



**PURCHASING ITEM
FOR
COUNCIL AGENDA
Memo No. CA07-203**

1. Agenda Item Number:

26

2. Council Meeting Date:
March 5, 2007

TO: MAYOR & COUNCIL

3. Date Prepared: February 16, 2007

THROUGH: CITY MANAGER

4. Requesting Department: Public Works

5. SUBJECT: Award an engineering services contract to Kimley-Horn and Associates, Inc. for the design of Dynamic Message Sign and Emergency Service Connection, Project No. ST0607-201, in an amount not to exceed \$89,143.

6. RECOMMENDATION: Staff recommends that Council award an engineering services contract to Kimley-Horn and Associates, Inc. for the design of Dynamic Message Sign and Emergency Service Connection, Project No. ST0607-201, in an amount not to exceed \$89,143.

7. BACKGROUND/DISCUSSION: A Dynamic Message Sign (DMS) is a large electronic display screen that can be installed near the roadway for the purpose of informing motorists about traffic conditions along their route. In particular, a DMS can be utilized to warn motorists of traffic accidents or freeway congestion, providing an opportunity for commuters to choose an alternate route in advance. This project will provide design services, technical specifications, and coordination with private agencies and landowners for the future installation of one (1) new DMS and the relocation of one (1) existing DMS. The locations for the DMS are proposed as follows:

- Arizona Avenue northbound, south of the Loop 202 (relocated from Chandler Boulevard, east of Kyrene Road),
- Price Road northbound, south of the Loop 202

Additionally, this project will include design and technical specifications for the communication equipment necessary to link the Traffic Management Center (TMC) to the Emergency Operations Center (EOC).

8. EVALUATION: The consultant selection process was conducted in accordance with established City policies and procedures. Staff solicited and received statements of qualifications from three (3) firms in December 2005. The selection committee include the following members:

Brian Scifers, Senior Engineer
Paul Young, Senior Engineer
Adam Clark, Engineer Assistant
Rob Harris, Citizen representative

The selection committee recommended Kimley-Horn and Associates, Inc. due to their qualifications and experience. The fee was compared to historic design costs and found to be acceptable.

9. FINANCIAL IMPLICATIONS:

Cost: \$89,143
Savings: N/A
Long Term Costs: N/A

Fund Source:

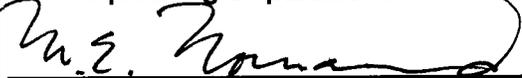
<u>Acct. No.:</u>	<u>Fund Name:</u>	<u>Program Name:</u>	<u>CIP Funded:</u>	<u>Amount:</u>
411.3310.0000.6516.6ST322	G.O. Bonds	New Traffic Signals	FY05/06	\$89,143

10. PROPOSED MOTION: Move that Council award an engineering services contract to Kimley-Horn and Associates, Inc. for the design of Dynamic Message Sign and Emergency Service Connection, Project No. ST0607-201, in an amount not to exceed \$89,143, and authorize the Mayor to sign the contract documents.

ATTACHMENTS: Location Map

APPROVALS

11. Requesting Department



Michael Normand, Acting Assistant Public Works Director/Transportation & Operations

13. Department Head



Daniel W. Cook, Acting Public Works Director

12. City Engineer



Elizabeth M. Huning, Assistant Public Works Director/City Engineer

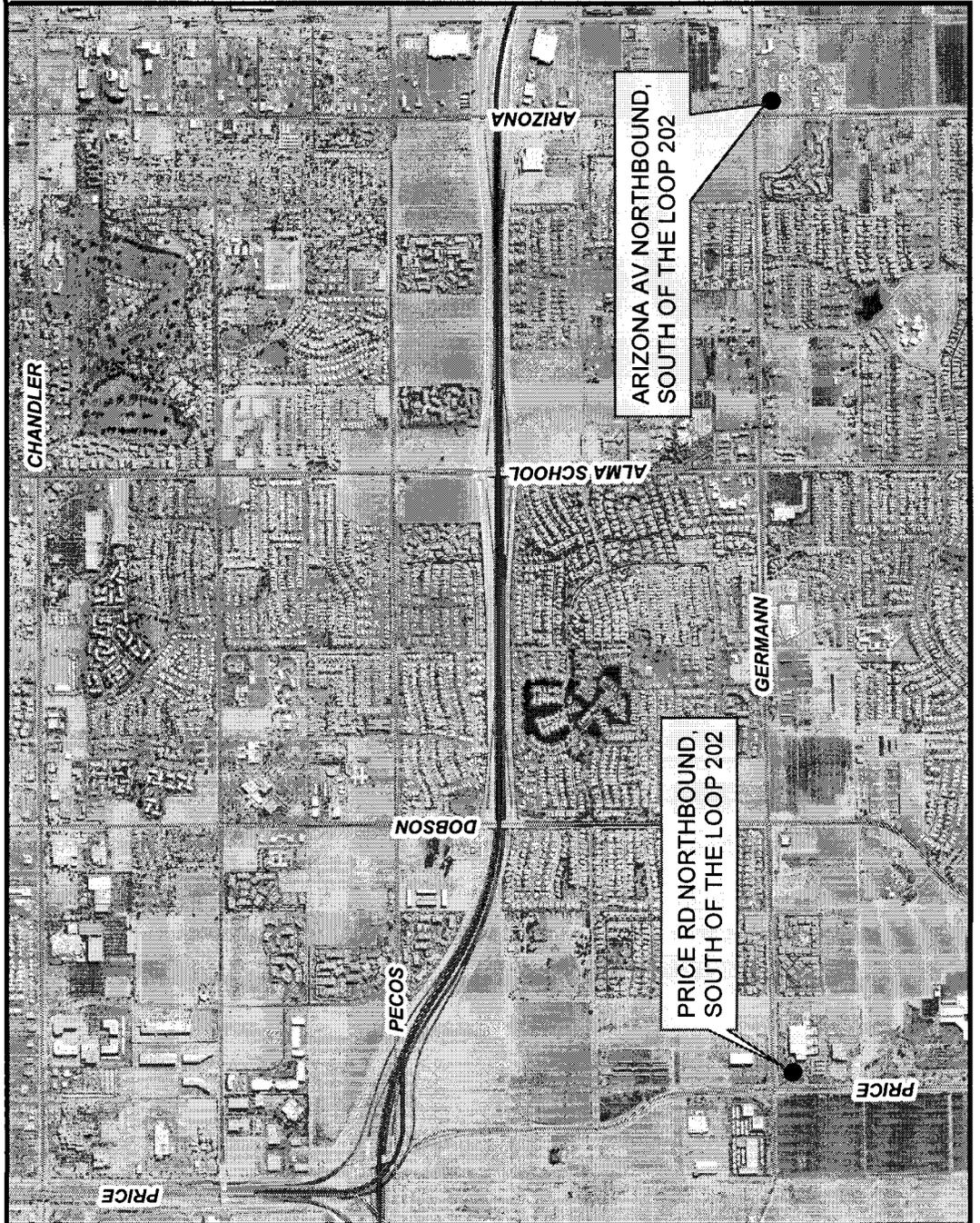
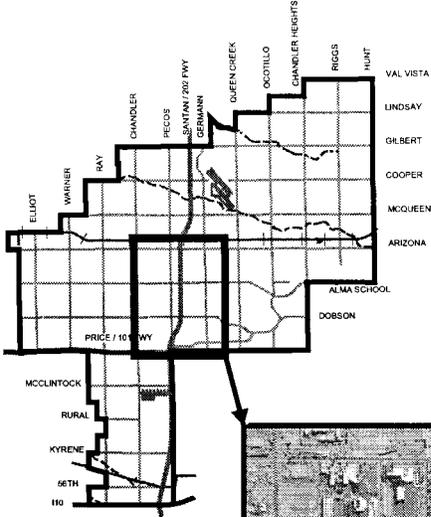
14. City Manager



