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**SECTION 00 31 46**  
**PERMITS**

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10  
11 **PART 1 – GENERAL**

12  
13 **1.1. SUMMARY**

- 14 A. Each project has varying requirements for permits, inspections, and fees based on the scope, size, and location of  
15 the project.  
16 B. The City of Madison (Owner) is subject to all permits, inspections and associated fees for construction,  
17 demolition, utility connection, storm water management, and other similar requirements that may be required  
18 to complete the scope of work associated with these contract documents.  
19 C. The General Contractor (GC) shall be responsible for obtaining all permits, inspections and paying for all  
20 associated fees unless specifically identified within this specification.  
21

22 **1.2. REFERENCES**

- 23 A. The following references are not intended to be all inclusive. It shall be the GC’s responsibility to determine all  
24 requirements based on the scope of work in the contract documents.  
25 B. City of Madison Ordinances: Review all ordinances that may require a permit or fee that may be connected with  
26 a required permit. Contact the following City Agencies to determine the exact requirements during bidding  
27 1. Building Inspection  
28 2. Zoning  
29 3. Engineering  
30 4. Water Utility  
31 5. Traffic Engineering  
32 6. Others as may be specified by the contract documents.  
33 B. State Statutes  
34 C. Other Regulatory Regulations  
35 D. Other Agencies or companies that may have related requirements  
36 1. Madison Metropolitan Sewerage District  
37 2. Local gas and electric utility companies  
38 3. Other utility companies  
39

40 **1.3. GENERAL CONTRACTORS REQUIREMENTS**

- 41 A. The GC shall be responsible for all of the following:  
42 1. Execute application for all required permits as may be required by the scope of work described within the  
43 contract documents.  
44 2. Paying all fees associated with the application of any required permits.  
45 3. Scheduling all required inspections that may be conditions of any required permits.  
46 B. The GC shall provide high quality scanned images of all required permits and inspections to the City Project  
47 Manager (CPM).  
48

49 **PART 2 – PRODUCTS – THIS SECTION NOT USED**

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51 **PART 3 – EXECUTION – THIS SECTION NOT USED**

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55 **END OF SECTION**  
56

**SECTION 01 25 13**  
**PRODUCT SUBSTITUTION PROCEDURES**

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**PART 1 – GENERAL**

**1.1. SUMMARY**

- 17 A. The City of Madison uses a specific list of preferred products for various specification items to establish  
18 standards of quality, utility, and appearance required.  
19 B. The City of Madison will not allow substitutions for specified Products except as follows:  
20 1. The Product is no longer produced or the product manufacturer is no longer in business.  
21 2. The manufacturer has significantly changed performance data, product dimensions, or other such design  
22 criteria for the specified Product(s).  
23 3. Products specified by naming one or more Products or manufacturer’s and “or approved equal” or  
24 “approved equivalent.”  
25 C. The City of Madison will not allow substitutions for specified Products as follows:  
26 1. For Products specified by naming only one Product and manufacturer, no substitute product will be  
27 considered.  
28 2. For Products specified by naming several Products or manufacturers select any one of the products or  
29 manufacturers named, which complies with the specifications. No substitute product will be considered.  
30 D. Request for substitutions from any party other than the General Contractor (GC) will not be accepted.  
31

**1.2. RELATED SPECIFICATIONS**

- 32 A. Section 01 26 13 Request for Information (RFI)  
33 B. Section 01 33 23 Submittals  
34  
35

**PART 2 – PRODUCTS**

**2.1. SUBSTITUTION REQUEST FORM**

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39 A. During bidding all contractors (General and Sub-contractors) and suppliers of materials or products shall provide  
40 hard copy of the Substitution Request form and all required attachments directly to the Project Engineer.  
41 B. After bidding only the GC shall submit a request and shall use the form provided by CPM.  
42

**PART 3 - EXECUTION**

**3.1. REQUESTING A SUBSTITUTION DURING BIDDING**

- 43  
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45  
46 A. In the event that a substitution is requested during the bidding phase the Contractor or Supplier shall meet the  
47 substitution request deadline listed in the bidding documents. No substitution request will be considered during  
48 the bidding period after the stated substitution request deadline. In general this procedure shall be as follows:  
49 1. Submit the Substitution Request Form including all required supporting documentation to the City  
50 Project Manager and Project Engineer by the substitution request deadline specified in Section A of the  
51 Contract Documents.  
52 2. Submit a Substitution Request Form for each product, supported with complete data, drawings and  
53 samples as appropriate, including:  
54 i. Comparison of qualities of the proposed substitutions with that specified.  
55 ii. Changes required in other elements of the Work because of the substitution.  
56 iii. Effect on the construction schedule.  
57 iv. Cost data comparing the proposed substitution with the Product specified.  
58 v. Any required license fees or royalties.

- 1 vi. Availability of maintenance service and source of replacement materials.  
2 3. The Owner and Engineer will review the Substitution Request Form and if approved the City of Madison  
3 will publish a bidding addendum authorizing the replacement. The Owner and Engineer may reject any  
4 substitution request without providing specific reasons.  
5 B. Substitutions submitted and approved during the bidding phase shall be announced by the City of Madison by  
6 addenda prior to the bid due date.  
7

8 **3.2. REQUESTING A SUBSTITUTION AFTER AWARD OF CONTRACT**

- 9 A. A substitution request will only be considered after award of contract if it meets the qualifying provisions as  
10 described in 1.1.B.1 above.  
11 B. The GC shall submit a substitution request using the form provided by CPM.  
12 1. Consulting Staff, Owner and Owners Representatives will review the request and provide the appropriate  
13 approvals and feed back to the GC.  
14

15 **3.3. UNAUTHORIZED SUBSTITUTIONS**

- 16 A. Any Contractor who substitutes products without proper authorization by the Owner and Engineer will be  
17 required to immediately remove and replace the product and all costs required to conform to the Contract  
18 Documents shall be borne by the General Prime Contractor.  
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21

22 **END OF SECTION**  
23

**SECTION 01 26 13  
REQUEST FOR INFORMATION (RFI)**

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15

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 19 A. Contractors shall use the RFI form/process to request additional information or clarification regarding the  
20 construction documents.  
21 B. Form will be provided by CPM.  
22

**1.2. RELATED SPECIFICATIONS**

- 23 A. Section 01 26 46 Construction Bulletin (CB)  
24 B. Section 01 26 57 Change Order Request (COR)  
25 C. Section 01 26 63 Change Order (CO)  
26  
27

**1.3. PERFORMANCE REQUIREMENTS**

- 29 A. RFI issues initiated by any contractor shall be done through the General Contractor (GC).  
30 1. RFIs submitted by any Sub-contractor under the GCs control shall be returned with no response.  
31 B. Submit a new RFI for each issue. Only multiple questions that are of a similar nature may be combined into one  
32 RFI shall be allowed and responded to.  
33

**1.4. QUALITY ASSURANCE**

- 34 A. The GC shall be responsible for all of the following:  
35 1. Ensure that any request for additional information is valid and the information being requested is not  
36 addressed in the construction documents.  
37 2. Ensure that all requests are clearly stated and the RFI form is completely filled out.  
38 3. Ensure that all Work associated an RFI response is carried out as intended.  
39 B. The Project Engineer (PE) shall be responsible for the following:  
40 1. Ensure that all responses to contractor initiated RFIs are properly responded to in a timely fashion.  
41 a. The CPM, Owner, consulting staff, and other City staff shall be responsible for the initial review of  
42 the RFI. The PE shall be responsible for codifying all consultant and Owner/City staff comments  
43 into a unified RFI response.  
44  
45

**PART 2 – PRODUCTS**

**2.1. REQUEST FOR INFORMATION FORM**

- 46  
47  
48 A. Will be provided by CPM.  
49  
50

**PART 3 - EXECUTION**

**3.1. CONTRACTOR INITIATED RFI**

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53 A. Immediately on discovery of the need for additional information or interpretation of the Contract Documents  
54 any contractor may initiate an RFI for additional information or clarification through the GC.  
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**3.2. RFI RESPONSES**

- A. Responses to simple RFI issues shall use the response section of the RFI form and shall be completed within five (5) working days of the RFI form being submitted.
- B. Responses to more complex issues may require additional time or may require a Construction Bulletin to be published. The initial RFI shall be responded to within five (5) working days stating that the RFI is being reviewed and provide an estimated date for the response.
- C. The following GC generated RFIs will be returned without action:
  - 1. Requests for approval of submittals
  - 2. Requests for approval of substitutions
  - 3. Requests for approval of Contractor’s means and methods.
  - 4. Requests for coordination information already indicated in the Contract Documents.
  - 5. Requests for adjustments in the Contract Time or the Contract Sum.
  - 6. Requests for interpretation of A/E’s actions on submittals.
  - 7. Incomplete RFI or inaccurately prepared RFI.

**3.3. COMMENCEMENT OF WORK RELATED TO AN RFI**

- A. The GC shall only proceed with the Work of an RFI where, additional information is not required.
- B. The GC shall not proceed with any Work associated with an RFI while it is under review.
- C. The GC shall not proceed with any Work associated with an RFI that clearly states a CB will be issued in response to the RFI.
- D. The GC will be required to immediately remove and replace unauthorized Work and all costs required to conform to the Contract Documents shall be borne by the GC.

**END OF SECTION**

**SECTION 01 26 46  
CONSTRUCTION BULLETIN (CB)**

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14

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 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 B. 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 all  
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

**1.2. RELATED SPECIFICATIONS**

- 33 A. Section 01 26 13 Request for Information (RFI)  
34 B. Section 01 26 57 Change Order Request (COR)  
35 C. Section 01 26 63 Change Order (CO)  
36

**1.3. PERFORMANCE REQUIREMENTS**

- 38 A. Project Engineer (PE): The PE shall be the only person authorized to publish a CB as needed for any reason  
39 indicated in section 1.1.A above. The PE shall consult as necessary with any of the following while drafting the  
40 CB and shall confirm final direction with the CPM prior to issuing a CB:  
41 1. City Project manager (CPM)  
42 2. Owner  
43 3. Members of the consulting staff  
44 4. Members of city staff  
45 5. The General Contractor  
46 6. Sub-contractors  
47 B. General Contractor: The GC shall be responsible for the following as needed:  
48 1. Executing the directives of the CB when he/she believes that no changes in labor, materials, equipment,  
49 or contract duration will be required for additions or deletions.  
50 2. Submit a COR when he/she believes that a change in labor, materials, equipment or contract duration  
51 will be required for additions or deletions.  
52

**1.4. QUALITY ASSURANCE**

- 54 A. The PE shall be responsible for ensuring the final CB sufficiently provides direction, details, specifications and  
55 other information as necessary for the GC to perform the intended Work.  
56 B. The PE shall be responsible for ensuring the final CB is published as expeditiously as practical based on the  
57 complexity of the CB being written. CBs that may affect the GC critical path shall be given priority.  
58

1 **PART 2 – PRODUCTS**

2

3 **2.1. CONSTRUCTION BULLETIN FORM**

4 A. Will be provided by CPM.

5

6 **PART 3 - EXECUTION**

7

8 **3.1. WRITING THE CONSTRUCTION BULLETIN**

9 A. The PE shall draft a CB as needed using the form provided by CPM.

10 1. The PE and/or consulting staff as necessary shall provide specifications, model numbers and performance  
11 data, details and other such information necessary to clearly state the intentions of the CB.

12 2. The consulting staff, CPM, Owner, and other City Staff shall review the draft and recommend changes as  
13 needed.

14 3. The PE shall amend the draft as necessary into a final CB for review

15 B. Once the final CB has been approved the PE shall submit it to the GC.

16

17 **3.2. EXECUTING THE CONSTRUCTION BULLETIN**

18 A. The GC shall acknowledge receipt of the CB.

19 B. The GC shall notify all Sub-contractors of the CB and publish the CB to all field sets of drawings and specifications  
20 as appropriate.

21 C. The GC shall execute the directives of the CB or submit COR documentation as necessary during the execution  
22 and implementation of the CB.

