BOARD OF SUPERVISORS AGENDA ITEM SUMMARY

Requested Board Meeting Date: February 18, 2014

ITEM SUMMARY, JUSTIFICATION and/or SPECIAL CONSIDERATIONS:

Amendment # 02 contract # CT-WW-1400000000000000144, KE&G Construction, Inc., Construction Manager at Risk Services for The South Rillito West Central Interceptor Rehabilitation – Project No. 3SRWC4. This amendment adds Guaranteed Maximum Price # 2 (GMP-2) in the amount of $12,159,596.87 to the contract for the project construction related activities. Funding Source: RWRD Obligation Fund. Administering Department: Regional Wastewater Reclamation Department

This amendment provides for the procurement of all anticipated construction related activities. As indicated in the August 19, 2013 Board of Supervisors Agenda Item Summary for the initial award of this project, the total cost including pre-construction and construction phase services was estimated not to exceed $14,280,000.00. This amendment increases the total contract amount to $13,838,134.30.

Effective Date:	February 18, 2014
Termination Date:	July 31, 2016
Original Contract Amount:	$99,109.00
Previous Amendment(s):	$1,579,428.43
Previous Contract Amount:	$1,678,537.43
Amount this Amendment:	$12,159,596.87
Revised Contract Amount:	$13,838,134.30
Project Manager:	Noel Ortiz
Contract Officer:	Jerome Rizzo, 724-3245 Procurement Department
AMS#	CT-WW-1400000000000000144 Ver. 3

CT-WW-14*144-02
Effective: 02-18-2014
Term: 07-31-2016
$12,159,596.87
0
$12,159,596.87
$13,838,134.30
NO
Renewal: 04-01-2016
07-31-2016

Please return to Harry Lewis.

Vendor-1
Pgs. 19

CLERK OF BOARD USE ONLY: BOS MTG. _____

ITEM NO. _____

To: COB - 2-5-14
Agenda 2-18-14
(1)

Procure Dept 02/03/14 AM 10:02

PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT

PROJECT: Construction Manager At Risk Services for The South Rillito West Central Interceptor Rehabilitation Project No. 3SRWC4

CONTRACTOR: **KE&G Construction, Inc.**
5100 S Alvernon Way
Tucson, AZ 85706

CONTRACT NO.: CT-WW-14000000000000000144

AMENDMENT NO.: Two (2)

FUNDING: RWRD Obligation Fund

CONTRACT
NO CT-WW-14000000000000000144
AMENDMENT NO. 02
This number must appear on all invoices, correspondence and documents pertaining to this contract.

CONTRACT TERM: 08/19/2013 - 07/31/2016	**ORIGINAL CONTRACT AMOUNT:**	$	99,109.00
TERMINATION PRIOR AMENDMENT: 07/31/2016	**PRIOR AMENDMENT(S):**	$	1,579,428.43
TERMINATION THIS AMENDMENT: 07/31/2016	**AMOUNT THIS AMENDMENT:**	$	12,159,596.87
	REVISED CONTRACT AMOUNT:	$	13,838,134.30

CONSTRUCTION CONTRACT AMENDMENT

WHEREAS, COUNTY and CONTRACTOR have entered into the Contract for the project referenced above; and

WHEREAS, COUNTY and CONTRACTOR now desire to incorporate Guaranteed Maximum Price #2(GMP-2) into the contract for construction services as detailed in ATTACHMENT 3 TO APPENDIX "B" (17 pages); and,

WHEREAS, COUNTY's acceptance of GMP-2 is subject to the understanding of the Parties that all other elements of future GMPs are and remain negotiable.

NOW, THEREFORE, it is agreed as follows:

CHANGE: The captioned contract amount to read: Not to Exceed $13,838,134.30

CHANGE: ARTICLE III – PAYMENT, PHASE II: PROJECT CONSTRUCTION

Insert after the first paragraph:

Guaranteed Maximum Price #2 (GMP–2) for project construction related services as identified in ATTACHMENT 3 TO APPENDIX "B" is Twelve Million One Hundred Fifty Nine Thousand Five Hundred Ninety Six Dollars and Eighty Seven Cents ($12,159,596.87). COUNTY reserves the right to negotiate the construction fee, overhead rate, and all other elements of future GMPs.

ADD: To APPENDIX "B", ATTACHMENT 3 TO APPENDIX "B": GMP-2 dated January 22, 2014 (17 pages attached).

