be of similar size as the ANSI Z60.1 requirements for Balled and Burlapped plants.
- 2. Trees shall be harvested prior to leafing out (bud break) in the spring or during the fall planting period except for plants know to be considered as fall planting hazards. Plants that are fall planting hazards shall only be harvested prior to leafing out in the spring.
- 3. Trees shall be moved and planted within 48 hours of the initial harvesting and shall remain in the spade machine until planted.

B. CONTAINER (INCLUDING ABOVE-GROUND FABRIC CONTAINERS AND BOXES) PLANTS

- 1. Container plants may be permitted only when indicated on the drawing, in this specification, or approved by the Owner's Representative.
- 2. Provide plants shall be established and well rooted in removable containers.
- 3. Container class size shall conform to ANSI Z60.1 for container plants for each size and type of plant.

C. BARE ROOT PLANTS

- 1. Harvest bare root plants while the plant is dormant and a minimum of 4 weeks prior to leaf out (bud break).
- 2. The root spread dimensions of the harvested plants shall conform to ANSI Z60.1 for nursery grown bare root plants for each size and type of plant. Just prior to shipping to the job site, dip the root system into a slurry of hydrogel (cross linked polyacrylamide) and water mixed at a rate of 15 oz. of hydrogel in 25 gallons of water. Do not shake off the excess hydrogel. Place the root system in a pleated black plastic bag and tie the bag snugly around the trunk. Bundle and tie the upper branches together.
- 3. Keep the trees in a cool dark space for storage and delivery. If daytime outside temperatures exceeds 70 degrees F, utilize a refrigerated storage area with temperature between 35 and 50 degrees.
- 4. Where possible, plan time of planting to be before bud break. For trees to be planted after bud break, place the trees before bud break in an irrigated bed of pea gravel.
 - a. The pea gravel bed shall be 18 inches deep over a sheet of plastic.
 - b. Space trees to allow the unbundled branches to grow without shading each other.
 - c. Once stored in pea gravel, allow the trees sufficient time for the new root system to flush and spring growth of leaves to fully develop before planting.
 - d. Pea gravel stored trees may be kept for up to one growing season.
 - e. Pea gravel stored trees shall be dipped, packaged and shipped similar to the requirements for freshly dug bare root trees above.

D. IN-GROUND FABRIC BAG-GROWN

1. In-ground fabric container plants may be permitted only when indicated on the drawing, in this

specification, or approved by the Owner's Representative.

2. Provide plants established and well rooted.

2.3 ANNUAL FLOWERING AND SEASONAL COLOR PLANTS

A. Container or flat-grown plants should be sized as noted in the planting plan. Plants shall be well-rooted and healthy.

2.4 PLANTING SOIL

A. Planting Soil as used in this specification means the soil at the planting site, or imported as modified and defined in specification Section Planting Soil. If there is no Planting Soil specification, the term Planting Soil shall mean the soil at the planting site within the planting hole.

2.5 MULCH

- A. Mulch shall be "Walk on" grade, coarse, ground, from tree and woody brush sources. The size range shall be a minimum (less than 25% or less of volume) fine particles 3/8 inch or less in size, and a maximum size of individual pieces (largest 20% or less of volume) shall be approximately 1 to 1-1/2 inch in diameter and maximum length approximately 4 to 8". Pieces larger than 8 inch long that are visible on the surface of the mulch after installation shall be removed.
 - 1. It is understood that mulch quality will vary significantly from supplier to supplier and region to region. The above requirements may be modified to conform to the source material from locally reliable suppliers as approved by the Owner's Representative.
- B. Submit supplier's product specification data sheet and a one gallon sample for approval.

2.6 TREE STAKING AND GUYING MATERIAL

- A. Tree guying to be flat woven polypropylene material, 3/4 inch wide, and 900 lb. break strength. Color to be Green. Product to be ArborTie manufactured by Deep Root Partners, L.P. or approved equal.
- B. Stakes shall be lodge pole stakes free of knots and of diameters and lengths appropriate to the size of plant as required to adequately support the plant.
- C. Below ground anchorage systems to be constructed of 2 x 2 dimensional untreated wood securing (using 3 inch long screws) horizontal portions to 4 feet long vertical stakes driven straight into the ground outside the root ball.
- D. Submit manufacturer's product data for approval.

2.7 TREE BARK PROTECTOR

- A. Tree Bark Protectors shall be black extruded resin mesh, 4 inches in diameter, 5 feet long. As manufactured by Industrial Netting, Minneapolis, MN, USA or approved equal.
- B. Fasten the split side of the Tree Bark Protector together in three places with black plastic tape.
- C. Submit manufacturers' product data for approval.

2.8 WATERING BAGS

- A. Plastic tree watering bags holding a minimum of 15 gallons of water and with a slow drip hole(s) water release system, specifically designed to water establishing trees. Water should release over a several day period, not within a few hours
- B. Watering bags shall be:
 - 1. Treegator Irrigation Bags sized to the appropriate model for the requirements of the plant, manufactured by Spectrum Products, Inc., Youngsville, NC 27596.
 - 2. Ooze Tube sized to the appropriate model for the requirements of the plant, manufactured by Engineered Water Solutions, Atlanta, GA.
 - 3. Or approved equal.
- C. Submit manufacturer's product data for approval.