23 1. See Specification 01 26 57 Change Order Request (COR)

24

25

26

27

28

**END OF SECTION**



**SECTION 01 26 57**  
**CHANGE ORDER REQUESTS (COR)**

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18

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 22 A. Except in cases of emergency no changes in the Work required by the Contract Documents may be made by  
23 the General Contractor (GC) without having prior approval of the City Engineer or his representative.  
24 B. The City may at any time, without invalidating the Contract and without Notice to Sureties, order changes in  
25 the Work by written Change Order (CO). Such changes may include additions and/or deletions.  
26 C. Where the City desires to make changes in the Work through use of written Change Order Request (COR), the  
27 following procedures apply:  
28 1. If requested by the City, the GC shall prepare and submit a detailed proposal, including all cost and time  
29 adjustments to which the GC believes it will be entitled if the change proposed is incorporated into the  
30 Contract. The City shall be under no legal obligation to issue a Change Order for such proposal.  
31 2. The parties shall attempt in good faith to reach agreement on the adjustments needed to the Contract to  
32 properly incorporate the proposed change(s) into the Work. In the event that the parties agree on such  
33 adjustments, the City may issue a Change Order and incorporate such changes and agreed to  
34 adjustments, if any.  
35 3. In some instances, it may be necessary for the City to authorize Work or direct changes in Work for which  
36 no final and binding agreement has been reached and for which unit prices are not applicable. In such  
37 cases the following shall apply.  
38 a. Upon written request by the City, the GC shall perform proposed Work  
39 b. The cost of such change may be determined in accordance with this specification.  
40 c. In the event agreement cannot be accomplished as contemplated herein, the City may authorize  
41 the Work to be performed by City forces or to hire others to complete the Work. Such action on  
42 the part of the City shall not be the basis of a claim by the GC for failure to allow it to perform the  
43 changed Work.  
44 D. Where changes in the Work are made by the City through use of a force account basis, the GC shall as soon as  
45 practicable, and in no case later than ten (10) working days from the receipt of such order, unless another time  
46 period has been agreed to by both parties, give the City written Notice, stating:  
47 1. The date, circumstances and source of the extra work; and,  
48 2. The cost of performing extra work described by such Order, if any; and,  
49 3. Effect of the order on the required completion date of the Project, if any.  
50 E. The giving of each Notice by the GC as prescribed by this specification, shall be a requirement to liability of the  
51 City for payment of any additional costs incurred by the GC in implementing changes in the Work. Under this  
52 specification, no order or statement of the City shall be treated as a Change Order, or shall entitle the GC to an  
53 equitable adjustment of the terms of this Contract or damages for costs incurred by the GC on any activity for  
54 which the Notice was not given.  
55 F. In the event Work is required due to an emergency as described in this specification the GC must request an  
56 equitable adjustment as soon as practicable, and in no case later than ten (10) working days of the  
57 commencement of such emergency.

- 1 G. 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 H. 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 I. This specification shall be used by the GC when preparing documentation for any COR to ensure each has been  
7 properly and completely filled out as required by the City of Madison.  
8

9 **1.2. RELATED SPECIFICATION SECTIONS**

- 10 A. Section 01 26 13 Request for Information (RFI)  
11 B. Section 01 26 46 Construction Bulletins (CB)  
12 C. Section 01 26 63 Change Order (CO)  
13 D. Parts of this specification will reference articles within "The City of Madison Standard Specifications for Public  
14 Works Construction".  
15 1. Use the following link to access the Standard Specifications web page:  
16 <http://www.cityofmadison.com/business/pw/specs.cfm>  
17 a. Click on the "Part" chapter identified in the specification text. For example if the specification  
18 says "Refer to City of Madison Standard Specification 210.2" click the link for Part II, the Part II  
19 PDF will open.  
20 b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you  
21 to the referenced text.  
22

23 **1.3. DEFINITIONS AND STANDARDS**

- 24 A. LABOR: The amount of time and cost associated with the performance of human effort for a defined scope of  
25 Work. Labor is further defined as follows:  
26 1. Labor rate is the total hourly rate which includes the base rate of pay, fringe benefits plus each  
27 company's cost of required insurance, also referred to as a reimbursable labor rate.  
28 2. Unit labor is the labor hours anticipated to install the corresponding unit of material.  
29 3. Labor cost is the labor hours multiplied by the hourly labor rates.  
30 B. MATERIAL: Actual material cost is the amount paid, or to be paid, by the GC for materials, supplies and  
31 equipment entering permanently into the Work, including cost of transportation and applicable taxes. The cost  
32 shall not exceed the usual and customary cost for such items available in the geographical area of the project.  
33 C. LARGE TOOLS AND MAJOR EQUIPMENT: Large tools and major equipment are those with an initial cost greater  
34 than \$1,500, whether from the GC or other sources.  
35 1. Tool and equipment use and time allowed is only for extra work associated with change orders.  
36 a. Rental Rate is the machine cost associated with operating a piece of equipment for a defined  
37 length of time (hour, day, week, or month) and shall not exceed the usual and customary amount  
38 for such items available in the geographical area of the project.  
39 b. Rental cost is the rental rate multiplied by the anticipated duration the equipment shall be  
40 required.  
41 2. The GC shall provide a breakdown of all rental rates to indicate what items and costs are associated with  
42 the rate. Examples of items to include in the breakdown would be fuel consumption, lubrication,  
43 maintenance and other similar expenses but not including profit and overhead.  
44 3. When large tools and equipment needed for Change Order work are not already at the job site, the  
45 actual cost to get the item there is also reimbursable.  
46 D. BOND COST: The cost shall be calculated at 1% of the total proposed change order.  
47 E. SUB-CONTRACTOR COSTS: Sub-contractor costs are for those labor, material, and equipment costs required by  
48 subcontracted specialties to complete the Change Order work including allowable markups as outlined within  
49 this specification.  
50 F. OVERHEAD AND PROFIT Markup: The allowable markup percentage to a COR by the GC and Sub-contractors for  
51 overhead and profit. All of the following are expenses associated with overhead and profit and shall not be  
52 reimbursable as individual items on any COR:  
53 1. CHANGE ORDER PREPARATION: All costs associated with the preparing and processing of the change  
54 order.  
55 2. DESIGN, ESTIMATING, AND SUPERVISION: All such efforts, unless specifically requested by Owner as  
56 additional Work to be documented as a COR or portion thereof.  
57 3. INSTALLATION LAYOUT: The layout required for the installation of material and equipment, and the  
58 installation design, is the responsibility of the GC.

- 1 4. SMALL TOOLS AND SUPPLIES: The cost of small hand tools with an initial cost of \$1,500 or less, along  
2 with consumable supplies and expendable items such as drill bits, saw blades, gasoline, lubricating or  
3 cutting oil, and similar items.  
4 5. GENERAL EXPENSE: The general expense, which is those items that are a specific job cost not associated  
5 with direct labor and material such as job trailers, foreman truck, and similar items.  
6 6. RECORD DRAWINGS: The preparation of record or as-built drawings.  
7 7. OTHER COSTS: Any miscellaneous cost not directly assessable to the execution of the Change Order  
8 including but not limited to the following:  
9 a. All association dues, assessments, and similar items.  
10 b. All education, training, and similar items.  
11 c. All drafting and/or engineering, unless specifically requested by Owner as additional Work to be  
12 documented as a Change Order proposal or portion thereof.  
13 d. All other items including but not limited to review, coordination, estimating and expediting, field  
14 and office supervision, administrative work, etc.  
15 G. Contract Extension: The necessary amount of time to be added to the contract deadlines for the completion of a  
16 change order.  
17

18 **1.4. CONTRACT EXTENSION**

- 19 A. The GC shall not assume that every COR will require a Contract Extension. If the GC feels a contract extension is  
20 warranted he/she shall provide sufficient scheduling information that shows how the COR being requested  
21 impacts the critical path of the project.  
22 B. The City of Madison strongly encourages the GC to explore alternative methods and practices prior to submitting  
23 a COR with a request for contract extension.  
24

25 **1.5. OVERHEAD AND PROFIT MARKUP**

- 26 A. Pursuant to the City of Madison Standard Specifications for Public Works Construction, Section 104.7, Extra  
27 Work, the following maximum allowable markups shall be strictly enforced on all change orders associated with  
28 the execution of this contract.  
29 1. The total maximum overhead and profit shall not exceed fifteen percent (15%) of the total costs.  
30 2. The total maximum overhead and profit shall be distributed as follows:  
31 a. For work performed and materials provided solely by the General Contractor, fifteen percent  
32 (15%) of the total costs.  
33 b. For work performed and materials provided solely by Sub-contractors and supervised by the  
34 General Contractor:  
35 i. Supervision of the GC, five percent (5%) of the total Sub-contractor cost.  
36 ii. Sub-contractors work and materials ten percent (10%) of the total Sub-contractor cost.  
37

38 **1.6. PERFORMANCE REQUIREMENTS**

- 39 A. The GC shall become thoroughly familiar with this specification as it will identify procedures and expenses that  
40 are or are not allowed under the Change Order and Change Order Request process.  
41 B. The GC shall be responsible for all of the following:  
42 1. Carefully reviewing the CB that is associated with the COR.  
43 2. Collecting required supporting documentation from all contractors that quantify the need for a COR.  
44 a. Labor hours and wage rates  
45 b. Material costs  
46 c. Equipment costs  
47 C. The following shall apply to establishing prices for labor, materials, and equipment costs:  
48 1. Where Work to be completed has previously been established by individual bid items in the contract bid  
49 proposal the GC shall use the unit bid prices previously established.  
50 2. Where Work to be completed was bid as a Lump Sum without individual bid items the GC shall provide a  
51 breakdown of all labor, materials, equipment including unit rates and quantities required.  
52 D. The completion date is determined by Owner. The schedule, however, is the responsibility of the GC. Time  
53 extensions for extra Work will be considered when a schedule analysis of the critical path shows that the Change  
54 Order Request places the Work beyond the completion date stated in the Contract.  
55

56 **1.7. QUALITY ASSURANCE**

- 57 A. The GC shall be responsible for ensuring that all COR supporting documentation meets the following  
58 requirements prior to completing the COR form:



**SECTION 01 26 63  
CHANGE ORDER (CO)**

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**PART 1 – GENERAL**

**1.1. SUMMARY**

- 17 A. Except in cases of emergency, no changes in the Work required by the Contract Documents may be made  
18 by the General Contractor (GC) without having prior approval of the City Project Manager (CPM).  
19 B. 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

**1.2. RELATED SPECIFICATION SECTIONS**

- 26 A. Section 01 26 13 Request for Information (RFI)  
27 B. Section 01 26 46 Construction Bulletin (CB)  
28 C. Section 01 26 63 Change Order Request (COR)  
29  
30

**1.3. BOARD OF PUBLIC WORKS PROCEDURE**

- 31 A. The Board of Public Works has a very explicit procedure for the review and approval of all change orders  
32 associated with any Public Works Contract as follows:  
33 1. The Supervisory Chain of the CPM shall review and approve any CO under \$10,000 provided it does not  
34 include either of the following:  
35 a. The CO does not request a time extension to the contract.  
36 b. The CO does not cause the contract contingency sum to be exceeded.  
37 2. The Board of Public Works shall review and approve any CO that requires any of the following:  
38 a. Any CO over \$10,000.  
39 b. Any CO requesting a time extension to the contract regardless of the monetary value of the CO.  
40 c. Any CO that that causes the contract contingency sum to be exceeded.  
41 B. The Board of Public Works generally meets every other week and only once in August and December. The GC is  
42 cautioned that, under normal scheduling, a CO requiring a BPW review will take a minimum of two (2) weeks to  
43 achieve final approval.  
44 1. The City shall not be responsible for additional delays to the Work caused by the scheduling constraints  
45 of the Board of Public Works.  
46 C. ***SPECIAL NOTE:*** The GC is cautioned to never proceed unless told to do so by the CPM. Only in rare instances  
47 may the CPM give a written notice to proceed on a COR without an approved CO. Proceeding without the  
48 written notice of the CPM or an approved CO is at the GC's own risk.  
49  
50

**PART 2 – PRODUCTS**

**2.1. CHANGE ORDER FORM**

- 51 A. Provided by CPM.  
52  
53

**PART 3 - EXECUTION**

1 **3.1. PREPARATION OF THE CHANGE ORDER**

- 2 A. The CPM shall prepare the required CO as follows:
- 3 1. Provide information for all contract information.
  - 4 2. Provide a general description of the items described within the change order.
  - 5 3. Provide detailed information for each Item on the CO form. At the option of the CPM he/she may include
  - 6 multiple Change Order Requests each as their own item.
  - 7 4. Provide required pricing breakdown and accounting information as needed for the item.
  - 8 5. Insert attachments of contractor/architect provided information that clarifies and quantifies the CO.
  - 9 Attachments may include but not be limited to material lists, estimated labor breakdown, revised details
  - 10 or specifications, and other documents that may be related to the requested change.
  - 11 6. Save the final version of the completed CO.

12  
13 **3.2. EXECUTION OF THE CHANGE ORDER**

- 14 A. The GC shall do the following:
- 15 1. Review all items on the CO form.
  - 16 2. The GC shall notify the CPM immediately of any errors or discrepancies on the form and shall not sign or
  - 17 save it.
    - 18 a. The CPM shall make any corrections as needed, re-save the form, and notify the GC.
  - 19 3. If/when the GC concurs with the CO form as drafted the GC shall digitally sign the form.
- 20 B. The CPM shall do the following:
- 21 1. Monitor the review process
  - 22 2. Ensure that proper BPW procedures are executed as needed by the CO approval process.
    - 23 a. Schedule the CO on the next available BPW agenda if required.
      - 24 i. Attend the BPW meeting to speak on the CO to board members and answer questions.
      - 25 ii. The GC and/or PE may be required to attend the BPW meeting to address specific
      - 26 information as it relates to the Work and/or materials associated with the CO.
    - 27 3. Monitor final approval and distribution of the CO.
    - 28 4. Notify the GC that the CO has been completed.
    - 29 5. Ensure that the CO is posted to the next Public Works payment schedule.
    - 30 6. Verify that the GC's next Progress Payment-Schedule of Values show the CO as part of the contract sum.
  - 31 C. Upon final approval of the CO the GC may proceed with executing the Work associated with the CO.

