

Contract No. CON-25-031-PBW



**LINKING AGREEMENT  
FOR COOPERATIVE PURCHASE**

MR TANNER DEVELOPMENT AND CONSTRUCTION, LLC.  
STREET MAINTENANCE SERVICES

This Linking Agreement for Cooperative Purchase (this “**Agreement**”) is made and entered into on this 19 day of February, 2025 (the “**Effective Date**”) by and between the Town of Paradise Valley, an Arizona municipal corporation (the “**Town**”), and M.R. Tanner Development and Construction, LLC, an Arizona limited liability company whose principal place of business is located at 1327 W. San Pedro Street, Gilbert, AZ 85233 (the “**Contractor**”). The Town and Contractor are the only parties to this Agreement; they are each individually a “**Party**,” and together they are the “**Parties**.”

**RECITALS**

A. On September 3, 2024, after a competitive procurement process, the City of Buckeye entered into the Street Maintenance Contract No. 2025081, with the Contractor (the “**Base Agreement**”) to purchase goods and services as described therein. A copy of the Base Agreement is attached hereto as **Exhibit A**, and the terms of the Base Agreement are incorporated herein by reference to the extent not inconsistent with this Agreement. The Base Agreement permits its cooperative use by other governmental agencies, including the Town.

B. Pursuant to A.R.S. §§ 41-2631 *et seq.* and Town of Paradise Valley Resolution Nos. 1205 and 1207, the Town has the authority to utilize cooperative purchasing contracts and engage contractors under the terms thereof.

C. The Town desires to contract for supplies or services identical or nearly identical to the supplies or services the Contractor is providing other units of government under the Base Agreement, and the Contractor desires to provide such supplies and services as set forth in this Agreement.

**AGREEMENT**

NOW, THEREFORE, the Contractor and the Town, in consideration of the foregoing Introduction and Recitals, which are incorporated herein by reference, and for the consideration hereinafter set forth, promise, covenant, and agree as follows:

1. Scope of Work; Terms, Conditions, and Specifications.

1.1. The Contractor shall provide the Town the goods and/or services, generally described as Pavement Maintenance, and more particularly identified in individual job orders (each a “**Job Order**”), each of which shall be subject to separate approval by the Town and, upon such approval, attached hereto and incorporated as if fully set forth herein.

1.2. The Contractor agrees to comply with all the terms, conditions, and specifications of the Base Agreement. Such terms, conditions, and specifications are specifically incorporated into and are an

enforceable part of this Agreement, except to the extent superseded herein or otherwise provided in **Exhibit D**. For the purposes of this Agreement, all references to the City of Buckeye in the Base Agreement shall mean the Town of Paradise Valley, Arizona.

- 1.3. The Contractor shall comply with all the Town's specific requirements and/or options, as specified in **Exhibit D** attached hereto and incorporated herein by reference. **To the extent there is any conflict between Exhibits B or C, this Agreement, Exhibit D, and the Base Agreement, the documents shall govern in that order.**
- 1.4. The Contractor acknowledges and agrees that work order(s) containing unauthorized exceptions, conditions, limitations, or provisions in conflict with the terms of this Agreement (collectively, the "Unauthorized Conditions"), other than the Town's project-specific requirements, are hereby expressly declared void and shall be of no force and effect. Acceptance by the Town of any work order or invoice containing any such Unauthorized Conditions or failure to demand full compliance with the terms and conditions set forth in this Agreement or in the Base Agreement shall not alter such terms and conditions or relieve the Contractor from, nor be construed or deemed a waiver of, its requirements and obligations in the performance of this Agreement. If this Agreement is renewed pursuant to Subsection 3 and such renewal includes any Unauthorized Conditions, other than price, those terms will be null and void.
2. Payment. Payment to the Contractor for the services, materials, or equipment provided shall be made in accordance with the price list and terms set forth in each individual Job Order. The total compensation for the supplies or services purchased under this Agreement shall not exceed \$5,000,000.00 annually.
3. Contract Term and Renewal.
  - 3.1. This Agreement shall be effective as of the date first set forth above and shall remain in full force and effect until September 3, 2025, unless terminated, canceled, or extended as otherwise provided in this Agreement.
  - 3.2. The Town Manager or designee may extend the term of this Agreement consistent with the extension, if any, of the Base Agreement. Extensions are not automatic and shall only occur if the Town gives the Contractor notice of its intent to extend this Agreement.
  - 3.3. Upon the expiration of the Base Agreement, including any authorized renewals thereof, the Town may, at its option, extend this Agreement on a month-to-month basis for a maximum of six months. The purpose of such month-to-month extensions, if any, shall be to allow for the Town's procurement processes in the selection of a vendor to provide the services or materials provided under this Agreement.
4. Certificates of Insurance. All insurance provisions of the Base Agreement shall apply, including, without limitation, the requirement to name the Town, its agents, representatives, officials, volunteers, officers, elected officials, and employees as additional insured. Prior to commencing work under this Agreement, the Contractor shall furnish the Town with Certificate(s) of Insurance and formal endorsements issued by the Contractor's insurer(s) as evidence that policies providing the required coverages, conditions, and limits required by this Agreement are in full force and effect.
5. E-Verify. The Contractor complies with A.R.S. § 23-214 and agrees to comply with the requirements of A.R.S. § 41-4401.
6. Boycott of Israel Prohibited. To the extent Title 35 applies to this Agreement, the Contractor warrants that it is not and will not participate in prohibited activity in contravention of A.R.S. § 35-393.01.

7. Cancellation for Conflict of Interest. This Agreement may be canceled pursuant to A.R.S. § 38-511.
8. Counterparts. This Agreement may be executed in any number of counterparts, all such counterparts shall be deemed to constitute one and the same instrument, and each of said counterparts shall be deemed original hereof.
9. Forced Labor of Ethnic Uyghurs. To the extent applicable under A.R.S. § 35-394, the Contractor warrants and certifies that it does not currently, and agrees that it will not, for the duration of this Agreement, use the forced labor, any goods or services produced by the forced labor, or any contractors, subcontractors, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China. If the Contractor becomes aware that it is not in compliance with this paragraph, it shall notify the Town of the noncompliance within five business days of becoming aware of it. If the Contractor fails to provide a written certification that it has remedied the noncompliance within 180 days after that, this Agreement shall terminate unless the termination date of this Agreement occurs before the end of the remedy, in which case this Agreement terminates on its termination date.
10. Indemnification. To the fullest extent permitted by law, the Contractor shall indemnify, defend, and hold harmless the Town and each council member, officer, employee, or agent thereof (the Town and any such person being herein called an "Indemnified Party"), for, from and against any and all losses, claims, damages, liabilities, costs, and expenses (including, but not limited to, reasonable attorneys' fees, court costs and the costs of appellate proceedings) to which any such Indemnified Party may become subject, under any theory of liability whatsoever ("Claims") to the extent that such Claims (or actions in respect thereof) are caused by the negligent acts, recklessness or intentional misconduct of the Contractor, its officers, employees, agents, or any tier of subcontractor in connection with the Contractor's work or services in the performance of this Agreement. The amount and type of insurance coverage requirements set forth in this Agreement or the Base Agreement will in no way be construed as limiting the scope of the indemnity in this section.
11. Provisions Required by Law. Each and every provision of law and any clause required by law to be in this Agreement will be read and enforced as though it were included herein and, if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, this Agreement will promptly be physically amended to make such insertion or correction.

[SIGNATURES ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties have hereunto subscribed their names.

**TOWN OF PARADISE VALLEY,**

an Arizona municipal corporation:

DocuSigned by:  
By: Andrew Ching  
5B8E4040A9944A3...  
Andrew Ching, Town Manager

M. R. TANNER DEVELOPMENT AND CONSTRUCTION, LLC.

an Arizona limited liability company:

By: [Signature]  
Name: Chad Montoya  
Title: Vice President

ATTEST:

DocuSigned by:  
Duncan Miller  
FD58FF67A95043D...  
Duncan Miller, Town Clerk

APPROVED AS TO FORM:

Signed by:  
[Signature]  
6C9F79CECF0C427...  
Andrew J. McGuire, Town Attorney

**LINKING AGREEMENT  
FOR COOPERATIVE PURCHASE**

MR TANNER DEVELOPMENT AND CONSTRUCTION, LLC.  
STREET MAINTENANCE SERVICES

**EXHIBIT A  
BASE AGREEMENT**

(See attached: Street Maintenance, Contract No. 2025081, September 3, 2024)

**JOB ORDER CONTRACT  
BETWEEN  
CITY OF BUCKEYE  
AND  
M. R. TANNER DEVELOPMENT AND CONSTRUCTION, LLC**

**CONTRACT NO. 2025081**

This JOB ORDER CONTRACT FOR Category 1: Street Maintenance (the "Contract") is made and entered into, by and between the City of Buckeye, an Arizona municipal corporation (the "City") and M. R. Tanner Development and Construction, LLC, an Arizona limited liability company (the "Contractor"). This Contract is for Street Maintenance, and issued as required by award of individual Job Orders (the "Project").

**RECITALS**

- A. The City issued a Request for Qualifications entitled "Job Order Contracting – General for "Category 1: Street Maintenance (the "RFQ") incorporated herein by reference, seeking proposals from vendors interested in providing Street Maintenance.
  
- B. The Contractor submitted a statement of qualifications (the "SOQ"), attached hereto as Exhibit A, in response to the RFQ, attached hereto as Exhibit B, and both Exhibits are incorporated herein by reference, and the City desires to enter into an Agreement with the Contractor for indefinite quantity and indefinite delivery for various projects related to Street Maintenance for the City. The Projects may include Design Services, preconstruction services, permitting regulatory requirements and as-built/close-out documents (collectively the "Services").

**AGREEMENT**

NOW, THEREFORE, in consideration of the mutual promises, covenants and agreements stated herein, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the City and the Contractor agree as follows:

**ARTICLE 1  
CONTRACT TERM**

- 1. This Contract has a base period of one (1) year and four (4) option periods of one (1) year each that may be exercised in the sole discretion of the City. Any exercise of any option to renew this Contract beyond the base period will only be effective upon written notice from the City. The time period during which this Contract is in effect is the "Term".

2. The Contract Time for each Job Order shall start with the Notice to Proceed (“NTP”) and end with Final Acceptance, as set forth below. The NTP will not be issued until prior approval and acceptance by the City of the Job Order.
3. The Contract Time is identified in the Job Order as the Contract Duration in terms of calendar days. Contractor agrees that it will commence performance of the Work after receiving an official NTP letter and complete the Project through both Substantial Completion (if applicable) and Final Completion within the Contract Time.
4. Time is of the essence of this Contract, and each Job Order issued hereunder, for each Project, and for each phase and/or designed milestone thereof.
5. Failure on the part of Contractor to adhere to the approved Project Schedule will be deemed a material breach and sufficient grounds for termination of a specific Job Order and/or this Contract by the City. The City will assess liquidated damages as described in each Job Order for each calendar day of delay beyond the Final Completion date.

**ARTICLE 2  
OVERVIEW OF JOB ORDER CONTRACTING UNDER THIS CONTRACT**

1. This Contract establishes an indefinite delivery, indefinite quantity, Job Order Contract for such Services within the scope of this Contract as the City may request from time to time by issuance of an individual Job Order for each Project. Unless otherwise specified in a specific Job Order, Job Orders generally will not include Design Services and that where Design Services are necessary, the City will provide them under separate contract. There will be a separate Job Order for each Project that will describe the Work to be provided by Contractor for that Project. There may be multiple projects and therefore multiple Job Orders under this Contract.
2. The amount to be paid by the City for the Project under each Job Order is the Contract Price for that Job Order. The Job Order price will include a total amount for each Job Order priced for the Work described for that Job Order. The Contract Price for any Job Order will be established as a Firm Fixed Price, subject to the following:
  - (a) Estimated values for individual projects are estimated at \$100,000.00 to \$1,000,000.00. Most projects will be completed within the same fiscal year they are initiated in or within three hundred sixty-five (365) days from the Notice to Proceed. Projects may extend into the next fiscal year and beyond, but in no instance will any one project under this Contract exceed \$2,000,000.00. The total Job Orders for a single contractor issued during a single fiscal year will not exceed \$6,000,000.00.
  - (b) There is no limit on the number of Job Orders that the City may issue to the Contractor during the term of this Contract. Likewise, there is no requirement that the City issue any Job Orders to the Contractor during the Term of this Contract.

3. This Contract is non-exclusive. The City shall have the right to engage other contractors to perform the Services or to self-perform the Services.
4. No Contract in relation to any specific Work is in effect until a Job Order has been fully executed by the City and Contractor.
5. During the Term of this Contract, the City will issue an individual Job Order request for proposal to the Contractors under the JOC Street Maintenance category for each Project or negotiate directly with a contractor. Each Job Order will have specific instructions concerning that Job Order. The Contractor will follow these specific instructions when preparing a response in the form of a Job Order Proposal.
6. The general steps for development of a Job Order are:
  - (a) When the City identifies a need for performance of a Project under a Job Order; the City will issue an RFP to the Contractor and also advise the Contractor of the nature of the Work to be done. This is done either by a delivery order request for proposal or through direct negotiations utilizing the rankings from the RFQ evaluation process as specified in the RFQ. At the same time, the City will advise the Contractor if Design Services are required and how those services will be provided. Within seven (7) working days of receipt of this notification, the Contractor will:
    - (i) Visit the proposed Project Site with City designated representatives; and
    - (ii) Arrange with the City to further define the scope of the Project.
  - (b) The Contractor shall thoroughly acquaint itself with all available information concerning the conditions of the Work under each Job Order and is responsible for correctly and fully estimating the difficulty of performing the Work, the actions required to perform the Work and the cost of successfully performing the Work under each Job Order.
  - (c) The City may arrange for any needed Design Services to produce the Drawings and Specifications. Design Services will not begin until the scope of Design Services is approved by the City. The Drawings and Specifications developed by the Design Services are subject to approval by the City. If there are no Design Services, the City will develop Drawings and Specifications consisting of a line drawing and a written description of the contemplated Work.
  - (c) Upon establishment of the scope of work, the Contractor will prepare its proposal for accomplishment of the Project. The proposal will include pricing and schedule for completion of the Project.
7. Upon award of a Job Order, a signed copy of the Job Order will be mailed or electronically forwarded to the Contractor. Failure by the Contractor to pick up or receive the mailed or

electronic orders shall not relieve the Contractor from the obligation to complete the Work under the Job Order in accordance with the terms of this Contract or the terms of each Job Order.

8. The City may provide a verbal NTP for the Work in advance of issuing the formal NTP letter (which will be followed up with a written NTP). Normally, NTP will be issued under separate cover from the Job Order. The Contract duration starts with the date on the NTP letter.

### **ARTICLE 3 DEFINITIONS**

“Addenda” means written or graphic instruments issued prior to the submittal of the Proposal(s), which clarify, correct or change the Proposal(s) requirements.

“Agreement” or “Contract” means the executed agreement between the City and Contractor, including any amendments to the executed Agreement.

“Certificate for Payment” means the City form issued by the City to certify amount due and payable by the City to the Contractor.

“Certificate of Final Completion” means the City form issued by the City to the Contractor stating the Work required under the Contract has been completed.

“Certificate of Substantial Completion” means the City form issued by the City to the Contractor certifying that the Work under the Contract is considered sufficiently complete so that the City can occupy and use the Project or a portion thereof for its intended purposes.

“Change Order” means a written instrument issued after execution of a Job Order or this Contract signed by the City and the Contractor, stating their agreement upon all of the following: the scope of the change in the Work; the amount of the adjustment to the Contract Price; and the extent of the adjustment to the Contract Time(s). A Change Order is an amendment to the Agreement.

“City” means the City of Buckeye, a municipal corporation, with whom Contractor has entered into this Contract and for whom the Services is to be provided pursuant to said Contract.

“City’s Project Criteria” means information developed by or for the City to describe the City’s program requirements and objectives for the Project, including use, space, price, time, site and expandability requirements, as well as submittal requirements and other requirements governing Contractor’s performance of the Work. The City’s Project Criteria may include conceptual documents, design criteria, performance requirements and other Project-specific technical materials and requirements.

“City’s Representative” means the person designated within this Contract.

“Commissioning” means the process for achieving, validating and documenting the performance of the Project including any works and its systems to meet the design needs and requirements of the City.

“Construction Documents” means the plans, specifications and drawings prepared by the Contractor or a Consultant.

“Construction Drawings” means the detailed drawings approved as part of the approved Construction Documents.

“Construction Work” means the construction component of the Project.

“Contract Documents” means the following items and documents in descending order of precedence: (i) all written modifications, amendments and Change Orders to this Contract; (ii) this Contract, including all exhibits and attachments, executed by the City and Contractor to include each Job Order; (iii) written supplementary conditions; (iv) Construction Documents prepared and approved; (v) Contractor’s approved Variations of the City’s Project Criteria, as contained in Exhibit A.; (vi) City’s Project Criteria; (vii) Contractor’s Proposal(s), except for accepted Variations of the City’s Project Criteria, submitted in response to City’s Project Criteria.

“Contract Price” means the amount or amounts set forth in each awarded Job Order subject to adjustment in accordance with this Contract.

“Contract Time” means the Days set forth in each awarded Job Order subject to adjustment in accordance with this Contract.

“Job Order” means a specific written agreement between the City and the Contractor for Work to be performed under this Contract for an individual, mutually agreed upon scope of work, schedule and price.

“Day(s)” means calendar days unless otherwise specifically noted in the Contract Documents.

“Deliverables” means the work products prepared by the Contractor in performing the scope of work described in each Job Order.

“Design Services” means all professional services to be performed or procured by the Contractor or by the City to provide required Project design under this Contract and any subsequent amendments.

“Job Order Contractor” means the firm, corporation, or other approved legal entity with whom the City has entered into this Contract to provide services as detailed in this Contract. The term Contractor may be used to identify the Job Order Contractor.

“Differing Site Conditions” means concealed or latent physical conditions or subsurface conditions at the Site that, (i) materially differ from the conditions indicated in the Scope of Work issued with each Job Order or (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work.

“Final Acceptance” means the completion of the Project as prescribed in Article 10.

“Float” means the number of Days by which an activity can be delayed without lengthening the Critical Path and extending the Substantial Completion date.

“Legal Requirements” means all applicable federal, state and local laws, codes, ordinances, rules, regulations, orders and decrees of any government or quasi-government entity having jurisdiction over the Project or Site, the practices involved in the Project or Site, or any Work.

“Liquidated Damages” means a specified amount due by the Contractor when in breach of the Contract. The amount is determined based off of the Contract Price and predetermined amounts from the Maricopa Association of Governments’ (MAG) Uniform Standard Specifications and Details for Public Works Construction.

“Materials” means goods, items, or supplies utilized in the completion of the Work.

“Notice to Proceed” or “NTP” means the directive issued by the City, authorizing the Contractor to start Work or a portion of the work.

“Payment Application” means the City form used by the Contractor to request payment for Work performed.

“Product Data” means illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

“Project” means the Work to be completed in the execution of any awarded Job Order and as amended and as prescribed as any Scope of Work in identified in each awarded Job Order. Project means the Work associated with each awarded Job Order issued under this Contract.

“Project Schedule” means a schedule as prescribed in this Contract or subsequent Job Orders.

“Project Record Documents” means the documents created pursuant to Article 12.

“Samples” means physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

“Schedule of Construction” means the timeline submitted by the Contractor for the completion of the Work.

“Schedule of Values (SOV)”, means the Document specified in the construction phase, which divides the Contract Price into pay items, such that the sum of all pay items equals the awarded Job Order Price for the Work, or for any portion of the Work having a separate specified Contract Price.