This Amendment shall be effective on February 18, 2014.

All other provisions of the Contract, not specifically changed by this amendment, shall remain in effect and be binding upon the parties.

IN WITNESS WHEREOF, the parties have affixed their signatures to this Amendment on the dates written below.

APPROVED:

Chair, Board of Supervisors

Date

CONTRACTOR:

C.W. Albright

Signature

CHRISTOPHER W. ALBRIGHT, PRESIDENT

Name and Title (Please Print)

01/29/2014

Date

ATTEST:

Clerk of the Board

APPROVED AS TO FORM:

Deputy County Attorney

CHARLES WESSELHOFT

Printed Name

1-27-14

Date

5100 S. ALVERNON WAY
TUCSON, ARIZONA 85706
(520) 748-0188
FAX (520) 748 8975

January 22, 2014

Pima County Regional Wastewater Reclamation Department
3355 N Dodge Blvd
Tucson, AZ 85716

Attn: Noel Ortiz

Re: Contract No.:	**CT-WW-14000000000000000144**
Job Name:	**South Rillito West Central Interceptor Rehabilitation**
Project No.:	**3SRWC4**
KE&G Job No.:	**140114**

Dear Mr. Ortiz,

Included you will find KE&G Construction, Inc.'s Guaranteed Maximum Price Proposal (GMP-2) for the South Rillito West Central Interceptor, project number 3SRWC4. To date, KE&G has completed the proposals for preconstruction services and the proposal for long lead item procurement (GMP-1). The total of these two proposals in addition to the final is as follows:

Preconstruction Services:	$ 99,109.00
Long Lead Items (GMP 1):	$ 1,579,428.43
Construction (GMP 2)	$ 12,159,596.87
TOTAL:	$ 13,838,134.30

Regards,
KE & G Construction, Inc

Brian Janski
Project Manager / Estimator

Cc: File 140114.2.30

South Rillito West Central Interceptor Construction Manager at Risk
GMP-2 Submittal

Table of Contents:

Scope Statement:

KE&G Construction, Inc.; has taken on the responsibility as the Construction Manager at Risk (CMAR) for the South Rillito West Central Interceptor Rehabilitation Project, and shall perform all needed services in the Construction Services Phases of the Project. These services shall include the providing of all material, equipment, tools, and labor to satisfactorily complete all work, deliverables, and services described in the contract documents.

KE&G (CMAR) has developed a Guaranteed Maximum Price (GMP) proposal for the Construction Phase work described in this document. Below are the descriptions of each item of work to be performed by KE&G and shall be noted as the scope of work pertaining to the Construction Phase of this project. Note, more specific details of each item of work can be found in their respective bid packages.

- Clearing and Grubbing: This work includes the clearing and grubbing of areas along the project which will be disturbed due to construction related activities, those shown on the NPPO drawings, or those designated by the Engineer. Vegetation to be preserved-in-place shall be flagged as directed by the Engineer, to protect it from damage.

- QA/QC Material Testing: The work under this section shall be completed per the 2012 PCRWRD Standard and Specifications and Details for Construction. The material testing will be completed per subsection 3.1.3(F) Procedure A. The sand sieve and resistivity shall conform to the requirements on Table 1 in S.D. RWRD-104. Firm will also be responsible to provide weekly testing reports to the contractor.

- Preservation Fencing: This work consists of furnishing, installing, maintaining and removing preservation fence utilized to protect existing plants which are to remain in place as shown on the NPPO plans. The fencing shall be high visibility fencing and shall be four feet (4') tall. Fence posts will be either wood or metal and shall be suitable for the work intended and a minimum of five feet (5') long.

- NPPO Landscape Pruning: This work shall consist of pruning existing trees designated to remain in place, trees previously salvaged, or trees called out for removal on the NPPO plans that did not require removal. The work shall include providing necessary tools, removing all debris from the area, and taking it to a proper disposal site.

- NPPO Landscape Planting: This work includes the replacement of native plants removed or damaged beyond the plant's survivability limitations. The native plants of concern are detailed in the NPPO plans, included in the project plans. If plants are not removed or if pruning of damaged limbs is sufficient, plant replacement will not be required.