32  
33  
34  
35 **END OF SECTION**  
36

**SECTION 01 29 73**  
**SCHEDULE OF VALUES**

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16	<b><u>PART 1 – GENERAL</u></b>	
17		
18	<b>1.1. SUMMARY</b>	
19	A. The Schedule of Values (SOV) is a Contractor provided statement that allocates portions of the total contract	
20	sum to various portions of the contracted work and shall be the basis for reviewing the Contractors Progress	
21	Payment Requests.	
22	B. AIA Document G702 – Application and Certificate for Payment and AIA Document G703 Continuation Sheet shall	
23	be filled out in sufficient detail to be used as a guideline in determining work completed and materials stored on	
24	site when verifying Progress Payment Requests.	
25	C. The General Contractor shall be responsible for filling out, updating, and providing these work sheets with each	
26	Progress Payment Request.	
27		
28	<b>1.2. RELATED SPECIFICATIONS</b>	
29	A. Section 01 26 63 Change Order (CO)	
30	B. Parts of this specification will reference articles within “The City of Madison Standard Specifications for Public	
31	Works Construction”.	
32	1. Use the following link to access the Standard Specifications web page:	
33	<a href="http://www.cityofmadison.com/business/pw/specs.cfm">http://www.cityofmadison.com/business/pw/specs.cfm</a>	
34	a. Click on the “Part” chapter identified in the specification text. For example if the specification	
35	says “Refer to City of Madison Standard Specification <u>210.2</u> ” click the link for Part II, the Part II	
36	PDF will open.	
37	b. Scroll through the index of Part II for specification 210.2 and click the text link which will take you	
38	to the referenced text.	
39		
40	<b>1.3. RELATED DOCUMENTS</b>	
41	A. The following documents shall be used as the basis for initiating and maintaining the SOV worksheets throughout	
42	the execution of this contract.	
43	1. Drawing documents and specifications (including general provisions) as provided with the bid set	
44	documents and any published addendums.	
45	2. Documents associated with revisions or clarifications to number 1 above after awarding of the contract,	
46	including but not limited to:	
47	a. Construction Bulletins	
48	b. Request for Information	
49	c. Approved Change Orders	
50	3. The latest daily/weekly Construction Progress Report	
51	4. Other specifications as identified in Section 1.2 above	
52		
53	<b>1.4. BASIS OF VALUES</b>	
54	A. The Contractor shall provide a breakdown of the Contract Sum in sufficient detail to assist the Engineer and City	
55	Project Manager in evaluating Progress Payment Requests. The breakdown detail may require a labor and	
56	material breakdown for each division of work or trade or as directed by the CPM.	
57	B. The total sum of all items shall equal the Contract Sum.	

1  
2 **PART 2 – PRODUCTS – THIS SECTION NOT USED**

3  
4 **PART 3 - EXECUTION**

5  
6 **3.1. AIA DOCUMENT G702 – APPLICATION AND CERTIFICATE FOR PAYMENT**

- 7 A. The Contractor shall use AIA Document G-702 Application and Certificate for Payment with each Progress  
8 Payment Request.
- 9 B. Completely fill out the Project Information section as follows:
- 10 1. TO OWNER; provide all owner related information as provided in the contract documents.
- 11 2. PROJECT; provide all contract information including contract number, title and address.
- 12 3. FROM CONTRACTOR; provide all contractor related information.
- 13 4. VIA ARCHITECT; provide all the architect's related information including the architect's project reference  
14 number if different from the owners.
- 15 5. Indicate the current APPLICATION NO., PERIOD TO date, and CONTRACT DATE.
- 16 C. Completely fill out the Contractors Application for Payment section.
- 17 1. Fill out lines 1 through 9 to reflect the current status of the contract through the payment date being  
18 requested.
- 19 2. The City of Madison calculates retainage on Public Works Contracts as follows:
- 20 a. In general, across the duration of the contract, 2.5% of the total contract sum, including change  
21 orders, is withheld for retainage as referenced from the City of Madison Standard Specification  
22 110.2:
- 23 i. Beginning with Progress Payment 1, 5% retainage will be withheld until such time that 50%  
24 of the total contract sum has been paid out.
- 25 ii. No additional retainage will be withheld after 50% of the total contract sum has been paid,  
26 unless additional change orders have been approved after the 50% milestone has been  
27 reached. Per City of Madison Standard Specification 110.2, additional retainage up to 10%,  
28 may be held in the event there are holds placed by Affirmative Action or liquidated  
29 damages by BPW.
- 30 iii. Retainage for additional change orders after the 50% milestone will be withheld at the rate  
31 of 2.5% of the total cost of the change order.
- 32 iv. Retainage is based on the change orders posted to the City's contract worksheet at the  
33 time the progress payment is processed.
- 34 D. Completely fill out the Change Order Summary section. Only change orders that have been finalized and posted  
35 to the City of Madison's Application for Partial Payment worksheet may be itemized into the SOV documents.
- 36 E. The Contractor shall sign and date the application and it shall be properly notarized.
- 37 F. The Contractor shall not fill in any information in the Architects Certificate for Payment section.
- 38

39 **3.2. AIA DOCUMENT G703 – CONTINUATION SHEET**

- 40 A. The Contractor shall use AIA Document G-703 Continuation Sheet to itemize his/her SOV for this contract.  
41 Provide additional sheets as necessary.
- 42 B. Provide information in Column A (Item No.), Column B (Description of Work), and Column C (Scheduled Value) by  
43 any method that allocates portions of the total contract sum to various portions of the contracted work.  
44 Possible methods include combinations of the following:
- 45 1. By division of work
- 46 2. By contractor, sub-contractor, sub sub-contractor
- 47 3. By specialty item or group
- 48 4. Other methods of breakdown as may be requested by the City Project Manager or City Construction  
49 Manager at the pre-construction meeting.
- 50 C. Provide total cost of the item/description of work including proportionate shares of profit and overhead related  
51 to the item.
- 52

53 **3.3. INITIAL SCHEDULE OF VALUES SUBMITTAL**

- 54 A. The Contractor shall provide his/her initial SOV to the CPM no later than five (5) working days after the Pre-  
55 construction Meeting.
- 56 1. The initial SOV shall provide information in Column A (Item No.), Column B (Description of Work), and  
57 Column C (Scheduled Value) only.
- 58 2. The level of detail shall be as described in section 3.2 above.



- 1 B. The Project Engineer (PE) and the City Project Manager (CPM) shall review the SOV as any other submittal and
- 2 may require modifications to reflect additional detail as necessary.
- 3 C. The Contractor shall resubmit the SOV as necessary until such time as the PE and CPM have sufficient detail for
- 4 assessing and approving future Progress Payment Applications.
- 5 D. Progress Payment Application 1 will not be processed until such time as the Contractor has met this requirement
- 6 regardless of the amount of work completed per the application.
- 7

8 **3.4. SOV FOR PROGRESS PAYMENT REQUESTS**

- 9 A. The Contractor shall update the initial SOV with each Progress Payment Application as follows:
  - 10 1. Initial items and values as part of Section 3.3 above will not be adjusted once the original Schedule of
  - 11 Values submittal has been approved.
  - 12 2. Change orders shall be added as additional items and values at the bottom of the SOV as they become
  - 13 approved and posted to the City's contract worksheet. The value for each change order shall be the
  - 14 value indicated on the SOV and shall stand alone. Values shall not be split out or combined with other
  - 15 existing items with similar work descriptions on the original SOV.
  - 16 3. Fill out Columns D, E, F and G to properly reflect the work completed and materials received since the last
  - 17 Progress Payment Application.
  - 18 4. Only materials delivered and stored on the project site may be reflected on SOV progress updates.
- 19 B. Provide updated G702 and G703 sheets with each Progress Payment application.
- 20 C. See Specification 01 29 76 Progress Payment Procedures for additional information on submitting Progress
- 21 Payment Applications.
- 22
- 23
- 24
- 25
- 26

**END OF SECTION**

**SECTION 01 74 13  
PROGRESS CLEANING**

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15

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 19 A. Throughout the execution of this contract all contractors shall be responsible for maintaining the project site in a  
20 standard of cleanliness as described in this specification.  
21 B. All contractors shall also comply with the requirements for cleaning as described in other specifications.  
22 C. Work included in this specification shall include but not be limited to:  
23 1. Safety Cleaning  
24 2. Project Site Cleaning  
25 3. Progress Cleaning  
26 4. Final Cleaning

**1.2. QUALITY ASSURANCE**

- 29 A. The General Contractor (GC) shall conduct daily inspections, more often if necessary, of the entire project site to  
30 ensure the requirements of cleanliness are being met as described within these specifications.  
31 B. All contractors shall comply with other regulatory requirements as they apply to waste recycling, reuse, hauling,  
32 and disposal requirements of any governmental authority having jurisdiction.  
33 C. The Owner reserves the right to have work done by others in the event any contractor fails to perform cleaning  
34 as described within these specifications. The cost of any Owner provided cleaning shall be charged to the  
35 contractor through a deduct change order.

**PART 2 - PRODUCTS**

**2.1. CLEANING MATERIALS AND EQUIPMENT**

- 40 A. The Contractor shall provide all required personnel, equipment, and materials necessary to maintain the  
41 required level of cleanliness as described in this specification.  
42 B. Use only cleaning materials and equipment that are compatible with the surface being cleaned, as  
43 recommended by the manufacturer, or as approved by the A/E.  
44 C. Use only cleaning materials, equipment, and methods as recommended in the manufacturers care and use guide  
45 of the material, finish or equipment being cleaned.  
46

**PART 3 - EXECUTION**

**3.1. SAFETY CLEANING**

- 50 A. All Contractors shall be responsible for safety cleaning as required by OSHA and other regulatory requirements  
51 as applicable.  
52 B. Safety Cleaning shall include but not be limited to the following:  
53 1. All work areas, passageways, ramps, and stairs shall be kept free of debris, scrap materials, pallets, and  
54 other large items that would obstruct exiting routes. Small items such as tools, electrical cords, etc are  
55 picked up when not in use.  
56 2. Form and scrap lumber shall have nails/screws removed or bent over. Lumber shall be neatly stacked in  
57 an area designated by the GC.

3. Spills of oil, grease, and other such liquids shall be cleaned immediately or sprinkled with sand/oil-dry first, then cleaned.
4. Oily, flammable, or hazardous items shall be stored in appropriate covered containers and storage devices unless actively being used.
5. Oily, or flammable rags, and other such waste shall only be disposed of in authorized covered containers.
6. Disposal by burning shall not be allowed at any time.

**3.2. PROJECT SITE CLEANING**

- A. This section applies to the general cleanliness of the project site as a whole for the duration of the execution of this contract.
- B. Exterior Project Site Areas
  1. The GC and other Contractors as appropriate shall ensure the following levels of cleanliness are applied to the exterior project site areas.
    - a. The overall appearance of the project site is neat and orderly. Defined areas for material storage, material waste, job trailers, and the project area are clean and well maintained.
    - b. All loose materials (construction or waste) are properly tied or weighted down to resist blowing.
    - c. All construction materials are properly covered with fully functional tarps or plastic wrap, protected from the weather, coverings are tied, strapped, or weighted down to resist blowing.
    - d. Dust control is applied as necessary or as required by any regulatory requirement.
- C. Interior Project Site Areas
  1. All Contractors shall ensure the following levels of cleanliness are applied to the interior project site areas.
    - a. The overall appearance of the project site is neat and orderly. Defined areas for material storage, material waste, and project area are clean and well maintained.
    - b. Stored materials are kept in original shipping containers whenever possible. Stored materials not in shipping containers are properly stored and protected according to other applicable specifications.
    - c. All scraps and debris shall be properly disposed of as often as necessary to keep work areas, passageways, stairs, and ramps free of debris and clear for emergency exiting.
    - d. Boxes, pallets, and other such shipping containers, are broken down, stored in a consolidated area or, disposed of as often as is necessary.
    - e. Hand tools, supplies, materials, electrical cords not being used are picked up and stored in gang boxes, not left as walking hazards in work areas, passageways, etc.

**3.3. PROGRESS CLEANING**

- A. This sub-section shall apply to all Progress Cleaning prior to the installation of finishes, fixtures, and trim (IE rough-in).
  1. For the purposes of this section "clean" shall be defined as a level of cleanliness free of dust and other material capable of being removed by use of reasonable effort using a good quality janitor broom and shop-vac.
  2. Daily cleanings shall be conducted by all contractors at the end of the work day as follows:
    - b. Debris in wall cavities, chase spaces, etc shall be removed prior to enclosing the spaces.
    - c. Large items shall be properly stored, returned to designated areas, or disposed of as necessary.
    - d. Loose materials shall be properly secured.
    - e. Flammable or hazardous materials are properly stored or disposed of.
  3. Weekly cleaning shall be conducted by all contractors as designated by the GC. Weekly cleanings shall include all the above for a daily cleaning and other necessary cleaning as designated by the GC.
- B. This sub-section shall apply to Progress Cleaning in preparation for the installation of finishes, fixtures, and trim.
  - a. Surfaces receiving finishes shall be thoroughly cleaned prior to contractors applying finish materials. The GC shall be responsible for inspecting the area and surfaces being cleaned for finish prior to the sub-contractor applying the finish. This shall include but not be limited to the following:
    - i. Wall surfaces shall be wiped clean of dirt and oily residues, vacuumed free of dust, and shall be free of surface imperfections prior to painting or installing wall coverings.
    - ii. Metal surfaces shall be wiped clean of dirt and oily residues, and be free of surface imperfections prior to painting.
    - iii. Flooring shall be broom swept of large and loose items then vacuumed clean of dust and small particles, and damp mopped clean and dried prior to installing any flooring finish.

