Salman Sadeghi (10649160)
Weekly Submission 7

Tuesday, November 19, 2019 9:09 PM

Task 1

Solar radiation is an electromagnetic energy which emitted by the sun. About 50% of the radiation is in the visible part of the electromagnetic spectrum. The rest is mostly in the near-infrared part with some in the ultraviolet section.

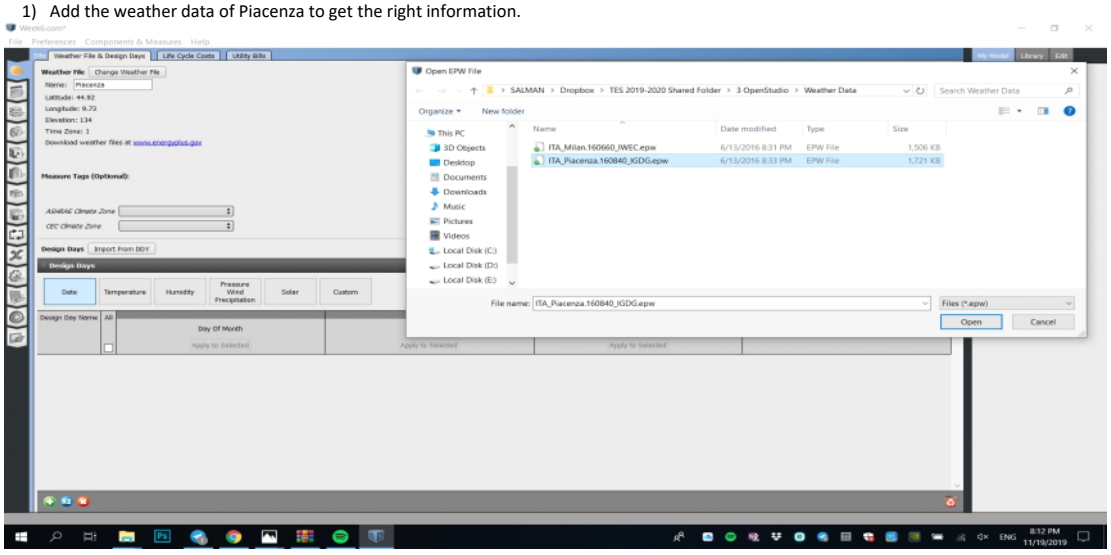
When sunlight passes through the atmosphere, the earth absorbs some of the radiation directly which is called beam solar radiation. There is another type of radiation which is absorbed, scattered or reflected by different elements in the way to the earth. So it reaches the surface of earth indirectly, which is called diffuse solar radiation. diffuse and beam solar radiation comprise the global solar radiation.

Stratospheric ozone absorbs almost all the ultraviolet component of the solar radiation. water vapor almost absorbs infrared parts of the radiation. Over 2.5 micron the atmosphere becomes opaque because of strong absorption by water and carbon dioxide.

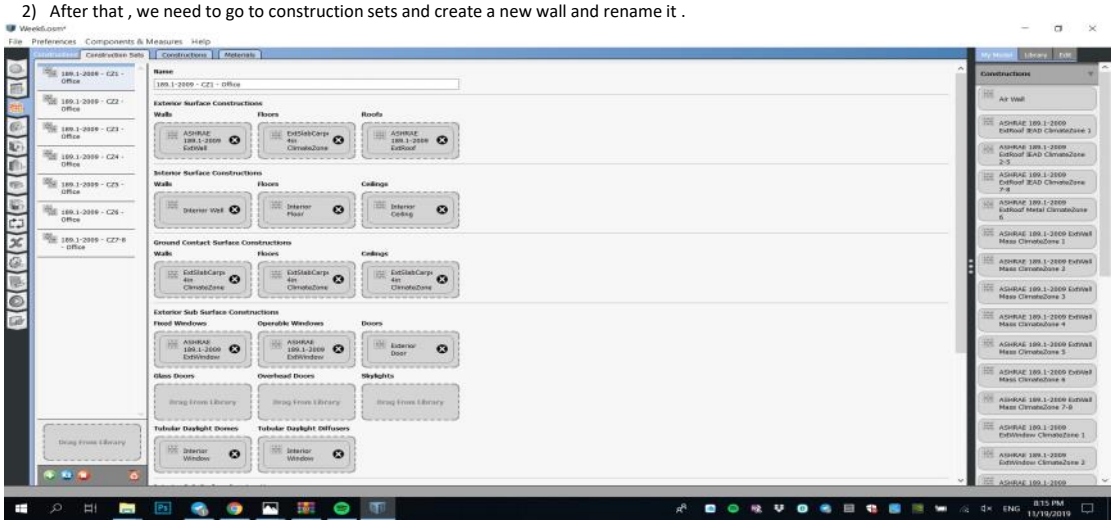
The maximum yearly average solar radiation density is the solar constant which is the solar irradiance, it's value is 1367 w/m2.

