

Staff Summary Report



Council Meeting Date: 11/08/07

Agenda Item Number: _____

SUBJECT: Request award of a Construction Manager at Risk Construction Services contract to PCL Construction, Inc.; approval of an addendum to a professional services design contract with Carollo Engineers; and approve a change order contingency for the Johnny G. Martinez Water Treatment Plant Water Quality Improvements Project Guaranteed Maximum Price (GMP) 2.

DOCUMENT NAME: 20071108PVMV04 **JOHNNY G. MARTINEZ WATER TREATMENT PLANT (0811-03) PROJECT NO. 3201091**

SUPPORTING DOCS: Yes

COMMENTS: Construction Manager at Risk Construction Services contract with PCL Construction, Inc. for a GMP of \$3,248,237 and an addendum to a professional services design contract with Carollo Engineers for an amount not to exceed \$455,778, both subject to execution of the final written documents; and a change order contingency of \$170,000.

PREPARED BY: MARK WEBER, PRINCIPAL CIVIL ENGINEER (x8526)

REVIEWED BY: ANDY GOH, DEPUTY PW MANAGER/CITY ENGINEER (x8896)

LEGAL REVIEW AS TO FORM: JENAE NAUMANN, ASSISTANT CITY ATTORNEY (x8402)

FISCAL NOTE: Sufficient funds are available in Capital Improvement Fund No. 3201091

RECOMMENDATION: Award contract and approve addendum and contingency amount.

ADDITIONAL INFO: GMP 2 for this project includes maintenance and reconstruction of existing facilities during the annual winter plant shut down. The balance of the work for this project is anticipated to be included in the next fiscal year CIP.

PCL Construction, Inc. was selected as the Construction Manager at Risk using a qualification based process consistent with Arizona Revised Statutes. The staff has reviewed the GMP proposal and found it to be acceptable.

The fee of \$455,778 for Carollo Engineers was negotiated by staff and is considered reasonable for the scope of services. The original contract amount of \$6,582,235, and the previous addenda in the amount of \$1,998,232, plus approval of this addendum will increase the amount of the original contract to \$9,036,245.

This award and approval is conditioned upon execution of final written contract documents and approved submittals of any required payment bond, performance bond, ensure to insure affidavit, insurance certificates, or other documents.

Approved by Glenn Kephart, Public Works Manager



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CITY OF TEMPE, ARIZONA
PUBLIC WORKS DEPARTMENT
DIVISION OF ENGINEERING

CONSULTANT AGREEMENT

ADDENDUM NO. FIVE

PROJECT NO. 3201091

PROJECT NAME: JOHNNY G. MARTINEZ WATER TREATMENT PLANT WATER
QUALITY IMPROVEMENTS

This AGREEMENT made and entered into on the 8th day of November 2007,
by and between the CITY OF TEMPE, ARIZONA, a municipal corporation, hereinafter called the
CITY and CAROLLO ENGINEERS hereinafter called the CONSULTANT amends the original
Agreement made and entered into by and between the same parties on July 26, 2001, (C2001-150).

For and in consideration of the mutual covenants and conditions hereinafter
contained, it is agreed by and between the CITY and the CONSULTANT as follows:

I. The original Agreement shall be extended to cover:

Additional engineering and post design services, as described in Exhibit "A",
"B", and "C" attached.

II. The services for the extension shall be the same as those stipulated under the
original contract.

III. For services described in this Agreement Addendum, the method of payment shall be payment by installments in an amount not to exceed \$455,778.00. This fee includes the sum of \$504,224.00 for engineering and post design services and a reduction of <\$48,446.00> for reimbursable expenses.

All other provisions of the original contract Schedule of Payment Section shall apply to this Addendum.

Cost Analysis:	<u>Professional Services</u>	<u>Reimbursables</u>	<u>Total</u>
Initial Contract Amount	\$6,067,535.00	\$514,700.00	\$6,582,235.00
Previous Addenda	\$1,652,822.00	\$345,410.00	\$1,998,232.00
This Addendum	\$504,224.00	-\$48,446.00	\$455,778.00
NEW CONTRACT AMOUNT			<u>\$9,036,245.00</u>

IV. The CONSULTANT shall proceed with the work immediately upon execution of this Addendum. The CONSULTANT shall be granted a time extension as outlined below:

Notice to Proceed Date	08/09/2001
Initial Time Allowed for Completion	1521 days
Total Time Extension from Previous Addenda	1310 days
Time Extension for this Addendum	300 days

V. All other provisions of the original Agreement where not inconsistent with this Addendum shall remain binding on the parties hereto.

Johnny G. Martinez Water Treatment Plant Water Quality Improvements
Project No. 3201091

IN WITNESS WHEREOF, the parties hereto have executed this Agreement this _____ day
of _____, 2007.

CITY OF TEMPE, ARIZONA

By _____
Mayor

By _____
Public Works Manager

ATTEST:

Recommended By:

City Clerk


(FOD) Deputy PW Manager/City Engineer

APPROVED AS TO FORM:

City Attorney

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

CONSULTANT
Carollo Engineers

Name

Title

Federal I.D. No. /Social Security No.

Certified to be a true and exact copy.

Karen M. Fillmore
Records Specialist

EXHIBIT A



Exhibit A

City of Tempe Johnny G. Martinez WTP Expansion Project Number 3201091

Addendum No. 5 - Additional Engineering Services During Construction and Post Design Services

Scope of Work

GENERAL

The following Scope of Work describes the additional engineering services during construction and post design services that will be performed during construction of the Johnny G. Martinez Water Treatment Plant (JGM WTP) Reservoir and Finished Water Pump Station Project and JGM WTP Water Quality Improvements Project (GMP 1 and 2).

The additional engineering services during construction and post design services include:

- Attend Pre-Construction Conference
- Participate in Weekly Progress Meetings
- Preparation of responses to Requests for Information (RFIs) submitted by the Construction Manager (CM)
- Detailed review of Shop Drawings, O&M manuals and associated submittals
- Review Alternative Submittals and prepare recommendations
- Evaluate Contractor's request for change, prepare recommendations and prepare Engineer's Cost Estimate
- Update Interactive O&M Manual
- Add Scanned Materials & Files to City's Digital Library System
- Perform Construction Site Visits
- Preparation of Record Drawings
- Training & Start-Up Assistance
- Assistance During Construction Warranty Period
- Attendance at Construction Partnering Meetings
- On-Site Coordination with CM and Construction Manager at Risk (CMAR)
- Project Commissioning & Closeout

DESCRIPTION OF ADDITIONAL POST DESIGN SERVICES

Addendum No. 2 (dated August 14, 2002) and Addendum No. 4 (dated December 19, 2003) described the scope of services associated with each of following tasks:

- Task 300 - Pre-Construction Conference
- Task 310 - Progress Meetings
- Task 320 - Correspondence

Task 321 - Requests for Information
Task 322 - Submittal Review
Task 323 - Alternative Submittals
Task 324 - Change Order Requests
Task 340 - Update Interactive O&M Manual
Task 341 - Add Scanned Material & Files to City's Digital Library System
Task 361 - Site Visits
Task 362 - Record Drawings
Task 363 - Training & Start-Up Assistance
Task 364 - Warranty Period
Task 365 - Attendance at Partnering Meetings

The original descriptions of Tasks 310 through Task 365 remain unchanged from the prior addenda. Tasks 310 through Task 365 are amended by this Addendum No. 5 to provide additional engineering services during construction for completion of the JGM WTP Reservoir and Finished Water Pump Station Project and JGM WTP Water Quality Improvements Project (GMP 1 and 2).

Additional tasks that are added to the current scope of work includes:

Task 366 - On-Site Coordination With CM & CMAR
Task 367 - Project Commissioning & Closeout

Descriptions of these additional tasks are further described below.

Task 366 - On-Site Coordination With CM & CMAR

The ENGINEER will provide periodic on-site coordination with the Construction Manager (CM) and Construction Manager at Risk (CMAR) throughout the construction period to facilitate communications and transmittal of submittals to and from the CM and CMAR to the ENGINEER, and to expedite addressing daily matters that require the input of the ENGINEER during the construction of the project.

Task 367 - Project Commissioning & Closeout

The ENGINEER will assist the CITY and CM during final project commissioning and closeout of the JGM WTP Reservoir and Finished Water Pump Station Project and JGM WTP Water Quality Improvements Project (GMP 1 and 2). Such assistance may include assistance to review the Contractor's start-up plan, assistance during start-up and transfer of routine operation of the facilities to CITY personnel, assistance in troubleshooting and correcting malfunctions that arise during final project commissioning, and monitoring of operational concerns encountered during the transition to CITY operation. Operational concerns will be promptly evaluated by the ENGINEER and recommendations shall be presented to the CITY.

ESTIMATE OF EFFORT AND COST

The estimated effort and cost for this proposed Scope of Work is summarized in Exhibit B. Note that the estimated effort and cost associated with GMP 3 of the JGM WTP Water Quality Improvements Project is not included.

A breakdown of the estimated effort by project and impact on the current contract cost is presented in Exhibit C and summarized below as follows:

<u>Item</u>	<u>Professional Services</u>	<u>Reimbursable Expenses</u>	<u>Total Cost</u>
Initial Contract Amount	\$6,067,535	\$514,700	\$6,582,235
Previous Addenda	\$1,652,822	\$345,410	\$1,998,232
Current Contract Amount	\$7,720,357	\$860,110	\$8,580,467
This Addendum	\$504,224	(\$48,446)	\$455,778
NEW CONTRACT AMOUNT	\$8,224,581	\$811,664	\$9,036,245

Exhibit B

City of Tempe
 Johnny G. Martinez WTP Expansion
 Project Number 3201091

Addendum No. 5 - Additional Engineering Services During Construction and Post Design Services

ESTIMATE OF EFFORT AND COST
 October 8, 2007

Task	Description	Principal	Project Manager	Engineer VI	Engineer V	Engineer IV	CADD Designer	Word Process	Total
ESTIMATED LABOR COST - LUMP SUM SERVICES									
	Hourly Rate (based on 2001 rate)	\$60.00	\$47.90	\$39.50	\$36.50	\$32.50	\$29.60	\$21.75	\$59,096
	Labor Amount	\$660	\$8,430	\$19,948	\$14,527	\$10,790	\$2,131	\$2,610	1,25
	Labor Rate Multiplier (2007-2008 estimate)								\$73,870
	Adjusted Labor Amount								\$136,660
	Overhead @	185%							\$210,530
	Subtotal Labor and Overhead								\$31,579
	Profit @	15%							\$242,109
	Subtotal Labor, Overhead and Profit								\$16,140
	Project Equipment Communication Expense (PECE)								\$258,249
	Subtotal Labor, Overhead and Profit - Lump Sum Services								

Exhibit B

City of Tempe
 Johnny G. Martinez WTP Expansion
 Project Number 3201091

Addendum No. 5 - Additional Engineering Services During Construction and Post Design Services

ESTIMATE OF EFFORT AND COST
 October 8, 2007

Task	Description	Principal	Project Manager	Engineer VI	Engineer V	Engineer IV	CADD Designer	Word Process	Total
ESTIMATED LABOR EFFORT - ADDITIONAL SERVICES (ALLOWANCES)									
361	Site Visits								
	Reservoir & Finished Water Pump Station	4	24	96	48	48			220
	Water Quality Improvements (GMP 2)		8	36	18	18			80
362	Record Drawings								
	Dwgs Hrs/dwg								
	Engr Draft								
	Reservoir & Finished Water Pump Station		4	96			288	4	392
	Water Quality Improvements (GMP 2)								
363	Training & Start-Up Assistance								
	Reservoir & Finished Water Pump Station		20	120			20	20	180
	Water Quality Improvements (GMP 2)		8	64			8	8	88
364	Warranty Period								
	Reservoir & Finished Water Pump Station	2	12	12				2	28
	Water Quality Improvements (GMP 2)								
365	Attendance at Partnering Meetings								
	Reservoir & Finished Water Pump Station		4	4					8
	Water Quality Improvements (GMP 2)								
366	On-Site Coordination With CM & CMAR								
	Reservoir & Finished Water Pump Station	4	48	192					244
	Water Quality Improvements (GMP 2)		12	120					132
367	Project Commissioning & Closeout								
	Reservoir & Finished Water Pump Station	2	16	80				8	106
	Water Quality Improvements (GMP 2)								
TOTAL ESTIMATED LABOR EFFORT		12	156	820	66	66	316	42	1,478