- 1 Additional cleaning may be required depending on the preparation requirements  
2 recommended by the flooring material manufacturer.
- 3 C. This sub-section shall apply to Progress Cleaning after the installation of finishes, fixtures, and trim.
- 4 1. For the purposes of this section "clean" shall be defined as a level of cleanliness free of dust and other  
5 material capable of damaging or visually disfiguring finished work, finishes, fixtures, and trim.
- 6 2. Progress Cleaning at this point in the contract shall be conducted immediately as follows:
- 7 a. Dust, dirt, etc shall be swept and vacuumed off of finish flooring and trim.
- 8 b. Liquid spills shall be cleaned up according to the spill type. This shall include drips and spills  
9 caused by paint, stain, sealants, and other such items.
- 10 3. The Contractor(s) at no additional cost to the Owner shall be responsible for replacing any finished work,  
11 finishes, fixtures, and trim damaged or disfigured because of inadequate or improper cleaning.
- 12

13 **3.4. FINAL CLEANING**

- 14 A. Final Cleaning shall not be conducted prior to requesting the 90% contract total progress payment and all of the  
15 following shall be complete:
- 16 1. All final regulatory inspections including but not limited to Building Inspection Department and Madison  
17 Fire Department inspections have been successfully completed.
- 18 2. All Quality Management Observation (QMO) reports have been closed out.
- 19 3. All Demonstration and Training has been completed.
- 20 4. All Attic Stock has been consolidated and located to its designated area
- 21 5. All protection for installed construction shall be removed prior to final cleaning by the contractor  
22 responsible for providing the protections. This shall include the removal of any adhesive residues left  
23 behind from tapes. Contractors shall only use manufacturer authorized cleaning materials for removing  
24 adhesives, etc.
- 25 B. For the purposes of this section "clean" shall be defined as a level of cleanliness generally provided by skilled  
26 cleaners using commercial quality building maintenance equipment and materials.
- 27 C. The GC shall be responsible for ensuring that all requirements under this section are being met.
- 28 D. General Requirements
- 29 1. Employ experienced personnel or professional cleaners for final cleaning as necessary for the areas or  
30 equipment being cleaned.
- 31 2. Cleaning equipment used shall be commercial grade equipment commonly used by professional cleaners.
- 32 3. Cleaning equipment and materials shall be cleaned, rinsed, or replaced to ensure a uniform level of  
33 cleanliness is being maintained during the final cleaning. This shall include but not be limited to the  
34 following:
- 35 a. Vacuum cleaner bags and/or filters are changed and/or cleaned as often as necessary.
- 36 b. Dust & wipe down rags are washed, rinsed, or replaced before starting each room.
- 37 c. Mopping equipment
- 38 i. Mop water for washing shall have cleaning solution added to the amount and temperature  
39 per manufacturer's recommendations. Mop washing water shall be replaced often to  
40 maintain the levels of the cleaning solution and temperature required.
- 41 ii. Mop water for rinsing shall remain clean, clear, and be replaced as often as necessary.
- 42 iii. Mop heads shall be rinsed often and replaced as necessary.
- 43 iv. Mop heads and buckets shall be thoroughly rinsed with each change of water.
- 44 v. Only new mop heads shall be used for rinsing.
- 45 E. Refer to all other specifications in this contract for specific requirements regarding final cleaning of finishes,  
46 fixtures, equipment, etc.
- 47 F. Interior Cleaning shall include but not be limited to the following:
- 48 1. Remove all labels, stickers, tags, and other such items which are not required by code as permanent  
49 labels.
- 50 2. All interior glazing surfaces, including mirrors, have been professionally cleaned and are free of dust and  
51 streaking.
- 52 3. All interior surfaces have been cleaned of excess materials such as paint, sealants, etc and have been  
53 wiped free of dust.
- 54 4. Interior metals, fixtures, and trim have been cleaned free of dust and oily residues
- 55 5. Carpet flooring has been thoroughly cleaned; vacuumed free of dust, excess glues and other stains  
56 removed per manufacturers use and care instructions.
- 57 6. Resilient flooring has been thoroughly cleaned; vacuumed free of dust, excess glues and other stains  
58 removed, mopped and buffed per manufacturers use and care instructions.

- 1                    7. Interior non-occupied concrete floors shall be broom cleaned, vacuumed free of dust, excess glues and
- 2                    other stains removed per manufacturers use and care instructions.
- 3                    8. Light fixtures, lamps, diffusers and other such items have been dusted and cleaned as necessary.
- 4

5     **3.5. CALL BACK WORK**

- 6            A. The GC shall be responsible for ensuring that any contractor returning to the project site for completion or
- 7            correction work has re-cleaned and restored the area to the levels described in section 3.4 above upon
- 8            completion of the work. This shall include but not be limited to the following:
- 9            1. The immediate area(s) where work was completed.
- 10           2. Adjacent areas where dust or debris may have traveled.
- 11           3. Other areas occupied during the completion of the call back work.
- 12           4. Path of entrance/exit, to/from the area(s) of work.
- 13
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**END OF SECTION**

**SECTION 01 78 36  
WARRANTIES**

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15

**PART 1 – GENERAL**

**1.1. SUMMARY**

- 19 A. The purpose of this specification is to provide clear responsibilities and guide lines related to providing all  
20 Warranties and Guarantees related to the Work, workmanship, materials, equipment, and other such items  
21 required by the Construction Documents.  
22 B. Manufacturers’ disclaimers and limitations on product warranties do not relieve any contractor of the warranty  
23 on the Work that includes the product.  
24 C. Manufacturers’ disclaimers and limitations on product warranties do not relieve suppliers, manufacturers and  
25 any contractor required to provide special warranties under the contract documents.  
26

**1.2. DEFINITIONS**

- 28 A. Emergency Repair: The Owner or Owner Representative reserves the right to make emergency repairs as  
29 required to keep equipment or materials in operation or to prevent damage to property and injury to persons  
30 without voiding the contractors warranty or bond or relieving the contractor of his/her responsibilities during  
31 the warranty period.  
32 B. Installer: The company or contractor hired to install a finished product that was manufactured and supplied  
33 specifically for the Work within this contract. The Installer may or may not be the same company that supplied  
34 the product. See the definition for supplier.  
35 C. Supplier: Any company that makes a specific finished product for the Work from information within the Contract  
36 Documents. Examples of suppliers would include custom cabinets, steel stairs and railings, etc. A supplier would  
37 not be a company that distributes items manufactured by others such as an electrical or plumbing supplier.  
38 D. Warranty: A written guarantee from the manufacturer to the owner on the integrity of a product and its  
39 installation, and the manufacturers’ responsibility to repair or replace the defective product or components  
40 within a specified time from the date of ownership. Warranty may also be used interchangeably with  
41 Guarantee. The following warranty types may be part of any specification within the Work associated with the  
42 Construction Documents:  
43 1. Expressed Warranty: A warranty that provides specific repair or replacement for covered components of  
44 a product over a specified length of time.  
45 2. Implied Warranty: A warranty that is not stated explicitly by a seller or manufacturer that the product is  
46 merchantable and fit for the intended purpose.  
47 3. Standard Product Warranty: Preprinted written warranties published by individual manufacturers for  
48 particular products and are specifically endorsed by the manufacturer to the Owner. Standard warranties  
49 may be for any amount of time but shall not be for anything less than one (1) year from the warranty  
50 date.  
51 4. Special Warranty: A written warranty required by the Contract Documents either to extend the time  
52 limit provided under a standard warranty or to provide greater rights to the Owner.  
53 E. Warranty Date: The effective date that begins all warranty periods required for products, installations, and  
54 work-manship associated with the execution of the Work for this contract. The Warranty Date shall be set by  
55 the CPM.  
56 F. Related Damages and Losses: When correcting failed or damaged Warranted Work, remove and reinstall (or  
57 replace if necessary) the construction that has been damaged as a result of the failure or the construction that  
58 must be removed and replaced to obtain access for the correction of Warranted Work.

- 1 G. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected reinstate the  
 2 warranty by a new written endorsement. The reinstated warranty shall be equal to the original warranty with an  
 3 equitable adjustment for depreciation unless specifically noted otherwise in a specification.  
 4 H. Replacement Cost: All costs that may be associated with Work being replaced under warranty including but not  
 5 limited to the following:  
 6 1. Related damages and losses  
 7 2. Labor, material and equipment  
 8 3. Permits and inspection fees  
 9 4. This shall be regardless of any benefit the Owner may have had from the Work through any portion of its  
 10 anticipated useful service life.  
 11 I. Replacement Work: All materials, products, required labor, and equipment necessary to replace failed or  
 12 damaged warranted to an acceptable condition that complies with the requirements of the original Construction  
 13 Documents.  
 14 J. Owners Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not  
 15 limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods  
 16 shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations,  
 17 rights, and remedies.  
 18 1. Rejection of Warranties: The Owner reserves the right to reject any warranty and to limit the selection of  
 19 products with warranties not in conflict with the requirements of the contract documents.  
 20 2. Where the Contract Documents require a Special Warranty or similar commitment on the Work or  
 21 product, the Owner reserves the right to refuse acceptance of the Work until the Contractor presents  
 22 evidence the entities required to countersign such required commitments have done so.  
 23

24 **1.3. GENERAL CONTRACTORS RESPONSIBILITIES**

- 25 A. The General Contractor (GC) shall be responsible to remedy, at his/her expense, any defect in the Work and any  
 26 damage to City owned or controlled real or personal property when the damage is a result of:  
 27 1. The GC's failure to conform to Contract Document requirements.  
 28 a. Any substitutions not properly approved and authorized may be considered defective.  
 29 2. Any defect in workmanship, materials, equipment, or design furnished by the GC or Sub-contractors.  
 30 B. All warranties as described in this specification and these Contract Documents shall take effect on the date  
 31 established by the CPM, as noted in Section 1.3F above.  
 32 1. All warranties shall remain in effect for one (1) year thereafter unless specifically stated otherwise in the  
 33 Contract Documents or where standard manufacturer warranties are greater.  
 34 C. The GC's warranty with respect to Work repaired or replaced, including restored or replaced Work due to  
 35 damage, will run for one (1) year from the date of Owner Acceptance of said repair or replacement.  
 36 1. This shall be regardless of any benefit the Owner may have had from the Work through any portion of its  
 37 anticipated useful service life.  
 38 D. Warranty Response  
 39 1. See Section 3.5 of this specification.  
 40

40 **PART 2 – PRODUCTS - THIS SECTION NOT USED**

42 **PART 3 - EXECUTION**

44 **3.1. WARRANTY CHECKLIST**

- 45 A. All contractors shall be responsible for reviewing the drawings and specifications within their Divisions of Work  
 46 to provide a complete and comprehensive list of all Warranty Requirements to the GC.  
 47 B. Each list shall indicate the title (and plan identifier when applicable) of the warranted item, the associated  
 48 specification of the warranted item, the terms of the warranty (years), and a column to verify the item has been  
 49 turned in and completed.  
 50 C. The GC shall be responsible for all of the following:  
 51 1. Consolidating all the warranty lists into one master Warranty Checklist and submitting electronically.  
 52 a. The checklist shall be in a tabular data format similar to the sample below.  
 53 2. Resubmit the schedule as needed after initial reviews have been completed.  
 54 D. The GC shall work with all contractors to amend the Warranty Checklist throughout the execution of the project  
 55 based on changes and modifications as necessary.  
 56

<u>Title</u>	<u>Specification</u>	<u>Terms</u>	<u>Completed</u>
Overhead Door Operator	08 36 00	MFR 2yr	

Exterior Bench and Trash Receptacles	12 93 00	MFR 3 year warranty on finish	
Kitchen Sink (SK-1)	22 42 00	MFR 5 year	
Disposal (D-1)	22 42 00	MFR 7 year parts and in-home service	
Toilet (WC-1)	22 42 00	MFR 1 year limited	

**3.2. LETTERS OF WARRANTY**

- A. All letters of warranty shall be in a typed letter format and provide the following information:
1. The letter shall be on official company stationary including company name, address, and phone number.
  2. Indicate project name, contract number, and contract address the warranty is for on the reference line.
  3. Provide a description of the warranty(ies) being provided.
    - a. Include Division, Trade, or Specification information as necessary.
    - b. Only combine warranties of related Divisional Work together. Create new letters for additional Divisions as necessary.
  4. Indicate the effective Warranty Date. As noted in Section 1.2.E above, the Warranty Date shall be the date the Certificate of Substantial Completion was signed by the City Engineer.
  5. Contractor Letters of Warranty shall only be signed by a principal officer of the company.
  6. After signing the letter provide the GC with a high quality color scanned image in PDF format and the original signed letter.
- B. The GC shall be responsible for the Final Warranty submittal as identified in Section 3.4 below.
- C. The GC shall obtain letters of warranty from all of the following:
1. The General Contractor shall provide warranty letters for all Work that was self performed under the contract documents, identify all trades or Divisions of Work.
  2. All Sub-contractors shall provide warranty letters for Work performed under the contract documents; identify all trades or Divisions of Work.
  3. Suppliers, as required by other specifications within the Construction Documents where the manufacture of a specific product unique to the Work of this contract was required.
    - a. The terms and conditions of the Supplier Letter of Warranty shall be as defined by the specifications associated with the Work but shall not be less than the industry standard of repair, or replace defective materials and workmanship within one (1) year of the warranty date.
    - b. When the supplier is also the installer a single written letter may be submitted identifying both the warranty for the manufacture of the product and the warranty for the installation of the product.
  4. Installers as required by other specifications within the Construction Documents where the installation of a specific product unique to the Work of this contract was required.
    1. The terms and conditions of the Installer Letter of Warranty shall be as defined by the specifications associated with the Work but shall not be less than the industry standard of repair, or replace defective materials and workmanship associated with the installation of the product within one (1) year of the warranty date.
  5. Special Letters of Warranty shall be required from any contractor, supplier, installer or manufacturer who agrees to provide warranty services required by any Division Specification in excess of their Standard Product Warranty.

