

Staff Summary Report



Council Meeting Date: 10/16/08

Agenda Item Number: 38

SUBJECT: Request award of a construction contract for cape seal pavement to International Surfacing Systems and approval of a project contingency.

DOCUMENT NAME: 20081016PWDR09 STREET UPGRADING-MAINT-CONSTRUCTION (0809-05) PROJECT NO. 5409121

SUPPORTING DOCS: Yes

COMMENTS: Total cost for the construction contract is \$463,535.30 and the project contingency is \$46,000.

PREPARED BY: Donna Rygiel, Engineering Contract Administrator (x8520)

REVIEWED BY: Andy Goh, Deputy PW Manager/City Engineer (x8896)

APPROVED BY: Glenn Kephart, Public Works Manager (x8205)

LEGAL REVIEW BY: Teresa Voss, Assistant City Attorney (x8814)

FISCAL NOTE: Sufficient funds are available in Capital Improvement Fund No. 5409121.

RECOMMENDATION: Award construction contract and approve project contingency.

ADDITIONAL INFO: The scope of work for this project includes application of pre-coated aggregate and rubberized asphalt cement, adjustment of manholes and valve boxes and replacement of survey monuments. There are two general work areas. Within these areas there are various streets targeted for the work. The first area is bounded by Rural Road on the west, Price Road on the east, Rio Salado Parkway on the north and Apache Boulevard on the south and the second location is bounded by Interstate 10 on the west, Priest Drive on the east, Carmen Street on the north and Elliot Road on the south.

On September 24, 2008, the following bids were received:

<u>Contractor</u>	<u>Total Bid</u>
International Surfacing Systems	\$463,535.30
Cactus Asphalt	\$471,897.00

Staff reviewed the bid of International Surfacing Systems (ISS) and found it to be in order. ISS was selected based on the bidding process set forth in A.R.S. §34-201, et seq.

The project contingency, the purpose of which is to cover possible unforeseen conditions during construction, is approximately 10 percent of the construction services contract amount.



**CITY OF TEMPE, ARIZONA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION**

INVITATION FOR BIDS

FOR

CAPE SEAL PAVEMENT

PROJECT NO. 5409121



CITY COUNCIL MEMBERS

Mayor – Hugh Hallman

Mark Mitchell
Corey Woods
Shana Ellis

P. Ben Arredondo
Onnie Shekerjian
Joel Navarro

City Manager – Charles W. Meyer
City Engineer – Andy Goh, P.E.

**CITY OF TEMPE, ARIZONA
PUBLIC WORKS DEPARTMENT
DIVISION OF ENGINEERING**

September 17, 2008

CAPE SEAL PAVEMENT

PROJECT NO. 5409121

ADDENDUM NO. 1 TO THE CONTRACT DOCUMENTS:

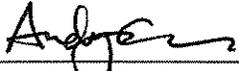
The original contract documents are modified or interpreted as stated herein. Receipt of this Addendum No. 1 shall be acknowledged by inserting its number and date in the space provided on the Bid Form. Failure to acknowledge may subject bidder to disqualification.

This Addendum No. 1 consists of 2 8.5"x11" pages.

CHECK SHEET

Replace the Check Sheet with the attached revised CS-1 page.





Andy Goh, P.E.
Deputy PW Manager/City Engineer

8.1. CHECK SHEET

This check sheet contains a listing of items to be included in the sealed bid by the Contractor:

	Included
Competitive Sealed Bid Forms (note receipt of addenda) B-1 to B-3	<input type="checkbox"/>
Competitive Sealed Bid Certification Form BC-1	<input type="checkbox"/>
Bidders Project References PR-1	<input type="checkbox"/>
List of Subcontractors SB-1	<input type="checkbox"/> Separate Envelope
Health Insurance Affidavit AFF-2	<input type="checkbox"/> Separate Envelope
Bid Bond (as per Instruction to Bidders) Page 8, Section 2.4.	<input type="checkbox"/>
Safety Information (as per Instruction to Bidders) Page 9, Section 2.7.	<input type="checkbox"/> Separate Envelope

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CITY OF TEMPE, ARIZONA
PUBLIC WORKS DEPARTMENT
DIVISION OF ENGINEERING

NOTICE TO CONTRACTORS

**CAPE SEAL PAVEMENT
PROJECT NO. 5409121**

1. INTRODUCTION

1.1. EXAMINATION OF PREMISES

The Contractor shall visit the site of the project and shall fully acquaint themselves with the conditions as they exist, so that they may fully understand the facility, difficulties and restrictions attending the execution of the work.

Bidders shall also thoroughly examine and be familiar with the specifications and the Contract. Failure of the Contractor to obtain, receive or examine any Addenda to the proposed Contract or to visit the site and acquaint themselves with the existing conditions shall in no way relieve them from any obligation with respect to the submitted bid. By submitting a bid, the Contractor agrees that they have examined the site, specifications and Contract and accepts, without recourse, all site conditions and the proposed Contract.

1.2. START OF WORK/TERM OF CONTRACT

Work shall start as soon as practicable, but not later than seven (7) calendar days after the City issues the Notice to Proceed and shall be completed within sixty (60) calendar days thereafter.

2. INSTRUCTION TO BIDDERS

2.1. **SEALED BIDS** will be received and the time of delivery recorded by the City of Tempe, Arizona, Public Works Department, Engineering Office, City Hall West Garden Level, 31 East Fifth Street, Tempe, Arizona 85281, until 10:30 a.m. September 24, 2008. At that time and place, bids will be opened and the amount of each bid and the name of each bidder publicly read in the Public Works Conference Room. Bids received after the time specified will be returned unopened. All bids shall be submitted in a sealed envelope. The outside lower right-hand corner shall be marked:

BID OF _____, CONTRACTOR

**FOR: CAPE SEAL PAVEMENT
PROJECT NO. 5409121**

If a bid is mailed or delivered via overnight mail service, the outside envelope should be marked with the date and time of the bid opening, as well as the words "PUBLIC WORKS ENGINEERING BID OPENING." Please allow sufficient time for delivery.

A bid guarantee by certified check, cashier's check or surety bond in the amount of 10% of the bid shall be submitted with the bid. Personal or individual surety bonds are not acceptable. The City requires all bonding companies and liability and excess insurance carriers to have a rating of "A-VII" or better as listed in the most recent "Best's Key Rating Guide (Property/Casualty)" published by A.M. Best Company. The certified check, cashier's check or surety bond shall be returned to the Contractors whose bids are not accepted and to the successful Contractor upon the execution of a satisfactory bond and Contract.

All Contractors are required to submit from their insurance carriers, a three (3) year history of both their Experience Modification Factor (EMOD) and their loss ratio, among other things. In addition, all Contractors are required to submit an affidavit certifying that their company and all of its subcontractors, defined as doing work in excess of \$30,000 as determined at the start of each project, will have and will continue to have during the course of the Contract, health insurance in force for all project employees. The employer must also offer insurance to project employees for their eligible dependents.

A set of plans and specifications are available from the City of Tempe Engineering Division (480-350-8200), 31 E. Fifth Street, Garden Level, Tempe, Arizona. The return of such plans and specifications shall be guaranteed by a deposit of fifteen dollars (\$15.00) which shall be refunded upon return of the plans and specifications in good order within seven (7) calendar days from the date of purchase. Specification books must be returned with original binding intact.

The City of Tempe may reject any and all bids and waive any informality in the bids received.

Award will be made or bids rejected within sixty (60) days after bid opening.

Please direct any questions to the City of Tempe Engineering Division at (480) 350-8200. The City Project Construction Manager for this project is Mauricio Jara.

Anyone wishing to receive future notices through automatic notification by email can register their company name and email address at www.tempe.gov/engineering (choose Contractors, E-mail Notification).

2.2. **SECURING DOCUMENTS**

Copies of specifications, special provisions, and other proposed Contract related documents are on file in the office of the City Engineer, City Hall, 31 East Fifth Street, Tempe, Arizona, and are open for public inspection. A set of plans and specifications may be obtained from the City Engineer. **The return of such plans and specifications shall be guaranteed by a deposit of fifteen dollars (\$15.00) which shall be refunded upon return of the plans and specifications in good order within seven (7) calendar days from the date of purchase. Specification books must be returned with original binding intact.**

2.3. **ADDENDA**

Addenda issued prior to the deadline for bidding shall be attached to and made a part of the Contract.

2.4. **BID SECURITY**

Each bid shall be accompanied by a certified check, cashier's check, or surety bond in an amount equal to at least ten percent (10%) of the bid, payable without condition to the City as a guarantee that the bidder, if awarded the Contract, will promptly execute the Contract in accordance with the bid and in the manner and form required by the Contract. Each surety bond shall be executed by a surety company or companies duly authorized to do business in the State of Arizona and all bond documents shall be executed pursuant to the requirements of A.R.S. §34-206.

2.5. **BIDS**

Bids shall be properly executed upon the Competitive Sealed Bid form attached and made a part of this Contract. The signature of all persons signing shall be in longhand. The completed forms shall be without interlineations, alterations, or erasures. Unit prices should be rounded to the nearest whole cent (two spaces behind the decimal point). In case of an error in the extension of unit prices and the totals, the unit price shall govern.

Bids shall not contain any recapitulations of the work to be done. Alternative bids will not be considered except as called for. No oral, telegraphic, or telephonic bids or modifications will be considered.

2.6. **IRREGULAR BIDS**

Bids may be considered irregular and may be rejected if any of the unit prices quoted in the bidding schedule are unbalanced, either above or below the amount of a reasonable bid price, to the potential detriment of the City.

2.7. **BIDDING PHASE REQUIREMENTS**

Bidders shall submit current loss history information from all their insurance carriers in a separate envelope with their bid. The information specific to workers' compensation insurance carriers must include a three (3) year history of both their Experience Modification Factor (EMOD) and their loss ratio. This information must be provided with the bidder's proposal.

2.8. **PRE-CONTRACT AWARD REQUIREMENTS**

The Contractor shall provide a copy of their written health and safety program and any required employee training records or certificates.

2.9. **POST CONTRACT AWARD REQUIREMENTS**

The Contractor shall provide certificates of insurance and meet indemnification criteria. The Contractor shall also provide performance and payment bonds as required in Section 4.1.

2.10. **BID QUANTITIES**

The quantities listed in the specifications are for bid purposes. The actual quantities provided to the Contractor may be adjusted to accommodate field requirements.

3. **SCOPE OF WORK**

The proposed work will consist of the construction of **CAPE SEAL PAVEMENT OF PRE-COATED AGGREGATE AND RUBBERIZED ASPHALT CEMENT, ADJUST MANHOLES, ADJUST VALVEBOXES, REPLACE SURVEY MONUMENTS AND ASSOCIATED DETAILS** together with associated work and shall be accomplished in accordance with the Maricopa Association of Governments 2008 Uniform Standard Specifications for Public Works Construction ("MAG Specifications"), Maricopa Association of Governments 2008 Uniform Standard Details for Public Works Construction ("MAG Details") and the City of Tempe Supplement to the MAG Specifications and MAG Details (2007) ("City of Tempe Supplement") except as modified in the Contract.

3.1. **CONTRACTOR'S CONSTRUCTION SCHEDULE**

Prior to the start of work, a construction progress schedule shall be required for all projects and shall comply with the requirements of MAG Specifications 108.4. In addition, a schedule update comparing actual progress with scheduled progress will be required with the submission of each monthly pay request.

3.2. **UNIFORM STANDARD SPECIFICATIONS**

All work done under this Contract shall be accomplished in accordance with the MAG Specifications, MAG Details and the City of Tempe Supplement except as modified in this Contract. City of Tempe shall be referred to as "City."

In the case of a discrepancy or conflict, the order in which the Contract sections govern is as follows from the highest to lowest: special terms and conditions, technical specifications, plans, general terms and conditions, City of Tempe Supplement, MAG Specifications, and MAG Details.

All bids shall be made in accordance with the General Conditions of the MAG Specifications.

3.3. **CONTRACTOR'S REPRESENTATIVE**

The Contractor shall at all times be present at the worksite or represented by a foreman or other properly designated agent. Instructions and information given by the City Construction Manager to the Contractor's foreman or agent on the work shall be considered as having been given to the Contractor.

3.4. **SUPERVISION BY CONTRACTOR**

The Contractor will supervise and direct the work. They will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor will employ and maintain on the work a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall have full authority to act on behalf of the Contractor and all communications given to the supervisor shall be as binding as if given to the Contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the work.

3.5. **AUTHORITY OF THE CITY ENGINEER'S APPOINTED REPRESENTATIVE**

The City Construction Project Manager shall act as the City Engineer's designated representative during the construction period. He shall advise on questions concerning coordination with the City, public safety, and quality and acceptability of materials and work performed. The City Engineer through the City Construction Project Manager shall interpret the intent of the Contract plans, specifications, and technical provisions in an unbiased manner.

The City Construction Project Manager, or his assigned inspector shall be present on the site at times during construction to monitor the work and to maintain records for Contract management. The City Construction Project Manager shall promptly make decisions relative to the interpretation of the Contract so as to

minimize delays in construction. The City Construction Project Manager will not be responsible for directing construction, control, techniques, sequence, or procedures, or for directing job safety.

3.6. **BENEFICIAL OCCUPANCY**

Beneficial occupancy is use of a facility or project, in whole or in part, by the City for its intended purpose. This may occur even though some work of the Contract remains undone. Prior to such use or occupancy, the City will prepare a written agreement with the Contractor and accomplish a partial acceptance inspection. Beneficial use will apply to general right of way projects only.

3.7. **SUBSTANTIAL COMPLETION**

Substantial completion is work which is ready for occupancy and use for its intended purpose as certified by a Certificate of Occupancy. This term will be applied to building construction projects only.

3.8. **PROJECT COMPLETION**

Project completion is full completion of all construction associated with the Contract, including, but not limited to punch list items, close out documentation, O & M manuals, warranties, and record drawings as certified by the architect or engineer of record. The Contractor may be found in default of this Contract in accordance with MAG Specifications 108.10 should project completion fall behind substantial completion by more than forty-five (45) days.

3.9. **CONTRACT COMPLETION DATE**

The completion date established by reference to the Notice to Proceed is for completion of all or specified portions of the work. This includes items of work to be completed under an owner allowance or as part of a contingency item. The stated Contract completion date will include weather conditions that are not unusually severe for the area and time of year. This date may be expressed as a calendar date or a number of calendar days after issuance of the Notice to Proceed.