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Exhibit B

City of Tempe
 Johnny G. Martinez WTP Expansion
 Project Number 3201091

Addendum No. 5 - Additional Engineering Services During Construction and Post Design Services

ESTIMATE OF EFFORT AND COST
 October 8, 2007

Task	Description	Principal	Project Manager	Engineer VI	Engineer V	Engineer IV	CADD Designer	Word Process	Total
ESTIMATED LABOR COST - ADDITIONAL SERVICES (ALLOWANCES)									
Hourly Rate		\$60.00	\$47.90	\$39.50	\$36.50	\$32.50	\$29.60	\$21.75	\$55,404
Labor Amount		\$720	\$7,472	\$32,390	\$2,409	\$2,145	\$9,354	\$914	1.25
Labor Rate Multiplier (2007-2008 estimate)									\$69,254
Adjusted Labor Amount									\$128,121
Overhead @	185%								\$197,375
Subtotal Labor and Overhead									\$29,606
Profit @	15%								\$226,981
Subtotal Labor, Overhead and Profit									\$14,780
Project Equipment Communication Expense (PECE)									\$241,761
Subtotal Labor Costs - Additional Services (Allowances)									
Other Allowances & Direct Costs									
Construction Web Site Setup & Maintenance									\$3,500
Scanning of Documents									\$1,500
Geotechnical & Survey									
Landscape Subconsultant									
Update of Interactive O&M Manual									
Printing of Documents & Electronic Media									
Reservoir & Finished Water Pump Station	192 mylars	\$12.00 per mylar		\$2,304					
Water Quality Improvements (GMP 2)	mylars	\$12.00 per mylar							
Reservoir & Finished Water Pump Station	10 copies	\$1.20 per sheet		\$2,304					
Water Quality Improvements (GMP 2)	10 copies	\$1.20 per sheet		\$4,608					
Subtotal Printing Expenses									\$4,608
Travel & Misc.									
Reservoir & Finished Water Pump Station				\$1,500					
Water Quality Improvements (GMP 2)				\$500					
Subtotal Travel & Misc.				\$2,000					\$2,000
Subtotal Other Allowances & Direct Costs									\$14,608

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Exhibit B

City of Tempe
 Johnny G. Martinez WTP Expansion
 Project Number 3201091

Addendum No. 5 - Additional Engineering Services During Construction and Post Design Services

ESTIMATE OF EFFORT AND COST
 October 8, 2007

Task	Description	Principal	Project Manager	Engineer VI	Engineer V	Engineer IV	CADD Designer	Word Process	Total
SUMMARY OF ESTIMATED COSTS - JOHNNY G. MARTINEZ WTP ENGINEERING SERVICES DURING CONSTRUCTION									
	Professional Services								\$500,010
	Reimbursable Expenses								\$14,608
	TOTAL ESTIMATED COSTS								\$514,618
ENGINEERING SERVICES DURING CONSTRUCTION - CURRENT REMAINING BUDGET (as of August 31, 2007)									
	Professional Services								(\$4,214)
	Reimbursable Expenses								\$63,054
	TOTAL REMAINING BUDGET								\$58,840
NET ESTIMATED BUDGET INCREASE									
	Professional Services								\$504,224
	Reimbursable Expenses								(\$48,446)
	NET BUDGET INCREASE								\$455,778

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Exhibit C

City of Tempe
 Johnny G. Martinez WTP Expansion
 Project Number 3201091

Addendum No. 5 - Additional Engineering Services During Construction and Post Design Services

NEW CONTRACT AMOUNT
 October 8, 2007

Task	Initial Contract Amount	Prior Addenda	Current Contract Amount	This Addenda	New Contract Amount
Johnny G. Martinez WTP 30 MGD Expansion Study	\$1,061,011	\$277,300	\$1,338,311	\$0	\$1,338,311
Design Projects					
JGM WTP Expansion/Water Quality Improvements	\$4,554,409	(\$733,130)	\$3,821,279	\$184,356	\$4,005,635
Disinfection Technology & Marigold Lane Impr.		\$1,042,555	\$1,042,555	(\$11,956)	\$1,030,599
Environmental Services Building		\$345,210	\$345,210	(\$10,700)	\$334,510
Reservoir, FWPS & Waterline Improvements		\$638,274	\$638,274	(\$10,868)	\$627,406
Subtotal	\$4,554,409	\$1,292,909	\$5,847,318	\$150,832	\$5,998,150
Construction Services					
Lump Sum Services (office related)	\$900,315	\$232,904	\$1,133,219	\$129,262	\$1,262,481
Allowances	\$66,500	\$15,550	\$82,050	(\$48,446)	\$33,604
Additional Services (site related)		\$179,569	\$179,569	\$224,131	\$403,700
Subtotal	\$966,815	\$428,023	\$1,394,838	\$304,946	\$1,699,784
TOTAL ESTIMATED EFFORT	\$6,582,235	\$1,998,232	\$8,580,467	\$455,778	\$9,036,245
ESTIMATED CONSTRUCTION COST	\$45,600,000				\$84,500,000

Notes:

- Current total construction cost includes costs of Environmental Services Building project, Disinfection Technology and Marigold Lane Improvements project, Reservoir and Finished Water Pump Station project, and Water Quality Improvements project.

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

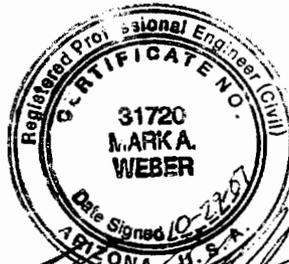
CONTRACT DOCUMENTS

FOR

**JOHNNY G. MARTINEZ WATER TREATMENT PLANT
WATER QUALITY IMPROVEMENT PROJECT – GMP 2**

PROJECT NO. 3201091

**CONSTRUCTION MANAGER AT RISK
CONSTRUCTION SERVICES**



*(FOR GENERAL AND SPECIAL
PROVISIONS)*
CITY COUNCIL MEMBERS

Mayor – Hugh Hallman

Mark Mitchell
Barbara J. Carter
Shana Ellis

P. Ben Arredondo
Onnie Shekerjian
J. Hut Hutson

Interim City Manager – Jeff Kulaga
City Engineer – Andy Goh, P.E.

2007

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CITY OF TEMPE, ARIZONA
PUBLIC WORKS DEPARTMENT
DIVISION OF ENGINEERING

NOTICE TO CONSTRUCTION MANAGER AT RISK

**JOHNNY G. MARTINEZ WATER TREATMENT PLANT
WATER QUALITY IMPROVEMENT PROJECT – GMP 2
PROJECT NO. 3201091**

The Guaranteed Maximum Price Proposal shall be submitted to the City of Tempe, Arizona, Public Works Department, Engineering Office, City Hall West Garden Level, 31 East Fifth Street, Tempe, Arizona 85281. All correspondence for this project shall reference the above City of Tempe project title and project number.

The proposed work will consist of **CONSTRUCTION AS SHOWN ON THE PLANS, AS SPECIFIED AND AS SUMMARIZED IN EXHIBIT "A"** together with associated work and shall be accomplished in accordance with the "Maricopa Association of Governments Uniform Standard Specifications and Standard Details for Public Works Construction", and "The City of Tempe Supplements thereto" except as otherwise set forth in the Contract Documents.

The Construction Manager at Risk is required to submit, from its insurance carriers, a three (3) year history of both its Experience Modification Factor (EMOD) and its loss ratio. In addition, all Contractors are required to submit an affidavit certifying that its company and all of its subcontractors, defined as doing work in excess of \$30,000.00 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 employees. The employer must offer insurance to employees for its eligible dependents.

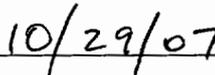
Work shall not start until after the date of issuance of Notice to Proceed and shall be completed within two hundred ten (210) calendar days thereafter. PLEASE BE ADVISED THAT SUBSTANTIAL COMPLETION OF THE WORK IS NOT THE SAME AS COMPLETION OF THE WORK.

The City of Tempe reserves the right to reject the Guaranteed Price Proposal.

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



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



Date

CONTRACT

THIS CONTRACT is made and entered into this 8th day of November, 2007, 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 "City", and PCL Construction, Inc., of the City of Tempe, County of Maricopa, and State of Arizona, hereinafter designated as the "CM@RISK."

The City intends to have constructed the **Johnny G. Martinez Water Treatment Plant – Water Quality Improvement Project – GMP 2**, hereafter "Project") as described in the Plans and Specifications and the General Provisions attached.

To undertake the construction administration of said Project the City will utilize a "Construction Manager Professional". The name of the Construction Manager Professional will be provided at the preconstruction meeting.

The CM@Risk has represented to the City the ability to provide construction management services and to construct the Project and based upon this representation the City engages PCL Construction, Inc., to provide these services and construct the Project.

A Design Phase Services agreement has been executed previously between the City and the CM@Risk to perform Design Phase services. Those services may continue during the duration of this contract.

All work done under this contract shall be accomplished in accordance with the "MAG Specifications" except as may be modified in the Contract Documents. In the event of any conflict between these Contract Documents and the requirements of the MAG Specifications, these Contract Documents shall prevail.

The CM@Risk, for and in consideration of the sum to be paid to the CM@Risk by the City, in the manner, amount and at the time hereinafter provided in the "Proposal" and of the other covenants and agreements herein contained, and under the penalties expressed in the bonds hereto attached, hereby agrees, for itself, its heirs, administrators, successors, and assigns as follows:

SECTION 1. TERMS AND DEFINITIONS

In the event of any conflict between the terms and definitions set out below and the terms and definitions found in either the "MAG Specifications" or in Contract # C2004-74, the terms and definitions set out below shall prevail in interpreting these Contract Documents unless the context requires otherwise.

Addendum – A written modification of the Contract Documents after the Contract Documents have been issued by the City Engineer but ten (10) days prior to City Council Award of this Contract. This definition replaces the MAG Specification definition of Addendum.

Alternate Systems Evaluations – Alternatives for design, means and methods or other scope considerations that are evaluated using value engineering principles and have the potential to reduce construction costs while delivering a quality and functional Project that meets City requirements.

Amendment – A written modification of the terms of this Construction Services Contract.

Award – The formal action of the City Council to accept this Contract.

Business Day – Any day except Saturdays, Sundays and holidays observed by the City.

City – The City of Tempe, a public body or authority and municipal corporation, with whom the CM@Risk has entered into this Contract and for whom the services are to be provided pursuant to this Contract. The City is the Agency or Owner or Contracting Agency for purposes of this contract. This definition replaces the MAG Specification definition of City.

City's Contingency – A fund to cover cost growth during the project used at the discretion of the City usually for costs that result from City directed changes or unforeseen site conditions. The amount of the Owner's contingency will be set solely by the City and will be in addition to the project costs included in the CM@Risk's GMP packages.

Construction Fee – The CM@Risk's administrative costs, home office overhead, and profit, whether at the CM@Risk's principal or branch offices. Examples of the administrative costs and home office costs and any limitations or exclusions are included in the General Conditions of the construction phase.

"Construction Manager At Risk" Or "CM@Risk" – The person, firm, corporation or other approved legal entity with whom the City has entered into this Contract. The "CM@Risk" is the same entity as defined as "Contractor" in MAG Specifications.

CM@Risk's Contingency or Contractor's Contingency – A fund to cover non-general conditions cost growth during the Project used with the City's approval, usually for costs that result from project circumstances. The CM@Risk Contingency or Contractor's Contingency cannot be used for General Conditions Costs. The amount of the CM@Risk's contingency will be negotiated as a separate line item in each GMP package and will not have markups at the time of the GMP proposal. The CM@Risk will inform the City at the time of use of the contractor's contingency funds by making the appropriate changes to the schedule of values with the next regular progress payment request by deducting the amount of contingency funds used from the contingency line item and adding the same amount to the line item on the schedule of values where the increased funds were used. If the contingency funds are used for a new line item that was not given with the original Schedule of Values, that will be so indicated. At the time that contingency funds are used by the CM@Risk, the appropriate markups for overhead and profit will be applied at that time. When all funds in the CM@Risk's contingency are expended, the CM@Risk then is at risk to cover any additional increases in project costs for the scope of work described in the Contract Documents and GMP proposal.

