



December 2, 2014

DCN: IAE-UPC-2342

Mr. Giuseppe Quarta  
Grupo Unidos por el Canal, S.A.  
Building 22B, Brujas Road  
Cocoli, Republic of Panama

Reference: Contract No. CMC-221427, Design and Construction of the Third Set of Locks,  
Panama Canal

Subject: Numbering of Variations

Dear Mr. Quarta:

The Employer refers to a number of determinations, as listed below, which have resulted in changes to the Contract Price. For administrative purposes, the Employer has assigned variation numbers to each determination as shown in the table below. This is not intended to have any defining, modifying or other effect on the contents of the letters referred to.

ITEM	REFERENCE	DATE	VO NUMBER
Range Tower No. 2	IAE-UPC-1201	13-Aug-2012	122
Claim No. 10 Fiscal Law 8	IAE-UPC-1202	13-Aug-2012	123
On-Site Testing	IAE-UPC-1203	13-Aug-2012	124
Transition Walls	IAE-UPC-2119	25-Jun-2014	125
Gate Drive Mechanism	IAE-UPC-2122	25-Jun-2014	126
Claim No. 66 Increase in Wages	IAE-UPC-2127	2-Jul-2014	127
VDS Semaphores	IAE-UPC-2156	24-Jul-2014	128
Claim No. 96 - Labor Strike	IAE-UPC-2192	6-Aug-2014	129
Maintenance Closure System	IAE-UPC-2199	8-Aug-2014	130
Fingerprint Readers	IAE-UPC-2217	26-Aug-2014	131

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The Employer attaches a variation form in respect of each of the items above. The Contractor's Representative's signature is not required.

Sincerely yours,



Jorge de la Guardia

Employer's Representative

Locks Project Management Division

PANAMA CANAL AUTHORITY	VARIATION	PAGE 1 OF 1
1. REQUEST FOR PROPOSAL No.:  RFP-76161	2. CONTRACT No.:  CMC-221427	3. DATE: December 2, 2014
		4. VARIATION No.: 126

5. ISSUED BY:

PANAMA CANAL AUTHORITY  
Employer's Representative  
Locks Project Management Division  
Building 740, Corozal  
Panama, Republic of Panama

6. NAME AND ADDRESS OF CONTRACTOR (INCLUDE PHYSICAL & POSTAL ADDRESS)  Grupo Unidos por el Canal, S.A. Building 22B, Brujas Road Cocoli, Republic of Panama	7. CONTRACTOR'S TELEPHONE NUMBER:  507-316-9900
	8. CONTRACTOR'S FACSIMILE NUMBER:

**9. VARIATION:**

- ☒ The contract referred to in item No. 2 is hereby varied as set forth in item 10, entitled "DESCRIPTION OF VARIATION".  
☐ YES. ☒ NO. The contractor shall send a copy, duly signed, of this Variation to the Employer's Representative/Contracting Officer.

	9 A. THIS VARIATION IS EXECUTED ON THE BASIS OF: (Specify the legal authority).  THE VARIATION DESCRIBED IN ITEM 10 IS HEREBY INCORPORATED AND MADE A PART OF THE CONTRACT.
	9 B. THE CONTRACT REFERRED TO IN ITEM NO. 2, IS VARIED TO INCORPORATE ADMINISTRATIVE CHANGES (such as the paying office, account numbers, etc.).
	9 C. THIS BILATERAL AGREEMENT IS SIGNED AND INCORPORATED INTO THE CONTRACT REFERRED TO IN ITEM NO. 2 OF THIS FORM, ON THE BASIS OF: (Specify the legal authority)
X	9 D. OTHER. (Specify manner and the legal authority). <b>Refer to the Employer's Representative's Determination in letter IAE-UPC-2122 dated June 25, 2014</b>
	9 E. ACCOUNT NUMBER (If required):

**10. DESCRIPTION OF THE VARIATION** (List in accordance with the order of the Contract. If additional space is required, use blank sheets).

