	ANAL AUTHORITY		VARIATION	PAGE 1 OF 6
1. REQUEST FOR PROP	OSAL No.:	2	2. CONTRACT No.:	3. DATE:
	76161		CMC-221427	April 5, 2016
	70101			4. VARIATION No.: 164
5. ISSUED BY:				-
PANAMA CANAL A Employer's Represe Locks Project Mana Building 740, Coroz Panama, Republic	entative agement Division zal			
6. NAME AND ADDRESS		NCLUDE 7	. CONTRACTOR'S TELEPHONE	NUMBER:
PHYSICAL & POSTAL		Į.	507-316-9900	
Grupo Unidos por e				
Building 22B, Bruja Cocoli, Republic of		8	B. CONTRACTOR'S FACSIMILE I	NUMBER:
o o o o o o o o o o o o o o o o o o o	, and the			
			of this Variation to the Employer's GIS OF: (Specify the legal authority	Representative/Contracting Officer.
THE VARIA	ATION DESCRIBED IN	ITEM 10 IS	HEREBY INCORPORATED AND	MADE A PART OF THE CONTRACT.
	TRACT REFERRED To			TE ADMINISTRATIVE CHANGES
NO. 2 OF		BASIS OF: (		CONTRACT REFERRED TO IN ITEM me III, Conditions of Contract, Sub-
NO. 2 OF Clause 1.16 [En	THIS FORM, ON THE	BASIS OF: ( aragraph	Specify the legal authority) Volur	
NO. 2 OF Clause 1.16 [En	THIS FORM, ON THE tire Agreement], 4 <sup>th</sup> P	BASIS OF: (Paragraph  e legal authori	Specify the legal authority) Volur	
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9 D. OTHER. (S 9 E. ACCOUNT 0. DESCRIPTION OF TICHERS).  Except for the variation(s) 1. NAME AND TITLE OF TO SIGN (Type or pring) Giuseppe Quarta	THIS FORM, ON THE tire Agreement], 4th P Specify manner and the NUMBER (If required the VARIATION (List in See Variations))  Sherein specified, as THE PERSON AUTHOR)	BASIS OF: (Paragraph  e legal authori  ):  n accordance  /ariation  Il other terms  ORIZED 1	Specify the legal authority) Volumenty).  With the order of the Contract. If a square of the Contract and conditions of the Contract 2. NAME AND TITLE OF THE EN	additional space is required, use blank t remain unchanged. MPLOYER'S CTING OFFICER(Type or print)
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This Variation Agreement Number 164, is dated as of the 5<sup>th</sup> day of April 2016 and made

**Between**: Autoridad del Canal de Panama, Building 740, Corozal, Panama, Republic of Panama (hereinafter called the "**Employer**") on the one part,

and

Grupo Unidos por el Canal, S.A., of Building 22B, Brujas Road, Cocoli, Panama, Republic of Panama, a corporation organized under the laws of the Republic of Panama, registered under microjacket number 682266, document number 1683284 of the Mercantile Section of the Public Registry Office of the Republic of Panama (hereinafter called the "Contractor" and together with Employer, the "Parties") on the other part.

## Whereas:

- (a) The Employer and the Contractor are party to Contract CMC-221427 for the Design and Construction of the Third Set of Locks, dated August 11, 2009 (as the same has been or may be varied, amended, supplemented or otherwise modified (the "Contract")).
- (b) The Contractor requested that the Employer agree to a proposed budget reallocation for Site works as set out in the Contractor's letters GUPC-IAE-4303 dated November 25, 2015, GUPC-IAE-4453 dated December 21, 2015, GUPC-IAE-4607 dated February 18, 2016 and GUPC-IAE-4629 dated February 26, 2016.
- (c) Accordingly, the Employer has responded through:
  - (i) letter IAE-UPC-2803 dated December 23, 2015, indicating to the Contractor that the Employer's Representative has reviewed and accepted the proposed budget movement shown in the table "Budget Movement Siteworks" attached to letter GUPC-IAE-4453 dated December 21, 2015;
  - (ii) letter IAE-UPC-2900 dated February 26, 2016, indicating to the Contractor that the Employer's Representative has reviewed and, in principle, accepted the proposed budget changes shown in the appendices attached to letter GUPC-IAE-4607 dated February 18, 2016, subject to the points set out in the Employer's letter IAE-UPC-2900 dated February 26, 2016; and
  - (iii) letter IAE-UPC-2915 dated March 9, 2016, indicating to the Contractor that the Employer's Representative has reviewed the proposed adjustment to Appendix 1 of Variation Agreement No. 136 and would be willing to modify Variation Agreement No. 136 as suggested by the Contractor,

but subject always to the parties agreeing a formal variation to reflect such revised arrangements.