If time extensions are issued by the City, this revised Contract completion date will be referred to as the adjusted contract completion date.

3.10. **INSPECTION**

The Contractor is responsible for complying with the specifications and is hereby forewarned that final approval of any work will not be given until the entire project is completed and accepted by the City. Prior to final inspection on any City facilities requiring a City permit, the Contractor must call for inspections from City Development Services Department and City Public Works Department.

The final inspection must be completed prior to final acceptance and payment.

3.11. **FINAL ACCEPTANCE & GUARANTEE**

Final acceptance shall mean a written final acceptance of the work. The City Engineer shall make the final acceptance promptly after the work has been completed in accordance with the Contract and after inspection is made. The work performed under this Contract shall be guaranteed for a period of one year from the date of final acceptance.

3.12. **AS-BUILT DRAWINGS**

The Contractor shall provide and maintain accurate field data on a red-lined set of Contract drawings, which are to be kept current and submitted as complete at the conclusion of the construction. These record drawings will be used as documentation for progress payments, and upon project completion, for the preparation of as-built file drawings by the architect/engineer. All as-built information shall be on 3 ml double matte black line Mylar and shall be 24" x 36" in size. Final payment will not be issued until all record drawings and as built information are submitted by the Contractor, and certified to be complete by the architect/engineer of record.

3.13. **SHOP DRAWINGS, SCHEDULES & SAMPLES**

In time for each to serve its proper purpose and function, the Contractor shall submit to the City Engineer schedules, reports, drawings, lists, literature samples, instruction, directions, and guarantees as are specified or reasonably required for construction, operation, and maintenance of the facilities to be built and/or furnished under this Contract.

Shop drawings and data shall be submitted to the City Engineer in such number of copies as will allow them to retain four (4) copies of each submittal. The submittal shall clearly indicate the specific area of the Contract for which the submittal is made. The additional copies received by them will be returned to the Contractor's representative at the job site. The City Engineer's notations of the action which he has taken will be noted on one (1) of these returned copies.

The above drawings, lists, prints, samples, and other data shall become a part of the Contract and a copy of the same shall be kept with the jobsite Contract, and the fabrications furnished shall be in conformance with the same. However, the City Engineer's review of the above drawings, lists, prints, specifications, samples, or other data shall in no way release the Contractor from their responsibility for the proper fulfillment of the requirements of this Contract nor for fulfilling the purpose of the installation nor from their liability to replace the same, should it prove defective or fail to meet the specified requirements.

3.14. **QUALITY CONTROL**

All material shall be new and of the specified quality and equal to the accepted samples, if samples have been submitted. All work shall be done and completed in a thorough, workmanlike manner. It shall be the duty of the Contractor to call the City Engineer's attention to apparent errors or omissions and request instruction before proceeding with the work.

The Engineer may, by appropriate instruction, correct errors and supply omissions, which instructions shall be as binding upon the Contractor as though contained in the original Contract.

At the option of the City Engineer, materials to be supplied under this Contract will be tested and/or inspected either at their place of origin or at the site of the work. The Contractor shall give the City Engineer written notification well in advance of actual readiness of materials to be tested and/or inspected at point of origin. Satisfactory tests and inspections at the point of origin shall not be construed as a final acceptance of the material nor shall it preclude retesting or reinspection at the site of the work.

3.15. **EXCESS MATERIALS**

Excess or unsuitable material, broken asphaltic concrete and broken portland cement concrete shall be disposed of by the Contractor. The Contractor shall, prior to commencement of the work, submit a letter to the City Engineer stating the location of disposal site(s) for all excess material and certifying that they have obtained the property owner's permission for the disposal of all surplus material.

3.16. **PROTECTION OF FINISHED OR PARTIALLY FINISHED WORK**

The Contractor shall properly guard and protect all finished or partially finished work, and shall be responsible for the same until that phase is completed and accepted by the City Engineer. Estimate or partial payment of work so completed shall not release the Contractor from such responsibility but they shall turn over the entire work in full accordance with these specifications before final payment can be made.

3.17. **SURVEY CONTROL POINTS**

Existing survey monuments shall be protected by the Contractor or removed and replaced under the direct supervision of the City Surveyor or their authorized representatives. Prior to construction, it is the responsibility of the Contractor to notify the City Surveyor of any survey monuments which need to be referenced off. Any monuments which are lost and have not been referenced off due to the Contractor's negligence and lack of notification to the City Surveyor shall be replaced at the Contractor's expense. Lot corners shall not be disturbed without knowledge and consent of the property owner and only after such corner has been

properly referenced for replacement.

3.18. **HINDRANCES AND DELAYS**

3.18.1. Except as provided in the following Section 2.20.2, no charge shall be made by the Contractor for hindrances or delays from any cause during the progress of any portion of the work embraced in this Contract; but such delays, if due to no fault or neglect of the Contractor, may entitle the Contractor to a time extension sufficient to compensate for the delays at the City's discretion. The amount of the delay shall be determined by the City Engineer provided the Contractor gives the City Engineer immediate notice in writing of the cause of such delay.

3.18.2. The parties agree to negotiate for the recovery of damages related to expenses incurred by the Contractor for a delay under the following circumstances:

- a. If the City is solely responsible for the delay which is unreasonable under the circumstances; and
- b. Which delay was not within the contemplation of the parties to the Contract at the time the Contract was entered into; and
- c. The Contractor can show the impact of the delay on the critical path of the construction activity as indicated in an approved Critical Path Method (CPM) schedule.

Unless specifically provided for in the special terms and conditions, the City shall have discretion to determine such damages. Maximum compensation for an unreasonable or unforeseen delay shall not exceed the daily amount specified for liquidated damages in MAG Specifications 108.9 based on the original Contract amount.

This section shall not be construed to void any provisions of this Contract which require notice of delays, provides for arbitration or other procedure for settlement or provides for liquidated damages.

3.19. **SUBSIDIARY WORK**

All work called for in the specifications and/or shown on the drawings shall be performed by the Contractor and unless a specific bid item is provided for the work, then such portion of the work will be considered subsidiary to other work for which payment is provided.

3.20. **MISCELLANEOUS WORK AND ALLOWANCES**

3.20.1. The following items will be included in the work with no direct payment allowed. Payment shall be included in the payment for other items for which direct payment is made.

- a. Contractor's expenses for but not limited to mobilization, job site office, storage facilities, traffic control and public safety devices, sanitary facilities, utilities and telephone.
- b. Cleanup including day to day cleanup.
- c. Notification to residents adjacent to this project prior to start of construction which would affect them.
- d. Water required for compaction or dust control.
- e. Miscellaneous removals and relocations not otherwise specified in the Technical Provisions.
- f. Power pole bracing.
- g. Removal of trees twelve inches (12) or less in diameter.
- h. Removal, relocation and/or modification of existing walls and fences.
- i. Trimming of trees and bushes.
- j. Replacement of plant material and repair of irrigation equipment to meet or exceed conditions existing prior to Contractor beginning work.

3.21. **CHANGE ORDERS**

In the event that significant changes in the scope of the work, and/or changes in the quantities due to contingencies of construction become necessary, such changes shall be made in accordance with MAG Specifications 104.

The costs associated with any extra work must be approved at the City's discretion prior to the start of the extra work. Extra work performed on an actual cost basis shall be submitted for approval within twenty-one (21) days after the completion of such work. The final costs for additional work shall also include all charges associated with extended General Conditions or Contract acceleration.

3.22. **ADDITIONAL SERVICES**

Additional services which are outside the scope of basic services contained in this Contract shall not be performed by the Contractor without prior written

authorization from the City Engineer. Additional services, when authorized by an executed Contract or an amendment to this Contract shall be compensated in an amount mutually agreed upon between the City and the Contractor.

4. **GENERAL TERMS AND CONDITIONS**

4.1. **PERFORMANCE SECURITY**

Bonds in the following amounts will be required of the Contractor immediately after Notice of Contract is awarded and must meet the requirements of A.R.S. § 34-222 including:

1. Performance bond in an amount equal to the full Contract price.
2. Payment bond in an amount equal to the full Contract price.

4.2. **PAYMENT**

4.2.1. Method of Payment. Payment shall be made as directed in MAG Specifications 109.

4.2.2. Measurement of Payment.

- a. Quantities of materials for this work shall be paid under the appropriate schedule at the applicable contract price per unit of measurement with no allowances for waste. Payment will be made after completion upon acceptance by the City, and upon the City's receipt of approved invoices.
- b. Payment for various items in the Bid shall be compensation in full for furnishing all materials, labor, tools, equipment and appurtenances necessary to complete the work in a satisfactory manner as specified. No additional payment will be made for work related to any item unless specifically called for in the Bid.
- c. Materials placed without approval of the inspector or materials rejected due to improper placing, improper proportions of materials, or materials found to be defective will not be paid for.

4.3. **PRE-CONSTRUCTION MEETING**

4.3.1. The Contractor will be required to attend a City safety briefing. The safety briefing session shall address the following issues:

- a. City Safety Rules and Expectations.

- b. Contractor Tailgates. Contractors shall conduct tailgate safety meetings regularly to ensure that safety on the job is given priority.
- c. Accident/Injury/Illness Procedures. The City's Construction Project Manager and the City's Risk Management Division shall be contacted any time an accident, injury or illness occurs on the project.
- d. Unsafe Acts. Contractor employees shall be empowered to stop an unsafe act or condition at City facilities.
- e. Safety Audits. The City reserves the right to conduct safety audits at the job site at any time. In addition, Contractor shall notify the City should an OSHA inspection occurs at a City job site.
- f. Job and Site Specific Requirements. Site specific requirements such as lockout/tagout rules and evacuation plans shall be covered during the safety briefing as indicated by the project exposures.

4.3.2. The Contractor may have the following additional safety requirements based on the exposures of the project:

- a. The Contractor shall implement a permit-required confined space program as required under federal and state statutes and/or regulations, and amendments thereto, for all work that encompasses a space that a) is large enough and so configured that an employee can bodily enter and perform assigned work; b) has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and c) is not designed for continuous employee occupancy.

As a part of the Contractor implementing a confined space program, it is the responsibility of the Contractor to provide trained attendant(s) and all intrinsically safe confined space entry related equipment (for example, ladders, gas detectors, safety harnesses, safety tripods, and electrical devices) as needed for safe entry of a confined space.

4.3.3. When any City employee is required to enter a confined space during the construction phase of a project, such as for the purpose of inspection, it is the responsibility of the Contractor to provide a trained attendant and all necessary equipment required for safe entry of the City employee.

4.3.4. Safety will be a part of the agenda for the weekly construction meetings. Items of discussion will be outstanding safety and health issues, current safety meeting topics, environmental issues and any accidents or injuries on the job. The City reserves the right to request the agendas and minutes of the meetings and documentation of any safety tailgate meetings held on the job site.

4.4. **LICENSES**

The Contractor must carry the appropriate State of Arizona contractor's license for the proposed work at the time of bid. If the low bidder does not have the appropriate license, the City reserves the right to reject their bid and award the project to the lowest responsible bidder who has the appropriate license.

Prior to execution of the Contract, the low bidder must possess a valid City Transaction Privilege License and shall provide the Permit Number of such for validation.

4.5. **HAUL PERMIT**

In any operation where more than one-tenth of an acre of surface area is disturbed and/or when unpaved onsite haul roads are used, the Contractor will obtain a Maricopa County Earth Moving Permit as required under Rule 200 of the Maricopa County Division of Air Pollution Control Requirements. This permit will require that a Control Plan to mitigate dust and tracking problems be submitted to the County for approval prior to issuance of the Earth Moving Permit. The Control Plan should be submitted to the City for review prior to County submittal to ensure that all elements of the planned operation are covered. Please contact the Maricopa County Division of Air Pollution Control at 602-506-6700 for additional details.

In addition, all Contractors hauling fill or excavation materials where the haul exceeds 5,000 cubic yards or when the duration of the haul is more than ten (10) working days are required to obtain a City haul permit before the hauling operation begins. Prior to receiving a hauling permit, the Contractor must submit the required certificate of insurance, a plan showing the proposed haul routes and a complete schedule of their hauling operation to the City Transportation Division. Prior to submittal, the Contractor should contact Engineering Services for complete details for issuance of the City haul permit.

4.6. **MISCELLANEOUS REMOVAL AND RELOCATIONS**

Miscellaneous removals and relocations shall be construed to mean the removal of all unsuitable materials whether designated or implied by the plans and specifications, and shall include but not be limited to the removal of such items as pipes, concrete, asphalt, block, brick, rock, metal, etc. of every nature and description, unless such items are specifically designated in a separate bid item. Also, certain items require temporary removal and reinstallation such as mail box stands, sign posts, survey monument frames and covers, etc., and are included in this category.

4.7. **ENVIRONMENTAL REQUIREMENTS**

The Contractor shall comply with all federal, state, and municipal regulations, laws, and policies relating to air, ground water quality, and water conservation. In addition, the following requirements are applicable for City construction projects.

- 4.7.1. Non-pick up sweepers will not be allowed except as required to make joints during chip sealing operations.
- 4.7.2. Water flooding of trenches with potable water will not be permitted.
- 4.7.3. All paints applied by sprayers shall be of a water-based type.
- 4.7.4. Provisions shall be made to prevent the discharge of construction silt, mud, and debris into City storm drains or streets.
- 4.7.5. Spills of oil, gas, chemical, or any other hazardous materials must be reported and removed by approved procedures. Mitigation measures shall be taken to prevent contamination of construction storage sites.
- 4.7.6. Concrete waste must be disposed of in an approved location and at least 25 feet from established landscaping.
- 4.7.7. City refuse roll-off containers shall be used on City projects. If you should have any questions concerning any of the requirements or charges, please contact the Sanitation Supervisor, at 480-350-8268.
- 4.7.8. Hazardous wastes shall not be discharged into the City's sanitary sewers or storm drainage system. All waste products shall be disposed of in accordance with applicable regulations.
- 4.7.9. The discovery of archeological ruins or artifacts must be reported immediately, and excavation shall not resume in the identified area until approved by the Engineer.
- 4.7.10. The Contractor shall take whatever steps, procedures, or means to prevent abnormal, material spillage, or tracking conditions due to their construction operations in connection with the Contract. The dust control measures shall be maintained at all times during construction of the project, to the satisfaction of the City Engineer, in accordance with Rule 200 of the Maricopa County Health Department Air Pollution Control Regulations, which require that an Earth Moving Permit be issued and a Control Plan be approved prior to commencement of work. Contact Maricopa County at 602-506-6700 for details.
- 4.7.11. The Contractor shall comply with all applicable federal regulations concerning NPDES permits for storm discharges from construction sites.

