



## Ground Work

- Choose an area of interest
- Define a design problem
  - Choose a facility on campus to reproduce
  - Design a curve at an intersection
- Scope it (meet Brent and me)
  - Exactly which part of the building do you want to reproduce?
  - Do you have the data for it? (survey data)
- Design
  - Make a list of specs that you will draw

## Deliverables

- A Report
  - Problem statement and brief description
  - Design specifications (existing and what you want to change)
  - Mention all assumptions you have made
  - Mention all standards that you have used
- Drawing set (paper and zipped .dwg files)
  - Drawing information organized in multiple layers
  - Should clearly reflect design specifications
  - Show details with appropriate references
- Demo of executable (if applicable)

## Example Problems

## Example 1

Design a second-story deck and create a set of drawings to convey this design to a contractor.

## Example 1(contd.)

- Design Problem:
  - describe the facility
  - what you intend to add/change (second storey deck)
  - list design specs
- Assumptions and standards
  - design work is be very, very conceptual (How much so?)
  - standard connections, standard dimensions etc.
- Deliverables
  - design specs for a second-story deck
  - create a set of drawings to convey this design to a contractor

## Example 2

Many buildings on campus have been recently retrofitted or rebuilt. Take one such building (say Mary Gates Hall) and take a trip down memory lane.

Choose a particular area of the building and reproduce two sets of drawings: "As-Was" and "As Is"



## Example 2(contd.)

- Design Problem:
  - describe the facility "as was"
  - describe what was changed
  - list design (change) specs
- Assumptions and standards
  - design work is be very, very conceptual (How much so?)
  - standard connections, standard dimensions etc.
- Deliverables
  - design specs for a "as-was" and "as-is"
  - create a set of drawings to convey the differences



## Example 3

The plan is to remove the 90-degree turn SR 202 takes through the intersection with NE Woodinville Dr. and turn it into a nice horizontal curve. The road shall remain one 12-ft. wide lane in each direction.

You are producing an exploratory analysis of the SR 202 portion of this proposed solution and must present your findings to the City Council.

(Survey data points available)



## Example 3 (Contd.)

- Design Problem:
  - describe the intersection: grade change, angle etc.
  - briefly explain curve design
  - list design specs
- Assumptions and standards
  - design work is conceptual (How much so?)
  - standard templates, standard dimensions, etc.
- Deliverables
  - design specs for a the designed curve
  - create a set of drawings to convey the designed curve

