

ADDENDUM NO. 9

March 11, 2019

**REQUEST FOR PROPOSALS
(BID DOCUMENTS)**

FOR

**STUDENT SUCCESS CENTER
PROJECT NO. 950512**



The following changes, additions, or deletions shall be made to the following documents as indicated for this Project; and all other terms and conditions shall remain the same. Each Proposer (Design Builder) is responsible for transmitting this information to all affected subcontractors and suppliers before the Proposal Deadline.

1. **ANNOUNCEMENT TO PREQUALIFIED PROPOSERS**

Delete the “Announcement to Prequalified Proposers” and **replace** with the one issued in this Addendum.

2. **REQUEST FOR PROPOSALS**

A. Proposal Schedule

Delete the “Proposal Schedule” and **replace** with the one issued in this Addendum

B. University Furnished Information

1. Table of Contents

Delete the “University Furnished Information Table of Contents”, and **replace** with the one issued in this Addendum.

2. **Add** Item 6B, “Geotechnical Engineering Evaluation Report, Pierce Hall Classroom Addition and Building Renovation Project” to the Table of Contents and place documents in the University Furnished Information Item 6 “Geotechnical Reports” folder.
3. **Add** Item 6C, “Percolation Testing Report Pierce Hall Classroom Addition and Building Renovation Project” to the Table of Contents and place documents in the University Furnished Information Item 6 “Geotechnical Reports” folder.
4. **Add** Item 6D, “Geotechnical Investigation Proposed Interdisciplinary Studies Building” to the Table of Contents and place documents in the University Furnished Information Item 6 “Geotechnical Reports” folder.
5. **Add** Item 6E, “Geotechnical Observation of Grading and Field Density Test Results Report, Proposed College of Humanities Arts and Social Sciences (CHASS) Buildings – Instruction & Research Facility” to the Table of Contents and place documents in the University Furnished Information Item 6 “Geotechnical Reports” folder.

<u>B.</u>	<u>Geotechnical Engineering Evaluation Report Pierce Hall Classroom Addition and Building Renovation Project</u>	<u>Twining</u>	<u>July 8, 2016</u>
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<u>C.</u>	<u>Percolation Testing Report Pierce Hall Classroom Addition and Building Renovation Project</u>	<u>Twining</u>	<u>May 5, 2017</u>
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**D. Geotechnical Investigation Proposed
Interdisciplinary Studies Building
Riverside Campus**

**E Geotechnical Observation of Grading and Field Density Test Results Report
Proposed College of Humanities Arts
and Social Sciences (CHASS) Buildings
– Instruction & Research Facility** **Converse Consultants** **September
21, 2006**

6. **Add** Item “39, Dining Services Venue: Concept Plan” to the Table of Contents and place documents in University Furnished Information folder.
7. **Add** Item “40, UCR North District Dining Drawings” to the Table of Contents and place document in University Furnished Information folder.
8. **Add** Item “41, Walker Macy UCR Plant List Review” to the Table of Contents and place document in University Furnished Information folder.
9. **Add** Item “42, Benchmark-based, Whole-Building Energy Performance Targets for UC Buildings” to the Table of Contents and place document in University Furnished Information folder.

39. DINING SERVICES VENUE: CONCEPT PLAN

**A. UC Riverside
Student Success Center
Dining Services Venue: Concept
Plan
Project Number: 950512**

40. UCR NORTH DISTRICT DINING DRAWINGS

**A. UCR Food Lab North District
Riverside, CA
(Drawings K-01, K-02 & K-02.1)** **Clay Enterprises** **January 17, 2019**

41. WALKER MACY UCR PLANT LIST REVIEW

A. Walker Macy UCR Plant List Review

42. BENCHMARK-BASED, WHOLE-BUILDING ENERGY PERFORMANCE TARGETS FOR UC BUILDINGS

A. Benchmark-based, Whole-Building Energy Performance Targets for UC Buildings **California Institute for Energy and Environment** **March 2014**

3. DESIGN BUILDER QUESTIONS & ANSWERS

Q28	We would like access to the site for additional investigation. Please advise if there is an Entrance to Property form or other document that needs to be submitted prior to scheduling access.
A28	<p>UCR does not have an entry to the property form that needs to be filled to access the site as the UCR Campus is open to public- and therefore Design-Builders may visit the project site at their discretion.</p> <p>However, if the Design-Builder wishes to conduct extensive field surveys or studies (which may include the use of surveying equipment, or impact to the site/access to the site during surveying activities); the Design-Builder to contact University’s Consultant (Lynn Javier- lynn.javier@ucr.edu (951-827-7911) with a copy to Betty Osuna- betty.osuna@ucr.edu) with a request:</p> <p>The following information should be included with the request:</p> <ul style="list-style-type: none"> - Date/s of entry - Projected amount of time for activities - Number of persons and Equipment used - The type of activity that will be conducted <p>The University will facilitate the request and may choose to approve or deny the request. The University will respond to the Design-Builder the outcome of the request. The Design-Builder to receive approval from the University ahead of study/survey.</p>
Q29	The BOD indicates that a grease interceptor is to be provided. However, addendum 3 indicates that no grease cooking will be performed in the dining services. Please clarify.
A29	There will be some food preparation, some food re-thermalization, and some transferring of hot & cold foods to various service vessels, etc. Each of these activities will generate soiled pans and utensils, all of which will require a 3-compartment sink. Additionally, a dishwasher will be in the design. Both pieces of equipment trigger the requirement for a grease interceptor.
Q30	The Plumbing BOD indicates a requirement for a grease interceptor, however, Addendum #3 indicates that most food preparation will be done off-site and only warming and assembly will be done in the new space. Furthermore, it's stated that no grease cooking requiring hoods shall be present. Please clarify if a Grease Interceptor is required.
A30	Please refer to Q29 for the response.
Q31	Please provide “Food Lab Concepts” Presentation, originally listed in the Table of Contents for the Appendix but not included (has since been deleted in Addendum 3). If that is not available please provide design test fits for Dining Services.

A31	<p>A concept plan for the Dining Services venue is being issued as University Furnished Information in Addendum No. 9. This is for concept planning purposes only.</p>
Q32	<p>For Dining Services, the BOD states to provide a raw shell with minimum sizing requirements. However, it additionally mentions that the DBE is ultimately responsible for sizing systems. Please provide a menu from which the sizing of infrastructure can be derived from.</p>
A32	<p>Final menu selections will not be completed until 3 - 6 months prior to opening</p> <p>To inform the design and sizing of infrastructure of the dining services venue; the university is providing the 'food service equipment floor plans' and 'equipment lists' from the North District Dining venue as University Furnished information.</p> <p>The "market-style restaurant concept" for the Student Success Center is intended to be the same "market-style restaurant concept" for North District. Both locations will have the same branding, interior scheme and very similar menu offerings. Duplicating the concepts allows for greater efficiencies in managing, procurement and marketing expenses. That said, the Design-Build teams should exclude the hood and fryer requirement when calculating their infrastructure sizing. This is for concept planning purposes only. Loads will vary as the design progresses with the selection of the successful Design-Builder.</p> <p>North District Food Service Equipment Floor plans and Equipment List are being issued as University Furnished Information in Addendum No. 9.</p>
Q33	<p>Under the Sustainable Design Requirements, section 01 8113, Part 1, General: The requirements state that the project must achieve LEED Gold under LEED BD+C v4 or current BD+C rating system. The USGBC recently released LEED BD+C v4.1, with a stronger focus on GHG emissions but also a more stringent energy baseline. Please clarify if the University would be open to certifying the project under either LEED v4 or LEED v4.1</p>
A33	<p>The Student Success Center to be certified to meet LEED Gold as per the Project Program Design Criteria. As such; Design-Build teams can either use LEED v4.1, LEED v4, or swap certain LEED v4.1 credits with their LEED v4 counterpart if permitted by USGBC. Design-Build teams should clearly identify in their submittal, the LEED BD+C rating system version or what, if any, v4 credits are substituted with v4.1. Regardless of version selected, all other sustainability requirements or policies must be met e.g., exceeding Title 24 by 20%.</p>
Q34	<p>The Tree Inventory Report requests that a number of trees be relocated, it also states that several California native trees be protected within the site area, such as Platanus racemosa and Quercus lobate. However, the BOD, pg 4.51 specifies for these trees to be removed. Please clarify tree relocation scope and confirm which trees are to be removed.</p>
A34	<p>Trees that are removed to accommodate the building do not need to be relocated- as identified in the BOD- Revised Landscape exhibit Page 4.51</p> <p>Trees on the south of the Site – as identified in SK-1 Laydown diagram are identified to be protected in place.</p> <p>Please also refer to Q9 for more information about the oak tree immediately south of the proposed Student Success center footprint.</p>
Q35	<p>Please provide a copy of the following report, listed as a reference on page 7 of the document titled "6. Geotechnical Data Report", in the Owner Furnished Documents portion of the RFP.</p>

	<p>Twining, Inc., 2016, Geotechnical Engineering Evaluation Report for Pierce Hall Classroom Addition and Building Renovation Project, Project No. 160060.3, July 8, 2016.</p>
A35	The Geotechnical information for the Pierce Hall renovations is being issued as University Furnished Information in Addendum No. 9.
Q36	Please confirm heating hot water coils should be designed for maximum 150°F supply temperature and 100°F return temperature per the provided specs. The provided Div. 23 Campus specifications refers to a central campus high temperature hot water loop, which does not seem to apply to this project.
A36	The heating hot water coils need to be designed for the operating temperatures that the Design-Build team elects to design around. The equipment/coils/components shall be rated for those operating conditions.
Q37	Please provide the record soils report for the utility tunnel.
A37	This information is not available.
Q38	Per p. 4.5 of the BOD, the building is to be approachable from “multiple directions”. Additionally, per p. 4.36, it states that “ service access for trash and other services shall not greatly interfere with pedestrian circulation”. However, in the Warm Shell Tenant Improvement Space Guideline, UCR Dining Services, March 16, 2018 – description of “Site Improvements – Service Yard” includes “screen around service yard, gate, power, water, equipment pad, etc. The information provided for this Service area is in conflict: indoor trash collection and storage versus an outdoor yard with requirements noted in Warm Shell Improvement document. Please clarify which criteria is to be followed.
A38	The Basis of Design to take precedence for the design of the Dining Service access.
Q39	Please provide the record soils report for the Chass Building.
A39	The Geotechnical report is being issued as University Furnished Information in Addendum No. 9
Q40	The Chass As-builts record drawing provided in the University furnished information, reference sheet M100.1 shows Telephone, Sewer, gas, and SD line within the BSAI that is not shown on any other documents provided. Please confirm if these lines have already been relocated, or they need to be relocated as part of this project's scope.
A40	The University cannot confirm if the lines have already been relocated. If the lines impact the Design-Builders proposed design it is the responsibility of the Design-Builder to relocate the lines as necessary.

END OF ADDENDUM

ANNOUNCEMENT TO PREQUALIFIED PROPOSERS

Subject to conditions prescribed by the University of California, Riverside, sealed proposals for a Design Build contract are invited from prequalified proposers for the following work:

STUDENT SUCCESS CENTER

DESCRIPTION OF WORK

The proposed Student Success Center will be a 60,000 GSF / 39,000 ASF facility that will address UCR's growing student population and its shortfall in classroom capacity. The Project will consist of three primary program elements: 1) General assignment classrooms designed for modern pedagogies and technology. 2) Multipurpose student life spaces for use by student organizations, and areas for scholarly activity such as tutoring, mentoring and study. 3) Shelled Dining Services venue.

Maximum Acceptance Cost: **\$47,100,000** (funding is pending administrative approval)

The University has determined that the following Proposers have been prequalified:

HENSEL PHELPS CONSTRUCTION CO, Irvine, CA 92612
MCCARTHY BUILDING COMPANIES, INC. Newport Beach, CA 92660
SWINERTON BUILDERS, Irvine, CA 92416

PROCEDURES:

Pending administrative approval, Request for Proposals will be available beginning at **2:00 PM**, on **Friday, January 11, 2019** and will be issued at:

IB Reprographics

3363 Durahart Street
Riverside, CA 92507
Phone: (951) 682-1850

Website: <https://www.ibrepro.com/>

Technical Proposals must be received on or before: ~~Thursday, April 11, 2019~~ **Thursday, May 16, 2019, 2:00 PM**

Price Proposals must be received on or before: Friday, April 12, 2019 **Friday, May 17, 2019, 2:00 PM**

Price Proposals will be opened at: ~~Thursday, April 23, 2019~~ **Monday, June 3, 2019, 11:00 AM** at:

Architects & Engineers Planning, Design & Construction

University of California, Riverside
1223 University Avenue, Suite 240
Riverside, California 92521
951-827-7911

Mandatory Pre-Proposal Conference & Project Site Visit. A mandatory pre-proposal conference will be conducted on **Monday, January 14, 2019**, beginning promptly at **1:30 PM**. Only proposers who participate in the pre-proposal conference and project site visit, in their entirety, will be allowed to propose on the project. Participants must arrive at or before **1:30 PM**. Persons arriving later than **1:40 PM** will not be allowed to submit proposals as design builder on the project. The Big Springs Parking Garage located on Big Springs Road will be opened for all participants to park. A parking attendant will be issuing permits at the Big Springs Parking Garage from 12:00 PM - 1:30 PM.

Participants shall meet at:

Glen Mor Building K, Rooms K106/K108
University of California, Riverside
Riverside, California 92507
951-827-7911

Proposers shall come prepared with questions concerning needed clarifications and shall only send their project manager, design professional, or other professional intended to work on the project to attend this meeting. For further information, contact Lynn Javier, University's Consultant at (951) 827-7911, lynn.javier@ucr.edu

Proposal Security in the amount of 10% of the Lump Sum Base Proposal, excluding alternates, shall accompany each bid. The surety issuing the Bid Bond shall be, on the bid deadline, an admitted surety insurer (as defined in the California Code of Civil Procedure Section 995.120)

All insurance policies required to be obtained by Design Builder shall be subject to approval by University for form and substance. All such policies shall be issued by a company rated by Best as A- or better with a financial classification of VIII or better, or have equivalent rating by Standard and Poor's or Moody's.

The successful proposer and its subcontractors will be required to follow the nondiscrimination requirements set forth in the proposal documents and to pay prevailing wage rates at the location of the work.

No contractor or subcontractor may be listed on a Bid for this project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded any portion of this project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The successful proposer shall pay all persons providing construction services and/or any labor on site, including any University location, no less than the UC Fair Wage (defined as \$13 per hour as of 10/1/15, \$14 per hour as of 10/1/16, and \$15 per hour as of 10/1/17) and shall comply with all applicable federal, state and local working condition requirements.

The successful proposer will be required to have the following California contractor's license at the time of the proposal opening: **General Building Contractor "B" License.**

Lynn Javier, University's Consultant, (951) 827-7911, lynn.javier@ucr.edu

Bid Board: <http://ae.ucr.edu/business/contractors.html>

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
University of California, Riverside
Dates of Publication: 12/21/2018 thru 01/14/2019

PROPOSAL SCHEDULE

	ACTIVITY	DATE	TIME
A	The RFP will be available to Prequalified Proposers, subcontractors and design consultants.	1/11/19	2:00 PM
B	Pre-Proposal Conference & Site Visit – Mandatory for all Prequalified Proposers. Participants must arrive at University of California, Riverside, Glen Mor, Building K, Room K106/K108, Riverside, CA 92507 at or before the established time.	1/14/19	1:30 PM
C	The University will hold confidential One-on-One meetings with each Proposer prior to the Technical Proposal Submittal for the purpose of answering questions, clarifying RFP and program requirements, reviewing and validating preliminary designs etc. Meeting location: University of California, Riverside, Pentland Hills Bear Cave B107/C101, Riverside, CA 92507.	2/7/19	8:30 AM (SB) 11:00 AM (HP) 1:30 PM (MB)
	The University will hold confidential One-on-One meetings with each Proposer prior to the Technical Proposal Submittal for the purpose of answering questions, clarifying RFP and program requirements, reviewing and validating preliminary designs etc. Meeting location: University of California, Riverside, University Village, 1299 University Ave., Room EUV-1103, Riverside, CA 92507.	3/1/19	8:00 AM (MB) 10:30 AM (SB) 1:00 PM (HP)
	The University will hold confidential One-on-One meetings with each Proposer prior to the Technical Proposal Submittal for the purpose of answering questions, clarifying RFP and program requirements, reviewing and validating preliminary designs etc. Meeting location: University of California, Riverside, Alumni & Visitor Center, Alumni Johnson Board Room, 3701 Canyon Crest Drive, Riverside, CA 92521.	3/21/19	8:30 AM (HP) 11:00 AM (MB) 1:30 PM (SB)
		4/24/19	8:30 AM (SB) 11:00 AM (HP) 1:30 PM (MB)
D	Technical Proposal Submittal is due from Proposers and will be received only at University of California, Riverside, Planning, Design & Construction, 1223 University Avenue, Suite 240, Riverside, CA 92507. The Technical Proposal Submittal is defined in the <i>Technical Proposal</i>.	04/11/19 5/16/19	2:00 PM
E	Lump Sum Base Price Proposal Submittal is due from Proposers and will be received only at University of California, Riverside, Planning, Design & Construction, 1223 University Avenue, Suite 240, Riverside, CA 92507. The Lump Sum Base Price Proposal Submittal is defined in the <i>Lump Sum Base Price Proposal</i>.	04/12/19 5/17/19	2:00 PM

F	The University's Technical Review Committee will meet to review timely submitted Technical Proposals as described in the Proposal Evaluation Process document.	4/18/19-4/19/19 <u>5/29/19-5/30/19</u>	8:00 AM – 5:00 PM
G	Proposers shall make an Oral Presentation and describe the best value aspects of their proposals. Cost shall not be discussed during the Oral Presentation.	4/22/19 <u>5/31/19</u>	8:00 – 5:00 PM
H	Timely submitted Lump Sum Base Price Proposals shall be publicly opened at University of California, Riverside, Planning, Design & Construction, 1223 University Avenue, Conference Room Suite 210-16, Riverside, CA 92507. The University will acknowledge the timely receipt of submittals and whether or not the submittals appear to be responsive. No cost or point scoring information will be disclosed to the public at this time.	4/23/19 <u>6/3/19</u>	11:00 AM

Late Proposals: Any proposal, modification, or revision that is received at the designated University of California, Riverside, Planning, Design & Construction location after the exact time specified for receipt of proposals is “late” and will not be considered unless it was the only proposal received. Late proposals and modifications that are not considered will be held unopened, unless opened for identification, and then returned to the Proposer after award.

UNIVERSITY FURNISHED INFORMATION

The following information is made available for the convenience of Proposers and is not a part of the Contract. The information is provided subject to the provisions of subparagraph 3.1.1 of the General Conditions.

Issued electronically on the "Request for Proposals" CD
(Located behind the first tab of this binder)

PREVAILING WAGES

General Prevailing Wage Determinations and information can be accessed at www.dir.ca.gov or by contacting University's principal Facility office.

DESCRIPTION

No.	Title:	Prepared by:	Date:
1. AS-BUILTS			
A.	Fine Arts Seismic Facility	Fields Devereaux Architects & Engineers	April 27, 1998
B.	Physical Education Building	Arthur Froehlich, AIA, Architect	April 28, 1952
C.	Physical Education Building Room 102 Alterations for Dance	Cashion Horie Cocke Gonzales Architects, Inc. (CHCG)	June 1986
D.	CHASS-Instruction & Research Facility	PEI Cobb Freed & Partners	March 20, 2008
E.	Administration Building (Hinderaker)	Allison and Rible Architects	January 27, 1961
F.	Humanities and Social Sciences Unit 1	Cesar Pelli & Associates	August 10, 1993
G.	Classroom and Office Unit 1 (Sproul)	Douglas Honnold FAIA, John Rex, FAIA, Architects and Associates	June 2, 1965
H.	Student Academic Support Services Building	Sasaki	March 2009
2. UCR MOBILITY HUB AND CENTRAL CAMPUS LINKAGES			
A.	UCR Mobility Hub and Central Campus Linkages – Scope 1 Report	Gruen Associates	December 21, 2017
B.	UCR Mobility Hub and Central Campus Linkages – Appendices	Gruen Associates	December 21, 2017

3. STUDENT SUCCESS CENTER VISIONING WORKSHOP

- | | | | |
|----|---|----------------------|----------------|
| A. | UCR Student Success Center Visioning Workshop
Capital Asset Strategies | Capital Planning | April 20, 2017 |
| B. | UCR Student Success Visioning Workshop – Site Selection Study Handout | UCR Capital Planning | April 20, 2017 |

4. UCR 2005 LRDP AND AMENDMENTS

- | | | | |
|----|--|--|----------------|
| A. | Long Range Development Plan 2005 | UCR Office of Academic Planning & Budget; Capital & Physical Planning with the assistance of: BMS Design Group | November 2005 |
| B. | 2005 Long Range Development Plan Amendment 2 | UCR Finance & Business Operations Capital Resource Management | November 2001 |
| C. | 2005 LRDP Amendment 3
Campus Infrastructure Overlay
Land Use Designation | | September 2013 |

5. TOPOGRAPHIC SURVEY

- | | | | |
|--|---|------|---------------|
| | University of California, Riverside
Student Success Center
Topographic Survey | IMEG | July 13, 2018 |
|--|---|------|---------------|

6. GEOTECHNICAL REPORTS

- | | | | |
|------------------|---|-----------------------|----------------------------|
| A. | Proposed Student Success Center
UCR Project No. 958056 | Twining | December 17, 2018 |
| <u>B.</u> | <u>Geotechnical Engineering
Evaluation Report
Pierce Hall Classroom Addition
and Building Renovation Project</u> | <u>Twining</u> | <u>July 8, 2016</u> |
| <u>C.</u> | <u>Percolation Testing Report
Pierce Hall Classroom Addition
and Building Renovation Project</u> | <u>Twining</u> | <u>May 5, 2017</u> |
| <u>D.</u> | <u>Geotechnical Investigation
Proposed Interdisciplinary
Studies Building
Riverside Campus</u> | | |

<u>E</u>	<u>Geotechnical Observation of Grading and Field Density Test Results Report</u> <u>Proposed College of Humanities Arts and Social Sciences (CHASS) Buildings – Instruction & Research Facility</u>	<u>Converse Consultants</u>	<u>September 21, 2006</u>
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7. PHYSICAL DESIGN FRAMEWORK

Physical Design Framework	2009/10 – 2018/2019
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8. UC BOARD OF REGENTS

Regents Policy 4400: Policy on University of California Diversity Statement	University of California Board of Regents	Adopted September 20, 2007 Amended September 16, 2010
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9. STUDENT SUCCESS CENTER CLASSROOM COMPONENT SUMMARY OF FEEDBACK

Student Success Center Classroom Component Summary of Campus Feedback	UCR Office of the Provost and Executive Vice Chancellor	May 2017
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10. STUDENT SUCCESS CENTER SITE SELECTION STUDY

Site Selection Study Student Success Center Building	UCR Capital Asset Strategies	June 16, 2017
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11. UC SUSTAINABLE PRACTICES POLICY

UC Policy on Sustainable Practices	University of California	Issuance Date: July 1, 2004 Effective Date: August 10, 2018
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12. UCR CAMPUS PROCESS: GENDER INCLUSIVE FACILITIES 2015

UCR Campus Process: Gender Inclusive Facilities 2015	Associate Vice Chancellor / Campus Architect Architect & Engineers	November 1, 2015
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13. UCR CENTRAL CAMPUS NEIGHBORHOOD STUDY

UCR Central Campus Neighborhood Study	HKS Spurlock	April 12, 2017
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14. UCR PHYSICAL MASTER PLAN STUDY

UCR Physical Master Plan Study

May 17, 2016

15. UCR PRINCIPLES OF COMMUNITY

UCR Principles of Community

16. UCR DINING SERVICES

Warm Shell Tenant Improvement
 Space Guideline

UCR Dining Services

March 16, 2018

17. UCR RIVERSIDE SITE FEASIBILITY REPORT

UCR Site Feasibility Report

Steinberg Hart

January 2018

18. UTILITY MAPS

A.. Student Success Center
 100 PSI Air Controls Approximate
 Locations (Draft)

10/9/18

B. Student Success Center
 100 PSI Steam Controls
 Approximate Locations (Draft)

10/9/18

C. Student Success Center
 Chilled Water Line Approximate
 Locations (Draft)

10/8/18

D. Student Success Center
 Natural Gas Line Approximate
 Locations (Draft)

10/8/18

E. Student Success Center
 Storm Drain Manholes (Surveyed –
 2014) Storm Drain Line
 (Approximate Locations) (Draft)

10/8/18

F. Student Success Center
 Existing Electric Distribution (Draft)

10/9/18

19. DAART ENGINEERING FLOW TEST

Daart Engineering Flow Test
 UCR Student Success Center

6/7/18

20. UCR CAMPUS STANDARDS - DRAFT

Div. 3 – Concrete	Revised April 17, 2018
Div. 4 - Masonry	January 14, 2018
Div. 5 – Metal	January 14, 2018
Div. 6 – Wood, Plastics and Composite	January 18, 2018
Div. 7 – Thermal and Moisture Protection	January 14, 2018
Div. 8 – Openings	Revised March 21, 2018
Div. 9 – Finishes	January 14, 2018
Div. 10 - Specialties	March 12, 2018
Div. 11 – Equipment	Revised April 15, 2018
Div. 12 – Furnishings	November 30, 2015
Div. 13 – Special Construction	January 14, 2018
Div. 14 – Conveying Systems	January 14, 2018
Div. 15 – Operation and Maintenance Manuals	
Div. 21 – Fire Suppression	Revised April 25, 2018
Div. 22 – Plumbing	Revised April 17, 2018
Div. 23 – HVAC	March 28, 2018
Div. 25 – Integrated Automation	Revised March 13, 2018
Div. 26 - Electrical	January 24, 2018
Div. 27 – Communications	January 24, 2018
Div. 28 – Electronic Safety and Security	January 24, 2018
Div. 31 – Site Work	January 2016
Div. 32 – Exterior Improvements	March 2016
Div. 33 – Site Utilities	January 2018

21. SEWER CAPACITY STUDY

UC Riverside Physical Master Plan
 Study
 Appendix 6.8-A
 Sanitary Sewer Calculations

22. UCR 2020 - FINAL

UCR 2020
The Path to Preeminence July 2010

23. UCR LANDSCAPE SERVICES DEPT. LANDSCAPE- IRRIGATION GUIDELINES 2012

UCR Landscape Services Dept.
Landscape-Irrigation Guidelines
2012 2012

24. TREE INVENTORY REPORT

Tree Inventory Report
University of California, Riverside
Student Success Center Project
Tricia D. Thrasher
University of California, Riverside
Campus Planning
Capital Asset Strategies
May 9, 2018
Psomas

25. IMPLEMENTATION OF UC GENDER INCLUSIVE FACILITIES POLICY AT UC RIVERSIDE - MEMO

Implementation of UC Gender
Inclusive Facilities Policy at UC
Riverside - Memo
To: Gerry Bomotti, Vice Chancellor,
Planning and Budget September 18, 2018
From: Jacqueline Norman,
Campus Architect & Robert Keith
Williams, Certified Building Official

26. UCR CAMPUS *CONTEXT*

UCR Campus *Context*
(Exemplary Examples / Non-
Exemplary Examples
UCR Planning Design &
Construction 2019

27. WEPA LOW PRINT STATION SPECIFICATIONS

WEPA Low Profile Print Station
Specifications WEPA

28. LAPTOP KIOSK CONFIGURATION

Laptop Kiosk Configuration Laptops Anytime

29. UCR CAMPUS V2018 UPDATES CADD DRAWINGS AND SUPPORTING DOUMENTATION

A. UCR Campus v2018 Update Auto
CADD Drawings

B. University California, Riverside March 2015

Aerial Target Ground Control
 Survey Report
 Job #2011018.003

C.	UCR Campus Control Survey – Sheet 1 of 2	Hillwig – Goodrow, Inc.	December 2013
D.	UCR Campus Control Survey – Sheet 2 of 2	Hillwig – Goodrow, Inc.	December 2013
E.	UCR Data Delivery Standards for UCR Planning, & Design Projects Capital Programs		March 13, 2015
F.	UCR Horizontal and Vertical Accuracy of Campus Spatial Data (GIS) (Memorandum)		May 22, 2013
G.	UC Riverside Campus Control Points	Hillwig – Goodrow, Inc.	December 2013

30. MOBILITY HUB AND CENTRAL CAMPUS LINKAGES

Mobility Hub and Central Campus Linkages – 100% Construction Document Bid Set	Gruen Associates	January 10, 2019
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31. BICYCLE MASTER PLAN EXCERPT

Bicycle Master Plan Excerpt

32. TOPO SURVEY CAD DRAWINGS

TOPO Survey CAD Drawings	July 30, 2018
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33. CAMPUS COMMUNICATIONS DRAWINGS

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Geotechnical Engineering Evaluation Report

Pierce Hall Classroom Addition
And Building Renovation Project
University of California Riverside

Prepared for:
University of California Riverside
1223 University Avenue
Riverside, California 92507

July 8, 2016
Project No.: 160060.3

July 8, 2016
Project No. 160060.3

Mr. Blythe R. Wilson
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Subject: Geotechnical Engineering Evaluation Report
Pierce Hall Classroom Addition and Building Renovation Project
University of California Riverside
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Dear Mr. Wilson:

In accordance with your request and authorization, we are presenting our Geotechnical Engineering Evaluation Report for the above-referenced project at University of California, Riverside, California. The purpose of this investigation has been to evaluate the subsurface conditions at the site and to provide geotechnical engineering recommendations for the proposed improvements.

Based on our findings, the proposed project is geotechnically feasible, provided that the recommendations in this report are incorporated into the design and are implemented during construction of the project.

We appreciate the opportunity to be of service on this project. Should you have any questions regarding this report or if we can be of further service, please do not hesitate to contact the undersigned.

Respectfully submitted,

TWINING, INC.

A handwritten signature in blue ink, appearing to read "Sean Lin", is written over the company name.

Sean Lin, P.E. 67109, G.E. 2921
Chief Geotechnical Engineer



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1. INTRODUCTION

This report presents the results of Twining, Inc.'s (Twining) geotechnical engineering evaluation performed for Pierce Hall Classroom Addition and Building Renovation project at University of California Riverside (UCR), California. The site location is shown on the Figure 1, Site Location Map. The purpose of this study has been to evaluate the subsurface conditions at the sites and to provide geotechnical recommendations related to the design and construction of the proposed project.

2. SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The proposed addition site is located at the north and east side of the existing Pierce Hall building within the UCR campus, in the City of Riverside California. The site currently consists of asphalt parking area, loading dock, trash enclosure and a grass lawn with several mature trees. The grass lawn located on the east side of Pierce Hall is approximate 5 feet higher than the parking lot.

The approximate site coordinates are latitude 33.9747°N and longitude 117.3270°W. The site is relatively level with a surface elevation at approximately 1080 feet above mean sea level (MSL).

Based on the conceptual plan provided to us, the proposed project will consist of renovation of the existing Pierce Hall and construction of new classroom additions. The new additions are expected to be 2-story classroom buildings. The preliminary building locations are depicted on Figure 2, Site Plan and Boring Location Map.

3. SCOPE OF WORK

To prepare this report, we have performed the following tasks:

3.1. Literature Review and Site Reconnaissance

We reviewed readily available background data, including in-house geotechnical data, and published geologic maps, topographic maps, seismic hazard maps and literature, and flood hazard maps relevant to the subject site. The list of documents reviewed is presented in the "References" section of this report.

We performed a geotechnical site reconnaissance on January 26, 2016 to observe the general surficial conditions at the site, select boring locations, and coordinate clearance of utilities with UCR personnel.

3.2. Field Exploration

The field exploration consisting of three exploratory borings was conducted at the site on June 15, 2016. The borings were advanced to approximate depths ranging from 26½ feet to 51½ feet below existing grades. The approximate locations of the exploratory borings are shown on Figure 2, Site and Boring Location Map.

The drilling operation was performed using a truck-mounted, hollow-stem auger drill rig. The materials encountered in the borings were logged by our field personnel. Detailed exploration information for the soil borings is presented in Appendix A, Field Exploration.

3.3. Geotechnical Laboratory Testing

Laboratory tests were performed on selected samples obtained from the boring in order to aid in the soil classification and to evaluate the engineering properties of the foundation soils. Laboratory tests included moisture and density, sieve analysis, maximum density, direct shear, consolidation, R-value and soil corrosivity. Detailed laboratory test results are presented in Appendix B.

3.4. Engineering Analyses and Report Preparation

We compiled and analyzed the data collected from our site reconnaissance, subsurface evaluation, and laboratory testing, and prepared this report to present our conclusions and recommendations, including:

- Evaluation of general subsurface conditions and description of types, distribution, and engineering characteristics of subsurface materials;
- Evaluation of geologic hazards, including site seismicity, liquefaction and seismic settlement potential, and preliminary recommendations for appropriate mitigation measures;
- Evaluation of site-specific seismic design parameters in accordance with 2013 California Building Code;
- Evaluation of current and historical groundwater conditions at the site and potential impact on the existing structures;
- Evaluation of project feasibility and suitability of on-site soils for foundation support;
- Preparation of recommendations for site grading and subgrade preparation;
- Evaluation of foundation design parameters including soil bearing capacity, lateral resistance, friction coefficient, and seismic considerations; and
- Evaluation of the potential for the on-site materials to corrode buried concrete and metals.

4. SITE GEOLOGY AND SUBSURFACE CONDITIONS

4.1. Regional Geologic Setting

According to the Geologic Map of the Riverside East 7.5 Minute Quadrangle (USGS, 1988), the project site is underlain by very old alluvial fan deposits (map symbol: Qvof). These deposits are described as indurated sandy sediments which are capped locally by well-developed pedogenic soils or by Holocene alluvial deposits. A portion of the geologic map is reproduced as Figure 3, Regional Geologic Map.

4.2. Subsurface Earth Materials

Earth materials encountered during our subsurface investigation consist of a thin layer of undocumented fill underlain by Very Old Alluvial Fan Deposits (map symbol: Qvof) which extend to the total depth of exploration. Based on our field observations, the undocumented fill consists of silty sand on the order of 1 to 2 feet in thickness. It should be noted that the undocumented fill thickness may vary across the site. The old alluvial deposits consist of predominately silty sand and sand.

4.3. Groundwater

Groundwater was not encountered within the deepest exploratory boring at a depth of approximately 51½ feet below the existing grade. Based on our review of the California Water Resource website, the groundwater level is reportedly situated at a depth greater than 150 feet below the ground surface. Groundwater conditions may vary across the site due to stratigraphic and hydrologic conditions, and may change over time as a consequence of seasonal and meteorological fluctuations, or of activities by humans at this and nearby sites.

5. GEOLOGIC HAZARDS AND SEISMIC DESIGN CONSIDERATIONS

The site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion in the project area is considered high during the design life of the proposed improvements. The hazards associated with seismic activity in the vicinity of the site are discussed in the following sections.

5.1. Surface Fault Rupture and Active Faulting

The subject site is not located within a State of California Earthquake Fault Zone (formerly known as a Special Studies Zone) (Hart and Bryant, 1997). The closest known active fault to the site is the San Jacinto fault, located approximately 8.07km away from the project site. It is our opinion that the likelihood of fault rupture occurring at the site during the design life of the proposed improvements is low.

5.2. Liquefaction and Seismic Settlement Potential

Liquefaction occurs when the pore pressures generated within a soil mass approach the effective overburden pressure. Liquefaction of soils may be caused by cyclic loading such as that imposed by ground shaking during earthquakes. The increase in pore pressure results in a loss of strength, and the soil then can undergo both horizontal and vertical movements, depending on the site conditions. Other phenomena associated with soil liquefaction include sand boils, ground oscillation, and loss of foundation bearing capacity. Liquefaction is generally known to occur in loose, saturated, relatively clean, fine-grained cohesionless soils at depths shallower than approximately 50 feet. Factors to consider in the evaluation of soil liquefaction potential include groundwater conditions, soil type, grain size distribution, relative density, degree of saturation, and both the intensity and duration of ground motion.

The site is located within an area designated as having “Low” liquefaction susceptibility according to the Riverside County (2015) General Plan Safety Element. Based on lack of groundwater table shallower than 50 feet and the relatively dense soils encountered at the site, it is our opinion that the potential for liquefaction at this site is low.

Seismic settlement can occur when medium dense granular materials densify during seismic shaking and/or liquefaction. Seismically-induced settlement may occur in dry, unsaturated, as well as saturated soils. Based on the fairly uniform and medium dense to dense subsurface soil profile, the potential for seismically-induced dry-sand settlement is considered low.

5.3. Landslides

Based on our review of the referenced geologic maps, literature, topographic maps, aerial photographs, and our subsurface evaluation, no landslides or related features underlie or are adjacent to the subject site. Due to the relatively level nature of the site and surrounding areas, the potential for landslides at the project site is considered negligible.

5.4. Flooding

The Federal Emergency Management Agency (FEMA) has prepared flood insurance rate maps (FIRMs) for use in administering the National Flood Insurance Program. Based on our review of the FEMA (2008) flood map, the site is outside the 0.2% annual chance (500-year) floodplain.

5.5. Deaggregated Seismic Source Parameters

Our recommendations for design earthquake magnitude parameters have been developed in accordance with the USGS Seismic Hazard Interactive Deaggregations webpage <http://geohazards.usgs.gov/deaggint/2008/> for the 2 percent in 50 years chance of exceedance earthquake event. Based on the calculated results, the earthquake magnitude, $M_w = 7.6$ is considered in our seismic analysis.

5.6. CBC Seismic Design Parameters

Our recommendations for seismic design parameters have been developed in accordance with the 2013 California Building Code and ASCE 7-10 (ASCE, 2010) standards. Based on the results of our field investigation the applicable Site Class is D. Table 1 presents the seismic design parameters for the site in accordance with the CBC and mapped spectral acceleration parameters (United States Geological Survey, 2011).

Table 1 – 2013 California Building Cod Design Parameters

Design Parameters	Value
Site Class	D
Mapped Spectral Acceleration Parameter at Period of 0.2-Second, S_s	1.500g
Mapped Spectral Acceleration Parameter at at Period 1-Second, S_1	0.614g
Site Coefficient, F_a	1.0
Site Coefficient, F_v	1.5
Adjusted MCE_R^1 Spectral Response Acceleration Parameter at Short Period, S_{MS}	1.500g
1-Second Period Adjusted MCE_R^1 Spectral Response Acceleration Parameter, S_{M1}	0.614g
Short Period Design Spectral Response Acceleration Parameter, S_{DS}	1.000g
1-Second Period Design Spectral Response Acceleration Parameter, S_{D1}	0.614g
Peak Ground Acceleration, PGA_M^2	0.565g
Seismic Design Category ³	D
Notes: ¹ Risk-Targeted Maximum Considered Earthquake ² Peak Ground Acceleration adjusted for site effects ³ For S_1 greater than or equal to 0.75g, the Seismic Design Category is E	

6. GEOTECHNICAL ENGINEERING RECOMMENDATIONS

6.1. General Considerations

Based on the results of our field exploration and engineering analyses, it is our opinion that the proposed development is feasible from a geotechnical standpoint, provided that the recommendations in this report are incorporated into the design plans and are implemented during construction.

The site is underlain by a thin layer of undocumented fill followed by relative uniform medium dense to dense very old alluvial fan deposits. We expect that the upper 3 feet of soil will be disturbed during demolition of the existing onsite structures, trees and vegetation. It is our opinion that the proposed building should be supported on conventional spread footings embedded in compacted fill approved by Geotechnical Engineer during construction.

Our geotechnical engineering analyses performed for this report were based on the earth materials encountered during the subsurface exploration for the site. If the design substantially changes, then our geotechnical engineering recommendations would be subject to revision based on our evaluation of the changes. The following sections present our conclusions and recommendations pertaining to the engineering design for this project.

6.2. Site Preparation and Earthwork

In general, earthwork should be performed in accordance with the recommendations presented in this report. Twining should be contacted for questions regarding the recommendations or guidelines presented herein.

6.2.1. Site Preparation

Site preparation should begin with the removal of any utility lines, asphalt, concrete, vegetation, and other deleterious debris from areas to be graded. Tree stumps and roots should be removed to such a depth that organic material is generally not present. Clearing and grubbing should extend to the outside edges of the proposed excavation and fill areas. We recommend that unsuitable materials such as organic matter or oversized material be selectively removed and disposed offsite. The debris and unsuitable material generated during clearing and grubbing should be removed from areas to be graded and disposed at a legal dump site away from the project area.

6.2.2. Overexcavation

It is expected that surficial soil will be disturbed due to removal of the existing site structures and vegetation. To prepare a relatively uniform support for foundation and slab support, overexcavation should be at least 3 feet below the existing ground surface, or 1 foot below the proposed bottom of footings, whichever is deeper. The lateral extent of the overexcavation should be at least 5 feet beyond the edge of the building footprints, where space is available. Deeper excavations may be required in areas where loose or unsuitable materials, for example, tree root balls or undocumented fill are encountered.

Other site improvements, such as pavement, sidewalk and hardscape, should be overexcavated to a depth of at least 1 foot below the existing ground surface or at least 1 foot below the proposed subgrade, whichever is deeper.

The extent and depths of removal should be evaluated by Twining's representative in the field based on the materials exposed during grading. Additional removals may be recommended if loose or soft soils are exposed.

6.2.3. Materials for Fill

On-site soils with an organic content of less than 3 percent by volume (or 1 percent by weight) are suitable for use as fill. Soil material to be used as fill should not contain contaminated materials, rocks, or lumps over 4 inches in largest dimension, and not more than 40 percent larger than $\frac{3}{4}$ inch. Utility trench backfill material should not contain rocks or lumps over 3 inches in largest dimension. Larger chunks, if generated during excavation, may be broken into acceptably sized pieces or may be disposed offsite.

Any imported fill material should consist of granular soil having a "very low" expansion potential (that is, expansion index of 20 or less). Import material should also have low corrosion potential (that is, chloride content less than 500 parts per million [ppm], soluble sulfate content of less than 0.1 percent, and pH of 5.5 or higher). Materials to be used as fill should be evaluated by a Twining representative prior to importing or filling.

6.2.4. Compacted Fill

Prior to placement of compacted fill, the contractor should request an evaluation of the exposed excavation bottom by Twining. Unless otherwise recommended, the exposed ground surface should then be scarified to a depth of approximately 6 inches and watered or dried, as needed, to achieve generally consistent moisture contents at or near the optimum moisture content. The scarified materials should then be compacted to 90 percent relative compaction in accordance with the ASTM Test Method D1557.

Fill materials should be moisture conditioned to approximately 2% above optimum moisture content prior to placement. The optimum moisture content will vary with material type and other factors. Moisture conditioning of fill soils should be generally consistent within the soil mass. Continue to place the compacted fill in horizontal lifts of approximately 6 to 8 inches in loose thickness. Each lift should be compacted by mechanical methods, using multiple-wheel pneumatic-tired rollers, sheepsfoot rollers, or other appropriate compacting rollers, to a relative compaction of 90 percent as evaluated by ASTM D1557 test method. Successive lifts should be treated in a like manner until the desired finish grades are achieved.

6.2.5. Temporary Excavations

Temporary excavations for the demolition, earthwork, footings, and utility trenches are expected to be up to 4 feet in height. We anticipate that unsharped excavations with vertical side slopes less than 4 feet high will generally be stable; however, some sloughing of relatively loose to medium dense, cohesionless sandy materials encountered at the site should be expected.

Where the space is available, temporary, unsharped excavation sides over 4 feet in height should be sloped no steeper than an inclination of 1.5H:1V (horizontal:vertical). Where sloped excavations are created, the tops of the slopes should be barricaded so that vehicles and storage loads do not encroach within 10 feet of the top of the excavated slopes. A greater setback may be necessary when considering heavy vehicles, such as concrete trucks and cranes. Twining should be advised of such heavy vehicle loadings so that specific setback requirements can be

established. If the temporary construction slopes are to be maintained during the rainy season, berms are recommended to be graded along the tops of the slopes in order to prevent runoff water from entering the excavation and eroding the slope faces.

Excavations should not undermine the existing adjacent footings. Where space for sloped excavations is not available, temporary shoring (trench box) may be utilized. Additional temporary shoring recommendations will be provided up on request once detailed information becomes available.

Personnel from Twining should observe the excavation so that any necessary modifications based on variations in the encountered soil conditions can be made. All applicable safety requirements and regulations, including CalOSHA requirements, should be met.

6.2.6. Excavation Bottom Stability

In general, we anticipate that the bottoms of the excavations will be stable and should provide suitable support to the proposed improvements. Unstable bottom conditions may be mitigated by overexcavation of the bottom to suitable depths and replacement with an 18-inch-thick layer of gravel, aggregate base or lean concrete mud mat. Any loose, soft, or deleterious material should be removed prior to placement of gravel or lean concrete. Recommendations for stabilizing excavation bottoms should be based on evaluation in the field by the geotechnical consultant at the time of construction.

6.2.7. Construction Dewatering

Due to the absence of shallow groundwater, dewatering measures are not anticipated to be necessary during excavation operations. If needed, considerations for construction dewatering should include anticipated drawdown, volume of pumping, potential for settlement of nearby structures, and groundwater discharge. Disposal of groundwater should be performed in accordance with guidelines of the Regional Water Quality Control Board.

6.2.8. Rippability

Based on our subsurface exploration of the site, the fill materials should be generally excavatable with heavy-duty earthwork equipment in good working condition. Some gravels or cobbles or man-made debris should be expected within the fill soils.

6.2.9. Shrinkage/Bulking Due to Compaction

Based on our review of the in-situ density of the near surface soils, we estimated the volumetric shrinkage as a result of compaction of onsite soil is expected to be on the order of 5 to 10 percent.

6.3. Foundation Recommendations

A shallow foundation system may be used for support of the proposed building, provided that all the footings are placed on engineered fill prepared as described in the "Site Preparation and Earthwork" section of this report. Our geotechnical design parameters are presented in Table 2.

Table 2 – Geotechnical Design Parameters for Continuous and Spread Footings

Minimum Footing Dimensions	<ul style="list-style-type: none"> Square footing should be at least 24 inches in width and the bottom of footing should be embedded at least 24 inches below the lowest adjacent grade. Continuous footing should be at least 18 inches in width and the bottom of footing should be embedded at least 24 inches below the lowest adjacent grade.
Allowable Bearing Pressure	<ul style="list-style-type: none"> For the minimum dimensions shown above, an allowable bearing pressure of 2,500 pounds per square foot (psf) can be used. Bearing capacity can increase 300 psf for each additional foot of width, and 450 psf for each additional foot of depth to a maximum allowable capacity of 4,000 psf The allowable bearing values may be increased by one-third for transient live loads from wind or earthquake.
Estimated Static Settlement	<ul style="list-style-type: none"> Less than ½ inch total settlement with differential settlement estimated to be less than ¼ inch over 30 feet.
Allowable Coefficient of Friction Below Footings	0.35
Unfactored Lateral Passive Resistance	300 pcf (equivalent fluid pressure)

The total allowable lateral resistance can be taken as the sum of the friction resistance and passive resistance. The passive resistance values may be increased by one-third when considering wind or seismic loading.

6.4. Concrete Slabs

Slabs should be supported at grade on engineered fill in accordance with the recommendations of this report. For design of concrete slabs, a modulus of subgrade reaction (k) of 150 pounds per cubic inch (pci) may be used for slabs on compacted, engineered fill.

Floor slabs should be designed and reinforced in accordance with the structural engineer's recommendations. However, for slabs not supporting heavy loads, we recommend that the concrete should have a thickness of at least 4 inches, a 28-day compressive strength of at least 3,000 pounds per square inch (psi), a water-cement ratio of 0.50 or less, and a slump of 4 inches or less. Slabs reinforcement and control joints should be designed and constructed in accordance with recommendations from the structural engineer or architect. For slabs supporting equipment, a minimum thickness of 5 inches is recommended. Additional thickness and reinforcement recommendations may be provided by the structural engineer.

The topmost 12 inches below the slab subgrade should be maintained in a moisture condition of approximately 0 to 2 percent above optimum moisture content. The slab subgrade should be tested

for moisture and compaction immediately prior to placement of the gravel or sand base, if any. All underslab materials should be adequately compacted prior to the placement of concrete. Care should be taken during placement of the concrete to prevent displacement of the underslab materials. The underslab material should be dry or damp and should not be saturated prior to the placement of concrete. The concrete slab should be allowed to cure properly and should be tested for moisture transmission prior to placing vinyl or other moisture-sensitive floor covering.

Table 3 provides recommendations for various levels of protection against vapor transmission through concrete floor slabs placed over a properly prepared subgrade. Care should be taken not to puncture the plastic membrane during placement of the membrane itself and the overlying silty sand.

Table 3 – Options for Subgrade Preparation below Concrete Floor Slabs

Primary Objective	Recommendation
Enhanced protection against vapor transmission	<ul style="list-style-type: none"> • Concrete floor slab-on-grade may be placed directly on a 15-mil thick moisture vapor retarder that meets the requirements of ASTM E 1745 Class C (Stego Wrap or similar). • The moisture vapor retarder membrane may be placed directly on the subgrade (ACI302.1R-67); if required for either leveling of the subgrade or for protection of the membrane from protruding gravel, then place about 2 inches of silty sand¹ under the membrane. • Special consideration for curing the concrete, such as wet curing, should be made if concrete is placed directly on the impermeable vapor retarder.
Above-standard protection against vapor transmission	<p>This option is available if the slab perimeter is bordered by continuous footings at least 24 inches deep, OR if the area adjacent and extending at least 10 feet from the slab is covered by hardscape without planters:</p> <ul style="list-style-type: none"> • 2 inches of dry silty sand¹; over • Waterproofing plastic membrane 10-mil thick; over • At least 4 inches of ¾-inch crushed rock² or clean gravel³ to act as a capillary break
Standard protection against vapor transmission	<ul style="list-style-type: none"> • 2 inches of dry silty sand¹; over • Waterproofing plastic membrane 10-mil thick. If required for either leveling of the subgrade or for protection of the membrane from protruding gravel, place at least 2 inches of silty sand¹ under the membrane.

Notes: ¹ The silty sand should have a gradation between approximately 15 and 40 percent passing the No. 200 sieve and a plasticity index (PI) of less than 4.

² The ¾-inch crushed rock should conform to Section 200-1.2 of the latest edition of the “Greenbook” Standard Specifications for Public Works Construction (BNI Publications, Inc., 2012).

³ The gravel should contain less than 10 percent of material passing the No. 4 sieve and less than 3 percent passing the No. 200 sieve.

The recommendations presented above are intended to reduce the potential for cracking of slabs; however, even with the incorporation of the recommendations presented herein, slabs may still exhibit some cracking. The occurrence of concrete shrinkage cracks is independent of the supporting soil characteristics.

6.5. Retaining Walls

Although not specified in the plan, some short retaining walls may be constructed at the site. For a wall less than 6 feet in height, the following recommendations can be used for structural design. For a wall taller than 6 feet in height, detailed wall information should be reviewed by Twining to provide further recommendations.

6.5.1. Lateral Earth Pressure

The values presented below assume that the supported grade is level and do not include surcharge loads. The recommended design lateral earth pressure is calculated assuming that a drainage system will be installed behind the retaining walls and that external hydrostatic pressure will not develop behind the wall.

For walls that are free to rotate at the top (such as cantilevered walls), the lateral earth pressure may be designed for the “active” earth pressure in terms of equivalent fluid pressure (EFP) of 35 pcf. Walls that are supporting earth that are restrained against rotation at the top (such as by a floor deck), may be designed for the “at-rest” earth pressure in terms of EFP of 60 pcf.

Vertical surcharge loads within a 1:1 projection from the bottom of the wall distributed over retained soils should be considered as additional uniform horizontal pressure acting on the wall. The additional horizontal pressure acting on the wall can be estimated as approximately 35% and 55% of the magnitude of the vertical surcharge pressure for the “active” and “at-rest” conditions, respectively. All permanent surcharge loading conditions should be evaluated on a case-by-case basis by the geotechnical engineer.

6.5.2. Backfill and Drainage of Walls

The backfill material behind walls should consist of granular non-expansive material and should be approved by the project geotechnical engineer. Based on the soil materials encountered during our exploration, the majority of on-site soils should meet this requirement. Retaining walls should be waterproofed and adequately drained in order to limit hydrostatic buildup behind walls. Wall drainage may be provided by a geosynthetic drainage composite such as TerraDrain®, MiraDrain®, or equivalent, attached to the outside perimeter of the wall. The drain should be placed continuously along the back of the wall and connected to a 4-inch-diameter perforated pipe with perforation facing down. The pipe should be sloped at least 1% and should be surrounded by 1 cubic foot per foot of ¾-inch crushed rock wrapped in suitable non-woven filter fabric (Mirafi®

140NL or equivalent). The crushed rock should meet the requirements defined in Section 200-1.2 of the latest edition of The "Greenbook" Standard Specifications for Public Works Construction. The drain should discharge through a solid pipe to an appropriate outlet.

6.6. Expansive Soils

Expansive soils are characterized by their ability to undergo significant volume changes (shrink or swell) due to variations in moisture content. Changes in soil moisture content can result from rainfall, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors, and may cause unacceptable settlement or heave of structures, concrete slabs supported on-grade, or pavements supported over these materials. Depending on the extent and location below finished subgrade, these soils could have a detrimental effect on the proposed construction.

Based on our soil classification of the near-surface soils, it is our opinion that the exposed soil has a very low potential. Mitigation to expansive soil is not required.

6.7. Corrosive Soils

In accordance with the Caltrans (2014) criteria, the corrosive soil is defined when having minimum resistivity less than 1,000 ohm-centimeters, or chloride concentration greater than 500 ppm, or sulfate concentration in soils greater than 2,000 ppm, or a pH less than 5.5.

Laboratory testing was performed on representative sample of on-site soil to evaluate soil pH, electrical resistivity, water-soluble chloride content, and water-soluble sulfate content. The laboratory test results are presented in Appendix B. Based on the laboratory test results, the site soil is non-corrosive.

6.7.1. Reinforced Concrete

Laboratory tests indicate that the potential of sulfate attack on concrete in contact with the on-site soils is "negligible" based on ACI 318, Table 4.3.1. Due to the potential variability of site soils, we recommend Type II/V cement for concrete with water-cement ratio no greater than 0.5 be used on the project.

6.7.2. Metallic

Laboratory resistivity testing indicates that the on-site soils are not considered corrosive to buried ferrous metals. Additional recommendations may be provided by a corrosion engineer.

6.8. Flexible Pavement Design

Our pavement structural design is in accordance with Chapter 600 of the Caltrans Highway Design Manual, which is based on a relationship between the gravel equivalent (GE) of the pavement structural materials, the traffic index (TI), and the R-value of the underlying subgrade soil.

We recommend that the existing subgrade should be scarified to a depth of at least 8 inches, moisture conditioned to approximately 2 percent above the optimum moisture content, and compacted to at least 95 percent of the maximum dry density as determined from the latest version of ASTM D 1557. The compacted subgrade should be firm and non-yielding checked by proof-rolling prior to placement of aggregate base. Once the subgrade has been approved, the aggregate base course layer should be

placed and compacted to a minimum of 95 percent of the maximum dry density as evaluated by the latest version of ASTM D 1557.

We assumed an R-value of 49 for the subgrade material for asphalt pavement structural calculations with assumed TI since no traffic study data is available to us. On this basis, Table 4 and Table 5 provide recommended minimum thicknesses for flexible pavement structural sections for different traffic indices.

Table 4 – Recommended Minimum HMA and Base Section Thicknesses

Traffic Index	5.0	6.0	7.0
HMA Thickness (in)	2.0	3.0	4.0
Aggregate Base Thickness (in)	4.0	4.0	4.5

Table 5 – Recommended Minimum Full-depth HMA Section Thicknesses

Traffic Index	5.0	6.0	7.0
HMA Thickness (in)	4.0	5.0	6.5

6.9. Rigid Pavement Design

Table 6 provides minimum thicknesses for Portland Cement Concrete (PCC) pavement sections constructed on top of properly prepared subgrade.

Table 6 – Recommended Minimum PCC Section Thicknesses

Traffic Index	5.0	6.0	7.0
PCC Thickness (in)	6.0	6.25	6.5

The above pavement section is based on a minimum 28-day Modulus of Rupture (M-R) of 550 psi and a compressive strength of 3,000 psi. Transverse contraction joints should not be spaced more than 15 feet and should be cut to a depth of $\frac{1}{4}$ the thickness of the slab. Longitudinal joints should not be spaced more than 15 feet apart, however, are not necessary in the pavement adjacent to the curb and gutter section. Positive drainage should be provided away from all pavement areas to prevent seepage of surface and/or subsurface water into the pavement base and/or subgrade. The subgrade surface should be scarified to a depth of approximately 6 inches and watered or dried, as needed, to achieve generally consistent moisture contents at or near the optimum moisture content. The scarified materials should then be compacted to 95 percent relative compaction in accordance with the ASTM Test Method D1557.

6.10. Drainage Control

The control of surface water is essential to the satisfactory performance of the site improvements. Surface water should be controlled so that conditions of uniform moisture are maintained beneath the structure, even during periods of heavy rainfall. The following recommendations are considered minimal:

- Ponding and areas of low flow gradients should be avoided.
- If bare soil within 5 feet of the structure is not avoidable, then a gradient of 5 percent or more should be provided sloping away from the improvement. Corresponding paved surfaces should be provided with a gradient of at least 1 percent.
- The remainder of the unpaved areas should be provided with a drainage gradient of at least 2 percent.
- Positive drainage devices, such as graded swales, paved ditches, and/or catch basins should be employed to accumulate and to convey water to appropriate discharge points.
- Concrete walks and flatwork should not obstruct the free flow of surface water.
- Brick flatwork should be sealed by mortar or be placed over an impermeable membrane.
- Area drains should be recessed below grade to allow free flow of water into the basin.
- Enclosed raised planters should be sealed at the bottom and provided with an ample flow gradient to a drainage device. Recessed planters and landscaped areas should be provided with area inlet and subsurface drain pipes.
- Planters should not be located adjacent to the structure wherever possible. If planters are to be located adjacent to the structure, the planters should be positively sealed, should incorporate a subdrain, and should be provided with free discharge capacity to a drainage device.
- Planting areas at grade should be provided with positive drainage. Wherever possible, the grade of exposed soil areas should be established above adjacent paved grades. Drainage devices and curbing should be provided to prevent runoff from adjacent pavement or walks into planted areas.
- Gutter and downspout systems should be provided to capture discharge from roof areas. The accumulated roof water should be conveyed to off-site disposal areas by a pipe or concrete swale system.
- Landscape watering should be performed judiciously to preclude either soaking or desiccation of soils. The watering should be such that it just sustains plant growth without excessive watering. Sprinkler systems should be checked periodically to detect leakage and they should be turned off during the rainy season.

7. GENERAL SITE GRADING RECOMMENDATIONS

Site grading operations should conform with applicable local building and safety codes and to the rules and regulations of those governmental agencies having jurisdiction over the subject construction.

The grading contractor is responsible to notify governmental agencies, as required, and a representative of Twining at the start of site cleanup, at the initiation of grading, and any time that grading operations are resumed after an interruption. Each step of the grading should be evaluated in a specific area by a representative of Twining and, where required, should be approved by the applicable governmental agencies prior to proceeding with subsequent work.

The following site grading recommendations should be regarded as minimal. The site grading recommendations should be incorporated into the project plans and specifications.

1. Prior to grading, existing vegetation, trash, surface structures and debris should be removed and disposed off-site at a legal dumpsite. Any existing utility lines, or other subsurface structures, which are not to be utilized should be removed, destroyed, or abandoned in compliance with current governmental regulations and with concurrence from Twining, Inc.

2. Subsequent to clearing and grubbing, and prior to initial grading, a reasonable search should be made for subsurface obstructions and/or possible loose fill or detrimental soil types. This search should be conducted by the contractor, with advice from and under the observation of a representative of Twining, Inc.
3. Fill should be spread in 6- to 8-inch lifts and should be moisture conditioned and compacted in accordance with the recommendations presented in the Site Preparation and Earthwork section of this report. All undocumented fill or unsuitable soils within the building areas should be removed and compacted under observation and testing of a representative of Twining.
4. The exposed subgrade and/or excavation bottom should be observed and evaluated by a representative of Twining for conformance with the intent of the recommendations presented in this report and prior to any further processing or fill placement. It should be understood that the actual encountered conditions may warrant excavation and/or subgrade preparation beyond the extent recommended and/or anticipated in this report.
5. On-site inorganic granular soils that are free of debris or contamination and are not greater than 6 inches in largest dimension are considered suitable for placement as compacted fill. A representative of Twining, Inc. should provide guidance for suitability and placement of on-site clay fill materials.
6. Observation and field tests shall be performed during grading by a representative of Twining, Inc. in order to assist the contractor in obtaining the proper moisture content and required degree of compaction. Where less than the required degree of compaction is indicated, additional compactive effort and any necessary adjustments in the moisture content of the soil should be made to obtain the required compaction.
7. To evaluate the presence of satisfactory materials at design elevations, footing excavations should be observed to be clean of loosened soil and debris before placing steel or concrete and probed for soft areas. If soft or loose soils or unsatisfactory materials are encountered, these materials should be removed and replaced with compacted fill.
8. In the event that underground facilities such as pipes or underground storage tanks are encountered during grading, the appropriate authorities, property owners, and regulatory authorities should be notified. Removal of underground storage tanks is regulated by city or county health departments and/or by the fire department. In the event that tanks containing unknown substances are encountered, no attempts should be made to remove such objects until their contents have been ascertained and directions issued by competent professionals or regulators. Septic tanks should be removed entirely. Cesspools or seepage pits should be pumped of their contents and removed in their entirety. Water wells should be capped in accordance with the requirements of the appropriate regulatory agencies.
9. Wherever, in the opinion of a representative of Twining, Inc., an unsatisfactory condition is being created in any area, whether by cutting or filling, then the work should not proceed in that area until the condition has been corrected.

8. DESIGN REVIEW AND CONSTRUCTION MONITORING

Geotechnical review of plans and specifications is of paramount importance in engineering practice. The poor performance of many structures has been attributed to inadequate geotechnical review of construction documents. Additionally, observation and testing of the subgrade will be important to the performance of the proposed development. The following sections present our recommendations relative to the review of construction documents and the monitoring of construction activities.

8.1. Plans and Specifications

The design plans and specifications should be reviewed by Twining, Inc. prior to bidding and construction, as the geotechnical recommendations may need to be reevaluated in the light of the actual design configuration and loads. This review is necessary to evaluate whether the recommendations contained in this report and future reports have been properly incorporated into the project plans and specifications. Based on the work already performed, this office is best qualified to provide such review.

8.2. Construction Monitoring

Site preparation, removal of unsuitable soils, assessment of imported fill materials, fill placement, foundation installation, and other site grading operations should be observed and tested, as appropriate. The substrata exposed during the construction may differ from that encountered in the test excavations. Continuous observation by a representative of Twining, Inc. during construction allows for evaluation of the soil conditions as they are encountered, and allows the opportunity to recommend appropriate revisions where necessary.

9. LIMITATIONS

The recommendations and opinions expressed in this report are based on Twining, Inc.'s review of available background documents, on information obtained from field explorations, and on laboratory testing. It should be noted that this study did not evaluate the possible presence of hazardous materials on any portion of the site. In the event that any of our recommendations conflict with recommendations provided by other design professionals, we should be contacted to aid in resolving the discrepancy.

Due to the limited nature of our field explorations, conditions not observed and described in this report may be present on the site. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation and laboratory testing can be performed upon request. It should be understood that conditions different from those anticipated in this report may be encountered during grading operations, for example, the extent of removal of unsuitable soil, and that additional effort may be required to mitigate them.

Site conditions, including groundwater elevation, can change with time as a result of natural processes or the activities of man at the subject site or at nearby sites. Changes to the applicable laws, regulations, codes, and standards of practice may occur as a result of government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Twining, Inc. has no control.

Twining's recommendations for this site are, to a high degree, dependent upon appropriate quality control of subgrade preparation, fill placement, and foundation construction. Accordingly, the recommendations are made contingent upon the opportunity for Twining to observe grading operations and foundation

excavations for the proposed construction. If parties other than Twining are engaged to provide such services, such parties must be notified that they will be required to assume complete responsibility as the geotechnical engineer of record for the geotechnical phase of the project by concurring with the recommendations in this report and/or by providing alternative recommendations.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Twining should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

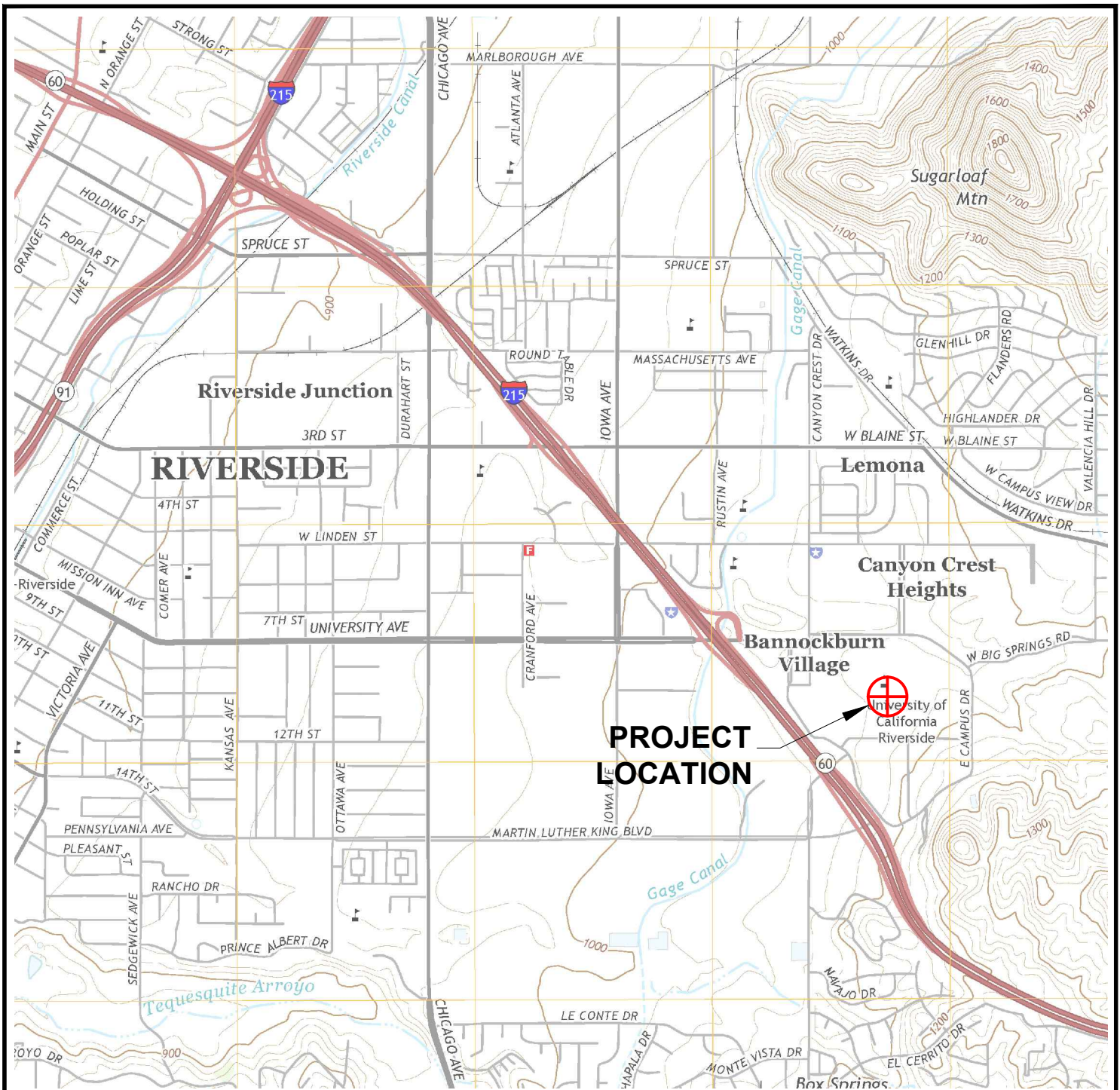
This report has been prepared for the exclusive use by the client and its agents for specific application to the proposed project. Land use, site conditions, or other factors may change over time, and additional work may be required with the passage of time. Based on the intended use of this report and the nature of the new project, Twining may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the Client or anyone else will release Twining from any liability resulting from the use of this report by any unauthorized party.

Twining performed its evaluation using the degree of care and skill ordinarily exercised under similar circumstances by reputable geotechnical professionals with experience in this area in similar soil conditions. No other warranty, either express or implied, is made as to the conclusions and recommendations contained in this report.

10. SELECTED REFERENCES

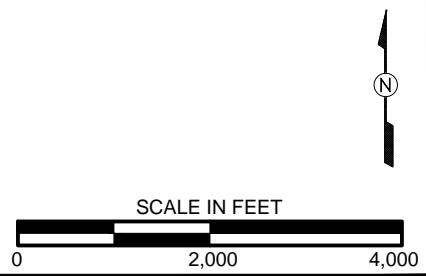
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- United States Geological Survey, 1998, Geologic Map of the Riverside East 7.5 Minute Quadrangles, California, scale 1:24,000.

FIGURES

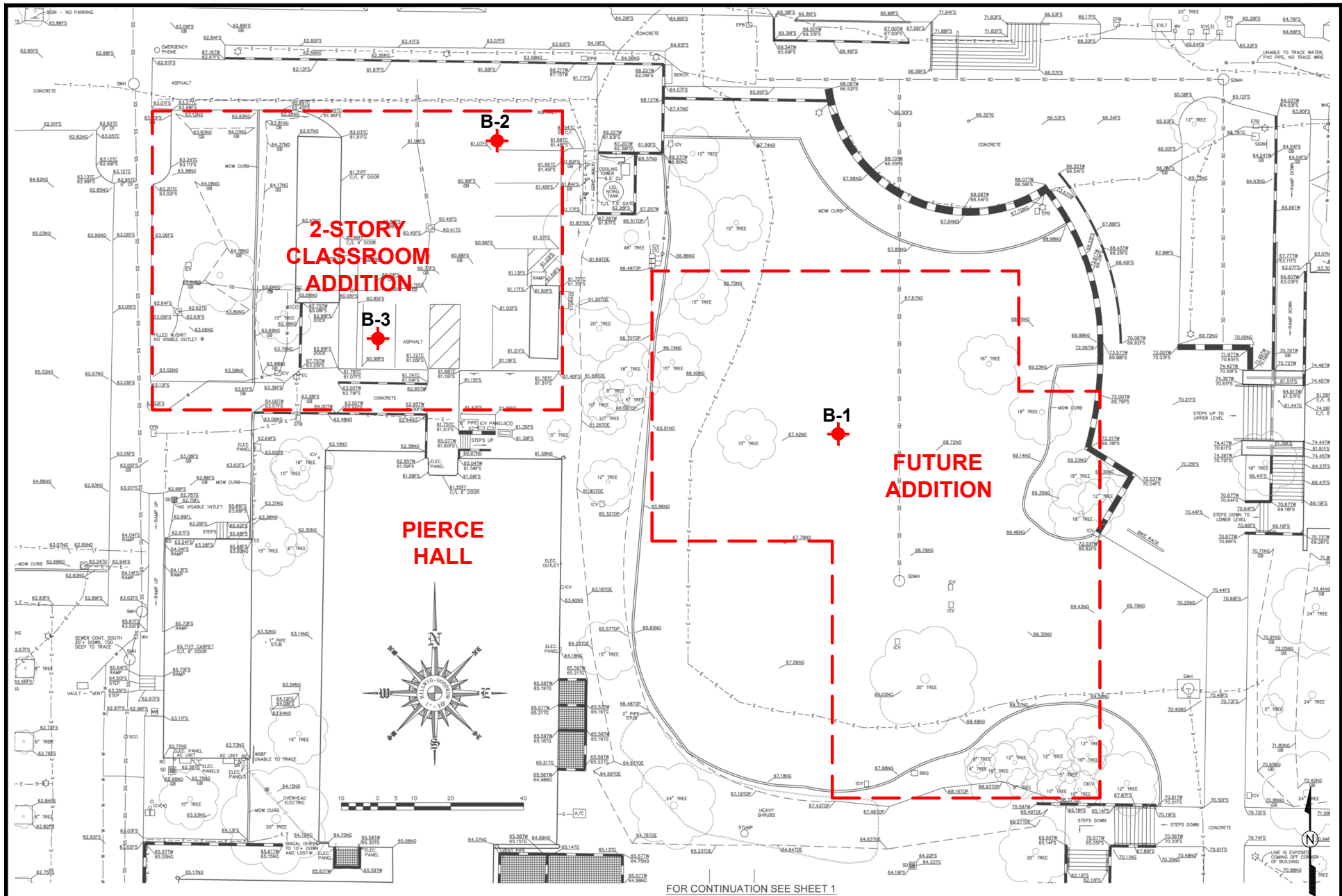


APPROXIMATE PROJECT COORDINATES
 LATITUDE: 33.9745°N
 LONGITUDE: 117.3268°W

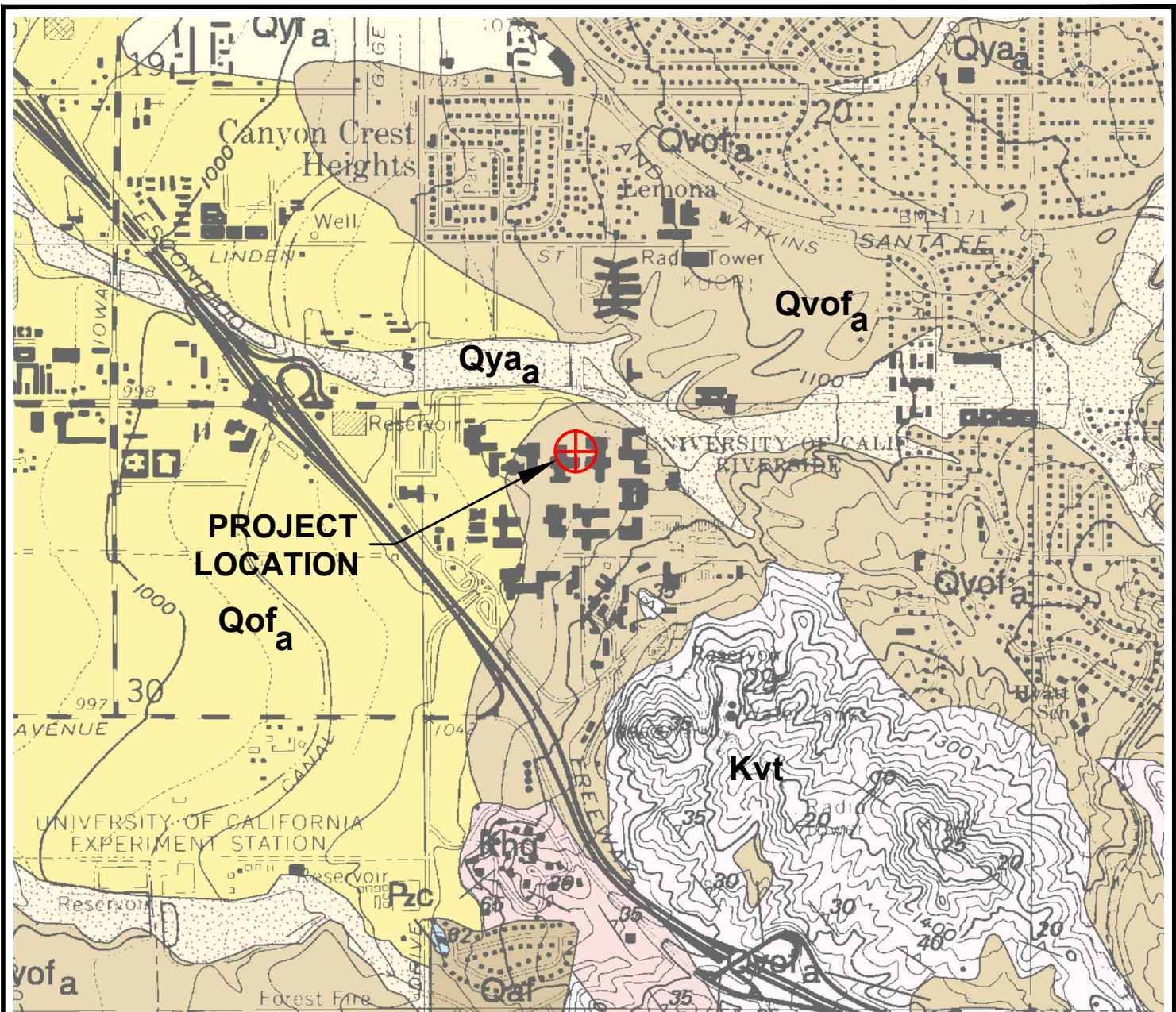
REFERENCE: UNITED STATES GEOLOGICAL SURVEY (2015)



			PROJECT LOCATION MAP		
			PIERCE HALL CLASSROOM ADDITION AND BUILDING RENOVATION UNIVERSITY OF CALIFORNIA, RIVERSIDE RIVERSIDE, CALIFORNIA		
PROJECT NO. 160060.3	REPORT DATE July 2016	FIGURE 1			



SITE PLAN AND BORING LOCATION MAP		
PIERCE HALL CLASSROOM ADDITION AND BUILDING RENOVATION UNIVERSITY OF CALIFORNIA, RIVERSIDE RIVERSIDE, CALIFORNIA		
PROJECT NO. 160060.3	REPORT DATE July 2016	FIGURE 2



LEGEND

- Qvof VERY OLD ALLUVIAL FAN DEPOSITS
- Qof OLD ALLUVIAL FAN DEPOSITS
- Qya YOUNG AXIAL CHANNEL DEPOSITS
- Kvt VAL VERDE TONALITE

- CONTACT-CONTACT BETWEEN GEOLOGIC UNITS; DOTTED WHERE CONCEALED.
- FAULT - SOLID WHERE ACCURATELY LOCATED; DASHED WHERE APPROXIMATELY LOCATED; DOTTED WHERE CONCEALED. U=UPTHROWN BLOCK, D=DOWNTHROWN BLOCK. ARROW AND NUMBER INDICATED DIRECTION AND ANGLE OF DIP TO FAULT PLANE
- STRIKE AND DIP OF IGNEOUS FOLIATION - INCLINED



REFERENCE: CALIFORNIA GEOLOGICAL SURVEY (2008)



REGIONAL GEOLOGIC MAP

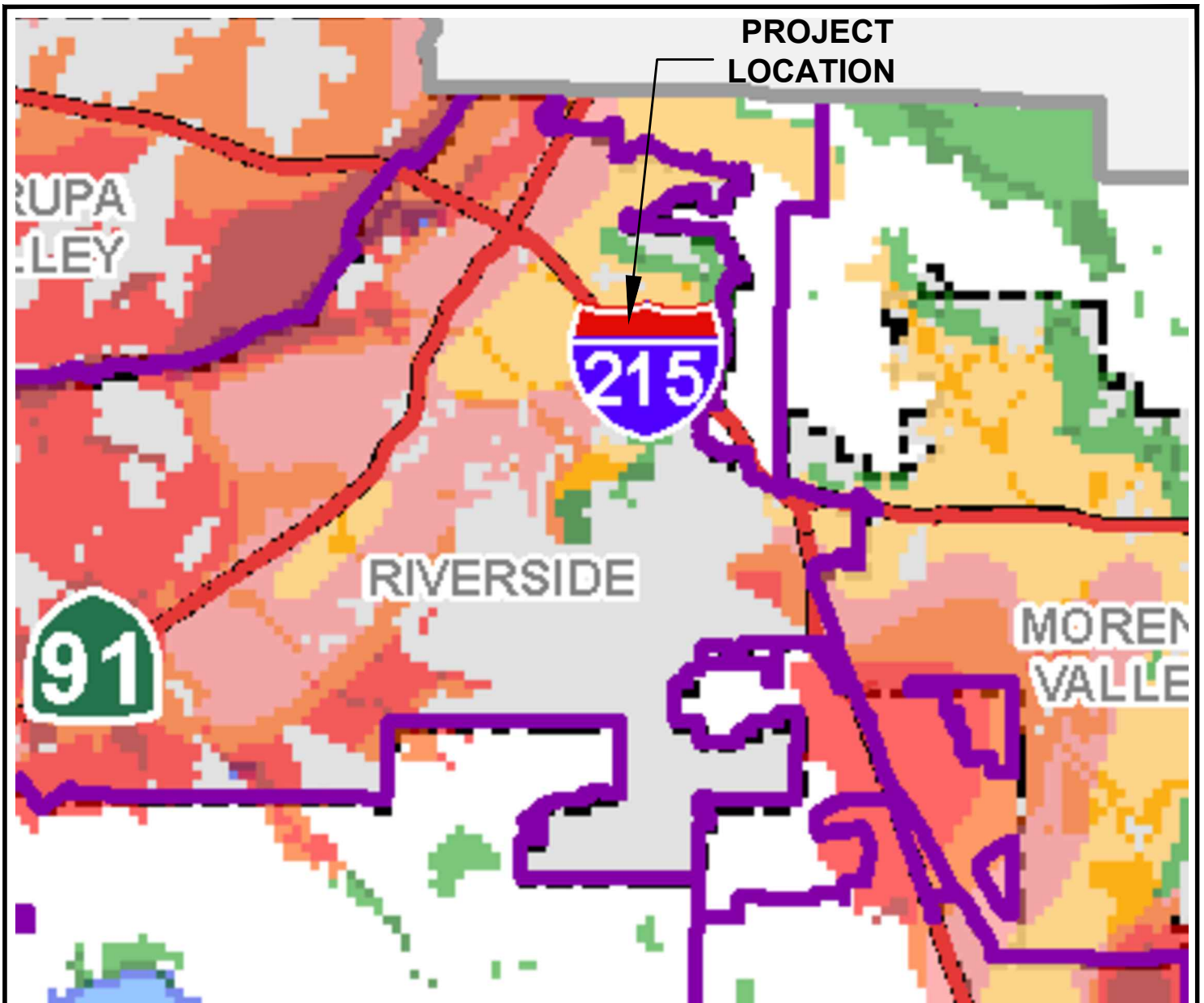
PIERCE HALL CLASSROOM ADDITION AND BUILDING RENOVATION
 UNIVERSITY OF CALIFORNIA, RIVERSIDE
 RIVERSIDE, CALIFORNIA

PROJECT NO.
160060.3

REPORT DATE
July 2016

FIGURE 3





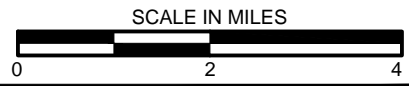
PROJECT LOCATION

RIVERSIDE

MORENO VALLE

LEGEND

Shallow Groundwater	Deep Groundwater	No Groundwater Data	Highways
Susceptible Sediments	Susceptible Sediments	Susceptible Sediments	Area Plan Boundary
Very High	Moderate	Moderate	City Boundary
High	Low	Low	Waterbodies
Moderate	Very Low	Very Low	
Low			
Very Low			



REFERENCE: RIVERSIDE COUNTY GENERAL PLAN (2015)

LIQUEFACTION POTENTIAL MAP

PIERCE HALL CLASSROOM ADDITION AND BUILDING RENOVATION
UNIVERSITY OF CALIFORNIA, RIVERSIDE
RIVERSIDE, CALIFORNIA



PROJECT NO.
160060.3

REPORT DATE
July 2016

FIGURE 4

Appendix A

Field Exploration

Appendix A Field Exploration

General

The subsurface exploration program for the proposed project consisted of drilling and logging three 8-inch diameter exploratory borings conducted at the site on June 15, 2016. The borings were advanced to approximate depth ranging between 26.5 feet and 51.5 feet below the existing grades. Drilling operations were performed with a truck-mounted CME-75 hollow-stem-auger drill rig supplied by 2R Drilling of Chino, California.