“Shop Drawings” mean drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

“Scheduled Substantial Completion Date” means the calendar date equal to the Notice to Proceed date established plus the number of Days established in each Job Order.

“Site” means the land or locations on which the Project is located, as more particularly described in the Job Order.

“Subcontractor” or “Sub consultant” means any person or entity retained by Contractor as an independent contractor to perform a portion of the Work and shall include material, men and suppliers.

“Substantial Completion” means the date on which the Work, or an agreed upon portion of the Work, is sufficiently complete so that the City can occupy and use the Project or a portion thereof for its intended purposes.

“Technical Consultant” means an agent of the City who furnishes project management assistance (if applicable to a Job Order).

“Variations of the City’s Project Criteria” means agreed changes to the City’s Project Criteria by both Parties.

“Work” means as defined in Article 5, Paragraph 2.

#### **ARTICLE 4 DESIGN PHASE AND DESIGN SERVICES**

1. Costs for Preconstruction services will be included in Contractor’s firm fixed price cost proposal.
2. Normally the City will obtain Design Services from a consultant or prepare design documents using City Staff. However, Contractor may also be required to provide incidental Design Services for all or a portion of the Work to be constructed under a specific Job Order. If consulting services for design and the preparation of Plans and Specifications are required; they will be paid for as a separate line item in the Contractor’s price proposal.

**ARTICLE 5  
CONSTRUCTION SERVICES**

1. Contractor shall perform all Work necessary to construct the Project in accordance with all applicable Legal Requirements, this Contract and the specifications outlined in each Job Order, and render the Project and all its components operational and functionally and legally usable for their intended purpose.
2. The term "Work" shall mean whatever is done by or required of Contractor to perform and complete its duties relating to the construction of each Job Order under the Contract, including, without limitation, the following:
  - A. Construction of the whole and all parts of the Project in full and strict conformity with each Job Order;
  - B. The provision and furnishing, and prompt payment therefore, of all labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, fuel, heat, light, cooling, other utilities and things required for the construction of each Job Order;
  - C. The procurement and furnishing of all necessary permits and other permits required for the construction of each Job Order;
  - D. The creation and submission to the City of detailed as-built drawings depicting all as-built construction;
  - E. The furnishing of any required surety bonds and insurance as may be required by each Job Order;
  - F. The furnishing of all equipment and product warranties, manuals, test results and user guides required by each Job Order or otherwise reasonably available to Contractor;
  - G. The furnishing of all other services and things required or reasonably inferable from the Contract Documents, including the provisions of Article 6 below.

**ARTICLE 6  
TIME FOR CONSTRUCTION: THE CONTRACT TIME**

1. After the City has awarded each Job Order, the City shall issue a NTP directing Contractor to proceed with the Work on the date indicated in the notice (the "Commencement Date"). Work shall commence within ten (10) days of the Commencement Date.

2. Contractor shall commence the Work within ten (10) days of the Commencement Date, and the Work shall be carried out regularly and without interruption. Contractor shall substantially complete the Work no later than the date established in each Job Order or such other date as may be issued by a Change Order (the "Scheduled Completion Date"). The number of calendar days between the effective date of the Contract and the Scheduled Completion Date is the "Contract Time". Contractor shall achieve Final Completion of the Work no later than thirty (30) calendar days after achieving Substantial Completion.
3. Contractor understands that if Substantial Completion for entire project is not attained by the Scheduled Substantial Completion date, the City will suffer damages which are difficult to determine and accurately specify. Contractor agrees that if Substantial Completion is not attained by the Scheduled Substantial Completion Date, Contractor shall pay the City the amount established in each Job Order as liquidated damages for each day that Substantial completion extends beyond the Scheduled Substantial Completion Date.
4. All limitations of time set forth in each Job Order are material and time is of the essence of each Job Order.

**ARTICLE 7  
ADDITIONAL DUTIES AND RESPONSIBILITIES OF CONTRACTOR**

1. The intent of this Contract is to require complete, correct and timely execution of all Job Orders awarded for the Construction Work. Any and all Construction Work that may be required reasonably implied or reasonably inferred by each Job Order as necessary to produce the intended result shall be provided by Contractor for the Construction Price as provided in each awarded Job Order.
2. All Work performed by Contractor shall be in strict compliance with each Job Order. "Substantial Compliance" is not strict compliance. Any Construction Work not in strict compliance with each Job Order is defective.
3. The Construction Work shall be strictly supervised and directed using Contractors best and highest skill and effort. Contractor shall bear full responsibility for any and all acts or omissions of those engaged in the Construction Work on behalf of the Contractor.
4. Contractor warrants and guarantees to the City that all labor furnished to perform the Construction Work under each Job Order will be competent to perform the tasks undertaken and is the best quality obtainable, that the product of such labor will yield only superior results in strict compliance with the requirements of each Job Order, that materials and equipment furnished will be of high quality and new unless otherwise permitted by the Job Order, and that the Construction Work will be of high quality, free

from faults and defects and in strict conformance with the requirements found in each Job Order. Any and all Construction Work not strictly conforming to these requirements shall be considered defective and shall constitute a breach of Contractor's warranty.

5. Special or specific guarantees and warranties which are required by each Job Order to run for a fixed period of time shall commence running on the date of Substantial Completion of all Construction Work. In general, Contractor warrants all work, including labor and materials, for a period of two (2) years from the date of Substantial Completion, unless otherwise specified in the Job Order.
6. Contractor, within fifteen (15) days after the Commencement Date, shall submit to the Manager of Construction and Contracting for his information, and shall comply with, Contractor's Schedule of Construction for each Job Order awarded. The Schedule of Construction shall reflect the performance of all Construction Work on weekdays and non-holidays. The Schedule of Construction shall be a detailed critical path (CPM) schedule in a form acceptable to the City. The Schedule of Construction shall be revised at least monthly and shall be revised to reflect conditions encountered from time to time and shall be related to the entire Project awarded as a Job Order. Each such revision shall be furnished to the City. Strict compliance with the requirements of this Paragraph shall be a condition precedent for payment to Contractor, and failure to strictly comply with this requirement shall constitute a material breach of the Contract. No claim for an increase in the Construction Price shall be allowed as a result of Contractor basing the Construction Price upon an early completion schedule, or as a result of delays and costs attributable to completion later than the planned early completion date.
7. Contractor shall continuously maintain at the Site, for the benefit of the City, an updated copy of the awarded Job Order, including one record copy of the Job Order Documents marked to record on a current basis changes, selections and modifications made during construction. Additionally, Contractor shall maintain at the Site, for the benefit of the City, a copy of all Shop Drawings, Product Data, Samples, and other Submittals, if any, that are specified in the awarded Job Order. Upon Final Completion of the Construction Work, or upon the City's request, all of the documents described in this Paragraph shall be finalized and delivered to the City and shall become the property of the City.
8. Contractor shall review, study, and approve, or take other necessary action upon all Shop Drawings, Product Data, Samples, and other Submittals to ensure that each Job Order will be constructed in a timely fashion in strict compliance with the requirements of the Contract and Job Order. No deviation from, substitution for or other modification from the Documents shall be allowed by Contractor in a shop drawing or submittal without written approval, in the form of a Change Order from the City, and signed by the parties hereto. Contractor shall engage in prompt and adequate review of Shop Drawing and other Submittals to maintain the Construction Schedule; Contractor also warrants it will

use its best independent professional judgment in its review to determine compliance with the Contract Documents.

9. The City shall also, in its discretion, have the right to review and approve Submittals. In the event that the City exercises the foregoing right to review, Contractor shall not perform any portion of the Construction Work unless and until the City approves in writing such Submittal. Any such approval shall not be evidence that Construction Work installed pursuant to the City's approval conforms to the requirements of the Contract nor shall such approvals relieve Contractor of any of its responsibilities or warranties under the Contract. If the City elects to review Submittals, Contractor shall maintain a Submittal log which shall include, at a minimum, the date of each Submittal, the date of any resubmittal, the date of any approval or rejection, and the reason for any approval or rejection. Contractor shall have the duty to carefully review, inspect and examine any and all Submittals before submission of same to the City. Shop Drawings and other Submittals from Contractor do not constitute a part of this Contract.
10. Contractor shall procure from all Subcontractors and Suppliers and shall transmit to the City, all warranties required by the Contract. Contractor shall review all such warranties and shall certify to the City that the warranties are in strict compliance with the requirements of the Contract.
11. Contractor shall prepare or procure and shall transmit to the City all documentation required by this Contract regarding the operation and recommended maintenance programs relating to the various elements of the Construction Work.
12. If required in the Job Order, Contractor shall prepare and provide to the City a complete set of all as-built drawings which shall be complete and, except as specifically noted, shall reflect performance of the Construction Work in strict compliance with the requirements of this Contract.
13. Contractor shall assume all labor responsibility for all personnel assigned to or contracted for the performance of the Construction Work and agrees to strictly comply with all its obligations as employer with respect to said personnel under all applicable labor laws.
14. Contractor shall be responsible for procuring all tests and inspections required by sound professional practices and by governmental authorities having jurisdiction over the Project. Contractor shall submit certified results of such tests to the City. If the laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any Construction Work to be specifically inspected, tested, or approved, Contractor shall assume full responsibility therefore, pay all costs in connection therewith and furnish to the City the required certificates of inspection, testing or approval.

15. Contractor shall, during the course of the Construction Work, comply with any regulations or guidelines prescribed by the City. Contractor warrants that it will comply with all public laws, ordinances, rules and regulations applicable to the services to be performed under the Contract, including without limitation, those relating to the terms and conditions of the employment of any person by Contractor in connection with the Construction Work to be performed under the Contract.
16. Contractor shall perform the Construction Work in accordance with all construction codes, laws, ordinances or regulations applicable to the design and execution of the Construction Work. Any fine or penalty which may be imposed as consequence of any violation of this provision shall be paid by Contractor, and Contractor, to the fullest extent permitted by the law, shall fully defend, indemnify and hold the City harmless for, from and against all loss, damage, and expense, including attorney's fees, resulting from any such violation or alleged violation of codes, laws, ordinances, or regulations, regardless of a concurrent contribution by the City, through negligence or other wrongful act, to such loss, damage, or expense, except that such indemnity shall not apply if the violation is solely and directly caused by a negligent or willful act or omission of the City, its officers, agents, or employees.
17. All construction and building permits, licenses and authorizations necessary for the construction of the Project shall be secured and paid for by Contractor. Contractor shall notify the City when it has received said permits, licenses, and authorizations, and upon receipt shall supply the City with copies of same. The originals of permits, licenses and authorizations shall be delivered to the City upon completion of the Construction Work, and receipt of these documents by the City shall be a condition precedent to final payment. Contractor shall also give and maintain any and all notices required by applicable laws pertaining to the construction of the Construction Work.
18. While on the City's property, all Contractor's employees and Subcontractors shall confine themselves to areas designated by the City and will be subject to the City's badge and pass requirements, if any, in effect at the Site of the Construction Work.
19. Contractor shall take all reasonable steps and legally required measures at the site to comply with applicable safety regulations and standards and to adequately protect the Construction Work, stored materials, and temporary structures located on the premises, and to prevent unauthorized persons from entering upon the site. Contractor shall at all times safeguard the City's property and employees from injury or loss in connection with the performance of the Contract. Contractor shall at all times safeguard and protect its own partially or completely finished Construction Work and that of the adjacent property and all adjacent construction Work from damage. Contractor shall protect the City's equipment, apparatus, machinery, and other property and all adjacent construction Work with boarding and other safeguards so as to keep the premises free

from dampness, dirt, dust, or other damage and shall remove all such temporary protection upon completion of the Construction Work.

20. Unless otherwise instructed by the City, Contractor shall repair and return to original condition all buildings, streets, curbs, sidewalks, utilities or other facilities affected by Contractor's performance of the Construction Work.
21. Contractor shall keep the site reasonably clean during performance of the Construction Work. Upon Final Completion of the Construction Work, Contractor shall thoroughly clean the site and the Project and remove all waste, debris, trash and excess materials or equipment, together with Contractor's property therefrom.
22. At all times relevant to the Contract, Contractor shall provide access to the Construction Work to the City and its designees without formality or other procedure.
23. The City's decisions in matters relating to aesthetic standards and effect shall be final.
24. In performing both Design Services and Construction Work under this Contract, the relationship between the City and Contractor is that of independent contractor, and the execution of this Contract does not change the independent status of Contractor. Contractor shall exercise independent judgment in performing its duties under this Contract and is solely responsible for setting working hours, scheduling or prioritizing the Contract work flow and determining how all Contract work is to be performed. No term or provision of this Contract or act of Contractor in the performance of this Contract shall be construed as making Contractor the agent, servant or employee of the City, or making Contractor or any of its employees eligible for the fringe benefits, such as retirement, insurance and worker's compensation, which the City provides its employees.

#### **ARTICLE 8 CONTRACT PRICE**

1. The City shall pay, and Contractor shall accept, as full and complete payment for all Work associated with each Job Order the amount approved and awarded to the Contractor as a Job Order. Each Job Order will be a separate contract under this Contract. The general terms and conditions will be established by this Contract and special contract provisions will be established within each Job Order.
2. Job Order Construction Price, unless changed by Change Order, represents the absolute limit of obligation or liability that the City may ever have insofar as the cost for full and final completion of the Work, and the total of all payments to Contractor or its Subcontractors are concerned. Should additional amounts be required to be expended, over and above a Job Order Construction Price, to achieve completion of the Construction Work, including Project construction, and payment to Contractor, in accordance with this

Contract and any Special Provisions included in each awarded Job Order, liability for and payment of such additional amounts shall be the sole responsibility of Contractor and its Contract Surety herein, and the City shall never be liable for same.

3. In addition to the Construction Work Contractor will perform, it will also provide all the usual and necessary traditional construction management services incident to construction projects of the nature and scope of this Project, for which the Contract Price described in this Contract is paid. Such construction management services are not intended in any manner to diminish the overall responsibility of Contractor for the full and final completion of the Construction Work within the time and cost constraints specified in this Contract.
4. The City agrees to pay Contractor for the Cost of the Construction Work as defined in each Job Order, subject to submission by Contractor of all backup substantiation as may be reasonably required by the City. In no event shall the sum of payments for the Cost of the Construction Work and any other Contractor compensation exceed the Construction Price, as adjusted by Change Order. The term "Cost of the Construction Work" shall be defined in each Job Order and be established as a Firm-Fixed Price Contract.

#### **ARTICLE 9 PAYMENT OF THE CONTRACT PRICE**

1. Payments of the Contract Price will be made monthly as Work progresses. Payment Applications, covering labor, material, equipment, supplies, and other items completed, delivered or suitably stored on site during a period ending on the last calendar day of each month, shall be submitted to the City by the Contractor on the current edition of AIA Documents G702 and G703, within five (5) days after end of the period. Payment Applications shall be notarized shall be supported by such data substantiating the Contractor's right to payment as the City may require, and reflect retainage, if any, as is provided. All payments shall be subject to any offset or retainage provisions of the Contract.
2. Each payment made to the Contractor shall be on account of the total amount payable to the Contractor, and title to all Work covered by a paid partial payment shall thereupon pass to the City. Nothing in this section shall be construed as relieving the Contractor from the sole responsibility for care and protection of materials and Work upon which payments have been made, for restoration of any damaged Work, or as a waiver of the right of the City to require fulfillment of all terms of Contract Documents.
3. The City, within seven (7) days after receipt of the Payment Application, will either issue a Certificate for Payment for such amount as is properly due or issue written notice of the reasons for withholding such a certificate.

4. The issuance of a Certificate for Payment will constitute a representation by the City, observations at the site and the data comprising the Payment Application, that the Work is in accordance with the Contract Documents (subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to the results of any subsequent tests required by or performed under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to any specific qualifications stated in his certificate); and that the Contractor is entitled to payment in the amount certified.
  
5. Payment may be withheld in whole or in part to protect the City on account of:
  - a. Unsatisfactory job progress as determined by the City.
  - b. Defective Work or materials not remedied.
  - c. Disputed Work or materials.
  - d. Claims or other encumbrances filed or reasonable evidence indicating probable filing of claims or other encumbrances by Subcontractors or Suppliers, or others.
  - e. Failure of the Contractor to make payment to Subcontractors or Suppliers within seven (7) days after receipt of each progress payment.
  - f. A reasonable doubt as determined by the City that the Work can be completed for the unpaid balance of the Contract Price or within the Contract Time.
  - g. The Contractor's failure to perform any of its contractual obligations under the Contractor Documents, or any other Contract with the City.
  - h. Deficiencies or claims asserted by the City against Contractor arising from any other project. Within fourteen (14) days following the receipt of the Certificate for Payment, the City shall pay to the Contractor 90% of the value of the Work in place and materials suitably stored at the Site. The remaining 10% shall be retained by the City until the Contract is 50% completed at which time the retainage shall be reduced to 5%; provided that: (a) the Contractor is making satisfactory progress on the Contract; and (b) in the City's sole judgment, there is no specific cause or claim requiring a greater amount than 5% to be retained. Thereafter, the City shall pay the Contractor 95% of the value of the Work, unless and until it determines satisfactory progress is not being made, at which time the 10% retainage may be reinstated. Such 10% reinstatement would be 10% of the total contract value of Work in place and materials stored. The City's sole judgment concerning the satisfactory progress of the Work shall be final.
  
6. Within sixty (60) days after the issuance of the Certificate of Final Completion by the City and receipt of all other documents required by the Contract, all retained amounts shall be paid to Contractor as part of Final Payment:

- a. The Final Payment shall not become due until the Contractor delivers to the City full and final unconditional releases from subcontractors and major suppliers acknowledging payment in full. Any claim filed thereafter shall be the responsibility of the Contractor.
- b. If any claim remains unsatisfied after all payments are made, the Contractor shall immediately upon demand refund to the City all monies that the latter may be compelled to pay in discharging such claim including all costs, interest and attorneys' fees.

## **ARTICLE 10 SUBSTANTIAL AND FINAL COMPLETION**

1. "Substantial Completion" means that stage in the progression of the Construction Work, as approved by the City in writing, when the Project is sufficiently complete in accordance with the Contract that the City can enjoy beneficial use or occupancy of the entire Project and can utilize it for all of its intended purposes. A condition precedent to Substantial Completion is the receipt by the City of all necessary authorizations for the use of the Project required by any governmental or regulatory authority. The City reserves the right to use any part, phase or system of the Project when such part, phase or system is substantially completed, but such partial use of the Project shall not result in the Project being deemed substantially complete, and such partial use shall not be evidence of Substantial Completion.
2. When Contractor believes that the Construction Work is substantially complete, Contractor shall notify the City in writing and shall submit to the City a list of items remaining to be completed or corrected. The City, the City's designee, (or an independent consultant hired by the City) will perform an inspection. If the Construction Work is substantially complete, in the sole opinion of the City, the City will prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion. The Certificate of Substantial Completion shall state the responsibilities of the City and Contractor for Project security, maintenance, damage to the Construction Work, and insurance, and shall fix the date, not more than 30 days after the established date of Substantial Completion, within which Contractor shall complete any items of incomplete or defective Construction Work. The Certificate of Substantial Completion shall be submitted to Contractor for its written acceptance of the responsibilities assigned to it in such certificate.
3. Within thirty (30) days following (a) Substantial Completion of the Construction Work, and (b) the parties' execution of the Certificate of Substantial Completion the City will remit payment of all sums due Contractor, including such amount of retainage based upon the value of remaining performance, less the reasonable costs for completing all incomplete Construction Work and/or any Design Services, correcting and bringing into strict conformance all defective and nonconforming Construction Work, and

handling all outstanding or threatened claims. Such payment less reasonable costs shall be determined by the City in its sole and absolute discretion.