2.9 CHEMICAL OR BIOLOGICAL ADDITIVES

A. PHC for Trees™ or similar additive shall be added to all tree pits according to manufacturer instructions before backfilling. The main ingredients of the biological additive shall be endo and ecto Mycorrhizal spores. This beneficial fungus aids the trees by absorbing and transferring water and nutrients from the soil to the trees in a symbiotic relationship.

PART 3 - EXECUTION

3.1 SITE EXAMINATION

A. Examine the surface grades and soil conditions to confirm that the requirements of the Specification Section – Planting Soil - and the soil and drainage modifications indicated on the Planting Soil Plan and Details (if applicable) have been completed. Notify the Owner's Representative in writing of any unsatisfactory conditions.

3.2 DELIVERY, STORAGE AND HANDLING

- A. Protect materials from deterioration during delivery and storage. Adequately protect plants from drying out, exposure of roots to sun, wind or extremes of heat and cold temperatures. If planting is delayed more than 24 hours after delivery, set plants in a location protected from sun and wind. Provide adequate water to the root ball package during the shipping and storage period.
 - 1. All plant materials must be available for observation prior to planting.
 - 2. Using a soil moisture meter, periodically check the soil moisture in the root balls of all plants to assure that the plants are being adequately watered. Volumetric soil moisture shall be maintained above wilting point and below field capacity for the root ball substrate or soil.
- B. Do not deliver more plants to the site than there is space with adequate storage conditions. Provide a suitable remote staging area for plants and other supplies.
 - 1. The Owner's Representative or Contractor shall approve the duration, method and location of storage of plants.
- C. Provide protective covering over all plants during transporting.

3.3 PLANTING SEASON

- A. Planting shall only be performed when weather and soil conditions are suitable for planting the materials specified in accordance with locally accepted practice. Install plants during the planting time as described below unless otherwise approved in writing by the Owner's Representative. In the event that the Contractor request planting outside the dates of the planting season, approval of the request does not change the requirements of the warranty.
 - 1. Trees and shrubs November to February.

3.4 ADVERSE WEATHER CONDITIONS

A. No planting shall take place during extremely hot, dry, windy or freezing weather.

3.5 COORDINATION WITH PROJECT WORK

- A. The Contractor shall coordinate with all other work that may impact the completion of the work.
- B. Prior to the start of work, prepare a detailed schedule of the work for coordination with other trades.
- C. Coordinate the relocation of any irrigation lines, heads or the conduits of other utility lines that are in conflict with tree locations. Root balls shall not be altered to fit around lines. Notify the Owner's Representative of any conflicts encountered.

3.6 LAYOUT AND PLANTING SEQUENCE

- A. Relative positions of all plants and trees are subject to approval of the Owner's Representative.
- B. Notify the Owner's Representative, one (1) week prior to layout. Layout all individual tree and shrub locations. Place plants above surface at planting location or place a labeled stake at planting location.

- Layout bed lines with paint for the Owner's Representative's approval. Secure the Owner's Representative's acceptance before digging and start of planting work.
- C. When applicable, plant trees before other plants are installed.
- D. It is understood that plants are not precise objects and that minor adjustments in the layout will be required as the planting plan is constructed. These adjustments may not be apparent until some or all of the plants are installed. Make adjustments as required by the Owner's Representative including relocating previously installed plants.

3.7 SOIL PROTECTION DURING PLANT DELIVERY AND INSTALLATION

- A. Protect soil from compaction during the delivery of plants to the planting locations, digging of planting holes and installing plants.
 - 1. Where possible deliver and plant trees that require the use of heavy mechanized equipment prior to final soil preparation and tilling. Where possible, restrict the driving lanes to one area instead of driving over and compacting a large area of soil.
 - 2. Till to a depth of 6 inches, all soil that has been driven over during the installation of plants.

3.8 SOIL MOISTURE

A. Volumetric soil moisture level, in both the planting soil and the root balls of all plants, prior to, during and after planting shall be above permanent wilting point and below field capacity for each type of soil texture within the following ranges.

Soil type	Permanent wilting point	Field capacity
Sand, Loamy sand, Sandy loam	5-8%	12-18%
Loam, Sandy clay, Sandy clay loam	14-25%	27-36%
Clay loam, Silt loam	11-22%	31-36%
Silty clay, Silty clay loam	22-27%	38-41%

- 1. Volumetric soil moisture shall be measured with a digital moisture meter. The meter shall be the Digital Soil Moisture Meter, DSMM500 by General Specialty Tools and Instruments, or approved equivalent.
- B. The Contractor shall confirm the soil moisture levels with a moisture meter. If the moisture is too high, suspend planting operations until the soil moisture drains to below field capacity.

3.9 INSTALLATION OF PLANTS: GENERAL

- A. Installation plan shall be submitted a minimum of 14 days prior to the scheduled installation. Plan should describe the methods, activities, materials and schedule to achieve installation of plants.
- B. Observe each plant after delivery and prior to installation for damage of other characteristics that may cause rejection of the plant. Notify the Owner's Representative of any condition observed.
- C. No more plants shall be distributed about the planting bed area than can be planted and watered on the same day.
- D. The root system of each plant, regardless of root ball package type, shall be observed by the Contractor, at the time of planting to confirm that the roots meet the requirements for plant root quality in Part 2 Products: Plants General: Plant Quality. The Contractor shall undertake at the time of planting, all modifications to the root system required by the Owner's Representative to meet these quality standards.
 - 1. Modifications, at the time of planting, to meet the specifications for the depth of the root collar and removal of stem girdling roots and circling roots may make the plant unstable or stress the plant to the point that the Owner's Representative may choose to reject the plant rather than permitting the modification.