W. Mark Pentz, City Manager



DYNAMIC MESSAGE SIGN AND EMERGENCY SERVICE CONNECTION PROJECT NO. ST0607-201



MEMO NO. CA07-203

LEGEND

- DYNAMIC MESSAGE SIGN

NOTE:
EXACT LOCATIONS OF THESE SIGNS
WILL BE COORDINATED WITH
PROPERTY OWNERS AND CITY
PROJECTS



PROJECT TITLE: **Dynamic Message Sign Installation and Emergency Service Connection**
PROJECT NO: **ST0607-201**

This contract is made and entered into by and between the City of Chandler, Arizona, a municipal Corporation, hereinafter called the CITY, and **Kimley Horn and Associates, Inc.**, a North Carolina Corporation, licensed to do business in Arizona, hereinafter called ENGINEER.

WHEREAS, ENGINEER represents ENGINEER has the expertise and is qualified to perform the services described in this agreement; and

WHEREAS, the Mayor and City Council/City Manager of the City of Chandler are authorized and empowered by the provisions of the City Charter to execute contracts for Professional Services;

NOW THEREFORE, for and in consideration of the mutual covenants and conditions hereinafter contained, it is agreed by and between the CITY and ENGINEER, as follows:

1. DESCRIPTION OF PROJECT

- This project will include the installation of one (1) new Dynamic Message Signs (DMS) and the relocation of one (1) existing DMS. These DMS will be utilized to warn motorists of arterial and freeway traffic conditions, providing an opportunity for the motorist to alter their commute prior to congested conditions. The location for the DMS are proposed as follows:
 -
 - Arizona Avenue northbound, south of the Loop 202, (relocated from Chandler Boulevard, east of Kyrene Road)
 - Price Road northbound, south of the Loop 202

Additionally, this project will include installation of communication equipment for the Traffic Management Center (TMC) to the Emergency Operations Center (EOC) link. This equipment will provide a means to better integrate the TMC operations to the EOC environment during an emergency event.

2. SCOPE OF WORK

ENGINEER shall provide those services described in Exhibit A attached hereto and made a part hereof by reference.

3. PAYMENT SCHEDULE

For services described in paragraph 2 of this Agreement, the CITY shall pay ENGINEER a fee based on the fee schedule attached hereto and made a part hereof by reference Exhibit B not to exceed the sum **Eighty Nine Thousand One Hundred Forty Three dollars (\$89,143)**. Payment will be made monthly on the basis of progress reports. An Application and Certification for Payment Sheet must be provided. In addition, the following must also be included: a clear, detailed invoice reflecting items being billed for, a summary sheet showing percentage of work completed to date, amount/percent billed to date and current status of all tasks within a project; any/all backup documentation supporting the above items. Work schedule updates will be included in the monthly progress payment requests.

4. PERIOD OF SERVICE

ENGINEER shall complete all services described in paragraph 2 within **Three Hundred Sixty Five (365)** calendar days after "Notice to Proceed" is issued by the CITY. In the event delays are experienced beyond the control of ENGINEER, the completion date may be extended as mutually agreed upon by CITY and ENGINEER.

5. OPINIONS OF PROBABLE COSTS (ESTIMATES)

Any opinions of probable project cost or probable construction cost provided by ENGINEER are made on the basis of information available to ENGINEER and on the basis of ENGINEER's experience and qualifications, and represents its judgment as an experienced and qualified professional engineer. However, since ENGINEER has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s) methods of determining prices, or over competitive bidding or market conditions, ENGINEER does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost ENGINEER prepares.

6. APPROVALS

All work shall be subject to the approval by the City Engineer.

ENGINEER agrees to exercise the skill and care which would be exercised by comparable professional engineers performing similar services at the time and in the locality such services are performed. If the failure to meet these standards results in faulty work, ENGINEER shall undertake at its own expense, the corrective adjustments or modifications.

7. REPORTING

Written monthly reports, along with updated work schedules, will be made by ENGINEER in the format prescribed by the CITY. These reports will be delivered to the CITY per schedule. When requested by the CITY, ENGINEER will attend Council meetings and provide finished documents including correspondence for Council action, supporting charts, graphs, drawings and colored slides of same.

8. STANDARDS OF PERFORMANCE:

A. ENGINEER shall be familiar with CITY's Standard Details and Specifications and other relevant CITY regulations. ENGINEER shall insure there are no conflicts among the Contract Documents including, but not limited to, the CITY's General and Supplementary Conditions for Construction Contracts, the plans and specifications prepared by ENGINEER, any standard details or specifications incorporated therein by reference, and the Construction Contract.