# Design and Construction of the Third Set of Locks

- (d) As a condition to the Employer permitting the proposed budget changes set out in sub-paragraph (c) above, the Contractor has agreed to provide the VO No. 164 Bond Issuer Confirmation to the Employer in the form set out in Appendix 1 to this Variation Agreement No. 164 no later than 15 Business Days after the date of this Variation Agreement No. 164.
- (e) Therefore, subject to the terms of this Variation Agreement No. 164, the Parties have agreed to a variation to the Contract as hereinafter stated, but not further or otherwise.

#### THE PARTIES HEREBY AGREE AS FOLLOWS:

The Employer and the Contractor agree to vary the Contract as follows:

- 1. In this Variation Agreement No. 164, the words and expressions shall have the same meanings as are respectively assigned to them in the Contract, save as amended below or as expressly stated.
- 2. It is agreed that this Variation Agreement No. 164 and the modifications contained herein are approved and dated in writing by the authorized representatives of the Contractor and the Employer and in doing so the Parties acknowledge and identify that this is done in accordance with Sub-Clause 1.16 [Entire Agreement] of the Contract.
- 3. The Parties acknowledge and agree that this Variation Agreement No. 164 shall not be deemed to settle any outstanding issues, claims, demands, actions, disputes or proceedings between the Parties including but not limited to those in relation to any delay to the Works (both as to time and costs) and all such issues, claims, demands, actions, disputes or proceedings remain in contention between the Parties and all respective rights, remedies, claims and defenses of the Parties including but not limited to those concerning and arising out of any delay and/or responsibility for delay and the consequences thereof remain fully reserved. The Parties expressly agree that no Party is waiving, making an admission with respect to, or intending to prejudice any claims, defenses, arguments or remedies that any of them has or may have arising out of events up to and including the date of this Variation Agreement No. 164 or in the future concerning their respective performance under and in relation to the Contract. For the avoidance of doubt, all delay-related issues between the Contractor and the Employer, and their respective rights and remedies regarding responsibility for delay and the consequences thereof, remain fully reserved. Nothing in this Variation Agreement No. 164 will have the effect of changing or extending the Time for Completion or any Milestone Dates under the Contract or entitle the Contractor to Excusable Delay. For the avoidance of doubt, this Variation Agreement No. 164 is without prejudice to each Party's position in any current or future DAB and/or arbitration proceedings pursuant to Sub-Clauses 20.4 [Obtaining Dispute Adjudication Board's Decision and/or 20.6 [Arbitration] respectively (including but not limited to ICC References 2091 0/ASM and 20911/ASM).

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## Design and Construction of the Third Set of Locks

4. Save in relation to breaches of, or failure by either Party to comply with, the terms of this Variation Agreement No. 164, the Parties agree that they shall have no claims for additional time or money or any other relief or entitlement of any kind as a direct consequence of this Variation Agreement No. 164.

- 5. Further, the Contractor's obligations as to the progress of the Works and to complete the Works and comply with the Contract remain in all respects unaffected and nothing within this Variation Agreement No. 164 is intended to be a waiver or relaxation of the Contractor's obligations under the Contract, save only as expressly stated herein and the Contract shall remain fully effective as varied herein and the Contract shall have effect as though the provisions contained in this Variation Agreement No. 164 had been originally contained in the Contract.
- 6. This Variation Agreement No. 164 shall be governed by the Laws of the Republic of Panama and is deemed to be incorporated into and form an integral part of the Contract.
- 7. The Parties hereby agree to amend Sub-Clause 1.1 [*Definitions*] of the Contract as follows:

The Parties agree to add the following definitions to Sub-Clause 1.1 [Definitions] of the Contract under the Sub-Clause 1.1.6 [Other Definitions] (which shall be added in proper alphabetical order but without any number):

"Variation Agreement No. 164" means Variation Agreement Number 164, dated April 5, 2016 between the Employer and the Contractor.