**See attached**

**Except for the variation(s) herein specified, all other terms and conditions of the Contract remain unchanged.**

11. NAME AND TITLE OF THE PERSON AUTHORIZED TO SIGN (Type or print)	12. NAME AND TITLE OF THE EMPLOYER'S REPRESENTATIVE/CONTRACTING OFFICER (Type or print)  Jorge de la Guardia, Employer's Representative		
13. CONTRACTOR	14. DATE:	15. PANAMA CANAL AUTHORITY	16. DATE:
  (Authorized signature)		 (Employer's Representative/Contracting Officer's signature)	2/11/2014

June 25, 2014

DCN: IAE-UPC-2122

Mr. Giuseppe Quarta  
Grupo Unidos por el Canal, S.A.  
Building 22B, Brujas Road  
Cocoli, Republic of Panama

Reference: Contract No. CMC-221427, Design and Construction of the Third Set of Locks,  
Panama Canal

Subject: Gate Drive Mechanism

Dear Mr. Quarta:

1. The Contractor by letters GUPC-IAE-1432 dated September 13, 2012, GUPC-IAE-1499 dated October 15, 2012:
  - (a) submitted a value engineering proposal relating to the lock gates drive mechanism for the Employer's consideration pursuant to Sub-Clause 13.2 [Value Engineering] of the Contract;
  - (b) advised the Employer that the estimated net effect of the value engineering proposal, if adopted, would be operating and maintenance savings for the Employer in the region of \$3,090,000 over a 10 year period; and
  - (c) requested that the Employer accept the Contractor's value engineering proposal with an increase to the Contract Price of \$2,500,120.00 plus 5% profit (\$125,006.00), excluding overheads, which the Contractor suggested should be left in abeyance pending agreement on a methodology of calculation. .
2. There was correspondence between the parties on the topic of overheads with the Employer maintaining that overhead should be based on the reasonable indirect costs actually incurred.
3. The Contractor's letter GUPC-IAE-1922 dated 17 May, 2013 stated as follows:

*"Indirect, overhead costs and profit have to be added; an interim amount of \$862,541 is proposed .... The indirect and overhead costs may be adjusted once resolved."*

No explanation has been provided by the Contractor as to the basis on which the figure of \$862,541 was calculated.
4. The Employer's letter IAE-UPC-1660 dated August 23, 2013 stated that this figure was not agreed and that the Contractor should

*"... demonstrate actual incurred additional overhead costs which are specifically related to the different Lock Gate Drive Mechanism in order for any overhead to be recognized and paid by the Employer. This is required by the Contract and confirmed through the DAB decision on Dispute 7, Range Target No. 2, dated November 18, 2012."*

5. *The Contractor replied in letter GUPC-IAE-2232 dated October 28, 2013 stating that it disagreed with the Employer's position. The Contractor offered to accept the sum of 25% for overheads and profit, however no explanation was provided for how that figure had been arrived at.*
6. The Employer wrote to the Contractor by letter IAE-UPC-2037 dated May 5, 2014, stating that based on the advice, recommendations and stated benefits to the Employer contained in the Contractor's letter GUPC-IAE-1499 dated October 15, 2012, the Employer was prepared to accept the value engineering proposal to the lock gates drive mechanisms set out in the Contractor's letters GUPC-IAE-1432 dated September 13, 2012 and GUPC-IAE-1499 dated October 15, 2012 on the basis that the acceptance of this value engineering proposal would:
  - (a) entitle the Contractor to an increase to the Contract Price of \$2,500,120.00 plus 5% profit (\$125,006.00), excluding overheads;
  - (b) not entitle the Contractor to any other adjustment to the Contract Price any extension of time to the Time for Completion and/or any extension of time to any Milestone Dates;
  - (c) entitle the Contractor to be paid for overhead costs related to this value engineering proposal in an amount to be subsequently agreed or determined based on the demonstrated actual incurred additional overhead costs specifically related to the alternate Lock Gate Drive Mechanism.
7. The Employer's letter IAE-UPC-2037 dated May 5, 2014 and the proposed variation agreement were not acceptable to the Contractor and the Contractor, by its letter GUPC-IAE-2892 dated May 15 2014, stated as follows:

*"The Contractor cannot agree to the Variation Order No 097 as currently drafted by the Employer as it provides only for the amount of \$2,500,120 plus 5% profit and does not allow recovery of any overhead and indirect costs associated with these works in the amount of \$500,024, which is an integral part of the Contractor's Value Engineering proposal.*

*Therefore, the Contractor requests the Employer's Representative to proceed with its contractual duty to perform a determination, pursuant to Sub-Clause 13.3 [Variation Procedure) and Sub-Clause 3.5 [Determinations), so that relevant amount may be included in the next Interim Payment Certificate"*

The Contractor's reference to a contractual duty to perform a determination was misconceived as the Contractor's value engineering proposal had not been accepted by the Employer. However, the Employer accepts the value engineering proposal on the basis of the Contractor's request that the Contractor's entitlement to overheads is

June 25, 2014

resolved by way of a determination by the Employer's Representative, all other matters having been agreed.

