

FIFTH AMENDMENT TO AGREEMENT

THIS FIFTH AMENDMENT TO AGREEMENT ("Amendment") made and entered into as of this ____ day of _____, 2016, amends the Agreement heretofore entered into between the CITY OF FRESNO, a municipal corporation, ("CITY"), and CAROLLO ENGINEERS, INC., a Delaware corporation ("CONSULTANT").

RECITALS

WHEREAS, CITY and CONSULTANT entered into a professional services Agreement, dated June 24, 2013 ("Agreement") for the design of plans, generation of construction contract documents, and construction support services for the 80 million gallon per day ("80MGD") Southeast Surface Water Treatment Facility ("Facility") for a total fee of \$9,149,600 and a project contingency of \$841,400, which was amended July 21, 2014 ("First Amendment"), and subsequently amended on August 24, 2014 ("Second Amendment"), on August 20, 2015 ("Third Amendment"), and on November 19, 2015 ("Fourth Amendment"); and

WHEREAS, the First Amendment utilized \$225,000 of the original project contingencies for additional services related to the design of the facility electrical sub-station resulting in an adjusted total CONSULTANT fee of \$9,374,600 and a remaining contingency of \$616,400; and

WHEREAS, the Second Amendment consisted of deferment and defunding of Part Five of CONSULTANT's original scope to accommodate and provide additional engineering services for the design and generation of construction plans and documents for the Kings River Raw Water Pipeline for the Facility ("Project"), including an increase of CONSULTANT's compensation in the amount of \$52,867 utilizing project design contingencies resulting in an adjusted total CONSULTANT fee of \$9,427,467 and a remaining contingency of \$563,533; and

WHEREAS, the Third Amendment consisted of additional CONSULTANT agency coordination, surveying and design efforts required to complete the 100 percent construction documents for the Facility. CONSULTANT's compensation for the Third Amendment was \$18,170, with costs funded from original project contingencies resulting in an adjusted total CONSULTANT fee of \$9,445,637 and a remaining contingency of \$545,363; and

WHEREAS, the Fourth Amendment provided Construction Management and Services During Construction ("Services") by the CONSULTANT for the Facility that include assisting the CITY in administering the construction contract, monitoring the performance of the construction contractor, and provide the necessary oversight in the project meeting design intent. CONSULTANT's compensation for the Fourth Amendment was \$9,442,415 resulting in an adjusted total CONSULTANT fee of \$18,929,052 and a remaining contingency of \$0; and

WHEREAS, this Fifth Amendment will provide compensation for additional design services associated with Value Engineering of the Treated Water Reservoirs as described in Exhibit A; a Supplemental Services Task for the Facility as described in Exhibit B; and Services During Construction ("Services") and a Supplemental Services Task for the Project as described in Exhibit D; and

WHEREAS, the parties have negotiated an increase of \$656,175 in CONSULTANT compensation resulting in an adjusted total CONSULTANT maximum fee of \$19,585,227 consisting of \$19,325,227 in lump sum fee and \$260,000 in cost reimbursable not to exceed budget; and

WHEREAS, CITY now desires to amend the CONSULTANT's scope of work to account for changes noted in Exhibit A, B, C, D, and in the above stated recitals; and

WHEREAS, with entry into this Amendment, CONSULTANT agrees it has no claim, demands, or disputes against CITY.

AGREEMENT

NOW, THEREFORE, in consideration of the above recitals, which recitals are contractual in nature, the mutual promises herein conditioned, and for other good and valuable consideration hereby acknowledge, the parties agree that the aforesaid Agreement be amended as follows:

1. CONSULTANT's sole compensation for satisfactory performance of all services required or rendered for the Project pursuant to this Amendment shall be:

a) Facility Value Engineering Services – a lump sum fee of \$49,850 as full compensation for the services described in Exhibit A.

b) Facility Supplemental Services – services fee with a maximum not to exceed budget of \$200,000 for the services described in Exhibit B.

c) Project Services -- a lump sum fee of \$346,325 as full compensation for the basic services and a cost reimbursable fee with a maximum not to exceed budget of \$60,000 for the supplemental services, both services described in Exhibit C.

2. Lump sum fees include all labor salary costs and expenses (direct and indirect) incurred by CONSULTANT in performance of the specified services. Cost reimbursable fees will be paid in accordance with the Fee Schedule in Exhibit D for each hour of labor and for qualifying expenses incurred or, alternatively, for agreed lump sums for each separate task authorized on work directed by the City.

