

## Appendix C: Specifications

### **1.01 TECHNICAL SPECIFICATIONS:**

The Technical Specifications and Drawings are provided under separate cover at the Purchasing Department website at (<https://cantonohio.gov/purchasing/?pg=showbids>).

All item numbers referenced to in the drawings refer to the State of Ohio Department of Transportation Construction and Material Specifications, 2016 Edition. All equipment, material and workmanship shall be performed according to these specifications and any Ohio Department of Transportation Standard Construction Drawings (SCD) referenced on the plans.

### **1.02 SUPPLEMENTAL SPECIFICATIONS:**

01-00 - Project Documentation and Submittal Requirements for All Public Work Projects and Subdivision Developments

#### **Supplemental Specification 01-00**

#### **PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS FOR ALL PUBLIC WORK PROJECTS AND SUBDIVISION DEVELOPMENTS**

September, 2000

\* Revised August, 2009

**Project Submittals:** The following listed items are the full responsibility of the Contractor. These items become part of the administrative duties imposed upon this Contract. The Contractor shall be responsible for submitting all detail items prior to the contract Notice of Commencement, or as directed by the City's Project Manager. A typewritten letter shall accompany all items, on Company letterhead; clearly describe each item submitted. If Contractor elects to fax any documentation due to expediency, the Contractor will be responsible for submitting hard copy for project documentation. The City will reject any information not clearly legible. **Submit four copies of the project submittals.**

Contractor will clearly affix a label or stamp identifying the submittal and its status for project review. All actions other than "no exception taken" will require supporting notation or information for project review.

Allow at least 10 business days for City's review and execution. The City Project Manager shall assist the Contractor with any questions or clarification during this process to ensure timely response to the Contractor.

The City will not pay directly for the performance of the work listed. This work is a subsidiary obligation of the Contractor.

1. Shop Drawings
2. Preconstruction Video
3. Progress Schedule
4. Release Statement for Disposal of Excavated Material
5. Traffic Control Plan
6. Contractor and Subcontractor Emergency Contact List
7. Statements of Final Compliance

**1. Shop Drawings**

- a) Upon written request from the Engineer, the Contractor shall submit detailed drawings, acceptable catalog data, specification and material certifications for all materials and/or equipment specialized or required for the proper completion of the work.
- b) Contractor shall submit shop drawings in not less than four (4) copies to the Engineer.
- c) Contractor shall submit shop drawings in proper sequence of construction to cause no delay in the work. The Engineer will have ten (10) business days to review submittals. The Contractor's failure to transmit appropriate submittals to the Engineer sufficiently in advance of work shall not be grounds for time extension. No work shall be performed requiring shop drawings until same the Engineer has approved these shop drawings.
- d) Label each shop drawing with the following:
  1. Project Name
  2. Name of Contractor
  3. Name of Subcontractor (if applicable)
  4. Name and Address of Supplier and/or Manufacturer
  5. Log Reference Number
- e) The Contractor is responsible for reviewing and approving all shop drawings prior to submittal. The Engineer's review does not make him responsible for the accuracy of said drawings.

**2. Preconstruction Video:** Prior to actual construction, the Contractor shall take video recording of the entire length and width of the work site.

- a) The Contractor shall notify the Engineering Department prior to scheduling the video recording of the site. A representative of the Engineering Department shall be present when the recording this video.
- b) The video and audio recordings shall be on DVD or pre-approved alternative for replay. Contractor must submit alternative medium to the Engineer and approval received prior to scheduling.
- c) The video portion shall have continuous time and date incorporated into it, locations and person(s) doing the work.
- d) Audio comments during the recording must address each item in the field of view as it may pertain to the project construction. The recording technician will need to become familiar with the project plans to know what subject matter is pertinent. Further, contractor must incorporate a post recording review and audio comments into the recording.