Task 2

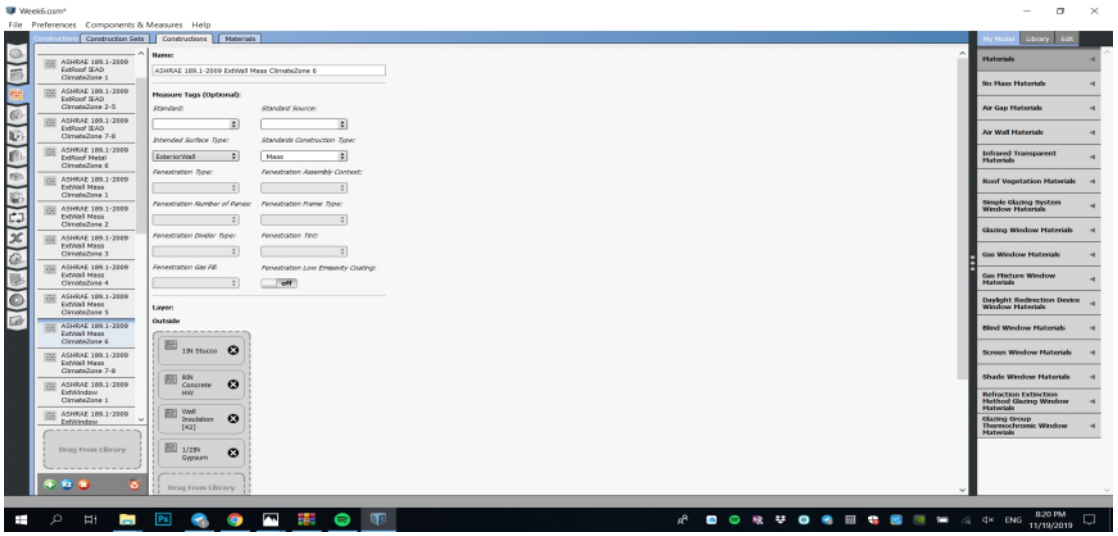
1) Add the weather data of Piacenza to get the right information.

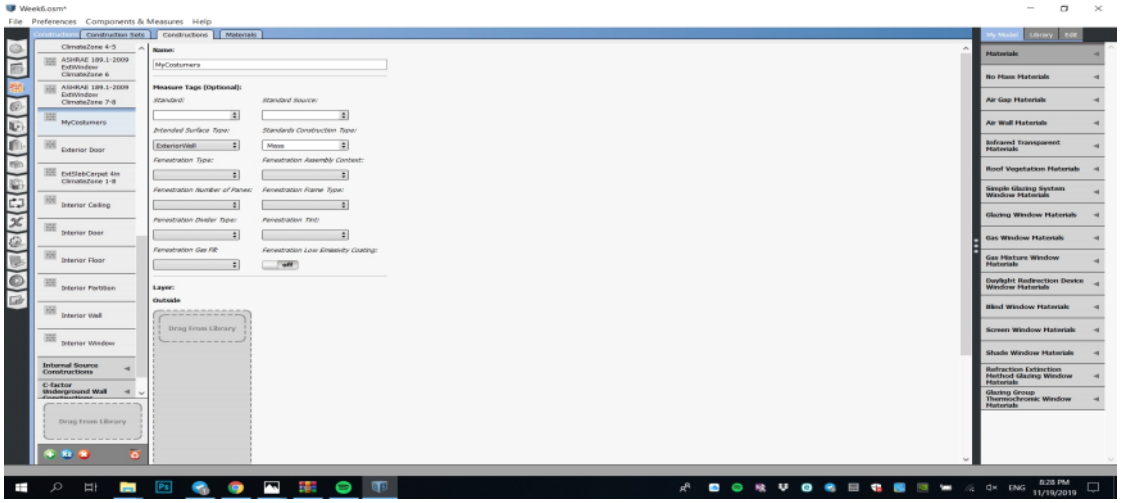


2) After that , we need to go to construction sets and create a new wall and rename it .