Construction Manager Professional – The person, firm or corporation named as such in this Contract who has the rights, duties, responsibilities, and limits of authority as set forth in this Contract and in the Construction Manager Professional’s Contract with the City.

Contract – This written document, including its exhibits and attachments signed by the City and CM@Risk covering the Construction Services phase of the Project and including other documents (the “Contract Documents”) itemized and referenced in or attached to and made part of this Contract. This definition replaces the MAG Specification definition of Contract.

Contract Documents – This Contract, exhibits, attachments, ”General Provisions”, “Special Provisions”, “Technical Specifications”, “Maricopa Association of Governments Uniform Standard Specifications and Details for Public Works Construction” as amended by the City of Tempe, “Plans”, “Performance Bonds”, “Payment Bonds”, all Written Amendments, Addendums and Change Orders to this Contract and any other documents so designated in this Contract. This definition replaces the MAG Specification of Contract Documents.

In case of a discrepancy or conflict, the order in which the Contract Documents govern is as follows from the highest to lowest: Special Provisions, Technical Specifications, Plans, General Provisions, Tempe Supplement to the M.A.G. Specifications, Tempe Supplement to the M.A.G. Details, M.A.G. Standard Specifications and Standard Details.

Cost of the Work – The direct costs necessarily incurred by the CM@Risk in the proper performance of the Work. The Cost of the Work shall include direct labor costs, subcontract costs, costs of materials and equipment incorporated in the completed construction, costs of other materials and equipment, temporary facilities, building permit fees, materials testing, and related items. The Cost of the Work shall not include the CM@Risk’s construction fee, general conditions fee, taxes, bonds, or insurance costs.

Cost Model – A breakdown of the scope of the Project that is initially developed by the CM@Risk during the conceptual design phase and based on information from the Project Team and the CM@Risk’s records of similar projects. The model will evolve as the design progresses and be maintained by the CM@Risk throughout the design phase and will include any assumptions and clarifications made by the CM@Risk. The model will support any cost estimates, Alternative Systems Evaluations and eventually any GMP Proposals, when required by the Project Team.

Day – Calendar day(s) unless otherwise specifically noted in the Contract Documents.

Deliverables – The work products prepared by the CM@Risk in performing the scope of work described in the Design Phase Services Contract. Some of the major deliverables to be prepared and provided by the CM@Risk during the design phase include but are not limited to: Construction Management Plan, Cost Model, Project Schedule of Values, Alternative System Evaluations, Procurement Strategies and Plans, Cost Estimates, Construction Market Surveys, Cash Flow Projections, GMP Proposals, Subcontractor Procurement Plan, Subcontractor Contracts, Subcontractor Bid Packages, Supplier Contracts, and others as indicated in this Contract or required by the Project Team.

Design Engineer – The person, firm or corporation having a contract with the City to furnish design services for this project.

Design Engineer's Consultant – A person, firm, or corporation having a contract with the Design Engineer to furnish services required of the Design Engineer, as the Design Engineer's independent professional associate or consultant with respect to the Project.

Design Phase Contract - The Contract between the City and CM@Risk for the Services provided by the CM@Risk during the design phase which may have included the following: design recommendations, project scheduling, constructability reviews, alternate systems evaluation, cost estimate, GMP preparation, and subcontractor bid phase services.

Effective Date of this Contract – The date specified in this Contract on which the Contract becomes effective, but if no such date is specified, the date on which the last of the two parties signs this Contract.

Engineer – The City Engineer acting directly or through his duly authorized representative. This definition replaces the MAG Specification definition for Engineer.

General Conditions Costs – Includes, but is not limited to, the following types of costs for the CM@Risk during the construction phase: payroll costs for the project manager or construction manager (but not both) for Work conducted at the site; payroll costs for the superintendent and full-time general foremen; payroll costs for management personnel resident and working on the site; workers not included as direct labor costs engaged in support functions (e.g., loading/unloading, clean-up); costs of offices and temporary facilities including office materials, office supplies, office equipment, minor expenses, utilities, fuel, sanitary facilities and telephone services at the site; costs of liability insurance premiums not included in labor burdens for direct labor costs; costs of bond premiums; costs of consultants not in the direct employ of the CM@Risk or subcontractors; taxes on the Work and for which the CM@Risk is liable; and fees for permits and licenses. Certain limitations and exclusions are described in the General Conditions for the construction phase.

Guaranteed Maximum Price (GMP) Proposal – The offer or proposal of the CM@Risk which sets forth the GMPs for the entire Work or portions of the Work to be performed during the construction phase. The GMP Proposal(s) are to be developed pursuant to Exhibit "A" of this Contract. The "GMP Proposal" is interchangeable with the term "Bid" as it is used in the MAG Specifications.

Laws and Regulations – Any and all applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

"MAG Specifications" – Maricopa Association of Governments Uniform Standard Specifications and Standard Details for Public Works Construction, latest edition, and the City of Tempe Supplement thereto.

Notice of Award – The written notice by the City to the CM@Risk stating that upon compliance by the CM@Risk with the conditions precedent enumerated therein, within the time specified, the City will sign and deliver this Contract. This definition replaces the MAG Specification definition for Notice of Award.

Notice to Proceed – A written notice given by City to the CM@Risk fixing the date on which the CM@Risk will start to perform the CM@Risk’s obligations under this Contract. This definition replaces the MAG Specification definition for Notice to Proceed.

Plans – Documents, which visually represent the scope, extent and character of the Work to be furnished and performed by the CM@Risk during the construction phase and which have been prepared or approved by the Design Engineer and the City.

This definition includes Plans that have reached a sufficient stage of completion and have been released by the Design Engineer solely for the purposes of review and/or use in performing constructability or biddability reviews and in preparing cost estimates (e.g., conceptual design Plans, preliminary design Plans, detailed design Plans at 30%, 60%, 90% or 100%, but “NOT FOR CONSTRUCTION”). Shop drawings are not Plans as so defined. This definition replaces the MAG Specification definition for Plans.

Project – The total design and construction of which the design phase services and construction phase Work to be provided may be the whole or a part. This definition replaces the MAG Specification definition for Project.

Project Team – Construction services team consisting of the Design Professional, CM@Risk, the City (Water Utilities Department representatives, Design Project Manager, Construction Project Manager), and Construction Manager Professional and other stakeholders who are responsible for making decisions regarding the Project. The other stakeholders will be identified in the preconstruction conference.

Samples – Physical examples of materials, equipment or workmanship representative of a part of the construction phase Work and which establish the standards by which that portion of the construction phase Work will be evaluated.

Shop Drawings – all drawings, diagrams, illustrations, schedules and other data or information specifically prepared or assembled by or for the CM@Risk and submitted by the CM@Risk to illustrate some portion of the Work. This definition replaces the MAG Specification definition for Shop Drawings.

Specifications – The part(s) of the Contract Documents labeled as Technical Specifications for the construction phase consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto. This definition replaces the MAG Specification definition for Specifications.

Subcontractor – An individual, firm, entity or corporation having a direct contract with the CM@Risk who undertakes to perform a part of the design phase services or construction phase Work at the site for which the CM@Risk is responsible. This definition replaces the MAG Specification definition for Subcontractor.

Substantial Completion – When the Work, or when an agreed upon portion of the Work, is sufficiently complete so that the City, at the City’s discretion, can occupy and use the Project or a portion thereof for its intended purposes.

Generally, the City will not issue partial acceptance of buildings. If the City deems partial acceptance is necessary, such partial acceptance will be done at the sole discretion of the City. Partial acceptance of buildings shall include, as a minimum, (a) approval by City Fire Marshall and local authorities including issuance of the Certificate of Occupancy (b) all systems in place, functional, and displayed to the City or it's representative; (c) all materials and equipment installed; (d) all systems reviewed and accepted by the City; and (e) Heating, Ventilation and Air Conditioning test and balance completed at least 30 days prior to projected substantial completion.

For buildings and other projects, partial acceptance may also include (a) elevator permit; (b) draft Operation and Maintenance manuals and record documents reviewed and accepted by the City; (c) City operation and maintenance training completed; (d) landscaping and site work; and (e) final cleaning.

Supplier – A manufacturer, fabricator, supplier, distributor, materialman or vendor having a direct contract with CM@Risk or with any Subcontractor to furnish materials or equipment to be incorporated in the construction phase Work by CM@Risk or any Subcontractor.

Total Float – Number of calendar days by which the design phase services or construction phase Work or any part of the same may be delayed without necessarily extending a pertinent schedule milestone in the Project Schedule.

Work – Any or all of the improvements as required by the Contract Documents, and the construction, demolition, reconstruction, and repair of all or any portion of such improvements, and all labor, services, incidental expenses, and material necessary or incidental thereto. This definition replaces the MAG Specification definition for Work.

SECTION 2. SCOPE OF THE WORK AND LOCATION OF WORK

The CM@Risk 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

JOHNNY G. MARTINEZ WATER TREATMENT PLANT WATER QUALITY IMPROVEMENT PROJECT – GMP 2 PROJECT NO. 3201091

as described in the Contract Documents for the sum of Three Million Two Hundred Forty Eight Thousand Two Hundred Thirty Seven and 00/100 Dollars (\$3,248,237.00), which is the Guaranteed Maximum Price (GMP) as shown in Exhibit A, 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.

The full street or physical address of the construction Work location is 255 E. Marigold Lane. The CMAR Contractor shall list each Work location in any and all Contract Documents with each subcontractor at any level and each subcontractor shall include each Work location in any and all Contract Documents with its subcontractors at any level.

SECTION 3. TIME OF COMPLETION

The CM@Risk further covenants and agrees at its 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 of all claims, liens, and charges whatsoever, in the manner and under the conditions specified within the time stated in the Notice to Construction Manager at Risk. See Section 4., IV., N., Completion of the Work, below.

SECTION 4. GENERAL PROVISIONS

I. CM@RISK REQUIREMENTS AND CONDITIONS

A. LICENSES

The Subcontractors must carry the appropriate State of Arizona Contractor's license for the proposed work at the time of bid. If the subcontractor does not have the appropriate license, the City reserves the right to reject its bid and to have the award made to the lowest bidder who has the appropriate license.

Prior to execution of this contract, the CM@Risk must possess a valid City of Tempe Transaction Privilege License and shall provide the Permit Number of such for validation and must carry the appropriate State of Arizona Contractor License.

B. EXAMINATION OF PREMISES

The CM@Risk shall visit the site of the project and shall fully acquaint itself with the conditions as they exist, so that it may fully understand the facility, difficulties and restrictions attending the execution of the work.

Subcontractor bidders shall also thoroughly examine and be familiar with the Specifications and other Contract Documents. The failure of the CM@Risk to obtain, receive or examine any addenda to the proposed Contract Documents, or to visit the site and acquaint itself with the conditions there existing, shall not relieve it from any obligation with respect to its proposal.

By submitting a proposal, the CM@Risk agrees that it has examined the site, Specifications and other Contract Documents and accepts, without recourse, all site conditions and the proposed Contract Documents.

II. AWARD AND EXECUTION OF CONTRACT

A. EXECUTION OF CONTRACT AND BONDS

The form of the contract, which the CM@Risk will be required to execute and the form of bonds which it will be required to furnish, are included in the Contract Documents and should be carefully examined by the CM@Risk. The CM@Risk

will be required to execute the bonds and the standard form of Contract in one (1) original counterpart within ten (10) calendar days after formal Notice of Award of Contract. Failure to execute this Contract and file satisfactory contract bonds as provided herein within 10 (ten) calendar days after the date of Notice of Award, shall be just cause for the cancellation of the award.

B. CM@RISK INSURANCE AND BOND RATING REQUIREMENTS

Personal or individual bonds are not acceptable.

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 Worker'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.