**3.3. STANDARD PRODUCT WARRANTY**

- A. All contractors shall be responsible for collecting and providing copies of all standard product warranties for commercially available products purchased and installed under this contract.
- B. Only one copy of the manufacturers' standard warranty needs to be submitted as representative for all quantities of the same model number used throughout the Work.
- C. Provide the manufacturers certificate, letter, or other standard documentation for each Standard Product Warranty submitted as follows:
1. Whenever possible a PDF version of the document shall be used.
    - a. If a PDF version is used all additional information shall be completed using simple PDF editing tools such as text boxes, highlight, etc.
    - b. If a PDF version is not available and an original document is furnished the additional information shall be neatly hand written and highlighted on the document in such a fashion so that it does not obscure any part of the written warranty.
  2. Provide the following additional information on each warranty document:
    - a. Contract warranty date.



- 1                   b.     Provide the manufacturer name and model number of the product if not specified within the  
2                   warranty.  
3                   i.     Where the manufacturer name and model number is specified within the warranty it shall  
4                   be highlighted for visibility.  
5                   c.     Provide the plan identifier (LAV-1, WC-2, etc) when applicable.  
6        D.     Each completed warranty shall be saved as a digital PDF. The file shall be named using the specification number  
7                   and item description. I.E. 22 42 00 Toilet (WC-1).pdf  
8                   a.     Where an original certificate was furnished provide a high quality colored scan of the completed  
9                   document with the additional information. Save the scanned image in PDF format and use the  
10                  same naming convention as indicated above.  
11        E.     Provide all PDF files and any original documents to the GC for final consolidation to be provided to the Owner.  
12

13        **3.4. FINAL WARRANTY SUBMITTAL**

- 14        A.     The GC shall receive all required warranties (digital PDF and any original documents) from all contractors,  
15                  suppliers, installers and manufacturers.  
16        B.     The GC shall inventory all received warranties with the Warranty Submittal List to ensure all required warranties  
17                  have been received and all warranty periods are correct according to the specifications.  
18        C.     Provide with each Operation and Maintenance Manual a complete copy of any associated warranty.  
19        D.     Scan all warranties into a single organized electronic PDF file as follows:  
20                  1.     Organize the PDF file into an orderly sequence based on the table of contents of the Specifications.  
21                  2.     Provide a typed Table of Contents for the entire file at the front of the document.  
22                  3.     Provide bookmarks and links to each individual PDF to enable quick navigation through the PDF  
23                  document.  
24        E.     Submit electronically, the warranty submittal for review by the PE and CPM.  
25        F.     Correct any deficiencies or omissions and resubmit as necessary.  
26

27        **3.5. WARRANTY NOTIFICATION, RESPONSE, EXECUTION AND FOLLOW-UP**

- 28        A.     Warranty Notification:  
29                  1.     The City of Madison uses an email notification system for all warranty related issues. The GC will be  
30                  required to provide, and keep current during the warranty period, a minimum of two (2) email addresses  
31                  and phone numbers of current employees to receive email notifications and provide response regarding  
32                  Work associated with these construction documents.  
33                  a.     In the event a Warranty Issue is deemed by the City of Madison to be an emergency, the GC shall  
34                  first receive a phone call with a follow-up email from the CPM.  
35        B.     Warranty Response:  
36                  1.     The GC shall upon notification by the City of Madison provide warranty response as follows:  
37                          a.     Critical Systems or equipment: Where damage to equipment and other building components, or  
38                          injury to personnel is probable provide immediate emergency shut-down information and an on-  
39                          site response team as soon as possible but in no case shall on-site response exceed 24 hours.  
40                          b.     For non-critical responses where damage or injury is unlikely provide on-site response no later  
41                          than the next business day.  
42                          c.     Where Technical Assistance support is part of the written warranty provide all assistance  
43                          necessary via phone, text, or internet systems as indicated by the warranty. If issues cannot be  
44                          resolved provide on-site response no later than the next business day.  
45                          d.     If the request cannot be supported in sufficient time as outlined above the Owner (or Owner  
46                          Representative) reserves the right to contact other contractors or service companies having  
47                          similar capability to expedite the repair or replacement and shall invoice all associated costs to  
48                          the Owner back to the GC.  
49        C.     Warranty Execution:  
50                  1.     The GC shall provide all repairs or replacements as necessary to restore broken or damaged Work to the  
51                  original level of acceptance as intended by the Contract Documents.  
52                          a.     Provide all materials, equipment, products, and labor necessary to complete the repair or  
53                          replacement associated with the Warranty Issue.  
54                          b.     Provide all cleaning services as may be required before, during, and after the repair or  
55                          replacement as per Specification 01 74 13 Progress Cleaning.  
56                          c.     Provide any protection necessary for existing construction as per Specification 01 76 00 Protecting  
57                          Installed Construction  
58                          d.     Provide new letters of warranty when required.

- 1 D. Warranty Follow-up:  
2 1. Logged Warranty Issues:  
3 a. The GC shall provide complete documented responses of all logged Warranty Issues. Responses  
4 shall provide a description of work completed, by who, inclusive dates, and photos of completed  
5 or repaired work.  
6 i. Provide call back response if work is not acceptable.  
7 b. The City Project Manager shall review the submitted response documentation and do a field  
8 inspection if necessary.  
9 i. If work is not acceptable, contact GC to review details and expectations of the repair as  
10 needed.  
11 ii. If work is acceptable close the Warranty Issue.  
12 2. Warranty Reviews:  
13 a. The GC shall be responsible for scheduling on-site review with all of the following:  
14 i. City Project Manager, and other City staff as needed  
15 ii. Owner and Owner Tenant Representative  
16 iii. Plumbing, Heating, Electrical Sub-contractors  
17 iv. Other Sub-contractors that may be responsible for open Warranty issues  
18 b. Reviews shall be scheduled at 6 months, and 11 months after the effective date of the warranty.  
19 The review meetings shall:  
20 i. Review the status of all open Warranty Issues, determine course of action and estimated  
21 date of completion.  
22 ii. As appropriate, provide shut-down, start-up, testing, and training of off-season equipment  
23 as required by the contract documents.  
24 iii. The 11th month review shall review all open Warranty Issues, final plan for resolution, and  
25 all Warranty Issues where a new letter of warranty may have been issued.  
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**END OF SECTION**

**SECTION 02 40 00  
DEMOLITION**

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18

**PART 1 – GENERAL**

**1.1. SCOPE**

- 22 A. This section includes information common to demolition and applies to the entire contract.  
23 B. Remove items indicated, for salvage, relocation, recycling, and removal from premises.  
24 C. Obtain required permits.  
25 D. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow  
26 worker or public access within range of potential collapse of unstable structures.  
27 E. Perform all demolition as indicated on the drawings to accomplish new work. Demolition Drawings are based on  
28 casual field observation and/or existing record documents. Verify field measurements and circuiting  
29 arrangements as shown on Drawings, verify that abandoned wiring, piping, ducting and equipment serve only  
30 abandoned facilities. Report discrepancies to owner before disturbing existing installation. Beginning of  
31 demolition means contractor accepts existing conditions.  
32 F. Demolition all abandoned services and devices in areas affected by this contract, even if not shown on plans. This  
33 includes but is not limited to wiring, conduits, ductwork, piping, and equipment. Disconnect all services in a  
34 manner which allows for future connection to that service. Disconnect services to equipment at unions, flanges,  
35 valves, or fittings wherever possible. Abandon gas, electric and communication utilities in accordance with local  
36 utility company requirement.  
37 G. Patch holes and openings caused by removal of material and equipment, or formerly covered by such, with like  
38 material and texture of surrounding surface. Paint to match surroundings.  
39 H. Arrange selective demolition schedule so as not to interfere with Owner's operations.  
40

**1.2. REFERENCES**

- 42 A. OSHA – Occupational Safety and Health Administration  
43 1. CFR 1926 - U.S. Occupational Safety and Health Standards.  
44 B. NFPA - National Fire Protection Association  
45 1. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations  
46

**1.3. SUBMITTALS**

- 48 A. PRE-DEMOLITION PHOTOGRAPHS: Record existing conditions by use of preconstruction photographs. Show  
49 existing conditions of adjoining construction and site improvements, including finish surfaces that might be  
50 misconstrued as damage caused by selective demolition operations.  
51 B. PROJECT RECORD DOCUMENTS: Accurately record actual locations of capped and active utilities and subsurface  
52 construction.  
53 C. PROPOSED PROTECTION MEASURES: Submit report, including Drawings, that indicates the measures proposed  
54 for protecting individuals and property, for environmental protection, for dust control and for noise control.  
55 Indicate proposed locations and construction of barriers.  
56 D. Schedule of demolition activities with starting and ending dates for each activity.  
57

**1.4. QUALITY ASSURANCE**

Coordinate work with owner to minimize disruption to the existing building occupants.

- B. Dismantle each structure in an orderly manner to provide complete stability of the structure at all times. Provide bracing and shoring where necessary to avoid premature collapse of structure. Where necessary to prevent collapse of any construction, install temporary shores, underpinning, struts or bracing. Do not commence demolition work until all temporary construction is complete.
- C. Verify the locations of, and protect, any buildings, structures, utilities, paved surfaces, signs, streetlights, utilities, landscaping and all other such facilities that are intended to remain or be salvaged. Make such explorations and probes as necessary to ascertain any required protection measures that shall be used before proceeding with demolition.
- D. Explosives shall not be used for demolition.
- E. Do not demolish or damage equipment and material that is to stay in place. The Contractor shall restore all disturbed areas in accordance with the drawings and specifications. If plans and specifications do not address restoration of specific areas, these areas will be restored to pre-construction conditions as approved by owner.
- F. Masonry and concrete shall be demolished in small sections. Use braces and shores as necessary to support the structure of the building or structure and protect it from damage. Where limits of demolition are exposed in the finished work, cutting shall be made with saws, providing an absolutely straight line, plumb, true and square. Operate equipment so as to cause a minimum of damage to plaster which is to remain, and so as to keep dust and dirt to a minimum.
- G. EXISTING WARRANTIES: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials and using approved contractors so as not to void existing warranties.
- H. Comply with ASSE A10.6 and NFPA 241.

**1.5. ENVIRONMENTAL AND INDOOR AIR QUALITY IMPACT**

- A. Minimize dust, noise and other nuisances to greatest extent possible.
- B. Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

**PART 2 – PRODUCTS****2.1. REPAIR MATERIALS**

- A. Use repair materials identical to existing materials.
  - 1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
  - 2. Use materials whose installed performance equals or surpasses that of existing materials.
- B. Comply with material and installation requirements specified in individual Specification Sections.

**PART 3 - EXECUTION****3.1. EXAMINATION**

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
- C. Inventory and record the condition of items to be removed and salvaged.

**3.2. DEMOLITION**

- A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
- B. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
- C. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
- D. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
  - 1. Maintain fire watch during and for at least 2 hours after flame-cutting operations.