"VO No. 164 Bond Issuer Confirmation" means a written confirmation (or rider, amendment or modification, as applicable), in the form set out in Appendix 1 to Variation Agreement No. 164 and otherwise acceptable to the Employer, from the issuer of the Payment Bond, consenting to the modifications to the Contract made pursuant to the terms of Variation Agreement No. 164 and confirming the continuing validity of such bond notwithstanding such modifications.

- 8. The Parties hereby agree to amend Variation Agreement No. 099 as follows:
  - (a) Delete Appendix 2 in its entirety and replace with Appendix 2 to this Variation Agreement No. 164.
- 9. The Parties hereby agree to amend Variation Agreement No. 136 as follows:
  - (a) Delete Appendix 1 in its entirety and replace with Appendix 3 to this Variation Agreement No. 164.

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- 10. The Parties hereby agree to amend Variation Agreement No. 142 as follows:
  - (a) Delete Appendix 1 in its entirety and replace with Appendix 4 to this Variation Agreement No. 164.
- 11. The Parties further agree that the amendment of the Contract and the Employer's agreement to the Contractor's request as set out in and in accordance with paragraphs 8, 9 and 10 of this Variation Agreement No. 164 is subject to the Contractor delivering to the Employer the VO No. 164 Bond Issuer Confirmation no later than 15 Business Days after the date of this Variation Agreement No. 164, failing which the amendments set out in paragraphs 7, 8, 9 and 10 above shall be of no effect and void.
- 12. If the Contractor fails to comply with paragraph 11 above within the time period specified therein, then any amounts paid by the Employer to the Contractor in accordance with the amendments to the appendices of Variation Agreement No. 099, Variation Agreement No. 136 and/or Variation Agreement No. 142 pursuant to paragraphs 8, 9 and 10 above shall become immediately due and payable by the Contractor to the Employer and the Employer shall be entitled, at its sole and absolute discretion, to:
  - (a) deduct the full amount of any such amounts paid by the Employer to the Contractor in accordance with the amendments to the appendices of Variation Agreement No. 099, Variation Agreement No. 136 and/or Variation Agreement No. 142 pursuant to paragraphs 8, 9 and 10 above in the next Interim Payment Certificate; and/or
  - (b) require payment of the full amount of any such amounts paid by the Employer to the Contractor in accordance with the amendments to the appendices of Variation Agreement No. 099, Variation Agreement No. 136 and/or Variation Agreement No. 142 pursuant to paragraphs 8, 9 and 10 above (or any part thereof not deducted in accordance with sub-paragraph (a) above) from the Contractor, in which case the Contractor shall within 21 days of written request from the Employer make payment of such amount(s) to the Employer and/or the Employer may recover such amount(s) as a debt due from the Contractor to the Employer. Payment of any amount(s) due from the Contractor to the Employer pursuant to this sub-paragraph (b) shall be made by electronic transfer of funds to the bank account nominated by the Employer,

and the Parties shall continue in accordance with the Contract as if the respective amendments set out in paragraphs 8, 9 and 10 above had never been made.

13. The Parties acknowledge and agree that the Employer's rights in relation to the processing of Interim Payments including but not limited to under Sub-Clause 14.6 [Issue of Interim Payment Certificates] and Sub-Clause 14.7 [Payment] remain unaffected by this Variation Agreement No. 164.

# Design and Construction of the Third Set of Locks

14. Each Party shall from time to time (at its own cost) do, perform, sign, execute and deliver all such acts, deeds, documents and things (or procure the doing, performance, signing, execution or delivery of them) to give full effect to this Variation Agreement No. 164 and secure the full benefit of the rights, powers and remedies conferred upon it in this Variation Agreement No. 164.

**In Witness** whereof the Parties hereto have caused this Variation Agreement No. 164 to the Contract to be executed on the **5th** day of **April** of the year 2016 by their duly authorized representatives.