- Asphaltic Concrete Pavement Removal/Replacement: This work includes the removal and replacement of existing asphalt pavement at various locations throughout the project in order to install the sewer bypasses at road crossings and to provide adequate room for the reconstruction of existing manholes. All trench patching will be in conformance with PC/COT Standards Specification for Public Improvements and the PC/COT Standard Details for Public Improvements 2003 Edition. All trench patching shall be completed per Std. Detail 216; "Type 2 Utility Trench Patch." All pavement structural sections are assumed to be 4-inches of PAG 2 Asphaltic Concrete on top of 4-inches of Aggregate Base. Typical patch areas include, but are not limited to, locations where temporary excavation will take place in order to allow for the installation of the sewer bypass at road crossings and areas where manhole reconstruction or rehabilitation will be taking place.

- Miscellaneous Site Concrete Removal/Replacement: This work includes the removal and replacement of concrete drainage channels, curb access ramps, sidewalk of varying widths, and various types of curb throughout the project. These removals will be necessary in order to install sewer bypasses at road crossings and to provide adequate room for the reconstruction of existing manholes. All concrete replaced will be in conformance with PC/COT Standards Specifications for Public Improvements and the PC/COT Standard Details for Public Improvements 2003 edition. The work will also include the installation of Detectable Warning Surfaces at sidewalk ramps, median refuge areas, and concrete landing areas. The detectable warning surfaces shall meet the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

- Traffic Control: This work includes the traffic control which will be required throughout the entire project at any given time to facilitate the rehabilitation of the interceptor while maintaining a safe working environment for the general public and field personnel alike. Traffic Control will also be placed along the alignment of the large sewer bypasses, identifying them to the public as potential hazards. All traffic control will be set by a certified traffic control installer in compliance with the latest edition of the MUTCD. Traffic control plans will be drawn up in accordance with the newest MUTCD

standards. Traffic control setups will be taking place within both the City of Tucson and Pima County right of ways, therefore, traffic control plans will be submitted to the proper municipalities for approval prior to installation.

- Large Diameter Bypass Installation/Operation/Removal: The work associated with bypassing the sewage flows of the South Rillito Interceptor on this project will be broken into two major bypass phases. These bypasses will divert the flow from the sewer interceptor line in order to complete the required rehabilitation. The FMP has been prepared in conformity with Pima County Regional Wastewater Reclamation Department (PCRWRD) Standards, Specifications, and Details for Construction 2012. The installation of each bypass will be completed by qualified and knowledgeable personnel whom have a thorough understanding of what is required during the installation and operation of bypass systems. It should be noted that the costs for the Phase 1 bypass operations were included in Construction GMP-1 and that this Construction GMP-2 proposal only includes the costs of Phase 2 bypass operations.

- Small Diameter Bypass Installation/Operation/Removal: This work includes the installation, operation, and removal of approximately 12 minor sewer bypasses that will bypass the flows of smaller diameter contributing lines which enter the interceptor at manholes located between the suction and discharge locations of the larger interceptor sewer bypasses. These smaller bypasses have been prepared in conformity with Pima County Regional Wastewater Reclamation Department (PCRWRD) Standards, Specifications, and Details for Construction 2012. The installation of each bypass will be completed by qualified and knowledgeable personnel whom have a thorough understanding of what is required during the installation and operation of bypass systems.

- CCTV/Cleaning: This work consists of cleaning and CCTV of the entire sewer interceptor line prior to the installation of the CIPP liner. The sewer line is required to be free of debris and a pre-video must be viewed by a PCRWRD Inspector prior to proceeding with the installation of the CIPP liner. Also, CCTV post-video will be required once the liner is in place in order to verify the integrity of the newly placed CIPP liner. All video recordings shall be formatted to be compatible with the latest version of Granite XP in use by PCRWRD, in full color format, conform to current NASSCO-PACP standards, show the entire reach, and be of sufficient quality to clearly detect imperfections and/or defects in the installed linear. At a minimum, the CCTV equipment shall consist of a pan and tilt color camera, with an optic zoom, capable of illumination and recording

features. The data collected shall be Granite XP Enterprise or Engineering Edition (Version 5.4.4) based software, capable of recording the TV logs. Pipe assessment Coding shall be compatible with Hansen asset management system (CMMS), version V-7.7. The camera shall be a tractor capable of centering the camera in the center of the pipeline.