B. Correction of Mistakes ENGINEER shall be responsible for the completeness and accuracy of the work prepared or compiled under ENGINEER's obligation for this project and shall correct, at ENGINEER's expense, all errors or omissions therein which may be disclosed. Correction of errors disclosed and determined to exist during any construction of the project on architectural or engineering drawings and specifications shall be accomplished by ENGINEER. The cost of the design necessary to correct those errors attributable to DESIGN

9. INDEMNIFICATION

(a) For Professional Liability:

To the fullest extent permitted by law, ENGINEER shall defend, indemnify and hold harmless the City of Chandler, its agents, representatives, officers, directors, officials and employees, individually and collectively, (hereinafter CoC) from and against all losses, claims, damages, suits, actions, payments, judgments, demands, expenses, and costs, including but not limited to, attorney's fees, defense costs, court costs, and the cost of appellate proceedings, or actions of any kind and nature related to, arising out of, or alleged to have resulted from the errors, mistakes or omissions relating to professional services by ENGINEER, its employees, agents, or any tier of subcontractors in the performance of this Contract or of any other person for whose errors, mistakes or omissions ENGINEER may be legally liable. This indemnity shall not be construed to include losses, claims, damages, suits, or actions of any kind and nature, to the extent arising from or alleged to have resulted from the errors, mistakes or omissions of CoC (other than ENGINEER, its employees, agents, or any tier of subcontractors). The provisions of this paragraph shall survive termination of this Contract.

(b) For all Other Liabilities, Hazards and Exposures:

To the fullest extent permitted by law, ENGINEER shall defend, indemnify and hold harmless the City of Chandler, its agents, representatives, officers, directors, officials and employees, individually and collectively, (hereinafter CoC) from and against all losses, claims, damages, suits, actions, payments, judgments, demands, expenses, and costs, including but not limited to, attorney's fees, defense costs, court costs, and the cost of appellate proceedings, or actions of any kind and nature, wages or overtime compensation due employees in rendering service under this Contract and whether to any person or property, including natural resources and any claim made under the Fair Labor Standards Act or any other federal or state laws, related to, arising out of, or alleged to have resulted from the actions of ENGINEER and alleged to have been caused in whole or in part by any act or omission of ENGINEER, anyone directly or indirectly employed by them or anyone for whose acts ENGINEER may be legally liable, and from any claims or amounts arising or recovered under Workers' Compensation laws or any other law, bylaw, or ordinance, order or decree or any failure on the part of ENGINEER, its agents, employees or representatives to fulfill ENGINEER's obligations under this Contract. This indemnity shall not be construed to include losses, claims, damages, suits, or actions of any kind and nature, to the extent arising from or alleged to have resulted from the errors, mistakes or omissions of CoC, (other than ENGINEER, its employees, agents, or any tier of subcontractors). The provisions of this paragraph shall survive termination of this Contract.

(c) Consequential Damages:

The parties intend that damages and/or costs and all other terms implying an amount tied to liability shall include consequential damages and loss of productivity limited to the total value of this contract in dollars as payable by the City of Chandler or twice the amount of aggregate insurance required by this Contract, whichever is greater.

(d) Insurance does not limit liability:

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

10. INSURANCE REQUIREMENTS:

- A ENGINEER, at its own expense, shall purchase and maintain insurance of the types and amounts required in this section, with companies possessing a current A.M. Best, Inc. rating of B++6, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to CITY.
- B Policies written on a "Claims made" basis are not acceptable without written permission from the City's Risk Manager.
- C All insurance required herein shall be maintained in full force and effect until all work or services required to be performed under the terms of this Agreement is satisfactorily completed and formally accepted. Failure to do so may, at the sole discretion of CITY, constitute a material breach of this Agreement and may result in termination of this contract.
- D If any of the insurance policies are not renewed prior to expiration, payments to the ENGINEER may be withheld until these requirements have been met, or at the option of the City, the City may pay the Renewal Premium and withhold such payments from any monies due the ENGINEER.
- E All insurance policies, except Workers' Compensation and Professional Liability required by this Agreement, and self-insured retention or deductible portions, shall name, to the fullest extent permitted by law for claims arising out of the performance of this contract, the City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insureds.
- F ENGINEER's insurance shall be primary insurance over any insurance available to the CITY and as to any claims resulting from this contract, it being the intention of the parties that the insurance policies so effected shall protect both parties and be primary coverage for any and all losses covered by the described insurance.
- G The insurance policies, except Workers' Compensation, shall contain a waiver of transfer rights of recovery (subrogation) against CITY, its agents, representatives, officers, directors, officials and employees for any claims arising out of ENGINEER's acts, errors, mistakes, omissions, work or service.
- H The insurance policies may provide coverage which contain deductibles or self-insured retentions. Such deductible and/or self-insured retentions shall be assumed by and be for the account of, and at the sole risk of ENGINEER. ENGINEER shall be solely responsible for the deductible and/or self-insured retention. The amounts of any self-insured retentions shall be noted on the Certificate of Insurance. CITY, at its option, may require ENGINEER to secure payment of such deductibles or self-insured retentions by a Surety Bond or an irrevocable and unconditional letter of credit. Self-insured retentions (SIR) in excess of \$25,000 will only be accepted with the permission of the Management Services Director/designee.
- I All policies and certificates shall contain an endorsement providing that the coverage afforded under such policies shall not be reduced, canceled or allowed to expire until at least thirty (30) days prior written notice has been given to CITY.
- J Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the ENGINEER with reasonable promptness in accordance with the ENGINEER's information and belief.
- K In the event that claims in excess of the insured amounts provided herein, are filed by reason of any operations under this contract, the amount of excess of such claims, or any portion thereof, may be withheld from payment due

, or to become due the ENGINEER until such time as the ENGINEER shall furnish such additional security covering such claims as may be determined by the CITY.