3. Except as otherwise provided herein, the original Agreement, First Amendment, Second Amendment, Third Amendment, and Fourth Amendment entered

into by CITY and CONSULTANT on June 24, 2013, July 21, 2014, August 24, 2014, August 20, 2015, and November 19, 2015, respectively, remain in full force and effect.

Signatures appear on next page.

IN WITNESS WHEREOF, the parties have executed this Amendment at Fresno, California, the day and year first above written.

CITY OF FRESNO,
a municipal corporation

CAROLLO ENGINEERS, INC.,
a Delaware corporation

By: _____
Thomas C. Esqueda,
Director of Public Utilities

By: Ken Wilkins
Name Ken Wilkins

ATTEST:
YVONNE SPENCE, CMC
CITY Clerk

Title: Executive Vice President
(If corporation or LLC, Board Chair, Pres. or Vice Pres.)

By _____ Date _____
Deputy

By: [Signature]
Name: MICHAEL BARNES

APPROVED AS TO FORM:
DOUGLAS T. SLOAN
CITY Attorney

Title SECRETARY
(If corporation or LLC, CFO, Treasurer, Secretary, or Assistant Secretary.)

By: [Signature] 4/13/16
Brandon M. Collet Date
Deputy

EXHIBIT A
SCOPE OF SERVICES
CITY OF FRESNO
DEPARTMENT OF PUBLIC UTILITIES - WATER DIVISION
(CITY)
AND
CAROLLO ENGINEERS, INC.
(CONSULTANT)
SOUTHEAST SURFACE WATER TREATMENT FACILITY
(SESWTF PROJECT)

PURPOSE

CONSULTANT's scope of services, time of completion and compensation will be as set forth herein. Services shall generally be described as engineering design and treatment process consultation for the Project.

This Scope of Services is hereby made a part of the "Agreement for Professional Services" dated June 24, 2013.

SCOPE OF SERVICES

Treated Water Storage Reservoir Re-design

The purpose of this task is to complete engineering services to re-design the SESWTF Treated Water Storage Reservoirs. This work resulted from a Value Engineering exercise undertaken with the Construction Contractor and was directed by the City in order to reduce the project costs.

Assumptions

This scope is inclusive of all associated costed related to the re-design the SESWTF Treated Water Storage Reservoirs.

Deliverables

Structural, mechanical, and electrical design drawings of same standard as the Project Contract Documents.

TIME OF PERFORMANCE

CONSULTANT will conduct its services consistent with the anticipated project construction schedule so as to meet requirements for completion of construction and startup.

PAYMENT

CONSULTANT shall perform the SESWTF Treated Water Reservoirs re-design services for a lump sum fee of \$49,850.

EXHIBIT B
SCOPE OF SERVICES
CITY OF FRESNO
DEPARTMENT OF PUBLIC UTILITIES - WATER DIVISION
(CITY)
AND
CAROLLO ENGINEERS, INC.
(CONSULTANT)
SOUTHEAST SURFACE WATER TREATMENT FACILITY
(SESWTF PROJECT)

PURPOSE

CONSULTANT's scope of services, time of completion and compensation will be as set forth herein. Services shall generally be described as engineering design and treatment process consultation for the Project.

This Scope of Services is hereby made a part of the "Agreement for Professional Services" dated June 24, 2013.

SCOPE OF SERVICES

WORK ELEMENT 4 -- Optional Services

Add the following work scope to WORK ELEMENT 4 – Optional Services described in Amendment No. 4:

4.3 – Supplemental Services (SESWTF)

The purpose of this task is to provide Supplemental Services that are not specifically defined in WORK ELEMENTs 1, 2, and 3 of Amendment No. 4. CITY and CONSULTANT shall jointly identify such services and shall agree level of effort and cost prior to expenditure of the effort on any task. CITY's approval is required prior to CONSULTANT incurring any compensable costs.

Assumptions

None

Deliverables

As required for each Supplemental Service task.

TIME OF PERFORMANCE

CONSULTANT will conduct its services consistent with the anticipated project construction schedule so as to meet requirements for completion of construction and startup.

