Project Manual TECHNICAL SPECIFICATIONS

WEST BADGER ROAD SALT BARN

CITY OF MADISON - STREETS DIVISION

Bid Documents July 26, 2022

Madison Contract No. 8654



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12					
13	1.1.	SUM	MARY		
14		A.	The City of Madison is a qualifying tax exempt entity in the State of Wisconsin.		
15		В.	The Contractor shall refer to Section 102.9 – Bidders Understanding of the City of Madison Standard		
16			Specifications for Public Works Construction for more information on Tax Exempt Status.		
17		C.	This project constructs or remodels facilities owned by the City of Madison in Madison, Wisconsin.		
18					
19	1.2.	RELA	FED SPECIFICATION SECTIONS		
20		A.	Parts of this specification will reference articles within "The City of Madison Standard Specifications for Public		
21			Works Construction".		
22			1. Use the following link to access the Standard Specifications web page:		
23			http://www.cityofmadison.com/business/pw/specs.cfm		
24			a. Click on the "Part" chapter identified in the specification text. For example if the specification		
25			says "Refer to City of Madison Standard Specification 2 10.2" click the link for Part II, the Part II		
26			PDF will open.		
27			b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you		
28			to the referenced text.		
29					
30	1.3.	TAX	XEMPT FORM		
31		A.	The Contractor can access Wisconsin Sales and Use Tax Exemption Certificates (form S-211, Wisconsin		
32			Department of Revenue) from the City of Madison Finance website.		
33			1. City of Madison tax exempt information and signature by Purchasing Supervisor is already completed.		
34			2. Website: http://www.cityofmadison.com/employeenet/finance/purchasing		
35			a. Under the title <i>Purchasing Forms</i> , scroll down to the form link titled <i>Sales Tax Exempt Form S-211</i>		
36					
37	PART	2 – PR	DDUCTS – THIS SECTION NOT USED		
38					
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40					
41					
42					
43					
44			END OF SECTION		
45					

	SECTION 01 26 13				
		REQUEST FOR INFORMATION (RFI)			
PΔRT	1 – G	ENERAL			
	1.1.	SUMMARY			
_	1.2.	RELATED SPECIFICATIONS			
	1.3.	PERFORMANCE REQUIREMENTS			
	1.4.	QUALITY ASSURANCE			
		RODUCTS			
	2.1.	REQUEST FOR INFORMATION FORM			
		ECUTION			
	3.1.	CONTRACTOR INITIATED RFI			
	3.3.	RFI RESPONSES			
	3.4.	COMMENCEMENT OF WORK RELATED TO AN RFI			
PARI	1 – G	<u>ENERAL</u>			
1.1.	SU	MMARY			
	A.	Contractors shall use the RFI form/process to request additional information or clarification regarding the			
		construction documents.			
	В.	All RFI documentation will be processed through the through the Construction Administration-Request for			
		Information Library on the Project Management Web Site (PMWS).			
1.2.	REL	ATED SPECIFICATIONS			
	A.	Section 01 26 46 Construction Bulletin (CB)			
	В.	Section 01 26 57 Change Order Request (COR)			
	C.	Section 01 26 63 Change Order (CO)			
	D.	Section 01 31 23 Project Management Web Site (PMWS)			
1.3.	PFR	FORMANCE REQUIREMENTS			
	Α.	RFI issues initiated by any contractor shall be done through the General Contractor (GC).			
	,	1. RFIs submitted by any Sub-contractor under the GCs control shall be returned with no response.			
	В.	Submit a new RFI for each issue. Only multiple questions that are of a similar nature may be combined into one			
	٥.	RFI shall be allowed and responded to.			
		The I shall be allowed and responded to.			
1.4.	QU.	ALITY ASSURANCE			
	Α.	The GC shall be responsible for all of the following:			
		1. Ensure that any request for additional information is valid and the information being requested is not			
		addressed in the construction documents.			
		2. Ensure that all requests are clearly stated and the RFI form is completely filled out.			
		3. Ensure that all Work associated an RFI response is carried out as intended.			
	В.	The City Project Manager shall be responsible for the following:			
		1. Ensure that all responses to contractor initiated RFIs are properly responded to in a timely fashion.			
		a. The CPM, Owner, consulting staff, and other City staff shall be responsible for the initial review of			
		the RFI. The CPM shall be responsible for codifying all consultant and Owner/City staff comments			
		into a unified RFI response.			
PART	2 – P	RODUCTS			
2.1.		QUEST FOR INFORMATION FORM The PEI form is located on the Project Management Web Site. The GC DA or CDM as appropriate shall click the			
	A.	The RFI form is located on the Project Management Web Site. The GC, PA, or CPM as appropriate shall click the			
		link in the left margin of the project web site opening a new form. Project information is pre-loaded, provide			
		additional information as indicated below in the execution to complete the form.			
PART	3 - E)	(ECUTION			
					

1	3.1.	CONT	CONTRACTOR INITIATED RFI		
2		A.	A. Immediately on discovery of the need for additional information or interpretation of the Contract Documents		
3			any contractor may initiate an RFI for additional information or clarification through the GC.		
4		B.	B. The GC shall select the "Submit an RFI" link on the Project Management Web Site and completely fill out the		
5			form as follows:		
6			1. Contract related information will be automatically populated on the form.		
7			2. Thoroughly explain the issue at hand, provide backup information (photographs, sketches, drawings,		
8			data, etc) as necessary, and clearly state the question or problem that requires a resolution. Combine		
9			like or related issues but do not include multiple issues on one form.		
10			a. Example. If a duct interferes with other critical piping and electrical work include all issues into		
11			one RFI.		
12			b. Example. If you have a question regarding the chiller and another regarding toilet partitions		
13			create separate RFIs.		
14			3. Check all relevant boxes for trades affected. This will assist the design team in determining who should		
15			be reviewing the RFI.		
16		C.	Upon completing the RFI click the "Submit" button. The PMWS software will automatically route the RFI to the		
17			appropriate reviewers.		
18					
19	3.3.	RFI R	ESPONSES		
20		A.	Responses to simple RFI issues shall use the response section of the RFI form and shall be completed within five		
21			(5) working days of the RFI form being submitted.		
22		B.	Responses to more complex issues may require additional time or may require a Construction Bulletin to be		
23			published. The initial RFI shall be responded to within five (5) working days stating that the RFI is being		
24			reviewed and provide an estimated date for the response.		
25		C.	The following GC generated RFIs will be returned without action:		
26			1. Requests for approval of submittals		
27			2. Requests for approval of substitutions		
28			3. Requests for approval of Contractor's means and methods.		
29			4. Requests for coordination information already indicated in the Contract Documents.		
30			5. Requests for adjustments in the Contract Time or the Contract Sum.		
31			6. Requests for interpretation of A/E's actions on submittals.		
32			7. Incomplete RFI or inaccurately prepared RFI.		
33					
34	3.4.	COM	MENCEMENT OF WORK RELATED TO AN RFI		
35		A.	The GC shall only proceed with the Work of an RFI when additional information is not required.		
36		B.	The GC shall not proceed with any Work associated with an RFI while it is under review.		
37		C.	The GC shall not proceed with any Work associated with an RFI that clearly states a CB will be issued in response		
38			to the RFI.		
39		D.	The GC will be required to immediately remove and replace unauthorized Work and all costs required to		
40			conform to the Contract Documents shall be borne by the GC.		
41					
42					
43					

45 46 **END OF SECTION**

1 2	SECTION 01 26 46 CONSTRUCTION BULLETIN (CB)				
3			CONSTRUCTION BULLETIN (CB)		
4	PART	1 – G	ENERAL		
5	1	l.1.	SUMMARY		
6	1	l.2.	RELATED SPECIFICATIONS		
7	1	L.3.	PERFORMANCE REQUIREMENTS		
8	1	L.4.	QUALITY ASSURANCE		
9	PART	2 – P	RODUCTS		
10	2	2.1.	CONSTRUCTION BULLETIN FORM		
11	PART	3 - EX	CECUTION		
12	3	3.1.	WRITING THE CONSTRUCTION BULLETIN		
13	3	3.2.	EXECUTING THE CONSTRUCTION BULLETIN		
14					
15	PART	1 – G	<u>ENERAL</u>		
16					
17	1.1.	SUI	MMARY		
18		A.	Construction Bulletins (CB) are formal published construction documents that modify the original contract bid		
19			documents after construction has commenced. CBs may be published for many reasons, including but not		
20			limited to the following:		
21			1. Clarification of existing construction documents including specifications, plans, and details		
22			2. Change in product or equipment		
23			3. A response to a Request for Information		
24			4. Change in scope of the contract as either an add or a deduct of work		
25		В.	CBs provide a higher degree of detail in response to a Request for Information (RFI) through directives, revised		
26			plans/details, and specifications as necessary.		
27	C. The CB may change the original contract documents through additions or deletions to the Work.				
28	D. Where the directives of a CB are significant enough to warrant a Change Order Request (COR) the GC shall use				
29			information provided in the CB to assemble all required back-up documentation for additions and deletions of		
30			materials, labor and other related contract costs for the COR.		
31		E.	All CB documentation will be processed through the Construction Administration-Construction Bulletin Library		
32			on the Project Management Web Site (PMWS).		
33					
34	1.2.	REL	ATED SPECIFICATIONS		
35		A.	Section 01 26 13 Request for Information (RFI)		
36		В.	Section 01 26 57 Change Order Request (COR)		
37		C.	Section 01 26 63 Change Order (CO)		
38		D.	Section 01 31 23 Project Management Web Site		
39			, .		
40	1.3.	PEF	RFORMANCE REQUIREMENTS		
41		A.	City Project Manager (CPM): The CPM shall be the only person authorized to publish a CB as needed for any		
42			reason indicated in section 1.1.A above. The CPM shall consult as necessary with any of the following while		
43			drafting the CB prior to issuing a CB:		
44			1. Owner		
45			2. Members of the consulting staff		
46			3. Members of city staff		
47			4. The General Contractor		
48			5. Sub-contractors		
49		В.	General Contractor: The GC shall be responsible for the following as needed:		
50			1. Executing the directives of the CB when he/she believes that no changes in labor, materials, equipment,		
51			or contract duration will be required for additions or deletions.		
52			2. Submit a COR when he/she believes that a change in labor, materials, equipment or contract duration		
53			will be required for additions or deletions.		
54					
55	1.4.	QU	ALITY ASSURANCE		
56		Α.	The CPM shall be responsible for ensuring the final CB sufficiently provides direction, details, specifications and		
57			other information as necessary for the GC to perform the intended Work.		

1 2		В.	The CPM shall be responsible for ensuring the final CB is published as expeditiously as practical based on the complexity of the CB being written. CBs that may affect the GC critical path shall be given priority.				
3 4	DART	2 _ DRC	DDUCTS				
5	LANI	2 1110	<u> </u>				
6	2.1.	CONS	TRUCTION BULLETIN FORM				
7		Α.	The CB form is located on the Project Management Web Site. The CPM shall click the link in the left margin of				
8			the project web site opening a new form. Project information is pre-loaded, the CPM only needs to enter				
9			information and make attachments as needed to complete the form.				
10			· · · · · · · · · · · · · · · · · · ·				
11	PART	3 - EXE	<u>CUTION</u>				
12							
13	3.1.	WRIT	ING THE CONSTRUCTION BULLETIN				
14		A.	The CPM shall draft a CB as needed using the Construction Bulletin form on the Project Management Web Site.				
15			1. The CPM and/or consulting staff as necessary shall provide specifications, model numbers and				
16			performance data, details and other such information necessary to clearly state the intentions of the CB.				
17			2. The consulting staff, Owner, and other City Staff shall review the draft and recommend changes as				
18			needed.				
19			3. The CPM shall amend the draft as necessary into a final CB for review				
20		В.	Once the final CB has been approved the CPM shall "Submit" the CB through the Project Management Web Site				
21			to the GC.				
22							
23	3.2.		JTING THE CONSTRUCTION BULLETIN				
24		A.	The GC shall acknowledge receipt of the CB on the Project Management Web Site as instructed in the Tutorial				
25		_	Manual provided to the awarded contractor.				
26		В.	The GC shall notify all Sub-contractors of the CB and publish the CB to all field sets of drawings and specifications				
27		_	as appropriate.				
28		C.	The GC shall execute the directives of the CB or submit COR documentation as necessary during the execution				
29			and implementation of the CB.				
30			1. See Specification 01 26 57 Change Order Request (COR)				
31							
32							

END OF SECTION

33 34

1		SECTION 01 26 57
2		CHANGE ORDER REQUESTS (COR)
3	DA DT 4	OTNIED 41
4		GENERAL
5	1.1.	
6	1.2.	
7	1.3.	
8	1.4.	
9	1.5.	
10	1.6.	·
11	1.7.	PRODUCTS
12 13	2.1.	
13 14		EXECUTION
15	3.1.	ESTABLISHING A CHANGE ORDER REQUEST
16	3.1.	
17	3.2.	·
18	3.3. 3.4.	
19	3.4.	EIVIERGEINCT CHANGE ONDER REQUEST
20	DADT 1 _	GENERAL
21	FANII	GLIVERAL
22	1.1. S	UMMARY
23	1.1. 3 A	
24	,,	by the General Contractor (GC) without having prior approval of the City Engineer or his representative.
25	В	
26		the Work by written Change Order (CO). Such changes may include additions and/or deletions.
27	С	
28	·	following procedures apply:
29		1. If requested by the City, the GC shall prepare and submit a detailed proposal, including all cost and time
30		adjustments to which the GC believes it will be entitled if the change proposed is incorporated into the
31		Contract. The City shall be under no legal obligation to issue a Change Order for such proposal.
32		2. The parties shall attempt in good faith to reach agreement on the adjustments needed to the Contract to
33		properly incorporate the proposed change(s) into the Work. In the event that the parties agree on such
34		adjustments, the City may issue a Change Order and incorporate such changes and agreed to
35		adjustments, in early may issue a change order and meorporate such changes and agreed to
36		3. In some instances, it may be necessary for the City to authorize Work or direct changes in Work for which
37		no final and binding agreement has been reached and for which unit prices are not applicable. In such
38		cases the following shall apply.
39		a. Upon written request by the City, the GC shall perform proposed Work
40		b. The cost of such change may be determined in accordance with this specification.
41		c. In the event agreement cannot be accomplished as contemplated herein, the City may authorize
42		the Work to be performed by City forces or to hire others to complete the Work. Such action on
43		the part of the City shall not be the basis of a claim by the GC for failure to allow it to perform the
44		changed Work.
45	D	
46		practicable, and in no case later than ten (10) working days from the receipt of such order, unless another time
47		period has been agreed to by both parties, give the City written Notice, stating:
48		1. The date, circumstances and source of the extra work; and,
49		2. The cost of performing extra work described by such Order, if any; and,
50		3. Effect of the order on the required completion date of the Project, if any.
51	E	
52		City for payment of any additional costs incurred by the GC in implementing changes in the Work. Under this
53		specification, no order or statement of the City shall be treated as a Change Order, or shall entitle the GC to an
54		equitable adjustment of the terms of this Contract or damages for costs incurred by the GC on any activity for
55		which the Notice was not given.
56	F.	
57	١.	equitable adjustment as soon as practicable, and in no case later than ten (10) working days of the
58		commencement of such emergency.
		taniman seminar or again emergency.

G. 1 All GC requests for equitable adjustment shall be submitted to the CPM per the specifications below. Such 2 requests shall set forth with specificity the amount of and reason(s) for the proposed adjustment and shall be 3 accompanied by supporting information and documents. 4 Н. No adjustment of any kind shall be made to this Contract, if asserted by the GC for the first time, after the date 5 of final payment. 6 ١. This specification shall be used by the GC when preparing documentation for any COR to ensure each has been properly and completely filled out as required by the City of Madison. 7 8 J. All COR documentation will be processed through the Construction Administration-Change Order Request 9 Library on the Project Management Web Site (PMWS). 10 11 1.2. **RELATED SPECIFICATION SECTIONS** 12 Section 01 26 13 Request for Information (RFI) A. 13 В. Section 01 26 46 Construction Bulletins (CB) 14 C. Section 01 26 63 Change Order (CO) 15 D. Section 01 31 23 Project Management Web Site 16 E. Parts of this specification will reference articles within "The City of Madison Standard Specifications for Public Works Construction". 17 18 Use the following link to access the Standard Specifications web page: http://www.cityofmadison.com/business/pw/specs.cfm 19 20 Click on the "Part" chapter identified in the specification text. For example if the specification 21 says "Refer to City of Madison Standard Specification 210.2" click the link for Part II, the Part II 22 23 b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you to the referenced text. 24 25 26 1.3. **DEFINITIONS AND STANDARDS** 27 A. LABOR: The amount of time and cost associated with the performance of human effort for a defined scope of 28 Work. Labor is further defined as follows: Labor rate is the total hourly rate which includes the basic rate of pay, fringe benefits plus each 29 30 company's cost of required insurance, also referred to as a reimbursable labor rate. 31 2. Unit labor is the labor hours anticipated to install the corresponding unit of material. 32 Labor cost is the labor hours multiplied by the hourly labor rates. 33 В. MATERIAL: Actual material cost is the amount paid, or to be paid, by the GC for materials, supplies and equipment entering permanently into the Work, including cost of transportation and applicable taxes. The cost 34 35 shall not exceed the usual and customary cost for such items available in the geographical area of the project LARGE TOOLS AND MAJOR EQUIPMENT: Large tools and major equipment are those with an initial cost greater C. 36 than \$1,500, whether from the GC or other sources. 37 38 1. Tool and equipment use and time allowed is only for extra work associated with change orders. Rental Rate is the machine cost associated with operating a piece of equipment for a defined 39 40 length of time (hour, day, week, or month) and shall not exceed the usual and customary amount 41 for such items available in the geographical area of the project. 42 b. Rental cost is the rental rate multiplied by the anticipated duration the equipment shall be 43 44 2. The GC shall provide a breakdown of all rental rates to indicate what items and costs are associated with 45 the rate. Examples of items to include in the breakdown would be fuel consumption, lubrication, 46 maintenance and other similar expenses but not including profit and overhead. 47 3. When large tools and equipment needed for Change Order work are not already at the job site, the 48 actual cost to get the item there is also reimbursable. 49 D. BOND COST: The cost shall be calculated at 1% of the total proposed change order. 50 Ε. SUB-CONTRACTOR COSTS: Sub-contractor costs are for those labor, material, and equipment costs required by 51 subcontracted specialties to complete the Change Order work. 52 F. OVERHEAD AND PROFIT Markup: The allowable markup percentage to a COR by the GC and Sub-contractors for 53 overhead and profit. All of the following are expenses associated with overhead and profit and shall not be reimbursable as individual items on any COR: 54 55 CHANGE ORDER PREPARATION: All costs associated with the preparing and processing of the change 1.