- e) Submitted copies of all recordings are the property of the Engineer. Contractor must submit the recording and be accepted in full by the Engineering Department prior to the start of construction.
3. **Progress Schedule:** The Contractor shall provide to the City, as mutually agreed upon at the Contract's Preconstruction meeting, a graphic progress schedule, which shall include the following:
- a) Progress schedule as a minimum to be prepared in **CRITICAL PATH METHOD FORMAT (CPM)**. The schedule shall be submitted, as a minimum, on 11" x 17" format for clarity and any necessary notations. Progress schedule shall include all work activities relative to the project, as further described in the Contract. Activities and rate of expected progress to secure completion as set forth in the Contract shall be shown on the schedule. Contractor to annotate any milestones that may be indicated in the Contract. Project completion date shall be clearly defined on the original schedule and all ensuing schedules provided.
  - b) Schedules shall be updated, as a minimum, every 30 days, or as agreed to by the City's Project Manager.
4. **Release Statement for Disposal of Excavated Materials**
- (a) The Contractor shall provide to the City a written consent statement from all property owners whose property is a landfill depository for all surplus or unsuitable excavated material from the project site.
  - (b) The Contractor shall follow ODOT 105.16 for specific guidelines and name the "City of Canton" in lieu of "the Department" on all forwarded documents. The City requires a contract or permit that contains the language stating that the City is not party to the contract or permit, the material is not the City's, and that the contractor and the property owner will hold the City harmless from claims that may arise from this contract or permit.
  - (c) See attached sample copy for referencing purposes.
5. **Traffic Control Plan:** Contractor shall submit a graphical presentation or written document detailing the signage to be used and its location for maintenance of traffic. If traffic control will be performed in stages, submit a plan for each stage. Any proposed detours should be approved by the Engineer prior to plan submission.
6. **Contractor and Subcontractor Emergency Contact List:** Contractor shall submit to the Engineer, prior to commencing construction, a complete list of the Contractor's personnel associated with the project. List should include name, title, and emergency contact phone numbers for each individual.
7. **Statements of Final Compliance:** The Contractor shall submit to the City the following documentation, in addition to the Project's General Conditions. All submittals shall be completed and approved prior to the release of the final retainer.
- a) Certificates of Substantial and Final Completion. Contractor shall submit in writing, the date on which work is substantially completed and upon Final Completion. Any deviation from the stated contract completion date to what is being submitted shall be explained

further by the Contractor. The City, at their discretion, will further review this subject, as needed.

b) Final Waiver of Lien

Contractor shall furnish a written report indicating the resolution of any and all property damage claims filed with Contractor by any party during the contract period. The information shall include the name of claimant; date filed with Contractor; name of Insurance Company and/or Adjustor handling the claim; how the claim was resolved; if claim was not resolved for the full amount, a statement indicating the reason for such action. If there were no damage claims filed with the Contractor, then this shall be so stated in the report.

**(SAMPLE COPY)**  
**Waste Disposal Agreement for Projects in the City of Canton**

*Items 1, 3 - 9 are optional and discretionary to the undersigned*

THIS WASTE AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_, by and between \_\_\_\_\_ (called "Contractor"), and \_\_\_\_\_ of \_\_\_\_\_ (called "Land Owner"), concerning a certain construction contract between the Contractor and \_\_\_\_\_ in the City of Canton, OH for the \_\_\_\_\_ (project), as follows:

1. **MANNER OF WASTING:** Land Owner grants to Contractor the exclusive right to place dirt, earth, rock, topsoil, subsurface, unsuitable and/or other excess material (called "waste material") upon the area described in the following paragraph without requirement, limit, or restriction as to depth, amount, manner, or time.
2. **WASTE AREA:** The property upon which Contractor is permitted to place material is commonly known as \_\_\_\_\_ (address).
3. **TITLE TO WASTE AREA:** The Land Owner warrants that it has title to and the right to contract for placement of waste material in said area and agrees to defend and indemnify Contractor against any claim, suit, or damage arising out of such title or right to contract.
4. **ACCESS AND USE:** Land Owner hereby grants Contractor the right of ingress and egress to the waste area in locations to be selected by Contractor for all purposes necessary to the complete fulfillment of this agreement, and the right of quiet enjoyment in the intended use of such area.
5. **PAYMENT:** Contractor agrees to pay and Land Owner agrees to accept as full and final compensation for all rights granted and covenants contained herein and all claims of every nature the sum of \_\_\_\_\_ payable \_\_\_\_\_.
6. **BASIS OF MEASUREMENTS:** It is mutually agreed that measurement of the amount of materials wasted, where required, shall be made on the following basis: \_\_\_\_\_ and said measurement shall be binding upon the parties hereto for all purposes.
7. **DAMAGES:** Land Owner hereby waives any and all claims for damage to the waste area and to the area of ingress and egress except as specifically noted herein.
8. **RELEASE:** Upon receipt of final payment hereunder, and provided all terms of this agreement have been fulfilled, Land Owner hereby releases Contractor from further liability of any kind or nature hereunder.

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONTRACTOR:

\_\_\_\_\_  
Authorized Signature & Title

LANDOWNER:

\_\_\_\_\_  
Signature

9. **ENTIRE AGREEMENT:** It is agreed that the terms and conditions of this agreement are fully covered in the foregoing, and that any oral or written statements made by either party, or agents claiming to represent either party, not set forth herein, are not binding on the parties and are not considered as part of this Agreement.
10. **DISCLAIMER:** The City of Canton is not a party to the here above agreement. The Contractor and Landowner shall indemnify and save harmless the City of Canton from any claim that may arise from the here above agreement. The waste material is the property of the Contractor, not the City of Canton.

## **Appendix C: Detailed Specifications**

### **A. Detailed Specifications**

The following specifications shall apply in conjunction with the Modified General Conditions. In case of a conflict between the Modified General Conditions and Detailed Specifications, the Detailed Specifications shall take precedence.

### **B. Applicable Specifications**

All materials and work shall conform to State of Ohio, Department of Transportation 2019 Construction and Materials Specifications (CMS) in conjunction with applicable City of Canton standard specifications and project specific specifications included herein.

Exception: CMS 104.02(D), as it pertains to adjustment of unit prices due to the increase or decrease in quantities by greater than 25%, shall not be applicable to this contract.

### **C. Asphalt Concrete**

Contractor shall submit applicable approved JMF for acceptance by the Engineer prior to use. Associated reports and daily plant production reports shall be submitted. Asphalt delivery tickets shall include JMF number. Contractor must supply the Engineer with applicable tons-to-cubic yard conversion factor, prior to paving.

### **D. Asphalt Binder Price Adjustment**

This project will comply with CMS 401.20 Asphalt Binder Price Adjustment and ODOT Proposal Note 534.

### **E. Maintaining Traffic**

Maintenance of traffic shall be the responsibility of the contractor and incidental to the contract price. Temporary traffic control shall conform to all applicable City and State standards.

All streets have been assigned to one of three maintenance of traffic categories as noted on the paving list; 1) May close without posted detour, 2) May close with posted detour, 3) Shall not close. In the case of a road closure, traffic must be maintained for local traffic at all times and must be opened to through traffic upon the completion of work each day. The contractor shall provide the Engineer with a detour plan for approval at least three (3) working days prior to the closure of a street, for those streets requiring such a plan. The contractor shall also notify the Engineer of a pending closure of such streets at least three (3) days prior to closure, in order for the Engineer to develop a press release.

The contractor shall be responsible for installation of temporary “No Parking” signs one day prior to paving operations and their subsequent removal. Signs shall not remain posted on days when no work is to take place (i.e. street is paved more than one day after milling and signs remain posted during the entire period). The City will provide the signs to the contractor. The contractor shall return all signs that are unused or in reusable condition at the completion of the program.