- 2. Any modifications required by the Owner's Representative to make the root system conform to the plant quality standards outlined in Part 2 Products: Plants General: Quality, or other requirements related to the permitted root ball package, shall not be considered as grounds to modify or void the plant warranty.
- 3. The resulting root ball may need additional staking and water after planting. The Owner's Representative may reject the plant if the root modification process makes the tree unstable or if the tree is not healthy at the end of the warranty period. Such plants shall still be covered under the warranty
- 4. The Contractor remains responsible to confirm that the grower has made all required root modifications noted during any nursery observations.
- E. Container and Boxed Root Ball Shaving: The outer surfaces of ALL plants in containers and boxes, including the top, sides and bottom of the root ball shall be shaved to remove all circling, descending, and matted roots. Shaving shall be performed using saws, knives, sharp shovels or other suitable equipment that is capable of making clean cuts on the roots. Shaving shall remove a minimum of one inch of root mat or up to 2 inches as required to remove all root segments that are not growing reasonably radial to the trunk.
- F. Exposed Stem Tissue after Modification: The required root ball modifications may result in stem tissue that has not formed trunk bark being exposed above the soil line. If such condition occurs, wrap the exposed portion of the stem in a protective wrapping with a white filter fabric. Secure the fabric with biodegradable masking tape. DO NOT USE string, twine, green nursery ties or any other material that may girdle the trunk if not removed.
- G. Excavation of the Planting Space: Using hand tools or tracked mini-excavator, excavate the planting hole into the Planting Soil to the depth of the root ball measured after any root ball modification to correct root problems, and wide enough for working room around the root ball or to the size indicated on the drawing or as noted below.
 - 1. For trees and shrubs planted in soil areas that are NOT tilled or otherwise modified to a depth of at least 12 inches over a distance of more than 10 feet radius from each tree, or 5 feet radius from each shrub, the soil around the root ball shall be loosened as defined below or as indicated on the drawings.
 - a. The area of loosening shall be a minimum of 3 times the diameter of the root ball at the surface sloping to 2 times the diameter of the root ball at the depth of the root ball.
 - b. Loosening is defined as digging into the soil and turning the soil to reduce the compaction. The soil does not have to be removed from the hole, just dug, lifted and turned. Lifting and turning may be accomplished with a tracked mini excavator, or hand shovels.
 - 2. If an auger is used to dig the initial planting hole, the soil around the auger hole shall be loosened as defined above for trees and shrubs planted in soil areas that are NOT tilled or otherwise modified.
 - 3. The measuring point for root ball depth shall be the average height of the outer edge of the root ball after any required root ball modification.
 - 4. If motorized equipment is used to deliver plants to the planting area over exposed planting beds, or used to loosen the soil or dig the planting holes, all soil that has been driven over shall be tilled to a depth of 6 inches.
- H. For trees to be planted in prepared Planting Soil that is deeper than the root ball depth, compact the soil under the root ball using a mechanical tamper to assure a firm bedding for the root ball. If there is more than 12 inches of planting soil under the root ball excavate and tamp the planting soil in lifts not to exceed 12 inches.
- I. Set top outer edge of the root ball at the average elevation of the proposed finish. Set the plant plumb and upright in the center of the planting hole. The tree graft, if applicable, shall be visible above the grade. Do not place soil on top of the root ball.
- J. The Owner's Representative may request that plants orientation be rotated when planted based on

- the form of the plant.
- K. Backfill the space around the root ball with the same planting soil or existing soil that was excavated for the planting space. See Specification Section Planting Soil, for requirements to modify the soil within the planting bed.
- L. Brace root ball by tamping Planting Soil around the lower portion of the root ball. Place additional Planting Soil around base and sides of ball in six-inch (6") lifts. Lightly tamp each lift using foot pressure or hand tools to settle backfill, support the tree and eliminate voids. DO NOT over compact the backfill or use mechanical or pneumatic tamping equipment. Over compaction shall be defined as greater than 85% of maximum dry density, standard proctor or greater than 250 psi as measured by a cone penetrometer when the volumetric soil moisture is lower than field capacity.
 - 1. When the planting hole has been backfilled to three quarters of its depth, water shall be poured around the root ball and allowed to soak into the soil to settle the soil. Do not flood the planting space. If the soil is above field capacity, allow the soil to drain to below field capacity before finishing the planting. Air pockets shall be eliminated and backfill continued until the planting soil is brought to grade level.
- M. Where indicated on the drawings, build a 4 inch high, level berm of Planting Soil around the outside of the root ball to retain water. Tamp the berm to reduce leaking and erosion of the saucer.
- N. Thoroughly water the Planting Soil and root ball immediately after planting.
- O. Remove all nursery plant identification tags and ribbons as per Owner's Representative instructions. The Owner's Representative's seals are to remain on plants until the end of the warranty period.
- P. Remove corrugated cardboard trunk protection after planting.
- Q. Follow additional requirements for the permitted root ball packages.