2.

56

57

58

additional Work to be documented as a COR or portion thereof.

DESIGN, ESTIMATING, AND SUPERVISION: All such efforts, unless specifically requested by Owner as

3.

1

2		installation design, is the responsibility of the GC.				
3		4. SMALL TOOLS AND SUPPLIES: The cost of small hand tools with an initial cost of \$1,500 or less, along				
4		with consumable supplies and expendable items such as drill bits, saw blades, gasoline, lubricating or				
5		cutting oil, and similar items.				
6		5. GENERAL EXPENSE: The general expense, which is those items that are a specific job cost not associated				
7		with direct labor and material such as job trailers, foreman truck, and similar items.				
8		6. RECORD DRAWINGS: The preparation of record or as-built drawings.				
9		7. OTHER COSTS: Any miscellaneous cost not directly assessable to the execution of the Change Order				
10		including but not limited to the following:				
11		a. All association dues, assessments, and similar items.				
12		b. All education, training, and similar items.				
13		c. All drafting and/or engineering, unless specifically requested by Owner as additional Work to be				
13 14						
		documented as a Change Order proposal or portion thereof.				
15 16		d. All other items including but not limited to review, coordination, estimating and expediting, field				
16	_	and office supervision, administrative work, etc.				
17	G.	Contract Extension: The necessary amount of time to be added to the contract deadlines for the completion of a				
18		change order.				
19						
20 1.4.	CON	TRACT EXTENSION				
21	A.	The GC shall not assume that every COR will require a Contract Extension. If the GC feels a contract extension is				
22		warranted he/she shall provide sufficient scheduling information that shows how the COR being requested				
23		impacts the critical path of the project.				
24	B.	The City of Madison strongly encourages the GC to explore alternative methods and practices prior to submitting				
25		a COR with a request for contract extension.				
26						
27 1.5.	OVE	RHEAD AND PROFIT MARKUP				
28	A.	Pursuant to the City of Madison Standard Specifications for Public Works Construction, Section 104.7, Extra				
29		Work, the following maximum allowable markups shall be strictly enforced on all change orders associated with				
30		the execution of this contract.				
31		1. The total maximum overhead and profit shall not exceed fifteen percent (15%) of the total costs.				
32		 The total maximum overhead and profit shall be distributed as follows: 				
33						
34		 For work performed and materials provided solely by the General Contractor, fifteen percent (15%) of the total costs. 				
35		b. For work performed and materials provided solely by Sub-contractors and supervised by the				
36		General Contractor:				
37		i. Supervision of the GC, five percent (5%) of the total Sub-contractor cost.				
38		ii. Sub-contractors work and materials ten percent (10%) of the total Sub-contractor cost.				
39						
40 1.6.	PERF	ORMANCE REQUIREMENTS				
41	Α.	The GC shall become thoroughly familiar with this specification as it will identify procedures and expenses that				
42	,	are or are not allowed under the Change Order and Change Order Request process.				
43	В.	The GC shall be responsible for all of the following:				
43 44	ъ.	· · · · · · · · · · · · · · · · · · ·				
		1. Carefully reviewing the CB that is associated with the COR.				
45 46		2. Collecting required supporting documentation from all contractors that quantify the need for a COR.				
46		a. Labor hours and wage rates				
47		b. Material costs				
48		c. Equipment costs				
49	C.	The following shall apply to establishing prices for labor, materials, and equipment costs:				
50		1. Where Work to be completed has previously been established by individual bid items in the contract bid				
51		proposal the GC shall use the unit bid prices previously established.				
52		2. Where Work to be completed was bid as a Lump Sum without individual bid items the GC shall provide a				
53		breakdown of all labor, materials, equipment including unit rates and quantities required.				
54	D.	The completion date is determined by Owner. The schedule, however, is the responsibility of the GC. Time				
55		extensions for extra Work will be considered when a schedule analysis of the critical path shows that the Change				
56						
		extensions for extra Work will be considered when a schedule analysis of the critical path shows that Order Request places the Work beyond the completion date stated in the Contract.				

INSTALLATION LAYOUT: The layout required for the installation of material and equipment, and the

1.7. QUALITY ASSURANCE

- A. The GC shall be responsible for ensuring that all COR supporting documentation meets the following requirements prior to completing the COR form on the Project Management Web Site:

 Sufficiently indicates labor, material, and other expenses related to completing the intent of the CB.
 No costs exceed the usual and customary amount for such items available in the geographical area of the project, and no costs exceed those established under the contract.

 B. The Project Architect (PA), Commissioning Agent (CxA), City Project Manager (CPM), other members of the consulting staff, and city staff shall review all COR requests to ensure that the intent of the CB will be met under the proposal of the COR or request additional information as necessary.

PART 2 - PRODUCTS

2.1. CHANGE ORDER REQUEST FORM

 A. The COR form is located on the Project Management Web Site. The GC shall click the link in the left margin of the project web site opening a new form. Follow additional instructions below in the execution section for filling out the form.

PART 3 - EXECUTION

C.

3.1. ESTABLISHING A CHANGE ORDER REQUEST

 A. Upon receipt of a Construction Bulletin (CB) where the GC believes a significant change in contract scope warrants the submittal of a COR the GC shall do all of the following within ten (10) working days after receipt of the CB:

 1. Review the CB with all necessary trades and sub-contractors required by the change in scope.

 a. Additions or deletions to the contract scope shall be as directed within the CB.b. Additions or deletions of labor and materials shall be determined by the GC based on the

2. Assemble all required back-up documentation for additions and deletions of materials, labor and other related contract costs as previously outlined in this specification.

3. Submit a COR request form on the Project Management Web Site.

directives of the CB

 B. Submitting a COR does not obligate the GC to complete the work associated with the COR nor does it obligate the Owner to approve the COR as a change to the contract.

3.2. SUBMIT A CHANGE ORDER REQUEST FORM

 A. This specification shall provide a subject overview only. In depth instructions shall be provided to the awarded Contractor in a PDF Instructional Manual.

The software will open a new COR form and the GC shall provide all of the following information:

B. The GC shall select the "Submit a COR" link on the Project Management Web Site.

 1. DO NOT perform any calculations on this worksheet, only provide the raw data as requested below. All calculations, totals, and markups shall be computed as described within this specification.

 2. Provide a summary description of the COR request, and justification for any requested time extension to the contract, indicate the number of calendar days being requested for the extension and add any attachments to the form as needed.

Provide all GC self performance data including all of the following:a. Materials description, quantities, and unit costs.

b. Labor hours and rates for all Foremen, Journeymen, and Apprentices by trade.c. Equipment descriptions, quantities, unit costs and rates.

4. Provide all Sub-contractor data including all of the following:

a. Materials description, quantities, and unit costs.

 b. Labor hours and rates for all Foremen, Journeymen, and Apprentices by trade.c. Equipment descriptions, quantities, unit costs and rates.

5. Ensure all calculations performed by the form have been completed correctly. Contact the CPM directly if you suspect an error before hitting the save button.

C. At any time after creating a COR you must at a minimum click "Save as Draft" to save your work.

 D. When all data has been entered and verified click on the "Submit COR" button. This will kick off the COR Review and Approval process.

1	3.3.	CHA	NGE ORDER REQUEST REVIEW, APPROVAL, AND PROCESSING
2		A.	The PA and CPM shall review all CORs submitted by the GC.
3			1. Additional consulting staff and city staff having knowledge of the components of the COR shall review
4			and advise the PA and CPM as to the accuracy of the items, quantities, and associated costs of the COR as
5			directed by the CB.
6			2. The CPM shall review the COR with the Owner.
7		В.	If required the PA and CPM, shall in good faith, further negotiate the COR with the GC as necessary. All
8			amendments to any COR shall be documented within the Project Management Web Site software.
9		C.	After final review of the COR the CPM and Owner may accept the COR.
10		D.	The CPM shall prepare the COR in the form of an official Board of Public Works Change Order for final review and
11			approval as outlined in Section 01 26 63 Change Order (CO).
12		E.	The GC shall not act upon any accepted COR until it has received final approval through the Public Works process
13			as an official CO to the Work unless instructed to do so by the CPM. Proceeding without the final approval of a
14			fully authorized Change Order is at the GC's own risk.
15			
16	3.4.	EMERGENCY CHANGE ORDER REQUEST	
17		A.	In the event Work is required due to an emergency as described in the Contract Documents, the GC must
18			request an equitable adjustment as soon as practicable, and in no case later than ten (10) working days of the
19			commencement of such emergency.
20		В.	The GC shall provide full documentation of all labor, materials and equipment used during the period of
21			emergency as part of the COR submittal.
22			
23			
24			
25			END OF SECTION

1			SECTION 01 26 63			
2 3			CHANGE ORDER (CO)			
4	PART	1 – GI	ENERAL	1		
5	1	l.1.	SUMMARY	1		
6	1	l.2.	RELATED SPECIFICATION SECTIONS	1		
7	1	L.3.	BOARD OF PUBLIC WORKS PROCEDURE	1		
8	PART	2 – PF	RODUCTS	2		
9	2	2.1.	CHANGE ORDER FORM	2		
10	PART	3 - EX	ECUTION	2		
11	3	3.1.	PREPARATION OF THE CHANGE ORDER	2		
12	3	3.2.	EXECUTION OF THE CHANGE ORDER	2		
13						
14	PART	1 – G	<u>ENERAL</u>			
15	1.1.	CLIN	ANA A DV			
16 17	1.1.	A.	MMARY Except in cases of emergency, no changes in the Work required by the Contract Documents may be made			
18		А.	by the General Contractor (GC) without having prior approval of the City Project Manager (CPM).			
19		В.	The City may at any time, without invalidating the Contract and without Notice to Sureties, order changes in			
20			the Work by written Change Order. Such changes may include additions and/or deletions.			
21		C.	The Change Order (CO) is a Board of Public Works (BPW) form that is reviewed and approved by a specific			
22			process.			
23		D.	The CO form is typically made up of multiple Change Order Requests (CORs) and/or Bid Items as appropriate			
24			depending on the type of project and how the contract was bid.			
25		E. All CO documentation shall be processed through the Construction Administration-Change Order Library and				
26			digital workflow on the Project Management Web Site (PMWS).			
27						
28	1.2.		ATED SPECIFICATION SECTIONS			
29		Α.	Section 01 26 13 Request for Information (RFI)			
30		В.	Section 01 26 46 Construction Bulletin (CB)			
31		C.	Section 01 26 63 Change Order Request (COR)			
32		D. E.	Section 01 31 23 Project Management Web Site			
33 34		⊏.	Section 01 91 00 Commissioning			
35	1.3.	BOA	ARD OF PUBLIC WORKS PROCEDURE			
36	2.5.	Α.	The Board of Public Works has a very explicit procedure for the review and approval of all change orders			
37			associated with any Public Works Contract as follows:			
38			1. The Supervisory Chain of the CPM shall review and approve any CO under \$20,000 provided it does not			
39			include either of the following:			
40			a. The CO does not request a time extension to the contract.			
41			b. The CO does not cause the contract contingency sum to be exceeded.			
42			2. The Board of Public Works shall review and approve any CO that requires any of the following:			
43			a. Any CO over \$20,000.			
44			b. Any CO requesting a time extension to the contract regardless of the monetary value of the CO.			
45			c. Any CO that that causes the contract contingency sum to be exceeded.			
46		В.	The Board of Public Works generally meets every other week and only once in August and December. The GC is			
47			cautioned that, under normal scheduling, a CO requiring a BPW review will take a minimum of two (2) weeks to			
48			achieve final approval.			
49 50			1. The City shall not be responsible for additional delays to the Work caused by the scheduling constraints			
50 E1		C	of the Board of Public Works.			
51 52		C.	SPECIAL NOTE: The GC is cautioned to never proceed unless told to do so by the CPM. Only in rare instances			
52 53			may the CPM give a written notice to proceed on a COR without an approved CO. Proceeding without the written notice of the CPM or an approved CO is at the GC's own risk.			
55 54			white hiddle of the crivi of all approved to is at the OC 5 OWITTSK.			
- 1						

July 26, 2022					
PART	2 – PR	ODUCT	<u>s</u>		
2.1.	СНА	NGF OR	RDER FORM		
	CO form is located on the Project Management Web Site. The CPM shall click the link in the left margin of project web site opening a new form. Project information is pre-loaded, the CPM only needs to enter mation and make attachments as needed to complete the form.				
PART	3 - EXI	ECUTIO	<u>N</u>		
3.1.	PRE	PARATIO	ON OF THE CHANGE ORDER		
5.1.	Α.	The 0	CPM shall prepare the required CO forms in the Construction Administration-Change Order Library on the ect Management Web Site as follows: Provide information for all contract information.		
		2.	Provide a general description of the items described within the change order.		
 Provide a general description of the items described within the change order. Provide detailed information for each Item on the CO form. At the option of the CPM he/she may i multiple Change Order Requests each as their own item. 					
		4.	Provide required pricing and accounting information as needed for the item.		
		 Insert attachments of contractor/architect provided information that clarifies and quantifies the CO. Attachments may include but not be limited to material lists, estimated labor, revised details or specifications, and other documents that may be related to the requested change. 			
		6.	Save the final version of the completed CO.		
3.2.	EXEC	CUTION	OF THE CHANGE ORDER		
	A.		saving the CO as described in section 3.1 above the software associated with the Project Management Site shall notify the GC that the CO has been drafted and is ready for review. The GC shall do the following: Open the appropriate CO form in the Construction Administration-Change Order Library and review all		
		2.	items on the form. The GC shall notify the CPM immediately of any errors or discrepancies on the form and shall not sign or save it.		
		2	a. The CPM shall make any corrections as needed, re-save the form, and notify the GC. If/when the GC concurs with the CO form as drafted the GC shall digitally sign the form and click SAVE.		
		the GC digitally signs/saves the CO it shall be routed through the Project Management Web Site for			
		additional review and/or approvals. The CPM shall do the following:			
		1.	Monitor the review process to ensure the software is working properly at each review step.		
		2.	Ensure that proper BPW procedures are executed as needed by the CO approval process.		
			a. Schedule the CO on the next available BPW agenda if required.		
			 i. Attend the BPW meeting to speak on the CO to board members and answer questions. ii. The GC and/or PA may be required to attend the BPW meeting to address specific 		
		2	information as it relates to the Work and/or materials associated with the CO.		
		3. 4.	Monitor final approval and distribution of the CO. Notify the GC that the CO has been completed.		
		4.	NOTITY THE GC THAT THE CO HAS DEEN COMPLETED.		

- 5. Ensure that the CO is posted to the next Public Works payment schedule.
- Verify that the GC's next Progress Payment-Schedule of Values show the CO as part of the contract sum.
- C. Upon final approval of the CO the GC may proceed with executing the Work associated with the CO.

END OF SECTION

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1	SECTION 01 29 76					
2 3	PROGRESS PAYMENT PROCEDURES					
4	PART 1 – GENERAL					
5		1.1.		1		
6		1.2.	RELATED SPECIFICATIO	NS		
7		1.3.	RELATED DOCUMENTS			
8		1.4.	PROGRESS PAYMENT M	IILESTONES		
9		1.5.	PROGRESS PAYMENT S	JBMITTAL4		
10	PART	2 - PR	ODUCTS - THIS SECTION	NOT USED4		
11	PART	3 - EX		4		
12		3.1.		R PROCEDURE4		
13		3.2.		5		
14		3.3.	CITY PROJECT MANAGE	R PROCEDURE5		
15 16	PAR1	1 – G	ENERAL			
17		CLIB	48.4.4.D.V			
18	1.1.	A.	MMARY The General Contract	tor (GC) shall review this and all related specifications prior to submitting progress payment		
19 20		Α.	requests.	tor (GC) shall review this and all related specifications prior to submitting progress payment		
21		В.		quests (Partial Payment-PP) for this contract shall be uploaded digitally by the GC to the		
22		D.	Project Management			
23		C.	, ,	(PA) and City Project Manager (CPM) shall review and amend or approve the PP on the		
24		٠.	Project Management			
25		D.		PP by the CPM, he/she shall forward the PP to the appropriate agencies for BPW		
26			· ·	nd payment processing.		
27						
28	1.2.	REL	ATED SPECIFICATIONS			
29		A.	Section 01 26 63	Change Order (CO)		
30		В.	Section 01 29 73	Schedule of Values		
31		C.	Section 01 31 19	Progress Meetings		
32		D.	Section 01 31 23	Project Management Web Site		
33		Ε.	Section 01 32 16	Construction Progress Schedules		
34		F.	Section 01 32 26	Construction Progress Reporting		
35		G.	Section 01 33 23	Submittals		
36		Н.	Section 01 45 16	Field Quality Control Procedures		
37		I.	Section 01 77 00	Closeout Procedures		
38		J.	Section 01 78 13	Completion and Correction List		
39		K	Section 01 78 23	Operation and Maintenance Data		
40		L.	Section 01 78 36	Warranties		
41 42		M. N.	Section 01 78 39 Section 01 78 43	As-Built Drawings Spare Parts and Extra Materials		
43		ο.	Section 01 78 43	Demonstration and Training		
44		0.	Section 01 79 00	Demonstration and Training		
45	1.3.	REL	ATED DOCUMENTS			
46		Α.		ents shall be used when evaluating PP requests.		
47				ekly construction progress reports filed since the last payment request.		
48				it that may be required to be submitted for review and approval, as noted by the		
49				listed in Section 1.2 above, or the Progress Payment Milestone Schedule in Section 1.4		
50			below, to ach	ieve a required bench mark of contract progression or contract requirement.		
51			3. Section D – S	pecial Provisions of the Contract Documents.		
52						
53	1.4. PROGRESS PAYMENT MILESTONES					
54		Α.		lity Management has developed the Project Payment Milestone Schedule (Section 1.4		
55				GC in providing required construction specific documentation and general contractual		
56			documentation in a t			
57		В.		nt Milestone Schedule is not an all inclusive list. Multiple agencies review progress payment		
58	requests and contract closeout requests. Missing, incomplete, or incorrect documentation for any agency may					

- be a cause for not processing progress payments. It shall be the sole responsibility of the Contractor for providing documentation as required or requested to the appropriate agencies.
- C. The milestone schedule is based on the contract total sum and shall be valid for most contracts. Milestone submittals will be required with whatever progress payment hits the percentage of contract total indicated in the schedule.
- D. The CPM shall review the milestone schedule with each progress payment request and at his/her option may elect to hold processing the progress payment until such time as the contractor has met the requirements for providing construction specific documentation.
- E. It shall be the General Contractors responsibility to comply with all BPW Contract Administration requirements and related deadlines as outlined in the Award Letter, Award Checklist, and Start Work Letter.
- F. Section D Special Provisions, of the Contract Documents, shall be used to determine partial payments of certain bid items where applicable.