C. INSURANCE REQUIREMENTS

The CM@Risk's attention is directed to Contractor's Insurance, MAG Specification 103.6. The insurance policies required by MAG Specification 103.6 shall additionally provide full coverage of indemnity to the City, including an increase in the minimum limits to \$5,000,000 combined single limit coverage for General Liability. Prior to execution of the contract, the CM@Risk 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 Number and shall provide for not less than thirty (30) days advance written notice by Certified Mail of Cancellation or Termination. The 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." When the project includes construction of a new building addition to an existing building, Builders Risk Insurance shall be provided for the full amount of the contract, in accordance with MAG Specification 103.6C.

D. HEALTH INSURANCE REQUIREMENTS

All CM@Risk who enter into a contract in excess of \$30,000.00 with the City of Tempe must certify that they have, and all of its major subcontractors will have, health insurance for all 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 \$30,000.00 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. Signs for posting will be provided by the City at the Pre-construction Conference for Contractors and sent with the executed contract for Consultants.

E. BONDS REQUIRED

Bonds in the following amounts will be required of the CM@Risk at the time of executing the formal contract and must meet the requirements of Arizona Revised Statutes Title 34, Chapter 6, as amended:

1. Performance bond, one hundred percent (100%) of the contract price.
2. Payment bond, one hundred percent (100%) of the contract price.

F. INDEMNIFICATION

To the fullest extent permitted by law, the CM@Risk, its successors, assigns and guarantors, shall defend, indemnify and hold harmless the City of Tempe, its agents, officers, officials and employees from and against all allegations, demands, proceedings, actions, claims, damages, losses, expenses, judgments, including but not limited to, attorney fees, court costs, and the cost of appellate proceedings, and all claim adjusting, relating to, arising out of, or resulting from any acts, errors, mistakes, omissions, work or services of the CM@Risk, its agents, employees, or any tier of CM@Risk's subcontractors

in the performance of this Contract.

CM@Risk's duty to defend, indemnify and hold harmless the City of Tempe, its agents, officers, officials and employees shall arise in connection with any allegation, demand, proceeding, action, claim, damage, loss, expense or judgment that is attributable to bodily injury, sickness, disease, death, or injury to, impairment, or destruction of property including loss of use resulting there from, caused by CM@Risk's acts, errors, mistakes, omissions, work or services in the performance of this Contract including any employee of the CM@Risk, any tier of CM@Risk's subcontractors or any other person for whose acts, errors, mistakes, omissions, work or services the CM@Risk may be legally liable.

The amount and type of insurance requirements set forth herein will not be construed as limiting the scope of the indemnity provisions of this Contract.

III. SCOPE OF WORK

A. DESCRIPTION OF WORK

The proposed work to construct the Johnny G. Martinez Water Treatment Plant Water Quality Improvements-GMP 2 will consist of associated work as described in the attached Specifications.

B. TRAFFIC CONTROL

All traffic shall be regulated in accordance with MAG; the City of Phoenix Barricade Manual, latest edition, with City of Tempe revisions, available through the City of Tempe Transportation Division (Transportation) 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 CM@Risk 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 alterations are implemented per these traffic control specifications.

The CM@Risk shall have the full responsibility and liability for traffic control for this project. The CM@Risk shall submit a Traffic Control Plan to Transportation 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 Transportation. 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; or the City of Phoenix Barricade Manual, latest edition, with revisions as adopted by the City of Tempe. The most restrictive manual shall apply.

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 shall be submitted to Transportation for review and approval.

In the event the CM@Risk damages any traffic signal equipment, traffic signal conduit, and/or circuits, it shall have them repaired immediately at its expense by an electrical contractor that has had traffic signal experience which is pre-approved by the City. Any damage repaired by the City will be billed to the CM@Risk at twice the City’s cost.

The CM@Risk shall notify all adjacent or affected residents or businesses at least forty-eight (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 Transportation.

Speed limits shall be strictly enforced.

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

C. CLEAN-UP

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

D. ALTERATION OF WORK

In the event that significant changes in the scope of the work, and/or changes in the quantities due to contingencies of construction becomes necessary, such changes shall be made in accordance with Section 104.2 of General Conditions in the MAG Specifications.

The costs associated with any extra work as authorized by the contracting agency must be approved prior to the start of 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 any and all charges associated with extended general conditions or contract acceleration.

E. SUBSIDIARY WORK

All work called for in the Plans and Specifications shall be performed by the CM@Risk 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.

IV. CONTROL OF WORK

A. INTERPRETATIONS OF DRAWING AND DOCUMENTS

If any Subcontractor submitting a bid for the proposed Work or any part thereof is in doubt as to the true meaning of part of the Contract Documents, or finds discrepancies in, or omissions from the Contract Documents, such Subcontractor may submit to the Engineer a written request for an interpretation or correction thereof. The Subcontractor submitting the request will be responsible for its prompt delivery. Any interpretations or corrections of the proposed documents will be made by Addendum duly issued, and a copy of each addendum will be mailed or delivered to the CM@Risk who shall distribute the addendum to the appropriate Subcontractor(s). The City of Tempe will not be responsible for any other explanation or interpretations of the documents.

B. CM@RISK'S REPRESENTATIVE

The CM@Risk shall at all times be present at the work in person or represented by a foreman or other properly designated agent. Instructions and information given by the Engineer to the CM@Risk's foreman or agent on the Work shall be considered as having been given to the CM@Risk.

C. RELOCATION OF UTILITIES

All utilities in conflict with the new Work will be relocated by the City except as otherwise provided in the Plans and Specifications,

D. SUPERVISION BY CM@RISK

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

Nothing contained in this Contract shall be construed as establishing an employer/employee relationship, partnership or joint venture between the CM@Risk and the City.

E. CONSTRUCTION STAKING

Construction staking will be provided by the CM@Risk. Replacement of construction stakes that have been knocked out due to CM@Risk's work or lack of work, weather conditions, traffic, or vandalism will be at the CM@Risk's expense.

F. SURVEY CONTROL POINTS

Existing survey monuments shall be protected by the CM@Risk or removed and replaced under the direct supervision of the City Surveyor or the City Surveyor's authorized representatives. Prior to construction, it is the responsibility of the CM@Risk to notify the City Surveyor of any survey monuments which need to be referenced off of the monument. Any monuments which are lost and have not been referenced off due to the CM@Risk's negligence and/or lack of notification to the City Surveyor shall be replaced at the CM@Risk'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.

G. AUTHORITY OF THE CONSTRUCTION MANAGER PROFESSIONAL

The Construction Manager Professional shall act as the City Engineer's designated representative during the construction period. Construction Manager Professional shall advise on questions concerning coordination with the City of Tempe, public safety, and quality and acceptability of materials and work performed. The Construction Manager Professional or the Construction Manager Professional's assigned inspector shall interpret the intent of the Contract Documents in an unbiased manner.

The Construction Manager Professional or Construction Manager Professional's assigned inspector shall be present on the site at times during construction to monitor the work and to maintain records for contract management. The Construction Manager Professional shall promptly make decisions relative to the interpretation of the Contract Documents so as to minimize delays in construction. The Construction Manager Professional will not be responsible for directing construction, control, techniques, sequence, or procedures, or for directing job safety.

H. SHOP DRAWINGS, SCHEDULES & SAMPLES

In time for each to serve its proper purpose and function, the CM@Risk shall submit to the Engineer such 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 Engineer in such number of copies as will allow him to retain four (4) copies of each submittal.

The submittal shall clearly indicate the specific area of the Contract Documents for

which the submittal is made. The additional copies received by him will be returned to the CM@Risk's representative at the job site. The 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 Documents, and the fabrications furnished shall be in conformance with the same. However, the Engineer's review of the above drawings, lists, prints, specifications, samples, or other data shall not release the CM@Risk from its responsibility for the proper fulfillment of the requirements of this Contract nor for fulfilling the purpose of the installation nor from its liability to replace the same, should it prove defective or fail to meet the specified requirements.

I. AS-BUILT PLANS

The CM@Risk shall provide and maintain accurate field data on a red-lined set of contract Plans, which are to be kept current and submitted as complete at the conclusion of the construction. These record Plans will be used as documentation for progress payments, and upon project completion, for the preparation of 'as-built' file Plans 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 Plans and as-built information are submitted by the CM@Risk, and certified to be complete by the architect/engineer of record.

J. UNDERGROUND UTILITIES

Underground utilities indicated on the Plans are in accordance with maps furnished by the City of Tempe and by each utility company. The locations are only approximate and require verification prior to construction as mandated by City of Tempe requirements for underground street crossings and potholing.

K. INSPECTION

The CM@Risk 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. Prior to "final inspection" on any City facilities requiring a Building Permit, the CM@Risk must call for final inspections from the Development Services and Public Works Departments of the City of Tempe. The final inspection must be completed prior to final acceptance and payment by the City Engineer.

L. SUBSTANTIAL COMPLETION

Upon Substantial Completion of the entire Work or, if applicable, any portion of the Work, City shall release to CM@Risk all retained amounts relating, as applicable, to the entire Work or completed portion of the Work, less an amount up to two and one half times (2.5) the reasonable value of all remaining or incomplete items of Work as noted in a certificate of Substantial Completion.

M. BENEFICIAL OCCUPANCY

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

N. COMPLETION OF THE WORK

Completion of the Work is full completion of all construction associated with a contract, including, but not limited to punch list items, close out documentation, Operation and Maintenance manuals, warranties, and record Plans as certified by the Architect or Engineer of record.

O. 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 Documents 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.

V. CONTROL OF MATERIALS

A. EXCESS MATERIALS

Excess or unsuitable material, broken asphaltic concrete and broken portland concrete shall be disposed of by the CM@Risk. The CM@Risk 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 it has obtained the property owner's permission for the disposal of all surplus material.

B. 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, notwithstanding any omission from these Contract Documents; and it shall be the duty of the CM@Risk to call the 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 CM@Risk as though contained in the original Contract Documents.

At the option of the Engineer, materials to be supplied under this Contract will be tested and/or inspected either at its place of origin or at the site of the work. The CM@Risk shall give the 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.

VI. LEGAL REGULATIONS AND RESPONSIBILITIES TO PUBLIC

A. CONFLICT OF INTEREST

This contract is subject to cancellation under the provisions of ARS §38-511.

B. EMERGENCIES

In any emergency affecting the safety of persons and/or property, CM@Risk shall act, at its discretion, to prevent threatened damage, injury or loss. The MAG Specification 107.5 applies to this provision.

C. NON-DISCRIMINATION

In connection with the performance of work under this Contract, the CM@Risk agrees not to discriminate against any employee or applicant for employment because of race, religion, color, national origin, sex, age or disability. The aforesaid provision 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 CM@Risk agrees to post hereinafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Contracting officer setting forth the provisions of the Non-Discrimination clause.

D. 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 CM@Risk 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 of Tempe 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 five thousand (5,000) cubic yards or when the duration of the haul is more than ten (10) working days, are required to obtain a City of Tempe haul permit before the hauling operation begins. Prior to receiving a hauling permit, the CM@Risk must submit the required certificate of insurance, a plan showing the proposed haul routes and a complete schedule of the hauling operation to the City of Tempe Transportation Division. Prior to submittal, the CM@Risk should contact Engineering Services for complete details for issuance of the City of Tempe haul permit.

E. ENVIRONMENTAL REQUIREMENTS

The CM@Risk 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.

Non-pick up sweepers will not be allowed except as required to make joints during chip sealing operations.

Water flooding of trenches with potable water will not be permitted.

All paints applied by sprayers shall be of a water-based type.

Provisions shall be made to prevent the discharge of construction silt, mud, and debris into City storm drains or streets.

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.

Concrete waste must be disposed of in an approved location and at least twenty-five (25) feet from established landscaping.

City of Tempe refuse roll-off containers shall be used on City projects. Please contact Steve Fraijo, Sanitation Supervisor, at 480-350-8268 with any questions.

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.

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.

All materials supplied by the CM@Risk shall be 100% asbestos free unless otherwise approved by the City of Tempe.

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 meeting project Specifications are encouraged.

F. SAFETY REQUIREMENTS

The CM@Risk shall comply with all applicable federal, state and local health and safety laws, regulations, ordinances, and requirements. In addition, the following requirements are applicable for City of Tempe construction projects.