3.10 PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS

A. The following are permitted root ball packages and special planting requirements that shall be followed during the planting process in addition to the above General planting requirements.

B. BALLED AND BURLAPPED PLANTS

- 1. After the root ball has been backfilled, remove all twine and burlap from the top of the root ball. Cut the burlap away; do not fold down onto the Planting Soil.
- 2. If the plant is shipped with a wire basket that does not meet the requirements of a "Low Rise" basket, remove the top third of the basket wires just before the final backfilling of the tree.
- 3. Earth root balls shall be kept intact except for any modifications required by the Owner's Representative to make root package comply with the requirement in Part 2 Products.

C. SPADE HARVESTED AND TRANSPLANTED PLANTS

- 1. After installing the tree, loosen the soil along the seam between the root ball and the surrounding soil out to a radius from the root ball edge equal to the diameter of the root ball to a depth of 8 10 inches by hand digging to disturb the soil interface.
- 2. Fill any gaps below this level with loose soil.

D. CONTAINER (INCLUDES BOXED AND ABOVE-GROUND FABRIC CONTAINERS) PLANTS

- 1. This specification assumes that most container plants have significant stem girdling and circling roots, and that the root collar is too low in the root ball.
- 2. Remove the container.
- 3. Perform root ball correcting or shaving as defined in Installation of Plants: General above.
- 4. Remove all roots and substrate above the root collar and the main structural roots according to root correction details so root system conforms to root observations detail.

- 5. Remove all substrate at the bottom of the root ball that does not contain roots.
- 6. Using a hose, power washer or air excavation device, wash out the substrate from around the trunk and top of the remaining root ball and find and remove all stem girdling roots within the root ball above the top of the structural roots.

E. BARE ROOT PLANTS

- 1. Dig the planting hole to the diameter of the spread of the roots to a depth in the center that maintains the root collar at the elevation of the surrounding finished grade and slightly deeper along the edges of the hole.
- Spread all roots out radial to the trunk in the prepared hole making the hole wider where needed to accommodate long roots. Root tips shall be directed away from the trunk. Prune any broken roots removing the least amount of tissue possible.
- 3. Maintain the trunk plumb while backfilling soil around the roots.
- 4. Lightly tamp the soil around the roots to eliminate voids and reduce settlement.

F. IN-GROUND FABRIC CONTAINERS

- Remove the fabric container from the root ball. Cut roots at the edge of the container as needed to extract the fabric from the roots. Make clean cuts with sharp tools; do not tear roots away from the fabric.
- 2. Observe the root system after the container is removed to confirm that the root system meets the quality standards.

3.11 GROUND COVER, PERENNIAL AND ANNUAL PLANTS

- A. Assure that soil moisture is within the required levels prior to planting. Irrigation, if required, shall be applied at least 12 hours prior to planting to avoid planting in muddy soils.
- B. Assure that soil grades in the beds are smooth and as shown on the plans.
- C. Plants shall be planted in even, triangularly spaced rows, at the intervals called out for on the drawings, unless otherwise noted. The first row of Annual flower plants shall be 6 inches from the bed edge unless otherwise directed.
- D. Dig planting holes sufficiently large enough to insert the root system without deforming the roots. Set the top of the root system at the grade of the soil.
- E. Schedule the planting to occur prior to application of the mulch. If the bed is already mulched, pull the mulch from around the hole and plant into the soil. Do not plant the root system in the mulch. Pull mulch back so it is not on the root ball surface.
- F. Press soil to bring the root system in contact with the soil.
- G. Spread any excess soil around in the spaces between plants.
- H. Apply mulch to the bed being sure not to cover the tops of the plants with or the tops of the root ball with mulch.
- I. Water each planting area as soon as the planting is completed. Apply additional water to keep the soil moisture at the required levels. Do not over water.

3.12 STAKING AND GUYING

- A. Do not stake or guy trees unless specifically required by the Contract Documents, or in the event that the Contractor feels that staking is the only alternative way to keep particular trees plumb.
 - 1. The Owner's Representative shall have the authority to require that trees are staked or to reject staking as an alternative way to stabilize the tree.
 - 2. Trees that required heavily modified root balls to meet the root quality standards may become unstable. The Owner's Representative may choose to reject these trees rather than utilize staking

to temporarily support the tree.

- B. Trees that are guyed shall have their guys and stakes removed at the end of the warranty period or at other times as required by the Owner's Representative.
- C. Tree guying shall utilize the tree staking and guying materials specified. Guying to be tied in such a manner as to create a minimum 12-inch loop to prevent girdling. Refer to manufacturer's recommendations and the planting detail for installation.
 - 1. Plants shall stand plumb after staking or guying.
 - 2. Stakes shall be driven to sufficient depth to hold the tree rigid.
- D. For trees planted in planting mix over waterproofed membrane, use dead men buried 24 inches to the top of the dead man, in the soil. Tie the guy to the dead man with a double wrap of line around the dead man followed by a double half hitch. When guys are removed, leave the dead men in place and cut the guy tape 12 inches above the ground, leaving the tape end covered in mulch.