Progress Payment (PP) Milestone Schedule						
Milestone Description	Due Before	Remarks				
Workforce profiles Best Value Contracting Documentation Sub-contractors prequalification approval & Affirmative Action plans Other as may be required	PP-1, or start work as applicable	 For GC and Sub-contractors before PP-1 regardless of scheduling Sub-contractors (if applicable), due 10 days before they may start work Sub-contractors (if applicable), due 10 days before they may start work 				
Required Construction Submittals/Administrative Documents	PP-1	References Specification 01 31 23 Specification 01 32 19 Specification 01 74 19 Specification 01 77 00 Specification 01 78 36				
Construction Progress Milestones • Early submittals, per submittal schedule • Detailed Contract Schedules	PP-1	See specifications for specific requirements • Specification 01 32 19, Examples: concrete mix, structural steel, products with long lead times • See Specification 01 32 16				
General Construction Progress Requirements are all up to date Progress Schedules Submittals/Re-submittals (ongoing) Progress Reporting LEED Documentation Waste Management documentation QMOs are being addressed and closed Progress Cleaning As-Built Drawings * All of the above are being update	Each future PP ed on the Project	Verified with each Progress Payment Request Specification 01 32 16 Specification 01 33 23 Specification 01 32 26 All specifications with LEED documentation requirements Specification 01 74 19 Specification 01 45 16 Specification 01 74 13 Specification 01 78 39 Management Web Site as required				
BPW Contract Administration Documentation • Weekly payroll reports • Best Value Contracting Reports	25% CT or PP 2	See 1.4.E above. This progress payment will be with held by BPW for any missing contractual documentation.				

Milestone Description	Due Before	stone Schedule Remarks
SBE Reports		
·		
onstruction Progress Milestones Construction/Contract Closeout Meeting #1 Submittals/Re-submittals complete	50% CT	Specification 01 31 19Specification 01 33 23
peration and Maintenance (O & M) drafts	60% CT	Specification 01 78 23
construction/Contract Closeout Meeting #2 Construction closeout checklist	70% CT	Specification 01 31 19Specification 01 77 00
PW Contract Administration Documentation Request Finalization Review from BPW	80% CT	This is a recommendation to the GC and is not a requirement of this PP. • Specification 01 77 00
Operation and Maintenance (O & M) finals, accepted All major QMO issues resolved As-Built Drawings, Division Trades ready for GC review	80% CT	 Specification 01 78 23 Specification 01 45 16; Items that could prevent occupancy Specification 01 78 39
Regulatory Inspections completed All QMO reports closed Demonstration and Training completed Attic Stock completed Final Cleaning	90% CT	Contractor to determine the proper order of completion: Governing ordinances and statutes Specification 01 45 16 Specification 01 79 00 Specification 01 78 43 Specification 01 74 13
Construction Closeout Procedures: Letter of Substantial Compliance sent to BI and DHS as needed Certificate of Occupancy issued As-Built Drawings, finals, accepted City Letter of Substantial Completion Warranty letters dated and issued	100% CT	 Specification 01 77 00 Generated/Signed by the Architect Building Inspection Specification 01 78 39 Signed by the City Engineer Specification 01 78 36 ne year warranty.
completion of t	ms begins the o	le year warranty.
PW Contract Administration Documentation Contract Closeout Procedures Construction Closeout has been completed Contractor requests final payment of retainage upon receiving City Letter of Substantial Completion All BPW contractual requirements are verified	Final	 Specification 01 77 00 Contractor must provide any missing BPW Contractual Documentation
vermed		5. W Contractual Documentation

Progress Payment (PP) Milestone Schedule Milestone Description Due Before Remarks NOTE: CT = Contract Total less held retainage							
---	--	--	--	--	--	--	--

1.5. PROGRESS PAYMENT SUBMITTAL

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- A. Each progress payment submittal shall be:
 - 1. Digital in PDF format
 - 2. PDF shall be in color
 - 3. Uploaded to the appropriate Project Management library and properly named per the tutorial instructions provided to the awarded contractor.
- B. Submit all required construction progress documentation to the appropriate Project Management Web Site
- C. In general the following shall apply to all PP requests:
 - 1. Materials or products:
 - a. On order, being shipped, etc. may not be invoiced.
 - b. Received and stored on the project site may be invoiced.
 - c. Being manufactured off site at any location may not be invoiced (example: cabinetry, ductwork, etc.)
 - d. Completed products stored off site locally waiting for delivery to the project site may be invoiced with prior approval by the CPM. All of the following conditions must be met to be allowed:
 - i. Items must be visually inspected by CPM to verify product is complete.
 - ii. Item must be stored inside a compatible structure and the structure and contents must be insured.
 - iii. Contractor is responsible for condition until installation is completed.
 - 2. All labor and equipment, including rental time for the current progress period may be invoiced.
 - 3. Only completed installations may be invoiced to 100% based on the Schedule of Values.
- D. <u>DO NOT</u> submit BPW Contract Administration Documentation for review with Progress Payment Requests, submit them directly to the correct agency and in the correct format as instructed from information in your BPW Contract Award Packet instructions.

PART 2 - PRODUCTS - THIS SECTION NOT USED

PART 3 - EXECUTION

3.1. GENERAL CONTRACTOR PROCEDURE

- A. The GC shall fill out the City of Madison Application and Certificate of Payment cover sheet as follows:
 - 1. The GC shall not change any pre-printed information and shall not write in the box that indicates previous progress payments.
 - 2. The GC shall sign and date the form where indicated.
 - 3. The GC shall provide the dates from and to for the PP being requested.
 - 4. The GC shall provide the list of all contractors/sub-contractors that were actively working during the dates indicated above.
 - a. All contractors/sub-contractors named must be in compliance with all City requirements (Prequalified, Affirmative Action Plan on file, etc). The PP will be held and not processed by the City of Madison until all contractors/sub-contractors are in compliance.
 - b. <u>Do not</u> list the names of suppliers or manufacturers, doing so will slow down processing and require a re-submittal of the paperwork.
- B. The General Contractor (GC) shall scan all of the documents listed below in the order shown, save the scan as a single PDF file for each PP request.
 - 1. City cover sheet Application and Certificate for Payment
 - 2. City tabulation sheet(s)
 - 3. Any miscellaneous documents that may be requested as backup documentation for the pay request.
 - a. Lien waivers are not required and shall not be submitted.
 - b. Do not provide contractual administrative documents such as pay reports with pay requests.
 - c. Do not supply progress deliverables with pay requests.
- C. Upload the pay request PDF to the Contract Documents-GC Partial Pay Apps library on the Project Management Web Site

1			
2	3.2.	NOT USED	
3			
4	3.3.	CITY PROJECT MANAGER PROCEDURE	
5 6		The CPM shall review all documents submitted by the GC ensure the PP request accurately reflects the work completed to date.	
7 8		 The CPM may elect to hold processing of any progress payment pending submittal of required progress payme milestones. 	nt
9 10		When verified, the CPM shall digitally sign the City Cover Sheet and forward the required documentation to the appropriate City agencies for further processing of the payment request.	e
11		D. The CPM shall add a scanned copy of any documents indicating the PP request processing was completed to the	ıe
12		PMWS.	
13			
14			
15			
16		END OF SECTION	
17			

1 2					SECTION 01 31 13 PROJECT COORDINATION
3	D.4.D.T		ENIED 41		
4					
5 6		L.1. L.2.			
7		l.2. l.3.			NS
8		L.4.			R PERFORMANCE REQUIREMENTS
9		L.5.			FORMANCE REQUIREMENTS
10					N NOT USED
11					N NOT USED
12	PART 1 – GENERAL				
13 14	PARI	<u>1 – G</u>	ENEKAL		
15	1.1.	SUI	MMARY		
16 17		A.			covers many areas within the execution of the Contract Documents and the requirements on are applicable to all contractors executing the Work of this contract.
18		В.			ovides general information regarding project coordination for the General Contractor and all
19				•	contractors shall be familiar with project coordination requirements and responsibilities
20					within these Contract Documents.
21		C.			tor shall at all times be responsible for the project, project site, and execution of the
22			Contra	act Documents	•
23					
24	1.2.	REL	ATED SPE	CIFICATIONS	
25		A.		n 01 29 76	Progress Payment Procedures
26		В.		on 01 31 19	Progress Meetings
27		C.		on 01 31 23	Project Management Web Site
28		D.		on 01 32 16	Construction Progress Schedules
29		Ε.		on 01 32 19	Submittals Schedule
30		F.		on 01 33 23	Submittals Field Quality Control Procedures
31 32		G. H.		on 01 45 16 on 01 60 00	Field Quality Control Procedures Product Requirements
33		п. I.		on 01 77 00	Closeout Procedures, including all specifications referenced therein
34		1.	Sectio	11017700	closeout Frocedures, including an specifications referenced therein
35	1.3.	GFI	NFRAI RFO	QUIREMENTS	
36		Α.			al requirements shall be applicable to all contractors:
37			1.		ith the Owner, all authorized Owner Representatives, Project Architect and all consultants of
38				the Owner.	,
39			2.	Materials, pre	oducts, and equipment shall be new, as specified and to industry standards except where
40				otherwise no	ted.
41			3.	Labor and wo	orkmanship shall be of a high quality and to industry standards.
42		В.	Existir	ng conditions:	
43			1.	Verify all exis	ting conditions noted in the contract documents with actual field locations. Verify
44					sizes and locations, of structural, equipment, mechanical and utility components.
45			2.		consistencies, errors, omissions, or code violations in writing to the General Contractor (GC)
46			_	immediately.	
47			3.		rinconsistencies, errors, omissions on the GC As-Built record drawings immediately for
48		_		future refere	
49		C.		act Documents	: ection D – Special Provisions, Section 104.2 "Intent and Coordination of Contract
50 E1			1.		·
51 52					the contract documents are complimentary to each other to form a complete set of ncluding plans, specifications and other exhibits.
53			2.		Documents are intended to include everything necessary to perform the work. Every item
54			۷.		on to be specifically mentioned, shown, or detailed.
55					t where specifically stated all systems and equipment shall be complete, installed, and fully
56				opera	

1 2				b. If a conflict exists within the contract documents the contractor shall furnish the item, system, or workmanship of the highest quality, largest, largest quantity, or most closely fits the intent of the
3				contract documents.
4				c. Manufacturers recommended installation details shall be verified and used prior to installation of
5		_	_	products and equipment so as to not void warranties.
6		D.		rs and Omissions
7			1.	No Contractor shall take any advantage of any apparent error or omission in the construction documents
8			2.	The City of Madison shall be permitted to make such corrections and interpretations as may be deemed
9		_	_	necessary for the fulfillment of the intent of the construction documents.
10		E.		ers Representatives
11			1.	All contractors shall be familiar with various Owner Representatives having Quality Management
12				responsibilities for the duration of this project including but not limited to the following:
13 14				 Owner, the designated representative of the City Agency that will occupy the project upon completion.
15 16				 City Project Manager, responsible for all day to day decisions regarding the execution and performance of this Public Works Contract.
17				c. Consulting City Staff, responsible for providing consulting services to the Owner and City Project
18				Manager, also responsible for Quality Management of the construction documents.
19			2.	Owner Representatives shall be attending progress meetings, pre-installation meetings, performing or
20				being present for final testing and acceptance and quality management reporting during the execution of
21				the contract documents as outlined in other specifications.
22				
23	1.4.	GEN		ONTRACTOR PERFORMANCE REQUIREMENTS
24		A.		me the responsibility for all Work specified in the Contract Documents except where specifically identified
25				e performed by the Owner or other contractor separately hired by the Owner.
26			1.	Coordinate all work by Owner, equipment provided Owner, or contractor hired by the Owner into the
27		_		project schedule.
28		В.		ide all construction management responsibilities as specified in other Division 1 specifications including but
29				imited to:
30			1.	Scheduling of work
31			2.	Coordination of work between other Trades and Sub-contractors
32			3.	Construction administration and management
33			4.	Site layout, cleanliness, and protection of completed work/stored materials
34			5.	Waste Management
35 36		C.	6.	Quality Assurance and Quality Control Diggers Hotline and private utility locating companies to accurately locate all public and private utilities on
37		C.		property as needed. The GC is responsible for any repair or replacement to any public or private utility
38				aged during the execution of the Work
39		D.		ort any inconsistencies, errors, omissions, or code violations in writing to the Project Architect immediately.
40		υ.		re to report inconsistencies prior to beginning work shall indicate that the GC accepted all existing
41				itions.
42		E.		GC shall be responsible for assigning work and related responsibilities where the Contract Documents may
43				clearly state who is responsible for providing the work, material, or product.
44		F.		ide construction management oversight of all items described in Section 1.5 below.
45		• •		ade constitución management eversigne er an teems accordes an ecolon 110 sector.
46	1.5.	SUB-	-CONTR	ACTOR PERFORMANCE REQUIREMENTS
47		A.		imiliar with all of the contract documents as they pertain to your Work, adjacent work and the overall
48				ress of the project.
49			1.	All Sub-contractors shall be familiar with all Division 1 specifications as they may apply to progress,
50				progress payments, quality control construction management, and closeout of the contract.
51		В.	Coor	dinate your Work with all adjacent work and existing conditions.
52			1.	Perform your work in proper sequence according to the GC's project schedule and in relation to the work
53				of other trades.
54			2.	Notify other sub-contractors and trades whose work may be connected to, combined with, or influenced
55				by your work and allow them reasonable time and access to complete their work.
56			3.	Join your work to the work of others in accordance with the intent of the Contract Documents.
57			4.	Order materials and schedule deliveries to facilitate the general progress of the Work.

1 2	C.	Cooperate with all other trades to facilitate the general progress of the work. This shall include providing every reasonable opportunity for the installation of work by others and the storage of their materials and equipment.
3		1. In no case shall any contractor exclude from the premises or work any Sub-contractor or their employees
4		2. In no case shall any contractor interfere with the execution or installation of Work by any other Sub-
5		contractor or their employees.
6	D.	Arrange your work, equipment, and materials and dispose of your construction waste so as to not interfere with
7		the work or storage of materials of others.
8	E.	Coordinate all work as indicated during pre-installation meetings with Owner Representatives, the GC and other
9		trades. Any work improperly coordinated shall be relocated as designated by the Owner Representative at no
10		additional cost to the City.
11		
12	PART 2 - PRO	DDUCTS – THIS SECTION NOT USED
13		
14	PART 3 – EXI	ECUTION – THIS SECTION NOT USED
15		
16		
17		
18		END OF SECTION
19		

			SECTION 01 31 19 PROJECT MEETINGS					
			· · · · · · · · · · · · · · · · · · ·					
PART	1 – G	ENERAL.						
	1.1.		RY					
	1.2.	RELATE	SPECIFICATIONS					
	1.3.	PROJEC	MEETING TYPES					
	1.4.		REQUIREMENTS					
PART 2 – PRODUCTS – NOT USED IN THIS SECTION								
PART	3 - E)							
	3.1.		STRUCTION MEETING					
	3.2.		MANAGEMENT WEB SITE – TUTORIAL MEETING					
	3.3.		JCTION PROGRESS MEETINGS					
	3.4.		ALLATION MEETINGS					
	3.6		TRACT CLOSEOUT MEETINGS					
	3.7	OTHER	PECIAL MEETINGS					
<u>PART</u>	1-6	ENERAL						
1.1.	SUI A.	MMARY The r	urnose of this specification is to identify various project related meetings and the responsible parties for					
	н.	-	rpose of this specification is to identify various project related meetings and the responsible parties for allowed allowed.					
	В.		pecification is not intended to be inclusive of all meeting types or a complete list of required meetings.					
	Б. С.		pecification is not intended to be inclusive of all meeting types of a complete list of required meetings.					
	C.		nd his/her sub-contractors.					
		(GC)	id filisyfier sub-contractors.					
1.2.	RFI	ATED SP	CIFICATIONS					
	A.	01 31						
	В.	01 32						
	C.	01 43						
			·					
1.3.	PR	OJECT ME	TING TYPES					
	A.	The f	llowing project meeting types may be used but not limited to the following					
		1.	Preconstruction Meeting					
		2.	Project Management Web Site – Tutorial Meeting					
		3.	Construction Progress Meetings					
		4.	Pre-installation Meetings (including mock-up review meetings)					
		5.	Weekly Trade Meetings					
		6.	Special Meetings					
1.4.			QUIREMENTS					
	A.		sentatives of Contractors, Subcontractors, and suppliers attending meetings shall be qualified and					
		autho	rized to act on behalf of the entity each represents.					
PART	7 2 – P	RODUCT	– NOT USED IN THIS SECTION					
PART	3 - E	KECUTIO						
3.1.	PRI	CONSTR	CTION MEETING					
J	Α.		execution of the Contract the City Project Manager (CPM) shall schedule and conduct the Preconstruction					
			ng at the Owner's facilities. The CPM shall coordinate the meeting agenda with the GC Project Manager.					
	В.		PM shall be responsible for the final agenda.					
	C.		PM shall take notes on the meeting and post completed meeting minutes.					
	D.		lance shall be required by all of the following:					
	٥.	1.	Owner Representative(s)					
		2.	Applicable sub consultant(s)					
		2. 3.	General Contractor and applicable subcontractors and suppliers					
		3. 4.	City Quality Management Staff					
		→.	City Quanty Management Stan					

1			5.	Others, as may be invited for particular agenda items.
2		E.	Topics	s of the Preconstruction Meeting shall include but not be limited to the following:
3			1.	Staff and contractor introductions
4			2.	Completion Date
5			3.	BPW Administrative requirements and due outs
6				a. Small Business Enterprise (SBE) (if applicable)
7				b. Certified payroll forms
8				c. Workforce profiles
9				d. Best Value Contracting (BVC)
10			4.	General Facility Management Division 1 Specifications, including:
11			4.	
12				
				, and the second
13				
14			_	d. Section 01 77 00 Closeout Procedures
15			5.	Project Meeting scheduling
16				a. Section 01 31 19 Project Meetings
17			6.	Construction Schedule
18			7.	Commissioning Process
19 20	3.2.	PR∩	ΙΕСΤ ΜΔ	NAGEMENT WEB SITE – TUTORIAL MEETING
21	3.2.	Α.		PM shall schedule and conduct a tutorial presentation of the PMWS prior to the beginning of construction
22		В.		PM shall be responsible for the final agenda, there will be no minutes.
23		C.		equired attendance list in 3.1.D. above shall apply except for City Staff in items 1 and 4 who are already
		C.		
24		D		ar with the PMWS system.
25		D.		ecommended that all contractors bring their lap top, tablet or other internet capable device with them
26 27			includ	ling a fully charged battery and internet connection devices as necessary.
28	3.3.	CON	STRUCTI	ON PROGRESS MEETINGS
29	0.0.	Α.		neral all of the following shall apply:
30			1.	Representatives of Contractors, Subcontractors, and suppliers attending meetings shall be qualified and
31				authorized to act on behalf of the entity each represents.
32			2.	The attendance shall be from the required attendance list in 3.1.D. above.
33		В.		ity Project Manager (CPM) shall:
34		ъ.	1.	Schedule and conduct all construction progress meetings biweekly or more frequently as required.
35			2.	Prepare agenda for meetings including, but not limited to the following:
36 36			۷.	
30 37				•
				b. Current Schedule, including review of the critical path and 6-week look ahead schedule
38				c. Status of project related documentation (Submittals, RFIs, CBs, etc.)
39				d. Quality Observation Log and status of correction of deficient items
40 44				e. Project questions and issues from meeting attendees
41				f. BPW Administration Check
42				g. Other as needed
43				h. Status of CORs and COs to be reviewed outside the standard progress meeting time.
14			3.	Make physical arrangements for meetings.
45			4.	CPM to post meeting agendas to the appropriate libraries on the Project Management Web Site (PMWS
46				no less than two (2) working days prior to the scheduled meeting. Notify all required attendees,
47				applicable parties to the contract, and others affected of the posted meeting agenda.
48			5.	Preside at meetings.
49			6.	Route a meeting attendance roster for attendees to sign-in on.
50			7.	CPM to record the minutes of the meeting; include significant proceedings and decisions. Post meeting
51				minutes to the PMWS no more than two (2) working days after the completed meeting. Meeting
52				minutes shall include a scanned copy of the attendance sign-in sheet. Notify all required meeting
53				attendees, applicable parties to the contract, and others affected by decisions made at the meetings.
54			8.	The above requirements do not apply to GC/sub-contractor meetings.
55				·
56	3.4.	PRE-	INSTALL	ATION MEETINGS

A.