4.7.12. All materials supplied by the contractor shall be 100% asbestos free unless otherwise approved by the City.

No additional payment will be made for compliance with the above items.

In addition to the above, the use of new products made with reclaimed material and that meet project specifications, is encouraged.

4.8. **SAFETY REQUIREMENTS**

The Contractor shall comply with all applicable federal, state, local, health and safety regulations, ordinances, and requirements. In addition, the following requirements are applicable for City construction projects.

4.9. **CLEAN-UP**

The Contractor shall, upon completion of the work, remove all temporary construction facilities, debris, and unused materials provided for in the work, and put the site of the work and public right-of-way in a neat and clean condition. No special payment will be made for this item.

4.10. **APPROXIMATE QUANTITIES**

It is expressly understood and agreed by the parties that the quantities of the various classes of work to be done and material to be furnished under this Contract, which have been estimated, as stated in the Invitation for Bids, are only approximate and are to be used solely for the purpose of comparing, on a consistent basis, the bids offered for the work under this Contract. The Contractor further agrees that the City will not be held responsible for any claim for damages or for loss of profits because of a difference between the quantities of the various classes of work as estimated and the work actually done.

If any error, omission, or misstatement is found to occur in the estimated quantities, the same shall not invalidate this Contract or release the Contractor from the execution and completion of the whole or any part of the work in accordance with the plans and specifications and for the prices agreed upon and fixed therefore, or excuse them from any of the Contract obligations or liabilities, or entitle them to any damages or compensation except as may be provided for in this Contract.

4.11. **BLUE STAKE**

The Contractor is required to notify Blue Stake (602-263-1100) prior to the excavation of any material in accordance with A.R.S § 40-360.22. The Contractor shall directly contact the City for marking of electrical for traffic signals, sprinkler and irrigation facilities.

4.12. **SALT RIVER PROJECT CONSTRUCTION CLEARANCE AGREEMENT**

Salt River Project requires all contractors who will be working on their facilities to sign a standard form "Construction Clearance Agreement" prior to issuance of a license. This Contract sets forth the requirements to complete the proposed work in an allotted time frame or to pay full costs for others to complete. It also obligates the Contractor to comply with all applicable federal, state, and local laws, rules, regulations, and ordinances including, but not limited to, the current OSHA Permit Required Confined Space rules. The Contractor is responsible for executing a "Construction Clearance Agreement" with Salt River Project, if required, and furnishing a copy to the City prior to proceeding with any construction on Salt River Project facilities.

4.13. **NOTIFICATION OF PROPERTY OWNERS**

All property owners that may be affected by the proposed construction activities shall be notified of scope and duration of the construction activities by the Contractor prior to start of construction.

4.14. **ACCESS**

Access shall be maintained to adjacent businesses at all times during construction. Where property has more than one point of access, no more than one access shall be restricted or closed at any one time. Access to adjacent private driveways shall be maintained during all non-working hours.

4.15. **PROTECTION OF EXISTING FACILITIES**

The Contractor is to protect all existing facilities during construction. Utility poles that may be affected by the construction activities shall be protected and/or braced by the Contractor. The Contractor shall notify the appropriate utility company or agency of any construction that may affect their facilities and state the course of action which will be taken to protect same.

4.16. **UNDERGROUND UTILITIES**

Underground utilities indicated on the plans are in accordance with maps furnished by the City and by each utility company. The locations are approximate only and require that the Contractor separately verify utility location prior to construction in compliance with City requirements for underground street crossings and potholing.

4.17. **RELOCATION OF UTILITIES**

Except as otherwise provided in the plans or specifications, all utilities in conflict with the new work will be relocated by the utility company.

4.18. **AMENDMENT OF CONTRACT**

No supplement, modification or amendment of any term of this Contract will be deemed binding or effective unless in writing and signed by the parties hereto and in conformation with provisions of this Contract except as expressly provided herein to the contrary.

4.19. **DUST PREVENTION**

The Contractor shall take whatever steps, procedures, or means to prevent dust conditions due to their construction operations in connection with this Contract. The dust control measures shall be maintained at all times during construction of the project, to the satisfaction of the Engineer, in accordance with requirements of the "Maricopa County Health Department Air Pollution Control Regulations."

Prior to the pre-construction meeting, the Contractor shall have an approved dust control plan approved by the Maricopa County Division of Air Pollution Control. For information and requirements for dust control plan submittal, please contact the following:

Maricopa County Division of Air Pollution
2406 S. 24th Street, Suite E-214
Phoenix, AZ 85034
602-506-6727

All costs associated with submittal, approval, and implementation of the dust control plan as approved by the County and shall be considered incidental to the project.

4.20. **INSURANCE AND BOND RATING REQUIREMENTS**

Personal or individual bonds are not acceptable.

Except where specifically exempted by statute, before the Contract is executed with the City, the Contractor shall furnish to the City payment and performance bonds required by and set forth in A.R.S. § 34-222. Bonding companies and liability and excess insurance carriers shall be "Best Rated A-VII" or better as currently listed in the most recent Best's Key Rating Guide (Property/Casualty) published by the A.M. Best Company. This requirement does not apply to the Workmen's Compensation/Employers Liability portion on the Certificate of Insurance.

Each such bond shall be executed by a surety company or companies duly licensed to do business in the State of Arizona. The bonds shall be written or countersigned by an authorized representative of the surety who is either a resident of the State of Arizona or whose principal office is maintained in this State and the bonds shall have attached thereto a certified copy of Power of Attorney of the signing official.

4.21. **MINIMUM LIMITS OF INSURANCE.**

4.21.1. Contractor shall maintain limits no less than:

- a. Commercial General Liability: \$2,000,000 combined single limit per occurrence for bodily injury and property damage, including coverage for contractual liability (including defense expense coverage for additional insureds), premises/operations, underground explosion and collapse hazard, personal injury, broad form property damage, products and completed operations, independent contractors and product liability. The general aggregate limit shall apply separately to this project/location or the general aggregate shall be twice the required occurrence limit.
- b. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage, including coverage for owned, hired, and non-owned vehicles as applicable.
- c. Excess Liability (umbrella form): As required.
- d. Workers' Compensation and Employers Liability: Workers' Compensation and Employers Liability statutory limits as required by the State of Arizona.
- e. Health Insurance: As required by the City.

The City shall have no responsibility or liability for such insurance coverage.

4.21.2. **Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared and approved by the City. At the option of the City, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officials, employees, and volunteers, or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration, and defense expenses.

4.21.3. **Other Insurance Provisions**

The policies or self-insurance certifications are to contain, or be endorsed to contain, the following provisions:

- a. Commercial General Liability and Automobile Liability Coverage:

The City, its officers, officials, employees, agents and volunteers are to be covered as additional insureds as respect to: liability arising out of

activities performed by or on behalf of the Contractor including the insured's general supervision of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor, or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees, agents or volunteers, for work related to the Contractors, employees, agents, subcontractors, or sub-subcontractors activities.

The Contractor's insurance coverage shall be primary as respect to the City, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the City, its officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute to it.

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its officers, officials, employees, agents, or volunteers.

Coverage shall state that the Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

b. Workers' Compensation and Employers Liability Coverage

The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, employees, agents and volunteers for losses arising from work performed by the Contractor for the City.

c. Health Insurance Requirements

All Contractors who enter into a contract in excess of \$30,000 with the City must certify that they have, and all of their subcontractors will have, health insurance for all project employees. Health insurance must be offered to eligible dependents of all such employees. An affidavit must be signed in the form included herein (Page AFF-2). Major subcontractors are defined as entities doing work in excess of \$30,000 as determined at the start of each project. All required health insurance must be maintained during the entire time of the Contract with the City.

Health insurance is required for all Contractor and major subcontractor employees who work more than one hundred and twenty (120) days in any calendar year. A "work day" consists of any time within a twenty-four hour period, regardless of number of hours that the individual is paid. At this time, health insurance is not required for temporary employees or students working part-time who are enrolled in a recognized educational institution.

The health insurance requirements shall apply to all employees directly involved with this City project including support and administrative personnel.

All complaints concerning violations of the health insurance requirements shall be filed, in writing, with the Public Works Department, within thirty (30) days from discovery of the violation. An administrative hearing will be held before the Public Works Manager, and a written decision of findings will be provided to the parties to the hearing within ten (10) days thereafter. Appeal from the decision of the Public Works Manager may be made within ten (10) days of the date of the decision by filing a notice of appeal in writing with the Public Works Department. If an appeal is timely filed, an administrative hearing will be held before an administrative hearing officer appointed by the City Manager. The decision of the administrative hearing officer shall be final.

In the event of a finding of violation of the insurance provisions, the company in violation of the provision shall be barred from bidding on, or entering into, any Public Works contract with the City for a period of three (3) years from the execution of the Contract.

All Contractors subject to the health insurance requirements shall post, in English and Spanish, notice of the health insurance requirements at its office and at the job site.

d. All Coverages

Each insurance policy required by this Contract shall be endorsed to state the coverage shall not be suspended, voided, and/or canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.

4.21.4. Other Insurance Requirements

Contractor shall:

Prior to commencement of services, furnish the City with certificates of insurance, in form and with insurers acceptable to the City which shall clearly evidence all insurance required in this Contract and provide that such insurance shall not be canceled, allowed to expire or be materially reduced in coverage except on 30 days prior written notice by certified mail to the City, and in accord with stated insurance requirements of this bid solicitation. MAG Specification 103.6 is fully incorporated into this Contract, except to the extent it conflicts with the limits set forth in this Contract. Prior to execution of the Contract, the Contractor shall furnish

the City with a Certificate of Insurance as evidence that policies providing the required coverages, conditions, and limits are in full force and effect. Such certificates shall identify the Project and shall provide for not less than thirty (30) days advance written notice to the City by certified mail of cancellation or termination. Any cancellation clause shall not include the phrases "endeavor to" or "but failure to do so shall impose no obligation or liability of any kind upon the insurer, its agents or representatives." City shall not be obligated, however, to review same or to advise Contractor of any deficiencies in such policies and endorsements, and such receipt shall not relieve Contractor from, or be deemed waiver of City's right to insist on, strict fulfillment of Contractor's obligations under this Contract.

Provide certified copies of endorsements and policies if requested by the City in addition to certificates of insurance.

Replace certificates, policies, and endorsements for any such insurance expiring prior to completion of services.

Maintain such insurance from the time services commence until services are completed. Should any required insurance lapse during the Contract term, requests for payments originating after such lapse shall not be processed until the City receives satisfactory evidence of reinstated coverage as required by this Contract, effective as of the lapse date. If insurance is not reinstated, City may at its sole option, terminate this Contract effective on the date of such lapse of insurance.

Place such insurance with insurers and agents licensed and authorized to do business in Arizona and having a "Best's" rating of no less than A-VII.

4.21.5. Subcontractors and Sub-Subcontractors

Contractor shall include all subcontractors and sub-subcontractors as insureds under its policies. All coverage for subcontractors and sub-subcontractors shall be subject to all of the requirements stated herein for the Contractor.

4.22. INDEMNIFICATION

To the fullest extent permitted by law, the Contractor, its successors, assigns and guarantors, shall defend, indemnify and hold harmless the City, its officers, officials, employees, agents and volunteers from and against all demands, actions, claims, damages, losses, expenses, judgments (including but not limited to, attorney fees, court costs, and the cost of appellate proceedings), arising out of, or alleged to have resulted from any acts, errors, mistakes, omissions, work or services of the Contractor, its agents, employees, or any tier of Contractor's subcontractors in the performance of this Contract.

Contractor's duty to defend, indemnify and hold harmless the City, its officers, officials, employees, agents and volunteers shall arise in connection with any claim for damage, loss or expense that is attributable to bodily injury, sickness, disease, death, or injury to, impairment, or destruction of any person or property, including loss of use resulting therefrom, caused by any negligent acts, errors, mistakes, omissions, work or services in the performance of this Contract by the Contractor, any agent or employee of the Contractor, any tier of Contractor's subcontractors or any other person for whose acts, errors, mistakes, omissions, work or services for which the Contractor may be legally liable.

The amount and type of insurance requirements set forth in this Contract will in no way be construed as limiting the scope of the indemnity provisions of this Contract.

4.23. **TRAFFIC CONTROL**

4.23.1. All traffic shall be regulated in accordance with the MAG Specifications; the City of Phoenix Traffic Barricade Manual, latest edition, City of Tempe Traffic Barricade Manual, latest edition (available through the City Transportation Division at 480-350-8219); the Manual on Uniform Traffic Control Devices (MUTCD); and any special provisions included herein.

At the time of the pre-construction conference, the Contractor shall designate an American Traffic Safety Services Association (ATSSA) certified individual who is well qualified and experienced in construction traffic control and safety, to be responsible for implementing, monitoring, and altering traffic control measures as necessary to insure that traffic is carried through the work area in an effective manner and that motorists, pedestrians, bicyclists, and workers are protected from hazard and accidents. At the same time, the City shall designate a representative who will be responsible to see that all traffic control and traffic control alternations are implemented per these traffic control specifications.

The Contractor shall have the full responsibility and liability for traffic control for this project. The Contractor shall submit a traffic control plan to the City Transportation Department for approval one week prior to beginning work under this Contract. It shall be noted that traffic under this Contract shall include all motor vehicles, bicyclists, and pedestrians.

During construction it may be necessary to alter traffic control as approved by the City Transportation Department. Alterations to traffic control shall be in accordance with the latest edition of Part VI of the Manual on Uniform Traffic Control Devices, Traffic Control for Streets and Highway Construction and Maintenance Operations, the latest edition of the ADOT Traffic Control Manual, City of Tempe Traffic Barricade Manual, latest edition or the City of Phoenix Traffic Barricade Manual,

latest edition. If the applicable provisions in these manuals conflict, the most restrictive provision shall apply here.

No measurement will be made for traffic control. No payment will be made for traffic control. The cost thereof shall be included in the price Bid for the construction or installation of the items to which such traffic control is incidental or appurtenant. Any revisions to the traffic control plan shall be submitted to the Transportation Division for review and approval.