Drilling and Sampling

The Boring Logs are presented as Figures A-2 through A-4. An explanation of these logs is presented as Figure A-1. The Boring Logs describe the earth materials encountered, samples obtained, and show the field and laboratory tests performed. The log also shows the boring number, drilling date, and the name of the logger and drilling subcontractor. The borings were logged by an engineer using the Unified Soil Classification System. The boundaries between soil types shown on the logs are approximate because the transition between different soil layers may be gradual. Drive and bulk samples of representative earth materials were obtained from the borings.

Disturbed samples were obtained using a Standard Penetration Sampler (SPT). This sampler consists of a 2-inch O.D., 1.4-inch I.D. split barrel shaft that is advanced into the soil at the bottom of the drilled hole a total of 18 inches. The number of blows required to drive the sampler the final 12 inches is presented on the boring logs. Soil samples obtained by the SPT were retained in plastic bags.

A California modified sampler was used to obtain drive samples of the soil encountered. This sampler consists of a 3-inch outside diameter (O.D.), 2.4-inch inside diameter (I.D.) split barrel shaft that was driven a total of 12-inches into the soil at the bottom of the boring by a safety hammer weighing 140 pounds at a drop height of approximately 30 inches. The soil was retained in brass rings for laboratory testing. Additional soil from each drive remaining in the cutting shoe was usually discarded after visually classifying the soil. The number of blows required to drive the sampler the final 12 inches is presented on the boring logs.

Upon completion of the borings, the boreholes were backfilled with soil from the cuttings and patched with asphalt cold patch where needed.

UNIFIED SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS <small>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</small>	GRAVEL AND GRAVELLY SOILS <small>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</small>	CLEAN GRAVELS <small>(LITTLE OR NO FINES)</small>		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS <small>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</small>	CLEAN SANDS <small>(LITTLE OR NO FINES)</small>		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		CLEAN SANDS <small>(LITTLE OR NO FINES)</small>		SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		SM	SILTY SANDS, SAND - SILT MIXTURES
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS <small>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE</small>	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS	
			CH	INORGANIC CLAYS OF HIGH PLASTICITY	
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

COARSE-GRAINED SOILS

FINE-GRAINED SOILS

Relative Density	SPT (blows/ft)	Relative Density (%)	Consistency	SPT (blows/ft)
Very Loose	<4	0 - 15	Very Soft	<2
Loose	4 - 10	15 - 35	Soft	2 - 4
Medium Dense	10 - 30	35 - 65	Medium Stiff	4 - 8
Dense	30 - 50	65 - 85	Stiff	8 - 15
Very Dense	>50	85 - 100	Very Stiff	15 - 30
			Hard	>30

NOTE: SPT blow counts based on 140 lb. hammer falling 30 inches

LABORATORY TESTING ABBREVIATIONS

ATT	Atterberg Limits
C	Consolidation
CORR	Corrosivity Series
DS	Direct Shear
EI	Expansion Index
GS	Grain Size Distribution
K	Permeability
MAX	Moisture/Density (Modified Proctor)
O	Organic Content
RV	Resistance Value
SE	Sand Equivalent
SG	Specific Gravity
TX	Triaxial Compression
UC	Unconfined Compression

Sample Symbol	Sample Type	Description
	SPT	1.4 in. I.D., 2.0 in. O.D. driven sampler
	California Modified	2.4 in. I.D., 3.0 in. O.D. driven sampler
	Bulk	Retrieved from soil cuttings
	Thin-Walled Tube	Pitcher or Shelby Tube



EXPLANATION FOR LOG OF BORINGS

Pierce Hall Classroom Addition and Building Renovation
University of California, Riverside
Riverside, California

PROJECT NO.
160060.3

REPORT DATE
July 2016

FIGURE A-1

DATE DRILLED 6/15/2016 LOGGED BY AM **BORING NO.** B-1
 DRIVE WEIGHT 140 lbs. DROP 30 inches DEPTH TO GROUNDWATER (ft.) NE
 DRILLING METHOD 8" Hollow Stem DRILLER 2R Drilling SURFACE ELEVATION (ft.) 1070 ±(MSL)

ELEVATION (feet)	DEPTH (feet)	SAMPLES		BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
		Bulk	Driven							
									SM	<u>FILL (af):</u> Silty SAND; medium dense; brown; dry; mostly fine to medium SAND <u>VERY OLD ALLUVIAL FAN DEPOSITS (Qvof):</u> Silty SAND; medium dense; brown; dry; mostly fine to medium SAND
							CORR, MAX, RV		SM	
1065	5			22	3.5	111.9			SP-SM	Poorly graded SAND with SILT; medium dense; brown; dry; fine to medium SAND; trace SILT; trace GRAVEL
1060	10			65	3.2	107.9	CONSOL		SM	Silty SAND; medium dense; brown; dry; fine to coarse SAND; trace SILT; trace GRAVEL
1055	15			35	5.1	112.6				
1050	20			20						
1045	25			61	6.9	125.8				-- mostly fine SAND; dense
1040	30			36						
1035	35									

BORING LOG 160060.3 - UCR PIERCE HALL.GPJ TWINING LABS.GDT 7/8/16



LOG OF BORING

Pierce Hall Classroom Addition and Building Renovation
 University of California, Riverside
 Riverside, California

PROJECT NO.
160060.3

REPORT DATE
July 2016

FIGURE A - 2

DATE DRILLED 6/15/2016 LOGGED BY AM **BORING NO.** B-1
 DRIVE WEIGHT 140 lbs. DROP 30 inches DEPTH TO GROUNDWATER (ft.) NE
 DRILLING METHOD 8" Hollow Stem DRILLER 2R Drilling SURFACE ELEVATION (ft.) 1070 ±(MSL)

ELEVATION (feet)	DEPTH (feet)	SAMPLES		BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
		Bulk	Driven							
				51	5.8	124.4			SM	Silty SAND; medium dense; brown; dry; fine to coarse SAND; trace SILT; trace GRAVEL (<i>continued</i>)
1030	40			24						-- medium dense
1025	45			30						
1020	50			32						-- dense
1015	55									Total Depth = 51.5 feet Backfilled on 6/15/2016 Groundwater not encountered during drilling. Borehole backfilled with soil cuttings.
1010	60									
1005	65									
1000	70									

BORING LOG 160060.3 - UCR PIERCE HALL.GPJ TWINING LABS.GDT 7/8/16



LOG OF BORING

Pierce Hall Classroom Addition and Building Renovation
 University of California, Riverside
 Riverside, California

PROJECT NO.
160060.3

REPORT DATE
July 2016

FIGURE A - 2

DATE DRILLED 6/15/2016 LOGGED BY AM **BORING NO.** B-2
 DRIVE WEIGHT 140 lbs. DROP 30 inches DEPTH TO GROUNDWATER (ft.) NE
 DRILLING METHOD 8" Hollow Stem DRILLER 2R Drilling SURFACE ELEVATION (ft.) 1063 ±(MSL)

ELEVATION (feet)	DEPTH (feet)	SAMPLES		BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
		Bulk	Driven							
										ASPHALT CONCRETE: 4 inches
									SM	BASE: 4 inches
									SM	FILL (af): Silty SAND; medium dense; brown; dry; fine to medium SAND
1058	5			16			GS			VERY OLD ALLUVIAL FAN DEPOSITS(Qvof): Silty SAND; medium dense; brown; dry; fine to medium SAND
1053	10			74	16.3	113.7	CONSOL			-- dense
1048	15			25						-- medium dense
1043	20			50	1.8	111.8				
1038	25			29						
1033	30									Total Depth = 26.5 feet Backfilled on 6/15/2016 Groundwater not encountered during drilling. Borehole backfilled with soil cuttings.
1028	35									

BORING LOG 160060.3 - UCR PIERCE HALL.GPJ TWINING LABS.GDT 7/8/16



LOG OF BORING

Pierce Hall Classroom Addition and Building Renovation
 University of California, Riverside
 Riverside, California

PROJECT NO.
160060.3

REPORT DATE
July 2016

FIGURE A - 3

DATE DRILLED 6/15/2016 LOGGED BY AM **BORING NO.** B-3
 DRIVE WEIGHT 140 lbs. DROP 30 inches DEPTH TO GROUNDWATER (ft.) NE
 DRILLING METHOD 8" Hollow Stem DRILLER 2R Drilling SURFACE ELEVATION (ft.) 1063 ±(MSL)

ELEVATION (feet)	DEPTH (feet)	SAMPLES		BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
		Bulk	Driven							
									SM	ASPHALT CONCRETE: 5 inches
									SM	FILL (af): Silty SAND; medium dense; light brown; dry; fine to coarse SAND
1058	5			34	1.7	109.0	DS			VERY OLD ALLUVIAL FAN DEPOSITS(Qvof): Silty SAND; medium dense; light brown; dry; fine to coarse SAND
1053	10			70	6.3	127.6			SP-SM	Poorly graded SAND with SILT; dense; brown; slightly moist; fine SAND; little SILT
1048	15			34					SM	Silty SAND; dense; light brown; dry; fine to medium SAND
1043	20			62	7.3	128.6				-- fine SAND; brown; moderately cemented
1038	25			31						
										Total Depth = 26.5 feet Backfilled on 6/15/2016 Groundwater not encountered during drilling. Borehole backfilled with soil cuttings.
1033	30									
1028	35									

BORING LOG 160060.3 - UCR PIERCE HALL.GPJ TWINING LABS.GDT 7/8/16



LOG OF BORING

Pierce Hall Classroom Addition and Building Renovation
 University of California, Riverside
 Riverside, California

PROJECT NO.
160060.3

REPORT DATE
July 2016

FIGURE A - 4

Appendix B

Laboratory Testing

Appendix B Laboratory Testing

Laboratory Moisture Content and Density Tests

The moisture content and dry densities of driven samples obtained from the exploratory borings were evaluated in general accordance with the latest version of ASTM D 2937. The test results are presented on the logs of the exploratory borings in Appendix A.

Sieve Analysis

Sieve analysis was performed on one selected soil sample to evaluate particle size distribution in general accordance with ASTM D 1140. The result is presented in Figure B-1.

Maximum Dry Density-Optimum Moisture Content

One selected bulk sample was tested to evaluate the maximum dry density and optimum moisture content. The test was performed in general accordance with ASTM test method D 1557. The results are presented on Figure B-2.

Direct Shear Tests

Direct shear tests were performed on one selected relatively undisturbed soil samples in general accordance with ASTM D 3080 to evaluate the shear strength characteristics of the materials. The samples were inundated during shearing to represent adverse field conditions. Test results are presented on Figure B-3.

Consolidation Tests

Consolidation tests were performed on two selected sample in general accordance with the latest version of ASTM D 2435. The samples were inundated during testing to represent adverse field conditions. The percent consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the sample. The results of the test are presented on Figure B-4 and B-5.

Corrosivity

Soil pH and resistivity tests were performed by Anaheim Test Laboratories on a representative soil samples in general accordance with the latest version of California Test Method 643. The chloride content of the selected samples was evaluated in general accordance with the latest version of California Test Method 422. The sulfate content of the selected samples was evaluated in general accordance with the latest version of California Test Method 417. The test results are presented on Table B-1.

**Table B-1
Corrosivity Test Results**

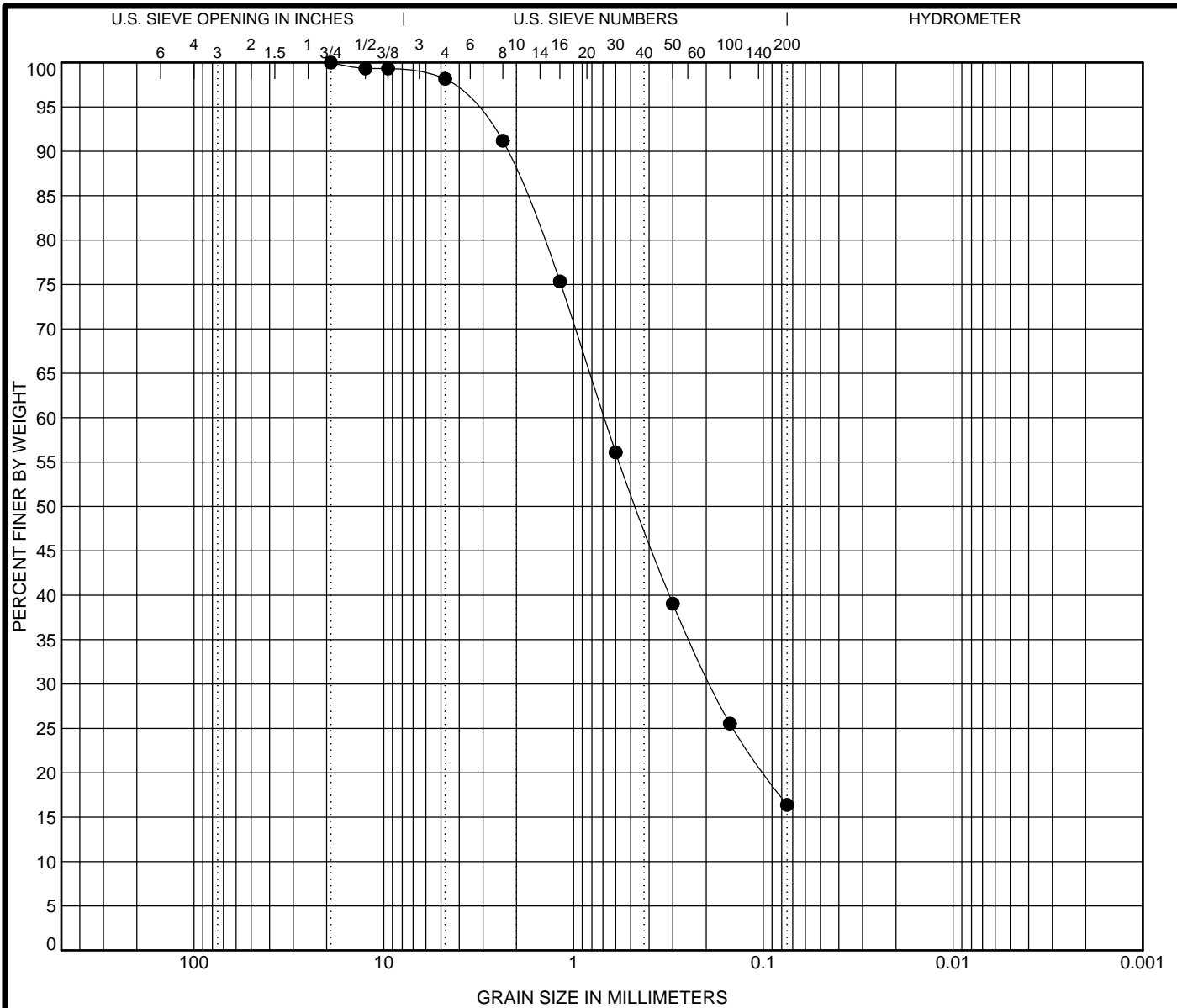
Boring No.	Depth (feet)	pH	Water Soluble Sulfate (ppm)	Water Soluble Chloride (ppm)	Minimum Resistivity (ohm-cm)
B-1	0 – 5	7.8	107	99	7,600

Resistance Value (R-Value)

R-value testing was performed on a select bulk sample of the near-surface soils encountered at the site. The test was performed in general accordance with ASTM D 28444. The results are summarized in Table B-2.

Table B-3
Resistance Value (R-Value)

Boring No.	Depth (feet)	R-Value
B-1	0 – 5	49



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Sample Location	U.S.C.S. Classification						Cc	Cu
● B-2 at 5 ft	Silty SAND							
D ₁₀₀	D ₆₀	D ₅₀	D ₃₀	D ₁₀	%Gravel	%Sand	%Silt	%Clay
19	0.688	0.468	0.189		1.8	81.8	16.4	

GRAIN SIZE 160060.3 - UCR PIERCE HALL.GPJ TWINING LABS.GDT 7/6/16

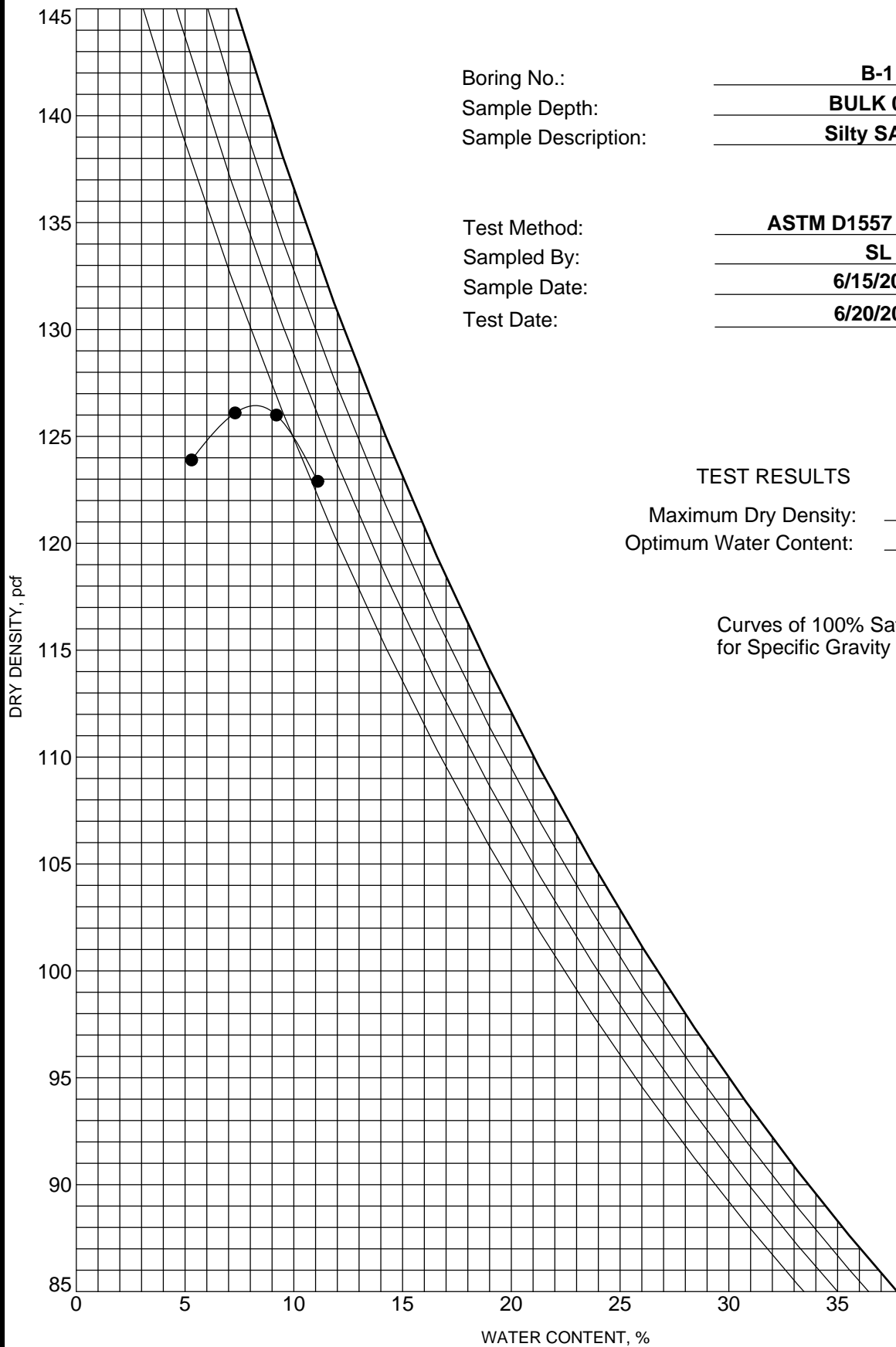


GRAIN SIZE DISTRIBUTION

Pierce Hall Classroom Addition and Building Renovation
University of California, Riverside
Riverside, California

PROJECT NO. 160060.3	REPORT DATE July 2016	FIGURE B- 1
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COMPACTION (MODIFIED BY PAUL) 160060.3 - UCR PIERCE HALL.GPJ TWINING LABS.GDT 7/6/16



Boring No.: B-1
 Sample Depth: BULK 0-5'
 Sample Description: Silty SAND

Test Method: ASTM D1557 Method A
 Sampled By: SL
 Sample Date: 6/15/2016
 Test Date: 6/20/2016

TEST RESULTS
 Maximum Dry Density: 126.4 pcf
 Optimum Water Content: 8.3 %

Curves of 100% Saturation
 for Specific Gravity Equal to:

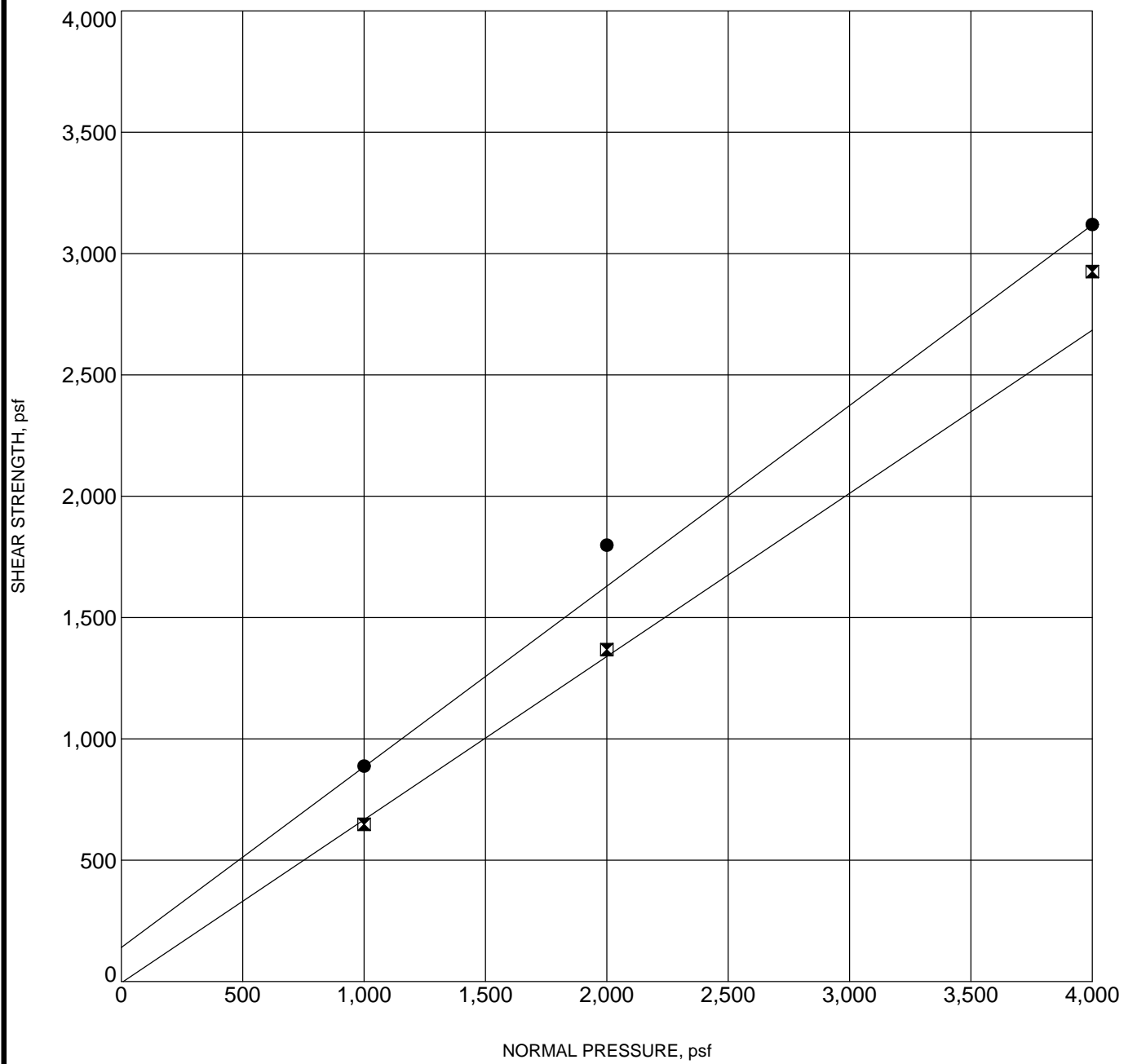
- 2.80
- 2.70
- 2.60
- 2.50



MOISTURE-DENSITY RELATIONSHIP

Pierce Hall Classroom Addition and Building Renovation
 University of California, Riverside
 Riverside, California

PROJECT NO. 160060.3	REPORT DATE July 2016	FIGURE B-2
-------------------------	--------------------------	------------



Boring No.: B-3
Sample Depth (ft): 5
Sample Description: Silty SAND
Strain Rate (in./min): 0.005
Dry Density (pcf): 109.0

Shear Strength Parameters
Peak —●— **Ultimate** —✕—
Cohesion, C (psf): 140 0
Friction Angle, ϕ (deg): 36 34
Initial Moisture (%): 1.7
Final Moisture (%): 19.9

DIRECT SHEAR 160060.3 - UCR PIERCE HALL.GPJ TWINING LABS.GDT 7/8/16



DIRECT SHEAR TEST

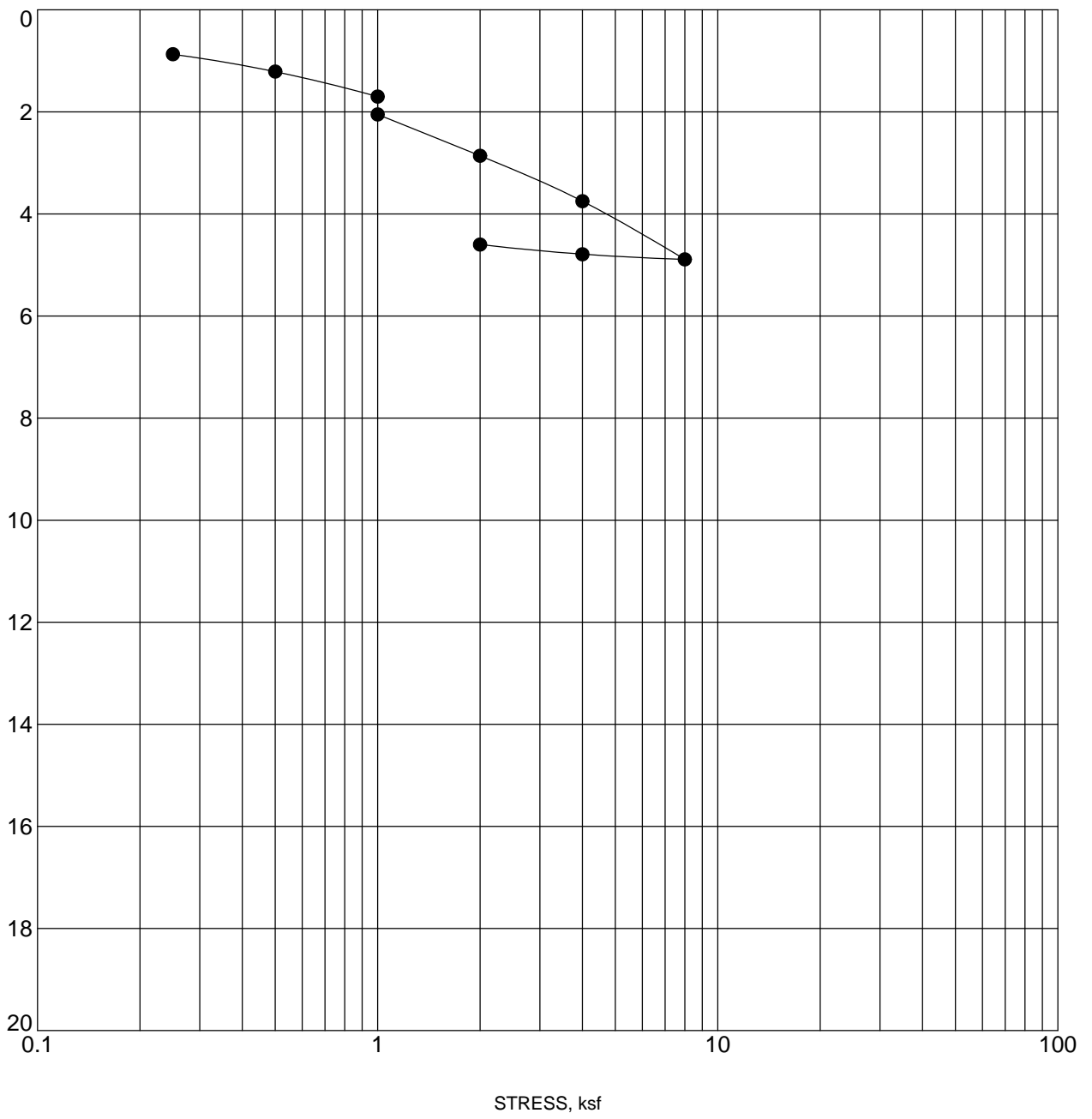
Pierce Hall Classroom Addition and Building Renovation
University of California, Riverside
Riverside, California

PROJECT NO.
160060.3

REPORT DATE
July 2016

FIGURE B-3

STRAIN, %



Sample Location	Soil Description	Dry Density (pcf)	Moisture Content (%)
● B-1 at 10 ft	Silty SAND	99.9	3.2

CONSOL STRAIN_160060.3 - UCR PIERCE HALL.GPJ TWINING LABS.GDT 7/6/16

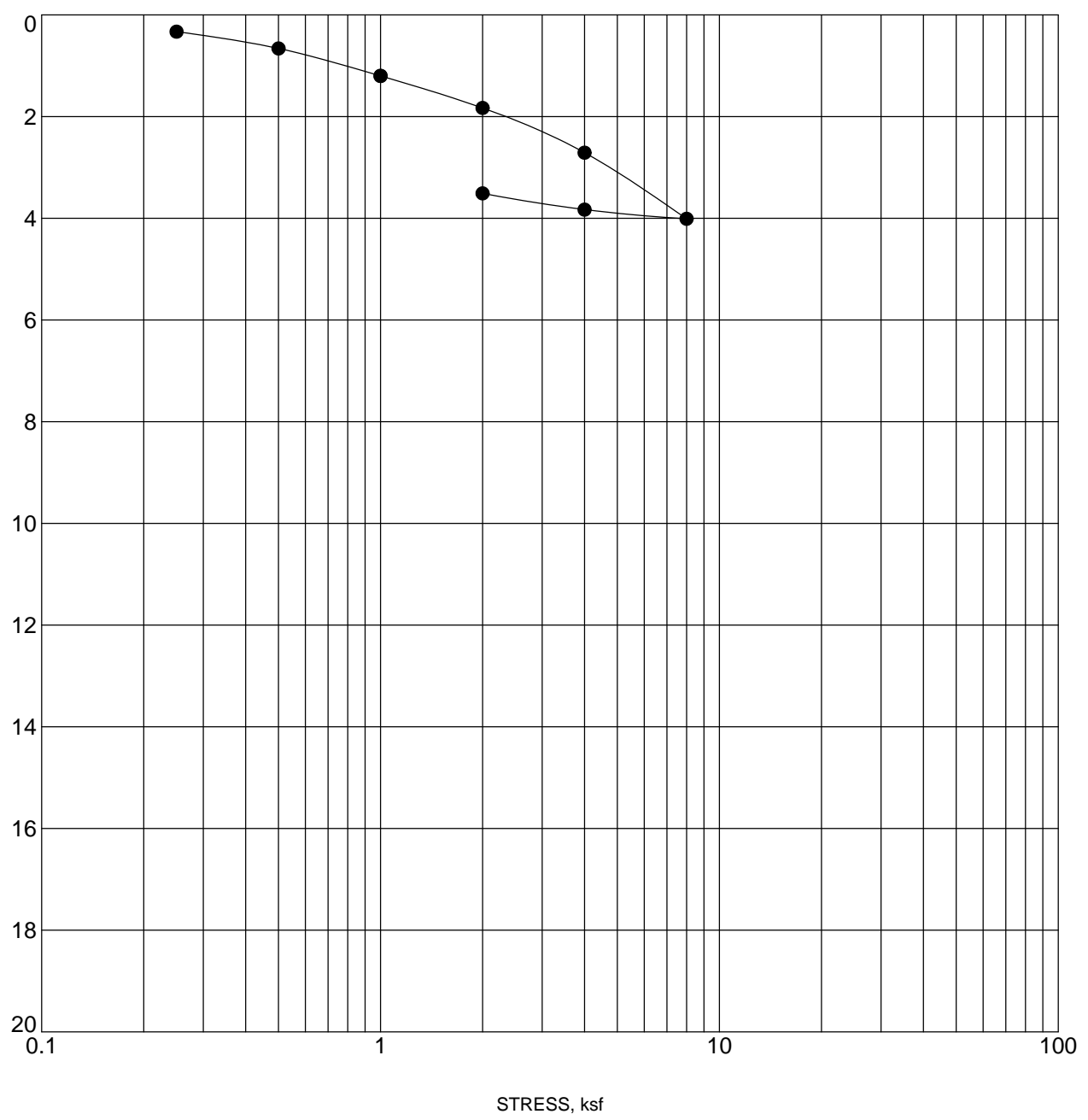


CONSOLIDATION TEST

Pierce Hall Classroom Addition and Building Renovation
University of California, Riverside
Riverside, California

PROJECT NO. 160060.3	REPORT DATE July 2016	FIGURE B-4
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STRAIN, %



Sample Location	Soil Description	Dry Density (pcf)	Moisture Content (%)
● B-2 at 10 ft	Silty SAND	105.3	16.3

CONSOL STRAIN 160060.3 - UCR PIERCE HALL.GPJ TWINING LABS.GDT 7/6/16



CONSOLIDATION TEST

Pierce Hall Classroom Addition and Building Renovation
University of California, Riverside
Riverside, California

PROJECT NO. 160060.3	REPORT DATE July 2016	FIGURE B-5
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2883 East Spring Street
Suite 300
Long Beach CA 90806

Tel 562.426.3355
Fax 562.426.6424

May 5, 2017
Project No. 170358.3

Mr. Blythe R. Wilson
Senior Project Manager
University of California Riverside
1223 University Avenue
Riverside, California 92507



Subject: Percolation Testing Report
Pierce Hall Classroom Addition and Building Renovation Project
University of California Riverside
Riverside, California

Dear Mr. Wilson:

Twining, Inc. (Twining) is pleased to present our percolation testing results for the project site. The purpose of this report is to evaluate the infiltration rates of on-site soil regarding the feasibility of the stormwater infiltration system.

Based on the information provided by the civil engineer, the desired percolation testing locations and depths are assigned. Twining has performed the percolation testing on April 25, 2017. The percolation testing locations are depicted on Figure 1 – Site Plan.

Field Exploration

Two soil borings were excavated to approximately 10 and 30 feet below the existing ground surface. The boring was excavated using an eight-inch hollow-stem-auger, truck-mounted drill rig.

Subsurface Earth Materials

Earth materials encountered during our subsurface exploration consist of predominately silty sand to the maximum drilled depths. The detailed boring logs are attached at the end of report.

Groundwater

Groundwater was not encountered within the deepest exploratory boring at a depth of approximately 30 feet below the existing grade. Based on our review of the California Water Resource website, the groundwater level is reportedly situated at a depth greater than 150 feet below the ground surface. Groundwater conditions may vary across the site due to stratigraphic and hydrologic conditions, and may change over time as a consequence of seasonal and meteorological fluctuations, or of activities by humans at this and nearby sites.



Percolation Testing

Percolation testing was performed utilizing the soil borings on April 25, 2017 in accordance with the Riverside County Design Handbook for Low Impact Development Best Management Practices. After installing pipe and filter rock, borehole was presoaked for two hours prior to testing.

After presoaking, the boreholes were filled with water to take measurements at 10-minute intervals for a total of 6 readings. The minimum drop from the last 3 readings was used to determine the infiltration rate at each testing location. Our recommended design infiltration rate is presented in Table 1, and detailed data is attached at the end of report.

Table 1, Recommended Design Infiltration Rate

Boring Location	Testing Depth (Perforated Pipe Section) (feet)	Design Infiltration Rate (inch/hour)
P-1	25 to 30	0.5
P-2	5 to 10	1.2

Conclusions and Recommendations

Based on the results of our field testing and engineering evaluation, it is our opinion that infiltration BMP system is feasible from a geotechnical standpoint, provided that the recommendations in this report are incorporated into the design plans and are implemented during construction. The followings are our conclusions and recommendations:

- The recommended design infiltration rates are presented on Table 1.
- The infiltration system shall be located at least 15 feet away from any existing and proposed building foundations.

Limitations

Due to the limited nature of our field exploration, conditions not observed and described in this report may be present on the site. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation can be performed upon request. It should be understood that conditions different from those anticipated in this report may be encountered during construction.

Site conditions, including groundwater elevation, can change with time as a result of natural processes or that activities of man at the subject site or at nearby sites. Changes to applicable laws, regulations, codes, and standards of practice may occur as a result of government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Twining Consulting has no control.




We have endeavored to perform our evaluation using the degree of care and skill ordinarily exercised under similar circumstances by engineering professionals with experience in this area. No other warranty, either expressed or implied, is made as to the conclusions contained in this report.

Closure

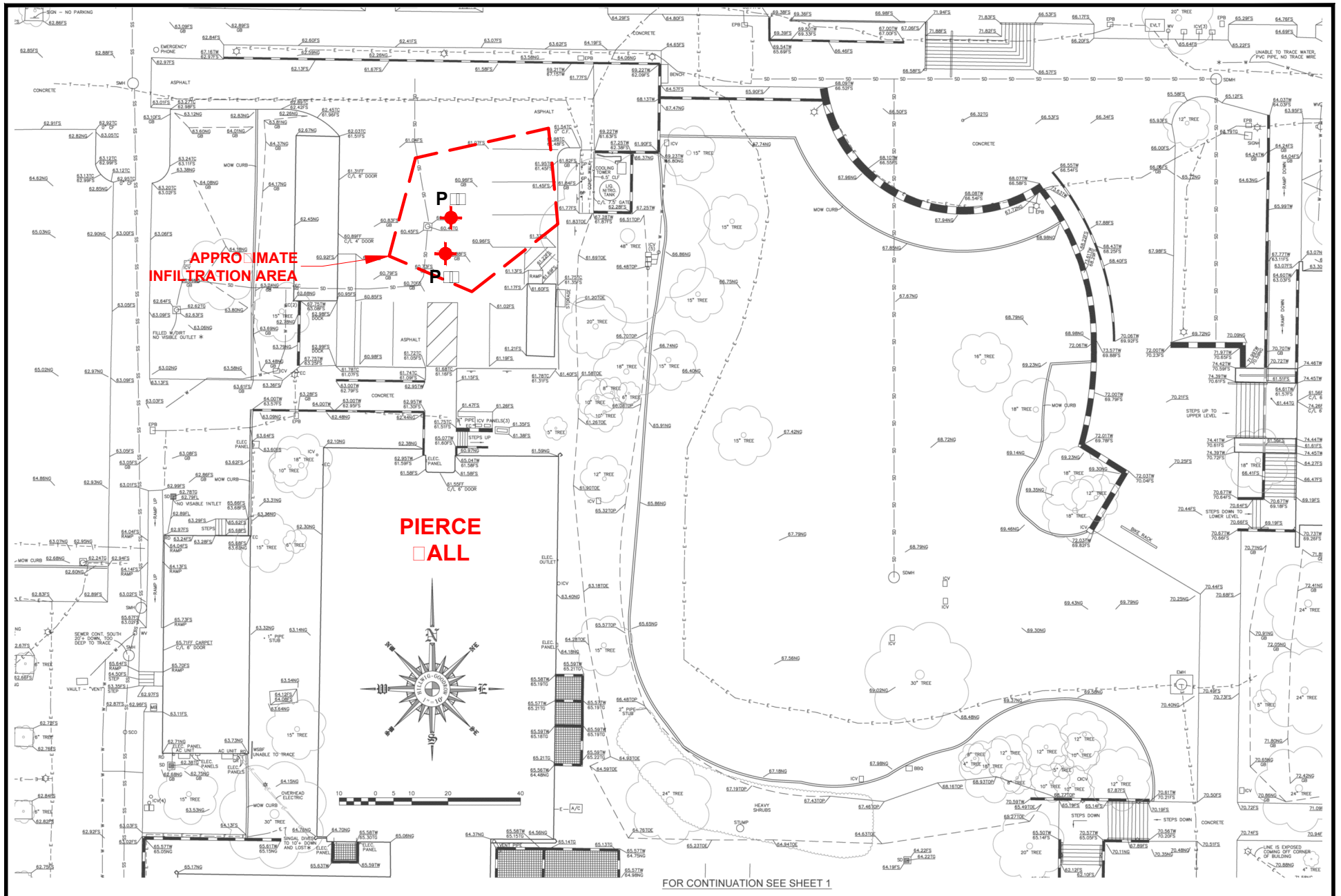
We appreciated the opportunity to be of service on this project. If you have any questions regarding this report, or if we can be of further service, please do not hesitate to contact the undersigned at (562) 426-3355.

Respectfully submitted,
TWINING, INC.


Sean Lin, GE 2921
Chief Geotechnical Engineer



Attachment(s): Figure 1 – Site Plan
 Figure A-1 thru A-3 – Logs of Boring
 Percolation Test Results



LE EN



APPROXIMATE LOCATION OF PERCOLATION TEST

SITE PLAN

Pierce Hall Percolation Testing
University of California, Riverside
Riverside, California

PROJECT NO. 170358.3	REPORT DATE May 2017	FIGURE 1
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UNIFIED SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS <small>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</small>	GRAVEL AND GRAVELLY SOILS <small>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</small>	CLEAN GRAVELS <small>(LITTLE OR NO FINES)</small>		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS <small>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</small>	CLEAN SANDS <small>(LITTLE OR NO FINES)</small>		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		CLEAN SANDS <small>(LITTLE OR NO FINES)</small>		SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		SM	SILTY SANDS, SAND - SILT MIXTURES
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS <small>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE</small>	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS	
			CH	INORGANIC CLAYS OF HIGH PLASTICITY	
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

COARSE-GRAINED SOILS

FINE-GRAINED SOILS

Relative Density	SPT (blows/ft)	Relative Density (%)	Consistency	SPT (blows/ft)
Very Loose	<4	0 - 15	Very Soft	<2
Loose	4 - 10	15 - 35	Soft	2 - 4
Medium Dense	10 - 30	35 - 65	Medium Stiff	4 - 8
Dense	30 - 50	65 - 85	Stiff	8 - 15
Very Dense	>50	85 - 100	Very Stiff	15 - 30
			Hard	>30

NOTE: SPT blow counts based on 140 lb. hammer falling 30 inches

LABORATORY TESTING ABBREVIATIONS

ATT	Atterberg Limits
C	Consolidation
CORR	Corrosivity Series
DS	Direct Shear
EI	Expansion Index
GS	Grain Size Distribution
K	Permeability
MAX	Moisture/Density (Modified Proctor)
O	Organic Content
RV	Resistance Value
SE	Sand Equivalent
SG	Specific Gravity
TX	Triaxial Compression
UC	Unconfined Compression

Sample Symbol	Sample Type	Description
	SPT	1.4 in I.D., 2.0 in. O.D. driven sampler
	California Modified	2.4 in. I.D., 3.0 in. O.D. driven sampler
	Bulk	Retrieved from soil cuttings
	Thin-Walled Tube	Pitcher or Shelby Tube



TWINING

EXPLANATION FOR LOG OF BORINGS

Pierce Hall Percolation Testing
University of California, Riverside
Riverside, California

PROJECT NO.
170358.3

REPORT DATE
May 2017

FIGURE A-1

DATE DRILLED 4/25/2017 LOGGED BY AM **BORING NO.** P-1
 DRIVE WEIGHT 140 lbs. DROP 30 inches DEPTH TO GROUNDWATER (ft.) NE
 DRILLING METHOD 8" Hollow Stem DRILLER 2R Drilling SURFACE ELEVATION (ft.) ±(MSL)

DEPTH (feet)	SAMPLES		BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
	Bulk	Driven						
0							SM	<u>ASPHALT CONCRETE: 4 inches</u> Silty SAND; medium dense to dense; brown; dry
5								
10								
15								
20								
25								--boring screened between 25 and 30 feet, percolation test performed
30			24					Total Depth = 30.0 feet Backfilled on 4/25/2017 Groundwater not encountered during drilling. Screen removed, borehole backfilled with soil cuttings.
35								

BORING LOG 170358.3 - PIERCE HALL PERCOLATION TESTING.GPJ TWINING LABS.GDT 5/5/17



LOG OF BORING

Pierce Hall Percolation Testing
 University of California, Riverside
 Riverside, California

PROJECT NO. 170358.3	REPORT DATE May 2017	FIGURE A - 2
-------------------------	-------------------------	--------------

DATE DRILLED 4/25/2017 LOGGED BY AM **BORING NO.** P-2
 DRIVE WEIGHT 140 lbs. DROP 30 inches DEPTH TO GROUNDWATER (ft.) NE
 DRILLING METHOD 8" Hollow Stem DRILLER 2R Drilling SURFACE ELEVATION (ft.) ±(MSL)

DEPTH (feet)	SAMPLES		BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
	Bulk	Driven						
0							SM	<p><u>ASPHALT CONCRETE: 4 inches</u></p> <p>Silty SAND; medium dense; brown; dry</p>
5								<p>--boring screened between 5 and 10 feet, percolation test performed</p>
10			43					<p>Total Depth = 10.0 feet Backfilled on 4/25/2017 Groundwater not encountered during drilling. Screen removed, borehole backfilled with soil cuttings.</p>
15								
20								
25								
30								
35								

BORING LOG 170358.3 - PIERCE HALL PERCOLATION TESTING.GPJ TWINING LABS.GDT 5/5/17



LOG OF BORING

Pierce Hall Percolation Testing
 University of California, Riverside
 Riverside, California

PROJECT NO.
170358.3

REPORT DATE
May 2017

FIGURE A - 3

Infiltration Rate Calculation Sheet

Project :	Pierce Hall	Project No. :	170358.3	Date :	4/25/2017
Test Hole No.:	P-1	Tested by :	SL		
Depth of Test Hole, D_T (in):	360	USCS Soil Classification :	SM		
Test Hole Dimension (inches)			Length	Width	
Diameter (if round) (inches) =	8	Sides (if rectangular) =			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6" ? (Y/N)
1	7:30 AM	7:55 AM	25	241.8	277.2	35.4	Y
2	8:00 AM	8:25 AM	25	195.0	226.0	31.0	Y

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt	H_o	H_f	ΔH	Tested Infiltration Rate
1	9:30 AM	9:40 AM	10	123.36	110.52	12.84	1.3
2	9:40 AM	9:50 AM	10	110.52	97.08	13.44	1.5
3	9:50 AM	10:00 AM	10	97.08	84.96	12.12	1.6
4	10:00 AM	10:10 AM	10	84.96	75.00	9.96	1.5
5	10:10 AM	10:20 AM	10	75.00	66.96	8.04	1.3
6	10:20 AM	10:30 AM	10	66.96	61.20	5.76	1.0
7							
8							
9							
10							
11							
12							
13							
14							
15							

Recommended Infiltration Rate = Min. Tested Rate/2 = 0.5 inch /hr

Infiltration Rate Calculation Sheet

Project :	Pierce Hall	Project No. :	170358.3	Date :	4/25/2017
Test Hole No.:	P-2	Tested by :	SL		
Depth of Test Hole, D_T (in):	120	USCS Soil Classification :	SM		
Test Hole Dimension (inches)			Length	Width	
Diameter (if round) (inches) =	8	Sides (if rectangular) =			

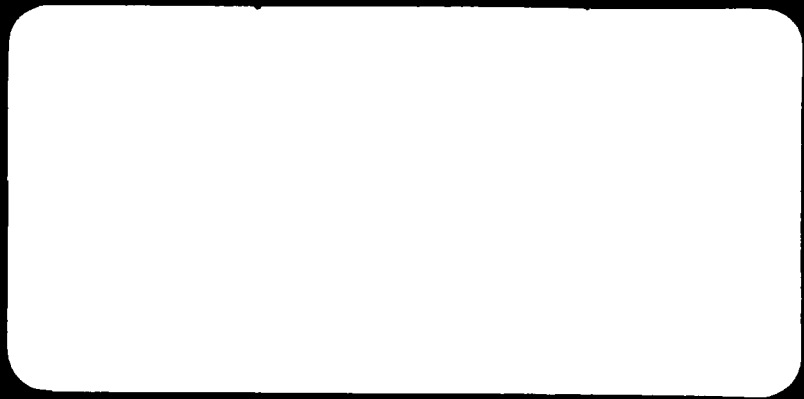
Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6" ? (Y/N)
1	8:15 AM	8:40 AM	25	72.0	108.4	36.4	Y
2	8:45 AM	8:10 AM	25	74.4	106.8	32.4	Y

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt	H_o	H_f	ΔH	Tested Infiltration Rate
1	10:38 AM	10:48 AM	10	16.56	12.00	4.56	3.4
2	10:48 AM	10:58 AM	10	12.00	8.40	3.60	3.5
3	11:09 AM	11:19 AM	10	15.48	12.12	3.36	2.6
4	11:19 AM	11:29 AM	10	12.12	9.60	2.52	2.4
5	11:42 AM	11:52 AM	10	16.20	12.84	3.36	2.4
6	11:52 AM	12:02 PM	10	12.84	9.60	3.24	2.9
7							
8							
9							
10							
11							
12							
13							
14							
15							

Recommended Infiltration Rate = Min. Tested Rate/2 = 1.2 inch /hr



**GEOTECHNICAL INVESTIGATION
PROPOSED INTERDISCIPLINARY STUDIES BUILDING
UNIVERSITY OF CALIFORNIA
RIVERSIDE CAMPUS
RIVERSIDE, CALIFORNIA
PREPARED FOR
UNIVERSITY OF CALIFORNIA
UCR PROJECT NO. 950377
CHJ JOB NO. 02339-3**

**C****H****J****INCORPORATED**

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April 24, 2002

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Office of Design & Construction
3615A Canyon Crest Drive
Riverside, California 92507
Attention: Mr. Ted Chiu

Job No. 02339-3

Dear Mr. Chiu:

Attached herewith is the Geotechnical Investigation report, prepared for the proposed Interdisciplinary Studies Building to be constructed on the campus of the University of California, Riverside, California.

We appreciate this opportunity to provide geotechnical services for this project. If you have questions or comments concerning this report, please contact this firm at your convenience.

Respectfully submitted,
C.H.J., INCORPORATED


Ben Williams, Senior Staff Engineer

HSH/BW/FY/JJM/RJJ:sra

Distribution: University of California (6)

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GEOTECHNICAL INVESTIGATION
PROPOSED INTERDISCIPLINARY STUDIES BUILDING
UNIVERSITY OF CALIFORNIA
RIVERSIDE CAMPUS
RIVERSIDE, CALIFORNIA
PREPARED FOR
UNIVERSITY OF CALIFORNIA
UCR PROJECT NO. 950377
CHJ JOB NO. 02339-3

INTRODUCTION

During April of 2002, a geotechnical investigation for the proposed Interdisciplinary Studies Building, to be located west of the Commons and southwest of the Physical Education Building on the University of California, Riverside (UCR) campus, was performed by this firm. The purpose of this investigation was to explore and evaluate the geotechnical conditions within the proposed structure area and to provide appropriate geotechnical and geologic recommendations for design and construction of the proposed structure.

To orient our investigation at the site, a photocopy of an approximately 250-scale Project Site Map and a proposed Interdisciplinary Studies Building Footprint, prepared by University of California, Riverside, dated August 14, 2001, was furnished for our use. We also utilized the current topographic map of the campus. The approximate location of the site is shown on the attached Index Map (Enclosure "A-1").

The results of our investigation, together with our conclusions and recommendations, are presented in this report.

SCOPE OF SERVICES

The scope of services provided during this geotechnical investigation included the following:

- Review of pertinent geotechnical literature and maps
- Review and analysis of stereoscopic aerial photographs flown in 1931, 1957, 1974, 1990, 1995, and 2001
- A geologic field reconnaissance of the site and surrounding area
- Placement of six exploratory borings on the site
- Logging and sampling of the exploratory borings for testing and evaluation
- Laboratory testing on selected samples
- Evaluation of the geotechnical data to develop site-specific recommendations for site grading, foundation design, and mitigation of potential geotechnical constraints.

PROJECT CONSIDERATIONS

It is our understanding that the site will be developed with a four-story building of either concrete or steel frame type construction. The foundation configuration and loads are not known at this time. The proposed elevation of the structure is not known at this time; however, it is anticipated that the structure will be constructed within 2 to 3 feet of the existing grade.

The grading plan was not available at the time of our investigation. The general topography and observation of the nearby development indicates that the development of this site will entail minimal cuts and fills (approximately 2 to 3 feet). The final grading plan should be reviewed by the geotechnical engineer.

SITE DESCRIPTION

The subject structure is located within the campus of UCR in Riverside, California. East of the site is the Commons, and northeast of the site is the Physical Education Building. To the west and to the south of the site are lawn/landscape areas and sidewalks.

At the time of our investigation, the subject site consisted of a vacant area with near planar topography, covered with grass and few trees. Evidence of underground utilities was noted in areas of the subject site. A few concrete sidewalks crossed the site.

Review of stereoscopic aerial photographs dating back to 1931 indicates that the site had been previously utilized for agricultural purposes (groves).

No other surface feature pertinent to this investigation were noted.

FIELD INVESTIGATION

The soil conditions underlying the subject site were explored by means of six exploratory borings drilled to a maximum depth of 51.0 feet below the existing ground surface with a truck-mounted CME 55 drill rig equipped for soil sampling. The approximate locations of our exploratory borings are indicated on the attached Plat (Enclosure "A-2").

Continuous logs of the subsurface conditions, as encountered within the exploratory borings, were recorded at the time of drilling by a staff geologist from this firm. Relatively undisturbed samples were

obtained by driving a split-spoon ring sampler ahead of the borings at selected levels. After the required seating of the sampler, the number of hammer blows required to advance the sampler a total of 12 inches was converted to equivalent standard penetration test (SPT) blow counts (N_{60}) data and recorded on the boring logs. Undisturbed as well as bulk samples of typical soil types obtained were returned to the laboratory in sealed containers for testing and evaluation.

Our exploratory boring logs, together with our equivalent SPT- N_{60} data, are presented in Appendix "B". The stratification lines presented on the boring logs represent approximate boundaries between soil types, which may include gradual transitions.

LABORATORY INVESTIGATION

Included in our laboratory testing program were field moisture content determinations on all samples returned to the laboratory and field dry densities on all undisturbed samples. The results are included on the boring logs.

Optimum moisture content - maximum dry density relationships were established for typical soil types. Direct shear and consolidation tests were performed on selected samples in order to provide shear strength and consolidation parameters for bearing capacity, earth pressure, and settlement evaluations.

Sieve analyses were performed on selected samples for soil classification purpose.

A selected sample of material was delivered to Del Mar Analytical Laboratory for soluble sulfate analysis.

Our laboratory test results are presented in Appendix "C".

SITE GEOLOGY AND SUBSURFACE SOIL CONDITIONS

The site is located on the Perris Block, a portion of the Peninsular Ranges Geomorphic Province. The Perris Block is a fault-bounded region of relative tectonic stability, a mass of relatively high land composed of crystalline bedrock thinly and discontinuously mantled by sedimentary material (Woodford and others, 1971). A Geologic Index Map (Morton and Cox, 1994) is included as Enclosure "A-3".

The site is located on an alluvial fan emanating from the Box Springs Mountains located east and south of the site. The alluvial fan is characterized by a slightly elevated and incised geomorphic surface. The native materials associated with this surface consist of reddish-brown silty sands and sands with minor

amounts of clay. The clay-bearing soils result from a long period of exposure and weathering. Based on the degree of soil development, the reddish-brown alluvium is considered to be at least late Pleistocene in age (greater than approximately 11,000 years). As such, the native materials at the site are designated as older alluvium in this report. Based upon our equivalent SPT blow counts and density data, the older alluvium encountered is generally in place in a medium dense to very dense state.

Based upon our exploratory boring data the native soils encountered were typically comprised of fine to medium grained silty sands.

Below the upper soils, which have been disturbed by root growth, the surficial older alluvium is generally in a medium dense to dense state, grading more dense with depth.

Although identifiable fill materials was not encountered in the exploratory borings placed on the site, it is anticipated that some fill placement may have been necessary for the development of the walkways and site grading. It is also anticipated that tree root stocks of the previous groves and existing trees will have created localized areas of disturbed soils. Any existing on-site fills or disturbed soils are considered to be unsuitable for support of structures or roadways. The fills material is anticipated to consist of silty sands and poorly graded sands similar to on-site native materials.

Free groundwater or bedrock were not encountered within any of our exploratory borings to the maximum depths attained. Refusal was not experienced within any of our exploratory borings to the maximum depths explored.

All borings experienced slight caving upon removal of the augers.

A more detailed description of the subsurface soil conditions encountered within our exploratory borings is presented on the attached boring logs (Appendix "B").

FAULTING

The tectonics of the Southern California area are dominated by the interaction of the North American Plate and the Pacific Plate, which are apparently sliding past each other in a transform motion. Although some of the motion may be accommodated by rotation of crustal blocks such as the western Transverse Ranges (Dickinson, 1996), the San Andreas fault zone is thought to represent the major surface expression of the tectonic boundary and to be accommodating most of the transform motion between the Pacific Plate and the North American Plate. However, some of the plate motion is apparently also partitioned out to the other northwest-trending strike-slip faults that are thought to be

related to the San Andreas system, such as the San Jacinto fault and the Elsinore fault. Local compressional or extensional strain resulting from the transform motion along this boundary is accommodated by left-lateral, reverse, and normal faults such as the Cucamonga fault, the Crafton Hills fault zone, and the blind thrust faults of the Los Angeles Basin (Matti and others, 1992; Morton and Matti, 1993).

The Box Springs fault is shown by Rogers (1966) as a buried trace beneath Pleistocene-age alluvium approximately 1 1/2 miles northeast of the site. Although this fault is readily visible as a bedrock feature southeast of the site, it is considered to be inactive.

The San Jacinto fault zone, a system of northwest-trending, right-lateral, strike-slip faults, is present across the San Jacinto Valley and through the San Timoteo Badlands, approximately 5 1/2 miles northeast of the site. The San Jacinto fault is the closest known active fault to the site and is considered to be the most important fault to the site with respect to the hazard of seismic shaking. More large historic earthquakes have occurred on the San Jacinto fault than any other fault in Southern California (Working Group on California Earthquake Probabilities, 1988).

Based on the data of Matti and others (1992), the portion of the San Jacinto fault adjacent to the site may be accommodating much of the motion between the Pacific Plate and the North American Plate in this area. Matti and others (1992) suggest this motion is transferred to the San Andreas fault in the Cajon Pass region by "stepping over" to parallel fault strands which include the Glen Helen fault. The Working Group on California Earthquake Probabilities (1995) tentatively assigned a 43 percent (± 17 percent) probability of a major earthquake on the San Jacinto Valley segment of the San Jacinto fault for the 30 year interval from 1994 to 2024.

The San Andreas fault zone is located along the southwest margin of the San Bernardino Mountains, approximately 15 miles northeast of the site. The toe of the mountain front in the San Bernardino area roughly demarcates the presently active trace of the San Andreas fault, which is characterized by youthful fault scarps, vegetational lineaments, springs, and offset drainages. The Working Group on California Earthquake Probabilities (1995) tentatively assigned a 28 percent (± 13 percent) probability to a major earthquake occurring on the San Bernardino Mountains segment of the San Andreas fault between 1994 and 2024.

The southern margin of the San Gabriel Mountains is coincident with a series of east-west trending, predominantly reverse and thrust faults known as the Transverse Ranges frontal fault system. The San Fernando fault of this system ruptured during the 1971 magnitude (**M**) 6.7 San Fernando earthquake. The Cucamonga fault of this system is located at the base of the San Gabriel Mountains, approximately

15 1/2 miles northwest of the site. Evidence of recent activity on this fault includes fresh scarps, sag ponds, and disrupted Holocene alluvium (Dutcher and Garrett, 1963; Yerkes, 1985; Morton and Yerkes, 1987).

The Elsinore fault zone is present approximately 18 miles southwest of the site. The Elsinore fault zone is composed of multiple *en echelon* and diverging fault traces and splays into the Whittier and Chino faults to the north. Although a zone of overall right-lateral deformation consistent with the regional plate tectonics, traces of the Elsinore fault zone form the graben of the Elsinore and Temecula Valleys. Holocene surface rupture events have been documented for several principal strands of the Elsinore fault zone (Saul, 1978; Rockwell and others, 1986; Wills, 1988).

HISTORICAL EARTHQUAKES

A map of recorded earthquake epicenters is included as Enclosure "A-4" (EPI Software, 2000). The epicenters and magnitudes that are shown are based on data from recording instruments in the CalTech database. This enclosure presents circles as epicenters of earthquakes with M_L equal to or greater than 4.0 that were recorded from 1977 through 2002.

The San Jacinto fault is the most seismically active fault in Southern California, although it has no record of producing great events comparable to those that occurred on the San Andreas fault during the Fort Tejon earthquake of 1857 and the San Francisco earthquake of 1906 (Working Group on California Earthquake Probabilities, 1988). Between 1899 and 1990, seven earthquakes of M 6.0 or greater have occurred along the San Jacinto fault. Two of these earthquakes, an estimated M 6.7 1 in 1899 and a M 6.8 in 1918, took place in the San Jacinto Valley, east of the site. Two others, an estimated M 6.5 in 1899 and a M 6.2 in 1923, took place in the San Bernardino Valley, north of the site (Working Group on California Earthquake Probabilities, 1988).

The only large historical earthquake that can definitely be attributed to the Elsinore fault was a M 6.0 event in 1910 in the Temescal Valley area. This event caused damage to structures from Corona to Wildomar (Weber, 1977). Since 1932, four M 4.0+ earthquakes have occurred along the Elsinore fault zone in the Santiago Peak area (Weber, 1977).

No large earthquakes have occurred on the San Bernardino Mountains segment of the San Andreas fault within the regional historical time frame. Using dendrochronological evidence, Jacoby and others (1987) inferred that a great earthquake on December 8, 1812 ruptured the northern reaches of this segment. Recent trenching studies have revealed evidence of rupture on the San Andreas fault at Wright-

wood occurred within this time frame (Fumal and others, 1993). Comparison of rupture events at the Wrightwood site and Pallett Creek and analysis of reported intensities at the coastal missions led Fumal and others (1993) to conclude that the December 8, 1812 event ruptured the San Bernardino Mountains segment of the San Andreas fault largely to the southeast of Wrightwood, possibly extending into the San Bernardino Valley.

Surface rupture occurred on the Mojave segment of the San Andreas fault in the great 1857 Fort Tejon earthquake. The Coachella Valley segment of the San Andreas fault was responsible for the 1948 M 6.5 earthquake in the Desert Hot Springs area and for the 1986 M 5.6 earthquake in the North Palm Springs area.

No significant historical earthquakes have been specifically attributed to the Box Springs fault or the Cucamonga fault in the general area of the site.

SEISMIC ANALYSIS

The precise relationship between magnitude and recurrence interval of large earthquakes for a given fault is not known due to the relatively short time span of recorded seismic activity. As a result, a number of assumptions must be made to quantify the ground shaking hazard at a particular site. Seismic hazard evaluations can be conducted from both a probabilistic and a deterministic standpoint. The probabilistic method is prescribed by current codes and was utilized to estimate the seismic hazard to the site during this investigation.

PROBABILISTIC HAZARD ANALYSIS:

The probabilistic analysis of seismic hazard is a statistical analysis of seismicity of all known regional faults attenuated to a particular geographic location. The results of a probabilistic seismic hazard analysis are presented as the annual probability of exceedance of a given strong motion parameter for a particular exposure time (Johnson and others, 1992).

For this report, the probabilistic analysis computer program FRISKSP (Blake, 2000) was used to analyze the location of the site under the criteria for NEHRP Type "C" sites by Boore and others (1997) in relation to seismogenic faults within a 62-mile (100km) radius of the site. The fault database utilized is published by the California Division of Mines and Geology (Petersen and others, 1998). The FRISKSP program assumes that significant earthquakes occur on mappable faults and that the occurrence rate of earthquakes on a fault is proportional to the estimated slip rate of that fault. Potential earthquake magnitudes are correlated to expected fault rupture areas and the resultant maximum ground

acceleration at the site is computed. From the summation of the accelerations from all the potential sources, the total average annual expected number of occurrences of an acceleration greater than each of the values requested is calculated (Blake, 2000). The resultant graph of probability of exceedance vs. acceleration (Enclosure "E-1") indicates that a peak ground acceleration of 0.52g has a 10 percent probability of exceedance in 50 years. This corresponds to the Design Basis Earthquake as defined in the California Building Code (1998) and has a statistical return period of 475 years.

SEISMIC ZONE:

Figure 16A-2 presented in the 1998 California Building Code places the portion of Riverside County west of 115° 30', which includes the site, within Seismic Zone 4. A Seismic Zone Factor "Z" of 0.40 is assigned to Seismic Zone 4.

SOIL PROFILE TYPE:

The appropriate classification for this site is S_C , very dense soil and soft rock.

NEAR-SOURCE EFFECTS:

The seismic hazard to this site is dominated by the adjacent San Jacinto fault. For the purpose of near-source effect evaluation, maps of near-source zones in California including a classification table for the faults involved were prepared by the California Division of Mines and Geology to be used with the 1997 Uniform Building Code (International Conference of Building Officials, 1997). The adjacent San Jacinto segment of the San Jacinto fault is classified as a Type "B" fault by the California Division of Mines and Geology (Petersen and others, 1998). Due to the potential for cascading (multi-segment rupture), the San Jacinto fault is considered to be a Type "A" fault. The corresponding near-source acceleration factor N_A , as defined in the 1997 Uniform Building Code (UBC), is 1.06, and the near-source velocity factor N_V is 1.32.

GROUNDWATER AND LIQUEFACTION

Static or perched groundwater were not encountered within any of our exploratory borings drilled to a maximum depth of 51.5 feet below the ground surface (bgs). Based on review of depth to groundwater data from a well located approximately 1/2 mile south of the site (State Well No. T2S/R4W 29M01) available from Western Municipal Water District (2001), the current depth to groundwater beneath the site is expected to be at least 60 feet. Groundwater contour mapping conducted by Carson and Matti (1982), utilizing data from the years spanning 1973 to 1979, indicates a minimum depth to groundwater of 50 to 75 feet bgs.

Liquefaction is a process in which strong ground shaking causes saturated soils to lose their strength and behave as a fluid (Matti and Carson, 1991). Ground failure associated with liquefaction can result in severe damage to structures. The geologic conditions for increased susceptibility to liquefaction are: 1) shallow groundwater (less than 50 feet in depth), 2) presence of unconsolidated sandy alluvium, typically Holocene in age, and 3) strong ground shaking. All three of these conditions must be present for liquefaction to occur. Based upon the data reviewed during this evaluation, only one of the three geologic conditions for increased liquefaction susceptibility (strong ground shaking) is expected to exist on the site.

Based on the relative density of the underlying soils and expected depth to groundwater, liquefaction is not anticipated, and further evaluation is not warranted.

FLOODING AND EROSION

No evidence of significant historic flooding of the site was observed during our geologic field reconnaissance or on the aerial photographs reviewed. The hazard of major flooding of the site appears minimal.

On-site materials are susceptible to erosion by running water. Finish graded areas should be protected from the effects of runoff.

CONCLUSIONS

On the basis of our field and laboratory investigations, it is the opinion of this firm that the proposed Interdisciplinary Studies Building is feasible from a geotechnical engineering standpoint, provided the recommendations contained in this report are implemented during grading and construction.

Based upon our field investigation and test data, it is our opinion that the existing fills and upper native soils will not, in their present condition, provide uniform or adequate support for the proposed structure. Previous use of the site, which included citrus groves occupying portions of the site, will have resulted in localized area of disturbed soils. It is anticipated that such soil disturbance may extend to depths of 3 to 4 feet.

Based upon the conditions encountered, it appears that the proposed building could be safely founded on spread footings bearing entirely upon a uniform compacted fill mat. The building pad area will need

to be subexcavated to remove all unsuitable and disturbed soils. Although the actual subexcavation depths will depend upon the depths of footings and depths of unsuitable materials to be removed, it is anticipated that the depth of subexcavation of unsuitable soils will need to extend to a minimum of 3 feet.

Because of site conditions, it will be necessary to remove a minimum of the upper 36 inches of existing soil in areas to be graded. Deeper removals may be necessary, depending upon conditions encountered. To provide adequate and uniform support for the proposed structures, it is our recommendation that the building areas be further subexcavated as necessary and recompacted to provide a compacted fill mat beneath foundations and slabs.

No evidence of active faulting on or immediately adjacent to the site was observed during the geologic field reconnaissance or on the aerial photographs reviewed.

Moderate to severe seismic shaking of the site can be expected during the lifetime of the proposed structure.

No evidence for landsliding on or immediately adjacent to the site was observed during the geologic field reconnaissance or on the aerial photographs reviewed.

No evidence of recent significant flooding of the site or surrounding area was observed. The anticipated depth of groundwater and the presence of dense, non-liquefiable soils of suspected late Pleistocene age preclude liquefaction as a hazard at the site.

RECOMMENDATIONS

SEISMIC DESIGN CONSIDERATIONS:

Moderate to severe seismic shaking of the site can be expected during the lifetime of the proposed structure. Therefore, the proposed structure should be designed accordingly.

The appropriate classification for this site is S_c , very dense soil and soft rock.

The site is subject to the near-source effects of strong ground motion. The corresponding near-source acceleration factor N_A , as defined in the 1997 UBC, is 1.06, and the near-source velocity factor N_V is 1.32.

GENERAL SITE GRADING:

It is imperative that no clearing and/or grading operations be performed without the presence of a representative of the geotechnical engineer. An on-site pre-job meeting with the owner, the contractor, and the geotechnical engineer should occur prior to all grading-related operations. Operations undertaken at the site without the geotechnical engineer present may result in exclusions of affected areas from the final compaction report for the project.

Grading of the subject site should be performed, at a minimum, in accordance with these recommendations and with applicable portions of the UBC. The following recommendations are presented for your assistance in establishing proper grading criteria.

INITIAL SITE PREPARATION:

After removal of existing sidewalk, all areas to be graded should be stripped of significant vegetation and other deleterious materials. These materials should be removed from the site for disposal.

At least the upper 3 feet of existing soils within the building area and 5 feet beyond should be completely removed, cleaned of significant deleterious materials, and may be reused as compacted fill. Deeper fills and/or deeper undisturbed native soils requiring complete removal may exist and should be anticipated.

The bottom of this excavation should be observed by the Engineering Geologist to verify the complete removal of fill material and disturbed native soils, and then, following approval, should be scarified to a depth of approximately 12 inches, brought to between optimum moisture content and 2 percent above, and recompacted to at least 95 percent relative compaction (ASTM D 1557-91) prior to refilling the excavation to grade as properly compacted fill.

Cavities created by removal of subsurface obstructions, such as root stocks and utility lines, should be thoroughly cleaned of loose soil, organic matter, and other deleterious materials, shaped to provide access for construction equipment, and backfilled as recommended for site fill.

PREPARATION OF FILL AREAS:

Prior to placing fill, and after the subexcavation bottom has been observed and approved, the surfaces of all areas to receive fill should be scarified to a depth of approximately 12 inches. The scarified soils should be brought to between optimum moisture and 2 percent above and recompacted to a relative compaction of at least 95 percent in accordance with ASTM D 1557-91.

PREPARATION OF FOOTING AREAS:

All footings should rest upon at least 36 inches of properly compacted fill material. In areas where the required thickness of compacted fill is not accomplished by the 3-foot minimum mandatory removal or the removal and recompaction of unsuitable existing soils, the footing areas should be subexcavated to a depth of 36 inches or more below the proposed footing base grade, with the subexcavation extending at least 5 feet beyond the footing lines. The bottom of this excavation should then be scarified to a depth of at least 12 inches, brought to between optimum moisture content and 3 percent above, and recompacted to a minimum of 95 percent relative compaction in accordance with ASTM D 1557-91 prior to refilling the excavation to grade as properly compacted fill.

COMPACTED FILL:

Fill should be spread in near-horizontal layers, approximately 8 inches in thickness. Thicker lifts may be approved by the geotechnical engineer if testing indicates that the grading procedures are adequate to achieve the required compaction. Each lift shall be spread evenly, thoroughly mixed during spreading to attain uniformity of the material and moisture in each layer, brought to between optimum moisture content and 2 percent above, and compacted to a minimum relative compaction of 95 percent (ASTM D 1557-91).

The on-site soils should provide adequate quality fill material provided they are free from roots, other organic matter, and deleterious materials. Unless approved by the geotechnical engineer, rock or similar irreducible material with a maximum dimension greater than 6 inches should not be buried or placed in fills

Import fill, if required, should be inorganic, non-expansive granular soils free from rocks or lumps greater than 6 inches in maximum dimension. Sources for import fill should be observed and approved by the geotechnical engineer prior to their use.

EXPANSIVE SOILS:

The materials encountered and tested during this investigation were generally granular and considered to be non-critically expansive. Therefore, special design and construction procedures to mitigate the effects of expansive soils do not appear necessary at this time. Additional evaluation of soils for expansion potential should be conducted by the geotechnical engineer during the grading operation.

SOLUBLE SULFATES:

The results of our soluble sulfate testing indicate a "negligible" exposure to sulfate attack according to the American Concrete Institute. The soil is classified as moderately corrosive to ferrous metals and

not particularly aggressive to copper. Further information on soluble sulfate testing and the corrosivity analysis is included in Appendix "C".

FOOTING DESIGN:

If the site is prepared as recommended, the proposed structure may be safely founded on conventional spread foundations, either individual spread footings and/or continuous wall footings, bearing entirely on a minimum of 36 inches of compacted fill. Footings should be a minimum of 12 inches wide and should be established at a minimum depth of 12 inches below lowest adjacent final subgrade level. For the minimum width and depth, footings may be designed for a maximum safe soil bearing pressure of 2,200 pounds per square foot (psf) for dead plus live loads. This allowable bearing pressure may be increased by 300 psf for each additional foot of width and by 600 psf for each additional foot of depth to a maximum safe soil bearing pressure of 6,000 psf for dead plus live loads. These bearing values may be increased by one-third for wind or seismic loading.

For footings thus designed and constructed, we would anticipate a maximum settlement of less than 1/2 inch. Differential settlement between similarly loaded footings is expected to be approximately one-half the total settlement.

LATERAL LOADING:

Resistance to lateral loads will be provided by passive earth pressure and base friction. For footings bearing against compacted fill or approved native soils, passive earth pressure may be considered to be developed at a rate of 400 psf per foot of depth. Base friction may be computed at 0.40 times the normal load. Base friction and passive earth pressure may be combined without reduction.

For preliminary retaining wall or shoring design purposes, a lateral active earth pressure developed at a rate of 35 psf per foot of depth should be utilized for unrestrained conditions. For restrained conditions, an at rest earth pressure of 55 psf per foot of depth should be utilized. These values should be verified prior to construction when the backfill materials and conditions have been determined and are applicable only to level properly drained backfill with no additional surcharge loadings. If backfills are proposed, this firm should be contacted to develop appropriate active earth pressure parameters. Toe bearing pressure for walls on soils not subexcavated and recompacted, as described earlier under PREPARATION OF FOOTING AREAS, should not exceed UBC values.

Foundation concrete should be placed in neat excavations with vertical sides, or the concrete should be formed and the excavations properly backfilled as recommended for site fill.

SLABS-ON-GRADE:

To provide uniform support, concrete slabs-on-grade should bear on a minimum of 24 inches of properly compacted fill. The final pad surfaces should be rolled to provide a level, dense surface.

Slabs to receive moisture-sensitive coverings should be provided with a moisture vapor barrier. This barrier may consist of an impermeable membrane. Two inches of sand over the membrane will help reduce punctures and aid in obtaining a satisfactory concrete cure. The sand should be moistened just prior to placing of concrete.

CONSTRUCTION OBSERVATION:

All grading operations, including site clearing and stripping, should be observed by a representative of the geotechnical engineer. The presence of the geotechnical engineer's field representative will be for the purpose of providing observation and field testing, and will not include any supervising or directing of the actual work of the contractor, his employees, or agents. Neither the presence of the geotechnical engineer's field representative nor the observations and testing by the geotechnical engineer shall excuse the contractor in any way for defects discovered in his work. It is understood that the geotechnical engineer will not be responsible for job or site safety on this project, which will be the sole responsibility of the contractor.

LIMITATIONS

C.H.J., Incorporated has striven to perform our services within the limits prescribed by our client, and in a manner consistent with the usual thoroughness and competence of reputable geotechnical engineers and engineering geologists practicing under similar circumstances. No other representation, express or implied, and no warranty or guarantee is included or intended by virtue of the services performed or reports, opinion, documents, or otherwise supplied.

This report reflects the testing conducted on the site as the site existed during the investigation, which is the subject of this report. However, changes in the conditions of a property can occur with the passage of time, due to natural processes or the works of man on this or adjacent properties. Changes in applicable or appropriate standards may also occur whether as a result of legislation, application, or the broadening of knowledge. Therefore, this report is indicative of only those conditions tested at the time of the subject investigation, and the findings of this report may be invalidated fully or partially by changes outside of the control of C.H.J., Incorporated. This report is therefore subject to review and should not be relied upon after a period of one year.

The conclusions and recommendations in this report are based upon observations performed and data collected at separate locations, and interpolation between these locations, carried out for the project and the scope of services described. It is assumed and expected that the conditions between locations observed and/or sampled are similar to those encountered at the individual locations where observation and sampling was performed. However, conditions between these locations may vary significantly. Should conditions be encountered in the field, by the client or any firm performing services for the client or the client's assign, that appear different than those described herein, this firm should be contacted immediately in order that we might evaluate their effect.

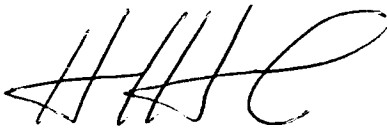
If this report or portions thereof are provided to contractors or included in specifications, it should be understood by all parties that they are provided for information only and should be used as such.

The report and its contents resulting from this investigation are not intended or represented to be suitable for reuse on extensions or modifications of the project, or for use on any other project.

CLOSURE

We appreciate this opportunity to be of service and trust this report provides the information desired at this time. Should questions arise, please do not hesitate to contact this office.

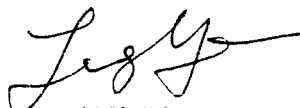
Respectfully submitted,
C.H.J., INCORPORATED



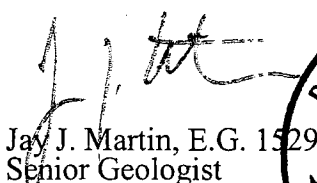
Harold Scott Hoggard, Staff Geologist



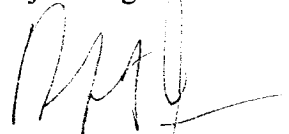
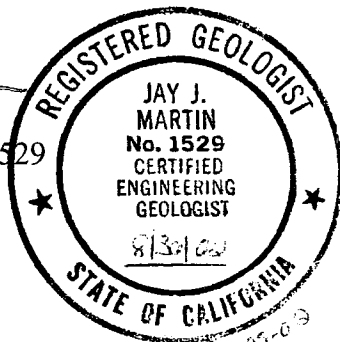
Ben Williams, Senior Staff Engineer



Fred Yi, Ph.D.
Project Engineer



Jay J. Martin, E.G. 1529
Senior Geologist



Robert J. Johnson, G.E. 443
Senior Vice President



A-27-02

A-27-02

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Aero Tech Surveys, February 15, 2001, Black and White Aerial Photograph Numbers 1-27 and 1-28.

Fairchild Camera, September, 1931, Black and White Aerial Photographs, Flight No. C-1740, Frame Nos. B:78 and B:79.

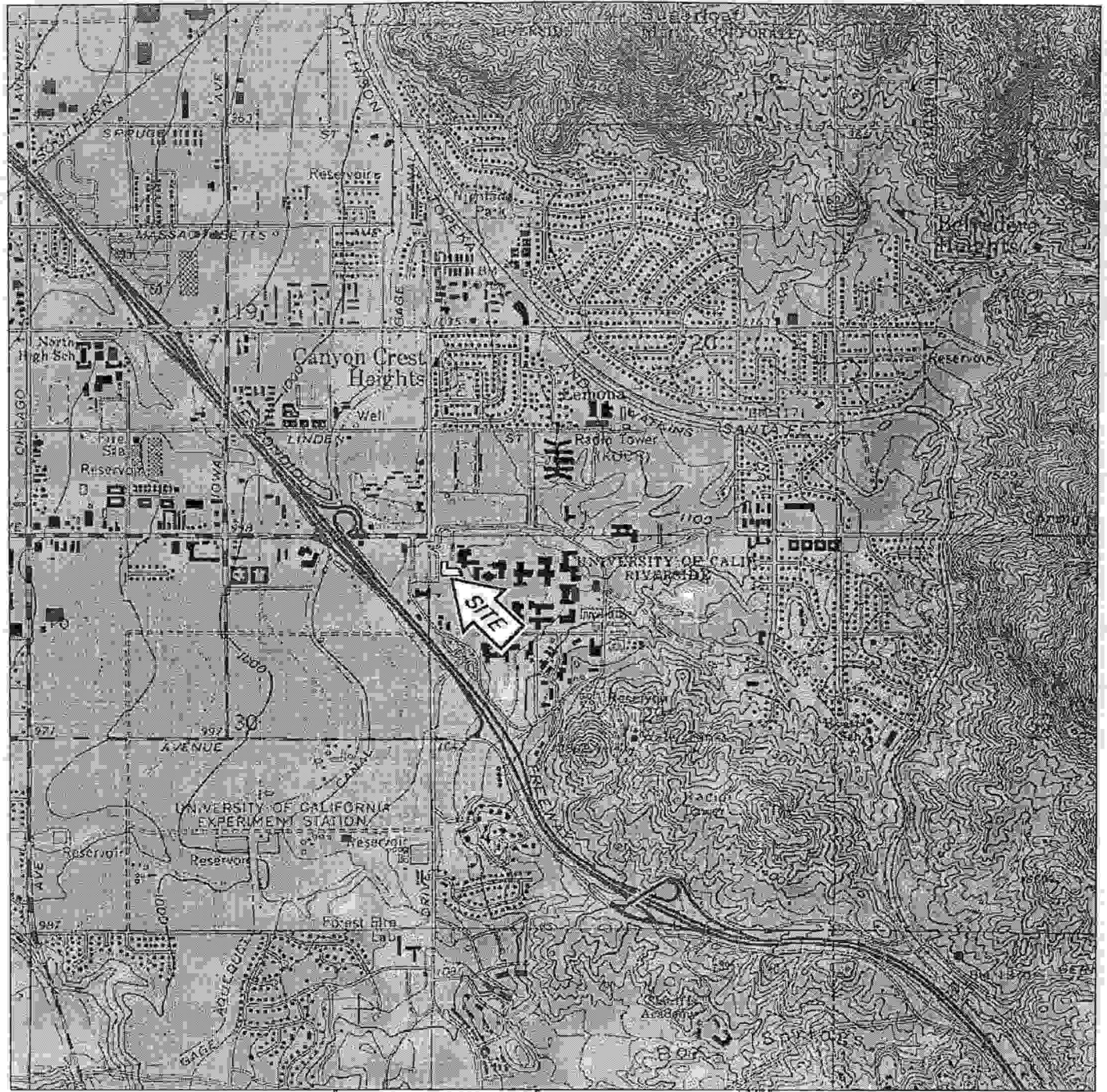
Riverside County Flood Control and Water Conservation District, December 20, 1957, Black and White Aerial Photograph Numbers 30 and 31.

Riverside County Flood Control and Water Conservation District, May 24, 1974, Black and White Aerial Photograph Numbers 86 and 87.

Riverside County Flood Control and Water Conservation District, January, 23, 1990, Black and White Aerial Photograph Numbers 3-15 and 3-16.

Riverside County Flood Control and Water Conservation District, February 1, 1995, Black and White Aerial Photograph Numbers 3-16 and 3-17.

APPENDIX "A"
GEOTECHNICAL MAPS



TN * MN
13 1/2"

0 1000 FEET 0 500 1000 METERS 1 MILE
Printed from TOPO! ©2000 Wildflower Productions (www.topo.com)

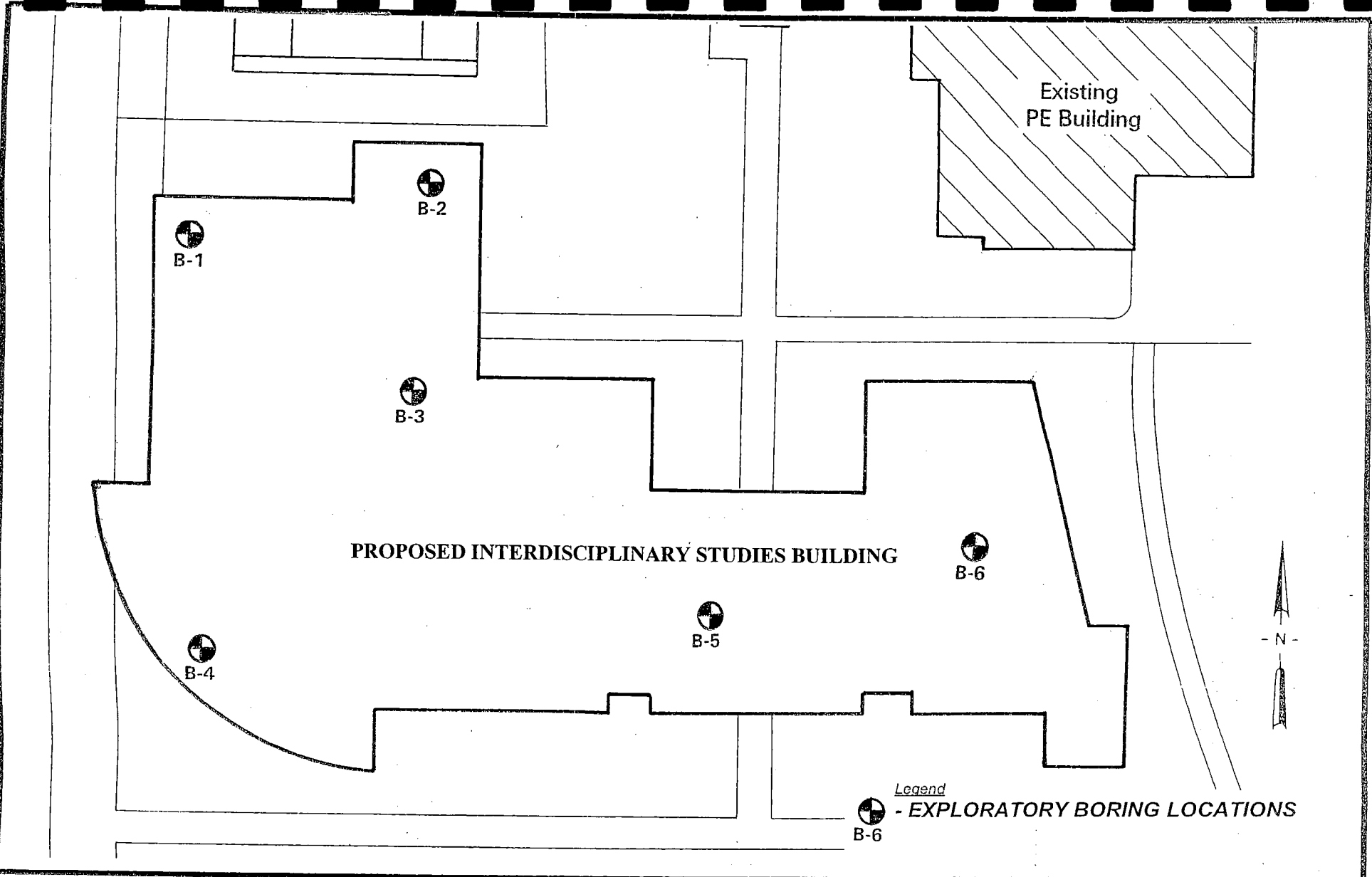
INDEX MAP

FOR: UNIVERSITY OF CALIFORNIA, RIVERSIDE
DATE: APRIL 2002

PROPOSED INTERDISCIPLINARY STUDIES BUILDING
UNIVERSITY OF CALIFORNIA
RIVERSIDE, CALIFORNIA

ENCLOSURE "A-1"
JOB NUMBER 02339-3

 **C.H.J., INCORPORATED**



PLAT

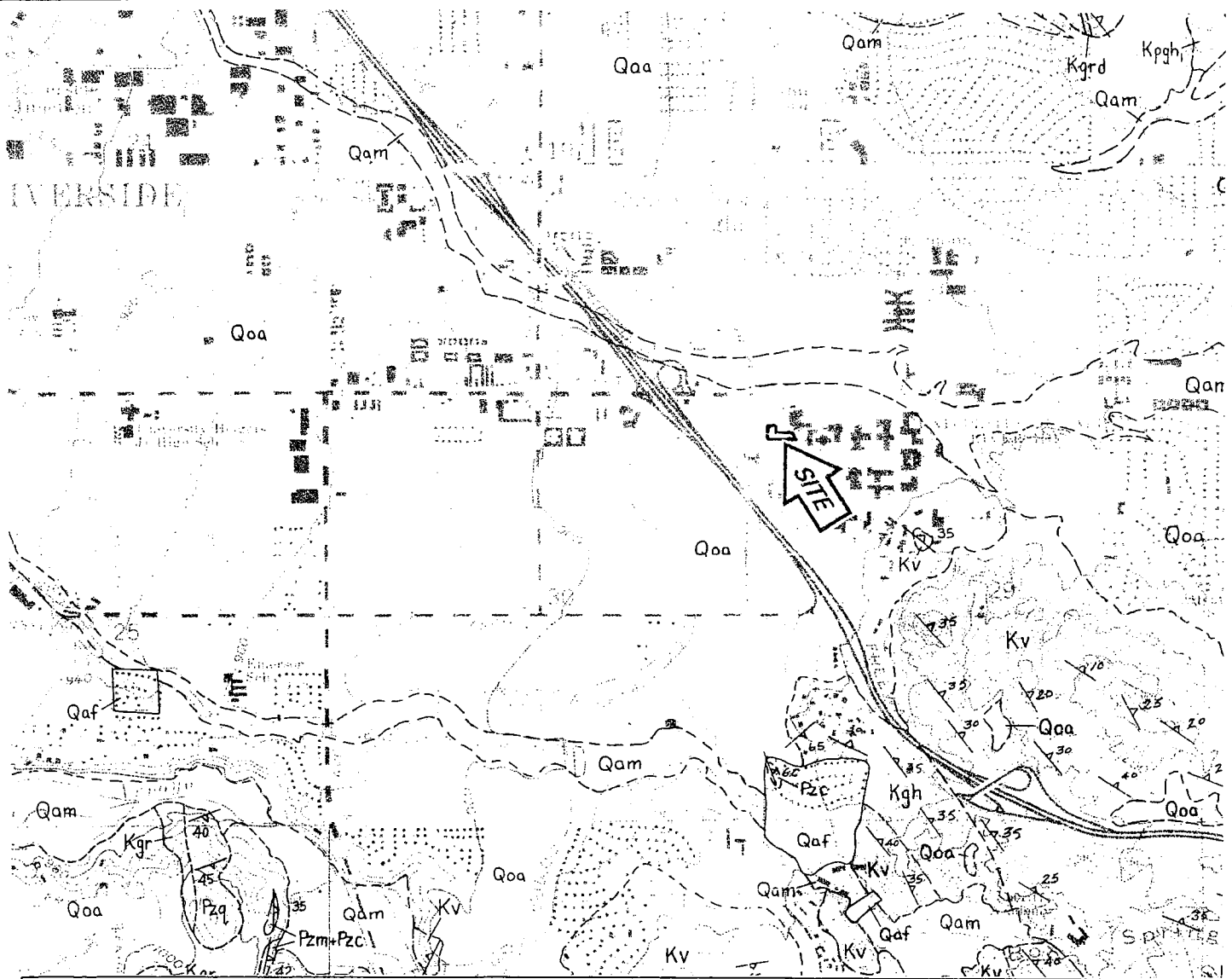
FOR: UNIVERSITY OF CALIFORNIA, RIVERSIDE

PROPOSED INTERDISCIPLINARY STUDIES BUILDING
UNIVERSITY OF CALIFORNIA
RIVERSIDE, CALIFORNIA

ENCLOSURE "A-2"

DATE: APRIL 2002

JOB NUMBER 02339-3




Legend:

- Qaf Artificial fill (Holocene)
- Qam Alluvium of minor streams (Holocene)
- Qoa Older alluvium (Pleistocene)
- Kbth Heterogeneous biotite tonalite
- Kpg Porphyritic granodiorite

- Val Verde tonalite and associated rocks (Cretaceous)-*
- Kv Val Verde tonalite of Osborn (1939)
- Kbhgt Hornblende-biotite granodiorite and tonalite

- Metamorphic rocks (Paleozoic?)-*
- Pzc Calc-silicate hornfels

Contact- Dashed where approximately located.

60  Strike and dip of inclined foliation

Base Map: D.M. Morton and B.F. Cox (1994)

GEOLOGIC INDEX MAP

FOR: UNIVERSITY OF CALIFORNIA, RIVERSIDE

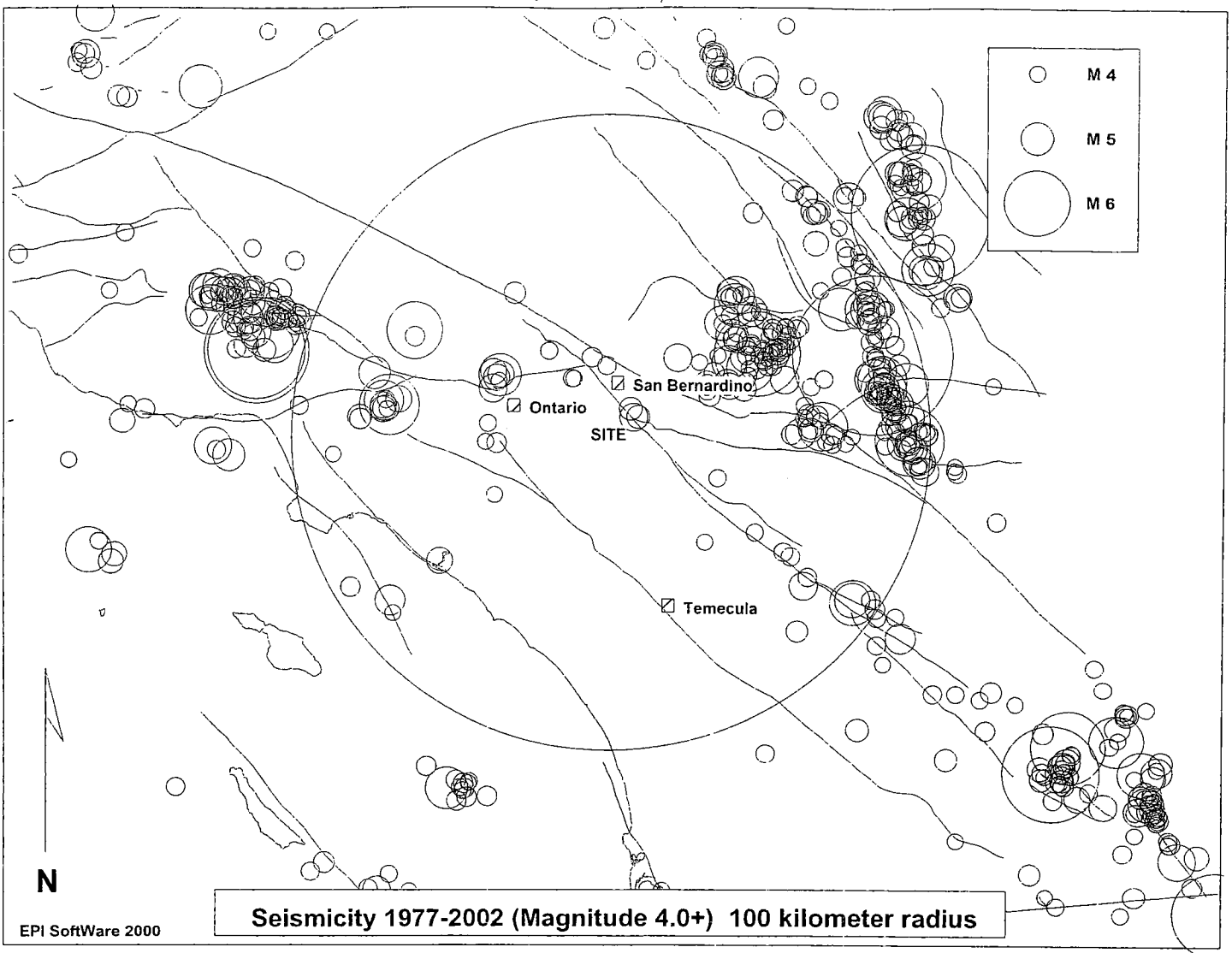
PROPOSED INTERDISCIPLINARY STUDIES BUILDING
UNIVERSITY OF CALIFORNIA
RIVERSIDE, CALIFORNIA

ENCLOSURE
"A-3"

DATE: APRIL 2002

JOB NUMBER
02339-3

 C.H.J., INCORPORATED



SITE LOCATION: 33.974 LAT. -117.33 LONG.

MINIMUM LOCATION QUALITY: C

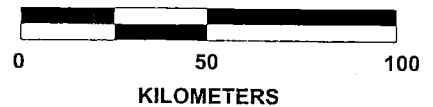
TOTAL # OF EVENTS ON PLOT: 567

TOTAL # OF EVENTS WITHIN SEARCH RADIUS 263

MAGNITUDE DISTRIBUTION OF SEARCH RADIUS EVENTS:

- 4.0- 4.9 : 232
- 5.0- 5.9 : 28
- 6.0- 6.9 : 2
- 7.0- 7.9 : 1
- 8.0- 8.9 : 0

CLOSEST EVENT: 4.8 ON WEDNESDAY, OCTOBER 02, 1981 LOCATED APPROX. 10 KILOMETERS NORTHEAST OF THE SITE



EARTHQUAKE EPICENTER MAP

FOR: UNIVERSITY OF CALIFORNIA, RIVERSIDE

PROPOSED INTERDISCIPLINARY STUDIES BUILDING
UNIVERSITY OF CALIFORNIA
RIVERSIDE, CALIFORNIA

ENCLOSURE
"A-4"

DATE: APRIL 2002

JOB NUMBER
02339-3

APPENDIX "B"

EXPLORATORY LOGS

KEY TO LOGS**LEGEND:**

DS	Direct Shear Test (ASTM D 3080)
Consol.	Consolidation Test (ASTM D 2435)
MDC	Maximum Dry Density - Optimum Moisture Content Determination (ASTM D 1557)
Ring	Indicates Undisturbed Ring Sample. Undisturbed Ring Samples are obtained with a "California Sampler" (3.00" O.D. and 2.42" I.D.) driven by an automatic hammer with a 140-pound weight falling 30 inches. The blows per foot are converted to equivalent SPT-N ₆₀ values.
SPT	Indicates Standard Penetration Test. The SPT N-value is the number of blows required to drive an SPT sampler 12 inches using 140 pound weight falling 30 inches. The SPT sampler is 2" O.D. and 1-3/8" I.D.
SS	Soluble Sulfate (EPA Method 300.0)

ENGINEERING PROPERTIES FROM SPT BLOWS

Relationship of Penetration Resistance to Relative Density for Cohesionless Soils*
(After Mitchell and Katti, 1981)

No. of SPT Blows (N ₆₀)	Descriptive Relative Density	Approx. Relative Density (%)
<4	Very Loose	0-15
4-10	Loose	15-35
10-30	Medium Dense	35-65
30-50	Dense	65-85
>50	Very Dense	85-100

* At an effective overburden pressure of 1 ton per square foot (100 kPa)

Our reported equivalent SPT-N₆₀ blows have not been normalized for overburden pressure

SOIL CLASSIFICATION CHART

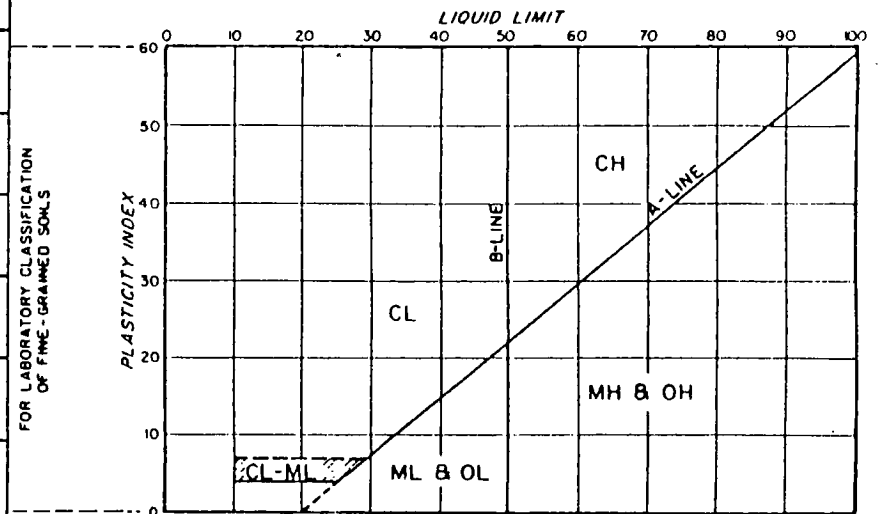
MAJOR DIVISIONS		GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	[Symbol]	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
		[Symbol]	GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
		[Symbol]	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	
		[Symbol]	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES	
	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)	[Symbol]	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			[Symbol]	SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)	[Symbol]	SM	SILTY SANDS, SAND-SILT MIXTURES
			[Symbol]	SC	CLAYEY SANDS, SAND-CLAY MIXTURES
			[Symbol]	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			[Symbol]	CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS.
SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50	[Symbol]	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
		[Symbol]	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS	
	LIQUID LIMIT GREATER THAN 50	[Symbol]	CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
		[Symbol]	OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS		[Symbol]	PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

GRADATION CHART

MATERIAL SIZE	PARTICLE SIZE				
	LOWER LIMIT		UPPER LIMIT		
	MILLIMETERS	SIEVE SIZE	MILLIMETERS	SIEVE SIZE	
SAND	FINE	.075	#200 \times	0.425	#40 \times
	MEDIUM	0.425	#40 \times	2.00	#10 \times
	COARSE	2.00	#10 \times	4.75	#4 \times
GRAVEL	FINE	4.75	#4 \times	19.0	3/4"
	COARSE	19.0	3/4"	76.2	3"
COBBLES		76.2	3"	304.8	12"
BOULDERS		304.8	12"	914.4	36"

XUS STANDARD * CLEAR SQUARE OPENINGS

PLASTICITY CHART



UNIFIED SOIL CLASSIFICATION SYSTEM



LOG OF BORING 1

Date Drilled: 4/2/02

Client: University of California

Equipment: CME 55 Drill Rig

Driving Weight / Drop: 140 lb/30 in

Surface Elevation (ft): N/A

Logged by: S.H.

Measured Depth to Water(ft): N/A

DEPTH (ft)	GRAPHIC LOG	VISUAL CLASSIFICATION	REMARKS	SAMPLES		BLOWS/FOOT (Equiv. SPT)	FIELD MOISTURE (%)	DRY UNIT WT. (pcf)	LAB/FIELD TESTS
				DRIVE	BULK				
5		(SM) Silty Sand, fine with medium and coarse, orange brown	Native		X	40/6"	9.7	106	Ring
				X		69/11.5*	10.0	127	Ring
10		(SM) Silty Sand, fine to medium with coarse and clay, red brown			X	43	6.1	128	Ring
				X		44	7.5	116	Ring
20		(SM) Silty Sand, fine with medium, yellow brown			X	50	3.0	122	Ring
				X		46	5.1	118	Ring
30		(SM) Silty Sand, fine with medium, yellow brown		X		40/5"	5.1	119	Ring

BORING LOG 02339-3.GPJ CHJ.GDT 4/25/02



INTERDISCIPLINARY STUDIES BUILDING
UCR CAMPUS, RIVERSIDE

Job No. 02339-3 Enclosure B-1a

LOG OF BORING 1

Date Drilled: 4/2/02

Client: University of California

Equipment: CME 55 Drill Rig

Driving Weight / Drop: 140 lb/30 in

Surface Elevation (ft): N/A

Logged by: S.H.

Measured Depth to Water(ft): N/A

DEPTH (ft)	GRAPHIC LOG	VISUAL CLASSIFICATION	REMARKS	SAMPLES		BLOWS/FOOT (Equiv. SPT)	FIELD MOISTURE (%)	DRY UNIT WT. (pcf)	LAB/FIELD TESTS
				DRIVE	BULK				
40	[Dotted pattern]	(SM) Silty Sand, fine with medium, yellow brown		X		30	6.3	118	Ring
45	[Dotted pattern]	(SP-SM) Sand, fine with medium, coarse and silt, yellow brown		X	[Cross-hatch pattern]	40/6"	6.9	116	Ring
50	[Dotted pattern]	(SP-SM) Sand, fine to medium with coarse and silt, yellow brown		X	[Cross-hatch pattern]	40/6"	3.1	118	Ring
55		END OF BORING		[Thin horizontal line]		40/2"	N.R.	N.R.	Ring
60		NO BEDROCK NO REFUSAL NO FILL NO FREE GROUNDWATER							
65									

BORING_LOG_02339-3.GPJ CHJ.GDT 4/25/02



INTERDISCIPLINARY STUDIES BUILDING
UCR CAMPUS, RIVERSIDE

Job No. 02339-3 Enclosure B-1b

LOG OF BORING 2

Date Drilled: 4/2/02

Client: University of California

Equipment: CME 55 Drill Rig

Driving Weight / Drop: 140 lb/30 in

Surface Elevation (ft): N/A

Logged by: S.H.

Measured Depth to Water(ft): N/A

DEPTH (ft)	GRAPHIC LOG	VISUAL CLASSIFICATION	REMARKS	SAMPLES		BLOWS/FOOT (Equiv. SPT)	FIELD MOISTURE (%)	DRY UNIT WT. (pcf)	LAB/FIELD TESTS
				DRIVE	BULK				
		(SM) Silty Sand, fine with medium, coarse and clay, brown	Native	X	X		10.2		
5		(SM) Silty Sand, fine with medium, coarse and clay, red brown		X	X	40/6"	9.5	122	Ring
10				X	X	26	8.3	129	Ring
15				X	X	49	6.4	129	Ring
20				X	X	72/10"	8.5	128	Ring
25				X	X	40/6"	8.3	117	Ring
30		END OF BORING		X	X	40/6"	10.1	114	Ring
		NO BEDROCK NO REFUSAL NO FILL NO FREE GROUNDWATER							

BORING LOG 02339-3.GPJ CHJ.GDT 4/25/02



INTERDISCIPLINARY STUDIES BUILDING
UCR CAMPUS, RIVERSIDE

Job No. 02339-3 Enclosure B-2

LOG OF BORING 3

Date Drilled: 4/2/02

Client: University of California

Equipment: CME 55 Drill Rig

Driving Weight / Drop: 140 lb/30 in

Surface Elevation (ft): N/A

Logged by: S.H.

Measured Depth to Water(ft): N/A

DEPTH (ft)	GRAPHIC LOG	VISUAL CLASSIFICATION	REMARKS	SAMPLES		BLOWS/FOOT (Equiv. SPT)	FIELD MOISTURE (%)	DRY UNIT WT. (pcf)	LAB/FIELD TESTS
				DRIVE	BULK				
		(SM) Silty Sand, fine to medium with coarse and clay, light brown	Native	X	X		8.4		
5				X	X	48	5.5	127	Ring
10				X	X	57	11.9	124	Ring
15		(SM) Silty Sand, fine with medium, coarse and clay, red brown		X	X	40/6"	14.0	122	Ring
20				X	X	40/6"	10.7		
25				X	X	49	9.6	129	Ring
30				X	X	40/6"	8.1	126	Ring
		END OF BORING		X	X	40/6"	9.6	124	Ring
		NO BEDROCK, NO REFUSAL, NO FILL, NO FREE GROUNDWATER		X	X	40/5.5"	7.7	112	Ring

BORING LOG 02339-3.GPJ CHJ.GDT 4/25/02



INTERDISCIPLINARY STUDIES BUILDING
UCR CAMPUS, RIVERSIDE

Job No. 02339-3 Enclosure B-3

LOG OF BORING 4

Date Drilled: 4/2/02

Client: University of California

Equipment: CME 55 Drill Rig

Driving Weight / Drop: 140 lb/30 in

Surface Elevation (ft): N/A

Logged by: S.H.

Measured Depth to Water(ft): N/A

DEPTH (ft)	GRAPHIC LOG	VISUAL CLASSIFICATION	REMARKS	SAMPLES		BLOWS/FOOT (Equiv. SPT)	FIELD MOISTURE (%)	DRY UNIT WT. (pcf)	LAB/FIELD TESTS
				DRIVE	BULK				
		(SM) Silty Sand, fine to medium with coarse, red brown	Native	X	X		7.1		
5				X	X	46	8.8	125	Ring
10				X	X	40/6"	N.R.	N.R.	Ring
15		(SP-SM) Sand, fine to medium with coarse and silt, yellow brown		X	X	30	N.R.	N.R.	Ring
20				X	X	51	2.9	121	Ring
25				X	X	51	5.1	115	Ring
30		END OF BORING		X	X	40/6"	7.1	116	Ring
		NO BEDROCK NO REFUSAL NO FILL NO FREE GROUNDWATER							

BORING LOG 02339-3.GPJ CHJ.GDT 4/25/02



INTERDISCIPLINARY STUDIES BUILDING
UCR CAMPUS, RIVERSIDE

Job No. Enclosure
02339-3 B-4

LOG OF BORING 5

Date Drilled: 4/2/02

Client: University of California

Equipment: CME 55 Drill Rig

Driving Weight / Drop: 140 lb/30 in

Surface Elevation (ft): N/A

Logged by: S.H.

Measured Depth to Water(ft): N/A

DEPTH (ft)	GRAPHIC LOG	VISUAL CLASSIFICATION	REMARKS	SAMPLES		BLOWS/FOOT (Equiv. SPT)	FIELD MOISTURE (%)	DRY UNIT WT. (pcf)	LAB/FIELD TESTS
				DRIVE	BULK				
5		(SM) Silty Sand, fine to medium with coarse, red brown	Native			40/5"	10.5	122	Ring
		(SM) Silty Sand, fine to medium with coarse, orange brown				40/6"	10.2	N.R.	N.R.
10		(SM) Silty Sand, fine to medium with coarse, red brown				30	7.6		
		(SP-SM) Sand, fine to medium with coarse and silt, dark yellow brown				32	3.8	115	Ring
20		(SP-SM) Sand, fine to medium with coarse and silt, red brown				58	6.1		
		(SP-SM) Sand, fine to medium with coarse and silt, dark yellow brown				54	5.4	114	Ring
25		(SP-SM) Sand, fine to medium with coarse and silt, red brown				40/6"	6.8		
		(SP-SM) Sand, fine to medium with coarse and silt, dark yellow brown				54	4.9	124	Ring
30		(SP-SM) Sand, fine to medium with coarse and silt, red brown				40/6"	8.2	122	Ring
		(SP-SM) Sand, fine to medium with coarse and silt, dark yellow brown				40/6"	10.1	122	Ring
		END OF BORING NO BEDROCK, NO REFUSAL, NO FILL, NO FREE GROUNDWATER							

BORING LOG 02339-3.GPJ CHJ.GDT 4/25/02



INTERDISCIPLINARY STUDIES BUILDING
UCR CAMPUS, RIVERSIDE

Job No. 02339-3 Enclosure B-5

LOG OF BORING 6

Date Drilled: 4/2/02

Client: University of California

Equipment: CME 55 Drill Rig

Driving Weight / Drop: 140 lb/30 in

Surface Elevation (ft): N/A

Logged by: S.H.

Measured Depth to Water(ft): N/A

DEPTH (ft)	GRAPHIC LOG	VISUAL CLASSIFICATION	REMARKS	SAMPLES		BLOWS/FOOT (Equiv. SPT)	FIELD MOISTURE (%)	DRY UNIT WT. (pcf)	LAB/FIELD TESTS
				DRIVE	BULK				
5		(SM) Silty Sand, fine with medium and coarse, dark yellow brown	Native				6.3		
						38	5.8	119	Ring
10		(SM) Silty Sand, fine with medium and coarse, red brown					11.8		
						35	10.7	111	Ring
15		(SM) Silty Sand, fine with medium, coarse and clay, red brown					8.1		
						55	7.7	133	Ring
20		(SP-SM) Sand, fine to medium with coarse and silt, dark yellow brown							
						46	8.4	126	Ring
25									
						62	5.8	123	Ring
30									
						50	4.7	117	Ring

LOG OF BORING 6

Date Drilled: 4/2/02

Client: University of California

Equipment: CME 55 Drill Rig

Driving Weight / Drop: 140 lb/30 in

Surface Elevation (ft): N/A

Logged by: S.H.

Measured Depth to Water(ft): N/A

DEPTH (ft)	GRAPHIC LOG	VISUAL CLASSIFICATION	REMARKS	SAMPLES		BLOWS/FOOT (Equiv. SPT)	FIELD MOISTURE (%)	DRY UNIT WT. (pcf)	LAB/FIELD TESTS
				DRIVE	BULK				
	[Patterned Box]	(SP-SM) Sand, fine to medium with coarse and silt, dark yellow brown		[X]	[X]	54	3.7	114	Ring
40	[Patterned Box]	(SM) Silty Sand, fine with medium, coarse and clay, orange brown		[X]	[X]	70/9"	13.5	125	Ring
45	[Patterned Box]	(SP-SM) Sand, fine to medium with coarse and silt, yellow brown		[X]	[X]	40/6"	4.5	108	Ring
50		END OF BORING							
55		NO BEDROCK NO REFUSAL NO FILL NO FREE GROUNDWATER							
60									
65									

BORING_LOG 02339-3.GPJ CHJ.GDT 4/25/02



INTERDISCIPLINARY STUDIES BUILDING
UCR CAMPUS, RIVERSIDE

Job No. Enclosure
02339-3 B-6b

APPENDIX "C"

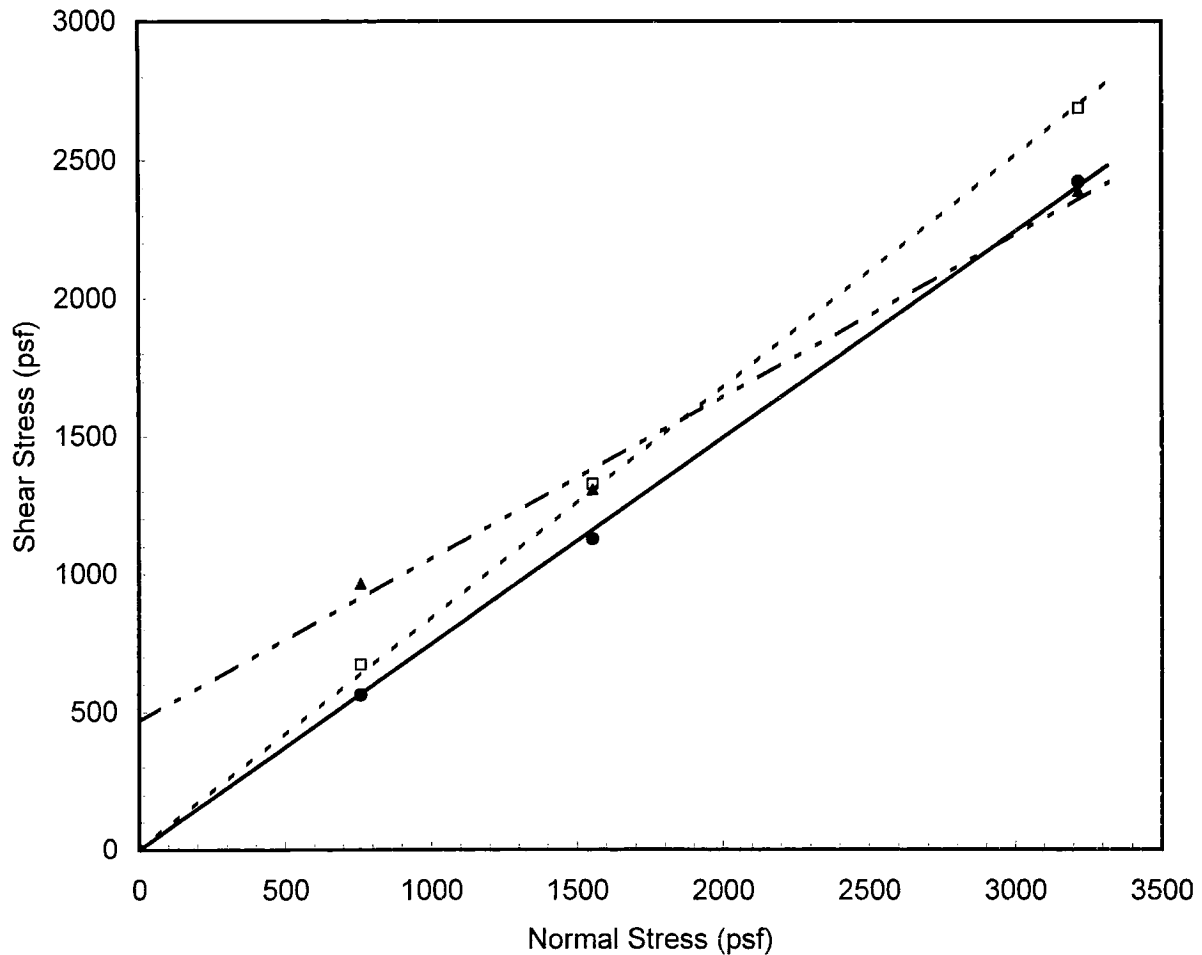
LABORATORY TESTING

TEST DATA SUMMARYOPTIMUM MOISTURE - MAXIMUM DENSITY RELATION:

ASTM D 1557-91

<u>Boring No.</u>	<u>Depth of Sample (ft.)</u>	<u>Classification</u>	<u>Optimum Moisture (Percent)</u>	<u>Maximum Dry Density (pcf)</u>
1	0.0	Silty Sand, fine with medium, orange brown (SM)	10.5	128.5
1	7.0	Silty Sand, fine with medium, red brown (SM)	8.0	134.0
6	5.0	Silty Sand, fine with medium, red brown (SM)	10.5	126.5

Direct Shear Test



Boring #	Depth(ft)	Soil/Sample Type	γ_d (pcf)	MC(%)	C (psf)	ϕ (°)	
●	1	7	Silty sand, fine to coarse with gravel to 1/4" (Sm) / Molded	127	6.1	0	36.8
□	6	5	Silty sand, fine to medium with coarse and gravel to 3/8" (SM) / Molded	111	11.8	0	40.0
▲	6	7	Silty sand, fine to medium with coarse and gravel to 3/8" (SM) / Undisturbed	111	10.7	466	30.5

DIRECT SHEAR TEST



Project: Proposed Interdisciplinary Studies Building
 Location: University of California, Riverside
 Job Number: 02339-3

Enclosure: C-3

Table 1 - Laboratory Tests on Soil Samples

Your #02339-3, MJS&A #02-0355LAB

15-Apr-02

Sample ID

2A

@ 0'

Resistivity	Units	
as-received	ohm-cm	5,100
saturated	ohm-cm	2,700

pH 6.6

Electrical

Conductivity mS/cm 0.11

Chemical Analyses

Cations

calcium	Ca ²⁺	mg/kg	20
magnesium	Mg ²⁺	mg/kg	7
sodium	Na ¹⁺	mg/kg	66

Anions

carbonate	CO ₃ ²⁻	mg/kg	ND
bicarbonate	HCO ₃ ¹⁻	mg/kg	116
chloride	Cl ¹⁻	mg/kg	30
sulfate	SO ₄ ²⁻	mg/kg	83

Other Tests

ammonium	NH ₄ ¹⁺	mg/kg	5.9
nitrate	NO ₃ ¹⁻	mg/kg	1.8
sulfide	S ²⁻	qual	na
Redox		mv	na

Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.

mg/kg = milligrams per kilogram (parts per million) of dry soil.

Redox = oxidation-reduction potential in millivolts

ND = not detected

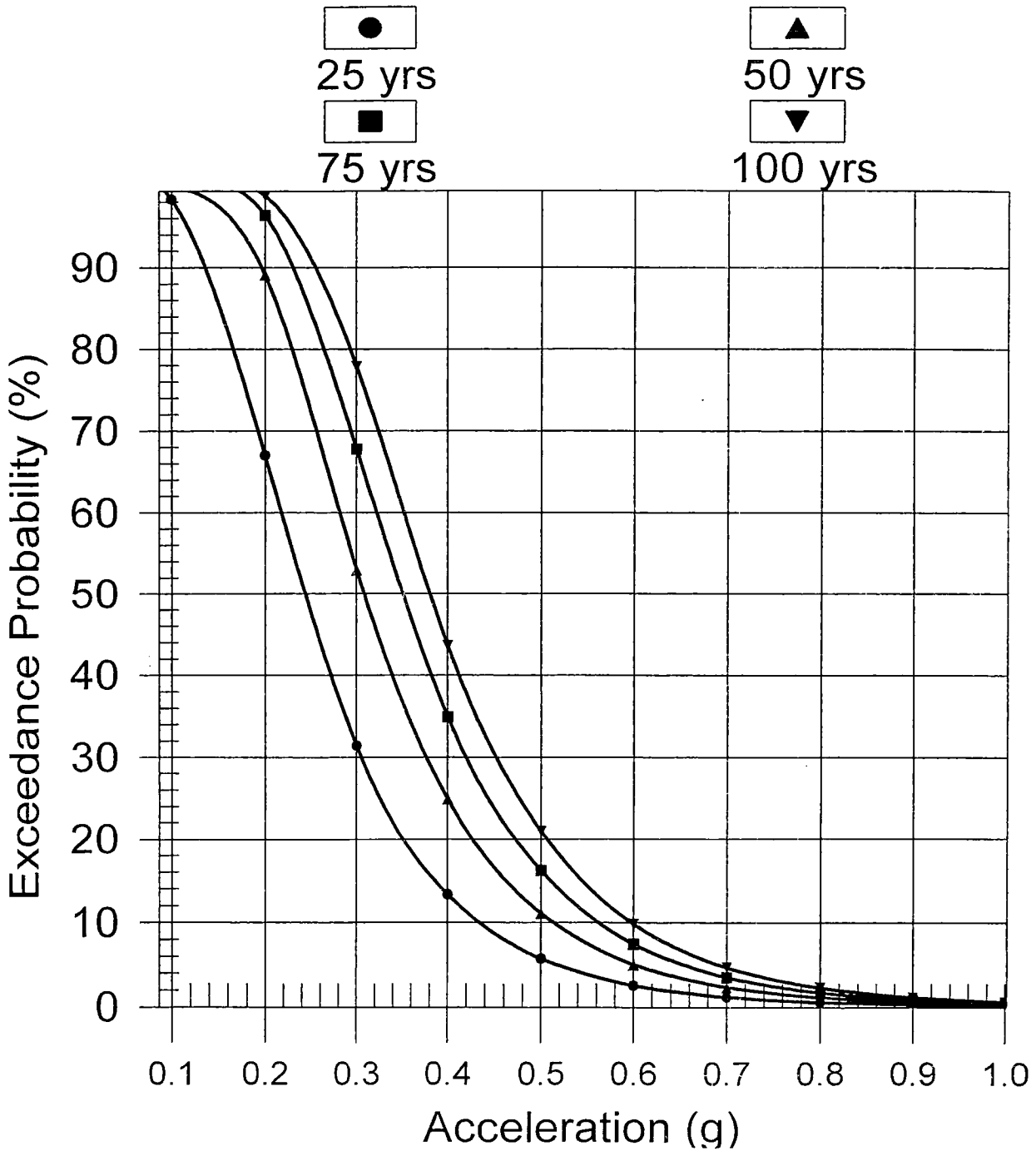
na = not analyzed

APPENDIX "D"

SEISMIC DATA

PROBABILITY OF EXCEEDANCE

BOORE ET AL(1997) NEHRP C (520)1





Addendum No. 9, March 11, 2019

COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425

PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3169

CLIENT NAME: S.J. Amoroso Construction Co., Inc

CLIENT ADDRESS: 275 East Baker Street, Suite B
Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Foundation Footings @ G/1

MIX NO: CHJ05370 MEASURED SLUMP (in): 4 SPEC'D PSI: 3000

AIR CONTENT: N/A AMBIENT TEMP: 50 CONCRETE TEMP: 60

SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28

DATE CAST: 3/7/2006 TIME CAST: 2:38am CAST BY: Gary Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	3/14/2006	135,660	4,797	D	
2	28	4/4/2006		0		
3	28	4/4/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



Converse Consultants

Geotechnical Engineering
Environmental & Geotechnical Science
Inspection & Testing Services



950377

REPORTS

**GEOTECHNICAL OBSERVATION OF GRADING AND
FIELD DENSITY TEST RESULTS REPORT**
Proposed College of Humanities Arts and Social Sciences (CHASS)
Buildings - Instruction & Research Facility
University of California, Riverside Campus
Riverside, California

September 21, 2006

Converse Project No. 05-81-248-30



60th Anniversary

1946 - 2006

Converse Consultants

Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

September 21, 2006

Mr. Darius Mareufkhani
Senior Project Manager
University of California-Riverside Campus
3615A Canyon Crest Drive
Riverside, CA 92507

Subject: **GEOTECHNICAL OBSERVATION OF GRADING AND FIELD DENSITY
TEST RESULTS REPORT**

Proposed College of Humanities Arts and Social Sciences (CHASS)
Buildings - Instruction & Research Facility
University of California, Riverside Campus
Riverside, California
Converse Project No. 05-81-248-30

Dear Mr. Mareufkhani:

Converse Consultants (Converse) has prepared this report to present the results of our geotechnical observations and field density and laboratory testing performed during grading and utility trench backfill for CHASS Instruction and Research Facility Building. These services were performed in accordance with our revised proposal dated December 16, 2005 and your Professional Services Agreement dated December 19, 2005.

Field density tests were performed in accordance with the ASTM Standard D1556 (Sand Cone) and D2922 (Nuclear Gauge) test methods to determine the in-place density of compacted fill soils. Results of the field density tests performed during grading are summarized in Table No. A-1, *Field Density Test Results*, in Appendix A, *Field Density Test Results*. Laboratory testing performed during grading included tests to determine maximum dry density and optimum moisture relationships, remolded direct shear and remolded consolidation test of the soils used as compacted fill. The results of these laboratory tests are summarized in Appendix B, *Laboratory Testing Program*.

Based on the results of our field observations, in-place density and laboratory testing, it is our opinion that the earthwork associated with the grading and utility trench backfill has been completed in substantial compliance with the project plans and specifications.



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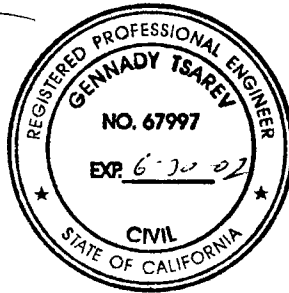
Telephone: (909) 796-0544 ♦ Facsimile: (909) 796-7675 ♦ e-mail: redlands@converseconsultants.com

We appreciate this opportunity to be of continued service to University of California-Riverside Campus. If you have any questions or need additional information, please do not hesitate to contact us at (909) 796-0544.

CONVERSE CONSULTANTS



Gennady Tsarev, P. E.
Project Engineer



Dist.: 4/Addressee

GT/RJR/HSQ/mjr



TABLE OF CONTENTS

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ILLUSTRATIONS

FIGURE

Following Page No.

Figure No. 1, *Site Location Map* 1

DRAWING

Drawing No. 1, *Field Density Test Location Map*.....In Map Pocket



APPENDICES

Appendix A.....*Field Density Test Results*
Appendix B.....*Laboratory Testing Program*



1.0 INTRODUCTION

This report contains the results of our geotechnical field observations, in-place density and laboratory testing performed during grading and utility trench backfill for CHASS Instruction and Research Facility Building, located within University of California, Riverside (UCR) Campus in Riverside, California.

The earthwork was performed in accordance with the requirements and recommendations set forth in the project Grading and Drainage Plans prepared by KPFF Consulting Engineers, entitled "*University of California, Riverside, College of Humanities, Arts & Social Sciences CHASS-Instruction & Research Facility*", dated April 2005, grading requirements of Appendix Chapter 33 of the California Building Code (CBC, 2001).

Information on anticipated subsurface conditions and recommendations for the project site development including earthwork, were provided in the "*Report of Geotechnical Investigation*" prepared by Mactec, presented in the reference section of this report.

This report was prepared for the project described herein and was intended for the sole use of University of California-Riverside Campus and its authorized agent(s). It may not contain sufficient information for use by others and/or for any other purposes.

2.0 PROJECT DESCRIPTION

2.1 General

The project site is located within University of California Riverside (UCR) Campus at the intersection of University Avenue and Canyon Crest Drive. The site location is shown in Figure No. 1, *Site Location Map*.

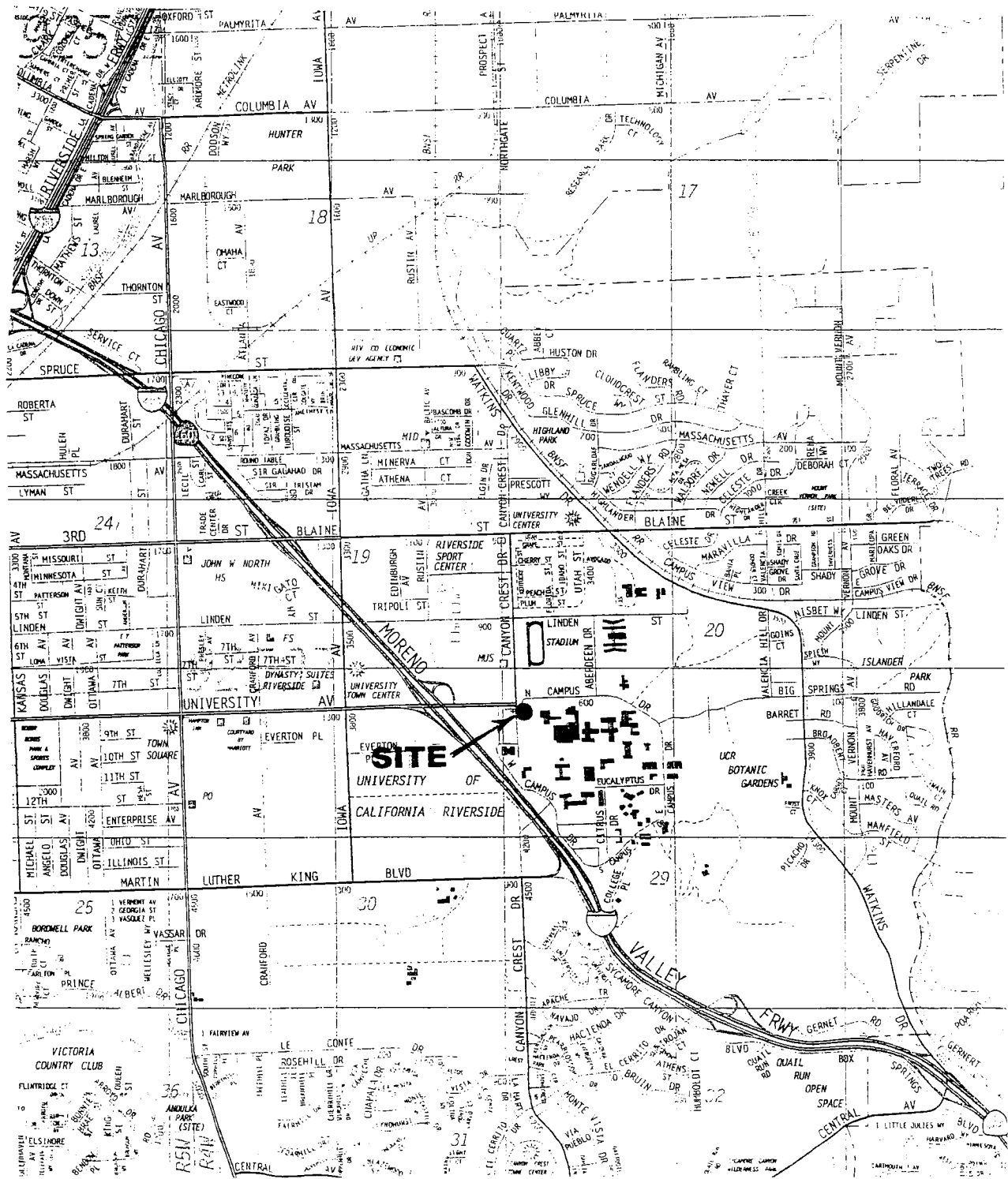
2.2 Site Conditions Prior to Grading

Prior to grading, the site had relatively flat topography occupied by existing tennis courts and parking lots. There was 5 to 8 foot high retaining wall at the south boundary of the site. Ground elevations at the site ranged from 1,037 to 1,049 feet above Mean Sea Level.

2.3 Proposed Development

The project consists of two (2), four-story buildings (North and South Buildings) interconnecting by approximately 30 foot long bridge. The North Building will have





REFERENCE:
 THE THOMAS GUIDE, THOMAS BROS. MAPS,
 RIVERSIDE COUNTIES, 2003 EDITION, PAGE 686.



SITE LOCATION MAP

CHASS INSTRUCTION & RESEARCH FACILITY
 Riverside, California
 For: University of California Riverside

Project No.
05-81-248-30



Converse Consultants

Figure No.

1

15,000 square feet and South Building will have 18,500 square feet. A basement, 10 feet deep is planned at the southeast corner of the South Building. The buildings will be constructed of reinforced concrete, steel and masonry blocks.

3.0 SCOPE OF WORK

Our scope of work for this project included full-time observation of grading and utility trench backfill, field density and laboratory testing to verify earthwork compliance with the project specifications. Our scope of work also included providing necessary geotechnical consultation services.

4.0 SITE GEOLOGY AND GROUNDWATER

A general description of the site-specific geologic hazards is presented in the referenced *Report of Geotechnical Investigation*. This section presents a description of the subsurface conditions, various materials and groundwater conditions encountered at the site during grading.

4.1 Pre-grading Geologic Conditions

Based on the project *Report of Geotechnical Investigation*, the alluvial soils consisted of mixtures of silt and sand with gravel and some clay.

4.2 Geologic Conditions Observed During Grading

Alluvial soils consisting of silty sand/sandy silt with trace to little gravel and clay were encountered in the areas of earthwork as anticipated. The unsuitable materials were removed to competent alluvial deposits prior to placement of compacted fill.

No unusual geologic conditions were encountered during grading.

4.3 Groundwater

Groundwater was not encountered in the exploratory borings at the time of the soil investigation as reported in the referenced *Geotechnical Investigation Report*. No groundwater was encountered or observed in any of the excavations during grading.



5.0 FAULTING AND SEISMICITY

The faulting and seismicity discussions are presented in the referenced *Geotechnical Investigation Report*.

6.0 GRADING AND EARTHWORK

6.1 *North and South Buildings*

Prior to grading, the ground surface was grubbed of any vegetation and surface debris. All debris was removed and disposed of off the site.

In general, about two (2) feet of undocumented fill and native soils within building areas were removed and replaced with compacted fill.

The bottom of the excavations were scarified to the depth of twelve (12) inches, moisture conditioned within three (3) percent of optimum and compacted to a minimum of 90 percent of the laboratory maximum dry density. Minimum 85 percent compaction was required for tests taken on native soils at the bottom of excavations. The field density tests were performed in accordance with either the ASTM Standard D1556 or ASTM Standard D2922 test methods.

North Building

During excavation for the west portion of the North Building, loose sand lenses were encountered at the bottom of excavation. The basement area was excavated an additional eight (8) feet to firm native soils. Excavated site soils were placed as compacted fill. Fill was placed in loose, 6-inch to 8-inch thick lifts, mixed and moisture conditioned if necessary to within three (3) percent optimum moisture, and compacted to at least 90 percent of the laboratory maximum dry density. Fill placed within the west portion of the North Building was compacted to at least 95 percent of the laboratory maximum dry density to reduce settlement.

South Building

About 10 feet of additional excavation was required for the South Building basement. Deep excavations, about 10 feet in depth were also performed at west portion of the South Building to provide access to the basement area. Excavated site soils were placed as compacted fill. Fill was placed in loose, 6-inch to 8-inch thick lifts, mixed and moisture



conditioned if necessary to within three (3) percent optimum moisture, and compacted to at least 90 percent of the laboratory maximum dry density.

A total of three (3) to ten (10) feet of compacted fill under both building foundations and slab-on-grade were placed. The backfill was also placed around building basement walls to the finish ground surface.

6.2 Landscape Areas

Prior to grading, the ground surface was grubbed of any vegetation and surface debris. All deleterious debris was removed and disposed off-site.

About two (2) feet of undocumented fill and native soils were removed and replaced with compacted fill.

The bottom of the excavations were scarified to the depth of twelve (12) inches, moisture conditioned within three (3) percent of optimum and compacted to a minimum of 90 percent of the laboratory maximum dry density.

Excavated site soils were placed as compacted fill. Fill was placed in loose, 6-inch to 8-inch thick lifts, mixed and moisture conditioned if necessary to within three (3) percent optimum moisture, and compacted to at least 90 percent of the laboratory maximum dry density. Up to three (3) feet of fill was placed in the landscape areas. The field density tests were performed in accordance with either the ASTM Standard D1556 or ASTM Standard D2922 test methods.

7.0 FIELD DENSITY AND LABORATORY TEST RESULTS

7.1 Field Density Test Results

At the end of each working day, the soil technician prepared a *Daily Field Report* documenting the geotechnical observations made during the day.

Nuclear Gauge (ASTM Standard D2922) and/or Sand Cone (ASTM Standard D1556) test methods were utilized to evaluate the in-place density of compacted fill at random locations. The results of the field density tests performed during finish grading are summarized in Table No. A-1, *Field Density Test Results*, in Appendix A, *Field Density Test Results*. The approximate locations of the field density tests are shown in Drawing No. 1, *Approximate Field Density Test Location Map*.



The relative compaction for each field density test reported is obtained by dividing the measured in-place dry density by the maximum laboratory dry density of the same "soil type" presented in Table No. B-1, *Laboratory Maximum Dry Density and Optimum Moisture Content Tests*, in Appendix B, *Laboratory Testing Program*.

7.2 Laboratory Test Results

Five (5) representative bulk samples of the native fill soils were retrieved during grading and tested in the laboratory to determine their laboratory maximum dry density/optimum moisture contents. These tests were performed in accordance with the ASTM Standard D1557 test method. Results of these tests are summarized in Table No. B-1, *Laboratory Maximum Dry Density and Optimum Moisture Content Tests*.

A direct shear test was performed on samples remolded to 95 percent of the laboratory maximum dry density. The test results are presented in Appendix B, *Laboratory Testing Program*. The results indicate that the site soils compacted to 95 percent have moderate shear strength.

A consolidation test was performed on a sample remolded to 95 percent of laboratory maximum dry density. The results of these tests are included in Appendix B, *Laboratory Testing Program*.

8.0 DESIGN AND CONSTRUCTION RECOMMENDATION

The design and construction recommendations presented in the referenced *Geotechnical Investigation Report* are still applicable for the project.

9.0 LIMITATIONS

The conclusions and opinions contained in this report were prepared in accordance with generally accepted professional engineering and engineering geologic principles and practice within our profession in effect at this time in Southern California. Our conclusions are based on field observation, field and laboratory testing performed in accordance with applicable industry standards, data analysis/interpretation and our experience. We make no other warranty, either expressed or implied.

Our field density testing to evaluate fill compaction was performed at random and discrete locations and at various time intervals during the fill placement operations. Our test results are considered representative of the locations and material tested within the



compacted fill. Some variations in the densities and moisture of compacted fill at other locations should be expected.

This report presents opinion formed as results of our observation of fill placement and density testing of compacted fill. We have relied on the contractor to continue applying the recommended compaction efforts and moisture to the fill to meet the project specifications. The tests were performed on compacted fill in accordance with ASTM Standards to calibrate our observer's judgment, and to provide data on the overall compactive efforts.



10.0 REFERENCES

ANNUAL BOOK OF ASTM STANDARDS (Latest Edition), Vol. 04.08, *Soil and Rock; Dimension Stone; Geosynthetics*.

CALIFORNIA BUILDING STANDARDS COMMISSION (2001), California Building Code.

CONVERSE CONSULTANTS, Field Density Test Results Report, Proposed College of Humanities Arts and Social Sciences (CHASS) Buildings - Instruction & Research Facility, University of California, Riverside Campus, Riverside, California, Converse Project No. 05-81-248-30, Dated August 22, 2006

MACTEC, "*Report of Geotechnical Investigation, Proposed College of Humanities Arts and Social Sciences (CHASS) Buildings – Instruction and Research Facilities, 900 University Drive, University of California, Riverside (UCR), Riverside, California*", UCR Project Number 950377, Project No. 4953-03-3141, Dated October 21, 2003.



APPENDIX A

FIELD DENSITY TEST RESULTS

Table No. A-1, Field Density Test Results

Test No.	Test Date	Test Location	Approximate Test Elevation (ft)	Approximate Fill Below Test (ft)	Dry Density (pcf)	Moisture Content (%)	Soil Type	Compaction (%)	Remarks (90% Req. unless noted)
GRADING									
1	01/11/06	GRID C / 5	1037	0	121.0	11.7	3	92	BTM
2	01/13/06	GRID E / 3	1040	0	118.0	10.0	1	94	BTM
3	01/13/06	GRID E / 2	1035	0	121.2	4.6	3	92	BTM
4	01/13/06	GRID D / 2	1040	0	114.8	10.1	2	92	BTM
5	01/16/06	GRID D / 2	1036	0	122.6	9.2	3	93	BTM
6	01/16/06	GRID C / 4	1039	2	122.6	9.5	3	93	
7	01/16/06	GRID C / 3	1040	3	126.5	7.1	3	96	
8	01/16/06	GRID D / 5	1038	1	123.4	8.2	3	94	
9	01/20/06	GRID F / 8	1031	2	125.5	8.6	3	95	
10	01/20/06	GRID F / 8	1033	4	125.1	6.0	3	95	
11	01/20/06	GRID E / 8	1029	0	118.1	8.7	3	90	BTM
12	01/20/06	GRID F / 8	1035	5	124.5	7.7	3	95	
13	01/20/06	GRID E / 7	1031	2	125.8	8.9	3	95	
14	01/20/06	GRID E / 7	1033	4	126.1	8.6	3	96	
15	01/20/06	LANDSCAPE AREA, GRID E / 5	1035	0	114.4	13.2	3	87	BTM
16	01/20/06	LANDSCAPE AREA, GRID E / 4	1038	2	120.2	9.4	3	91	
17	01/20/06	LANDSCAPE AREA, GRID F / 6	1037	1	123.0	11.2	3	93	
18	01/20/06	LANDSCAPE AREA, GRID E / 6	1038	3	121.4	9.0	3	92	
19	01/20/06	NORTH BLDG., GRID F / 8	1036	6	125.6	8.6	3	95	95% Req.
20	01/20/06	NORTH BLDG., GRID F / 7	1035	6	126.3	9.8	3	96	95% Req.
21	02/01/06	NORTH BLDG., GRID C / 7	1026	0	113.4	9.5	2	90	BTM
22	02/01/06	NORTH BLDG., GRID C / 8	1024	0	112.2	7.5	5	92	BTM
23	02/01/06	NORTH BLDG., GRID D / 8	1024	0	118.4	9.8	2	94	BTM
18i	03/31/06	NORTH BLDG., GRID F / 8	1030	2	115.9	8.4	2	93	
19i	04/04/06	NORTH BLDG., GRID F / 8	1032	4	128.1	9.3	7	97	
20i	04/04/06	NORTH BLDG., GRID D / 8	1032	4	117.1	7.4	3	96	

Table No. A-1, Field Density Test Results

Test No.	Test Date	Test Location	Approximate Test Elevation (ft)	Approximate Fill Below Test (ft)	Dry Density (pcf)	Moisture Content (%)	Soil Type	Compaction (%)	Remarks (90% Req. unless noted)
21i	04/04/06	NORTH BLDG., GRID F / 8	1034	6	123.8	7.9	7	94	
22i	04/04/06	NORTH BLDG., GRID E / 7	1034	6	117.4	7.7	3	96	
23i	04/04/06	NORTH BLDG., GRID D / 7	1034	6	122.5	7.2	7	93	
24	04/10/06	NORTH BLDG. BASEMENT, GRID C / 8	1036	2	124.6	7.1	2	99	
25	04/10/06	NORTH BLDG. BASEMENT, GRID D / 8	1037	2	123.8	6.5	2	99	
26	04/10/06	NORTH BLDG. BASEMENT, GRID D / 8	1036	2	130.0	6.5	7	99	
27	04/10/06	NORTH BLDG. BASEMENT, GRID D / 8	1037	1	126.2	6.3	7	95	
28	04/10/06	NORTH BLDG. BASEMENT, GRID D / 8	1037	1	123.7	5.4	2	98	
29	04/10/06	NORTH BLDG. BASEMENT, GRID C / 8	1038	3	128.8	6.7	7	97	
30	04/10/06	NORTH BLDG. BASEMENT, GRID D / 8	1038	3	128.0	7.0	7	97	
31	04/10/06	NORTH BLDG. BASEMENT, GRID D / 8	1037	3	131.6	7.0	7	99	
32	04/11/06	SOUTH BLDG. BASEMENT, GRID E / 2	1035	1	121.8	10.7	7	92	
33	04/11/06	SOUTH BLDG. BASEMENT, GRID D / 2	1035	1	122.6	8.0	7	93	
34	04/11/06	SOUTH BLDG. BASEMENT, GRID E / 3	1031	1	119.7	8.4	7	90	
35	04/11/06	SOUTH BLDG. BASEMENT, GRID D / 3	1031	1	119.2	7.8	7	90	
36	04/11/06	SOUTH BLDG. BASEMENT, GRID D / 3	1031	1	132.5	8.1	7	95	
37	04/11/06	SOUTH BLDG. BASEMENT, GRID D / 2	1036	2	124.3	7.6	7	94	
38	04/11/06	SOUTH BLDG. BASEMENT, GRID D / 2	1036	2	127.8	7.8	7	97	
39	04/11/06	SOUTH BLDG. BASEMENT, GRID D / 2	1031	1	121.6	7.5	7	92	
40	04/12/06	SOUTH BLDG. BASEMENT, GRID D / 2	1037	3	128.9	8.6	7	97	
41	04/12/06	SOUTH BLDG. BASEMENT, GRID D / 2	1038	1	127.7	8.2	7	96	
42	04/12/06	SOUTH BLDG. BASEMENT, GRID D / 4	1039	1	130.3	8.9	7	99	
43	04/12/06	SOUTH BLDG. BASEMENT, GRID E / 2	1038	4	130.1	9.6	7	98	
44	04/12/06	SOUTH BLDG. BASEMENT, GRID E / 3	1039	2	126.1	9.5	7	95	
45	04/12/06	SOUTH BLDG. BASEMENT, GRID D / 2	1039	4	128.5	8.9	7	97	
46	04/12/06	SOUTH BLDG. BASEMENT, GRID E / 3	1039	2	131.7	9.2	7	99	
47	04/12/06	SOUTH BLDG. BASEMENT, GRID C / 2	1039	2	122.2	8.8	7	92	

Table No. A-1, Field Density Test Results

Test No.	Test Date	Test Location	Approximate Test Elevation (ft)	Approximate Fill Below Test (ft)	Dry Density (pcf)	Moisture Content (%)	Soil Type	Compaction (%)	Remarks (90% Req. unless noted)
48	04/12/06	SOUTH BLDG. BASEMENT, GRID F / 2	1041	2	125.0	9.7	7	94	
49	04/14/06	SOUTH BLDG. BASEMENT, GRID E / 2	1045	N/A	121.5	8.9	7	93	
50	04/14/06	SOUTH BLDG. BASEMENT, GRID D / 2	1046	N/A	123.8	9.2	7	93	
51	04/14/06	SOUTH BLDG. BASEMENT, GRID C / 2	1045	N/A	121.5	7.4	7	92	
52	04/14/06	SOUTH BLDG. BASEMENT, GRID F / 2	1040	N/A	121.6	8.4	7	92	
53	04/14/06	NORTH BLDG. BASEMENT, GRID C / 7	1038	1	121.3	9.3	7	92	
54	04/14/06	NORTH BLDG. BASEMENT, GRID D / 7	1039	2	127.3	8.7	7	96	
55	04/18/06	NORTH BLDG. BASEMENT, GRID C / 8	1038	1	119.4	7.7	7	90	
56	04/18/06	NORTH BLDG. BASEMENT, GRID D / 7	1039	2	122.9	7.0	7	93	
57	05/15/06	4" SEWER NORTH BLDG. EAST SIDE, GRID C / 8	1037	2	117.5	7.2	3	90	
58	05/15/06	4" SEWER NORTH BLDG. EAST SIDE C / 8	1037	2	119.5	7.4	3	91	
59	05/17/06	NORTH BLDG., GRID F / 8	1023	2	120.3	9.7	2	91	
60	05/17/06	NORTH BLDG., GRID F / 8	1023	2	110.3	9.7	2	84	Failed, See RT #60A
60A	05/17/06	NORTH BLDG., GRID F / 8	1023	2	119.3	7.8	2	90	RT of #60
61	05/17/06	NORTH BLDG., GRID F / 7	1023	3	112.0	9.9	2	85	Failed, See RT #61A
61A	05/17/06	NORTH BLDG., GRID F / 7	1023	3	120.3	7.8	2	91	RT of #61
62	05/18/06	WATER VALVE WEST OF BLDG.	1041	2	114.4	9.4	2	87	FG, Failed, See RT #62A
62A	05/18/06	WATER VALVE WEST OF BLDG.	1041	2	120.0	7.1	2	91	FG, RT of #62
WATER PIPE TRENCH BACKFILL									
1	01/18/06	SE OF BLDG. 20, OFFSITE	1055	3	117.4	7.9	1	92	
2	01/18/06	SE OF BLDG. 20, OFFSITE	1055	4	119.4	8.5	1	93	
3	01/18/06	SE OF BLDG. 20, OFFSITE	1045	2	117.9	8.1	1	92	
4	01/18/06	SE OF BLDG. 20, OFFSITE	1045	4	118.7	9.4	1	93	
5	01/18/06	SE OF BLDG. 20, OFFSITE	1045	4	116.3	8.6	1	91	
6	01/18/06	SE OF BLDG. 20, OFFSITE	1045	4	116.0	8.0	1	91	

Notes: BTM: Bottom RT: Retest
 FG: Finish Grade i: Repeated Test Numbers

APPENDIX B
LABORATORY TESTING PROGRAM

APPENDIX B

LABORATORY TESTING PROGRAM

Laboratory tests were conducted on representative samples of the site soils for the purpose of evaluating physical properties and engineering characteristics. A brief description of the test procedures and results are presented below.