For ACP

Jorge de la Guardia Employer's Representative For GUPCSA

Giuseppe Quarta

Contractor's Representative

## Appendix 1

#### VO No. 164 Bond Issuer Confirmation

## [Letterhead of Zurich]

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Autoridad del Canal de Panama Building 740, Corozal West Panama, Republica of Panama

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

Locks, Panama Canal

Confirmation regarding Variation Agreement No. 164

Dear Sirs:

We refer to (i) the Design and Build Contract for the Third Set of Locks on the Panama Canal (as amended, modified, varied or supplemented, the "Contract") tendered under RFP #76161 between you, as owner and Employer thereunder (the "Owner") and Grupo Unidos por el Canal, S.A., as contractor (the "Contractor"); and (ii) the payment bond, Bond no. 08960194, dated August 7, 2009, in an amount of USD 50,000,000 (Fifty Million Dollars), issued in the Owner's favor in respect of the Contract (as amended, supplemented or otherwise modified from time to time, the "Payment Bond"). Unless otherwise specified, capitalized terms used herein have the respective meanings specified in the Contract.

We have been provided with a copy of Variation Agreement No. 164, dated April 5, 2016 ("Variation Agreement No. 164") to the Contract, executed by the Owner and the Contractor, which provides for certain modifications to the Contract so as to permit the proposed budget movements and replacement of Appendix 2 of Variation Agreement No. 099, Appendix 1 of Variation Agreement No. 136 and Appendix 1 of Variation Agreement No. 142.

The undersigned, as Surety under and as defined in the Payment Bond, hereby consents to the aforementioned modifications to the Contract and confirms to you, as Owner and beneficiary under the Payment Bond, the continued validity of the Payment Bond in the respective amounts originally stated therein, notwithstanding the modifications set forth in Variation Agreement No. 164.

Nothing in this confirmation letter is intended to or shall waive, alter, amend or otherwise affect any of the terms or conditions of the Payment Bond, other than as stated herein.

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# ZURICH AMERICAN INSURANCE COMPANY, as Surety under the Payment Bond

	Ву:
	Name:
	Title:
ACCEPTED	
ACCEPTED:	
AUTORIDAD DEL CANAL DE PA	NAMA
	beneficiary under the Payment Bond referred to
above	
Ву:	
Name:	
Title:	

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PRICE BREAKDOWN OF THE "PLANT MECHANICAL SYSTEMS AND EQUIPMENT" - ITEMS 2.3.1.12 AND 2.3.2.12 OF THE CONTRACT SCHEDULE OF PROJECT ELEMENTS AND PRICES -

Plant Mechanical Systems and Equipment [E30.21(31).12]	Supply and Delivery	Total Wo	rk (\$)	Supply	(\$)	Install (	(\$)	Commision	ing (\$)	ACP Training	
Plant Mechanical Systems and Equipment [ E30.21(31).12]	Supply and Delivery	69,556,832	100.0%	37,001,887	53.2%	30,703,161	44.1%	1,646,451	2.4%	205,333	0.3%
Percentage related to the supply				100.0%		83.0%		4.4%		0.6%	
Fire protection equipment	INDRA	16,757,990	100.0%	9,897,519	59.6%	6,212,693	37.4%	544,752	3.3%	103,027	0.6%
Dewatering & Sump Pumps	KSB, Sum. Espec.	5,865,459	100.0%	3,120,226	53.2%	2,589,079	44.1%	126,827	2.2%	29,327	0.5%
Steel piping and access. for water distrib. and dewatering	ACIPCO	26,228,785	100.0%	13,007,128	49.2%	12,792,962	48.4%	428,695	1.6%	0	0.0%
Plumbing in buildings	TBD	4,098,171	100.0%	2,191,044	53.2%	1,818,069	44.1%	89,058	2.2%	0	0.0%
Sanitary Drainage System (PVC pipe)	TBD	1,311,431	100.0%	701,143	53.2%	581,789	44.1%	28,499	2.2%	0	0.0%
Oil water separator (Equipments&pipes)	WESA	472,276	100.0%	252,000	53.2%	209,103	44.1%	10,243	2.2%	931	0.5%
Elevators	THYSSEN KRUPP	3,053,002	100.0%	1,624,094	53.2%	1,347,629	44.1%	66,014	2.2%	15,265	0.5%
HVAC and ventilation (buildings & cross under)	TBD	5,225,565	100.0%	2,726,628	53.2%	2,262,482	44.1%	210,828	4.1%	25,628	0.5%
Overhead Travelling Cranes	IMOCOM	2,828,762	100.0%	1,504,806	53.2%	1,248,647	44.1%	61,165	2.2%	14,144	0.5%
Waste Water Treatment Plants	WESA	3,402,284	100.0%	1,809,900	53.2%	1,501,806	44.1%	73,566	2.2%	17,011	0.5%
Swing and Slide Frame Gates Operator, Roll Up Doors & Grills	313,108	100.0%	167,400	53.2%	138,904	44.1%	6,804	2.2%	0	0.0%	