1. *PRE-CONTRACT REQUIREMENTS*

The CM@Risk shall submit current loss history information from all its insurance carriers before this contract is executed. The information specific to workers' compensation insurance carriers must include a three (3) year history of both its Experience Modification Factor (EMOD) and its loss ratio.

The CM@Risk shall provide upon request a copy of its written health and safety program and any required employee training records or certificates.

Insurance Confirmation – The CM@Risk shall provide certificates of insurance and meet indemnification criteria.

2. *CONTRACT REQUIREMENTS*

The CM@Risk 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 – CM@Risk 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 Manager and the 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, the City shall be notified should an OSHA inspection occur 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.

The CM@Risk may have the following additional safety requirements based on the exposures of the project:

The CM@Risk 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 1) is large enough and so configured that an employee can bodily enter and perform assigned work; 2) 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 3) is not designed for continuous employee occupancy.

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

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 CM@Risk to provide a trained attendant and all necessary equipment required for safe entry of the City employee.

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, minutes of the meetings, and documentation of any safety tailgate meetings held on the job site.

G. TEMPORARY BARRICADES

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

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

H. PROTECTION OF FINISHED OR PARTIALLY FINISHED WORK

The CM@Risk 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 CM@Risk from such responsibility but he shall turn over the entire work in full accordance with these Specifications before final payment can be made.

I. BLUE STAKE

The CM@Risk is required to notify Blue Stake (602-263-1100) prior to the excavation of any material in accordance with A.R.S. §§ 40-360.21 through 40-360.32, as amended. The CM@Risk shall directly contact the City for the marking of electrical underground apparatus for traffic signals, sprinkler and irrigation facilities.

J. SALT RIVER PROJECT CONSTRUCTION CLEARANCE AGREEMENT

Salt River Project requires all contractors who will be working on its facilities to sign a standard form "Construction Clearance Agreement" prior to issuance of a license.

This agreement 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 OSHA Permit Required Confined Space rules, as amended. The CM@Risk is responsible for executing a "Construction Clearance Agreement" with Salt River Project, if required, and furnishing a copy to the City of Tempe prior to proceeding with any construction on Salt River Project facilities.

K. 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 CM@Risk prior to start of construction.

L. 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. If only one driveway exists, then access shall be maintained to at least one-half of the driveway at a time. Access to adjacent private driveways shall be maintained during all non-working hours.

M. PROTECTION OF EXISTING FACILITIES

The CM@Risk 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 CM@Risk. The CM@Risk shall notify the appropriate Utility Company or agency of any construction that may affect its facilities and state the course of action which will be taken to protect same.

N. STORM WATER POLLUTION PREVENTION PLAN AND AZPDES PERMIT

This project is subject to Arizona Pollutant Discharge Elimination System (AZPDES) General Permit requirements for discharge from construction activities to waters of the United States. Under provisions of that permit, the CM@Risk shall be designated as permittee, and shall be responsible for providing necessary material and taking appropriate measures to assure that all discharges authorized by the General Permit shall be consistent with the terms and conditions of the General Permit. The AZPDES Construction General Permit requirements for construction and Storm Water Pollution Prevention Plan can be downloaded from www.adeq.state.az.us/environ/water/permits/links.html or viewed at the City of Tempe Engineering Division.

The contractor shall complete and submit the following:

1. **Notice of Intent (NOI) for Coverage** under AZPDES Permit No. AZG2003-001 for Construction Activity Discharges to Waters of the United States, including certification of the signature.

2. **Storm Water Pollution Prevention Plan (SWPPP)** for the project.
3. **Notice of Termination (NOT)** of coverage under the AZPDES Construction General Permit.

All subcontractors shall comply with all requirements of the AZPDES Construction General Permit and the project SWPPP. The SWPPP shall be kept on the project site at all times, and shall be retained by the permittee for three (3) years following project completion.

The contractor shall submit completed and signed NOI forms **PRIOR TO THE PROJECT PRECONSTRUCTION CONFERENCE** to the following address: **Stormwater Program – Water Permits Section/ NOI**, Arizona Department of Environmental Quality, 1110 West Washington, Phoenix 5415B-3, Arizona 85007.

Copies shall be transmitted to the City's construction project manager at the time of the preconstruction meeting. The Contractor shall prepare a final SWPPP and submit it at the preconstruction meeting for discussion and approval.

Failure by the contractor (or any of its appropriate subcontractors) to submit the NOI forms within this time frame (or to promptly make revisions to those forms as requested by the City) which prevents **submittal** of the forms to the Arizona Department of Environmental Quality within the mandated deadline of forty-eight (48) hours prior to start of construction will result in delay of the start of construction. The contractor will not be entitled to any claim for additional compensation for additional costs resulting from such a delay in the construction start date. The NOI shall be posted on the construction site along with the SWPPP.

It is the permittee's responsibility to perform inspections of all storm water pollution prevention control devices on the project on a monthly basis, and following each significant rainfall (0.50 inches or more). The contractor is responsible for maintaining those devices in proper working order, including cleaning and/ or repair.

All SWPPP reports required under this contract shall be available to the public in accordance with the requirements of the AZPDES Construction General Permit No. AZG2003-001. The contractor, as the permittee of construction activities with storm water discharges covered by the AZPDES Construction General Permit, shall make plans available to the public upon request through the Arizona Department of Environmental Quality.

No condition of the AZPDES Construction General Permit as well as the SWPPP shall release the contractor from any responsibilities or requirements under other environmental statutes or regulations.

Upon total project completion, acceptance, and de-mobilization, the contractor shall submit its completed, signed Notice of Termination (NOT) form to **Stormwater Program – Water Permits Section/ NOT**, Arizona Department of Environmental Quality, 1110 West Washington 5415B-3, Phoenix, Arizona 85007 with a copy to

the City's construction project manager thereby terminating all AZPDES Construction General Permit coverage for the project.

The unit prices for the proposal items shall include all material, labor, and other incidental costs relating to the preparation and submittal of all AZPDES Construction General Permit related forms to Arizona Department of Environmental Quality; preparation, revision and maintenance of the SWPPP; and provision, installation, operation, and maintenance of all pollution control devices. The cost of the activities and items within this provision as provided by the contractor is considered incidental to other items and no extra payment will be made for these incidental costs. Such incidental costs shall include contractor costs in order to assure proper operation of the pollution control devices installed, including all maintenance, cleaning, and disposal costs associated with clean-up and repair following storm events or other runoff or releases on the project.

VII. COMMENCEMENT, PROSECUTION AND PROGRESS

A. START OF WORK

Work shall start as soon as practical, and in no case later than seven (7) calendar days after the Notice to Proceed and shall be completed within one hundred twenty (120) calendar days thereafter.

B. CONTRACT COMPLETION DATE

The date established in 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.

C. CM@RISK'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 Specification 108.4. In addition, a schedule update comparing actual progress with scheduled progress will be required with the submission of each monthly pay request.

D. HINDRANCES AND DELAYS

1. Except as provided in Paragraph 2 immediately below, no charge shall be made by the CM@Risk 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 CM@Risk, shall entitle the CM@Risk to a time extension sufficient to compensate for the delays. The amount of the delay shall be determined by the Engineer provided the CM@Risk gives the Engineer immediate notice in writing of the cause of such delay.

2. The parties agree to negotiate for the recovery of damages related to expenses incurred by the CM@Risk 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 CM@Risk can show the impact of the delay on the critical path of the construction activity as indicated in an approved Construction Progress Management schedule.
3. Unless specifically provided for in the Special Provisions, the maximum compensation for an unreasonable or unforeseen delay shall not exceed the daily amount specified for liquidated damages in MAG Specification 108.9 as based on the original contract amount.
4. This section shall not be construed to void any provisions of this contract, which require notice of delays, which provide for alternative dispute resolution or other procedures for settlement, or which provide for liquidated damages.

E. LIQUIDATED DAMAGES

Unless otherwise specified, liquidated damages will be applied in accordance with the MAG Specification 108.9. Completion of the Work as stated in this Contract is the same as completion of the work as stated in MAG Specification 108.9. Damages will be applied at the amounts specified in Table 108.1.

F. NON-WAIVER PROVISION

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 and every provision.

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

H. SURVIVAL

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

I. MODIFICATION

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.

J. 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.

K. 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.

L. TIME IS OF THE ESSENCE

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

M. 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 CM@Risk. All duties and responsibilities undertaken pursuant to this Contract will be for the sole and exclusive benefit of the City and the CM@Risk and not for the benefit of any other party.

N. COOPERATION AND FURTHER DOCUMENTATION

The CM@Risk 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.

VIII. MEASUREMENTS AND PAYMENTS

A. CONTRACT PRICE ADJUSTMENTS

The increase or decrease in Contract Price resulting from a change in the City requested change in Work shall be determined by one or more of the following methods:

1. Unit prices set forth in the Contract or as subsequently agreed to between the parties;
2. A mutually accepted, lump sum, properly itemized and supported by sufficient substantiating data to permit evaluation by the City; and
3. Costs, fees and any other markups.

The markups that shall be allowed on such changes shall be no greater than the markups delineated in the approved GMP as shown on Exhibit A.

If an increase or decrease cannot be agreed to as set forth in items 1 through 3, above, and the City issues a Change Order, the cost of the change of the Work shall be determined by the reasonable expense and savings in the performance of the Work resulting from the change, including a reasonable overhead and profit, as may be set forth in the Contract. CM@Risk shall maintain a documented, itemized accounting evidencing the expenses and savings associated with such changes.

If unit prices are set forth in the Contract Documents or are subsequently agreed to by the parties, but application of such unit prices will cause substantial inequity to the City or the CM@Risk because of differences in the character or quantity of such unit items as originally contemplated, such unit prices shall be equitably adjusted.

If the City and the CM@Risk disagree upon whether the CM@Risk is entitled to be paid for any services required by the City, or if there are any other disagreements over the scope of Work or proposed changes to the Work, the City and the CM@Risk shall resolve the disagreement pursuant to MAG Specification 110.

As part of the negotiation process, CM@Risk shall furnish City with a good faith estimate of the costs to perform the disputed services in accordance with City's interpretations.

If the parties are unable to agree and City expects the CM@Risk to perform the services in accordance with City's interpretations, CM@Risk shall proceed to perform the disputed services, conditioned upon City issuing a written order to CM@Risk (i) directing CM@Risk to proceed and (ii) specifying City's interpretation of the services that are to be performed.

B. RECORD KEEPING AND FINANCE CONTROLS

Records of the CM@Risk's direct personnel payroll, reimbursable expenses pertaining to this Project and records of accounts between the City and CM@Risk shall be kept on a generally accepted accounting basis.

The City, its authorized representative, and/or the appropriate federal agency, reserve(s) the right to audit the CM@Risk's records to verify the accuracy and appropriateness of all pricing data, including data used to negotiate Contract Documents and any change orders.

The City reserves the right to decrease Contract Price and/or payments made on this Contract if, upon audit of the CM@Risk's records, the audit discloses the CM@Risk has provided false, misleading, or inaccurate cost and pricing data.

The CM@Risk shall include a similar provision in all of its Contracts with Subconsultants and Subcontractors providing services under the Contract Documents to ensure the City, its authorized representative, and/or the appropriate federal agency, has/have access to the Subconsultants' and Subcontractors' records to verify the accuracy of cost and pricing data.

The City reserves the right to decrease Contract Price and/or payments made on this Contract if the above provision is not included in Subconsultant's and Subcontractor's contracts, and one or more Subconsultants and/or Subcontractors do not allow the City to audit it's records to verify the accuracy and appropriateness of pricing data.

C. 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, and other comparable items 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, and other comparable items, and are included in this category.

D. APPROXIMATE QUANTITIES

It is expressly understood and agreed by the parties hereto 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 Proposal, are only approximate and are to be used solely for the purpose of comparing, on a consistent basis, the proposals offered for the work under this

Contract; and the CM@Risk further agrees that the City of Tempe will not be held responsible if 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 CM@Risk from the execution and completion of the whole or any part of the work in accordance with the Plans and Specifications herein mentioned, and for the prices herein agreed upon and fixed therefore, or excuse him from any of the obligations or liabilities hereunder, or entitle him to any damages or compensation except as may be provided for in this Contract.