Laboratory Maximum Density and Optimum Moisture Tests

Laboratory maximum dry density and optimum moisture tests were performed on representative bulk samples of the site materials. These tests were performed in accordance with the ASTM Standard D1557 laboratory procedure. The results are presented in the following table.

Table No. B-1, Laboratory Maximum Dry Density and Optimum Moisture Content Tests

Soil Type	Soil Classification	Maximum Density (pcf)	Optimum Moisture (%)
1	Silty Sand (SM), fine-grained, brown	127.5	10.0
2	Silty Sand (SM), fine-grained, brown	125.5	10.0
3	Silty Sand (SM), fine-grained, trace clay, brown	132.0	9.5
4	Silty Sand (SM), fine-grained, brown	128.0	8.5
5	Silty Sand (SM), fine-grained, brown	121.5	9.5

Direct Shear Test

A direct shear test was performed on samples remolded to 95 percent of the laboratory maximum dry density. The test was performed on three samples at soaked moisture conditions. Samples contained in brass sampler rings were placed one at a time directly into the test apparatus and subjected to a range of normal loads appropriate for the anticipated conditions. Each sample was then sheared at a constant strain rate of 0.01 inch/minute. Shear deformation was recorded until a maximum of about 0.25-inch shear displacement was achieved. Peak strength was selected from the shear-stress deformation data and plotted to determine the shear strength parameters. Tests data, including sample density and moisture content are presented in the following table and presented in Drawing No. B-1, *Direct Shear Test Results*.



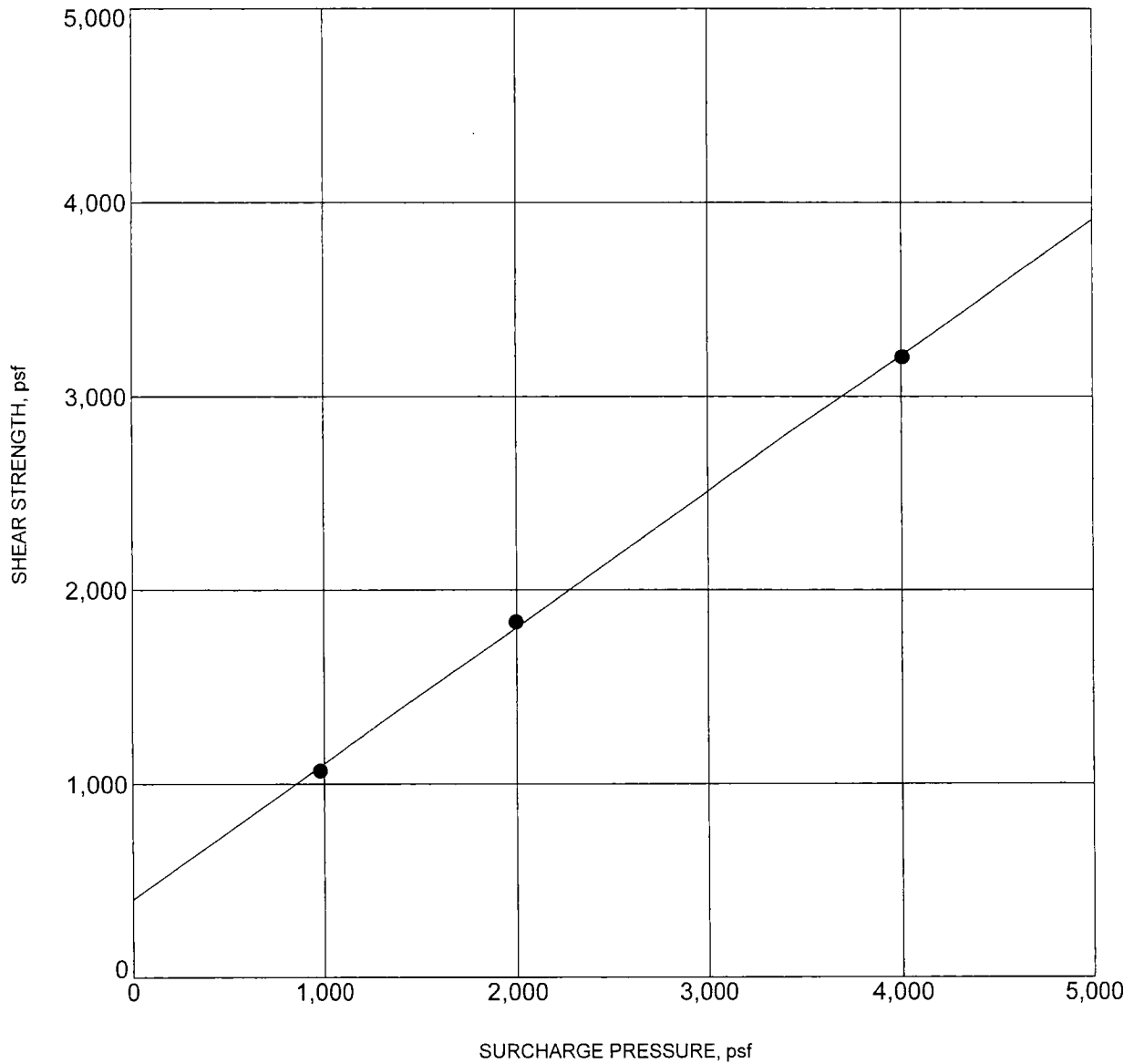
Table No. B-2, Direct Shear Test Results

Natural/Remolded	Soil Classification	Average Initial Moisture Content (%)	Average Initial Dry Density (pcf)	Effective Cohesion (psf)	Effective Friction Angle (degree)
Remolded to 95%	Silty Sand (SM)	10.1	119.5	400	35

Consolidation Test

One (1) consolidation test was performed on a sample remolded to 95 percent of laboratory maximum dry density at submerged conditions. The test was performed to evaluate the settlement characteristics of the foundation soils under load. Preparation for this test involved trimming the sample and placing the one-inch high brass ring into the test apparatus, which contained porous stones, both top and bottom, to accommodate drainage during testing. Normal axial loads were applied to one end of the sample through the porous stones, and the resulting deflections were recorded at various time periods. The load was increased after the sample reached a reasonable state of equilibrium. Normal loads were applied at a constant load-increment ratio, successive loads being generally twice the preceding load. The test results, including sample density and moisture content, are presented in Drawing No. B-2 *Consolidation Test Results*.





BORING NO.	: N/A	DEPTH (ft)	: N/A
DESCRIPTION	: SILTY SAND (SM)		
COHESION (psf)	: 400	FRICTION ANGLE (degrees)	: 35
MOISTURE CONTENT (%)	: 10.1	DRY DENSITY (pcf)	: 119.5

NOTE: Ultimate Strength, Sample Remolded to 95% Relative Compaction

DIRECT SHEAR TEST RESULTS

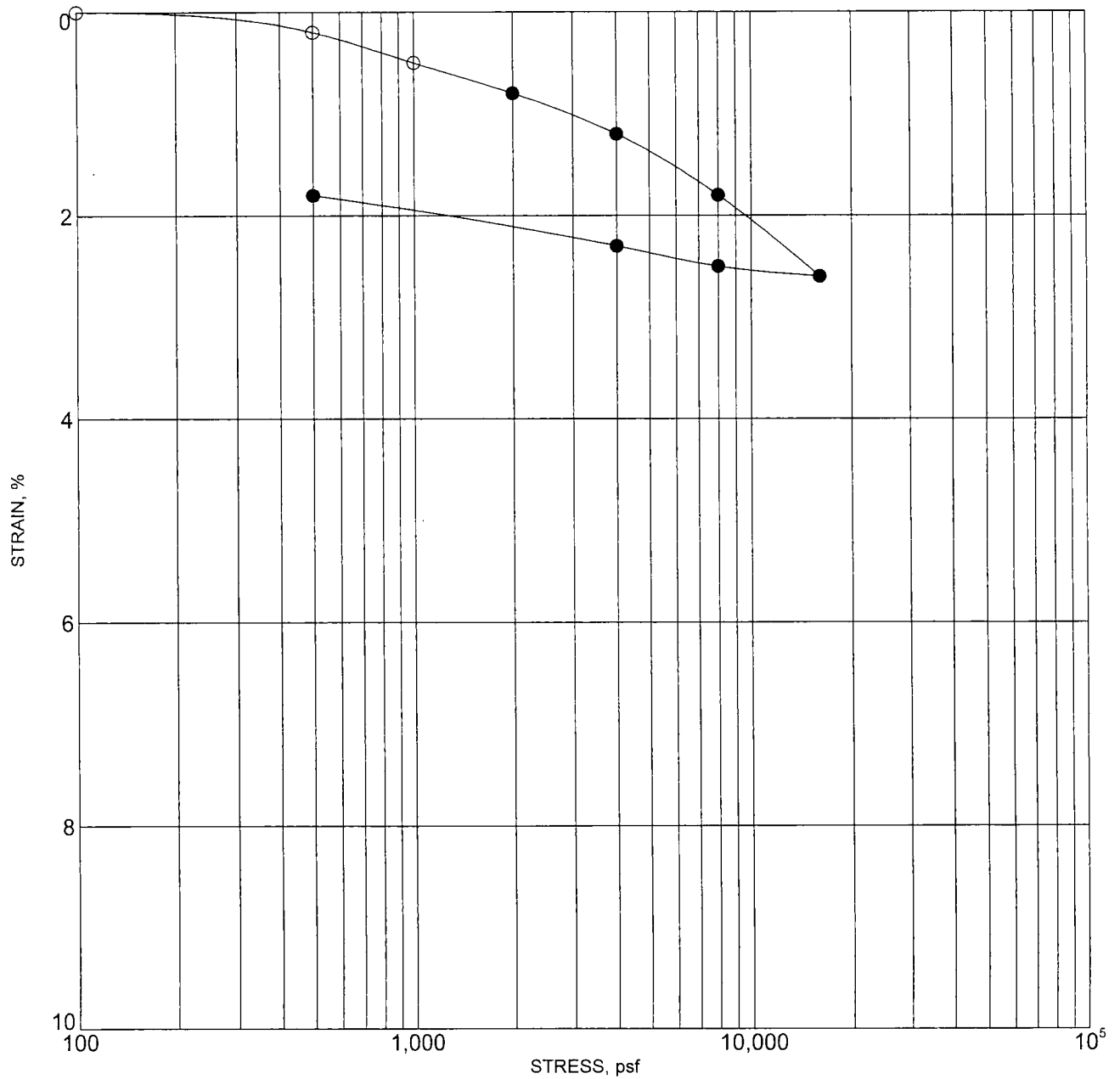


Converse Consultants

UCR NORTH BLDG.
For: UCR

Project No.
05-81-248-30

Drawing No.
1



BORING NO. :		N/A		DEPTH (ft) :		N/A	
DESCRIPTION :		SILTY SAND (SM)					
	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	PERCENT SATURATION	VOID RATIO			
INITIAL	9.4	119.7	66	0.378			
FINAL	13.1	121.9	100	0.353			

NOTE: Solid Circles Indicate Readings After Addition of Water, Sample Remolded to 95% of the Laboratory Maximum Dry Density

CONSOLIDATION TEST RESULTS



Converse Consultants

UCR NORTH BLDG.
For: UCR

Project No.
05-81-248-30

Drawing No.
2

UNIVERSITY OF CALIFORNIA, RIVERSIDE

College of Humanities, Arts, & Social Sciences
CHASS-Instruction & Research Facility
UCR PROJ. 950377

OWNER/CLIENT
UNIVERSITY OF CALIFORNIA, RIVERSIDE
Office of Design & Construction
University of California, Riverside
Bannockburn Office-10
Riverside, CA 92521
Tel. No.: 909-787-4201
Fax No.: 909-787-3890

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EXECUTIVE ARCHITECT
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385 East Colorado Blvd., Suite 200
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Fax No.: 626-304-2676

MEP ENGINEERS
M-E ENGINEERS, INC.
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Culver City, CA 90232
Tel. No.: 310-842-8700
Fax No.: 310-842-7700

CIVIL ENGINEERS
KPF
6080 Center Drive, Suite 300
Los Angeles, CA 90045
Tel. No.: 310-665-1536
Fax No.: 310-665-9075

LANDSCAPE ARCHITECT
BURTON & COMPANY
1430 Olympic Boulevard
Santa Monica, CA 90404
Tel. No.: 310-828-6373
Fax No.: 310-836-8054

AUDIO VISUAL CONSULTANT
MENLO SCIENTIFIC ACoustics, INC.
415 South Topanga Canyon Blvd.
Topanga, CA 90290
Tel. No.: 310-455-2221
Fax No.: 310-445-0923



Date	April 25, 2005	Drawn By	JV
Scale	AS SHOWN	Checked By	SG, IO
Project No.	103638		

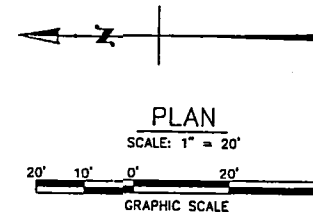
Drawing Title
**GRADING AND DRAINAGE PLAN
DEDUCTIVE ALTERNATES**

Drawing No.
C3.0A



LEGEND:

- CIVIL LIMITS OF WORK
- DEDUCTIVE ALTERNATE LIMITS
- PROPOSED SPOT GRADE
- EXISTING SPOT GRADE
- SAWCUT LINE



EXPLANATION

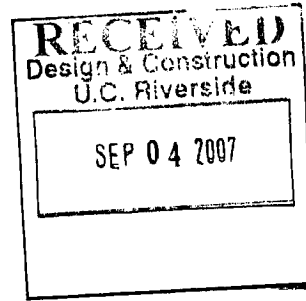
- Number and Approximate Location of Bottom Density Test
- Number and Approximate Location of Fill-In-Progress Density Test
- Number and Approximate Location of Finish Grade Density Test
- Approximate Limits of Over-Excavation

FIELD DENSITY TEST LOCATION MAP

CHASS INSTRUCTION & RESEARCH FACILITY
Riverside, California
For: University of California Riverside



Scale	As Shown	Project No.	
Prepared By		05-81-248-30	
Checked By	KQ	Drawing No.	
Approved By	GT		1
	RJR		



950377
reports

Date: August 30, 2007

Report distribution package of Field Inspection Reports and/or Laboratory results on materials tested.

Job Name: UCR Chass Building
Job Address: 3615-A Canyon Crest Drive
City: Riverside, CA

Client Name: SJ Amoroso Construction

You are receiving these reports at the request of our client. If you are not the correct recipient or wish to discontinue to receipt, please contact Denise DeGroff at 714/556-5867.



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT		JOB NUMBER 05-1425		DATE 8/13/07		<input checked="" type="checkbox"/> M	<input type="checkbox"/> T	<input type="checkbox"/> W	<input type="checkbox"/> T	<input type="checkbox"/> F	<input type="checkbox"/> S	<input type="checkbox"/> S
JOB NAME U.C.R. CHASS BUILDING				BUILDING / DSHPD PERMIT # / DSA-APP #				DSA-FILE #				
ADDRESS 1634 W. 14th ST LONG BEACH, CA				CITY				GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.				
ARCHITECT LEO A. DALY				ENGINEER SAILFU/BOQUET				SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP				
JURISDICTION D.S.A.												

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	—	—	6:00AM	—	2:30PM

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS)

REPORT: INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.

I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION WELDING AND ASSEMBLY OPERATIONS INCLUDING QUALITY CONTROL BY MEANS OF STEEL MATERIAL I. D. TRACING VIA PIECE MARK NUMBER TAGS AND CERTIFIED MILL TEST REPORTS MATCHING. WELDING PERFORMED BY ONLY CERTIFIED PER AWS D1.1 QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE. FABRICATION AND WELOS PERFORMED PER STAMPED AND APPROVED BY DSA. STRUCTURAL DRAWINGS/DETAILS, AND DETAILED SHOP DRAWING STAMPED APPROVED/RELEASED FOR FABRICATION (INSPECTION REQUIRED), AWS D1.1 WELDING CODE, D.S.A. AND ASD (AISC) CODES. WELOS VISUALLY ACCEPTABLE ON PIECE MARKS LISTED BELOW PER WPS.

- PIECE MARK# IN PROGRESS FOR STAR # BRAIL: 19A, 19B, 20B
- PIECE MARK# COMPLETED FOR SAME : 20A
- PIECE MARK# COMPLETED FOR WALL RAIL STAR #1: #BTAA
- * PIECE MARKS# IN PROGRESS PER PLAN REVISION DUE TO FIELD CONDITIONS: ~~#137A~~ #137A, #141A, #145A (ROOF FRAMES)

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE.			

Electrode Used: **LINCOLN OUTERSHIELD 71M E71T(1F9) WITH 100% CO₂ SHIELDING GAS**

Additional Page (Page #) CM **REPORT** Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name: **TERESA E. THOMPSON**

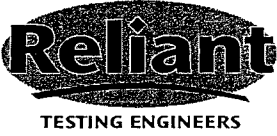
Inspector's Signature: *[Signature]*

Inspector's License #: **#041237 AWS CWI**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by: *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by: _____



STRUCTURAL STEEL

Testing & Inspection Report

3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 8/14/07	M	<input checked="" type="checkbox"/>	W	T	F	S	S
JOB NAME U.C.R. CHASS BUILDING		BUILDING / OSHPD PERMIT # / DSA-APP #			DSA-FILE #				
ADDRESS 1634 W. 14th ST LONG BEACH, CA		GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.			JURISDICTION D.S.A.				
ARCHITECT LEO A. DALY	ENGINEER SAILFU/BOUQUET	SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	—	—	6:00 AM	—	2:30 pm

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS)

REPORT (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED)

I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION WELDING AND ASSEMBLY OPERATIONS INCLUDING QUALITY CONTROL BY MEANS OF STEEL MATERIAL I. D. TRACING VIA PIECE-MARK NUMBER TAGS AND CERTIFIED MILL TEST REPORTS MATCHING. WELDING PERFORMED BY ONLY CERTIFIED PER AWS D1.1 QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE. FABRICATION AND WELDS PERFORMED PER STAMPED AND APPROVED BY DSA. STRUCTURAL DRAWINGS/DETAILS, AND DETAILED SHOP DRAWINGS STAMPED APPROVED/RELEASED FOR FABRICATION (INSPECTION REQUIRED), AWS D1.1 WELDING CODE, D.S.A, AND ASD (AISC) CODES. WELDS VISUALLY ACCEPTABLE ON PIECE MARKS LISTED BELOW PER W.P.S.

- PIECE MARKS IN PROGRESS FOR STAIR # 8 RAIL: #19B, 20B
- PIECE MARK # COMPLETED FOR SAME: #19A
- PIECE MARK # IN PROGRESS FOR STAIR # 4 RAIL: #37A, #37B, #40A, #41A
- PIECE MARK IN PROGRESS PER PLAN REVISION DUE TO FIELD CONDITIONS: #137A, #141A, #145A (ROOF FRAMES)

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE.			

Electrode Used: **LINCOLN OUTERSHIELD 71M E71T(1F9) WITH 100% CO₂ SHIELDING GAS**

Additional Page (Page #) CM **REPORT** Contains Non-Compliant Items
 Does Not Contain

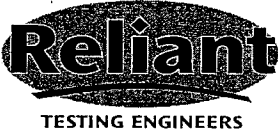
Certification of Compliance
 I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name: **TERRELL THOMPSON**
 Inspector's Signature: *Terrell Thompson*
 Inspector's License #: **#041212 QWA WS CWI**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by: *Alfred Hernandez*
 (PROJECT SUPERINTENDENT)

Submitted by: _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 8/15/07	M T W T F S S X
JOB NAME U.C.R. CHASS BUILDING		BUILDING / OSHPD PERMIT # / DSA-APP #	DSA-FILE #
ADDRESS 1634 W. 14th ST LONG BEACH, CA		CITY	JURISDICTION D.S.A.
ARCHITECT LEO A. DALY	ENGINEER SAILFU/BOQUET	GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.	SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	—	—	6:00AM	—	2:30PM

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS)

REPORT: INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.

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- PIECE MARKS COMPLETED FOR STAR # BRAC : #19B, 2015
- PIECE MARKS IN PROGRESS FOR STAR # RAIL : 37A, 37B, 41A
- PIECE MARK COMPLETED FOR SAMR : 40A
- PIECE MARK IN PROGRESS PER PLAN REVISION DUE TO FIELD CONDITIONS **A** : #137A, #141A, #145A
(RISC FRAMES)

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE.			
Electrode Used: LINCOLN OUTERSHIELD 71M E71T(EG) WITH 100% CO₂ SHIELDING GAS			

Additional Page (Page #) CM **REPORT** Contains Non-Compliant Items
 Does Not Contain

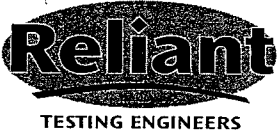
Certification of Compliance
I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications, and all applicable codes

Inspector's Name **FERRILEE THOMPSON**
Inspector's Signature **FERRILEE THOMPSON**
Inspector's License # **# 0412221 AWS CWI**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **Alfred V Hernandez**
(PROJECT SUPERINTENDENT)

Submitted by _____



STRUCTURAL STEEL

Testing & Inspection Report

3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT		JOB NUMBER 05-1425		DATE 8/16/07		M	T	W	T	F	S	S	
JOB NAME U.C.R. CHASS BUILDING				BUILDING / OSHPD PERMIT # / DSA-APP #				DSA-FILE #					
ADDRESS 1634 W. 14th ST LONG BEACH, CA				CITY LONG BEACH, CA				GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.			JURISDICTION D.S.A.		
ARCHITECT LEO A. DALY		ENGINEER SAILFU/BOQUET		SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP									

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	—	—	6:00 AM	—	2:30 PM

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS)

REPORT INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.

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- PIECE MARKS IN PROGRESS FOR STAIR #4 RAIL: #414
- PIECE MARKS COMPLETED FOR SAME: #374, 378
- PIECE MARKS COMPLETED PER PLAN REVISION #2 DUE TO FIELD CONDITIONS FOR ROOF FRAMES #1414, 145A
- PIECE MARK IN PROGRESS DUE TO SAME #137A

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE.			

Electrode Used: **LINCOLN OUTERSHIELD 71M E71T(18) WITH 100% CO₂ SHIELDING GAS**

Additional Page (Page #) CM _____

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name: **TERRELLE THOMPSON**

Inspector's Signature: *Terrelle Thompson*

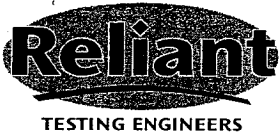
Inspector's License #: **041218 CWI ANS CWI**

REPORT Contains Non-Compliant Items
 Does Not Contain

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by: *Alfred Hernandez*
 (PROJECT SUPERINTENDENT)

Submitted by: _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT		JOB NUMBER 05-1425		DATE 8/17/07		M	T	W	T	<input checked="" type="checkbox"/> X	S	S
JOB NAME U.C.R. CHASS BUILDING				BUILDING / OSHPD PERMIT # / DSA-APP #				DSA-FILE #				
ADDRESS 1634 W. 14th ST LONG BEACH, CA				CITY				GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.			JURISDICTION D.S.A.	
ARCHITECT LEO A. DALY		ENGINEER SAILFU/BOQUET		SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP								

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	—	—	6:00 AM	—	2:30 PM

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS)

REPORT INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.

I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION WELDING AND ASSEMBLY OPERATIONS INCLUDING QUALITY CONTROL BY MEANS OF STEEL MATERIAL I. D. TRACING VIA PIECE-MARK NUMBER TAGS AND CERTIFIED MILL TEST REPORTS MATCHING. WELDING PERFORMED BY ONLY CERTIFIED PER AWS D1.1 QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE. FABRICATION AND WELOS PERFORMED PER STAMPED AND APPROVED BY DSA. STRUCTURAL DRAWINGS/DETAILS, AND DETAILED SHOP DRAWINGS STAMPED APPROVED/RELEASED FOR FABRICATION (INSPECTION REQUIRED), AWS D1.1 WELDING CODE, D.S.A, AND ASD (AISC) CODES. WELOS VISUALLY ACCEPTABLE ON PIECE MARKS LISTED BELOW PER WPS.

— PIECE MARK COMPLETED FOR STAIR #4 RAIL: #41A

* ALL COMPLETED STAIR & RAIL MARKS OFF TO GALVANIZER AND THEN BACK TO SHOP FOR FINAL PIECE REASSEMBLY AND WELD OUT...

— PIECE MARKS COMPLETED PER PLAN REVISION A WELD FIELD CONDITIONS: #137A, #141A, #145A

** PIECE MARKS IN PROGRESS DUE TO PLAN REVISION B #137A REVISED, BUT NOT B FOR PIECES #141A, #145A YET.

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE.			
Electrode Used: LINCOLN OUTERSHIELD 71M E71T(1/8") WITH 100% CO₂ SHIELDING GAS			

Additional Page (Page #) CM: _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

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All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

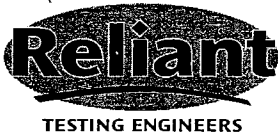
Inspector's Name: **TERRELL HADAMPSON**

Approved/Authorized by:
(PROJECT SUPERINTENDENT)

Inspector's Signature:

Inspector's License #: **04121221**
04121331 AWS CWI

Submitted by: _____



STRUCTURAL STEEL

Testing & Inspection Report

3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT		JOB NUMBER 05-1425		DATE 8/20/07	M	T	W	T	F	S	S
JOB NAME U.C.R. CHASS BUILDING				BUILDING / OSHPD PERMIT # / DSA-APP #				DSA-FILE #			
ADDRESS 1634 W. 14th ST LONG BEACH, CA				CITY LONG BEACH, CA				GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.		JURISDICTION D.S.A.	
ARCHITECT LEO A. DALY		ENGINEER SAILFUL/BOUQUET		SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP							

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HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	—	—	6:00 AM	—	2:30 PM

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS)

REPORT INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS (ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED)

I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION WELDING AND ASSEMBLY OPERATIONS INCLUDING QUALITY CONTROL BY MEANS OF STEEL MATERIAL I. D. TRACING VIA PIECE-MARK NUMBER TAGS AND CERTIFIED MILL TEST REPORTS MATCHING. WELDING PERFORMED BY ONLY CERTIFIED PER AWS D1.1 QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE. FABRICATION AND WELOS PERFORMED PER STAMPED AND APPROVED BY DSA. STRUCTURAL DRAWINGS/DETAILS, AND DETAILED SHOP DRAWINGS STAMPED APPROVED/RELEASED FOR FABRICATION (INSPECTION REQUIRED), AWS D1.1 WELDING CODE, D.S.A. AND ASD (AISC) CODES. WELOS VISUALLY ACCEPTABLE ON PIECE MARKS LISTED BELOW PER W.P.S.

- ROOF FRAME COMPLETED PER Δ DUE TO FIELD CONDITIONS PIECE MARK #137A
- ROOF FRAME IN PROGRESS PER Δ PIECE MARK #141 AND #145A
- ROOF FRAME IN PROGRESS PER Δ PIECE MARK # ~~141A~~ 141A
- PIECE MARKS IN PROGRESS FOR STAIR #1 AND #7 RAMP AND RAILS #22A, #22B, #23A, #23B, #23C, #24A, #24B, #25A

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE.			

Electrode Used: **LINCOLN OUTERSHIELD 71M E71T(16) WITH 100% CO₂ SHIELDING GAS**

Additional Page (Page #) CM **REPORT** Contains Non-Compliant Items
 Does Not Contain

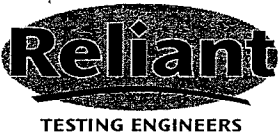
Certification of Compliance
 I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **TERRELLE THOMPSON**
 Inspector's Signature *Terrelle E. Thompson*
 Inspector's License # **#04121727 AWS CWI**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by *Alfred Hernandez*
 (PROJECT SUPERINTENDENT)

Submitted by _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 8/21/07	M <input type="checkbox"/> T <input checked="" type="checkbox"/> W <input type="checkbox"/> TH <input type="checkbox"/> F <input type="checkbox"/> S <input type="checkbox"/> S <input type="checkbox"/>
JOB NAME U.C.R. CHASS BUILDING		BUILDING / OSHPD PERMIT # / DSA-APP #	DSA-FILE #
ADDRESS 1634 W. 14th ST LONG BEACH, CA		GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.	JURISDICTION D.S.A.
ARCHITECT LEO A. DALY	ENGINEER SAILFU/BOQUET	SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP	

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	—	—	6:00 AM	—	2:30 PM

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS)

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED)

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- ROOF FRAMES IN PROGRESS PER **A** DUE TO FIELD CONDITIONS: PIECE MARK # 145 A
- ROOF FRAMES IN PROGRESS PER **B** DUE TO SAME: PIECE MARK # 141 A
- PIECE MARK IN PROGRESS FOR STAR # 1 AND # 7 RAMP & RAILS: # 22A, 22B, # 24B # 24A, # 25A
- PIECE MARK # COMPLETED & READY TO GALVANIZE FOR SAME AS ABOVE: # 23A # 23B # 23C

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE.			
Electrode Used: LINCOLN OUTERSHIELD 71M E71T(1/8) WITH 100% CO₂ SHIELDING GAS			

Additional Page (Page #) CM **REPORT** Contains Non-Compliant Items
 Does Not Contain

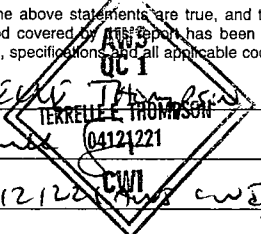
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Inspector's Name **TERRELL THOMPSON**

Inspector's Signature *James*

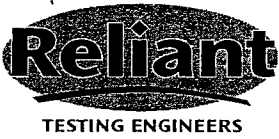
Inspector's License # **04121221**



All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by *Alfred V. Hernandez*
(PROJECT SUPERINTENDENT)

Submitted by _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 8/22/07	M T W T F S S X
JOB NAME U.C.R. CHASS BUILDING		BUILDING / OSHPD PERMIT # / DSA-APP #	
ADDRESS 1634 W. 14th ST LONG BEACH, CA		GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.	
ARCHITECT LEO A. DALY	ENGINEER SAILFU/BOQUET	SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP	
JURISDICTION D.S.A.			

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HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	—	—	6:00 AM	—	2:30 PM

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS)

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- ROOF FRAME IN PROGRESS PER **A** DUE TO FIELD CONDITIONS; PIECE MARK # 145A
- ROOF FRAME IN PROGRESS PER **B** DUE TO SHIPPING CONDITIONS; PIECE MARK # 141A
- PIECE MARK COMPLETED FOR STAR # 1 & #7 Ramp & RAILS: #22A, #22B, #25A, #24A
- PIECE MARK IN PROGRESS FOR STAR # 6 & #9 Ramp & STAR RAILS: (#25B, #27A, #26A, #26B)
- PIECE MARKS IN PROGRESS FOR STAR # 1 & #7 Ramp & RAILS: #24B (#27B)
- * COMPLETED RAILS TO BE SHIPPED TO GALVANIZER

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE.			

Electrode Used: **LINCOLN OUTERSHIELD 71M E71T(1/8) WITH 100% CO₂ SHIELDING GAS**

Additional Page (Page #) CM **REPORT** Contains Non-Compliant Items
 Does Not Contain

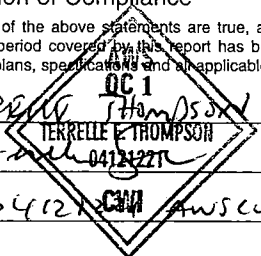
Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name: **TERRELL THOMPSON**

Inspector's Signature: *Terrell Thompson*

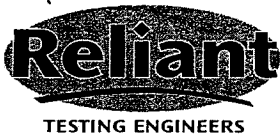
Inspector's License #: **04121-001 AWS CW5**



All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by: *Alfred Hernandez*
(PROJECT SUPERINTENDENT)

Submitted by: _____



STRUCTURAL STEEL

Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 8/23/07	M T W <input checked="" type="checkbox"/> F S S
JOB NAME U.C.R. CHASS BUILDING		BUILDING / OSHPD PERMIT # / DSA-APP #	DSA-FILE #
ADDRESS 1634 W. 14th ST. LONG BEACH, CA		CITY	JURISDICTION D.S.A.
ARCHITECT LEO A. DALY	ENGINEER SAILFU/BOQUET	GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.	SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	—	—	6:00 AM	—	2:30 PM

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS)

REPORT INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES (IF NEEDED)

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- PIECE MARKS FOR ROOF FRAMES IN PROGRESS PER **A**: #145A
- PIECE MARKS FOR ROOF FRAMES IN PROGRESS PER **B**: #141A
- PIECE MARKS FOR STAIR #1 & #7 RAMP & RAILS: #24B COMPLETED
- PIECE MARKS IN PROGRESS FOR STAIRS #6 & #9 RAMP & RAILS: #25B, #27A, #26A, #27B
- PIECE MARKS COMPLETED FOR SAME: #25B (1 of 2), #26B,

*** COMPLETED PIECES READY FOR GALVANIZING**

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE.			

Electrode Used: **LINCOLN OUTERSHIELD 71M E71T(1F9) WITH 100% CO₂ SHIELDING GAS**

Additional Page (Page #) CM **REPORT** Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

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Inspector's Name: **TERRELL E. THOMPSON**

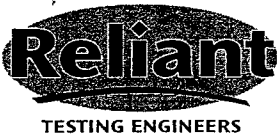
Inspector's Signature: *Terrell E. Thompson*

Inspector's License #: **04121221**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by: *Alfred V. Kernan*
(PROJECT SUPERINTENDENT)

Submitted by: _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 8/24/07	M T W T F S S X
JOB NAME U.C.R. CHASS BUILDING		BUILDING / OSHPD PERMIT # / DSA-APP #	DSA-FILE #
ADDRESS 1634 W. 14th ST LONG BEACH, CA		GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.	JURISDICTION D.S.A.
ARCHITECT LEO A. DALY	ENGINEER SAILFU/BOQUET	SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP	

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 Fireproofing NDT (HRS)

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- PIECE MARKS FOR ROOF FRAMES IN PROGRESS PER A: #145A
- PIECE MARKS FOR ROOF FRAMES IN PROGRESS PER B: #141A
- PIECE MARKS IN PROGRESS FOR STAIRS #6 & #9 RAMPS AND RAILS: #25B, #26A, #27B
- PIECE MARKS IN PROGRESS FOR ~~STAIR~~ STAIR #2 RAMP RAILS: #33A, #33B
- PIECE MARKS COMPLETED FOR STAIRS #6 & #9 RAMPS & RAILS: #27A

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE.			

Electrode Used: **LINCOLN OUTERSHIELD 71M E71T(#9) WITH 100% CO₂ SHIELDING GAS**

Additional Page (Page #) CM **REPORT** Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name: **Terrell E. Thompson**

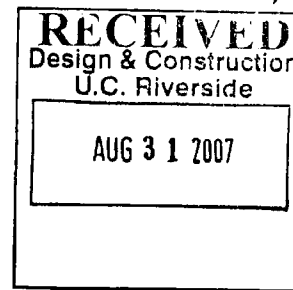
Inspector's Signature: *Terrell E. Thompson*

Inspector's License #: **0412122 CWA LOS AN**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by: *Alfred V. Neumann*
(PROJECT SUPERINTENDENT)

Submitted by: _____



930377
REPORTS

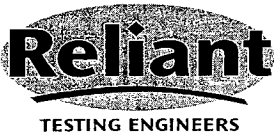
Date: August 28, 2007

Report distribution package of Field Inspection Reports and/or Laboratory results on materials tested.

Job Name: UCR Chass Bldg.
Job Address: 3615-A Canyon Crest Drive
City: Riverside, CA

Client Name: UCR Office of Design & Construction

You are receiving these reports at the request of our client. If you are not the correct recipient or wish to discontinue to receipt, please contact Denise DeGroff at 714/556-5867.



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 7/26/07	M <input type="checkbox"/> T <input type="checkbox"/> W <input type="checkbox"/> T <input checked="" type="checkbox"/> F <input type="checkbox"/> S <input type="checkbox"/> S <input type="checkbox"/>
JOB NAME U.C.R. CLASS BLDG		BUILDING / OSHPD PERMIT # / DSA-APP #	DSA-FILE #
ADDRESS 1634 W. 14TH STREET		CITY LONG BEACH	GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.
ARCHITECT LEO A. DALY		ENGINEER SATFOL/BOQUET	SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP
JURISDICTION DSA			

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
f	2	—	6:00 AM	—	4:30 PM

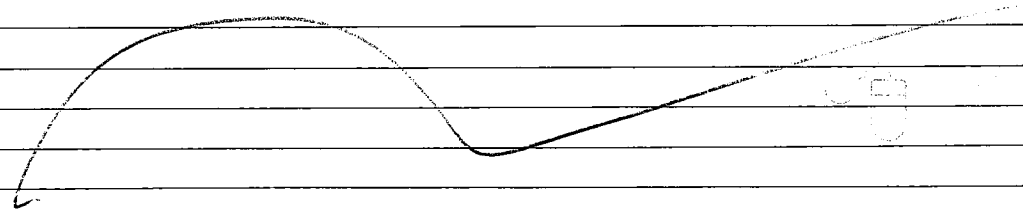
Re-Inspection _____
 Show-Up Only _____
 Expenses _____

Shop _____
 Field _____
 Welding _____
 Bolting _____
 Sampling _____

Fireproofing _____
 NDT (HRS) _____

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL SHOP FABRICATION OPERATIONS INCLUDING MATERIAL IDENTIFICATION VIA CERTIFIED MILL TEST REPORTS. WELDING PERFORMED PER STAMPED AND APPROVED STRUCTURAL PLANS & DETAILS, W.P.S. D11, & AISC. WELDING PERFORMED BY CERTIFIED & QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE. W.P.S. IDENTIFIED WELDING PROCESS AND WELDMENTS CONFORM WITH SUCH. MULTIPLE INDIVIDUAL PIECES CUT, IDENTIFIED, MARKED, WEARERS FOR STMR(1) WHICH IN CONTINUOUS PROGRESS OF FABRICATION. PICK MARKS IN PROGRESS # 89A, 891A, 892A



WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
WELDERS CERTS ON FILE			

Electrode Used: **LINCOLN OUTERSHELD 71M, A5.20, E71T1 W/ 100% CO₂ SHIELDING GAS**

Additional Page (Page #) CM _____
 REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **TERRELL THOMPSON**

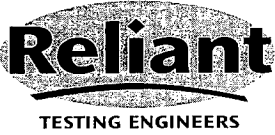
Inspector's Signature **[Signature]**

Inspector's License # **04121221 AWS CWI**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **[Signature]**
(PROJECT SUPERINTENDENT)

Submitted by _____



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 7/28/07	M	T	W	T	F	S	S
JOB NAME U.C.R CHASS BUILDING		BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#				JURISDICTION DSA			
ADDRESS 1634 W. 14TH ST		CITY LONG BEACH		GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.					
ARCHITECT LEO A. DALY		ENGINEER SAIFUL BOQUET		SUBCONTRACTOR (If Any) COWELL FABRICATION SHOP					

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
0	8	—	6:00 AM	2:30 PM

- Re-Inspection _____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Epoxy/DIA _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other **SHOP WELDING / FAB.**

INSPECTION

STARTED @: 6:00AM	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>PROVIDED CONTINUOUS VISUAL SHOP FABRICATION INSPECTION DURING ALL STAGES INCLUDING STEEL MATERIAL IDENTIFICATION DRAWING PER CERTIFIED MILL TEST REPORTS & PIECE MARK LABELS ON STEEL WELDING PERFORMED PER STAMPED AND APPROVED BY DSA. STRUCTURAL DRAWINGS & DETAILS, ALSO STAMPED APPROVED FOR CONSTRUCTION SHOP DRAWINGS, AWS D1.1, AISC & W.P.S. CERTIFIED & QUALIFIED WELDERS FABRICATED WELDS AND MAINTAIN CERTIFICATION/QUALIFICATIONS ON FILE. FLUX CORED ARC WELDING PROCESS (FCAW) WITH LINCOLN OUTER SHIELD 71M A5.20, ER70T1, W/ 100% CO2 SHIELDING GAS.</p> <p>— STRAIGHT & FLAR GUARDRAILS FOR STAIR #1 IN PROGRESS</p> <p>PIECE MARK # 88A, #89A, #891A, #892A, #90A, #901A</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
<i>(Handwritten signature)</i>								

Additional Page (Page #) CM _____

REPORT Contains Does Not Contain Reinspection of Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

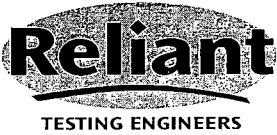
Inspector's Name TERRENCE THOMPSON

Inspector's Signature *Terrence Thompson*

Inspector's License # 0412122 (ANSWES)

Approved/Authorized by *Jeffrey Hernandez*
(PROJECT SUPERINTENDENT)

Submitted by _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 7/30/07	<input checked="" type="checkbox"/> M <input type="checkbox"/> T <input type="checkbox"/> W <input type="checkbox"/> T <input type="checkbox"/> F <input type="checkbox"/> S <input type="checkbox"/> S
JOB NAME U.C.R CHASS BUILDING		BUILDING / OSHPD PERMIT # / DSA-APP #	DSA-FILE #
ADDRESS 1634 W. 14th ST. LONG BEACH, CA		CITY	JURISDICTION DSA
ARCHITECT LEO A DALY	ENGINEER SAIFUL BOQUET	GENERAL CONTRACTOR AMOROSO CONSTRUCTION Co.	
		SUBCONTRACTOR (If Any) LOWELCO FABRICATION SHOP	

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	2	—	6:00AM	—	4:30PM

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS) _____

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED)

I) PROVIDED CONTINUOUS VISUAL INSPECTION OF SHOP FABRICATION PROCESS INCLUDING MATERIAL IDENTIFICATION TRACING PER CERTIFIED MILL TEST REPORTS & PIECE MARK LABELS ON STEEL PIECES. WELDING PERFORMED PER STAMPED AND APPROVED BY DSA. STRUCTURAL DRAWINGS & DETAILS, APPROVED & STAMPED FOR CONSTRUCTION SHOP DRAWINGS, AWS D1.1, AISC, & W.P.S. CERTIFIED & QUALIFIED WELDERS PERFORMED ALL WELDING FABRICATION. PIECE MARKED STEEL INSPECTED THROUGHOUT COMPLETION UNTIL RELEASE & GALVANIZER. FABRICATION IN CONTINUOUS PROGRESS:

**STAR# GUARD RAIL - FLAIR #88A, #90A, #901A
STRAIGHT #89A, #894, #892A**

**Room # 1020 RAIL (1052) #4A, #4A1, #4B, #4-1B, #4BA
#41BA, #5A, #51A, #5B, #51B**

All in progress.

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
CERTIFICATIONS ON FILE FOR WELDERS			

Electrode Used: **LINCOLN OUTERSHELD 71M, AS 20, E 71T W/100% CO₂ SHIELDING GAS**

Additional Page (Page #) CM _____
 Contains Does Not Contain Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name: **TERRELLIE THOMPSON**

Inspector's Signature: *Terrellie Thompson*

Inspector's License #: **04121221 AWS CWI**

Approved/Authorized by: *Alfred V. Hernandez* (PROJECT SUPERINTENDENT)

Submitted by: _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 7/3/07	M <input type="checkbox"/> T <input checked="" type="checkbox"/> W <input type="checkbox"/> T <input type="checkbox"/> F <input type="checkbox"/> S <input type="checkbox"/> S <input type="checkbox"/>
JOB NAME UCR CHASS BLD		BUILDING / OSHPD PERMIT # / DSA-APP #	DSA-FILE # 1
ADDRESS 1634 W. 14TH ST		CITY LONG BEACH, CA	JURISDICTION DSA
ARCHITECT LEO A. DALY	ENGINEER SAILFUL/BOUQUET	GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.	SUBCONTRACTOR (If Any) COWELCO FABRICATION SHOP

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	2	—	6:00AM	—	4:30PM

Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS) _____

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION PROCESSES INCLUDING MATERIAL IDENTIFICATION TRACING PER CERTIFIED MILL TEST REPORTS AND PIECE MARKS LABELING ON EACH STEEL PIECE. WELDING PERFORMED PER STAMPED & APPROVED BY DSA STRUCTURAL DRAWINGS/DETAILS AND STAMPED APPROVED FOR CONSTRUCTION DETAILED SHOP DRAWINGS, AS WELL AS, AWS D1.1 CODE, AISC & WPS. ONLY CERTIFIED & QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE PERFORMED WELDING FABRICATION PIECE MARKED TRACEABLE STEEL INSPECTED THROUGHOUT COMPLETION UP UNTIL RELEASE TO SALVANYER.

PIECE MARKS COMPLETED FOR STAIR#1 GUARD RAIL - FLAIR # 88A, 90A, 901A
 " " STAIR#1 GUARD RAIL - STRAIGHT # 89A, 891A, 892A

PIECE MARKS IN PROGRESS ROOM # 1020 RAIL (1 of 2) #4A, 41A, 4B, 41B, 4BA, 41BA
 #5A, #51A, #5B, #51B

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
WELDERS CERTS ON FILE			

Electrode Used: **LINCOLN OVERTSHIELD 71M, AS 20, E71T1 W / 100% CO₂ SHIELDING GAS**

Additional Page (Page #) CM _____ **REPORT** Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance
 I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **TERRELL THOMPSON**
 Inspector's Signature *[Signature]*
 Inspector's License # **04121221 AWS CWI**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 8/1/07	M	T	W X	T	F	S	S
JOB NAME U.C.R. CHASS BUILDING		BUILDING / OSHPD PERMIT # / DSA-APP #				DSA-FILE #			
ADDRESS 1634 W. 14TH ST		CITY LONG BEACH		GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO			JURISDICTION DSA		
ARCHITECT LED A. DALY		ENGINEER SALFOLBOQUET		SUBCONTRACTOR (if Any) COVELCO FABRICATION SHOP					

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	2	—	6:00AM	—	4:30PM

Re-Inspection
 Show-Up Only
 Expenses

Shop
 Field
 Welding
 Bolting
 Sampling

Fireproofing
 NDT (HRS)

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION INCLUDING MATERIAL IDENTIFICATION TRACING PER CERTIFIED MILL TEST REPORT AND PIECE MARKS ON STEEL PIECES. WELDING PERFORMED PER STAMPED & APPROVED BY D.S.A. STRUCTURAL DRAWINGS, DETAILS AND APPROVED FOR CONSTRUCTION STAMPED SHOP DRAWINGS, AS WELL AS, AWS D1.1 WELDING CODE, AISC, & W.P.S. WELDERS CERTIFIED & QUALIFIED PERFORMED ALL WELDING ON THIS PROJECT AND MAINTAIN CERTS. ON FILE.

- PIECE MARKS IN PROGRESS ROOM #1020 RML (1 of 2)
- #4A, #41A, #4B, #41B, #4BA, #41BA
- #5A, #51A, #5B, #51B
- ROOF FRAMES IN PROGRESS PIECE MARKS #137A, #141A, #145A IN CONTINUOUS PROGRESS.

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
WELDERS CERTIFICATIONS ON FILE			

Electrode Used: **LINCOLN ELECTRIC 7/16 AS 20, E70T1, W/1007. CO2 SHIELDING GAS**

Additional Page (Page #) CM
 REPORT
 Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance
I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **TERRELL THOMPSON**

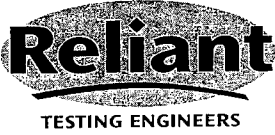
Inspector's Signature *Terrell Thompson*

Inspector's License # **04121221 AWS CWI**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by *Alfred V. Hernandez*
(PROJECT SUPERINTENDENT)

Submitted by _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE THMT	JOB NUMBER 05-1425	DATE 8/2/07	M	T	W	T <input checked="" type="checkbox"/>	F	S	S
JOB NAME V.C.R. CHAIRS BUILDING		BUILDING / OSHPD PERMIT # / DSA-APP #				DSA-FILE #			
ADDRESS 1634 W. 14th ST		CITY HONOLULU, CA		GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO			JURISDICTION OSA		
ARCHITECT LEO A. DALY		ENGINEER SATLFLU/BOQUET		SUBCONTRACTOR (If Any) LOWELCO FABRICATION SHOP					

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8	2	—	6:00 AM	—	4:30 PM

Re-Inspection
 Show-Up Only
 Expenses

Shop
 Field
 Welding
 Bolting
 Sampling

Fireproofing
 NDT (HRS)

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION INCLUDING MATERIAL IDENTIFICATION AND TRACING PER CERTIFIED MILLTEST REPORTS & PIECE MARKS ON INDIVIDUAL PIECES. WELDING PERFORMED PER STAMPED AND APPROVED BY D.S.A. STRUCTURAL DRAWINGS, DETAILS AND APPROVED FOR CONSTRUCTION STAMPED SHOP DRAWINGS, AS WELL AS AWS D1.1 WELDING CODE, AISC, & WPS. ONLY CERTIFIED & QUALIFIED WELDERS WITH CERTIFICATIONS ON FILE PERFORMED ALL WELDING FABRICATION

- PIECE MARKS COMPLETED FOR ROOM #1020 RAIL (1 of 2) #4A, #41A, #4B, #5A
 - PIECE MARKS IN PROGRESS FOR ROOM #1020 RAIL (1 of 2) #41B, #4BA, #41BA, #51A, #5B, #51B, #6A, #6B, #6C

- ROOF FRAMES PIECE MARKS IN PROGRESS #137A, #141A, #145A

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
WELDING CERTIFICATIONS ON FILE			

Electrode Used: **LINCOLN OUTERSHIELD 71M, AS.20, E71T1 WITH 100% CO₂ WELDING GAS**

Additional Page (Page #) CM
 REPORT
 Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **TERRELLÉ THOMPSON**

Inspector's Signature *[Signature]*

Inspector's License # **04121221 AWS CWI**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by _____



TESTING ENGINEERS

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE THOMT, JOB NUMBER 05-1425, DATE 8/4/07, JOB NAME UCR CHASS BUILDING, ADDRESS 1634 W 14TH ST, CITY LONG BEACH CA, GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO., ARCHITECT LEO ADALY, ENGINEER SAILFUL BOQUET, SUBCONTRACTOR (If Any) COMEKO FABRICATION SHOP

Table with columns: REGULAR, 1.5X, 2X, TIME IN, TIME OUT. Values: 0, 8, -, 6:00 AM, 2:30 PM

Re-Inspection, Show-Up Only, Expenses checkboxes

Reinforcement Concrete, Concrete Placement, Masonry, Epoxy/DIA, Quality Control CUI, Administration, Prestress/Post Tension, Other SHOP WELDING checkboxes

INSPECTION

STARTED @: 6:00AM, 1st TRUCK BATCHED:, METHOD OF PLACEMENT: I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION OPERATIONS AND QUALITY CONTROL BY WAY OF MATERIAL IDENTIFICATION TRACING VIA PIECE MARK NUMBERS AND CERTIFIED MILL TEST REPORTS. WELDING PERFORMED BY QUALIFIED AND CERTIFIED PER AWS D1.1 AND MAINTAIN RECORDS ON FILE. WELDS VISUALLY ACCEPTABLE AND PERFORMED PER STAMPED AND APPROVED BY DSA STRUCTURAL DRAWINGS DETAILS, SHOP DRAWINGS APPROVED FOR CONSTRUCTION, DETAILS AWS D1.1, AISC, AND WPS. - PIECE MARKS COMPLETED ROOM #1020 RAIL #418A, #51A, #6B - PIECE MARKS IN PROGRESS ROOM #1020 RAIL #6A, #6C - PIECE MARKS FOR ROOF FRAMES IN PROGRESS: #137A, #141A, #145A

SAMPLES

Table with columns: MIXED NO., TICKET #, DESIGN SLUMP, MEASURED SLUMP, ADMIXTURE, DESIGN PSI, CUBIC YARDS, SPECIMENS, TEMPERATURE AMB CONC.

Additional Page (Page #) CM checkbox

REPORT Contains, Does Not Contain, Reinspection of checkboxes, Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name TERRELL THOMPSON, Inspector's Signature [Signature], Inspector's License # #04121221 AWS CUI

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by [Signature] (PROJECT SUPERINTENDENT), Submitted by



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 8/6/07	<input checked="" type="checkbox"/> M	<input type="checkbox"/> T	<input type="checkbox"/> W	<input type="checkbox"/> T	<input type="checkbox"/> F	<input type="checkbox"/> S	<input type="checkbox"/> S
JOB NAME HCR CHASS BUILDING	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#						JURISDICTION DSA		
ADDRESS 1634 W. 14TH ST.	CITY LONG BEACH	GENERAL CONTRACTOR AMAROSO CONSTRUCTION CO.							
ARCHITECT LEO A. OALY	ENGINEER SAILFU/BOQUET	SUBCONTRACTOR (If Any) COWLED FABRICATION SHOP							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	2	—	6:00 AM	4:30 PM

Re-Inspection _____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Epoxy/DIA _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other **Shop FAB. WELDING**

INSPECTION

STARTED @: 6:00AM	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION OPERATIONS AND QUALITY CONTROL BY MEANS OF MATERIAL IDENTIFICATION TRACING VIA PIECE MARK # AND CERTIFIED MILL TEST REPORTS WELDS WERE PERFORMED ONLY BY QUALIFIED & CERTIFIED PER AWS D1.1 AND MAINTAIN CERTIFICATIONS ON FILE. WELDS VISUALLY ACCEPTABLE AND PERFORMED PER STAMPED AND APPROVED BY DSA. STRUCTURAL DRAWINGS DETAILS, SHOP DRAWINGS & DETAILS APPROVED FOR CONSTRUCTION, AWS D1.1 AISC, AND WPS.</p> <p>— PIECE MARKS COMPLETED ROOM #1020 RAIL: # 6A, # 6C</p> <p>— PIECE MARKS IN PROGRESS WALL RAIL STAIRS & RAMPS: # 28A, # 28B, # 29A, # 29B, # 30A, # 30B, # 31A</p> <p>— PIECE MARKS IN PROGRESS FOR ROOF FRAMES: # 137A, # 141A, # 145A</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Does Not Contain Reinspection of Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **TERRELL THOMPSON**

Inspector's Signature **[Signature]**

Inspector's License # **04121221 AWS WPE**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **[Signature]**
 (PROJECT SUPERINTENDENT)

Submitted by _____



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE THOM	JOB NUMBER 05-1425	DATE 8/7/07	M	X	W	T	F	S	S
JOB NAME UCR. CHASS BUILDING	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#		JURISDICTION						
ADDRESS 1634 W. 14TH ST	CITY LONG BEACH	GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO							
ARCHITECT LEO A. DALY	ENGINEER JAILFU/BOQUET	SUBCONTRACTOR (if Any) OWELCO FABRICATION SHOP							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	2	-	6:00 AM	4:30 PM

Re-Inspection Show-Up Only Expenses

Reinforcement Concrete Concrete Placement Masonry Epoxy/DIA

Quality Control **CWF** Administration Prestress/Post Tension Other **SHOP WELDING**

INSPECTION

STARTED @: 6:00 AM	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION OPERATIONS AND QUALITY CONTROL BY MEANS OF MATERIAL IDENTIFICATION TRACING VIA PIECE MARK # AND CERTIFIED MILL TEST REPORTS. WELDING PERFORMED BY CERTIFIED BY AWS D1.1, QUALIFIED WELDERS WITH CERTS ON FILE. WELDS VISUALLY ACCEPTABLE AND PERFORMED PER STAMPED AND APPROVED BY DSA DSA. STRUCTURAL DRAWINGS & DETAILED SHOP DRAWINGS APPROVED FOR CONSTRUCTION AWS D1.1 AND AISI.</p> <p>- PIECE MARKS COMPLETED FOR WALL RAIL STAIRS & Ramps: #28A, #28B, #30A</p> <p>- PIECE MARK IN PROGRESS FOR SAME: #29A, #29B, #30B, #31A</p> <p>- PIECE MARKS FOR WALL RAIL STAIR #1, WPS WELDS # 86A, 87A, 87AA, 87AB, 87B, 87BA</p> <p>- PIECE MARKS IN PROGRESS FOR ROOF FRAMES: #137A, #141A, #145A</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Does Not Contain Reinspection of Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **TERRE W. THOMPSON**
 Inspector's Signature **[Signature]**
 Inspector's License # **# 04121221 AWS CWF**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **[Signature]**
 (PROJECT SUPERINTENDENT)

Submitted by _____



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 8/0/07	M	T	W X	T	F	S	S
JOB NAME U-CR CHASS BUILDING	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION DSA			
ADDRESS 1634 W. 14TH ST	CITY LONG BEACH, CA	GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.							
ARCHITECT LEO A. DALY	ENGINEER SKILFUL/BOQUET	SUBCONTRACTOR (If Any) LOWELLO FABRICATION SHOP							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	2	—	6:00	4:30 PM

- Re-Inspection Show-Up Only Expenses
- Reinforcement Concrete Concrete Placement Masonry Epoxy/DIA
- Quality Control **CWI** Administration Prestress/Post Tension Other **SHOPWELDING**

INSPECTION

STARTED @: 6:00AM	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION OPERATIONS AND QUALITY CONTROL BY MEANS OF MATERIAL IDENTIFICATION TRACING VIA PIECE MARK # AND CERTIFIED MILL TEST REPORTS</p> <p>WELDING PERFORMED BY CERTIFIED VIA AWS D11 WELDING CODE & QUALIFIED WELDERS WITH CERTIFICATION ON FILE. WELDS COMPLETED PER STAMPED AND APPROVED STRUCTURAL DRAWINGS, SHOP DRAWING & DETAILS APPROVED FOR CONSTRUCTION AND APPROVED BY DSA, AWS D11, AISC CODES.</p> <ul style="list-style-type: none"> - PIECE MARKS COMPLETED FOR WALL RAIL STRUTS & RAILS: #29A, #29B, #31A - PIECE MARKS IN PROGRESS FOR SAME: #30B - PIECE MARKS IN PROGRESS FOR WALL RAIL STRUT #1: #86A, #87A, #87AA, #87AB, #87B, #87BA - PIECE MARKS COMPLETED FOR STRUT #8 RAIL #21A, #21B - PIECE MARKS IN PROGRESS FOR ROOF FRAMES: #137A, #141A, #145A 		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Does Not Contain Reinspection of Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **TERRELL THOMPSON**
 Inspector's Signature **[Signature]**
 Inspector's License # **64121221 AWS-CWI**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **[Signature]**
 (PROJECT SUPERINTENDENT)

Submitted by _____



TESTING ENGINEERS

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE THOMT, JOB NUMBER 05-1425, DATE 8/9/07, M T W X F S S, JOB NAME U.C.R. CHASS BUILDING, ADDRESS 1634 W. 14th ST. LONG BEACH, CA, GENERAL CONTRACTOR AMOROSO CONSTRUCTION, ARCHITECT LEO A. DALY, ENGINEER SAILFUL/ROQUET, SUBCONTRACTOR (if Any) LOWELCO FABRICATIONS/Shop

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

Table with columns: REGULAR, 1.5X, 2X, TIME IN, TIME OUT. Values: 8, 2, -, 6:00 AM, 4:30 PM

Re-Inspection, Show-Up Only, Expenses

Reinforcement Concrete, Concrete Placement, Masonry, Epoxy/DIA

Quality Control CWC, Administration, Prestress/Post Tension, Other SHOP WELDING

INSPECTION

STARTED @: 6:00 AM, 1st TRUCK BATCHED:, METHOD OF PLACEMENT: I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP WELDING AND FABRICATION OPERATIONS, AS WELL AS, QUALITY CONTROL BY MEANS OF MATERIAL IDENTIFICATION TRACING VIA PIECE MARK# AND CERTIFIED MILL TEST REPORTS. WELDING PERFORMED BY CERTIFIED & QUALIFIED PER AWS D11 WELDING CODE AND MAINTAIN CERTS ON FILE. WELDS VISUALLY ACCEPTABLE AND COMPLETED PER STAMPED AND APPROVED STRUCTURAL DRAWINGS AND DETAILS SHOP DRAWINGS APPROVED BY OSA. AWS D11 CODE AND AISC. - PIECE MARK COMPLETED FOR WALL RAIL STAIR#5: #30B - PIECE MARKS IN PROGRESS FOR STAIR#8 RAIL#20A, 20B, 19A, 19B - PIECE MARKS COMPLETED FOR WALL RAIL STAIR#1: #86A, 87AA, #87BA - PIECE MARKS IN PROGRESS FOR SAME: #87A, #87AB, #87B - PIECE MARKS IN PROGRESS FOR ROOF FRAMES#: #137A, #141A, #145A

SAMPLES

Table with columns: SUPPLIER, MIXED NO., TICKET #, DESIGN SLUMP, MEASURED SLUMP, ADMIXTURE, DESIGN PSI, CUBIC YARDS, SPECIMENS, TEMPERATURE AMB CONC.

Additional Page (Page #) CM

REPORT Contains, Does Not Contain, Reinspection of, Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name Terrell Thompson

Inspector's Signature

Inspector's License # 041222 AWS CWC

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by Alfred Hernandez (PROJECT SUPERINTENDENT)

Submitted by



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE THOMT	JOB NUMBER 05-1425	DATE 8/10/07	M	T	W	T	X	S	S	
JOB NAME UCR CHASS BUILDING		BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION DSA			
ADDRESS 1634 W. 14TH ST.		CITY LONG BEACH, CA	GENERAL CONTRACTOR AMOROSO CONSTRUCTION CO.							
ARCHITECT LEW A. DALY	ENGINEER SATIFUL BOQUIST	SUBCONTRACTOR (If Any) CONELLO FABRICATION SHOP								

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	—	—	6:00	2:30 PM

- Re-Inspection _____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Epoxy/DIA _____
 Quality Control **CWI** Administration _____ Prestress/Post Tension _____ Other **SHOP FABRICATION WELDING**

INSPECTION

STARTED @: 6:00am	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>I) PROVIDED CONTINUOUS VISUAL INSPECTION OF ALL STAGES OF SHOP FABRICATION WELDING OPERATIONS AND QUALITY CONTROL BY MEANS OF MATERIAL IDENTIFICATION TRACING VIA PIECE MARK # AND CERTIFIED MILL TEST REPORTS. WELDING PERFORMED BY CERTIFIED AND QUALIFIED BY AWS D1.1 WELDING CODE AND MAINTAIN CERTS ON FILE. WELDS VISUALLY ACCEPTABLE AND PERFORMED PER STAMPED AND APPROVED STRUCTURAL DRAWINGS, DETAILS SHOP DRAWINGS APPROVED FOR CONSTRUCTION, DSA, AWS D1.1, AND AISC CODE.</p> <p>- PIECE MARKS IN PROGRESS FOR STEEL #8 REIN: #19A, #19B, #20A, #20B</p> <p>✓ PIECE MARKS COMPLETED FOR WALL REIN STEEL: #86A, #87BA</p> <p>✓ PIECE MARKS IN PROGRESS FOR SAME #87AA</p> <p>* PIECE MARKS FOR ROOF FRAMES COMPLETED PER PLAN, HOWEVER REVISION 2 PLANS REQUIRE CHANGES DUE TO FIELD CONDITIONS DISCOVERED ON SITE VISIT #137A, #141A, #145A</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

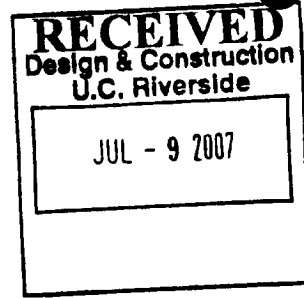
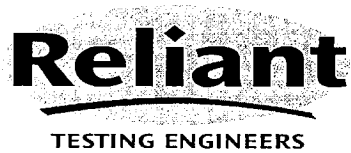
Contains
 Does Not Contain
 Reinspection of
 Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **TERRILL Thompson**
 Inspector's Signature **[Signature]**
 Inspector's License # **0412122 AWS CWI**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.
 Approved/Authorized by **[Signature]**
 (PROJECT SUPERINTENDENT)
 Submitted by _____



950377
REPORT

Date: July 3, 2007

Report distribution package of Field Inspection Reports and/or Laboratory results on materials tested.

Job Name: UCR Chass BUilding
Job Address: 3615 – A Canyon Crest Drive
City: Riverside, CA

Client Name: S.J. Amoroso Construction

You are receiving these reports at the request of our client. If you are not the correct recipient or wish to discontinue to receipt, please contact Denise DeGroff at 714/556-5867.



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE	JOB NUMBER <u>05-1425</u>	DATE <u>6-11-07</u>	<input checked="" type="checkbox"/> M	<input type="checkbox"/> T	<input type="checkbox"/> W	<input type="checkbox"/> T	<input type="checkbox"/> F	<input type="checkbox"/> S	<input type="checkbox"/> S
JOB NAME <u>U.C. Riverside CHASS Building</u>	BUILDING / OSHPD PERMIT # / DSA-APP # <u>0</u>		DSA-FILE #						
ADDRESS <u>3615 Canyon Crest</u>	CITY <u>Riverside</u>	GENERAL CONTRACTOR <u>AMAROSO</u>		JURISDICTION <u>0</u>					
ARCHITECT <u>PEI</u>	ENGINEER <u>SAIFUL + BOUQUET</u>	SUBCONTRACTOR (If Any) <u>Randall's STEEL</u>							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

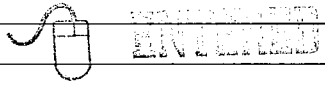
HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
<u>4</u>			<u>7:00</u>		<u>10:00</u>

- Re-Inspection _____ Show-Up Only _____ Expenses _____
- Shop _____ Field _____ Welding _____ Bolting _____ Sampling _____
- Fireproofing _____ NDT (HRS) _____

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

ARRIVED AT JOBSITE AT CONTRACTOR'S REQUEST - SUBCONTRACTOR FAILED TO SHOW UP.



WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE

Electrode Used: _____

Additional Page (Page #) CM _____ **REPORT** Contains Does Not Contain Non-Compliant Items

Certification of Compliance
I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name Robert B Moffatt

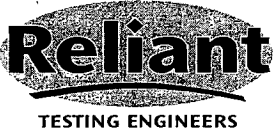
Inspector's Signature _____

Inspector's License # 1151-85

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by _____ (PROJECT SUPERINTENDENT)

Submitted by _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 6-13-07	M	T	<input checked="" type="checkbox"/> W	T	F	S	S
JOB NAME U.C. RIVERSIDE CHASS Building		BUILDING / OSHPD PERMIT # / DSA-APP # 6				DSA-FILE #			
ADDRESS 3615 CANYON CREST		CITY RIVERSIDE		GENERAL CONTRACTOR AMOROSO			JURISDICTION 8		
ARCHITECT LEO DALY	ENGINEER SAIFUL-BOUQUET	SUBCONTRACTOR (If Any) MAS BRON							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

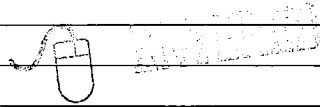
HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
4			7:00		10:45

- Re-Inspection _____
 Show-Up Only _____
 Expenses _____
- Shop _____
 Field _____
 Welding _____
 Bolting _____
 Sampling _____
- Fireproofing _____
 NDT (HRS) _____

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

OBSERVED Field WELDING OF 1/4" FILLET WELDS FOR STEEL FRAMING OF ALUMINUM PANEL CONNECTIONS AS PER DETAILS A, B ON A-364 AT THE FOLLOWING LOCATIONS: NORTH BUILDING M.3 AT 12 ON 2nd, 3rd, 4th LEVEL, L AT 16 AND 17 ON 4th LEVEL USING MILLER TRAILBLAZER 301-G UNIT WITH .072 NR 232 FILLER METAL. OBSERVED WELDER ALAMILLA FOR PROPER WELDING PROCEDURES AND TECHNIQUES. VERIFIED COMPLETED WELDS FOR SIZE, LENGTH, LOCATIONS AND FOUND NO VISUAL DEFECTS. ALL WORK IS COMPLETE.



WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
JUNIOR ALAMILLA	AWS 10007		

Electrode Used: **072 NR 232**

Additional Page (Page #) CM _____
 REPORT Contains _____ Non-Compliant Items
 Does Not Contain _____

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **Robert B Moffatt**

Inspector's Signature _____

Inspector's License # **1151-85**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by (PROJECT SUPERINTENDENT)

Submitted by _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE	JOB NUMBER <u>05-1425</u>	DATE <u>6-15-07</u>	M T W T F S S
JOB NAME <u>U.C. Riverside CHASS Building</u>	BUILDING / OSHPD PERMIT # / DSA-APP #		DSA-FILE #
ADDRESS <u>3615 Canyon Crest</u>	CITY <u>Riverside</u>	GENERAL CONTRACTOR <u>AMAROSO</u>	JURISDICTION
ARCHITECT <u>LEO DALY</u>	ENGINEER <u>SAIFUL-BOUQUET</u>	SUBCONTRACTOR (If Any) <u>MAS STEEL & IRON</u>	

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
<u>4</u>			<u>7:30</u>		<u>11:00</u>

- Re-Inspection Show-Up Only Expenses
 Shop Field Welding Bolting Sampling
 Fireproofing NDT (HRS)

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

OBSERVED Field welding of splice plates for ledger angle splice at back veneer supports as per detail 3 on S-703 on the North Building at 23 line between PX and LX. Using miller Big 40 Diesel unit with .072 NR 232 filler metal. OBSERVED welder Alamillo for proper welding procedures and techniques. VERIFIED completed welds for size, length, location AND found NO visual defects. Work is in progress

ENTERED

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
<u>Junior Alamillo</u>	<u>AWS 10007</u>		

Electrode Used: .072 NR 232

Additional Page (Page #) CM **REPORT** Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance
I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name Robert B Morfay
Inspector's Signature _____
Inspector's License # 1151-85

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by _____
(PROJECT SUPERINTENDENT)

Submitted by _____



TESTING ENGINEERS

STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 6-18-07	<input checked="" type="checkbox"/> M	<input type="checkbox"/> T	<input type="checkbox"/> W	<input type="checkbox"/> T	<input type="checkbox"/> F	<input type="checkbox"/> S	<input type="checkbox"/> S
JOB NAME U.C RIVERSIDE CHASS Building	BUILDING / OSHPD PERMIT # / DSA-APP #						DSA-FILE #		
ADDRESS 3615 CANYON CREST	CITY RIVERSIDE	GENERAL CONTRACTOR AMAROSO				JURISDICTION CA			
ARCHITECT LEO DALY	ENGINEER SA-FUL-BOURQUET	SUBCONTRACTOR (If Any) MAS IRON							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.


HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
8			7:00		12:15

- Re-Inspection _____ Show-Up Only _____ Expenses _____
- Shop _____ Field _____ Welding _____ Bolting _____ Sampling _____
- Fireproofing _____ NDT (HRS) _____

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

OBSERVED Field welding of splice plates for ledger splice at brick veneer supports on 3rd level as per detail B on S-703 on north building at grid lines PX between 23 and 18.5 using Miller Big 40 Diesel unit with .072 NR 232 filler metal. Welder did not show up until 11:45 all welds on splice plates were rejected due to porosity, lack of fusion and poor technique. Will have photos on file.

 **INTERVAL**

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
Junior Alamillo	AWS 10087		

Electrode Used: **Lincoln Electric .072 NR 232**

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance
I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

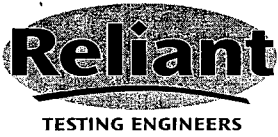
Inspector's Name **Robert B MOFFATT**

Approved/Authorized by  **6/20/07**
(PROJECT SUPERINTENDENT)

Inspector's Signature 

Submitted by _____

Inspector's License # **1151-85**



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 6-19-07	M	<input checked="" type="checkbox"/>	W	<input type="checkbox"/>	T	<input type="checkbox"/>	F	<input type="checkbox"/>	S	<input type="checkbox"/>	S
JOB NAME U.C. RIVERSIDE CHASS BUILDING		BUILDING / OSHPD PERMIT # / DSA-APP # 0						DSA-FILE #					
ADDRESS 3615 CANYON CREST		CITY RIVERSIDE		GENERAL CONTRACTOR AMAROSO						JURISDICTION 2			
ARCHITECT LEO DALY		ENGINEER SAIFUL-BOUQUET		SUBCONTRACTOR (If Any) MAS IRON									

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
4			7:00		10:30

- Re-Inspection _____
 Show-Up Only _____
 Expenses _____
- Shop _____
 Field _____
 Welding _____
 Bolting _____
 Sampling _____
- Fireproofing _____
 NDT (HRS) _____

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

OBSERVED field WELDING OF SPLICE PLATES FOR ANGLE LEDGER SPACE AT BRICK VENEER SUPPORTS ON 2nd LEVEL AT NORTH BUILDING AT GRID LINES R BETWEEN 12 AND 17 USING MILLER B1640 DIESEL UNIT WITH .072 NR 232 FILLER METAL. OBSERVED WELDER ALAMILLA FOR PROPER WELDING PROCEDURES AND TECHNIQUES. VERIFIED COMPLETED WELDS FOR SIZE, LENGTH, LOCATIONS AS PER DETAIL 3 ON S-703. WORK IS COMPLETED



WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
JUNIOR ALAMILLA	AWS # 10007		

Electrode Used: **Lincoln Electric .072 NR 232**

Additional Page (Page #) CM _____
 REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **Robert B. Moffatt**

Inspector's Signature _____

Inspector's License # **1151-85**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **[Signature]** **6/20/07**
(PROJECT SUPERINTENDENT)

Submitted by _____



TESTING ENGINEERS

STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE	JOB NUMBER <i>05-1425</i>	DATE <i>6-20-07</i>	M	T	<input checked="" type="checkbox"/> W	T	F	S	S
JOB NAME <i>U.C. RIVERSIDE CHASS Building</i>	BUILDING / OSHPD PERMIT # / DSA-APP # <i>0</i>					DSA-FILE #			
ADDRESS <i>3615 CANYON CREST</i>	CITY <i>RIVERSIDE</i>	GENERAL CONTRACTOR <i>AMAROSO</i>				JURISDICTION <i>0</i>			
ARCHITECT <i>LEO DALY</i>	ENGINEER <i>SAIFUL-BOUQUET</i>	SUBCONTRACTOR (If Any) <i>MAS IRON</i>							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed; record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
<i>4</i>			<i>7:00</i>		<i>8:30</i>

Re-Inspection _____ Show-Up Only _____ Expenses _____

Shop _____ Field _____ Welding _____ Bolting _____ Sampling _____

Fireproofing _____ NDT (HRS) _____

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

MADE POST VISUAL INSPECTION OF SPLICE PLATES FOR ANGLE LEDGER SPLICE CONNECTIONS AT BRICK VENEER SUPPORTS ON 3RD LEVEL OF NORTH BUILDING AT GRID LINES PX BETWEEN 23 AND 18.5 AS PER DETAIL 3 ON S-703. VERIFIED REPAIRED WELDS FOR SIZE, LENGTH, LOCATIONS AND FOUND NO VISUAL DEFECTS. WORK IS COMPLETED ON THIS LEVEL.

SE *6/20/07*

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE
<i>JUNIOR ALAMILA</i>	<i>AWS #10007</i>		

Electrode Used: _____

Additional Page (Page #) CM _____

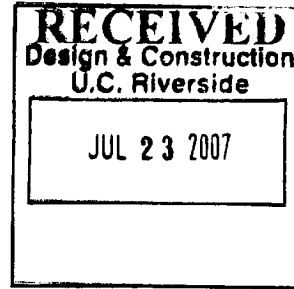
REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance
I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name *Robert B Moffatt*
Inspector's Signature _____
Inspector's License # *1151-85*

Approved/Authorized by *[Signature]* *6/20/07*
(PROJECT SUPERINTENDENT)

Submitted by _____



950377

REPORTS

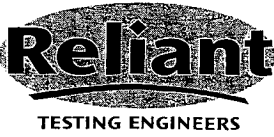
Date: July 16, 2007

Report distribution package of Field Inspection Reports and/or Laboratory results on materials tested.

Job Name: UCR Chass Bldg.
Job Address: 3615-A Canyon Crest Drive
City: Riverside, CA

Client Name: S.J. Amoroso

You are receiving these reports at the request of our client. If you are not the correct recipient or wish to discontinue to receipt, please contact Chris Santagata at 714/556-5867.



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE		JOB NUMBER 05-1425	DATE 6-12-07	M	T	W	T	F	S	S	
JOB NAME U.C. RIVERSIDE CHASS Building			BUILDING / OSHPD PERMIT # / DSA-APP # 6				DSA-FILE #				
ADDRESS 3615 CANYON CREST			CITY RIVERSIDE		GENERAL CONTRACTOR AMAROSO				JURISDICTION 0		
ARCHITECT PEI COBB FRED		ENGINEER Sai-Ful-Bouquet		SUBCONTRACTOR (If Any) MASS IRON STEEL							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
4			7:00		10:15

- Re-Inspection _____
 Show-Up Only _____
 Expenses _____
- Shop _____
 Field _____
 Welding _____
 Bolting _____
 Sampling _____
- Fireproofing _____
 NDT (HRS) _____

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED)

*ARRIVED AT CONTRACTOR'S REQUEST. SUBCONTRACTOR ARRIVED LATE.
Job was CANCELLED DUE TO WELDER NOT BEING QUALIFIED AND NOT BEING CERTIFIED.*

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE

Electrode Used: _____

Additional Page (Page #) CM _____

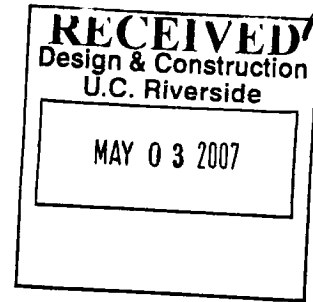
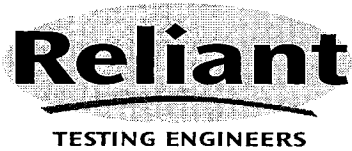
REPORT
 Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance
I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Inspector's Name **ROBERT B MOFFAT**
Inspector's Signature
Inspector's License # **1157-85**

Approved/Authorized by
(PROJECT SUPERINTENDENT)
Submitted by _____



950377
REPORT

Date: April 24, 2007

Report distribution package of Field Inspection Reports and/or Laboratory results on materials tested.