In the event the Contractor damages any traffic signal equipment, traffic signal conduit, and/or circuits, they shall have them repaired immediately at their expense by an electrical contractor that has had traffic signal experience and has been pre-approved by the City. Any damage repaired by the City will be billed to the Contractor at twice the City's cost.

The Contractor shall notify all adjacent or affected residents or businesses at least 48 hours in advance of any street, alley, sidewalk, and driveway closures and make suitable arrangements to have all vehicles moved to a satisfactory location outside the closed area.

Pedestrian access shall be maintained along the length of the project at all times per the requirements of the ADA and as approved by the City Transportation Division.

Speed limits shall be strictly enforced.

For more information, please contact the City Transportation Division at (480) 350-8219.

4.23.2. Temporary Barricades

Temporary barricades shall be regulated in accordance with the City of Tempe Traffic Barricade Manual, latest edition (available through the City Transportation Division at (480) 350-8219) and the City of Phoenix Traffic Barricade Manual, latest edition.

No additional payment will be made for temporary barricades but will be considered a subsidiary item to those items for which payment is made.

4.24. NON-DISCRIMINATION

During the performance of this Contract, the Contractor agrees not to discriminate against any employee or applicant for employment because of race, age, color, religion, sex or national origin. The Contractor will take affirmative action to insure that applicants are employed and that employees are treated during

employment without regard to their race, age, color, religion, sex or national origin. Such action shall include but not be limited to the following:

Employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

The Contractor agrees to insert this Non-Discrimination clause in all work-related subcontracts except subcontracts for standard commercial supplies or raw materials. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this Non-Discrimination clause.

4.25. **LIQUIDATED DAMAGES**

Unless otherwise specified, liquidated damages will be applied in accordance with the MAG Specifications 108.9 and A.R.S. . Completion of the work as stated in this Contract is the same as completion of the work as stated in MAG Specifications 108.9. Damages will be applied at the amounts specified in Table 108-1.

4.26. **TERMINATION**

In addition to MAG Specifications 108.11 and A.R.S. §38-511, the City, at its sole discretion, may terminate this Contract for convenience or abandon any portion of the project for which services have not been performed by the Contractor.

In the event of such termination or abandonment, the Contractor shall deliver to the City all drawings, special provisions, field survey notes, reports, estimates and any and all other documents or work product generated by the Contractor under the Contract, entirely or partially completed, together with all unused materials supplied by the City.

If the City terminates or abandons the Contract, the City shall make final payment within sixty (60) days after the Contractor has delivered the last of the completed items and the City has approved and determined the final fee.

4.27. **DEFAULT PROVISIONS**

4.27.1. The Contractor shall be deemed in default under this Contract upon the occurrence of any of the following events:

- a. The Contractor fails to begin work under this contract within a reasonable time;

- b. The Contractor fails to perform the work with sufficient workmen and equipment or with sufficient materials to assure the prompt completion of work;
- c. The Contractor performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable;
- d. The Contractor discontinues the prosecution of the work;
- e. The Contractor fails to resume work which has been discontinued within a reasonable time after notice to do so;
- f. The Contractor at any time colluded with any party or parties;
- g. The Contractor allows any final judgment to stand against him unsatisfied for a period of fourteen (14) calendar days; or
- h. The Contractor for any cause whatsoever, fails to carry on the work in an acceptable manner.

In case of default, the City Engineer will give notice in writing to the Contractor and his surety of such delay, neglect, or default, and advise them that the work must be resumed immediately.

If the Contractor or surety, within a period of fourteen (14) calendar days after such notice, has not proceeded in the accordance therewith, then the City will, upon written notification from the City Engineer of the fact of such delay, neglect or default and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the prosecution of the work out of the hands of the Contractor. The City may appropriate or use any or all materials and equipment on the ground as may be suitable and acceptable and may enter into an agreement for the completion of said contract according to the terms and provisions thereof, or use such other methods as in the opinion of the City Engineer will be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the City, together with the cost of completing the work under contract, will be deducted from any monies due or which may become due to the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the City the amount of such excess.

4.28. JURISDICTION

This Contract will be deemed to be made under and will be construed in accordance with and governed by the laws of the State of Arizona without regard

to the conflicts or choice of law provisions. An action to enforce any provision of this Contract or to obtain any remedy with respect hereto will be brought in the Superior Court of Arizona in and for Maricopa County and for this purpose, each party hereby expressly and irrevocably consents to the jurisdiction and venue of such court.

4.29. **DISPUTE RESOLUTION**

In the event of a dispute concerning questions of fact that arise during the course of the Contract, the parties will meet in good faith to attempt to resolve such questions. MAG Specifications 110 is fully incorporated into this Contract.

4.30. **SUCCESSORS AND ASSIGNS**

This Contract shall not be assignable except at the written consent of the parties hereto and it shall extend to and be binding upon the heirs, executors, administrators, successors, and assigns of the parties hereto.

4.31. **NON-WAIVER**

The failure of either party to enforce any of the provisions of this Contract or to require performance by the other party of any of the provisions of this Contract will not be construed as a waiver of such provisions nor will it affect the validity of this Contract or any part thereof or the right of either party to thereafter enforce each provision.

4.32. **SURVIVAL**

All warranties, representations and indemnifications by the Contractor will survive the completion or termination of this Contract.

4.33. **SEVERABILITY**

If any provision of this Contract or the application thereof to any person or circumstance is held invalid, illegal or unenforceable to any extent, the remainder of this Contract and the application thereof will not be affected and will be enforceable to the fullest extent permitted by law.

4.34. **INTEGRATION**

This Contract contains the full agreement of the parties hereto. Any prior or contemporaneous written or oral agreement between the parties regarding the subject matter hereof is merged and superseded hereby.

4.35. **TIME IS OF THE ESSENCE**

Time of each of the terms, covenants and conditions of this Contract is hereby expressly made of the essence.

4.36. **THIRD PARTY BENEFICIARY**

This Contract will not be construed to give any rights or benefits in the Contract to anyone other than the City and the Contractor. All duties and responsibilities undertaken pursuant to this Contract will be for the sole and exclusive benefit of the City and the Contractor and not for the benefit of any other party.

4.37. **CONFLICT OF INTEREST**

The Contractor agrees to disclose any financial or economic interest with the project property, or any property affected by the project, existing prior to the execution of this Contract. Further, the Contractor agrees to disclose any financial or economic interest with the project property, or any property affected by the project, if the Contractor gains such interest during the course of this Contract.

If the Contractor gains financial or economic interest in the project during the course of this Contract, this may be grounds for terminating this Contract. Any decision to terminate the Contract shall be at the sole discretion of the City.

The Contractor shall not engage the services on this Contract of any present or former City employee who was involved as a decision maker in the selection or approval processes, or who negotiated or approved billings or Contract modifications for this Contract.

4.38. **COOPERATION AND FURTHER DOCUMENTATION**

The Contractor agrees to provide the City such other duly executed documents as may be reasonably requested by the City to implement the intent of this Contract.

This Contract shall be in full force and effect only when it has been approved by the City Council of the City of Tempe, Arizona, and when executed by the duly authorized City officials and the duly authorized agent of the Contractor.

4.39. **NOTICES/CONTRACT ADMINISTRATOR**

All notices relating to this Contract should be sent to the following individual, who is also the administrator of this Contract.

City of Tempe
Andy Goh, P.E.
Deputy PW Manager/City Engineer
31 E. Fifth Street, garden level
Tempe, Arizona 85281

This Contract shall be in full force and effect only when it has been approved by the City Council of the City of Tempe, Arizona, and when executed by the duly authorized City officials and the duly authorized agent of the Contractor.

5. **SPECIAL TERMS AND CONDITIONS**

5.1. **PERMITS**

The Contractor shall be required to obtain all permits and licenses for this project and pay all applicable fees, unless otherwise noted on the plans and specifications. The Contractor shall be paid for actual costs of the permit and license fees upon submitting a receipt showing the fee he has paid. Excluded from the above allowance are items such as all costs incurred by the Contractor in securing the permit except for the actual permit fee established by the agency, costs for all shutdowns or outages, cost for pole bracing, cost for any additional insurance requirements, and other similar type costs. There will be no charge to the Contractor for any of the necessary City of Tempe permits and inspections. The Contractor shall abide by all stipulations of all licenses and permits issued for this project

5.2. **PHONE NUMBERS**

City of Tempe Streets PM	Toby Crooks	480-350-8565
City of Tempe Streets Superintendent	Denise Brewer	480-350-8409
City of Tempe Engineering	Mauricio Jara	480-350-8523
City of Tempe Engineering/Inspector	Larry Fosholt	480-350-2922
City of Tempe Transportations	R.C. Noderer	480-350-8893
City of Tempe Traffic Operations		480-350-8284
City of Tempe Streets		480-350-8229
Blue Stake Center		602-263-1100

5.3. **MEASUREMENT AND PAYMENT**

Quantities of materials for this work shall be paid under the appropriate schedule at the applicable contract price per unit of measurement, with no allowances for waste. Payment will be made after completion, acceptance, and upon receipt of approved invoices. Ten percent (10%) of the bid price will be kept as a retainer until the City Engineer approves the work completed to the City's standards.

Payment for various items in the bid shall be compensation in full for furnishing all materials, labor, tools, equipment, and appurtenances necessary to complete

the work in a satisfactory manner as specified. No additional payment will be made for work related to any items unless specifically called for in the bid. No payment will be made for materials used to patch or repair unacceptable work.

Payment shall be made as directed in Section 109 of "MAG Uniform Standard Specifications for Public Works Construction", and revisions thereafter.

Total quantities, indicated in the proposal are approximate and for bidding purposes only.

Materials placed without approval of the inspection, or materials rejected due to improper placing, improper proportions of material or materials found to be defective, will not be paid for. Defects will be corrected at the expense of the Contractor. Corrections will depend on the severity of the defect and may include removal of defective, improperly placed or poorly placed material

5.4. **LOOP DETECTORS**

Traffic signal loop wires may be damaged during the course of this project. Twenty-four hours prior to cutting any loops, the Contractor shall call Traffic Operations at 480-350-8284 so that arrangements can be made to modify signal timing. Loop replacement will be coordinated with Traffic Operations and their contractor so that loop wiring can be placed on the base or recycled base course prior to final surface paving. Should the Contractor damage any traffic signal equipment, traffic signal conduit and/or circuits through negligence, an electrical contractor with traffic signal experience, pre-approved by the City of Tempe, shall replace them immediately, at the Contractor's expense. Any such damage repaired by the City will be billed to the Contractor at twice the City's cost.

5.5. **SOURCE OF MATERIALS AND QUALITY**

The Contractor is responsible for providing quality control measures/testing necessary to provide acceptable quality in the production, handling, and placement of all materials. The City of Tempe's testing is for assurance and acceptance. The cost of control measures/testing shall be incidental to the project.

5.6. **COMMUNITY RELATIONS**

5.6.1. **General.**

The Contractor shall provide assistance for this project's community relations program. The program assistance shall include, but not necessarily be limited to:

- (A). Participate in public meetings as required by the Engineer.
- (B). Provide informational signage.
- (C). Distribution of community relations program notices and fliers as required by the Engineer.

The Contractor shall assist the City's public information program by providing information needed to inform the local residents and businesses of necessary operations which create high noise levels, street closures, detour locations, haul routes and material delivery routes, hours of construction, and disruption of bus routes and other delivery/pick-up routes.

The Contractor shall assist the Engineer in responding to questions or complaints concerning construction operations or procedures.

The Contractor shall notify all residents by handbill a maximum of 48 hours and minimum of 24 hours in advance of any street restriction that will affect access to their property. The notification shall include the statement that street parking will not be permitted weekdays during construction hours.

The Contractor shall submit the handbill to the Engineer for approval, prior to it's distribution. If the work does not occur on the specified day, the Contractor shall distribute a new notification. Costs associated with re-notifications due to the Contractors delays shall not be subject to reimbursement.

5.6.2. Meetings.

The Contractor shall attend and participate in public meetings deemed necessary by the Engineer. Meeting times, locations, and agenda will be determined by the Engineer with the assistance of the City's community relations' staff. The Contractor may be required to attend a public pre-construction meeting at a location convenient to residents and business operators affected by the project. This meeting may be conducted after execution of contract documents and prior to the start of construction.

5.6.3. Informational Signage.

The Contractor shall provide and install information signs. Signing shall be installed at least (14) days before beginning construction to inform the public of the forthcoming project, construction dates, and suggested alternate routes. Sign layout examples are available from the Engineer. Signs shall not be constructed or installed prior to approval by the Engineer of the designs, sizes and proposed locations. The Contractor shall maintain the signs as necessary and update the information as requested by the Engineer. Project information signs but their location shall be shown in the Traffic Control Plan. Advanced Project Notification signing shall be installed by the Contractor on each road segment at each end of the project limits. For subdivision roads, the signs shall be installed

at major entrances. These signs shall be installed at least (7) days prior to the start of construction activities

5.7. **VALVE BOXES, MANHOLE FRAMES AND COVERS AND SURVEY MONUMENTS**

The Contractor is solely responsible for the protection, tying out, adjustment and replacement of the above mentioned items during construction. All adjustments or replacements shall be accomplished in accordance with Section 245 or 405 of the MAG Specifications and Details T-445, T-446 of the Tempe Supplement to the MAG Details.

The City of Tempe will provide survey control points only. A twenty-four (24) hour notice will be required for all requests. The Contractor will provide all other staking

5.8. **MAINTENANC OF DRAINAGE SYSTEM**

During the construction period, the Contractor shall maintain access of nuisance and storm water runoff to the existing drainage system. Pumping or channeling of water at the construction site is the responsibility of the Contractor and must be to an approved location.

5.9. **SCHEDULING OF WORK**

The Contractor will at any one time be required to confine his operations to a limited area according to a scheduling plan to be approved by the City Engineer. Any requests for changes in the approved schedule will be submitted, in writing to the Project Manager. If ambient temperatures adversely effect the work, operations may be postponed until suitable conditions prevail. If necessary, weekend work may be required or allowed at the direction of the City Engineer. The Contractor shall submit a scheduling plan prior to the pre-construction conference for approval of the City Engineer. Construction will not begin until the schedule is approved.

5.10. **CONTRACT EXTENSIONS**

By mutual written contract amendment, any resultant contract may be extended for supplemental periods of up to a maximum of twenty-four (24) months. Any single extension period should be in increments, of not more than twelve (12) months each.