E. MISCELLANEOUS WORK AND ALLOWANCES

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.

1. CM@Risk's expenses for, but not limited to. mobilization, job site office, storage facilities, traffic control and public safety devices, sanitary facilities, utilities and telephone.
2. Cleanup including day-to-day cleanup.
3. Notification to residents adjacent to this project prior to start of construction which would affect them.
4. Water required for compaction or dust control.
5. Miscellaneous removals and relocations not otherwise specified in the Technical Provisions.
6. Power pole bracing.
7. Removal of trees twelve inches (12") or less in diameter.
8. Removal, relocation and/or modification of existing walls and fences.
9. Trimming of trees and bushes.
10. Replacement of plant material and repair of irrigation equipment to meet or exceed conditions existing prior to CM@Risk beginning work.

SECTION 5. SPECIAL PROVISIONS

I. PERMITS

The Contractor shall be required to obtain all permits and licenses for the project and pay all applicable fees, unless otherwise noted on the Plans and Specifications. The Contractor shall be paid for the actual costs of the permits and license fees upon submitting a receipt showing the fee paid. Excluded are items such as all costs incurred by the Contractor in securing the permit except for the actual permit fee established by the agency, cost 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 license and permits issued for this project.

II. PHONE NUMBERS

City of Tempe Engineering (Project Manager)	Mark Weber	480-350-8526
City of Tempe Water Utilities	Don Hawkes	480-350-2660
Carollo Engineers	Perry Johnson	602-474-4140
Blue Stake		602-263-1100

III. UNIFORMED POLICE OFFICERS

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 paid for by the City.

IV. OPEN TRENCHING AND STEEL PLATES

The maximum amount of open trench in any state of trenching or backfilling shall be limited to five hundred feet (500'). All trenches shall be completely backfilled or covered using steel plates at the end of each working day. The use of steel plates shall not exceed seventy-two (72) hours between completion of work in trench and final patch. Steel plates are to be installed according to Detail T-450 of the Tempe Supplement to the MAG Details. All steel plates installed will be recessed into the existing pavement by milling until the top of the plate is flush with the top of the pavement.

V. CONFIDENTIALITY OF PLANS AND SPECIFICATIONS

Any Plans or Specifications the CM@Risk receives regarding this project are for official use only. The CM@Risk may not share them with others except as required to fulfill the obligations of its contract with the City.

All Record Documents, Shop Drawings and other plans or drawings prepared or submitted by the CM@Risk shall include the following language: "Per City of Tempe Guidelines, these Plans are official use only and may not be shared with others except as required to fulfill the obligations of the CM@Risk's contract with the City of Tempe".

VI. IRRIGATION AND LANDSCAPE REPAIR

The Contractor shall repair all sprinkler and irrigation systems that are disturbed in the course of the work. There will be no separate payment for irrigation and landscape repair, the cost of which will be incidental to other bid items. It is highly recommended that the Contractor meet with owner(s) of irrigation systems prior to construction and note existing operating systems to minimize impact and repair costs.

VII. SEQUENCE OF CONSTRUCTION

The Contractor shall submit a project sequencing schedule to the City Engineer for review at the pre-construction conference. The Contractor is on notice that the City will review the proposed schedule to insure limited community impact.

VIII. COORDINATION WITH OTHER CONTRACTORS

There may be other projects under construction during the contract period. Coordination between contractors may be required.

Should the Contractor cause damage to the work or property of any separate contractor at the site, or should any claim arising out of or resulting from the Contractor's performance of the work at the site be made by any separate contractor against the Contractor, Design Engineer, or Construction Manager or any other person, Contractor shall promptly attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by mediation, arbitration, or at law.

Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold Owner, Design Engineers and Construction Manager and the officers, directors, employees, agents and other consultants of each and any of them harmless from and against all claims, costs, losses and damages, (including, but not limited to, all fees and charges of engineers, architects, attorneys and other professionals, and all court arbitration or other dispute resolution costs) arising directly, indirectly or consequentially out of or resulting from any action, legal or equitable, brought by a separate contractor against Owner, Design Engineer or Construction Manager of the officers, directors, employees, agents or other consultants of each and any of them to the extent based on a claim caused by, arising out of, or resulting from Contractor's performance of the work.

Should a separate contractor cause damage to the work or property of Contractor or should the performance of work by any separate contractor at the site give rise to any other claim, Contractor shall not institute any action, legal or equitable against Owner, Design Engineer, or Construction Manager or the officers, directors, employees, agents, or other consultants of each and any of them or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any mediator or arbitrator which seeks to impose liability on or to recover damages from Owner, Design Engineer, or Construction Manager or the officers, directors, employees, agents, or other consultants of each and any of them on account of such damage or claim.

If Contractor is delayed at any time in performing or furnishing work by any act or neglect of a separate contractor and Owner and Contractor are unable to agree as to the extent of any adjustment in Completion Time attributed thereto, Contractor may make a claim for an extension of time. An extension of the Completion Time shall be Contractor's exclusive remedy with respect to Owner, Design Engineer, or Construction Manager or the officers, directors, employees, agents, or other consultants of each and any of them for activities that are its respective responsibilities.

Cooperation between Contractors shall be in accordance with MAG Specification 105.7.

SECTION 6. FORMS

LIST OF SUBCONTRACTORS SB-1

STATUTORY PERFORMANCE BONDB-1

STATUTORY PAYMENT BONDB-3

CONTRACTOR'S AFFIDAVIT REGARDING SETTLEMENT OF CLAIMSAFF-1

AFFIDAVIT OF GENERAL CONTRACTOR / PRIME CONSULTANT
REGARDING HEALTH INSURANCEAFF-2

CITY OF TEMPE GUIDELINES FOR IMPLEMENTATION
OF HEALTH INSURANCE.....AFF-3

STATUTORY PERFORMANCE BOND PURSUANT TO TITLE 34,
CHAPTER 6, 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 8th day of November, 2007, to complete Project No. 3201091, 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 6, of the Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of said Title and Chapter, to the extent as if it were copied at length herein.

The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney fees that may be fixed by the Court. The performance under this bond is limited to the construction to be performed under this contract and does not include any design services, preconstruction services, finance services, maintenance services, operations services or any other related services included in the contract.

Witness our hands this ____ day of _____, 2007.

PRINCIPAL SEAL

BY: _____

**

SURETY SEAL

BY: _____

AGENCY ADDRESS

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

STATUTORY PAYMENT BOND PURSUANT TO TITLE 34,
CHAPTER 6, 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 8th day of November, 2007, to complete Project No. 3201091, 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 monies due to all persons supplying labor or materials to the principal or the principal's subcontractors in the prosecution of the construction provided for the contract, then this obligation shall be void, otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to Title 34, Chapter 6, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of said Title and Chapter to the same extent as if it were copied at length in this Contract.

The prevailing party in a suit on this bond shall recover as a part of the judgment reasonable attorney fees that may be fixed by the Court.

Witness our hands this _____ day of _____, 2007.

PRINCIPAL SEAL

BY: _____

**

SURETY SEAL

BY: _____

AGENCY ADDRESS

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

CITY OF TEMPE
TEMPE, ARIZONA
DEPARTMENT OF PUBLIC WORKS

CONTRACTOR'S AFFIDAVIT
REGARDING
SETTLEMENT OF CLAIMS

_____, Arizona

Date _____

**JOHNNY G. MARTINEZ WATER TREATMENT PLANT
WATER QUALITY IMPROVEMENT PROJECT – GMP 2
PROJECT NO. 3201091**

To the City of Tempe, Arizona

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 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 of Tempe. The undersigned further agrees to defend, indemnify and save harmless the City of Tempe 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 _____, 2007.

Construction Manager at Risk

By: _____

STATE OF ARIZONA)
) ss
COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to before me this _____ day of _____, 2007.

Notary Public

My Commission Expires

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

**AFFIDAVIT OF GENERAL CONTRACTOR / PRIME CONSULTANT
REGARDING
HEALTH INSURANCE**

_____, Arizona

Date _____

**JOHNNY G. MARTINEZ WATER TREATMENT PLANT
WATER QUALITY IMPROVEMENT PROJECT – GMP 2
PROJECT NO. 3201091**

I hereby certify that _____ (name of company) currently has, and all of its major subcontractors/subconsultants, defined as doing work in excess of \$30,000.00, will have, during the course of this contract, health insurance for all employees working on this project and will offer health insurance coverage to eligible dependents of such employees, as defined in the accompanying Guidelines. The company's health insurance is as follows:

Name of Insurance Company: _____

Type of Insurance (PPO, HMO, POS, INDEMNITY): _____

Policy No.: _____

Policy Effective Date (MM/DD/YY): _____

Policy Expiration Date (MM/DD/YY): _____

Signed and dated at _____, this _____ day of _____, 2007.

General Contractor/Prime Consultant

By: _____

STATE OF ARIZONA)
) ss
COUNTY OF MARICOPA)

SUBSCRIBED AND SWORN to before me this _____ day of _____, 2007.

Notary Public

My commission expires:

City of Tempe

Guidelines for Implementation of Health Insurance

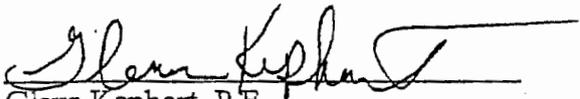
These Guidelines are provided for purposes of implementing Resolution No. 2000.73, which requires all employees of prime consultants, general contractors and major subconsultants and subcontractors to have health insurance and to offer health insurance to their eligible dependants, as determined at the 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 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 (24) 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 of Tempe 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 of Tempe 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, P.E.
Public Works Manager

SIGNATURE PAGE

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

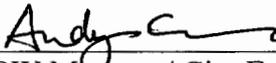
CITY OF TEMPE
a Municipal Corporation

MAYOR

ATTEST:

City Clerk

Recommended By:



Deputy PW Manager/ City Engineer

APPROVED AS TO FORM:

City Attorney

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

Construction Manager at Risk:

Name

Party of the Second Part

Title

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

Certified to be a true and exact copy

Karen M. Fillmore, Records Specialist

(Corporate Seal)

Witness: If Contractor is an Individual

EXHIBIT A

EXHIBIT A -GMP 2 SUMMARY

CONTRACTOR: PCL Construction, Inc.
1711 W. Greentree Drive, Suite 201
Tempe, AZ 85284

Project No.: 32011091

Project Name: Johnny G. Martinez Water Treatment Plant-Water Quality Improvement Project GMP 2

Date: October 08, 2007

GMP 2 SUMMARY			Amount
DIRECT COSTS			
A.	Cost of the Work (Labor, Materials, Equipment, Warranty)		\$2,054,284.00
A-1	Allowance Items		\$311,669.00
INDIRECT COSTS			
		Rate	
B.	CM @ Risk's Contingency	0.0%	\$0.00
C.	Construction Fee	6.7%	\$217,524.00
D.	General Conditions	13.9%	\$452,746.00
	D1 Payment and Performance Bond	1.1%	\$36,762.00
	D2 Insurance	1.4%	\$45,872.00
E.	Sales Tax	4.0%	\$129,380.00
F. TOTAL GMP			\$3,248,237.00
Owner Contingency			\$170,000.00
TOTAL PROJECT COST			\$3,418,237.00

Formulas:

Total GMP: $A+B+C+D+E = F$

Rates (Percentages) are calculated by dividing each amount F, such as B/F , D/F and $D1/F$



CONSTRUCTION LEADERS
Construction Managers at Risk

Johnny G. Martinez
Water Treatment Plant
Water Quality Improvement Project
Revised GMP 2 ~Final
Pricing Assumptions

1. Costs are based on the documents titled, "Johnny G. Martinez Water Quality Improvements Project", (Updated May 2007 AND prepared by Carollo Engineers) including Addendums No. 1 and 2.
2. The following table shows the scope of work this cost model is based on:

Item No.	Scope of Work	Reference
1	Replace 12-in plug valve on WW-12 Line	Not shown on drawings-Plant staff request
2	In kind replacement of MCC-OB	Allowance
3	Recoat Sedimentation and flocculation equipment	JM30-01 (Key Note 3), JM30-02 (Key Note 2)
4	Flocculation Influent Channel Spall Repair	JS30-01 (Key Notes 1 and 3)
5	Patch and Coat Sed Basin Troughs	JM30-02 (Key Note 1)
6	Replace Sedimentation Basin Weirs	JM30-02 (Key Note 3)
7	Replace Sed Basin Rails	JM30-01 (Key Note 1)
8	Replace Filter Effluent Valve Pneumatic Actuators	JM40-02 (Key Note 2)
9	Filter Influent Channel Spall Repair	JS30-01 (Key Notes 1 and 3)
10	Refurbish Piston Pumps	Allowance
11	Filter Press Piston Seal Replacement	Allowance
12	Replace 2 ea Polymer Pump; 2 ea TKS Effluent Pumps; 1 ea Sludge Transfer Pumps	Allowance
13	Install Alum Tank Liner	JM80-02
14	Chemical Dosing Concrete Spall Repair	JS20-01 (Key Notes 1 and 3)
15	Install PAC and Permanganate Tank Liner	JM80-04
16	Raw Water Flume Repairs	Allowance

3. The cost model is based on PCL's safety plan, which includes PCL's determination of confined space areas that will be classified as permit or non-permit as coordinated with City of Tempe ES&H.
4. The cost model assumes the plant working areas such as the chemical dosing channel, flocculation channel, filter influent channel, alum tanks, PAC tanks, flocculation tanks and sedimentation basins will be drained and cleaned within two weeks after the start of the shutdown by the City of Tempe.