Job Name: UCR Chass Building

Job Address: 3615 A Canyon Crest Drive

City: Riverside, CA

Client Name: SJ Amoroso Construction Co.

You are receiving these reports at the request of our client. If you are not the correct recipient or wish to discontinue to receipt, please contact Denise DeGroff at 714/556-5867.

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE February 1, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) MAS IRON / KRETSCHMAR							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING ROOF TIE BACK TO EMBED PLATE, 1/4" FILLET WELD ALL AROUND, COMPLETED NORTH BUILDING. WELDER ABEL- CERTS ON FILE, PROCESS F.C.A.W. SEMIAUTOMATIC, ELECTRODE E71T-8, NR232		
ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF A.W.S. D1.1.		
OBSERVATION OF PLACING 6" C.M.U. @ ROOF NORTH BUILDING, COMPLETED 5 COURSES @ PERIMETER, REINFORCEMENT #4 @ 16" ON CENTER EACH WAY PER DETAIL 4 / S-703, MORTAR FINS & BAR CLEARANCES ACCEPTABLE, MIXING ORCO TYPE S IN GAS POWERED DRUM MIXER, ABOVE AREA IS ACCEPTABLE FOR GROUT PLACEMENT.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Does Not Contain Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name _____ GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # _____ 5009669-84 / C.W.I.05061091

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *Gordon Lewis*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE February 2, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) MAS IRON / KRETSCHMAR							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	3:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING TIE BACK GALVANIZED PIPE TO EMBED PLATE @ ROOF SOUTH BUILDING. COMPLETED		
THIS AREA, USED 1/4" FILLET WELD ALL AROUND, PROCESS F.C.A.W. SEMIAUTOMATIC & S.M.A.W. MANUAL.		
ELECTRODE E71T-8 NR232 & 1/8 7018, ELECTRIC OVEN WAS USED FOR LOW HYDROGEN ELECTRODES.		
WELDER-GUMARO BECERRA- A.W.S.D1.1		
ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF A.W.S. D1.1		
OBSERVATION OF PLACING 6" CMU,s @ LEVEL 4 GRID LINE PX / 17-23, 5 COURSES, REINFORCEMENT #4 @ 16" ON		
CENTER EACH WAY. C.M.U. PLACEMENT ON GOING.		

SAMPLES

MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Does Not Contain Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name _____ GORDON LEWIS

Inspectors Signature Gordon Lewis

Inspectors License # _____ 5009669-84/ C.W.I. 05061091

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by [Signature]
(PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE February 5, 2007	M X	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) KRETSCHMAR							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	1		6:30 AM	4:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ EPOXY / GROUT

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF GROUT PLACEMENT @ PARAPET WALL ROOF PERIMETER NORTH BUILDING & LEVEL 4 GRID LINE PX / 17-23.		
PLACED APPROXIMATELY 20 CU. YDS. RANCHO READY MIX CONCRETE MIX #CHJ 05-404. USED TRAILER PUMP FOR GROUT PLACEMENT. USED ELECTRIC VIBRATOR FOR CONSOLIDATION. MADE 1 SET OF 4 GROUT SAMPLES @ GRID LINE L-15.		
OBSERVATION OF EPOXY #5 VERTICAL DOWELS @ 8" ON CENTER & #5 HORIZONTAL DOWELS @ 16" ON CENTER @ ELEVATOR #4 MEZZANINE LEVEL TO LEVEL 2, DRILLED 3/4" DIAMETER X 5" EMBEDMENT. CLEANED HOLES OUT WITH GAS POWERED BLOWER & NYLON BRUSH.		
OBSERVATION OF EPOXY #4 VERTICAL DOWELS FOR 6" C.M.U. PARAPET WALL @ 16" ON CENTER MEZZANINE LEVEL GRID LINE LX.2 / 18-22.5, DRILLED 5/8 DIAMETER X 5" EMBEDMENT, CLEANED HOLES OUT WITH GAS POWERED BLOWER & NYLON BRUSH.		

SAMPLES

SUPPLIER: RANCHO READY MIX								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CHJ05-404	2316322	9"	10"	R-CRETE	2500	10	4	49 62

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE February 6, 2007	M	T X	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) KRETSCHMAR / COWELCO							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	3:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ EPOXY / WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING SHEAR PLATES TO EMBEDS @ ELEVATOR 1 & 2 ROOF LEVEL, WELDING 5/16" FILLET WELD BOTH SIDES PER STEEL BEAM CONNECTION SCHEDULE DETAIL 6 / S-004. WELDERS CERTS. ON FILE, PROCESS F.C.A.W. SEMIAUTOMATIC, ELECTRODE E71T-8, NR232. ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF A.W.S.D1.1.		
OBSERVATION OF EPOXY #4 VERTICAL DOWELS @ 16" ON CENTER MEZZANINE LEVEL GRID LINE 17 / L.2-L.9, DRILLED 5/8" DIAMETER X 5" EMBEDMENT, CLEANED HOLES OUT WITH GAS POWERED BLOWER & NYLON BRUSH.		
OBSERVATION OF GROUTING ELEVATOR #3 GUIDRAIL SUPPORT TUBE @ LEVEL 1, 2, 3, & 4, PER DETAIL 1 / S-005. GROUTING TUBE STEEL @ NORTH BUILDING GRID LINE PX-19.2, PX-19.8, PX-20.2, PX-20.6, MX.8-23 TWO PLACES. USED MASTERFLOW 928, USED DRILL MOTOR WITH PADDLE ATTACHMENT. MIXING PER INSTRUCTIONS ON GROUT BAG. COMPLETED PLACING C.M.U.'s 5 COURSES @ MEZZANINE LEVEL GRID LINE LX.2 / 17.5-22.5. REINFORCEMENT #4 @ 16" ON CENTER EACH WAY PER DETAIL 4 / S-703. MADE 1 SET OF 3 MORTAR SAMPLES.		

SAMPLES

SUPPLIER: ORCO PRE MIX TYPE S								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
TYPE S					1500		3	

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature Gordon Lewis

Inspectors License # 5009669-84 / C.W.I. 05061091

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE February 7, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#							Riverside
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) COWELCO / KRETSCHMAR							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ EPOXY / WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING ELEVATOR SEPARATOR TUBE @ ELEVATOR 1 & 2 LEVEL 3 & 4 PER DETAIL 3 & 4 / S-005.		
INSTALLED W12x22 BEAMS @ ROOF ELEVATOR 1 & 2. TIGHTEN 7/8 HIGH STRENGTH BOLTS USING TURN OF THE NUT		
METHOD SNUG TIGHT + 1/3 TURN PER A.I.S.C. WELDING PROCESS F.C.A.W. SEMIAUTOMATIC ELECTRODE E71T-8, NR232		
WELDERS CERTS. ON FILE. ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF A.W.S.D.1		
OBSERVATION OF EPOXY #5 VERTICAL BARS @ 8" ON CENTER & #5 BARS HORIZONTAL @ 16" ON CENTER @ ELEVATOR		
#4 MEZZANINE TO LEVEL 2, DRILLED 3/4 DIAMETER X 5" EMBEDMENT. CLEANED HOLES OUT WITH GAS POWERED BLOWER & NYLON BRUSH. SAME AREA BELOW MEZZANINE CHECKED CLEAN OUTS-ACCEPTABLE.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-84 / C.W.I. 05061091

Approved Authorized by *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE February 8, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (if Any) KRETSCHMAR & SMITH							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ EPOXY / GROUTING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF GROUT PLACEMENT @ MEZZANINE PARAPET WALL GRID LINE LX.2 / 17.5-22.5, ELEVATOR 4, FOUR COURSES ABOVE MEZZANINE LEVEL & LEVEL 4 PARAPET WALL GRID LINE 4 / D-E, PLACED APPROXIMATELY 10 CU.YDS. RANCHO READY MIX 2500 P.S.I. GROUT MIX #CHJ 05-404, USED TRAILER PUMP FOR GROUT PLACEMENT, USED ELECTRIC VIBRATOR FOR CONSOLIDATION, MADE 1 SET OF 4 SAMPLES @ MEZZANINE GRID LINE LX.2-20.		
OBSERVATION OF EPOXY #4 DOWELS 4 PLACES @ STAIR #4 PER DETAIL 3 / S-003. DRILLED 5/8" DIAMETER X 5" EMBEDMENT, CLEANED HOLES OUT WITH ELECTRIC BLOWER & NYLON BRUSH, USED HILTI HIT 150, EXP. DATE 07-07.		

SAMPLES

SUPPLIER: RANCHO READY MIX								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CHJ 05-404	2316726	9"	10"	R-CRETE	2500	10	4	55 62

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

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Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied.

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE February 13, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#		X					
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							Riverside
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) M.A.S.							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other GROUTING / WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF GROUT PLACEMENT @ ELEVATOR #4 TOP LIFT, PLACED APPROXIMATELY 3 CU. YDS. RANCHO READY		
MIX CONCRETE MIX #CHJ 05-404, 2500 P.S.I. USED ELECTRIC VIBRATOR FOR CONSOLIDATION, MADE 1 SET OF 4 GROUT		
SAMPLES.		
OBSERVATION OF WELDING L2X2X3/8X1'-3" & L4X3X3/8X1'-3" TO BOX STUD HEADER, 1/8 FILLET WELD 2 SIDES PER		
SKETCH SSK-5, REF. SHEET 5 / S-703, WELDER ABEL- CERTS ON FILE, PROCESS F.C.A.W. SEMIAUTOMATIC,		
ELECTRODE E71T, .030 DIAMETER WIRE.		
ABOVE ANGLES BEING INSTALLED @ LEVEL 4 GRID LINE 1 / D-H, ONGOING.		

SAMPLES

SUPPLIER:		RANCHO READY MIX						
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
05-404	2316960	9"	10"		2500	3	4	49 59

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-84 / C.W.I.05061091

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE February 20, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#		X					
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							Riverside
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) COWELCO / KRETSCMAR & SMITH							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:30 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDNG

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF CONCRETE PLACEMENT @ STAIR #1 & STAIR #4. PLACED APPROXIMATELY 20 CU. YDS.		
ROBERTSON'S 5000 P.S.I. CONCRETE MIX #CHJ-05372, USED BOOM PUMP FOR CONCRETE PLACEMENT, USED		
ELECTRIC VIBRATOR FOR CONSOLIDATION. MADE 1 SET OF 4 SAMPLES @ STAIR #1 LEVEL 4.		
OBSERVATION OF REMOVING L2X2X3/8 FROM PRECAST PANELS, USED ELECTRIC GRINDER TO REMOVE WELD.		
WELDING L2X3X3/8 TO PRECAST PANEL, WELDING 3/16 FILLET WELD 2 SIDES, PROCESS S.M.A.W. MANUAL 1/8 7018.		
USED ELECTRIC OVEN FOR LOW HYDROGEN ELECTRODES.		
WELDER - ABEL - CERTS ON FILE.		

SAMPLES

SUPPLIER: ROBERTSON'S								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CHJ05372	4794544	4"	3 3/4"		5000	10	4	52 69

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48 / C.W.I.05061091

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE February 22, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#				X			
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) COWELCO / KRETSCHMAR & SMITH							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING L2X2X3/8X1'-3" & L4X3X3/8X1'-3" @ SOUTH BUILDING, COMPLETED GRID LINE 1 ALL LEVELS, WELDING 3 - 2" FILLET WELDS BOTH SIDES PER RFI #317. OBSERVATION OF WELDING PRE CAST LINTEL SOUTH BUILDING LEVEL 4 GRID LINE 1 / E-H, WELDING 3 SIDES PER SKETCH ON FILE.		
PROCESS F.C.A.W. SEMIAUTOMATIC, ELECTRODE E71T-11 & E71T-8		
WELDERS- ANDY & BRADY- CERTS ON FILE.		
OBSERVATION OF WELDING 5" CHANNEL FOR AIR DUCT SUPPORT IN ELEVATOR 3 SHAFT ALL LEVELS.		
PROCESS S.M.A.W. MANUAL, ELECTRODE 1/8 7018, ELECTRIC OVEN USED FOR LOW HYDROGEN ELECTRODES.		
WELDER -RYAN ROZA- L.A.CERT. #PO10074- EXP. 05-07		
ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF A.W.S.D1.1		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name _____ GORDON LEWIS _____
 Inspectors Signature Gordon Lewis
 Inspectors License # _____ C.W.I. 05061091 _____

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____



STRUCTURAL STEEL Testing & Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE	JOB NUMBER 05-1425	DATE Feb.-26-07	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">M</td> <td style="width: 5%; text-align: center;">T</td> <td style="width: 5%; text-align: center;">W</td> <td style="width: 5%; text-align: center;">T</td> <td style="width: 5%; text-align: center;">F</td> <td style="width: 5%; text-align: center;">S</td> <td style="width: 5%; text-align: center;">S</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	M	T	W	T	F	S	S	<input checked="" type="checkbox"/>						
M	T	W	T	F	S	S											
<input checked="" type="checkbox"/>																	
JOB NAME UCR	Riverside Ca	BUILDING / OSHPD PERMIT # / DSA-APP # 04-106468	DSA-FILE #														
ADDRESS 1634 W 14th	CITY Long Beach Ca	GENERAL CONTRACTOR S.J. AMOROSO Const.	JURISDICTION DSA														
ARCHITECT	ENGINEER	SUBCONTRACTOR (If Any)															

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	LUNCH	TIME OUT
4:00			7:00 am		11:00 am

Re-Inspection
 Show-Up Only
 Expenses

Shop
 Field
 Welding
 Bolting
 Sampling

Fireproofing
 NDT (HRS)

REPORT: (INCLUDE LOCATION OF WORK INSPECTED, JOB PROGRESS AND NOTE ANY WORK REJECTED OR JOB PROBLEMS. ATTACH CONTINUATION SHEETS AND SKETCHES IF NEEDED.)

Went to Fab. Shop in Long Beach and checked Fab. of 45 guardrail frame and 47 guard rail post built as shown on sheet 39 of approved plans. A-36 steel used # Mill Test rep. verified.

WELDER	CERTIFICATION / EXPIRATION DATE	WELDER	CERTIFICATION / EXPIRATION DATE

Electrode Used: _____

Additional Page (Page #) CM _____

REPORT
 Contains
 Does Not Contain
 Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name John Kelecs

Inspector's Signature *John Kelecs*

Inspector's License # L.B #D482

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by *Manu Amoroso*
(PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE February 28, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) COWELCO							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING STAIR #2 @ LEVEL 4, WELDING STRINGER TO TUBE STEEL & DECKING PER DETAIL 9 / S-804		
WELDING TUBE STEEL LANDING LEVEL 4 RE.F. F / S-803, WELDING 1/4" FILLET WELD ALL AROUND PER DETAIL 4 / S-804.		
WELDING PROCESS F.C.A.W. SEMIAUTOMATIC & S.M.A.W. MANUAL, ELECTRODES E71T-8 & 1/8 7018.		
ELECTRIC OVEN USED FOR LOW HYDROGEN ELECTRODES. WELDERS CERTS. ON FILE.		
THE ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF A.W.S. D1.1		
N PROCESS OF MOVING TO SOUTH BUILDING LEVEL 4 TO WELD PRE CAST PANELS		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance
 I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS
 Inspectors Signature *Gordon Lewis*
 Inspectors License # 05061091 C.W.I.

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE March 1, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) COWELCO							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING PRE CAST PANELS TO L2X2X3/8", WELDING 3 SIDES 3/16 FILLET WELD PER APPROVED SKETCH, COMPLETED SOUTH BUILDING LEVEL 4 GRID LINE 1-A.7, A-1.3, A-4, A-5.5, TOTAL OF 8 PRE CAST PANELS.		
COMPLETED WELDING DECKING @ ELEVATOR 1 & 2 ROOF, COMPLETED DECKING @ DOG HOUSE ROOF GRID LINE C.8-2.8, WELDING 1/2" PUDDLE EVERY FLUTE, BUTTON PUNCHING LAPS @ 12" ON CENTER.		
PROCESS F.C.A.W. SEMIAUTOMATIC & S.M.A.W. MANUAL, ELECTRODES E71T-8 & 1/8 7018.		
ELECTRIC OVEN USED FOR LOW HYDROGEN ELECTRODES, ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF AWS D1.1		
WELDERS CERTS. ON FILE		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 05061091 C.W.I.

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE March 2, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) COWELCO							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING L2X2X3/8X1'-3" & L4X3X3/8X1'-3" TO BOX STUD HEADER NORTH BUILDING LEVEL 3		
GRID LINE LX / 18-22 & SOUTH BUILDING LEVEL 4 GRID LINE 6.3-A.6, WELDING 3 - 2" FILLET WELDS BOTH SIDES OF		
ANGLE PER RFI #317 - SK-1, PROCESS F.C.A.W. SEMIAUTOMATIC, ELECTRODE E71T-11. WELDERS CERTS. ON FILE.		
ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF AWS D1.1.		
OBSERVATION OF EPOXY #5 DOWELS @ 12" ON CENTER FOR CORBEL @ STAIR #6 GRID LINE 1 / B.6-D FOUNDATION		
LEVEL TO BASEMENT, REF. 1/ S-601, DRILLED 3/4" DIAMETER X 5" EMBEDMENT, CLEANED HOLES OUT WITH GAS		
POWERED BLOWER & NYLON BRUSH, USED EPOXY HILTI HIT 150, EXP. DATE 07-07.		

SAMPLES

MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____
REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 05061091 C.W.I.

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE March 8, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#				X			
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) COWELCO							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:30 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF CONCRETE PLACEMENT @ NORTH BUILDING ROOF MECHANICAL CURBS, PLACED APPROXIMATELY 10 CU. YDS. ROBERTSON'S 5000 P.S.I. CONCRETE MIX #CHJ05372, USED ELECTRIC VIBRATOR FOR CONSOLIDATION. MADE 1 SET OF 4 SAMPLES.		
OBSERVATION OF WELDING PRE CAST PANELS @ SOUTH BUILDING LEVEL 4 GRID LINE 6.3-A.7, A.2-3, A.2-2.6, LEVEL 3 GRID LINE 1 / D-H, WELDING 3/16 FILLET WELD 3 SIDES PER APPROVED SKETCH ON FILE. WELDING L2X2X3/8X1'3" & L4X3X3/8X1'3" TO BOX STUD HEADER @ SOUTH BUILDING LEVEL 3 GRID LINE 1 / A.6 - C. WELDING 3 - 2" FILLET WELDS BOTH SIDES OF ANGLE PER RFI #317. WELDERS CERTS. ON FILE, ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF AWS D1.1.		

SAMPLES

SUPPLIER: ROBERTSON'S								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CHJ05372	4953642	4"	4 1/2"		5000	10	4	55 70

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48 / CWI 05061091

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by *[Signature]*

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE March 14, 2007	M	T	W X	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) COWELCO / MASS STEEL							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:30 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other WELDING / EPOXY _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF EPOXY #4 DOWELS 18" ON CENTER FOR MECHANICAL PADS @ ELECTRICAL ROOMS NORTH & SOUTH BUILDINGS LEVEL 1, 2, & 3, MECHANICAL PADS @ NORTH BUILDING LEVEL 1 GRID LINE Q-1.5, TOTAL OF 8.		
DRILLED 5/8" DIAMETER X 4" EMBEDMENT, CLEANED HOLES OUT WITH ELECTRIC BLOWER & NYLON BRUSH.		
USED HILTI HIT 150, EXP. DATE 07-07. ABOVE AREAS WERE BUSHED WITH ELECTRIC ROTOR HAMMER TO ROUGHEN SURFACE.		
OBSERVATION OF WELDING LEDGER ANGLE SPLICE PLATE @ SOUTH BUILDING LEVEL 2 GRID LINE B.8 / 8.1-11 GRID LINE 11 / A.5-B.7, GRID LINE A / 8-11, WELDING PER DETAIL 3 / S-703.		
COMPLETED WELDING PRE CAST PANELS @ SOUTH BUILDING LEVEL 4 GRID LINE 1 / B-D & LEVEL 2 GRID LINE 1 / C-H, WELDING 3/16 FILLET WELD 3 SIDES PER APPROVED SKETCH.		
COMPLETED WELDING L2X2X3/8 & L4X3X3/8 TO BOX STUD HEADER @ SOUTH BUILDING LEVEL 4 GRID LINE 1 / B-D, WELDING 3 - 2" FILLET WELDS BOTH SIDES OF ANGLE PER RFI #317.		
ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF A.W.S. D1.1		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-85 / CWI 05061091

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *Randy J. [Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE March 23, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) COWELCO							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other WELDING / EPOXY

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING PRE CAST PANELS @ SOUTH BUILDING LEVEL 4 GRID LINE 1 / B-D, WELDING 3/16" FILLET		
WELD 3 SIDES PER APPROVED SKETCH ON FILE. PROCESS F.C.A.W. SEMIAUTOMATIC, ELECTRODE E71T-8.		
WELDERS CERTS ON FILE. ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF A.W.S.D1.1.		
OBSERVATION OF EPOXY #4 DOWELS @ 12" ON CENTER @ NORTH BUILDING AUDITORIUM STEPS - 26 STEPS.		
DRILLED 5/8" DIAMETER X 4 1/4" EMBEDMENT, CLEANED HOLES OUT WITH GAS POWERED BLOWER & NYLON BRUSH.		
USED HILTI HIT 150 - EXP. DATE 07-07 & SIMPSON SET 22 - EXP. DATE 06-07.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48 / C.W.I. 05061091

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE April 5, 2007	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#				X			
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) COWELCO							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING PRE CAST PANELS TO L2X2X3/8". COMPLETED NORTH BUILDING LEVEL 2 & 3 GRID LINE		
LX / 18 - 23. IN PROCESS OF WELDING LEVEL 4. WELDING PER SKETCH SSK-6.		
PROCESS F.C.A.W. SEMIAUTOMATIC. ELECTRODE E71-8		
WELDER - ANDY - CERTS ON FILE		
THE ABOVE WELDS ARE WITHIN THE ACCEPTANCE CRITERIA OF AWS D1.1		

SAMPLES

MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains _____ Non-Compliant Items
 Does Not Contain _____

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-85 / CWI 05061091

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

SPECIALIZED TESTING



ACCREDITED

10600 Pioneer Boulevard, Suite G • Santa Fe Springs, California 90670 • (562) 903-0032 • Fax (562) 903-3534



REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 1/31/2007 **MILL:** Cascade
INSPECTOR'S NAME: Reliant Testing Engineers **HEAT NUMBER:** 347506
JOB ADDRESS: 3615 Canyon Crest Drive **ASTM/GRADE:** A615 / 60 A706 / 60
Riverside, Ca **REBAR SIZE (DIA.)** 3
CONTRACTOR: S.J. Amoroso **MARKINGS ON REBAR** C10WS4
ENGINEER: Saiful / Bouquest **TAG/SPECIMEN ID:** NR
PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

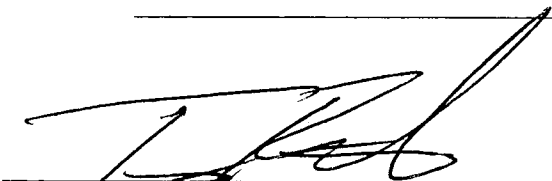
DATE ORDERED / DATE SPECIMENS RECVD.	1/22/07 / 1/23/07	EQUIPMENT USED	Tinius Olsen
REPORT DATE	1/31/07	SN OF EQUIPMENT	74959
TECHNICIAN NAME	K. Van Doren	CALIB. / RECAL. DATE	2-06 / 2-07


TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
1287.6.1	1/31/07	0.375	0.110	7,845	71,021	11,410	103,294	1.5	1.339	17	-	-
1287.6.2	1/31/07	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.
² Nominal Dimension
³ Elongation in 8-inches.
⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615 / A706


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 1/31/2007 MILL: Mexico

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 284851

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, Ca REBAR SIZE (DIA.) 4

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR Mexico

ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>1/22/07 / 1/23/07</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>1/31/07</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>K. Van Doren</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _y /F _u	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
1287.7.1	1/31/07	0.500	0.196	12,875	65,563	20,840	106,123	1.6	1.079	14	-	-
1287.7.2	1/31/07	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: <u>1/31/2007</u>	MILL: <u>Feng Hsin</u>
INSPECTOR'S NAME: <u>Reliant Testing Engineers</u>	HEAT NUMBER: <u>384542</u>
JOB ADDRESS: <u>3615 Canyon Crest Drive</u>	ASTM/GRADE: <u>A615 / 60 A706 / 60</u>
<u>Riverside, Ca</u>	REBAR SIZE (DIA.) <u>4</u>
CONTRACTOR: <u>S.J. Amoroso</u>	MARKINGS ON REBAR <u>FHTWN4WS60</u>
ENGINEER: <u>Saiful / Bouquest</u>	TAG/SPECIMEN ID: <u>NR</u>
PERMIT NO. <u>NR</u>	

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	1/22/07 / 1/23/07	EQUIPMENT USED	Tinius Olsen
REPORT DATE	1/31/07	SN OF EQUIPMENT	74959
TECHNICIAN NAME	K. Van Doren	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _y /F _u	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES In.	PERCENT %	PASS	FAIL
1287.8.1	1/31/07	0.500	0.196	12,385	63,068	21,120	107,549	1.7	1.353	17	-	-
1287.8.2	1/31/07	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615 A706 / 60

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SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: <u>1/31/2007</u>	MILL: <u>Feng Hsin</u>
INSPECTOR'S NAME: <u>Reliant Testing Engineers</u>	HEAT NUMBER: <u>384596</u>
JOB ADDRESS: <u>3615 Canyon Crest Drive</u>	ASTM/GRADE: <u>A615 / 60 A706 / 60</u>
<u>Riverside, Ca</u>	REBAR SIZE (DIA.) <u>5</u>
CONTRACTOR: <u>S.J. Amoroso</u>	MARKINGS ON REBAR <u>FHTWN5WS60</u>
ENGINEER: <u>Saiful / Bouquest</u>	TAG/SPECIMEN ID: <u>NR</u>
PERMIT NO. <u>NR</u>	

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	1/22/07 / 1/23/07	EQUIPMENT USED	Tinius Olsen
REPORT DATE	1/31/07	SN OF EQUIPMENT	74959
TECHNICIAN NAME	K. Van Doren	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
1287.9.1	1/31/07	0.625	0.307	20,225	65,915	30,050	97,935	1.5	1.282	16	-	-
1287.9.2	1/31/07	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615 A706 / 60

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SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 1/31/2007 MILL: Mexico
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 269427
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, Ca REBAR SIZE (DIA.) 6
 CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR MEXICO
 ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>1/22/07 / 1/23/07</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>1/31/07</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>K. Van Doren</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
2187.10.1	1/31/07	0.750	0.442	28,985	65,600	45,340	102,615	1.6	1.133	14	-	-
1287.10.2	1/31/07	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615


 AUTHORIZED SIGNATURE

SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 1/31/2007 **MILL:** Cascade
INSPECTOR'S NAME: Reliant Testing Engineers **HEAT NUMBER:** 630606
JOB ADDRESS: 3615 Canyon Crest Drive **ASTM/GRADE:** A615 / 60
Riverside, Ca **REBAR SIZE (DIA.)** 5
CONTRACTOR: S.J. Amoroso **MARKINGS ON REBAR** C16S4
ENGINEER: Saiful / Bouquest **TAG/SPECIMEN ID:** NR
PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	1/22/07 / 1/23/07	EQUIPMENT USED	Tinius Olsen
REPORT DATE	1/31/07	SN OF EQUIPMENT	74959
TECHNICIAN NAME	K. Van Doren	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
1287.11.1	1/31/07	0.625	0.307	20,870	68,017	33,980	110,743	1.6	0.781	10	-	-
1287.11.2	1/31/07	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615



 AUTHORIZED SIGNATURE

SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 1/31/2007 MILL: Border

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: BS20028320

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60

Riverside, Ca REBAR SIZE (DIA.) 9

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR B29S

ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>1/22/07 / 1/23/07</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>1/31/07</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>K. Van Doren</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
1287.12.1	1/31/07	1.125	0.994	64,620	65,000	103,810	104,421	1.6	1.197	15	-	-
1287.12.2	1/31/07	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615


 AUTHORIZED SIGNATURE

SPECIALIZED TESTING



ACCREDITED

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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 1/31/2007 MILL: Tamco

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 70178

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / 60

Riverside, Ca REBAR SIZE (DIA.) 9

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR T29W

ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECD.	<u>1/22/07 / 1/23/07</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>1/31/07</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>K. Van Doren</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _y /F _u	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
1287.13.1	1/31/07	1.125	0.994	67,280	67,676	95,430	95,992	1.4	1.774	22	-	-
1287.13.2	1/31/07	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

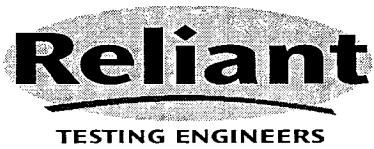
³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706



 AUTHORIZED SIGNATURE



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 5680
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Mortar
 LOCATION IN STRUCTURE: Elevator 2 - level 3.5
 MIX NO: Type S MEASURED SLUMP (in): N/A SPEC'D PSI: 1500
 SUPPLIER: Orco DIAMETER (in): 2 AREA (sq. in.): 3.14
 DATE CAST: 1/4/2007 TIME CAST: 9am CAST BY: G. Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	1/11/2007	10,290	3,277	D	
2	28	2/1/2007	12,960	4,127	D	
3	28	2/1/2007	13,210	4,207	D	
						4,167

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109, C144, & C1142.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 5690
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Shear wall; level 4; grid line 22
 MIX NO: 44243 MEASURED SLUMP (in): 4.5 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 50 CONCRETE TEMP: 65
 SUPPLIER: Robertsons DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 1/5/2007 TIME CAST: 8:30am CAST BY: G. Lewis CO.: RTE

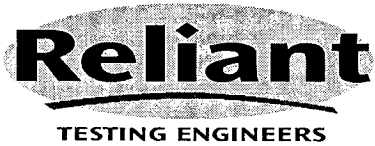
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	1/12/2007	114,070	4,034	D	
2	28	2/2/2007	189,400	6,697	A	
3	28	2/2/2007	188,060	6,650	A	
4	Hold					
						6,674

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
 Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
 Compression test results were not satisfactory .

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 5764
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Grout

LOCATION IN STRUCTURE: Elevator 1 & 2; Level 4.5

MIX NO: CHJ05404 MEASURED SLUMP (in): 10 SPEC'D PSI: 2500

SUPPLIER: Rancho Ready Mix

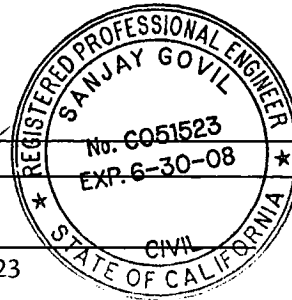
DATE CAST: 1/11/2007 TIME CAST: 10:30am CAST BY: G. Lewis COMPANY RTE

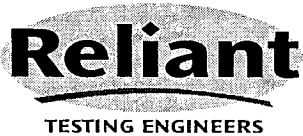
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	DIAMETER (in)	AREA (sq.in.)	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	1/18/2007	3	11.22	18,370	1,637	N/A	
2	28	2/8/2007	3	11.24	35,560	3,164	N/A	
3	28	2/8/2007	3	11.25	32,740	2,910	N/A	
4	28	2/8/2007	3	11.22	34,310	3,058	N/A	
								2,984

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109,C579,C942,C1019,UBC21-16,UBC 21-18
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

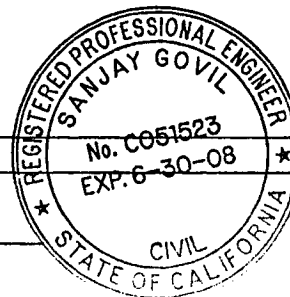
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 5766
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Stair 6; Footings; grid line C
 MIX NO: 44243 MEASURED SLUMP (in): 5 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 43 CONCRETE TEMP: 60
 SUPPLIER: Robertsons DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 1/12/2007 TIME CAST: 9:50am CAST BY: G. Lewis CO.: RTE

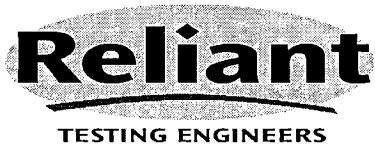
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	1/19/2007	110,510	3,908	D	
2	28	2/9/2007	193,840	6,854	D	
3	28	2/9/2007	188,620	6,670	D	
4	Hold					
						6,762

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
 Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
 Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 5791
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Mortar

LOCATION IN STRUCTURE: 4th floor; 1st course; grid line J - 3.5

MIX NO: Type S MEASURED SLUMP (in): 1 SPEC'D PSI: 1500

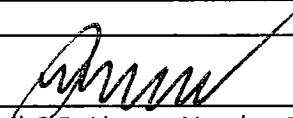
SUPPLIER: Orco DIAMETER (in): 2 AREA (sq. in.): 3.14

DATE CAST: 1/16/2007 TIME CAST: 10am CAST BY: G. Lewis CO.: RTE

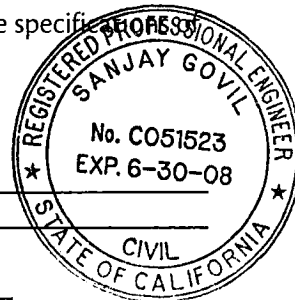
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	1/23/2007	9,630	3,067	D	
2	28	2/13/2007	15,220	4,847	D	
3	28	2/13/2007	15,090	4,806	D	
						4,826

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
 Compression test results were satisfactory and conform to the specific requirements of ASTM C109, C144, & C1142.
 Compression test results were not satisfactory

REMARKS: _____



 Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 5921
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: North bldg; roof deck; grid line NX / 5
 MIX NO: CHJ05372 MEASURED SLUMP (in): 5 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 60 CONCRETE TEMP: 62
 SUPPLIER: Robertsons DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 1/24/2007 TIME CAST: 10:20am CAST BY: G. Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	6	1/30/2007	109,860	3,885	D	
2	28	2/21/2007	161,320	5,704	B	
3	28	2/21/2007	156,390	5,530	B	
4	Hold					
						5,617

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil / P.E. License Number 51523



INSPECTION MATERIALS TESTING GEOTECHNICAL



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 5972
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Grout
 LOCATION IN STRUCTURE: Elevator 1/2; top lift
 MIX NO: CHJ05404 MEASURED SLUMP (in): 10 SPEC'D PSI: 2500
 SUPPLIER: Rancho Ready Mix
 DATE CAST: 1/24/2007 TIME CAST: 8:15am CAST BY: G. Lewis COMPANY RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	DIAMETER (in)	AREA (sq.in.)	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	1/31/2007	3	10.96	17,170	1,567	N/A	
2	28	2/21/2007	3	10.95	29,660	2,709	N/A	
3	28	2/21/2007	3	10.94	35,570	3,251	N/A	
4	28	2/21/2007	3	10.92	33,340	3,053	N/A	
								3,152

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
 Compression test results were satisfactory and conform to the specifications of ASTM C109,C579,C942,C1019,UBC21-16,UBC 21-18
 Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 5953
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

 SPECIMEN TYPE: Concrete

 LOCATION IN STRUCTURE: South bldg; Mechanical platform; grid line G - 2.5

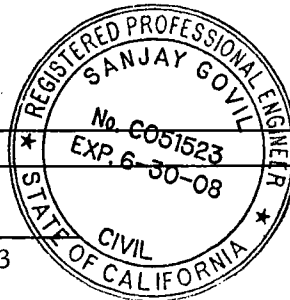
 MIX NO: 44243 MEASURED SLUMP (in): 4.5 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 70 CONCRETE TEMP: 70
 SUPPLIER: Robertsons DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 1/26/2007 TIME CAST: 10am CAST BY: G. Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/2/2007	113,290	4,006	D	
2	28	2/23/2007	183,690	6,495	D	
3	28	2/23/2007	177,030	6,260	B	
4	Hold					
						6,378

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 5971
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Mortar

LOCATION IN STRUCTURE: North bldg; Roof; 1st course; grid line 23-MX

MIX NO: Type S MEASURED SLUMP (in): N/A SPEC'D PSI: 1500

SUPPLIER: Orco DIAMETER (in): 2 AREA (sq. in.): 3.14

DATE CAST: 1/26/2007 TIME CAST: 11:45am CAST BY: G. Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/2/2007	6,460	2,057	D	
2	28	2/23/2007	9,710	3,092	D	
3	28	2/23/2007	9,800	3,121	D	
						3,107

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109, C144, & C1142.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523



ROUTED

COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 6019
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Mortar

LOCATION IN STRUCTURE: Roof; 4th course; grid line MX-23

MIX NO: Type S MEASURED SLUMP (in): N/A SPEC'D PSI: 1500

SUPPLIER: Orco DIAMETER (in): 2 AREA (sq. in.): 3.14

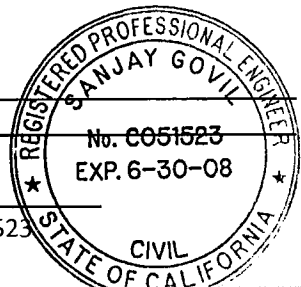
DATE CAST: 1/29/2007 TIME CAST: 11:30am CAST BY: G. Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/5/2007	8,910	2,838	D	
2	28	2/26/2007	11,810	3,761	D	
3	28	2/26/2007	12,420	3,955	D	
						3,858

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109, C144, & C1142.
- Compression test results were not satisfactory

REMARKS:

 Dr. Sanjay Govil, P.E. License Number 51523





10/10/07

COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 6020
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Level 3; Stair 1
 MIX NO: CHJ05372 MEASURED SLUMP (in): 4.75 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 50 CONCRETE TEMP: 68
 SUPPLIER: Robertsons DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 1/31/2007 TIME CAST: 6:45am CAST BY: G. Lewis CO.: RTE

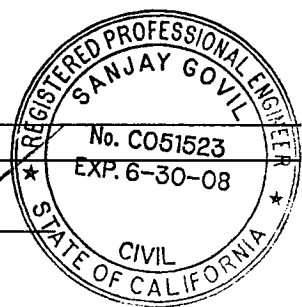
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/7/2007	117,220	4,145	D	
2	28	2/28/2007	160,590	5,679	A	
3	28	2/28/2007	163,180	5,770	A	
4	Hold					
						5,724

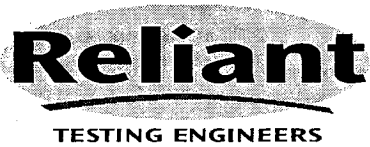
RCG ✓

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS:

Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 6115
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Grout
 LOCATION IN STRUCTURE: Roof; north bldg; grid line L-15
 MIX NO: CHJ05404 MEASURED SLUMP (in): 10 SPEC'D PSI: 2500
 SUPPLIER: Rancho Ready Mix
 DATE CAST: 2/5/2007 TIME CAST: 7:30am CAST BY: G. Lewis COMPANY RTE

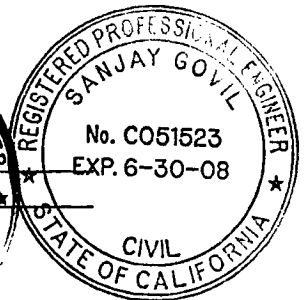
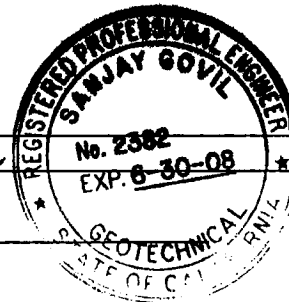
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	DIAMETER (in)	AREA (sq.in.)	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/12/2007	3	11.78	31,750	2,695	N/A	
2	28	3/5/2007	3	11.41	36,960	3,239	N/A	
3	28	3/5/2007	3	10.97	36,960	3,369	N/A	
4	28	3/5/2007	3	11.72	35,820	3,056	N/A	
								3,222

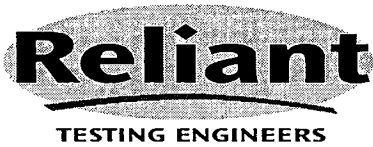
Rg ✓

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109,C579,C942,C1019,UBC21-16,UBC 21-18
- Compression test results were not satisfactory

REMARKS:

 Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

Handwritten notes: 05-1425

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 6117
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Mortar

LOCATION IN STRUCTURE: Mezzanine; grid line 20-LX.2

MIX NO: Type S MEASURED SLUMP (in): N/A SPEC'D PSI: 1500

SUPPLIER: Orco DIAMETER (in): 2 AREA (sq. in.): 3.14

DATE CAST: 2/6/2007 TIME CAST: 11am CAST BY: G. Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/13/2007	7,400	2,357	D	
2	28	3/6/2007	10,400	3,312	D	
3	28	3/6/2007	10,830	3,449	D	
						3,381

Handwritten: RLV

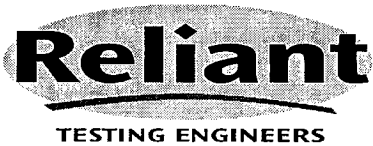
- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109, C144, & C1142.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523



Handwritten: 05-1425



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 6160
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Grout
 LOCATION IN STRUCTURE: Mezzanine; grid line LX.2 / 20
 MIX NO: CHJ05404 MEASURED SLUMP (in): 10 SPEC'D PSI: 2500
 SUPPLIER: Rancho Ready Mix
 DATE CAST: 2/8/2007 TIME CAST: N/A CAST BY: G. Lewis COMPANY RTE

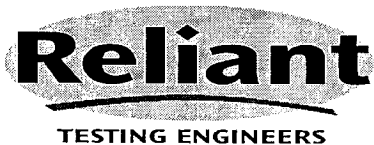
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	DIAMETER (in)	AREA (sq.in.)	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/15/2007	3	10.22	18,470	1,807	N/A	
2	28	3/8/2007	3	10.23	30,740	3,005	N/A	
3	28	3/8/2007	3	10.16	32,220	3,171	N/A	
4	28	3/8/2007	3	10.2	30,410	2,981	N/A	
								3,053

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109,C579,C942,C1019,UBC21-16,UBC 21-18
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523





05-1425
6213

COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 6213
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Grout

LOCATION IN STRUCTURE: Elevator # 4 top lift

MIX NO: CHU05-404 MEASURED SLUMP (in): 10 SPEC'D PSI: 2500

SUPPLIER: Rancho ready mix

DATE CAST: 2/13/2007 TIME CAST: 7:30 A.M. CAST BY: G.Lewis COMPANY RTE

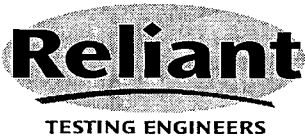
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	DIAMETER (in)	AREA (sq.in.)	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/20/2007	3	11.1	20,010	1,803	N/A	
2	28	3/13/2007	3	11.02	31,360	2,846	N/A	
3	28	3/13/2007	3	11.04	34,030	3,082	N/A	
4	28	3/13/2007	3	11.14	33,510	3,008	N/A	
								2,979

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109,C579,C942,C1019,UBC21-16,UBC 21-18
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

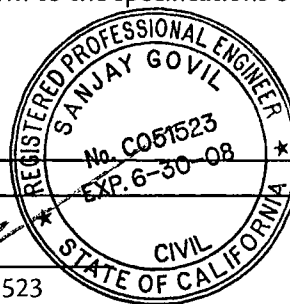
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 6239
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Stair # 1 Level 4
 MIX NO: CHJ05372 MEASURED SLUMP (in): 3 3/4 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 52 CONCRETE TEMP: 69
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 2/20/2007 TIME CAST: 8:00 A.M. CAST BY: G.Lewis CO.: RTE

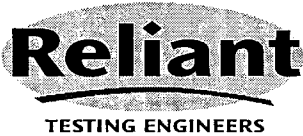
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/27/2007	112,900	3,992	A	
2	28	3/20/2007	143,660	5,080	B	
3	28	3/20/2007	149,200	5,276	A	
4	Hold					
						5,178

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS


PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 6403
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Foundation Elevator # 4
 MIX NO: 44243 MEASURED SLUMP (in): 5 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 72 CONCRETE TEMP: 75
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 3/7/2007 TIME CAST: 10:30 A.M. CAST BY: G.Lewis CO.: RTE

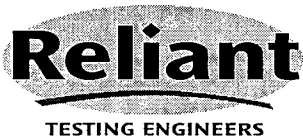
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	3/14/2007	116,170	4,108	D	
2	28	4/4/2007	176,350	6,236	D	
3	28	4/4/2007	176,290	6,234	B	
4	Hold					
						6,235

26 ✓

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
 Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____


 Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 6404
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Roof mechanical curb; North Building
 MIX NO: CHJ05372 MEASURED SLUMP (in): 4 1/2 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 55 CONCRETE TEMP: 70
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 3/8/2007 TIME CAST: 7:25 A.M. CAST BY: G.Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	3/15/2007	101,400	3,586	D	
2	28	4/5/2007	141,680	5,010	D	
3	28	4/5/2007	142,830	5,051	B	
4	Hold					
						5,030

R6 ✓

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

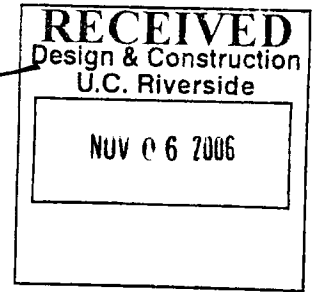
REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 515





950 377
Reports



Date: October 26, 2006

Report distribution package of Field Inspection Reports and/or Laboratory results on materials tested.

Job Name: **UCR Chass Building**

Job Address: **3615-A Canyon Crest Drive**

City: **Riverside, CA**

Client Name: **S J Amoroso Construction Co Inc.**

You are receiving these reports at the request of our client. If you are not the correct recipient or wish to discontinue to receipt, please contact Denise DeGroff at 714/556-5867.

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE October 2, 2006	M X	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF CMU PLACEMENT @ PERIMETER OF ELEVATOR 1 & 2, COMPLETED 10 COURSES ABOVE 2ND FLOOR.		
REINFORCEMENT #5 [V] @ 8" ON CENTER & #5 [H] @ 16" ON CENTER, GRID LINE 3.6 REINFORCEMENT #4 @ 16" ON CENTER EACH WAY PER DETAIL 10 / S-600. LAPS 48 BAR DIAMETER PER DETAIL 2 / S-004. ABOVE 8" CMU.		
OBSERVATION OF WELDING FLANGE TO REDUCER PIPE, PROCESS S.M.A.W. 1/8 6010, FILLET WELDS ACCEPTABLE.		
WELDER - JOSE ON FILE.		
CHECKED COLUMNS @ LEVEL 3-4 SOUTH BUILDING GRID LINE D-1, C-1, C-4, HAD CLEARANCE PROBLEMS, TALKED TO PACIFIC COAST STEEL & MATT ADJUSTED COLUMNS TO PROPER LOCATION, IT IS NOW ACCEPTABLE. SURE FORM IS IN PROCESS OF CLOSING COLUMNS.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____
REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-84 / 5009669-85

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by *[Signature]*

ENTERED

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE October 3, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#							Riverside
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ EPOXY / WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF PLACING 8" CMU'S @ ELEVATOR 1 & 2 LEVEL 2-3 GRID LINE 3.6. REINFORCEMENT #4 @ 16" ON CENTER EACH WAY PER DETAIL 10 / S-600. LAPS & OVER DOOR REINFORCEMENT PER DETAIL 2 & 3 / S-004.		
EPOXY #5 HEAD BARS @ ELEVATOR DOORS PER DETAIL 3 / S-004 & 2 HORIZONTAL ABOVE DOOR. DRILLED 3/4 DIAMETER X 6" EMBEDMENT, USED RE-500 EPOXY, EXP. DATE 11- 06. CLEANED HOLES OUT WITH ELECTRIC BLOWER & NYLON BRUSH.		
PERIMETER OF ABOVE AREA CHECKED CLEAN OUTS EVERY 32". CLEANED OUT WITH ELECTRIC BLOWER ACCEPTABLE.		
OBSERVATION OF WELDING FLANGE TO 3" & 4" HOT WATER & CHILL WATER PIPE @ LEVEL 1 CEILING GRID LINE G.5-2.8		
PROCESS S.M.A.W. MANUAL 1/8 6010 FILLET WELDS. WELDER - JOSE - ON FILE.		
WELDING ON GOING.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____
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 Does Not Contain

Certification of Compliance

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Inspectors Name _____ GORDON LEWIS _____

Inspectors Signature Gordon Lewis

Inspectors License # _____ 5009669-84 / 5009669-85 _____

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____

ENTERED

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE October 5, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#		Riverside					
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
COMPLETED PLACING 6" CMU'S @ LEVEL 2 GRID LINE 10-11 / A-B.6, 5 COURSES PARAPET WALL, REINFORCEMENT #4 @ 16" ON CENTER EACH WAY PER DETAIL 4 / S-703. GROUTED ABOVE AREA NORTH, SOUTH & WEST PARAPET WALL, GROUT PLACEMENT @ PERIMETER OF ELEVATOR 1 & 2, 8" CMU 10 COURSES ABOVE 2ND FLOOR, USED ELECTRIC VIBRATOR FOR CONSOLIDATION, USED RANCHO READY MIX 2500 PSI GROUT MIX # CHJ05404.		
MADE 1 SET OF 4 GROUT SAMPLES @ GRID LINE 11-A.9.		

SAMPLES

SUPPLIER: RANCHO READY MIX								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CHJ05404	2306078	9	10	R-CRETE	2500	10	4	75 78

Additional Page (Page #) CM _____
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 Does Not Contain

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Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-84 / 5009669-85

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)
ENTERED

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE October 6, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#					X		
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (if Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:30 PM

Show-Up Only Expenses
 Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry
 Quality Control Administration Prestress/Post Tension Other EPOXY

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF PLACING 8" CMU'S @ PRERIMETER OF ELEVATOR 1 & 2, COMPLETED UP TO LEVEL 3, REINFORCEMENT #5 [V] @ 8" ON CENTER & #5 [H] @ 16" ON CENTER. EPOXY #5 BARS @ OUTSIDE FACE OF COLUMNS 4 PLACES GRID LINE K-3.6 & J.5-3.6 THE #5 BARS ARE DOWELS FOR THE HORIZONTAL REINFORCEMENT @ CMU WALL, USED EPOXY RE-500, EXP. DATE 11-06, DRILLED 3/4 DIAMETER X 6" EMBEDMENT, CLEANED HOLES WITH BLOWER & NYLON BRUSH.		
REINFORCEMENT LEVEL 2-3 NORTH BUILDING, PCS HAS ADDED EIGHT #8 VERTICAL BARS INSTEAD OF 181 #9 VERTICAL BARS AT THE SHEAR WALL ALONG GRID LINE L-13 & L-14.1, PCS IS ADDING 2 #8 TO MAKE UP FOR THE DIFFERENCE BETWEEN THE INSTALLED 8 #8 & SPECIFIED 8 #9 PER RFI # 219.		
THE REBAR IN COLUMN CN15 BETWEEN THE 2ND & 3RD FLOORS WAS PLACED WITH 4 #8 VERTICAL BARS INSTEAD OF 4 #9 SIMILAR TO RFI #219, PCS ADDED 2 #8 BARS TO MAKE UP THE AREA OF STEEL REQUIRED, THIS IS ACCEPTABLE PER RFI #225.		
EPOXY #4 DOWELLS 12" ON CENTER FOR RAMP WALL GRID LINE B.4 / 3.5-4, DRILLED 5/8 DIAMETER X 5" EMBEDMENT, CLEANED HOLES OUT WITH BLOWER & NYLON BRUSH ACCEPTABLE.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____
REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-84 / 5009669-85

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *Dank*
 (PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING

ENTERED

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE October 9, 2006	M X	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#		Riverside					
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

Show-Up Only Expenses
 Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry
 Quality Control Administration Prestress/Post Tension Other

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF 8" CMU PLACEMENT @ PERIMETER OF ELEVATOR 1 & 2, 5 COURSES WHICH MAKES IT 2 COURSES ABOVE 3RD FLOOR. REINFORCEMENT #5 [V] @ 8" ON CENTER & #5 [H] @ 16" ON CENTER. #5 WERE ADDED @ 3RD LEVEL FOR BRICK VENEER SUPPORT PER DETAIL 7 / S-004, EMBED FOR ELEVATOR GUIDE RAIL INSTALLED @ SAME ELEVATION. LAPS 48 BAR DIAMETERS PER DETAIL 2 / S-004. USING ORCO PRE MIX TYPE S MORTAR, MORTAR FINS & CLEARANCES ACCEPTABLE. CMU PLACEMENT ON GOING.		
REINFORCEMENT PLACEMENT @ LEVEL 3 NORTH BUILDING, COMPLETED BEAMS ON GRID LINE PX, BEAM #BN11 FOUR PLACES & BEAM #BN24, GRID LINE R-12 BEAM #BN31 TWO PLACES, GRID LINE 17-P BEAM # BN24, PER BEAM SCHEDULE DETAIL 1 / S-400. REINFORCEMENT PLACEMENT ON GOING.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

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 Does Not Contain

Certification of Compliance
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Inspectors Name GORDON LEWIS
 Inspectors Signature Gordon Lewis
 Inspectors License # 5009669-84 / 5009669-85

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by [Signature]

ACCOUNTING

ENTERED

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE October 10, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#							Riverside
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

Show-Up Only Expenses
 Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry
 Quality Control Administration Prestress/Post Tension Other

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF CONCRETE PLACEMENT @ LEVEL 3-4 SHEAR WALLS & COLUMNS SOUTH BUILDING.		
CONCRETE PLACEMENT @ COLUMN GRID LINES D-1, C-1, B-1, C-2.4, B.4-2.3, A.7-2.3, C.6-2.6, C-3, D-4, C-4, A.4-5, A-5, A.8-6, A-6, B-6.1, CONCRETE PLACEMENT @ SHEAR WALLS GRID LINE 1 / A-A.5, D / 2-3, 3.5 / A-B, & B / 4-5.5.		
USED ROBERTSON'S 5000 PSI CONCRETE MIX # 44243, PLACED APPROXIMATELY 70 CU. YDS. USED ELECTRIC VIBRATOR FOR CONSOLIDATION, USED BOOM TRUCK FOR CONCRETE PLACEMENT.		
MADE 1 SET OF 4 SAMPLES @ SHEAR WALL-TOP LEVEL 3 GRID LINE D-2.6.		

SAMPLES

SUPPLIER:		ROBERTSON'S						
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
44243	4701098	4	4		5000	10	4	62 62

Additional Page (Page #) CM _____
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 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

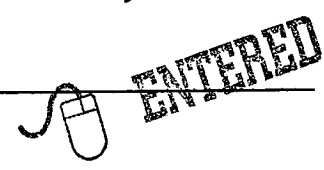
Inspectors License # 5009669-48

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING



Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE October 11, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF CMU PLACEMENT @ PERIMETER OF ELEVATOR 1 & 2, COMPLETED 9 COURSES ABOVE LEVEL 3.		
REINFORCEMENT #5 [V] @ 8" ON CENTER & #5 [H] @ 16" ON CENTER, LAPS 48 BAR DIAMETERS PER DETAIL 2 / S-004.		
INSTALLED BRICK VENEER SUPPORT EMBED PER DETAIL 7 / S-004, CHECKED CLEAN OUTS EVERY 32" ACCEPTABLE.		
GROUTING 12' LIFT. INTERIOR REINFORCEMENT GRID LINE 3.6 ELEVATOR DOORS #4 @ 16" ON CENTER EACH WAY.		
ABOVE WALLS 8" CMU'S.		
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 3 NORTH BUILDING, COMPLETED BEAMS #BN35A, BN35 THREE PLACES, BN30, BN5, BN24 TWO PLACES, BN11 FOUR PLACES, BN24 TWO PLACES, BN15, BN7, BN31 TWO PLACES, THIS IS ALL THE BEAMS @ LEVEL 3 ON DRAWING S-107. REINFORCEMENT PER DETAIL 1 / S-400. COMPLETED BOTTOM LAYER AT LEVEL 3 NORTH BUILDING #5 @ 12" ON CENTER EACH WAY, OUTER LAYER NORTH-SOUTH DIRECTION PER DETAIL 1/S-404.		
REINFORCEMENT PLACEMENT ONGOING.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____
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 Does Not Contain

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Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48 / 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING



Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE October 12, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ GROUT PLACEMENT

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF GROUT PLACEMENT, 12' LIFT 5 COURSES ABOVE LEVEL 3 ELEVATOR 1 & 2 PERIMETER WALLS.		
USED ELECTRIC VIBRATOR FOR CONSOLIDATION, PLACED APPROXIMATELY 8 CU. YDS. RANCHO READY MIX GROUT.		
MIX #CHJ 05404 / 2500 PSI. MADE 1 SET OF 4 GROUT SAMPLES @ GRID LINE J.5-4 LEVEL 3.		
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 3 NORTH BUILDING, COMPLETED ADDED BARS BOTTOM @		
ALL LOCATIONS NOTED ON DRAWING S-107R, IN PROCESS OF INSTALLING TOP LAYER #5 @ 12" ON CENTER EACH WAY,		
PER NOTE #3 ON S-107. IN PROCESS OF INSTALLING SHEAR BANDS @ GRID LINE M-13 PER DETAIL 1/S-403.		
REINFORCEMENT PLACEMENT ON GOING.		

SAMPLES

SUPPLIER:		RANCHO READY MIX						
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CHJ 05404	2306709	9	9	R-CRETE	2500	8	4	58 65

Additional Page (Page #) CM _____

REPORT Contains _____ Does Not Contain _____

Certification of Compliance
 I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS
 Inspectors Signature *Gordon Lewis*
 Inspectors License # 5009669-48 / 5009669-84

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE October 13, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
COMPLETED REINFORCEMENT PLACEMENT @ LEVEL 3 NORTH BUILDING, #5 [T&B] @ 12" ON CENTER EACH WAY PER NOTE #3 ON DRAWING S-107. COMPLETED ALL ADDED BARS LEVEL 3 NORTH BUILDING PER DRAWING S-107R.		
SHEAR BANDS INSTALLED @ GRID LINES M-13, M-15, 17.9-NX, 19-NX, 20-NX PER PER DETAIL 1 / S-403. REINFORCEMENT FOR DROP PANEL @ GRID LINE P-15 PER DETAIL 1A / S-403.		
BEAM BN24 @ LEVEL 3 GRID LINE 23 / MX-NX REQUIRES ADDED REINFORCEMENT @ THE 10" FLOOR AREA WEST OF BEAM. REINFORCEMENT WAS ADDED @ THIS AREA PER RFI 239 SK2.		
SLAB DOWELS INSTALLED @ STAIR LANDING LEVEL 3 GRID LINE MX / 22-22.9 @ 12" ON CENTER PER DETAIL 9 / S-804.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 50096-6948

All inspections based on minimum of 4 hours for work performed over 4 hours - 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____



TESTING ENGINEERS

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE: B. BRANSTETTER, JOB NUMBER: 051425, DATE: 10-18-06, M T W T F S S, JOB NAME: UCC CHASS BIDGE, ADDRESS: 3615 CANYON CREST DR. RIVERSIDE, CITY: RIVERSIDE, GENERAL CONTRACTOR: S. J. AMOROSO, ARCHITECT: LEO DALY, ENGINEER: SAIFUL BOUQUET

HOURS

Table with columns: REGULAR, 1.5X, 2X, TIME IN, TIME OUT. Values: 8, 1, 1, 3:30am, 9:15am

Re-Inspection, Show-Up Only, Expenses, Reinforcement Concrete, Concrete Placement, Masonry, Reinforcement Masonry, Quality Control, Administration, Prestress/Post Tension, Other: ACI

INSPECTION

STARTED @: 3:50am, 1st TRUCK BATCHED: 3:37am, METHOD OF PLACEMENT: Pump, PAGE 1 of 1, Assisted Deputy B. LEWIS w/ TESTING, QUALITY CONTROL, AND PLACEMENT of CONCRETE (DECK POUR), 3 Sets of 4 Cylinders Cast, Table with columns: SET 1, SET 2, SET 3, Air, Conc, Slump, Test/Placement

SAMPLES

Table with columns: SUPPLIER: ROBERTSONS, MIXED NO., TICKET #, DESIGN SLUMP, MEASURED SLUMP, ADMIXTURE, DESIGN PSI, CUBIC YARDS, SPECIMENS, TEMPERATURE AMB CONC.

Additional Page (Page #) CM, REPORT Contains/Does Not Contain Non-Compliant Items

Certification of Compliance, I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes. Inspector's Name: GARY B. BRANSTETTER, Inspector's Signature: Gary Branstetter, Inspector's License #: 01841455, ACI

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied. Approved/Authorized by: [Signature], (PROJECT SUPERINTENDENT), Submitted by: [Signature]

SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET



DATE: 9/1/2006 MILL: Cascade
INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 610405
JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A706 / 60 / A615 / 60
Riverside, CA REBAR SIZE (DIA.) 4
CONTRACTOR: NR MARKINGS ON REBAR C13WS4
ENGINEER: NR TAG/SPECIMEN ID: NR
PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>8/24/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/1/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2884A	9/1/06	0.500	0.196	12,795	65,156	19,945	101,566	1.6	1.110	14	-	-
R2884B	9/1/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.


² Nominal Dimension

³ Elongation in 8-inches.

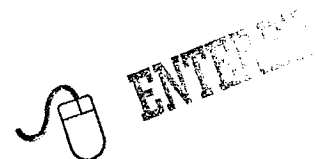
⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706 / A615

NR = Not Reported



AUTHORIZED SIGNATURE



SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 MILL: Cascade
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 610305
 JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A706 / 60 / A615 / 60
Riverside, CA REBAR SIZE (DIA.) 4
 CONTRACTOR: NR MARKINGS ON REBAR C13WS4
 ENGINEER: NR TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>8/24/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/1/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES In.	PERCENT %	PASS	FAIL
R2885A	9/1/06	0.500	0.196	13,420	68,339	20,255	103,144	1.5	1.006	13	-	-
R2885B	9/1/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706 / A615

NR = Not Reported

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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 MILL: Border

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 33279

JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A706 / 60

Riverside, CA REBAR SIZE (DIA.) 4

CONTRACTOR: NR MARKINGS ON REBAR B13W

ENGINEER: NR TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>8/24/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/1/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2886A	9/1/06	0.500	0.196	12,720	64,774	17,720	90,236	1.4	1.321	17	-	-
R2886B	9/1/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706

NR = Not Reported



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 MILL: Cascade

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 448105

JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A615 / 60

Riverside, CA REBAR SIZE (DIA.) 4

CONTRACTOR: NR MARKINGS ON REBAR 0C13S4

ENGINEER: NR TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	8/24/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/1/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2887A	9/1/06	0.500	0.196	12,680	64,570	20,185	102,788	1.6	1.050	13	-	-
R2887B	9/1/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.


² Nominal Dimension

³ Elongation in 8-inches.

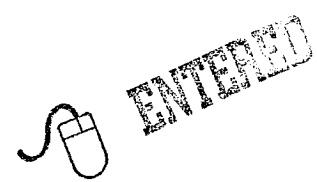
⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 MILL: Cascade

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 573805

JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A706 / 60
Riverside, CA REBAR SIZE (DIA.) 4

CONTRACTOR: NR MARKINGS ON REBAR 0C13W4

ENGINEER: NR TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	8/24/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/1/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2888A	9/1/06	0.500	0.196	14,240	72,514	20,125	102,482	1.4	1.364	17	-	-
R2888B	9/1/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706

NR = Not Reported



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 **MILL:** Cascade
INSPECTOR'S NAME: Reliant Testing Engineers **HEAT NUMBER:** 262309
JOB ADDRESS: 3615 Canyon Crest **ASTM/GRADE:** A706 / 60 / A615 / 60
Riverside, CA **REBAR SIZE (DIA.)** 5
CONTRACTOR: NR **MARKINGS ON REBAR** C6WS4
ENGINEER: NR **TAG/SPECIMEN ID:** NR
PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	8/24/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/1/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _w /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2889A	9/1/06	0.625	0.307	19,535	63,666	30,350	98,913	1.6	1.349	17	-	-
R2889B	9/1/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

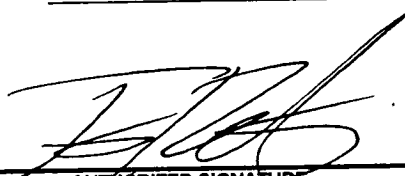
² Nominal Dimension

³ Elongation in 8-inches.

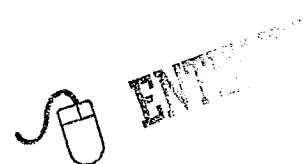
⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706 / A615

NR = Not Reported



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 MILL: Cascade
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 025106
 JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A615 / 60
Riverside, CA REBAR SIZE (DIA.) 5
 CONTRACTOR: NR MARKINGS ON REBAR 0C1654
 ENGINEER: NR TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>8/24/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/1/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2890A	9/1/06	0.625	0.307	20,725	67,544	33,915	110,531	1.6	0.906	11	-	-
R2890B	9/1/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

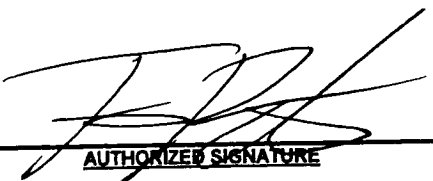
² Nominal Dimension


³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


 AUTHORIZED SIGNATURE

 ENTERED

SPECIALIZED TESTING



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ENTERED

REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 MILL: Tamco
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 62503
 JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A615 / 60
Riverside, CA REBAR SIZE (DIA.) 5
 CONTRACTOR: NR MARKINGS ON REBAR T16S
 ENGINEER: NR TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>8/24/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/1/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2891A	9/1/06	0.625	0.307	22,915	74,682	34,525	112,519	1.5	1.059	13	-	-
R2891B	9/1/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615
NR = Not Reported



 AUTHORIZED SIGNATURE

 ENTERED

SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 MILL: Sheffield
INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0627636
JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A615 / 60
Riverside, CA REBAR SIZE (DIA.) 7
CONTRACTOR: NR MARKINGS ON REBAR S22S4
ENGINEER: NR TAG/SPECIMEN ID: NR
PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	8/24/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/1/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2892A	9/1/06	0.875	0.601	43,780	72,797	63,715	105,945	1.5	1.141	14	-	-
R2892B	9/1/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported



AUTHORIZED SIGNATURE



SPECIALIZED TESTING



ACCREDITED

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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 MILL: Sheffield

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0628331

JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A615 / 60
Riverside, CA REBAR SIZE (DIA.) 6

CONTRACTOR: NR MARKINGS ON REBAR S19S4

ENGINEER: NR TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>8/24/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/1/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ²		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES In.	PERCENT %	PASS	FAIL
R2893A	9/1/06	0.750	0.442	29,515	66,800	40,615	91,922	1.4	1.625	20	-	-
R2893B	9/1/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 MILL: Sheffield

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 06113591

JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A615 / 60

Riverside, CA REBAR SIZE (DIA.) 6

CONTRACTOR: NR MARKINGS ON REBAR S19S4

ENGINEER: NR TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	8/24/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/1/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2894A	9/1/06	0.750	0.442	31,790	71,949	46,080	104,290	1.4	1.289	16	-	-
R2894B	9/1/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/1/2006 MILL: Sheffield

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0629106

JOB ADDRESS: 3615 Canyon Crest ASTM/GRADE: A706 / 60

Riverside, CA REBAR SIZE (DIA.): 8

CONTRACTOR: NR MARKINGS ON REBAR S25W4

ENGINEER: NR TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>8/24/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/1/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2895A	9/1/06	1.000	0.786	52,915	67,365	75,730	96,410	1.4	1.543	19	-	-
R2895B	9/1/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Cascade
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 265106
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / A615 / 60
Riverside, Ca REBAR SIZE (DIA.) 4
 CONTRACTOR: P.C. Steel MARKINGS ON REBAR: C13WS4
 ENGINEER: NR TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2979A	9/12/06	0.500	0.196	14,515	73,915	21,050	107,193	1.5	1.516	19	-	-
R2979B	9/12/06	-	-	-	-	-	-	-	-	-	x	-

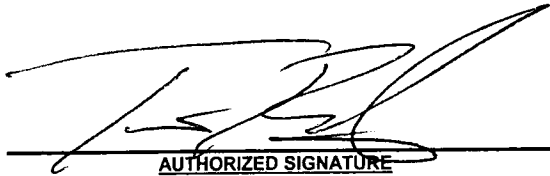
¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

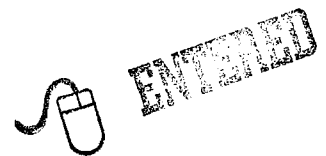
² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615 / A706
NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Cascade

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 448105

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, Ca REBAR SIZE (DIA.) 4

CONTRACTOR: P.C Steel MARKINGS ON REBAR C13S4

ENGINEER: NR TAG/SPECIMEN ID: Blue Tag

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ²		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2980A	9/12/06	0.500	0.196	12,435	63,323	20,145	102,584	1.6	0.893	11	-	-
R2980B	9/12/06	-	-	-	-	-	-	-	-	-	x	-

¹Based on the flat of the gauge of the test machine method - ASTM A615-9.2.1.


²Nominal Dimension

³Elongation in 8-inches

⁴180-degree bend

TEST RESULTS: Complies with ASTM A615

NR = Not Reported



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Japan

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 505175

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60

Riverside, Ca REBAR SIZE (DIA.): 4

CONTRACTOR: P C Steel MARKINGS ON REBAR Japan4S60

ENGINEER: NR TAG/SPECIMEN ID: Blue Tag

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>9/8/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/12/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2981A	9/12/06	0.500	0.196	12,475	63,526	19,910	101,388	1.6	1.354	17	-	-
R2981B	9/12/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gage of the test machine method - ASTM A615-9.2.1


² Nominal Dimension

³ Elongation in 8-inches

⁴ 180-degree bend

TEST RESULTS: Complies with ASTM A615

NR = Not Reported



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Taiwan
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 54599
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, Ca REBAR SIZE (DIA.) 4
 CONTRACTOR: P C. Steel MARKINGS ON REBAR WCTAIWAN4S60
 ENGINEER: NR TAG/SPECIMEN ID: Blue Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>9/8/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/12/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ²		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2982A	9/12/06	0.500	0.196	13,805	70,299	20,005	101,871	1.4	1.217	15	-	-
R2982B	9/12/06	-	-	-	-	-	-	-	-	-	X	-

Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

²Nominal Dimension

³Elongation in 8-inches.

⁴180-degree bend

TEST RESULTS: Complies with ASTM A615

NR = Not Reported



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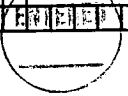
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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Feng Hsin
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 384542
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
 Riverside, Ca REBAR SIZE (DIA.) 4
 CONTRACTOR: P C Steel MARKINGS ON REBAR FHTWN4S60
 ENGINEER: NR TAG/SPECIMEN ID: Blue Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fv/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2983A	9/12/06	0.500	0.196	13,490	68,695	19,555	99,580	1.4	1.094	14	-	-
R2983B	9/12/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.
² Nominal Dimension
³ Elongation in 8-inches.
⁴ 180-degree bend

TEST RESULTS: Complies with ASTM A615
 NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Sheffield
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0611359
 JOB ADDRESS: 3615 Canyon Crest Drive AST/GRADE: A615 / 60
 Riverside, Ca REBAR SIZE (DIA.) 6
 CONTRACTOR: P C Steel MARKINGS ON REBAR S19S4
 ENGINEER: NR TAG/SPECIMEN ID: Blue Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2984A	9/12/06	0.750	0.442	31,730	71,813	46,025	104,166	1.5	1.342	17	-	-
R2984B	9/12/06	-	-	-	-	-	-	-	-	-	x	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

²Nominal Dimension

³Elongation in 8-inches

⁴180-degree bend

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Cascade

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 330806

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, Ca REBAR SIZE (DIA.) 7

CONTRACTOR: P C Steel MARKINGS ON REBAR C22S4

ENGINEER: NR TAG/SPECIMEN ID: Blue Tag

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _t /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2985A	9/12/06	0.875	0.601	40,825	67,883	64,770	107,699	1.6	1.158	14	-	-
R2985B	9/12/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported



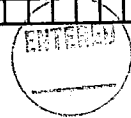
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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Sheffield
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0627955
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, Ca REBAR SIZE (DIA.): 8
 CONTRACTOR: P C Steel MARKINGS ON REBAR S25S4
 ENGINEER: NR TAG/SPECIMEN ID: Blue Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07


TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2986A	9/12/06	1.000	0.786	49,195	62,629	69,870	88,950	1.4	2.085	26	-	-
R2986B	9/12/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension
³ Elongation in 8-inches
⁴ 180-degree bend

TEST RESULTS: Complies with ASTM A615
NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Cascade
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 452205
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / 60
 Riverside, Ca REBAR SIZE (DIA.) 4
 CONTRACTOR: Pacific Cast Steel MARKINGS ON REBAR C13W4
 ENGINEER: NR TAG/SPECIMEN ID: Green Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in	PERCENT %	PASS	FAIL
R2987A	9/12/06	0.500	0.196	13,360	68,033	19,280	98,180	1.4	1.265	16	-	-
R2987B	9/12/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

- ² Nominal Dimension
- ³ Elongation in 8-inches
- ⁴ 180-degree bend

TEST RESULTS: Complies with ASTM A706

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Wei Chih
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 51881
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
 Riverside, Ca REBAR SIZE (DIA.) 5
 CONTRACTOR: Pacific Cast Steel MARKINGS ON REBAR JAPAN5S60
 ENGINEER: NR TAG/SPECIMEN ID: Green Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2988A	9/12/06	0.625	0.307	19,310	62,933	29,995	97,756	1.6	1.311	16	-	-
R2988B	9/12/06	-	-	-	-	-	-	-	-	-	x	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

²Nominal Dimension

³Elongation in 8-inches

⁴180-degree bend

TEST RESULTS: Complies with ASTM A615
 NR = Not Reported

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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Cascade
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 025706
 JOB ADDRESS: 3615 Canyon Crest Drive AST/GRADE: A615 / 60
 Riverside, Ca REBAR SIZE (DIA.) 5
 CONTRACTOR: Pacific Cast Steel MARKINGS ON REBAR C16S4
 ENGINEER: NR TAG/SPECIMEN ID: Green Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ²		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2989A	9/12/06	0.625	0.307	20,035	65,295	33,720	109,896	1.7	1.311	16	-	-
R2989B	9/12/06	-	-	-	-	-	-	-	-	-	x	-

¹Based on the flat of the gauge of the test machine method - ASTM A615-9.2.1.

²Nominal Dimension

³Elongation in 8-inches

⁴180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


 AUTHORIZED SIGNATURE



SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Sheffield
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0627636
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / 60
Riverside, Ca REBAR SIZE (DIA.) 7
 CONTRACTOR: Pacific Cast Steel MARKINGS ON REBAR S22W4
 ENGINEER: NR TAG/SPECIMEN ID: Green Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in	PERCENT %	PASS	FAIL
R2990A	9/12/06	0.875	0.601	40,585	67,484	56,710	94,297	1.4	1.627	20	-	-
R2990B	9/12/06	-	-	-	-	-	-	-	-	-	x	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.


²Nominal Dimension

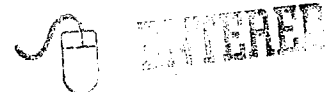
³Elongation in 8-inches.

⁴180-degree bend.