- Cured In Place Pipe Rehabilitation (CIPP) MH1716-51 to MH1716-16: The CIPP portion of work consists of the rehabilitation of approximately 4,866 lineal feet of existing 48-inch and approximately 11,701 lineal feet of existing 54-inch deteriorated reinforced concrete gravity sewer pipe. This work includes the rehabilitation of the interceptor sewer line from MH1716-51 to MH1716-16 by the installation of a resin-impregnated flexible tube that is inserted and inflated into the original conduit by use of a hydrostatic head or air pressure. When cured by hot water or steam, the finished CIPP pipe shall be continuous and formed to the original pipeline or conduit. All liner pipe used to line the existing sewer shall be designed to have a minimum service life of 50 years and to withstand the total vertical and lateral loads, including, but not limited to, soil load, and live loads. Design shall be based on the assumption that the existing carrier pipe provides no structural support to the liner pipe, except for transmitting loads. No design shall rely on bonding to the existing carrier pipe wall. The design criterion for the dead load is based on the actual depth of soil cover above the top of the pipe with a soil weight of 120 pounds per cubic foot, while the design live load is based on HS20-44 (A.A.S.H.T.O Latest Edition) loading.

  The appropriate testing methods for the CIPP shall conform to ASTM F1216 and/or ASTM F1743. ASTM F 1216 and/or ASTM F1743 shall govern when the specifications do not address installation methods and materials. Continuous temperature monitoring will be used while the CIPP is curing and prior to installing the liner in the host pipe, the temperature monitoring system's proper functioning shall be confirmed by hooking it up to the computer and seeing that the sensors are reporting their correct ambient temperatures. No more than two sensors in sequence can be found faulty during this test. If three or more sensors in sequence are discovered faulty, a new sensor array shall be pulled into the host pipe replacing the previously installed array; and the new array shall be again tested for its proper functioning.

  The Contractor shall insure that all personnel are aware of the potential for pipeline collapse before commencing work and shall take appropriate safety precautions to protect both the workers and the pipeline. The Contractor shall carry out his operations

in strict accordance with all applicable OSHA standards and shall be responsible for providing a safe work environment at the work site.

- Slip-Lining MH1716-16 to MH6804-18: This work will include the slip-lining of the interceptor sewer line from MH1716-16 to MH6804-18. Prior to the installation of the "HOBAS Flush Relign Pipe," sonar inspection will be utilized in order to adequately determine the amount of sediment that will need to be removed prior to the new pipe's installation. Once the existing interceptor pipe is determined to be sufficiently clean for the installation of the new pipe, access pits will excavated near MH1716-14, MH1716-12, and MH1716-08 to facilitate the new pipe installation. In order to install the new pipe, the top half of the pipe will be removed at each access pit and bulkheads will be placed. Once the new pipe is installed, all annular spaces between the new and existing pipes will be grouted, closure couplings will be placed at insertion pit location, lean fill will be placed at each insertion pit location, and the insertion pits will be backfilled and compacted.

- New Manhole Structure 1716-48: This work consists of placing a new manhole structure in place of existing MH1716-48 at the intersection of N. Columbus Blvd. and E. Paradise Falls Drive. This new manhole structure will eventually be utilized as portion of a future PCRWRD project known as the North Rillito Relief Sewer Project.

- Manhole Base Saw Cutting and Cover Slabs: This work consists of saw cutting 48-inch and 54-inch square holes with respect to the pipe diameter, in approximately 9 manhole benches in order to gain access to the interceptor to facilitate the inversion of the CIPP liners. To complete the saw cutting of the manhole benches, the existing manhole will have to be excavated and the manhole barrels will be removed. After the saw cutting is complete, the interior of the manhole base will be coated with Sauereisen SewerGuard No. 210X to prevent corrosion.

  After the CIPP is installed and approved, new precast reinforced concrete cover slabs will be placed over the existing manhole bases which required saw cutting in order to access the interceptor. These reinforced slabs will distribute the load of the new manhole barrels that will be stacked on top of them to the sidewalls of the existing manhole bases, instead of the portion of the manhole base directly over the pipe. These precast slabs will be cast with a ConShield additive for future protection from bacterial corrosion.

- Manhole Reconstruction: The manhole reconstruction work will require approximately 9 manholes to be reconstructed to facilitate the inversion of the CIPP liner. Therefore, the existing manholes will be excavated to the base and all existing manhole barrels will be removed. When all necessary CIPP work is complete, the manhole reconstructions will consist of providing and installing new precast reinforced concrete manhole materials to be stacked on top of the previously mentioned new cover slabs. The reconstructed manholes will be constructed in accordance with PCRWRD Standard Specifications and Details 2012 Edition, more specifically Detail 206 of these specifications. All precast manhole barrels and flat-tops will be cast with a ConShield additive for future protection from bacterial corrosion.