10.2 Proof of Insurance - Certificates of Insurance

- A Prior to commencing work or services under this Agreement, ENGINEER shall furnish to CITY Certificates of Insurance, issued by ENGINEER's insurer(s), as evidence that policies providing the required coverages, conditions and limits required by this Agreement are in full force and effect and obtain from the City's Risk Management Division approval of such Certificates.
- B If a policy does expire during the life of this Agreement, a renewal certificate must be sent to the City of Chandler five (5) days prior to the expiration date.
- C All Certificates of Insurance shall identify the policies in effect on behalf of ENGINEER, their policy period(s), and limits of liability. Each Certificate shall include the job site and project number and title. Coverage shown on the Certificate of Insurance must coincide with the requirements in the text of the contract documents. Information required to be on the certificate of Insurance may be typed on the reverse of the Certificate and countersigned by an authorized representative of the insurance company.
- D CITY reserves the right to request and to receive, within 10 working days, certified copies of any or all of the herein required insurance policies and/or endorsements. CITY shall not be obligated, however, to review same or to advise ENGINEER of any deficiencies in such policies and endorsements, and such receipt shall not relieve ENGINEER from, or be deemed a waiver of CITY's right to insist on, strict fulfillment of ENGINEER's obligations under this Agreement.

10.3 Required Coverage

Such insurance shall protect ENGINEER from claims set forth below which may arise out of or result from the operations of ENGINEER under this Contract and for which ENGINEER may be legally liable, whether such operations be by the ENGINEER or by a Sub-consultant or subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Coverage under the policy will be at least as broad as Insurance Services Office, Inc., policy form CG00011093 or equivalent thereof, including but not limited to severability of interest and waiver of subrogation clauses.

- A Claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
- B Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- C Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- D Claims for damages insured by usual personal injury liability coverage;
- E Claims for damages, other than to Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- F Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; Coverage will be at least as broad as Insurance Service Office, Inc., coverage Code "I" "any auto" policy form CA00011293 or equivalent thereof.
- G Claims for bodily injury or property damage arising out of completed operations;
- H Claims involving contractual liability insurance applicable to the Contractor's obligations under the Indemnification Agreement;
- I Claims for injury or damages in connection with one's professional services;

J . Claims involving construction projects while they are in progress. Such insurance shall include coverage for loading and off loading hazards. If any hazardous material, as defined by any local, state or federal authorities are to be transported, MCS 90 endorsement shall be included.

10.3.1 Commercial General Liability - Minimum Coverage Limits:

The Commercial General Liability insurance required herein shall be written for not less than \$1,000,000 limits of liability or ten percent (10%) of the Contract Price, whichever coverage is greater. Any combination between general liability and excess general liability alone amounting to a minimum of \$1,000,000 per occurrence (or 10% per occurrence) and an aggregate of \$2,000,000 (or 20% whichever is greater) in coverage will be acceptable. The Commercial General Liability additional insured endorsement shall be as broad as the Insurance Services, Inc's (ISO) Additional Insured, Form B, CG 20101001, and shall include coverage for ENGINEER's operations and products, and completed operations.

10.3.2 General Liability - Minimum Coverage Limits

The General Liability insurance required herein, including, Comprehensive Form, Premises-Operations, Explosion and Collapse, Underground Hazard, Products/Completed Operations, Contractual Insurance, Broad Form Property Damage, Independent Contractors, and Personal Injury shall be written for Bodily Injury and Property Damage Combined shall be written for not less than \$1,000,000 or 10% of the contract cost and with a \$2,000,000 aggregate.

10.3.3 Automobile Liability

ENGINEER shall maintain Commercial/Business Automobile Liability insurance with a combined single limit for bodily injury and property damage of not less than \$1,000,000 each occurrence with respect to any owned, hired, and non-owned vehicles assigned to or used in performance of the ENGINEER's work. Coverage shall be at least as broad as coverage code 1, "any auto", (Insurance Service Office, Inc. Policy Form CA 00011293, or any replacements thereof). Such insurance shall include coverage for loading and off loading hazards if hazardous substances, materials or wastes are to be transported and a MCS 90 endorsement shall be included with coverage limits of \$5,000,000 per accident for bodily injury and property damage.

10.3.4 Worker's Compensation and Employer's Liability

ENGINEER shall maintain Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over ENGINEER's employees engaged in the performance of the work or services; and, Employer's Liability insurance of not less than \$1,000,000 for each accident, \$1,000,000 disease coverage for each employee, and \$1,000,000 disease policy limit.

In case any work is subcontracted, ENGINEER will require the Subcontractor to provide Workers' Compensation and Employer's Liability to at least the same extent as required of ENGINEER.

10.3.5 Professional Liability

ENGINEER shall maintain Professional Liability insurance covering acts, errors, mistakes and omissions arising out of the work or services performed by ENGINEER, or any person employed by ENGINEER, with a claims made policy limit of not less than \$1,000,000.

11. AMENDMENTS

Whenever a change in the scope of work contemplated in this Contract is determined to be necessary, the work will be performed in accordance with the Contract provided, however, that BEFORE such work is started, a Contract Amendment shall be executed by the CITY and ENGINEER. Additions to, modifications of, or deletions from the project provided herein may be made and the compensation to be paid to ENGINEER may be adjusted accordingly by mutual agreement of the contracting parties. It is agreed that no claim for extra work by ENGINEER will be allowed by the CITY except as provided herein, nor shall ENGINEER do any work not covered by this Contract unless such work is authorized through an executed amendment.

12. TERMINATION WITHOUT CAUSE

CITY may at any time and for any or no reason, at its convenience, terminate this contract or any part of the services to be rendered pursuant thereto by written notice to ENGINEER specifying the termination date. Immediately after receiving

such notice, ENGINEER shall discontinue advancing the work under this Contract and shall deliver to the CITY all drawings, notes, calculations, sketches and other materials entirely or partially completed, together with all unused materials supplied by the CITY.

ENGINEER shall receive as compensation in full for services performed to date of such termination, a fee for the percentage of work actually completed. This fee shall be a percentage of ENGINEER(S) fee described in this Contract under paragraph 3 and shall be in the amount to be agreed mutually by ENGINEER and the CITY. The CITY shall make this final payment within sixty (60) days after ENGINEER has delivered the last of the partially completed items.