57

58

The GCPM shall schedule and conduct all pre-installation meetings, including mockup reviews, before each

construction activity that requires coordination with other trades.

1		B.	The GCPM shall be responsible for the final agenda and meeting minutes.	
2		C.	The GCPM will work with all concerned parties to resolve issues as needed and submit RFI's if necessary.	
3		D.	Required attendance shall be from the list in 3.1.D. above and shall be personnel having a stake in the outcome	е
4			of the installation or knowledge of the system being installed.	
5		E.	In the event the Contractor installs equipment or materials without a pre-installation meeting the Contractor	
6			shall be solely responsible for removing, replacing, repositioning materials and equipment as instructed by the	:
7			City Project Manager at no additional cost to the City.	
8				
9	3.6	PRE-	ONTRACT CLOSEOUT MEETINGS	
10		A.	Two (2) Pre-contract Closeout Meetings shall be held to review the closeout procedures, requirements, and	
11			contract deliverables.	
12			1. Pre-contract Closeout Meeting #1 shall be scheduled prior to the 50% Progress Payment Request is being	ng
13			requested. This meeting shall discuss items such as closing out QMO reports, providing O&M drafts an	d
14			finals, payroll and Affirmative Action documentation, and other contract deliverables.	
15			2. Pre-contract Closeout Meeting #2 shall be scheduled prior to the 80% Progress Payment Request is being	ng
16			requested. This meeting shall discuss, but not be limited to, the status of scheduling final regulatory	
17			inspections, cleaning up outstanding QMO's, demonstration and training, attic stock; and finalization	
18			review of payroll and other related documents.	
19		B.	The GCPM shall schedule, coordinate, and make physical arrangements for both meetings.	
20		C.	All of the following shall be required to attend both meetings:	
21			1. The GCPM and the GC Field Superintendent	
22			2. All Subcontractor Project Managers regardless of the current status of their work.	
23			a. The GCPM may excuse a Subcontractor PM if he is confident that all contractual requirements f	or
24			closeout by the subcontractor have been completed and/or delivered to the GCPM. The list of	
25			attendees shall be reviewed and agreed upon with CPM ahead of the meeting.	
26			b. At the option of these project managers the field supervisors may also attend.	
27			3. The Project Architect and at least one design consultant from each discipline represented by the plans	
28			and specifications to address open QMOs, final tests, reports, etc.	
29			4. The Owner	
30			5. The CPM	
31			6. Quality Management staff as needed to address open QMOs, final tests, reports, etc.	
32		D.	The CPM shall publish an agenda and chair the meeting.	
33				
34	3.7	отні	R SPECIAL MEETINGS	
35		A.	The Contractor shall schedule special meetings per the requirements of the LEED Specification, the Project	
36			Quality Management Plan, the Commissioning Plan and as indicated by other specifications.	
37		B.	Special meetings include but are not limited to the following:	
38			1. Waste Management Conference	
39			2. Equipment start up meetings	
40			3. Testing and balancing meetings	
41			4. Commissioning meetings	
42			5. Other meetings as necessitated by the contract documents	
43			,	
44				
45				

END OF SECTION

				SECTION 0 PROJECT MANAGEI			
PART	1 – GE	NERAL					1
1	l.1.	GENERAL DI	ESCRIPTION				1
1	l.2.	SHAREPOIN	T PROCEDURE OVERV	'IEW			1
1	l.3.	RELATED SP	ECIFICATIONS				2
PART	2 - PR	DDUCTS					2
2	2.1.	SHAREPOIN	T SYSTEM RELATED P	RODUCTS			2
PART	3 - EXE	ECUTION					2
3	3.1.	POST BID-O	PENING				2
3	3.2.	POST PRE-C	ONSTRUCTION MEET	NG			3
<u>PART</u>	1 – GE	NERAL					
1.1.	GEN	ERAL DESCR	IPTION				
	A.	The City o	of Madison (CoM) has	established a web b	ased Project Manag	ement Tool (PMT) usir	g a Microsoft
		product c	alled SharePoint (SP).			, ,	
	В.	The softw	vare is used througho	ut the design, constr	uction and warranty	process of major rem	odels and new
		construct	ion projects executed	as a City of Madisor	n, Board of Public W	orks project.	
	C.	Initially d	eployed in mid-2013,	the PMT software ha	as been successfully	deployed on several p	rojects, and we
		continue	to modify/update/en	hance the PMT on a	regular basis.		
1.2.	SHA	REPOINT PR	OCEDURE OVERVIEW	,			
	Α.				nt & Form Libraries a	and Data Lists that assi	st in performing
			•			ng the use of surface m	
		attachme		J			,
		1. Do	ocument libraries sto	e a wide variety of d	locuments in many o	different formats inclu	ding but not limited
			Word, Excel, PDF, ph	•	•		o .
		2. Da	ata Lists contain cons	olidated data informa	ation that can be ge	nerated and stored for	further use. Punch
			sts and Warranty issu				
		3. Fo	orm Libraries are prim	arily used when a sp	ecific work flow pro	cess is needed. The fo	rm acts as the
		cc	over letter. An examp	le of this would be th	ne Submittal Review	Process.	
		4. Li	braries are controlled	by Permission Group	ps and Permission Le	evels.	
	В.	The follow	wing libraries and sub	-libraries on the PM\	NS are provided for	specific workflows and	l contract
		documen	tation. Related speci-	fication numbers are	in "()" if applicable		
			1			1	
		ontract	Construction	Construction	LEED	Quality Control	Construction
	Do	cuments	Administration	Progress	Documentation		Closeout
		ial Pay Apps	Change Order	Schedules	LEED Documents	Regulatory	Misc Closeout
(01 29 7	76)	Requests (COR	(01 32 16)		Inspections	Documents
			Form) (01 26 57)				
	Constru		Change Orders (CO	Progress Meetings	Waste	Commissioning	O & M Manuals
'	Docume	ents	Form) (01 26 63)	(01 31 19)	Management (01 74 19)	Checklists	(01 78 23)
L	Boaul-+	0.01	<u> </u>	Daily Journal (D)	(01 /4 13)	Custom Dorforms	Draduat Marrantin
	Regulat Docume	•	Construction Rulletins (CR Form)	Daily Journal (DJ Form) (01-32-26)		System Performance	Product Warranties /Guarantees

Contract	Construction	Construction	LEED	Quality Control	Construction
Documents	Administration	Progress	Documentation		Closeout
					Warranty Issues (WI Form) (01 78 23)

- C. A tutorial document on the web based PMT will be provided to the General Contractor (GC) who is awarded the contract. Additional training will be provided as needed for the GC and Sub-Contractors (SC) by the CoM.
- D. The PMT has predefined work flows that channel automated alerts as documents are uploaded, reviewed, and completed. These workflows are designed for inbound information from the contractor as well as outbound information from the Architectural/Engineer consultant and the Owner.
- E. The GC will be required to receive email notifications, access the internet to review related documentation and be able to upload/download documentation to the various project libraries.
- F. The SC's will be required (at a minimum) to receive email notifications and access the internet to review related documentation. Prior to setting up the final PMT the GC and CPM shall meet to review all SP workflows, the GC will determine to what level over the minimum requirements the SC's will be involved.

1.3. RELATED SPECIFICATIONS

A. The following specification sections are directly related to the CoM PMT system.

	0 1	
1.	01 25 13	Product Substitution Procedures
2.	01 26 13	Request for Information (RFI)
3.	01 26 46	Construction Bulletins (CB)
4.	01 26 57	Change Order Request (COR)
5.	01 26 63	Change Order (CO)
6.	01 29 76	Progress Payment Procedures
7.	01 31 19	Project Meetings
8.	01 32 16	Construction Progress Schedules
9.	01 32 26	Construction Progress Reporting
10.	01 32 33	Photographic Documentation
11.	01 33 23	Submittals
12.	01 45 16	Field Quality Control Procedures (Owner)

PART 2 - PRODUCTS

2.1. SHAREPOINT SYSTEM RELATED PRODUCTS

- A. SharePoint is a Microsoft Windows based software that requires no additional software installation, hardware or other special requirements/applications for the users. There are no costs associated with the use of this system.
- B. Currently the CoM is using SharePoint 2010.
 - 1. SharePoint works best if the user's computer is running Windows versions 7 through 8.1.
 - 2. SharePoint works best when used with Internet Explorer versions 9 11 (32 bit).
 - a. At this time SharePoint is not compatible with other internet browsers such as Fire Fox, Google Chrome, and Safari.

PART 3 - EXECUTION

3.1. POST BID-OPENING

- A. After bids have been opened, a successful bidder has been determined, and bid acceptance procedures have been initiated the City Project Manager (CPM) will contact the GC to provide the following information.
 - Project Management Software Tutorial. This tutorial is in a PDF printable format with screen shots and associated instructions on how to access and use the PMT.
 - a. Tutorial instructions will include but not be limited to the following:
 - i. Descriptions of various libraries, documents, and forms that will be used throughout the construction project.
 - ii. Uploading procedures for various types of documents including standardized naming conventions.

1			2.	A blank Project Directory in an Excel spread sheet format. The contractor shall provide the following
2				information for GC and SC staffs as indicated on the spreadsheet. This will generally be the Project
3				Manager for the GC as well as the Sub-contractors and the GC Site Supervisor.
4				a. Last Name, First Name
5				b. Company Name
6				c. Email address (valid, work related)
7				d. Work Phone Number (required, include area code)
8				e. Cell Phone Number (not required, include area code)
9			3.	The GC shall provide the above information for all SC's where the GC is not self-performing the work.
10			4.	The GC may provide project foreperson information for work being self-performed if he/she so desires.
11				
12	3.2.	POST	PRE-CO	ONSTRUCTION MEETING
13		A.	The G	GCPM will return the completed Project Directory spread sheet to the CPM no later than the Pre-
14			const	ruction meeting.
15		В.	The C	CPM is responsible for uploading all project directory data into SharePoint and coordinating with CoM
16			Infori	mation Technology (CoM-IT) for creating the logins and passwords of non-city staff (GC/SC staffs).
17		C.	All G	C/SC staff will be notified through an automated email from CoM IT that logins and passwords are available
18			It is tl	he responsibility of each GC/SC to <u>call</u> the CoM-IT number provided in the email to receive his/her
19			login	/password over the phone. Logins and passwords will not be released via email.
20		D.	Once	the GCPM has received his/her login/password uploading of contract related documents can begin. This
21			would	d include but not be limited to project schedules, submittals, RFI's, and other documents as needed.
22		E.	All wo	orkflows, review of documentation, and general archiving of construction related documentation will be
23			cond	ucted on the PMWS. These documents will generally not be emailed.
24		F.	The f	ollowing documents related to the execution of the contract will not be part of the PMWS:
25			1.	All documentation related to executing the contract, such as:
26				a. Sub Contractors list
27				b. Affirmative Action documentation
28				c. Bonding documentation
29				d. Documentation associated with payroll verification
30				e. Final documentation associated with closing out the contract
31			2.	Any documentation required/generated by ordinance, code or statute, such as;
32				a. Erosion Control inspections
33				b. Building Inspection Department inspections
34				
35				
36				
37				END OF SECTION

1 2			SECTION 01 32 16 CONSTRUCTION PROGRESS SCHEDULES					
3 4	PART	· 1 – G	SENERAL					
5		1.1.	SCOPE					
6		1.2.	RELATED SPECIFICATIONS					
7	PART 2 – PRODUCTS – THIS SECTION NOT USED							
8			XECUTION					
9		3.1.	OVERALL PROJECT SCHEDULE (OPS)					
10		3.2.	6 WEEK LOOK-OUT SCHEDULES (LOS)					
11		3.3.	PROJECT MANAGEMENT WEB SITE (PMWS)					
12		0.0.	1103201 11/11/102111211 11/20 01/2 (1 11/10)					
13	PART	1-6	GENERAL CONTROL OF THE PROPERTY OF THE PROPERT					
14								
15	1.1.	SCO	OPE					
16		A.	This specification is to identify various project related schedules associated with indicating construction progress					
17			and outlook. The following schedules are the responsibility of the General Contractor (GC).					
18			1. Overall Project Schedule					
19			2. 6 Week Look-out Schedule					
20		В.	This specification is not intended to include internal schedules generated by the contractors during their					
21			planning and execution of the contract.					
22								
23	1.2.	REI	LATED SPECIFICATIONS					
24		Α.	Section 01 29 76 Progress Payment Procedures					
25		В.	Section 01 31 23 Project Management Web Site					
26		C.	Section 01 31 19 Progress Meetings					
27		D.	Section 01 74 13 Progress Cleaning					
28		Ε.	Section 01 77 00 Closeout Procedures					
29		F.	Section 01 78 23 Operation and Maintenance Data					
30		G.	Section 01 78 36 Warranties					
31		Н.	Section 01 78 39 As-Built Drawings					
32		I.	Section 01 78 43 Spare Parts and Extra Materials					
33		J.	Section 01 79 00 Demonstration and Training					
34		K.	Other specification within the construction documents that may indicate the need for scheduling any event with					
35			Owner, Project Architect, Owner Representatives, including any owner provided equipment.					
36	DADT		DODUCTS THIS SECTION NOT USED					
37 38	PARI	2 - P	PRODUCTS – THIS SECTION NOT USED					
39	PART	[3_F	XECUTION					
40	LANI	J L	ALCO HON					
41	3.1.	οv	ERALL PROJECT SCHEDULE (OPS)					
42		A.	The GC shall prepare an OPS that covers the duration of the contract from the pre-construction meeting through					
43			the end of construction to final contract closeout.					
44			1. The GC shall review Specification 01 77 00 Closeout Procedures to become familiar with definitions,					
45			differences, and requirements for closing out the construction and contract including the association wit					
46			progress payments.					
47		В.	The GC shall provide copies and lead a discussion on the OPS during the pre-construction meeting.					
48		C.	The OPS shall indicate start and end dates of each task associated with the project.					
49		D.	The OPS shall clearly indicate the critical path of the project.					
50		E.	The GC shall update the OPS as often as necessary during the duration of the project. Updates will be briefed as					
51			needed during bi-weekly progress meetings.					
52								
53	3.2.	6 V	VEEK LOOK-OUT SCHEDULES (LOS)					
54		A.	The GC shall prepare the initial LOS to include detail of daily tasks for the first six (6) weeks of construction in					
55			depth for the Pre-construction meeting. The LOS shall be compatible and complimentary to the OPS.					
56		В.	The GC shall provide copies and lead a discussion on the LOS during the pre-construction meeting.					
57		C.	The LOS shall indicate start and end dates of each major task, associated related sub-tasks, and required paralle					
58			or pre-requisite tasks required to complete the major task on time.					

1		D.	The LOS shall also include identifying and scheduling such events as:
2			 Pre-installation meetings and mock-up review meetings.
3			2. Quality management reviews of installations before they are covered.
4			3. Owner provided equipment as designated by the contract documents.
5			4. Work by others as designated by the contract documents.
6			5. Critical submittal dates.
7		E.	The GC shall update the LOS prior to each bi-weekly progress meeting to indicate the next 6 weeks of scheduled
8			work. Updates will be briefed during each bi-weekly progress meeting.
9			
10	3.3.	PROJ	JECT MANAGEMENT WEB SITE (PMWS)
11		A.	The GC shall upload all project schedules and updates to the PMWS in an original PDF version of the scheduling
12			document. Scans will not be permitted.
13			
14			
15			END OF SECTION
16			

1 2			SECTION 01 32 19 SUBMITTALS SCHEDULE
2 3			SODIVITIALS SCHEDULE
	PART 1	1 – GI	ENERAL
5		.1.	SUMMARY
6	1	.2.	RELATED SPECIFICATIONS
7	1	.3.	RELATED DOCUMENTS
8		.4.	SUBMITTAL DEFINITIONS
9		.5.	SUBMITTAL REQUIREMENTS
)		.6.	ADMINITRATIVE SUBMITTALS
			RODUCTS – THIS SECTION NOT USED
			ECUTION
3		.1.	OVERALL RESPONSIBILITIES OF ALL CONTRACTORS
4	3	.2.	GENERAL CONTRACTORS RESPONSIBILITIES
5	3	.3.	STAFF REVIEW RESPONSIBILITIES
5 7 <u> </u>	PART :	1 – G	<u>ENERAL</u>
3	1.1.	SIIN	MMARY
Ó	1.1.	Α.	The General Contractor shall submit a complete and comprehensive list of all submittals anticipated during the
Ĺ		۸.	execution of this contract.
2		В.	The GC shall include the Administrative submittals identified in item 1.5 below and shall be required to up load
3			them to the Project Management Web Site.
		C.	The initial Submittals Schedule shall be based on the original contract documents used at the time of bidding and
			any posted addenda through awarding of the contract.
		D.	The Submittal Schedule may be appended during the execution of the contract based on amendments to the
,			contract in the form of Change Orders, Construction Bulletins, and other related documents that add, or change
;			the scope of the work.
			·
) ;	1.2.	REL.	ATED SPECIFICATIONS
		A.	Section 01 29 76 Progress Payment Procedures
<u>.</u>		В.	Section 01 31 23 Project Management Web Site
		C.	Section 01 33 23 Submittals
	1.3.	REL.	ATED DOCUMENTS
		A.	The following documents shall be used as the basis for initiating the original Submittals Schedule.
			1. Drawing documents and specifications (including general provisions) as provided with the bid set
			documents and any published addenda.
		В.	The following documents shall be used to amend the submittals schedule as needed during the execution of this
			contract.
			1. Documents associated with revisions or clarifications to number A.1 above after awarding of the
			contract, including but not limited to:
			a. Construction Bulletins
			b. Approved Change Orders
	1.4.		MITTAL DEFINITIONS
		A.	Administrative Submittal: Any submittal that may be required by a Division 1 Specification and as noted in
			Section 1.5 below.
		В.	Critical Path Submittal: Any early submittal that needs a priority review due to early construction use or long
			lead times where a delay could affect the critical path of the construction schedule
		C.	Submittal: Any material, product, equipment, or general requirement as outlined in this and other specifications
			that require a favorable review or acceptance prior to proceeding with procuring the item or proceeding with
			the Work.
	1.5.		MITTAL REQUIREMENTS
		A.	The GC and all Sub-contractors shall review the construction documents including the specifications of their
			individual Division or Trade to compile a complete list of all materials, products, or equipment that will require a
3			positively reviewed submittal to be completed prior to procurement and installation.