PAYMENT

CONSULTANT will be compensated for approved WORK ELEMENT 4.3 – Supplemental Services tasks on a cost reimbursable basis according to the agreed level of effort and the rates provided in Exhibit D. CONSULTANT's invoice shall provide a breakdown of labor effort and expenses on a task by task basis and copies of Air Fare and Rental Car travel receipts. Alternatively, payment can be made on the basis of an agreed lump sum amount for each individual task. A Not to Exceed budget of \$200,000 is hereby provided for WORK ELEMENT 4.3 – Supplemental Services.

EXHIBIT C
SCOPE OF SERVICES
CITY OF FRESNO
DEPARTMENT OF PUBLIC UTILITIES - WATER DIVISION
(CITY)
AND
CAROLLO ENGINEERS, INC.
(CONSULTANT)
SOUTHEAST SURFACE WATER TREATMENT FACILITY
KINGS RIVER PIPELINE (KRP PROJECT)

PURPOSE

CONSULTANT's scope of services, time of completion and compensation will be as set forth herein. Services shall generally be described as Engineering Services During Construction (ESDC) for the Southeast Surface Water Treatment Facility (SESWTF), Kings River Pipeline (KRP).

This Scope of Services is hereby made a part of the "Agreement for Professional Services" dated June 24, 2013.

PROGRAM MANAGER

The Recharge Fresno Program Manager is an extension of the CITY's staff and is included in any reference herein to the "CITY."

PROJECT

The KRP Project is a 13-mile conveyance pipeline that will divert 80-mgd from the Fresno Irrigation District Fresno No. 3 Canal near Trimmer Springs Road. The pipeline route generally follows Trimmer Springs Road, Belmont Avenue, and Armstrong Avenue, terminating at the SESWTF located at the Northwest Corner of Armstrong and Olive Avenues.

To date, the project has been completed in four phases as described below. Phase 5 represents Carollo's ESDC effort to support the Project Manager during construction.

- **Phase 1 - Schematic Design Development.** The schematic design is complete and includes 30-percent schematic design drawings, Opinion of Probable Construction Cost (OPCC), and Basis of Design Report.
- **Phase 2 - Design Development.** The 60% design development is complete and includes 60 percent design drawings, specifications, and OPCC.
- **Phase 3 - Construction Documents Development.** The 90%, 100%, and Bid Ready Documents are complete and include design drawings, specifications, and OPCC

- **Phase 4 - Bid Phase Services.** The bidding support is period is complete included answering questions from prospective bidders, and issuing addenda to answer questions on the Contract Documents. Conformed Documents will be prepared prior to ESDC Services
- **Phase 5 - Engineering Services During Construction.** The engineering support during construction will include office engineering for submittal review, response to RFI/RFC, CO, etc.; field support activities include inspections with CITY staff, when necessary, and those inspections from discipline specialists from the design team, and Project Record Drawings.

SCOPE OF SERVICES

GENERAL ASSUMPTIONS

Level of Effort

The scope of services and estimated work effort are the CONSULTANT's best judgment of the work required.

CONSULTANT has familiarized itself with the scope of services which are to be performed pursuant to this Agreement and as required in the contract documents for the Project, is in the business of providing the services to be performed hereunder, and is qualified, able, and willing to undertake the work specified herein.

CONSULTANT possesses all required licenses and certifications to perform its obligations under this Agreement, and is familiar with all applicable laws and standard procedures and all Program requirements, including DPU Construction Management Guidelines.

CONSULTANT shall work under, and at the direction of, the CITY's Project Manager, which may be a CITY of Fresno employee or a team member of the Recharge Fresno Program Manager.

Construction Records and Documentation

CONSULTANT shall maintain files and related construction documentation and is responsible for the completeness and accuracy of all records under this Scope of Services. All construction documentation/records and contract administration shall be performed, maintained, and archived by the CONSULTANT using CITY-provided Microsoft SharePoint based document management system.

File Access

CITY shall have full and complete access to all construction-related files created by the CONSULTANT during the Project for up to ten (10) years after the completion of the Project. Such access shall include the right to copy any and/or all such files at the CITY's expense.

Claim/Dispute Resolution

The CITY's Project Manager has overall responsibility for claims and dispute resolution and will provide an escalation strategy to resolve disputes at the lowest possible level, in the shortest amount of time. The CONSULTANT shall support the claims and dispute resolution process as follows:

- Support the Construction Manager to provide technical review of CONTRACTOR Change Order Requests in a timely manner.
- Provide support to evaluate the technical merit of CONTRACTOR claims.

CONSULTANT may provide additional advisory support for dispute resolution and claims (see Work Element 4 – “Optional Services,” of this Scope of Services).

