Memo

To: METC 107 Students

From: James Reitz - Instructor

Date: Fall 2018

Re: Civil Engineering Project

The purpose of this memo is to communication the details of the Civil Engineering Project. Ivy Tech is planning to have a multi-purpose center built in the future. Your goal will be to design a site layout to the specifications below.

Assignment

- Draw the lot to scale and determine its area using AutoCAD. Show the area on your drawing.
- Locate the access point to avoid congestions on the street. You must explain your choice of location.
- Locate and draw the building on the lot. Be sure to select a position to make the best use of the land to maximize parking area. Assume the setback (distance the building must be from a property line) is 20 feet. Assume the parking setback is 10 feet. (The dead space should be shown as landscaping)
- Design and draw the layout of the parking lot around the building. In order to comply with handicap accessibility act, assume a minimum of 2% of parking stalls to be handicapped. Make sure to:
    - Show and dimension lot aisle widths and typical parking lot sizes
    - Show proposed parking lot layout and direction of traffic flow
    - You may add landscaping to the parking lots

Submission

- A 5-10-minute presentation and submit a printout of the PowerPoint slides (multiple slides per page)
- AutoCAD printed drawings of the site layout including the building and parking

Presentation

You must give a 5-10-minute PowerPoint presentation discussing the following:

- Your site layout
- Disadvantages of your design/neat aspects of your design
- How you created the drawings (must be shown in the PowerPoint)
- Explanation of why you chose the location of your access point

Additional Information

- Property lines can be found using the Allen County GIS @ www.acimap.us/engineering.html It is best to use Google Chrome to access the GIS Database. Once here, go to layers - property lines. Use the property lines and the given distances to properly scale your AutoCAD drawing.

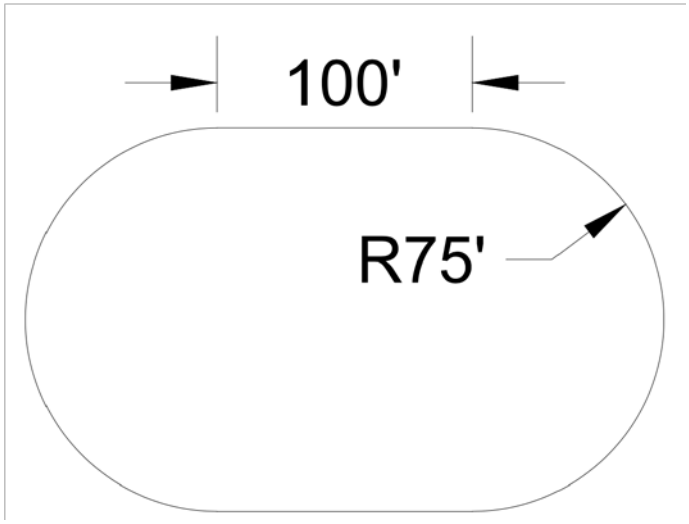
- For this project, you can use typical parking stall dimensions of 8 x 18 ft which are large enough for a minivan.

- You can design the stall to be at any angle ranging from 45° to 90°. Note that the front bumper overhangs the sidewalk beyond the curbing and is decreased with angled parking.

The Site

Your task is to use this vacant parcel on the Ivy Tech Campus for the new multipurpose center.

The Building



Your objective is to maximize the number of parking spaces available for the building given the limitations of the site. You can use any combination of parking designs. Be sure to show the total number of normal and total number of handicap parking stalls you were able to fit into your design.

The presentation will be given during class on **December 3rd**. The outline of the presentation and all drawings will be due at the time of presentation in hard copy.

Grading Rubric

Civil Engineering Project

Student: _____

Section Points		Poor 1	2	3	4	Excellent 5	Section Scores
100	**Drawings (Graded on proper drawing and annotation techniques)**						0.00
30	Site shown on AutoCAD with Area						0.00
40	Site Design						0.00
10	Building and parking setbacks are followed						0.00
10	Necessary dimensions are shown						0.00
10	Landscaping is shown where necessary						0.00
100	**Presentation**						0.00
5	Format of tables and figures is clean and professional						0.00
5	Presentation is clear and to the point						0.00
5	Grammar and spelling are correct						0.00
20	Drawings are included in powerpoint						0.00
15	Meets time minimum (5 mins)						0.00
15	Explained site layout, advantages, disadvantages						0.00
20	Talked about design process						0.00
15	Well formatted and rehearsed						0.00
200						**Points Earned**	0.00
						Total Possible Points	200
						Percentage	0%