1.

a.

b.

c.

d.

Shop Drawings

Assembly Drawings

Engineered Drawings

Product Data

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6			e. F	Product Samples				
7		B. The following items will require an approved submittal, verify with specifications for specific needs and					ns for specific needs and	
8			requirements:					
9		 Contractor certifications for specialized work such as asbestos removal, well drilling, controls, AV 						
10 11	1.6.	A DM	INISTRATIVE SUB	NAITTALC				
12	1.0.	ADIVI			να submittals w	vithin 15 working	days of receipt	of the City of Madison Start Work
13		Α.						gress Payment Number 1.
14								ements with CPM
15				als Schedule, see			-,	
16				/lanagement Plai				
17				t Requirement C	•		7 00	
18				y Checklist, see				
19					•			
20	PART	2 – PR	DDUCTS – THIS SE	CTION NOT USE	<u>D</u>			
21								
22	<u>PART</u>	3 - EXE	<u>CUTION</u>					
23								
24	3.1.	OVEF	RALL RESPONSIBIL					
25		A.						ns within their Divisions of Work
26		_	•	mplete and comp				
27		В.	Each list shall indicate the title of the submittal, the associated specification of the submittal, whether the					
28							ie anticipated da	te the submittal will be provided
29		_		ated date the sub				
30		C.		II be aware that	the <u>goals</u> for si	ubmittal review	by the Architect	staff and City staff will be as
31			follows:		Dath as identifi	ind but the CC fit	رم (۵) در مازنم مار	
32 33				is on the Critical t other submitta			ve (5) working da	ays
34				ral time may be i			or if ro submitts	als are required
35		D.		mat of the Subm				
36		υ.	The general for	mat of the Subm	ittai schedule s	silali be tabulai d	as per tilis exami	oie.
			<u>Title</u>	Specification	Critical Path	Date provided	Date required	<u>Remarks</u>
					(Y or N)			
			rete Mix Design	03 30 00	Υ	Oct 1, 2014	Oct 15, 2014	
		Paint	Draw Downs	09 90 00	N	Jan 2, 2015	Jan 20, 2015	
37								
38	3.2.	GENE	RAL CONTRACTO	RS RESPONSIBIL	ITIES			

Submittals shall include but not be limited to any of the following that may apply:

3.2. **GENERAL CONTRACTORS RESPONSIBILITIES**

- The General Contractor shall be responsible for all of the following: Α.
 - Consolidating all submittal lists from individual contractors into one master list. 1.
 - 2. Reviewing all submitted lists for completeness, timing with the overall contract, etc. The GC shall meet with individual contractors to make changes as necessary.
 - 3. Upload the completed Submittals Schedule to the Submittal Library on the Project Management Web Site for review as SD 003.0. See Specification 01 33 23 Submittals for more information on this procedure.
 - Resubmit the schedule as needed after initial reviews have been completed.
- The GC shall work with other contractors to amend the Submittals Schedule throughout the execution of the В. project based on changes and modifications as needed.
- The GC and Project Architect shall be responsible for reviewing and briefing the submittal schedule and C. submittals status at each bi-weekly construction meeting.

3.3. STAFF REVIEW RESPONSIBILITIES

A. The City Project Manager, consulting staff, Owner, and other city staff will review the Submittal Schedule for completeness per the plans and specifications within their divisions of work. The reviewing staff may provide comments as needed. Some examples might include the following:

WEST BADGER ROAD SALT BARN **CONTRACT 8654 MUNIS 44001**

1		1. Submittal not required
2		2. Provide photos of samples with digital submittal
3		3. Insure one submittal for complete system
4		4. Append the schedule to include
5		5. See Specification <xyz> for additional requirements</xyz>
6	В.	The City Project Manager will finalize review comments regarding the Submittal Schedule. Re-submittal of the
7		submittal schedule may be required.
8		
9		
10		
11		END OF SECTION

1 2			SECTION 01 32 23 SURVEY AND LAYOUT DATA
3			
4			ENERAL
5 6		l.1. l.2.	SUMMARYRELATED SPECIFICATIONS
7		L.Z. L.3.	SURVEYOR QUALIFICATIONS
8		i.s. l.4.	QUALITY ASSURANCE
9		L. 4 . L.5.	EXAMINATION
10			RODUCTS – NOT USED
11			KECUTION
12		3.1.	UTILITY LOCATING
13		3.2.	SURVEY CONTROL AND LAYOUT DATA
14	3	3.3.	TOPOGRAPHIC SURVEYING
15	3	3.4.	SITE SURVEY AS-BUILT
16			
17	<u>PART</u>	1 – G	<u>EENERAL</u>
18			
19	1.1.	SUI	MMARY
20		A.	The purpose of this specification is to set forth the minimal required guide lines to be followed by the General
21			Contractor (GC) and the Land Surveyor (Surveyor) including but not limited to the following:
22			1. Surveyor Professional Requirements
23			2. Horizontal and Vertical Datum Control
24			3. Local Control (if any)
25			4. Electronic File and Data Requirements
26		_	5. As-Built Documentation Requirements
27		В.	When working on any City of Madison project, OSHA standards must be complied with. The Surveyor shall
28		_	provide appropriate traffic control in accordance to the Manual on Uniform Traffic Control Devices (MUTCD).
29		C.	The Surveyor shall be responsible for notifying Diggers Hotline in advance of beginning the field work for this
30 31			contract.
32	1.2.	RFI	ATED SPECIFICATIONS
33	1.2.	A.	Section 01 29 76 Progress Payment Procedures
34		В.	Section 01 31 23 Project Management Web Site (SharePoint)
35		C.	Section 01 33 23 Submittals
36		D.	Section 01 78 39 As-Built Drawings
37		E.	Section 105.9, Survey Points and Instructions, of the City of Madison Standard Specifications for Public Works
38			
39	1.3.	SUF	RVEYOR QUALIFICATIONS
40		A.	The General Contractors, Land Surveyor Sub-Contractor shall meet or exceed the following:
41			1. The Principal Land Surveyor (PLS) shall be licensed to practice in the State of Wisconsin.
42			a. The PLS's license shall be current at the beginning of the contract and the PLS shall maintain an
43			active license throughout the execution of this contract.
44			2. The PLS shall have a minimum of minimum of ten (10) years of field experience on similar projects of
45			scope and size.
46			a. Land Surveyors working under the direction of the PLS shall have a minimum of five (5) years of field
47			experience on similar projects of scope and size.
48		В.	The PLS shall be responsible for checking and verifying all work being performed under the PLS's direction during
49			the execution of this contract. This shall include but not be limited to periodic field checks of equipment and
50			survey data for accuracy and compliance with the contract documents.
51			
52	1.4.		ALITY ASSURANCE
53		A.	The PLS shall do all surveying in City of Madison Datum's as follows:
54			1. All Horizontal Control shall be in the Dane County Coordinates (WISCRS), NAD 83(1997) datum, US
55			Survey foot).
56			2. All Vertical Control shall be in NAVD88(1991).
57			3. Information on PLSS Section Corner Monuments and Tie Sheets can be found on the City Engineering
58			Mapping website http://gis.cityofmadison.com/Madison_PLSS/PLSS_TieSheets.html .

1			
2	1.5.	EXA	AMINATION
3		A.	The PLS shall be responsible for verifying all site data with Certified Survey 13991 (Exhibit C of the Contract
4			Documents).
5		В.	Notify the CPM/CCM immediately if any discrepancies are discovered.
6			
7	PART	2 – PRC	DDUCTS – NOT USED
8			
9	<u>PART</u>	3 - EXE	<u>CUTION</u>
10			
11	3.1.	UTILI	TY LOCATING
12		A.	The GC and/or PLS shall be responsible for notifying Diggers Hotline for all utility locate requests.
13			
14	3.2.	SURV	EY CONTROL AND LAYOUT DATA
15		A.	The GC and PLS are responsible for all survey control and layout data required to perform the work in this
16			contract.
17		B.	All survey work shall be done in the datums noted above and using the PLSS corners identified in CSM 13991.
18			
19	3.3.		GRAPHIC SURVEYING
20		A.	The Surveyor may perform the topographic survey with properly calibrated equipment as follows:
21 22			1. Total station, achieving minimum accuracy for well-defined features of +/- 0.1 feet horizontal and +/-0.04 feet vertical at 95% confidence relative to control. "Well defined features" shall include but not be
23			limited to property irons, pavements, trees, landscaping features, buildings, utility locations, and other
24			permanent features.
25			2. RTK GPS shall be permitted in large open areas, along tree lines, and in brushy areas.
26			2. Att of 5 shall be permitted in large open areas, along tree lines, and in brasily areas.
27	3.4.	SITE S	SURVEY AS-BUILT
28		Α.	See Specification 01 78 39 As-Built Drawings, Section 3.2 for more information on required record site
29			information to be provided prior to contract closeout.
30		В.	The GC shall be responsible for scheduling the PLS to capture locations and depths of all buried utilities prior to
31			any contractor back filing trenches. The Owner may require missing information to be located and surveyed at
32			the GC's expense.
33			
34			
35			
36			END OF SECTION
37			

				SECTION 01 32 26 CONSTRUCTION PROGRESS REPORTING			
DADT	-1 6	ENIEDAL					
				N SECTIONS			
				JALITY ASSURANCE REQUIREMENTS			
	1.3.			NOT USED			
				NOT USED			
	3.1.			1			
	3.2.		CONSTRUCTION PROGRESS MEETINGS				
	5.2.	CONSTR	ROCTION PROGR	ESS IVIEE I IIVOS			
PAR1	Г 1 – G	ENERAL					
1.1.	SUI	MMARY					
1.1.	A.		records of proje	ct activities, resources used, weather conditions, and other information related to the			
		ongo	ing progress of t	he project are extremely important at all levels of Construction Management.			
	В.	Daily	records provide	the base for weekly progress reports and updating progress schedules.			
1.2.	REL	ATED SP	ECIFICATION SEC	CTIONS			
	A.	Secti	on 01 31 19	Project Meetings			
	В.	Secti	on 01 31 23	Project Management Web Site			
	C.	Secti	on 01 32 23	Photographic Documentation			
1.3.	PER		•	TY ASSURANCE REQUIREMENTS			
	A.	The C	General Contract	or (GC) shall be responsible for all Construction Progress Reporting as outlined in this and			
			specifications a				
	В.			daily progress journals in a format of his/her choosing provided it is legible and contains			
				tlined in Section3.1 below.			
	C.	-		ocated in the job trailer and shall be reviewable by the Project Architect or City Project			
		Mana	ager if so request	æd.			
PAR1	Г2 – Р	RODUCT	S - THIS SECTION	N NOT USED			
PAR1	Γ3 - E)	<u>(ECUTIOI</u>	<u>N</u>				
3.1.	cor	NTRACTO	R JOURNAL				
	A.	The C	GC shall maintain	a journal of daily progress on which Work is performed by any employee or entity for			
				nsible. Such reports shall include all relevant data concerning the progress of Work			
				Subcontractors are responsible for and the effect of that activity on the time of			
			rmance of the C				
		1.		may not require weekly journals be kept instead of daily journals. This is at the sole			
				he City Project Manager. A daily journal will generally be required when the contract has a			
				ount of site work. A weekly journal will generally be used when a contract is interior work			
			only.				
	В.	Jourr	nal entries shall b	e made on the Contractor Daily/Weekly Report Form located in the Construction Progress-			
		Daily	Journal Library	on the Project Management Web Site. The form consists of the following areas:			
		1.	Weather; inclu	ude temperature, humidity, precipitation, wind and other related information such as			
			significant sto	rm events, times, and details.			
		2.	Work complet	ed by trade			
		3.	Delays encour	ntered			
		4.	Deliveries rece	eived or delayed			
		5.	Hot issues tha	t need to be addressed			
		6.	Safety issues				
		7.		rogress and upload to the Photo Library on the Project Management Web Site.			
		8.	Other including	ng inspections, testing, etc.			
		9.	Space for atta	ching documents			

1		C.	Contractor Daily/Weekly Report Forms shall be completed and signed by the GC's Job Superintendent or other on-site representative authorized by the GC confirming each such report is current, accurate and complete.
3		D.	If applicable the GC shall include schedules of quantities and costs, progress schedules, wage rates, reports,
4			estimates, invoices, records and other data as requested by the CPM concerning Work performed or to be
5			performed under this Contract if the CPM determines such information is needed to substantiate Change Order
6			proposals, claims, or to resolve disputes.
7			
8	3.2.	CONS	STRUCTION PROGRESS MEETINGS
9		A.	The GC shall provide a verbal summary of the previous two (2) weeks progress reports at each bi-weekly
10			construction progress meeting.
11			
12			
13			END OF SECTION
14			

1			SECTION 01 32 33	
2			PHOTOGRAPHIC DOCUMENTATION	
3	DADT	1 (1	ENEDAL	1
4 5		1 – Gi 1.1.	ENERAL	
6		1.2.	RELATED SPECIFICATION SECTIONS	
7		1.3.	SUBMITTALS	
8			RODUCTS	
9		2.1.	DIGITAL CAMERA	
10			(ECUTION	
11		3.1.	REQUIREMENTS FOR DIGITAL PHOTOGRAPHS	
12		3.2.	PROJECT MANAGEMENT WEB SITE (SHAREPOINT)	
13				
14	PART	1-G	<u>ENERAL</u>	
15				
16	1.1.	SCO		_
17		A.	The General Contractor (GC) shall be required to take weekly digital photographs, both interior and exterior, or)f
18			construction progress and upload the photos directly to the Project Management Web Site (SharePoint).	
19	1.2	DEI	ATED EDECIFICATION SECTIONS	
20 21	1.2.	A.	ATED SPECIFICATION SECTIONS Section 01 29 76 Progress Payment Procedures	
22		А. В.	Section 01 31 23 Project Management Web Site (SharePoint)	
23		C.	Section 01 32 19 Submittals Schedule	
24		D.	Section 01 32 33 Submittals	
25		E.	Section 01 77 00 Closeout Procedures	
26				
27	1.3.	SUB	BMITTALS	
28		A.	The GC shall provide general information on the type of camera being used for interior and exterior digital	
29			photographs.	
30			1. Information may be written on Contractor's transmittal sheet.	
31			a. Include camera name/type, aspect ratio setting, and average file size	
32			b. Provide sample project pictures as part of PDF submittal.	
33			DODUGTS	
34 35	PARI	2 – PI	RODUCTS	
36	2.1.	DIG	ITAL CAMERA	
37	2.1.	A.	All digital photographs shall be taken with a good quality digital camera, cell phone, tablet, and other such dig	ital
38		,	device.	· ca
39		В.	Digital photographs shall be formatted to achieve a good, clear, and detailed image where the final file size is	
40			between 600 KB and 3.0 MB (3000KB).	
41				
42	PART	3 – E)	<u>KECUTION</u>	
43				
44	3.1.	REC	QUIREMENTS FOR DIGITAL PHOTOGRAPHS	
45		A.	The GC shall take a minimum of two (2) exterior photographs each week. Exterior photographs will not be	
46			required on projects that do not include any exterior work.	
47			1. Exterior photos shall be taken from approximately the same location each week for the duration of the	9
48			project.	
49			2. When applicable this requirement shall begin prior to commencing any site work.	
50			3. This requirement shall only be applicable when there is exterior work actively being conducted with the	е
51 52			project. Periods of inactivity due to weather (winter conditions) do not require a photograph. This requirement shall and when the exterior work has been substantially completed.	
52 52			 This requirement shall end when the exterior work has been substantially completed. This requirement may be suspended due to weather conditions or substantial delays in exterior progret 	200
53 54		В.	The GC shall take interior photographs each week that document interior construction progress.	:55.
55		υ.	1. This requirement will begin when exterior wall framing begins.	
56			a. When an interior remodeling project includes demolition work interior photos shall be taken	
57			during the demolition process.	
58			2. Pictures do not need to be taken from the same location each week.	