### **F. Milled Streets**

A milled street shall be paved within 5 calendar days from the time it is milled. Milled streets that remain unpaved for more than 5 calendar days shall be subject to patching of the intermediate course prior to paving, as directed by the Engineer, at the Contractor’s expense.

## **G. Pavement Markings**

Pavement markings shall be installed by the Contractor as part of this contract. The new pavement markings shall match the existing pavement markings unless otherwise directed by the Engineer. For locations where new pavement markings will vary from the existing, the Engineering will provide a plan to the Contractor at the Pre-Construction meeting. Pavement marking pay items and quantities are included in the Bid Tab.

## **H. Bid Item Notes**

### **1. Curb Returns**

Situations exist at various intersections throughout the project in which the pavement in the area of the curb returns will require planing and paving. Approximately 10% of the intersections within the project may require such work, which will be at the direction of the Engineer.

### **2. Drive Aprons**

The Contractor may be directed by the Engineer to mill and pave approximately 18” into drive aprons on unimproved roads. Streets where such may occur are noted on the paving list.

### **3. Item 204 – Proof Rolling, As Per Plan**

Proof rolling shall be performed as directed by the Engineer. The intent for the procedure is to determine the stability of the road’s base and subgrade on roads which the Engineer deems to have potentially unstable base conditions. Proof rolling shall be performed with the Engineer present. Engineer shall monitor the roadway for rutting and deflections to make determinations on base stability.

The procedure shall be performed using a tandem axel, dual-wheel dump truck. The dump truck shall be loaded to a minimum of 35 tons gross weight. Contractor shall provide proof of weight (i.e. weight ticket).

Payment shall be based on the actual number of hours of proof rolling. The following estimated quantity has been carried to the contract bid tab:

204, Proof Rolling, As Per Plan, 25 Hours

### **4. Item 251 – Partial Depth Pavement Repair**

A quantity of this item shall be provided for use as directed by the Engineer. The item shall consist of repairing existing locations exhibiting surface deterioration. Repair shall be performed as follows: Remove existing asphalt base and replace with 3” of Item 448 Asphalt Concrete, Type 2. The asphalt concrete shall be compacted with a Type I pneumatic tire roller and a steel wheel roller as per 401.13.

Unless otherwise directed by the Engineer, this item shall be performed after the completion of pavement planing. It is not the intent to repair every deteriorated area with the project. The Engineer shall determine which areas are to be repaired. Payment shall be based on the actual number of square yards of pavement repair. The following estimated quantity has been carried to the contract bid tab:

251, Partial Depth Pavement Repair, 5500 S.Y.





10. Item 441 – Asphalt Concrete Surface Course, Type 1, (448), PG70-22M

This item shall be installed at a depth of 1 ½” unless otherwise directed by the Engineer.

11. Item 441 – Asphalt Concrete Intermediate Course, Type 2, (448)

The following estimated quantity has been carried to the contract bid tab for use as directed by the Engineer.

441, Asphalt Concrete Intermediate Course, Type 2, (448) 250 C.Y.

12. Item 608 – 5” Concrete Walk

This item is intended for use in conjunction with Catch Basin Adjusted to Grade or Reconstructed to Grade when walk replacement is required to accommodate the adjustment/reconstruction. The following estimated quantity has been carried to the contract bid tab for use as directed by the Engineer.

608, 5” Concrete Walk 700 S.F.

13. Item 609 – Curb, City Standard

This item is intended for use in conjunction with Catch Basin Adjusted to Grade or Reconstructed to Grade when curb replacement is required to accommodate the adjustment/reconstruction. The following estimated quantity has been carried to the contract bid tab for use as directed by the Engineer.

609, Curb, Type 6 150 Ft.

14. Item 609 – Asphalt Curb, Type 1

The following estimated quantity has been carried to the contract bid tab for use as directed by the Engineer.

609, Asphalt Curb, Type 1 500 Ft.