- Manhole Adjustments/Collars: This work includes the adjusting of manhole frames and covers, as well as, the installation of new concrete collars. Depending on the location of the manhole either PCRWRD Standard Specifications and Details RWRD 211 or 212 will be utilized. New 32-inch Pamrex frame and covers will be installed prior to the placement of any concrete collars.

- Manhole Coating Rehabilitation: This work will consist of coating the existing manhole walls, bases, and new structures to prevent further bacterial corrosion. The work shall be completed per PCRWRD Standard Specifications and Details 2012 Edition, Subsection 3.3.3 (B) (vii). The applied coating will be completed by a qualified applicator and the product used will be Sauereisen SewerGuard No. 210X. All manholes will be treated as confined space entries. All applicable OSHA confined space standards will be applicable when entering manholes. At minimum confined space entry permits, air monitoring, tripod, and harness will be utilized for every manhole entry. All field personnel and pedestrians will be protected from vehicular traffic and other potential hazards that may exist while a confined space entry is taking place.

- Project Clean Up: Throughout the course of the project KE&G field personnel along with all subcontractors on the job will be reminded of the importance of housekeeping, and that good housekeeping will be enforce at all times. It is the goal of KE&G to maintain good housekeeping operations and keep jobsite grounds and work areas clean of rubbish and trash. Waste receptacles and portable toilet facilities will be placed throughout the job site for safety and convenience. Temporary construction yards will be set up on the NW corner of the intersection of N. Pebble Rapids Place and E. Paradise Falls Drive to stage materials and equipment. Pick up brooms will be utilized to sweep roadways when construction related activities are complete in those areas.

South Rillito West Central Interceptor Construction Manager at Risk
GMP-2 Submittal

List of Plans and Specifications:

This GMP submittal is based upon the following specifications:

- PCRWRD Standard Specifications and Details for Construction 2012 Edition
- PC/COT Standard Specifications for Public Improvements 2003 Edition
- PC/COT Standard Details for Public Improvements 2003 Edition
- Manual on Uniform Traffic Control Devices 2009 Edition

This GMP submittal is based upon the following plan sets:

- Preliminary plans prepared by PCRWRD, "South Rillito Interceptor Rehabilitation Project No. 3SRWC4," sheets 1-6.
- Plans prepared by Structural Concepts Inc., "South Rillito Interceptor Sewer Miscellaneous Structures," sheets 1-4. These plans include the following:
    - New structure on N. Flanwill Blvd. at existing MH1716-20.
    - Precast manhole base reinforcing cover slabs.
- Plans prepared by WestLand Resources, "South Rillito West Central Interceptor Rehabilitation Project (3SRWC4) Native Plant and Landscape Mitigation Plans," sheets 1-9.
- Flow management plan narrative and plans prepared by WestLand Resources, "Flow Management Plan South Rillito Interceptor Sewer Rehabilitation (3SRWC4)," sheets 1-19.

This GMP submittal is based upon the bid packages:

- Cured in Place Pipe (CIPP)
- Miscellaneous Site Concrete
- Manhole Rehabilitation Coating
- Material Testing
- Concrete and Asphalt Saw Cutting
- Native Plant Preservation Landscaping
- Site Security
- Traffic Control
- Trench Patching

Clarifications and Assumptions:

1. Pavement patched required where asphalt was removed to accommodate flow management or manhole installation will be replaced in a condition equal to the existing pavement per PC/COT Std. Det. 216.
2. Contractor to have unrestricted access to all locations within project limits including washes, multi-use paths, and drainage ways.

The following items are excluded from the GMP.

- Utility Relocation/Support
- Pole Support and Overhead Protection
- Temporary Construction Easement Cost
- Dewatering of Ground Water
- Asbestos and lead abatement

SBE Utilization:

Due to the large amount of specialized work inherent to this type of project, it was understood by all parties that it would be difficult to achieve a high utilization of Small Business Enterprise (SBE) percentages. Pursuant to discussions held with Terri Spencer, SBE Program Coordinator for the Pima County Procurement Department, it was decided that KE&G would attempt to achieve an SBE percentage of 2.15%.