1			This requirement shall end when the interior work has been substantially completed.
2		C.	Digital photographs shall be properly zoomed in/out, and flash used as needed, to capture a level of detail
3			required to properly show the progress being captured by the photograph.
4			1. Blurry and dark pictures will not be accepted.
5		D.	The camera default naming convention is acceptable. The GC does not need to rename or specifically identify
6			pictures with a title.
7		E.	All digital photographs shall be saved in a JPEG (.jpg) format and uploaded directly to the SharePoint Project
8			Images Library.
9			1. The GC shall upload the photos to the folder that designates the appropriate construction week and date
10			(beginning Monday date). If no folder exists, contact the CPM/CCM prior to uploading photos.
11			
12	3.2.	PROJ	ECT MANAGEMENT WEB SITE (SHAREPOINT)
13		A.	The CPM/CCM shall provide weekly progress folders in the Project Images Library on SharePoint.
14			1. Progress folders are labeled with the Construction Week Number and the date for Monday of that week.
15			2. The GC shall notify the CPM/CCM if additional weekly progress folders need to be created.
16		В.	The GC shall upload the weekly digital photographs to the appropriate progress folder in the Project Images
17			Library.
18			
19			
20			
21			END OF SECTION
22			

1			SECTION 01 33 23									
2			SUBMITTALS									
3												
4			ENERAL									
5		L.1.	SUMMARY									
6		L.2.	RELATED REFERENCES									
7		1.3. SUBMITTAL REQUIREMENTS										
8												
9			KECUTION									
10		3.1.	GENERAL CONTRACTORS PROCEDURES									
11		3.2.	SUBMITTAL REVIEW									
12	-	3.3.	PROJECT ARCHITECTS REVIEW									
13	DADT	1 6	PENIED AL									
14 15	PAKI	1-6	GENERAL CONTROL OF THE CONTROL OF TH									
16	1.1.	CIII	MMARY									
17	1.1.	Э ОІ	The General Contractor (GC) shall be responsible for providing submittals for review of all contractors and sub-									
18		Α.	contractors as designated in the construction documents. Submittals shall include but not be limited to all of the									
19			following:									
20			1. Equipment specified and pre-approved in the specification; to ensure quality, construction, and									
21			performance specifications have not changed since final design.									
22			2. Equipment specified by performance in the specification; to ensure that the intended quality,									
23			construction, and performance specified is met by the selected material or product.									
24			3. Shop, piece, erection, and other such drawings as indicated in the specifications to ensure all structural,									
25			dimensional, and assembly requirements are being met.									
26			Submittals indicating installation sequencing									
27			5. Submittals indicating control sequencing									
28			6. Contractor licensing, certification, and other such regulatory documentation when required by a									
29			specification.									
30			7. Other submittals as may be required by individual specifications.									
31		В.	The submittal process shall not be used to determine alternates to specified products or equipment. All									
32			considerations shall be reviewed during the bidding process and acceptable alternates shall be acknowledged b									
33			addendum prior to the closing of bidding. See bidding instructions for the information on submitting alternates									
34			for consideration.									
35		D.	In the event that a manufacturer has significantly changed a product (discontinued a model, changed dimension									
36			or performance data changed available colors, etc.) since bid opening the GC shall submit a Request for									
37			Information (RFI) to the Project Architect requesting other approved alternates prior to uploading a digital									
38			submittal.									
39		E.	Contractors and sub-contractors shall be responsible for knowing the submittal requirements of ALL sections									
40			within their scope of work under the contract. The Owner reserves the right to request documentation on any									
41			materials, equipment, or product being installed where a submittal is not on file. If the material, equipment, or									
42			product installed is determined not to meet the intent of the specification the contractor/sub-contractor shall k									
43			required to remove and replace the items involved. The GC shall be solely responsible for all costs associated									
44			with the removal and replacement.									
45												
46	1.2.	REL	LATED REFERENCES									
47		A.	Section 01 29 76 Progress Payment Procedures									
48		В.	Section 01 31 23 Project Management Web Site									
49		C.	Section 01 32 19 Submittals Schedule									
50		D.	Section 01 32 26 Construction Progress Reporting									
51		Ε.	All Technical Specifications, contract documents, construction drawings, and any published addendums during									
52			the bidding process.									
53		F.	All contract documents generated during the execution of the contract including but not limited to Requests for									
54			Information (RFI) and Construction Bulletins (CB).									
55												
56	1.3.		BMITTAL REQUIREMENTS									
57		Α.	A completed submittal shall meet the following requirements:									

01 33 23 - 1

1		1.	Digital submittal shall be original PDF of manufacturer's data sheets or high quality color scan of the
2			same.
3			a. Submittals shall not include sales fliers or other similar documents that typically do not provide
4			complete manufacturers data.
5		2.	Documents within the PDF submittal shall be printable to a sized sheet no less than 8-1/2 by 11 inches
6		2	and no larger than 24 by 36 inches.
7 8		3.	At the beginning of each submittal the contractor shall identify the plan reference (WC-1, EF-3, etc.) in RED block letters that the submittal is for.
9		4.	Where multiple model numbers appear in a table the contractor shall identify the specific model being
10		4.	submitted by using a RED square, box, or other designation to distinguish the correct model from others
11			on the page.
12	В.	A cor	nplete submittal will include all information associated with the product or equipment as presented in
13			s, equipment tables, and specifications. Information shall include but not be limited to the following:
14		1.	Dimensional data
15		2.	Performance data
16		3.	Resource requirements, power, water, waste, etc
17		4.	Clearance and maintenance requirements
18		5.	Finish information, colors, textures, etc.
19		6.	Warranty information
20	C.	Whe	re a submittal includes material samples (carpet, tile, paint draw downs, etc.) the contractor shall do the
21		follov	wing:
22		1.	The Contractor shall submit the sample(s) as indicated in the specification.
23		2.	The Contractor shall include a quality photograph(s) of the product with the digital submittal.
24			Photographs shall meet the following requirements:
25			a. Formatted to be between 500Kb and 1.0 Mb in file size
26			b. Have no glare or flash reflection on the sample
27			c. Sample fills the frame of the photo and shows detail as needed. Include multiple photos from
28			other angles as needed.
29			d. Scanned copies of products or photos are not acceptable.
30	D.		aded submittals should be relative and related to a specific written specification.
31		1.	<u>Do not</u> upload submittals under a broad category or division (I.E. HVAC 23 00 00). Always upload by the
32		2	specific specification that identifies a required product or performance to be met.
33		2.	Group related items together if the specification is written that way. (I.E. all of the plumbing fixtures and
34		2	trim relative to one specific specification should be submitted together).
35 36		3.	Submittals shall be grouped and adhere to the divisions in the submittal schedule. Submittals that do not
37			conform to the submittal schedule and/or specification divisions will be rejected for re-submittal.
	T 2 _ DE	ODLICT	S – THIS SECTION NOT USED
39		ODOCI	S THIS SECTION NOT USED
	T 3 - EX	ECUTIO	N
41			-
42 3.1.	GEN	ERAL CO	ONTRACTORS PROCEDURES
43	A.	All re	quired submittals will be uploaded to the Construction Administration-Submittal Drawings Library on the
14		Proje	ect Management Web Site (PMWS) by the GC.
45		1.	The GC shall open a new Submittal Form in the Submittals Drawings Library for each required submittal
46			from the Submittals schedule.
47		2.	Fill in required information on the form that will be used for routing the review and comments.
48		3.	Attach all documentation as described in Section 1.3 above.
49			a. Submit samples under separate cover to the Project Architect when necessary.
50	В.		ading the submittal indicates that the GC has reviewed and approved the submittal against the contract
51			ment requirements.
52	C.		GC shall discuss submittal status at all progress meetings and shall monitor submittal review/approval/re-
53	_		nittal so as to not incur delays in the project schedule.
54	D.		mpleted upload of the submittal to the PMWS initiates the review process workflow.
55	E.	The C	GC and sub-contractors shall provide re-submittals as required.

1	3.2.	SUBN	TITTAL REVIEW					
2		A.	Upon completion of the submittal upload by the GC the PMWS automatically notifies the appropriate					
3			Architect/Engineer and Owner Representative, including CxA, by Division/Specification number that there is a					
4			submittal for review.					
5		B.	The submittal shall be reviewed internally by the required Architect/Engineer and Owner Representative and					
6			CxA in a timely fashion and provide commentary on missing items, incorrect information, or incomplete shop					
7			drawings, etc as needed.					
8		C.	When the internal review is completed the PMWS will notify the Project Architect the submittal is ready for final					
9			review.					
10								
11	3.3.	PROJ	PROJECT ARCHITECTS REVIEW					
12		A.	Upon completion of the internal review the CPM shall review all internal review comments and determine the					
13			appropriate disposition status for the submittal (approved or resubmit).					
14		C.	The CPM shall summarize final internal review comments onto the submittal cover sheet, provide a final					
15			disposition of the submittal and update the review status of the submittal to "Complete" (with or w/o					
16			comments) or "Rejected".					
17		D.	A completed Final Review status initiates the PMWS to notify the GC and appropriate sub-contractor(s) that the					
18			review of the submittal has been completed.					
19								
20								
21								
22			END OF SECTION					
23								

1					SECTION 01 45 16
2					FIELD QUALITY CONTROL PROCEDURES
3					
4					
5		.1.			IN CECTIONS
6		2. 3.			IN SECTIONS
7 8		3. 4.			REMENTS
9		4.			NT OBSERVATION REPORT
10					N NOT USED
11					7
12		5.1.			NT RESPONSIBILITIES
13		5.2.			10
14	3	.3.		-	RS FOLLOW-UP
15	3	.4.	QMO CLO	SEOUT PROC	EDURE
16	3	5.5.	CONSTRU	JCTION CLOSE	OUT
17					
18	<u>PART</u>	1 – G	<u>ENERAL</u>		
19					
20	1.1.	SUN	/IMARY		
21		A.			has developed a multi-faceted Quality Management Program that begins with contract
22					bugh contract closeout to ensure the best quality materials, workmanship, and product are
23					ntracted Work.
24			1.		Management Web Site is a Construction Management tool that provides contractors and on-line location for the daily operations and progression of the Work.
25 26			2.	_	on-line location for the daily operations and progression of the work. Management Observation (QMO) is an ongoing observation of the construction process as it
27			۷.		The City of Madison does not use a "Punch List" or "Corrections List" as it is typically known
28					he construction industry. The QMO process acts as an "in progress punch list".
29					ing the QMO process the City of Madison's goal is to have a zero item punch list prior to the
30					progress payment and owner occupancy.
31		В.	All con		be required to review the specifications identified in Section 1.2 below, and other related
32					fied therein to become familiar with the terminology and expectations of this City of
33			Madiso	on Public Wor	ks contract.
34		C.			s specification to outline the requirements, expectations, and responsibilities of the General
35					ject Architect, and other representatives of the Owner for items of Quality Assurance and
36			Quality	y Control.	
37			1.		ation is not intended to conflict with Specification 01 40 00 Quality Requirements or other
38			_		s requiring testing and inspecting services.
39			2.		ation does not relieve the GC from any requirements associated with regulatory inspections
40				•	y the City of Madison Building Inspection Unit, or inspectors from other agencies as required
41 42			3.	by code.	performed by an Owner's Representative does not relieve the GC from performing any
43			3.		nay required by the construction documents.
44				testing that i	nay required by the construction documents.
45	1.2.	REL	ATED SPEC	CIFICATION SE	ECTIONS
46		Α.		n 01 26 13	Request for Information (RFI)
47		В.		n 01 29 76	Progress Payment Procedures
48		C.	Section	n 01 31 13	Project Coordination
49		D.	Section	n 01 31 23	Project Management Web Site
50		E.	Section	า 01 40 00	Quality Requirements
51		F.	Section	า 01 77 00	Closeout Procedures
52		G.	Section	n 01 78 13	Completion and Correction List
53		_			
54	1.3.			CE REQUIREM	
55		A.			be responsible for a proper quality assurance/quality control (QA/QC) program throughout
56					Work defined within the construction documents, including all recognized construction
57 58		D			nd all applicable regulatory codes.

1 2			 Monitor the quality of all workmanship, supplies, materials, and products being installed by all contractors and installers to ensure they meet or exceed the minimum requirements set forth by the
3			construction documents.
4			2. Submit a Request for Information (RFI) whenever manufacturers' instructions or referenced standards
5			conflict with the construction documents before proceeding with the Work.
6			3. Ensure that Work requiring special certifications or licensing is being performed by, and supervised by,
7			personnel that meet the appropriate requirements.
8			a. Ensure that all certificates and licenses are current throughout the execution of the project.
9		C.	The CoM and its representatives shall perform quality assurance and quality control activities throughout the
10			execution of this project. This in no way relieves the GC of maintaining an acceptable QA/QC program.
11			
12	1.4.	QUA	LITY ASSURANCE
13		A.	The GC shall be responsible for the following:
14			1. All materials, equipment, and products shall be new, clean, undamaged, and meet the performance
15			specifications defined within the construction documents including favorably reviewed submittals.
16			a. Any material, equipment, or product that does not meet the requirements of the construction
17			documents shall be removed and replaced, including any adjacent and related work, at the GCs
18			expense.
19			2. All Work shall be performed by persons properly trained and/or qualified to produce workmanship of the
20			quality specified in the construction documents.
21			3. Providing access to updated as-builts, addenda, submittals, bulletins and other related construction
22			documents at the project site.
23		В.	The CoM and its representatives may be responsible for any of the following:
24			1. Attend pre-installation meetings
25			2. Attend construction progress meetings
26			3. Review all submittals
27			4. Conduct field visits for QA/QC purposes, provide feedback to the GC and sub-contractors using Quality
28			Management Observation (QMO) reports.
29			5. Review delivered equipment
30			6. Witness equipment installations, startups, testing as specified in other specifications
31 32	1.5.	ΟΠΑ	LITY MANAGEMENT OBSERVATION REPORT
33	1.5.	A.	The Quality Management Observation report or QMO is used as a QA/QC tool by those entities responsible for
34		, · · ·	QA/QC activities, including but not limited to, the GC, CoM, PA, CX agent, etc.
35		В.	QMOs are designed to be an early observation of non-conforming construction work before it becomes buried
36		ъ.	by follow on work. As such it is most often used as an "in progress punch list".
37		C.	QMO forms are part of the Quality Control Library on the Project Management Web Site.
38		C.	Qivio forms are part of the Quality control clarary on the Project Management web site.
39	PART	2 – PR	ODUCTS - THIS SECTION NOT USED
40			
41	<u>PART</u>	3 − EXE	CUTION
42 43	3.1.	OLIA	LITY MANAGEMENT RESPONSIBILITIES
43 44	3.1.	A.	While making routine progress visits to the construction project the GC, CPM, CxA and A/E, and applicable others
45		Α.	shall observe the details of the construction and installations to ensure that the intent of the construction
			documents is being followed.
46 47		D	
47 40		В.	If during the progress visit there is a determination of contract non-conformance a QMO report shall be initiated
48 40			to begin the documentation process. The GC field superintendent shall be informed immediately of any issue that may says a harm, damage to
49			1. The GC field superintendent shall be informed immediately of any issue that may cause harm, damage to
50 E1		C	finished work, or be buried prior to properly filing a QMO report.
51		C.	The following information when filing a QMO report:
52			1. Open a QMO report in the Quality Control Library on the Project Management Web Site
53 E4			2. Enter the date and time of the field visit
54 55			2. Provide references to construction documents if any (examples; specification, drawing page, details,
22			annoved Summittals, RELLIB ETC.1

3.

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Provide a short title for the observation being made

Provide a detailed description of the observation being made

5.

1

2			the observation being reported.
3			a. For each category selected additional boxes shall open with contractor names associated with
4			each category.
5			6. Select all contractors from the lists provided that may need to be aware of the observation.
6			 Provide any attachments that may help provide reference to the observation.
7			8. Click the SAVE button before closing the form.
8		D.	The software for the Project Management Website will email notifications that a QMO report has been initiated.
9			The software will automatically select and notify the following:
10			1. The GC, PA, and CPM for all observation reports being filed.
11			2. Others depending on the observation categories selected.
12			3. Contractors based on the selections made in the sub-contractors lists.
13			
14	3.2.	RESP	ONDING TO A QMO
15		A.	All contractors receiving email notification of a QMO Observation shall review the details of the observation.
16		В.	The GC shall be responsible for determining the course of action required to remedy the non-conforming issue
17		٥.	and shall coordinate and direct the contractor(s) responsible for any work related to the observation.
18		C.	All contractors assigned to remedy the observation by the GC shall provide follow-up responses on the QMO
19		C.	report as follows:
20			1. Open the QMO report in the Quality Control Library on the Project Management Web Site.
21			
22			a. Click "Insert Item" if additional boxes are required.
23			3. Add attachments (pictures) if needed to show the work has been completed.
24			4. Click the SAVE button before closing the form.
25		051	EDAL CONTRACTORS FOLLOW UP
26	3.3.		ERAL CONTRACTORS FOLLOW-UP
27		A.	The GC shall inspect the work to ensure that all assigned contractors have remedied the observation to the
28		_	intent of the construction documents.
29		В.	The GC shall respond with any additional comments in his/her response box.
30			1. If no comments are to be made the GC at a minimum must date the response box to trigger the next
31		_	work flow.
32		C.	Click the SAVE button before closing the form.
33		D.	The software will email a notification to the CPM and the person who initiated the QMO that the issue has been
34			remedied.
35			
36	3.4.	QMO	CLOSEOUT PROCEDURE
37		A.	The person who initiated the QMO shall review the remedied work and if properly corrected shall close and date
38			the QMO form.
39			1. Click SAVE and the software will email a notification to the CPM that final review of the Observation is
40			required.
41			2. In the event there are still issues the Quality Manager can add additional comments in the response area,
42			click SAVE and re-issue the QMO for additional review as needed.
43		В.	Once the person who initiated the QMO has closed the item the CPM shall review and verify with the PA that the
14			Observation has been properly remedied and provide final closure on the QMO.
45			
46	3.5.	CON	STRUCTION CLOSEOUT
47		A.	The GC shall note that successful close out QMOs are required for construction closeout as follows:
48		1.	Certain progress payments as identified in Specification 01 29 76 are contingent QMO reports being properly
19			closed out.
50		2.	Specification 01 77 00 defines all construction closeout requirements.
51		•	· · · · · · · · · · · · · · · · · · ·
52			
53			
54			END OF SECTION
55			2.12 0. 020.1311

Select all categories (Site work, Structure, Enclosure, Interior, etc.) from the given list that may apply to

				SECTION 01 45 29 TESTING LABORATORY SERVICES
DART	1 – GI	INFRAI		
	1 Gi l.1.			ED
	L.2.			
	L.3.			SIBILITIES
	L.4.			SECTIONS TO BE CONDUCTED
PART	2 – PF			NOT USED
PART	3 – EX	(ECUTION	N – THIS SECTION	I NOT USED
<u>PART</u>	1 – G	<u>ENERAL</u>		
1.1.	REC	UIREME	NTS INCLUDED	
	A.	The C	City of Madison (CoM) shall employ and pay for the services of an independent testing laboratory to perform
			fied services and	<u>v</u>
	В.	Testir	-	spection, sampling and testing is required for all of the following:
		1.		on; general excavation, utility trench, and open pits for foundations and buried tanks
		2.	Cast-In-Place (
		3.	Asphalt Mix Sa	
		4.	Asphalt Comp	action
1.2.			FERENCES	
	Α.		on 01 31 13	Project Coordination
	В.	Section	on 01 32 16	Construction Progress Schedules
1.3.	CON	NTRACTO	R'S RESPONSIBI	LITIES
	Α.			atory personnel, provide access to Work and to manufacturer's operations.
	В.			as shop drawing submittals to the PMWS – Submittals Library for review:
		1.	All concrete m	
		2.	All asphalt mix	
	C.	Furni	sh copies of Proc	duct test reports as required.
	E.	Furni	sh incidental lab	or and facilities:
		1.	To provide acc	sess to Work to be tested.
		2.	To obtain and	handle samples at the Project site or at the source of the product to be tested.
		3.		spections and tests.
		4.		d curing of test samples.
	F.			f 5 working days notice to Testing Consultant for scheduling of any testing.
	G.			progress of the Work when tested materials do not comply with Contract Documents and
				wner or his designated representative and CPM.
	J.			at no cost to the Owner, all defective materials, that discovered upon testing, do not
			•	Documents, including cost for retesting and re-inspecting replaced Work that failed to
		comp	ly with the Cont	ract Documents.
1 4	CDE	CIFIC TES	TC AND INDEED	CIONE TO BE CONDUCTED
1.4.				TIONS TO BE CONDUCTED The Testing Consultant shall test all of the following:
	A.	Lomp 1.		The Testing Consultant shall test all of the following: f virgin soil not disturbed after excavation to sub grade. This test will be used to determine
		1.	any applicable	
		2.		f sub-base aggregate materials for any pavement for each lift as specified in the contract
		۷.	documents.	sub-base aggregate materials for any pavement for each lift as specified in the contract
		3.		f base aggregate materials for any pavement for each lift as specified in the contract
		٥.	documents.	sade applicate materials for any pavement for each fire as specified in the contract
		4.		f base aggregate and backfill materials for and pit excavation of buried tanks and
		••	foundations.	
	В.	Conci		mp and cylinder tests for all cast in place concrete.
	C.			tch sampling of any asphalt mix being delivered to the site.
	D.			f Asphalt pavements by layer.
			5 -	