Services Provided by the CITY

The CITY is providing the following seven services to support the construction of the project:

1. CONSTRUCTION MANAGEMENT Services including a Construction Manager and Inspection staff.
2. Updates and maintenance of all project specific SharePoint document management systems and contract administration work flows.
3. Procure server hardware and software packages and/or any licenses that may be required related to electronic O&M Manuals
4. With support from the CONSULTANT, provide Professional Services for SCADA Programming and permanent Site Security for the Diversion Facility.
5. Provide and update the Construction Management Guide to provide processes, systems, and tools.
6. Lead all community interaction activities.
7. Construction safety oversight consultant and labor compliance consultant services.

Construction Field Office

The CITY shall provide one (1) cubicle space in a furnished trailer on the SESWTF site for CONSUTLANT’s visiting staff. The trailer will include phone, internet, and printer/copier/scanner. The CONSULTANT shall provide any required computers and monitors for each of its visiting personnel.

TASK 5 - ENGINEERING SERVICES DURING CONSTRUCTION (ESDC)

The purpose of this task is to complete Engineering Services During Construction (ESDC). The ESDC work will include submittal review, response to Contractor questions, change order assistance, site visits/meetings, development of record drawings and project closeout assistance.

Construction support services include the combined office engineering and Project Close Out services. CONSULTANT shall provide the construction support services as described herein. The scope of these services is based on a construction period of seventeen (17) months from Contractor notice-to-proceed, which is estimated to occur in May 2016. The Scope of Services is based on completion of final construction completion date in August 2017, and completion of all Project Close Out services before October 2017.

Construction Management and Inspection services will be provided by the CITY. For the purposes of the scope of work presented herein, the construction manager will be referred to as "CONSTRUCTION MANAGER".

Subtask 5.1 – Project Management

CONSULTANT shall maintain effective project management and communication with the CONSTRUCTION MANAGER and the design team during construction. Monthly Progress Reports will be prepared to summarize project work progress, issues, and scope and budget status. Monthly Progress Reports will include:

- **Scope Report** -- A bullet-format progress report of specific accomplishments during the reporting period, problems encountered or anticipated, and work scheduled for the next reporting period.

- **Cost Report** -- A report that shows:
 - **Lump Sum Fee** -- the approved lump sum fee, the amount earned for the current period, the accumulated amount earned to date, and the agreed payment schedule for the lump sum fee. The cost report will include percent complete of each Subtask (5.1 -- 5.8).
 - **Cost Reimbursable Fee** -- the total supplemental amount (\$60,000), the agreed estimated value of each approved supplemental task, the amount earned for the current period and accumulated to date for each approved supplemental task, and the estimated cost of completion for each approved supplemental task. The cost information shall not be more than one month old.
 - **Anticipated Out of Scope Tasks** – an itemization and brief description of any anticipated Out of Scope activities for which the CONSULTANT intends to request reimbursement.
- **Schedule Report** -- A report that compares actual progress to planned performance. The report will include a description of known or possible impacts on the schedule, and a presentation of deliverable submittal dates. The schedule report will be updated monthly.
- **Invoices** – Invoices are to be submitted monthly with the Monthly Progress Report. See Payment section for further detail.

Assumptions

- CONSULTANT will prepare monthly progress reports to be submitted with invoice for previous month's work.

Deliverables

- Monthly progress report (electronic file in MS Word and/or PDF).
- Monthly invoice.
- Duration of construction will be seventeen (17) months.

Subtask 5.2 – Shop Drawing Submittal Review

CONSULTANT shall receive, log, review, comment on and return shop drawings, submittals, and samples provided by the Contractor via the CONSTRUCTION MANAGER. The CONSTRUCTION MANAGER shall screen all submittals for form and general content conforming to that specified in the Contract Documents prior to transmitting them to the CONSULTANT. The purpose of reviewing submittals by CONSULTANT is to determine if the equipment and materials proposed by the Contractor will meet the design intent of the Project and the requirements stipulated in the Contract Documents.

Assumptions

- It is estimated that approximately one hundred (100) submittals and equipment operations and maintenance manuals will be submitted by the Contractor. It is estimated that approximately fifty percent (50%) of the original submittals will require a resubmittal process. The scope and budget assumes four (3) hours per submittal review time for one hundred (100) submittals. The scope and budget assumes two (2) hours review time for fifty (50) resubmittals.
- Services not included in CONSULTANT scope of services:
 - Factory acceptance tests and observation.