4. "Final Completion" means the completion of all Work required by, and in strict compliance with, this Contract, the Job Order, including Contractor's provision to the City of all documents and deliverables required to be provided by the Contract.
5. When Contractor believes that all of the Construction Work is finally complete, and Contractor is ready for a final inspection, Contractor shall so notify the City in writing. The City (or an independent consultant hired by the City) will then make final inspection of the Construction Work and, if the Construction Work is complete in strict accordance with the Contract, and the Contract has been fully performed, then the City will issue a Certificate for Final Payment, providing for payment of the remainder of the Contract Price, less any amount withheld pursuant to the Contract.
6. The City shall make final payment of all remaining sums due to Contractor within thirty (30) days after Final Completion as reflected by the City's Certificate for Final Payment, provided that all documents and deliverables required to be delivered to the City under this Contract have been delivered as required, and provided that all other conditions precedent to payment have been satisfied.
7. Prior to being entitled to receive final payment, and as a condition precedent thereto, Contractor shall furnish the City, in the form and manner required by the City, the following:
  - (a) a signed and notarized statement of final payment and release, in particular certifying that all Subcontractors and Suppliers have been paid all sums lawfully due to them, and releasing the City from all claims that Contractor had or might have asserted during the performance of this Contract;
  - (b) if required by the City, separate releases of lien or lien waivers from each Subcontractor, lower tier subcontractor, laborer, Supplier or other person or entity who has, or might assert a claim against the City or the City's property;
  - (c) consent of surety to final payment;
  - (d) a complete set of the as-built drawings to include AutoCAD disks and the record set of Contract Documents; and
  - (e) All product warranties, operating manuals, instruction manuals and other record documents, drawings and things customarily required of a Contractor, or expressly required herein, as a part of or prior to Project closeout.

8. Acceptance by Contractor of final payment shall constitute a waiver and release of all claims against the City by Contractor except for those claims previously made in writing against the City by Contractor, pending at the time of final payment and specifically identified on Contractor's pay request for final payment as unsettled at the time it submits its pay request.

**ARTICLE 11  
CITY'S DUTIES, OBLIGATIONS, AND RESPONSIBILITIES**

In addition to payment, the City shall undertake to perform the following:

1. The City shall provide Contractor with information regarding the City's requirements for the Project including any desired or required design or construction schedule.
2. The City shall review any documents submitted by Contractor requiring the City's decision, and shall render any required decisions pertaining thereto.
3. In the event the City has actual knowledge of (a) any material fault or defect in the Construction Work, (b) nonconformance with the Contract, or (c) errors, omissions or inconsistencies in the Design Documents, the City shall give prompt written notice thereof to Contractor.
4. The City shall provide Contractor access to the Site and to the Construction Work, and shall provide Contractor with such information, existing and reasonably available, necessary to Contractor's performance of the Contract as Contractor may request.
5. The City shall cooperate with Contractor in securing any necessary licenses, permits, approvals or other necessary authorizations for the design, construction and certification of the Project.
6. The City shall perform the duties set forth in this Article 11 in a reasonably timely manner so as to permit the orderly and timely progress of Contractor's Design Services and of the Construction Work.
7. The City's review, inspection, or approval of any Construction Work, Design Documents, Submittals, or pay requests by Contractor shall be solely for the purpose of determining whether such Construction Work and such documents are generally consistent with the City's construction program and requirements. No review, inspection, or approval by the City of the Construction Work or documents shall relieve Contractor of its responsibility for the performance of its obligations under the Contract or the accuracy, adequacy, fitness, suitability, or coordination of its Design Services or the Construction Work. Approval by any governmental or other regulatory agency or other governing body of any Construction Work, Design Documents, or

Contract Documents shall not relieve Contractor of responsibility for the strict performance of its obligations under the Contract. Payment by the City pursuant to the Contract shall not constitute a waiver of any of the City's rights under the Contract or at law, and Contractor expressly accepts the risk that defects in its performance, if any, may not be discovered until after payment, including final payment, is made by the City.

8. The City's agreement not to exercise, or its delay or failure to exercise, any right under the Contract or to require strict compliance with any obligation of Contractor under the Contract shall not be a waiver of the right to exercise such right or to insist on such compliance at any other time or on any other occasion.
9. The City shall furnish to Contractor, prior to the execution of each Job Order, any and all written and tangible material knowingly in its possession concerning conditions below ground at the site of the Project. Such written and tangible material is furnished to Contractor only in order to make complete disclosure of such material and for no other purpose. By furnishing such material, the City does not represent, warrant, or guarantee its accuracy or completeness either in whole or in part, and shall have no liability therefore. If Contractor requests in writing, the City shall also furnish surveys, legal limitations, and utility locations (if known), and a legal description of the Project site.
10. The City shall obtain all easements required for construction, and shall pay for necessary assessments and charges required for use and occupancy of the Construction Work. Contractor shall render such assistance as the City may request in obtaining such easements, certificates of occupancy, and the like.
11. In the event Contractor fails or refuses to perform the Construction Work in strict accordance with the Contract, or is otherwise in breach of this Contract in any way, the City may, at its option, instruct Contractor to cease and desist from performing further Construction Work, or any part thereof. Upon receipt of such instruction from the City in writing, Contractor shall immediately cease and desist as instructed by the City and shall not proceed further until the cause for the City's instructions has been corrected, no longer exists, or the City instructs that the Construction Work may resume.
12. In the event the City issues such instructions to stop Construction Work, and in the further event that Contractor fails and refuses within seven (7) days of receipt of same to provide adequate assurance to the City that the cause of such instructions will be eliminated or corrected, then the City shall have the right to carry out the Construction Work with its own forces, or with the forces of other contractors, and Contractor shall be fully responsible for the costs incurred in correcting any defective or deficient Construction Work. The rights set forth in Article 11, Paragraph 11 and

this Article 11, Paragraph 12 are in addition to, and without prejudice to, any other rights or remedies the City may have against Contractor, including the rights to terminate or withhold payment as provided herein.

**ARTICLE 12  
JOB ORDER (PROJECT) DOCUMENTATION**

1. Contractor shall maintain and protect all records relating in any manner whatsoever to the Project (the "Project Records") for no less than four (4) years after Final Completion of the Project, and for any longer period of time as may be required by law or good management practice.
2. All Project Records which are in the possession of Contractor or Contractors Subcontractors shall be made available to the City for inspection and copying upon the City's request at any time. Additionally, such records shall be made available upon request by the City to any state, federal or other regulatory authorities and any such authority may review, inspect and copy such records. The Project Records include, without limitation, all drawings, plans, specifications, Submittals, correspondence, logs, minutes, memoranda, photographs, audio or video recordings, or other writings or things which document the Project, its design, or its construction. Said records include those documents reflecting the cost of design and construction to Contractor.

**ARTICLE 13  
PERSONNEL, SUBCONTRACTORS AND SUPPLIERS**

1. A "Subcontractor" means an entity which has a direct contract with Contractor to perform a portion of the Construction Work or the Design Services. For purposes of the Contract, Subcontractors shall also include those furnishing any equipment and materials for the Project.
2. A "Supplier" means an entity providing only equipment or materials for the performance of the Construction Work.
3. Upon execution of this Contract, and at such later times as may be applicable, Contractor shall furnish the City, in writing, the names of persons or entities proposed by Contractor to act as Subcontractors on the Project. Contractor shall provide such information regarding such proposed Subcontractors as the City deems necessary. The City shall promptly reply to Contractor, in writing, stating any objections the City may have to such proposed Subcontractors ("disapproved Subcontractor"). With respect to this Contract and the subject matter hereto, Contractor shall not engage the services of or otherwise enter into a contract with a disapproved Subcontractor. Notwithstanding the foregoing, any consent or failure to reject a subcontractor by the City shall in no way relieve Contractor of any of its duties or warranties under this Contract.

4. All subcontracts and purchase orders with Subcontractors shall afford Contractor rights against the Subcontractor which correspond to those rights afforded to the City against Contractor under this Contract, including those rights of Contract suspension, termination, and stop Construction Work orders as set forth in this Contract. It is expressly agreed that no relationship of agency, employment, contract, obligation or otherwise shall be created between the City and any Subcontractor of Contractor, and a provision to this effect shall be incorporated into all agreements between Contractor and its Subcontractors.
5. Should Contractor subcontract all or any part of the Construction Work, such subcontracting of the Construction Work shall not relieve Contractor from any liability or obligation under the Contract or under any applicable policy, law or regulation, and Contractor shall be responsible for all and any acts, defaults, omissions or negligence of Contractor's subcontractors, suppliers, and contractors.
6. In accordance with Article 7, Paragraph 4 above, Contractor shall employ and assign only qualified and competent personnel to perform any service or task concerning the Project. Contractor shall designate one such person as the Project Contractor. Absent written instruction from Contractor to the contrary, the Project Contractor shall be deemed to be Contractor's authorized representative and shall be authorized to receive and accept any and all communications from the City. Key design and supervisory personnel assigned by Contractor to each Job Order will be provided at the time the contractor submits the RFP pricing package. The contractor shall conform to all requirements established in each Job Order RFP issued by the City.
7. If, at any time during the course of the Project, the City reasonably determines that the performance of any Subcontractor or any member of Contractor's staff construction working on the Project is unsatisfactory, the City's Representative may require Contractor to remove such Subcontractor or staff member from the Project immediately and replace the staff member at no cost or penalty to the City for delays or inefficiencies the change may cause.

**ARTICLE 14  
CHANGES AND EXTENSIONS OF TIME**

1. Changes in the Design Services (if required) or the Construction Work under this Contract, consisting of additions, deletions, revisions or any combination thereof, may be ordered unilaterally by the City without invalidating the Contract. Such changes shall be communicated by Change Order as applicable. Contractor shall proceed diligently with any changes, and same shall be accomplished in strict accordance with the terms and conditions as set forth in this Contract/Job Order.

2. All change orders, changes requested by Contractor, or extensions of Contract Time occurring during construction of the Project related to actual Construction Work shall be governed by the applicable provisions of this Contract/Job Order. All requests for additional compensation due to a change in the scope, and all requests for an extension of time to the Schedule, shall include sufficient backup documentation to reasonably understand the request and the amount of time or compensation requested and determines the merits of the request.
3. Upon the occurrence of a change order for Construction Work which increases the Cost of the Construction Work, the Construction Price will thereafter include such Cost of the Construction Work and Services attributable to such change to the extent allowed.
4. In the event the parties are unable to agree on the terms of a Change Order or Supplemental Agreement, then Contractor shall continue to diligently perform the Work, including any change directed by the City by Change Order or Supplemental Agreement, and shall keep thorough records of the cost of performance of such Change Order or Supplemental Agreement.
5. Contractor recognizes and accepts a fiduciary relationship of trust and confidence hereby established between Contractor and the City and agrees that it shall at all times in good faith use its best efforts to advance the City's interests and agrees to perform the Work in the highest professional manner.

**ARTICLE 15  
CLAIMS BY CONTRACTOR**

1. Claims by Contractor against the City are subject to the terms and conditions of this Article 15, and strict compliance herewith shall be a condition precedent to any liability of the City therefore.
2. All claims for additional compensation or additional time, regardless of their nature, when they occur, or whether they occur during the design or construction phase, shall be governed by the City of Buckeye Procurement Code.
3. Contractor shall provide, and continue to provide, to the City all such documentation, including cost and time records, as and when the City may request so that the City may evaluate Contractor's claim.
4. Contractor shall continue its performance under this Contract regardless of the existence of any claims submitted by Contractor against the City.

5. In the event Contractor seeks to make a claim for an increase in the Construction Price, as a condition precedent to any liability of the City for any claim, Contractor shall strictly comply with the requirements of Paragraph 2 above and such notice shall be given by Contractor before proceeding to execute any alleged additional or changed Construction Work. Failure of the condition precedent to occur shall constitute a waiver by Contractor of any claim.
6. In connection with any claim by Contractor against the City for compensation in excess of the Construction Price, any liability of the City shall be strictly limited to the Cost of the Construction Work and Design Services if required as defined and allowed in this Contract and subsequent Job Orders and shall in no event include, indirect, consequential, impact or other costs, expenses or damages of Contractor or its Subcontractors. The City shall not be liable to Contractor for claims of third parties, including Subcontractors, for acts, omissions, events, or conditions for which the City would not be liable to Contractor under the terms of the Contract. As a condition precedent to the City's liability to Contractor for any loss or damage resulting from claims of third parties, including Subcontractors, such third parties must have complied with all conditions contained in their agreements with Contractor and such claims must have been submitted to the City by Contractor in strict compliance with all the requirements of this Article. The City shall not be liable to Contractor for claims of third parties including Subcontractors, unless and until the liability of Contractor has been established in a court of competent jurisdiction.
7. The resolution of any claim under this Article shall be reflected by a Change Order or Supplemental Agreement executed by the City and Contractor.

**ARTICLE 16  
UNCOVERING AND CORRECTING CONSTRUCTION WORK**

1. If any of the Construction Work is covered, concealed or obscured contrary to the written request of the City, or contrary to any provision of the Contract, said Construction Work shall, if required by the City, be uncovered for inspection and shall be properly replaced at Contractor's expense without change in the Contract Time.
2. If any of the Construction Work is covered, concealed or obscured in a manner not inconsistent with Paragraph 1 above, it shall, if required by the City, be uncovered for inspection. If such Construction Work conforms strictly to the Contract, the cost of uncovering and proper replacement shall be charged to the City. If such Construction Work does not strictly conform to the Contract, Contractor shall pay the cost of uncovering and proper replacement.
3. Contractor shall immediately proceed to correct Construction Work rejected by the City as defective or failing to conform to the Contract. Contractor shall pay all costs

and expenses associated with correcting such rejected Construction Work, including any additional testing and inspections made necessary thereby.

4. In addition to its warranty obligations set forth elsewhere herein, Contractor shall be specifically obligated to correct at its cost and expense any and all defective or nonconforming Construction Work for a period of twelve (12) months following Final Completion upon written direction from the City. This obligation shall survive final payment by the City and termination of the Contract.
5. Nothing contained in Paragraph 4 shall establish any period of limitation with respect to other obligations which Contractor has under the Contract. Establishment of the one-year time period in Paragraph 4 above relates only to the duty to Contractor to specifically correct the Construction Work.
6. The City may, but shall in no event be required to, choose to accept defective or nonconforming Construction Work. In such event, the Contract Price shall be reduced by the reasonable costs of removing and correcting the defective or nonconforming Construction Work. The City shall be entitled to a reduction in the Construction Price regardless of whether the City has, in fact, removed and corrected such defective Construction Work. If the unpaid balance of the Construction Price, if any, is insufficient to compensate the City for the acceptance of defective or nonconforming Construction Work, Contractor shall, upon written demand from the City, pay the City such additional compensation for accepting defective or nonconforming Construction Work.

#### **ARTICLE 17 SUSPENSION AND TERMINATION**

1. The City may for any reason whatsoever suspend performance under the Contract. The City shall give written notice of such suspension to Contractor specifying when such suspension is to become effective.
2. From and upon the effective date of any Suspension ordered by the City, Contractor shall incur no further expense or obligations in connection with this Contract and Contractor shall cease its performance. Contractor shall also, at the City's direction, either suspend or assign to the City any of its open or outstanding subcontracts or purchase orders.
3. In the event the City directs a suspension of performance under this Article 17, through no fault of Contractor, and provided Contractor submits a proper claim as provided in this Contract, the City shall pay Contractor as full compensation for such suspension Contractor's reasonable costs, actually incurred and paid, of:

- (a) Demobilization and remobilization, including such costs paid to Subcontractors
  - (b) Preserving and protecting Construction Work in place;
  - (c) Storage of materials or equipment purchased for the Project, including Insurance.
  - (d) Performing in a later, or during a longer, time frame than that contemplated by this contract.
- 4. If the City lifts the suspension it shall do so in writing and Contractor shall promptly resume performance of the Contract unless, prior to receiving the notice to resume, Contractor has exercised its right of termination as provided herein.
- 5. The City reserves the right, for any reason whatsoever (including, but not limited to, the City's failure to appropriate funding for this Contract), or without reason, terminate performance under the Contract by Contractor for convenience. The City shall give thirty (30) calendar days advance written notice of termination for convenience to Contractor. Contractor shall incur no further obligations in connection with the Contract and Contractor shall stop Work when such termination becomes effective. Contractor shall also, at the City's direction, either terminate or assign to the City outstanding orders and subcontracts. Contractor shall settle the liabilities and claims arising out of any terminated subcontracts and orders. The City may direct Contractor to assign Contractor's right, title and interest under terminated orders or subcontracts to the City or its designee. Contractor shall transfer title and deliver to the City such completed or partially completed Design Documents (if any), Construction Work and materials, equipment, parts, fixtures, information and Contract rights as Contractor has.
- 6. When terminated for convenience, Contractor shall be compensated as follows:
  - (a) Contractor shall submit a termination claim to the City specifying the amounts believed to be due because of the termination for convenience together with costs, pricing or other data required by the City. If Contractor fails to file a termination claim within three (3) months from the effective date of termination, the City shall pay Contractor an amount derived in accordance with Subparagraph (c) below;
  - (b) The City and Contractor may agree to the compensation, if any, due to Contractor under this paragraph;
  - (c) Absent agreement to the amount due to Contractor, the City shall pay Contractor, as full compensation for termination for convenience, the following amounts:
    - (i) the Cost of the Construction Work and Services, as defined and allowed by to the extent incurred or paid prior to receipt by Contractor of the notice of termination;
    - (ii) such portion of Work which is completed and unpaid as of the date of receipt by Contractor of the notice of termination; and

- (iii) Reasonable costs of settling and paying claims arising out of the termination of subcontracts or orders hereinabove. These costs shall not include amounts paid in accordance with other provisions of this Contract. In no event shall Contractor be entitled to recover lost profits or other incidental or consequential damages from the City on account of a termination for convenience, or an erroneous termination for cause as described below.
  
- 7. If Contractor does not perform the Construction Work, or any part thereof, in a timely manner, supply adequate labor, supervisory personnel or proper equipment or materials, or if it fails to timely discharge its obligations for labor, equipment and materials, or proceeds to disobey applicable laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise commits a violation of a material provision of the Contract, then the City may by written notice to Contractor, without prejudice to any other right or remedy against Contractor or others, terminate the performance of Contractor and take possession of the Project site and of all materials and equipment at the site and may finish the Construction Work by whatever methods it may deem expedient. In such cases, Contractor shall not be entitled to receive any further payment until the Construction Work is finished.
  
- 8. In the event the employment of Contractor is terminated by the City for cause and it is subsequently determined by a court or other tribunal of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under this Paragraph and the provisions of this Paragraph regarding compensation shall apply.

**ARTICLE 18  
INDEMNITY**

1. To the fullest extent permitted by law, Contractor agrees to defend, indemnify and hold the City, its elected officials, officers, agents and employees, harmless for, from and against any and all claims, lawsuits, judgments, costs and expenses for personal injury (including death), property damage or other harm for which recovery of damages is sought, suffered by any person or persons, that may arise out of or be occasioned by Contractor's breach of any of the terms or provisions of this Contract, or by any negligent, grossly negligent or strictly liable act or omission of Contractor, its officers, agents, or employees, in the performance of this Contract; except that the indemnity provided for in this paragraph shall not apply to any liability resulting from the sole negligence or fault of the City, its elected officials, officers, agents, employees or separate contractors. The provisions of this paragraph are solely for the benefit of the parties hereto and are not intended to create or grant any rights, contractual or otherwise, to any other person or entity.