1	PART 2 – PRODUCTS – THIS SECTION NOT USED	
2		
3		
4	PART 3 – EXECUTION – THIS SECTION NOT USED	
5		
6		
7		END OF SECTION

				SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS								
				TEMPORARY FACILITIES AND CONTROLS								
PART	1 – G	ENERAL			1							
-	1.1.	SUMMARY			1							
-	1.2.	RELATED SPEC	CIFICATION S	SECTIONS	1							
-	1.3.	QUALITY ASSURANCE										
-	1.4.	TEMPORARY	EMPORARY UTILITIES									
-	1.5.	TEMPORARY :	SANITARY FA	ACILITIES	2							
-	1.6.	BARRIERS			2							
-	1.7.	FENCING			2							
-	1.8.	EXTERIOR EN	CLOSURES		2							
2	1.9.	SECURITY			2							
1	1.10.	VEHICULAR A	CCESS AND F	PARKING	3							
1	1.11.	WASTE REMO	VAL		3							
2	1.12.	PROJECT IDEN	ITIFICATION	I	3							
1	1.13.	FIELD OFFICES	5		3							
PART	2 - PF	ODUCTS			3							
2	2.1.	EQUIPMENT .			3							
PART	3 - EX	ECUTION	•••••		3							
3	3.1.	TEMPORARY	FIRE PROTEC	CTION	4							
3	3.2.			AL OF WASTE								
3	3.3.			CTION								
3	3.4.	REMOVAL OF	TEMPORAR'	Y UTILITIES, FACILITIES, AND CONTROLS	4							
		1. Ten	he following nporary Utili ecommunica	ities								
		2. Tele	ecommunica	ations Services								
				itary Facilities								
			riers									
			cing									
			erior Enclosu	ures								
			urity									
				ss and Parking								
			ste Removal									
			ject Identific	cation								
		8. Fiel	d Offices									
4.3	DEI	ATED CDECIFIC	ATION SECT	TIONS								
1.2.		ATED SPECIFIC										
	Α.	Section 01		Progress Meetings Project Management Web Site								
	B. C.	Section 01		, ,								
	C.	Section 01	74 19	Construction Waste Management and Disposal								
1.3.	QU.	ALITY ASSURAI	NCE									
	A.	Regulations	s: Comply wi	ith industry standards and applicable laws and regulations if authorities having								
		jurisdiction	, including b	out not limited to:								
		1. Buil	ding Code re	equirements								
		2. Hea	Ith and safe	ety regulations								
		3. Util	ity company	regulations								
			· ·	artment and Rescue Squad rules								
				protection regulations								
		6. Join	t Commissic	on - Hospital Accreditation Standards								

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- B. Standards: Comply with NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition
 Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA
 Electrical Design Library "Temporary Electrical Facilities".
 - C. Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code".

1.4. TEMPORARY UTILITIES

- A. Owner will provide the following:
 - 1. Electrical power and metering, consisting of existing facilities.
 - 2. Water supply, consisting of existing facilities.
- B. General:
 - 1. Existing structures may not be used.
 - 2. New permanent facilities <u>may not</u> be used.
- C. Water Service: water is available from existing building services.
 - 1. Use trigger-operated nozzles for water hoses, to avoid waste of water.
- D. Temporary Electric Power Service: Electrical Contractor shall extend temporary power from existing building services.
- E. Temporary Lighting: Electrical Contractor shall provide temporary lighting with local switching
 - Install and operate temporary lighting, minimum of 30 fc, to fulfill security and protection requirements, without operating the entire system, and will provide adequate illumination for all areas of work, including construction operations and traffic conditions.
- F. Temporary Heat: General Contractor shall provide temporary heat required by construction activities, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
 - 1. Heating Facilities: Except where use of the permanent system is authorized, provide vented self-contained LP gas or fuel oil heaters with individual space thermostatic control.
 - Use of gasoline-burning space heaters, open flame, or salamander type heating units is prohibited.

1.5. TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Temporary toilets: Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.
 - 1. Provide toilet tissue, paper towels, paper cups, and similar disposable materials foreach facility. Provide covered waste containers for used material.
 - 2. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy.
- C. Maintain daily in clean and sanitary condition
- D. Water: Provide potable water approved by local health authorities

1.6. BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

1.7. FENCING

A. Construction: Refer to Plan Documents and Specification Section 01 76 00: Fencing Materials and Barricades

1.8. EXTERIOR ENCLOSURES

A. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.9. SECURITY

A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

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1.10. VEHICULAR ACCESS AND PARKING

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Vehicle parking of all personal vehicles shall be located on South Badger Rd. and Emil St. only.
- E. Vehicle parking of contractor work vehicles is permitted within the construction area when vehicles are actively needed for dropping off supplies, equipment, etc. It is recommended that if vehicles are used only for transportation that they remain outside the construction zone and in the designated parking area noted in 1.10.D above. Parking of contractor vehicles shall be limited to inside the project limits.
- F. No parking on existing asphalt or concrete shall be permitted. These spaces are designated as Fire Lanes and must remain open at all times.

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1.11. WASTE REMOVAL

- A. See Section 01 74 19 Waste Management, for additional requirements.
- B. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- C. Provide containers with lids. Remove trash from site periodically.
- D. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside and away from all structures unless otherwise approved by the authorities having jurisdiction.
- E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

22 23 24

1.12. PROJECT IDENTIFICATION

A. No project identification signage or contractor signage is permitted for this project.

1.13. FIELD OFFICES

A. Office

A. Office: Weather tight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture, drawing rack and drawing display table.
 B. Provide space for Project Meetings with table and chairs to accommodate a minimum of 8 persons.

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PART 2 - PRODUCTS

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2.1. EQUIPMENT

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- A. Temporary Lifts and Hoists: Contractors requiring temporary lifts and hoists shall provide facilities for hoisting materials and employees.
- B. Electrical Outlets: Electrical Contractor shall provide properly configured NEMA polarized outlets to prevent insertion of 110-120 volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.
- C. Electrical Power Cords: Contractors requiring power cords shall provide grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
- D. Lamps and Light Fixtures: Electrical Contractor shall provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- E. Heating Units: General Contractor shall provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to the type of fuel being consumed.
- F. First Aid Supplies: General Contractor shall provide first aid supplies complying with governing regulations.
- G. Fire Extinguishers: General Contractor shall provide hand-carried, portable UL-rated, fire extinguishers of NFPA recommended classes for the exposures, extinguishing agent and size required by location and class of fire exposure.

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PART 3 - EXECUTION

1	3.1.	TEM	PORARY FIRE PROTECTION
2		A.	Until fire protection needs are supplied by permanent facilities, General Contractor shall install and maintain
3			temporary fire protection facilities of the types needed to protect against reasonably predictable and
4			controllable fire losses.
5		В.	Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding
6			Construction, Alterations and Demolition Operations".
7		C.	Locate fire extinguishers where convenient and effective for their intended purpose.
8		D.	Store combustible materials in containers in fire-safe locations.
9		E.	Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways
10			and other access routes for fighting fires.
11		F.	Smoking is prohibited by city ordinance on the property.
12		G.	Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition
13			according to requirements of authorities having jurisdiction.
14		Н.	Develop and supervise an overall fire-prevention and -protection program for personnel at Project site
15		l.	Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods
16			and procedures. Post warnings and information.
17			
18	3.2.	COL	LECTION AND DISPOSAL OF WASTE
19		A.	Collect waste from construction areas and elsewhere daily
20		В.	Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce
21			requirements strictly.
22		C.	Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to
23			rise above 80 deg F.
24		D.	Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing
25			properly. Dispose of material in a lawful manner.
26			
27	3.3.	ENV	IRONMENTAL PROTECTION
28		A.	Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply
29			with environmental regulations, and minimize the possibility that air, waterways and subsoil might be
30			contaminated or polluted, or that other undesirable effects might result.
31		В.	Avoid use of tools and equipment which produce harmful noise.
32		C.	Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms
33			near the site.
34			
35	3.4.		IOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS
36		A.	Remove temporary utilities, equipment, facilities, and materials prior to Substantial Completion inspection.
37		В.	Remove underground installations to a minimum depth of 2 feet (600 mm). Grade site as indicated.
38		C.	Clean and repair damage caused by installation or use of temporary work.
39		D.	Restore existing facilities used during construction to original condition.
40		E.	Restore new permanent facilities used during construction to specified condition.
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END OF SECTION

1	SECTION 01 60 00						
2			PRODUCT REQUIREMENTS				
3							
4	PART	1 – G	ENERAL				
5	1	1.	SUMMARY				
6	1	2.	RELATED SPECIFICATIONS				
7	1	3.	QUALITY ASSURANCE				
8	PART	2 – P	RODUCTS – THIS SECTION NOT USED				
9			KECUTION				
10		3.1.	GENERAL CONTRACTOR REQUIREMENTS				
11		3.2.	BULK MATERIAL				
2		3.3.	DRY PACKAGED MATERIAL 3				
L3		3.4.	STRUCTURAL AND FRAMING MATERIAL				
4		3.5.	EQUIPMENT				
.5		8.6.	FINISH PRODUCTS				
L 6		3.7.	DUCTWORK, PIPING, AND CONDUIT				
.7	3	8.8.	OWNER PROVIDED, CONTRACTOR INSTALLED EQUIPMENT				
.8							
.9	<u>PART</u>	1 – G	<u>SENERAL</u>				
:0							
1	1.1.	SUI	MMARY				
2		A.	The purpose of this specification is to provide general guidelines and responsibilities related to the receiving,				
23			handling, and storage of all materials and products from arrival on the job site through installation.				
24			Immediate inspection of delivered goods means a timely replacement if damaged.				
25			2. Proper storage helps prevent damage and loss by weather, vandalism, theft, and job site accidents.				
6			3. Proper storage helps with job site performance and safety.				
.7			Proper handling helps prevent damage and job site accidents.				
		D					
18		В.	Each Contractor shall be directly responsible for the receiving, handling, and storage of all materials and				
19		_	products associated with the Work of their Division or Trade.				
0		C.	Each Contractor responsible for Work associated with Owner provided materials or products shall be responsible				
1			for the receiving, handling and storage of the material/product as outlined in Section 3.8 below				
2							
13	1.2.		ATED SPECIFICATIONS				
4		Α.	Parts of this specification will reference articles within "The City of Madison Standard Specifications for Public				
15			Works Construction".				
6			 Use the following link to access the Standard Specifications web page: 				
7			http://www.cityofmadison.com/business/pw/specs.cfm				
8			a. Click on the "Part" chapter identified in the specification text. For example if the specification				
9			says "Refer to City of Madison Standard Specification 210.2" click the link for Part II, the Part II				
0			PDF will open.				
1			b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you				
2			to the referenced text.				
3			c. City Standard Detail Drawings (SDD) may be located from the index in Part VIII.				
.4		В.	Section 01 57 21 Indoor Air Quality				
· 4 ·5		Б. С.	Section 01 74 13 Progress Cleaning				
			5 6				
6		D.	Section 01 76 00 Protecting Installed Construction				
7		Ε.	Other Divisions and Specifications that may address more specifically the requirements for the storage and				
8			handling of materials and products associated Work of other Divisions or Trades.				
.9							
0	1.3.	QU	ALITY ASSURANCE				
1		A.	The GC shall be responsible for ensuring that these minimum storage and handling requirements are met by all				
52			contractors on the project site including but not limited to the following:				
3			1. Receiving deliveries of materials, products, and equipment.				
4			a. Inspect all deliveries upon arrival for damage, completeness, and compliance with the				
5			construction documents.				
6			i. Deliveries shall remain in original packaging or crates, shipping manifest shall be kept with				
7			the delivery and the packaging shall have visible identification of the items within the				
8			packaging.				

1 2				b. Immediately report any damaged products or equipment to the GC, begin arrangements for immediate replacement.
3				c. Materials or equipment that have been damaged, are incomplete, or do not comply with the
4				construction documents shall not be permitted to be installed.
5			2.	All materials and products shall be stored within the designated limits of the project site. Only store the
6			۷.	amount of material necessary for upcoming operations so as not to interfere with other construction
7				activities and access to Work by the Owner and Architect. Any offsite storage shall be at the expense of
8				the contractor storing the material or product. All offsite storage requirements shall comply with this
9				specification. All offsite storage of materials is subject to Owner Representative Quality Management
10				review at any time.
11			3.	Large storage containers may be used but shall be weather tight, securable, placed on concrete blocks,
12			э.	timbers, or jack stands and shall be level.
13			1	When lifting equipment is required the equipment rating shall be greater than the loading requirements
15 14			4.	
				of the item being lifted. In addition all of the following shall apply as necessary:
15 16				a. Only designated and/or designed lift points shall be used.
16				b. Large items shall have tag lines and handlers at all times during lifting operations.
17			_	c. Lift at multiple points as needed to prevent bending.
18			5.	Materials and products stored inside of the structure shall comply with all of the following:
19				a. Storage shall not be allowed to impede the flow of work in progress.
20				b. Storage shall not be allowed to hide completed work from review and inspections.
21			_	c. Storage shall not exceed the design loads of the structural components it is being stored upon.
22			6.	All materials and products shall be stored according the manufacturers minimum recommended
23				requirements. All of the following shall be considered before storing any product or material:
24				a. Dust and dirt
25				b. Moisture and humidity, including rain and snow
26				c. Excessive temperatures, direct sun, etc.
27				d. Product or material weight and size
28				e. Potential for breakage
29				f. Product incompatibility with other products such as corrosiveness, chemical reactions,
30				flammability, etc.
31				g. Product or material value and replacement cost
32			7.	The Contractor shall be responsible for providing fully functional tarps or plastic wrap, to protect
33				materials and products from the weather. All coverings shall be free of large holes and tears, and shall be
34				tied, strapped, or weighted down to resist blowing.
35			8.	The Contractor shall be responsible for any temporary heating, cooling, or other utility requirement that
36				may be associated with the storage of a material or product.
37			9.	The Contractor shall be responsible for securing materials and products of value such as copper, A/V
38				equipment, etc. Such items shall be stored in securable shipping containers, job trailers or other such
39				storage devices. Container shall be kept secured when not in use.
40		B.	The G	C shall inspect the job site daily to ensure that all products and materials stay weather tight and are
41			secur	ed against vandalism or theft as required by this specification.
42		C.	The C	Owners Representative may at any time request improvements regarding storage of any material or product
43				provided under these construction documents.
44				
45 46	PARI	2 – PRC	DUCIS	S – THIS SECTION NOT USED
46 47	PΔRT	3 - EXE	CLITION	4
48	IANI	J - LAL	COTION	<u>!</u>
49	3.1.	GENE	RAL CO	INTRACTOR REQUIREMENTS
50	·	A.		nate material storage and handling areas as needed including all of the following:
51			1.	Designate specific areas of the site for delivery and storage of materials to be used during the execution
52				of the Work.
53			2.	Designated areas shall not be located so as to interfere with the installation of any Work including Work
53 54			۷.	by others such as the installation of utilities or the maintenance of existing utilities. This shall include not
55				storing items in active utility easements as designated by the site plan.
		D	A r== :-	
56		В.	Arran	ge for openings in the building as needed to allow delivery and installation of large items. Openings shall

the item being installed.

57 58 be appropriately sized to include the use of booms, slings, and other such lifting devices that may be larger than

1.	When openings are required in completed Work (new or existing) the GC shall be responsible for
	providing an appropriate opening and for restoring the opening to the original or better condition upon
	completion. Restoration shall be weather tight and complete.

C. Repeated moving and handling of items being stored shall not be allowed. The GC shall be responsible for any damage and replacement because of mishandling or excessive handling.

3.2. BULK MATERIAL

- A. Bulk material such as sand, gravel, top soil and other types of fill shall be stored away from the construction area and shall be stock piled as follows:
 - All bulk material shall be piled safely and efficiently in as small an area as practical. Only store the
 amount of material necessary for upcoming operations so as not to interfere with other construction
 activities and access to Work by the Owner and Architect.
 - 2. All stock piles shall have silt fence/sock properly installed around the perimeter to prevent erosion and loss of material. Refer to City of Madison Standard Specification Section 210.1(f) and other related specification or details.
 - 3. Fine grained material shall be protected with tarps to prevent blowing. Tarps shall be weighted or staked to stay in place.
- B. Bulk material such as brick, concrete block, stone, and other palletized materials shall be stored on original shipping pallets until ready for use.

3.3. DRY PACKAGED MATERIAL

A. Dry packaged material such as cement, mortar, etc shall be stored on pallets, on slightly elevated ground or clear stone pad to keep water away from the base of the material being stored. Protect from moisture.

3.4. STRUCTURAL AND FRAMING MATERIAL

- A. All structural and framing material shall be stored in an organized manner arranged by type, size and dimension. Materials shall be stored on pallets or timbers as necessary and shall not be allowed to lie directly on the ground.
- B. Long and heavy items shall be supported at several points to prevent bending and warping.

3.5. EQUIPMENT

- A. Equipment delivered to the site shall be stored away from all construction activities until the item can either be moved inside or properly installed.
- B. Equipment shall be stored on slightly elevated ground or clear stone pad to keep water away from the base of the equipment.

3.6. FINISH PRODUCTS

- A. Finish products such as flooring, tile, counters, lockers, toilets, partitions, lighting, and other similar items should not be delivered and stored until the structure has been enclosed, is weather tight, temperature controlled and the contractor is ready for such items to be installed.
 - 1. Storage of finished products outside for any length of time shall not be allowed.
- B. Products that cannot be stored inside the structure shall be stored in secured containers or job trailers until such time as they are ready to be installed.
- C. Products with a high potential for breakage such as glass, mirrors, tiles, toilet fixtures, etc. shall be stored with additional protection as necessary such as but not limited to the following:
 - 1. Store in original shipping containers until ready for installation.
 - 2. Do not store in high traffic areas.
 - 3. Shield with other materials such as cardboard, plywood, or similar products.