- 1 E. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on  
2 supporting walls, floors, or framing.
- 3 F. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure  
4 minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- 5 G. Removed and Salvaged Items:  
6 1. Clean salvaged items.  
7 2. Pack or crate items after cleaning. Identify contents of containers.  
8 3. Store items in a secure area until delivery to Owner.  
9 4. Transport items to Owner's storage area off-site designated by Owner.  
10 5. Protect items from damage during transport and storage.
- 11 H. Removed and Reinstalled Items:  
12 1. Clean and repair items to functional condition adequate for intended reuse.  
13 2. Pack or crate items after cleaning and repairing. Identify contents of containers.  
14 3. Protect items from damage during transport and storage.
- 15 I. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective  
16 demolition.
- 17 J. Do not allow demolished materials to accumulate on-site.
- 18 K. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- 19 L. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to  
20 grade level in a controlled descent.
- 21 M. Clean adjacent structures and improvements of dust, dirt, and debris caused by demolition operations. Return  
22 adjacent areas to condition existing before selective demolition operations began.  
23

### 24 3.3. GENERAL BUILDING DEMOLITION

- 25 A. Proceed with demolition in a systematic manner, from top of structure to ground. Complete demolition work  
26 above each floor or tier before disturbing supporting members on lower levels.
- 27 B. Remove structural framing members and lower to ground by hoists, derricks or other suitable means.
- 28 C. Locate demolition equipment and remove structure so as to not impose excessive loads to supporting walls,  
29 floors or framing.
- 30 D. Break up and remove concrete slabs-on-grade, unless otherwise shown to remain.
- 31 E. Demolish foundation walls and other below grade features in accordance with the plans. Unless otherwise  
32 noted, remove all below grade features to a point 4' below adjoining existing grade, or proposed grade,  
33 whichever is lower. Basement and/or lowest level floors more than 4' below existing grade need not be  
34 removed, but must be broken up to permit drainage.
- 35 F. Backfill and compact below grade areas and voids resulting from demolition of structures and other  
36 abandonment and demolition. Backfilling shall not begin until demolition and abandonment has been approved  
37 and documented by owner. Prior to placement of fill materials, ensure that areas to be filled are free of standing  
38 water, frost, frozen materials, trash and debris.
- 39 G. Carefully protect and/or replace drain tiles encountered during demolition which are necessary to maintain site  
40 drainage conditions. Immediately repair or replace any drain tiles not scheduled for demolition, but damaged.  
41 Report damage to owner.
- 42 H. Repairs to drain tile or replacement drain tile shall be comparable or better than the existing drain tile system.
- 43 I. Test drain lines with water to assure free flow before covering. Remove all obstructions, retest until satisfactory.  
44

### 45 3.4. UTILITY SERVICES AND BUILDING SERVICES SYSTEMS

- 46 A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against  
47 damage.
- 48 B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap  
49 off utility services and mechanical/electrical systems serving areas to be selectively demolished.
- 50 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
- 51 2. Arrange to shut off utilities with utility companies.
- 52 3. If services/systems are required to be removed, relocated, or abandoned, provide temporary  
53 services/systems that bypass area of selective demolition and that maintain continuity of  
54 services/systems to other parts of building.
- 55 4. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment,  
56 and components indicated on Drawings to be removed.
- 57 a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug  
58 remaining piping with same or compatible piping material.



**SECTION 07 90 00  
JOINT PROTECTION**

1  
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18 2.6. ACCESORIES ..... 2  
19 PART 3 – EXECUTION ..... 3  
20 3.1. INSTALLATION ..... 3

**PART 1 – GENERAL**

**1.1. SCOPE**

- A. Section covers all sealant and caulking materials and their application, wherever required for complete installation of building materials or systems, unless otherwise noted. This includes but is not limited to:
1. Exterior Sealing: Clean out, caulk and seal exterior joints at the following locations.
    - a. Metal air intakes and louvers
    - b. Items projecting through or against walls or floors; building expansion joints
    - c. Door and window frames, including lintels
    - d. Building control joints.
    - e. Other locations where sealing is required by material or product manufacturers.
  2. Interior Caulking:
    - a. Metal-to-masonry and metal-to-gypsum board at metal frames caulked with paintable sealant.
    - b. Joint between windows and window stools
    - c. Joint between plumbing fixtures and adjacent surfaces.
    - d. Building control joints.
    - e. All other locations where caulking is required by material and product manufacturers even though not specifically mentioned herein.

**1.2. REFERENCES**

- A. Work under this section depends on applicable provisions from other sections and the plan set in this contract.
- B. ASTM - American Society for Testing and Materials
1. ASTM C834 - Standard Specification for Latex Sealants
  2. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications
  3. ASTM C920 - Standard Specification for Elastomeric Joint Sealants
  4. ASTM C1193 - Standard Guide for Use of Joint Sealants.

**1.3. SUBMITTALS**

- A. Materials list of items proposed to be furnished under this Section.
- B. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
- C. Cured samples of exposed sealants for each color where required to match adjacent material.

**1.4. QUALITY ASSURANCE**

- A. Mockups: Before installing, apply joint sealants to a designated mockup to verify selections made under sample Submittals and to demonstrate aesthetic effects and qualities of materials and execution.
- B. Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

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**1.5. PERFORMANCE REQUIREMENTS**

- A. Long lasting joint protection throughout the natural expansion and contraction cycles of the building materials.
- B. Air and water tight joints

**1.6. WARRANTY**

- A. All work in this Section shall be guaranteed to be free from defects in materials and workmanship for a period of 5 years from date of final completion of project.
- B. Following will be considered defective work: Discoloration of sealant or materials to which sealant is applied, Improper bonding to surfaces to which sealant is applied and crazing, checking and discoloration of sealant.

**1.7. ENVIRONMENTAL AND INDOOR AIR QUALITY IMPACT**

- A. Provide temporary ventilation during work of this Section.

**PART 2 - PRODUCTS**

**2.1. POROUS AND NON-POROUS MATERIAL SEALANT**

- A. Apply on concrete, masonry, metal, windows, panels and other components enclosure protection
- B. Tremco, "Dymonic 100" or equal
- C. Joint movement capability +100%/-50%
- D. No staining of porous material

**2.2. HORIZONTAL SURFACE SEALANT**

- A. Expansion joints in floors, sidewalks, decks, pools etc.
- B. Tremco, "Vulkem 45"
- C. Movement capability Modified ASTM C719: ±50%

**2.3. PAINTABLE SEALANT**

- A. Interior, where painting over sealant is required
- B. Tremco, "Tremflex 834"
- C. Joint movement capability ±12.5%

**2.4. BATHTUB / TILE SEALANT**

- A. Interior in tiled corners and joints between sanitary installations and wall/floor.
- B. Mildew resistant.
- C. Tremco "Tremsil 200 Sanitary" or approved equal

**2.5. ACOUSTICAL SEALANT**

- A. Permanently tacky non-hardening butyl sealant.
- B. USG Corporation "SHEETROCK Acoustical Sealant"
- C. Color: Match adjacent finished surfaces.

**2.6. ACCESSORIES**

- A. JOINT BACKING:
  - 1. Provide sealant backings of material and type that are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
  - 2. Round foam rod compatible with sealant; ASTM D 1667, closed cell PVC; oversized 30 to 50% larger than joint width.
  - 3. Cylindrical Sealant Back-up Rod: ASTM C1330, of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
  - 4. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure.
- B. FILLER:
  - 1. Definition: Sealant backing used behind a back-up rod.
  - 2. Material: Mineral fiber board: ASTM C612, Class 1.
  - 3. Thickness same as joint width.



- 1                   4.     Depth to fill void completely behind back-up rod.  
2           C.     PRIMER: Non-staining type, recommended by sealant manufacturer to suit application.  
3

4     **PART 3 – EXECUTION**  
5

6     **3.1.   INSTALLATION**

- 7           A.     Install in accordance with manufacturer's instructions and all code requirements.  
8           B.     COLOR: Visible Sealants shall be in color of adjoining material for best aesthetics. Owner shall approve color.  
9           C.     PRIMER: Test Adhesion before application if owner deems necessary, use manufacturer-recommended primer.  
10          D.     SOLVENT CLEANER: as recommended by sealant manufacturer.  
11          E.     JOINT SEALANT BACKING:  
12           1.     Provide sealant backings of material and type that are non-staining; are compatible with joint substrates,  
13                   sealants, primers, and other joint fillers; and are approved for applications indicated by sealant  
14                   manufacturer based on field experience and laboratory testing.  
15           2.     Use closed-cell polyethylene backer rods backing material to control depth of sealant bead. Where space  
16                   for back-up rod does not exist, install bond breaker tape strip at bottom (or back) of joint so sealant  
17                   bonds only to two opposing surfaces. Take all necessary steps to prevent three sided adhesion of  
18                   sealants. Do not apply sealant directly against mortar in a joint.  
19           3.     Cylindrical Sealant Back-up Rod: ASTM C1330, of size and density to control sealant depth. Install filler to  
20                   fill void behind back-up rod at full joint thickness. Filler material: Mineral fiber board: ASTM C612, Class 1.  
21           4.     Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for  
22                   preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint  
23                   where such adhesion would result in sealant failure.  
24           5.     Insert backer material uniformly into the joint cavity so that joint depth does not exceed one half (1/2)  
25                   joint width.  
26          F.     PREPARATORY WORK  
27           1.     Prepare joints in accordance with manufacturer's instructions. Verify required proportion of joint width  
28                   to depth.  
29           2.     Clean surfaces of joint to receive caulking or sealants leaving joint dry to the touch, free from frost,  
30                   moisture, grease, oil, wax, lacquer paint, or other foreign matter that would tend to destroy or impair  
31                   adhesion.  
32                   a.     Clean porous joint substrate surfaces to produce a clean, sound substrate capable of developing  
33                           optimum bond with joint sealants.  
34                   b.     Remove laitance and form-release agents from concrete. Remove loose particles remaining from  
35                           above cleaning. Porous joint surfaces include concrete, masonry glass, metal, porcelain enamel  
36                           and unglazed surfaces of ceramic tile.  
37          G.     APPLICATION OF SEALANT:  
38           1.     Follow requirements of ASTM C1193 and manufacturer's instructions and tool to a concave surface.  
39           2.     Apply sealant by means of a pressure gun with nozzle diameter equal to width of joint. Firmly press  
40                   sealant into joint to ensure complete wetting of bonding surface and obtain good adhesion.  
41           3.     Where practical, mask joints and do not remove tape until joint has been tooled and initial cure has taken  
42                   place.  
43          H.     Seal all joints including, but not limited to, air intakes and louvers, Items projecting through or against walls or  
44                   floors; building expansion and control joints, Door and window frames, including lintels, building control joints,  
45                   metal-to-masonry and metal-to-gypsum board at metal frames caulked with paintable sealant, joint between  
46                   windows and window stools, joint between plumbing fixtures and adjacent surfaces. All other locations where  
47                   caulking is required by material and product manufacturers.  
48          I.     Perform work in accordance with ASTM C1193, "Standard Guide for Use of Joint Sealants", and Sealant,  
49                   Waterproofing & Restoration Institute (SWR Institute), "Sealants: The Professional's Guide."  
50          J.     Do not apply sealants when surfaces are frosty, damp or wet or when temperatures are below 40°F without  
51                   written approval from sealant manufacturer.  
52  
53

**END OF SECTION**

**SECTION 09 30 00  
TILING**

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18

**PART 1 – GENERAL**

**1.1. DESCRIPTION OF WORK**

- A. This section includes the following:
  - 1. Ceramic Floor Tile
  - 2. Ceramic Wall Tile

**1.2. QUALITY ASSURANCE**

- A. The Tile Council of North America Hand book and ANSI A108 Series/A118 Series
- B. Provide materials obtained from one source for each type and color of tile, grout and setting materials.
- C. Installer Qualifications: Company specializing in performing tile installation, with minimum of five years of documented experience

**1.3. DELIVERY, STORAGE AND HANDLING**

- A. Deliver packaged materials and store in original containers with seals unbroken and labels intact until time of use, in accordance with manufacturer’s instruction.
- B. Protect adhesives from freezing or overheating in accordance with the manufacturer’s instructions.

**PART 2 - PRODUCTS**

**2.1. MANUFACTURER:**

- A. Provide products by one of the following for each type of tile.
  - 1. Ceramic Floor Tile:
    - a. Daltile Corporation
  - 2. Ceramic Wall Tile:
    - a. Daltile Corporation; Bedrosians;

**2.2. TILE PRODUCTS**

- A. Ceramic Floor Tile: Size, color and design as shown on the drawings.
- B. Base: Sanitary cove base trim units.
- C. Ceramic Wall Tile: Size, color and design as shown on the drawings.