**ARTICLE 19  
INSURANCE AND BONDS**

See *Exhibit C*.

**ARTICLE 20  
CANCELLATION UNDER A.R.S. § 38-511**

1. This Contract may be cancelled pursuant to the terms of Arizona Revised Statutes Section 38-511 as amended.

**ARTICLE 21  
GIFT TO PUBLIC SERVANT**

1. The City may terminate this Contract immediately if Contractor has offered, conferred, or agreed to confer any benefit upon a City of Buckeye employee or official that the City of Buckeye employee or official is prohibited by law from accepting.
2. For purposes of this section, "benefit" means anything reasonably regarded as pecuniary gain or pecuniary advantage, including benefit to any other person in whose welfare the beneficiary has a direct or substantial interest, but does not include a contribution or expenditure made and reported in accordance with law.
3. Notwithstanding any other legal remedies, the City may require Contractor to remove any employee of Contractor from the Project who has violated the restrictions of this section or any similar state or federal law, and obtain reimbursement for any expenditures made to Contractor as a result of the improper offer, agreement to confer, or conferring of a benefit to a City employee or official.

**ARTICLE 22  
NONDISCRIMINATION**

1. As a condition of this Contract, Contractor covenants that Contractor will take all necessary actions to insure that, in connection with any work under this Contract, Contractor, his associates and subcontractors, will not discriminate in the treatment or employment of any individual or groups of individuals on the grounds of race, color, religion, national origin, age, sex, or handicap unrelated to job performance, either directly, indirectly or through contractual or other arrangements. Contractor shall also comply with all applicable requirements of the Americans with Disabilities Act, 42 U.S.C.A. §§12101-12213, as amended. In this regard, Contractor shall keep, retain and safeguard all records relating to this Contract or work performed hereunder for a minimum period of three (3) years from final Contract completion, with full access allowed to authorized representatives of the City, upon request, for purposes of evaluating compliance with this and other provisions of the Contract.

2. Subject to existing law, and regulations, illegal or undocumented persons will not be employed by the Contractor for any work or services to be performed pursuant to this contract. The Contractor will ensure that this provision is expressly incorporated into any and all subcontracts or subordinate agreements issued in support of this contract. Contractor shall notify the City upon the selection and agreement with any subcontractor, and shall notify the City prior to any subcontractor being on site doing work. Contractor agrees to comply with the provisions of section 274A(a)(1)(A) and 274A(a)(2) of the Immigration and Nationality Act ("INA") (8 U.S.C.1324a(a)(1)(A), 1324a(a)(2)) (the "INA employment provisions"), and any amendments thereto, prohibiting the unlawful employment of illegal or undocumented persons. Under the terms of this agreement, the Contractor shall not knowingly hire or employ for any work performed pursuant to this contract any workers or employees not lawfully authorized to work in the United States under the provisions of the INA or any other applicable federal or state laws. Violation of the provisions of this Article 22 shall be deemed a material breach of this Contract.

### **ARTICLE 23 MISCELLANEOUS PROVISIONS**

1. This Contract shall be governed by the laws and court decisions of the State of Arizona. This Contract is performed in Maricopa County, Arizona, and exclusive venue for the enforcement of rights or legal obligations under this Contract shall be in Maricopa County, Arizona.
2. This Contract shall be binding upon and inure to the benefit of the parties to this Contract and their respective successors and, except as otherwise provided in this Contract, their assigns.
3. Contractor shall not assign this Contract, or any part of this Contract, without prior written consent of the City.
4. All notices, communications, and reports required or permitted under this Contract shall be personally delivered or mailed to the respective parties by depositing same in the United States mail, postage prepaid, at the addresses shown below, unless and until either party is otherwise notified in writing by the other party, at the following addresses. Mailed notices shall be deemed communicated as of five days after mailing.

If intended for the City, to:

William Kauppi  
Chief Financial Officer, Finance  
City of Buckeye  
530 E. Monroe Ave.  
Buckeye, Arizona 85326  
Phone: 623.349.6225

If intended for Contractor, to: M. R. Tanner Development and Construction, LLC  
Josh Skinner, JOC Account Manager  
1327 W. San Pedro Street  
Gilbert, Arizona 85233  
Phone: 480.633.8500  
Email: [jskinner@mrtanner.com](mailto:jskinner@mrtanner.com)

5. No information relative to the existence or the details of the Design Services or the Construction Work shall be released by Contractor, either before or after completion of the Project, for publication, advertising or any commercial purposes without the City's prior written consent.
6. In the event that any portion or any portions of this Contract are held to be unenforceable by a court of competent jurisdiction, then the remainder of this Contract shall be enforced as though such portions had not been included, unless to do so would cause this Contract to fail of its essential purposes.
7. This Contract, with all Exhibits and incorporated or referenced attachments, and any Job Order, together with Contractor's and Surety's performance and payment bonds for the Project, constitute the entire and exclusive agreement between the City and Contractor with reference to the Project. This Contract supersedes any and all prior documents, discussions, communications, representations, understandings, negotiations or agreements by and between the parties.
8. If the City Council does not appropriate funds to continue this Contract or any Job Order into a subsequent fiscal year, and pay for charges hereunder or under any current Job Order for a Project that extends into a new fiscal year, the City may terminate this Contract at the end of the current fiscal period, or at the time that funds are no longer available to meet the City's payment obligations hereunder. The City agrees to give written notice of termination to the Contractor at least thirty (30) days prior to any termination for a lack of funds and will pay to the Contractor all approved charges incurred prior to Contractor's receipt of such notice, subject to the availability of funds therefore.
9. Cooperative Purchasing- Specific eligible political subdivisions and nonprofit educational or health institutions ("Eligible Procurement Unit(s)") are permitted to utilize procurement agreements developed by the City, at their discretion and with the agreement of the awarded Consultant. Consultant may, at its sole discretion, accept orders from Eligible Procurement Unit(s) for the purchase of the Materials and/or Services at the prices and under the terms and conditions of this Agreement, in such quantities and configurations as may be agreed upon between the parties. All cooperative procurements under this Agreement shall be transacted solely between the requesting Eligible Procurement Unit and Consultant. Payment for such purchases will be

the sole responsibility of the Eligible Procurement Unit. The exercise of any rights, responsibilities or remedies by the Eligible Procurement Unit shall be the exclusive obligation of such unit. The City assumes no responsibility for payment, performance or any liability or obligation associated with any cooperative procurement under this Agreement. The City shall not be responsible for any disputes arising out of transactions made by others.

**ARTICLE 24  
E-VERIFY**

1. E-Verify Requirements. To the extent applicable under Ariz. Rev. Stat. §41-4401, Contractor and its subconsultants warrant compliance with all federal immigration laws and regulations that relate to their employees and compliance with the E-verify requirements under Ariz. Rev. Stat. §23-214(A). The Contractor or its subcontractor's failure to comply with such warranty shall be deemed a material breach of this Agreement and may result in the termination of this Agreement by the City.
2. The Contractor and its subcontractors warrant to keep the papers and records open for random inspection during normal business hours by the City. The Contractor and its subcontractors shall cooperate with the City's random inspections including granting the City's entry rights onto its property to perform the random inspections and waiving their respective rights to keep such papers and records confidential.

**ARTICLE 25  
ISRAEL**

1. To the extent required by applicable law, pursuant to Arizona Revised Statute § 35-393.01, Contractor certifies that it is not currently engaged in, and agrees for the duration of the Contract to not engage in, a boycott of Israel, or any entity that does business in Israel or any territories controlled by Israel.

[SIGNATURE PAGE TO FOLLOW]

THEREFORE, the City of Buckeye by its Mayor and City Clerk have hereunto subscribed their names this September 03, 2024.

CITY:


THE CITY OF BUCKEYE,  
an Arizona municipal corporation



Dan Cotterman, City Manager

CONTRACTOR:

M. R. TANNER DEVELOPMENT AND  
CONSTRUCTION, LLC, an Arizona  
limited liability company



Chad Montoya, Vice President

ATTEST:



Lucinda Aja, City Clerk

RECOMMENDED:



William Kauppi, Chief Financial Officer

APPROVED AS TO FORM:



K. Scott McCoy, City Attorney

**EXHIBIT A  
TO  
JOB ORDER CONTRACT FOR  
STREET MAINTENANCE  
BETWEEN  
CITY OF BUCKEYE  
AND  
M. R. TANNER DEVELOPMENT AND CONSTRUCTION, LLC**

**[CONTRACTOR'S STATEMENT OF QUALIFICATIONS (SOQ)]  
SEE FOLLOWING PAGES**

**ALL EXHIBITS ARE ON FILE IN THE OFFICE OF THE CITY CLERK**



REQUEST FOR QUALIFICATIONS (RFQ: 2024193)  
JOB ORDER CONTRACTING (JOC) GENERAL:

# **CATEGORY 1: Street Maintenance** **Pave, Patch & Mill Projects /** **Sealing Applications Projects**

June 17, 2024



**LINKING AGREEMENT  
FOR COOPERATIVE PURCHASE**

MR TANNER DEVELOPMENT AND CONSTRUCTION, LLC.  
STREET MAINTENANCE SERVICES

**EXHIBIT B**  
JOB ORDER NO. 1

See the following pages.

**TOWN OF PARADISE VALLEY  
JOB ORDER CONTRACTING AGREEMENT  
WITH  
MR TANNER DEVELOPMENT AND CONSTRUCTION, LLC.**

JOB ORDER NO. 1

STREET MAINTENANCE

This Job Order No. 1 (this “**Job Order**”) is entered into on this 26 day of June, 2025 (the “**Effective Date**”) by and between the Town of Paradise Valley, an Arizona municipal corporation (the “**Town**”) and M.R. Tanner Development and Construction, LLC, an Arizona Limited liability company whose principal place of business is located at 1327 W. San Pedro Street, Gilbert, AZ 85233 (the “**Contractor**”). This Job Order is subject to and governed by the terms and conditions of the City of Buckeye Contract No. 2025081 (the “**Base Agreement**”) and of Town of Paradise Valley Linking Agreement for Cooperative Purchase No. CON-25-031-PBW (the “**Agreement**”).

**ARTICLE 1  
Scope of Work**

The Contractor shall furnish all labor, materials, and equipment, as more fully set forth in the proposal document titled “Paradise Valley Pavement Maintenance 2025 2 Inch 40<sup>th</sup> Street” and dated January 16, 2025, which is attached hereto as **Attachment 1** and incorporated as if fully set forth herein (the “**Work**”), as set forth in the Plans and Specifications, which are attached hereto as **Attachment 2** and incorporated as if fully set forth herein (the “**Project**”).

**ARTICLE 2  
Schedule of Completion**

The Contractor shall commence work within 10 days from issuance by the Town of a Notice to Proceed and shall complete the Work within ninety (90) calendar days. In view of the difficulty or impossibility of determining the Town’s damages from delay, should the Contractor fail to achieve Substantial Completion within the above number of calendar days, as may be extended by any Town-approved Change Orders, the Contractor agrees to pay and will pay to the Town, in addition to all other sums owed pursuant to the Agreement, the sum of \$280 for each calendar day of delay as liquidated damages for such delay and not as a penalty. This sum may be withheld from the balance of the cost of the Work as it becomes due. Should liquidated damages exceed the cost of the Work due or to become due, then the Contractor shall pay the Town the difference within three days of receipt of written demand.

**ARTICLE 3  
Cost of the Work**

The Contractor shall complete the work for the prices set forth in **Attachment 1**. The total cost to complete the Work under this Job Order shall not exceed \$1,742,906.70.

**ARTICLE 4  
Bonds**

Payment and Performance Bonds are required for this Project and are attached hereto as **Attachment 3** and incorporated as if fully set forth herein.

**ARTICLE 5  
Additional Terms**

This Job Order is subject to the terms and conditions of the Agreement and the Base Agreement and may be canceled pursuant to the provisions of A.R.S. § 38-511.

By executing this Job Order, the Contractor certifies its compliance with A.R.S. § 35-393.01.

To the extent applicable under A.R.S. § 35-394, the Contractor certifies that it does not, and will not for the duration of the Agreement, use the forced labor, any goods or services produced by the forced labor, or any contractors, subcontractors, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People’s Republic of China.

In the event of any conflict or discrepancy between the terms of this Job Order, the Agreement, the Base Agreement, **Attachment 2** to this Job Order, and **Attachment 1** to this Job Order, the documents shall govern in that order.


**ARTICLE 6  
Attachments**

This Job Order includes and incorporates the following Attachments:

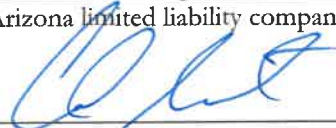
- Attachment 1** – Proposal
- Attachment 2** – Plans and Specifications
- Attachment 3** – Payment and Performance Bonds

IN WITNESS WHEREOF, the Parties have hereunto subscribed their names.

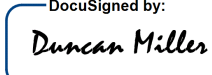
**TOWN OF PARADISE VALLEY,**  
an Arizona municipal corporation:

DocuSigned by:  
  
5B8E4040A9944A3...  
Andrew Ching, Town Manager


M.R. Tanner Development and Construction LLC  
an Arizona limited liability company:

By:   
Name: Chad Montoya  
Title: Vice President

ATTEST:

DocuSigned by:  
  
FD56FF67A95043D...  
Duncan Miller, Town Clerk

APPROVED AS TO FORM:

Signed by:  
  
6C9F79CECF0C427...  
Andrew J. McGuire, Town Attorney

**ATTACHMENT 1  
TO  
JOB ORDER NO. ONE**

Proposal – Paradise Valley Pavement Maintenance 2025 2 inch 40 ST (1.16.25)

See the following page.



1327 W. SAN PEDRO STREET GILBERT, AZ 85233

<b>To:</b>	PARADISE VALLEY, TOWN OF	<b>Contact:</b>	Chris Martinez
<b>Address:</b>	PUBLIC WORKS PARADISE VALLEY, AZ 85253-4399	<b>Phone:</b>	
<b>Project Name:</b>	PARADISE VALLEY PAVEMENT MAINTENANCE 25/26 BUDGET PROPOSAL	<b>Fax:</b>	
<b>Project Location:</b>		<b>Bid Number:</b>	
		<b>Bid Date:</b>	

Item Description	Estimated Quantity	Unit	Unit Price	Total Price
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**SECTION 2 (REMAINING AFTER 6.30.25)**

CRACK FILL	422,163.00	LF	\$0.25	\$105,540.75
PMM	94,550.00	SY	\$1.50	\$141,825.00
STRIPING	1.00	LS	\$5,000.00	\$5,000.00
TRAFFIC CONTROL	15.00	DY	\$1,750.00	\$26,250.00

**Total Price for above SECTION 2 (REMAINING AFTER 6.30.25) Items: \$278,615.75**

**1/2 SECTION 6 (REMAINING TO BE DEFERRED TO FY 26/27)**

2" MILLING	105,000.00	SY	\$2.50	\$262,500.00
2" AC CAP (1/2" PMTR)	105,000.00	SY	\$20.00	\$2,100,000.00
PRELOWER UTILITIES	145.00	EACH	\$490.00	\$71,050.00
ADJUST MANHOLE	70.00	EACH	\$700.00	\$49,000.00
ADJUST WATER VALVE	75.00	EACH	\$670.00	\$50,250.00
SURVEY MONUMENT 120-1B	12.00	EACH	\$290.00	\$3,480.00
TRAFFIC CONTROL ALLOWANCE	1.00	LS	\$86,000.00	\$86,000.00
POLICE OFFICERS	1.00	LS	\$67,000.00	\$67,000.00

**Total Price for above 1/2 SECTION 6 (REMAINING TO BE DEFERRED TO FY 26/27) Items: \$2,689,280.00**

**TATUM BLVD**

MICROSEAL	113,560.00	SY	\$5.33	\$605,274.80
TRAFFIC CONTROL	33.00	DY	\$1,750.00	\$57,750.00
STRIPING	1.00	LS	\$73,970.00	\$73,970.00

**Total Price for above TATUM BLVD Items: \$736,994.80**

**SCOTTSDALE ROAD**

3" MILLING	15,500.00	SY	\$3.00	\$46,500.00
3" AC CAP (1/2" PMTR)	15,500.00	SY	\$24.00	\$372,000.00
PRELOWER UTILITIES	18.00	EACH	\$490.00	\$8,820.00
ADJUST MANHOLE	6.00	EACH	\$700.00	\$4,200.00
ADJUST WATER VALVE	4.00	EACH	\$670.00	\$2,680.00
SURVEY MONUMENT 120-1A	2.00	EACH	\$800.00	\$1,600.00
SAWCUT/REMOVE CONCRETE/AC	1,420.00	SF	\$30.00	\$42,600.00
SAWCUT/REMOVE CURB AND GUTTER	50.00	LF	\$35.00	\$1,750.00
SIDEWALK/RAMPS	1,225.00	SF	\$30.00	\$36,750.00
VALLEY GUTTER & CONCRETE APRON	375.00	SF	\$35.00	\$13,125.00

Item Description	Estimated Quantity	Unit	Unit Price	Total Price
CURB & GUTTER	50.00	LF	\$40.00	\$2,000.00
TRAFFIC CONTROL ALLOWANCE	1.00	LS	\$62,000.00	\$62,000.00
POLICE OFFICERS	1.00	LS	\$43,000.00	\$43,000.00
<b>Total Price for above SCOTTSDALE ROAD Items:</b>				<b>\$637,025.00</b>

**Total Bid Price: \$4,341,915.55**

**Notes:**

- PROJECT DESCRIPTION: PROVIDE PAVEMENT MAINTENANCE SERVICES ON THE LOCATIONS DESCRIBED ABOVE. PRICING INCLUDES ALL LABOR AND MATERIAL TO PREP, CLEAN CRACKS AND PAVEMENT TO INSTALL CRACK SEAL, PMM (SEALCOAT) TO THE ROADWAYS. ALSO INCLUDES THE SAME FOR TYPE II MICROSEAL. ALSO INCLUDES STRIPING OF THE SAME.
- CONTRACT TERMS AND CONDITIONS BASED ON BUCKEYE CONTRACT NO. 2025081.