The prices bid shall be maintained for any extension period unless the Contractor can demonstrate to the satisfaction of the City that the cost of his materials or service has increased.

The Contractor will be required to submit for approval, a new schedule for work to be performed under any Contract extension or renewal.

5.11. **UNIFORMED OFFICER**

During the course of construction, it may be required to have a uniformed police officer present to facilitate traffic control per the Tempe Barricade Manual and the Traffic Engineer's direction. Uniformed police officers will be coordinated by the Contractor and paid for by the City. Off-duty officers require 48 hours notice (2 working days) prior to beginning construction. If Tempe off-duty officers are not available, officer from other municipalities may be used if approved by the City Engineer.

5.12. **SWEEPING**

The Contractor shall be responsible for all sweeping. Sweeping will be done using a self-propelled pick-up sweeper supplemented by hand brooms when necessary.

5.13. **DRIVEWAYS**

The Contractor will protect and clean all driveway entrances of asphalt material and loose aggregate.

5.14. **DUST PREVENTION**

The Contractor shall take whatever steps, procedures, or mean to prevent dust conditions due to his construction operations in connection with this Contract. The dust control measures shall be maintained at all times during construction of the project, to the satisfaction of the Engineer, in accordance with requirements of the "Maricopa County Health Department Air Pollution Control Regulations".

Prior to the pre-job meeting, the Contractor shall have an approved dust control plan, approved by the Maricopa County Division of Air Pollution Control. For information and requirements for dust control plan submittal, please contact the following:

Maricopa County Division of Air Pollution
2406 S. 24th Street, Suite E-214
Phoenix, AZ 85034
Phone: 602-506-6727

All costs associated with submittal, approval, and implementation of the dust control plan, as approved by the County, shall be considered incidental to the project.

5.15. **MACHINE CALIBRATION AND VERIFICATION**

All equipment used to apply the chip seal for the Contract shall be calibrated prior to construction and proven to the engineer during the test strips. All units to be used on the job shall be approved prior to start of construction.

Any costs associated with calibration shall be incidental to the project. Documentation shall include an individual calibration of each material at various settings, which can be related to the machines metering devices. No machine will be allowed to work on the project unless the calibration has been completed and accepted. The method used to calibrate the machines shall be submitted to the engineer for approval prior to calibration. Verification is to be performed with test strips.

This shall include pre and post weighing of truck. Recalibration shall be required whenever counters or measuring devices are discovered to be in error. Any costs associated with recalibration shall be incidental to the project and no additional time will be granted.

Test strips will be made by each machine prior to construction. Samples of the asphalt rubber mixture will be taken and tested as to mix consistency, proportioning and application rate. Upon failure of any tests or retests shall be made at the Contractor's expense. Any unit failing to pass the tests will not be permitted to work on the project

5.16. **JOINT, LINES AND HANDWORK**

The work on cul-de-sacs, intersection aprons (radii), and localized pavement widening that is for the boot truck to cover shall be done by hand crew to neat lines and will precede the chip seal train.

Every effort shall be made by the Contractor to leave neat lines for the boot truck to match without overlapping or missing areas in accordance with MAG Section 335. The head crew foreman will record daily, on a set of contract plans and sheets supplied by the contractor, the work completed and areas missed by the hand crew. The reason for skipping an area shall be included in this report. This record shall be submitted with the day's materials tickets to the inspector before starting the next day's work. Load tickets are to be delivered to the City Inspector for each completed load as each truck arrived at the job site. Work shall not begin until the inspector is in receipt of all invoices, tickets, etc., pertinent to the previous day's work.

All areas temporarily omitted by the Contractor during operations shall be logged and a list of the missed areas (addresses or intersections) given to the Inspector before the start of the next day's work. Areas missed by the chip train or hand crew shall be completed within five (5) working days, including weekends if behind schedule, and reported as completed on day after the work takes place.

If any missed areas are not completed within five (5) working days, the Contractor shall not be allowed to advance to the next local area or major or collector street until such time as all missed areas have been completed.

5.17. **SITE PREPARATION**

The Contractor shall be responsible for clearing the street of any obstruction (low tree limbs, trash piles, vegetation in cracks, etc.) interfering with the completion of the contract. Provide the impacted residents with 24-hour notice prior to all tree trimmings.

The maximum distance that the hot asphalt rubber shall be applied in advance of the chips shall be 100 feet.

The Contractor shall be responsible for damage to automobiles asphalt rubber over spray or aggregate related to the Contractor's work.

5.18. **SURVEYING**

The Contractor shall be responsible to provide all survey services needed for the project and will be incidental to the final contract price.

5.19. **BARRICADING AND SIGNAGE**

The Contractor shall also provide as part of the traffic control signs for the following: Speed Limit 25 MPH, Fresh Oil, Loose Gravel, and any other signs which are required to direct or advise the motoring public.

The Contractor shall be responsible for maintaining the necessary barricades and delineators until the Contractor can re-stripe areas where treatment has been applied. Coordination of application and re-striping shall be handled by the Contractor. The Contractor will be responsible to provide shop drawings of the existing striping and all striping shall be replaced in-kind unless directed by the Public Works Director or his designee.

5.20. **EQUIPMENT REPLACEMENT**

Any equipment or piece of equipment that fails to produce the desired surface shall be repaired and/or replaced by the Contractor at not cost to the City. The engineer shall determine if the equipment and/or finished product is compliance.

5.21. **PROTECTION OF COVERS**

All manhole, valve and survey monument covers and fire hydrant spotters shall be protected by the contractor seal coat. When in opinion of the Inspector, the manhole, valve, or survey monument should be adjusted to final grade, the

Contractor shall do so in accordance with the appropriate Maricopa Association of Government's Detail.

The Contractor shall submit to the City a sample of each material to be used, at least ten (10) days before application begins.

5.22. **BID QUANTITIES**

The quantities listed in the specifications are for bid purposes. The actual quantities provided to the Contractor may be adjusted to accommodate field requirements.

5.23. **COMPLAINTS FROM THE GENERAL PUBLIC**

The Contractor shall respond to any and all claims or complaints from the general public in a reasonable and prompt manner.

5.24. **QUANTITY ADJUSTEMENTS**

The City of Tempe reserves the right to either increase or decrease the scope of work by twenty-five percent (25%) without an adjustment in the unit price.

5.25. **LOCATION OF THE WORK**

The work includes all streets within the boundaries as shown in the Technical Specifications.

6. **TECHNICAL SPECIFICATIONS**

The Technical Specifications and Attachments 1 through 3 (Filter Presses) are attached hereto as Exhibit "A" and incorporated herein by this reference.

7. **EVALUATION AND AWARD**

7.1. **AWARD OF CONTRACT**

A Contract will be awarded or bids rejected within sixty (60) days after bid opening.

7.2. **EXECUTION OF CONTRACT AND BONDS**

The form of the Contract, which the successful bidder will be required to execute and the form of bonds which they will be required to furnish, should be carefully examined by the bidder. The successful bidder will be required to execute the bonds and the Contract in one (1) original counterpart within ten (10) days after formal Notice of Award of Contract. Failure to execute the Contract and file with the City satisfactory payment and performance bonds within ten (10) calendar

days after the date of Notice of Award shall be just cause for the cancellation of the Award and the forfeiture of the bid security which shall become the property of the City, not as penalty, but in liquidation of damages sustained. Award may then be made to the next lower responsible bidder or the proposed work may be re-advertised.

7.3. **PLANS TO THE SUCCESSFUL BIDDER**

The successful bidder may obtain (7) sets of plans and specifications for this project from the office of the City Engineer, at no cost.

If they desire more than seven (7) sets, the successful bidder shall be required to pay the reproduction cost of fifteen dollars (\$15.00) each.

8. **EXHIBITS**

The parties agree that all references to this Contract include all Exhibits designated in and attached to this Contract, such Exhibits being incorporated into and made an integral part of this Contract for all purposes.

- 8.1. Check Sheet
- 8.2. Competitive Sealed Bid
- 8.3. Contract
- 8.4. Bidders Project References
- 8.5. List of Subcontractors
- 8.6. Competitive Sealed Bid Certification Form
- 8.7. Statutory Performance Bond Pursuant to A.R.S. §34-222
- 8.8. Statutory Payment Bond Pursuant to A.R.S. §34-222
- 8.9. Contractor's Affidavit Regarding Settlement of Claims
- 8.10. Affidavit of General Contractor / Prime Consultant Regarding Health Insurance
- 8.11. City of Tempe Guidelines for Implementation of Health Insurance

8.1. CHECK SHEET

This check sheet contains a listing of items to be included in the sealed bid by the Contractor:

	Included
Competitive Sealed Bid Forms (note receipt of addenda) B-1 to B-3	<input type="checkbox"/>
Competitive Sealed Bid Certification Form BC-1	<input type="checkbox"/>
Bidders Project References PR-1	<input type="checkbox"/>
List of Subcontractors SB-1	<input type="checkbox"/> Separate Envelope
Bid Bond (as per General Provisions) G-2	<input type="checkbox"/>
Safety Information (as per General Provisions)..... G-9	<input type="checkbox"/> Separate Envelope
Health Insurance Affidavit..... AFF-2	<input type="checkbox"/> Separate Envelope

8.2. COMPETITIVE SEALED BID

Place: Tempe, Arizona

Date: 09/24/08

Mayor and City Council
City of Tempe
Tempe, Arizona 85281

In compliance with your invitation for bids and all conditions of the Contract, the International Surfacing Systems, a corporation or limited liability corporation organized under the laws of the State of California, a partnership consisting of _____ or individual trading as _____, of the City of _____, and the County of _____, hereby proposes and agrees to furnish any and all plant, materials, labor, construction equipment, service and transportation (all applicable taxes included) of the **CAPE SEAL PAVEMENT (PROJECT NO. 5409121)** and to install the material therein for the City in a good and workmanlike and substantial manner and to the satisfaction of the City, or their properly authorized agents and strictly pursuant to and in conformity with the Contract and other documents that may be made by the City or their properly authorized agents, as provided herein, at the following prices:

The undersigned hereby declares that they have visited the site and has carefully examined the Contract related to the work covered by the above bid.

The Undersigned understands that the City of Tempe reserves the right to award a Contract to the lowest and/or best responsible bidder, to reject all bids, and to waive any informalities in any bid deemed to be in the best interests of the City.



City of Tempe

Project No. 5409121
Cape Seal Pavement
INTERNATIONAL SURFACING SYSTEMS

Base Bid

Item No.	Item Name	Quantity	Unit	Unit Cost	Total Cost
1	3/8' PRE-COATED AGGREGATE	1730	TN	\$74.26	\$128,469.80
2	RUBBERIZED ASPHALT CEMENT	294	TN	\$987.00	\$290,178.00
3	FLUSH COAT (QSH-1)	30	TN	\$856.00	\$25,680.00
4	ADJUST MANHOLE, LID, FRAME	10	EA	\$315.00	\$3,150.00
5	ADJUST VALVEVOX	10	EA	\$231.00	\$2,310.00
6	REPLACE SURVEY MONUMENT	10	EA	\$120.75	\$1,207.50
7	EDGE MILL	11000	LF	\$1.14	\$12,540.00

Total Base Bid: \$463,535.30

Performance shall not start until after receiving the Notice to Proceed, and the work will be completed within sixty (60) consecutive calendar days after receiving the Notice to Proceed.

The Undersigned hereby acknowledges receipt of the following Addenda:

Addendum 1 issued 9/17/08 and their bid has been adjusted to reflect any changes.

Respectfully submitted,

By: _____
(Name) (Signature)

(Title)

ROC123749 Eng. A
Contractor's License No.

77-0447991
Federal I.D. No./Social Security No.

(Corporate Seal)

For: _____
(Company Name)

Certified to be a true and exact copy

Address: 6751 W. Galveston Street
Chandler, AZ 85226

Karen M. Fillmore, Records Specialist

Phone: 480-940-9690

Fax: 480-940-4996

8.3. CONTRACT

THIS CONTRACT, made and entered into this 16th day of October, 2008, by and between the City of Tempe, a Municipal Corporation, organized and existing under and by virtue of the laws of the State of Arizona, hereinafter designated the **OWNER**, and International Surfacing Systems, of the City of Chandler, County of Maricopa, and State of Arizona, hereinafter designated as the **CONTRACTOR**:

WITNESSETH: That said Contractor, for and in consideration of the sum to be paid him or her by said Owner, in the manner, amount and at the time hereinafter provided in the "Bid" and of the other covenants and agreements herein contained, and under the penalties expressed in the bonds hereto attached, hereby agrees, for himself, his heirs, administrators, successors, and assigns as follows:

ARTICLE I - SCOPE OF THE WORK: The Contractor shall furnish any and all plant, materials, labor, construction equipment, services and transportation (all applicable taxes included) required for performing all work for the installation of the

CAPE SEAL PAVEMENT PROJECT NO. 5409121

for the sum of Four Hundred Sixty Three Thousand Five Hundred Thirty Five and 35/100 Dollars (\$463,535.30) (Base Bid), and to construct the same and install the material therein for the Owner, in a good and workmanlike and substantial manner and to the satisfaction of the Owner or his properly authorized agents and strictly pursuant to and in conformity with the Specifications and Plans for the above referenced project(s) and other documents that may be made by the Owner through the Engineer or his properly authorized agents, as provided herein.

ARTICLE II - CONTRACT DOCUMENTS: The Notice to Contractor, General Provisions, Special Provisions, Technical Specifications, Maricopa Association of Governments 2008 Uniform Standard Specifications for Public Works Construction and Maricopa Association of Governments 2008 Uniform Standards Details for Public Works Construction as amended by the City of Tempe, Bid, Plans, together with Bid Security, Performance Bonds, Payment Bond, and Addenda thereto, if any.

ARTICLE III - TIME OF COMPLETION: The Contractor further covenants and agrees at his own proper cost and expense, to do all work and furnish all plant, materials, labor, construction equipment, services and transportation for performing all of the work for the construction of said improvements and to construct the same and install the material therein, as called for by this Contract free and clear in all claims, liens, and charges whatsoever, in the manner and under the conditions specified within the time stated in this proposal.

Contract - Continued

IN WITNESS WHEREOF, this Contract has been duly executed by the parties hereinabove named, on the date and year first herein written.