After subcontractor bids were collected from several agencies for different aspects of work on the project, it was discovered that the required SBE percentage of 2.15% could be achieved by utilizing Kaneen Advertising and Public Relations Inc. (Public Relations) and A-O Painting Inc. (Manhole Rehabilitation Coating). After receipt of bids from these two SBE subcontractors, Kaneen Advertising and A-O Painting Inc. will have approximate contract values of $139,815.00 and $161,185.00 respectively, for an SBE total of $301,000.00. With a maximum anticipated total CMAR contract value of $13,838,134.30 the SBE percentage calculates out to exceed the required 2.15%.

GMP Proposal Summary:

Based upon the aforementioned scope of work, list of plans and specifications, and list of clarifications and assumptions KE&G is proposing to complete the Phase 2 Construction for a GMP of $12,159,596.87. Please see the corresponding pricing breakdown and schedule of values in *Appendix A*.

SOUTH RILLITO WEST CENTERAL INTERCEPTOR REHABILITATION
CM @ RISK
CONSTRUCTION COST ESTIMATE - GMP-2
SCHEDULE OF VALUES

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	GMP VALUE
0.00	**NPPO / SWPPP**				
0.00.01	NPPO / CERTIFIED ARBORIST	1	LS	$ 59,859.83	$ 59,859.83
0.00.02	CLEARING / DISPOSAL	1	LS	$ 6,221.50	$ 6,221.50
0.00.03	SWPPP	1	LS	$ 18,000.00	$ 18,000.00
	NPPO / SWPPP SUBTOTAL				*$ 84,081.33*
1.00	**FLOW MANAGEMENT PLAN**				
1.00.01	INTERCEPTOR FMP (PHASE 2)	1	LS	$ 1,708,445.28	$ 1,708,445.28
1.00.02	CONNECTING LINES	1	LS	$ 862,833.47	$ 862,833.47
	FMP SUBTOTAL				*$ 2,571,278.75*
1.01	**CIPP**				
1.01.01	CCTV	22,926	LF	$ 0.65	$ 14,901.90
1.01.02	CLEANING	11,463	LF	$ 9.25	$ 106,032.75
1.01.03	48" CIPP	1,054	LF	$ 200.00	$ 210,800.00
1.01.04	54" CIPP	10,409	LF	$ 237.75	$ 2,474,739.75
1.01.05	CIPP MOBILIZATION	2	EACH	$ 20,000.00	$ 40,000.00
	CIPP SUBTOTAL				*$ 2,846,474.40*
1.02	**SLIPLINING**				
1.02.01	SONAR	10,284	LF	$ 7.00	$ 71,988.00
1.02.02	CCTV	10,284	LF	$ 0.65	$ 6,684.60
1.02.03	CLEANING	5,142	LF	$ 9.25	$ 47,563.50
1.02.04	48" SLIPLINING	3,841	LF	$ 271.15	$ 1,041,487.15
1.02.05	54" SLIPLINING	1,301	LF	$ 290.00	$ 377,290.00
1.02.06	SLIPLINING MOBILIZATION	1	LS	$ 67,940.00	$ 67,940.00
	SLIP LINING SUBTOTAL				*$ 1,612,953.25*