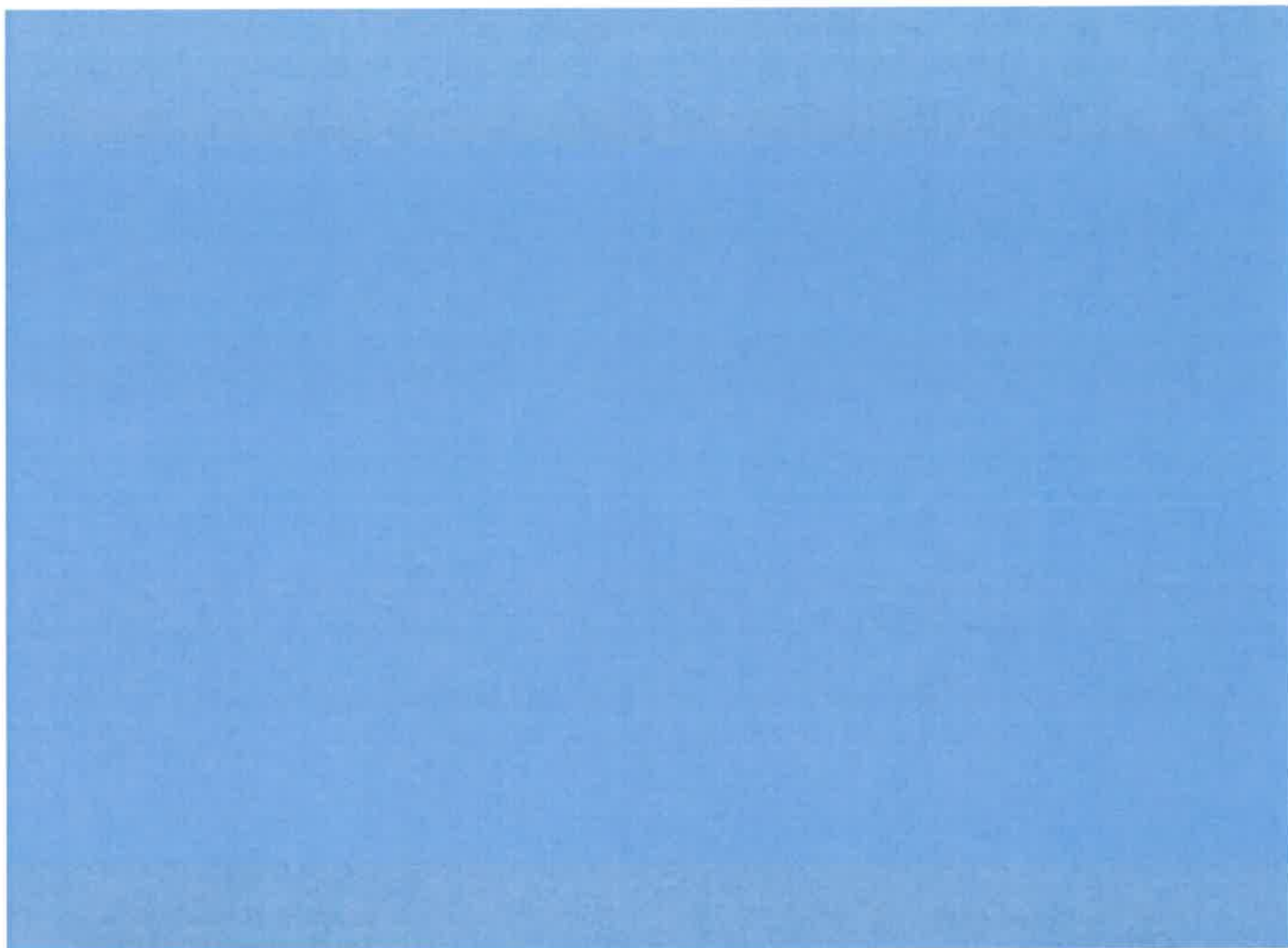
<p><b>ACCEPTED:</b> The above prices, specifications and conditions are satisfactory and hereby accepted.</p> <p>Buyer: <u>Town of Paradise valley</u> DocuSigned by: _____</p> <p>Signature: <u><i>Andrew Ching</i></u></p> <p>Date of Acceptance: <u>6/26/2025</u></p>	<p><b>CONFIRMED:</b> <b>M.R. TANNER DEVELOPMENT &amp; CONSTRUCTION, LLC.</b></p> <p>Authorized Signature: <u><i>[Signature]</i></u></p> <p>Estimator: Chad Montoya 480-633-8500 cmontoya@mrtanner.com</p>
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**ATTACHMENT 2  
TO  
JOB ORDER NO. ONE  
PLANS AND SPECIFICATIONS**

See the following page(s).



# PV STREETS MAINTENANCE MATERIALS & SPECS





## Table of Contents

City of Phoenix ½" Low Volume Asphalt Mix _____	Pg. 2
City of Phoenix ½" Low Volume Asphalt Specs _____	Pg. 3
Rubberized Asphalt Mix _____	Pg. 4
Rubberized Asphalt Specs _____	Pg. 5
High Density Mineral Bond (PMM) _____	Pg. 6
High Density Mineral Bond (PMM) Specs _____	Pg. 7
Liquid Road _____	Pg. 8
Liquid Road Specs _____	Pg. 9
Rubberized Micro Seal _____	Pg. 10
Rubberized Micro Seal Specs _____	Pg. 11
Street Signs _____	Pg. 12
Sign Specifications _____	Pg. 13-14
Concrete Specs in Town of Paradise Valley _____	Pg. 15-16
M.A.G Concrete Definitions and Specs _____	Pg. 17
Town Paint Colors and Specifications _____	Pg. 18



## **City of Phoenix Mix Design**

### **Low Volume ½” Conventional Asphalt**

The Public Works Department currently uses City of Phoenix ½” Low Volume Mix Design for our residential and collector streets. It was designed to uphold the valley’s extreme temperatures. The ½” aggregate prevents less voids in the asphalt which helps reduce traffic noise.

- Require a full mill at a depth of 1 ½”
- Pave back 1 ½” of City of Phoenix, Low Volume asphalt



**City of Phoenix  
Design and Construction Management  
Materials Lab  
2018 Approved Conventional Asphalt Mix Designs**

The following mix designs have been approved by the City of Phoenix Materials Lab for use on all City of Phoenix projects:

PLANTS	Dispatch Phone	A-1 1/2" 4.3% (Mix Design Date)	C-3/4" 5.0% HV (Mix Design Date)	C-3/4" 5.5% LV (Mix Design Date)	D-1/2" 5.1% HV (Mix Design Date)	D-1/2" 5.6% LV (Mix Design Date)
Hanson #34 Higley	602-685-3450	AZ3425PH (1/22/2017)	AZ3419PH (1/10/2018)	AZ3419PL (1/10/2018)	AZ3412PH (1/10/2018)	AZ3412PL (1/10/2018)
Hanson #35 (51st Ave)		AZ3525PH (1/10/2018)	AZ3519PH (1/10/2018)	AZ3519PL (1/10/2018)	AZ3512PH (1/10/2018)	AZ3512PL (1/10/2018)
Southwest Asphalt #4 El Mirage	602-268-9011	452CH (1/23/2018)	432CH (1/23/2018)	432DH (1/23/2018)	422CH (1/23/2018)	422DH (1/23/2018)
Southwest Asphalt #10 New River		152CH (1/23/2018)	132CH (1/23/2018)	132DH (1/23/2018)	122CH (1/23/2018)	122DH (1/23/2018)
*Vulcan Gomez (5223-221)	602-254-0081	18151G (2/20/2018)	28151G (2/20/2018)	28152G (2/20/2018)	38151G (2/20/2018)	38152G (2/20/2018)
*Vulcan 19th Ave (5224-211)		18151H (2/20/2018)	28151H (2/20/2018)	28152H (2/20/2018)	38151H (2/20/2018)	38152H (2/20/2018)
*Vulcan #117 West 43rd Ave(5182-211)		18151D (3/12/2018)	28151D (3/12/2018)	28152D (3/12/2018)	38151D (3/12/2018)	38152D (3/12/2018)
*Vulcan #130 Sun City (5180-211)		18151S (5/15/2018)	28151S (5/15/2018)	28152S (5/15/2018)	38151S (5/15/2018)	38152S (5/15/2018)
*Vulcan West Broadway (5184-211)		18151W (4/18/2018)	28151W (4/18/2018)	28152W (4/18/2018)	38151W (4/18/2018)	38152W (4/18/2018)
*Solterra Materials, LLC		480-895-3555		S18-2-6H (8/10/2018)	S18-2-6L (8/10/2018)	S18-2-8H/S18-2-7H (9/12/2018)

\*For ALL Vulcan & Solterra Materials Mix Designs, verify the oil supplier from the ticket and specify which oil supplier is being utilized in the daily report. Note the oil supplier on the City of Phoenix sample card.

**AREAS HIGHLIGHTED IN YELLOW  
IS PHOENIX LOW VOLUME 1/2" MIX DESIGN**

Updated 10/16/2018



## **Rubberized Asphalt Mix Design**

Rubberized asphalt is used on the Town's major arterials. Rubberized asphalt roads require little to no maintenance over the life span of the asphalt and reduces traffic noise by 10-15 decibels less than standard conventional asphalt.

- Require a full mill at a depth of 1 ½"
- Pave back 1 ½" of ½" High Volume Rubberized asphalt



**City of Phoenix  
Design and Construction Management  
Materials Lab  
2018 Approved Polymer Modified Asphalt Rubber (PMAR) Mix Designs**

The following mix designs have been approved by the City of Phoenix Materials Lab for use on all City of Phoenix projects:

PLANTS	Dispatch Phone	TR 6.0% HV (Mix Design Date)	TR 6.2% LV (Mix Design Date)	TR 5.7% (Mix Design Date)		
Hanson #34 Higley	602-685-3450	<b>AZ3412TRPH</b> (1/10/2018)	AZ3412TRPL (1/10/2018)			
Hanson #35 (51st Ave)		<b>AZ3512TRPH</b> (2/5/2018)	AZ3512TRPL (2/5/2018)	AZ3512TR (8/30/2018)		
Southwest Asphalt #4 El Mirage	602-268-9011	<b>422CT</b> (3/7/2018)	422DT (3/7/2018)			
Southwest Asphalt #1 New River		<b>122CT</b> (3/7/2018)	122DT (3/7/2018)			
*Vulcan Gomez (5223-211)	602-254-0081					
*Vulcan 19th Ave (5224-211)		<b>38643H</b> (2/2/2018)	<b>38644H</b> (2/2/2018)			
*Vulcan #117 West 43rd Ave(5182-211)		<b>38643D</b> (2/2/2018)				
*Vulcan #130 Sun City (5180-211)						
*Vulcan W. Broadway Plant (5184-211)						
Solterra Materials, LLC	480-895-3555			<b>S18-2-10</b> (10/9/2018)		

\*For ALL Vulcan Materials Mix Designs, verify the oil supplier from the ticket and specify which oil supplier is being utilized in the daily report. Note the oil supplier on the City of Phoenix sample card.

**AREAS HIGHLIGHTED IN YELLOW  
IS ASPHALTIC RUBBER HIGH VOLUME MIX DESIGN**

Updated: 7/12/18



## **East Valley Asphalt Committee (EVAC)**

### **Approved Conventional Mix Designs**

#### **Low Volume ½" Conventional Asphalt**

The Public Works Department currently uses EVAC Approved mix designs for ½" Low Volume for our residential and collector streets, see highlighted product codes in tables below of mixes used on Town owned streets. It was designed to uphold the valley's extreme temperatures. The ½" aggregate prevents less voids in the asphalt which helps reduce traffic noise.

- Require a full mill at a depth of 1 ½" – 2"
- Pave back 1 ½" (up to 2") of ½" Low Volume asphalt

**Updated 1-28-2025**



## EVAC

### East Valley Asphalt Committee Conventional Mixes

2023-2024 Approved Asphalt Mix Designs

**\*\*Mixes Highlighted in Red are Only Approved for Use in the City of Scottsdale\*\***

Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Martin Marietta	34 (Coolidge)	1/2" PG 70-10	AZ3412ER	5.7	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	1/2" PG 70-10 15% RAP	AZ3412ERRAP	5.80	5/31/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	1/2" PG 70-10	AZ3412SPEA-2024	6.2	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 70-10	AZ3419ER	5.1	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 70-10 15%RAP	AZ3419ERRAP	5.60	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 70-10	AZ3419SPEA-2024	6.0	6/5/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 70-10	AZ3512ER-2023	5.7	2/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	1/2" PG 70-10	AZ3512SPEA-2024	5.8	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	3/4" PG 70-10	AZ3519ER-2023	5.3	2/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	3/4" PG 70-10	AZ3519SPEA-2024	5.4	1/29/2024	HF Sinclair
Solterra	1 (Coolidge)	1/2" PG 70-10	S24-1-10W	5.1	8/15/2024	Western



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Solterra	1 (Coolidge)	3/4" PG 70-10 15% RAP	S24-1-13W	5.1	8/19/2024	Western
Solterra	1 (Coolidge)	1/2" PG 70-10 15% RAP	S24-1-14W	5.1	8/19/2024	Western
Solterra	1 (Coolidge)	3/4" PG 70-10	S24-1-1W	5.0	8/22/2024	Western
Solterra	1 (Coolidge)	1/2" PG 70-10	S24-1-2W	5.3	8/22/2024	Western
Solterra	1 (Coolidge)	3/4" PG 70-10	S24-1-9W	5.1	8/15/2024	Western
SW Asphalt	10 (New River)	1/2" PG 70-10	121AH	5.3	1/10/2023	HF Sinclair
SW Asphalt	10 (New River)	1/2" PG 70-10	121DH	5.3	1/10/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 70-10	131AH	5.0	1/10/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 70-10	131DH	5.0	1/10/2023	HF Sinclair
SW Asphalt	2 (Florence)	1/2" PG 70-10	221AH	5.3	1/10/2023	Wright
SW Asphalt	2 (Florence)	1/2" PG 70-10	221DH	5.3	1/10/2023	Wright
SW Asphalt	2 (Florence)	3/4" PG 70-10	231AH	5.0	1/10/2023	Wright
SW Asphalt	2 (Florence)	3/4" PG 70-10	231DH	5.0	1/10/2023	Wright
SW Asphalt	3 (Queen Creek)	1/2" PG 70-10	321AH	5.3	1/10/2023	Wright
SW Asphalt	3 (Queen Creek)	1/2" PG 70-10	321DH	5.5	1/10/2023	Wright



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
SW Asphalt	3 (Queen Creek)	3/4" PG 70-10	331AH	5.0	1/10/2023	Wright
SW Asphalt	3 (Queen Creek)	3/4" PG 70-10	331DH	5.3	1/10/2023	Wright
SW Asphalt	4 (El Mirage)	1/2" PG 70-10	421AH	5.3	1/10/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	1/2" PG 70-10	421DH	5.3	1/10/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 70-10	431AH	5.0	1/10/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 70-10	431DH	5.0	1/10/2023	HF Sinclair
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	231517Q	4.8	12/21/2022	Marathon
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	231517Q	4.8	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	271518Q	5.1	1/24/2023	Marathon
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	271518Q	5.1	1/24/2023	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	331517Q	5.3	12/21/2022	Marathon
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	331517Q	5.3	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	371518Q	5.4	1/24/2023	Marathon
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	371518Q	5.4	1/24/2023	Wright
Vulcan	5180 (Sun City)	3/4" PG 70-10	231517S	4.6	1/3/2023	Wright



## **East Valley Asphalt Committee (EVAC)**

### **Approved Modified Mix Designs**

#### **½" PG 76-22 PMTR (Polymer Modified Tire Rubber)**

Rubberized asphalt is used on the Town's major arterials, see highlighted product codes in tables below of mixes used on Town owned streets. PMTR reduces maintenance costs over the life span of the asphalt and reduces traffic noise by 10-15 decibels less than standard conventional asphalt. The tire rubber helps increase tensile strength in the asphalt.

- Require a full mill at a depth of 1 ½" – 3"
- Pave back 1 ½" (up to 3") of ½" PMTR Rubberized asphalt

**Updated 1-28-2025**



## EVAC

### East Valley Asphalt Committee Modified Mixes

2023-2024 Approved Asphalt Mix Designs

Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Martin Marietta	34 (Coolidge)	1/2" PG 76-22 PMTR	AZ3412PMH-2024	6.2	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 76-22 PMTR	AZ3419PMH-2024	6.2	6/5/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 76-22 PMTR 15% RAP	AZ3512PMH15-2024	6.3	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 76-22 PMTR	AZ3512PMH-2024	6.2	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 70-16 TR	AZ3512TRH-2024	6.2	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	3/4" PG 76-22 PMTR 15% RAP	AZ3519PMH15-2023	6.2	2/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	3/4" PG 76-22 PMTR	AZ3519PMH-2023	6.2	1/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	3/4" PG 76-22 PMTR	AZ3519PMH-2024	6.2	4/8/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	3/4" PG 70-16 TR	AZ3519TRH-2023	5.8	2/18/2023	Holly Frontier
Solterra	1 (Coolidge)	3/4" PG 76-22 PMTR	S24-1-3R	6.2	8/12/2024	Wright
Solterra	1 (Coolidge)	3/4" PG 76-22 PM	S24-1-3W	6.2	9/13/2024	Western



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Solterra	1 (Coolidge)	1/2" PG 76-22 PMTR	S24-1-4R	6.2	8/12/2024	Wright
Solterra	1 (Coolidge)	1/2" PG 76-22 PM	S24-1-4W	6.2	9/13/2024	Western
Solterra	1 (Coolidge)	3/4" PG 70-16 TR	S24-1-5R	5.8	8/12/2024	Wright
Solterra	1 (Coolidge)	1/2" PG 70-16 TR	S24-1-6R	5.8	8/12/2024	Wright
SW Asphalt	10 (New River)	1/2" PG 76-22 PMTR	121ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	10 (New River)	1/2" PG 70-16 TR	121AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 76-22 PMTR	131ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 70-16 TR	131AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	2 (Florence)	1/2" PG 76-22 PMTR	221ARW	6.2	11/13/2023	Wright
SW Asphalt	2 (Florence)	1/2" PG 70-16 TR	221AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	2 (Florence)	3/4" PG 76-22 PMTR	231ARW	6.2	11/13/2023	Wright
SW Asphalt	2 (Florence)	3/4" PG 70-16 TR	231AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	3 (Queen Creek)	1/2" 76-22 PMTR	321ARW	6.2	11/13/2023	Wright
SW Asphalt	3 (Queen Creek)	1/2" PG 70-16 TR	321AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	3 (Queen Creek)	3/4" PG 76-22 PMTR	331ARW	6.2	11/13/2023	Wright



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
SW Asphalt	3 (Queen Creek)	3/4" PG 70-16 TR	331AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	1/2" PG 76-22 PMTR	421ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	1/2" PG 70-16 TR	421AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 76-22 PMTR	431ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 70-16 TR	431AXH	5.8	11/13/2023	HF Sinclair
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR	236417Q	6.2	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR	236417Q	6.2	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	3/4" PG 70-16 TR	236617Q	5.8	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	3/4" PG 70-16 TR	236617Q	5.8	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR 15% RAP	256417Q	6.0	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR 15% RAP	256417Q	6.0	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	1/2" PG 76-22 PMTR	336417Q	6.2	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 76-22 PMTR	336417Q	6.2	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	1/2" PG 70-16 TR	336617Q	5.8	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 70-16 TR	336617Q	5.8	12/21/2022	Holly Frontier



## **High Density Mineral Bond**

**(Preferred treatment for utility companies)**

Polymer Modified Master (PMM) Seal is the type of High Density Mineral Bond used by the Public Works Department. PMM reduces oxidative damage from moisture and UV rays from the Sun. PMM helps reduce asphalt cracking and helps extend the life cycle of the asphalt.

- Ambient and surface temperature must be at least 55 degrees or higher
- Application rate for PMM .14 - .18 gallons/square yard per coat
- Two coats of PMM are required
- Do not apply if rain is forecast within 24 hours



## High Density Mineral Bond

### APPLICATION RATES:

The recommended application rates for **PMM** are .14-.18 gallons/square yard per coat. Application rates may be adjusted depending on the pavement condition, traffic volume and other factors.

### MIX DESIGN:

**PMM** assures factory quality control specifications at the jobsite eliminating the need for contractor addition of water and other additives. Additional aggregate may be added by the contractor to meet specific job requirements based on pavement surfaces, traffic volume, etc.

### SURFACE PREPARATION:

Pavement must be free of loose and embedded dirt, dust, vegetation and other foreign material. If traditional cleaning methods are not effective a power washer or tack coat of asphalt emulsion diluted 1:4 with water may be used. Structural repairs should be made and cracks 1/4" and larger should be sealed with approved crack sealant material. All grease and oil spots should be treated with PrepSeal or PetroSeal.

### APPLICATION EQUIPMENT:

**PMM** may be applied by hand spray / squeegee, mechanical spray tankers or squeegee machines. Application units should be equipped with mechanical agitation systems to maintain the consistency of the material during the Application, or to mix additional aggregate if needed.