TEST RESULTS: Complies with ASTM A706

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006
INSPECTOR'S NAME: Reliant Testing Engineers
JOB ADDRESS: 3615 Canyon Crest Drive
Riverside, Ca
CONTRACTOR: Pacific Cast Steel
ENGINEER: NR
PERMIT NO. NR

MILL: Cascade
HEAT NUMBER: 346405
ASTM/GRADE: A706 / A615 / 60
REBAR SIZE (DIA.): 9
MARKINGS ON REBAR: C29WS4
TAG/SPECIMEN ID: Green Tag

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/12/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in	PERCENT %	PASS	FAIL
R2991A	9/12/06	1.125	0.994	66,460	66,851	94,120	94,674	1.4	1.460	18	-	-
R2991B	9/12/06	-	-	-	-	-	-	-	-	-	X	-

Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

Nominal Dimension
Elongation in 8-inches
180-degree bend

TEST RESULTS: Complies with ASTM A706 / A615
NR = Not Reported

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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/12/2006 MILL: Sheffield
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0627180
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, Ca REBAR SIZE (DIA.) 9
 CONTRACTOR: Pacific Cast Steel MARKINGS ON REBAR S29S4
 ENGINEER: NR TAG/SPECIMEN ID: Green Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>9/8/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/12/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _y /F _u	ELONGATION ²		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R2992A	9/12/06	1.125	0.994	64,495	64,875	91,275	91,812	1.4	1.744	22	-	-
R2992B	9/12/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

²Nominal Dimension

³Elongation in 8-inches

⁴180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/16/2006 MILL: Sheffield

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0519611

JOB ADDRESS: 3615 Canyon Crest Drive
Riverside, Ca ASTM/GRADE: A615 / 60

CONTRACTOR: Pacific Coast Steel, Inc REBAR SIZE (DIA.): 4

ENGINEER: NR MARKINGS ON REBAR S13S4

PERMIT NO. NR TAG/SPECIMEN ID: Green Tag

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/16/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3001A	9/16/06	0.500	0.196	14,215	72,387	20,415	103,959	1.4	1.160	14	-	-
R3001B	9/16/06	-	-	-	-	-	-	-	-	-	X	-

Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

Nominal Dimension
Elongation in 8-inches
180-Degree bend

TEST RESULTS: Complies with ASTM A615

NR = Not Reported



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/16/2006 MILL: Cascade
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 025706
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
 Riverside, Ca REBAR SIZE (DIA.): 5
 CONTRACTOR: Pacific Coast Steel, Inc MARKINGS ON REBAR C16S4
 ENGINEER: NR TAG/SPECIMEN ID: Green Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/16/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3002A	9/16/06	0.625	0.307	20,015	65,230	33,700	109,831	1.7	1.332	17	-	-
R3002B	9/16/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.
²Nominal Dimension
³Elongation in 8-inches
⁴180-degree bend

TEST RESULTS: Complies with ASTM A615
 NR = Not Reported

AUTHORIZED SIGNATURE

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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/16/2006 MILL: Kishiwada
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 505338
 JOB ADDRESS: 3615 Canyon Crest Drive ASTMA/GRADE: A615 / 60
 Riverside Ca REBAR SIZE (DIA.) 5
 CONTRACTOR: Pacific Coast Steel, Inc MARKINGS ON REBAR JAPAN5S60
 ENGINEER: NR TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/16/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3003A	9/16/06	0.625	0.307	18,985	61,873	30,145	98,245	1.6	1.204	15	-	-
R3003B	9/16/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

²Nominal Dimension
³displacement in 8-inches
⁴180-degree bend

TEST RESULTS: Complies with ASTM A615
 NR = Not Reported

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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/16/2006 MILL: Tamco
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 62729
 JOB ADDRESS: 3615 Canyon Crest Drive ASTMA/GRADE: A615 / 60
 Riverside, Ca REBAR SIZE (DIA.) 5
 CONTRACTOR: Pacific Coast Steel, Inc. MARKINGS ON REBAR T16S
 ENGINEER: NR TAG/SPECIMEN ID: Green Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/16/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3004A	9/16/06	0.625	0.307	21,635	70,510	32,475	105,838	1.5	1.049	13	-	-
R3004B	9/16/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.
² Nominal Dimension
³ Elongation in 8-inches
⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615
 NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/16/2006 MILL: Sheffield

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0611359

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60

Riverside, Ca REBAR SIZE (DIA.) 6

CONTRACTOR: Pacific Coast Steel, Inc. MARKINGS ON REBAR S19S4

ENGINEER: NR TAG/SPECIMEN ID: Green Tag

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>9/8/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/16/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

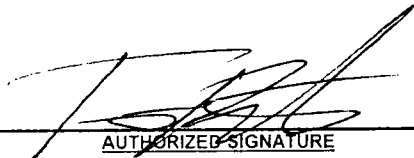
SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		FvFy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3005A	9/16/06	0.750	0.442	33,525	75,875	49,040	110,989	1.5	1.136	14	-	-
R3005B	9/16/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the full of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension
³ Elongation in 8-inches
⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/16/2006 MILL: Border
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 36271
 JOB ADDRESS: 3615 Canyon Crest Drive AST/GRADE: A615 / 60
 Riverside Ca REBAR SIZE (DIA.) 6
 CONTRACTOR: Pacific Coast Steel, Inc MARKINGS ON REBAR B19S
 ENGINEER: NR TAG/SPECIMEN ID: Green Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/16/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _y /F _u	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in	PERCENT %	PASS	FAIL
R3006A	9/16/06	0.750	0.442	31,290	70,817	49,685	112,449	1.6	1.162	14	-	-
R3006B	9/16/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.


²Nominal Dimension

³Elongation in 8-inches.

⁴180-degree bend

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET



DATE: 9/16/2006 MILL: Cascade

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 329606

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, Ca REBAR SIZE (DIA.) 9

CONTRACTOR: Pacific Coast Steel, Inc MARKINGS ON REBAR C29S4

ENGINEER: NR TAG/SPECIMEN ID: Green Tag

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>9/8/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/16/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Mario Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fvfy	ELONGATION ²		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3007A	9/16/06	1.125	0.994	63,585	63,959	104,780	105,397	1.6	1.447	18	-	-
R3007B	9/16/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the flat of the gauge of the test machine method - ASTM A615-9.2.1.


² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/16/2006 MILL: Cascade
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 329606
 JOB ADDRESS: 3615 Canyon Crest Drive AST/GRADE: A615 / 60
 Riverside Ca REBAR SIZE (DIA.) 9
 CONTRACTOR: Pacific Coast Steel, Inc. MARKINGS ON REBAR S29S4
 ENGINEER: NR TAG/SPECIMEN ID: Green Tag
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/8/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/16/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Mario Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA


SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in	PERCENT %	PASS	FAIL
R3008A	9/16/06	1.125	0.994	70,460	70,875	102,590	103,194	1.5	1.367	17	-	-
R3008B	9/16/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

- ²Nominal Dimension
- ³Elongation in 8-inches
- ⁴180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/23/2006 MILL: Cacade
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 347506
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / A615 / 60
Riverside, Ca REBAR SIZE (DIA.) 3
 CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR: C10WS4
 ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/15/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/23/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Jesus Flores	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3059A	9/23/06	0.375	0.110	7,460	67,535	10,810	97,863	1.4	1.100	14	-	-
R3059B	9/23/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

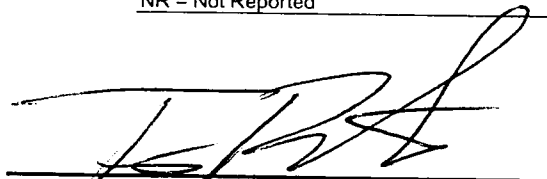
² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615 / A706

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/23/2006 MILL: Feng Hsin
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 384542
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / A615 / 60
Riverside, Ca REBAR SIZE (DIA.) 4
 CONTRACTOR: S J Amoroso MARKINGS ON REBAR FHTWN4WS60
 ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>9/15/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/23/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Jesus Flores</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

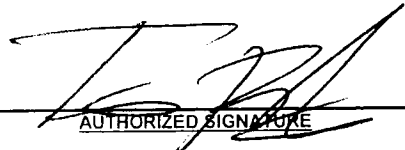
TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3060A	9/23/06	0.500	0.196	13,190	67,167	19,620	99,911	1.5	1.197	15	-	-
R3060B	9/23/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.
²Nominal Dimension
³Elongation in 8-inches
⁴180-degree bend

TEST RESULTS: Complies with ASTM A615 / A706

NR = Not Reported


 AUTHORIZED SIGNATURE



SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/23/2006 MILL: Sheffield
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0610415
 JOB ADDRESS: 3615 Canyon Crest Drive AST/GRADE: A706 / 60
 Riverside, Ca REBAR SIZE (DIA.): 4
 CONTRACTOR: S J Amoroso MARKINGS ON REBAR: S13W4
 ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/15/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/23/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Jesus Flores	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3061A	9/23/06	0.500	0.196	12,330	62,788	17,740	90,337	1.4	1.533	19	-	-
R3061B	9/23/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

²Nominal Dimension
³Elongation at 8-inches
⁴180-degree bend

TEST RESULTS: Complies with ASTM A706

NR = Not Reported

AUTHORIZED SIGNATURE



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/23/2006 MILL: Tamco
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 61339
 JOB ADDRESS: 3615 Canyon Crest Drive AST/GRADE: A706 / 60
 Riverside Ca REBAR SIZE (DIA.) 5
 CONTRACTOR: S J Amoroso MARKINGS ON REBAR T16W
 ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/15/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/23/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Jesus Flores	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS	POUNDS PER SQ. IN.	ACTUAL LOAD LBS	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3062A	9/23/06	0.625	0.307	19,535	63,666	31,260	101,879	1.6	1.385	17	-	-
R3062B	9/23/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

²Nominal Dimension
³Elongation at 5-inches
⁴180 degree bend

TEST RESULTS: Complies with ASTM A706

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/23/2006 MILL: Cascade
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 536005
 JOB ADDRESS: 3615 Canyon Crest Drive AST/GRADE: A706 / 60
 Riverside, Ca REBAR SIZE (DIA.) 6
 CONTRACTOR: S J Amoroso MARKINGS ON REBAR C19W4
 ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/15/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/23/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Jesus Flores	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

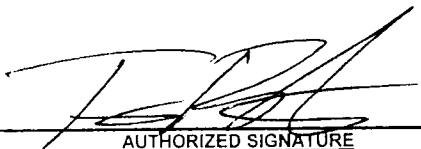
SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Ft/Fy	ELONGATION ²		BEND TEST ³	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3063A	9/23/06	0.750	0.442	27,005	61,119	40,465	91,582	1.5	1.325	17	-	-
R3063B	9/23/06	-	-	-	-	-	-	-	-	-	x	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

²Terminal Extension
³Elongation in 8-inches
⁴180-degree bend

TEST RESULTS: Complies with ASTM A706

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/23/2006 MILL: Border
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: BS00027059
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, Ca REBAR SIZE (DIA.): 8
 CONTRACTOR: S J Amoroso MARKINGS ON REBAR B25S
 ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	<u>9/15/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>9/23/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>Jesus Flores</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _t /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3064A	9/23/06	1.000	0.786	51,285	65,290	81,055	103,189	1.6	1.767	22	-	-
R3064B	9/23/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the gage of the gauge of the test machine method - ASTM A615-9.2.1.

²Nominal Dimension

³Elongation in 8-inches.

⁴180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/23/2006 MILL: Border

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: BS30036872

JOB ADDRESS: 3615 Canyon Crest Drive ASTMGRADE: A706 / 60

Riverside, Ca REBAR SIZE (DIA.) 7

CONTRACTOR: S J Amoroso MARKINGS ON REBAR B22W

ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/15/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/23/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Jesus Flores	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fv/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3065A	9/23/06	0.875	0.601	37,910	63,036	55,290	91,936	1.5	1.628	20	-	-
R3065B	9/23/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

²Nominal Dimension

³Elongation in 8-inches

⁴180-degree bend

TEST RESULTS: Complies with ASTM A706

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 9/23/2006 MILL: Border

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: BS20023372

JOB ADDRESS: 3615 Canyon Crest Drive ASTMA/GRADE: A706 / 60

Riverside Ca REBAR SIZE (DIA.) 8

CONTRACTOR: S J Amoroso MARKINGS ON REBAR B25W

ENGINEER: Saiful / Bouquest TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE SPECIMENS RECVD.	9/15/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	9/23/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	Jesus Flores	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID N ^o / I.D. R	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in	PERCENT %	PASS	FAIL
R3066A	9/23/06	1.000	0.786	47,970	61,069	67,505	85,939	1.4	1.766	22	-	-
R3066B	9/23/06	-	-	-	-	-	-	-	-	-	X	-

¹Based on the flat of the gauge of the test machine method - ASTM A615-9.2.1.

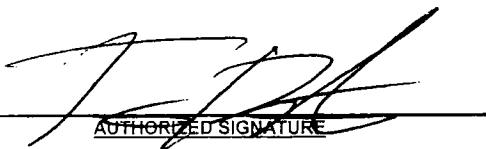
²Nominal Dimension

³Elongation in 8-inches

⁴180-degree bend

TEST RESULTS: Complies with ASTM A706

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 10/6/2006 MILL: Feng Hsin

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 384542

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / 60 / A615 / 60

Riverside, CA REBAR SIZE (DIA.) 4

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR FHTWN4WS60

ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: Blue Tag

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>9/27/06 / 9/29/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>10/6/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>M. Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3123A	10/5/06	0.500	0.196	12,905	65,716	20,555	104,672	1.6	1.145	14	-	-
R3123B	10/6/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

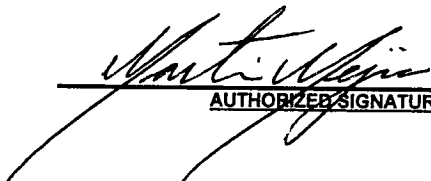
² Nominal Dimension

³ Elongation in 8-Inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706 / A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 10/6/2006 **MILL:** Japan
INSPECTOR'S NAME: Reliant Testing Engineers **HEAT NUMBER:** 505338
JOB ADDRESS: 3615 Canyon Crest Drive **ASTM/GRADE:** A615 / 60
Riverside, CA **REBAR SIZE (DIA.)** 5
CONTRACTOR: S.J. Amoroso **MARKINGS ON REBAR** Japan-5S60
ENGINEER: Saiful / Bouquet **TAG/SPECIMEN ID:** Blue Tag
PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	9/27/06 / 9/29/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	10/6/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	M. Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3124A	10/5/06	0.625	0.307	18,990	61,890	30,605	99,744	1.6	1.299	16	-	-
R3124B	10/6/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


 AUTHORIZED SIGNATURE



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SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET



DATE: 10/6/2006 MILL: Tamco

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 54019

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / 60
Riverside, CA REBAR SIZE (DIA.) 5

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR T16W

ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: Blue Tag

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	9/27/06 / 9/29/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	10/6/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	M. Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3125A	10/5/06	0.625	0.307	19,765	64,416	32,055	104,470	1.6	1.150	14	-	-
R3125B	10/6/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

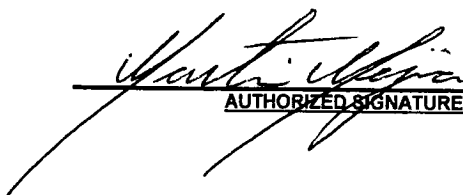
² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET



DATE: 10/6/2006 MILL: Tamco

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 62807

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / 60
Riverside, CA REBAR SIZE (DIA.) 7

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR T22W

ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: Blue Tag

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	9/27/06 / 9/29/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	10/6/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	M. Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Fu/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3126A	10/5/06	0.875	0.601	39,940	66,412	59,430	98,820	1.5	1.463	18	-	-
R3126B	10/6/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

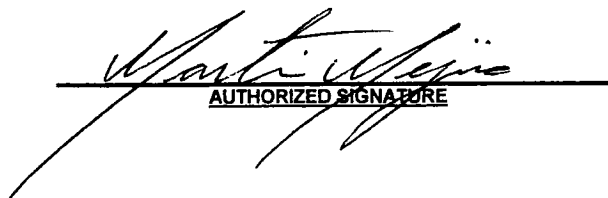
² Nominal Dimension


³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET



DATE: 10/6/2006 MILL: Tamco
 INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 62403
 JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, CA REBAR SIZE (DIA.) 10
 CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR T32S
 ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: NR
 PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	10/3/06 / 10/4/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	10/6/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	M. Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3141A	10/6/06	1.250	1.227	85,645	69,781	136,390	111,126	1.6	1.121	14	-	-
R3141B	10/6/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

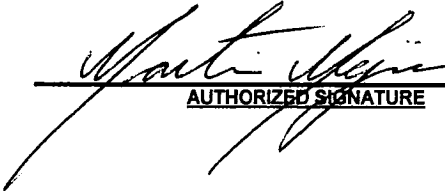
² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 10/6/2006 MILL: Cascade

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 411706

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60

Riverside, CA REBAR SIZE (DIA.) 9

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR C29S4

ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>10/3/06 / 10/4/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>10/6/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>M. Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Ft/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3142A	10/6/06	1.125	0.994	64,580	64,960	109,145	109,787	1.7	1.234	15	-	-
R3142B	10/6/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 10/6/2006 MILL: Cascade

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 531005

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / 60 / A615 / 60

Riverside, CA REBAR SIZE (DIA.) 8

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR C25WS4

ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>10/3/06 / 10/4/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>10/6/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>M. Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		Ft/Fy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3143A	10/6/06	1.000	0.786	54,490	69,370	77,380	98,511	1.4	1.563	20	-	-
R3143B	10/6/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

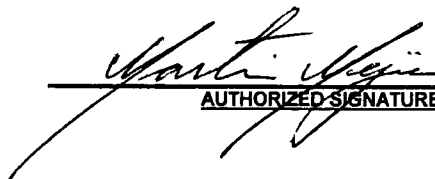
² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706 / A615

NR = Not Reported


 AUTHORIZED SIGNATURE



SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 10/6/2006 MILL: Sheffield

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 0629198

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60

Riverside, CA REBAR SIZE (DIA.) 9

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR S29S4

ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>10/3/06 / 10/4/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>10/6/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>M. Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3144A	10/6/06	1.125	0.994	79,225	79,691	104,460	105,075	1.3	1.461	18	-	-
R3144B	10/6/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

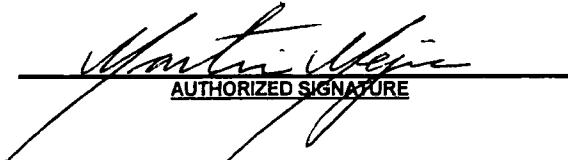
² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


 AUTHORIZED SIGNATURE

 ENTERED

SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 10/6/2006 MILL: Border
INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 26575
JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / 60
Riverside, CA REBAR SIZE (DIA.) 8
CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR B25W
ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: NR
PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>10/3/06 / 10/4/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>10/6/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>M. Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3145A	10/6/06	1.000	0.786	56,815	72,330	80,845	102,922	1.4	1.401	17	-	-
R3145B	10/6/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706
NR = Not Reported

AUTHORIZED SIGNATURE



SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 10/6/2006 MILL: Border

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 26552

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60

Riverside, CA REBAR SIZE (DIA.) 8

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR B25S

ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>10/3/06 / 10/4/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>10/6/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>M. Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		FvFy	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3146A	10/6/06	1.000	0.786	49,150	62,572	78,180	99,529	1.6	1.250	16	-	-
R3146B	10/6/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

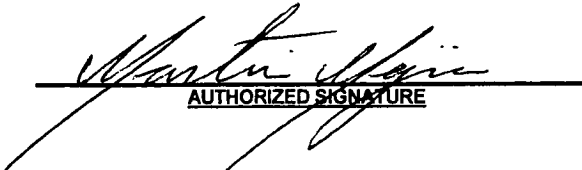
² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


 AUTHORIZED SIGNATURE



ENTERED

SPECIALIZED TESTING



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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE:	<u>10/6/2006</u>	MILL:	<u>Sheffield</u>
INSPECTOR'S NAME:	<u>Reliant Testing Engineers</u>	HEAT NUMBER:	<u>0519878</u>
JOB ADDRESS:	<u>3615 Canyon Crest Drive</u>	ASTM/GRADE:	<u>A706 / 60</u>
	<u>Riverside, CA</u>	REBAR SIZE (DIA.)	<u>7</u>
CONTRACTOR:	<u>S.J. Amoroso</u>	MARKINGS ON REBAR	<u>S22W4</u>
ENGINEER:	<u>Saiful / Bouquet</u>	TAG/SPECIMEN ID:	<u>NR</u>
PERMIT NO.	<u>NR</u>		

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	10/3/06 / 10/4/06	EQUIPMENT USED	Tinius Olsen
REPORT DATE	10/6/06	SN OF EQUIPMENT	74959
TECHNICIAN NAME	M. Ayala	CALIB. / RECAL. DATE	2-06 / 2-07

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3147A	10/6/06	0.875	0.601	41,280	68,640	58,220	96,808	1.4	1.471	18	-	-
R3147B	10/6/06	-	-	-	-	-	-	-	-	-	x	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706

NR = Not Reported

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REBAR TENSILE STRENGTH TEST DATA SHEET

DATE: 10/9/2006 MILL: Feng Hsin

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 384542

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A615 / 60
Riverside, CA REBAR SIZE (DIA.) 4

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR FHTWN4S60

ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>10/3/06 / 10/4/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>10/9/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>M. Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _v /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES in.	PERCENT %	PASS	FAIL
R3148A	10/9/06	0.500	0.196	12,235	62,304	20,255	103,144	1.7	1.156	14	-	-
R3148B	10/9/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the half of the gauge of the test machine method - ASTM A615-9.2.1.

² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A615

NR = Not Reported


 AUTHORIZED SIGNATURE



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REBAR TENSILE STRENGTH TEST DATA SHEET



DATE: 10/9/2006 MILL: Tamco

INSPECTOR'S NAME: Reliant Testing Engineers HEAT NUMBER: 63172

JOB ADDRESS: 3615 Canyon Crest Drive ASTM/GRADE: A706 / 60

Riverside, CA REBAR SIZE (DIA.) 4

CONTRACTOR: S.J. Amoroso MARKINGS ON REBAR T13W

ENGINEER: Saiful / Bouquet TAG/SPECIMEN ID: NR

PERMIT NO. NR

TEST / EQUIPMENT INFORMATION (ASTM A615)

DATE ORDERED / DATE SPECIMENS RECVD.	<u>10/3/06 / 10/4/06</u>	EQUIPMENT USED	<u>Tinius Olsen</u>
REPORT DATE	<u>10/9/06</u>	SN OF EQUIPMENT	<u>74959</u>
TECHNICIAN NAME	<u>M. Ayala</u>	CALIB. / RECAL. DATE	<u>2-06 / 2-07</u>

TEST DATA

SPECIMEN ID NUMBER	TEST DATE	SPECIMEN DATA		YIELD STRENGTH ¹		ULTIMATE STRENGTH		F _u /F _y	ELONGATION ³		BEND TEST ⁴	
		STRESSED DIMENSION ²	STRESSED AREA ²	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.	ACTUAL LOAD LBS.	POUNDS PER SQ. IN.		INCHES In.	PERCENT %	PASS	FAIL
R3149A	10/9/06	0.500	0.196	12,570	64,010	18,885	96,168	1.5	1.410	18	-	-
R3149B	10/9/06	-	-	-	-	-	-	-	-	-	X	-

¹ Based on the halt of the gauge of the test machine method - ASTM A615-9.2.1.

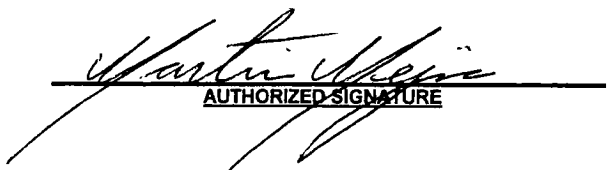
² Nominal Dimension

³ Elongation in 8-inches.

⁴ 180-degree bend.

TEST RESULTS: Complies with ASTM A706

NR = Not Reported


 AUTHORIZED SIGNATURE





COMPRESSION TEST RESULTS

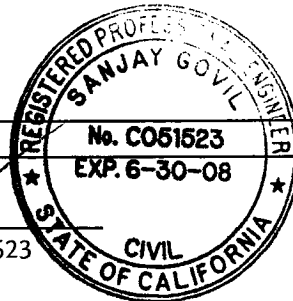
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4608
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Deck pour; Grid line L.5-12.5
 MIX NO: CHJ05372 MEASURED SLUMP (in): 5 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 72 CONCRETE TEMP: 80
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 9/6/2006 TIME CAST: 4:38 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/13/2006	131,760	4,659	D	
2	28	10/4/2006	153,290	5,420	B	
3	28	10/4/2006	151,560	5,359	B	
4	Hold					
						5,390

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

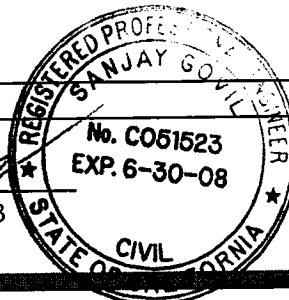
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4609
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Deck pour; Grid line NX.5-18.7
 MIX NO: CHJ05372 MEASURED SLUMP (in): 4 1/2 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 78 CONCRETE TEMP: 82
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 9/6/2006 TIME CAST: 7:45 A.M. CAST BY: G.Branstetter CO.: RTE

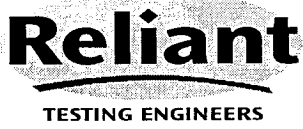
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/13/2006	123,760	4,376	B	
2	28	10/4/2006	167,140	5,910	B	
3	28	10/4/2006	160,260	5,667	C	
4	Hold					
						5,789

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

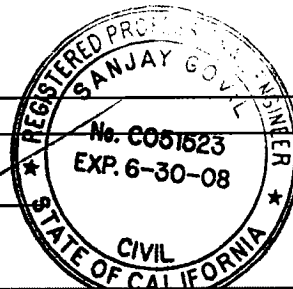
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4610
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Deck pour; Grid line LX.3-22.9
 MIX NO: CHJ05372 MEASURED SLUMP (in): 4 1/2 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 82 CONCRETE TEMP: 82
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 9/6/2006 TIME CAST: 10:00 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/13/2006	123,440	4,365	D	
2	28	10/4/2006	158,740	5,613	C	
3	28	10/4/2006	151,350	5,352	D	
4	Hold					
						5,482

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



INSPECTION MATERIALS TESTING GEOTECHNICAL



COMPRESSION TEST RESULTS

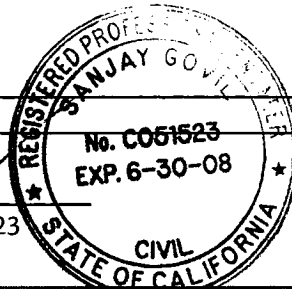
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4611
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Deck pour; Grid line M-16.5
 MIX NO: CHJ05372 MEASURED SLUMP (in): 5 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 68 CONCRETE TEMP: 80
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 9/6/2006 TIME CAST: 5:55 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/13/2006	118,750	4,199	C	
2	28	10/4/2006	148,410	5,248	C	
3	28	10/4/2006	143,780	5,084	C	
4	Hold					
						5,166

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523



INSPECTION MATERIALS TESTING GEOTECHNICAL



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4636
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Shear wall; top lift; grid line G - 3
 MIX NO: 44243 MEASURED SLUMP (in): 4.5 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 62 CONCRETE TEMP: 68
 SUPPLIER: Robertsons DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 9/11/2006 TIME CAST: 8:06am CAST BY: G. Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/18/2006	118,470	4,189	D	
2	28	10/9/2006	156,740	5,542	D	
3	28	10/9/2006	164,980	5,834	B	
4	Hold					
						5,688

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____



 Dr. Sanjay Govil, P.E. License Number 51523

ENTERED



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4826
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Column; Level 2-3; Grid line PX-19

MIX NO: 44243 MEASURED SLUMP (in): 4 1/2 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 80 CONCRETE TEMP: 80
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 9/28/2006 TIME CAST: 8:45 A.M. CAST BY: G.Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	10/5/2006	127,020	4,492	D	
2	28	10/26/2006		0		
3	28	10/26/2006		0		
4	Hold					
						0

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523

ENTERED



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4898
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Mortar

LOCATION IN STRUCTURE: Level 2; 2nd course; Grid line 8.5-B.8

MIX NO: Type S MEASURED SLUMP (in): N/A SPEC'D PSI: 1800

SUPPLIER: Orco DIAMETER (in): 2 AREA (sq. in.): 3.14

DATE CAST: 10/4/2006 TIME CAST 10:00 A.M. CAST BY: G.Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	10/11/2006	5,950	1,895	D	
2	28	11/1/2006		0		
3	28	11/1/2006		0		
						0

SG

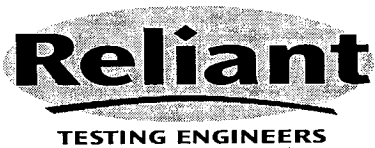
- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109, C144, & C1142.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



ENTERED



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4900
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Grout

LOCATION IN STRUCTURE: Level 2; South Building; Grid line 11-A.9

MIX NO: CHJ05404 MEASURED SLUMP (in): 10 SPEC'D PSI: 2500

SUPPLIER: Rancho Ready Mix

DATE CAST: 10/5/2006 TIME CAST: 12:15 A.M. CAST BY: G.Lewis COMPANY RTE

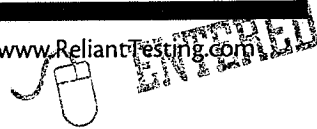
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	DIAMETER (in)	AREA (sq.in.)	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	10/12/2006	3	9.65	24,230	2,511	N/A	
2	28	11/2/2006	3	1		0		
3	28	11/2/2006	3	1		0		
4	28	11/2/2006	3	1		0		
								0

SG

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109,C579,C942,C1019,UBC21-16,UBC 21-18
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4948
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Shear wall; Top lift; Level # 3; Grid line D-2.6

MIX NO: 44243 MEASURED SLUMP (in): 4 SPEC'D PSI: 5000

AIR CONTENT: N/A AMBIENT TEMP: 62 CONCRETE TEMP: 62

SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28

DATE CAST: 10/10/2006 TIME CAST 8:45 A.M. CAST BY: G.Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	10/17/2006	147,680	5,222	B	
2	28	11/7/2006		0		
3	28	11/7/2006		0		
4	Hold					
						0

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523

11/1/06 – Jobsite walk to address M-E Engineers concerns

Attendees:

Larry Grubbs, Office of Design & Construction
Bill Martin, Martin Mechanical
Lance Blount, Martin Mechanical
Randy Joiner, SJ Amoroso

Summary:

On October 19, 2006, Mark van Dalm (M-E Engineers) conducted a jobsite visit to review the mechanical work in progress. He submitted a Project Observation Report to Edmund Buch (Leo A. Daly Architects) on October 24, 2006. Martin Mechanical (a second-tier subcontractor to Eberhard SMC) disputed several of items noted in the report and requested a jobsite meeting with Larry Grubbs, the Inspector of Record to address those items. The meeting took place on 11/1/06. Each item noted in the Project Observation Report was physically observed and discussed by all attendees. Comments in these meeting notes will directly correspond with those items.

North Building:

Item #1 – Martin Mechanical stated that they used Schedule 10 sleeves in lieu of Schedule 40 sleeves in order to make the concrete pour. Schedule 40 was not available at the time. They have agreed to fill and caulk around the piping as necessary. Additionally, they assume all responsibility for any leaking that occurs in this area.

Item #2 – Generally speaking, uncovered mechanical piping is not a concern to Larry, because the system has to be flushed. He is more concerned with ductwork and requires that it be covered when not in work.

Item #3 – Eberhard SMC has billed at 12.5% through the September 2006 billing period.

South Building:

Item #1 – Same as Item #2, North Building. Martin Mechanical stated that they would comply with M-E Engineers comments regarding wiping down fittings prior to installation.

Item #2 – Larry stated that this is biggest concern and that he will observe this on a daily basis to ensure that open duct ends are covered. Any discrepancies will be brought to Martin Mechanical attention. Martin Mechanical has agreed to stay on top of this issue and will provide an extra set of filters if necessary.

Item #3 – Same as Item #1, South Building and Item #2 North Building.

Item #4 – Area in question (photo #7) is not steam piping. It is chilled water piping. Steam piping is presently in work in another area of the basement, and a steam trap will be installed as per 10/M-405.

Item #5 – There are spacers in the areas where the control valves are missing. The valves are supplied by Yardley Company and installed by Martin Mechanical. Martin Mechanical has not taken possession of these valves.

Additionally, Martin Mechanical has not taken possession of the chilled water metering station from Yardley; however, the area in question has been spooled based off of dimensions provided in product cut sheets from Yardley.

Configuration of the supply and return lines was reviewed and approved by Larry.

Please also note that, while pipe shop drawings have not been submitted, ductwork shop drawings reflect dimensions with consideration to *all* trades. These dimensions are the result of multiple onsite/offsite MEP coordination meetings.

Item #6 – The lines noted in photo #8 are not steam and/or steam condensate lines. They are steam vent, hot water supply, and hot water return.

Item #7 – Seismic bracing is installed horizontally. Vertical and lateral support is in work, but not yet complete. Martin Mechanical reviewed support locations with Larry. Larry took no exceptions.

Item #8 – The valves in photo #10 are clearly staggered. Larry will review access concerns with UCR maintenance personnel. He feels that neck extensions are not required.

Item #9 – Same as Item #3, North Building.

Additional Comments: As per the 10/25/06 Owner's Meeting, it was agreed that any consultant should contact Larry prior to conducting future onsite visits. Lance with Martin Mechanical also requested to accompany M-E Engineers on any future visits.

PROJECT OBSERVATION REPORT

Date: October 24, 2006

To: Ed Buch, LAD

Reported By: Mark van Dalm

Project: UCR CHASS, LA03031.00

Date of Visit to Project: October 19, 2006

Division: 15

ITEM	COMMENT
North Building	1. Chilled water and heating hot water piping is stubbing through the wall at the basement level of the North Building near grid lines L and 15. The openings for these pipe penetrations do not include metal sleeves with water stop collars as shown on contract drawing M-405, detail 3. See photo 1 below. Note also that sleeves are required at all penetrations through structure per spec. section 15050, paragraph 3.5-A.



Photo 1

2. Pipe work in progress is observed to be left with uncovered open ends while no work is being performed in those areas. See photo 2 below. Note that all open pipe ends, either hung or unhung, shall be covered at the end of work day to prevent dust migration per spec. section 15010, paragraph 3.4-E.



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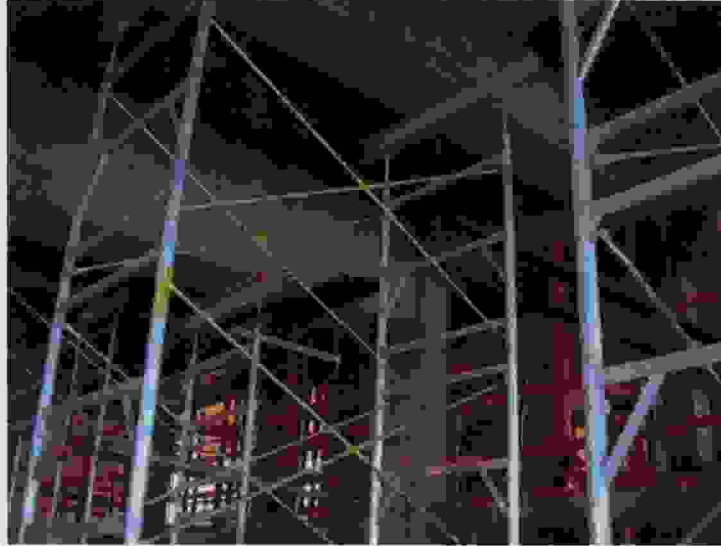


Photo 2

3. Level of completion of MEP work in the North Building is estimated to be approximately 10% at this time.



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South Building

1. Pipe fittings are observed to be left unprotected from dust. See photo 3 below. Such fittings should be wiped down prior to installation. All pipe materials shall be covered at end of work day to prevent dust accumulation.



Photo 3

2. Generally speaking, most open duct ends and loose fittings are being well protected from dust migration as specified. However, some duct fittings are observed to still be left unprotected from dust. See photos 4 and 5 below. All such fittings should be wiped down prior to being hung.



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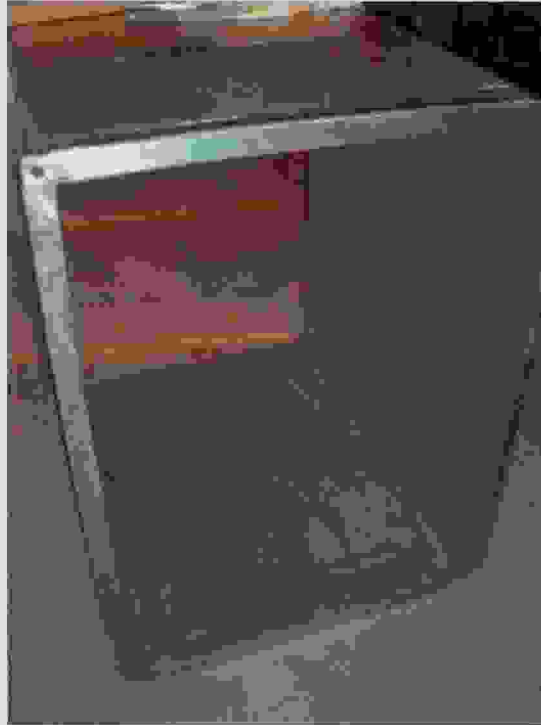


Photo 4



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Photo 5

3. Pipe work in progress is observed to be left with uncovered open ends while no work is being performed in those areas. See photo 6 below. Note that all open pipe ends, either hung or unhung, shall be covered at the end of work day to prevent dust migration.



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Photo 6

4. High pressure steam piping entering the building from underground at basement level has not yet been fitted with a steam trap and drip leg per detail 10 on contract drawing M-405. See photo 7 below. Reference also detail 3 on contract drawing M-100 and detail 1 on contract drawing M-501.



Photo 7



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5. Valves shown in photo 7 above appear to be configured incorrectly as summarized here:
- The check valve must be in the *bypass* line, not the supply or return lines.
 - Butterfly valves are installed instead of the specified flange-to-flange connectors.
 - Modulating valves CHV-3 and CHV-4 (by Controls Contractor) are missing.
 - The chilled water metering station (by Controls Contractor) is missing.

Reference contract drawing M-501 for required valve configuration. It is the contractor's responsibility to coordinate with the work of *all* Trades, including the controls sub, before proceeding. It should be noted that this pipe work has been installed without E.O.R.'s piping shop drawing approval (shop drawings have not yet been submitted).

6. Steam and steam condensate lines in the basement appear to be installed level. See photo 8 below. General Note 19 on contract drawing M-002 requires all such piping to be "pitched downward in direction of flow not less than 1 inch per 40 feet."

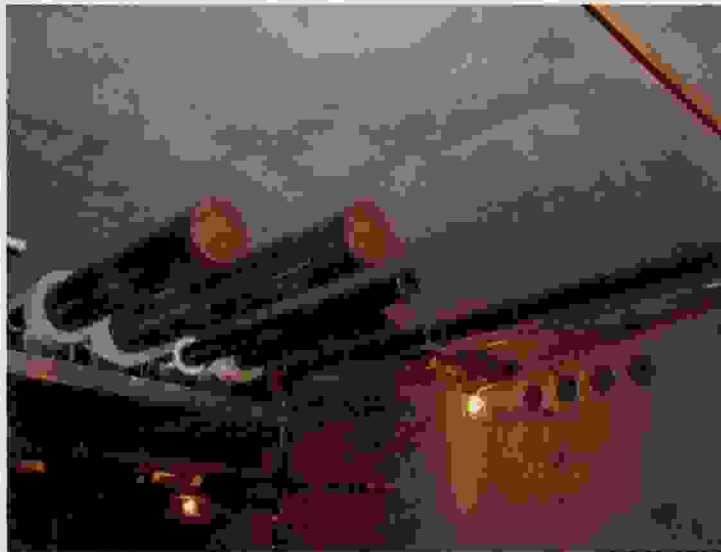


Photo 8



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7. Seismic bracing has not yet been installed on trapeze supported mechanical piping at level 1. See photos 9 and 10 below.



Photo 9



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Photo 10

8. Butterfly valves in the chilled and heating hot water lines at level 1 have been installed in a side-by-side fashion making access to the two middle valves difficult. See photo 11 below. MEE's recommendation is that these two middle valves be fitted with neck extensions that put the handles at a higher elevation than the outer two valves making them easier to access.



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Photo 11

9. Level of completion of MEP work in the South Building is estimated to be approximately 10% at this time.

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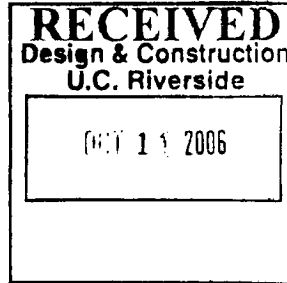
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950377
Report



Date: October 5, 2006

Report distribution package of Field Inspection Reports and/or Laboratory results on materials tested.

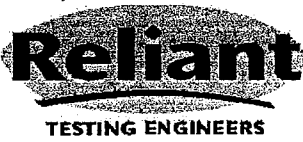
Job Name: UCR CHASS Building

Job Address: 3615 Canyon Crest Drive

City: Riverside, CA

Client Name: SJ Amoroso Construction

You are receiving these reports at the request of our client. If you are not the correct recipient or wish to discontinue to receipt, please contact Denise DeGross at 714/556-5867.



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
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Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 5, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside C.H.A.S.S.		BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#			Riverside				
ADDRESS 3615 Canyon Crest Dr. CITY Riverside		GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	1		7:00 AM	4:30 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ **WELDING**

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF WELDING 4" & 6" HOT WATER & CHILL WATER PIPE @ CEILING LEVEL 1 SOUTH BUILDING GRID LINE 1.8 / A-D AND GRID LINE 2.6 / D-F. WELDING SINGLE BEVEL GROOVE WELD, CHECKED ROOT PASS & COVER PASS ACCEPTABLE. PROCESS - S.M.A.W. MANUAL 1/8 6010, WELDING ON GOING.		
WELDER - JOSE CASTILLO, UNITED ASSOCIATION WELDER QUALIFICATION, EXP. 12-06		
WELDER - JOSE SALAZAR, UNITED ASSOCIATION WELDER QUALIFICATION, EXP. 12-06.		
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 2 NORTH BUILDING REF. S-105 & S-105R, COMPLETED PLACING REINFORCEMENT @ AUDITORIUM AREA GRID LINE L-R / 12-17 PER ELEVATED ONE WAY CONCRETE SLAB SCHEDULE S1 & S1A, COMPLETED COLUMNS CN8 - @ GRID LINES M-14, N-14, P-14, M-15, N-15 PER SCHEDULE DETAIL 1 / S-300 & LAP SPLICE PER DETAIL 1 & 3 / S-301. IN PROCESS OF LAYING TOP MATT WEST OF GRID LINE 17, IRONWORKERS ARE STARTING @ 2:00 AM WED. MORNING, CONCRETE POUR IS @ 4:00 PM, WILL CHECK REINFORCEMENT BEFORE CONCRETE PLACEMENT.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

 REPORT Contains Non-Compliant Items ✓
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name _____ **GORDON LEWIS**

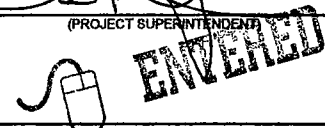
Inspectors Signature *Gordon Lewis*

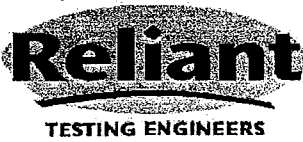
Inspectors License # _____ **5009669-48**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by _____





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Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 6, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside C.H.A.S.S.		BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#			Riverside				
ADDRESS 3615 Canyon Crest Dr. CITY Riverside		GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily		ENGINEER Saiful/Bouquet		SUBCONTRACTOR (if Any) Pacific Coast Steel					
REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.									

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			3:00 AM	11:00 AM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 2 NORTH BUILDING REF. S - 105 & S - 105R, COMPLETED PLACING TOP MATT #4 @ 12" ON CENTER & ADDED BARS GRID LINE 17-23 / LX-PX, COMPLETED PLACING COLUMN REINFORCEMENT CN8 @ GRID LINES 19-NX, 21-NX, 21-MX, COLUMN CS10 @ GRID LINE 20-NX PER SCHEDULE DETAIL 1 / S-300.		
OBSERVATION OF CONCRETE PLACEMENT, APPROXIMATELY 460 CU. YDS. ROBERTSON'S CONCRETE MIX #CHJ05372, 5000 P.S.I. @ LEVEL 2 GRID LINE 12-23 / K-R & LX-PX. USED BOOM TRUCK FOR CONCRETE PLACEMENT & ELECTRIC VIBRATOR FOR CONSOLIDATION. A.C.I. TECHNICIAN MADE 4 SETS OF 4 SAMPLES, LOCATION ON HIS REPORT.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

 REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name _____ **GORDON LEWIS**

Inspectors Signature *Gordon Lewis*

Inspectors License # _____ **5009669-48**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by _____





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 Santa Ana, CA 92704
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Inspection Report

INSPECTOR CODE G. BRANSTETTER	JOB NUMBER 051425	DATE 9-6-06	M	T	<input checked="" type="checkbox"/> W	T	F	S	S
JOB NAME UCR CHASS Bldg.	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION			
ADDRESS 3615 CANYON CREST DR. RIVERSIDE	CITY	GENERAL CONTRACTOR S.J. AMALOSO							
ARCHITECT LEO DALY	ENGINEER SAIFUL-BOUQUET	SUBCONTRACTOR (If Any) —							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	—	—	3:30 AM	11:00 AM

Re-Inspection Show-Up Only Expenses

Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry
 Quality Control Administration Prestress/Post Tension Other **ACI TESTS**

INSPECTION

STARTED @: 4:00 AM	1st TRUCK BATCHED:	METHOD OF PLACEMENT: Pump		
Assisted Deputy G. Lewis w/ TESTING, Quality Control, & Placement of concrete (DECIL Pour) 4 sets of 4 cylinders Cast				
	SET 1	SET 2	SET 3	SET 4
AIR°	72°	68°	78°	82°
CONC°	80°	80°	82°	82°
SLUMP	5"	5"	4 1/2"	4 1/2"
PLACEMENT	L.5/12.6	M/16.5	NX.5/18.7	LX.3/22.9

SAMPLES

SUPPLIER: Robertsons								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
SH-3 85372	SEE DATA SHEETS	4"±	SEE DATA SHEETS	/	5000	460	16	SEE DATA SHEETS

Additional Page (Page #) CM

REPORT Contains Non-Compliant Items
 Does Not Contain

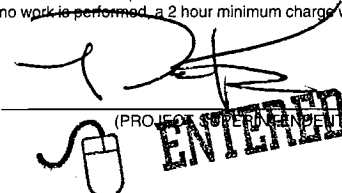
Certification of Compliance

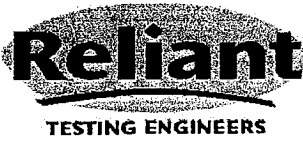
I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **GARY G. BRANSTETTER**
 Inspector's Signature **Gary Branstetter**
 Inspector's License # **01041455**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **[Signature]**
 Submitted by **[Signature]**





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Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 8, 2006	M T W T F S S X
JOB NAME University of California of Riverside C.H.A.S.S.		BUILD PERMIT NUMBER / DSA / OSHPD APP FILE# Riverside	
ADDRESS 3615 Canyon Crest Dr. CITY Riverside		GENERAL CONTRACTOR S.J. Amoroso	
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel	

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR 8	1.5X	2X	TIME IN 7:00 AM	TIME OUT 2:00 PM
--------------	------	----	--------------------	---------------------

Show-Up Only Expenses
 Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry
 Quality Control Administration Prestress/Post Tension Other **WELDING**

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 3 SOUTH BULDING REF.S-106, COPLETED PLACING REINFORCEMENT ON BEAMS #BS50 TWO PLACES GRID LINE A/4-6, BS34 GRID LINE A-6.5, BS25 GRID B-6.9, BS32 GRID A.7-6.5, BS26 GRID A.5-6, BS27 GRID A.7-5, BS10 GRID 6.3-B, BS26A GRID 6-B, BS7 THREE PLACES GRID LINE B.4, BS19 GRID 3.7-B & BS42 GRID 3.5-B.5 PER SCHEDULE DETAIL 1/S-400 &S-401.		
COMPLETED PLACING REINFORCEMENT FOR SHEAR WALLS LEVEL 3-4 GRID LINE 3/F-G PER DETAIL C/S-501, GRID LINE J.2/1.5-2.8, WALL @ GRID LINE J.8/1.9 PER DETAIL A/S-800. REINFORCEMENT PLACEMENT ONGOING.		
OBSERVATION OF WELDING 4" & 6" HOT WATER & CHILL WATER PIPE @ LEVEL 1 CEILING GRID LINE 1.8-A.2.		
WELDING SINGLE BEVEL GROOVE WELD, PROCESS S.M.A.W. 1/8 6010, WELDER CERTS.ON FILE.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

 REPORT Contains Non-Compliant Items ✓
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48

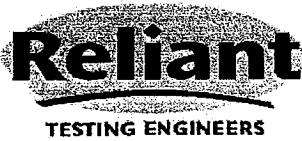
All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
(PROJECT SUPERIN TENDENT)

Submitted by _____

ACCOUNTING





3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 11, 2006	M X	T	W	T	F	S	S
JOB NAME University of California of Riverside C.H.A.S.S.		BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#			Riverside				
ADDRESS 3615 Canyon Crest Dr. CITY Riverside		GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			6:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF CONCRETE PLACEMENT @ SHEAR WALLS & COLUMNS LEVEL 3 SOUTH BUILDING REF. S-106, PLACED CONCRETE @ COLUMN GRID LINES E-1, F-1, G-1, E-2, F-2, G-2, H-2, H.7-2, E-3, H-3, H.7-3, E-4, F-4, G-4, H-4, J-4, J.5-3.6 & K-3.6, SHEAR WALLS GRID LINE 1 / H-J, J.2 / 1.7-2.7, 3 / F-G, WALL @ GRID LINE J.8 / 1.7-2.4, ELEVATOR PIT GRID LINE 3.6-4.1 / J.5-K. PLACED APPROXIMATELY 76 CU. YDS. ROBERTSON'S MIX #44243, USED ELECTRIC VIBRATOR FOR CONSOLIDATION. MADE 1 SET OF 4 SAMPLES @ TOP OF SHEAR WALL LEVEL 3 GRID LINE G-3, ABOVE CONCRETE PLACEMENT LEVEL 3 - 4. IN PROCESS OF PLACING REINFORCEMENT @ LEVEL 3 GRID LINE 1-7 / A-C, #5 [T&B] @ 12" ON CENTER REF. S-106 & ADDED BARS PER S-106R.		

SAMPLES

SUPPLIER: ROBERTSON'S								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
44243	4505424	4"	4 1/2		5000	10	4	62 68

Additional Page (Page #) CM _____

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 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name _____ GORDON LEWIS
 Inspectors Signature Gordon Lewis
 Inspectors License # _____ 5009669-48

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING





3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 12, 2006	M T W T F S S X
JOB NAME University of California of Riverside C.H.A.S.S.		BUILD PERMIT NUMBER / DSA / OSHPD APP FILE# Riverside	
ADDRESS 3615 Canyon Crest Dr. CITY Riverside		GENERAL CONTRACTOR S.J. Amoroso	
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (if Any) Pacific Coast Steel	

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR 8	1.5X	2X	TIME IN 7:00 AM	TIME OUT 2:00 PM
--------------	------	----	--------------------	---------------------

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 3 SOUTH BUILDING REF.S-106 & S-106R, COMPLETED BEAM #BS23 @ GRID LINE A/1-3.5 PER BEAM SCHEDULE DETAIL 1/S-400. COMPLETED PLACING BOTTOM LAYER GRID LINE 1-6.5 / A-C, # 5 BOTTOM 12" ON CENTER EACH WAY, OUTER LAYER NORTH - SOUTH DIRECTION PER DETAIL 1/S-404, ADDED BARS BOTTOM LAYER GRID LINE 1-7/A-C.6 PER DRAWING S-106R, DEPRESSED AREA GRID LINE 6.5-7/A-B.4 REINFORCEMENT PER SCHEDULE DETAIL 2/S-404.		
IN PROCESS OF PLACING REINFORCEMENT @ LEVEL 2 NORTH BUILDING REF.S-105, FOR SHEAR WALLS & COLUMNS .		
NON-COMPLIANCE @ LEVEL 2 GRID LINE L / 12-17 SHEAR WALL VERTICAL BARS #9 ARE BUNDLED TOGETHER, THERE SHOULD BE SEVERAL INCHES SEPERATING THESE BARS PER DETAIL 21B / S-505. DAN SENT PITCHERS TO ENGINEER FOR REVIEW.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

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 Does Not Contain

Certification of Compliance

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Inspectors Name _____ **GORDON LEWIS**

Inspectors Signature *Gordon Lewis*

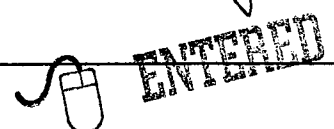
Inspectors License # _____ **5009669-48**

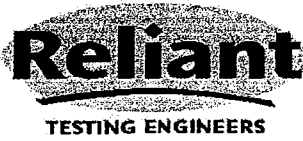
All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING





3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 13, 2006	M T W T F S S X
JOB NAME University of California of Riverside C.H.A.S.S.		BUILD PERMIT NUMBER / DSA / OSHPD APP FILE# Riverside	
ADDRESS 3615 Canyon Crest Dr. CITY Riverside		GENERAL CONTRACTOR S.J. Amoroso	
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel	

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 3 SOUTH BUILDING REF. S-106 & S-106R, COMPLETED PLACING TOP LAYER #5 @ 12" ON CENTER EACH WAY GRID LINE 3.5-7 / A-B.4, IN PROCESS OF PLACING TOP LAYER GRID LINE 1-3.5 / A-D. COMPLETED PLACING ADDED BARS GRID LINE 3.5-7 / A-B.4 REF. S-106R.		
IN PROCESS OF PLACING SHEAR WALL & COLUMN REINFORCEMENT @ LEVEL 2 NORTH BUILDING REF. S-105, ONGOING.		
REBAR SAMPLES WERE PICKED UP FOR TESTING, INCLUDED WERE MILL CERTS. & DATA SHEET.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

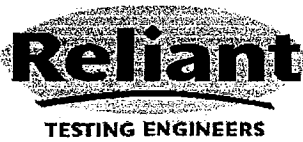
Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by _____



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 14, 2006	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td><td>S</td> </tr> <tr> <td></td><td></td><td></td><td>X</td><td></td><td></td><td></td> </tr> </table>	M	T	W	T	F	S	S				X			
M	T	W	T	F	S	S											
			X														
JOB NAME University of California of Riverside C.H.A.S.S.		BUILD PERMIT NUMBER / DSA / OSHPD APP FILE# Riverside															
ADDRESS 3615 Canyon Crest Dr. CITY Riverside		GENERAL CONTRACTOR S.J. Amoroso															
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel															

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR 8	1.5X	2X	TIME IN 7:00 AM	TIME OUT 2:00 PM
--------------	------	----	--------------------	---------------------

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 3 SOUTH BUILDING REF. S-106 & S-106R, COMPLETED PLACING		
STRUCTURAL SLAB REINFORCEMENT #5 [T&B] @ 12" ON CENTER GRID LINE 1-6.5 / A-D.5, GRID LINE 6.5-7.2 / A-B.4 REINFORCEMENT PER S4 SCHEDULE DETAIL 2 / S-404. COMPLETED PLACING ADDED BARS @ ABOVE AREA PER S-106R.		
STAIR #3 LEVEL 2-3 REINFORCEMENT PER DETAILS ONS-802. LAP SPLICES PER SHOP DRAWINGS & DETAIL 4 / S-002		
ALL REINFORCEMENT GRADE 60. THE ABOVE AREA ACCEPTABLE FOR CONCRETE PLACEMENT.		
IN PROCESS OF PLACING REINFORCEMENT @ LEVEL 2-3 NORTH BUILDING SHEARWALLS REF. S-105 & A / S-503		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name _____ **GORDON LEWIS**

Inspectors Signature _____ *Gordon Lewis*

Inspectors License # _____ **5009669-48**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by _____ *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING



Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 15, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#					X		
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (if Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			5:00 AM	12:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF CONCRETE PLACEMENT @ LEVEL 3 SOUTH BUILDING GRID LINE A-D.5 / 1-7 & STAIR #3 LEVEL 2-3.		
PLACED APPROXIMATELY 270 CU. YDS. ROBERTSON'S CONCRETE MIX #CHJ05372, USED BOOM TRUCK FOR CONCRETE PLACEMENT, USED ELECTRIC VIBRATOR FOR CONSOLIDATION. A.C.I. MADE SAMPLES, LOCATION ON HIS REPORT.		
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 2 NORTH BUILDING REF. S-105, PLACED REINFORCEMENT FOR SHEAR WALL GRID LINE 12 / M.7-N.7 PER DETAIL A / S-503, PLACED REINFORCEMENT FOR COLUMNS GRID LINE Q-12, P-14, N-13, M-13, R-13, P-15, N-15, M-15, Q-17, N.4-17, NX-17.9, LX-18, PX-18.5, LX-19, LX-20, LX-29 & LX-22.9, PER CONCRETE COLUMN SCHEDULE S-300		
REINFORCEMENT PLACEMENT ONGOING.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

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 Does Not Contain

Certification of Compliance

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Inspectors Name GORDON LEWIS

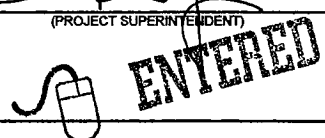
Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *D. King*
 (PROJECT SUPERINTENDENT)

Submitted by _____





3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR: G. BRANSTETTER	JOB NUMBER: 051425	DATE: 9-15-06	M	T	W	T	<input checked="" type="checkbox"/> F	S	S	
JOB NAME: UCR CHASS Bldg.	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#						JURISDICTION			
ADDRESS: 3615 CANYON CREST DR. Riverside	CITY: Riverside	GENERAL CONTRACTOR: S. J. AMOROSO								
ARCHITECT: Leo Daly	ENGINEER: Saiful-Bouquet	SUBCONTRACTOR (If Any): 0								

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	—	—	4:30am	10:15am

Re-Inspection Show-Up Only Expenses

Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry

Quality Control Administration Prestress/Post Tension Other **ACI TECH**

INSPECTION

STARTED @: 5:00am	1st TRUCK BATCHED:	METHOD OF PLACEMENT: Pump
Assisted Deputy G. Lewis w/ TESTING, Quality Control, & Placement of CONCRETE, DECK Pour @ LEVEL #3 South Bridge		
2 Sets of 4 Cylinders CAST		
	SET 1	SET 2
Air°	62°	60°
Conc°	78°	78°
Slump	4 1/2"	4 1/2"
Test Placement	0.2/35	8/2.6

SAMPLES

SUPPLIER: ROBERTSONS								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
05372	9647	4 1/2"	4 1/2"	0	5000	270	4	62° 78°
"	9690	4 1/2"	4 1/2"	0	5000	270	4	60° 78°

Additional Page (Page #) CM

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **GARY G. BRANSTETTER**

Inspector's Signature **Gary G. Branstetter**

Inspector's License # **010 41455**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **D. K.** (PROJECT SUPERINTENDENT)

Submitted by



ACI

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 18, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	X						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (if Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

Show-Up Only Expenses

Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry

Quality Control Administration Prestress/Post Tension Other

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF REINFORCEMENT PLACEMENT FOR COLUMNS @ LEVEL 3-4 SOUTH BUILDING GRID LINE D-4, C.6-2.6, C-2.4, PER CONCRETE COLUMN SCHEDULE DETAIL 1/S-300, GRID LINE D-3 HAS 4#8 PER DETAIL B/S-502, GRID LINE B-3.5 HAS 4#7 PER DETAIL D/S-501, GRID LINE B-4 & B-5.5 HAS 6#10 PER DETAIL C/S-502.		
IN PROCESS OF INSTALLING REINFORCEMENT FOR SHEAR WALLS @ LEVEL 2 NORTH BUILDING GRID LINE L/12-17 PER DETAIL B/S-504. LAP SPLICES PER SCHEDULE DETAIL 1/S-301. REINFORCEMENT GRADE 60.		
REINFORCEMENT PLACEMENT ON GOING.		
OBSERVATION OF WELDING 4" & 6" HOT WATER PIPE & CHILL WATER PIPE @ LEVEL 1 CEILING GRID LINE 1.8-D, PROCESS - S.M.A.W. MANUAL 1/8 6010 - WELDING SINGLE BEVEL GROOVE WELD ACCEPTABLE, WELDER CERT.		
ON FILE. WELDING ONGOING.		

SAMPLES

MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM

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Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48

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Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by *[Signature]*

ACCOUNTING



Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 19, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#		X					
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							Riverside
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF REINFORCEMENT PLACEMENT FOR COLUMNS @ LEVEL 3-4 SOUTH BUILDING GRID LINE D-1, C-1, B-1, B.4-2.3, A.7-2.3, A.2-2.3, C-4, A-5, A.4-5, A-6, A.8-6 PER CONCRETE COLUMN SCHEDULE DETAIL 1/S-300, GRID LINE A-3.5 HAS 4#7 PER DETAIL D/S-501.		
COMPLETED REINFORCEMENT @ LEVEL 2 - 3 NORTH BUILDING SHEAR WALLS & COLUMNS AUDITORIUM AREA GRID LINES 12-17/L-R PER CONCRETE COLUMN SCHEDULE DETAIL 1/S-300 & SHEAR WALL DETAIL B/S-504, A/S-503, A/S-504. COLUMN LAP SPLICES PER SCHEDULE DETAIL 1/S-301 & DETAIL 4/S-002, GRADE 60 REINFORCEMENT. THE ABOVE AREA WAS CLEANED WITH ELECTRIC BLOWER & LOOSE DEPRI, WIRES, TRASH PICKED UP, IN PROCESS OF FORMING COLUMNS & SHEAR WALLS- ACCEPTABLE.		
IN PROCESS OF PLACING CONCRETE MASONRY UNITS @ ELEVATOR 1&2 SOUTH BUILDING GRID LINE J.5-K/3.6-4.1. PLACED 4 COURSES, MADE 1 SET OF 3 SAMPLES @ 1ST COURSE GRID LINE K-4.1. C.M.U. PLACEMENT ONGOING.		
✓ KRETSCHMAR & SMITH PLACING C.M.U. USING ELECTRIC DRUM MIXER & ORCO PRE MIXED TYPE S MORTAR.		

SAMPLES

SUPPLIER: *motar samples*

MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by *[Signature]*

ACCOUNTING

ENTERED

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 20, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#							Riverside
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 2 NORTH BUILDING SHEAR WALLS GRID LINE 17 / M-N PER DETAIL B / S-503, GRID LINE MX / 19.3-20 PER DETAIL D / S-504, GRID LINE 22 / MX-NX PER DETAIL D / S-503, ABOVE SHEAR WALLS HAVE # 5 SLAB DOWELS & #7 DOWELS 12" ON CENTER @ CONSTRUCTION JOINT PER DETAIL 4 / S-500. THE ABOVE AREA CLEAN OF DEPRI & DIRT & IS ACCEPTABLE TO BE FORMED FOR CONCRETE PLACEMENT.		
OBSERVATION OF REINFORCEMENT PLACEMENT @ RAMP WALL LEVEL 1 GRID LINE B.5 / 3-5.9, 6" CONCRETE WALL WITH #4 @ 12" ON CENTER EACH WAY, PER DETAIL A / S-701.		
PLACING C.M.U. & REINFORCEMENT @ ELEVATOR 1 & 2, REINFORCEMENT #5 [V] @ 8" ON CENTER & #5 [H] @ 16" ON CENTER PLACED 6 COURSES, MADE 1 SET OF 3 MORTAR SAMPLES @ GRID LINE J.5-4, USED ORCO PRE MIXED TYPE S MORTAR. C.M.U. PLACEMENT ON GOING.		

SAMPLES

SUPPLIER: <i>Mortar samples</i>								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS
 Inspectors Signature *Gordon Lewis*
 Inspectors License # 5009669-48

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING



Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 21, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#				X			
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF REINFORCEMENT PLACEMENT @ SHEAR WALLS LEVEL 3-4 SOUTH BUILDING GRID LINE 1 / A-A.5 PER		
DETAIL A / S-501, SHEAR WALL GRID LINE D / 2-3 PER DETAIL B / S-502, SHEAR WALL GRID LINE 3.5 / A-B PER DETAIL D / S-501.		
THE ABOVE CLEAN OF DEPRI & DIRT & ACCEPTABLE FOR FORMS & CONCRETE.		
COMPLETED REINFORCEMENT FOR SHEAR WALL @ LEVEL 2 NORTH BUILDING GRID LINE PX / 21.5-23 PER DETAIL E / S-504.		
OBSERVATION OF PLACING C.M.U. @ ELEVATOR 1&2, 16 COURSES @ LEVEL 1, MADE 1SET OF 3 SAMPLES @ 10TH COURSE		
GRID LINE J.8-4.1, USED ORCO PRE BLENDED TYPE S MORTAR, C.M.U. PLACEMENT ON GOING.		
OBSERVATION OF WELDING 3", 4", & 6" CHILL WATER & HOT WATER PIPE @ BASEMENT GRID LINE A-B / 1.8, USING 6010		
ELECTRODES WITH SINGLE BEVEL GROOVE WELDS & FILLET WELDS ACCEPTABLE, WELDER - JOSE ON FILE		
WELDING ON GOING.		

SAMPLES

SUPPLIER: *Mortar samples*

MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

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 Does Not Contain

Certification of Compliance
 I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS
 Inspectors Signature *Gordon Lewis*
 Inspectors License # 109669-48 / 5009669-84 / 5009669-85 / AWS-050610

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 22, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			6:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF CONCRETE PLACEMENT @ LEVEL 2-3 NORTH BUILDING SHEAR WALLS & COLUMNS . SHEAR WALLS		
GRID LINE L / 12-17, GRID LINE 12 / M.5-N.6, GRID LINE 17 / M-N & GRID LINE R / 12.2-14.2. COLUMNS GRID LINE M-12, Q-12, P-14, N-13, M-13, R-15.1, P-15, N-15, M-15, Q-17, N.4-17, PLACED APPROXIMATELY 60 CU. YDS. ROBERTSON'S 5000 P.S.I.		
CONCRETE MIX # 44243, USED ELECTRIC VIBRATOR FOR CONSOLIDATION. USED BOOM TRUCK FOR CONCRETE PLACEMENT.		
MADE 1 SET OF 4 SAMPLES @ GRID LINE L-13 TOP LIFT.		
COMPLETED PLACING REINFORCEMENT @ SHEAR WALL GRID LINE 3.5 / A-B LEVEL 3-4 PER DETAIL D / S-501, IN PROCESS		
OF PLACING REINFORCEMENT @ GRID LINE B / 4-5.5 PER DETAIL C / S-502.		
PLACING 8" C.M.U. @ ELEVATOR 1&2 GRID LINE 3.6. 16 COURSES @ LEVEL 1, REINFORCEMENT #4 @ 16" ON CENTER EACH WAY		
PER DETAIL 10 & 11 / S-600, MORTAR FINS & REBAR LAPS ACCEPTABLE.		

SAMPLES

SUPPLIER:		ROBERTSON'S						
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
44243	4700517	4	4 1/2		5000	10	4	64 64

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING



Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 25, 2006	M X	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF REINFORCEMENT PLACEMENT @ LEVEL 3-4 SHEAR WALL GRID LINE B / 4-5.5 PER DETAIL C / S-502.		
COMPLETED REINFORCEMENT FOR COLUMN #CS18 LEVEL 3 TO ROOF GRID LINE B-6.2, 6 # 6 VERTICALS PER CONCRETE COLUMN SCHEDULE DETAIL 1 / S-300.		
COPLETED REINFORCEMENT FOR COLUMNS & SHEAR WALLS @ LEVEL 2-3 GRID LINES 17.9-23 / LX-PX, PER CONCRETE COLUMN SCHEDULE DETAIL 1 / S-300 & SHEAR WALL SCHEDULE ON S-503 & S-504, ABOVE AREA LAPS & CLEARANCES ACCEPTABLE.		
OBSERVATION OF REINFORCEMENT PLACEMENT & C.M.U. PLACEMENT @ ELEVATOR 1&2, COMPLETED 18 COURSES CLEANOUTS EVERY 32", USED ELECTRIC BLOWER TO CLEAN AREA ACCEPTABLE. TYPICAL REINFORCEMENT #5 [M] @ 8" ON CENTER & #5 [H] @ 16" ON CENTER, GRID LINE 3.6 HAS 8" CMU WITH #4 @ 16" ON CENTER EACH WAY PER DETAIL 10 & 11 / S-600. ABOVE AREA ACCEPTABLE FOR GROUT.		
REBAR SAMPLES WERE PICKED UP FOR TESTING / 4 SETS OF 2 INCLUDED WERE MILL CERTS. & DATA SHEET.		

SAMPLES

SUPPLIER:								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-48

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING





3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 26, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside C.H.A.S.S.		BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#			Riverside				
ADDRESS 3615 Canyon Crest Dr. CITY Riverside		GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF 6" C.M.U. PLACEMENT & REINFORCEMENT PLACEMENT @ LEVEL 2 GRID LINE A / 8.1-10, PLACED 2 COURSES FOR 6" CMU PARAPET WALL WITH #4 @ 16" ON CENTER EACH WAY PER DETAIL 4 / S-703. MADE 1 SET OF 3 SAMPLES @ 1ST COURSE GRID LINE 9.5-A. CMU PLACEMENT ON GOING.		
OBSERVATION OF WELDING 3", 4" & 6" CHILL WATER & HOT WATER PIPE @ BASEMENT SOUTH BUILDING GRID LINE 1.8-A.4. PROCESS S.M.A.W. MANUAL 1/8 6010, WELDER - JOSE- CERTS ON FILE. GROOVE & FILLET WELDS ACCEPTABLE. WELDING ON GOING.		

SAMPLES

SUPPLIER: ORCO PRE MIXED MORTAR								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
							3	

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items ✓
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-85 / 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum if inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
(PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 27, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#			X				
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							Riverside
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			6:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF GROUT PLACEMENT @ ELEVATOR 1 & 2 LEVEL 1, 16' HIGH @ PERIMETER OF ELEVATOR 1&2, 4 SIDES		
USED ELECTRIC VIBRATOR FOR CONSOLIDATION, PLACED APPROXIMATELY 8 CU. YDS. RANCHO READY MIX CONCRETE, MIX #CHJ05404, 2500 PSI. MADE 1SET OF 4 SAMPLES.		
PLACED CMU @ GRID LINE 3.6 / J.5-K, COMPLETED TO BOTTOM OF 2ND FLOOR, 8" CMU WITH #4 @ 16" ON CENTER EACH WAY PER DETAIL 10 / S-600. IN PROCESS OF PLACING CMU @ OUTER PRIMETER ELEVATOR 1&2.		
OBSERVATION OF WELDING 6" HOT WATER PIPE @ BASEMENT SOUTH BUILDING GRID LINE 1.5-A.5.		
PROCESS -S.M.A.W. MANUAL 1/8 6010, SINGLE BEVEL GROOVE WELD ACCEPTABLE.		
WELDER JOSE -CERTS ON FILE, WELDING ON GOING.		

SAMPLES

SUPPLIER: RANCHO READY MIX								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CHJ05404	2305204	9	10	GROUT AID	2500	8	4	70 70

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

Inspectors License # 5009669-84 / 5009669-85

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING



Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 28, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#				X			
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							Riverside
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (if Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			6:00 AM	2:00 PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF CONCRETE PLACEMENT @ COLUMNS & SHEAR WALLS LEVEL 2-3 NORTH BUILDING, COLUMNS GRID		
LINE MX-17.9, MX-18, LX-18, PX-18.5, NX-18.7, NX-19, MX-19, LX-19, PX-19, PX-20, NX-20, LX-20, PX-21, NX-21, MX-21,		
LX-21, NX-23, MX-23, & LX-23, SHEAR WALLS GRID LINE MX / 19.3-20, 22 / MX-NX, PX / 21.5-23. PLACED APPROXIMATELY		
50 CU. YDS. ROBERTSON'S 5000 PSI CONCRETE MIX #44243, USED ELECTRIC VIBRATOR FOR CONSOLIDATION.		
USED BOOM TRUCK FOR CONCRETE PLACEMENT.		
OBSERVATION OF PLACING 8" CMU'S @ PERIMETER OF ELEVATOR 1&2, CMU'S UP TO 2ND FLOOR.		
REINFORCEMENT #5 [V] @ 8" ON CENTER & #5 [H] @ 16" ON CENTER PER APPROVED SET OF PLANS DETAIL 1 / S-004		
LAPS 48 BAR DIAMETERS = 30" PER DETAIL 2 / S-004. CMU PLACEMENT ON GOING.		

SAMPLES

SUPPLIER: ROBERTSON'S								
MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
44243	4584233	4	4 1/2		5000	10	4	80 80

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true and the of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans specifications and all applicable codes

Inspectors Name GORDON LEWIS

Inspectors Signature Gordon Lewis

Inspectors License # 5009669-48

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING



Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE September 29, 2006	M	T	W	T	F	S	S
JOB NAME University of California of Riverside	C.H.A.S.S.	BUILD PERMIT NUMBER / DSA / OSHPD APP FILE#	Riverside						
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daily	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) Pacific Coast Steel							

REQUIREMENTS: Limit of one job number one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI Sketch, etc.) voiding previous non-compliant items must be listed. Record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			700: AM	200:PM

_____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____ WELDING

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
OBSERVATION OF PLACING 8" CMU'S @ PERIMETER OF ELEVATOR 1&2 , 5 COURCES ABOVE 2ND FLOOR , REINFORCEMENT #5		
M @ 8" ON CENTER & #5 I@ 16" ON CENTER, ADDED 2 #5 FOR EMBED SEPARATOR TUBE PER DETAIL 4 / S-005.		
ADDED 2 #5 FOR BRICK VENEER SUPPORT @ LEVEL 2 PER DETAIL 7 / S-004. CMU PLACEMENT ON GOING.		
OBSERVATION OF WELDING 3" 4" & 6" HOT WATER & CHILL WATER PIPE @ LEVEL 1 CEILING.		
PROCESS S.M.A.W. MANUAL 1/8 6010 , USING SINGLE BEVEL GROOVE WELDS & FILLET WELDS ACCEPTABLE.		
WELDER - JOSE - CERTS ON FILE, WELDING ONGOING.		
RECEIVED REBAR SAMPLES @ MILL CERTS, ITEMS BEING SENT TO LAB FOR TESTING.		

SAMPLES

MIXED NO	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

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Inspectors Name GORDON LEWIS

Inspectors Signature *Gordon Lewis*

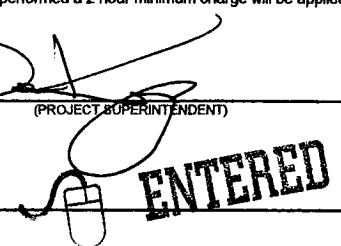
Inspectors License # 5009669-84 / 5009669-85

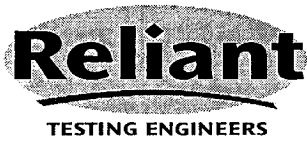
All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum
 If inspector is called to a project and no work is performed a 2 hour minimum charge will be applied

Approved Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

ACCOUNTING





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4484
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

 SPECIMEN TYPE: Concrete

 LOCATION IN STRUCTURE: Deck pour; Grid line F.5-1.5

 MIX NO: CHJ05372 MEASURED SLUMP (in): 4 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 66 CONCRETE TEMP: 80
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 8/23/2006 TIME CAST: 7:06 A.M. CAST BY: G.Branstter CO.: RTE

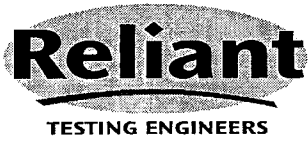
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	8/30/2006	124,810	4,413	D	
2	28	9/20/2006	157,590	5,572	C	
3	28	9/20/2006	157,020	5,552	C	
4	Hold					
						5,562

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
 Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
 Compression test results were not satisfactory

REMARKS: _____


 Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

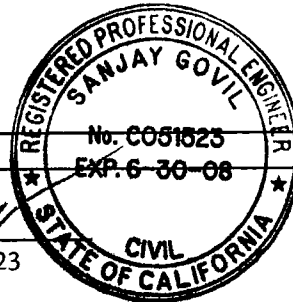
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4485
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Deck pour; Grid line H.7-1.5
 MIX NO: CHJ05372 MEASURED SLUMP (in): 4 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 64 CONCRETE TEMP: 80
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 8/23/2006 TIME CAST: 5:39 A.M. CAST BY: G.Bransteter CO.: RTE

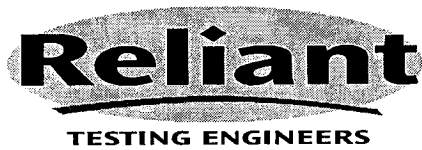
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	8/30/2006	118,160	4,178	D	
2	28	9/20/2006	149,120	5,273	C	
3	28	9/20/2006	147,620	5,220	D	
4	Hold					
						5,246

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
 Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
 Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

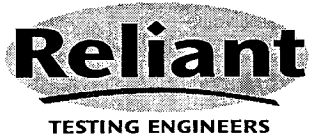
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4490
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Non Skrink Grout
 LOCATION IN STRUCTURE: 8" below beam; Grid line G-3
 MIX NO: Master flow 928 MEASURED SLUMP (in): N/A SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 90 CONCRETE TEMP: N/A
 SUPPLIER: Master flow CUBE(in): 2 AREA (sq. in.): 4
 DATE CAST: 8/23/2006 TIME CAST: 12:00 P.M. CAST BY: G.Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	8/30/2006	22,270	5,568	N/A	
2	28	9/20/2006	38,340	9,585	N/A	
3	28	9/20/2006	43,590	10,898	N/A	
						10,241

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
 Compression test results were satisfactory and conform to the specifications of ASTM C 472-79.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

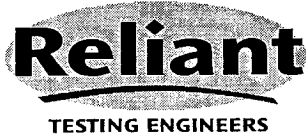
PROJECT NAME: UCR- Chass Building **JOB NO:** 05-1425
PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 **LAB NO:** 4608
CLIENT NAME: S.J. Amoroso Construction Co., Inc
CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
SPECIMEN TYPE: Concrete
LOCATION IN STRUCTURE: Deck pour; Grid line L.5-12.5
MIX NO: CHJ05372 **MEASURED SLUMP (in):** 5 **SPEC'D PSI:** 5000
AIR CONTENT: N/A **AMBIENT TEMP:** 72 **CONCRETE TEMP:** 80
SUPPLIER: Robertson's **DIAMETER (in):** 6 **AREA (sq. in.):** 28.28
DATE CAST: 9/6/2006 **TIME CAST** 4:38 A.M. **CAST BY:** G.Branstetter **CO.:** RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/13/2006	131,760	4,659	D	
2	28	10/4/2006		0		
3	28	10/4/2006		0		
4	Hold					
						0

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building **JOB NO:** 05-1425
PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 **LAB NO:** 4609
CLIENT NAME: S.J. Amoroso Construction Co., Inc
CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Deck pour; Grid line NX.5-18.7

MIX NO: CHJ05372 **MEASURED SLUMP (in):** 4 1/2 **SPEC'D PSI:** 5000

AIR CONTENT: N/A **AMBIENT TEMP:** 78 **CONCRETE TEMP:** 82

SUPPLIER: Robertson's **DIAMETER (in):** 6 **AREA (sq. in.):** 28.28

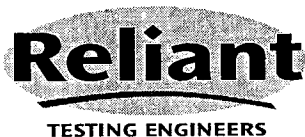
DATE CAST: 9/6/2006 **TIME CAST** 7:45 A.M. **CAST BY:** G.Branstetter **CO.:** RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/13/2006	123,760	4,376	B	
2	28	10/4/2006		0		
3	28	10/4/2006		0		
4	Hold					
						0

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4611
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Deck pour; Grid line M-16.5

MIX NO: CHJ05372 MEASURED SLUMP (in): 5 SPEC'D PSI: 5000

AIR CONTENT: N/A AMBIENT TEMP: 68 CONCRETE TEMP: 80

SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28

DATE CAST: 9/6/2006 TIME CAST 5:55 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/13/2006	118,750	4,199	C	
2	28	10/4/2006		0		
3	28	10/4/2006		0		
4	Hold					
						0

56

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

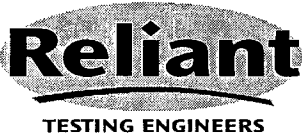
REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523

INSPECTION MATERIALS TESTING GEOTECHNICAL

35 South Harbor Boulevard Santa Ana, CA 92704 714/556-5867 voice 714/556-5868 fax www.ReliantTesting





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4636
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Shear wall; top lift; grid line G - 3
 MIX NO: 44243 MEASURED SLUMP (in): 4.5 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 62 CONCRETE TEMP: 68
 SUPPLIER: Robertsons DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 9/11/2006 TIME CAST 8:06am CAST BY: G. Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/18/2006	118,470	4,189	D	
2	28	10/9/2006		0		
3	28	10/9/2006		0		
4	Hold					
						0

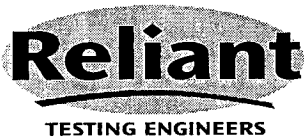
- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



ENTERED



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4687
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Level # 3; south bldg; grids D.2 / 3.5

MIX NO: CHJ05372 MEASURED SLUMP (in): 4.5 SPEC'D PSI: 5000

AIR CONTENT: N/A AMBIENT TEMP: 62 CONCRETE TEMP: 78

SUPPLIER: Robertsons DIAMETER (in): 6 AREA (sq. in.): 28.28

DATE CAST: 9/15/2006 TIME CAST: 5:18am CAST BY: G. Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/22/2006	129,170	4,568	B	
2	28	10/13/2006		0		
3	28	10/13/2006		0		
4	Hold					
						0

56

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523

ENTERED



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4738
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Mortar

LOCATION IN STRUCTURE: 10th course; Level 1; Grid line J.8-4.1

MIX NO: Type S MEASURED SLUMP (in): N/A SPEC'D PSI: 1800

SUPPLIER: Orco DIAMETER (in): 2 AREA (sq. in.): 3.14

DATE CAST: 9/21/2006 TIME CAST: 10:00 A.M. CAST BY: G.Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/28/2006	5,520	1,758	D	
2	28	10/19/2006		0		
3	28	10/19/2006		0		
						0

SG

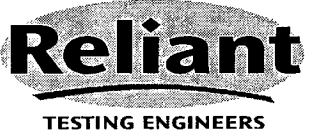
- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C109, C144, & C1142.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523



ENTERED



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 4751
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Shear wall; 2nd level; top lift; Grid line L-13
 MIX NO: 44243 MEASURED SLUMP (in): 4 1/2 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 64 CONCRETE TEMP: 64
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 9/22/2006 TIME CAST 8:05 A.M. CAST BY: G.Lewis CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	9/29/2006	130,310	4,608	D	
2	28	10/20/2006		0		
3	28	10/20/2006		0		
4	Hold					
						0

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523

ENTERED



950377
REPORT
LSD

RECEIVED

SEP 15 2006

AMOROSO CONSTRUCTION
COSTA MESA

September 7, 2006

SJ Amoroso Construction
Attn: Keith Speer
275 E. Baker St., Suite B
Costa Mesa, CA 92626

Job No.: 05-1425

Project: University of California-Riverside
3615-A Canyon Crest Drive
Riverside, CA 92507

Subject: Concrete F-number measurement

F-Number Measurement Project Summary

- Second Floor Deck
 - Section 1

On September 7, 2006, we performed F-Number measurements on concrete floor elevated deck at the subject project. Testing was performed in accordance with ASTM 1155. The test calculations, graphs, and a floor map are enclosed for your records.

