Cal Poly – Construction Management
Senior Project Proposal Form

Instructions: Prior to admission to CM462 students (with junior or senior standing) must complete this form in detail to the satisfaction of both the SPD (Senior Project Director) and self-chosen SME (Subject Matter Expert). Expect multiple renditions of this document to occur prior to final acceptance, which must be achieved before the ADD/DROP date for the quarter submitting. Failure to achieve this final acceptance in time will likely result in attempting this process again next quarter.

STUDENT INFORMATION:

Student Name: 
Student ID #: 
Student Address: 
Student E-mail: 
Student Phone: 
CM461 (complete with passing grade): Winter/2014
CM462 (planned admission): Spring/2014
Graduation Date (expected): Spring/2014

Proposed SME (Subject Matter Expert): Phil Barlow

PROJECT TYPE:

Type of Senior Project Proposed: Research Based
Type of SP (Identify Sub-Category): Case Study (Multiple Cases)
Working Title of Senior Project: Dealing with the effects of San Francisco’s mandatory seismic retrofit ordinance regarding wood framed residential buildings with a soft-story condition, from a building owner’s perspective.

Organization of Project: Individual
If Group Identify Other Students: N/A

PROJECT DETAILS:

Project Description: For my Senior Project I plan to analyze the effects/impacts of the new seismic retrofit ordinance in San Francisco, focusing on building owners and tenants of 3+ story, 5+ unit soft story wood framed residential buildings. The new ordinance has plenty of implications that will affect building owners, especially dealing with the costs to retrofit and how those costs can be passed on to tenants. I plan on interviewing at least three building owners that are affected by the ordinance and comparing how they are dealing with it, what steps are most troublesome in the process of retrofitting to meet the requirements of the ordinance, and how they plan to pay for the retrofits. I will also try to interview a few tenants of these buildings to get their opinions on how these retrofits are impacting them. There are 2,800 residential buildings that will need to be seismically retrofitted due to the new ordinance in San Francisco.
regarding soft-story, or open ground story, buildings. I want to analyze how building owners are dealing with these retrofits and what problems they are having with the process and how they plan to pay for the projects. There are several components that owners are going to deal with such as figuring out which retrofit method is most applicable for their buildings, the process of hiring a design professional and contractor, obtaining permits and getting plans approved, how to mitigate the impact on occupants of their buildings, how they plan to pay for the projects, and the ability and provisions of passing on the costs of the retrofit to building tenants through higher rent, etc.

Purpose of Project or Research: I want to analyze the impacts of the ordinance by interviewing building owners and comparing their methods and identifying problems with meeting the requirements of the ordinance.

Objectives Project or Research: Determine some common problems within the process of meeting the requirements of the ordinance and identify or suggest methods for solving these problems.

Hypothesis of Research: Building owners in San Francisco are going to have common problems and issues while going through the process of seismically retrofitting to meet the requirements of the new ordinance.

Methodology of Research: The research strategies that I plan to use to complete my project are to start with qualitative research by using both exploratory research through an interview, to find out a little more of the details about my topic, then use attitudinal research also by interviewing various building owners and tenants to see how they feel about the whole process of retrofitting their buildings and how they plan to deal with the associated costs, methods of retrofitting, and also find out some common problems between the various people that I interview. From here I may realize that there are some commonalities among the results of the interviews and I might develop a theory regarding my topic and want to utilize quantitative research by developing a survey to send out to 30 different people including building owners and tenants. I believe that I will find commonalities among my results and be able to dwell on these commonalities in order to represent problems with the conforming to the ordinance and also suggest some solutions on how to mitigate these problems and make the process easier for everyone who is affected by the new ordinance.

I plan to utilize fieldwork research, mainly explanatory research but also a little descriptive research, as my approach to data collection. I will start with the case study approach by focusing interviews on 3-5 building owners and tenants that are, or will, be affected by the new ordinance. From here I plan to be able to show linkages among the results I obtain by asking why things happen the way they do and study the relationship of the results that I get from the various people that I interview.

I want to interview building owners and tenants that are, will be, or have already been affected by the new seismic retrofit ordinance. I will start with a somewhat unstructured/semi structured interview in order to explore some of the main factors that these people are dealing with. I assume that these initial interviews will guide me to about 5-10 factors to emphasize when I interview the rest of the people that I plan to interview. This may help me develop a more structured interview for the later interviews to focus on these main factors in order to compare
to various building owners early in the quarter and schedule interviews. If people are not willing to interview in person I will try to set up phone interviews or even conduct them through emails in order to give the building owners the opportunity to answer my questions on their own time. Another risk is that there may not be enough people that have started navigating the process of retrofitting for this ordinance. My solution to this is to then find building owners that have voluntarily completed the seismic retrofit of their building(s) to meet the same requirements that are called out in the ordinance. I can then compare what these people did to what other owners are planning to do.

Professional Contacts Assisting:

Name / Phone
Name / Phone

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WORK PLAN:

Work Plan Description: I plan to start the process by searching for potential people to interview. I may end up emailing and calling property owners in San Francisco in order to find possible candidates that are willing to spare an hour of time for an interview. If this doesn’t provide me with enough people to interview, I will contact a couple engineers at Simpson Strong Tie and ask them if they are willing to provide the names of people that have worked with Simpson in order to retrofit their building(s). Once I schedule the interviews I will conduct them either by phone or in person. I may change my approach to each interview as I learn from each one. Once I have conducted all of the interviews I will analyze the data I have collected and identify common responses and problems that owners are having with satisfying the requirements of the seismic retrofit ordinance. Then I will try to come up with some suggestions and recommend best practices to follow for other building owners to use while they are navigating their way through the retrofit process.

Regularly Scheduled Meetings with SME: A minimum of once every 2 weeks throughout Spring Quarter

Project Milestones and Timeline/ Proposed Schedule of Completion:

Complete Literature Review/ End of Week 1 of Spring Quarter

Schedule at least 3-5 Interviews with building owners/ End of week 2 of Spring Quarter

Conduct All Interviews/ End of Week 5 of Spring Quarter

Analyze interview results/ End of Week 6 of Spring Quarter

Come up with recommended solutions to common problems and suggest some best practices for navigating through the process of seismic retrofits
of these structures/ End of Week 7 of Spring Quarter

Write Paper, Put Together Binder and Submit for Review/ End of Week 8 of Spring Quarter

Make Any Revisions to Paper That Are Needed/ End of Week 9

Submit and Present Senior Project and Poster Board/ Week 10 of Spring Quarter

Proposed Schedule of Completion: See Above

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**CONTRACT:**

I hereby request consideration, acceptance, and approval of the above senior project proposal by the SPD and the SME. I am committed to complete the CM462 scope of work in the quarter registered as outlined in the senior project guidelines listed on the construction management website. If I do not complete this project in the quarter registered the SME may give me a NO PASS or INCOMPLETE grade for CM 462, as appropriate. I understand that at minimum I must re-register for the course in which I received a NO PASS in order to complete my senior project. It is further understood that a revised project proposal may also be required. As required by the University, non-completion of CM462 will result in a grade of F and a potential graduation delay.

Student Name (Print) ___________________________ Student Signature ___________________________ Date __________

**APPROVAL:**

The SPD and SME signature on this documents indicates acceptance of this student’s senior project proposal and authorizes the student to receive a permission number for CM462 from the main office.

SPD (Print) ___________________________ SPD Signature ___________________________ Date __________

SME (Print) ___________________________ SME Signature ___________________________ Date __________