PA-8202
Networks and Places: Transportation, Land Use, and Design
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Office Hours: Wednesdays 2-4 in Lab 40 and by appointment

Lab Component:

The lab component of the course provides an opportunity to apply a variety of skills to a land-use plan. The intent of the lab is to heighten students understanding of the connection between transportation and land-use through network analysis and design as well as common procedures and considerations that are used to create many land-use plans. For the semester project, each group will use their planning and creative skills to designate “land bridge” over an assigned section of Interstate 94 in Saint Paul. A land bridge is reclaimed land using what is essentially a large bridge over a freeway. Land bridges are used for this project because they offer a blank slate for new land uses in a developed urban area, they are an innovative planning tool that can help achieve social and physical goals of planning, and land bridges have been promised by public figures since the beginning of the interstate highway system.

The skills needed for this project include GIS; understanding how to find, use and apply data used by planning practitioners; using design features to achieve network goals; zoning analysis; benefit-cost analysis; parking requirements; and local traffic analysis. These skills will be introduced in the lab sessions and most will have a brief assignment for evaluation. The final project will combine these skills and brief assignments into a final paper and presentation.

Scope of the Project:

The land bridge project involves planning ideals, theory, analysis, and tools to develop the best use of air rights over a section of freeway. Keep in mind there is no right or wrong use on the proposed land bridge; however, you will need to provide supporting arguments and data for your proposed land uses. Use all of your skills, knowledge and experience to defend your ideas.

For this project, consider your group a planning consultant and land bridge advocate. You have been contracted by the City to create a proposal for developing a land bridge in the assigned area. The project could include a park, a transit hub, mixed-use development, housing, public
facilities, or anything that you feel would enhance, improve or correct a perceived planning problem—be creative but try to think realistically. You are required to consider the built environment surrounding your project site for your proposal and analysis. Your group is allowed to redevelop land adjacent to the assigned land bridge area. The land bridge does not need to cover the entire freeway, e.g. the land bridge may just be adjacent to the frontage road. Be sure to keep in mind the possibility of reconnecting the street grid and leaving space for on- and off-ramps to the freeway. Although it is important to consider the cost and benefits of this project, do not let cost be a major deterrent. Many public projects start with a grandiose plan that is reduced to a realistic plan at a later time—think big. That said, be sure to consider realistic possibilities given the neighborhood and city characteristics as well as needs.

What you will turn in:

Each group is responsible for one presentation and one written report. The final project will be a professional presentation and staff report that details the proposed land bridge design and other built elements, the network effects of the project on the surrounding community, a discussion of the planning goals of the project with supporting arguments, and other elements. The report has no specified length but should include a summary, description of all aspects of the proposals, analyses of the affected surrounding areas, maps, site plans and any other relevant information. The lab assignments should be represented in the report in some form. There should be sound reasoning and logic behind the proposals. Use color, maps, pictures, charts, and graphics as much as possible. Three copies of the written report will need to be turned in along with an electronic file of the presentation and any posters and maps used. You will be graded on both the content and the quality of the written presentation.

Presentation details:

The presentation should be 20 minutes and expect up to 20 minutes of questions. The audience for the projects will be local planners, interested citizens, and your classmates. The approach is designed to simulate a public meeting environment that planners work with on a regular basis. The presentations are expected to be professional quality and thorough. Each group will be required to answer questions and defend their proposal to the audience.

The presentation will be in a classroom equipped with a computer and projector. You should use presentation software (PowerPoint is the most common and supported by U of M computers. If you use something else you will need to make sure that it can run on any computer.) You could also use printed maps, posters and any other media you feel is appropriate.

Lab schedule:

Your group is required to attend the lab. The labs are intended to provide data, techniques, and skills that should be incorporated into your project. Most labs will include an
Assignment that is to be handed in the following week. Please note specific due dates for some labs. The assignments will be handed back with suggested comments. Labs are subject to change.

Week 1: Project introduction. No Lab.

Description of the semester project. Fill out surveys.

Week 2: Assign Groups, Assign Locations, and Spatial Data Resources

GIS Applications in the planning. In this lab, your group will be assigned, your land bridge location will be assigned, and you will create a current land-use map of your project area.

Week 3: Data Resources: Census, Housing, MNIS, Crime, Transit

This lab will focus on other data resources. The groups will collect and analyze census data, parcel data and other useful data for network analysis.

Week 4: The Comprehensive Plan, Neighborhood Plans, Regional Plans, and Ordinances

In this lab, your group will read and analyze neighborhood, city, and regional plans to determine how they may affect your land bridge. What are existing planning goals and can they be incorporated into your plan?

As many of you know, community participation is an important component of almost any city plan. In this lab, each group will be assigned a different organization to contact to discuss the land bridge with to better understand what the neighborhoods or city wants. Prepare a 2-3 page write-up of your visit. This will be presented during the eighth week of lab to the other groups.

Week 5: Zoning and Planning Analysis

In this lab you will learn where to find zoning information and learn the types of zoning in your project area.

Week 6: Traffic Analysis

Students will learn how to use ITE trip generation books, how to prepare a Local Traffic Analysis, the relationship between land uses and parking.

Week 7: Visitation Analysis Due
By this time, your group should have visited the project site. Write up a 2-3 page report describing the current conditions of the project site based on your visit. What is the character of the surrounding neighborhoods? What is your group’s impression of the housing, businesses, transportation infrastructure, or overall feel of the area? What problems or opportunities does your group see? This report should not be based on census or other hard data—this report should describe what you see. Be as detailed as possible. Try to look past the simple things and look for the “bigger” picture around the land bridge. The visitation analysis is due in this lab. Be prepared to discuss what you saw.

Week 8: Organizational Visit Write-up Due

Prepare a 2-3 page report of your group’s visit to your organizational contact. Be prepared to briefly present what you learned to the other groups.

Spring Break

Week 9: Benefit Cost Analysis

Students will learn the art and science of benefit costs analysis for public projects. How to estimate construction costs, social costs and benefits.

Week 10: The Proposal Process, New Projects, Zoning Changes, and Variances

In this lab, the groups will learn the process of proposing projects to the city and how to get zoning changes and variances.

Week 11: Design Elements

Students will explore the design elements useful for traffic control, safety and other goals. How to present design elements on the proposed land bridges.

Week 12: TBA

Week 13: TBA

Week 14: APA Conference: Group Work Time

Week 15: Presentations