Subtask 5.3 – Design Clarifications/Requests for Information (RFIs)

CONSULTANT shall prepare Design Clarifications (DCs) as necessary to clarify design plans and specifications. These may be made at the request of the Construction Manager or in response to a need discovered during submittal review. DCs will be submitted to the Construction Manager for transmittal to the CONTRACTOR.

CONSULTANT shall respond to Contractor's Requests for Information (RFIs) on the Contract Documents forwarded by the Construction Manager. The Construction Manager will screen the RFIs submitted by the Contractor and will transmit to the CONSULTANT only those RFIs which require a response by the CONSULTANT. The work will involve both written responses to formal requests for information, and informal verbal telephone response.

Assumptions

- The budget is based on an estimate of one hundred (100) DC/RFIs at an average of two and one-half (2.5) hours per DC/RFI.

Subtask 5.4 – Change Orders

In the event changes to the Contract Documents are required, the CONSULTANT will assist the CONSTRUCTION MANAGER in review of the CONTRACTOR's Change Order Request (COR) or the CONSTRUCTION MANAGER's Request for Proposal (RFP) and with preparation of Change Order (CO). CONSULTANT, at the request of the CONSTRUCTION MANAGER, shall either: review the COR /RFP or when COR/RFP requires redesign, prepare detailed CO specifications, drawings, and/or sketches.

The CONSTRUCTION MANAGER will prepare all cost estimates for each Change Order, and negotiate with the CONTRACTOR the cost and extension of Contract Time associated with each change order.

CONSULTANT will assist with Field Changes for which a Change Order is not issued as referred by the CONSTRUCTION MANAGER. Field Changes shall be checked for general compliance with the intent of the design.

Assumptions

- The budget for this task is based on assistance with fifteen (15) COR/RFP/CO at six (6) hours each.

Subtask 5.5 – Attendance at Meetings/Site Visits

CONSULTANT's representative shall attend and participate in certain project meetings at the job-site in order to keep abreast of construction activities and be involved in questions which may arise concerning construction progress. During construction site visits, CONSULTANT's design team's representative shall walk the construction area with the CONSTRUCTION MANAGER to observe construction progress and discuss relevant construction issues.

Assumptions

- CONSULTANT and one Subconsultant representative shall attend up to ten (10) meetings total during the project duration to monitor construction progress and facilitate resolution of construction issues as needed.

Deliverables

- Summary of field notes to document the site visit.

Subtask 5.65 – Startup Assistance

CONSULTANT shall assist CITY CONSTRUCTION MANAGER and Contractor in the operation and startup of new processes. Operation and startup assistance shall generally follow

procedures outlined in the Contract Documents. CONSULTANT will review Contractor's proposed plan and assist to define initial process setpoints and operational parameters. CONSULTANT shall be available to resolve startup issues and provide consultation and recommendations.

Assumptions

- The scope and budget assumes review of Contractor's startup plan and field time during startup and commissioning of equipment and testing of the corrosion monitoring system.

Deliverables

- Summary review comments of Contractor's start-up plan.
- Corrosion monitoring system test report and kml file of GPS test station locations.

Task 5.7 – Electronic O&M Manual

CONSULTANT will populate the Electronic O&M Manual (EOM) with O&M content for the diversion and conveyance facilities.

CONSULTANT will develop an electronic content management system that will contain a variety of operations and maintenance information including facility and descriptions, design criteria, control narratives, design drawings, and vendor operations and maintenance (O&M) manuals. Using the EOM, CITY staff will be able to access all of this information in an electronic format with an easy-to-use, graphical, user interface.

Assumptions

O&M Manual content will be populated into the EOM in phases, beginning with a prototype chapter, with appropriate checkpoints for review and approval by CITY staff. The prototype chapter will serve as the template of format and structure of the information before proceeding with the development of the remaining chapters. The prototype EOM chapter will be populated according to the standards utilized by CONSULTANT for similar water treatment facilities. CONSULTANT will solicit review comments from CITY to define final format and structure and final approval before proceeding with the remaining facility chapters.

EOM will be a PDF and photo based, searchable document with key elements "linked" to various other pertinent information.