15. Item 611 Adjustments and Reconstructions

All 611 Adjusted to Grade and Reconstructed to Grade items shall include all necessary materials as per the CMS. The City may provide castings. If the Engineer determines that a casting must be replaced and casting is not provided by the City, payment for the casting will be made under Item Special – Miscellaneous Metal.

The following estimated quantities have been carried to the contract bid tab for use as directed by the Engineer.

611, Catch Basin Adjusted to Grade 25 Each

611, Sanitary Manhole Adjusted to Grade 25 Each

611, Storm Manhole Adjusted to Grade 50 Each

611, Catch Basin Reconstructed to Grade 15 Each

611, Sanitary Manhole Reconstructed to Grade 3 Each

611, Storm Manhole Reconstructed to Grade 3 Each

623, Monument Box Adjusted to Grade 3 Each

623, Monument Box Reconstructed to Grade 3 Each

16. Item 611 – (By Type) Manhole Adjusted to Grade

Manhole adjustments shall be made according to Canton City Standard Drawing No. 13.

17. Water Valve Box Adjustments

The Canton Water Department is responsible for the adjustment of water valves boxes. The Contractor shall coordinate with the City Water Department on all water valve adjustments.

Canton Water Department  
2664 Harrisburg Rd. N.E.  
Canton, Ohio 44705  
330-489-3315  
Attn: Terry Boylan

If the City Water Department cannot perform the work on any valve boxes that requires adjustment, the Contractor shall make necessary adjustments as directed by the Engineer. The Canton Water Department will provide the necessary castings to the Contractor. Payment for such work will be performed under Item 638 – Valve Box Adjusted to Grade.

The following estimated quantity has been carried to the contract bid tab for use as directed by the Engineer.

638, Valve Box Adjusted to Grade 15 Each

18. Item Special – Miscellaneous Metal

Existing Castings may prove to be unsuitable for reuse, as determined by the Engineer. It shall be the Contractor's responsibility to provide the castings of the required type, size, and strength (heavy or light duty) for the particular structure in question. All material shall meet City standards and Item 611 of the CMS and shall have the prior approval of the Engineer.

The following estimated quantity has been carried to the contract bid tab for use as directed by the Engineer.

Special, Miscellaneous Metal 2500 Pounds

The contractor is cautioned to use extreme care in the removal, storage and replacement of all existing castings. Castings damaged by the negligence of the contractor, as determined by the Engineer, shall be replaced with the proper new casting at the expense of the contractor.

19. Item 617 – Compacted Aggregate, as per plan

Reclaimed asphalt concrete pavement (RAP) shall be used with this item as per 703.18. The following estimated quantity has been carried to the contract bid tab for use as directed by the Engineer.

617, Compacted Aggregate, as per plan, 25 C.Y.