8. The Employer accepts the Contractor's value engineering proposal on the basis set out in this letter and encloses the determination by the Employer's Representative. The Contractor will note that the determination states that the Contractor is entitled to be paid a total sum of \$2,783,252 which includes the direct costs, overhead, and profit. The Employer will make payment that is consistent with the documented progress of this work and with the Employer's Representative determination.

Sincerely yours,

A handwritten signature in blue ink, appearing to read 'Jorge de la Guardia', with a stylized flourish at the end.

Jorge de la Guardia  
Employer's Representative  
Locks Project Management Division



**GATE DRIVE MECHANISM**  
**EMPLOYER'S REPRESENTATIVE DETERMINATION**  
**JUNE 25, 2014**

BACKGROUND

1. The Contractor submitted a value engineering proposal to the Employer pursuant to Sub-Clause 13.2 [Value Engineering] of the Conditions of Contract relating to a proposed change in the gate drive mechanism as more particularly set out in the documents referred to in IAE-UPC-2122 dated June 25, 2014.
2. That proposal has been accepted by the Employer on the basis that the Contractor's entitlement to overheads would (at the request of the Contractor) be determined by the Employer's Representative, all other matters relating to the effect of the acceptance on the Contract Price and/or Time for Completion and/or any Milestone Dates having been agreed.

THE CONTRACTOR'S REQUEST FOR OVERHEADS

3. The Contractor's letter GUPC-IAE-1922 dated 17 May, 2013 stated as follows:  
*"Indirect, overhead costs and profit have to be added; an interim amount of \$862,541 is proposed .... The indirect and overhead costs may be adjusted once resolved."*  
No explanation has been provided by the Contractor as to the basis on which the figure of \$862,541 was calculated.
4. The Employer's letter IAE-UPC-1660 dated August 23, 2013 stated that this figure was not agreed and that the Contractor should  
*"... demonstrate actual incurred additional overhead costs which are specifically related to the different Lock Gate Drive Mechanism in order for any overhead to be recognized and paid by the Employer. This is required by the Contract and confirmed through the DAB decision on Dispute 7, Range Target No. 2, dated November 18, 2012."*
5. The Contractor replied in letter GUPC-IAE-2232 dated October 28, 2013 stating that it disagreed with the Employer's position. The Contractor offered to accept the sum of 25% for overheads and profit, however no explanation was provided for how that figure had been arrived at.

DETERMINATION PROCESS

6. The Contractor has declined to offer any explanation whatsoever as to the basis upon which it has calculated its proposed entitlement to overheads and has also declined to demonstrate any incurred additional overhead costs which are specifically related to its

value engineering proposal. The Employer's Representative has therefore been placed in the position of having to assess what overheads are likely to have been incurred (and what overheads are likely to be incurred) by the Contractor but with no information from the Contractor.

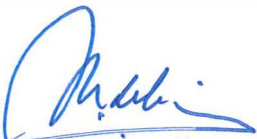
7. It would be possible to infer that the Contractor's failure to provide information is due to there being nothing to offer. However, the Employer's Representative considers that, in relation to the gate drive mechanism, there was probably some additional resource deployment and has made a reasonable estimate as to what was the incurred overhead, based on the assumptions below.

#### ASSUMPTIONS

8. The following assumptions have been made:
  - (a) The Gate Drive Mechanism VE is an optimization to CICP's original design. It involves design and fabrication changes, which were carried out by subcontractor Cimolai. A three month period was required to develop and process the design change.
  - (b) Additional overhead costs involved design coordination between GUPC and Cimolai design teams
  - (c) Additional legal and administrative work was required on Cimolai's sub-contract and CICP's sub-contract.
  - (d) Travel expenses were incurred by GUPC's electromechanical engineer (PIO office) and by GUPC's Electromechanical Resident engineer for fabrication/design/testing coordination.