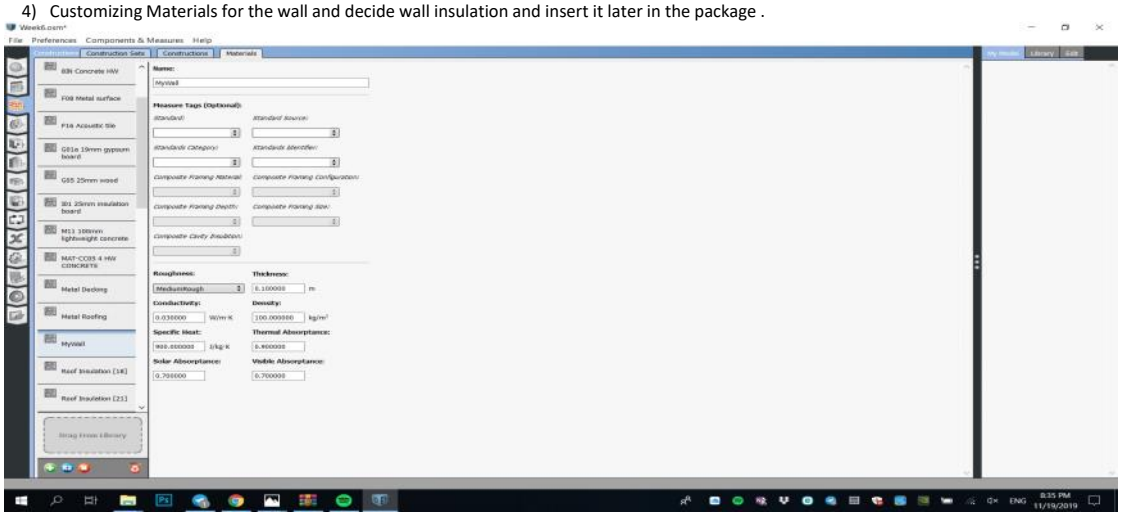


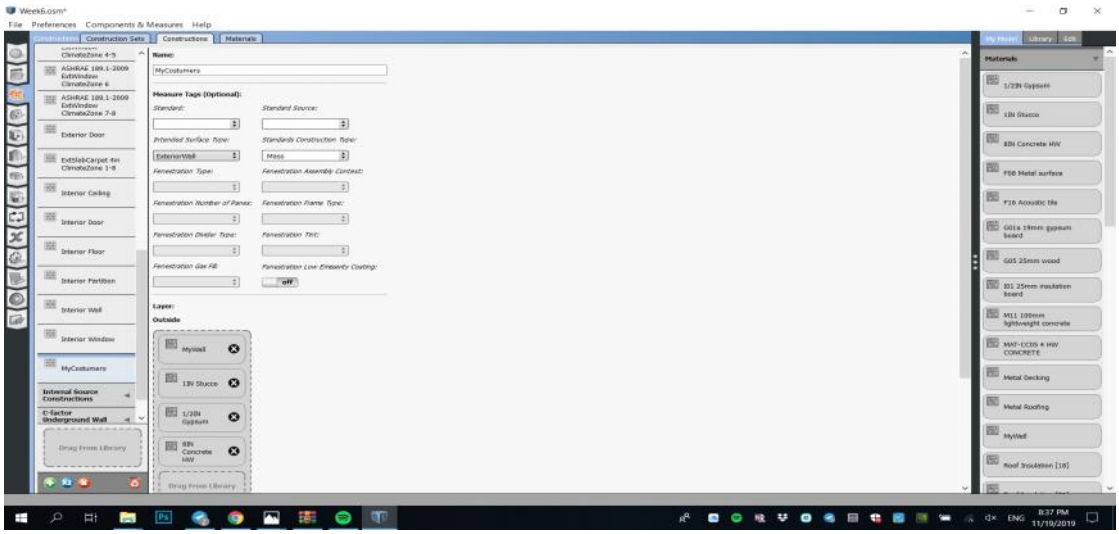
3) Start customizing the wall in the CONSTRUCTIONS window.



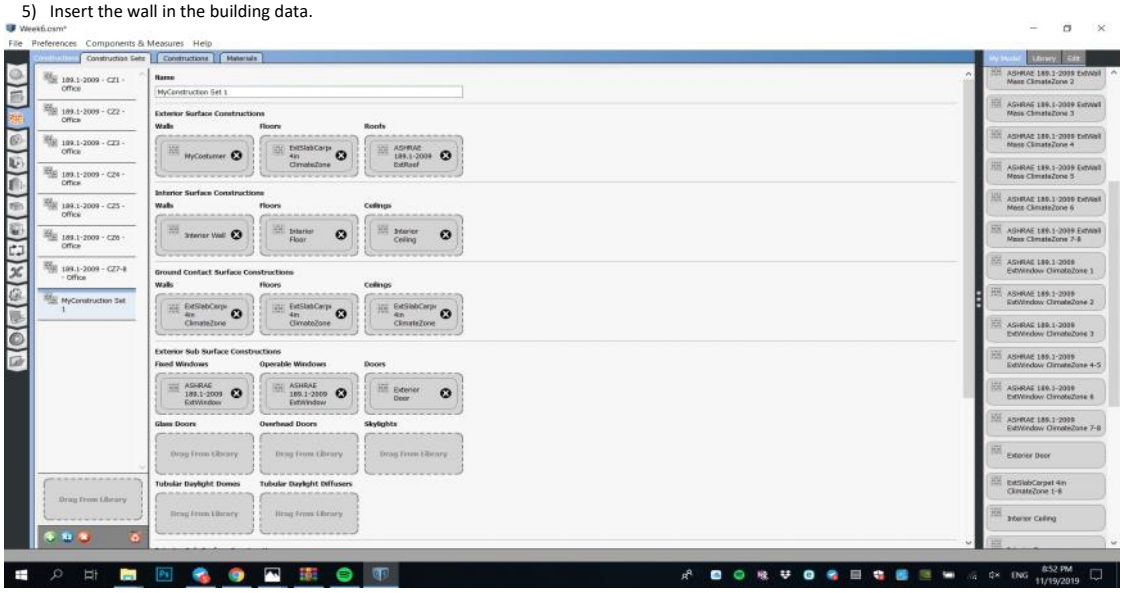


4) Customizing Materials for the wall and decide wall insulation and insert it later in the package .





5) Insert the wall in the building data.



And add new materials into the new wall that we created .