TEST PROPERTIES	TEST METHOD	SPECIFICATION
<b>EMULSION:</b>		
Uniformity	ASTM D 2939.04	PASS
Weight/gallon @ 77 deg. F	ASTM D 2939.07	10.5 lbs./gal.min
Residue by Evaporation (Solids), %	ASTM D 2939.08	50% min.
Asphalt Content by Weight, %	ASTM D 2939.21	17 min.
VOC Content by Volume, %	ASTM D 244-89	< 3%
Fine Aggregate and Mineral Filler Content by Weight, %	Manufacture Certification	34% min.
Polymer Content by Volume, %	Manufacture Certification	1.8%
<b>PERFORMANCE BASED TESTING:</b>		
Resistance to Heat (No sagging or slipping observed.)	ASTM D 2939.14	PASS
Resistance to Water (No blistering or re-emulsification.)	ASTM D 2939.15	PASS
Wet Flow, mm	ASTM D 2939.19	0
Direct Flame Test (No continued combustion after 10 sec. No slippage, run down or charred material observed.)	ASTM D 2939.20	PASS
Wet Film Continuity (Material was uniformly distributed; no signs of inconsistency.)	ASTM D 2939.22	PASS
Resistance to Kerosene (No leakage of kerosene, loss of adhesion or discoloration of tile.)	ASTM D 2939.25	PASS
Wet Track Abrasion Test (1 hr.) gms/sqft. loss	ASTM D 3910	< 15
Wet Track Abrasion Test (6 day) gms/sqft. loss	ASTM D 3910	< 15
<b>FINE AGGREGATE SIEVE ANALYSIS:</b>		
	<b>MESH SIZE</b>	<b>% PASSING (+ or -2)</b>
	40	100
	50	93
	70	80
	80	69
	120	49
	200	35
	325	2



## **Liquid Road**

(Heavier surface seal)

Liquid Road is a polymer-modified, fiber asphalt emulsion that is mixed with specially graded aggregate and is highly durable and slip resistant surface treatment.

- Ambient and surface temperature must be at least 55 degrees or higher
- Application rate for PMM .25 - .35 gallons/square yard per coat
- Two coats of PMM are required
- Do not apply if rain is forecast within 24 hours



**APPLICATION RATES:**

The recommended application rates for **Liquid Road** are .25-.35 gallons/square yard per coat. Application rates may be adjusted depending on the pavement condition, traffic volume and other factors.

**MIX DESIGN:**

**Liquid Road** assures factory quality control specifications at the jobsite eliminating the need for contractor addition of water and other additives. Additional aggregate may be added by the contractor to meet specific job requirements based on pavement surfaces, traffic volume, etc.

**SURFACE PREPARATION:**

Pavement must be free of loose and embedded dirt, dust, vegetation and other foreign material. If traditional cleaning methods are not effective a power washer or tack coat of asphalt emulsion diluted 1:4 with water may be used. Structural repairs should be made and cracks 1/4" and larger

Should be sealed with approved crack sealant material. All grease and oil spots should be treated with PrepSeal or PetroSeal.

**APPLICATION EQUIPMENT:**

**Liquid Road** shall be applied by mechanical squeegee/brush equipment. Equipment shall have continuous agitation or mixing capabilities to maintain homogenous consistency of **Liquid Road** and aggregate mixture throughout the application process. Truck mount or self-propelled squeegee/brush equipment shall have at least 2 squeegee or brush devices (one behind the other) to assure adequate distribution and penetration of **Liquid Road** into bituminous pavement. Hand squeegees and brushes shall be acceptable in areas where practicality prohibits the use of mechanized equipment.

		TEST METHOD	SPECIFICATION
<b>EMULSION:</b>			
Uniformity		ASTM D 2939.04	PASS
Weight/gallon @ 77 deg. F		ASTM D 2939.07	11.0 lbs./gal.min
Residue by Evaporation (Solids), %		ASTM D 2939.08	55% min.
Asphalt Content by Weight, %		ASTM D 2939.21	15% min.
VOC Content by Volume, %		ASTM D 244-89	< 3%
Fine Aggregate and Mineral Filler Content by Weight, %		Manufacture Certification	34% min.
Polymer Content by Volume, %		Manufacture Certification	1.8%
<b>PERFORMANCE BASED TESTING:</b>			
Resistance to Heat (No sagging or slipping observed.)		ASTM D 2939.14	PASS
Resistance to Water (No blistering or re-emulsification.)		ASTM D 2939.15	PASS
Wet Flow, mm		ASTM D 2939.19	0
Direct Flame Test (No continued combustion after 10 sec. No slippage, run down or charred material observed.)		ASTM D 2939.20	PASS
Wet Film Continuity (Material was uniformly distributed; no signs of inconsistency.)		ASTM D 2939.22	PASS
Resistance to Kerosene (No leakage of kerosene, loss of adhesion or discoloration of tile.)		ASTM D 2939.25	PASS
Wet Track Abrasion Test (1 hr.) gms/sqft. loss		ASTM D 3910	< 15
Wet Track Abrasion Test (6 day) gms/sqft. loss		ASTM D 3910	< 20
<b>AGGREGATE SIEVE ANALYSIS:</b>			
<b>SILICA SAND</b>		<b>FINE AGGREGATE</b>	
Mesh Size	% PASSING (+ or -2)	Mesh Size	% PASSING (+ or -2)
16	99	40	100
20	86	50	93
30	58	70	80
40	26	80	69
50	4	120	49
70	1	200	55
100	0.2	325	2



## **Rubberized Micro Seal**

The Public Works Department uses Rubberized Micro-Seal on minor arterials that are beyond a PMM surface treatment but not ready for a mill & overlay. Rubberized Micro-Seal is a protective seal coat which extends the life of pavement. It is a thin, tough layer of asphalt emulsion blended with rubber and finely crushed stone for traction and protection from moisture and UV rays from the sun. Rubberized Micro-Seal can extend the life of asphalt for up to seven years.

- Application rate per MAG specs (section 714.2.2) shall be 18 – 24 pounds per square yard
- Ambient temperatures must be above 50 degrees



The mix design for rubberized micro-seal must be approved by the Engineer prior to the start of micro surfacing production. After the mix design has been approved, no material substitution will be permitted unless approved by the Engineer.

ii. In addition to the other requirements stated herein, the mix design shall conform to the requirements of Table 2.

<b>TABLE 2</b>		
<b>PROPERTY</b>	<b>TEST METHOD</b>	<b>REQUIREMENT</b>
Residual Asphalt Content	ASTMD 2172	6.0%- 11.5% ,by weight of dry aggregate
Mineral Filler	ASTM C136	0.1%-2.0% ,by weight of dry aggregate
Additive	----	As required for mix properties
Water	----	As required for mix properties
Polymer Content/Type	----	4%min
Mix Time @ 77° F	ISSA TB-113	Controllable to 120 seconds minimum
Wet Track Abrasion Loss, (1hour soak)	ISSA TB-100	50 g/ft <sup>2</sup> maximum
Wet Track Abrasion Loss, (6 day soak)	ISSA TB-100	75 g/ft <sup>2</sup> maximum
Wet Stripping	ISSA TB-114	90%minimum
Wet Cohesion, @ 30 minutes minimum (Set)	ISSA TB-139	12 Kg/em minimum
Consistency	(ISSA T-106)	2.5 to 3.0 em
Wet Cohesion, @ 60 minutes minimum (Traffic)	ISSA TB-139	20 Kg/em minimum
Loaded Wheel Sand Adhesion	ISSA TB-109	50 g/ft <sup>2</sup> maximum
Lateral Displacement	ISSA TB-147	5% maximum
Specific Gravity after 1,000 cycles of 125 lb.	ISSA TB-147	2.10 maximum



## Signs

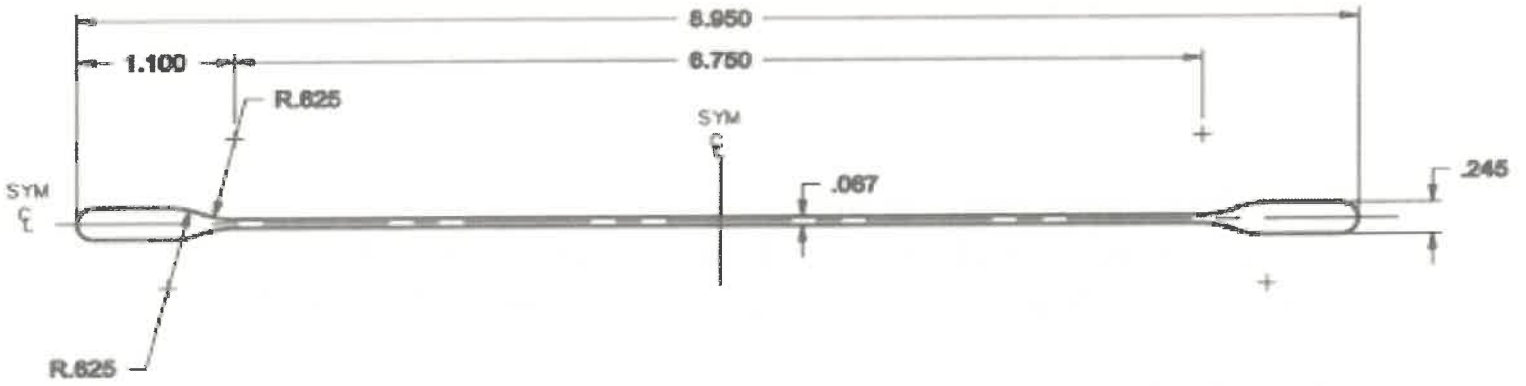
The sign shop uses aluminum, extruded street ID sign blades with white lettering on a blue background except on private roads. Private roads are with blue lettering on a white background. The sign blades are 9 inches in height. The sheeting material used on the street ID signs is Highly Intensive Prismatic (HIP) sheeting for maximum reflectivity at night, the font used is Clearview Hwy-1-B.

All regulatory signs are MUTCD approved and have the same sheeting used on the street ID signs. Regulatory signs come in different shapes and sizes.



### Extruded Sign Blank Specifications

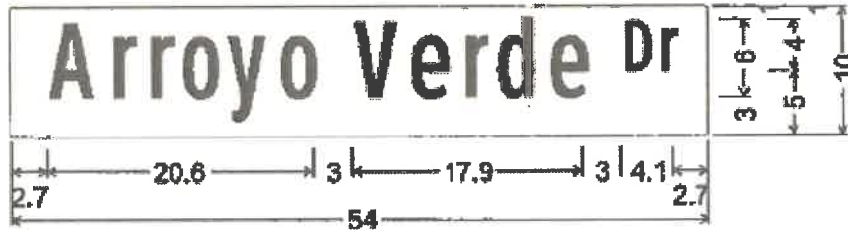
*\*All Street ID Signs are 9 inches in height*



Description	Alloy
Extruded Sign Blank	6061-T6



**Example of Font:** Clearview Hwy-1-B. ID Signs are Blue Background, White Lettering



No border, White on Blue;  
 [Arroyo] ClearviewHwy-1-B;  
 [Verde] ClearviewHwy-1-B; [Dr] ClearviewHwy-1-B;

**Street Sign Supports/Poles and Anchors:**

- Sign supports are 1 3/4" X 1 3/4" X 11' powder coated green #GN-03
- Perforated Support Anchors; 2" X 2" X 30" slips into 2 1/4" X 2 1/4" X 30"

**MUTCD Height Requirements for Street ID and Regulatory Signs**

**Per MUTCD Section 2A.18 Minimum Height for Business, Commercial or Residential Areas:** Signs installed at the side of the road in business, commercial, or residential areas where parking or pedestrian movements are likely to occur, or where the view of the sign might be obstructed, shall be 7 feet. This pertains to all regulatory and street ID signs.



### Concrete and Color for Sidewalk Panels

Public Works uses a M.A.G. standard 3000 psi concrete with San Diego Buff color added to the mix.

- Slump of the concrete mixture shall be determined in accordance with American Society for Testing and Materials (ASTM) C143. (see MAG, section 725.9)

### Concrete Curb and Gutter

Public Works uses a M.A.G. standard 3000 psi gray concrete for all curb and gutter.

- Slump of the concrete mixture shall be determined in accordance with American Society for Testing and Materials (ASTM) C143. (see MAG, section 725.9)

### Concrete for Utility Collars

Public Works uses a M.A.G. standard 3000 psi concrete with **BLACK** color added to the mix.

- Slump of the concrete mixture shall be determined in accordance with American Society for Testing and Materials (ASTM) C143. (see MAG, section 725.9)



## **M.A.G. 725.9 ACCEPTANCE:**

### **(A) Plastic Concrete Properties**

(1) The slump of the concrete shall meet the requirements of ASTM C94 Tolerances in Slump section. When the approved mix design or project specification requirements for slump are a “maximum” or “not to exceed”, the following tolerances apply

Specified slump: If 3” or less If more than 3” Plus tolerance 0 inch 0 inch Minus tolerance 1 1/2 inch 2 1/2 inch. When the approved mix design or project specification requirements for slump are not written as a “maximum” or “not to exceed”, the following tolerances apply: For design slump of: Tolerance 2 inch and less +/- 1/2 inch More than 2 through 4 inch +/- 1 inch More than 4 inch +/- 1 1/2 inch.

(2) Limit the maximum allowable temperature of the concrete mixture immediately before placement to 90 degrees F unless otherwise specified or unless a higher allowable temperature is pre-approved by the Engineer. At the discretion of the Engineer, recommended practices in ACI 305, Specification for Hot Weather Concreting, can provide good reference information and may be used to modify maximum allowable concrete temperature and acceptance.

Per ACI 306, Specification for Cold Weather Concreting, when the atmospheric temperature at the time of placing concrete is above 30°F the temperature of the concrete, as placed, shall not be less than 60°F. When the atmospheric temperature at the time of placing concrete is between 0°F and 30°F the temperature of the concrete, as placed, shall not be less than 65°F.

(3) Air entrained concrete shall meet the requirements of ASTM C94 Air-Entrained Concrete section. The air content of air-entrained concrete when sampled from the transportation unit at the point of discharge shall be within the approved mix design tolerance or +/- 1.5 % of the specified value. When a representative sample taken prior to discharge shows an air content below the specified level by more than the allowable tolerance, additional air entraining admixture shall be



added to the concrete mix to achieve the desired air content level, followed by a minimum of 30 revolutions at mixing speed.

(4) Per ASTM C94 Mixing and Delivery section, discharge of the concrete shall be completed within 1 1/2 hour after the introduction of the mixing water to the cementitious materials or the introduction of the cementitious materials to the aggregates. The Engineer may allow the continuation of concrete placement after the 1 1/2 hour time limit has been reached if the concrete is of such slump or workability that it can be placed without the addition of water to the batch.

Any concrete failing to meet the tolerances for plastic concrete properties in 725.9 (A) (1) through (4) shall be reviewed by the Engineer and is subject to rejection.

#### **(B) Hardened Concrete Properties – Compressive Strength**

Compressive strength of concrete shall be determined on the basis of cylinder strength tests obtained in accordance with section 725.8.2 and shall be acceptable if the tests meet or exceed the minimum specified strength. When the validity of cylinder strength tests are suspect, the strength of concrete in question shall be determined in accordance with Section 725.8.3.

When compressive strength test results are less than the specified minimum, an Engineering Analysis to determine the impact of the strength reduction may be required by the Engineer prior to the decision to accept or reject the concrete. The Engineering Analysis will be at the Contractor's expense. Any concrete that is rejected by the Engineer shall be removed and replaced by the Contractor at the Contractor's expense.

When concrete is accepted by the Engineer on the basis of test results of less than 100% of the required minimum compressive strength, an adjustment in the concrete unit price may be made for the quantity of concrete represented by such strength tests in accordance with Table 725-2.



## **Striping**

Thermoplastic tends to be used more in warmer environments. Durability is thermoplastic's biggest advantage over paint. Thermoplastics does last longer than paint, typically 3 to 5 years where paint last approximately 1 year.

- Thermoplastic is to be applied thicker than paint.
- 90 mils is required for long line and skip lines.
- 120 mils is required for crosswalks, arrows and stop bars.

## **Granite**

- Median Islands/R.O.W's – ½" Minus Madison Gold
- Town Hall Complex and Fire Stations – ¼" Washed Madison Gold

## **Traffic Signal Pole Colors**

- Dunn Edwards or approved equivalent
- Color - San Diego Buff – Code# 10-27-08

## **Hand Rails Color**

- Frazee Enamel or approved equivalent
- Color – Western Reserve – Code# 8716N

**ATTACHMENT 3  
TO  
JOB ORDER NO. ONE  
PAYMENT AND PERFORMANCE BONDS**

See the following pages.

**LINKING AGREEMENT  
FOR COOPERATIVE PURCHASE**

MR TANNER DEVELOPMENT AND CONSTRUCTION, LLC.  
STREET MAINTENANCE SERVICES

**EXHIBIT C**  
JOB ORDER NO. 2

See the following pages.

**TOWN OF PARADISE VALLEY  
JOB ORDER CONTRACTING AGREEMENT  
WITH  
MR TANNER DEVELOPMENT AND CONSTRUCTION, LLC.**

**JOB ORDER NO. 2  
STREET MAINTENANCE**

This Job Order No. 1 (this “**Job Order**”) is entered into on this 26 day of June, 2025 (the “**Effective Date**”) by and between the Town of Paradise Valley, an Arizona municipal corporation (the “**Town**”) and M.R. Tanner Development and Construction, LLC, an Arizona Limited liability company, whose principal place of business is located at 1327 W. San Pedro Street, Gilbert, AZ 85233 (the “**Contractor**”). This Job Order is subject to and governed by the terms and conditions of the City of Buckey Contract No. 2025081 (the “**Base Agreement**”) and of Town of Paradise Valley Linking Agreement for Cooperative Purchase No. CON-25-031-PBW (the “**Agreement**”).

**ARTICLE 1  
Scope of Work**

The Contractor shall furnish all labor, materials, and equipment, as more fully set forth in Proposal Paradise Valley Pavement Maintenance 25/26, which is attached hereto as **Attachment 1** and incorporated as if fully set forth herein (the “**Work**”), as set forth in the Plans and Specifications, which are attached hereto as **Attachment 2** and incorporated as if fully set forth herein (the “**Project**”).

**ARTICLE 2  
Schedule of Completion**

The Contractor shall commence work within 10 days from issuance by the Town of a Notice to Proceed and shall complete the Work within ninety (90) calendar days. In view of the difficulty or impossibility of determining the Town’s damages from delay, should the Contractor fail to achieve Substantial Completion within the above number of calendar days, as may be extended by any Town-approved Change Orders, the Contractor agrees to pay and will pay to the Town, in addition to all other sums owed pursuant to the Agreement, the sum of \$280 for each calendar day of delay as liquidated damages for such delay and not as a penalty. This sum may be withheld from the balance of the cost of the Work as it becomes due. Should liquidated damages exceed the cost of the Work due or to become due, then the Contractor shall pay the Town the difference within three days of receipt of written demand.

**ARTICLE 3  
Cost of the Work**

The Contractor shall complete the work for the prices set forth in **Attachment 1**. The total cost to complete the Work under this Job Order shall not exceed \$4,341,915.55.

**ARTICLE 4  
Bonds**

Payment and Performance Bonds are required for this Project and are attached hereto as **Attachment 3** and incorporated as if fully set forth herein.

**ARTICLE 5  
Additional Terms**

This Job Order is subject to the terms and conditions of the Agreement and the Base Agreement and may be canceled pursuant to the provisions of A.R.S. § 38-511.

By executing this Job Order, the Contractor certifies its compliance with A.R.S. § 35-393.01.