3.13 TREE BARK PROTECTION

A. For all street trees in commercial areas where indicted on the drawings, apply a Tree Bark Protector to each tree.

3.14 STRAIGHTENING PLANTS

- A. Maintain all plants in a plumb position throughout the warranty period. Straighten all trees that move out of plumb including those not staked. Plants to be straightened shall be excavated and the root ball moved to a plumb position, and then re-backfilled.
- B. Do not straighten plants by pulling the trunk with guys.

3.15 INSTALLATION OF FERTILIZER AND OTHER CHEMICAL ADDITIVES

- A. Do not apply any soluble fertilizer to plantings during the first year after transplanting unless soil test determines that fertilizer or other chemical additives is required. Apply chemical additives only upon the approval of the Owner's Representative.
- B. Controlled release fertilizers shall be applied according to the manufacturer's instructions and standard horticultural practices.

3.16 PRUNING OF TREES AND SHRUBS

- A. Prune plants as directed by the Owner's Representative. Pruning trees shall be limited to addressing structural defects as shown in details; follow recommendations in "Structural Pruning: A Guide For The Green Industry" published by Urban Tree Foundation, Visalia CA.
- B. All pruning shall be performed by a person experienced in structural tree pruning.
- C. Except for plants specified as multi-stemmed or as otherwise instructed by the Owner's Representative, preserve or create a central leader.
- D. Pruning of large trees shall be done using pole pruners or if needed, from a ladder or hydraulic lift to gain access to the top of the tree. Do not climb in newly planted trees. Small trees can be structurally pruned by laying them over before planting. Pruning may also be performed at the nursery prior to shipping.
- E. Remove and replace excessively pruned or malformed stock resulting from improper pruning that occurred in the nursery or after.
- F. Pruning shall be done with clean, sharp tools.
- G. No tree paint or sealants shall be used.

3.17 MULCHING OF PLANTS

A. Apply 4 inches of mulch before settlement, covering the entire planting bed area. Install no more than 1 inch of mulch over the top of the root balls of all plants. Taper to 2 inches when abutting pavement.

- B. For trees planted in lawn areas the mulch shall extend to a 5 foot radius around the tree or to the extent indicated on the plans.
- C. Lift all leaves, low hanging stems and other green portions of small plants out of the mulch if covered.

3.18 PLANTING BED FINISHING

- A. After planting, smooth out all grades between plants before mulching.
- B. Separate the edges of planting beds and lawn areas with a smooth, formed edge cut into the turf with the bed mulch level slightly lower, 1 and 2 inches, than the adjacent turf sod or as directed by the Owner's Representative. Bed edge lines shall be a depicted on the drawings.

3.19 WATERING

- A. The Contractor shall be fully responsible to ensure that adequate water is provided to all plants from the point of installation until the date of Substantial Completion Acceptance. The Contractor shall adjust the automatic irrigation system, if available, and apply additional or adjust for less water using hoses as required.
- B. Hand water root balls of all plants to assure that the root balls have moisture above wilt point and below field capacity. Test the moisture content in each root ball and the soil outside the root ball to determine the water content.
- C. The Contractor shall install 25 gallon watering bag for each tree to be maintained and used for tree watering during the warranty period.
 - 1. The watering bags shall remain the property of the Owner at the completion of the work.

3.20 CLEAN-UP

- A. During installation, keep the site free of trash, pavements reasonably clean and work area in an orderly condition at the end of each day. Remove trash and debris in containers from the site no less than once a week.
 - 1. Immediately clean up any spilled or tracked soil, fuel, oil, trash or debris deposited by the Contractor from all surfaces within the project or on public right of ways and neighboring property.
- B. Once installation is complete, wash all soil from pavements and other structures. Ensure that mulch is confined to planting beds and that all tags and flagging tape are removed from the site. The Owner's Representative's seals are to remain on the trees and removed at the end of the warranty period.
- C. Make all repairs to grades, ruts, and damage by the plant installer to the work or other work at the site.
- D. Remove and dispose of all excess planting soil, subsoil, mulch, plants, packaging, and other material brought to the site by the Contractor.

3.21 PROTECTION DURING CONSTRUCTION

- A. The Contractor shall protect planting and related work and other site work from damage due to planting operations, operations by other Contractors or trespassers. Maintain protection during installation until Substantial Completion Acceptance. Treat, repair or replace damaged work immediately.
- B. Damage done by the Contractor, or any of their sub-contractors to existing or installed plants, or any other parts of the work or existing features to remain, including roots, trunk or branches of large existing trees, soil, paving, utilities, lighting, irrigation, other finished work and surfaces including those on adjacent property, shall be cleaned, repaired or replaced by the Contractor at no expense to the Owner. The Owner's Representative shall determine when such cleaning, replacement or repair is satisfactory.

3.22 PLANT MAINTENANCE PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE

A. During the project work period and prior to Substantial Completion Acceptance, the Contractor shall maintain all plants.

B. Maintenance during the period prior to Substantial Completion Acceptance shall consist of pruning, watering, cultivating, weeding, mulching, removal of dead material, repairing and replacing of tree stakes, tightening and repairing of guys, repairing and replacing of damaged tree wrap material, resetting plants to proper grades and upright position, and furnishing and applying such sprays as are necessary to keep plantings reasonably free of damaging insects and disease, and in healthy condition. The threshold for applying insecticides and herbicide shall follow established Integrated Pest Management (IPM) procedures. Mulch areas shall be kept reasonably free of weeds, grass.