3.7. DUCTWORK, PIPING, AND CONDUIT

- A. All piping and conduit shall be stored horizontally unless otherwise specified by the manufacturer or Division and Trade Specifications.
 - 1. Do not store directly on grade.
 - 2. Cover metal pipes and tubes to prevent rust and corrosion, allow ventilation to prevent condensation.
 - 3. Whenever possible use pipe stands for storing pipe and conduit to prevent tripping and rolling hazards.
- B. All ductwork shall be stored horizontally or vertically as necessary unless otherwise specified by the manufacturer or Division and Trade Specifications.
 - During storage, both ends of each duct shall be protected with plastic sheathing to prevent dust and dirt from getting inside the duct. Sheathing shall be sufficiently taped to the duct.

1			2.	After installation, free/open ends shall remain protected with taped plastic sheathing and or temporary
2				filters as specified by division or Trade specifications.
3				
4	3.8.	OWN	ER PRO	VIDED, CONTRACTOR INSTALLED EQUIPMENT
5		A.	Sectio	n 3.8.A. shall apply to all equipment being provided to any contractor directly from the Owner for
6			install	ation under the contract.
7			1.	The Owner or Owners Representative shall do the following:
8				a. Inspect all deliveries upon receipt and notify manufacturer of any issues directly.
9				b. Review the received shipment with the contractor.
10 11				 Only provide products or materials to the contractor that were not damaged through shipping or handling.
12				ii. Confirm missing products or materials and anticipated delivery schedule if known.
13			2.	The Contractor responsible for the installation of Work associated with Owner provided materials or
14				products shall "take ownership" and provide safe and secure storage and handling as previously
15				described within this specification.
16				i. The Contractor shall be liable for the repair or replacement of any material or product
17				damaged after taking ownership of the product from receipt through final acceptance.
18		В.	Sectio	n 3.8.B. shall apply to all equipment being provided by the Owner but shipped directly to any sub-
19			contra	actor or the project site for installation under the contract.
20			1.	The GC and/or Contractor responsible for the Work associated with the Owner provided materials or
21				products shall do the following:
22				a. Inspect all deliveries upon receipt and notify the Owner or Owners Representative of any issues
23 24				directly.
				i. Owner or Owners Representative shall notify manufacturer of any issues directly.
25				b. Review the received shipment with the Owner or Owners Representative
26				 Confirm missing products or materials and anticipated delivery schedule if known.
27			2.	The Contractor shall "take ownership" and provide safe and secure storage and handling as previously
28				described within this specification.
29				i. The Contractor shall be liable for the repair or replacement of any material or product
30				damaged after taking ownership of the product from receipt through final acceptance.
31				
32				
33				
34				END OF SECTION
35				

		SECTION 01 71 23
		FIELD ENGINEERING
		ENERAL
	L.1.	REQUIREMENTS INCLUDED
	L.2.	RELATED REQUIREMENTS
	L.3.	PROCEDURES
	L.4.	PROJECT SURVEY REQUIREMENTS
	l.5.	RECORDS
		RODUCTS – THIS SECTION NOT USED
PARI	3 – EX	(ECUTION – THIS SECTION NOT USED
PART	1 – G	ENERAL
1.1.	REC	QUIREMENTS INCLUDED
	A.	The Contractor shall provide and pay for field engineering services required for the Project:
		1. Land surveying services required to execute the Work, to include building addition location and layout,
		and location and layout of pavements and all proposed site improvements.
		2. Verification of existing building dimensions, elevations, and relationship to proposed additions.
		3. Professional Engineering services to execute Contractor's construction methods.
		4. Registered Professional Engineer in the State of Wisconsin to determine the load capacity of the existing
		structure for use of Contractors temporary facilities, equipment, lifts, machinery, material storage, etc.
1.2.	REL.	ATED REQUIREMENTS
	A.	Conditions of the Contract
1.3.	PRC	DCEDURES
	A.	A property survey has been prepared for the Owner and has been bound with Contract Drawings. Surveys shal
		describe physical characteristics, legal limitations and utility locations for the site of the Project, and a legal
		description of the site. If information is incomplete, notify Owner to furnish additional information. Verify
		easement locations, front, side, and rear yard restrictions, if any; and property line locations. Verify control
		points, and establish bench marks. Locate and layout roads, walks, parking areas and all civil structures and all
		proposed site improvements.
	В.	Verify locations of underground services, utilities, structures, etc. which may be encountered or affected by the
		Work.
1.4.	DRC	DIECT SURVEY REQUIREMENTS
1.7.	A.	Use datum and lot lines as indicated in the construction documents including the provided CSM. Grades and
	, ···	elevations shall be per existing. The Contractor shall make provision to preserve property line stakes,
		benchmarks, or datum point. If any are lost, displaced or disturbed through neglect of any Contractor,
		Contractor's agents or employee, the Contractor responsible shall pay the cost of restoration.
	В.	Establish lines and levels, locate and layout, by instrumentation and similar appropriate means, additions,
		column locations, floor levels, stakes for walks, etc.
	C.	Provide data to all Subcontractors for their use as applicable.
	D.	From time to time, verify layouts by same methods.
1.5.		ORDS
	Α.	Maintain a complete, accurate log of all control and survey work as it progresses.
	В.	Maintain and accurate As-Built digital survey of all buried utilities and equipment. See specification 01 78 39 for more information.
PART	2 – PI	RODUCTS – THIS SECTION NOT USED
PART	3 – E)	KECUTION – THIS SECTION NOT USED
		END OF SECTION

1 2				SECTION 01 74 13 PROGRESS CLEANING
3				PROGRESS CLEANING
4	PART	1 – GE	NERAL	
5	-	1.1.	SUMMARY	1
6	2	1.2.	RELATED SPECIFICAITO	NS
7	-	1.3.	QUALITY ASSURANCE.	1
8	PART	2 - PR	ODUCTS	1
9		2.1.		AND EQUIPMENT
10	PART	3 - EX		
11	3	3.1.	SAFETY CLEANING	
12	3	3.2.	PROJECT SITE CLEANIN	G
13	3	3.3.		
14		3.4.		
15	3	3.5.	CALL BACK WORK	
16				
17	PART	1 – GI	NERAL	
18				
19	1.1.		IMARY	
20		A.		cution of this contract all contractors shall be responsible for maintaining the project site in a
21		_		ess as described in this specification.
22		В.		also comply with the requirements for cleaning as described in other specifications.
23		C.		s specification shall include but not be limited to:
24			1. Safety Cleani	
25			2. Project Site (
26			3. Progress Clea	
27			4. Final Cleanin	g
28	1.2.	DEL	ATED CDECIFICALTONIC	
29 30	1.2.	A.	Section 01 35 00	Special Procedures
31		А. В.	Section 01 60 00	Product Requirements
32		В. С.	Section 01 74 19	Construction Waste Management and Disposal
33		D.	Section 01 74 19	Protecting Installed Construction
34		υ.	Section 01 70 00	Protecting installed Collistiaction
35	1.3.	OUA	LITY ASSURANCE	
36	1.5.	Α.		ctor (GC) shall conduct daily inspections, more often if necessary, of the entire project site to
37		٨٠.		nents of cleanliness are being met as described within these specifications.
38		В.		comply with other regulatory requirements as they apply to waste recycling, reuse, hauling,
39				ments of any governmental authority having jurisdiction.
40		C.		the right to have work done by others in the event any contractor fails to perform cleaning
41				these specifications. The cost of any Owner provided cleaning shall be charged to the
42				a deduct change order.
43			J	
44	PART	2 - PR	ODUCTS	
45				
46	2.1.	CLE	ANING MATERIALS AND	EQUIPMENT
47		A.	The Contractor shall	provide all required personnel, equipment, and materials necessary to maintain the
48			required level of clea	anliness as described in this specification.
49		В.	Use only cleaning m	aterials and equipment that are compatible with the surface being cleaned, as
50			recommended by th	e manufacturer, or as approved by the A/E.
51		C.	Use only cleaning m	aterials, equipment, and methods as recommended in the manufacturers care and use guide
52			of the material, finis	h or equipment being cleaned.
53				
54	PART	3 - EX	<u>ECUTION</u>	
55				
56	3.1.	SAF	TY CLEANING	
57		A.	All Contractors shall	be responsible for safety cleaning as required by OSHA and other regulatory requirements

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as applicable.

1		В.	Safety	ry Cleaning shall include but not be limited to the following:					
2			1.	All work areas, passageways, ramps, and stairs shall be kept free of debris, scrap materials, pallets, and					
3				other large items that would obstruct exiting routes. Small items such as tools, electrical cords, etc. are					
4				picked up when not in use.					
5			2.	Form and scrap lumber shall have nails/screws removed or bent over. Lumber shall be neatly stacked in					
6				n area designated by the GC.					
7			3.	pills of oil, grease, and other such liquids shall be cleaned immediately or sprinkled with sand/oil-dry					
8				rst, then cleaned.					
9			4.	Oily, flammable, or hazardous items shall be stored in appropriate covered containers and storage					
10				levices unless actively being used.					
11			5.	Oily, or flammable rags, and other such waste shall only be disposed of in authorized covered containers.					
12			6.	Disposal by burning shall not be allowed at any time.					
13									
14	3.2.	PROJE	ECT SITE	CLEANING					
15		A.	This se	ection applies to the general cleanliness of the project site as a whole for the duration of the execution of					
16				ontract.					
17		B.		or Project Site Areas					
18		٥.	1.	The GC and other Contractors as appropriate shall ensure the following levels of cleanliness are applied					
19				to the exterior project site areas.					
20				a. The overall appearance of the project site is neat and orderly. Defined areas for material storage,					
21				material waste, job trailers, and the project area are clean and well maintained.					
22				b. The construction fence is maintained, erect with no gaps, and properly posted per all regulatory					
23				requirements.					
24									
25				c. All erosion control measures are properly maintained, cleaned, and repaired as necessary.					
				d. All loose materials (construction or waste) are properly tied or weighted down to resist blowing.					
26				e. All construction materials are properly covered with fully functional tarps or plastic wrap,					
27				protected from the weather, coverings are tied, strapped, or weighted down to resist blowing.					
28		_		f. Dust control is applied as necessary or as required by any regulatory requirement.					
29		C.		or Project Site Areas					
30			1.	All Contractors shall ensure the following levels of cleanliness are applied to the interior project site					
31				areas.					
32				a. The overall appearance of the project site is neat and orderly. Defined areas for material storage,					
33				material waste, and project area are clean and well maintained.					
34				b. Stored materials are kept in original shipping containers whenever possible. Stored materials not					
35				in shipping containers are properly stored and protected according to other applicable					
36				specifications.					
37				c. All scraps and debris shall be properly disposed of as often as necessary to keep work areas,					
38				passageways, stairs, and ramps free of debris and clear for emergency exiting.					
39				d. Boxes, pallets, and other such shipping containers, are broken down, stored in a consolidated area					
40				or, disposed of as often as is necessary.					
41				e. Hand tools, supplies, materials, electrical cords not being used are picked up and sptored in gang					
42				boxes, not left as walking hazards in work areas, passageways, etc.					
43		D.	Job Tra	ailer					
44			1.	The interior of the job trailer shall be kept clean and available as a work space at all times. The GC shall					
45				ensure that the following is provided for within the job trailer:					
46				a. Meeting space including tables and chairs.					
47				b. Sufficient space for all contractors to access the official construction documents, provide updates,					
48				etc.					
49									
50	3.3.	PROG	RESS CL	EANING					
51		Α.		ub-section shall apply to all Progress Cleaning prior to the installation of finishes, fixtures, and trim (IE					
52			rough-						
53			1.	For the purposes of this section "clean" shall be defined as a level of cleanliness free of dust and other					
54				material capable of being removed by use of reasonable effort using a good quality janitor broom and					
55				shop-vac.					
56			2.	Daily cleanings shall be conducted by all contractors at the end of the work day as follows:					
50 57			۷.	_ , , , , , , , , , , , , , , , , , , ,					
J /				a. Debris in excavated areas shall be removed prior to backfill and compaction.					

Debris in wall cavities, chase spaces, etc shall be removed prior to enclosing the spaces.

1 c. Large items shall be properly stored, returned to designated areas, or disposed of as necessary. 2 d. Loose materials shall be properly secured. 3 Flammable or hazardous materials are properly stored or disposed of. 4 3. Weekly cleaning shall be conducted by all contractors as designated by the GC. Weekly cleanings shall 5 include all the above for a daily cleaning and other necessary cleaning as designated by the GC. 6 В. This sub-section shall apply to Progress Cleaning in preparation for the installation of finishes, fixtures, and trim. 7 Surfaces receiving finishes shall be thoroughly cleaned prior to contractors applying finish 8 materials. The GC shall be responsible for inspecting the area and surfaces being cleaned for 9 finish prior to the sub-contractor applying the finish. This shall include but not be limited to the 10 following: 11 Wall surfaces shall be wiped clean of dirt and oily residues, vacuumed free of dust, and i. shall be free of surface imperfections prior to painting or installing wall coverings. 12 13 ii. Metal surfaces shall be wiped clean of dirt and oily residues, and be free of surface 14 imperfections prior to painting. 15 iii. Flooring shall be broom swept of large and loose items then vacuumed clean of dust and 16 small particles, and damp mopped clean and dried prior to installing any flooring finish. 17 Additional cleaning may be required depending on the preparation requirements 18 recommended by the flooring material manufacturer. C. 19 This sub-section shall apply to Progress Cleaning after the installation of finishes, fixtures, and trim. 20 For the purposes of this section "clean" shall be defined as a level of cleanliness free of dust and other 21 material capable of damaging or visually disfiguring finished work, finishes, fixtures, and trim. 22 2. Progress Cleaning at this point in the contract shall be conducted immediately as follows: 23 Dust, dirt, etc. shall be swept and vacuumed off of finish flooring and trim. 24 b. Liquid spills shall be cleaned up according to the spill type. This shall include drips and spills 25 caused by paint, stain, sealants, and other such items. 26 3. The Contractor(s) at no additional cost to the Owner shall be responsible for replacing any finished work, 27 finishes, fixtures, and trim damaged or disfigured because of inadequate or improper cleaning. 28 3.4. 29 **FINAL CLEANING** 30 A. As noted in Specification 01 29 76 Progress Payment Procedures, Progress Payment Milestone Schedule, Final 31 Cleaning shall not be conducted prior to requesting the 90% contract total progress payment and all of the 32 following shall be complete: All final regulatory inspections including but not limited to Building Inspection Department and Madison 33 34 Fire Department inspections have been successfully completed. 35 2. All Quality Management Observation (QMO) reports have been closed out. All Demonstration and Training has been completed. 36 3. 37 4. All Attic Stock has been consolidated and located to its designated area 38 5. All protection for installed construction shall be removed prior to final cleaning by the contractor responsible for providing the protections. This shall include the removal of any adhesive residues left 39 40 behind from tapes. Contractors shall only use manufacturer authorized cleaning materials for removing 41 adhesives, etc. 42 В. For the purposes of this section "clean" shall be defined as a level of cleanliness generally provided by skilled 43 cleaners using commercial quality building maintenance equipment and materials. 44 C. The GC shall be responsible for ensuring that all requirements under this section are being met. 45 D. **General Requirements** 46 Employ experienced personnel or professional cleaners for final cleaning as necessary for the areas or 47 equipment being cleaned. 48 2. Cleaning equipment used shall be commercial grade equipment commonly used by professional cleaners. 49 3. Cleaning equipment and materials shall be cleaned, rinsed, or replaced to ensure a uniform level of 50 cleanliness is being maintained during the final cleaning. This shall include but not be limited to the 51 following: 52 a. Vacuum cleaner bags and/or filters are changed and/or cleaned as often as necessary. 53 b. Dust & wipe down rags are washed, rinsed, or replaced before starting each room. 54 c. Mopping equipment 55 Mop water for washing shall have cleaning solution added to the amount and temperature 56 per manufacturer's recommendations. Mop washing water shall be replaced often to 57 maintain the levels of the cleaning solution and temperature required. 58 ii. Mop water for rinsing shall remain clean, clear, and be replaced as often as necessary.

1				iii.	Mop heads shall be rinsed often and replaced as necessary.
2				iv.	Mop heads and buckets shall be thoroughly rinsed with each change of water.
3				v.	Only new mop heads shall be used for rinsing.
4		E.	Refe	r to all other sp	ecifications in this contract for specific requirements regarding final cleaning of finishes,
5			fixtu	res, equipment	, etc.
6		F.	Exter	rior Cleaning sh	all include but not be limited to the following:
7			1.	All exterior	glazing surfaces have been professionally cleaned and are free of dust and streaking.
8			2.	Metal roofs,	siding, and other surfaces shall be clean of dirt and free of splashed or excess materials such
9				as sealants,	mortar, paint, etc.
10			3.	All exterior	furnishings shall be clean, waste receptacles shall be empty.
11			4.	Paved areas	shall be clean, free of dirt, oily stains and other such blemishes
12			5.	Exterior ligh	ts and diffusers are clean and free of dust.
13		G.	Inter	ior Cleaning sh	all include but not be limited to the following:
14			1.	Remove all	abels, stickers, tags, and other such items which are not required by code as permanent
15				labels.	
16			2.	All interior g	lazing surfaces, including mirrors, have been professionally cleaned and are free of dust and
17				streaking.	
18			3.	All interior s	urfaces have been cleaned of excess materials such as paint, sealants, etc and have been
19				wiped free o	of dust.
20			4.	Interior met	als, fixtures, and trim have been cleaned free of dust and oily residues
21			5.	Carpet floor	ing has been thoroughly cleaned; vacuumed free of dust, excess glues and other stains
22				removed pe	r manufacturers use and care instructions.
23			6.	Resilient flo	oring has been thoroughly cleaned; vacuumed free of dust, excess glues and other stains
24				removed, m	opped and buffed per manufacturers use and care instructions.
25			7.	Interior non	-occupied concrete floors shall be broom cleaned, vacuumed free of dust, excess glues and
26				other stains	removed per manufacturers use and care instructions.
27			8.	Light fixture	s, lamps, diffusers and other such items have been dusted and cleaned as necessary.
28					
29	3.5.	CALL	BACK \	WORK	
30		A.	The 0	GC shall be resp	ponsible for ensuring that any contractor returning to the project site for completion or
31			corre	ection work has	re-cleaned and restored the area to the levels described in section 3.4 above upon
32			com	pletion of the v	vork. This shall include but not be limited to the following:
33			1.	The immedi	ate area(s) where work was completed.
34			2.	Adjacent are	eas where dust or debris may have traveled.
35			3.	Other areas	occupied during the completion of the call back work.
36			4.	Path of entr	ance/exit, to/from the area(s) of work.
37					
38					
39					
40					END OF SECTION