To the extent applicable under A.R.S. § 35-394, the Contractor certifies that it does not, and will not for the duration of the Agreement, use the forced labor, any goods or services produced by the forced labor, or any contractors, subcontractors, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.

In the event of any conflict or discrepancy between the terms of this Job Order, the Agreement, the Base Agreement, **Attachment 2** to this Job Order, and **Attachment 1** to this Job Order, the documents shall govern in that order.

**ARTICLE 6  
Attachments**

This Job Order includes and incorporates the following Attachments:

- Attachment 1** – Proposal
- Attachment 2** – Plans and Specifications
- Attachment 3** – Payment and Performance Bonds

IN WITNESS WHEREOF, the Parties have hereunto subscribed their names.

**TOWN OF PARADISE VALLEY,**  
an Arizona municipal corporation:

DocuSigned by:  
Andrew Ching  
5B8E4040A9944A3...  
Andrew Ching, Town Manager

M.R. Tanner Development and Construction LLC  
an Arizona limited liability company:

By: [Signature]  
Name: Chad Montoya  
Title: Vice President

ATTEST:

DocuSigned by:  
Duncan Miller  
ED58FF67A95043D...  
Duncan Miller, Town Clerk

APPROVED AS TO FORM:

Signed by:  
[Signature]  
6C9F79CECF0C427...  
Andrew J. McGuire, Town Attorney

**ATTACHMENT 1  
TO  
JOB ORDER NO. TWO**

Proposal - Pavement Maintenance FY 25/26

See the following page.



1327 W. SAN PEDRO STREET GILBERT, AZ 85233

<b>To:</b>	PARADISE VALLEY, TOWN OF	<b>Contact:</b>	Chris Martinez
<b>Address:</b>	PUBLIC WORKS PARADISE VALLEY, AZ 85253-4399	<b>Phone:</b>	
<b>Project Name:</b>	PARADISE VALLEY PAVEMENT MAINTENANCE 2025 2 INCH 40 ST (1.16.25)	<b>Bid Number:</b>	
<b>Project Location:</b>		<b>Bid Date:</b>	

Item Description	Estimated Quantity	Unit	Unit Price	Total Price
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**SECTION 2**

CRACK FILL	138,414.00	LF	\$0.25	\$34,603.50
PMM	31,000.00	SY	\$1.50	\$46,500.00
STRIPING	1.00	LS	\$20,000.00	\$20,000.00
TRAFFIC CONTROL	6.00	DY	\$1,750.00	\$10,500.00
REMAINING SECTION 2 MAINTENANCE DEFERRED TO FISCAL YEAR 25/26	1.00	LS	\$0.00	\$0.00

**Total Price for above SECTION 2 Items: \$111,603.50**

**40TH ST FROM COLTER TO 41ST ST**

2" MILLING	20,050.00	SY	\$2.50	\$50,125.00
2" AC CAP (1/2" PMTR)	20,050.00	SY	\$20.00	\$401,000.00
PRELOWER UTILITIES	22.00	EACH	\$490.00	\$10,780.00
ADJUST MANHOLE	15.00	EACH	\$700.00	\$10,500.00
ADJUST WATER VALVE	7.00	EACH	\$670.00	\$4,690.00
TRAFFIC CONTROL ALLOWANCE	1.00	LS	\$25,000.00	\$25,000.00
POLICE OFFICERS	1.00	LS	\$16,000.00	\$16,000.00

**Total Price for above 40TH ST FROM COLTER TO 41ST ST Items: \$518,095.00**

**LINCOLN (7100 E LINCOLN TO 32ND ST)**

MICROSEAL	171,540.00	SY	\$5.33	\$914,308.20
TRAFFIC CONTROL	50.00	DY	\$1,750.00	\$87,500.00
STRIPING	1.00	LS	\$111,400.00	\$111,400.00

**Total Price for above LINCOLN (7100 E LINCOLN TO 32ND ST) Items: \$1,113,208.20**

**Total Bid Price: \$1,742,906.70**

**Notes:**

- PROJECT DESCRIPTION: PROVIDE PAVEMENT MAINTENANCE SERVICES ON THE LOCATIONS DESCRIBED ABOVE. PRICING INCLUDES ALL LABOR AND MATERIAL TO PREP, CLEAN CRACKS AND PAVEMENT TO INSTALL CRACK SEAL, PMM (SEALCOAT) TO THE ROADWAYS. ALSO INCLUDES THE SAME FOR TYPE II MICROSEAL. ALSO INCLUDES STRIPING OF THE SAME.
- CONTRACT TERMS AND CONDITIONS BASED ON BUCKEYE CONTRACT NO. 2025081.
- SCHEDULE: APRIL 1, 2025 TO JUNE 30, 2025.

**ACCEPTED:**

The above prices, specifications and conditions are satisfactory and hereby accepted.

Town of Paradise Valley

**Buyer:** \_\_\_\_\_

DocuSigned by:

**Signature:** \_\_\_\_\_

*Andrew Ching*

**Date of Acceptance:** \_\_\_\_\_

5B8E4040A9044A3...  
6/26/2025

**CONFIRMED:**

**M.R. TANNER DEVELOPMENT & CONSTRUCTION, LLC.**

**Authorized Signature:** \_\_\_\_\_



**Estimator:** Chad Montoya

480-633-8500 cmontoya@mrtanner.com

**ATTACHMENT 2  
TO  
JOB ORDER NO. TWO  
PLANS AND SPECIFICATIONS**

See the following page(s).



# PV STREETS MAINTENANCE MATERIALS & SPECS



## Table of Contents

City of Phoenix ½" Low Volume Asphalt Mix _____	Pg. 2
City of Phoenix ½" Low Volume Asphalt Specs _____	Pg. 3
Rubberized Asphalt Mix _____	Pg. 4
Rubberized Asphalt Specs _____	Pg. 5
High Density Mineral Bond (PMM) _____	Pg. 6
High Density Mineral Bond (PMM) Specs _____	Pg. 7
Liquid Road _____	Pg. 8
Liquid Road Specs _____	Pg. 9
Rubberized Micro Seal _____	Pg. 10
Rubberized Micro Seal Specs _____	Pg. 11
Street Signs _____	Pg. 12
Sign Specifications _____	Pg. 13-14
Concrete Specs in Town of Paradise Valley _____	Pg. 15-16
M.A.G Concrete Definitions and Specs _____	Pg. 17
Town Paint Colors and Specifications _____	Pg. 18



## **City of Phoenix Mix Design**

### **Low Volume ½” Conventional Asphalt**

The Public Works Department currently uses City of Phoenix ½” Low Volume Mix Design for our residential and collector streets. It was designed to uphold the valley’s extreme temperatures. The ½” aggregate prevents less voids in the asphalt which helps reduce traffic noise.

- Require a full mill at a depth of 1 ½”
- Pave back 1 ½” of City of Phoenix, Low Volume asphalt



**City of Phoenix  
Design and Construction Management  
Materials Lab  
2018 Approved Conventional Asphalt Mix Designs**

The following mix designs have been approved by the City of Phoenix Materials Lab for use on all City of Phoenix projects:

PLANTS	Dispatch Phone	A-1 1/2" 4.3% (Mix Design Date)	C-3/4" 5.0% HV (Mix Design Date)	C-3/4" 5.5% LV (Mix Design Date)	D-1/2" 5.1% HV (Mix Design Date)	D-1/2" 5.6% LV (Mix Design Date)
Hanson #34 Higley	602-685-3450	AZ3425PH (1/22/2017)	AZ3419PH (1/10/2018)	AZ3419PL (1/10/2018)	AZ3412PH (1/10/2018)	AZ3412PL (1/10/2018)
Hanson #35 (51st Ave)		AZ3525PH (1/10/2018)	AZ3519PH (1/10/2018)	AZ3519PL (1/10/2018)	AZ3512PH (1/10/2018)	AZ3512PL (1/10/2018)
Southwest Asphalt #4 El Mirage	602-268-9011	452CH (1/23/2018)	432CH (1/23/2018)	432DH (1/23/2018)	422CH (1/23/2018)	422DH (1/23/2018)
Southwest Asphalt #10 New River		152CH (1/23/2018)	132CH (1/23/2018)	132DH (1/23/2018)	122CH (1/23/2018)	122DH (1/23/2018)
*Vulcan Gomez (5223-221)	602-254-0081	18151G (2/20/2018)	28151G (2/20/2018)	28152G (2/20/2018)	38151G (2/20/2018)	38152G (2/20/2018)
*Vulcan 19th Ave (5224-211)		18151H (2/20/2018)	28151H (2/20/2018)	28152H (2/20/2018)	38151H (2/20/2018)	38152H (2/20/2018)
*Vulcan #117 West 43rd Ave(5182-211)		18151D (3/12/2018)	28151D (3/12/2018)	28152D (3/12/2018)	38151D (3/12/2018)	38152D (3/12/2018)
*Vulcan #130 Sun City (5180-211)		18151S (5/15/2018)	28151S (5/15/2018)	28152S (5/15/2018)	38151S (5/15/2018)	38152S (5/15/2018)
*Vulcan West Broadway (5184-211)		18151W (4/18/2018)	28151W (4/18/2018)	28152W (4/18/2018)	38151W (4/18/2018)	38152W (4/18/2018)
*Softerra Materials, LLC	480-895-3555		S18-2-6H (8/10/2018)	S18-2-6L (8/10/2018)	S18-2-8H/S18-2-7H (9/12/2018)	S18-2-8L/S18-2-7L (9/12/2018)

\*For ALL Vulcan & Softerra Materials Mix Designs, verify the oil supplier from the ticket and specify which oil supplier is being utilized in the daily report. Note the oil supplier on the City of Phoenix sample card.

**AREAS HIGHLIGHTED IN YELLOW  
IS PHOENIX LOW VOLUME 1/2" MIX DESIGN**

Updated 10/16/2018



## **Rubberized Asphalt Mix Design**

Rubberized asphalt is used on the Town's major arterials. Rubberized asphalt roads require little to no maintenance over the life span of the asphalt and reduces traffic noise by 10-15 decibels less than standard conventional asphalt.

- Require a full mill at a depth of 1 ½"
- Pave back 1 ½" of ½" High Volume Rubberized asphalt



**City of Phoenix  
Design and Construction Management  
Materials Lab  
2018 Approved Polymer Modified Asphalt Rubber (PMAR) Mix Designs**

The following mix designs have been approved by the City of Phoenix Materials Lab for use on all City of Phoenix projects:

PLANTS	Dispatch Phone	TR 6.0% HV (Mix Design Date)	TR 6.2% LV (Mix Design Date)	TR 5.7% (Mix Design Date)		
Hanson #34 Higley	602-685-3450	<b>AZ3412TRPH</b> (1/10/2018)	<b>AZ3412TRPL</b> (1/10/2018)			
Hanson #35 (51st Ave)		<b>AZ3512TRPH</b> (2/5/2018)	<b>AZ3512TRPL</b> (2/5/2018)	<b>AZ3612TR</b> (8/30/2018)		
Southwest Asphalt #4 El Mirage	602-268-9011	<b>422CT</b> (3/7/2018)	<b>422DT</b> (3/7/2018)			
Southwest Asphalt #1 New River		<b>122CT</b> (3/7/2018)	<b>122DT</b> (3/7/2018)			
*Vulcan Gomez (5223-211)	602-254-0081					
*Vulcan 19th Ave (5224-211)		<b>38643H</b> (2/2/2018)	<b>38644H</b> (2/2/2018)			
*Vulcan #117 West 43rd Ave(5182-211)		<b>38643D</b> (2/2/2018)				
*Vulcan #130 Sun City (5180-211)						
*Vulcan W. Broadway Plant (5184-211)						
Solterra Materials, LLC	480-895-3555			<b>S18-2-10</b> (10/9/2018)		

\*For ALL Vulcan Materials Mix Designs, verify the oil supplier from the ticket and specify which oil supplier is being utilized in the daily report. Note the oil supplier on the City of Phoenix sample card.

**AREAS HIGHLIGHTED IN YELLOW  
IS ASPHALTIC RUBBER HIGH VOLUME MIX DESIGN**

Updated: 7/12/18



## **East Valley Asphalt Committee (EVAC)**

### **Approved Conventional Mix Designs**

#### **Low Volume ½" Conventional Asphalt**

The Public Works Department currently uses EVAC Approved mix designs for ½" Low Volume for our residential and collector streets, see highlighted product codes in tables below of mixes used on Town owned streets. It was designed to uphold the valley's extreme temperatures. The ½" aggregate prevents less voids in the asphalt which helps reduce traffic noise.

- Require a full mill at a depth of 1 ½" – 2"
- Pave back 1 ½" (up to 2") of ½" Low Volume asphalt

**Updated 1-28-2025**



## EVAC

### East Valley Asphalt Committee Conventional Mixes

2023-2024 Approved Asphalt Mix Designs

**\*\*Mixes Highlighted in Red are Only Approved for Use in the City of Scottsdale\*\***

Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Martin Marietta	34 (Coolidge)	1/2" PG 70-10	AZ3412ER	5.7	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	1/2" PG 70-10 15% RAP	AZ3412ERRAP	5.80	5/31/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	1/2" PG 70-10	AZ3412SPEA-2024	6.2	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 70-10	AZ3419ER	5.1	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 70-10 15%RAP	AZ3419ERRAP	5.60	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 70-10	AZ3419SPEA-2024	6.0	6/5/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 70-10	AZ3512ER-2023	5.7	2/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	1/2" PG 70-10	AZ3512SPEA-2024	5.8	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	3/4" PG 70-10	AZ3519ER-2023	5.3	2/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	3/4" PG 70-10	AZ3519SPEA-2024	5.4	1/29/2024	HF Sinclair
Solterra	1 (Coolidge)	1/2" PG 70-10	S24-1-10W	5.1	8/15/2024	Western



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Solterra	1 (Coolidge)	3/4" PG 70-10 15% RAP	S24-1-13W	5.1	8/19/2024	Western
Solterra	1 (Coolidge)	1/2" PG 70-10 15% RAP	S24-1-14W	5.1	8/19/2024	Western
Solterra	1 (Coolidge)	3/4" PG 70-10	S24-1-1W	5.0	8/22/2024	Western
Solterra	1 (Coolidge)	1/2" PG 70-10	S24-1-2W	5.3	8/22/2024	Western
Solterra	1 (Coolidge)	3/4" PG 70-10	S24-1-9W	5.1	8/15/2024	Western
SW Asphalt	10 (New River)	1/2" PG 70-10	121AH	5.3	1/10/2023	HF Sinclair
SW Asphalt	10 (New River)	1/2" PG 70-10	121DH	5.3	1/10/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 70-10	131AH	5.0	1/10/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 70-10	131DH	5.0	1/10/2023	HF Sinclair
SW Asphalt	2 (Florence)	1/2" PG 70-10	221AH	5.3	1/10/2023	Wright
SW Asphalt	2 (Florence)	1/2" PG 70-10	221DH	5.3	1/10/2023	Wright
SW Asphalt	2 (Florence)	3/4" PG 70-10	231AH	5.0	1/10/2023	Wright
SW Asphalt	2 (Florence)	3/4" PG 70-10	231DH	5.0	1/10/2023	Wright
SW Asphalt	3 (Queen Creek)	1/2" PG 70-10	321AH	5.3	1/10/2023	Wright
SW Asphalt	3 (Queen Creek)	1/2" PG 70-10	321DH	5.5	1/10/2023	Wright



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
SW Asphalt	3 (Queen Creek)	3/4" PG 70-10	331AH	5.0	1/10/2023	Wright
SW Asphalt	3 (Queen Creek)	3/4" PG 70-10	331DH	5.3	1/10/2023	Wright
SW Asphalt	4 (El Mirage)	1/2" PG 70-10	421AH	5.3	1/10/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	1/2" PG 70-10	421DH	5.3	1/10/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 70-10	431AH	5.0	1/10/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 70-10	431DH	5.0	1/10/2023	HF Sinclair
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	231517Q	4.8	12/21/2022	Marathon
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	231517Q	4.8	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	271518Q	5.1	1/24/2023	Marathon
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	271518Q	5.1	1/24/2023	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	331517Q	5.3	12/21/2022	Marathon
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	331517Q	5.3	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	371518Q	5.4	1/24/2023	Marathon
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	371518Q	5.4	1/24/2023	Wright
Vulcan	5180 (Sun City)	3/4" PG 70-10	231517S	4.6	1/3/2023	Wright



## **East Valley Asphalt Committee (EVAC)**

### **Approved Modified Mix Designs**

#### **½" PG 76-22 PMTR (Polymer Modified Tire Rubber)**

Rubberized asphalt is used on the Town's major arterials, see highlighted product codes in tables below of mixes used on Town owned streets. PMTR reduces maintenance costs over the life span of the asphalt and reduces traffic noise by 10-15 decibels less than standard conventional asphalt. The tire rubber helps increase tensile strength in the asphalt.

- Require a full mill at a depth of 1 ½" – 3"
- Pave back 1 ½" (up to 3") of ½" PMTR Rubberized asphalt

**Updated 1-28-2025**



## EVAC

### East Valley Asphalt Committee Modified Mixes

2023-2024 Approved Asphalt Mix Designs

Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Martin Marietta	34 (Coolidge)	1/2" PG 76-22 PMTR	AZ3412PMH-2024	6.2	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 76-22 PMTR	AZ3419PMH-2024	6.2	6/5/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 76-22 PMTR 15% RAP	AZ3512PMH15-2024	6.3	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 76-22 PMTR	AZ3512PMH-2024	6.2	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 70-16 TR	AZ3512TRH-2024	6.2	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	3/4" PG 76-22 PMTR 15% RAP	AZ3519PMH15-2023	6.2	2/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	3/4" PG 76-22 PMTR	AZ3519PMH-2023	6.2	1/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	3/4" PG 76-22 PMTR	AZ3519PMH-2024	6.2	4/8/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	3/4" PG 70-16 TR	AZ3519TRH-2023	5.8	2/18/2023	Holly Frontier
Solterra	1 (Coolidge)	3/4" PG 76-22 PMTR	S24-1-3R	6.2	8/12/2024	Wright
Solterra	1 (Coolidge)	3/4" PG 76-22 PM	S24-1-3W	6.2	9/13/2024	Western



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Solterra	1 (Coolidge)	1/2" PG 76-22 PMTR	S24-1-4R	6.2	8/12/2024	Wright
Solterra	1 (Coolidge)	1/2" PG 76-22 PM	S24-1-4W	6.2	9/13/2024	Western
Solterra	1 (Coolidge)	3/4" PG 70-16 TR	S24-1-5R	5.8	8/12/2024	Wright
Solterra	1 (Coolidge)	1/2" PG 70-16 TR	S24-1-6R	5.8	8/12/2024	Wright
SW Asphalt	10 (New River)	1/2" PG 76-22 PMTR	121ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	10 (New River)	1/2" PG 70-16 TR	121AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 76-22 PMTR	131ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 70-16 TR	131AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	2 (Florence)	1/2" PG 76-22 PMTR	221ARW	6.2	11/13/2023	Wright
SW Asphalt	2 (Florence)	1/2" PG 70-16 TR	221AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	2 (Florence)	3/4" PG 76-22 PMTR	231ARW	6.2	11/13/2023	Wright
SW Asphalt	2 (Florence)	3/4" PG 70-16 TR	231AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	3 (Queen Creek)	1/2" 76-22 PMTR	321ARW	6.2	11/13/2023	Wright
SW Asphalt	3 (Queen Creek)	1/2" PG 70-16 TR	321AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	3 (Queen Creek)	3/4" PG 76-22 PMTR	331ARW	6.2	11/13/2023	Wright



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
SW Asphalt	3 (Queen Creek)	3/4" PG 70-16 TR	331AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	1/2" PG 76-22 PMTR	421ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	1/2" PG 70-16 TR	421AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 76-22 PMTR	431ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 70-16 TR	431AXH	5.8	11/13/2023	HF Sinclair
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR	236417Q	6.2	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR	236417Q	6.2	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	3/4" PG 70-16 TR	236617Q	5.8	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	3/4" PG 70-16 TR	236617Q	5.8	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR 15% RAP	256417Q	6.0	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR 15% RAP	256417Q	6.0	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	1/2" PG 76-22 PMTR	336417Q	6.2	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 76-22 PMTR	336417Q	6.2	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	1/2" PG 70-16 TR	336617Q	5.8	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 70-16 TR	336617Q	5.8	12/21/2022	Holly Frontier



## **High Density Mineral Bond**

**(Preferred treatment for utility companies)**

Polymer Modified Master (PMM) Seal is the type of High Density Mineral Bond used by the Public Works Department. PMM reduces oxidative damage from moisture and UV rays from the Sun. PMM helps reduce asphalt cracking and helps extend the life cycle of the asphalt.