CONSTRUCTION LEADERS
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Water Quality Improvement Project
Revised GMP 2 ~Final
Pricing Assumptions

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5. Draining, cleaning and disposal of chemical (concentrated and dilute) in all alum, PAC and permanganate tanks will be done by the City of Tempe.
 6. Off-site disposal of solid, non-oxide grease from flocculator and sedimentation basin equipment contained in 55-gallon drums will be done by the City of Tempe.
 7. The cost model does not include costs associated with performing security background checks on PCL's employees.
 8. The cost model assumes that all construction water will be supplied free of charge.
 9. The cost model assumes that all site construction power will be free of charge.
 10. Costs for an independent lab to perform quality control testing (i.e., soil densities, concrete slump and strength testing, etc.) are assumed to be the responsibility of others, and is therefore, not included in the cost model.
 11. Equipment system warranty start date will be the agreed upon date between the Owner, Engineer and PCL as to when the Owner takes beneficial use of the equipment and associated system components.
 12. Cost model assumes that any pavement damaged during construction will be replaced under GMP3.
 13. Cost model assumes that the Plant Electrician will disconnect and reconnect the control wire for the new filter effluent valve pneumatic actuators.
 14. The following allowances have been included in the cost model for work which has NOT been fully defined:
 - Sludge Feed Pump Inspection and Refurbishment: \$8,762
 - Sludge Feed Pump Parts: \$33,656
 - Sludge Feed Pump Unknowns: \$5,803
 - Filter Press Piston Seal Inspection and Repair: \$13,972
 - Existing Raw Water Flume Repairs: \$34,817 for raw water flume joint repairs as identified by inspection during January 2008 shutdown.
 - Existing Progressing Cavity Pumps Replacement: \$42,659 for supply and installation in kind of five (5) Moyno progressing cavity pumps at the Solids Handling Facility. This includes two (2) polymer pumps, two (2) thickened sludge effluent pumps and one (1) sludge transfer pump. Replacement of pumps ONLY, but also includes drive belts for the sludge effluent and transfer pumps. Does not include motors, mounting bases, LCPs, electrical, control, training, etc.



CONSTRUCTION LEADERS
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Johnny G. Martinez
Water Treatment Plant
Water Quality Improvement Project
Revised GMP 2 ~Final
Pricing Assumptions

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- MCC-OB: \$172,000 for “in-kind” replacement of MCC damaged during flooding.

Date October 09, 2007
Time 06:29:50 AM
BE Number BE070093
District File No
Owner File No
Estimator Alberto Vasquez

PCL Construction, Inc.
Civil SW Office

GENERAL ESTIMATE SUMMARY

Project Johnny G. Martinez WQI Revised GMP 2
Bid Closing October 04, 2007
1:00 p.m. MST
Tempe, AZ

PCL Construction, Inc.
Civil SW Office

GENERAL ESTIMATE SUMMARY

Johnny G. Martinez WQI Revised GMP 2
Tempe, AZ

BE Number: BE070093
District File No:
Owner File No:
Project:
Location:

Alberto Vasquez
Proprietary and Confidential

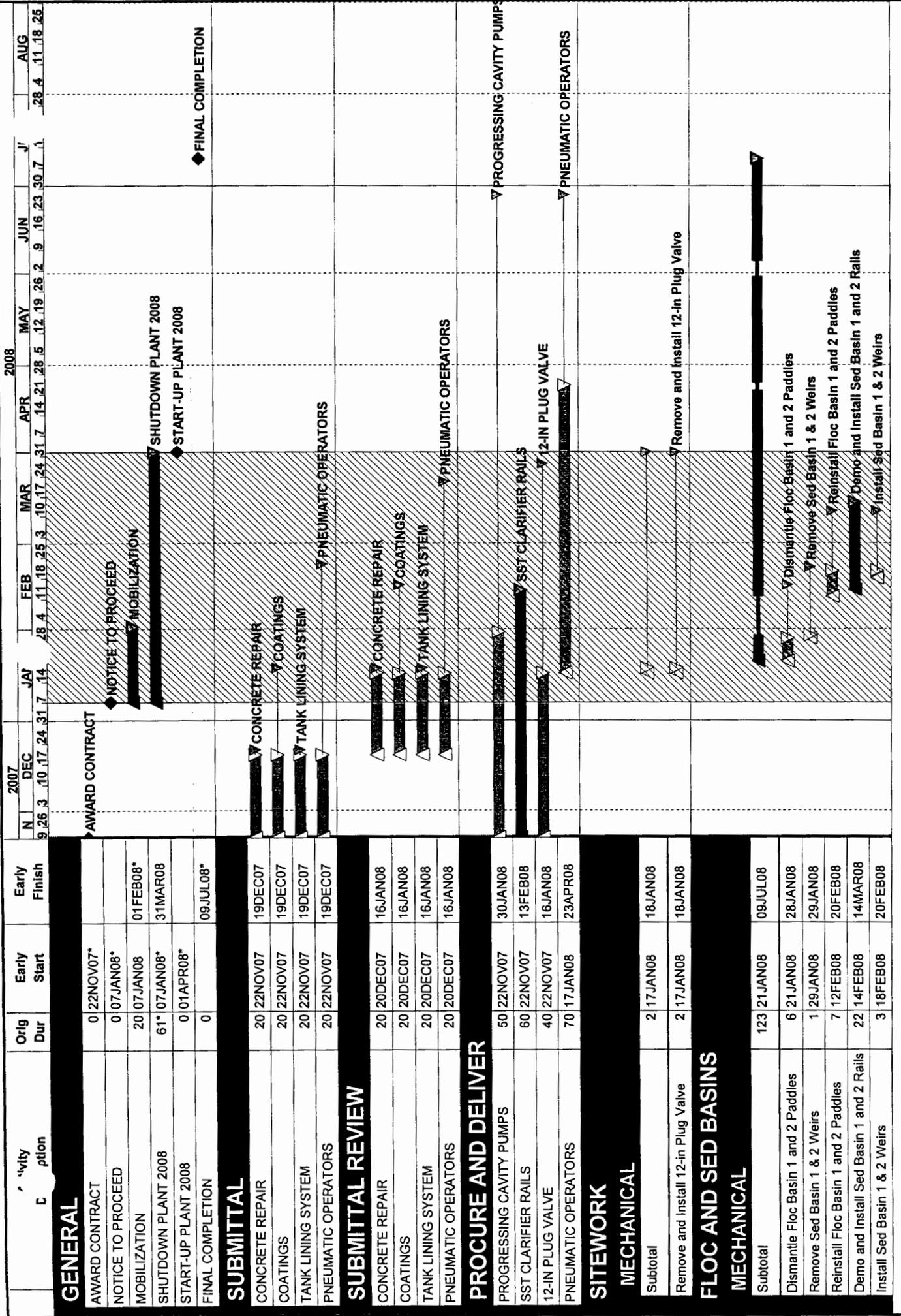
Description	Quantity	Labor		Equipment		Tools & Supplies		Perm. Materials		Subcontract		Total Cost	
		Hours	Rate	Cost	Hours	Rate	Total	Unit	Total	Unit	Total	Unit	Total
DIRECT COSTS													
01 Sitework	1.00 LS	16	28.69	459									4,167
02 Flocculation and Final Sedim. Basins	1.00 LS	13,774	33.91	467,049	947	132.55	125,525						1,555,394
03 Filter Modifications	1.00 LS	624	29.35	18,313				3,000					78,161
04 Solids Handling Facility Modifications	1.00 LS	160	39.12	6,259									181,579
05 Alum System Modifications	1.00 LS							4,700					41,372
06 Dosing Channel	1.00 LS	256	35.04	8,971				800					193,611
07 Solids Handling Facility PAC Modifications	1.00 LS							4,100					
DIRECT COSTS		14,830		501,051	947		125,525	73,592	500,436		863,680		2,054,284
GENERAL EXPENSE COSTS													
FIXED GENERAL EXPENSE													
F1 MOBILIZE & DEMOBILIZE	100.00 %	66	22.79	1,504									14,304
F3 CONST TEMP BLDGS-FACL	100.00 %	25	35.31	883									10,583
F4 INSTALL TEMP UTILITIES	100.00 %												2,000
F5 DISMAN & RESTORE SITE	100.00 %	30	35.31	1,059									6,059
F6 BOND	100.00 %												36,762
F7 INSURANCE	100.00 %												45,872
FIXED GENERAL EXPENSE	1.00 LS	121		3,446				111,634	500				115,580
VARIABLE GENERAL EXPENSE													
V4 OPERATE UTILITIES	100.00 %												8,200
V5 OPERATE SUPPORT EQUIP	100.00 %	1,040	36.33	37,783	2,076	26.95	55,940	4,200					97,923
V7 PROJECT STAFF	100.00 %	3,640	65.36	237,900									2,379,000
V9 MANAGEMENT SERVICE	100.00 %												55,033
V11 EQUIP MAINTENANCE	100.00 %												20,744
V12 ESCAL/TAX/UNINSURED	100.00 %												1,293,800
VARIABLE GENERAL EXPENSE	1.00 LS	4,680		275,683	2,076	26.95	55,940	217,558	500				549,161
GENERAL EXPENSE COSTS	32.36% T.D.C	4,801		279,129	2,076		55,940	329,192	500				864,761
TOTAL COST		19,631		780,179	3,023		181,465	402,784	500,936		853,680		2,719,045

BE Number BE070093
District File No
Owner File No
Project Johnny G. Martinez WQI Revised GMP 2
Location Tempe, AZ

GENERAL ESTIMATE SUMMARY

Description	Quantity	Labor		Equipment		Tools & Supplies		Perm. Materials		Subcontract		Total Cost	
		Hours	Rate	Hours	Rate	Unit	Total	Unit	Total	Unit	Total	Unit	Total
Fee & H. Office Overhead	8.00% T.C.												
	0 T.C.												
	0 T.C.												