## Paving List and Notes

Ref. No.	Street	From	To	May Close to Thru Traffic	May Close with a Posted Detour	Must Maintain Traffic	Notes
1	10TH ST NW	Clarendon	Harrison	X			
2	11TH ST SW	Raff	Bellflower		X		
3	11TH ST SW	Reno	Camden		X		
4	16TH ST NE	Maple	East Cul-de-sac	X			Drives
5	16TH ST NW	Cleveland	Woodland	X			
6	18TH ST NE	Superior	Grace	X			Drives
7	18TH ST NW	Fulton	Cleveland	X			
8	21st St NE	Harrisburg	Royal	X			
9	22nd St NE	Harrisburg	Royal	X			Drives
10	9th St NW	McKinley	Cherry		X		
11	DANUBE WAY SW	Vienna	Woodview	X			
12	ELLIS AVE NE	30 <sup>th</sup>	35th	X			Drives
13	FERNDALE RD NW	Harrison	Cleveland	X			Drives
14	GILBERT AVE NE	30th	Ellis	X			Drives
15	GRAND DR NW	west cul-de-sac	Valleyview	X			
16	MOZART CIR SW	Woodview	northwest cul-	X			
17	ST ELMO AVE NE	15 <sup>th</sup>	17th	X			
18	STRAUSS LN SW	Woodview	north cul-de-sac	X			
19	TRINITY PL NW	west cul-de-sac	Ferndale	X			Drives
20	VALLEY DR NW	west cul-de-sac	Valleyview	X			
21	VALLEYVIEW AVE NW	Tusc	4th	X			
22	WOODVIEW ST SW	Eversole	Strauss	X			
23	2ND ST NW/NE	Walnut	Jobe			X	
24	DUEBER AVE SW	15 <sup>th</sup>	Danner		X		
25	HARRISON AVE NW	31 <sup>st</sup>	38th			X	
26	MARYLAND AVE SW	Casper	13th	X			
27	MCKINLEY AVE SW	Cleveland	6th			X	
28	WARNER RD SE	Sherrick	US 30			X	
29	Timken - Harrison	South Corp	15th St SE			X	
30	Timken - 18th St SW	Dueber	Cleveland			X	Drives
31	Aultman - 11th St SW	Bellflower	Maryland		X		
32	Aultman - 11th St SW	Arlington	Reno Ct		X		
33	Shorb - 11th NW	Fulton	Cleveland	X			
34	Mercy - Oxford	12 <sup>th</sup>	17th	X			
35	Mercy - 17th	Fulton	Cleveland	X			

## Proposal Pages

We (I), the above signed hereby propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications, and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

<b>Ref. Num.</b>	<b>Item Num.</b>	<b>Item Description</b>	<b>Est. Qty.</b>	<b>Unit</b>	<b>Material Unit Price</b>	<b>Labor Unit Price</b>	<b>Total Unit Price</b>
1	204	Proof Rolling, As Per Plan	25	Hour			
2	251	Partial Depth Pavement Repair	5,500	S.Y.			
3	253	Pavement Repair	2,500	S.Y.			
4	254	Pavement Planing, Asphalt Concrete, Variable Depth, 1 ½" Max., As Per Plan	201,067	S.Y.			
5	301	Asphalt Concrete Base, PG64-22	250	C.Y.			
6	304	Aggregate Base	25	C.Y.			
7	407	Tack Coat	15,080	Gal.			
8	441	Asphalt Concrete Surface Course, Type 1, (448), PG70-22M	8,378	C.Y.			
9	441	Asphalt Concrete Intermediate Course, Type 2, (448)	250	C.Y.			
10	608	5" Concrete Walk	700	S.F.			
11	608	Curb Ramp	34,770	S.F.			
12	609	Curb, City Standard	150	Ft.			
13	609	Asphalt Concrete Curb, Type 1	520	Ft.			
14	611	Catch Basin Adjusted to Grade	25	Each			
15	611	Sanitary Manhole Adjusted to Grade	125	Each			
16	611	Storm Manhole Adjusted to Grade	25	Each			

17	611	Catch Basin Reconstructed to Grade	15	Each			
18	611	Sanitary Manhole Reconstructed to Grade	3	Each			
19	611	Storm Manhole Reconstructed to Grade	3	Each			
20	623	Monument Box Adjusted to Grade	3	Each			
21	623	Monument Box Reconstructed to Grade	3	Each			
22	Spec	Miscellaneous Metal	2,500	Lb.			
23	617	Compacted Aggregate, As Per Plan	25	C.Y.			
24	638	Valve Box Adjusted to Grade	15	Each			
25	644	Lane Line, 4 inch	1.67	Mile			
26	644	Center Line	4.25	Mile			
27	644	Channelizing Line, 6 inch	1,375	Ft.			
28	644	Stop Line	875	Ft.			
29	644	Crosswalk Line	3,373	Ft.			
30	644	Railroad Symbol Marking, 72 inch	4	Each			
31	644	Lane Arrow	33	Each			

**Contractor Name:** \_\_\_\_\_

**Base Bid Price in Figures**

\$ \_\_\_\_\_

**Base Bid Price in Words**

\$ \_\_\_\_\_