13. OWNERSHIP OF DOCUMENTS

All documents, including, but not limited to, tracings, drawings, original mylars, estimates, field notes, investigations, design analysis and studies which are prepared in the performance of this Contract are to be, and remain the property of, the CITY. ENGINEER shall furnish the CITY, upon its request, originals or reproducible of technical specifications and copies of all other documents listed above. ENGINEER shall endorse, by his professional seal, all plans and engineering data furnished by him.

14. RE- USE OF DOCUMENTS

The parties agree the documents, drawings, specifications and designs, although the property of CITY, are prepared for this specific project and are not intended nor represented by ENGINEER to be suitable for re-use for any other project. Any reuse without written verification or adaptation by ENGINEER for the specific purpose intended will be at CITY's sole risk and without liability or legal exposure to ENGINEER.

15. NO KICK-BACK CERTIFICATION

ENGINEER warrants that no person has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee; and that no member of the City Council or any employee of the CITY has any interest, financially or otherwise, in the ENGINEERING firm.

For breach or violation of this warranty, the CITY shall have the right to annul this Contract without liability, or at its discretion to deduct from the Contract Price or consideration, the full amount of such commission, percentage, brokerage or contingent fee.

16. CONFLICT OF INTEREST

ENGINEER stipulates that its officers and employees do not now have a conflict of interest and it further agrees for itself, its officers and its employees that it will not contract for or accept employment for the performance of any work or services with any individual business, corporation or government unit that would create a conflict of interest in the performance of its obligations pursuant to this Contract.

Pursuant to A.R.S. Section 38-511, the City may cancel this contract within three (3) years after its execution, without penalty or further obligation by the City if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the City of Chandler is, at any time while the contract is in effect, an employee of any other party to the contract in any capacity or a consultant to any other party of the contract with respect to the subject matter of the contract.

17. CONTROLLING LAW

The law of the state of Arizona shall govern this Contract.

18. NO ASSIGNMENT

ENGINEER shall not assign, transfer, convey or subcontract this contract or the services to be rendered pursuant thereto without the prior written consent of CITY.

19. NOTICES

Any notice required under this Contract shall be in writing, addressed to the appropriate party at its address on the signature page and given personally or by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names to this _____ day of _____ 2006.

CITY OF CHANDLER

ENGINEER:

MAYOR Date

By: [Signature]
Title: VICE PRESIDENT

ADDRESS FOR NOTICE
City of Chandler
P.O. Box 4008, Mail Stop 407
Chandler, AZ 85244-4008
480-782-3307

ADDRESS FOR NOTICE
Kimley Horn and Associates
7878 N. 16th Street, Suite 300
Phoenix, AZ 85025
Phone: (602) 944-5500

ATTEST:

City Clerk

ATTEST, If Corporation
[Signature]
Secretary

APPROVED AS TO FORM:

City Attorney *J* SEAL

**EXHIBIT A
SCOPE OF WORK**

**Exhibit A
Scope of Work**

PROJECT BACKGROUND

This project will include the installation of one (1) new Dynamic Message Sign (DMS) and the relocation of one (1) existing DMS. These DMS will be utilized to warn motorists of planned freeway closures and to provide information regarding events on the freeway. Additionally, this project will install communication equipment for a Traffic Management Center (TMC) to Emergency Operations Center (EOC) link. Functional requirements shall be provided via the CITY's consultant for the TMC Study.

It is anticipated that the DMS will be installed at the following locations:

- Price Road Northbound south of the Loop 202
- Arizona Avenue Northbound south of the Loop 202
 - relocated from Chandler Boulevard east of Kyrene Road

The "ENGINEER" (Kimley-Horn and Associates, Inc.) shall be responsible for identifying placement of the DMS; preparing the design PS&E package, coordinating with Salt River Project (SRP) to identify power sources; and coordinating with the appropriate utilities and agencies to obtain utility, right-of-way, and environmental clearances.

SCOPE OF SERVICES

Task 1 — Project Administration

Task 1.1 – Project Schedule

ENGINEER shall develop a project schedule identifying project milestones. The schedule shall be updated periodically as the project progresses. It is anticipated that the project will require a twelve (12) month schedule.

Task 1.2 – Kick-Off Meeting

ENGINEER shall arrange a kick-off meeting with the CITY within two weeks of the notice to proceed. The meeting shall include: confirmation of the lines of communication, review of the scope and schedule, and other project details.

Task 1.3 – Project Status Reports

ENGINEER shall prepare monthly project status reports, which shall include: project progress, potential issues, and the project schedule.

Task 1.4 – Project Coordination

ENGINEER shall coordinate via teleconference with the CITY on a regular basis to discuss project issues.

Task 2 — Design Concept Report (DCR)

Task 2.1 – Field Review of Existing Conditions

ENGINEER shall perform field reviews to confirm the location of existing infrastructure and identify locations for the installation of the proposed communication infrastructure. ENGINEER shall prepare a graphic showing the overview of the project area, which shall include a summary of the existing communication infrastructure. In addition, this graphic shall show any proposed infrastructure in the project vicinity identified during the preparation of the DCR. The CITY shall provide to the ENGINEER pertinent information in the project vicinity. These shall include: available as-builts of existing infrastructure, plan sets for proposed developments and locations of planned/programmed communication infrastructure.

Task 2.2 – Arizona Department of Transportation Meeting

ENGINEER shall arrange for a meeting with the Arizona Department of Transportation (ADOT) within two weeks after the project kick-off meeting. The meeting shall serve to clarify the project with the ADOT project manager and to review the project schedule.

Task 2.3 – Design Concept Report

ENGINEER shall prepare a Design Concept Report (DCR) that complies with Arizona Department of Transportation (ADOT) requirements to convey basic project background and include the following information:

- Need for the project;
- Description of the project;
- Project objectives;
- Characteristics of the corridors;
- Summary of existing infrastructure;
- Traffic and accident data;
- Design criteria;
- Design elements;
- Constructability and traffic control issues;
- Environmental requirements;
- Utility relocation requirements;
- Right-of-way requirements; and
- Estimate of probable project cost.