TOTAL GMP 2													217,524
Allowance													
Filterpress upgrade	1.00 LS							62,193					62,193
Raw water flume repairs	1.00 LS							34,817					34,817
Existing polymer pumps refurbishment	1.00 LS	192	29.35					2,000					42,859
MCC-OB in kind replacement	1.00 LS							172,000					172,000
Allowance	15.17% T.D.C	192						271,010					311,669
TOTAL GMP2 & Allowances													3,248,237



Activity	Orig Dur	Early Start	Early Finish	2007	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
GENERAL												
AWARD CONTRACT	0	22NOV07*	01FEB08*									
NOTICE TO PROCEED	0	07JAN08*	01FEB08*									
MOBILIZATION	20	07JAN08	31MAR08									
SHUTDOWN PLANT 2008	61*	07JAN08*	31MAR08									
START-UP PLANT 2008	0	01APR08*	09JUL08*									
FINAL COMPLETION	0											
SUBMITTAL												
CONCRETE REPAIR	20	22NOV07	19DEC07									
COATINGS	20	22NOV07	19DEC07									
TANK LINING SYSTEM	20	22NOV07	19DEC07									
PNEUMATIC OPERATORS	20	22NOV07	19DEC07									
SUBMITTAL REVIEW												
CONCRETE REPAIR	20	20DEC07	16JAN08									
COATINGS	20	20DEC07	16JAN08									
TANK LINING SYSTEM	20	20DEC07	16JAN08									
PNEUMATIC OPERATORS	20	20DEC07	16JAN08									
PROCURE AND DELIVER												
PROGRESSING CAVITY PUMPS	50	22NOV07	30JAN08									
SST CLARIFIER RAILS	60	22NOV07	13FEB08									
12-IN PLUG VALVE	40	22NOV07	16JAN08									
PNEUMATIC OPERATORS	70	17JAN08	23APR08									
SITEWORK												
MECHANICAL												
Subtotal	2	17JAN08	18JAN08									
Remove and Install 12-in Plug Valve	2	17JAN08	18JAN08									
FLOC AND SED BASINS												
MECHANICAL												
Subtotal	123	21JAN08	08JUL08									
Dismantle Floc Basin 1 and 2 Paddles	6	21JAN08	28JAN08									
Remove Sed Basin 1 & 2 Weirs	1	29JAN08	29JAN08									
Reinstall Floc Basin 1 and 2 Paddles	7	12FEB08	20FEB08									
Demo and Install Sed Basin 1 and 2 Rails	22	14FEB08	14MAR08									
Install Sed Basin 1 & 2 Weirs	3	18FEB08	20FEB08									

Sheet 1 of 3

PCL Construction, Inc
JGMWTP GMP2
Classic Schedule Layout

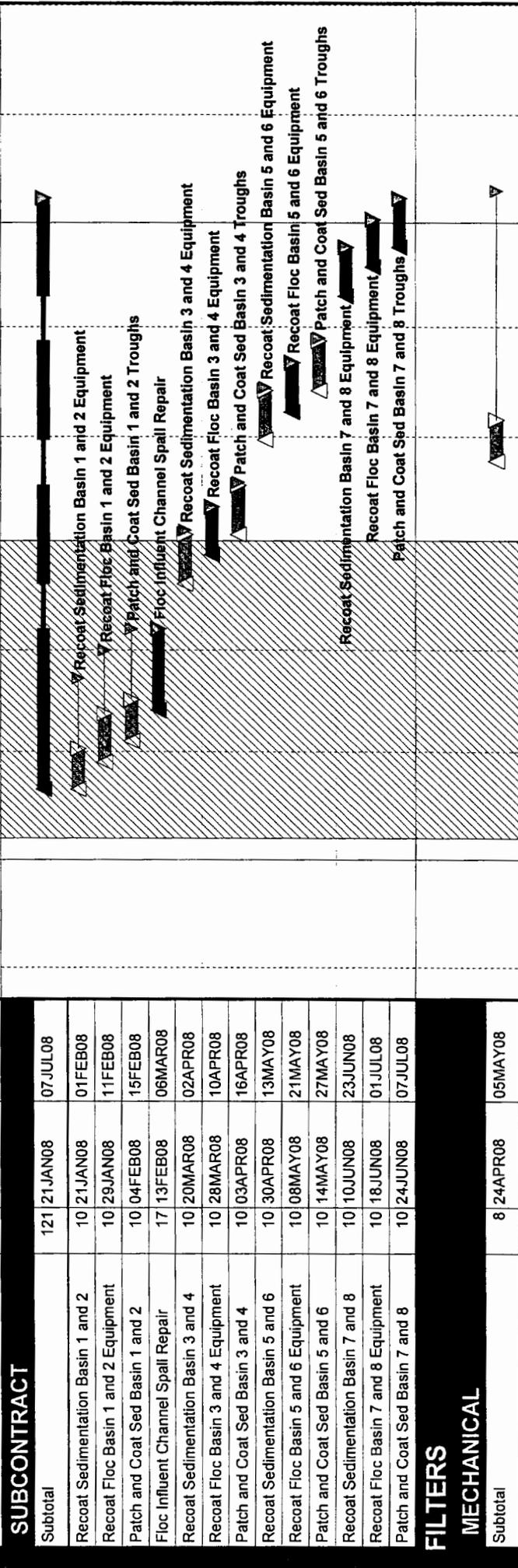
GMP2

Start Date: 22NOV07
Finish Date: 09JUL08
Data Date: 22NOV07
Run Date: 05OCT07 09:52

Legend:
 Early Bar
 Float Bar
 Progress Bar
 Critical Activity

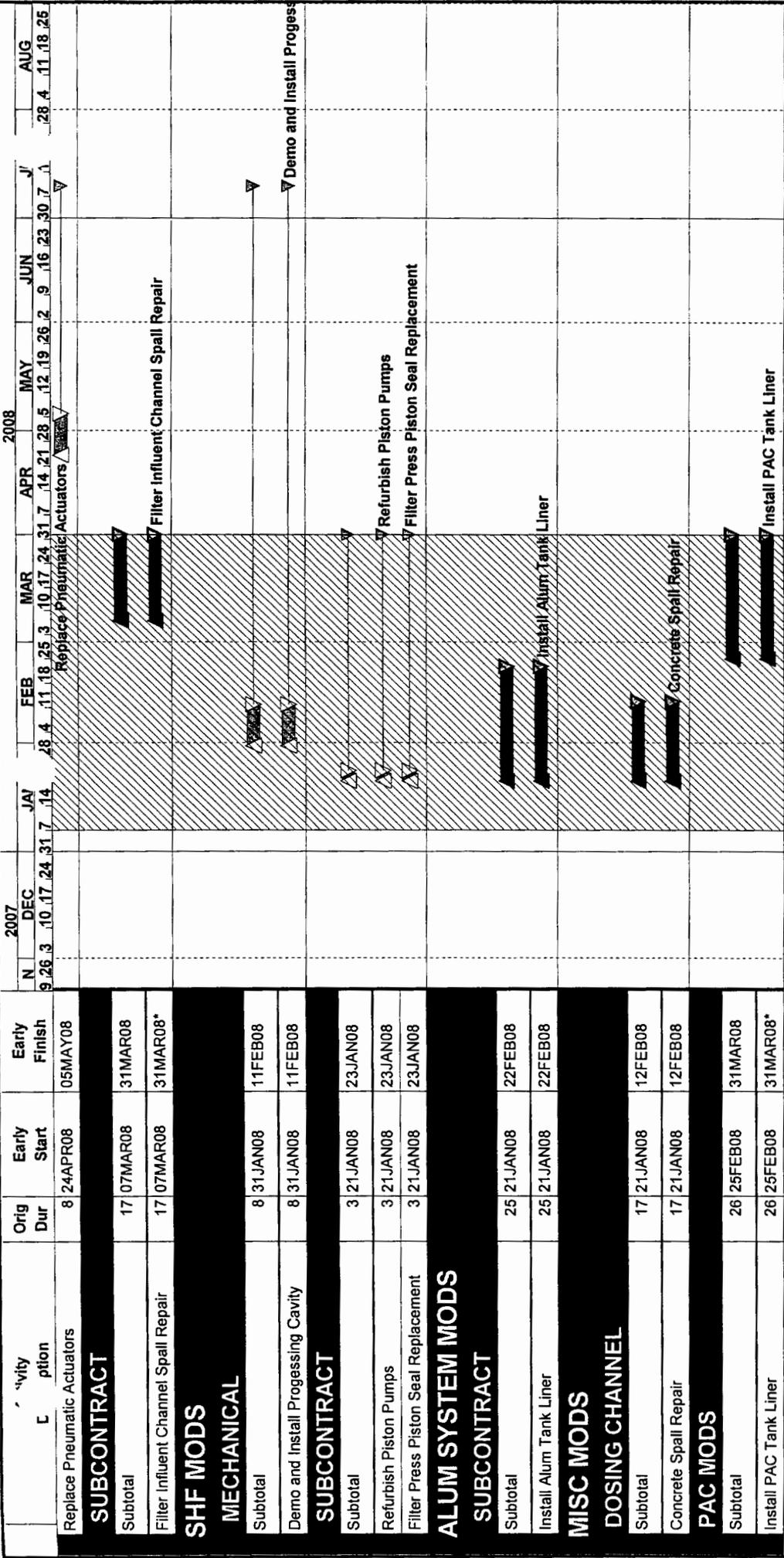
Date: _____ Revision: _____ Checked: _____ Approved: _____

Activity	Duration	2007		2008																	
		DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG											
Start Trains 1/2 and Drain Trains 3/4	3	17	20	28	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	1	
Dismantle Floc Basin 3 and 4 Paddles	6	20	20	28	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	1	
Demo and Install Sed Basin 3 and 4 Rails	22	20	20	28	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	1	
Remove Sed Basin 3 & 4 Weirs	1	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Reinstall Floc Basin 3 and 4 Paddles	7	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Install Sed Basin 3 & 4 Weirs	2	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Start Trains 3/4 and Drain Trains 5/6	3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Dismantle Floc Basin 5 and 6 Paddles	6	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Demo and Install Sed Basin 5 and 6 Rails	22	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Remove Sed Basin 5 & 6 Weirs	1	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08
Reinstall Floc Basin 5 and 6 Paddles	7	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
Install Sed Basin 5 & 6 Weirs	2	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Start Trains 5/6 and Drain Trains 7/8	3	05	05	05	05	05	05	05	05	05	05	05	05	05	05	05	05	05	05	05	05
Dismantle Floc Basin 7 and 8 Paddles	6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Demo and Install Sed Basin 7 and 8 Rails	22	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Remove Sed Basin 7 & 8 Weirs	1	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Reinstall Floc Basin 7 and 8 Paddles	6	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02
Install Sed Basin 7 & 8 Weirs	2	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08



Activity	Subcontract	Mechanical
Subtotal	121	8
Recoat Sedimentation Basin 1 and 2	10	0
Recoat Floc Basin 1 and 2 Equipment	10	0
Patch and Coat Sed Basin 1 and 2	10	0
Floc Influent Channel Spall Repair	17	0
Recoat Sedimentation Basin 3 and 4	10	0
Recoat Floc Basin 3 and 4 Equipment	10	0
Patch and Coat Sed Basin 3 and 4	10	0
Recoat Sedimentation Basin 5 and 6	10	0
Recoat Floc Basin 5 and 6 Equipment	10	0
Patch and Coat Sed Basin 5 and 6	10	0
Recoat Sedimentation Basin 7 and 8	10	0
Recoat Floc Basin 7 and 8 Equipment	10	0
Patch and Coat Sed Basin 7 and 8	10	0
Subtotal	121	8

Date	Revision	Checked	Approved



2007
 N 9, 26, 3
 DEC 10, 17, 24, 31, 7, 14
 JAN 21, 28
 FEB 4, 11, 18, 25, 3
 MAR 10, 17, 24, 31, 7, 14
 APR 4, 11, 18, 25, 3
 MAY 1, 8, 15, 22, 29
 JUN 5, 12, 19, 26, 2, 9, 16, 23, 30, 7
 JUL 13, 20, 27
 AUG 3, 10, 17, 24, 31

2008
 JAN 6, 13, 20, 27
 FEB 3, 10, 17, 24, 31, 7, 14
 MAR 3, 10, 17, 24, 31, 7, 14
 APR 4, 11, 18, 25, 3
 MAY 1, 8, 15, 22, 29
 JUN 5, 12, 19, 26, 2, 9, 16, 23, 30, 7
 JUL 13, 20, 27
 AUG 3, 10, 17, 24, 31

Legend:
 ▲ Early Bar
 ▽ Float Bar
 ▽ Progress Bar
 ▽ Critical Activity

Start Date: 22NOV07
 Finish Date: 09JUL08
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Sheet 3 of 3

PCL Construction, Inc
 JGMWTP GMP2
 Classic Schedule Layout

GMP2

Date: _____
 Revision: _____
 Checked: _____
 Approved: _____