CITY OF TEMPE,
a municipal corporation

By: _____
Name

Its: _____
Title

ATTEST:

Recommended by:

Authorized Officer

Deputy PW Manager/City Engineer

Official Title

(Corporate Seal)

APPROVED AS TO FORM:

City Attorney

The Contractor warrants that the person who is signing this Contract on behalf of the Contractor is authorized to do so and to execute all other documents necessary to carry out the terms of this Contract.

CONTRACTOR:

International Surfacing Systems
Company Name

By: _____
Name

Its: _____
Title

City of Tempe Transaction Privilege
License (Sales Tax) Permit No.

Certified to be a true and exact copy

(Corporate Seal)

Karen M. Fillmore, Records Specialist

Witness: If Contractor is an Individual

STATEMENT OF EXPERIENCE OF BIDDER

INTERNATIONAL SURFACING SYSTEMS

6751 W. Galveston Street Chandler, AZ 85226

Type of Project	ISS Job No.	Owner / Agency	Project Name	Contract Amount	Contact Name	Year
Chip Seal	08-065	ADOT 1739 W. Jackson Phoenix, AZ 85007	US 60 Within the Prescott District	917,266.00	Mike Mitchell Ph: 602-712-8516 Fax: 602-712-3151	2008
Chip Seal	08-030	ADOT 1739 W. Jackson Phoenix, AZ 85007	Flagstaff District Double Chip Seal US 89A	539,209.00	Mike Mitchell Ph: 602-712-8516 Fax: 602-712-3151	2008
AR Chip Seal	08-110	Pinal County PO Box 727 Florence, AZ 85232	Pavement Preservation 08-09 Dist. 3	727,023.00	Gloria Bean Ph: 520-866-6411 Fax: 520-866-6899	2008
AR Chip Seal	07-295	Maricopa County Dept. of Transportation 2901 W. Durango St. Phoenix, AZ 85009	Rubberized Bituminous Treatment	181,932.00	Herb Miller Ph: 602-506-4507 Fax: 602-506-8138	2008
AR Chip Seal	07-150	Bureau of Indian Affairs 400 N. 5th Street Phoenix, AZ 85004	P.I.R. Chip Seal No. 8	1,713,347.00	Doris Hyeoma Ph: 602-379-4015 Fax: 602-379-6763	2007
Chip Seal	07-025	Lake Havasu City Works Operations Street Division 2330 McCulloch Blvd Lake Havasu City, AZ 86403	2006 - 2007 Chip Seal Program	522,066.00	Harry Brown Ph: 928-855-0336 Fax: 928-680-4247	2007
Chip Seal	07-130	ADOT 1739 W. Jackson Phoenix, AZ 85007	SR71 Prescott District	669,819.00	Ellen Farmer Ph: 602-712-7211 Fax: 712-8647	2007
Chip Seal	07-260	Town of Camp Verde PO Box 710 Camp Verde, AZ 86322	Chip Seal Pavement Preservation	418,824.00	Marvin Buckel Ph: 928-567-6631 Fax: 928-567-9061	2007
A-R Chip Seal	06-565	Calaveras County, Dept. Public Works 891 Mountain Ranch Road San Andreas, CA 95249	Asphalt Rubber Chip Seal Coat	2,291,038.00	Rob Houghton Ph: 209-754-6401 Fax: 209-754-6641	2006
A-R Chip Seal	06-090	California Department of Transportation 1727 30th Street Sacramento, CA 95816	CDOT 01-462004 Humboldt County Rte 96	660,315.00	Alan Radford Ph: 530-629-3342 Fax: 530-629-2649	2006
A-R Chip Seal	06-170	California Department of Transportation 1727 30th Street Sacramento, CA 95816	CDOT 09-335304 Mono County Rte 395	1,391,262.00	Dan Deyo Ph: 760-786-9948 Fax: 530-629-2649	2006
A-R Chip Seal	05-110	Yavapai County 1100 Commerce Drive Prescott, AZ 86305	Williamson Valley Road Project No. 2512862	335,838.86	Byron Jaspers Ph: 928-771-3183 Fax: 928-771-3167	2005
A-R Chip Seal	05-116	Town of Chino Valley 1020 W. Palomino Rd. Chino Valley, AZ 86323	AR Chip Seal 2005	395,271.00	Larry Wright Ph: 928-636-7140 Fax: 928-636-2144	2005
A-R Chip Seal	05-129	TXDOT PO Box 97 Fort Stockton, TX 79735	Culbertson, Etc. CPM 2-30-7	3,439,164.00	J.H. Strain & Sons / Kent Strain Ph: 325-692-0067	2005

Chip Seal	04-003	Lake Havasu City Works Operations Street Division 2330 McCulloch Blvd Lake Havasu City, AZ 86403	2003 - 2004 Chip Seal Program	438,896.97	Harry Brown Ph: 928-855-0336 Fax: 928-680-4247	2004
Chip Seal	04-100	City of Peoria 8401 W. Monroe Peoria, AZ 85345	A-R Chip Seal Project P03-0040	1,050,183.16	Kimberly Benedict Ph: 623-773-7115 Fax: 623-773-7118	2004
Chip Seal	04-002	MC DOT 2901 W. Durango Street Phoenix, AZ 85009	Chip Seal Project Spring 2004	1,321,943.00	Herb Miller Ph: 602-506-8600 Fax: 602-506-4858	2004
Chip Seal	03-001	TXDOT PO Box 1094 Morton, TX 79346	Lamb County Hwy FM0037	1,320,410.29	Steven Perez Ph: 806-745-4411	2003
Chip Seal	03-003	ADOT Procurement PO Box 10590 Casa Grande, AZ 85230	Chip Seal Project Tucson District SR238	214,000.00	Jesse Garza Ph: 520-836-2240 Fax: 520-426-1803	2003
Chip Seal	03-004	ADOT Procurement US 60 MP 253 Globe, AZ 85501	Chip Seal Project on SR273 Globe District	227,210.00	Mania Melendez Ph: 928-425-7638	2003

8.6.
CITY OF TEMPE
TEMPE, ARIZONA
DEPARTMENT OF PUBLIC WORKS

COMPETITIVE SEALED BID CERTIFICATION FORM

Proposer certifies that it is a: proprietorship _____; partnership _____; corporation X .

Arizona Sales Tax No. 07-494714-D

Use Tax No. for Out-of-State Supplier N/A

City of Tempe Sales Tax No. 57184

Taxpayer's Federal Identification No. 77-0447991

Proposer certifies that he has read, understands, and will fully and faithfully comply with this Competitive Sealed Bid its attachments and any referenced documents. Proposer also certifies that the prices offered were independently developed without consultation with any of the other Proposers or potential Proposers.

Company's Legal Name	<u> International Surfacing Systems, Inc. </u>
Address	<u> 6751 W. Galveston Street </u>
City, State and Zip Code	<u> Chandler, AZ 85226 </u>
Telephone Number	<u> 480-940-9690 </u>
Company's Fax Number	<u> 480-940-4996 </u>
Company's Toll Free Number	<u> 800-528-4548 </u>
E-Mail Address	<u> greg.erks@chipseal.com </u>
Signature	<u>  </u>
Printed Name and Title	<u> Marc Bertsch, Vice President </u>

MAILING ADDRESSES

Purchase Order Address: (If different from above)

Name Same

Address _____

City, State and Zip Code _____

Payment Address: (If different from above)

Name International Surfacing Systems

Address PO Box 4770

City, State and Zip Code Modesto, CA 95352

8.7.

STATUTORY PERFORMANCE BOND PURSUANT TO TITLE 34,
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS:

That, _____ (hereinafter called the Principal), as Principal and
_____, a corporation organized and existing under the laws of the
State of _____, with its principal office in the City of _____, (hereinafter
called the Surety), are held and firmly bound unto _____ (hereinafter
called the Obligee) in the amount of _____ Dollars (\$_____),
for the payment whereof, the said Principal and Surety bind themselves, and their heirs,
administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee,
dated the 16th day of October, 2008, to complete Project No. 5409121 which
contract is hereby referred to and made a part hereof as fully and to the same extent as if copied
at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the
said Principal shall faithfully perform and fulfill all the undertakings, covenants, terms,
conditions and agreements of said contract during the original term of said contract and any
extension thereof, with or without notice to the Surety, and during the life of any guaranty
required under the contract, and shall also perform and fulfill all the undertakings, covenants,
terms, conditions, and agreements of any and all duly authorized modifications of said contract
that may hereafter be made, notice of which modifications to the Surety being hereby waived;
then the above obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, of the Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of said Title, Chapter and Article, to the extent as if it were copied at length herein.

The prevailing party or any party which recovers judgment on this bond shall be entitled to such reasonable attorney's fees as may be fixed by the Court or a judge thereof.

Witness our hands this _____ day of _____, 2008.

PRINCIPAL SEAL

BY: _____

**

SURETY SEAL

BY: _____

AGENCY ADDRESS

Surety hereby acknowledges they are licensed to do business in the State of Arizona

8.8.
STATUTORY PAYMENT BOND PURSUANT TO TITLE 34,
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS:

That, _____ (hereinafter called the Principal), as
Principal and _____, a corporation organized and existing under the
laws of the State of
_____, with its principal office in the City of _____, (hereinafter called the
Surety), as held and firmly bound unto _____ (hereinafter called the
Obligee) in the amount of _____ Dollars (\$ _____), for
the payment whereof, the said Principal and Surety bind themselves, and their heirs,
administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee,
dated the 16th day of October, 2008, to complete Project No. 5409121 which contract
is hereby referred to and made a part hereof as fully and to the same extent as if copied at length
herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the
said Principal shall promptly pay all moneys due to all persons supplying labor or materials to
him or his subcontractors in the prosecution of the work provided for in said contract, then this
obligation shall be void, otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond having been required of the said Principal in
order to comply with the provision of Title 34, Chapter 2, Article 2, of the Arizona Revised
Statutes, all rights and remedies on this bond shall inure solely to such persons and shall be
determined in accordance with the provisions, conditions and limitations of said Title, Chapter
and Article, to the same extent as if it were copied at length herein.

The prevailing party or any party which recovers judgment on this bond shall be entitled to such reasonable attorney's fees as may be fixed by the Court or a judge thereof.

Witness our hands this _____ day of _____, 2008.

PRINCIPAL

SEAL

BY: _____

**

SURETY

SEAL

BY: _____

AGENCY ADDRESS

Surety hereby acknowledges they are licensed to do business in the State of Arizona

8.9.
CITY OF TEMPE
TEMPE, ARIZONA
DEPARTMENT OF PUBLIC WORKS

CONTRACTOR'S AFFIDAVIT
REGARDING
SETTLEMENT OF CLAIMS

_____, Arizona

Date _____

CAPE SEAL PAVEMENT
PROJECT NO. 5409121

To the City of Tempe, Arizona

To Whom It May Concern:

This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged or will be discharged after receipt of the final payment from the City of Tempe ("City") for the above project.

The undersigned, for the consideration of \$ _____, as set out in the final pay estimate, as full and complete payment under the terms of the Contract, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project against the City. The undersigned further agrees to defend, indemnify and save harmless the City against any and all liens, claims of liens, suits, actions, damages, charges and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performances, materials, and/or equipment furnished for the performance of said installation.

Signed and dated at _____, this _____ day of _____, 2008.

Contractor

By: _____

STATE OF ARIZONA)

) ss

COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to me before this _____ day of _____, 2008.

Notary Public

My Commission Expires

8.11
City of Tempe
Guidelines for Implementation of Health Insurance

These Guidelines are provided for purposes of implementing Resolution No. 2000.73, which requires all employees of prime consultants, general contractors and major subconsultants and subcontractors to have health insurance and to offer health insurance to their eligible dependants, as determined at the start of each project. Questions regarding these guidelines should be directed to the City of Tempe Engineering Division at (480) 350-8200.

1. All Prime Consultants who enter into a Public Works contract or General Contractors who bid on Public Works projects that are advertised for bid and enter into a contract in excess of \$30,000 with the City of Tempe ("City") after January 1, 2001, are required to sign an affidavit in the form attached hereto. The prime consultant or general contractor shall require that all major subconsultants or subcontractors, defined as entities doing work in excess of \$30,000, comply with the health insurance requirements. In signing the affidavit, prime consultants and general contractors may refer to and rely upon these Guidelines for interpretation.
2. Health insurance is required for permanent employees who work for the consultant/contractor more than one hundred and twenty (120) days in any calendar year. A "work day" consists of any time within a twenty-four hour period, regardless of number of hours, that the individual is paid. This requirement excludes students working part-time who are enrolled in a recognized educational institution. Many companies have a grace period or a qualifying period prior to commencement of insurance coverage, which is acceptable so long as the employee coverage begins by the 120th day of Contract signing. Temporary employees will be covered to the same extent as the City covers temporary employees as determined at the start of each project.
3. If a contractor is a "Union" shop and withholds union dues from employees for health insurance coverage that is also offered to their eligible dependents and meets all City requirements, the Contractor may so note on the required affidavit.
4. The health insurance requirements herein apply to all employees that are directly involved with the City project including support and administrative personnel.
5. Health insurance coverage must be maintained during the entire time of the Contract, including any warranty periods, with the City.
6. All complaints concerning violations of the health insurance requirements shall be filed by an employee, in writing, with the Public Works Department, within thirty (30) days from discovery of the violation. An administrative hearing will be held before the Public Works Manager, and a written decision of findings will be provided to the parties to the hearing within ten (10) days thereafter. Appeal from the decision of the Public Works Manager may be made within ten (10) days of the date of the decision by filing a notice

of appeal in writing with the Public Works Department. If an appeal is timely filed, an administrative hearing will be held before an administrative hearing officer appointed by the City Manager. The decision of the administrative hearing officer shall be final.

7. In the event of a finding by the City of a violation of the insurance provisions, the company in violation of the provision shall be barred from bidding on, or entering into, any public works Contract with the City for a minimum period of three (3) years.
8. All consultants and contractors subject to the health insurance requirements shall post, in English and Spanish, notice of the health insurance requirements at their office and at the job site. Signs for posting will be provided by the City.

These "Guidelines for Implementation of Health Insurance", issued and dated this 21st day of August, 2002, hereby amend all guidelines previously issued.



Glenn Kephart, H.E.
Public Works Manager

EXHIBIT A

TECHNICAL SPECIFICATIONS

MATERIALS

The Contractor shall supply all materials necessary for the performance of the work in accordance with these specifications.