- Ambient and surface temperature must be at least 55 degrees or higher
- Application rate for PMM .14 - .18 gallons/square yard per coat
- Two coats of PMM are required
- Do not apply if rain is forecast within 24 hours



## High Density Mineral Bond

### APPLICATION RATES:

The recommended application rates for **PMM** are .14-.18 gallons/square yard per coat. Application rates may be adjusted depending on the pavement condition, traffic volume and other factors.

### MIX DESIGN:

**PMM** assures factory quality control specifications at the jobsite eliminating the need for contractor addition of water and other additives. Additional aggregate may be added by the contractor to meet specific job requirements based on pavement surfaces, traffic volume, etc.

### SURFACE PREPARATION:

Pavement must be free of loose and embedded dirt, dust, vegetation and other foreign material. If traditional cleaning methods are not effective a power washer or tack coat of asphalt emulsion diluted 1:4 with water may be used. Structural repairs should be made and cracks 1/4" and larger should be sealed with approved crack sealant material. All grease and oil spots should be treated with PrepSeal or PetroSeal.

### APPLICATION EQUIPMENT:

**PMM** may be applied by hand spray / squeegee, mechanical spray tankers or squeegee machines. Application units should be equipped with mechanical agitation systems to maintain the consistency of the material during the Application, or to mix additional aggregate if needed.

TEST PROPERTIES	TEST METHOD	SPECIFICATION
<b>EMULSION:</b>		
Uniformity	ASTM D 2939.04	PASS
Weight/gallon @ 77 deg. F	ASTM D 2939.07	10.5 lbs./gal.min
Residue by Evaporation (Solids), %	ASTM D 2939.08	50% min.
Asphalt Content by Weight, %	ASTM D 2939.21	17 min.
VOC Content by Volume, %	ASTM D 244-89	< 3%
Fine Aggregate and Mineral Filler Content by Weight, %	Manufacture Certification	34% min.
Polymer Content by Volume, %	Manufacture Certification	1.8%
<b>PERFORMANCE BASED TESTING:</b>		
Resistance to Heat (No sagging or slipping observed.)	ASTM D 2939.14	PASS
Resistance to Water (No blistering or re-emulsification.)	ASTM D 2939.15	PASS
Wet Flow, mm	ASTM D 2939.19	0
Direct Flame Test (No continued combustion after 10 sec. No slippage, run down or charred material observed.)	ASTM D 2939.20	PASS
Wet Film Continuity (Material was uniformly distributed; no signs of inconsistency.)	ASTM D 2939.22	PASS
Resistance to Kerosene (No leakage of kerosene, loss of adhesion or discoloration of tile.)	ASTM D 2939.25	PASS
Wet Track Abrasion Test (1 hr.) gms/sqft. loss	ASTM D 3910	< 15
Wet Track Abrasion Test (6 day) gms/sqft. loss	ASTM D 3910	< 15
<b>FINE AGGREGATE SIEVE ANALYSIS:</b>		
	<b>MESH SIZE</b>	<b>% PASSING (+ or -2)</b>
	40	100
	50	93
	70	80
	80	69
	120	49
	200	35
	325	2



## **Liquid Road**

(Heavier surface seal)

Liquid Road is a polymer-modified, fiber asphalt emulsion that is mixed with specially graded aggregate and is highly durable and slip resistant surface treatment.

- Ambient and surface temperature must be at least 55 degrees or higher
- Application rate for PMM .25 - .35 gallons/square yard per coat
- Two coats of PMM are required
- Do not apply if rain is forecast within 24 hours



**APPLICATION RATES:**

The recommended application rates for **Liquid Road** are .25-.35 gallons/square yard per coat. Application rates may be adjusted depending on the pavement condition, traffic volume and other factors.

**MIX DESIGN:**

**Liquid Road** assures factory quality control specifications at the jobsite eliminating the need for contractor addition of water and other additives. Additional aggregate may be added by the contractor to meet specific job requirements based on pavement surfaces, traffic volume, etc.

**SURFACE PREPARATION:**

Pavement must be free of loose and embedded dirt, dust, vegetation and other foreign material. If traditional cleaning methods are not effective a power washer or tack coat of asphalt emulsion diluted 1:4 with water may be used. Structural repairs should be made and cracks 1/4" and larger

Should be sealed with approved crack sealant material. All grease and oil spots should be treated with PrepSeal or PetroSeal.

**APPLICATION EQUIPMENT:**

**Liquid Road** shall be applied by mechanical squeegee/brush equipment. Equipment shall have continuous agitation or mixing capabilities to maintain homogenous consistency of **Liquid Road** and aggregate mixture throughout the application process. Truck mount or self-propelled squeegee/brush equipment shall have at least 2 squeegee or brush devices (one behind the other) to assure adequate distribution and penetration of **Liquid Road** into bituminous pavement. Hand squeegees and brushes shall be acceptable in areas where practicality prohibits the use of mechanized equipment.

	TEST METHOD	SPECIFICATION	
<b>EMULSION:</b>			
Uniformity	ASTM D 2939.04	PASS	
Weight/gallon @ 77 deg. F	ASTM D 2939.07	11.0 lbs./gal.min	
Residue by Evaporation (Solids), %	ASTM D 2939.08	55% min.	
Asphalt Content by Weight, %	ASTM D 2939.21	15% min.	
VOC Content by Volume, %	ASTM D 244-89	< 3%	
Fine Aggregate and Mineral Filler Content by Weight, %	Manufacture Certification	34% min.	
Polymer Content by Volume, %	Manufacture Certification	1.8%	
<b>PERFORMANCE BASED TESTING:</b>			
Resistance to Heat (No sagging or slipping observed.)	ASTM D 2939.14	PASS	
Resistance to Water (No blistering or re-emulsification.)	ASTM D 2939.15	PASS	
Wet Flow, mm	ASTM D 2939.19	0	
Direct Flame Test (No continued combustion after 10 sec. No slippage, run down or charred material observed.)	ASTM D 2939.20	PASS	
Wet Film Continuity (Material was uniformly distributed; no signs of inconsistency.)	ASTM D 2939.22	PASS	
Resistance to Kerosene (No leakage of kerosene, loss of adhesion or discoloration of tile.)	ASTM D 2939.25	PASS	
Wet Track Abrasion Test (1 hr.) gms/sqft. loss	ASTM D 3910	< 15	
Wet Track Abrasion Test (6 day) gms/sqft. loss	ASTM D 3910	< 20	
<b>AGGREGATE SIEVE ANALYSIS:</b>			
<b>SILICA SAND</b>		<b>FINE AGGREGATE</b>	
Mesh Size	% PASSING (+ or -2)	Mesh Size	% PASSING (+ or -2)
16	99	40	100
20	86	50	93
30	58	70	80
40	26	80	69
50	4	120	49
70	1	200	55
100	0.2	325	2



## **Rubberized Micro Seal**

The Public Works Department uses Rubberized Micro-Seal on minor arterials that are beyond a PMM surface treatment but not ready for a mill & overlay. Rubberized Micro-Seal is a protective seal coat which extends the life of pavement. It is a thin, tough layer of asphalt emulsion blended with rubber and finely crushed stone for traction and protection from moisture and UV rays from the sun. Rubberized Micro-Seal can extend the life of asphalt for up to seven years.

- Application rate per MAG specs (section 714.2.2) shall be 18 – 24 pounds per square yard
- Ambient temperatures must be above 50 degrees



The mix design for rubberized micro-seal must be approved by the Engineer prior to the start of micro surfacing production. After the mix design has been approved, no material substitution will be permitted unless approved by the Engineer.

ii. In addition to the other requirements stated herein, the mix design shall conform to the requirements of Table 2.

TABLE 2		
PROPERTY	TEST METHOD	REQUIREMENT
Residual Asphalt Content	ASTMD 2172	6.0%- 11.5% ,by weight of dry aggregate
Mineral Filler	ASTM C136	0.1%-2.0%, by weight of dry aggregate
Additive	----	As required for mix properties
Water	----	As required for mix properties
Polymer Content/Type	----	4%min
Mix Time @ 77° F	ISSA TB-113	Controllable to 120 seconds minimum
Wet Track Abrasion Loss, (1 hour soak)	ISSA TB-100	50 g/ft <sup>2</sup> maximum
Wet Track Abrasion Loss, (6 day soak)	ISSA TB-100	75 g/ft <sup>2</sup> maximum
Wet Stripping	ISSA TB-114	90%minimum
Wet Cohesion, @ 30 minutes minimum (Set)	ISSA TB-139	12 Kg/em minimum
Consistency	(ISSA T-106)	2.5 to 3.0 em
Wet Cohesion, @ 60 minutes minimum (Traffic)	ISSA TB-139	20 Kg/em minimum
Loaded Wheel Sand Adhesion	ISSA TB-109	50 g/ft <sup>2</sup> maximum
Lateral Displacement	ISSA TB-147	5% maximum
Specific Gravity after 1,000 cycles of 125 lb.	ISSA TB-147	2.10 maximum



## Signs

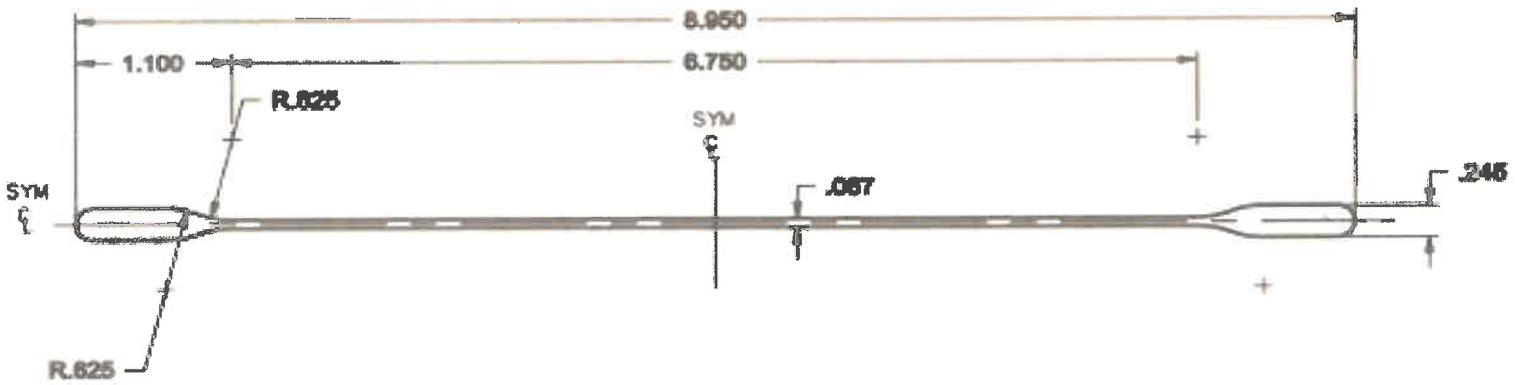
The sign shop uses aluminum, extruded street ID sign blades with white lettering on a blue background except on private roads. Private roads are with blue lettering on a white background. The sign blades are 9 inches in height. The sheeting material used on the street ID signs is Highly Intensive Prismatic (HIP) sheeting for maximum reflectivity at night, the font used is Clearview Hwy-1-B.

All regulatory signs are MUTCD approved and have the same sheeting used on the street ID signs. Regulatory signs come in different shapes and sizes.



### Extruded Sign Blank Specifications

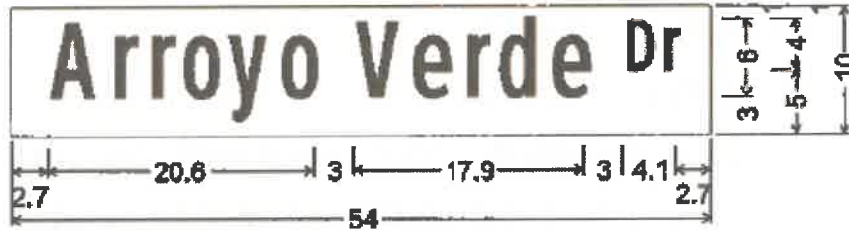
*\*All Street ID Signs are 9 inches in height*



Description	Alloy
Extruded Sign Blank	6061-T6



**Example of Font:** Clearview Hwy-1-B. ID Signs are Blue Background, White Lettering



No border, White on Blue;

[Arroyo] ClearviewHwy-1-B;

[Verde] ClearviewHwy-1-B; [Dr] ClearviewHwy-1-B;

**Street Sign Supports/Poles and Anchors:**

- Sign supports are 1 3/4" X 1 3/4" X 11' powder coated green #GN-03
- Perforated Support Anchors; 2" X 2" X 30" slips into 2 1/4" X 2 1/4" X 30"

**MUTCD Height Requirements for Street ID and Regulatory Signs**

**Per MUTCD Section 2A.18 Minimum Height for Business, Commercial or Residential Areas:** Signs installed at the side of the road in business, commercial, or residential areas where parking or pedestrian movements are likely to occur, or where the view of the sign might be obstructed, shall be 7 feet. This pertains to all regulatory and street ID signs.



### Concrete and Color for Sidewalk Panels

Public Works uses a M.A.G. standard 3000 psi concrete with San Diego Buff color added to the mix.

- Slump of the concrete mixture shall be determined in accordance with American Society for Testing and Materials (ASTM) C143. (see MAG, section 725.9)

### Concrete Curb and Gutter

Public Works uses a M.A.G. standard 3000 psi gray concrete for all curb and gutter.

- Slump of the concrete mixture shall be determined in accordance with American Society for Testing and Materials (ASTM) C143. (see MAG, section 725.9)

### Concrete for Utility Collars

Public Works uses a M.A.G. standard 3000 psi concrete with **BLACK** color added to the mix.

- Slump of the concrete mixture shall be determined in accordance with American Society for Testing and Materials (ASTM) C143. (see MAG, section 725.9)



## **M.A.G. 725.9 ACCEPTANCE:**

### **(A) Plastic Concrete Properties**

(1) The slump of the concrete shall meet the requirements of ASTM C94 Tolerances in Slump section. When the approved mix design or project specification requirements for slump are a “maximum” or “not to exceed”, the following tolerances apply

Specified slump: If 3” or less If more than 3” Plus tolerance 0 inch 0 inch Minus tolerance 1 1/2 inch 2 1/2 inch. When the approved mix design or project specification requirements for slump are not written as a “maximum” or “not to exceed”, the following tolerances apply: For design slump of: Tolerance 2 inch and less +/- 1/2 inch More than 2 through 4 inch +/- 1 inch More than 4 inch +/- 1 1/2 inch.

(2) Limit the maximum allowable temperature of the concrete mixture immediately before placement to 90 degrees F unless otherwise specified or unless a higher allowable temperature is pre-approved by the Engineer. At the discretion of the Engineer, recommended practices in ACI 305, Specification for Hot Weather Concreting, can provide good reference information and may be used to modify maximum allowable concrete temperature and acceptance.

Per ACI 306, Specification for Cold Weather Concreting, when the atmospheric temperature at the time of placing concrete is above 30°F the temperature of the concrete, as placed, shall not be less than 60°F. When the atmospheric temperature at the time of placing concrete is between 0°F and 30°F the temperature of the concrete, as placed, shall not be less than 65°F.

(3) Air entrained concrete shall meet the requirements of ASTM C94 Air-Entrained Concrete section. The air content of air-entrained concrete when sampled from the transportation unit at the point of discharge shall be within the approved mix design tolerance or +/- 1.5 % of the specified value. When a representative sample taken prior to discharge shows an air content below the specified level by more than the allowable tolerance, additional air entraining admixture shall be



added to the concrete mix to achieve the desired air content level, followed by a minimum of 30 revolutions at mixing speed.

(4) Per ASTM C94 Mixing and Delivery section, discharge of the concrete shall be completed within 1 1/2 hour after the introduction of the mixing water to the cementitious materials or the introduction of the cementitious materials to the aggregates. The Engineer may allow the continuation of concrete placement after the 1 1/2 hour time limit has been reached if the concrete is of such slump or workability that it can be placed without the addition of water to the batch.

Any concrete failing to meet the tolerances for plastic concrete properties in 725.9 (A) (1) through (4) shall be reviewed by the Engineer and is subject to rejection.

#### **(B) Hardened Concrete Properties – Compressive Strength**

Compressive strength of concrete shall be determined on the basis of cylinder strength tests obtained in accordance with section 725.8.2 and shall be acceptable if the tests meet or exceed the minimum specified strength. When the validity of cylinder strength tests are suspect, the strength of concrete in question shall be determined in accordance with Section 725.8.3.

When compressive strength test results are less than the specified minimum, an Engineering Analysis to determine the impact of the strength reduction may be required by the Engineer prior to the decision to accept or reject the concrete. The Engineering Analysis will be at the Contractor's expense. Any concrete that is rejected by the Engineer shall be removed and replaced by the Contractor at the Contractor's expense.

When concrete is accepted by the Engineer on the basis of test results of less than 100% of the required minimum compressive strength, an adjustment in the concrete unit price may be made for the quantity of concrete represented by such strength tests in accordance with Table 725-2.



## **Striping**

Thermoplastic tends to be used more in warmer environments. Durability is thermoplastic's biggest advantage over paint. Thermoplastics does last longer than paint, typically 3 to 5 years where paint last approximately 1 year.

- Thermoplastic is to be applied thicker than paint.
- 90 mils is required for long line and skip lines.
- 120 mils is required for crosswalks, arrows and stop bars.

## **Granite**

- Median Islands/R.O.W's – ½" Minus Madison Gold
- Town Hall Complex and Fire Stations – ¼" Washed Madison Gold

## **Traffic Signal Pole Colors**

- Dunn Edwards or approved equivalent
- Color - San Diego Buff – Code# 10-27-08

## **Hand Rails Color**

- Frazee Enamel or approved equivalent
- Color – Western Reserve – Code# 8716N

**ATTACHMENT 3  
TO  
JOB ORDER NO. TWO  
PAYMENT AND PERFORMANCE BONDS**

See the following pages.

**LINKING AGREEMENT  
FOR COOPERATIVE PURCHASE**

MR TANNER DEVELOPMENT AND CONSTRUCTION, LLC.  
STREET MAINTENANCE SERVICES

**EXHIBIT D  
SPECIFIC REQUIREMENTS/OPTIONS OF TOWN**

Notices: All notices required under the Linking Agreement shall be sent to:

Isaac Chavira, Public Works Director  
Town of Paradise Valley  
6401 E. Lincoln Drive  
Paradise Valley, Arizona 85253

With mandatory copy to:

Town Attorney  
Town of Paradise Valley  
6401 E. Lincoln Drive  
Paradise Valley, Arizona 85253

