

PURPOSE:  
WETLAND DELINEATION

HISTORICAL AERIAL PHOTO  
1991

PROJECT:  
EL NUEVO COMANDANTE

CMA No. 05201

1:5,000



1509 F.D. Roosevelt Ave.  
San Juan, Puerto Rico 00968  
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CANOVANAS PUERTO RICO  
FIGURE 14 OCT 2, 2006



PURPOSE:  
WETLAND DELINEATION

HISTORICAL AERIAL PHOTO  
2005

PROJECT:  
EL NUEVO COMANDANTE

CMA No. 05201

1:5,000



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CANOVANAS PUERTO RICO  
FIGURE 15 OCT 2, 2006



PURPOSE:  
WETLAND DELINEATION

HISTORICAL AERIAL PHOTO  
AUGUST 2006

PROJECT:  
EL NUEVO COMANDANTE

CMA No. 05201

1:5,000



1509 F.D. Roosevelt Ave.  
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CANOVANAS  
FIGURE 16

PUERTO RICO  
OCT 2, 2006

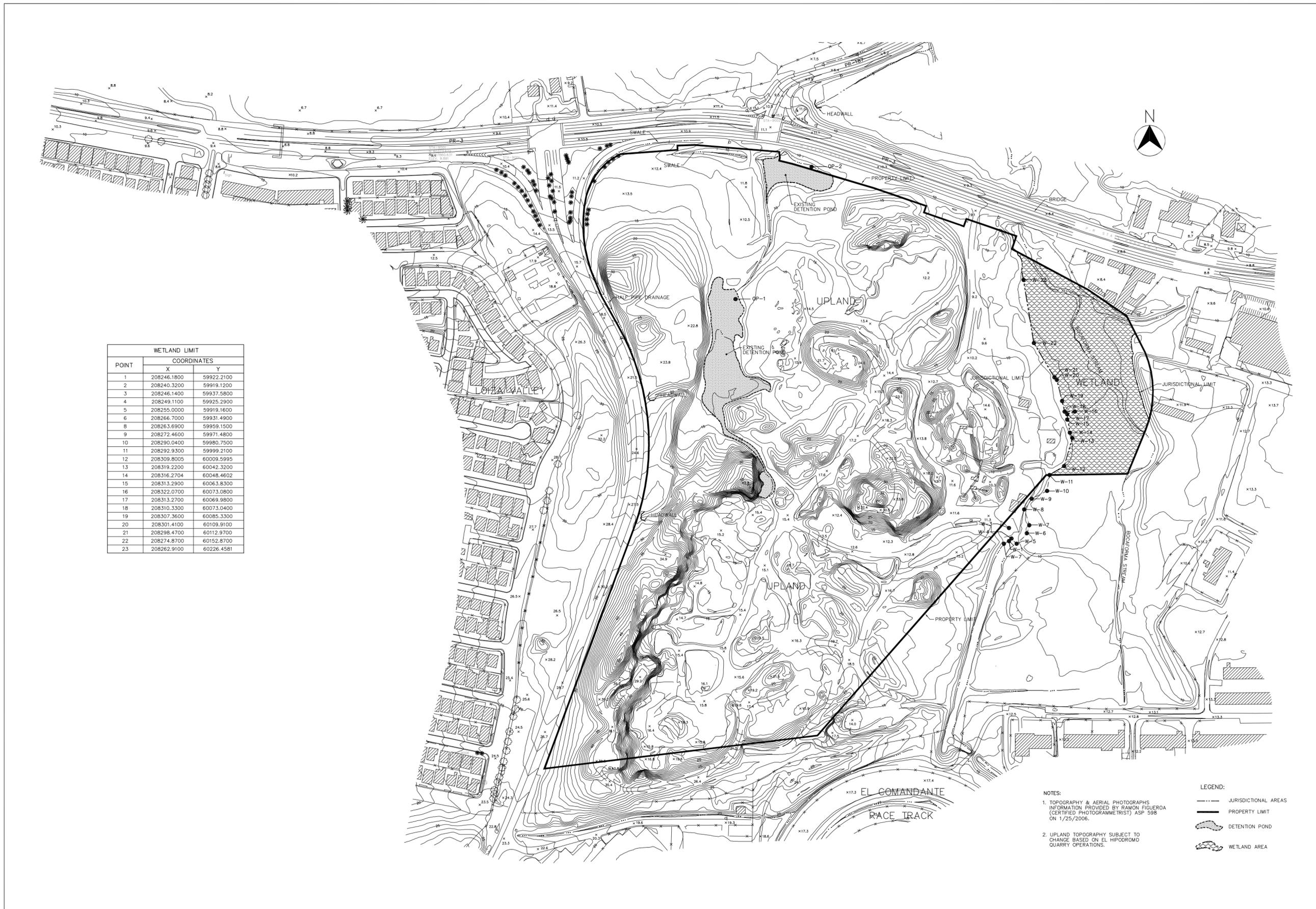
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### **3.0 CONCLUSIONS AND RECOMMENDATIONS**

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The vegetation, soil and hydrology obtained from the published data and during the site visits to the studied area meet the three wetland criteria required by the U.S. Corps of Engineers (USCOE) to declare an area as a wetland in those areas delineated as wetlands. The areas delineated as uplands do not meet the three-wetland criteria. The wetland area was delineated by the lower elevation. This wetland area comprises 5.5 acres approximately. The surrounding upland areas are higher and well defined on the eastern and southern part by the unvegetated area.

The boring locations and wetland boundaries were located using a photogrammetry survey prepared by surveyor Ramón Figueroa. Enclosed please find the Wetland Delineation Plan W-1.



WETLAND LIMIT		
POINT	COORDINATES	
	X	Y
1	208246.1800	59922.2100
2	208240.3200	59919.1200
3	208246.1400	59937.5800
4	208249.1100	59925.2900
5	208255.0000	59919.1600
6	208266.7000	59931.4900
8	208263.6900	59959.1500
9	208272.4600	59971.4800
10	208290.0400	59980.7500
11	208292.9300	59999.2100
12	208309.8005	60009.5995
13	208319.2200	60042.3200
14	208316.2704	60048.4602
15	208313.2900	60063.8300
16	208322.0700	60073.0800
17	208313.2700	60069.9800
18	208310.3300	60073.0400
19	208307.3600	60085.3300
20	208301.4100	60109.9100
21	208298.4700	60112.9700
22	208274.8700	60152.8700
23	208262.9100	60226.4581

NOTES:  
 1. TOPOGRAPHY & AERIAL PHOTOGRAPHS INFORMATION PROVIDED BY RAMON FIGUEROA (CERTIFIED PHOTOGRAMMETRIST) ASP 598 ON 1/25/2006.  
 2. UPLAND TOPOGRAPHY SUBJECT TO CHANGE BASED ON EL HIPODROMO QUARRY OPERATIONS.

LEGEND:  
 - - - JURISDICTIONAL AREAS  
 ——— PROPERTY LIMIT  
 DETENTION POND  
 WETLAND AREA

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>El Nuevo Comandante</u>	Date: <u>April 20, 2006</u>
Applicant/Owner: <u>Land Development Associates</u>	County: <u>Canóvanas</u>
Investigator: <u>CMA Architects &amp; Engineers LLP</u>	State: <u>PR</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>OP-1</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Sesbania sericea</u>	<u>HERB</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Urochloa maxima</u>	<u>HERB</u>	<u>UPL</u>	10. _____	_____	_____
3. <u>Paspalum fasciculatum</u>	<u>HERB</u>	<u>FACW</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC  
(excluding FAC-). 100

Remarks: The observation point was located on toe of slope of the detention pond or settling basin. This pond was created by excavating from dry land and used exclusively as a settling basins, or detention pond.

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other  <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches  <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands  Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches  <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data  <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations:  Depth of Surface Water: <u>0</u> (in.)  Depth to Free Water in Pit: _____ (in.)  Depth to Saturated Soil: <u>0</u> (in.)	
Remarks:	

**SOILS**

Map Unit Name		Caguabo Series		Drainage Class:	Well drained
(Series and Phase):		(CbF2) Caguabo Clay Loam		Field Observations	
Taxonomy (Subgroup):		Lithic Eutrudepts		Confirm Mapped Type?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Profile Descriptions:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2		10YR 4/3			sandy
2-10		3/10Y & 4/N		distinct	sandy
10 -					rock, hard

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input checked="" type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: This pond was created by excavating from dry land and used exclusively as a settling basins, or detention pond. the hydric soils indicators were observed due to the function of the pond.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Check)	(Check)
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Remarks This pond was created by excavating from dry land and used exclusively as a settling basins, or detention pond. The upland area do not show hydric soils. The hydrology comes primarily from stormwater runoff during rain events.

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>El Nuevo Comandante</u>	Date: <u>September 21, 2006</u>
Applicant/Owner: <u>Land Development Associates</u>	County: <u>Canóvanas</u>
Investigator: <u>CMA Architects &amp; Engineers LLP</u>	State: <u>PR</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>OP-2</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Brachiaria purpurascens</u>	<u>HERB</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Urochloa maxima</u>	<u>HERB</u>	<u>UPL</u>	10. _____	_____	_____
3. <u>Paspalum fasciculatum</u>	<u>HERB</u>	<u>FACW</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC  
(excluding FAC-). 100

Remarks: The B. purpurascens covers the area. The information of this observation point is located at the bottom of the detention pond.

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other  <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches  <input type="checkbox"/> Water Marks  <input type="checkbox"/> Drift Lines  <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands  Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches  <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data  <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations:  Depth of Surface Water: <u>0</u> (in.)  Depth to Free Water in Pit: _____ (in.)  Depth to Saturated Soil: <u>0</u> (in.)	
Remarks: <u>The information of this observation point is located at the bottom of the detention pond.</u>	

**SOILS**

Map Unit Name					
(Series and Phase):		<u>Caguabo Series</u> <u>(CbF2) Caguabo Clay Loam</u>		Drainage Class:	<u>well drained</u>
Taxonomy (Subgroup):		<u>Lithic Eutrudepts</u>		Field Observations	
				Confirm Mapped Type?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Profile Descriptions:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
<u>0-6</u>		<u>10YR 3/3</u>			<u>sandy</u>
<u>6-14</u>		<u>10YR 3/3</u>	<u>2.5Y5/2</u>	<u>distinct</u>	<u>sandy, clay</u>
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol			<input type="checkbox"/> Concretions		
<input type="checkbox"/> Histic Epipedon			<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils		
<input type="checkbox"/> Sulfidic Odor			<input type="checkbox"/> Organic Streaking in Sandy Soils		
<input type="checkbox"/> Aquic Moisture Regime			<input type="checkbox"/> Listed on Local Hydric Soils List		
<input type="checkbox"/> Reducing Conditions			<input type="checkbox"/> Listed on National Hydric Soils List		
<input type="checkbox"/> Gleyed or Low-Chroma Colors			<input type="checkbox"/> Other (Explain in Remarks)		
Remarks: This pond was created by excavating from dry land and used exclusively as a settling basins, or detention pond. The upland area do not show hydric soils.					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   (Check)	(Check)
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Remarks: This pond was created by excavating from dry land and used exclusively as a settling basins, or detention pond. The upland area do not show hydric soils.	

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>El Nuevo Comandante</u>	Date: <u>April 12, 2006</u>
Applicant/Owner: <u>Land Development Associates</u>	County: <u>Canóvanas</u>
Investigator: <u>CMA Architects &amp; Engineers LLP</u>	State: <u>PR</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>W-1@ 13</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Brachiaria purpurascens</u>	<u>HERB</u>	<u>FACW</u>	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC  
(excluding FAC-). 100

Remarks: The wetland limit was located on toe of slope. The B. purpurascens covers wetland and upland areas. The information of this observation point is located approximately 1 - 2 meters from the limit.

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other  <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches  <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands  Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches  <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data  <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations:  Depth of Surface Water: <u>0</u> (in.)  Depth to Free Water in Pit: _____ (in.)  Depth to Saturated Soil: <u>0</u> (in.)	
Remarks:	

**SOILS**

Map Unit Name		Mabí Series (MaB, MaD2) Mabí Clay		Drainage Class:	Somewhat poorly drained
(Series and Phase):				Field Observations	
Taxonomy (Subgroup):		Aquic Hapluderts		Confirm Mapped Type?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Profile Descriptions:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6		2.5Y4/2			clay
6-16		2.5Y4/2	10Y3/1 & N4/0	distinct	clay

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input checked="" type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: The point is located at the limit of the wetland and the upland area (at the toe of slope). The wetland area shows some hydric soil conditions. The upland area do not show hydric soils.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   (Check)	(Check)
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No

Remarks: The point is located at the limit of the wetland and the upland area (at the toe of slope). The wetland area shows some hydric soil conditions. The upland area do not show hydric soils.

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>El Nuevo Comandante</u>	Date: <u>April 20, 2006</u>
Applicant/Owner: <u>Land Development Associates</u>	County: <u>Canóvanas</u>
Investigator: <u>CMA Architects &amp; Engineers LLP</u>	State: <u>PR</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>W-14 @ 22</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Brachiaria purpurascens</u>	<u>HERB</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Mimosa casta</u>	<u>HERB</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Ipomoea tiliacea</u>	<u>HERB</u>	<u>FACW</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC  
(excluding FAC-). 100

Remarks: The wetland limit was located on toe of slope. The B. purpurascens covers wetland and upland areas. The information of this observation point is located approximately 1 - 2 meters from the limit.

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other  <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches  <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands  Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches  <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data  <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations:  Depth of Surface Water: <u>0</u> (in.)  Depth to Free Water in Pit: _____ (in.)  Depth to Saturated Soil: <u>0</u> (in.)	

Remarks:

**SOILS**

Map Unit Name		Mabí Series		Somewhat poorly drained	
(Series and Phase):		(MaB, MaD2) Mabí Clay		Drainage Class:	
Taxonomy (Subgroup):		Aquic Hapluderts		Field Observations	
				Confirm Mapped Type? <input type="checkbox"/> Yes <input type="checkbox"/> No	

Profile Descriptions:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6		2.5Y4/2			clay
6-16		4/N	10Y3/1 & 4/N	distinct	clay

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input checked="" type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: The point is located at the limit of the wetland and the upland area (at the toe of slope). The wetland area shows some hydric soil conditions. The upland area do not show hydric soils.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Check)	(Check)
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No

Remarks: The point is located at the limit of the wetland and the upland area (at the toe of slope). The wetland area shows some hydric soil conditions. The upland area do not show hydric soils.

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>El Nuevo Comandante</u>	Date: <u>April 20, 2006</u>
Applicant/Owner: <u>Land Development Associates</u>	County: <u>Canóvanas</u>
Investigator: <u>CMA Architects &amp; Engineers LLP</u>	State: <u>PR</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>W-23</u>
(If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Brachiaria purpurascens</u>	<u>HERB</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Mimosa casta</u>	<u>HERB</u>	<u>FACW</u>	10. _____	_____	_____
3. <u>Ipomoea tiliacea</u>	<u>HERB</u>	<u>FACW</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC  
(excluding FAC-). 100

Remarks: The wetland limit was located on toe of slope. The B. purpurascens covers wetland and upland areas. The information of this observation point is located approximately 1 - 2 meters from the limit.

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other  <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches  <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands  Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches  <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data  <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations:  Depth of Surface Water: <u>0</u> (in.)  Depth to Free Water in Pit: _____ (in.)  Depth to Saturated Soil: <u>0</u> (in.)	

Remarks:

**SOILS**

Map Unit Name		Mabí Series (MaB, MaD2) Mabí Clay		Drainage Class:	Somewhat poorly drained
(Series and Phase):				Field Observations	
Taxonomy (Subgroup):		Aquic Hapluderts		Confirm Mapped Type?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Profile Descriptions:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR 3/2			clay
6-16		10YR 3/2	10YR5/6	distinct	clay
			4/N	distinct	clay
			2.5Y5/4	distinct	clay
			2.5Y4/4	distinct	clay

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input checked="" type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: The point is located at the limit of the wetland and the upland area (at the toe of slope). The wetland area shows some hydric soil conditions. The upland area do not show hydric soils.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   (Check)	(Check)
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No

Remarks: The point is located at the limit of the wetland and the upland area (at the toe of slope). The wetland area shows some hydric soil conditions. The upland area do not show hydric soils.

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