Task 2 Deliverable:

- Preparation of a DCR. An electronic copy and up to ten (10) hard copies will be provided to the CITY for review. ENGINEER shall revise the DCR based on any written comments received from ADOT and the CITY.

Task 3 — Environmental Documentation

ENGINEER shall prepare draft environmental documentation per ADOT – Environmental and Enhancement Group applicable guidelines for Group Two Programmatic Categorical Exclusion Projects. The documentation will be based on the results of the environmental evaluation conducted during the DCR phase of the project and on additional evaluation conducted during this phase of the project.

The effort in this task is divided into the following subtasks:

Task 3.1 – Initial Evaluation and Preparation of DCR Level Environmental Documentation

ENGINEER shall conduct an initial field reconnaissance of the project area and preparation of overview environmental documentation for inclusion in the project DCR. The field reconnaissance will focus on gathering information regarding biological resources, land use, and potential contamination within the project area. The field reconnaissance will be documented through ground photography and field notes.

This task includes one meeting with ADOT's Local Government Section.

Task 3.2 – Public/Agency Scoping Letters

ENGINEER shall prepare scoping letters to area public and agency stakeholders with jurisdiction over the project corridor that will be affected by the proposed project. A letter to the Arizona Game and Fish Department requesting a search of the Heritage Data Management System for documented protected species occurrence within the project area will also be prepared as part of this task.

Task 3.3 – Biological Review

ENGINEER shall prepare a Biological Review (BR) for the project area. The BR shall incorporate observations from field reconnaissance and the results of correspondence with the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service. A draft BR will be submitted to ADOT EEG for review and approval. Following ADOT review, comments will be incorporated and a final BR will be submitted to ADOT.

Task 3.4 – Preliminary Initial Site Assessment

ENGINEER shall prepare a Preliminary Initial Site Assessment (PISA) to identify contamination concerns within the project area. The PISA documentation will include observations from field reconnaissance and from a search of Environmental Protection Agency and Arizona Department of Environmental Quality databases that are available online. This task assumes that a Phase I Environmental Site Assessment will not be necessary.

ENGINEER shall prepare a draft report summarizing the findings will be submitted to ADOT. Following ADOT review, comments will be incorporated and a final report will be submitted to ADOT.

Task 3.5 – Cultural Resources Report

The project area is mostly paved and landscaped; therefore, visible cultural remains are unlikely. A literature review of the project area will be prepared to determine what archaeological work has taken place and what types of sites have been found in the vicinity. This information will be used to assess the likelihood of buried cultural remains within the project's area of potential effect, and to make recommendations regarding their protection during the proposed construction.

The literature review will involve a search of site and project files at the AZSite Cultural Resources Database and the State Historic Preservation Office, and General Land Office plats on file at the Bureau of Land Management-Arizona State office. Copies of site records and project maps will be obtained from these repositories, and cultural resource location and project boundaries will be digitized from these sources and put into geographic information systems (GIS) layers using ArcView. The accuracy of these locations will only be as accurate as the original plotting indicated in the records; no ground-truthing will occur to improve location data at this stage of the project.

Following the research and data collection, a cultural resources report will be written. The report will include a brief discussion of the prehistoric through historic use of the review area, information about previous projects, information about known or suspected cultural resources, and a discussion of the area's potential for buried cultural resources. A map showing the location of previous archaeological work and known sites will be prepared using the GIS information obtained in the data collection phase.

Task 3.6 – Prepare Draft Categorical Exclusion Document

ENGINEER shall prepare ADOT's new categorical exclusion checklist document that will include an objective review of the proposed project and its potential environmental issues or potential changes to the environment.

The evaluation will include an analysis of the environmental concerns including Natural Environment, Physical/Construction, Socioeconomic, and Cultural Resources. The results of the impact evaluation will be documented in the Draft Environmental Determination that will be submitted to the CITY for review. Following this review, the Draft Environmental Determination will be submitted to the ADOT Local Government NEPA Planner.

Task 3.7 – Prepare Final Categorical Exclusion Document

ENGINEER shall respond to ADOT comments and incorporate the comments into the final Environmental Determination. One meeting with the ADOT Local Government NEPA planner to discuss comments is included.

Additional Environmental Documentation Services:

The following environmental documentation services are specifically not included in the scope and fee for this project but can be provided if authorized by the CITY. Compensation for additional services will be agreed upon prior to their performance.

- Section 404 Jurisdictional Delineation or Permit Application;
- Species Specific Surveys;
- Phase I Environmental Site Assessment;
- Biological Evaluation;

- Environmental Assessment or Environmental Impact documents;
- Cultural Resources Field Survey, Monitoring, or Testing;
- Air Quality Analysis; and
- Noise Analysis.

Task 3 Deliverable:

- Preparation of Final Environmental Categorical Exclusion Checklist Document. Ten (10) copies will be provided to the CITY.

Task 4 – Utility Coordination and Clearance

ENGINEER shall coordinate with the CITY's Utility Coordinator to promote an efficient processing of the utility clearance. ENGINEER shall also coordinate with Blue Stake to identify and contact known utility companies within the project limits to obtain their utility location information. Based on the utility records received, ENGINEER shall show the approximate location of existing utilities on the design plans, beginning at the 60% level. ENGINEER shall also include contact information for each identified utility company in the DCR and in the project special provisions.

Once the project plans have reached the 60% level, ENGINEER shall distribute copies of the plans to each utility company identified to be within the project limits for review. In addition, a utility clearance form will be sent to each utility company that will document the status of each utility's facilities within the project limits, identify potential utility conflicts, and identify any special coordination or requirements that must be followed during construction.

Once clearance forms have been submitted for each utility within the project limits and the project plans have reached the 95% level, ENGINEER shall coordinate with the CITY's Utility Coordinator and ADOT to obtain formal utility clearance.

Also included as part of this task, the ENGINEER shall coordinate with SRP to identify power point of service for each of the DMS locations. This task shall be completed for the 60% PS&E submittal.

Task 4 Deliverables:

- A listing of known utility company names and contact information will be included in the DCR and project special provisions; and
- ADOT Utility Clearance.

Task 5 – Right-of Way Coordination and Clearance

Although, it is not anticipated that this project will require additional right-of-way, the ENGINEER shall coordinate with ADOT and the CITY to identify existing right-of-way and proposed right-of-way, to be dedicated to the City, within the project limits. ENGINEER shall include this information on the design plans.