Thank you for choosing Reliant Testing Engineers to service your profiling needs. Please feel free to contact me should you have any questions regarding your F-Number measurement, report, and graphs.

Sincerely,

RELIANT TESTING ENGINEERS, INC.

Denise DeGroff
President

Measured on: 09/07/2006
Job: UCRCHASS
Combined Section

Surface: 2NDLEVELDECK
Section: SECTION01

Measured FF: 33.30 <31.96 - 34.65> Specified FF: Min Local FF:
Measured FL: 14.84 <14.20 - 15.48> Specified FL: Min Local FL:

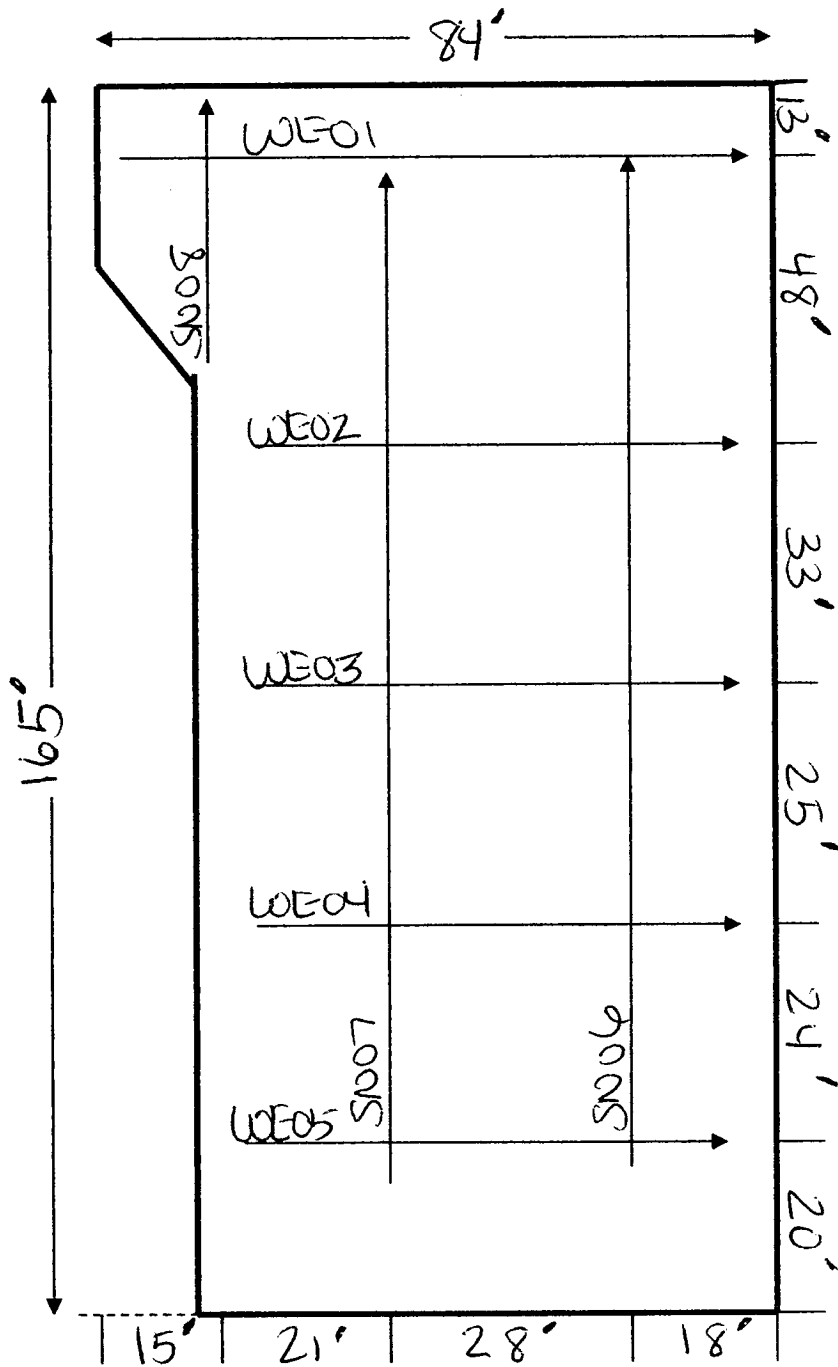
Run Name	FF	FL	Readings
WE01	30.93 <35.20-26.66>	15.60 <17.91-13.28>	80
WE02	37.20 <43.20-31.21>	15.94 <18.76-13.12>	60
WE03	31.75 <36.86-26.63>	12.78 <15.04-10.52>	60
WE04	36.66 <42.57-30.76>	14.84 <17.47-12.21>	60
WE05	34.83 <40.44-29.22>	20.25 <23.84-16.67>	60
SN06	35.91 <39.46-32.36>	14.75 <16.27-13.23>	145
SN07	33.72 <37.06-30.39>	14.08 <15.53-12.63>	145
SN08	22.92 <28.15-17.69>	14.04 <17.91-10.17>	30

568 Z-Readings

640 Dipstick Readings

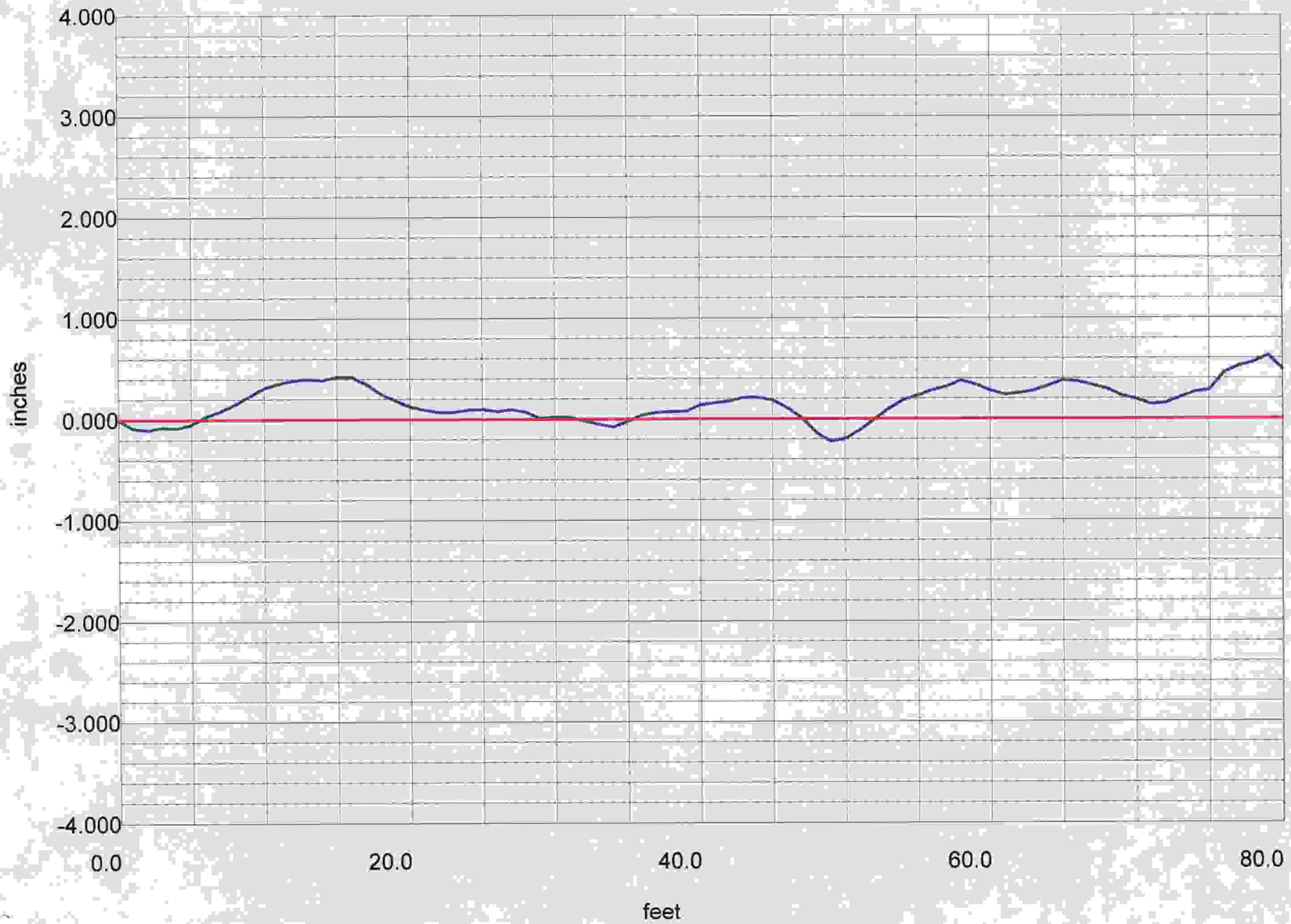
Reliant Testing Engineers

Project: University of California-Riverside
CHASS Instruction & Research Facility
3615 A Canyon Crest Drive-Riverside, CA 92507
2nd Level Deck Floor / Section 1



All runs made at least 2' from edge
Map not to scale
Measured on 09/07/2006

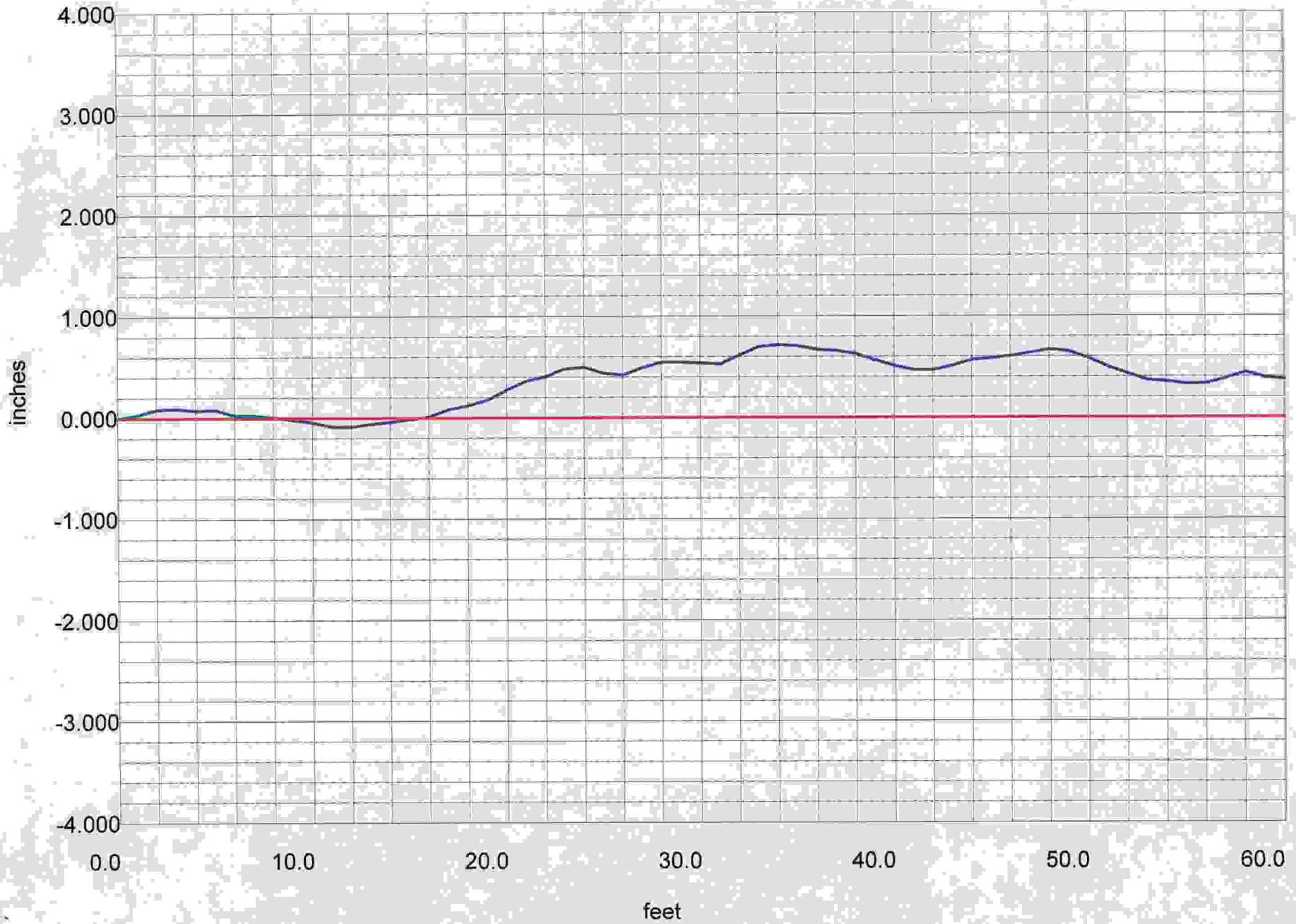
2NDLEVELDECK SECTION01 WE01



FF = 30.9 <26.7 - 35.2>

FL = 15.6 <13.3 - 17.9>

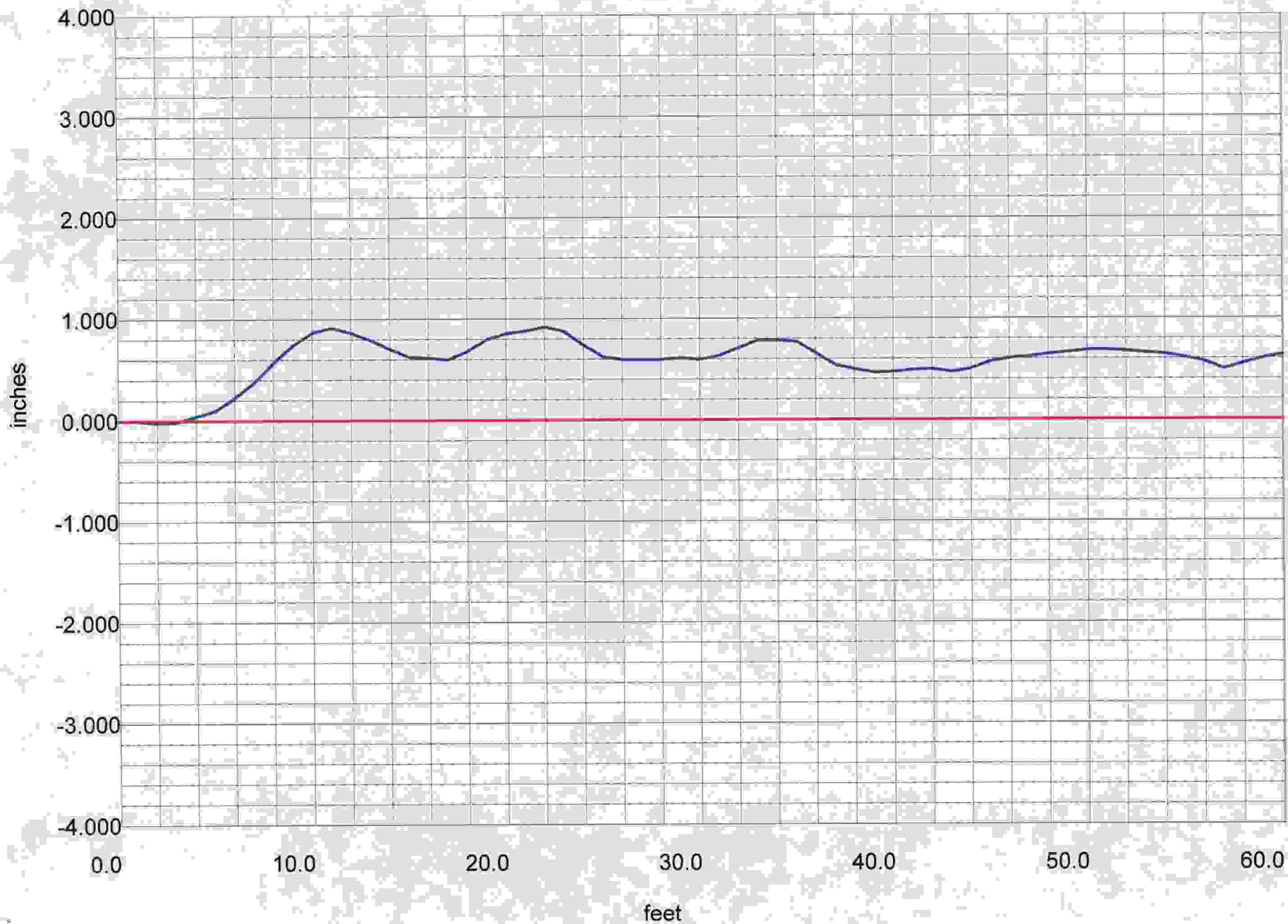
2NDLEVELDECK SECTION01 WE02



FF = 37.2 <31.2 - 43.2>

FL = 15.9 <13.1 - 18.8>

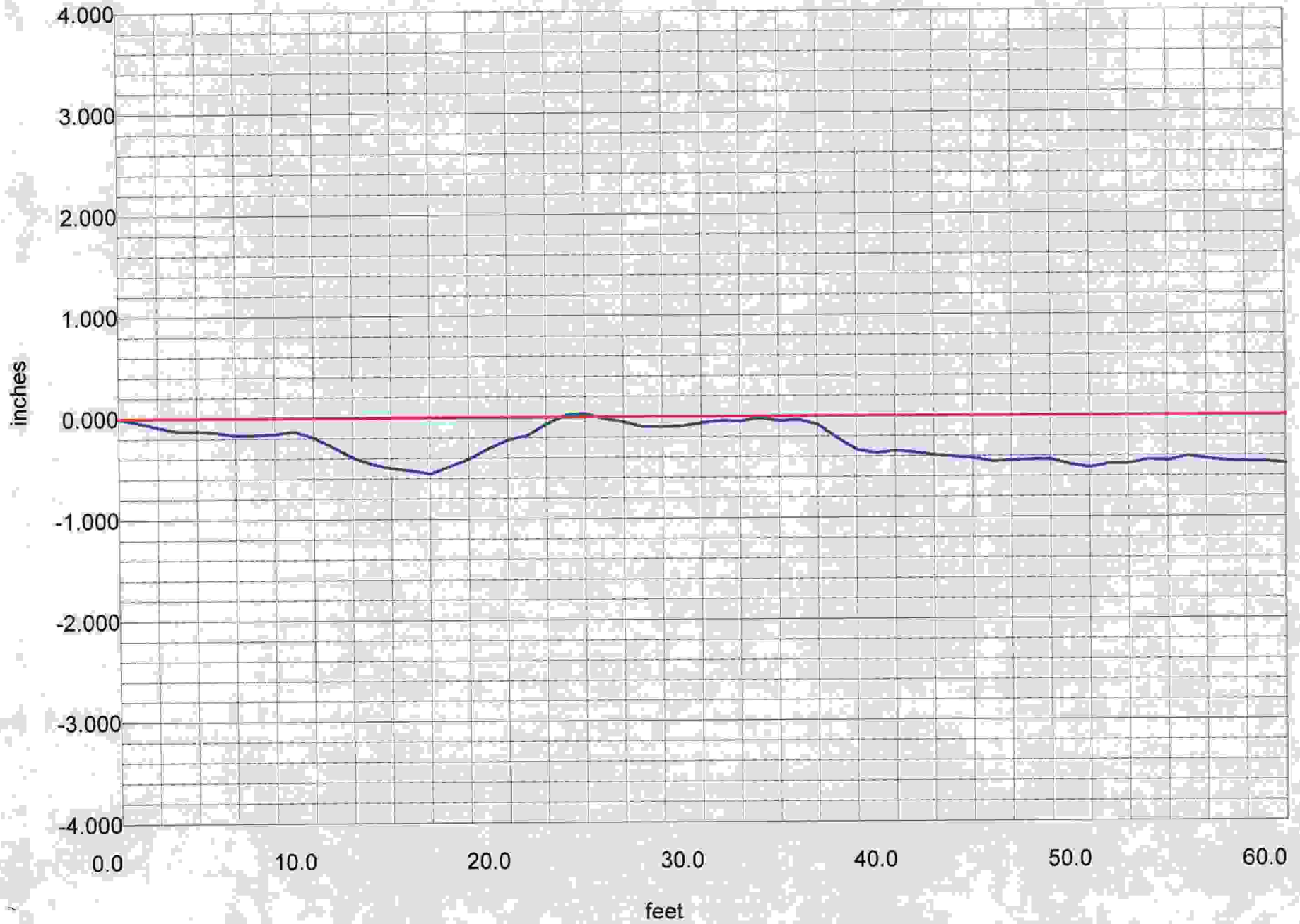
2NDLEVELDECK SECTION01 WE03



FF = 31.7 <26.6 - 36.9>

FL = 12.8 <10.5 - 15.0>

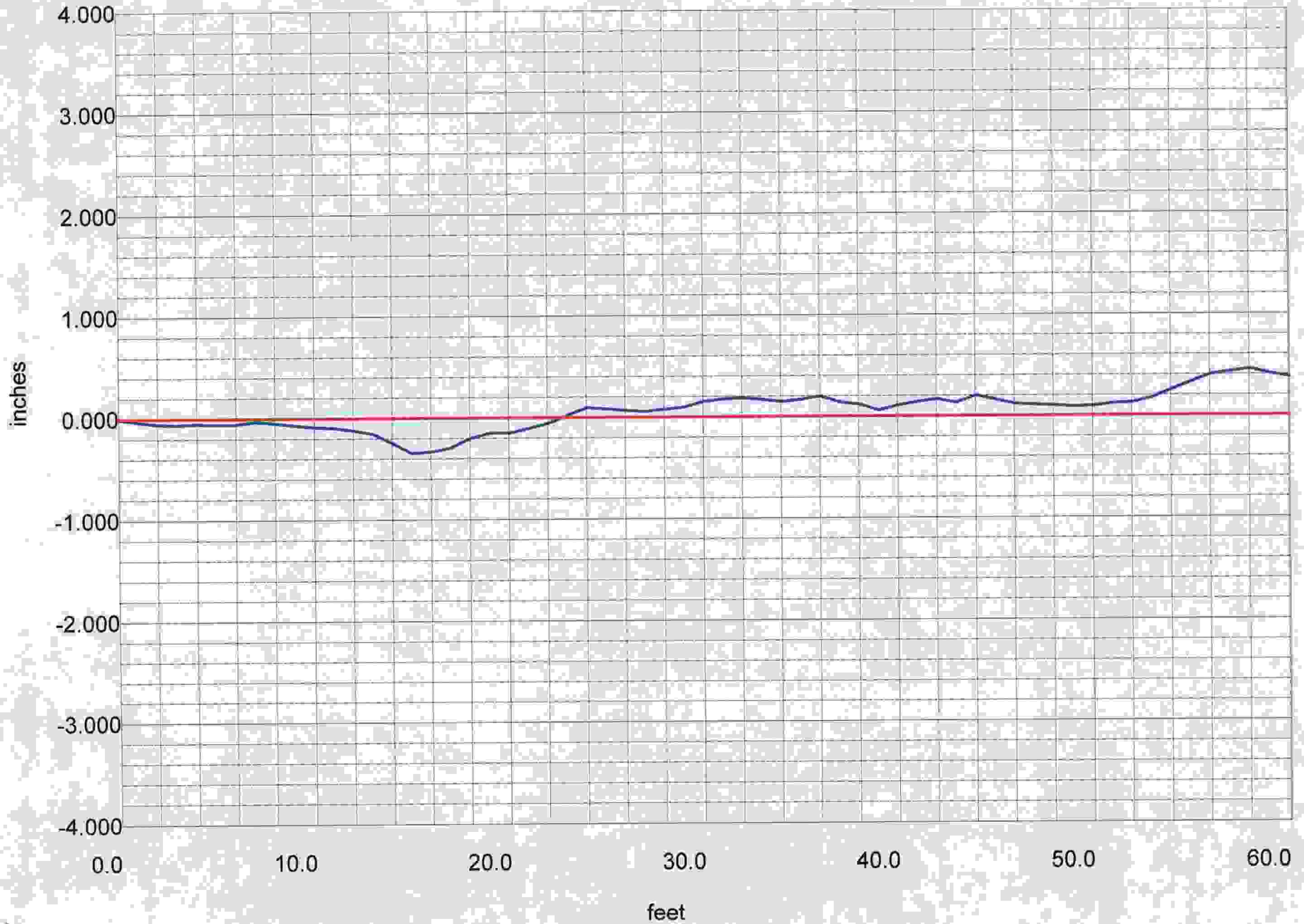
2NDLEVELDECK SECTION01 WE04



FF = 36.7 <30.8 - 42.6>

FL = 14.8 <12.2 - 17.5>

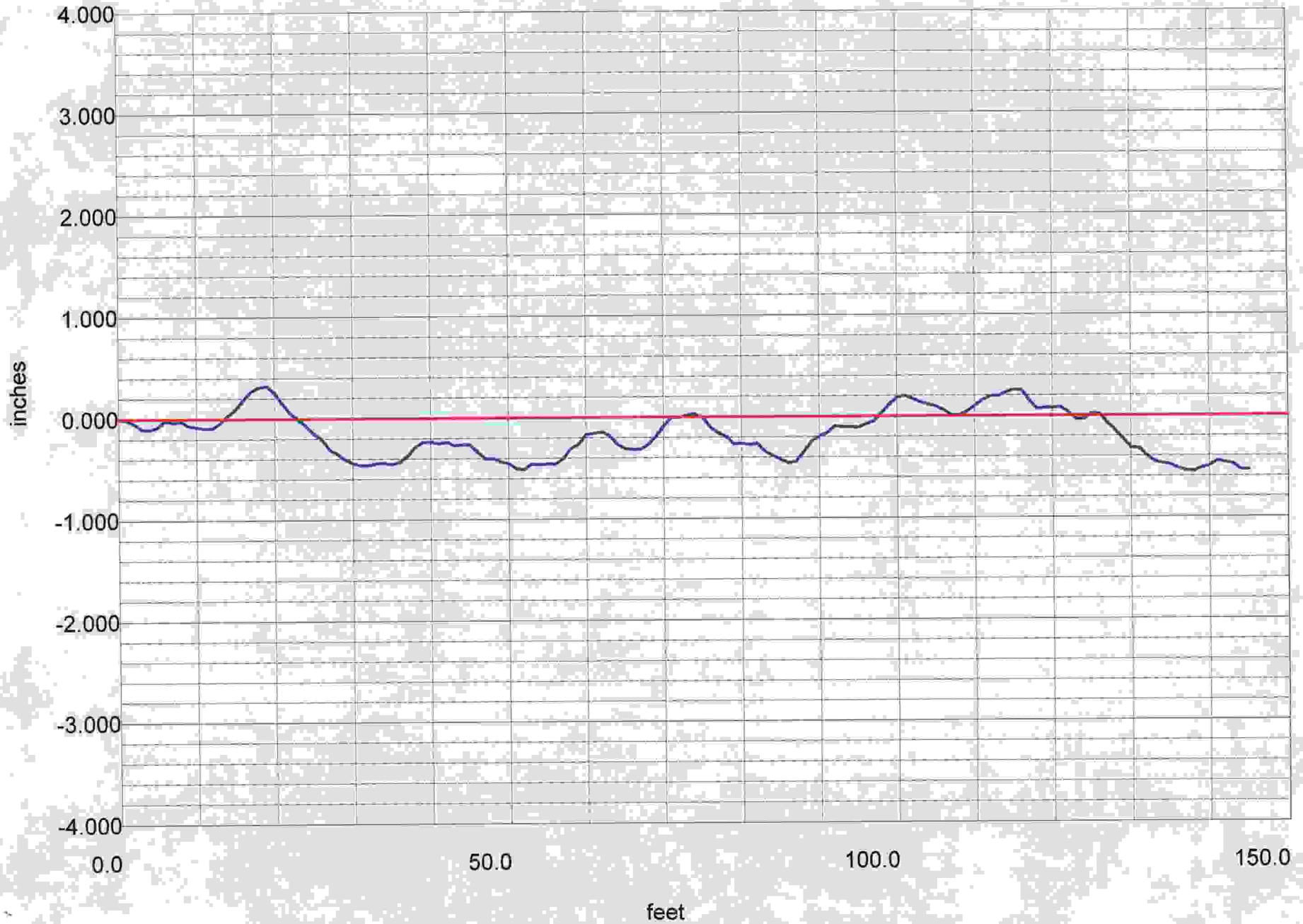
2NDLEVELDECK SECTION01 WE05



FF = 34.8 <29.2 - 40.4>

FL = 20.3 <16.7 - 23.8>

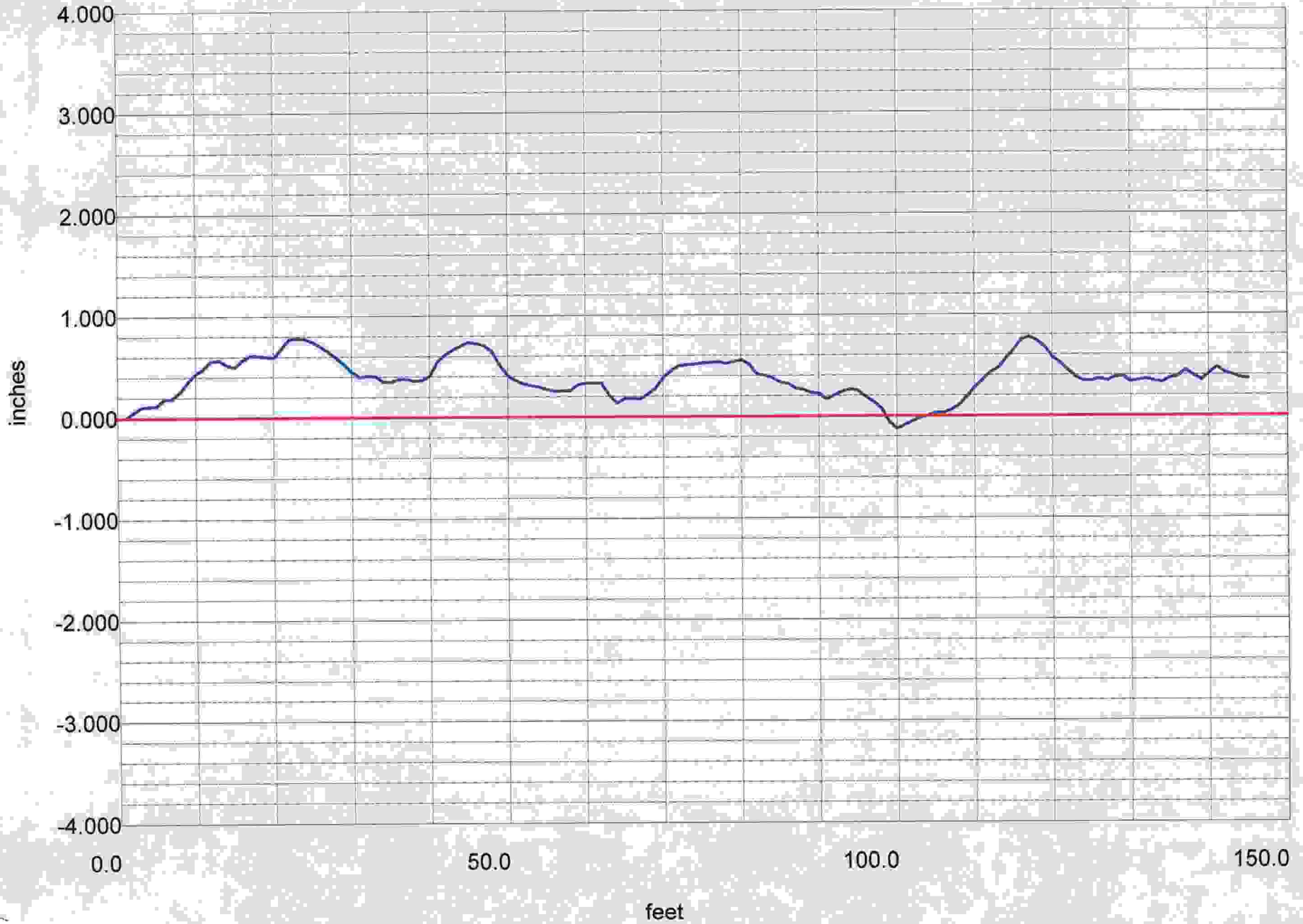
2NDLEVELDECK SECTION01 SN06



FF = 35.9 <32.4 - 39.5>

FL = 14.8 <13.2 - 16.3>

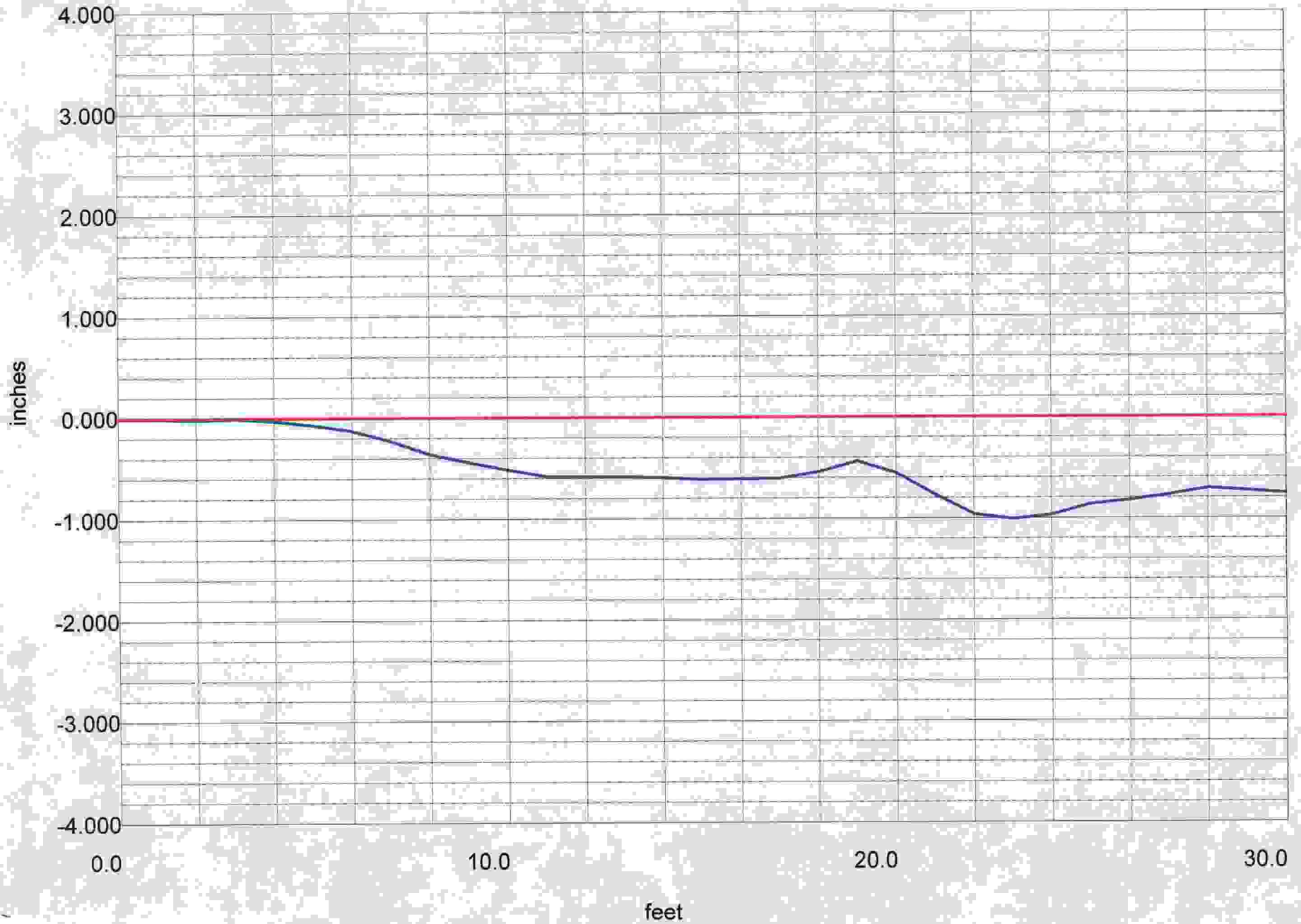
2NDLEVELDECK SECTION01 SN07



FF = 33.7 <30.4 - 37.1>

FL = 14.1 <12.6 - 15.5>

2NDLEVELDECK SECTION01 SN08



FF = 22.9 <17.7 - 28.2>

FL = 14.0 <10.2 - 17.9>

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-09-06	M	T	W	T	F	S	S
JOB NAME VCR	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION			
ADDRESS 3615 canyon Crest	CITY Riverside	GENERAL CONTRACTOR S. J. Amoroso							
ARCHITECT Les Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any)							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
4			11:00	2:00

- Re-Inspection Show-Up Only Expenses
 Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry
 Quality Control Administration Prestress/Post Tension Other

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Checked Reinforcement for footings @ North building Reinforcement per plan # S-100, per footing schedule 1/ S-200, Column schedule North building per S-200 details S-504, S-505 Reinforcing splice per schedule 4/ S-002</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

Contains Does Not Contain Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name Gordon Lewis
 Inspector's Signature Gordon Lewis
 Inspector's License # 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by Don Keys
(PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-10-06	M	T	W	T	F	S	S
JOB NAME UCR	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION			
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (if Any)							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			2:00 am	9:00 am

- Re-Inspection _____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @: 2:10 am	1st TRUCK BATCHED: 2:00 am	METHOD OF PLACEMENT: Pump
Observation of concrete placement approximately 650 cu. yds for footings @ basement North building		
Used Robertson's Mix # CHJ 05370 / 3000 psi concrete		
Footings were clean of debris + loose dirt prior to pour		
Reinforcement Clearances acceptable		
Used Electric Vibrator for consolidation		
Concrete tech made samples - report on file		

SAMPLES

SUPPLIER: Robertsons								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

- Additional Page (Page #) CM _____
- REPORT** Contains Non-Compliant Items Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **Gordon Lewis**

Inspector's Signature **Gordon Lewis**

Inspector's License # **5009669-84**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

KETH SPEER - PM - S.J. AMOROSO

Approved/Authorized by **[Signature]**
(PROJECT SUPERINTENDENT)

Submitted by _____

Reliant

TESTING ENGINEERS

3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE G. BRANSTETTER	JOB NUMBER 051425	DATE 2-10-06	M	T	W	T	F	S	S
JOB NAME U.C.R. CHASS Bldg.	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#						JURISDICTION		
ADDRESS 3015 CANYON CREST DR. Riverside	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT LEO DALY	ENGINEER SAIFUL/BOUQUET	SUBCONTRACTOR (If Any)							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			1:15 AM	8:45 AM

Re-Inspection _____
 Show-Up Only _____
 Expenses _____

Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____

Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other **ACI Tech**

INSPECTION

STARTED @: 2:00 AM	1st TRUCK BATCHED:	METHOD OF PLACEMENT: Pump			
Assisted Deputy G. Lewis w/ Testing & Placement of Concrete					
5 sets of cylinders cast					
	#1	#2	#3	#4	#5
Air °	44°	42°	40°	38°	
Conc °	60°	60°	60°	60°	
Slump	5"	6 3/4"	6 1/2"	6 1/2"	
TK #	4220767	4220778	4220792	4220806	

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

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 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **GARY E. BRANSTETTER**

Inspector's Signature *Gary E. Branstetter*

Inspector's License # **0104455**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-15-06	M	T	W	T	F	S	S
JOB NAME UCR	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon crest Dr.	CITY Riverside	GENERAL CONTRACTOR S. J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection _____
 Show-Up Only _____
 Expenses _____
 Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____
 Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
Observation of reinforcement placement @ Basement - South building footings / 42" + 48" Deep footings ref 5-100 Footing reinforcement F.S. # per schedule on 1/5-200 Column Mark CS reinforcement per schedule detail 1/5-300 Shear wall reinforcement per details on 5-501 + 5-502 concrete wall dowels per detail 1/5-600 / CMW wall dowels per detail 6/5-601 reinforcement not installed per plan @ Grid Line 1/B-C should have 7'3" past Grid B+C, rebar was 5' to far south - moved #11 5' north @ top matt + 15 now correct - bottom matt unable to move - ordered more #11 to Lap for correction on bottom matt - for Thursday Fix.		

SAMPLES

MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

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 Does Not Contain Non-Compliant Items ✓

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Inspector's Name Gordon Lewis
 Inspector's Signature Gordon Lewis
 Inspector's License # 5009669-84

Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)
 Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-16-06	M	T	W	T X	F	S	S
JOB NAME V.C.R.	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION			
ADDRESS 3615 Canyon Crest Dr. Riverside	CITY Riverside	GENERAL CONTRACTOR S. J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (if Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection _____
 Show-Up Only _____
 Expenses _____
 Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____
 Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
Completed reinforcement Placement @ Basement - South building Footings - 42" + 48" deep footings ref. S-100 / Footing reinforcement per schedule 1/S-200 + Column reinforcement per schedule 1/S-300, shear wall reinforcement per detail S-501 + S-502 Concrete wall dowels per detail 1/S-600 + CMV wall dowels per detail 6/S-601 / on previous report Grid Line 1-C bottom matt not per plan - 10 # 11 were added 7'3" past C Line with proper lap - acceptable 60" Deep footing ref. S-101 reinforcement per plan All areas were clean of debris + loose dirt 3" clearances on reinforcement against dirt - acceptable		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____
 REPORT Contains _____ Does Not Contain _____ Non-Compliant Items

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Inspector's Name Gordon Lewis

Inspector's Signature Gordon Lewis

Inspector's License # 5009669-84

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Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-17-06	M	T	W	T	F	S	S
JOB NAME UCR	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon crest	CITY Riverside	GENERAL CONTRACTOR S. J. Amaroso							
ARCHITECT Lee Daly	ENGINEER Saiful/Bourquet	SUBCONTRACTOR (If Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	2		2:00 am	12:00 pm

Re-Inspection _____
 Show-Up Only _____
 Expenses _____

Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____

Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @: 2:00 am	1st TRUCK BATCHED: 2:00 am	METHOD OF PLACEMENT: Pump
Observation of concrete placement approximately 720 cu. yds @ basement footings - south building + Footing @ Level I Grid Line 7-11 ref. 5-101		
Pump truck broke down + had to tail Gate concrete into footing until pump was fixed - because of this the trucks were starting to go past the 90 min. requirement - rejected one truck # 691		
Trucks were coming in with excessive slump - called batch plant + it was corrected.		
Used Electric Vibrator for consolidation		
Concrete technician made samples		

SAMPLES

SUPPLIER: Robertson								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CHJ 05370								

Additional Page (Page #) CM _____

Contains
 Does Not Contain

REPORT _____ Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **Gordon Lewis**

Inspector's Signature **Gordon Lewis**

Inspector's License # **5009669-84**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **[Signature]**
(PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE G. BRANSTETTER	JOB NUMBER 051425	DATE 2-17-06	M	T	W	T	X	S	S
JOB NAME UCR CHASS Bldg	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION			
ADDRESS 3615 CANYON CREST DR. Riverside	CITY Riverside	GENERAL CONTRACTOR S J Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful Bouquet	SUBCONTRACTOR (If Any)							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	3 2 1/2		1:15 AM	12:55 PM

Re-Inspection _____
 Show-Up Only _____
 Expenses _____

Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____

Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other **ACI 7206**

INSPECTION

STARTED @: 2:00 AM	1st TRUCK BATCHED:	METHOD OF PLACEMENT: Pump			
Assisted Deputy G. Lewis w/ Testing & Placement of Foundation Footings					
5 sets of Cylinders Cast					
	#1	#2	#3	#4	#5
Air°	42°	40°	35°	44°	52°
Conc°	60°	60°	60°	60°	60°
Slump	4 1/2"	5"	5 1/2"	5 3/4"	5 1/2"
AREA placed	C/1	B/3.5	D/2	D/1	B/3.5

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CH105370								

Additional Page (Page #) CM _____

Contains
 Does Not Contain

Non-Compliant Items

Certification of Compliance

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Inspector's Name **GARY G. BRANSTETTER**

Inspector's Signature **Gary Branstetter**

Inspector's License # **01041455**

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Approved/Authorized by **[Signature]**
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-20-06	M	T	W	T	F	S	S
JOB NAME UCR Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S. J. Amoroso							
ARCHITECT	ENGINEER	SUBCONTRACTOR (If Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
4			7:00 am	11:00 am

- Re-Inspection _____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
In process of installing reinforcement for North building basement @ shear walls + Columns Grid Line L/12-16 + 16/M-N Details B/5-504, 1+3/5-601, + CN2 column schedule on 5-300 work ongoing		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

Contains
 Does Not Contain Non-Compliant Items ✓

Certification of Compliance
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Inspector's Name Gordon Lewis
 Inspector's Signature Gordon Lewis
 Inspector's License # 5009669-84

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Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-21-06	M	T	W	T	F	S	S
JOB NAME U.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saitful/Bouquet	SUBCONTRACTOR (If Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	3:00

Re-Inspection _____
 Show-Up Only _____
 Expenses _____

Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____

Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
Observation of reinforcement placement for North building ref. 5-100 Column spiral Grid Line P-15, per schedule CN14/S-300 Column @ Grid Line Q-12 per schedule CN12/S-300 Column @ Grid Line R-15.1 per schedule CN5/S-300 Column Laps per detail 1/S-301, Column Ties #4 @ 4" O.C. per detail 1/S-301 Observation of drilling 1" X 12" embedment for #7 bars per RFI #76 + 77 @ shear walls North building basement Grid Lines 4/B-C, A.2/1-3, 3.5/A-B, 0.0. 12/N-N.6, L/12-17, 17/M-N, P/17-18.7, R/12.2-13.2 holes were brushed + cleaned out with compressed air-acceptable Epoxy Tomorrow		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains _____ Does Not Contain _____ Non-Compliant Items ✓

Certification of Compliance

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Inspector's Name Gordon Lewis

Inspector's Signature Gordon Lewis

Inspector's License # 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-22-06	M	T	X	T	F	S	S
JOB NAME V.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon crest dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoros							
ARCHITECT Leo Daly	ENGINEER Saiful Bouquet	SUBCONTRACTOR (If Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection Show-Up Only Expenses
 Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry
 Quality Control Administration Prestress/Post Tension Other

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
Completed Reinforcement on Columns + Final inspection before closing with forms for 1st pour @ Grid Lines (Q-12) (R-15.1) (Q-17) (P-19) (N-17.9) Reinforcement per schedule North building on 5-300 / Lap splice per schedule detail 1/5-301 + ties / areas were clean of Loose depri + dirt. Above acceptable per approved plans + details Observation of Epoxy #7 @ 12" o.c. per RFI #77 @ Grid Lines 12/M.9-N.5, R/12. / Changed to 2' o.c. @ Grid Lines P/17.2-18.7, 17/M-N, 2' on center pending approval holes were drilled 1" diameter X 12" embedment + cleaned with nylon brush + compressed air / used simpson set 22-Exp. 06-07		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

Contains Does Not Contain Non-Compliant Items

Certification of Compliance

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Inspector's Name Gordon Lewis

Inspector's Signature Gordon Lewis

Inspector's License # 5009669-8A

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-23-06	M	T	W	T X	F	S	S
JOB NAME U.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon crest dr CITY Riverside	GENERAL CONTRACTOR S.J. Amaraso								
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) South Coast Steel							

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HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection _____
 Show-Up Only _____
 Expenses _____
 Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____
 Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
Observation of Epoxy #7 @ 18" vertical each face into the footing @ Grid Line L/17.5-12, drilled 1" diameter x 12" embedment per RFI #76, holes cleaned out with nylon brush + compressed air - above @ North building / used Simpson Epoxy set 22 / Epoxy #11 dowels @ south bldg. Grid Line (D-3) (B.4-2.3) per RFI 78 + 79 / Epoxy #2 #8 dowels @ Grid Line B.8-8.1 - 18" embedment on #11 #8 dowels Rebar clearances on bldg North unacceptable - south coast will adjust stirrups Ties + some places move form - in progress bldg south the ties in columns are being changed from 12" to 10" which would give correct clearances		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

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Inspector's Name Gordon Lewis

Inspector's Signature Gordon Lewis

Inspector's License # 5009669-84

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Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-24-06	M	T	W	T	F	S	S
JOB NAME U.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon Crest dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amaroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) South Coast Steel							

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HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection _____
 Show-Up Only _____
 Expenses _____
 Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____
 Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
Checked reinforcement before closing with forms @ Column C#1 Grid Line N.4-17, reinforcement per detail schedule on S-300 Column Laps + ties per detail V/5-301, area was cleaned of debris + dirt. in process of installing reinforcement @ Grid Line 12/L-9, L/12-17, R/12.2-13.5 reinforcement per S-503, S-504 + S-601 Ongoing		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

Contains Non-Compliant Items
 Does Not Contain Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name Gordon Lewis
 Inspector's Signature Gordon Lewis
 Inspector's License # 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____



COMPRESSION TEST RESULTS

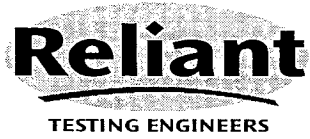
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3026
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: South footings @ L & 15
 MIX NO: CHJ05370 MEASURED SLUMP (in): 5 SPEC'D PSI: 3000
 AIR CONTENT: N/A AMBIENT TEMP: 44 CONCRETE TEMP: 60
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 2/10/2006 TIME CAST: 2:38 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/17/2006	105,480	3,730	D	
2	28	3/10/2006		0		
3	28	3/10/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3028
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Westfootings @ Q & 18.7

MIX NO: CHJ05370 MEASURED SLUMP (in): 6 1/2 SPEC'D PSI: 3000

AIR CONTENT: N/A AMBIENT TEMP: 40 CONCRETE TEMP: 60

SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28

DATE CAST: 2/10/2006 TIME CAST 4:48 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/17/2006	101,840	3,601	D	
2	28	3/10/2006		0		
3	28	3/10/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: High slump

Dr. Sanjay Govil, P.E. License Number 51523

ENTERED



COMPRESSION TEST RESULTS

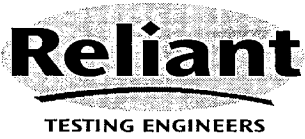
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3029
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: North footings @ R & 13
 MIX NO: CHJ05370 MEASURED SLUMP (in): 5 1/2 SPEC'D PSI: 3000
 AIR CONTENT: N/A AMBIENT TEMP: 42 CONCRETE TEMP: 60
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 2/10/2006 TIME CAST 7:45 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/17/2006	100,650	3,559	D	
2	28	3/10/2006		0		
3	28	3/10/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: High slump

Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3030
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: North west footings @ 17 & Q
 MIX NO: CHJ05370 MEASURED SLUMP (in): 6 1/2 SPEC'D PSI: 3000
 AIR CONTENT: N/A AMBIENT TEMP: 38 CONCRETE TEMP: 60
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 2/10/2006 TIME CAST 6:00 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/17/2006	98,760	3,492	D	
2	28	3/10/2006		0		
3	28	3/10/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: High slump

Dr. Sanjay Govil, P.E. License Number 51523

COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3081
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Foundation footing Grid line: D/2
 MIX NO: CHJ05370 MEASURED SLUMP (in): 5 1/2 SPEC'D PSI: 3000
 AIR CONTENT: N/A AMBIENT TEMP: 35 CONCRETE TEMP: 60
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 2/17/2006 TIME CAST 7:05 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/27/2006	118,740	4,199	D	
2	28	3/17/2006		0		
3	28	3/17/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523

COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3082
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Foundation footing Grid line: C/1

MIX NO: CHJ05370 MEASURED SLUMP (in): 4 1/2 SPEC'D PSI: 3000

AIR CONTENT: N/A AMBIENT TEMP: 42 CONCRETE TEMP: 60

SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28

DATE CAST: 2/17/2006 TIME CAST: 2:22 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/27/2006	109,530	3,873	D	
2	28	3/17/2006		0		
3	28	3/17/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3083
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Foundation footing Grid line: B/3.5

MIX NO: CHJ05370 MEASURED SLUMP (in): 5 1/2 SPEC'D PSI: 3000

AIR CONTENT: N/A AMBIENT TEMP: 52 CONCRETE TEMP: 60

SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28

DATE CAST: 2/17/2006 TIME CAST 10:15 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/27/2006	95,660	3,383	D	
2	28	3/17/2006		0		
3	28	3/17/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3084
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Foundation footing Grid line: D/1

MIX NO: CHJ05370 MEASURED SLUMP (in): 5 3/4 SPEC'D PSI: 3000
 AIR CONTENT: N/A AMBIENT TEMP: 44 CONCRETE TEMP: 60
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 2/17/2006 TIME CAST 8:30 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/27/2006	94,750	3,350	D	
2	28	3/17/2006		0		
3	28	3/17/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3085
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Foundation footing Grid line: B/3.5

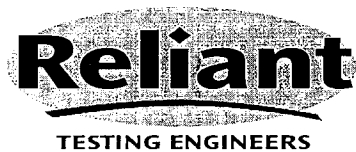
MIX NO: CHJ05370 MEASURED SLUMP (in): 5 SPEC'D PSI: 3000
 AIR CONTENT: N/A AMBIENT TEMP: 40 CONCRETE TEMP: 60
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 2/17/2006 TIME CAST 4:06 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/27/2006	111,030	3,926	D	
2	28	3/17/2006		0		
3	28	3/17/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



950377
Reports

UNIV OF CALIF RIVERSIDE
OFFICE OF
INTEGRITY & COMPLIANCE

MAR 20 2006

Date: March 16, 2006

Report distribution package of Field Inspection Reports and/or Laboratory results on materials tested.

Job Name: **UCR Chass Building**
Job Address: **3615-A Canyon Crest Drive**
City: **Riverside, CA**
Client Name: **SJ Amoroso Construction Co.**

You are receiving these reports at the request of our client. If you are not the correct recipient or wish to discontinue to receipt, please contact Denise DeGroff at 714/556-5867.



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-09-06	M	T	W	X	F	S	S
JOB NAME UCR	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION			
ADDRESS 3615 canyon crest	CITY Riverside	GENERAL CONTRACTOR S. J. Amoroso							
ARCHITECT Les Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any)							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
4			11:00	2:00

- Re-Inspection _____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Checked Reinforcement for footings @ North building Reinforcement per plan # 5-100, per footing schedule 1/5-200, Column schedule North building per 5-200 details 5-504, 5-505 Reinforcing splice per schedule 4/5-002</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Does Not Contain Non-Compliant Items ✓

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **Gordon Lewis**
 Inspector's Signature **Gordon Lewis**
 Inspector's License # **5009669-84**

Approved/Authorized by **Don Keys**
 (PROJECT SUPERINTENDENT)

Submitted by _____





3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-10-06	M	T	W	T	F	S	S
JOB NAME UCR	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION			
ADDRESS 3615 Canyon Crest Dr. Riverside	GENERAL CONTRACTOR S.J. Amoroso								
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any)							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			2:00 am	9:00 am

- Re-Inspection _____
 Show-Up Only _____
 Expenses _____
 Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____
 Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @: 2:10am	1st TRUCK BATCHED: 2:00am	METHOD OF PLACEMENT: Pump
Observation of concrete placement approximately 650 cu. yds for footings @ basement North building Used Robertson's Mix # CHJ 05370 / 3000 psi concrete Footing were clean of debris & loose dirt prior to pour Reinforcement Clearances acceptable used Electric Vibrator for consolidation Concrete Tech made samples - report on file		

SAMPLES

SUPPLIER: Robertson's								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items Does Not Contain

Certification of Compliance
 I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name Gordon Lewis
 Inspector's Signature Gordon Lewis
 Inspector's License # 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.
KETH SPEER - PM - S.J. AMOROSO
 Approved/Authorized by [Signature] (PROJECT SUPERINTENDENT)
 Submitted by _____



TESTING ENGINEERS

Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE G. BRANSTETTER	JOB NUMBER 051425	DATE 2-10-01	M	T	W	T	F	S	S
JOB NAME U.C.R. CITASS Bldg.		BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#				JURISDICTION			
ADDRESS 3615 CANYON CREST DR. RIVERSIDE		GENERAL CONTRACTOR S. J. AMOROSO							
ARCHITECT LEO DALY	ENGINEER SAIFUL/BOUQUET	SUBCONTRACTOR (If Any)							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			1:15 AM	8:45 AM

Re-Inspection _____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other **ACI TEST**

INSPECTION

STARTED @: 2:00 AM	1st TRUCK BATCHED:	METHOD OF PLACEMENT: Pump		
Assisted Deputy G. Lewis w/ Testing & Placement of Concrete				
5 sets of cylinders cast				
	#1	#2	#3	#4
Air °	44°	42°	40°	38°
Cons. °	60°	60°	60°	60°
Slump	5"	6 3/4"	6 1/2"	6 1/2"
TK #	4220767	4220778	4220792	4220806

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB. CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **GARY E. BRANSTETTER**
 Inspector's Signature *Gary E. Branstetter*
 Inspector's License # **01041455**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by *[Signature]*
 (PROJECT SUPERINTENDENT)
 Submitted by _____



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-15-06	M	T	W X	T	F	S	S
JOB NAME UCR	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon crest Dr. Riverside	CITY	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection _____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Observation of reinforcement placement @ Basement - South building footings / 42" + 48" Deep footings ref 5-100 Footing reinforcement F.S. # per schedule on 1/5-200 Column Mark CS reinforcement per schedule detail 1/5-300 Shear wall reinforcement per details on 5-501 + 5-502 concrete wall dowels per detail 1/5-600 / CMW wall dowels per detail 6/5-601 reinforcement not installed per plan @ Grid Line 1/B-C should have 7'3" past Grid B+C, rebar was 5' to far south - moved #11 5' north @ top matt + 15 now correct - bottom matt unable to move - ordered more #11 to Lap for correction on bottom matt - for Thursday Fix.</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items Does Not Contain

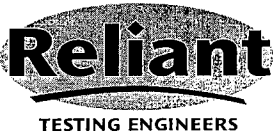
Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

All inspections based on minimum of 4 hours for work performed over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Inspector's Name Gordon Lewis
 Inspector's Signature Gordon Lewis
 Inspector's License # 5009669-84

Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)
 Submitted by _____



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-16-06	M	T	W	T X	F	S	S
JOB NAME V.C.R.	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION			
ADDRESS 3615 Canyon Crest Dr. Riverside	CITY Riverside	GENERAL CONTRACTOR S. J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection Show-Up Only Expenses
 Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry
 Quality Control Administration Prestress/Post Tension Other

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Completed reinforcement Placement @ Basement - South building Footings - 42" + 48" deep footings ref. 5-100 / Footing reinforcement per schedule 1/5-200 + Column reinforcement per schedule 1/5-300, shear wall reinforcement per detail 5-501 + 5-502 Concrete wall dowels per detail 1/5-600 + CMV wall dowels per detail 6/5-601 / on previous report Grid Line 1-C bottom matt not per plan - 10 # 11 were added 7'3" past C Line with proper lap - acceptable 60" Deep footing ref. 5-101 reinforcement per plan All areas were Clean of debris - Loose dirt 3" clearances on reinforcement against dirt - acceptable</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

Contains Does Not Contain Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name Gordon Lewis

Inspector's Signature Gordon Lewis

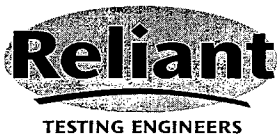
Inspector's License # 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____

POSTED



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-17-06	M	T	W	T	X	S	S
JOB NAME UCR	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon crest	CITY Riverside	GENERAL CONTRACTOR S. J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saitul/Bouquet	SUBCONTRACTOR (If Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	2		2:00 am	12:00 pm

Re-Inspection _____
 Show-Up Only _____
 Expenses _____

Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____

Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @: 2:00 am	1st TRUCK BATCHED: 2:00 am	METHOD OF PLACEMENT: Pump
Observation of concrete placement approximately 720 cu. yds @ basement footings - south building + Footing @ Level I Grid Line 7-11 bet. 5-101		
Pump truck broke down + had to tail Gate concrete into footing until pump was fixed - because of this the trucks were starting to go past the 90 min. requirement - rejected one truck # 691		
Trucks were coming in with excessive slump - called batch plant + it was corrected.		
Used Electric Vibrator for consolidation		
Concrete Technician made samples		

SAMPLES

SUPPLIER: Robertson's								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
(H) 05370								

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items ✓
 Does Not Contain

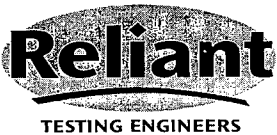
Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **Gordon Lewis**
 Inspector's Signature **Gordon Lewis**
 Inspector's License # **5009669-84**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **[Signature]**
 (PROJECT SUPERINTENDENT)
 Submitted by _____



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 Santa Ana, CA 92704
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Inspection Report

INSPECTOR CODE G. BRANSTETTER	JOB NUMBER 051425	DATE 2-17-06	M	T	W	T	X	S	S
JOB NAME UCR CHASS Bldg		BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#				JURISDICTION			
ADDRESS 3615 Canyon Crest Dr.		CITY Riverside		GENERAL CONTRACTOR S.J. Amoroso					
ARCHITECT Leo Daly		ENGINEER Santuf/Bouquet		SUBCONTRACTOR (If Any)					

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	3	2Hr	1:15 Am	12:55 Am

- Re-Inspection
 Show-Up Only
 Expenses
 Reinforcement Concrete
 Concrete Placement
 Masonry
 Reinforcement Masonry
 Quality Control
 Administration
 Prestress/Post Tension
 Other **ACI 7066**

INSPECTION

STARTED @: 2:00 Am	1st TRUCK BATCHED:	METHOD OF PLACEMENT: Pump			
Assisted Deputy G. Lerois w/ Testing & Placement of Foundation Footings					
5 Sets of Cylinders Cast					
	#1	#2	#3	#4	#5
Air°	42°	40°	35°	44°	52°
Conc°	60°	60°	60°	60°	60°
Slump	4 1/2"	5"	5 1/2"	5 3/4"	5 1/2"
Area placed	C/1	B/3.5	D/2	D/1	B/3.5

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CHJ05320								

Additional Page (Page #) CM _____

REPORT Contains Does Not Contain Non-Compliant Items

Certification of Compliance

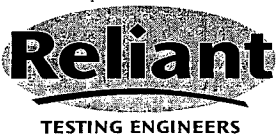
I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **GARY G. BRANSTETTER**
 Inspector's Signature **Gary G. Branstetter**
 Inspector's License # **01041455**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by **[Signature]**
 (PROJECT SUPERINTENDENT)

Submitted by _____



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
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Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-20-06	<input checked="" type="checkbox"/> M	<input type="checkbox"/> T	<input type="checkbox"/> W	<input type="checkbox"/> T	<input type="checkbox"/> F	<input type="checkbox"/> S	<input type="checkbox"/> S	
JOB NAME UCR Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#						JURISDICTION Riverside			
ADDRESS 3615 Canyon crest dr. Riverside	CITY	GENERAL CONTRACTOR S. J. Amoroso								
ARCHITECT	ENGINEER	SUBCONTRACTOR (If Any) South Coast Steel								

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
4			7:00 am	11:00 am

- Re-Inspection _____
 Show-Up Only _____
 Expenses _____
 Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____
 Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
In process of installing reinforcement for north building basement @ shear walls + Columns Grid Line L/12-16 + 16/M-N Details B/5-504, 1+3/5-601, + CN2 column schedule on 5-300 work ongoing		

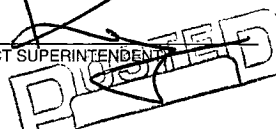
SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____
 REPORT Contains Non-Compliant Items ✓
 Does Not Contain

Certification of Compliance
 I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **Gordon Lewis**
 Inspector's Signature **Gordon Lewis**
 Inspector's License # **5009669-84**

Approved/Authorized by **[Signature]** (PROJECT SUPERINTENDENT)
 Submitted by _____




TESTING ENGINEERS

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-21-06	M	T	W	T	F	S	S
JOB NAME U.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 Canyon Crest Dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (if Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	3:00

Re-Inspection _____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Observation of reinforcement placement for North building Ref. 5-100 Column spiral Grid Line P-15, per schedule CN14/S-300 Column @ Grid Line Q-12 per schedule CN12/S-300 Column @ Grid Line R-15.1 per schedule CN5/S-300 Column Laps per detail 1/S-301, Column Ties #4 @ 4" o.c. per detail 1/S-301 Observation of drilling 1" x 12" embedment for #7 bars per RFI #76 + 77 @ shear walls North building basement Grid Lines 4/B-C, A.2/1-3, 3.5/A-B, D.2 12/N-N.6, L/12-17, 17/M-N, P/17-18.7, R/12.2-13.2 holes were brushed + cleaned out with compressed air - acceptable Epoxy Tomorrow</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Does Not Contain Non-Compliant Items

Certification of Compliance

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All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Inspector's Name Gordon Lewis

Approved/Authorized by [Signature]
(PROJECT SUPERINTENDENT)

Inspector's Signature Gordon Lewis

Inspector's License # 5009669-84

Submitted by _____



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
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Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-22-06	M	T	X	T	F	S	S
JOB NAME U.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon Crest dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) South Coast Steel							

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HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection _____
 Show-Up Only _____
 Expenses _____
 Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____
 Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Completed Reinforcement on Columns + Final inspection before closing with forms for 1st pour @ Grid Lines (Q-12) (R-15.1) (Q-17) (P-19) (N-17.9) Reinforcement per schedule North building on S-300 / Lap splice per schedule detail 1/S-301 + ties / areas were clean of loose depri + dirt. Above acceptable per approved plans + details Observation of Epoxy #7 @ 12" o.c. per dRFI #77 @ Grid Lines 12/M.9-N.5, R/12. / Changed to 2' o.c. @ Grid Lines P/17.2-18.7, 17/M-N, 2' on center pending approval holes were drilled 1" diameter X 12" embedment + cleaned with nylon brush + compressed air / used simpson set 22-Exp. 06-07</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Does Not Contain **Non-Compliant Items** ✓

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Inspector's Name Gordon Lewis
 Inspector's Signature Gordon Lewis
 Inspector's License # 5009669-84

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Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)

Submitted by _____



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-23-06	M	T	W	T <input checked="" type="checkbox"/>	F	S	S
JOB NAME U.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon crest dr. Riverside	CITY	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) South Coast Steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection _____ Show-Up Only _____ Expenses _____

Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____

Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Observation of Epoxy #7 @ 18" vertical each face into the footing @ Grid Line L/17.5-12, drilled 1" diameter x 12" embedment per RFI #76, holes cleaned out with nylon brush + compressed air - above @ North building / used Simpson Epoxy set 22 / Epoxy # 11 dowels @ south bldg. Grid Line (D-3) (B.4-2.3) per RFI 78 + 79 / Epoxy # 2 # 8 dowels @ Grid Line B.8-8.1 - 18" embedment on # 11 + # 8 dowels</p> <p>Rebar clearances on bldg North unacceptable - south coast will adjust stirrups ties + some places move form - in progress bldg south the ties on columns are being changed from 12" to 10" which would give correct clearances</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

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Inspector's Name Gordon Lewis
 Inspector's Signature Gordon Lewis
 Inspector's License # 5009669-84

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Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)
 Submitted by _____



TESTING ENGINEERS

Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
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INSPECTOR CODE	JOB NUMBER 05-1425	DATE 2-24-06	M	T	W	T	F	S	S
JOB NAME U.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon Crest dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amaroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any) South Coast steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection _____
 Show-Up Only _____
 Expenses _____

Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____

Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Checked reinforcement before closing with forms @ Column CNI Grid Line N.4-17, reinforcement per detail schedule on S-300 Column Laps + ties per detail V/5-301, area was cleaned of depri + dirt.</p> <p>in process of installing reinforcement @ Grid Line 12/L-9, L/12-17, R/12.2-13.5 reinforcement per S-503, S-504 + S-601</p> <p>Ongoing</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance

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Inspector's Name Gordon Lewis
 Inspector's Signature Gordon Lewis
 Inspector's License # 5009669-84

Approved/Authorized by [Signature]
 (PROJECT SUPERINTENDENT)
 Submitted by _____



TESTING ENGINEERS

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE, JOB NUMBER 05-1425, DATE 2-27-06, JOB NAME VCR Chass, ADDRESS 3615 canyon crest dr. Riverside, CITY Riverside, GENERAL CONTRACTOR S.J. Amoroso, SUBCONTRACTOR (If Any) South Coast Steel

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified.

HOURS

Table with columns: REGULAR (8), 1.5X, 2X, TIME IN (7:00), TIME OUT (2:00)

Re-Inspection, Show-Up Only, Expenses

Reinforcement Concrete, Concrete Placement, Masonry, Reinforcement Masonry

Quality Control, Administration, Prestress/Post Tension, Other

INSPECTION

STARTED @: 1st TRUCK BATCHED: METHOD OF PLACEMENT: Shear wall forms installed @ basement Grid Line R/12.2-13.5, Reinforcement per A/5-502 + 11 A/5-505 #7 dowels @ 12" o.c. installed @ shear walls per 4/5-500 Clearances + Laps per schedule 4/5-002 acceptable remaining shear walls @ bldg North acceptable with exception of one #6 missing @ inside face Grid Line L-16 next to pipes + tails @ upper elevations need to be turned to proper direction work ongoing

SAMPLES

Table with columns: MIXED NO., TICKET #, DESIGN SLUMP, MEASURED SLUMP, ADMIXTURE, DESIGN PSI, CUBIC YARDS, SPECIMENS, TEMPERATURE AMB CONC.

Additional Page (Page #) CM

REPORT Contains, Does Not Contain, Non-Compliant Items

Certification of Compliance

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Inspector's Name Gordon Lewis, Inspector's Signature Gordon Lewis, Inspector's License # 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by (PROJECT SUPERINTENDENT)

Submitted by



TESTING ENGINEERS

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Santa Ana, CA 92704
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Inspection Report

INSPECTOR CODE, JOB NUMBER 05-1425, DATE 3/01/06, JOB NAME V.C.R. Chass, ADDRESS 3615 canyon crest dr Riverside, GENERAL CONTRACTOR S.J. Amoroso, SUBCONTRACTOR (If Any) South Coast steel

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified.

HOURS

Table with columns: REGULAR (8), 1.5X, 2X, TIME IN (7:00), TIME OUT (2:00)

Re-Inspection, Show-Up Only, Expenses, Reinforcement Concrete, Concrete Placement, Masonry, Reinforcement Masonry, Quality Control, Administration, Prestress/Post Tension, Other

INSPECTION

STARTED @: 1st TRUCK BATCHED: METHOD OF PLACEMENT: Sure form Closing walls with forms @ Grid Line 12/N.6-L + Grid Line L/12-16, Checked reinforcement for proper size per details A/S-503, B/S-504, I/S-601, Laps splices per schedule A/S-002, Clearances acceptable, Mud from rain was cleaned off footing with high pressure water - acceptable. Observation of Epoxy #7 dowels @ shear walls 2' o.c. @ Grid Line D/2-3, I/A-B, 3.5/A-B, B/4-5.5 per RFI 77-R1 / drilled 1" diameter x 12" embedment Cleaned holes out with Nylon brush + compressed air used simpson set Epoxy approved - Exp date 06-07

SAMPLES

SUPPLIER: Table with columns: MIXED NO., TICKET #, DESIGN SLUMP, MEASURED SLUMP, ADMIXTURE, DESIGN PSI, CUBIC YARDS, SPECIMENS, TEMPERATURE AMB CONC.

Additional Page (Page #) CM

REPORT Contains, Does Not Contain, Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name Gordon Lewis, Inspector's Signature Gordon Lewis, Inspector's License # 5009669-48

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by [Signature], Submitted by



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 Santa Ana, CA 92704
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Inspection Report

INSPECTOR CODE Van Alstine	JOB NUMBER 05-1425	DATE 3/2/06	M	T	W	<input checked="" type="checkbox"/>	F	S	S
JOB NAME UCR Chass Building	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION			
ADDRESS 3615 Canyon Crest Dr.	CITY	GENERAL CONTRACTOR Amoroso							
ARCHITECT Leo A. Daly	ENGINEER Saitol/Bouquet	SUBCONTRACTOR (If Any)							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
B	—	—	0630	1430

- Re-Inspection Show-Up Only Expenses
 Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry
 Quality Control Administration Prestress/Post Tension Other

INSPECTION

STARTED @: 0630	1st TRUCK BATCHED: N/A	METHOD OF PLACEMENT: N/A
<p>Continuous observation of the placement & tying of reinforcing steel at several locations through out job site.</p> <p>Work in progress.</p>		

SAMPLES

SUPPLIER: N/A								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
X	X	X	X	X	X	X	X	X

Additional Page (Page #) CM **1 of 1** **REPORT** Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance
 I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **C. Van Alstine**
 Inspector's Signature *[Signature]*
 Inspector's License # **5104634-49**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by *[Signature]*
 Submitted by _____



TESTING ENGINEERS

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE Van Alstine	JOB NUMBER 05-1425	DATE 3/3/06	M	T	W	T	X	S	S
JOB NAME UCR Chass Building		BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#				JURISDICTION			
ADDRESS 3015 Canyon Crest Dr.		CITY		GENERAL CONTRACTOR Amaroso					
ARCHITECT Leo A. Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any)							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	—	—	0630	1430

- Re-Inspection Show-Up Only Expenses
 Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry
 Quality Control Administration Prestress/Post Tension Other

INSPECTION

STARTED @: 0630	1st TRUCK BATCHED: N/A	METHOD OF PLACEMENT: N/A
<p>Continuous observation of the placement & tying of reinforcing steel at several locations through out project.</p> <p>Closing of cast in place walls also taking place.</p> <p>Work in progress.</p>		

SAMPLES

SUPPLIER: N/A								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
X	X	X	X	X	X	X	X	X

Additional Page (Page #) CM **1 of 1**

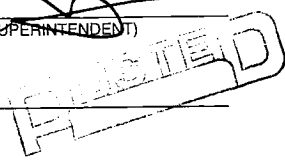
REPORT Contains Non-Compliant Items
 Does Not Contain

Certification of Compliance
I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and applicable codes

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Inspector's Name **C. Van Alstine**
 Inspector's Signature **[Signature]**
 Inspector's License # **5104634-49**

Approved/Authorized by **[Signature]**
 (PROJECT SUPERINTENDENT)
 Submitted by _____





TESTING ENGINEERS

Inspection Report

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 3-06-06	M	T	W	T	F	S	S	
JOB NAME V.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#						JURISDICTION Riverside			
ADDRESS 3615 canyon Crest dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso								
ARCHITECT Leo Daly	ENGINEER Sarful/Bouquet	SUBCONTRACTOR (If Any) South Coast Steel								

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			6:30	2:00

Re-Inspection Show-Up Only Expenses

Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry

Quality Control Administration Prestress/Post Tension Other

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Checked reinforcement for 60" deep footing ref. S-101, Grid Line F, 8-J, A/1-3.4, Details 1/S-506, B/S-501, A/S-502 + 36" deep footing next to above footing, details 2/S-800, A/S-800, Grad beam per detail 2/S-200 Column Lap splices per schedule 1/S-301, splice Laps per schedule 4/S-002, 3" clearance acceptable/installed #7 Dowels @ 12" o.c. per detail 4/S-500, footings are clean of debris + Loosedirt / Reinforcement for column footing @ Grid Line E-1, E-3 per schedule on S-300 / @ Grid Line F-1 calls for 16x24 with 4 # 8 - installed was 6 # 8 to go with section B/S-300</p> <p>above areas acceptable for concrete placement</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM

REPORT Contains Non-Compliant Items Does Not Contain

Certification of Compliance

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Inspector's Name Gordon Lewis

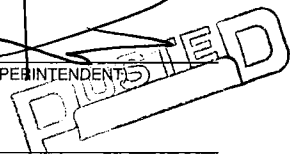
Inspector's Signature Gordon Lewis

Inspector's License # 5009669-84

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by [Signature]
(PROJECT SUPERINTENDENT)

Submitted by _____





3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 3-07-06	M	X	W	T	F	S	S
JOB NAME U.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon Crest dr. Riverside	CITY	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (If Any)							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	4	2 1/2	2:00 am	4:30 pm

Re-Inspection Show-Up Only Expenses

Reinforcement Concrete Concrete Placement Masonry Reinforcement Masonry

Quality Control Administration Prestress/Post Tension Other

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Observation of concrete placement for footings 60" deep + 36" deep ref. 5-101, approximately 450 cu. yds 3,000 psi Robertson's / mix # CHJ 05-370</p> <p>Concrete placement @ North building basement for shear walls + perimeter walls ref. 5-100, approximately 120 cu. yds 5,000 psi 3/8 mix # 44243 / submittal # 064</p> <p>Used Electric vibrators for consolidation / ACI Tech. made Samples - report on file</p> <p>note - poor service from Robertson's concrete - no trucks from 12:15 to 2:15 pm + 2:30 to 3:45</p> <p>had to work overtime due to poor service</p> <p>Rejected truck # 797 - because of 10" slump</p>		

SAMPLES

SUPPLIER: Robertsons								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM

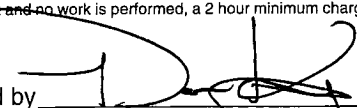

REPORT Contains Does Not Contain Non-Compliant Items

Certification of Compliance

I declare under penalty of perjury that all of the above statements are true, and that of my own personal knowledge the work during the period covered by this report has been performed and installed in compliance with the approved plans, specifications and all applicable codes

Inspector's Name **Gordon Lewis**
 Inspector's Signature **Gordon Lewis**
 Inspector's License # **5009669-84**

All inspections based on minimum of 4 hours for work performed over 4 hours = 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

Approved/Authorized by 
 (PROJECT SUPERINTENDENT)
 Submitted by 



TESTING ENGINEERS

3035 S. Harbor Blvd.
Santa Ana, CA 92704
714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 3-08-06	M	T	W	T	F	S	S
JOB NAME U.C.R. Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon Crest dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Bouquet	SUBCONTRACTOR (if Any) South Coast steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			7:00	2:30

Re-Inspection _____
 Show-Up Only _____
 Expenses _____
 Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____
 Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Closing wall panels @ south building Grid Line 1, 3, D, + A, Cleaned dirt off footing + Rebars with high pressure water jet + Wet Vac To pick up water - this area is acceptable for concrete placement.</p> <p>In process of installing reinforcement for 42" deep footing #9 (T+B) @ 12" each way - ref. S-101 Grid Line 3-F.5 reinforcement for footing @ Grid Line F-2 + H-3 details F57 + F59/S-200</p> <p>work ongoing</p>		

SAMPLES

SUPPLIER:								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.

