5. Carbon/EC3 Tool Continued 8 Possible Points

Update 2/7/2020: We have had issues sharing a project with everyone, so we are giving you a read access login to see the Wilshire Blvd project. Log in using the following; email if you are not able to log in. User: megan.oconnell@skanska.com, password: ASC2020!

Use the given login above to answer the following questions on the 9000 Wilshire Blvd project. Submit an RFI or send an email to <u>ASC2020@skanska.com</u> if you cannot access the project with the given login. Submit these answers along with the other problem statements at 9pm via USB. These answers are included in your page count.

- 1. Using the Sankey diagram, answer the following questions: Which material shown for the project has the most carbon reduction potential? What percent less could potentially be achieved?
- 2. What factors contribute to a material that has less embodied carbon?
- 3. Assume the project team can reduce the embodied carbon of the building to the achievable target shown. What is the total reduction in embodied carbon (i.e. how much less is tCO2e of the target than the tCO2e of the baseline)?
- 4. You wish to convey this savings to the Owner in a way they can appreciate and understand the reduction/carbon savings. Graphically display how you could report this reduction to the Owner.
- Review the EPDs from different rebar manufacturers. Which product would have the lowest embodied carbon footprint if used for the Wilshire Blvd project? What's the added carbon emission from transporting the rebar to 9000 Wilshire Blvd? Assume:
 1 gal diesel = 22 lb CO2; 1 truck can carry 40 tons rebar; fuel efficiency is 6 miles per gallon. NOTE: Download the EPDs and use the CO2e values in those documents for your calculations.