Once the project plans have reached the 95% level, ENGINEER shall coordinate with ADOT to obtain right-of-way clearance.

Task 5 Deliverables:

- ENGINEER shall include the right-of-way information on the design plans; and
- ADOT Right-of-Way Clearance.

Task 6 – Prepare 30% Plans and Estimate

Task 6.1 – Prepare Base Plans

The CITY shall provide ENGINEER with as-builts, where available, of locations of CITY owned utilities within the project limits. The CITY shall provide these plans within one (1) month of the project kick-off meeting.

In order to develop CADD base plans for each of the installation locations the ENGINEER will utilize available as-builts, existing aerial information and field measurements to digitize the existing conditions. These base plans shall include the

location of existing striping, signing, face of curb, sidewalk, medians, street light poles, traffic signal equipment and above ground utility facilities.

Task 6.2 – Prepare 30% Plans

The 30% plans shall show the proposed location for the DMS installations, as well as the proposed equipment installation in the EOC and TMC. The plans shall be prepared in Microstation format and will adhere to ADOT's design guidelines.

ENGINEER shall prepare full size plan sheets at a scale of 1 inch = 40 feet (1"=40').

The following plan sheets and sections of plan sheets (estimated) will be included in the plan package:

- Title sheet (1 sheet);
- Index of sheets (1 sheet);
- Legend and abbreviations (1 sheet);
- Construction notes (1 sheet);
- DMS removal plan sheet (40 scale) (1 sheet);
- Location plan sheets (40 scale) (4 sheets); and
- EOC/TMC Installation plan sheet (1 sheet).

The design of the system shall utilize the existing communication lines (twisted pair copper), conduit and pull boxes to the extent possible. The following is the anticipated communication for each of the DMS installation locations:

- Arizona Avenue – Copper
- Price Road – Fiber Optic (Currently fiber optic interconnect is under design along Price Road and it is anticipated that the DMS shall be designed to utilize this communications)

ENGINEER shall not be responsible for developing traffic control plans in this or any subsequent phases of the project.

Task 6.3 – Prepare Estimate of Probable Costs

ENGINEER shall prepare an engineering estimate of probable costs based on the summary of quantities and recent bid prices from the CITY and other construction projects in the area.

Task 6 Deliverable:

Submittal of 30% Plans and Estimate of Probable Costs. It is anticipated that ten (10) copies of this submittal will be required. All plan sheets for this submittal shall be 11 inches by 17 inches.

Task 7— Prepare 60% Plans, Specifications and Estimate (PS&E)

Task 7.1 – Prepare 60% Plans

Based on the approved DCR and review of the 30% plans, the ENGINEER shall advance the design to the 60% completion level. It is anticipated that any comments related to changes to the proposed DMS locations shall be identified as part of the DCR and 30% submittal review periods, significant modifications to the location of the DMS will be treated as out of scope items. It is intended that the 60% plans shall be a complete plan set, which includes sufficient detail for project construction requirements.

The following plan sheets and sections of plan sheets (estimated) will be included in each of the plan packages:

- Title sheet (1 sheet)
- Index of sheets, General notes, Construction notes, Legend and Abbreviations (1 sheet)
- Communications Schematic (1 sheet)
- Equipment connection details (1 sheet)

- Details (2 sheets)
- DMS structure detail (1 sheet)
- DMS removal plan sheet (40 scale) (1 sheet)
- Location plan sheets (40 scale) (2 sheets)
- EOC/TMC Installation plan sheet (1 sheet)

ENGINEER shall coordinate the design of the project with other projects being developed that fall within the vicinity. ENGINEER shall design the splices for the new interconnect cables to the existing interconnect cables as required.

ENGINEER shall design the communication cable system including the splice locations, terminations, and specifications. This task will require coordination with the CITY's staff to identify the communications equipment currently being used (or planned to be used) in the field.

It is anticipated that the fiber splices will be coordinated between CITY staff and the Contractor at the time of construction. The CITY, at the time of construction, shall direct the Contractor on which fibers to splice between the new and existing fiber cables.

Task 7.2 – Complete Structural Analysis

As part of the development of the 60% plans ENGINEER shall conduct a structural analysis for the DMS structure and provide a structural detail for the DMS installations. This analysis is intended to determine the general parameters of the DMS structure; the contractor shall be required to submit sealed shop drawings during the submittal process. It is anticipated that the same structure design shall be used for each of the new DMS installations/relocation.

Task 7.3 – Prepare 60% Special Provisions

ENGINEER shall prepare special provisions for the project construction, which meet ADOT requirements. The special provisions will be prepared in Microsoft Word and will adhere to the ADOT guidelines.

The specifications will utilize the ADOT Standard Specifications for Road and Bridge Construction (2000) as the basis for the special provisions document and will be modified as required to describe the technical construction requirements for this project. CITY design guidelines and details shall be incorporated, superseding ADOT standards, where appropriate.

Task 7.4 – Prepare 60% Estimate of Probable Costs

ENGINEER shall update the estimate of probable costs to reflect the 60% plans and specifications.

Task 7.5 – Submit 60% PS&E

ENGINEER shall submit 60% Plans, Specifications, and Estimate (PS&E) package to the CITY and ADOT for review. It is anticipated that ten (10) copies of this submittal will be required. All plan sheets for this submittal will be 11 inches by 17 inches.

Task 7.6 – 60% Review Meeting

ENGINEER shall set up a comment review meeting to discuss comments from all stakeholders. In addition, the ENGINEER shall provide meeting minutes and a summary of comments/comment resolution. It is anticipated that all comments requiring significant changes to the project design shall be provided during this 60% Review. Comments received at later review stages that require significant changes to the project design shall be treated as out of scope items.

Task 7 Deliverables:

- Submittal of 60% PS&E; and
- 60% Review meeting.

Task 8 – Prepare 95% Plans, Special Provisions and Estimate

Task 8.1 – Prepare 95% Plans

Based on the review comments on the 60% PS&E, the ENGINEER shall advance the 60% plans to the 95% completion level.