Additional Page (Page #) CM _____

Contains _____ Non-Compliant Items
 Does Not Contain _____

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Inspector's Name **Gordon Lewis**
 Inspector's Signature **Gordon Lewis**
 Inspector's License # **5009669-84**

Approved/Authorized by **[Signature]**
 (PROJECT SUPERINTENDENT)
 Submitted by _____



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 3-09-06	M	T	W	X	F	S	S
JOB NAME UCR Chass	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#					JURISDICTION Riverside			
ADDRESS 3615 canyon crest dr. Riverside	CITY	GENERAL CONTRACTOR S.J. Amoroso							
ARCHITECT Leo Daly	ENGINEER Saiful/Borquet	SUBCONTRACTOR (If Any) South coast steel							

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8	1.5		6:00	3:30

Re-Inspection _____
 Show-Up Only _____
 Expenses _____
 Reinforcement Concrete _____
 Concrete Placement _____
 Masonry _____
 Reinforcement Masonry _____
 Quality Control _____
 Administration _____
 Prestress/Post Tension _____
 Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
<p>Observation of Epoxy # 7 dowels 24" on center @ Grid Line 7/A-A8, used Simpson set 22 / drilled 1" diameter X 12" embedment - cleaned holes out with compressed air + nylon brush</p> <p>Checked reinforcement for footings ref: S-101, Grid Line F-2, 42" deep footing Grid Line F.5-3, H-3, 3.6/J.5-K per details on S-300, S-200, S-501 + detail 8/5-600</p> <p>3" Clearances acceptable - areas cleaned of loose dirt + debris</p> <p>Observation of approximately 110 cu. yds. Robertson concrete 3000 psi Mix # CHJ05370 @ above area, used electric vibrators for consolidation / made 1 set of 4 samples @ Grid Line F-2</p>		

SAMPLES

SUPPLIER: Robertson								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
CHJ053704135468		4"	4 1/2		3000	10	4	70° 72°

Additional Page (Page #) CM _____
 REPORT Contains _____ Non-Compliant Items ✓
 Does Not Contain _____

Certification of Compliance

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Inspector's Name **Gordon Lewis**

Inspector's Signature **Gordon Lewis**

Inspector's License # **5009669-84**

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Approved/Authorized by **[Signature]**
 (PROJECT SUPERINTENDENT)

Submitted by _____

POSTED



3035 S. Harbor Blvd.
 Santa Ana, CA 92704
 714/556-5867 • 714/556-5868

Inspection Report

INSPECTOR CODE	JOB NUMBER 05-1425	DATE 3-10-06	M	T	W	T	X	S	S	
JOB NAME UCR Chess	BUILD PERMIT NUMBER / DSA / OSHPD APP. FILE#						JURISDICTION Riverside			
ADDRESS 3615 canyon Crest dr.	CITY Riverside	GENERAL CONTRACTOR S.J. Amoroso								
ARCHITECT Leo Daly	ENGINEER Saiful / Bouquet	SUBCONTRACTOR (If Any)								

REQUIREMENTS: Limit of one job number, one permit number per sheet. Identify all work by type and SPECIFIC location. Non-compliant work must be specifically identified. Communication (RFI, Sketch, etc.) voiding previous non-compliant items must be listed, record conversations and communications with project designers, building and permit granting authority officials.

HOURS

REGULAR	1.5X	2X	TIME IN	TIME OUT
8			11:00 am	4:00 pm

- Re-Inspection _____ Show-Up Only _____ Expenses _____
 Reinforcement Concrete _____ Concrete Placement _____ Masonry _____ Reinforcement Masonry _____
 Quality Control _____ Administration _____ Prestress/Post Tension _____ Other _____

INSPECTION

STARTED @:	1st TRUCK BATCHED:	METHOD OF PLACEMENT:
Observation of concrete placement for shear walls @ south building perimeter walls Grid Lines 1, 2.6-3, 3.5, A-A.3 D + Column @ Grid Line B.4-2.3 Used Robertsons 5000 psi mix # 44243 approximately 110 cu. yds - used electric vibrators for consolidation Made 1 set of 4 samples @ Grid Line D-2		

SAMPLES

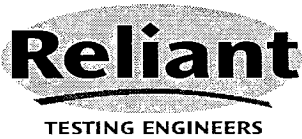
SUPPLIER: Robertson's								
MIXED NO.	TICKET #	DESIGN SLUMP	MEASURED SLUMP	ADMIXTURE	DESIGN PSI	CUBIC YARDS	SPECIMENS	TEMPERATURE AMB CONC.
44243	4135583	4"	5"		5000	10	4	52° 70°

Additional Page (Page #) CM _____ **REPORT** Contains Non-Compliant Items Does Not Contain

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Inspector's Name **Gordon Lewis**
 Inspector's Signature **Gordon Lewis**
 Inspector's License # **5009669-84**

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 Approved/Authorized by **[Signature]** (PROJECT SUPERINTENDENT)
 Submitted by _____



POSTER

COMPRESSION TEST RESULTS

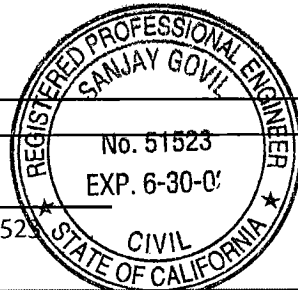
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3027
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: East footings @ N & 12
 MIX NO: CHJ05370 MEASURED SLUMP (in): 6 3/4 SPEC'D PSI: 3000
 AIR CONTENT: N/A AMBIENT TEMP: 42 CONCRETE TEMP: 60
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 2/10/2006 TIME CAST: 3:46 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/17/2006	86,280	3,051	D	
2	28	3/10/2006	139,530	4,934	B	
3	28	3/10/2006	141,020	4,987	B	
4	Hold					
						4,961

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: High slump

Dr. Sanjay Govil, P.E. License Number 51523



INSPECTION MATERIALS TESTING GEOTECHNICAL



FILED

COMPRESSION TEST RESULTS

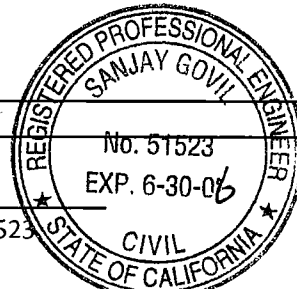
PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3029
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504
 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: North footings @ R & 13
 MIX NO: CHJ05370 MEASURED SLUMP (in): 5 1/2 SPEC'D PSI: 3000
 AIR CONTENT: N/A AMBIENT TEMP: 42 CONCRETE TEMP: 60
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 2/10/2006 TIME CAST: 7:45 A.M. CAST BY: G.Branstetter CO.: RTE

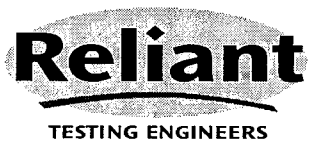
SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/17/2006	100,650	3,559	D	
2	28	3/10/2006	145,840	5,157	B	
3	28	3/10/2006	141,290	4,996	B	
4	Hold					
						5,077

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: High slump

Dr. Sanjay Govil, P.E. License Number 51523





COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3081
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Foundation footing Grid line: D/2

MIX NO: CHJ05370 MEASURED SLUMP (in): 5 1/2 SPEC'D PSI: 3000
 AIR CONTENT: N/A AMBIENT TEMP: 35 CONCRETE TEMP: 60
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 2/17/2006 TIME CAST 7:05 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/27/2006	118,740	4,199	D	
2	28	3/17/2006		0		
3	28	3/17/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3082
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Foundation footing Grid line: C/1

MIX NO: CHJ05370 MEASURED SLUMP (in): 4 1/2 SPEC'D PSI: 3000

AIR CONTENT: N/A AMBIENT TEMP: 42 CONCRETE TEMP: 60

SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28

DATE CAST: 2/17/2006 TIME CAST: 2:22 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/27/2006	109,530	3,873	D	
2	28	3/17/2006		0		
3	28	3/17/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3084
CLIENT NAME: S.J. Amoroso Construction Co., Inc
CLIENT ADDRESS: 275 East Baker Street, Suite B
Costa Mesa, CA 92626-4504

SPECIMEN TYPE: Concrete

LOCATION IN STRUCTURE: Foundation footing Grid line: D/1

MIX NO: CHJ05370 MEASURED SLUMP (in): 5 3/4 SPEC'D PSI: 3000
AIR CONTENT: N/A AMBIENT TEMP: 44 CONCRETE TEMP: 60
SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
DATE CAST: 2/17/2006 TIME CAST 8:30 A.M. CAST BY: G.Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	2/27/2006	94,750	3,350	D	
2	28	3/17/2006		0		
3	28	3/17/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3165
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

 SPECIMEN TYPE: Concrete
 LOCATION IN STRUCTURE: Shear Wall @ L/16

 MIX NO: 44243 MEASURED SLUMP (in): 6 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 60 CONCRETE TEMP: 64
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 3/7/2006 TIME CAST: 9:10am CAST BY: Gary Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	3/14/2006	149,730	5,295	B	
2	28	4/4/2006		0		
3	28	4/4/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

REMARKS: _____

 Dr. Sanjay Govil, P.E. License Number 51523



COMPRESSION TEST RESULTS

PROJECT NAME: UCR- Chass Building JOB NO: 05-1425
 PROJECT ADDRESS: 3615 Canyon Crest Drive, Riverside, CA 92507 LAB NO: 3166
 CLIENT NAME: S.J. Amoroso Construction Co., Inc
 CLIENT ADDRESS: 275 East Baker Street, Suite B
 Costa Mesa, CA 92626-4504

 SPECIMEN TYPE: Concrete

 LOCATION IN STRUCTURE: Shear Wall @ R/13

 MIX NO: CHJ05372 MEASURED SLUMP (in): 5 SPEC'D PSI: 5000
 AIR CONTENT: N/A AMBIENT TEMP: 50 CONCRETE TEMP: 62
 SUPPLIER: Robertson's DIAMETER (in): 6 AREA (sq. in.): 28.28
 DATE CAST: 3/7/2006 TIME CAST: 7am CAST BY: Gary Branstetter CO.: RTE

SAMPLE NUMBER	SAMPLE AGE	TEST DATE	MAXIMUM LOAD (lbf)	COMPRESSIVE STRENGTH (psi)	TYPE OF FRACTURE*	28 DAY AVERAGE
1	7	3/14/2006	151,310	5,350	C	
2	28	4/4/2006		0		
3	28	4/4/2006				
4	Hold					

- * CONE (A), CONE & SPLIT (B), CONE & SHEAR (C), SHEAR (D), COLUMNAR (E)
- Compression test results were satisfactory and conform to the specifications of ASTM C31, C39, C143, C172, C1231 & C1064.
- Compression test results were not satisfactory

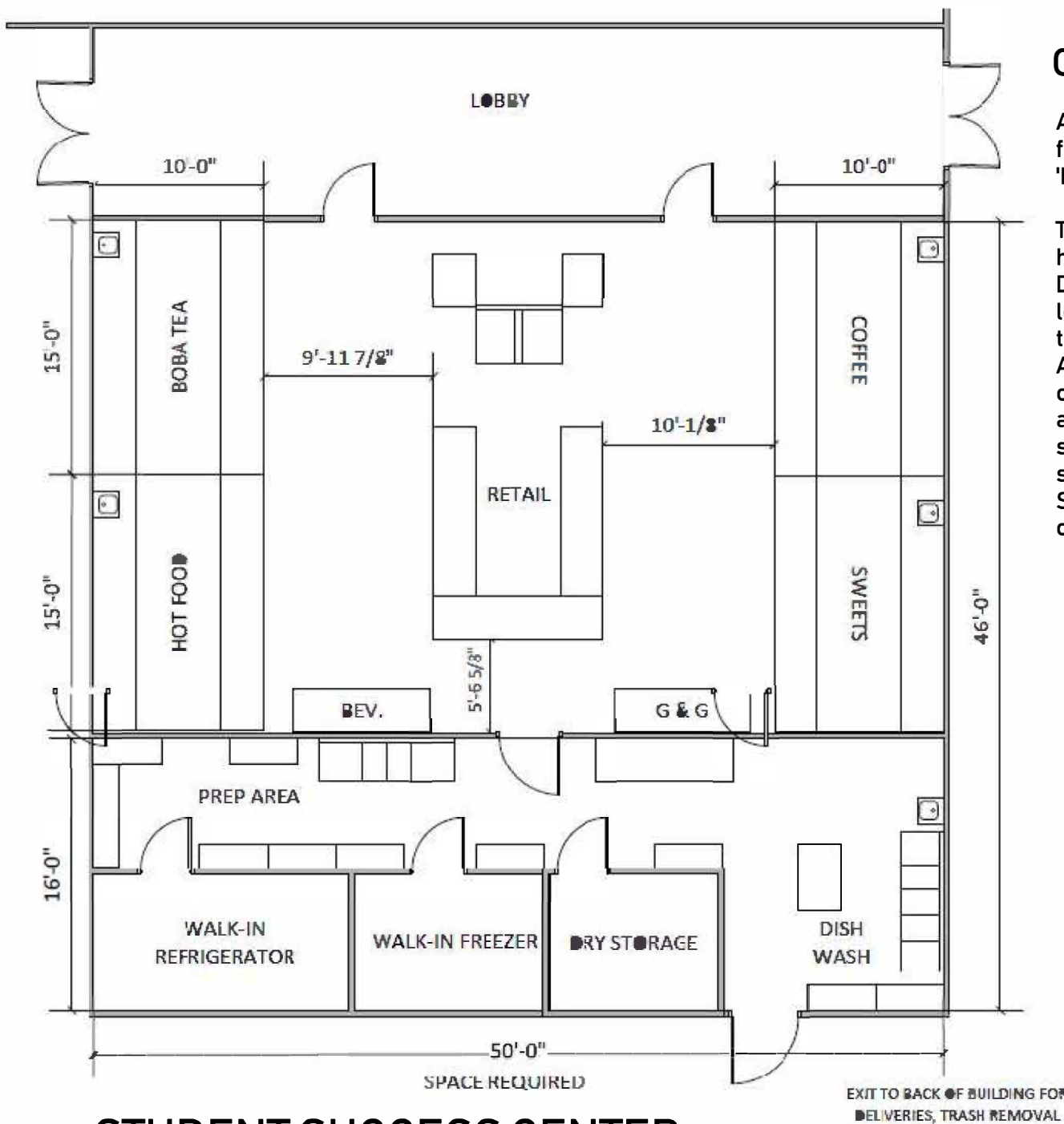
REMARKS: _____

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Conceptual Floor Plan

Auxiliary services has developed this conceptual floor plan diagram to illustrate the proposed 'Market Style Restaurant Concept'.

This diagram is provided only for reference to help explain the desired functionality of the Dining Services space. Layout, platform locations, and themes are subject to change as the food concept and design are developed by Auxiliary Services. The design-Build Entity shall coordinate with Auxiliary Services to provide an appropriately shaped and proportioned shell space to meet the intended functions. Note, the staging area for trash (as indicated in the Shelled space criteria) is not shown in this early conceptual plan.



STUDENT SUCCESS CENTER

Dining Services Venue: Concept Plan

Project Number: 950512

Common Name	Scientific Name	Size spec.	Spacing spec.	Walker Macy Review	Water Notes
Italian Stone Pine	Pinus pinea	15 Gal.		Tree prefers cool summer climates; Not best choice for inland California.	Good drought tolerance.
Arizona Ash	Fraxinus velutina	15 Gal.		California native; Good tree for inland heat; Can be susceptible to Ash decline that will kill the tree.	Moderate drought tolerance.
Chinese Fringe Tree - multi trunked	Chinoanthus retusus	24" Box		Slow growing; low maintenance.	Poor drought tolerance.
Chinese Fringe Tree - multi trunked	Chinoanthus retusus	15 Gal.		Slow growing; low maintenance. Broadleaf evergreen tree; choose smaller growing cultivars; Can be a messy tree since large leathery leaves create persistent litter.	Poor drought tolerance.
Southern Magnolia	Magnolia grandiflora	48" Box		Beautiful California native to stream beds; prefers constant moisture.	Moderate drought tolerance.
Sycamore	Platanus	Existing		Tree prefers cool summer climates; Not best choice for inland California.	Good drought tolerance.
Pine	Pinus pinea	Existing		Semi evergreen Oak; good native landscape companion.	Moderate drought tolerance.
Southern Live Oak 'Heritage'	Quercus virginiana 'Heritage'	15 Gal.		Good desert or native landscape companion; thrives in desert heat.	Excellent drought tolerance.
Palo Verde	Cercidium floridum 'Desert Museum'	24" Box		Needs pruning to develop good form. Good desert or native landscape companion; thrives in desert heat.	Excellent drought tolerance.
Palo Verde	Cercidium floridum 'Desert Museum'	15 Gal.		Needs pruning to develop good form.	Excellent drought tolerance.
ARGENTINE MESQUITE	PROSOPIS ALBA - THORNLESS	36" Box		Excellent heat tolerance; can be messy tree dropping leaves and pods. Select thornless varieties.	Excellent drought tolerance.
STRAWBERRY TREE	ARBUTUS 'MARINA'	24" Box	5'-6' X 4'-5', MULTI-TRUNK	Good native landscape companion; Evergreen; attracts humming birds. Good desert or native landscape companion; thrives in desert heat.	Moderate drought tolerance.
BLUE PALO VERDE	CERCIDIUM FLORIDUM	24" Box	9-11' X 3-4', STANDARD FORM	Needs pruning to develop good form. 'Desert Museum' is thornless variety.	Excellent drought tolerance.
CORK OAK	QUERCUS SUBER	24" Box	8-10' X 3-4', STANDARD FORM	Large evergreen Oak; Good native landscape companion.	Moderate drought tolerance.
JACARANDA PRIMEROSE TREE	JACARANDA MIMOSIFOLIA LAGUNARIA PATERSONII	24" Box	9-11' X 4-5', STANDARD FORM	Heat tolerant; Very fast growing; Very messy tree from pods, leaves and flowers.	Moderate drought tolerance.
RIVER WATTLE	ACACIA SUBPROSA	15 Gal.	7-8' X 2-3', STANDARD FORM	No direct knowledge of this tree.	Moderate drought tolerance.
GRAPEFRUIT	CITRUS 'BLANCO D' ORO'	15 Gal.		Small heat tolerant evergreen tree.	Moderate drought tolerance.
BLACK TEA TREE	MELALEUCA STYPHELOIDES	15 Gal.		Heat tolerant grapefruit tree. Evergreen Australian native.	Good drought tolerance.
CALIFORNIA PEPPER	SCHINUS MOLLE	15 Gal.		Evergreen non native tree that re-seeds in native landscapes. Oils in leaf litter deter understory plant growth.	Excellent drought tolerance.
California Buckeye	Aesculus californica	24" Box		California native; Good native landscape companion.	Moderate drought tolerance.
Tree Aloe	Aloe barberae	24"/48" Box		Tree form of Aloe; Sculptural tree; Good desert landscape companion.	Excellent drought tolerance.
Hercules Aloe	Aloe 'Hercules'	24"/48" Box		Tree form of Aloe; Sculptural tree; Good desert landscape companion.	Excellent drought tolerance.
Arbutus	Arbutus x 'Marina'	24"/36" Box		Good native landscape companion; Evergreen; attracts humming birds. Good desert or native landscape companion; thrives in desert heat.	Moderate drought tolerance.
Palo Verde	Cercidium floridum 'Desert Museum'	24"/36" Box		Needs pruning to develop good form.	Excellent drought tolerance.
Cabbage Palm	Cordyline australis 'Atropurpurea'	24" Box/15-Gal.		Exotic tropical looking plant; needs some shade in the desert.	Moderate drought tolerance.
Modesto Ash	Fraxinus velutina var. glabra	24"/48" Box		California native; Good tree for inland heat; Can be susceptible to Ash decline that will kill the tree.	Moderate drought tolerance.
Brisbane Box	Lophostemon conferta	24"/36" Box		Evergreen Australian native tree; prefers coastal conditions.	Good drought tolerance.
Southern Magnolia	Magnolia grandiflora	24"/36" Box		Broadleaf evergreen tree; choose smaller growing cultivars; Can be a messy tree since large leathery leaves create persistent litter.	Poor drought tolerance.
Southern Magnolia	Magnolia grandiflora 'Russet'	24"/36" Box		Broadleaf evergreen tree; choose smaller growing cultivars; Can be a messy tree since large leathery leaves create persistent litter.	Poor drought tolerance.
Swan Hill Olive	Olea europaea 'Swan Hill'	24"/36" Box		Fruitless Olive Variety; Tough, clean, slowgrowing evergreen.	Excellent drought tolerance.
Canary Island Pine	Pinus canariensis	24"/36" Box		Tolerates desert conditions.	Moderate drought tolerance in the desert.
Afghan Pine	Pinus eldarica	24"/36" Box		Tolerates desert conditions.	Moderate drought tolerance.
Italian Stone Pine	Pinus pinia	24"/36" Box		Tree prefers cool summer climates; Not best choice for inland California.	Good drought tolerance.
Alamo Sycamore	Platanus mexicana 'Alamo'	24"/36" Box		No knowledge of this tree.	
California Sycamore	Platanus racemosa	24"/48" Box		Beautiful California native to stream beds; prefers constant moisture. Non varietals of this tree are prone to weak crotches; has shown tendency to be invasive in Mid West.	Moderate drought tolerance.
Ornamental Pear	Pyrus calleryana	24"/36" Box		Beautiful California native; Good native landscape companion.	Moderate drought tolerance.
Coast Live Oak	Quercus agrifolia	24"/48" Box			Good drought tolerance.
Filibusta Palm	Washingtonia x filibusta	10'/15'-8TH		Fan Palm Tree; heat and wind tolerant. Good desert landscape companion.	Excellent drought tolerance.

Western Sycamore	Plantanus racemosa	15 Gal./24" Box		Beautiful California native to stream beds; prefers constant moisture.	Moderate drought tolerance.
Coast Live Oak	Quercus agrifolia	15 Gal./24" Box		Beautiful California native; Good native landscape companion.	Good drought tolerance.
California Sycamore	Platanus Racemosa	24" Box		Beautiful California native to stream beds; prefers constant moisture.	Moderate drought tolerance.
California Pepper	Schinus Molle	24" Box		Evergreen non native tree that re-seeds in native landscapes. Oils in leaf litter deter understory plant growth.	Excellent drought tolerance.
WEEPING ACACIA	ACACIA PENDULA	24" Box		Small scale, evergreen Australian native tree.	Good drought tolerance.
BRONZE LOQUAT	ERIOBOTRYA DEFLEXA	24" Box		Evergreen tropical appearing tree tolerant of desert conditions.	Moderate drought tolerance.
WILLOW-LEAF PEPPERMINT	EUCALYPTUS NICHOLII	15 Gal.		Evergreen Australian native tree.	Good drought tolerance.
LEMON SCENTED GUM	EUCALYPTUS CITRIODORA	15 Gal.		Evergreen Australian native tree.	Good drought tolerance.
CANARY ISLAND PINE	PINUS CANARIENSIS	15 Gal.		Tolerates desert conditions.	Moderate drought tolerance in the desert.
CALIFORNIA SYCAMORE	PLATANUS RACEMOSA	36" Box		Beautiful California native to stream beds; prefers constant moisture. Can be susceptible to Anthracnose and powdery mildew; neither will kill the tree. Varieties Bloodgood, Exclamation, and Yarwood have good resistance to Anthracnose.	Moderate drought tolerance.
LONDON PLANE TREE	PLATANUS X ACERIFOLIA	15 Gal.			Moderate drought tolerance.
INDIAN HAWTHORN	RHAPHIOLEPIS INDICA	15 Gal.		Small scale, evergreen flowering tree.	Moderate drought tolerance.
PEPPERMINT WILLOW	AGONIS FLEXUOSA	48" Box / 14-16' T	STANDARDS	Evergreen Australian native; prefers coastal conditions.	Good drought tolerance.
HYBRID PALO VERDE	CERCIDIUM 'DESERT MUSEUM'	36" Box / 9-11' T	MULTI-TRUNK STANDARDS MATCH EX. TREES	Good desert or native landscape companion; thrives in desert heat. Needs pruning to develop good form.	Excellent drought tolerance.
ASH TREE	FRAXINUS SP. TO BE DETERMINED	24" Box / 10-12' T			
CHINESE FLAME TREE	KOELREUTERIA BIPINNATA	48" Box / 14-16' T	STANDARDS	Deciduous, flowering tree. Small, tropical looking dwarf palm. Needs shade in the desert.	Moderate drought tolerance.
ROEBELIN PALM	PHOENIX ROEBELINII	30" Box / 3' T	3 TRUNK MULTI		Not drought tolerant.
YEW PINE	PODOCARPUS GRACILIOR	48" Box / 13-15' T	STANDARDS	Evergreen African native.	Moderate drought tolerance.
CORK OAK	QUERCUS SUBER	36" Box 12-14' T	STANDARDS	Large evergreen Oak; Good native landscape companion.	Moderate drought tolerance.
TIPU TREE	TIPUANA TIPU	36" Box / 12-14' T	STANDARDS	Fast growing South American native; prune to promote good structure.	Needs ample water is desert conditions.

Common Name	Scientific Name	Size spec.	Spacing spec.	Walker Macy Review	Water Notes
Cotoneaster	Cotoneaster dammeri	5 Gal.	5' O.C.	Low maintenance; can reseed in adjacent beds increasing maintenance.	Medium drought tolerance.
Chinese Wisteria	Wisteria sinensis	5 Gal.		Aggressive growth requires added maintenance to keep in bounds; produces excessive litter.	Somewhat drought tolerance once established.
Lion's Tail	Leonotis leonurus	1 Gal.		Large shrub; low maintenance; good desert or native landscape companion.	Good drought tolerance.
Carmel Creeper	Ceanothus griseus horizontalis	5 Gal.		Low maintenance; can be short lived with excessive irrigation; excellent native adaptive.	Minimal irrigation once established.
'Bush Gold' Kangaroo Paw	Anigozanthos flavidus 'Bush Gold'	5 Gal.		Good desert or native landscape companion.	Medium drought tolerance.
Sod Lawn		6,877 sq. ft.		Lawn should be limited to sports fields and important campus social spaces.	There are new more reliable and efficient subsurface irrigation options that should be considered.
Seed Lawn Hydroseed "Slope Saver" by Agrono-tec Seed Co. 1.800.543.4109		21,073 sq. ft.		Lawn should be limited to sports fields and important campus social spaces.	There are new more reliable and efficient subsurface irrigation options that should be considered.
FEATHER REED GRASS	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	5 Gal.		Large sterile ornamental grass; won't reseed; cut back in March; long lived.	Moderate drought tolerance.
CAMELLIA	CAMELLIA 'NUCCIO'S GEM'	5 Gal.		High water requirements. Not suited for desert or native landscape.	High water demand.
CAMELLIA	CAMELLIA SASANQUA 'WHITE DOVES'	5 Gal.		High water requirements. Not suited for desert or native landscape.	High water demand.
SILVERBERRY	ELEAGNUS PUNGENS	5 Gal.		Tough aggressive large shrub; requires constant pruning to keep it at manageable size.	Medium drought tolerance.
ROBIN GORDON GREVILLEA	GREVILLEA 'ROBYN GORDON'	5 Gal.		Good desert or native landscape companion. Low maintenance. Australian natives tend to be good candidates for Southern California.	Good drought tolerance.
NEW ZEALAND TEA TREE	LEPTOSPERMUM SCOPARIUM 'PINK PEARL'	5 Gal.		Large but slowing growing shrub; good desert or native landscape companion. Low maintenance.	Good drought tolerance.
NEW ZEALAND FLAX	PHORMIUM 'WINGS OF GOLD'	5 Gal.		Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
NEW ZEALAND FLAX	PHORMIUM 'RADIANCE'	5 Gal.		Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
NEW ZEALAND FLAX	PHORMIUM 'SEA JADE'	5 Gal.		Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
NEW ZEALAND FLAX	PHORMIUM 'JACK SPRATT'	5 Gal.		Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
SWEET BOX	SARCOCOCCA RUSCIFOLIA	5 Gal.		Only grow in shade; not a good desert or native landscape companion.	Not drought tolerant.
AGAPANTHUS	AGAPANTHUS 'ELAINE'	1 Gal.		Low maintenance; good desert or native landscape companion. Needs afternoon shade in Riverside.	Medium drought tolerance.
HUMMINGBIRD BUSH	GREVILLEA THELEMANNIANA 'DWARF GREY'	1 Gal.		Low maintenance; good desert or native landscape companion.	Good drought tolerance.
PINK MUHLY	MUHLENBERGIA CAPILLARIS 'REGAL MIST'	1 Gal.		Low maintenance need to cut back seasonally; good native landscape companion.	Good drought tolerance.
MEXICAN FEATHER GRASS	NASSELLA TENUISSIMA	1 Gal.		Low maintenance need to cut back seasonally; can reseed and become invasive in California.	Good drought tolerance.
N.C.N.	ACACIA REDOLENS 'DESERT CARPET'	4" Flats	12" O.C.	Low maintenance but can outgrow planting bed and need to be cut back; good desert or native landscape companion.	Good drought tolerance.
CARMEL CREEPER	CEANOTHUS G.H. 'YANKEE POINT'	4" Flats	12" O.C.	Low maintenance; can be short lived with excessive irrigation; excellent native adaptive.	Minimal irrigation once established.
PYRENEES COTONEASTER	COTONEASTER CONGESTUS	4" Flats	12" O.C.	Low maintenance; can reseed in adjacent beds increasing maintenance.	Medium drought tolerance.
BEARBERRY COTONEASTER	COTONEASTER DAMMERI 'LOWFAST'	4" Flats	12" O.C.	Low maintenance; can reseed in adjacent beds increasing maintenance.	Medium drought tolerance.
BEARBERRY COTONEASTER	COTONEASTER DAMMERI 'CORAL BEAUTY'	4" Flats	12" O.C.	Low maintenance; can reseed in adjacent beds increasing maintenance.	Medium drought tolerance.
N.C.N.	LANTANA MONTEVIDENSIS - PURPLE	Flats	12" O.C.	Low maintenance; good desert or native landscape companion; tends to get woody and require replacement.	Good drought tolerance.
DWARF PERIWINKLE	VINCA MINOR	Flats	12" O.C.	Invasive species; should never be planted.	Poor drought tolerance.
STAR JASMINE	TRACHELOSPERMUM JASMINOIDES	Flats	12" O.C.	Fast growing; Good candidate for container gardening; Very fragrant.	Poor drought tolerance.
CREEPING RED FESCUE <i>Glen Mor 2 Shrubs:</i>	FESTUCA RUBRA	Seed		Low maintenance; good native landscape companion.	Medium drought tolerance.
Kanagaroo Paw	Anigozanthos 'Bush Gold'	5 Gal.		Good desert or native landscape companion.	Medium drought tolerance.
Eastwood Manzanita	Arctostaphylos glandulosa	5 Gal.		Medium sized shrub; low maintenance; good native landscape companion.	Good drought tolerance.
Big Bery Manzanita	Arctostaphylos glauca	5 Gal.		Large size shrub; low maintenance; good native landscape companion.	Good drought tolerance.
Coyote Bush	Baccharis pilularis	5 Gal.	5' O.C.	Low maintenance; can be short lived with excessive irrigation; excellent native adaptive.	Good drought tolerance.
Bougainvillea	Bougainvillea 'Torch Glow'	5 Gal.	10' O.C.	Fast growing; higher maintenance to keep its shape.	Good drought tolerance.
Mexican Grass Tree	Dasyliroton quadrangulatum	5 Gal.		Large succulent; low maintenance; good desert and native landscape companion.	Excellent drought tolerance.
Fortnight Lily	Diets grandiflora	1 Gal.	3' O.C.	Tough evergreen perennial; good desert and native landscape companion.	Good drought tolerance.
Brittlebush	Encelia farinosa	1 Gal.	15' O.C.	Native evergreen shrub; good native landscape companion.	Good drought tolerance.

Red Yucca	Hesperaloe parvifolia	5 Gal.	5' O.C.	No maintenance; good desert or native landscape companion.	Excellent drought tolerance.
N.C.N.	Philodendron 'Xanadu'	1 Gal.	4' O.C.	Needs full shade; not a good companion for desert or native landscapes.	Not drought tolerant.
Dwarf Variegated Flax	Phormium 'Duet'	5 Gal.	3'-4' O.C.	Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
New Zealand Flax	Phormium 'Jack Spratt'	5 Gal.	3' O.C.	Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
New Zealand Flax	Phormium 'Platt's Black'	5 Gal.	3'-4' O.C.	Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
New Zealand Flax	Phormium 'Surfer'	5 Gal.	3' O.C.	Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
New Zealand Flax	Phormium 'Wings of Gold'	5 Gal.	3'-4' O.C.	Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
Shrub Oak	Quercus berberidifolia	5 Gal.		Large low maintenance shrub; good native landscape companion.	Good drought tolerance.
California Coffeeberry	Rhamnus californica	5 Gal.		Large low maintenance shrub; good native landscape companion.	Good drought tolerance.
Rosemary	Rosmarinus officinalis 'Boule'	5 Gal.	3' O.C.	Low maintenance; good native landscape companion; can get woody over time.	Good drought tolerance.
<u>Glen Mor 2 Succulents:</u>					
Foxtail Agave	Agave attenuata	5 Gal.		Low maintenance; good desert or native landscape companion; needs afternoon shade in Riverside.	Excellent drought tolerance.
Candelabrum Agave	Agave bracteosa	5 Gal.		Low maintenance; good desert or native landscape companion.	Excellent drought tolerance.
Desert Agave	Agave desertii	5 Gal.		Low maintenance; good desert or native landscape companion.	Excellent drought tolerance.
Fan Aloe	Aloe plicatilis	10 Gal.		Low maintenance; good desert or native landscape companion.	Excellent drought tolerance.
Coral Aloe	Aloe striata	5 Gal.		Low maintenance; good desert or native landscape companion.	Excellent drought tolerance.
Narrow-leaf Chalk Sticks	Senecio talinoides ssp. Cylindrica	1 Gal.	3' O.C.	Low maintenance; good desert or native landscape companion.	Excellent drought tolerance.
N.C.N.	Senecio talinoides ssp. Mandraliscae	1 Gal.	2' O.C.	Low maintenance; good desert or native landscape companion.	Excellent drought tolerance.
<u>Glen Mor 2 Grasses:</u>					
Cape Rush	Chondropetalum elphantinum	1 Gal.	5' O.C.	Low maintenance; good native landscape companion.	Medium drought tolerance.
Little Rev Flax Lily	Dianella revoluta 'Little Rev'	2 Gal.		Low maintenance; good desert or native landscape companion.	Good drought tolerance.
Elijah Blue Festuca	Festuca 'Elijah Blue'	4" Pots	12" O.C.	Low maintenance; good native landscape companion.	Good drought tolerance.
Giant Wild Rye	Leymus condensatus 'Canyon Prince'	1 Gal.	5' O.C.	Aggressive and can be difficult to eradicate.	Good drought tolerance.
Libertia	Liberia pergrinans	1 Gal.	2' O.C.	Good low maintenance grass for small areas; good native landscape companion.	Medium drought tolerance.
Deer Grass	Muhlenbergia rigens	1 Gal.		Low maintenance; good native landscape companion.	Good drought tolerance.
<u>Glen Mor 2 Hydroseed Mix:</u>					
Giant Wild Rye	Leymus condensatus 'Canyon Prince'	Hydroseed	<u>LBS / ACRE</u> 15.0	Aggressive and can be difficult to eradicate.	Good drought tolerance.
<u>Glen Mor 2 Arroyo Riparian Landscape:</u>					
<u>(Shrubs):</u>					
Wild Rose	Rosa californica	1 Gal.	15' O.C.	Large native shrub; propensity to sucker and form thickets; can create maintenance problems; good for use in stormwater swales.	Medium drought tolerance.
Arroyo Willow	Salix lasiolepis	1 Gal.	15' O.C.	Fast growing native; good for use in stormwater swales; needs constant moisture; spreads and creates thickets increasing maintenance requirements.	Not drought tolerant.
Gooding's Willow	Salix goodingii	5 Gal.	15' O.C.	Slower growing native willow; excellent for wildlife habitat creation; extensive root system.	Moderately drought tolerance.
White Sage	Salvia apiana	5 Gal.	15' O.C.	Native; bees love this plant; good native or desert landscape companion.	Good drought tolerance.
<u>(Groundcovers):</u>					
Deergrass	Muhlenbergia rigens	Plugs	3' O.C.	Low maintenance; good native landscape companion.	Good drought tolerance.
<u>Glen Mor 2 Arroyo Riparian Scrub Landscape:</u>					
<u>(Shrubs):</u>					
Mule Fat	Baccharis salicifolia	1 Gal.	10' O.C.	Large native shrub forming a thicket; good for use in stormwater swales.	Moderate drought tolerance.
Skunkbrush	Rhus trilobata	1 Gal.	10' O.C.	Native; good native landscape companion.	Excellent drought tolerance.
Wild Rose	Rosa californica	1 Gal.	10' O.C.	Large native shrub; propensity to sucker and form thickets can create maintenance problems; good for use in stormwater swales.	Medium drought tolerance.
Mexican (or Blue) Elderberry	Sambucus mexicanus	5 Gal.	10' O.C.	Large native shrub; excellent for wildlife habitat creation.	Good drought tolerance.
Arroyo Willow	Salix lasiolepis	5 Gal.	10' O.C.	Fast growing native; good for use in stormwater swales; needs constant moisture; spreads and creates thickets increasing maintenance requirements.	Not drought tolerant.
<u>(Groundcovers):</u>					
Deergrass	Muhlenbergia rigens	Plugs	3' O.C.	Low maintenance; good native landscape companion.	Good drought tolerance.
<u>Glen Mor 2 Arroyo Scrub Landscape:</u>					
<u>(Scrub Container Plants):</u>					
California Sagebrush	Artemisia californica	1 Gal.	10' O.C.	This is California sagebrush; rough appearance; poor ornamental landscape qualities.	Good drought tolerance.
Desert Brittlebush	Encelia farinosa	1 Gal.	10' O.C.	Native evergreen shrub; good native landscape companion.	Good drought tolerance.
Golden Yarrow	Eriophyllum confertiflorum	1 Gal.	10' O.C.	Native evergreen perennial; good native landscape companion.	Good drought tolerance.

Scrub Oak	Quercus berberidifolia	5 Gal.	10' O.C.	Evergreen native small Oak; low maintenance; good native landscape companion.	Good drought tolerance.
White Sage	Salvia Apiana	1 Gal.	10' O.C.	Native; bees love this plant; good native or desert landscape companion.	Good drought tolerance.
Our Lord's Candle	Yucca whipplei	1 Gal.	10' O.C.	Large shrub; no maintenance; good desert or native landscape companion.	Excellent drought tolerance.
COFFEEBERRY	RHAMNUS CALIFORNICA	15 Gal.		Large evergreen native shrub; low maintenance.	Good drought tolerance.
WOOLYBUSH	ADENANTHOS MEISNERI	5 Gal.		Evergreen groundcover; could be difficult to source.	Good drought tolerance.
SILVERBERRY	ELEAGNUS PUNGENS	5 Gal.		Tough aggressive large shrub; requires constant pruning to keep it at manageable size.	Medium drought tolerance.
FUSCHIA-FLOWERING GOOSEBERRY	RIBES SPECIOSUM	5 Gal.		Large shrub; low maintenance; good native landscape companion.	Excellent drought tolerance.
FOXTAIL AGAVE	AGAVE ATTENUATA	1 Gal.		Low maintenance; good desert or native landscape companion; needs afternoon shade in Riverside.	Excellent drought tolerance.
N.C.N.	ACACIA TEDOLENS 'LOW BOY'	1 Gal.		Low maintenance but can outgrow planting bed and need to be cut back; good desert or native landscape companion.	Good drought tolerance.
X	COTONEASTER DAMMERI 'LOWFAST'	1 Gal.		Low maintenance; can reseed in adjacent beds increasing maintenance.	Medium drought tolerance.
CARMEL CREEPER	CEANOTHUS G. H. 'YANKEE POINT'	1 Gal.		Low maintenance; can be short lived with excessive irrigation; excellent native adaptive.	Excellent drought tolerance.
FORTNIGHT LILY	DIETES BICOLOR	1 Gal.		Tough evergreen perennial; good desert and native landscape companion.	Good drought tolerance.
SILVERBERRY	ELEAGNUS PUNGENS	1 Gal.		Tough aggressive large shrub; requires constant pruning to keep it at manageable size.	Medium drought tolerance.
SOFT RUSH	JUNCUS EFFUSUS 'QUARTZ CREEK'	1 Gal.		Evergreen rush used in stormwater gardens.	Moderate drought tolerance in Southern California.
JAPANESE SILVER GRASS	MISCANTHUS S. 'MORNING LIGHT'	1 Gal.		Ornamental grass; low maintenance; good native landscape companion.	Moderate drought tolerance.
JAPANESE SILVER GRASS	MISCANTHUS S. 'BABARET'	1 Gal.		Tall ornamental grass; low maintenance; good native landscape companion.	Moderate drought tolerance.
PURPLE MUHLY	MYHLENBERGIA 'REGAL MIST'	1 Gal.		Low maintenance; good native landscape companion.	Good drought tolerance.
WHEELERS DWARF GIANT CHAIN FERN	PITTIOSPORUM TOBIRA 'WHEELER'S DWARF'	1 Gal.		Low maintenance; needs some afternoon shade in Riverside; branches can be brittle when stepped upon.	Medium drought tolerance.
PINK MUHLY	MUHLBERGIA 'REGAL MIST'	1 Gal.		Low maintenance; good native landscape companion.	Good drought tolerance.
SOFT RUSH	JUNCU 'QUARTZ CREEK'			Evergreen rush used in stormwater gardens.	Moderate drought tolerance in Southern California.
N.C.N.	ACACIA REDOLENS 'LOW BOY'	4" FLATS	18" O.C.	Evergreen short lived groundcover; good for erosion control.	Good drought tolerance.
DYMONDIA	DYMONDIA MARGARATAE	FLATS	6" O.C.	Low evergreen groundcover; prefers some afternoon shade.	Good drought tolerance.
SANTA BARBARA DAISY	ERIGERON KARVINSKIANUS	4" FLATS	12" O.C.	Tough flowering groundcover; can reseed; looks best with protection from afternoon sun.	Moderate drought tolerance.
GAZANIA - ORANGE FLOWER	GAZANIA RIGENS LEUCOLAENA	FLATS	12" O.C.	Flowering groundcover; low maintenance.	Moderate drought tolerance.
CORAL BELLS	HEUCHERA MAXIMA	4" FLATS	12" O.C.	Native perennial; plant in shade with protection from afternoon sun; low maintenance.	Moderate drought tolerance.
WESTERN SWORD FERN	POLYSTICHUM MUNITUM	4" FLATS	12" O.C.	Plant in shade with protection from afternoon sun; low maintenance.	Poor drought tolerance.
STAR JASMINE	TRACHELOSPERMUM JASMINOIDES	4" FLATS	12" O.C.	Fast growing; Good candidate for container gardening; Very fragrant.	Poor drought tolerance.
PROSTRATE ROSEMARY	ROSMARINUS OFFICINALIS 'PROSTRATA'	FLATS	12" O.C.	Fast growing evergreen groundcover; can get woody over time; good native landscape companion.	Good drought tolerance.
BLOOD RED TRUMPET VINE	DISTICTIS BUCCINATORIA	15 Gal.		Very fast growing evergreen vine; can be high maintenance if need to control growth.	Moderate drought tolerance.
FOX TAIL AGAVE	AGAVE ATTENUATA 'NOVA'	5 Gal.		Low maintenance; good desert or native landscape companion; needs afternoon shade in Riverside.	Excellent drought tolerance.
STRAWBERRY TREE	ARBUTUS UNEDO	15 Gal.		Large native evergreen shrub; good native landscape companion; low maintenance.	Good drought tolerance.
SILK NET BUSH	CALOTHAMNUS VILLOSUS	5 Gal.		Evergreen shrub; low maintenance; good native landscape companion.	Moderate drought tolerance.
SMALL CAPE RUSH	CHONDROPETALUM TECTORUM	1 Gal.		Evergreen rush; low maintenance.	Moderate drought tolerance.
RED YUCCA	HESPERALOE PARVIFLORA	1 Gal.		No maintenance; good desert or native landscape companion.	Excellent drought tolerance.
YELLOW POKER PLANT	RHAMNUS CALIFORNICA 'EVE CASE'	1 Gal.		Large evergreen native shrub; low maintenance.	Good drought tolerance.
DEER GRASS	MUHLBERGIA RIGENS	1 Gal.		Low maintenance; good native landscape companion.	Good drought tolerance.
NEW ZEALAND FLAX	PHORMIUM 'PINK STRIPE'	5 Gal.		Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
NEW ZEALAND FLAX	PHORMIUM 'JACK SPRATT'	1 Gal.		Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
COFFEEBERRY	RHAMNUS CALIFORNICA 'EVE CASE'	5 Gal.		Large native evergreen shrub; good native landscape companion; low maintenance.	Good drought tolerance.
COAST ROSEMARY	WESTRINGIA FRUTICOSA 'MORNING LIGHT'	5 Gal.		Low maintenance evergreen shrub; good native landscape companion.	Good drought tolerance.
PROSTRATE ACACIA	ACACIA REDOLENS 'DESERT CARPET'	1 Gal.	4' O.C.	Evergreen short lived groundcover; good for erosion control.	Good drought tolerance.
LITTLE SUR MANZANITA	ACRTOSTAPHYLOS EDMUNDSII 'LITTLE SUR'	1 Gal.	2' O.C.	Evergreen groundcover; low maintenance; prefers some shade inland.	Good drought tolerance.

GREEN CAPE FUSCHIA	CORREA REFLEXA 'CAPE CARPET'	1 Gal.	6' O.C.	Evergreen groundcover; low maintenance; good native landscape companion.	Good drought tolerance.
EAST GRAMPIANS GREVILLEA	GREVILLEA ALPINA 'EAST GRAMPIANS'	1 Gal.	4' O.C.	Evergreen shrub; low maintenance; good native landscape companion.	Good drought tolerance.
COASTAL GEM GREVILLEA	GREVILLEA LANIGERA 'COASTAL GEM'	1 Gal.	3' O.C.	Evergreen shrub; low maintenance; good native landscape companion.	Good drought tolerance.
CREEPING MYOPERUM	MYOPERUM PARVIFOLIUM 'PUTAH CREEK'	1 Gal.	18" O.C.	Fast growing evergreen groundcover; good for erosion control; can outgrow its planting bed.	Moderate drought tolerance.
MEXICAN FEATHER GRASS	NASSELLA TENUISSIMA	1 Gal.	2' O.C.	Low maintenance need to cut back seasonally; can reseed and become invasive in California.	Good drought tolerance.
EMERALD CARPET MANZANITA	ACRTOSTAPHLOS 'Emerald Carpet'	1 Gal.	2' O.C.	Excellent native evergreen groundcover; slow to establish; low maintenance.	Good drought tolerance.
<u>GROUNDCOVER MIX 1 - 33% OF EACH, GROUPS OF 2-5:</u>					
SHORT LEAVED ALOE	ALOE BREVIFOLIA	1 Gal.	12" O.C.	No maintenance; good desert or native landscape companion.	Excellent drought tolerance.
<u>GROUNDCOVER MIX 2 - 33% OF EACH, GROUPS OF 2-5:</u>					
SHORT LEAVED ALOE	ALOE BREVIFOLIA	1 Gal.	12" O.C.	No maintenance; good desert or native landscape companion.	Excellent drought tolerance.
<u>SRCX GROUND COVERS:</u>					
N.C.N.	ACACIA REDOLENS 'LOW BOY'	1 Gal.	72" O.C.	Evergreen short lived groundcover; good for erosion control.	Good drought tolerance.
N.C.N.	MYOPORUM PARVIFOLIUM	Flats	12" O.C.	Fast growing evergreen groundcover; good for erosion control; can outgrow its planting bed.	Moderate drought tolerance.
<u>SRCX SHRUBS:</u>					
DWARF RIVER WATTLE	ACACIA SUBPOROSA 'MINI COG'	5 Gal.		Small evergreen shrub; low maintenance; good native landscape companion.	Good drought tolerance.
KANGAROO PAWS	ANIGOZANTHOS 'BIG RED'	5 Gal.	24" O.C.	Good desert or native landscape companion.	Medium drought tolerance.
MYER ASPARAGUS	ASPARAGUS MYERII	5 Gal.		Low maintenance evergreen perennial.	Moderate drought tolerance.
CAST IRON PLANT	ASPIDISTRA ELATIOR	5 Gal.		Low maintenance; grow in full shade.	Moderate drought tolerance.
ALFONSE KARR BAMBOO	BAMBUSA 'ALFONSE KARR'	24" Box		Clumping bamboo; difficult to remove once established.	Moderate drought tolerance.
YELLOW BIRD OF PARADISE	CAESALPINIA GILLIESSII	15 Gal.		Fast growing shrub; not tolerant of wind due to brittle wood; fairly high maintenance due to pod cleanup, removal of volunteer seedlings.	Good drought tolerance.
N.C.N.	COPROSMA 'MARBLE QUEEN'	5 Gal.		Evergreen shrub; needs part shade in Southern California.	Moderate drought tolerance.
MEXICAN GRASS TREE	DASYLIRION LONGISSIMUM	15 Gal.		Large succulent; low maintenance; good desert and native landscape companion.	Excellent drought tolerance.
VARIEGATED LILY TURF	LIRIOPE VARIEGATA	1 Gal.	24" O.C.	Evergreen grass like perennial; needs to be planted in the shade in Southern California.	Moderate drought tolerance.
MEXICAN FEATHER GRASS	NASSELLA TENUIFOLIA	1 Gal.	30" O.C.	Low maintenance need to cut back seasonally; can reseed and become invasive in California.	Good drought tolerance.
HYBRID FLAX	PHORMIUM 'YELLOW WAVES'	15 Gal.		Low maintenance; good desert or native landscape companion.	Medium drought tolerance.
WHITE INDIA HAWTHORN	RHAPHIOLEPIS UMBELLATA MINOR	5 Gal.		Low maintenance evergreen shrub; good native landscape companion.	Good drought tolerance.
N.C.N.	YUCCA RECURVIFOLIA VARIEGATA	5 Gal.		No maintenance; good desert or native landscape companion.	Excellent drought tolerance.
<u>SRCX SPECIMEN SUCCULENTS:</u>					
A MEDIOPICTA ALBA	AGAVE				
VILMORIANA	AGAVE	15 Gal.	SPOTTED / L. ARCHT.	Low maintenance succulents; good desert landscape companion.	Excellent drought tolerance.
FILAMENTOSA	YUCCA				
<u>SRCX SPECIMEN SUCCULENTS:</u>					
'BLUE FLAME' (THORNLESS)	AGAVE	5 Gal.	SPOTTED / L. ARCHT.	Low maintenance succulents; good desert landscape companion.	Excellent drought tolerance.
AGAVE 'MATEO' (THORNLESS)					
<u>SRCX VINES:</u>					
RED YUCCA	HESPERALOE PARVIFLORA	1 Gal.		No maintenance; good desert or native landscape companion.	Excellent drought tolerance.
BLOOD RED TRUMPET VINE	DISTICTIS BUCCINATORIUS	15 Gal.		Very fast growing evergreen vine; can be high maintenance if need to control growth.	Moderate drought tolerance.

Benchmark-based, Whole-Building Energy Performance Targets for UC Buildings

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Benchmark-based, Whole-Building Energy Performance Targets for UC Buildings

I. Introduction

The University of California (UC) is a leader in energy efficiency for buildings. The UC Sustainable Practices Policy mandates that all new building projects, other than hospitals, shall be designed, constructed, and commissioned to outperform the California Building Code (CBC) energy-efficiency standards (aka, Title 24) by at least 20%. An energy performance metric based on a percentage beyond code has a number of limitations, however, and UCOP is proposing a complementary method of designing for energy efficiency using benchmark-based, whole-building energy performance targets.

Benchmark-based, whole building energy performance targets are becoming the best practice method for designing energy efficient and zero net energy buildings. National leaders in energy research, such as the National Renewable Energy Laboratory (NREL), are embracing these targets as the most holistic method for designing high-performance buildings. There are several advantages to energy performance targets, including a static baseline (to allow for comparison of buildings over time), the ability to capture energy use and efficiency for all building energy loads (not just the loads regulated by code), and the ability to carry design targets through to operations. In addition, benchmarks available for UC campuses provide targets that address peak demand. For these reasons, the UC campuses are encouraged to adopt whole-building energy performance targets in their building design process, to help maintain UC's leadership in energy efficiency.

UC Merced has been using whole-building energy performance targets since its founding and has had great success in delivering buildings with very energy efficient designs that perform to those design targets in their ongoing operations. The targets are expressed as a percent of a baseline and cover all critical design parameters including annual and peak electric and natural gas use, as well as peak chilled water loads (Brown 2002, Brown et al. 2010). The baselines reflect the 1999 benchmark energy performance of existing building stock for similar buildings, corrected for local climate. They were derived using a regression analysis of actual energy data collected in 1999 at several UC and California State University (CSU) campuses.

In 2011, the system was introduced at UC San Francisco for use in UCSF's new design guidelines at the Mission Bay campus. The 1999 benchmarks were validated by being compared to metered data at existing UCSF buildings. This provided confirmation for using the same method to establish benchmark-based baselines and targets at all UC campuses, which have consequently been developed.

II. The need for benchmark-based whole building energy performance targets

Energy incentive programs, green building rating systems, and energy labeling programs are commonly based on a percentage of energy savings beyond the code maximum energy allowance. The UC Sustainable Practices Policy states that all new building projects are to outperform CBC energy efficiency standards by 20%. This approach has worked reasonably well, but percent savings can become confusing as energy codes become more stringent, especially if policy makers move to set goals for zero net-energy buildings—requiring both deep energy efficiency and renewable energy sources to “net out” the remaining energy use.

A percentage savings beyond code is relative to a moving baseline, as the code is regularly updated per statute and the more stringent standards are enabled by technological advances. California updates to energy efficiency standards in 2001, 2005, and 2008 reduced maximum energy use from between 5% to 8%. For the 2013 update the energy use reduction is predicted to be closer to 20%. Early green buildings claimed savings of 40% or more relative to the CBC at the time that they were built, but many of these buildings would fail to comply with the 2008 and 2013 CBC (Eley et al. 2011).

Whole-building energy performance targets can be based on a static baseline – in this case, the UC benchmarks developed from the 1999 UC/CSU building stock. As new energy efficiency technologies and approaches become available, the target for new buildings can be moved as appropriate to continue making progress toward zero-net energy buildings. The baseline will stay the same, however, allowing for easy evaluation of energy efficiency across buildings and over time.

Percent savings beyond code is also a limited measure because not all of the energy used in buildings is regulated by the CBC. In past code cycles, regulated energy only included heating, cooling, hot water, and interior lighting. Process energy, plug loads, commercial refrigeration, and other non-regulated energy uses were not included because the codes did not establish a baseline for these end uses. In the 2013 code cycle, fan and pump energy and some process loads are included in the energy efficiency standards for the first time. However, much of the building energy use remains unregulated, an estimated 30% averaged across all building types. This creates uncertainty as to whether percent savings includes all building loads or only those regulated, and does not incentivize taking energy efficiency measures on unregulated loads (Eley et al. 2011). Whole-building energy performance targets are based on total energy use and by definition include all building loads.

In addition, whole-building energy performance targets are easier to verify in operations because they are not dependent on the modeling assumptions of a baseline case. Measured verification enables campuses to gain a better understanding of which energy efficiency measures are most effective. It also provides measured evidence for the fact that energy efficiency in new construction projects is oftentimes more cost-effective than later retrofits. Furthermore, whole-building energy performance targets can be carried through to operations and they are much more integrated with UC's climate action policy, as they provide a method of predicting and verifying greenhouse gas emissions of new buildings.

For these reasons, national leaders in energy efficiency, such as NREL, are adopting benchmark-based whole-building energy performance targets as the method of designing for energy efficient buildings. Whole-building energy performance targets are a vital element in continuing UC leadership in building energy efficiency and reaching the University's and climate goals.

III. Development of Benchmarks

The 1999 UC/CSU building energy benchmarks were developed using whole-campus energy use and floor area data from eight UC and CSU campuses (UC Berkeley, UC Davis, UC Irvine, UC Riverside, UC San Diego, UC Santa Barbara, CSU Fresno, CSU Stanislaus), including both annual use/output and peak observed use/output. This utility and space data was combined with corresponding data on the wide range of combinations of district heating and cooling, heating and cooling plants, cogeneration, and thermal energy storage systems to create a consistent data set of energy loads per unit floor area from buildings, independent of campus energy infrastructure.

This building energy load data correlated reasonably well with climate parameters and with density of buildings containing complex space (e.g., labs). Therefore, it was possible to create regressions to project campus loads at UC Merced during the design of the first buildings and infrastructure. It was also possible to do a simple disaggregation of use based on building type (complex vs. non-complex). A further delineation was made between non-complex classroom/office and housing building types, with the former using a disproportionately high amount of electricity and the latter a disproportionately high amount of natural gas.

Though the building-level energy performance benchmarks are independent of the infrastructure serving the buildings, in a campus setting variability remains in the types of loads from the buildings (e.g., natural gas and/or district hot water/steam, chilled water and/or electricity) and the point of measurement (e.g., at the building or at the campus meter). The benchmarks presented here are for the most straightforward combinations of loads from campus buildings, with notes provided on how to adjust the benchmarks for other variations. The following notes apply to use of the benchmarks:

- 1) All heating loads are served by gas (e.g. there is no electric resistance or heat pump heating in the building). Heating loads are typically associated with natural gas use, with boilers in buildings considered equivalent to district hot water systems. For district steam systems, extra losses need to be considered for steam distribution and energy conversion to hot water within the buildings.
- 2) All cooling loads are served by electricity (e.g. there are no absorption or steam-turbine driven chillers in the building). Annual energy use for cooling is typically associated with electricity use, either with chillers in the building or with a district chilled water system. However, if the building is served by a district chilled water system, peak demand is separated out as a chilled water load.

IV. Experience at UC Merced

The regression-based projections have been validated by measurement of actual UC Merced energy use at both the campus and building levels, with one exception for which an update was implemented. The campus set progressive whole-energy performance targets, below the 1999 benchmarks developed by the regression. The first 600,000 gsf had a target of 80% of benchmark and the next 600,000 gsf had a target of 65% of benchmark. Buildings are currently being designed with a target of 50% of benchmark. (An exception is maximum thermal load, which has remained at 80% of benchmark.)

The actual measured campus use has tracked just below the level that would be predicted for buildings meeting the targets, on a floor area basis. This is currently around 70% of benchmark with a blend of occupied 80% and 65% target buildings. Actual peak electricity demand is tracking far below predictions. Maximum chilled water load is tracking predictions. The Classroom and Office Building and Science and Engineering I have both been studied in more detail and the as-operated measured performance has been substantially better than the design targets (61-62% of benchmarks reflecting total source energy use, NBI 2009a, NBI 2009b).

The first UC Merced campus buildings might now be considered in some ways better benchmarks than those derived from the existing UC/CSU campus load study. Use is measured at the building level and there is no need to adjust for climate. However, the “sample size” is bigger for the 1999 UC/CSU benchmarks and there is value in maintaining static baseline, as it allows buildings to be compared over time. Moreover, the 1999 UC/CSU benchmarks align in time with the national building energy benchmarks provided by the 2003 CBECS (Commercial Buildings Energy Consumption Survey) database. Therefore, UC Merced has chosen to maintain the original benchmarks as the primary reference for current building design.

V. Expanding whole-building energy performance targets to other UC campuses

The process of developing building energy benchmarks used by UC Merced was adapted for use by UC San Francisco in 2011, and climate-adjusted, benchmark-based performance targets were used in the design-build proposal process for the Mission Bay Faculty Office Building. San Francisco sites are an “extrapolation” in the sense that the climate is slightly milder than any of the campus sites from the original load study. Therefore, an extra validation step was taken, comparing the benchmarks with metered data from UCSF buildings. The analysis suggested that the existing system of benchmarks can be used for UCSF, with adjustments for buildings using steam (e.g., Parnassus campus and Mt. Zion facilities), along with adjustments for sub-metering of electricity use at low distribution voltages at the building (the original system of benchmarks is based on master-metering at the campus level). Please see Appendix I for further details.

Based on the success of developing appropriate building energy use benchmarks at UC Merced and UC San Francisco and designing to whole-building energy performance targets at UC Merced, UCOP has applied the same method to develop benchmark-based baselines and targets for all UC campuses. Further details on this method are provided in Appendix II. Table 1 presents the baselines and Table 2 presents the targets equivalent to those currently being used at UC Merced (50% of benchmark, except for maximum thermal load at 80% of benchmark).

Table 1: UC Building 1999 Energy Benchmarks by Campus – Baseline for Targets

	Annual Electricity kWh/gsf/yr Includes prorated part of plant use and site lighting	Maximum Power W/gsf Includes prorated part of small peak (pumping) load at plant	Max. Chilled Water tons/kgsf Load on plant	Annual Thermal therms/gsf/yr Includes prorated part of plant use	Max. Thermal therms/hr/kgsf Includes prorated part of plant use
Academic/Administrative Non-complex Space					
Berkeley	11.2	3.1	N/A	0.21	0.12
Davis	13.3	3.3	2.5	0.20	0.12
Irvine	13.0	2.6	1.93	0.16	0.12
Los Angeles	12.3	2.3	1.72	0.17	0.12
Merced	14.3	3.5	2.6	0.20	0.12
Riverside	13.9	3.3	2.5	0.18	0.12
San Diego	12.2	2.2	1.66	0.16	0.12
San Francisco Parnassus	11.1	2.0	1.51	0.21	0.12
San Francisco Mission Bay	11.4	3.1	N/A	0.21	0.12
Santa Barbara	11.5	2.2	1.66	0.19	0.12
Santa Cruz	11.1	3.2	N/A	0.23	0.12
Housing Non-complex					
Berkeley	7.8	2.1	N/A	0.30	0.18
Davis	9.3	2.3	1.75	0.29	0.18
Irvine	9.1	1.79	1.35	0.23	0.18
Los Angeles	8.6	1.60	1.20	0.24	0.18
Merced	10.0	2.4	1.82	0.28	0.18
Riverside	9.7	2.3	1.75	0.26	0.18
San Diego	8.6	1.55	1.17	0.23	0.18
San Francisco Parnassus	7.8	1.40	1.06	0.30	0.18
San Francisco Mission Bay	8.0	2.1	N/A	0.30	0.18
Santa Barbara	8.0	1.55	1.17	0.28	0.18
Santa Cruz	7.8	2.2	N/A	0.32	0.18
Lab/Complex Space					
Berkeley	36	7.6	N/A	1.83	0.43
Davis	38	6.3	4.7	1.83	0.43
Irvine	38	5.6	4.2	1.78	0.43
Los Angeles	37	5.4	4.1	1.79	0.43
Merced	39	6.4	4.8	1.82	0.43
Riverside	38	6.3	4.7	1.80	0.43
San Diego	37	5.3	4.0	1.78	0.43
San Francisco Parnassus	36	5.2	3.9	1.84	0.43
San Francisco Mission Bay	36	7.6	N/A	1.84	0.43
Santa Barbara	36	5.3	4.0	1.81	0.43
Santa Cruz	36	7.6	N/A	1.85	0.43
Building-Specific Adjustments					
Unique situations such as Santa Cruz’s district condenser water system and Berkeley’s interconnected building chillers and absorption chillers may require custom adjustments.	Annual chilled water use is typically associated with electricity use and is included in this value.	For campuses with district chilled water (e.g. Davis), if a specific building has a chiller instead, multiply value by (1/0.7) or 1.43 to account for the chiller’s electric load.	Only applicable if building supplied by district chilled water system.	These values are directly applicable to buildings with boilers in the building or connected to (low-loss) district hot water systems (non-steam). They can be applicable to buildings connected to district steam systems if additional losses characteristic of steam systems is accounted for where appropriate. For example, 50% extra use from trap/exchanger losses within the building plus 50% extra use from trap/leakage losses in distribution systems has been commonly observed.	
	These values may be slightly lower than previously published values (i.e. for UC Merced) because they reflect load on the building meter (480 V) instead of at the campus meter (12 kV). To reflect load on campus meter, increase value by 1.05 (to account for distribution and transformation losses).				

Table 2: UC Building Energy-Performance Targets by Campus

	Annual Electricity kWh/gsf/yr Includes prorated part of plant use and site lighting	Maximum Power W/gsf Includes prorated part of small peak (pumping) load at plant	Max. Chilled Water tons/kgsf Load on plant	Annual Thermal therms/gsf/yr Includes prorated part of plant use	Max. Thermal therms/yr/kgsf Includes prorated part of plant use
Academic/Administrative Non-complex Space					
Berkeley	5.6	1.53	N/A	0.10	0.10
Davis	6.7	1.66	1.25	0.10	0.10
Irvine	6.5	1.28	0.96	0.081	0.10
Los Angeles	6.2	1.14	0.86	0.085	0.10
Merced	7.2	1.73	1.30	0.10	0.10
Riverside	6.9	1.66	1.25	0.090	0.10
San Diego	6.1	1.11	0.83	0.080	0.10
San Francisco Parnassus	5.6	1.00	0.75	0.11	0.10
San Francisco Mission Bay	5.7	1.53	N/A	0.11	0.10
Santa Barbara	5.7	1.11	0.83	0.10	0.10
Santa Cruz	5.6	1.58	N/A	0.11	0.10
Housing Non-complex					
Berkeley	3.9	1.07	N/A	0.15	0.14
Davis	4.7	1.16	0.88	0.15	0.14
Irvine	4.5	0.90	0.67	0.12	0.14
Los Angeles	4.3	0.80	0.60	0.12	0.14
Merced	5.0	1.21	0.91	0.14	0.14
Riverside	4.9	1.16	0.88	0.13	0.14
San Diego	4.3	0.77	0.58	0.11	0.14
San Francisco Parnassus	3.9	0.70	0.53	0.15	0.14
San Francisco Mission Bay	4.0	1.07	N/A	0.15	0.14
Santa Barbara	4.0	0.77	0.58	0.14	0.14
Santa Cruz	3.9	1.11	N/A	0.16	0.14
Lab/Complex Space					
Berkeley	18.0	3.8	N/A	0.92	0.34
Davis	18.9	3.1	2.4	0.91	0.34
Irvine	18.8	2.8	2.1	0.89	0.34
Los Angeles	18.5	2.7	2.0	0.89	0.34
Merced	19.3	3.2	2.4	0.91	0.34
Riverside	19.1	3.1	2.4	0.90	0.34
San Diego	18.4	2.7	2.0	0.90	0.34
San Francisco Parnassus	18.0	2.6	1.94	0.92	0.34
San Francisco Mission Bay	18.1	3.8	N/A	0.92	0.34
Santa Barbara	18.1	2.7	2.0	0.91	0.34
Santa Cruz	18.0	3.8	N/A	0.93	0.34
Building-Specific Adjustments					
Unique situations such as Santa Cruz’s district condenser water system and Berkeley’s interconnected building chillers and absorption chillers may require custom adjustments.	Annual chilled water use is typically associated with electricity use and is included in this value.	For campuses with district chilled water (e.g. Davis), if a specific building has a chiller instead, multiply value by (1/0.7) or 1.43 to account for the chiller’s electric load.	Only applicable if building supplied by district chilled water system.	These values are directly applicable to buildings with boilers in the building or connected to (low-loss) district hot water systems (non-steam). They can be applicable to buildings connected to district steam systems if additional losses characteristic of steam systems is accounted for where appropriate. For example, 50% extra use from trap/exchanger losses within the building plus 50% extra use from trap/leakage losses in distribution systems has been commonly observed.	
	These values may be slightly lower than previously published values (i.e. for UC Merced) because they reflect load on the building meter (480 V) instead of at the campus meter (12 kV). To reflect load on campus meter, increase value by 1.05 (to account for distribution and transformation losses).				

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Appendix I: Analysis of application of 1999 UC/CSU Benchmarks to UC San Francisco

Accounting for steam system losses at some sites (Parnassus and Mt. Zion) and with one significant outlier (Byers Hall), UCSF energy use patterns are consistent with the 1999 UC/CSU benchmark-based regression data used to develop the energy use benchmarks and targets for UC Merced.

A. Buildings Served By Steam Systems

Significantly higher steam (equivalent natural gas) use on the Parnassus campus and for the Mt. Zion facility can be explained by typical in-building losses associated with the district steam system at those sites. Our study of other California campuses indicates that losses from district steam systems roughly double the equivalent natural gas use compared with any other type of infrastructure (e.g., in-building boilers or hot water distribution). One plausible explanation for the higher gas use at the Parnassus and Mt. Zion sites is that roughly half of the typical steam losses are between the plant and the building, with the other half being on the building side of the steam metering and observed in the data.

Benchmarks and targets for equivalent natural gas use should be adjusted upward by 50% to account for steam distribution losses inside buildings served by district steam systems at UCSF (e.g., Parnassus Campus buildings). However, this will have no net effect on the end-use system design goals as design teams should concurrently be instructed to add 50% to their design analysis to account for the potential losses. Of course, design teams should also be encouraged to design for minimum losses on the building side of the steam meter, targeting a level well below benchmark.

B. Accommodation of Large Process Systems

Byers Hall is a significant outlier for electricity use at roughly 160% of the climate-adjusted benchmark. This is explained by the presence of large Magnetic Resonance Imaging units and associated cooling systems. (It should also be noted that the adjacent Byers Hall, Genentech Hall and Community Center are partially conjoined with some HVAC services supplied by common systems.) In a situation where an unusually large process system will be included or added to a building (e.g., MRI, data center, clean room) it is recommended that energy use analysis of such a system be done separately, and the benchmark-based targets are applied to the balance of the building.

C. Adjustment for Electric Metering at the Building

UCSF electricity use data was obtained as metered at the building at distribution voltage (480V). The 1999 UC/CSU Benchmarks were developed to correspond to the portion of campus metered electricity use attributable to the building, inclusive of distribution and transformation losses between the campus meter and the building. This caused some minor confusion in the UC Merced design analysis and subsequent performance measurement process. In order to avoid that in the application of future benchmarks, a 5% decrease in the climate adjusted benchmarks can be applied for direct application to the design process. It should also be noted that the benchmarks are inclusive of all unattached site lighting allocated to the building targets. If a significant portion of unattached site is not associated with the building designs, then the benchmarks and targets will be slightly conservative on the high side.

D. Acute Care Facilities and Complex (Wet Lab) Building Benchmarks

The adjustments already implemented and mentioned above are necessary to adapt to UCSF conditions. UCSF acute care facilities have roughly the same energy footprint as the other complex (wet laboratory) buildings. If the above adjustment is made for buildings served by district steam systems, it appears the benchmarks and targets for buildings containing wet laboratory space might be useful for acute care facilities. However, because of the limited data set so far examined, medical centers are encouraged to supplement benchmarks with their own data.

Appendix 2: Method used to calculate whole-building energy use benchmarks at UC campuses**1. Climate Data**

Identify historic climate data for campus site using same references as were used for original derivation of benchmarks. See “University of California, Merced Campus Energy Planning Module I: Preliminary Load Projections. Working Draft. 2000” for the original references. The following independent climate variables are included

- Cooling Design Temperature (deg F, 0.4% design temperature for 35 hours of exceedence)
- Cooling Degree-Days base 65 deg F
- Heating Degree Days base 65 deg F

2. Apply Regression Formula

Set lab building fraction to 0% for non-lab (non-complex) building benchmarks.

Set lab building fraction to 100% for lab (complex) building benchmarks.

Obtain campus-level benchmarks for:

- Maximum power (W/gsf, chillers in buildings)
- Annual Electricity Use (kWh/gsf/yr)
- Maximum Thermal (therms/hr/kgf)
- Annual Thermal (Therms/gsf/yr)

3. Apply Concurrence Fraction(s) to Account for Load Diversity at Building Level

For electric and thermal maximum benchmarks, convert from campus level to building level by applying concurrence fraction(s) to account for load diversity. A 90% concurrence factor was originally assumed for maximum electric (including both electricity and chilled water for a district cooling campus) and thermal (natural gas) load. Based on measurements of chilled water diversity at UC Merced, the concurrence factor has been updated to 84% for all maximum loads at the building level.

4. Apply Adjustment for Increasing Summer Occupancy

The benchmarks were developed primarily from quarter-term campuses (except Berkeley) with the typical partial summer occupancy. Early UC Merced planners insisted that UC Merced would almost immediately become the first (non-medical center) campus to operate a summer quarter with equivalent campus population to the other three quarters. Therefore, an adjustment was made to the benchmarks for this increase in summer use over the benchmark campuses. Ten percent is added to the maximum power benchmark and 2% is added to the annual electricity use benchmark.

Soon thereafter, the 1st Chancellor took a decision to go to the semester system, starting in August and finishing the first semester before the winter holidays. This shift, along with the hot summer weather, decreased momentum toward full year-round operation.

However, the adjustments to the benchmarks were maintained and are carried through to the present. Electric and chilled water loads for the August start are almost as high as the slightly hotter part of the summer. The 2% adjustment to the electricity benchmark is considered de minimis. Taking away these adjustments would have seemed like a take-back to the campuses designers challenged by the benchmark-derived targets.

The next application of the benchmarks at UCSF was for a medical campus that has something approaching year-round operation. So the adjustment was maintained. The adjustment has been maintained for other campuses for simplicity.

5. Split Between Peak Electricity and Chilled Water for a District Cooling Campus

For a campus with district cooling (and in some cases thermal energy storage (TES)) the peak electric benchmark must be split at the building level between the electricity peak and the maximum chilled water demand. This is the fraction of the electric peak that is shiftable off-peak with TES.

The split at the benchmark campuses with district cooling appeared to be ~25% chilled water maximum and 75% electricity peak from fans, pumps, lights, and plug load—based on a generic chiller performance metric of 0.6kW/ton. Based on a pattern of easily meeting electricity peak targets and relative difficulty meeting chilled water peak targets at UC Merced, the split has been adjusted to 30% chilled water maximum and 70% electric peak.

6. Distinction between Academic Buildings and Housing

For non-laboratory buildings, to account for higher electricity usage in “commercial”-type classroom, office, and library buildings, as well as higher gas usage in “residential”- type buildings. Electricity benchmarks for housing are set at 70% of the level of non-residential” buildings by multiplying the basic non-laboratory benchmark by the square root of the 70% factor and electricity benchmarks for non-residential buildings dividing the basic non-laboratory benchmark by the square root of the 70%.

The inverse process is used to account for higher gas usage in residential buildings than in “commercial” buildings.

7. Adjusting for Building Metering

The benchmarks are derived from data collected at the campus meter at approximately 12 kV. There are distribution and transformation losses between the campus meter and building meter, which is at approximately 480 V. To reflect these losses, the benchmarks are reduced by 5%.

8. Floor Area Definition

The UC floor area definition used in development of the benchmarks is REVOGSF50.

9. Building Classifications

At UC Merced, the following building types were classified as having “complex”-level benchmarks, though they may not be classified as containing “complex” space in the UC space database:

- Telecom
- Plant (as a Building)
- Food Service
- Rec Center (Natural Gas Benchmark/Target)