SOUTH RILLITO WEST CENTERAL INTERCEPTOR REHABILITATION
CM @ RISK
CONSTRUCTION COST ESTIMATE - GMP-2
SCHEDULE OF VALUES

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	GMP VALUE
2.01	**MANHOLES**				
2.01.01	RECONSTRUCT MANHOLES	9	EACH	$ 38,301.30	$ 344,711.70
2.01.02	REHABILITATE MANHOLE WALLS	448.65	VF	$ 355.00	$ 159,270.75
2.01.03	REHABILITATE MANHOLE BASE	43	EACH	$ 2,763.61	$ 118,835.23
2.01.04	REHABILITATE JUNCTION STRUCTURE 1716-12	1	LS	$ 48,707.84	$ 48,707.84
2.01.05	REHABILITATE JUNCTION STRUCTURE 1716-51	1	LS	$ 20,757.30	$ 20,757.30
2.01.06	NEW JUNCTION STRUCTURE 1716-48	1	LS	$ 102,168.73	$ 102,168.73
2.01.07	MANHOLE COLLARS	47	EACH	$ 2,105.50	$ 98,958.50
	MANHOLE SUBTOTAL				*$ 893,410.05*
3.01	**PAVEMENT**				
3.01.01	REMOVE & REPLACE ASPHALT (PHASE 1)	493	SY	$ 47.00	$ 23,171.00
3.01.02	REMOVE & REPLACE ASPHALT (PHASE 2)	727	SY	$ 76.00	$ 55,252.00
3.01.03	REMOVE & REPLACE ASPHALT (PHASE 3)	435	SY	$ 76.00	$ 33,060.00
	PAVEMENT SUBTOTAL				*$ 111,483.00*
4.01	**SITE CONCRETE**				
4.01.01	REMOVE & REPLACE CONCRETE DRAINAGE CHANNEL (PH	1,872	SF	$ 10.00	$ 18,720.00
4.01.02	REMOVE & REPLACE TYPE 2 MID BLOCK ACCESS RAMPS (	2	EACH	$ 1,700.00	$ 3,400.00
	6' SIDEWALK, DTL. 200 (PHASE 1)	300	SF	$ 13.00	$ 3,900.00
	TYPE 2 VERTICAL CURB (PHASE 1)	160	LF	$ 27.00	$ 4,320.00
	6' SIDEWALK, DTL. 200 (PHASE 2)	240	SF	$ 7.00	$ 1,680.00
	TYPE 2 VERTICAL CURB (PHASE 2)	40	LF	$ 30.00	$ 1,200.00
	HEADER CURB (PHASE 2)	120	LF	$ 15.00	$ 1,800.00
	COLORED CONCRETE (PHASE 2)	102	SF	$ 12.50	$ 1,275.00
	SITE CONCRETE SUBTOTAL				*$ 36,295.00*

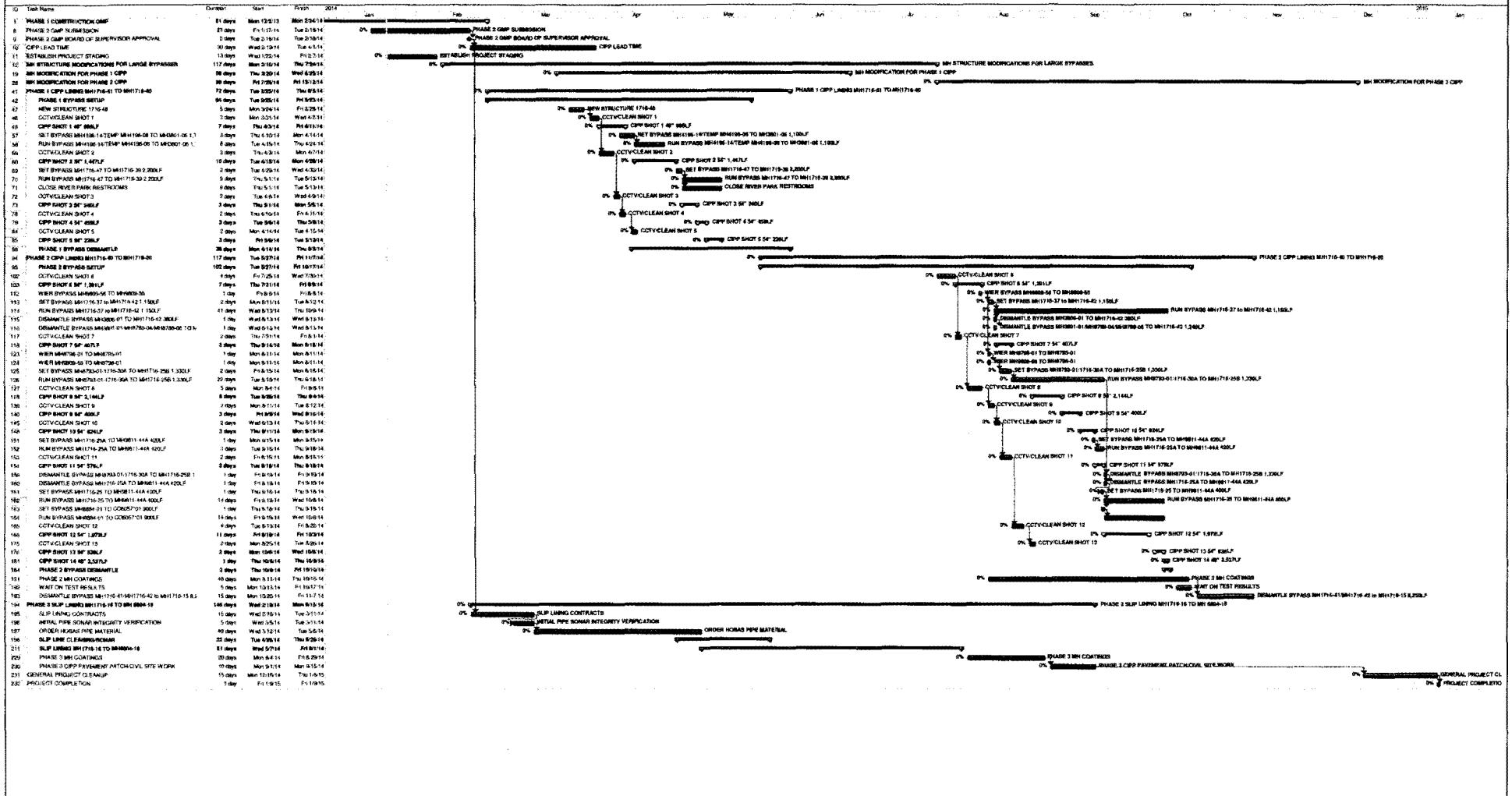
SOUTH RILLITO WEST CENTERAL INTERCEPTOR REHABILITATION
CM @ RISK
CONSTRUCTION COST ESTIMATE - GMP-2
SCHEDULE OF VALUES