The Contractor shall be responsible for the safety of all materials of which has taken delivery, until they are in place on the road and shall take all necessary precaution to avoid loss by fire or theft or damage by water and shall bear the cost of replacing any such material that is lost, split, destroyed or damaged after delivery is effected.

Materials shall be approved by the engineer prior to start of construction.

The following specifications are part of Items 1 and 2.

ITEM NO. 1 -3/8" PRE-COATED AGGREGATE

Aggregate shall be composed of a clean and durable crushed rock or crushed gravel conforming to the following requirements:

Proposed aggregate samples shall be submitted to the asphalt rubber supplier prior to preparation of the mix design to test for aggregate stripping characteristics. The results shall be submitted to the engineer.

If the aggregate material is to be crushed stone, it shall be manufactured from sound, hard, durable rock of accepted quality and crushed to specification size. All strata, streaks, pockets of clay, dirt, sandstone, soft rock or other unsuitable material accompanying the sound rock shall be discarded and not allowed to enter the crusher.

If the aggregate material is to be crushed gravel, it shall consist of hard, durable fragments of stone or gravel of accepted quality and crushed to specification size. All strata, streaks and pockets of sand, excessively fine gravel, clay or other unsuitable material including all stones, rocks and boulders of inferior quality shall be discarded and not allowed to enter the crusher. The crushing of the gravel shall separate No. 4, 3/8 inch and 1/2 inch (4.75 mm, 9 mm, and 12 mm) sieves shall have at least 75% of particles with at least on fractured face.

The crushed aggregate shall not contain more than 8% by weight of elongated or flat pieces and shall be free from wood, roots, vegetable, organic or other extraneous matter. The crushed coarse aggregate shall have a percentage of wear not more than 7 at 100 revolutions and 30 at 500 revolutions, as determined by ASTM C 131.

The aggregate shall show no evidence of disintegration nor show a total loss greater than 12% when subjected to five cycles of sodium sulphate accelerated soundness test specified in ASTM C 88.

The crushed aggregate for the applications shall meet the requirements for gradation given in the Table 1 when tested in accordance with ASTM C 136.

Table 1. Aggregate Gradation Requirements

Sieve Size	Percent Passing
3/4''	100
1/2''	98-100
3/8''	70-100
1/4''	0-10
#8	0-2
#200	0-1

The gradation in the table represents the limits, which shall determine suitability of aggregate for use for the specified application from the sources of supply.

Data indicating the loose and dry-rodded unit weight for the aggregate material in pounds per cubic yard shall be included in the appropriate submittal.

The aggregate shall be hot pre-coated with 0.5 +/- 0.25 percent paving grade asphalt cement. The Contractor shall determine the amount of per-coat. The pre-coated aggregate should have a 'salt and pepper' appearance. The temperature of the hot pre-coated aggregate shall be 250 °F to 325 °F at the application site.

Payment will be made at the contract unit price bid per ton as shown on certified weight tickets from the supplies delivered to the project less weight backs. The price shall be full compensation for furnishing, mixing, and applying all materials; and for all labor, equipment, tools, design tests, traffic control and incidentals necessary to complete the job as specified herein.

Measurement shall be by the ton of aggregate used.

ITEM NO. 2 – RUBBERIZED ASPHALT CEMENT

Mixing of the Asphalt Rubber: The mixture shall be combined into a spreadable composition. The paving asphalt shall be per Section 711 and shall be AC-20 unless otherwise approved. If kerosene is a part of the manufacturer's procedure, it shall meet the requirements of M.A.G. Section 335 and 717. The proportions of asphalt and rubber shall be per MAG Specifications.

The granulated rubber shall meet the following requirements:

1. All rubber shall be vulcanized, 100% shall pass the No. 8 sieve and not more than 10% shall pass the No. 50 sieve. The sieve shall comply with A.A.S.H.T.O. M-92. Rubber shall be free from fabric wire or other contaminating material except that up to 4% of calcium carbonate may be included to prevent particles from sticking together.

Payment will be made at the contract unit price bid per ton as shown on certified weight tickets from the supplies delivered to the project less weight backs. The price shall be full compensation for furnishing, mixing, and applying all materials; and for all labor, equipment, tools, design tests, traffic control and incidentals necessary to complete the job as specified herein.

Measurement shall be by the ton of asphalt used.

ASPHALT RUBBER CHIP SEAL

Equipment

Sweeping

The equipment used by the contractor shall include a self propelled rotary power broom or mobile pickup broom for pavement cleaning and excess cover material removal.

Asphalt Rubber Equipment

All equipment utilized in the production and application of the asphalt rubber shall be described as follows:

- A. An asphalt heating tank with a hot oil heat transfer system or retort heating system capable of heating asphalt cement to the necessary temperature for blending with CRM. This unit shall be capable of heating a minimum of 2,500 gallons of asphalt cement.
- B. Blender: The asphalt rubber mechanical blender shall have a two stage continuous mixing process capable of producing a homogenous mixture of asphalt cement and granulated rubber, at the mix design specified ratios, as directed by the engineer. This unit shall be equipped with a granulated rubber feed system capable for supplying the asphalt cement feed system, as not to interrupt the continuity of the blending process. The maximum capacity of the primary blending vessel shall be 500 gallons. Both the primary and secondary blenders shall be equipped with an agitation device orientated horizontally in the blending vessel. The blending unit shall be capable of fully blending the individual rubber particles with the asphalt cement. A separate asphalt cement feed pump and finished product pump are required. This unit shall have both an asphalt cement totalizing meter in gallons and a flow rate meter in gallons per minute.
- C. A truck or trailer mounted self-powered distributor truck equipped with a heating unit, and an internal mixing device capable of maintaining a uniform mixture of asphalt cement and CRM. It shall be equipped with a full circulating spreader bar and pumping system capable of applying asphalt rubber material within +/- 0.05 gallons per square yard tolerance of the specified application rate and must give a uniform covering of the surface to be treated. The distributor shall have a boot board on the rear of the vehicle and a bootman shall accompany the distributor.

The bootman shall ride in a position so that all spray bar tips are in full view and readily accessible for unplugging if a plugged tip should occur. The distributor shall also include a tachometer, pressure gauge, and volume measuring device and thermometer.

Aggregate Cover Material Spreader

The cover material (chip) spreader shall be a self-propelled machine with an aggregate receiving hopper in the rear, belt conveyors to carry the aggregate to the front, and a spreading hopper equipped with a full width distribution auger and spread roll. The spreader shall be in good mechanical condition and be capable of applying the cover material uniformly across the spread at the specified rate.

Rolling Equipment

A minimum of three operational self-propelled pneumatic-tired rollers shall be used for the required rolling of the cover material. The pneumatic-tired rollers shall carry a minimum loading of 5,000 pounds on each wheel and a minimum air pressure of 90 pounds per square inch in each tire.

Hauling Equipment

Trucks for hauling cover material shall be tailgate discharge and shall be equipped with a device to lock onto the hitch at the rear of the cover material spreader. Haul trucks shall also be compatible with the cover aggregate spreader so that the dump bed will not push down on the spreader when fully raised or have too short a bed, which results in aggregate spillage while dumping into the receiving hopper.

Pre-coated aggregate shall be per MAG Section 335.5 shall govern and Section 716 (M.A.G.) will govern cover material specifications.

The average rate of application (32 lbs. per sq. yard for 3/8" and 1/2" size) and (28 lbs. for 1/4" size) is used for estimating purposes only. Actual rate will be determined in the field, according to existing conditions. The Contractor will be required to provide actual, in field test sections, twice per day to the City Inspector, which will show the rate being applied. This will determine the rate of application that will be used for that day's areas completed. Payment will be based on this information and no additional compensation will be allowed for this pay item.

CONSTRUCTION METHODS

Surface Preparation

Immediately before applying the bituminous material, the area to be surfaced shall be cleaned of dirt and other objectionable material with a self-propelled, pick-up sweeper. When necessary, cleaning shall be supplemented by hand broom. The bituminous

material shall not be applied until an inspection of the surface has been made by the inspector and he has determined that it is suitable

Weather Limitations

Hot asphalt rubber seal with hot cover material shall be placed only when the ambient temperature is at least 70 degrees Fahrenheit and rising.

Asphalt-Rubber Mixing and Reaction

The percentage of RMN shall be 18-22 percent by weight of total asphalt rubber mixture; the exact CRM content shall be as determined by the mix design submitted by the asphalt rubber supplier. During membrane placement the CRM percentage shall not fluctuate by more than 1 percent by weight of total asphalt-rubber mixture.

The temperature of the asphalt cement shall be between 375 °F and 450 °F at the addition of the CRM. The asphalt and rubber shall be combined and mixed together in the asphalt rubber blending unit and reacted in the distributor for a minimum period of time of 30 minutes from the time the granulated rubber is added to the asphalt cement. The temperature of the asphalt rubber mixture shall be above 350 °F during the reaction period, but shall not exceed 450 °F at any time. Exceeding the 450 °F limit will be grounds for rejection of affected mixture.

When a job delay occurs after full reaction, the asphalt rubber may be allowed to cool. The asphalt rubber shall be reheated slowly just prior to application to a temperature between 350 °F and 400 °F. An additional quantity of asphalt cement and /or CRM may be added as required to produce a material with the appropriate viscosity.

Application of Asphalt Rubber Material

Placement of the asphalt rubber membrane shall be made only under the following conditions:

1. The ambient surface temperature shall be 70 °F and rising.
2. The pavement surface is clean and absolutely dry.
3. The wind conditions are not excessive.
4. All construction equipment such as asphalt rubber distributor, cover material spreader, haul trucks with cover material, and rollers are in position and ready to commence membrane placement operation.
5. Rain is not imminent.

The asphalt rubber mixture shall be applied at a temperature of 325 °F to 400 °F at a rate of 0.55 to 0.65 gallons per square yard. Transverse joints shall be constructed by placing building paper across and over the end of the previous asphalt rubber application. Once the spraying has progressed beyond the paper, the paper shall be removed immediately and disposed of as directed by the engineer. All longitudinal joints shall not exceed a four-inch over-lap.

At the time of application to the asphalt rubber, the hot-pre-coated cover material shall be at a temperature of 250 °F to 325 °F.

Rolling

A minimum of three (3) coverage's shall be made with the pneumatic rollers immediately after application. A minimum of three (3) rollers shall be used. Immediately after the pneumatic rollers have completed their passes, one complete pass shall be completed by a wheeled roller. Rollers shall be equipped with skirting and spray system to prevent material build up.

After then initial sweeping, the Contractor shall make two (2) more complete coverage's with the pneumatic rollers, which shall be the final rolling. Maximum speed of rollers shall be five (5) miles per hour. These rollers shall be equipped with operating water systems and shall have the proper tire pressure at all times.

Sweeping

Initial Sweeping: The Contractor shall perform an initial sweeping of the seal coat after the initial rolling (3 passes) and prior to subjecting the surface to vehicular traffic. Included in initial sweeping will be the removal of loose chips from all adjacent gutters, sidewalks, driveway entrances, and adjacent streets not receiving treatment. All sweepers used shall be equipped with at least 1 gutter broom and be vacuum type sweepers. The contractor shall provide an adequate number of sweepers to fulfill this requirement in a timely manner.

The Contractor shall exercise due care not to dislodge chips for tender treatment during initial sweeping. The Contractor is also responsible for providing a "side broom for the purpose of sweeping the joint between sections of seal coat application.

Final Sweeping: Maintenance of the surface shall include the distribution of aggregate over the surface to absorb any free bituminous material, to cover any area deficient in cover coat material and to prevent formation of corrugations. Clean sand may be used in lieu of aggregate to cover any excess of asphaltic emulsion which comes to the surface. The use of roadside material for this purpose will not be permitted. The Contractor shall perform a final sweeping of the seal coat one (1) week after final rolling. All loose chips shall be removed the Contractor at this time. Included in this final sweeping will be the removal of loose chips from all adjacent gutters, sidewalks, driveway entrances, and adjacent streets not receiving treatment.

At least three operational pneumatic-tired rollers shall be provided to accomplish the required embedment of the cover material. At some project locations or where production rates dictate, fewer rollers may be utilized as directed by the engineer. At not time shall there be less than two operational pneumatic tired rollers on a project.

Sufficient rollers shall be used for the initial rolling to cover the width of the aggregate spread with one pass. The first pass shall be made immediately behind the cover material spreader, and if the spreading is stopped for an extended period, the cover material spreader shall be mobbed ahead or off the side so that all cover material may be immediately rolled. Five complete passes with rollers shall be made with all rolling completed within one hour after the application of the cover material.

ITEM NO. 3 – FLUSH COAT (QSH-1)

One (1) week after final rolling, and after approved final sweeping a flush coat shall be applied. The flush coat shall consist of CQS-lh as called for in Section 713, and shall be applied at a rate of 0.08 gallons per sq. yard when diluted. The flush coat shall consist of an emulsion of one (1) part water and one (1) part CQS-lh.

The Contractor shall take two (2) one-gallon of the flush coat material each distributor truckload used on the project. Contractor shall furnish the sample containers and take the samples in the presence of the Inspector. Each container shall be clearly marked with pertinent data such as date of application, load number, etc. One container of each set will be submitted by the Inspector to a testing lab to check for specification compliance. The second container of each set shall be retained by the Inspector for a backup check in the event the first sample fails to pass the specifications. Containers shall be plastic or glass and shall be sealed immediately to prevent contamination.

Payment will be made at the contract unit price bid per ton as shown on certified weight tickets from the supplies delivered to the project less weight backs. The price shall be full compensation for furnishing, mixing, and applying all materials; and for all labor, equipment, tools, design tests, traffic control and incidentals necessary to complete the job as specified herein.

Measurement shall be by the ton of asphalt used.

ITEM NO. 4 – ADJUST MANHOLE, LID, FRAME

Items shall conform to the provisions of Section 345 of the MAG Specifications and Section 345.3 of the Tempe Supplement to the MAG Specifications.

Adjustment of manholes will be in accordance with MAG Standard detail 422 and Detail T-446 of the City of Tempe Supplement to the MAG Details.

The Contractor will be responsible for tying out the location of all manholes and sanitary sewer cleanouts. Field notes will be kept and copies given to the Engineer prior to lowering these items for street construction.

Measurement for each item shall be as shown in the contract and as listed for payment below.

Payment shall be made at the contract unit price bid for each manhole complete and adjusted to finished grade as marked in the field. Payment shall be full compensation for the work.

