

PANAMA CANAL AUTHORITY		VARIATION	PAGE 1 OF 3
1. REQUEST FOR PROPOSAL No.:		2. CONTRACT No.:	3. DATE:
RFP-76161		CMC-221427	November 21, 2012
			4. VARIATION No.:
			53

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)	7. CONTRACTOR'S TELEPHONE NUMBER:
Grupo Unidos por el Canal, S.A. Building 22B, Brujas Road Cocoli, Republic of Panama	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.).
X	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) Volume III, Conditions of Contract, Sub-Clause 1.16 [Entire Agreement], 4 <sup>th</sup> Paragraph
	9 D. OTHER. (Specify manner and the legal authority).
	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)	
Bernardo Gonzalez Contractor's Representative		Jorge de la Guardia, Employer's Representative	
13. CONTRACTOR	14. DATE:	15. PANAMA CANAL AUTHORITY	16. DATE:
 (Authorized signature)	22/11/2012	 (Employer's Representative/Contracting Officer's signature)	21/11/2012

Variation No. 53 is issued to incorporate the following:

1. **Volume II, Part 1, Section 01 81 26 [Communication, Control, Safety & Security Systems]** - Delete Paragraph 1.03 T.1.c entirely and replace it with the following:

*"c. All telecommunications equipment and DCE shall operate on either:*

- 1) *-48 VDC, positive grounded battery protected supply, in accordance with Section 26 33 00 (Direct Current Equipment), or*
- 2) *120 VAC, with backup in accordance with Section 26 33 00 (Direct Current Equipment)* (RFV-135)

2. **Volume II, Part 2, Section 11 52 23 [Video Walls]**- Delete the row of Table 11 52 23-2 [Video Wall Cubes Characteristics], which currently specifies video wall cube resolution as follows:

Resolution	Scalable up to 1,920 x 1,200 pixels per cube for non-HDTV signals, and up to 1,080i and 1,080p for the applicable HDTV signals.
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and replace it with:

Resolution	Scalable up to 1,920 x 1,080 pixels per cube for non-HDTV signals, and up to 1,080i and 1,080p for the applicable HDTV signals.
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3. **Volume II, Part 2, Section 11 52 23 [Video Walls]** - Delete the row of Table 11 52 23-3 [Video Wall System Characteristics], which currently specifies video wall cube array spacing as follows:

Spacing	Not to exceed 0.2 mm between display viewable borders of adjacent cubes
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and replace it with:

Spacing	Not to exceed 1 mm between display viewable borders of adjacent cubes
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4. **Volume II, Part 2, Section 26 33 00 [Direct Current Equipment]**- Add new Paragraph 1.04 B.1.d. as follows:

*"d. The use of 125 VCD-to-120 VAC Inverters or Uninterruptible Power Supply*

Design and Construction of the Third Set of Locks

*Systems (UPSs) with 120 VAC output as an alternative to -48 VDC systems is permitted for communication systems' devices. Battery backup time shall be as specified in Paragraph 1.04 C.2.b"* (RFV-144)

5. **Volume II, Part 2, Section 27 53 13 [Time Synchronization Systems]-** Delete Paragraph 1.03 B.4.d., entirely and replace it with the following:

*"d. Units shall be operable on the voltages specified in Section 01 81 26, Paragraph 1.03 T.1.c, and shall have no less than four E1 interfaces"* (RFV-135)

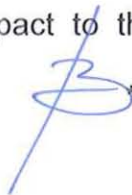
6. **Volume II, Part 2, Section 28 16 46 [Vehicular Control Systems]-** Delete Paragraph 1.04 B.1 entirely and replace it with the following:

*"1. Vehicular control devices shall be operable on 120 VAC, 240 VAC, or 480 VAC at 60 Hz, 24 VDC, or 125 VDC"* (RFV-143)

7. **Volume II, Part 2, Section 33 11 00.13 [Water Utility Main Lines]-** Delete Paragraph 1.03 I entirely and replace it with the following:

*"I. At the Pacific Site, the two parallel 16-inch water mains belonging to the Employer that will be disturbed by the work, including the stretches through the Crossunders, shall be replaced by 24-inch DIP Class 250 pipes. The temporary relocation of the 16-inch water main may be replaced by 16 inch DIP Class 250 pipes."* (RFV-136)

There is no time or cost impact to the Locks Contract as a consequence of this Variation.

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