Task 8.2 – Prepare 95% Special Provisions

Based on the 60% comments, the ENGINEER shall advance the special provisions to the 95% completion level.

Task 8.3 – Prepare 95% Estimate of Probable Costs

ENGINEER shall update the estimate of probable costs to reflect the 95% plans and specifications.

Task 8.4 – Submit 95% PS&E

ENGINEER shall submit 95% PS&E package to the CITY and ADOT for review. It is anticipated that ten (10) copies of this submittal will be required. All plan sheets for this submittal will be 11 inches by 17 inches.

Task 8.5 – 95% Review Meeting

ENGINEER shall organize a comment review meeting to discuss comments from all stakeholders. In addition, the ENGINEER shall provide meeting minutes and a summary of comments/comment resolution.

Task 8 Deliverables:

- Submittal of 95% PS&E Package; and
- 95% Review Meeting.

Task 9 – Prepare 100% Plans, Specifications and Estimate

Task 9.1 – Prepare 100% PS&E

Based on the 95% review comments, the ENGINEER shall finalize the plans, special provisions, and estimates.

Task 9.2 – Submit 100% PS&E

One (1) copy of final contract documents will be submitted to ADOT for bid.

One (1) copy of final contract documents will be submitted to the CITY for project records.

Upon project closeout, ENGINEER shall provide electronic versions of the final plans, special provisions, and estimate of probable cost to the CITY and ADOT. The ENGINEER will convert the electronic files from dgn to dwg, for submittal to the CITY. In addition the ENGINEER shall provide a summary of the layer naming convention used.

Task 9 Deliverables:

- Two (2) copies of final plans – 100% submittal with comments resolved. One (1) copy of sealed and signed full size (24 inches by 36 inches) vellum sheets to be submitted to ADOT, one (1) copy of sealed and signed (24 inches by 36 inches) mylar sheets to be submitted to the CITY. It is anticipated that no additional copies of the plan set, or individual sheets, will be required, additional copies will be treated as out-of-scope services; and
- One (1) set of the special provisions in Word format; and
- One (1) set of estimate of probable cost in Excel format; and
- One (1) set of electronic CADD files in Microstation dgn format for submittal to ADOT; and
- One (1) set of electronic CADD files in AutoCAD dwg format for submittal to the CITY; and
- One (1) summary of Layer Structure used for development of CADD drawings for submittal to the CITY.

Task 10— Post Design Services

The CITY shall coordinate all post-design services and will act as the principal initial contact for post-design questions. ENGINEER shall be responsible for the post-design services, as determined necessary by the CITY, as described below. The total of the activities identified below is not anticipated to exceed the total person-hours as identified in the attached workplan. Any activities that exceed this budgeted amount will be identified to the CITY Project Manager and treated as out-of-scope services. It is not anticipated that the ENGINEER shall be required to be involved in the daily construction observation in the field, the scope of work is to be limited to those items as described herein.

Task 10.1 – Project Management and Meetings

ENGINEER shall appoint a responsible member of the firm to be the contact person for all post-design services. This person shall be available, within twenty-four (24) hours of notification, to respond to questions in the field that may arise

relative to the plans, details, or special provisions during construction. In addition this person shall be responsible for review and updating of design plans, as required.

ENGINEER shall be required to attend the Pre-Bid Meeting and the Pre-Construction, Partnering and Project Closeout Workshops.

ENGINEER assumes that up to four (4) Utility Coordination Meetings will occur prior to the Contractor being selected and the Partnering/Pre-Construction Meetings have been held by the CITY. Any additional meetings will be treated as out-of-scope services.

Task 10.2 – Shop Drawing Review

ENGINEER shall review and approve shop drawings and review proposals for substitutions or "approved alternates," ENGINEER shall make every reasonable effort to process any material presented for review in a prompt manner.

Task 10.3 – Record Drawings

ENGINEER shall develop an electronic record of construction drawings using the construction drawing redlines produced by the CITY Engineer (As-builts). The construction drawing redlines will be recorded on the electronic Microstation (.dgn) files. The ENGINEER will convert the electronic files from dgn to dwg, for submittal to the CITY. No field investigation, potholing or other activity necessary to verify the location of installed equipment, conduits, and/or cabling shall be required for this task.

Task 10 Deliverables:

- Two (2) copies of each Contractor submittal reviewed; and
- One (1) copy of a letter describing any Contractor submittal items rejected, or requiring additional clarification; and
- One (1) CD copy of the electronic record of construction drawings in dwg format.

BILLING

ENGINEER shall complete the services outlined above for a fee not to exceed \$89,143.00. Please refer to the attached Estimate of Cost for Proposed Design Services table for the derivation of this fee.

Billing Type: Cost Plus Max

Billing Cycle: Monthly

**EXHIBIT B
FEE SCHEDULE**

LABOR			
<u>Classification</u>	<u>Billing Rate</u>	<u>Total Hours</u>	<u>Cost</u>
Project Principal	\$ 195.00	6	\$ 1,170.00
Project Manager	\$ 180.00	53	\$ 9,540.00
Communications Engineer	\$ 165.00	18	\$ 2,970.00
Project Engineer	\$ 128.00	145	\$ 18,560.00
Environmental Planner	\$ 128.00	19	\$ 2,432.00
Analyst	\$ 95.00	321	\$ 30,495.00
Technician	\$ 90.00	127	\$ 11,430.00
Admin/Clerical	\$ 78.00	61	\$ 4,758.00
Total		750	\$ 81,355.00
	<u>Unit Cost</u>	<u>Quantity</u>	<u>Cost</u>
EXPENSES			
Computer Time	\$ 15.30	134	\$ 2,050.20
Full Size Plots (Vellum/Mylar)	\$ 10.00	30	\$ 300.00
Allocation*	2.15%		\$ 1,749.00
EDR Hazmat Report	\$ 500.00	1	\$ 500.00
Archeological Consulting Services	\$ 3,189.00	1	\$ 3,189.00
Total			\$ 7,788.20
TOTAL (to nearest \$1)	\$ 89,143.00		
*Allocation includes: In-house copying, local mileage, postage, fax, telephone and cell phone charges, In-house word processing computer time			