3.23 SUBSTANTIAL COMPLETION ACCEPTANCE

- A. Upon written notice from the Contractor, the Owners Representative shall review the work and make a determination if the work is substantially complete.
 - 1. Notification shall be at least 7 days prior to the date the contractor is requesting the review.
- B. The date of substantial completion of the planting shall be the date when the Owner's Representative accepts that all work in Planting, Planting Soil, and Irrigation installation sections is complete.
- C. The Plant Warranty period begins at date of written notification of substantial completion from the Owner's Representative. The date of substantial completion may be different than the date of substantial completion for the other sections of the project.

3.24 MAINTENANCE DURING THE WARRANTY PERIOD BY THE PLANT INSTALLER

- A. During the warranty period, provide all maintenance for all plantings to keep the plants in a healthy state and the planting areas clean and neat.
- B. General requirements:
 - 1. All work shall be undertaken by trained planting crews under the supervision of a foreman with a minimum of 5 years experience supervising commercial plant maintenance crews.
 - 2. All chemical and fertilizer applications shall be made by licensed applicators for the type of chemicals to be used. All work and chemical use shall comply with all applicable local, provincial and federal requirements.
 - 3. Assure that hoses and watering equipment and other maintenance equipment does not block paths or be placed in a manner that may create tripping hazards. Use standard safety warning barriers and other procedures to maintain the site in a safe manner for visitors at all times.
 - 4. All workers shall wear required safety equipment and apparel appropriate for the tasks being undertaken.
 - 5. The Contractor shall not store maintenance equipment at the site at times when they are not in use unless authorized in writing by the Owner's Representative.
 - 6. Maintenance vehicles shall not park on the site including walks and lawn areas at any time without the Owner's Representative's written permission.
 - 7. Maintain a detailed log of all maintenance activities including types of tasks, date of task, types and quantities of materials and products used, watering times and amounts, and number of each crew. Periodically review the logs with the Owner's Representative, and submit a copy of the logs at the end of each year of the maintenance agreement.
 - 8. Meet with the Owner's Representative a minimum of (3) three times a year to review the progress and discuss any changes that are needed in the maintenance program. At the end of the warranty period attend a hand over meeting to formally transfer the responsibilities of maintenance to the Owner's Representative. Provide all information on past maintenance activities and provide a list of critical tasks that will be needed over the next 12 months. Provide all maintenance logs and soil test data. Make the Contractor's supervisor available for a minimum of one year after the end of the warranty period to answer questions about past maintenance.
- C. Provide the following maintenance tasks:
 - 1. Watering; Provide all water required to keep soil within and around the root balls at optimum moisture content for plant growth.
 - a. Maintain all watering systems and equipment and keep them operational.
 - b. Monitor soil moisture to provide sufficient water. Check soil moisture and root ball moisture with a soil moisture meter on a regular basis and record moisture readings. Do not over

water.

