

CGN 6933 – Green Infrastructure
Group Project Description (100
Section 701 (SGS MA)

Deadline: ~~Wednesday, November 13, 2013~~
(Early submission)

Project Topic: Sustainability and

This assignment we created last year, with changes for this year marked below. I was invited to the ISI Education Committee: www.sustainableinfrastructure.org to compile Envision Case Studies for other institutions. Several Students have passed the test and been certified ENV SP, similar to LEED AP. One student reported she was employed specifically for knowing Envisions.

Objective:

This project will help students analyze sustainability aspects of infrastructure developments using Envision - the sustainable infrastructure rating system. Students will be able to rate and compare different infrastructures.

You will be given Envision_Manual.pdf and Envision_Project.xlsx to use for this project. The online Envision software is available from the Institute for Sustainable Infrastructure (ISI) website. You may want to explore this and get certified. To access the portal please visit: <http://www.sustainableinfrastructure.org/>

Assignment:

Select an infrastructure project completed within a city or community of your choosing. You will work together in teams of 2-5 students which are grouped by regions that will be identified by the instructor. Each group is to select 2 infrastructure projects from provided database of projects (see links under sample of possible projects below) or choose a project of your own. Decision on the identified projects will be made with the approval of the instructor. Check the Excel Envision_Project datasheet to be sure you can find the pertinent data from online reports, articles and newsletters. Completed projects are preferred as you must ensure there is adequate data for completing the entire Envision Rating Systems. Infrastructure projects must be selected where publicly available data is accessible.

You will use the Envision rating system to assess and compare the selected projects for their sustainable nature. You are expected to choose a group leader who will be the main contact person for communication with the instructor for questions and submissions.

Deliverables:

Monday, November 11, 2013	Progress Update 1 - 10 points
Monday, November 18, 2013	Progress Update 2 - 10 points
Wednesday, November 27, 2013	Final Report - 60points
	Individual grades - 20 points

Grades are developed based on the provide Rubric for Group Project and the Rubric for Peer Assessment.

Progress Update:

Submit progress report on the indicated due dates showing your progress up to that point. Provide data of the infrastructure projects and analysis results and discussions if available during the reporting period.

Samples of possible projects are listed below:

Report from everglades project:

https://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_prevreport/final/index.html

List of projects in the Caloosahatchee area:

<http://www.sfwmd.gov/portal/page/portal/xweb%20protecting%20and%20restoring/caloosahatchee%20strategies>

<http://my.sfwmd.gov/portal/page/portal/xweb%20about%20us/gb%20application>

List of other possible project areas:

<http://www.swc.org/issues/bay-delta-conservation-plan>

~~<http://www.thebrewerymke.com/sustainability/index.htm>~~

~~<http://city.milwaukee.gov/Projects/Brewerysite.htm>~~

~~http://www.nyc.gov/html/dep/html/dep_projects/cp_fees_at_workshops~~

~~<http://www.nscn.ca/biosolids.php>~~

<http://ottawa.ca/en/city-hall/planning-and-development/official-and-master-plans/greenspace-master-plan/3-achieving/36>

<http://www.nrgsolar.com/projects/us-mainland/ivanpah-project/>

<http://www.thebrewerymke.com/>

<http://city.milwaukee.gov/>

DCD#_VMVQqi7GpYA

Final Report Description:

Teams will work together to produce a thorough paper with the following outline. Ideally, each student should contribute data for each section based on individual Envision data, while each section should be assigned to a single individual for coherent completion. Provide 10,000 word report reviewing the completed Envisions Scorecards and full category printouts for each city included in Appendix.

Evaluation Criteria and Documentation:

- I. Executive Summary (5 points)
- II. Introduction (5 points)
 - a. Why is it important for infrastructure to be green in your region?
 - b. How are the five categories of Quality of Life, Leadership, Resource Allocation, Natural World, Climate and Risk critical to infrastructure sustainability?
 - c. How do these contribute to solving sustainability issues and improving resiliency in the cities in your region?
- III. Regional Issues (5 points)
 - a. Common urban sustainability related issues include: coastal flooding, urban flooding, sea level rise, water scarcity, transportation, energy, waste management. Compare the severity of likelihood of these issues (and/or others that may be pertinent) affecting each of the cities and overall in the region.
- IV. Projects overview (5 points)
 - a. Construct summaries of each of the infrastructures you have selected to analyze. Summary will include:
 - i. Provide *brief* overview of each infrastructure project and printed vicinity map, describe importance of the project to the community,

- ii. Major sustainability issues and challenges of the project,
- b. Emphasize positive efforts and impacts on the community.
- V. Infrastructure Sustainability Ratings and analysis (20 points)
 - a. Establish broader sustainability indicators for your region. Discuss which of these are critical in the region and relevant to the selected infrastructure projects.
 - b. How do the different infrastructure projects compare in terms of their sustainability based on the Envisions Ratings?
 - c. Provide each infrastructure rating for the individual projects reviewed. Discuss the completed checklist including references behind the scores.
 - d. Show all scores and rankings in a matrix format. Discuss why the top projects are notable; what the bottom projects were lacking.
- VI. Conclusion (10 points)
 - a. Summarize related issues and the importance of green protocols and initiatives.
 - b. Summarize findings from Envisions Ratings of the selected projects.
 - c. Provide recommendations for improving sustainability of the infrastructure projects in your assignment.
- VII. Bibliography including all Envisions sources APA format (5 points)
- VIII. Appendix of Envisions Scorecards and full category printouts (5 points)

Report Guidelines:

1. Use the Report Guidebook posted online as a guide for writing the report (See 'Group Project' folder on Canvas).
2. Formatting – Arial 11 pt., 1.5 spacing.
3. Page Requirement –15 - 30 pages. You should write sufficiently to cover the topic.
 - a. Citing – Use APA citation format using the Word utility for citation and bibliography. See Purdue APA site:
<http://owl.english.purdue.edu/owl/section/2/10/>
4. Editing – The final product should be well edited to minimize differences in writing styles between the authors as well as to ensure consistency of information throughout. Even though different members of the team contribute to the final report it should be read as one complete document. You will be marked down if the paper resembles a mere compilation of three papers written by three authors.

Group Communication:

Communication between group members can be difficult. It is recommended that groups get in contact as soon as possible. Groups will be created on the course website to facilitate communication. Additionally, free conference calling services and additional long distance meeting options are available online at <http://www.freeconferencecall.com/> and other providers (Google Voice, Skype, etc.).