# Flexible Membrane Lining price breakdown

RFV 273 - PROPOSED ACTIVITIES FOR THE SUPPLY AND INSTALLATION OF FLEXIBLE MEMBRANE LINING IN THE WSBs

Activity Id	Current Budget	Activity Name	Quantity (m2)	UP (\$)	Rate (%)	Proposal Budget
A-43080-330	\$3,863,613.66	A_WSB-LC: Install Lining				
		Concrete WSB Slab	12,852.41	50.00		\$642,620.50
		Supply Materials for flexible lining	90,000.00	21.47	60%	\$1,932,595.90
		Installation of flexible lining	90,000.00	14.32	40%	\$1,288,397.26
A-43260-340	\$3,863,613.95	A_WSB-MC: Install Lining				
		Concrete WSB Slab	13,211.82	50.00		\$660,591.00
		Supply Materials for flexible lining	90,000.00	21.35	60%	\$1,921,813.77
		Installation of flexible lining	90,000.00	14.24	40%	\$1,281,209.18
A-43460-330	\$3,863,613.95	A_WSB-UC: Install Lining				
		Concrete WSB Slab	12,996.98	50.00		\$649,849.00
		Supply Materials for flexible lining	90,000.00	21.43	60%	\$1,928,258.97
		Installation of flexible lining	90,000.00	14.28	40%	\$1,285,505.98
P-43400-80	\$4,119,322.01	P_WSB-LC: Install Lining				
		Concrete WSB Slab	16,000.00	50.00		\$898,328.85
		Supply Materials for flexible lining	123,412.45	15.66	60%	\$1,932,595.90
		Installation of flexible lining	101,468.00	12.70	40%	\$1,288,397.26
P-43600-80	\$4,119,588.60	P_WSB-MC: Install lining				
		Concrete WSB Slab	16,000.00	50.00		\$916,565.65
		Supply Materials for flexible lining	123,412.45	15.57	60%	\$1,921,813.77
		Installation of flexible lining	101,254.00	12.65	40%	\$1,281,209.18
P-43800-80	\$4,119,723.11	P_WSB-UC: Install Lining				
		Concrete WSB Slab	16,000.00	50.00		\$905,958.16
		Supply Materials for flexible lining	123,412.45	15.62	60%	\$1,928,258.97
		Installation of flexible lining	101,007.00	12.73	40%	\$1,285,505.98

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# APPENDIX 4 - VARIATION AGREEMENT No. 164 (Replaces Appendix 1 of Variation Agreement No. 142)

### A.) SUMMARY OF VARIANCES AS IN APPENDIX 1 - Variation Agreement No. 142

Details	Total		Direct		OVH %	Install			Tests	Recess			Other
Atlantic													
Lock Gates	\$ 270,968,991	\$	204,504,899	\$	66,464,092	\$	33,206,958	\$	12,264,092	\$	7,000,000	\$	118,935,142
Pacific													
Lock Gates	\$ 276,732,255	\$	208,854,532	\$	67,877,723	\$	32,450,396	\$	12,640,422	\$	7,064,625	\$	120,033,166
Totals	\$ 547,701,246	\$	413,359,431	\$	134,341,815	\$	65,657,354	\$	24,904,514	\$	14,064,625	\$	238,968,308
	132.5%		100.0%		32.5%		15.9%		9.	4%			57.8%

### B.) SUMMARY OF PROPOSED PERCENTAGES

Details	Total	Direct	OVH%		Install		Tests		ACP Training		Recess		Other
	_												
Atlantic													
Lock Gates	\$ 270,968,991	\$ 204,504,899	\$	66,464,092	\$ 33,206,958	\$	12,141,451	\$	122,641	\$	7,000,000	\$	118,935,142
Pacific													
Lock Gates	\$ 276,732,255	\$ 208,854,532	\$	67,877,723	\$ 32,450,396	\$	12,514,018	\$	126,404	\$	7,064,625	\$	120,033,166
Totals	\$ 547,701,246	\$ 413,359,431	\$	134,341,815	\$ 65,657,354	\$	24,655,469	\$	249,045	\$	14,064,625	\$	238,968,308
	132.5%	100.0%		32.5%	15.9%				9.4%				57.8%