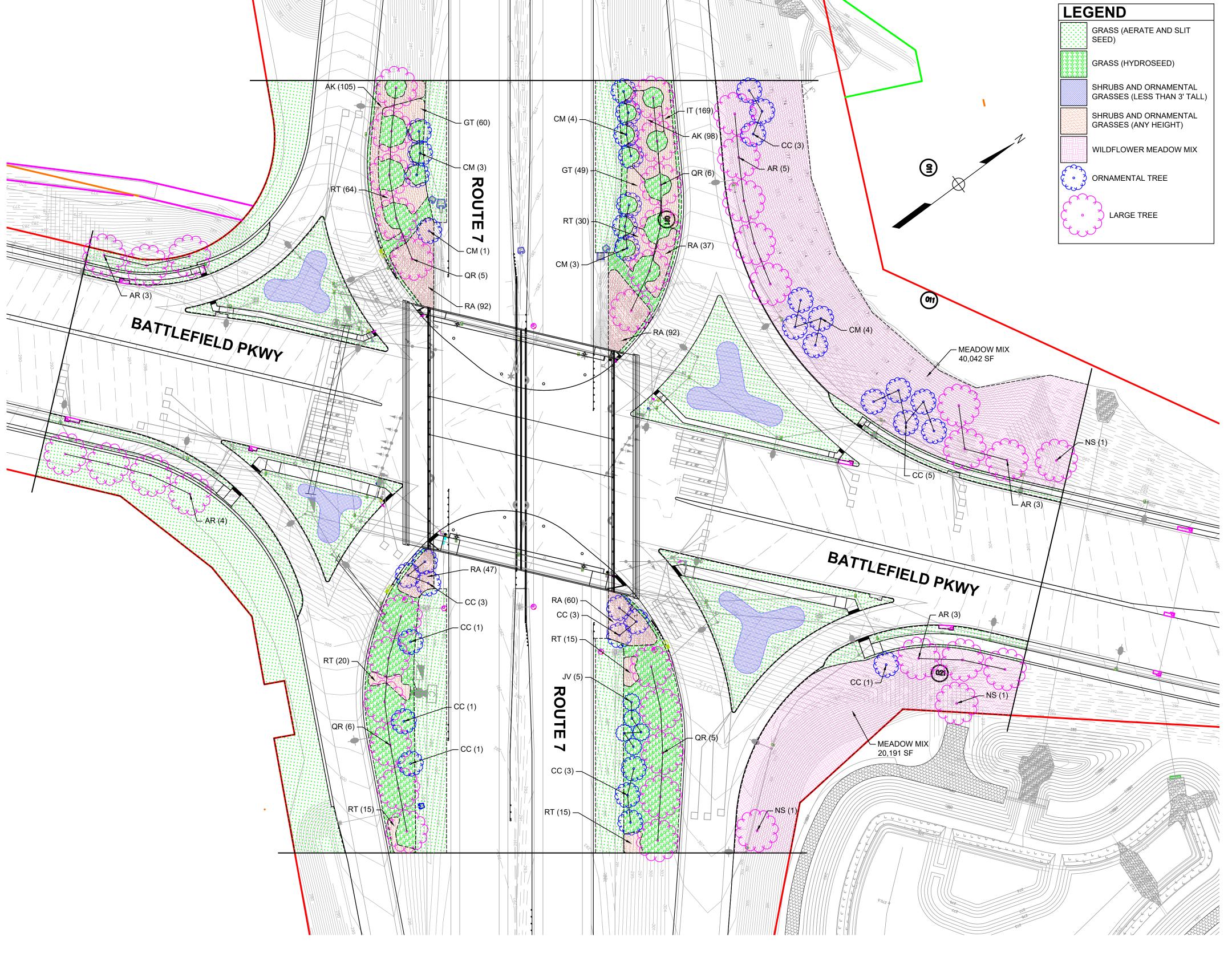
- 2. Soil nutrient levels: Take a minimum of 4 soil samples from around the site in the spring and fall and have them tested by an accredited agricultural soil testing lab for chemical composition of plant required nutrients, pH, salt and % organic matter. Test results shall include laboratory recommendations for nutrient applications. Apply fertilizers at rates recommended by the soil test.
 - a. Make any other soil test and/or plant tissue test that may be indicated by plant conditions that may not be related to soil nutrient levels such as soil contaminated by other chemicals or lack of chemical uptake by the plant.
- 3. Plant pruning: Remove cross over branching, shorten or remove developing co dominant leaders, dead wood and winter-damaged branches. Unless directed by the Owner's Representative, do not shear plants or make heading cuts.
- 4. Restore plants: Reset any plants that have settled or are leaning as soon as the condition is noticed.
- 5. Guying and staking: Maintain plant guys in a taught position. Remove tree guys and staking after the first full growing season unless directed by Owner's Representative.
- 6. Weed control: Keep all beds free of weeds. Hand-remove all weeds and any plants that do not appear on the planting plan. Chemical weed control is permitted only with the approval of the Owner's Representative. Schedule weeding as needed but not less 12 times per year.
- 7. Trash removal: Remove all trash and debris from all planting beds and maintain the beds in a neat and tidy appearance. The number of trash and debris removal visits shall be no less than 12 times per year and may coincide with other maintenance visits.
- 8. Plant pest control: Maintain disease, insects and other pests at manageable levels. Manageable levels shall be defined as damage to plants that may be noticeable to a professional but not to the average person. Use least invasive methods to control plant disease and insect outbreaks.
 - a. The Owner's Representative must approve in advance the use of all chemical pesticide applications.
- 9. Plant replacement: Replace all plants that are defective as defined in the warranty provisions, as soon as the plant decline is obvious and in suitable weather and season for planting as outlined in above sections. Plants that become defective during the maintenance period shall be covered and replaced under the warranty provisions.
- 10. Mulch: Refresh mulch once a year to maintain complete coverage but do not over mulch. At no time shall the overall mulch thickness be greater that 4 inches. Do not apply mulch within 6 inches of the trunks or stems of any plants. Replacement mulch shall meet the requirements of the original approved material. Mulch shall be no more than one inch on top of the root ball surface.
- 11. Bed edging: Check and maintain edges between mulch and lawn areas in smooth neat lines as originally shown on the drawings.
- 12. Leaf, fruit and other plant debris removal: Remove fall leaf, spent flowers, fruit and plant part accumulations from beds and paved surfaces. Maintain all surface water drains free of debris. Debris removal shall be undertaken at each visit to weed or pick up trash in beds.
- 13. Damage from site use: Repair of damage by site visitors and events, beyond normal wear, are not part of this maintenance. The Owner's Representative may request that the Contractor repair damage beds or plantings for an additional cost. All additional work shall be approved in advance by the Owner's Representative.