#### DETERMINATION

9. The Determination of the Employer's Representative appears in the attached table.
10. This Determination has had to be carried out without the benefit of any supporting information from the Contractor; this was the Contractor's deliberate choice. Nonetheless, if the Contractor decides to contribute any information in support of its overhead claim, this will be considered.



Jorge de la Guardia  
Employer's Representative  
Locks Project Management Division



# APPENDIX 1

## GATE DRIVE MECHANISM - VALUE ENGINEERING ADDITIONAL WORK

### QUANTUM CALCULATIONS DETAIL FOR OVERHEAD COSTS

#### A. COSTS RELATED DIRECTLY TO THE GATES DRIVE MECHANISM ADDITIONAL WORK

INDEX	DIRECT COSTS	QTY	UNIT COST	% ALLOCATED AMOUNT	TOTAL UNIT COST	DURATION (months)	TOTAL DIRECT COST
I.	TOTAL DIRECT COSTS						\$ 2,500,120

#### B. COSTS TO SUPPORT THE GATES DRIVE MECHANISM VALUE ENGINEERING

		QTY	MONTHLY SALARY + BENEFITS	% ALLOCATED AMOUNT	TOTAL UNIT COST	DURATION (months)	TOTAL INDIRECT COST
II.	INDIRECT MANAGEMENT						
	Design Manager (Atlantic and Pacific)	1	\$ 20,582	25%	\$ 5,145.48	3	\$ 15,436
	Contractor's Representative	1	\$ 30,000	5%	\$ 1,500.00	3	\$ 4,500
	Electromechanical Engineer (PIO)	1	\$ 25,000	25%	\$ 6,250.00	3	\$ 18,750
	Electromechanical Engineer - Design Interface (CICP)	1	\$ 25,000	25%	\$ 6,250.00	3	\$ 18,750
	Electromechanical Resident Engineer at Italy (GUPC)	1	\$ 25,000	50%	\$ 12,500.00	3	\$ 37,500
	SUBTOTAL	5					\$ 94,936

		Qty	MONTHLY UNIT COST	% ALLOCATED AMOUNT	TOTAL	DURATION (months)	TOTAL INDIRECT COST
III.	EXPAT BENEFITS						
	HOUSING	5	\$ 4,000	25%	\$ 5,000.00	3	\$ 15,000
	MEALS	5	\$ 300	25%	\$ 375.00	3	\$ 1,125
	TRAVEL	5	\$ 333	25%	\$ 416.67	3	\$ 1,250
	CELL PHONE	5	\$ 100	25%	\$ 125.00	3	\$ 375
	CAR	5	\$ 1,863	25%	\$ 2,328.30	3	\$ 6,985
	SUBTOTAL		\$ 6,596		\$ 8,244.97		\$ 24,735

			MONTHLY SALARY + BENEFITS	% ALLOCATED AMOUNT	TOTAL	DURATION (months)	TOTAL INDIRECT COST
IV.	ADMINISTRATIVE SUPPORT						
	Administrative for Drawings submittals	1	\$ 2,000	25%	\$ 500.00	3	\$ 1,500
	Submittal coordinator	1	\$ 2,600	25%	\$ 650.00	3	\$ 1,950
	Legal	1	\$ 39,000	100%	\$ 39,000.00	0.25	\$ 9,750
	Contract Specialist	3	\$ 2,900	25%	\$ 2,175.00	3	\$ 6,525
	SUBTOTAL	6					\$ 19,725

			UNIT COST	% ALLOCATED AMOUNT	TOTAL	DURATION (weeks)	TOTAL INDIRECT COST
IV.	OTHERS						
	Travel - Cimolai - Electromechanical Engineer (PIO)	2	\$ 5,000	100%	\$ 10,000.00	1 week	\$ 10,000
	Resident Engineer at Italy - Internal travel for design / fabrication meetings	1	\$ 100	100%	\$ 100.00	12 days	\$ 1,200
	SUBTOTAL						\$ 11,200

V.	TOTAL INCREMENTAL INDIRECT COSTS						\$ 150,596
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VI.	TOTAL COST (DIRECT COST + INDIRECT COST)						\$ 2,650,716
VII.	PROFIT MARGIN	5%					\$ 132,536
VIII.	ESTIMATED REASONABLE COST						\$ 2,783,252