



STANWOOD HIGH SCHOOL

Engineering Design 1

PROJECT NAME: CBPA #1—Street Seats

Student Learning Target:

I will be able to use Solid and Surface modeling tools in Rhino to design a product to a real world size.

Design Statement/ Parameters:

You have been asked to design a bench or seating for use in a public location around the Stanwood/ Camano Community. You must select a location for this bench, then design your seating to fit with that area. Possible locations include: Stanwood Fair Grounds, Schools, Parks, Down Town Stanwood

Your design must meet the following criteria:

- Sustainable Design, using recycled, reclaimed, and/ or renewable materials.
- Innovative Design & Construction
- Must fit within bench envelope of 30”d x 72”l x 48”t
- Seat at least 2 people and hold 600 lbs at various seating positions
- Suitable for Outdoor Use
- Be stable and secure

Finished Product: The following items must be turned in to earn credit

You must Print and turn in the following:

-A completed pencil drawn planning sketches

-POSTER: One (1) 24” x 18” horizontal format poster; Input entry title Please include:

- a) High Resolution images of the design process
- b) High Resolution images/renderings of the final piece
- c) Multiple renderings, in context
- d) Overall and key dimensions noted

-MODEL: Create a scale model from any medium (ie. clay, wire, wood, paper, etc.) 1/8 scale model (Make a model that is 1/8th the size of your final bench. So if your seat is 6ft long: 6ft = 72in, your model should be 9 inches long)

-Dimensioned working drawing.

-PROJECT INFORMATION: A Completed written paper with the following Info:

- Project Title
- Description of design process (max 500 words): Give a written account of the design processes used in designing your bench, what research did you do, what inspired you, how did you go about designing your Street Seat?
- Description of final design (in English): (Maximum 500 words). This must include a clear description of the method by which you intend that your design be fabricated and of your ability to develop a fullscale seat.

-A completed CBPA Written response sheet.

-Completed Portfolio Entry with all of the above attached.

Connections:

Math:

Art: