

Dammon Engineering Inc.

1095 Florida Ave.
Slidell, LA 70458
(985) 649-5832
Fax: (985) 641-5950

FAX COVER SHEET

FAX NUMBER TRANSMITTED TO: 228-4435-6188
TO: MIKE MC LAUGHLIN
FROM: CHUCK DAMMON
CLIENT/MATTER: LAQUINTA IN BILOXI
REFERENCE: _____
DATE: 2-15-07 NO. OF PAGES INCLUDING COVER SHEET: 2

COMMENTS:

IM FAXING YOU OUR RESPONSE LETTER.
THE CONTRACTOR HAD DROPPED OFF
THE REVISED PLANS & LETTER
ON 2-13-07.

PLEASE CALL ME WITH ANY QUESTIONS
YOU MAY HAVE.

THANKS
Chuck

IF YOU EXPERIENCE ANY PROBLEMS RECEIVING THIS FAX, PLEASE CALL (985) 649-5832,
OR FAX (985) 641-5950

DAMMON ENGINEERING, INC.

dammonengineering.com

CONSULTING

DESIGN

STUDIES

EXPERT WITNESS

1095 Florida Ave.
Slidell, LA 70458

P.O. Box 2830
Slidell, LA 70459

985-649-5832
FAX 985-641-5950

May 22, 2007

Lanco Construction, Inc.
5816 Plauche Ct.
Jefferson, La. 70123

Attn: Ron Blair
Ref: Addendum to strapping

All foundation corners shall be strapped in each direction using Simpson straps #PHD2-SDS3 against double studs.

Thanks
Chuck Dammon
Dammon Engineering



Dammon Engineering Inc.

1095 Florida Ave.
Slidell, LA 70458
(985) 649-5832
Fax: (985) 641-5950

1694

FAX COVER SHEET

FAX NUMBER TRANSMITTED TO: 228-388-7198

TO: Mr. Scott Delano

FROM: Pete Dammon

CLIENT/MATTER: _____

REFERENCE: _____

DATE: 1/20/06 NO. OF PAGES INCLUDING COVER SHEET: 3

COMMENTS: _____

IF YOU EXPERIENCE ANY PROBLEMS RECEIVING THIS FAX, PLEASE CALL (985) 649-5832,
OR FAX (985) 641-5950

DAMMON ENGINEERING, INC.

dammonengineering.com

ENGINEERS
CONSULTING

DESIGN

ARCHITECTS
STUDIES

EXPERT WITNESS

1095 Florida Ave.
Slidell, LA 70458

P.O. Box 2830
Slidell, LA 70459

985-649-5832
FAX 985-641-5950

Site Analysis

January 20, 2006

Mr. Scott Delano
Gulf States Properties
2318 Pass Road, Ste 8
Biloxi, MS 39531

RE: LaQuinta Inn
Cedar Lake Road
Biloxi, MS

Rainwater Retention:

All runoff from the property will be directed to the existing pond at the rear of the property. The area used for a swimming pool in the rear of the new motel will recapture 943 s.f. from the lake. We included this in our new calculations, retaining sufficient rainwater in the parking area to cover this additional area.

The whole site, including the new restaurant/store, was included in the calculations.

An 8" orifice will be used to retain the water in the subsurface pipes and parking area. The increase in pond level is infinitesimal due to the 942 s.f. recaptured, and will amount to less than an inch (.129 in.) increase in the pond's level during heavy use.

Electrical Utilities:

The electrical service designed for the motel is a 2,000 amp, three phase 120/208 volt system. This size service has proven to be sufficient for the LaQuinta Motels of this same size for several years of designing them.

Mechanical Utilities:

Plumbing System:

Connected to the existing local sewage grid.

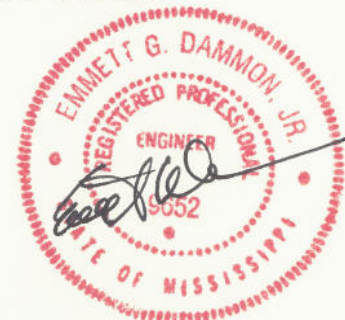
Water:

Connected to the existing local system. All electrical, plumbing and mechanical system swill be installed to meet the national, state and city codes, as pertains to that part.

If you have any questions, or require any further information, please feel free to call.

Sincerely,


Emmett G. (Pete) Dammon, P.E.



PROJECT: **La Quinta Biloxi**

DRAINAGE RUN OFF CALCULATIONS – RATIONAL METHOD

PRIOR DEVELOPMENT 10 Year Frequency			
Q₁ = CIA			
Watertight Surfaces	c(1) = 0.9	0 sqft =	0.000 Acres
Gravel Surface	c(2) = 0.21	0 sqft =	0.000 Acres
Green Space	c(3) = 0.35	125822 sqft =	2.888 Acres
Summary	c = 0.35	125822 sqft =	2.888 Acres
Duration (D) = Time of concentration (TC) $TC = .7039(L^{.3917})(c^{-.11309})(S^{-.1985})$ where L = 615 Runoff length ft Elev diff = 2 c = 0.35 Runoff coef S = 0.3252 Percent Slope therefore TC = D = 35.70 minutes or and from Rainfall Intensity T _i : I = 4.50 in/hr			
Q₁ =		4.549 cfs	RUNOFF LIMIT 90%

POST DEVELOPMENT 10 Year Frequency			
Q₂ = CIA			
Watertight Surfaces	c(1) = 0.9	86192 sqft =	1.979 Acres
Gravel Surface	c(2) = 0.21	0 sqft =	0.000 Acres
Green Space	c(3) = 0.35	50620 sqft =	1.162 Acres
Summary	c = 0.70	136812 sqft =	3.141 Acres
D = Time of concentration (TC) $TC = .7039(L^{.3917})(c^{-.11309})(S^{-.1985})$ where L = 464 Runoff length ft Elev diff = 1 c = 0.70 Runoff coef S = 0.2155 Percent Slope therefore TC = D = 15.93 minutes or and from Rainfall Intensity T _i : I = 7.60 in/hr			
Q₂ =		16.625 cfs	

RESULTS	
DETENTION REQUIRED Q ₂ -Q ₁	12.531 cfs
ONE HOUR DETENTION	45111.6 cuft
DETENTION DIMENSIONS	WIDTH 197 feet
	LENGTH 290 feet
	DEPTH 0.79 feet

DISCHARGE END AREA CALCULATIONS	
Q = cA(2gH)^{1/2}	where Q is allowable run off
Allowable run off	Q = 4.094 cfs
Friction loss factor	c = 0.98 coefficient
Acceleration	g = 32.2 ft/ft/sec
Height above invert	if H = 2.75 feet
End area	A = 0.31 sqft
REQUIRED CONDUIT =	7.59 inch diameter
USE	6 inch orifice



Gulf States Properties
2318 Pass Road, Suite 8
Biloxi, MS 39531
Office: 228-388-7188
Fax: 228-388-7198
sdelano@gulfstatesproperties.net

Memo

To: Pete Dammon
From: Scott DeLano
Date: January 5, 2006
Re: LaQuinta Inn – Cedar Lake Road

Pete, for us to make a submittal to Biloxi's DRC we will need the following exhibits:

1. On one sheet, show the current subdivision/survey and below that show the proposed re-subdivision in a recordable form (no proposed improvements). In the margins/title blocks, show a location map, north arrow, Subdivision Name (Cedar Lake Central Commercial Subdivision)
2. On one sheet show an overall siteplan including all improvements, easements, proposed pond modifications, site lighting, sidewalks, building setbacks (proposed 5 foot side, 50 foot front), signage, landscaping, parking dimensions, fire hydrants, FDC, Use table to show proposed vs codes on all required variances.

Please call me with any questions!

Thanks,

Scott DeLano

PROJECT:	La Quinta Biloxi
DRAINAGE RUN OFF CALCULATIONS – RATIONAL METHOD	

PRIOR DEVELOPMENT 10 Year Frequency			
Q₁ = CIA			
Watertight Surfaces	c(1) = 0.9	0	sqft = 0.000 Acres
Gravel Surface	c(2) = 0.21	0	sqft = 0.000 Acres
Green Space	c(3) = 0.35	125822	sqft = 2.888 Acres
Summary	c = 0.35	125822	sqft = 2.888 Acres
Duration (D) = Time of concentration (TC) $TC = .7039(L^{.3917})(c^{-1.1309})(S^{-.1985})$ where L = 815 Runoff length ft Elev diff = 2 c = 0.35 Runoff coef S = 0.3252 Percent Slope therefore TC = D = 35.70 minutes or and from Rainfall Intensity T _i I = 4.50 in/hr			
Q ₁ = 4.549 cfs		RUNOFF LIMIT 90%	4.094 cfs

POST DEVELOPMENT 10 Year Frequency			
Q₂ = CIA			
Watertight Surfaces	c(1) = 0.9	86192	sqft = 1.979 Acres
Gravel Surface	c(2) = 0.21	0	sqft = 0.000 Acres
Green Space	c(3) = 0.35	50620	sqft = 1.162
Summary	c = 0.70	136812	sqft = 3.141 Acres
D = Time of concentration (TC) $TC = .7039(L^{.3917})(c^{-1.1309})(S^{-.1985})$ where L = 464 Runoff length ft Elev diff = 1 c = 0.70 Runoff coef S = 0.2155 Percent Slope therefore TC = D = 15.93 minutes or and from Rainfall Intensity T _i I = 7.60 in/hr			
Q ₂ = 16.625 cfs			

RESULTS			
DETENTION REQUIRED Q ₂ -Q ₁		12.531 cfs	
ONE HOUR DETENTION		45111.8 cuft	
DETENTION DIMENSIONS	WIDTH	197 feet	
	LENGTH	290 feet	
	DEPTH	0.79 feet	

DISCHARGE END AREA CALCULATIONS			
Q = cA(2gH) ^{1/2} where Q is allowable run off			
Allowable run off	Q =	4.094 cfs	
Friction loss factor	c =	0.98 coefficient	
Acceleration	g =	32.2 ft/ft/sec	
Height above invert	if H =	2.75 feet	
End area	A =	0.31 sqft	
REQUIRED CONDUIT =		7.59 inch diameter	
USE		6 inch orifice	

STATE OF LOUISIANA
Department of Public Safety and Corrections
Office of State Fire Marshal Code Enforcement and Building Safety
8181 Independence Boulevard
Baton Rouge, Louisiana 70806
225-925-4920

HENRY H. FRY
DEPUTY ASSISTANT SECRETARY

AMENDED LETTER

EDWARD GREMILLION, P E, C E
DAMMON ENGINEERING, INC
1095 FLORIDA AVE
SLIDELL, LA 70458-0000

RE: P0324475
LAQUINTA INN & SUITES #12
HOLIDAY BLVD
SLIDELL, LA 70460

NFPA 101, 2003

HOTEL
ASSEMBLY 300 OCCUPANTS OR LESS

Dear Applicant:

This is to advise that the previous review letter dated 04/11/2007 for this project is hereby amended as follows:

NOTE: THE FOLLOWING COMMENTS IDENTIFY ISSUES FOR INFORMATIONAL AND CAUTIONARY PURPOSES OR ISSUES THAT COULD NOT BE VERIFIED IN THE SUBMITTED DOCUMENTS.

- 1. Scope of Work: This review is based on revised drawings submitted by the P.O.R. addressing items 5,6,7,8,9,10,12 & 13 previously cited in the amended letter dated April 27, 2007. The following comments are items which could not be verified in the revised drawings. In addition to this letter the local Building Official should use the original amended letter as a guide to items previously cited.**

NOTE: THE FOLLOWING IS A REVIEW FOR COMPLIANCE WITH THE REQUIREMENTS OF THE LOUISIANA STATE UNIFORM CONSTRUCTION CODE IN ACCORDANCE WITH ACT 12 OF THE 2005 FIRST EXTRAORDINARY SESSION OF THE LOUISIANA LEGISLATURE. THIS REVIEW IS PERFORMED AT THE REQUEST OF, AND ON BEHALF OF THE JURISDICTION IN WHICH THIS PROPOSED PROJECT IS LOCATED.

This office will not be responsible for inspections to certify compliance with applicable requirements. Contact the local Building Official or a Louisiana State Uniform Construction Code Council certified third-party provider to arrange for inspections.

Codes Referenced:

- 2006 International Building Code (IBC) not including Chapters 1, 11, 27, and 29;
- 2006 International Existing Building Code (IEBC) not including Chapter 1;
- 2006 International Mechanical Code (IMC);
- 2000 Louisiana State Plumbing Code (LSPC);
- 2006 International Fuel Gas Code (IFGC);
- 2005 National Electric Code (NEC)

2. **Interior Environment: (Item #8 Previously cited. Document revised drawings as required by the local building official).**

a) 1209.2 Attic spaces. An opening not less than 20 inches by 30 inches (559 mm by 762 mm) shall be provided to any attic area having a clear height of over 30 inches (762 mm). A 30-inch (762 mm) minimum clear headroom in the attic space shall be provided at or above the access opening. (Opening size and locations were not identified).

b) 1020.1.2 Penetrations. Penetrations into and openings through an exit enclosure are prohibited except for required exit doors, equipment and ductwork necessary for independent pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication systems and electrical raceway serving the exit enclosure and terminating at a steel box not exceeding 16 square inches. Such penetrations shall be protected in accordance with Section 712. (See sheet E-1 & E-2. Caution at plumbing walls in rooms adjacent to stair enclosures).

3. **Structural: (Item #9 previously cited).**

Wind Loads: (Document revised drawings as required by the local building official).

Wind loads shall be determined in accordance with ASCE 7-05.

The internal pressure coefficient was not identified.

Main Wind-Force Resisting System. Horizontal shear diaphragms were not identified.

Protection of openings for wind-borne debris is required. Provide details, specifications and schedules to identify the method of opening protection used, per IBC Section 1609.1.2 or per ASCE 7 Chapter 6.

4. **Mechanical Systems:**

Coordinate routing of duct work at elevator shaft. See sheet M-1. Duct work is shown passing through the elevator shaft.

5. **Fuel Gas: (Item #12 previously cited. Document revised drawings as required by the local building official).**

a) **Provide combustion, ventilation, and dilution air calculation in accordance with IFGC, Sections 304, 304.5 and 304.6. (Gas Dryers on the 1st floor. The product / specification sheet did not identify combustion / ventilation requirements).**

6. **NOTE: Please enclose a copy of this letter with future submittals or other correspondence pertaining to this project.**

This review applies to the work indicated on the drawings or specifications.

This review shall in no way permit or authorize any omissions or deviations from the specific requirements of the adopted codes, rules and regulations in accordance with R.S. 40:1574.1(B).

The above amended review is valid if construction starts within 180 days from the above date of the original review letter.

Occupancy of the project will not be permitted until we receive the completed certificate and a satisfactory inspection of the completed construction has been made by this office.

To arrange for inspection of the project, please contact the District Office at the phone number below, two (2) to three (3) weeks in advance. Approved plans must be available on job site at time of inspection. Certificate of completion must be provided to inspecting Deputy for final inspection.

REVIEWED BY:
EDWIN LEE
ARCHITECT

CC:
Dapco Ventures
St Tammany Fire Protection District No 1*
City Of Slidell*
New Orleans District* 5042194600

on the property and Danny Boudreaux will provide the required engineering narratives. I don't see any major issues here. This is a relatively short comment letter. Most comment letters are 3-6 pages long.

I'll talk with you later.

Scott DeLano
228-806-7418

Gulf States Real Estate Services

2318 Pass Road, Suite 8
Biloxi, MS 39531
Office: 228-388-7188
Fax: 228-388-7198

-----Original Message-----

From: Robin Juanico [mailto:rjuanico@biloxi.ms.us]
Sent: Monday, August 22, 2005 10:13 AM
To: sdelano@gulfstatesproperties.net
Subject: LaQuinta 082205

Attached are the comments from the DRC Meeting held on August 17, 2005. If you have any questions regarding these comments, please direct them to the appropriate Development Review Committee Members.

Thank you,

Robbin Juanico
Planning Secretary

Content-Type: application/msword; name=LaQuinta 082205.doc
Content-Transfer-Encoding: base64
Content-Disposition: attachment; filename=LaQuinta 082205.doc

[LaQuinta_082205.doc](#)

DAMMON ENGINEERING, INC.

dammonengineering.com

ENGINEERS ARCHITECTS
CONSULTING DESIGN STUDIES EXPERT WITNESS

1095 Florida Ave.
Slidell, LA 70458

P.O. Box 2830
Slidell, LA 70459

985-649-5832
FAX 985-641-5950

Site Analysis

February 10, 2006

Ms. Chandra Nicholson
Engineer
City of Biloxi

RE: LaQuinta Inn
Cedar Lake Road
Biloxi, MS

Rainwater Retention:

All runoff from the property will be directed to the existing pond at the rear of the property. The area used for a swimming pool in the rear of the new motel will recapture area from the lake. We included this in our new calculations, retaining sufficient rainwater in the parking area to cover this additional area., sent to your earlier this week. The whole site, including the new restaurant/store, was included in the calculations. Post-development run off will not exceed pre-development runoff.

Electrical Utilities:

The electrical service designed for the motel is a 2,000 amp, three phase 120/208 volt system. This size service has proven to be sufficient for the LaQuinta Motels of this same size for several years of designing them.

Mechanical Utilities:

Plumbing System:

Connected to the existing local sewage grid at the street. When the restaurant is designed it will have a separate connection to the city sewer.

Water:

Connected to the existing local system. Each building will have a separate tie in and meter.

All electrical, plumbing and mechanical systems will be installed to meet the national, state and city codes, as pertains to that part.

If you have any questions, or require any further information, please feel free to call.

Sincerely,



Emmett G. (Pete) Dammon, P.E.

xc: Scott Delano

Dammon Engineering

From: Ronnie Blair [ronnie_bla@msn.com]
Sent: Monday, October 01, 2007 12:43 PM
To: Laquinta architect
Subject: FW:

Ron Blair

From: ejhernandez01@hotmail.com
To: ronnie_bla@msn.com
Subject: FW:
Date: Fri, 28 Sep 2007 11:00:01 -0500

fyi

From: delano@cableone.net
To: ejhernandez01@hotmail.com
Subject: RE:
Date: Fri, 28 Sep 2007 10:40:05 -0500

Saucier has a meeting set for next Thursday at 11:00 on site. I have called Ed Gemmil, the councilman for the area, to ask for his presents. Mike is going to have his civil engineer present as well as the dirt contractor that built the outfall structure for shopping center. I do not know if the City Engineer will be present. The purpose of the meeting is to compare all data (drawings, plans and permits) to the physical findings in the field. A case file will be prepared and formally submitted to the City for action. The goal is provide the City with irrefutable data showing cause for pond erosion.

Let me know if you will be present. I'll check with Ron Blair and ask that he be present.

Scott DeLano

From: Eduardo J Hernandez [mailto:ejhernandez01@hotmail.com]
Sent: Thursday, September 27, 2007 5:04 PM
To: DeLano, Scott
Subject: FW:

Scott FYI, this is getting out of control. I am ready for legal action. Do you know where dose Mike Saucier stands in this issue?
Dr. H

From: ronnie_bla@msn.com

10/1/2007

To: ejhernandez01@hotmail.com; heidibhernandez@hotmail.com;
paulaatzenhoffer@hotmail.com
Subject:
Date: Thu, 27 Sep 2007 11:37:40 -0500

Gezz The Mississippi dept of enviromental control came out to shut the job down, Due to a complaint filed by Ron Lombard at the Harley shop saying we were silting in his pond!!!!!!!I explained the whole issue step by step to the officer, and history, he withdrew his stop work order and he said that Ron L. could not devert water to our property and create damage I explained Dr. H would file formal complait, when He returns on monday,and is planning a law suit for damages and cost of additional drainage and retaining walls
Ron Blair

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GORE ENGINEERING, INC.

SOIL AND FOUNDATION INVESTIGATIONS

LAWRENCE W. GILBERT, D. ENGR.
REG. C.E.

BORINGS
ANALYSES

TESTING
REPORTS

3613 HESSMER AVENUE
P. O. BOX 8867
METAIRIE, LOUISIANA
70011

(504) 888-6690
FAX: (504) 888-6827

FAX COVER PAGE

Please deliver the following page(s) to:

COMPANY: Dammon Engineering, Inc.

ATTENTION: Pete Dammon TELEFAX NO. 985-641-5950

TOTAL NUMBER OF PAGES: 4 (including cover page)

DATE: 6/27/05 ORIGINAL MAILED: 6/27/05

FROM: Larry Gilbert

If you do not receive all the pages, please call (504) 888-6690 as soon as possible:

REMARKS:

GORE ENGINEERING, INC.

SOIL AND FOUNDATION INVESTIGATIONS

LAWRENCE W. GILBERT, D. ENGR.
REG. C.E.

BORINGS
ANALYSES

TESTING
REPORTS

3613 HESSMER AVENUE
P. O. BOX 8867
METAIRIE, LOUISIANA 70011

JAMES R. GORE
(1962 - 1991)

27 June 2005

(504) 888-6890
FAX: (504) 888-6827

Dammon Engineering, Inc.
P.O. Box 2830
Slidell, Louisiana 70459

Attention: Pete Dammon

Proposal for Geotechnical Investigation
Proposed LaQuinta Inn Hotel
Cedar Lake Road
Biloxi, Mississippi

Gentlemen:

In accordance with our recent discussions, we submit the following proposal for the performance of a geotechnical engineering investigation for the subject project. It is understood that the proposed construction will consist of a three (3) story Hotel, nominally 10,000 square ft. in plan, at the subject site.

Our proposal is based on making two (2) soil test borings to the 60 ft. depth. Assuming the boring locations are accessible to our truck mounted drilling equipment, they will be charged for at the rate of \$10.00 per linear ft. Based on a total of 120 linear ft., this will amount to a charge of \$1,200.00. In addition, there will be a lump sum mobilization of equipment charge of \$500.00, making the total charge for field investigation \$1,700.00.

Laboratory testing will be performed on samples obtained from the borings to evaluate their physical characteristics. Laboratory testing will be charged for in accordance with the attached Schedule of Laboratory Prices. Primarily, Unconfined Compression or Triaxial Shear Strength and Atterberg Limits tests will be performed. It is difficult to predetermine precisely this charge, however it is estimated to amount to approximately \$400.00 per boring or \$800.00 for the two (2) borings.

Engineering analyses will be made based on the borings and laboratory test data and will be charged for at the rate of \$500.00 per day. Analyses will be made

Page -2-
Dammon Engineering, Inc.
Attn: Pete Dammon
27 June 2005

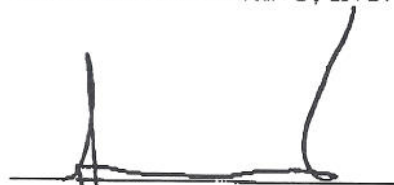
to estimate the load carrying capacities of various types and lengths of piles and estimates of settlements. Based on the above, it is believed that 3 days should be allowed, or \$1,500.00.

In summary, the total cost of the investigation as outlined above including making the borings, laboratory testing and engineering is estimated to be \$4,000.00. A report will be given in six (6) copies with all findings, conclusions and recommendations with regard to the subject project.

Thank you for asking us to submit this proposal.

Yours very truly,

GORE ENGINEERING, INC.



Lawrence W. Gilbert

LWG:RMB:jrt
Encls.

APPROVED AND ACCEPTED

Firm

By

Date

SCHEDULE OF SOIL MECHANICS LABORATORY TEST PRICES

ATTERBERG LIQUID & PLASTIC LIMITS

1 to 10 tests	28.00
More than 10 tests	26.00

ATTERBERG LIQUID LIMITS ONLY

1 to 10 tests	20.00
More than 10 tests	17.00

COMPACTION

1 to 4 tests	150.00
5 or more tests	130.00

CONSOLIDATION 250.00

PERMEABILITY 100.00

GRAIN SIZE:
Hydrometer Analysis

1 to 10 tests	28.00
More than 10 tests	25.00

Sieve Analysis Full Curve thru 200 Sieve

1 to 10 tests	35.00
More than 10 tests	33.00

% Passing No. 200 Sieve

1 to 10 tests	23.00
More than 10 tests	21.00

ORGANIC CONTENT 25.00

SHEAR TESTS:
Unconfined Compression*

1 to 10 tests	24.00
11 to 20 tests	23.00
More than 20 tests	22.00

Confined Compression*

..... 30.00

Triaxial Quick*

Per Point 24.00

Triaxial, Consolidated Quick or Direct Shear*

Per Point 120.00

NOTE: Stress-Strain Curves for above 10.00

*INCLUDES WATER CONTENT AND UNIT WEIGHT DETERMINATIONS

SHRINKAGE LIMIT

1 to 10 tests	35.00
More than 10 tests	32.00

SWELLING PRESSURE 120.00

UNIT WEIGHT DETERMINATIONS (includes water content) 18.00

WATER CONTENT

1 to 10 tests	7.00
11 to 20 tests	6.00
More than 20 tests	5.00

FIELD TESTS

Soil Borings and All Field Work	On Request
Plate Bearing Tests	On Request
In-Place CBR Tests	On Request
In-Place Density Tests	On Request

EFFECTIVE JANUARY 1, 1998

**GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS**

October 28, 2005

1694

Dr. Eduardo J. Hernandez
1430 Lindberg Drive
Slidell, Louisiana 70458

Re: Geotechnical Engineering Report
Proposed La Quinta Inn
Cedar Lake Road
Biloxi, Mississippi
PSI File Number: 254-55107-1

Dear Mr. Hernandez:

Professional Service Industries, Inc. is pleased to submit our Geotechnical Engineering Report for the above referenced project. This report includes the results of field and laboratory testing, and recommendations for foundation and pavement design, as well as general site development for the proposed La Quinta Inn in Biloxi, Mississippi.

We appreciate the opportunity to perform this Geotechnical Study and look forward to continued participation during the design and construction phases of this project. If you have any questions pertaining to this report, or if we may be of further service, please contact our office.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.



Malay Ghose Hajra, Ph.D.
Department Manager
Geotechnical Services



Tony Y. Maroun, P.E.
Vice President



MGH/TYM:gsm

GEOTECHNICAL ENGINEERING REPORT

**PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI**

PSI FILE NUMBER 254-55107-1

PREPARED FOR

**DR. EDUARDO J. HERNANDEZ
1430 LINDBERG DRIVE
SLIDELL, LOUISIANA 70458**

OCTOBER 28, 2005

BY

**PROFESSIONAL SERVICE INDUSTRIES, INC.
724 CENTRAL AVENUE
JEFFERSON, LOUISIANA 70121**

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EXECUTIVE SUMMARY

An exploration and evaluation of the subsurface conditions have been completed for the proposed La Quinta Inn Hotel on Cedar Lake Road in Biloxi, Mississippi. Two (2) borings (B-1 and B-2) were drilled within the proposed building footprint to a depth of 50 feet and four (4) shallow borings (P-1 through P-4) were drilled in the proposed parking area to a depth of six (6) feet.

Furnished information indicates that the site for the proposed development is currently an undeveloped area with natural vegetation and some scattered trees. The project includes the construction of a three (3) story wood frame structure having a footprint of approximately 10,608 square feet. In addition, a parking lot with 103 spaces will be constructed to accommodate the facility. Wall loads are not available at this time and are assumed to be on the order of three (3) kips per linear foot, respectively. Grading information is not available at the time this report was prepared. However, it is understood that about two (2) to three (3) feet of fill will be required to achieve the floor slab design grade.

Based on the borings, approximately 10 inches of silty sand topsoil with organic materials was encountered at the ground surface. This was generally followed by dense tannish brown silty sand to a depth of six (6) to 13 feet. The silty sand is underlain by medium to dense tannish gray poorly graded sand extending to a depth of 27 feet. Underlying the silty sand, firm to stiff light gray fat clay was encountered and extended to a depth of 42 to 46 feet. The building borings were terminated in firm to stiff gray sandy clay to clayey sand at 50 feet, the maximum depth explored. Groundwater was measured at a depth of about six (6) to 8.5 feet below existing grade in the building borings upon completion of drilling. No groundwater was encountered in the parking lot borings.

Considering the project information and the subsurface soil conditions, a shallow foundation and soil supported floor slab may be used to support the proposed La Quinta Inn facility, provided the site is prepared as recommended in the report. Continuous footings bearing in the compacted fill could be designed for a maximum allowable bearing capacity of 2,000 psf, based on dead loads and design live loads. Minimum dimensions of 18 inches for continuous footings should be used in foundation design to minimize the possibility of a localized bearing failure.

The owner/designer should not rely solely on this Executive Summary and must read and evaluate the entire contents of this report prior to utilizing our engineering recommendations in preparation of design/construction documents.

PROJECT INFORMATION

Project Authorization

Professional Service Industries, Inc. (PSI) has completed a geotechnical exploration for the proposed La Quinta Inn Hotel to be developed on Cedar Lake Road in Biloxi, Mississippi. This exploration was accomplished in general accordance with PSI Proposal No. 254-550145 dated June 24, 2005. Authorization to proceed was given by Mr. Eduardo Hernandez on July 5, 2005.

Project Description

The project includes the construction of a three (3) story wood frame structure with stucco walls having a footprint of approximately 10,608 square feet. In addition, a parking lot with 103 spaces will be constructed to accommodate the facility. Structural loading information is not available at this time. However, maximum wall loads are assumed to be on the order of three (3) kips per linear foot. We understand that a concrete deck is planned in the rear of the facility. The deck will be attached to the back wall extending partially over the pond and supported on shallow timber piles. Grading information is not available at the time this report was prepared. However, based on a conversation with Mr. Pete Dammon of Dammon Engineering, Inc., two (2) to three (3) feet of fill is anticipated in the building area.

The geotechnical recommendations presented in this report are based on the available project information, building location, and the subsurface materials described in this report. If any of the noted information is incorrect, please inform PSI in writing so that we may amend the recommendations presented in this report if appropriate and if desired by the client. PSI will not be responsible for the implementation of its recommendations when it is not notified of changes in the project.

Purpose and Scope of Services

The purpose of this study was to explore the subsurface conditions at the site to enable an evaluation of acceptable foundation and pavement systems for the proposed facility. Two (2) borings (B-1 and B-2) were drilled to a depth of 50 feet within the building footprint and four (4) shallow borings (P-1 through P-4) were drilled to a depth of six (6) feet in the proposed parking area. Our scope of services included a reconnaissance of the project site, drilling the soil borings, select laboratory testing, and preparation of this geotechnical report. This report briefly outlines the testing procedures, presents available project information, describes the site and subsurface conditions, and presents recommendations regarding the following:

-
- Site preparation procedures;
 - Foundation type, allowable bearing capacity, and an estimate of settlement;
 - General pavement design criteria and pavement subgrade preparation;
 - Comments regarding factors that will impact construction and performance of the proposed construction.

The scope of geotechnical services did not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, surface water, groundwater, or air on or below, or around this site. Any statements in this report or on the boring logs regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes. Prior to development of this site, an environmental assessment is advisable.

PSI did not provide any service to investigate or detect the presence of moisture, mold, or other biological contaminants in or around any structure, or any service that was designed or intended to prevent or lower the risk of the occurrence of the amplification of the same. The client acknowledges that mold is ubiquitous to the environment with mold amplification occurring when building materials are impacted by moisture. The client further acknowledges that site conditions are outside of PSI's control, and that mold amplification will likely occur, or continue to occur, in the presence of moisture. As such, PSI cannot and shall not be held responsible for the occurrence or recurrence of mold amplification.

SITE AND SUBSURFACE CONDITIONS

Site Location and Description

The site of the proposed La Quinta Inn is located on Cedar Lake Road in Biloxi, Mississippi. The site is an undeveloped parcel of land covered with natural vegetation and some scattered trees. The property is flat and appears to drain to the west into an existing detention pond located approximately 15 feet from the facility.

Drilling, Sampling, and Laboratory Testing Procedures

The borings were drilled with a truck mounted drilling rig, and hollow stem drilling techniques were used to advance the borings. Samples were generally obtained continuously from the ground surface to a depth of ten feet and at maximum five feet intervals thereafter.

Undisturbed samples of cohesive soils were generally obtained using three (3) inch diameter thin-wall tube samplers (Shelby tubes) in general accordance with the procedures for "Thin-Walled Tube Geotechnical Sampling of Soils" (ASTM D1587). These samples were extruded in the field with a hydraulic ram.

Standard Penetration Tests (SPT) were performed in the cohesionless soils to obtain standard penetration values of the soil. The standard penetration value (N) is defined as the number of blows of a 140-pound hammer, falling 30 inches, required to advance the split-barrel sampler 1-foot into the soil. To perform the test and obtain a sample, the sampler is lowered to the bottom of the previously cleaned drill hole and advanced by blows from the hammer. The number of blows is recorded for each of three successive increments of six inches penetration. The "N" value is obtained by adding the second and third incremental numbers. The results of the standard penetration test indicate the relative consistency of semi-cohesive soils and relative density of cohesionless soils thereby provides a basis for estimating the relative strength and compressibility of the soil profile components.

The samples were identified according to the project number, boring number and depth, and placed in polyethylene plastic wrapping to protect against moisture loss.

In addition to the field exploration, a supplemental laboratory testing program was conducted to evaluate additional pertinent engineering characteristics of the foundation materials in analyzing the behavior of the foundation system. The laboratory testing program included supplementary visual classification and water content tests on all of the soil samples. In addition, selected samples were subjected to Atterberg Limits, unconfined compressive strength and percent passing the #200 sieve determinations. The laboratory testing program was conducted in general accordance with applicable ASTM Standard Procedures. The results of these tests can be found on the accompanying boring logs located in the Appendix.

Subsurface Conditions

Based on the borings, approximately 10 inches of silty sand topsoil with organic materials was encountered at the ground surface. This was generally followed by dense tannish brown silty sand to a depth of six (6) to 13 feet. The silty sand is underlain by medium to dense tannish gray poorly graded sand extending to a depth of 27 feet. Below this, firm to stiff light gray fat clay was encountered and extended to a depth of 42 to 46 feet. The building borings were terminated in firm to stiff gray sandy clay to clayey sand at 50 feet, the maximum depth explored.

The above subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in the Appendix should be reviewed for specific information at the boring locations. These records

include soil descriptions, stratification, penetration resistances, and locations of the samples and laboratory test data. The stratification shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratification represents the approximate boundary between subsurface materials and the actual transition may be gradual. Water level information obtained during field operations is also shown on the boring logs. The samples, which were not altered by laboratory testing

Groundwater Conditions

Groundwater was measured at a depth of about six (6) to 8.5 feet below existing grade in the building borings upon completion of drilling. No groundwater was encountered in the parking lot borings. The groundwater levels presented in this report are the levels that were measured at the time of our field activities and may not have become fully static at the time of measurement. Groundwater could fluctuate due to seasonal precipitation, and weather variations. It is recommended that the actual groundwater levels be determined at the site at the time of the construction activities.

EVALUATION AND RECOMMENDATIONS

Site Preparation

Site preparation is expected to include, but not be limited to stripping vegetation and topsoil with organic materials, and removing any other deleterious material from the areas to be developed. Based on the borings, it is recommended that about 10 inches of topsoil with organics be stripped from the site and wasted. The actual stripping depth should be determined in the field by the Geotechnical Engineer or by his representative at the time of construction.

After stripping, the exposed subgrade in the building and parking areas should be proofrolled with a tandem axle dump truck or similar rubber tired vehicle. Soils, which are observed to rut or deflect excessively under the moving load should be undercut and replaced with properly compacted fill. The amount of undercutting will primarily depend on the site conditions at the time of construction. The proofrolling and undercutting activities should be witnessed by a representative of the geotechnical engineer and should be performed during a period of dry weather.

Fill needed to raise the building pad to design grade should be placed in relatively uniform horizontal lifts. The structural fill should be free of organic or other deleterious materials have a maximum particle size less than two (2) inches, a liquid limit less than 40 and a plasticity index more than eight (8) but less than 18 percent.

The structural fill should be compacted to at least 95 percent of the soil's maximum dry density as determined by ASTM Designation D698 (Standard Proctor). The fill should be placed in maximum lifts of eight inches of loose material and should be compacted within the range of one (1) percentage point below to three (3) percentage points above the optimum moisture content value. If water must be added, it should be uniformly applied and thoroughly mixed into the soil by disking or scarifying. Each lift of compacted structural fill should be tested by a representative of the geotechnical engineer prior to placement of subsequent lifts. The fill should extend at least five (5) feet beyond the building perimeter prior to sloping. Adequate drainage must be provided prior to and during site work. The site should be graded to promote rapid runoff.

Foundation Recommendations

Provided the site is prepared as described in the "Site Preparation" section of this report, the proposed La Quinta Inn Hotel may be supported on a shallow foundation system. Continuous footings placed on the compacted fill may be designed for a maximum allowable bearing capacity of 2,000 psf. The footings should be placed a minimum of 24 inches below final grade. Minimum dimensions of 18 inches for wall footings should be used in foundation design to minimize the possibility of a localized bearing failure.

We understand that an existing detention pond is located within 15 feet of the rear wall of the building. The pond's geometry and depth is not known at the time the report was prepared. Due to the sandy nature of the near surface soils and the pond's close distance to the building, consideration should be given to providing a bulkhead at the edge of the pond adjacent to the building to prevent erosion of the sand and eventually undermining of the wall footing.

The foundation excavations should be observed by a representative of PSI prior to steel or concrete placement to assess that the foundation materials are capable of supporting the design loads and are consistent with the materials discussed in this report. Soft or loose soil zones encountered at the bottom of the footing excavations should be removed to the level of firm/dense soils or adequately compacted fill as directed by the geotechnical engineer. Cavities formed as a result of excavation of soft or loose soil zones should be backfilled with compacted structural fill or graded compacted crushed stone, as determined by the Geotechnical Engineer.

Footings excavations should be observed and concrete placed as quickly as possible to avoid exposure of the footing bottoms to wetting and drying. Surface run-off water should be drained away from the excavations and not be allowed to pond. The foundation concrete should be placed during the same day the excavation is made. If it is required that footing excavations be left open for more than one day, they should be protected to reduce evaporation or entry of moisture.

Settlement

Provided the site is prepared in accordance with the recommendations provided in the site preparation section of this report, we estimate that the maximum post-construction foundation settlement will be less than one (1) inch. Differential settlement is expected to be 50 percent of the total settlement. While settlements of this magnitude are generally considered tolerable for structures of the type proposed, the design of masonry walls should include provisions for liberally spaced, vertical control joints to minimize the affects of "cosmetic" cracking.

Floor Slab

The floor slab should be soil supported on a minimum of 24 inches of compacted structural fill meeting the material and compaction requirements discussed in the *Site Preparation* section of this report. Polyethylene sheeting should be placed between the fill and the floor slab to act as a vapor barrier. The floor slab should have an adequate number of joints to reduce cracking resulting from any differential movement and shrinkage.

Pavement Recommendations

The performance of pavements depends upon several factors including (1) the characteristics of the supporting soils; (2) the magnitude and frequency of wheel load applications; (3) quality of construction materials; (4) the contractor's placement and workmanship abilities, and (5) the desired period of design life. PSI has evaluated both rigid and flexible pavements for this project.

The recommended pavement thicknesses presented are considered typical and minimum for the assumed parameters in the general site area and anticipated traffic condition. We understand that budgetary considerations sometimes warrant thinner pavement sections than those presented. However, the owner and the project designers should be aware that thinner pavement sections may result in increased maintenance costs and lower than anticipated pavement life. The pavement subgrade should be prepared as discussed in the site preparation section of this report.

Detailed grading information is not available at the time this report was prepared. However, based on conversations with Mr. Pete Dammon of Dammon Engineering, Inc., about one (1) foot of fill will be required to achieve the parking lot design grades.

Our scope of services did not include extensive sampling for determination of coefficient of subgrade reaction (k) and California Bearing Ratio (CBR) of existing subgrade or potential sources of imported fill for the specific purpose of a detailed pavement analysis. Instead, we have assumed pavement related design parameters that are considered to be typical for the area soil types. A California Bearing Ratio (CBR) of 4.0 and a modulus of subgrade reaction (k) of 125 psi/in were assumed for the near surface soils. Additionally, we assumed the following:

Reliability	85%
Standard Deviation	0.45 Asphalt, 0.35 Concrete
Initial Serviceability	4.2
Terminal Serviceability	2.0
Drainage Coefficient	1.0
Design Life	20 Years
Layer Coefficients	0.41 Asphalt, 0.14 Limestone Base, 0.08 Sand Fill

Considering the above assumptions and our previous experience with similar structures in the area, we recommend the following pavement sections:

FLEXIBLE PAVEMENT		
Pavement Materials	Minimum Thickness, Inches	
	Light Duty	Heavy Duty
Asphaltic Concrete Wearing Course	3	4
Compacted 610 Limestone Base	8	8
Compacted Sandy Subgrade or Compacted Structural Fill	12	12

RIGID PAVEMENT		
Pavement Materials	Minimum Thickness, Inches	
	Light Duty	Heavy Duty
Portland Cement Concrete	5	6
Compacted Sandy Subgrade or Compacted Structural Fill	12	12

Portland Cement Concrete pavements should be utilized where waste disposal containers are located. The concrete paved area should be sufficiently large so that the front wheels of the collection truck are supported on the rigid pavement. In this area and in areas which will be accessed by heavy trucks (solid waste trucks, delivery trucks), a minimum concrete pavement thickness of seven (7) inches underlain by 12 inches of compacted sandy subgrade or compacted structural fill is recommended.

The asphaltic concrete should meet the requirements of the latest edition of the *Mississippi Standard Specifications for Road and Bridge Construction, Sections 401 and 703* and should be compacted to a minimum of 95 percent of the density of the laboratory-molded specimen.

The Limestone base should consist of 610 limestone conforming to MDOT Specifications, and should be compacted to at least 95 percent of the maximum dry density as determined by ASTM D698 (Standard Proctor) within 3 percent of optimum moisture content.

Proper finishing of concrete pavement requires the use of appropriate construction joints to reduce the potential for cracking. Construction joints should be designed in accordance with current Portland Cement Association guidelines. Joints should be connected with smooth, greased or sleeved dowels and should be sealed to reduce the potential for water infiltration into pavement joints and subsequent infiltration into the supporting soils. The design of steel reinforcement should be in accordance with accepted codes. The concrete should have a minimum flexural strength of 650 psi at 28 days. The concrete should also be designed with 5±1 percent entrained air to improve workability and durability. It should be noted that normal maintenance will be required. Long-term pavement performance requires good drainage and performance of periodic maintenance activities.

Water should not be allowed to pond behind curbs and saturate the pavement base. In down grade areas, sand base should extend through the slope to allow any water entering the base a path to exit.

CONSTRUCTION CONSIDERATIONS

It is recommended that PSI be retained to provide observation and testing of construction activities involved in the foundations, pavements, and related activities of this project. PSI cannot accept any responsibility for any conditions, which deviate from those described in this report, nor for the performance of the foundations and pavements if not engaged to also provide construction observation and testing for this project.

Moisture Sensitive Soils/Weather Related Concerns

The upper soils encountered at this site are relatively sensitive to disturbances caused by construction traffic and changes in moisture content. During wet weather periods, an increase in the moisture content of the soil can cause significant reduction in the soil strength and support capabilities. In addition, soils that become wet may be slow to dry and thus significantly retard the progress of grading and compaction activities. It will, therefore, be advantageous to perform earthwork and foundation construction activities during dry weather.

Drainage and Groundwater Concerns

Water should not be allowed to collect in the foundation excavations, in the floor slab areas, or on prepared subgrades of the construction area either during or after construction. Undercut or excavated areas should be sloped toward one corner to facilitate removal of any collected rainwater, groundwater, or surface runoff. Positive site surface drainage should be provided to reduce infiltration of surface water around the building.

Groundwater was measured at a depth of about six (6) to 8.5 feet below existing grade upon completion of drilling. However, it is possible that seasonal variations will cause fluctuations, or a water table to be present in the upper soils at a later time. Any water accumulation should be removed from excavations by pumping. Should excessive and uncontrolled amounts of seepage occur, the geotechnical engineer should be consulted.

Excavations

In Federal Register, Volume 54, No. 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, part 1928, Subpart P". This document was issued to better ensure the safety of workmen entering trenches or excavations. It is mandated by this federal regulation that excavations, whether they be utility trenches, basement excavation or footing excavation, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely followed, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person", as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

We are providing this information solely as a service to our client. PSI does not assume responsibility for construction site safety or the contractor's or other parties compliance with local, state, and federal safety or other regulations.

REPORT LIMITATIONS

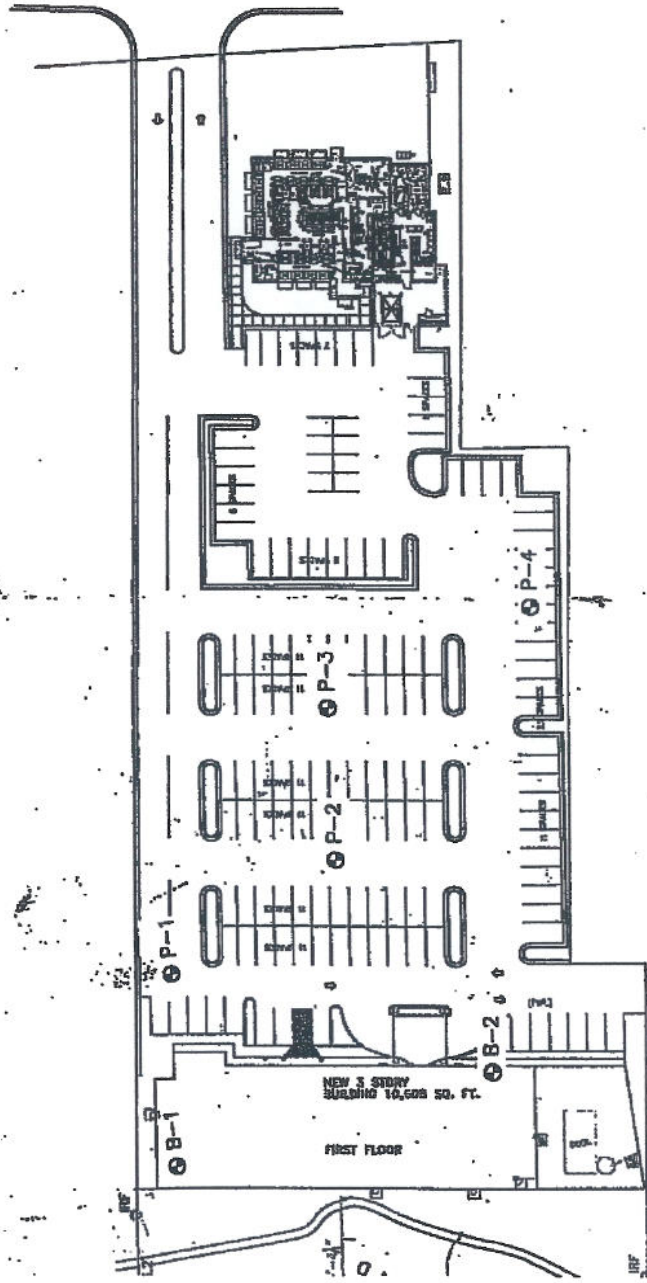
The recommendations submitted in this report are based on the available subsurface information obtained by PSI and design details furnished by Dammon Engineering, Inc. If there are any revisions to the plans for this project, or if deviations from the subsurface conditions noted in this report are encountered during construction, PSI should be notified immediately to determine if changes in the foundation recommendations are required. If PSI is not notified of such changes, PSI will not be responsible for the impact of those changes on the project.

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

After the plans and specifications are more complete, the geotechnical engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our engineering recommendations have been properly incorporated into the design documents. At that time, it may be necessary to submit supplementary recommendations. If PSI is not retained to perform these functions, PSI will not be responsible for the impact of those conditions on the project. This report has been prepared for the exclusive use of Dr. Eduardo Hernandez for the specific application to the proposed La Quinta Inn Hotel to be re-constructed on Cedar Lake Road in Biloxi, Mississippi.

APPENDIX

CEDAR LAKE ROAD



LEGEND
 --- EXISTING LOT
 --- NEW BUILDING



PRELIMINARY SITE PLAN
 SCALE: 1" = 30'-0"

⊕ Boring Location

Professional Service Industries, Inc.
 724 Central Ave
 Jefferson, LA 70121 ph. (504) 733-9411
 Date: 6/24/2005 Project No.: 254-55107-1
 Drawing Provided by: Damman Engineering, Inc.

Boring Location Diagram

Proposed La Quinta Inn
 Cedar Lake Road
 Biloxi, Mississippi

LOG OF BORING B-1
PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: WET ROTARY

LOCATION: BUILDING AREA

PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH lb/ft ²	HAND PENETROMETER lb/ft	TORVANE lb/ft	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			10" brown silty sand topsoil with organics			4.50			8			8
			Medium dense tannish brown Silty Sand	18					8			
5				23					13			24
				28					23			
			Dense tannish gray poorly graded Sand	30					22			
10												
			-becomes medium tannish red at 13'	13					28			5
15				19					31			
20				9					20			8
25												
			Firm light gray Fat Clay		0.66	0.75		86	36			
30												
			-stiff with ferrous nodules at 33'			2.0			32	58	36	
35												
					1.1	1.5		83	39			
40												
			Soft to firm gray Sandy Clay		0.38	1.5		90	36			
45												
			-becomes clayey sand at 47'									
50							0.1		25			
			boring terminated at 50'									

DEPTH OF BORING: 50 FEET

GROUNDWATER: Measured at 6' upon completion

DATE: 8/10/05



Geotechnical Consulting Services
 Jefferson, Louisiana

LOG OF BORING B-2
PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: WET ROTARY

LOCATION: BUILDING AREA

PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOW/FT.	UNCONFINED COMPRESSIVE STRENGTH $\frac{1}{2}$ ft	HAND PENETROMETER $\frac{1}{2}$ ft	TORVANE $\frac{1}{2}$ ft	UNIT DRY WEIGHT $\frac{1}{2}$ ft	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
0			8" brown silty sand topsoil with organics				0.2		10			
5			Medium dense tannish brown Silty Sand	24					8			24
				22					8			
				25					16			
10				25					16			24
15			Medium dense reddish poorly graded Sand	21					24			
			-becomes dense gray at 18'	43					24			4
20												
			-medium red sand at 23'	12					25			
25												
30			Firm to stiff gray Fat Clay		1.04	1.25		90	33	73	55	
			-with ferrous nodules, 30' to 35'		0.96	2.5		85	36			
35						2.0			39			
40												
45					1.51	1.50		89	34			
50			Stiff gray Sandy Clay			1.75			28			
			boring terminated at 50'									

DEPTH OF BORING: 50 FEET

GROUNDWATER: Measured at 8.5' upon completion

DATE: 8/10/05



Geotechnical Consulting Services
 Jefferson, Louisiana

LOG OF BORING P-1
PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: HOLLOW STEM AUGER

LOCATION: PARKING AREA

PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BELOW/SIFT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENETROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			10" tannish brown silty sand topsoil with organics			2.50			11			
			Medium dense light brown Silty Sand	17					7			18
5				23					14			
			Boring Terminated at 6'									
10												
15												
20												
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 8 FEET

GROUNDWATER: Not encountered during drilling

DATE: 8/10/2005



Geotechnical Consulting Services
 Jafferson, Louisiana

LOG OF BORING P-2
PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: HOLLOW STEM AUGER

LOCATION: PARKING AREA

PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH lb/ft	HAND PENETROMETER lb/ft	TORVANE lb/ft	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			8" tannish brown sandy clay topsoil with organics			4.5			9			
			Medium dense Silty Sand			2.25			11			
5				18					10			26
			Boring Terminated at 6'									
10												
15												
20												
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 6 FEET

GROUNDWATER: Not encountered during drilling

DATE: 8/10/2005



Geotechnical Consulting Services
 Jefferson, Louisiana

LOG OF BORING P-3
PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: HOLLOW STEM AUGER

LOCATION: PARKING AREA

PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH lb/ft	HAND PENTROMETER lb/ft	TORVANE lb/ft	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			8" tan sandy clay topsoil with organics			4.6			9			
			Medium dense tan Silty Sand	22					11			
5				23					12			
			Boring Terminated at 6'									
10												
15												
20												
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 6 FEET

GROUNDWATER: Not encountered during drilling

DATE: 8/10/2005



Geotechnical Consulting Services
 Jefferson, Louisiana

LOG OF BORING P-4
PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: HAND AUGER

LOCATION: PARKING AREA

PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH ksf	HAND PENTROMETER ksf	TORVANE ksf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
		8" tannish brown sandy silt topsoil with organics			2.0			6			
		Medium dense tannish brown Silty Sand			2.0			9			
5			22					6			32
		Boring Terminated at 6'									
10											
15											
20											
25											
30											
35											
40											
45											
50											

DEPTH OF BORING: 6 FEET





















GROUNDWATER: Not encountered during drilling

DATE: 8/10/2005



Geotechnical Consulting Services
 Jefferson, Louisiana

KEY TO TERMS AND SYMBOLS USED ON LOGS

SOIL TYPE						SAMPLER TYPE			
 ROCK	 GRAVEL	 SAND	 SILT	 CLAY	 PEAT	 NO SAMPLE	 AUGER SAMPLE	 SHELBY TUBE	 SPLIT SPOON
MODIFIERS									
 STONE	 GRAVELLY	 SANDY	 SILTY	 CLAYEY	 FILL	 NO RECOVERY	 ROCK CORE	 2" SHELBY TUBE	 TXDOT CONE

UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D 2487 (1980)

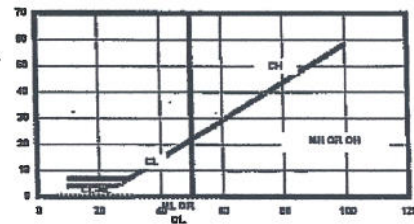
MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTIONS	
COARSE GRAINED SOILS	GRAVEL > 49% PASSED	CLEAN	GW	WELL GRADED GRAVEL, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES	
	GRAVEL > 49% PASSED	GRAVEL (LITTLE OR NO FINES)		GP	POORLY GRADED GRAVEL, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
	LESS THAN 49% PASSED	W/ APPRECIABLE SANDS	GM		SILTY GRAVEL, GRAVEL-SAND-SILT MIXTURES
		NO. 40 SIEVE	SILT FINES	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	FINE GRAINED SOILS	SANDS > 75% PASSED	CLEAN SANDS	SW	WELL GRADED SAND, GRAVELY SAND (LITTLE FINES)
			LITTLE FINES	SP	POORLY GRADED SANDS, GRAVELY SAND (L. FINES)
		LESS THAN 75% PASSED	SANDS WITH LITTLE FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			APPRX. FINES	SC	CLAYEY SANDS AND CLAY MIXTURES
	FINE GRAINED SOILS MORE THAN 75% PASSED	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50	SILTS AND CLAYS	ML	MODERATE SILTS & VERY FINE SANDS/LOESS FLOUR SILTY OR CLAYEY FINE SANDS OR CLAYEY SILT W/ LOW PI
				CL	ORGANIC CLAY OF LOW TO MEDIUM PLI/LEAN CLAY GRAVELY CLAYS, SANDY CLAYS, SILTY CLAYS
OL			ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PI		
SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	MODERATE SILTS, MUCAGINOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS		
		CH	MODERATE CLAYS OF HIGH PLASTICITY FAT CLAYS		
OH	ORGANIC CLAYS OF MED TO HIGH PI, ORGANIC SILT				
HIGHLY ORGANIC SOIL			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS	
UNCLASSIFIED FILL MATERIALS				ARTIFICIALLY DEPOSITED AND OTHER UNCLASSIFIED SOILS AND MAN-MADE SOIL MIXTURES	

CONSISTENCY OF COHESIVE SOILS

CONSISTENCY	SHEAR STRENGTH IN TONS/FT ²
VERY SOFT	0. TO 0.125
SOFT	0.125 TO 0.25
FIRM	0.25 TO 0.5
STIFF	0.5 TO 1.0
VERY STIFF	1.0 TO 2.0
HARD	> 2.0 OR 2.0+

RELATIVE DENSITY - GRANULAR SOILS

CONSISTENCY	N-VALUE (BLOWS/FOOT)
VERY LOOSE	0-4
LOOSE	4-9
MEDIUM DENSE	10-29
DENSE	30-49
VERY DENSE	> 50 OR 50+



ABBREVIATIONS

HP - HAND PENETROMETER **UC** - UNCONFINED COMPRESSION TEST
TV - TORVANE **UU** - UNCONSOLIDATED UNDRAINED TRIAXIAL
MV - MINIATURE VANE **CU** - CONSOLIDATED UNDRAINED

NOTE: PLOT INDICATES SHEAR STRENGTH AS OBTAINED BY ABOVE TESTS

CLASSIFICATION OF GRANULAR SOILS

U.S. STANDARD SIEVE SIZE(S)

	6"	3"	3/4"	4	10	40	200		
BOUL-DERS	GRAVEL			SAND			SILT OR CLAY	CLAY	
	COBBLES	COARSE	FINE	COARSE	MEDIUM	FINE			
	152	76.2	19.1	4.76	2.0	0.42	0.074	0.002	
	GRAIN SIZE IN MM								

 DELAYED GROUNDWATER LVL
 LEVEL GROUNDWATER ENCOUNTERED



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