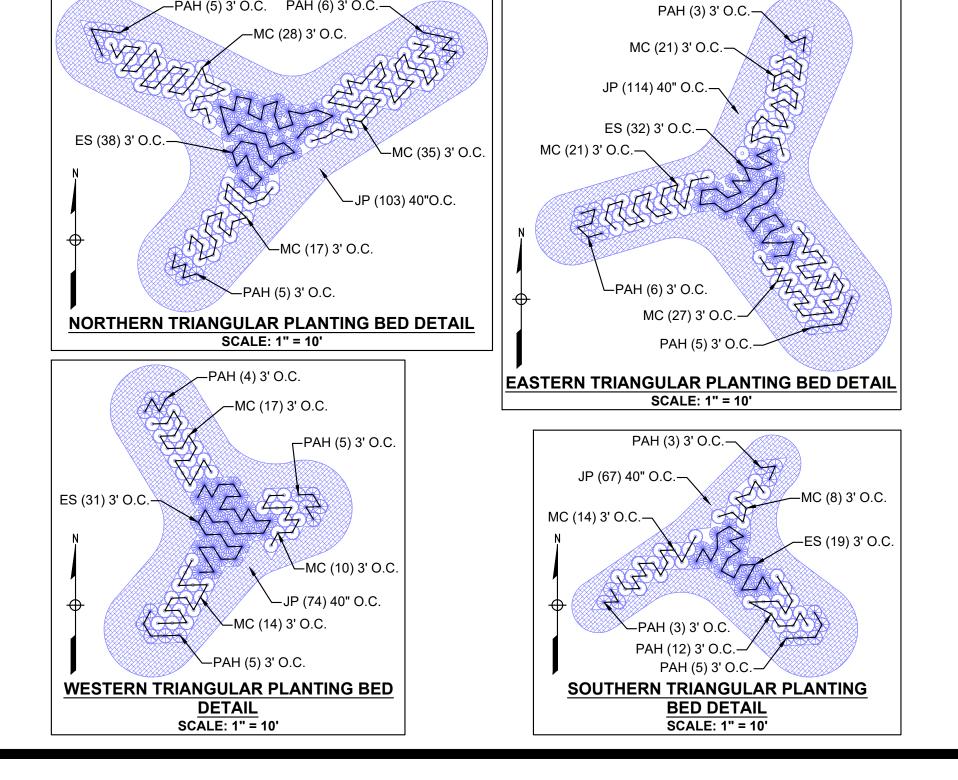
3.25 END OF WARRANTY FINAL ACCEPTANCE / MAINTENANCE OBSERVATION

- A. At the end of the Warranty and Maintenance period the Owner's Representative shall observe the work and establish that all provisions of the contract are complete and the work is satisfactory.
 - 1. If the work is satisfactory, the maintenance period will end on the date of the final observation.
 - 2. If the work is deemed unsatisfactory, the maintenance period will continue at no additional expense to the Owner until the work has been completed, observed, and approved by the Owner's Representative.
- B. FAILURE TO PASS OBSERVATION: If the work fails to pass final observation, any subsequent observations must be rescheduled as per above. The cost to the Owner for additional observations will be charged to the Contractor at the prevailing hourly rate of the Owners Representative.

END OF SECTION 32 9300

			PLANT SCHE	DULE			
	KEY	LATIN NAME	COMMON NAME	QTY	SIZE	ROOT CONDITION	SPACING
Large	Deciduou	s Trees					
	AR	Acer rubrum 'October Glory'	October Glory Red Maple	13	2" CAL. MIN.	B&B/CONT.	40' O.C.
	QR	Quercus rubra	Northern Red Oak	27	2" CAL. MIN.	B&B/CONT.	40' O.C.
	NS	Nyssa sylvatica	Black gum	3	2" CAL. MIN.	B&B/CONT.	40' O.C.
Total	-	-	-	43	-	-	-
Small	Deciduou	ıs / Ornamental Trees					
	СС	Cersis Canadensis	Eastern Redbud	21	1.5" CAL. MIN.	B&B/CONT.	25' O.C.
	СМ	Lagerstroemia indica 'Tuscarora'	Crape Myrtle	15	#15	CONT.	25' O.C.
Total	_	-	-	36	-	-	-
Everg	reen Tree	s					
	١٧	Juniperus virginiana	Eastern Red Cedar	5	6'	B&B	15' O.C.
Total	-	-	-	5	-	-	-
Shrub)S						
	RT	Cornus alba 'Sibirica'	Red Twig Dogwood	159	#3	CONT.	5' O.C.
	GT	Cornus racemosa	Gray Twig Dogwood	109	#3	CONT.	5' O.C.
	JP	Juniperus conferta 'Blue Pacific'	Blue Pacific juniper	358	#3	CONT.	3-4' O.C.
	RA	Rhus aromatica 'Gro-Low'	Gro-Low sumac	328	#3	CONT.	5' O.C.
	IT	Itea Virginica 'Henry Garnet'	Virginia sweetspire	169	#3	CONT.	3-4' O.C.
	AK	Abelia x grandiflora 'Kaleidoscope'	Glossy abelia	203	#3	CONT.	4-5' O.C.
Total	-	-	-	1326	-	-	-
Perer	nials and	Grasses					
	MC	Muhlenbergia capillaris	Muhly grass	224	#2	CONT.	3' O.C.
	PAH	Pennisetum alopecuroides 'hameln'	Fountaingrass	55	#2	CONT.	3' O.C.
	PA	Perovskia atriplicifolia	Russian sage "Little Spire"	120	#2	CONT.	3' O.C.
Total	-	-	-	399	-	-	-
Wildf	lower						
	-	Meadow Mi	X	60,233 SF	-	-	-
Turf							
	-	Tall Fescue Blend (Aerate	75,640 SF	-	-	-	
	_	Tall Fescue Blend (H	25,870 SF	-	-	-	

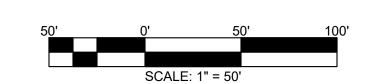




TOWN OF LEESBURG

04/21/2023

ROUTE 7 AT BATTLEFIELD PARKWAY INTERCHANGE
LANDSCAPE PLAN



NOTE:

ALL UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND HAVE NOT BEEN VERIFIED BY SURVEY.