The specific O&M Manual templates will be discussed are anticipated to include:

- Process Schematic
- Design Criteria
- Equipment/Instrument Specifications
- Control Descriptions
- Record Drawings
- Photos

Services not included in this task:

- Procurement of EOM server hardware and software licenses is not included in this Scope of Services.
- Integration of EOM with SCADA, CMMS, or other CITY information systems.

Deliverables

- Initial EOM template, draft and final versions for review and approval by CITY staff, and FINAL EOM, including all electronic files.

Subtask 5.8 – Record Documents and Project Close Out

CONSULTANT will prepare Record Contract Drawings to incorporate modifications of Drawings resulting from Change Orders, Field Orders, observed site conditions, and CONTRACTOR's record of construction.

Assumptions

- Construction changes will be monitored and recorded by the CONTRACTOR and CITY's Construction Manager. CONSULTANT will incorporate field markups at the end of construction and translate into electronic Record Contract Drawings.
- The scope of work and budget assumes approximately one hundred (100) drawings need to be modified at two (2) hours of CADD time per drawing, and one (1) hour of engineering time per drawing.
- Record drawings will not be prepared for traffic control plans.

Deliverables

- The electronic files of all construction record documents (AutoCAD and PDF format).
- Four (4) sets of full-sized drawings.
- Four (4) sets of half-sized drawings.

Subtask 5.9 – Supplemental Services (KRP)

The purpose of this task is to provide Supplemental Services that are not specifically defined elsewhere in KRP Task 5 of Amendment No. 5. CITY and CONSULTANT shall jointly identify such services and shall agree level of effort and cost prior to expenditure of the effort on any task. CITY's approval is required prior to CONSULTANT incurring any compensable costs.

PAYMENT

CONSULTANT shall perform basic ESDC Services (Subtask 5.1 through 5.8) for a Lump Sum Fee of \$346,325. Prior to submitting the first invoice, CONSULTANT and CITY shall agree to a payment schedule for the Lump Sum Fee.

CONSULTANT is obligated to inform CITY in advance of any circumstances that could potentially result in exceedance of task or subtask level of effort estimates. Specifically, if CONSULTANT is expending more effort than was assumed as the basis for the level of estimate on any task or subtask, and if CONSULTANT believes that additional compensation may be due as a result, CONSULTANT shall provide supporting rationale as to how the work effort and budget expenditure differs from assumptions set forth in this Scope of Services, and shall provide supporting backup information including documentation of work or re-work that could not have been anticipated when the level of effort was developed, and/or work outside the control of CONSULTANT.

CONSULTANT will be compensated for approved Subtask 5.9 Supplemental Engineering Services (KRP) tasks on a cost reimbursable basis according to the agreed level of effort and the rates provided in Exhibit D. CONSULTANT's invoice shall provide a breakdown of labor effort and expenses on a task by task basis and copies of all travel receipts. Alternatively, payment can be made on the basis of an agreed lump sum amount for each individual task. A Not to Exceed budget of \$60,000 is hereby provided for Subtask 5.9 Supplemental Services (KRP).

EXHIBIT D
FEE SCHEDULE
CITY OF FRESNO
DEPARTMENT OF PUBLIC UTILITIES - WATER DIVISION
(CITY)
AND
CAROLLO ENGINEERS, INC.
(CONSULTANT)
SOUTHEAST SURFACE WATER TREATMENT FACILITY

CONSULTANT's scope of services includes some Cost Reimbursable Fee activities. This Exhibit D provides the basis for payment on those activities. Hourly labor rates are inclusive of raw salary, benefits, and all other salary costs including expenses (direct and indirect) not specifically identified as allowable in the schedule.

Labor Category (Consultant & Subconsultant)	Hourly Billing Rate
Project Manager	\$281.00
Senior Technical Leader	\$259.00
Quality Manager	\$259.00
Senior Discipline Leader	\$240.00
Senior Project Engineer	\$202.00
Project Engineer	\$178.00
Engineer	\$159.00
Senior Technician	\$174.00
Technician	\$144.00
Designer	\$136.00
Clerical/Administrative Support Staff	\$121.00
Allowable Direct Expenses	Per Diem Billing Rate
Project Equipment Communication Expense (PECE)	\$11.70 per direct labor hour
Travel: Transport, Meals, & Lodging	Air Fare & Rental Car at cost; Auto Mileage at IRS rate; Lodging at \$125 per travel night; Meals at \$64 per travel day.
Allowable Markup	Rate
On Subconsultants & Allowable Travel Direct Expenses	10%