**2.3. MORTAR AND GROUT**

- A. Latex Portland Cement Mortar: Latex modified Portland cement dry set mortar; ANSI A 118.4
- B. Latex-Portland Cement Grout: Proprietary compound composed of Portland cement with latex additive for a more flexible and less permeable grout. Color as selected by City Project Manager from manufacturer’s standard.
  - 1. Provide product with latex additive which is compatible with latex additive in latex-Portland cement mortar.
  - 2. Products offered by manufacturers to comply with requirements include the following:

- 1 a. Latex Modified Floor Grout: L&M-Surco Manufacturing, Inc.  
2 C. Grout Sealer: Provide clear, water-based acrylic sealer. "CeramaSeal Grout Sealer" as manufactured by Bostik or  
3 approved equal.  
4  
5

### 6 **PART 3 - EXECUTION**

#### 7 **3.1. TILE INSTALLATION STANDARDS**

- 8 A. ANSI Standards: Comply with applicable requirements of the following, except as otherwise indicated.  
9 1. ANSI A108.1: Tile installed with Portland cement mortar.  
10 B. Comply with manufacturer's instructions for mixing and installation of proprietary materials.  
11

#### 12 **3.2. EXAMINATION**

- 13 A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are  
14 ready to receive tile.  
15 B. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of setting materials  
16 to sub-floor surfaces.  
17 C. Verify that joints and cracks in tile substrate are coordinated with tile joint locations.  
18 D. Proceed with installation only after unsatisfactory conditions have been corrected.  
19

#### 20 **3.3. PREPARATION**

- 21 A. Protect surrounding work from damage.  
22 B. Vacuum clean surfaces and damp clean.  
23 C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.  
24

#### 25 **3.4. INSTALLATION**

- 26 A. Extend tile work into recesses and under or behind equipment and fixtures, to form a complete covering without  
27 interruptions, except as otherwise shown. Terminate work neatly at obstructions, edges and corners without  
28 disrupting pattern or joint alignments.  
29 B. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces.  
30 Carefully grind cut edges of the tile abutting trim, finish or built-in items for straight aligned joints. Cut and fit  
31 tile to penetrations through tile, leaving sealant joint space. Fit tile closely to electrical outlets, piping, fixtures  
32 and other penetrations so that plates, collars or covers overlap tile.  
33 C. Placement Methods: Install tile using the following setting beds as shown or scheduled. If not otherwise  
34 indicated, use Portland cement mortar where thickness and substrate permits.  
35 1. Thin-Set Installations:  
36 a. Dry set Portland cement mortar or latex-Portland cement mortar.  
37 D. Jointing Pattern: Unless otherwise shown, lay tile in grid pattern. Align joints when adjoining tiles on floor, base,  
38 walls and trim are same size. Layout tile work and center tile fields in both directions in each space or on each  
39 wall area. Adjust to minimize tile cutting. Provide uniform joint widths, unless otherwise shown.  
40 E. Allow tile to set for a minimum of 48 hours prior to grouting.  
41 F. Metal Edge Strips: Provide where shown and where exposed edge of ceramic tile flooring is to meet carpet,  
42 wood or other resilient floor covering.  
43 G. Grout Sealer: Apply grout sealer in accordance with manufacturer's instructions.  
44

#### 45 **3.5. CLEANING AND PROTECTION**

- 46 A. Cleaning:  
47 1. Upon completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign  
48 matter.  
49 2. Unglazed tile may be cleaned with acid solutions only when permitted by tile and grout manufacturer's  
50 printed instructions, but no sooner than 14 days after installation. Protect metal surfaces, cast iron and  
51 vitreous plumbing fixtures from effects of acid cleaning. Flush surface with clean water before and after  
52 cleaning.  
53 B. Finished Tile Work: Leave finished installation clean and free of cracked, chipped, broken, un-bonded or  
54 otherwise defective tile work.  
55 C. Protection:  
56 1. When recommended by tile manufacturer, apply a protective coat of neutral protective cleaner to  
57 completed tile walls and floors. Protect installed tile work with Kraft paper or other heavy covering  
58 during construction period to prevent damage and wear.

- 1
  - 2
  - 3
  - 4
2. Prohibit foot and wheel traffic from using tiled floors for at least 3 days after grouting is completed.
  3. Before final inspection, removed protective coverings and rinse neutral cleaner from tile surfaces.

**END OF SECTION**

**SECTION 09 90 00  
PAINTINGS AND COATINGS**

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15

**PART 1 – GENERAL**

**1.1. SCOPE**

- 19 A. This section includes information common to painting and coating and applies to the entire project.  
20 B. Work Included: All interior exposed surfaces listed on the Painting Schedule in Part 3 - Execution of this Section,  
21 in accordance with the types of finish specified herein and as shown on the Drawings.  
22 C. Priming or priming and finishing of certain surfaces are specified to be factory performed or installer performed  
23 under pertinent other Sections. Do not include painting which is specified under other Sections.  
24 D. Unless otherwise indicated, painting is not required on surfaces in concealed areas and inaccessible areas such as  
25 furred spaces, foundation spaces, utility tunnels, pipe spaces, and duct shafts.  
26 E. Metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze, and similar finished  
27 materials will not require painting under this Section except as may be specified herein.  
28 F. Do not paint any moving parts of operating units; mechanical or electrical parts such as valve operators, linkages,  
29 sinkages, sensing devices, and motor shafts, unless otherwise indicated.  
30 G. Do not paint over any required labels or equipment identification, performance rating, name, or nomenclature  
31 plates.  
32 H. The term "paint", as used herein, means all coating systems materials including primers, emulsions, epoxy,  
33 enamels, sealers, fillers and other applied materials whether used as prime, intermediate or finish coats.  
34

**1.2. RELATED REFERENCES**

- 35 A. Work under this section depends on applicable provisions from other sections and the plan set in this contract.  
36  
37

**1.3. SUBMITTALS**

- 38 A. Complete materials list of all items proposed to be furnished and installed under this Section.  
39 B. Manufacturer's specifications and other data required to demonstrate compliance with the specified  
40 requirements.  
41 C. SAMPLES: Provide two samples of each color and each gloss for each material on which the finish is specified to  
42 be applied.  
43  
44

**1.4. QUALITY ASSURANCE**

- 45 A. MANUFACTURER: Product used in the work of this Section shall be produced by manufacturers regularly  
46 engaged in the manufacture of similar items and with a history of successful production acceptable to the  
47 Architect/Engineer.  
48 B. VOC Content: Determine VOC (Volatile Organic Compound)  
49 B. QUALIFICATION OF WORKERS: At least one person who shall be present at all times during execution of the work  
50 of this Section, who shall be thoroughly familiar with the specified requirements and the materials and methods  
51 needed for their execution, and who shall direct all work performed under this Section.  
52 C. PAINT COORDINATION:  
53 1. Provide finish coats which are compatible with the prime coats used.  
54 2. Review other Sections of these Specifications as required, verifying the prime coats to be used and  
55 ensuring compatibility of the total coating system for the various substrata.  
56 3. Provide barrier coats over incompatible primers, or remove the primer and re-prime as required.  
57

- 1 D. SURFACE TEMPERATURES: Do not apply solvent-thinned paints when the temperature of surfaces to be painted  
2 and the surrounding air temperatures are below 45°F, unless otherwise permitted by the manufacturer's printed  
3 instructions. WEATHER CONDITIONS: Do not apply paint in snow, rain, fog, or mist; or when the relative  
4 humidity exceeds 85%; or to damp or wet surfaces; unless otherwise permitted by the manufacturer's printed  
5 instructions.
- 6 E. Deliver all materials to the Project site in original, new, and unopened containers bearing the manufacturer's  
7 name and label showing the following information:
- 8 1. Manufacturer name; type of material  
9 2. Thinning and mixing instructions.  
10 3. Manufacturer's stock number and batch number  
11 4. Application instructions.  
12 5. Color: name and number.  
13 6. Contents by volume of major pigment and vehicle constituents
- 14 F. For application of the approved paint, use only such equipment as is recommended for application of the  
15 particular paint by the manufacturer of the particular paint, and as approved by the Architect/Engineer.
- 16 G. All other materials, not specifically described, but required for a complete and proper installation of the work of  
17 this Section, shall be new, first-quality of their respective kinds, and as selected by the General Contractor  
18 subject to the approval of the Architect/Engineer.
- 19 H. Mix and prepare painting materials in strict accordance with the manufacturer's recommendations.  
20

### 21 1.5. ATTIC STOCK

- 22 A. Upon completion of the work of this Section, deliver to the project site, attic stock from the same production  
23 run, identified with labels. Paint to be factory sealed and not less than one gallon of each material applied. All  
24 stock to be inventoried and neatly located in an area designated by the project manager and provide inventory  
25 list to the project manager.  
26

### 27 1.6. GUARANTEE

- 28 A. Work and materials in this section shall be guaranteed to be free from defects for a period of one (1) year from  
29 date of final completion of project.  
30 B. Any defects, not due to or caused by faulty construction or materials furnished or performed by other crafts, but  
31 due to defective materials and workmanship in painting and finishing, shall be repaired and corrected by the  
32 Painting Contractor without cost to the Owner.  
33

## 34 PART 2 - PRODUCTS

35

### 36 2.1. PAINT MATERIALS

- 37 A. MANUFACTURERS: Devoe (ICI Dulux), Glidden (ICI Dulux), Hallman Lindsay, Pittsburg Paints, Sherwin-Williams,  
38 Diamond Vogel Paint Products  
39 B. COLORS AND GLOSSES: Owner will select colors to be used in the various types of paint specified and will be the  
40 sole judge of acceptability of the various glosses obtained from materials proposed to be used by the Contractor.  
41 C. UNDERCOATS AND THINNERS: Provide undercoat paint produced by the same manufacturer as the finish coat.  
42 Use only the thinners recommended by the paint manufacturer, and use only to the recommended limits.  
43 Insofar as practicable, use undercoat, finish coat, and thinner material as parts of a unified system of paint finish.  
44

## 45 PART 3 - EXECUTION

46

### 47 3.1. INSTALLATION

- 48 A. Install in accordance with manufacturer's instructions and all code requirements.  
49 B. Prior to installation of the work of this Section, carefully inspect the installed work of all other trades and verify  
50 that all such work is complete to the point where this installation may properly commence.  
51 C. Remove all removable items which are in place and are not scheduled to receive paint finish, or provide surface  
52 applied protection prior to surface preparation and painting operations. Following completion of painting in each  
53 space or area, reinstall the removed items by using workers skilled in the necessary trades.  
54 D. PREPARATION OF WOOD SURFACES:  
55 1. Clean all wood surfaces until they are free from dirt, oil, and all other foreign substances.  
56 2. Smooth all finished wood surfaces exposed to view, using the proper sandpaper and spackling  
57 compound. Where so required, use varying degrees of coarseness in sandpaper to produce a uniformly  
58 smooth and unmarred wood surface.

- 1                    3.     Do not proceed with painting of wood surfaces until the moisture content of the wood is 12% or less as
- 2                                measured by a moisture-meter approved by the Architect/Engineer.
- 3             E.     PREPARATION OF METAL SURFACES:
- 4                    1.     Thoroughly clean all surfaces until they are completely free from dirt, oil, and grease.
- 5                    2.     On galvanized surfaces, use solvent for the initial cleaning and then treat the surface thoroughly with
- 6                                phosphoric acid etch. Remove all etching solution before proceeding.
- 7                    3.     Allow to dry thoroughly before application of paint.
- 8                    4.     Aluminum Conduit: Interior, Non-Immersion Surface Preparation: SSPC-SP1 "Solvent Cleaning", and dry.
- 9                    5.     Exterior Metal, Ferrous: Surface Preparation: SSPC-SP6 "Commercial Blast Cleaning" – Field.
- 10                  6.     Interior Metal, Ferrous: Surface Preparation: SSPC-SP3 "Power Tooled Cleaning" and Solvent Wiped Field.
- 11                  7.     Steel Joists - Interior Exposure: Surface Preparation: Clean and dry, and SSPC-SP2 "Hand Tool Cleaning" –
- 12                                Field.
- 13
- 14             F.     PREPARATION OF CONCRETE AND MASONRY BLOCK:
- 15                    1.     Fill cracks and irregularities with portland cement grout to provide uniform surface texture.
- 16                    2.     Fill concrete masonry unit surfaces with block filler.
- 17                    3.     Surface shall be cured, clean, and dry.
- 18             G.     Apply paint, enamel, stain, and varnish with suitable brushes, rollers, or spraying equipment. Rate of application
- 19                    shall not exceed that as recommended by paint manufacturer for the surface involved less than 10% allowance
- 20                    for losses. Keep brushes, rollers, and spraying equipment clean, dry, free from contaminates and suitable for the
- 21                    finish required.
- 22             H.     Apply stain by brush.
- 23             I.     Comply with recommendation of product manufacturer for drying time between succeeding coats.
- 24             J.     Sand and dust between each coat to remove defects visible from a distance of five feet.
- 25             K.     Finish coats shall be smooth, free of brush marks, streaks, laps or pile up of paints, and skipped or missed areas.
- 26                    Finished metal surfaces shall be free of skips, voids or pinholes in any coat when tested with a low voltage
- 27                    detector.
- 28             L.     PAINTED WORK:
- 29                    1.     Back prime all interior trim.
- 30                    2.     Runs on face shall not be permitted.
- 31             M.     Cleaning:
- 32                    1.     Touch-up and restore finish where damaged.
- 33                    2.     Remove spilled, splashed or splattered paint from all surfaces.
- 34                    3.     Do not mar surface finish or item being cleaned.
- 35                    4.     Leave storage space clean and in condition required for equivalent spaces in Project.
- 36             N.     Completed work shall match the approved samples for color, texture, and coverage. Remove, refinish, or repaint
- 37                    all work not in compliance with specified requirements.
- 38             O.     Do not apply additional coats until completed coat has been inspected by the Architect/Engineer. Only
- 39                    inspected coats of paint will be considered in determining number of coats applied.
- 40             P.     Leave all parts of moldings and ornaments clean and true to details with no undue amount of paint in corners
- 41                    and depressions.
- 42             Q.     Make edges of paint adjoining other materials or colors clean and sharp with no overlapping.
- 43             R.     Apply primer on all work before glazing.
- 44             S.     Change colors at doors where colors differ between adjoining spaces or rooms and where door frames match
- 45                    wall colors.
- 46             T.     Refinish entire wall where portion of finish has been damaged or is not acceptable.
- 47
- 48
- 49
- 50

**END OF SECTION**

**SECTION 22 05 00  
COMMON WORK RESULTS FOR PLUMBING**

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**PART 1 – GENERAL**

**1.1. RELATED DOCUMENTS**

A. Applicable provisions of Division 1 shall govern work under this section.

**1.2. CUTTING AND PATCHING**

- A. Hole cutting is to be held to a minimum. Furnish and set sleeves as construction proceeds. If the contractor neglects to set sleeves, he retains responsibility for cutting required openings. No hole shall be cut for sleeves without the consent of the General Contractor. Work will be done under the supervision of the General Contractor.
- B. All patching incidental to the installation of this work shall be included where this Contractor has cut the opening. Patching will be y the General Contractor, reimbursed by the Contractor responsible for the cutting.

