Senior Thesis Program
The Department of Architectural Engineering
The Pennsylvania State University
University Park, PA



## **Existing Conditions Report Review Form**

## Structural Technical Report 1 Submission

	Executive Summary at start of report.						
	A table of contents is provided.						
I.	Introduction						
	<b>Purpose and scope</b> * (Introduce the scope and purpose of the report. The report should be able						
	to stand alone as a document. The contents should not rely on the assignment description to have						
	purpose.)						
	the one in the Executive summary. Include some figures like a rendering or a picture, a typical						
	architectural floor plan, etc.)						
	Structural framing system briefly described. (Provide enough of a description to put						
	the rest of the sections of the report into context.)						
II.	<b>Body</b> (Items below should be included, when appropriate, and should be presented in a						
	logical order. Unique aspects not listed below should also be included.)						
	Structural framing system fully described and evidence that the student						
	understands the framing concepts involved. (Use written descriptions that often rely on						
	figures of framing and plans etc.)						
	Fully describe a typical bay. (Explain the framing in detail, including member sizes						
	and/or bar layout. Figures should show dimensions, cross-sections, etc.)						
	Decribe columns, including typical sizes and details, where appropriate.						
	☐ Lateral Load Resisting Elements identified in text and framing plan sketch						
	/diagrams. (shear walls, frames or combination. etc.)						
	Load paths fully described for all types of loads.						
	<b>Identification of other structural elements and design</b> (roof uplift, basement walls						
	have lateral soil pressure, uplift due to high water tables, canopies etc as appropriate.						
	Minor or secondary elements need not be analyzed or designed for this report, just						
	identified)						
	Identify foundation system and any special impact on superstructure design or						
	analysis.						
	National Code for Live Loads and Lateral Loadings selected and described						
	Description of loads and how they can be determined. (The loads should not be						
	numerically quantified, just described.)						
	<ul> <li>Types of live loads and source for determining live loads had been identified.</li> </ul>						
	<ul> <li>Types of dead loads and sources for determining dead loads have been</li> </ul>						
	identified.						

- o A source for determining wind loads had been identified.
- o A source for determining seismic loads had been identified.

lateral soil loads, explosive, blast, or anti-terrorism loading requirements, temporary or construction loads, erection sequence loads, etc.
Identify design codes and standards used in the design (ACI, British Standards, ASCE
7, AISC, AISI, etc.)
Describe joint details and how they work. (Rebar details for concrete buildings,
connections for steel buildings, etc.)
Closing
Summarize the most important details and how they will impact the future analysis
and design assignments.
Draw conclusions on things that may be challenging as you move forward in the
tech assignments.
Appendices
Appropriate materials included
r Items
Document submitted to consultant using Microsoft WORD 2010. (If the file is too
big for email transmission, you should put it on your AE drive and let your consultant
know where it is.)
Number Pages for ease of reference by consultants in their comments.
Refer to and label Figures similar to a textbook.*
Some comments have been written directly on your report. Please review.
Additional comments on your report are contained on this page. In some cases, if
comments are extensive, the faculty member may call you in for a consultation rather
than write everything out on these pages (or they may have marked directly on your
report).
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## AE Senior Thesis – Master Technical Report Evaluation Rubric – Non Technical Components of Report (Note: Total Points Available – $7 \times 3$ Categories = 21)

( ) = Points	Excellent (7)	Good (6)	Fair (5)	Poor (4)	(<4)
Professional Appearance, Presentation, Documentation and Following Instructions	Work product is of the highest quality. Makes frequent and excellent use of graphics, charts, photographs, etc., all of which are labeled as figures. All figures and tables are numbered, titled and referenced in the text. Report contains numbered pages, table of contents, and well organized and documented Appendices (as appropriate). Hand calculations are neatly prepared and easy to read and follow. Report heading or cover page contains all information noted in Thesis report format requirements.	Work product is well prepared and presented and, with a few exceptions, would be well received in the AEC profession. Makes effective use of all types of figures and tables which are connected or referenced in the report. Report is organized with proper headings, table of contents, and numbered pages. Appendix is provided and adequately documented. Most hand calculations are neatly prepared and most information is easy to follow.	Work product is average or inconsistent. Not likely acceptable in professional environment. May contain problems such as infrequent use of figures and tables, excessive description of items that can be covered by photos and graphics. Report may contain missing or poorly prepared items such as headings, table of contents, and Appendices. Example: Report may be printed in B&W but it references colored lines in a figure. Print quality is below average containing streaks, faded sections etc. Hand calculations need improvement in readability, organization, and completeness.	Work product is of very low quality and would be rejected or frowned upon in a professional environment. Few figures and tables are used and are often not linked or discussed in the text. Many items such as headings, subsection titles, table of contents, figures, photographs, etc. are missing or not well executed in some fashion. Graphics and charts may be present in some areas but are poorly executed, sloppy, and hard to read or follow.	Unacceptable
Organization and Flow of Report	Information is presented in a logical, interesting sequence. Organization and structure are very evident. Major categories of the report are divided into subsections that are connected with logically clear transitions between topics. Conclusions are effectively supported by the content of the report. Executive summary information matches the report conclusions and concisely captures the key elements of the study.	Information presented in a logical sequence. Organization and structure are clear. Major points are separated into paragraphs and signaled by transitions. Paragraphs are built on related sentences that logically develop. Content is supportive of the conclusions. Executive summary is clearly stated.	Organization and structure are mostly clear, but the reader may have some difficulty following the line of thought in a number of areas. Major points are separated into paragraphs and most sections are logically developed and documented. Minor digressions exist but do not overly detract from the overall flow of the report. Conclusions are somewhat vague and/or are not fully supported by the report documentation or calculations. Documentation may be hard to follow or find relative to specific sections or conclusion in the report.	Sequence of information is generally difficult to follow. Organization and structure often must be inferred. Few major points are set off by paragraphs or subsections or connected by orderly transitions. Report contains few logically connected points. Major digressions exist. Conclusions are ineffective or misleading. Reports in this category often contain Executive Summaries (if present) that are essentially copies of the stated assignment in lieu of actual results and conclusions.	Unacceptable
Grammar and Style	Full variety of sentence structures used correctly. Minimal use of sentences that begin with "The". Word choice is varied, interesting, and accurate and contributes to an understanding of the report. Few, if any, spelling errors.	Variety of sentence structures used correctly despite an occasional flaw. Avoids excessive use of "The" to start sentences. Accurate and varied word choice. Only minor errors in sentence construction, usage, grammar, or mechanics. Minimal spelling mistakes.	Predictable sentence and word choice, often with much use of passive voice. Occasional errors in sentence structure, usage and mechanics. Confusing or convoluted sentences. May include frequent use of sentences starting with "The". May include a number of spelling errors and/or word misuse.	Errors in sentence structure, usage and mechanics sometimes interfere with the writer's ability to communicate the purpose. Writing is frequently not understandable. May include excessive use of sentences starting with "The". Reports often contain frequent spelling problems.	Unacceptable