ITEM NO. 5 - ADJUST VALVE BOX

Items shall conform to the provisions of Section 345 of the MAG Specifications and Section 345.3 of the Tempe Supplement to the MAG Specifications.

Adjustment of valve boxes shall be in accordance with MAG Standard Detail 391-1 Type C and Detail T-445 of the City of Tempe Supplement to the MAG Details.

The Contractor will be responsible for tying out the location of all valve boxes. Field notes will be kept and copies given to the Engineer prior to lowering these items for street construction.

Measurement for each item shall be as shown in the contract and as listed for payment below.

Payment shall be made at the contract unit price bid for each valve box complete and adjusted to finished grade as marked in the field. Payment shall be full compensation for the work.

ITEM NO. 6 - REPLACE SURVEY MONUMENT

Items shall conform to the provisions of Section 345 of the MAG Specifications and Section 345.3 of the Tempe Supplement to the MAG Specifications.

Adjustment of survey monuments shall be in accordance with MAG Standard Detail 270. Monuments removed or disturbed during construction plus any additional monumentation required by the plans will be replaced in accordance with Section 409 of the MAG Specifications and MAG Standard Detail 270-1 Type B. The Contractor will be responsible for tying out the location of existing survey monuments prior to construction. The ties shall be performed under the direction of a Land Surveyor registered in the State of Arizona. Swing ties must be made in four directions to areas that will not be disturbed during construction. Field notes will be kept and copies submitted to the Engineer prior to construction.

Measurement for each item shall be as shown in the contract and as listed for payment below.

Payment shall be made at the contract unit price bid for each survey monument adjusted to finished grade as marked in the field. Payment shall be full compensation for the work.

ITEM NO. 7 - LOCAL PAVEMENT EDGE MILLING

This item shall conform to the drawing on page D-1 and shall consist of roto-milling AC pavement at the gutter line to remove excess AC and slurry sealant from the pavement and the lip of the concrete gutter. Pavement shall be roto-milled flush with the lip of the gutter tapering to 0" (flush) to +1/4".

The Contractor will patch any areas milled below the lip of gutter. There will be no compensation for patching areas milled below the lip of gutter. Milling machines must be self-propelled and capable of automatic leveling control. All loose material generated by the milling operation will be swept, removed, and disposed of on the same day of the milling operation. Milled material on arterial and collector streets will be removed before the area is opened to traffic.

The finished milled surface will be free of loose material and ridges. The City of Tempe shall provide an area (Priest/Rio Salado) where milled material may be stockpiled, with all necessary dust control provisions provided by contractor.

Edge milling shall be measured by the lineal foot and paid at the contract price bid, which shall be full compensation for all labor, materials, and equipment (including traffic control) necessary for the item complete and in place.

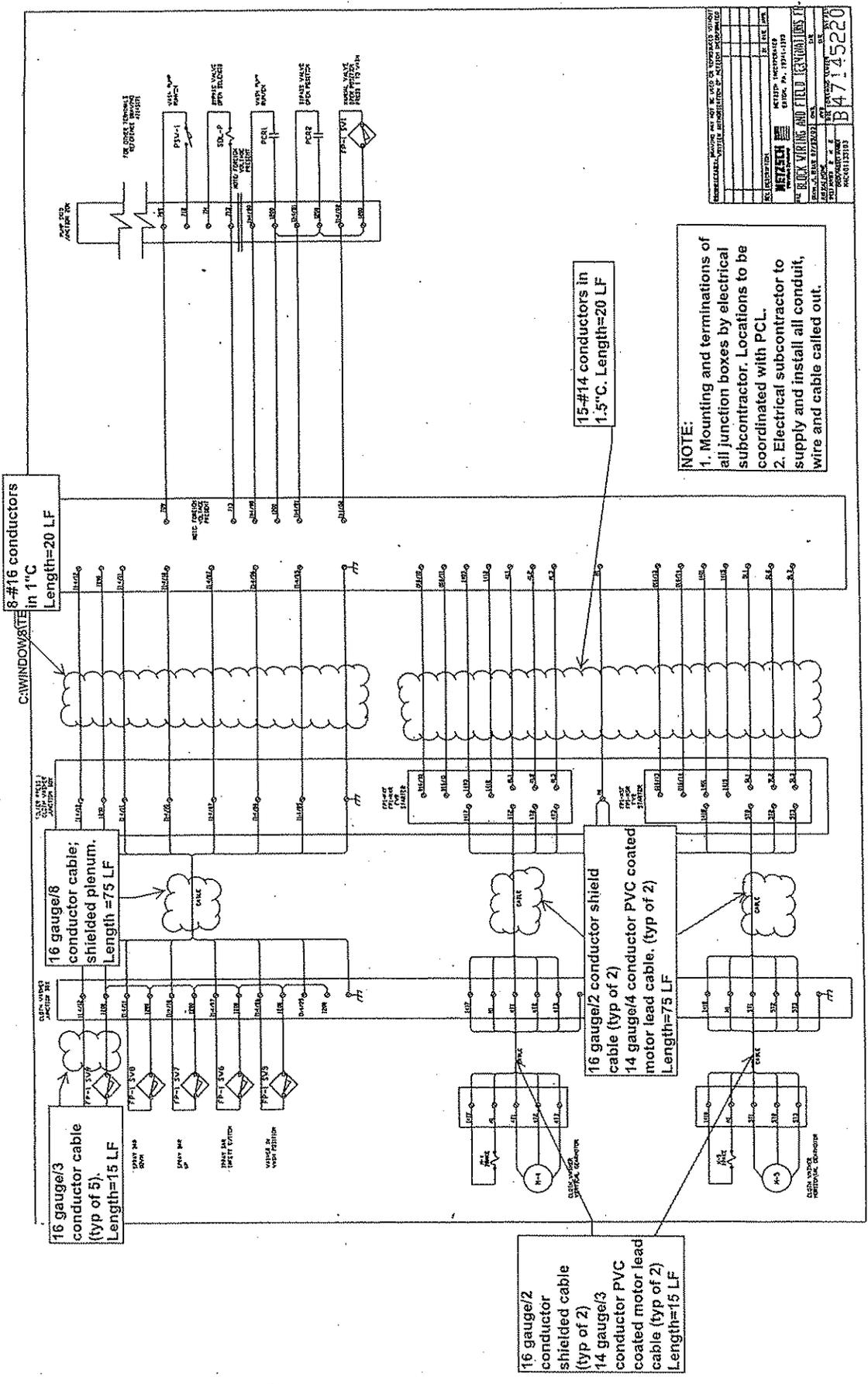
Section Number	Street	From	To	Area (SFT)	Segment Length	Street Width	Area (SYD)
N19NW01200	LEBANON LN	APACHE BL	LAIRD ST	60696	2248	27	6744 0
N24NE01700	RIVER DR	UNIVERSITY	865' S/UNIVERSI	31140	865	36	3460
N24NE01800	RIVER DR	APACHE BL	865' S/UNIVERSI	61920	1720	36	6880
N24NE02100	LEMON ST	SMITH RD	E END	52380	1940	27	5820
N24NE02150	LOLA LN	LEMON ST	HOWE AV	7200	240	30	800
N24NE01300	HOWE AV	SMITH RD	PRICE RD	70200	2600	27	7800 0
N13SW01200	PERRY LN	3RD ST	5TH ST	17420	670	26	1936
N13SW01250	PERRY LN	5TH ST	UNIVERSITY DR	36173	1256	28.8	4019
N13SE01600	SMITH RD	1ST ST	5TH ST	51927	1279	40.6	5770
N13SE01700	SMITH RD	5TH ST	UNIVERSITY DR	56655	1259	45	6295 0
N23NE02350	8TH ST	MCCLINTOCK RD	DORSEY LN	96015	2595	37	10668
N23NW02360	8TH ST	100, E/RURAL RD	DORSEY	93980	2540	37	10442
N23NW02370	8TH ST	RURAL RD	100' E/RURAL RD	3700	100	37	411 0
S08NE01100	BELL DEL MAR DR	HARL AV	PRIEST DR	32340	980	33	3593
S08NE01200	CLEMENTINE CT	BELL DEL MAR DR	N END	14355	435	33	1595
S08NE01300	HARL AV	MINERAL RD	N END	32505	985	33	3612
S08NE01400	MINERAL RD	HARL AV	PRIEST DR	33495	1015	33	3722 0
S08SE01000	DRAKE DR	W END	PRIEST DR	54615	1655	33	6068
S08SE01100	TODD DR	HARL AV	PRIEST DR	32010	970	33	3557
S08SE01200	HARL AV	ELLIOT RD	MINERAL RD	88275	2675	33	9808
N28NE01050	ROOSEVELT ST	ALAMEDA DR	BROADWAY RD	117000	2600	45	13000

116000

121800.117

3897603.733

1948.801867 tons



8 #16 conductors
in 1" C
Length=20 LF

16 gauge/3
conductor cable
(typ of 5)
Length=15 LF

16 gauge/8
conductor cable;
shielded plenum.
Length =75 LF

16 gauge/2
conductor
shielded cable
(typ of 2)
14 gauge/3
conductor PVC
coated motor lead
cable (typ of 2)
Length=15 LF

16 gauge/2 conductor shield
cable (typ of 2)
14 gauge/4 conductor PVC coated
motor lead cable, (typ of 2)
Length=75 LF

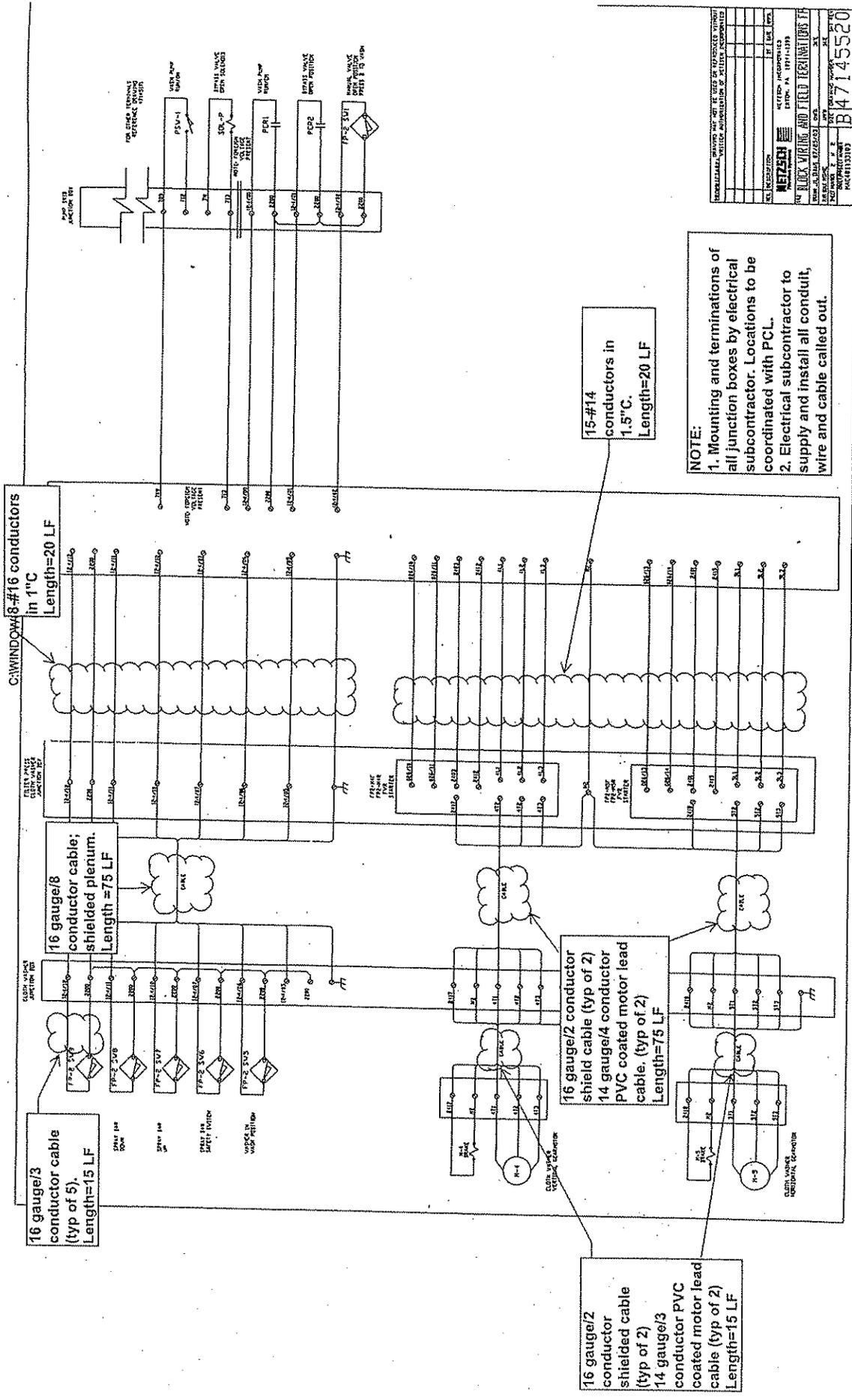
15 #14 conductors in
1.5" C. Length=20 LF

NOTE:
1. Mounting and terminations of all junction boxes by electrical subcontractor. Locations to be coordinated with PCL.
2. Electrical subcontractor to supply and install all conduit, wire and cable called out.

PROJECT NO.	104-113
DATE	10/11/10
BY	W. J. ...
CHECKED BY	...
APPROVED BY	...
SCALE	AS SHOWN
REVISIONS	
NO.	DESCRIPTION
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FILTER PRESS No. 1

ATTACHMENT 2



NOTE:

1. Mounting and terminations of all junction boxes by electrical subcontractor. Locations to be coordinated with PCL.
2. Electrical subcontractor to supply and install all conduit, wire and cable called out.

ATTACHMENT 3

FILTER PRESS NO. 2

METZGER ELECTRIC, INC. 1000 W. 10TH ST. ST. LOUIS, MO. 63101 TEL: 314-241-4200 FAX: 314-241-4201 WWW.METZGERELECTRIC.COM	
PROJECT NO. 14-00000000 DRAWING NO. 14-00000000-001 DATE: 11/11/14	PROJECT NAME: FILTER PRESS NO. 2 DRAWING TITLE: BLOCK WIRING AND FIELD TERMINATIONS FOR
DESIGNED BY: [Blank] CHECKED BY: [Blank] APPROVED BY: [Blank]	PROJECT NO.: B47145520 DRAWING NO.: [Blank]