**1.3. CODES AND PERMITS**

- A. Perform all work in strict accordance with the requirements of the State of Wisconsin Plumbing Code. Requirements outlined therein shall be minimum as related to this work.
- B. Arrange for Code required inspections and pay for same if not covered by permit costs.
- C. Arrange and pay for required meter deposits and utility extension costs.

**1.4. DESCRIPTION OF WORK**

- A. Provide all labor, materials, equipment, tools and services for complete and fully operational systems of plumbing and sewerage as indicated or reasonable implied by drawings and specifications. If an item is shown or specified, it shall be considered sufficient for inclusion as part of this contract work.
- B. Contractor shall verify all job conditions at the site and report any discrepancies to the City Project Manager immediately.

**1.5. WORK PRIORITY AND COORDINATION**

- A. Contractor, his mechanics and subcontractors shall cooperate with all others so construction may proceed without hindrances and in all cases to the best interests of the Owner. Confer with others regarding any work that may affect this work and arrange piping, etc. in proper relation to that of others. Coordinate, prior to installation, the arrangement of plumbing work as related to heating and ventilating, electrical work, structural, fire protection and general construction.

**1.6. DRAWINGS**

- A. Consult the drawings for the general location of all equipment, piping, and apparatus. While the sizes and locations have been indicated, the Contractor shall properly adjust his work to meet conditions as they actually exist on the premises. Equipment and piping arrangements shall provide adequate and acceptable clearance for entry, servicing and maintenance. Minor adjustments shall be discussed in the field with the City Project Manager with the view to convenience of operation and noninterference with other work. The City Project



1 Manager reserves the right to change the location of any pipe, duct or piece of equipment to suit conditions,  
2 with no added cost to the Owner if the requested change does not modify the scope of work.  
3

4 **1.7. REMODELING WORK**

- 5 A. Contractor shall visit the site and thoroughly examine all existing conditions. Provide all required work necessary  
6 for interconnection of existing services with new system and removal of existing unused components.  
7  
8 B. Contractors shall notify City Project Manager at least 10 days prior to the bid closing date of any deviations or  
9 required changes that are noticed. No allowance for additional costs for work related to existing conditions will  
10 be permitted after bidding unless proof of hidden work, breakage or damage could not be determined by  
11 inspection or examination by the contractor.  
12

13 **1.6. HOUSEKEEPING**

- 14 A. This Contractor shall periodically remove debris caused by his operations. On completion this Contractor shall  
15 remove all debris from their work and leave same neat and clean, ready for use by the Owner.  
16

17 **1.7. PROTECTION OF MATERIALS AND EQUIPMENT**

- 18 A. Materials and equipment shall be protected at all times. This Contractor shall be responsible for all damage  
19 caused directly or indirectly by his employees. Pipe openings shall be closed with caps or plugs during  
20 installation. Equipment shall be tightly covered and protected against dirt, water, and chemical or mechanical  
21 injury. At the completion of all work, the equipment shall be thoroughly cleaned and delivered to the Owner in a  
22 condition satisfactory to the City Project Manager.  
23

24 **1.8. PAINTING**

- 25 A. All equipment shall have manufacturer's standard baked enamel finish and shall not be job painted "unless  
26 otherwise specified". Equipment in finished rooms shall have color selected by City Project Manager from  
27 manufacturer's standard colors. All required touch up painting of prefinished surfaces by this Contractor.  
28

29 **1.9. MECHANICAL IDENTIFICATION**

- 30 A. Label all accessible piping with stenciled identifying letters (1 ½" min height) and direction of flow arrows at  
31 intervals of not more than 50' and at points where piping passes through walls, floors or roofs on both sides of  
32 partition.  
33

34 **PART 2 - PRODUCTS**

35  
36 **2.1. QUALITY REQUIREMENTS**

- 37 A. items indicated on the drawings and in the specifications are listed by manufacturer in order to describe  
38 minimum quality requirements.  
39 B. Materials and equipment shall conform to requirements of Wisconsin Administrative Code.  
40 C. All materials and equipment furnished shall be new and shall be the standard products of manufacturers  
41 regularly engaged in the production of Plumbing and Fire Protection materials and equipment.  
42

43 **2.2. ACCESS PANELS AND CHASES**

- 44 A. Wherever valves, air vents, controllers, shock absorbers or similar pieces of operating equipment are concealed  
45 in building construction, access panels are required. This Contractor shall furnish Milcor, Miami-Carey or Bilco  
46 access panels of proper styled to match adjacent finish and of approved size. Access panels shall be installed by  
47 the General Contractor in location approved by the City Project Manager. Use stainless steel access panels  
48 except where specifically noted otherwise. Floor mounted access panels shall have a recessed surface to receive  
49 tile or finish floor. Bilco type T or equal. No obstructions allowed between panel and item to be served.  
50

51 **END OF SECTION**

**SECTION 22 40 00  
PLUMBING FIXTURES**

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16

**PART 1 – GENERAL**

**1.1. RELATED DOCUMENTS**

- A. Section 22 05 00 Common Work Results for Plumbing
- B. Applicable provisions of Division 1 shall govern work under this section.

**1.2. DESCRIPTION OF WORK**

- A. Provide plumbing fixtures and trim as indicated in this section. The Contractor shall check fixture schedules for convenience but is required to furnish all fixtures complete with trim, etc. necessary to the work and as reasonably indicated or implied.

**1.3. SUBMITTALS**

- A. Maintenance Data: Submit maintenance data and spare parts lists. Include this data in maintenance manual.

**1.4. QUALITY ASSURANCE**

- A. Fixture descriptions are an indication of minimum quality and do not express preference as to manufacturer. Fixtures may be Kohler or Elkay as specified, American Standard or approved equal.
- B. Comply with applicable portions of State of Wisconsin plumbing code pertaining to materials and installation of plumbing fixtures. Comply with applicable ANSI and PDI standards pertaining to plumbing fixtures, handicapped fixtures and fixture supports.

**1.5. PRODUCT DELIVERY, STORAGE AND HANDLING**

- A. Deliver plumbing fixtures in factory fabricated containers. Handle carefully to prevent breakage, chipping and scoring of finish. Do not install damaged units; replace and return to manufacturer.

**PART 2 - PRODUCTS**

**2.1. PLUMBING FIXTURES**

- A. Provide factory-fabricated fixtures of type, style and material indicated on drawings. For each fixture provide trim, carrier, seats, valves, etc. as indicated and as required for proper operation.
- B. Water Hammer Arrestor: Smith Hydrotrol bellows type water shock absorber with stainless steel shell complying with ASSE 1010, stainless steel adapter, and male threaded plug. Size as required for specific water service application.

**2.2. PLUMBING FITTINGS, TRIM AND ACCESSORIES**

- A. Where fittings, trim and accessories are exposed, provide bright chrome plated or polished stainless steel units. Provide copper or brass where not exposed.
- B. Water Outlets: Provide commercial quality faucets, valves, or dispensing devices of type and size as indicated. Include manual shutoff valves and supply stem pipes to permit outlet servicing without shutdown of water supply system.
- C. Vacuum Breakers: Provide where required by Code including locations where water outlets are equipped for hose attachment.

- 1 D. P-Traps: Include removable P-traps where drains are indicated for direct connection. All brass sink and lavatory
- 2 tailpieces and traps shall be 17 gage.
- 3 E. Carriers:
- 4 1. Lavatory Supports: Cast iron supports, having tubular steel uprights with concealed arms and sleeves,
- 5 mounted on adjustable headers with escutcheons and complete with heavy cast iron short feet,
- 6 alignment trusses and mounting fasteners.
- 7 F. Fixture Bolt Caps: Provide manufacturer's standard exposed fixture bolt caps to match fixture finish.
- 8 G. Escutcheons: Provide chrome plated sheet steel escutcheons with friction clips where fixture supplies and drains
- 9 penetrate walls in exposed locations.
- 10 H. Supplies and Stops for Lavatories and Sinks: Polished chrome plated, loose keyed angle stop having 1/2" inlet and
- 11 3/8" o.d. x 12" long flexible tubing outlet and wall flange and escutcheon.
- 12

13 **PART 3 - EXECUTION**

14

15 **3.1. INSTALLATION**

- 16 A. Examine roughing-in work of domestic water and waste piping systems to verify actual locations of piping
- 17 connection prior to installing fixtures. Rough in shall be coordinated with floor base height. All piping at the wall
- 18 shall be above the base. Also examine floor and substrates and conditions under which fixture work is to be
- 19 accomplished. Correct any incorrect locations of piping and other unsatisfactory conditions.
- 20 B. Install plumbing fixtures of types and where shown and at indicated heights in accordance with drawings,
- 21 manufacturer's written instructions and roughing-in drawings. Ensure that plumbing fixtures comply with
- 22 requirements and serve intended purposes.
- 23 C. Fasten plumbing fixtures securely to indicated supports or building structure and ensure that fixtures are level
- 24 and plumb. Secure plumbing supplies behind or within wall construction so as to be rigid and not subject to pull
- 25 or push movement.
- 26

27 **3.2. CLEAN AND TEST**

- 28 A. Clean plumbing fixtures of dirt and debris upon completion of installation. Protect fixtures from damage during
- 29 remainder of construction period.
- 30 B. Inspect each unit for damage. Remove and replace damaged units with new units. Test fixtures for proper
- 31 operation upon water pressurization. Correct or replace malfunctioning units.
- 32 C. Furnish special wrenches and other devices necessary for servicing fixtures and trim to Owner.
- 33

34 **END OF SECTION**

**SECTION 26 00 00  
ELECTRICAL**

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14

**PART 1 – GENERAL**

**1.1. RELATED DOCUMENTS**

A. Applicable provisions of Division 1 shall govern work under this section.

**1.2. CODES AND PERMITS**

- A. Perform all work in strict accordance with the requirements of the State of Wisconsin Electrical Code and State of Wisconsin Energy Code. Requirements outlined therein shall be minimum as related to this work.
- B. Arrange for Code required inspections and pay for same if not covered by permit costs.

**1.3. WORK PRIORITY AND COORDINATION**

A. contractor, his mechanics and subcontractor shall cooperate with all others so construction may proceed without hindrances and in all cases to the best interests of the Owner. Confer with others regarding any work that may affect this work and arrange piping, ductwork, equipment, etc. in proper relation to that of others. Coordinate prior to installation the arrangement of HVAC work as related to plumbing, electrical and general construction work.

**1.4. DRAWINGS**

A. The drawings are schematic in nature indicating the general location of all electrical equipment and devices. While the sizes and locations have been indicated, the Contractor shall properly adjust this work to meet conditions as they actually exist on the premises.

**1.5. REMODELING WORK**

- A. Contractor shall visit the site and thoroughly examine all existing conditions. Provide all required work necessary for interconnection of existing services with new system and removal of existing unused components.
- B. Contractors shall notify City Project Manager at least 10 days prior to the bid closing date of any deviations or required changes that are noticed. No allowance for additional costs for work related to existing conditions will be permitted after bidding unless proof of hidden work, breakage or damage could not be determined by inspection or examination by the contractor.

**1.6. HOUSEKEEPING**

A. This Contractor shall periodically remove debris caused by his operations. On completion this Contractor shall remove all debris from their work and leave same neat and clean, ready for use by the Owner.

**1.7. PAINTING**

A. All equipment shall have manufacturer’s standard baked enamel finish and shall not be job painted “unless otherwise specified”. Equipment in finished rooms shall have color selected by the City Project Manager from manufacturer’s standard colors. All required touch up painting of pre-finished surfaces by this Contractor.

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**PART 2 - PRODUCTS**

**2.1. QUALITY REQUIREMENTS**

- A. Items indicated on the drawings and in the specifications are listed by manufacturer in order to describe minimum quality requirements.
- B. Materials and equipment shall conform to requirements of Wisconsin Administrative Code.
- C. All materials and equipment furnished shall be new and shall be the standard products of manufacturers regularly engaged in the production of Electrical and Fire Alarm materials and equipment.

**END OF SECTION**