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	GMP VALUE
5.01	**DESIGN**				
5.01.01	STRUCTURAL CALCULATIONS / NPPO PLANS	1	LS	$ 40,675.00	$ 40,675.00
6.01	**COMMUNITY RELATIONS - Included in GMP-1**				$ -
7.01	**MATERIAL / COMPACTION TESTING**	1	LS	$ 16,590.00	$ 16,590.00
8.01	**TRAFFIC CONTROLS**	180,000	FA	$ 1.00	$ 180,000.00
9.01	**PERMITTING**	1	LS	$ 8,050.00	$ 8,050.00
10.01	**SURVEYING**	1	LS	$ 13,424.00	$ 13,424.00
11.01	**SITE SECURITY**	225	DY	$ 236.32	$ 53,172.00
	DIRECTS SUBTOTAL				$8,467,886.78
12.08	**CONSTRUCTION CONTINGENCY @ 1%**	1	LS	$84,678.87	$84,678.87
12.09	**GENERAL CONDITIONS**	1	LS	$755,392.91	$755,392.91
12.09.01	PROJECT MANAGER	51	WK	$3,370.00	$171,870.00
12.09.02	PROJECT ENGINEER	51	WK	$2,290.00	$116,790.00
12.09.03	FIELD ENGINEER	63	WK	$2,138.89	$134,750.07
12.09.04	SUPERINTENDENT	51	WK	$2,560.00	$130,560.00
12.09.05	CONSTRUCTION WATER	9,000	MGAL	$7.00	$63,000.00
12.09.06	TEMP FACILITIES	51	WK	$1,180.00	$60,180.00
12.09.07	MOBILIZATION	1	LS	$78,242.84	$78,242.84
	GENERAL CONDITIONS SUBTOTAL				*$755,392.91*

SOUTH RILLITO WEST CENTERAL INTERCEPTOR REHABILITATION
CM @ RISK
CONSTRUCTION COST ESTIMATE - GMP-2
SCHEDULE OF VALUES

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	GMP VALUE
	GMP SUBTOTAL				$9,307,958.56
12.10	CM @ RISK CONSTRUCTION FEE @ 12.0%	1	LS	$1,116,955.03	$1,116,955.03
	GMP + FEE SUBTOTAL				$10,424,913.58
12.11	PAYMENT & PERFORMANCE BONDS @ 0.75%	1	LS	$78,186.85	$78,186.85
	GMP + FEE + BOND SUBTOTAL				$10,503,100.43
12.12	GENERAL LIABILITY INSURANCE @ 0.9%	1	LS	$94,527.90	$94,527.90
	SUBTOTAL				$10,597,628.33
12.13	CITY OF TUCSON SALES TAX @ 5.265%	1	LS	$557,965.13	$557,965.13
12.14	TOTAL GMP				$11,155,593.46
12.15	OWNER'S CONTINGENCY @ 9%	1	LS	$1,004,003.41	$1,004,003.41
	GMP-2 GRAND TOTAL				$12,159,596.87

SRI Rehabilitation CPM Schedule



SRI Rehabilitation CPM Schedule

Task
Critical Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Critical Task
Rolled Up Milestone
Rolled Up Progress
Split
External Tasks
Project Summary
Group By Summary
Deadline

SRI Rehabilitation CPM Schedule