

## **Updates to Sequence Diagram**

## Updates around Passenger Exchange functionality:

Bus object calls a series of functions on the stop object it is arriving at to implement the required passenger exchange functionality. Following the defined steps, the bus first called the simulatePassenbgerArrival function of the stop, followed by calculating the leaving passengers and updating the stop with these transfer riders. Bus object then calls the function on the stop to get the passengers for bus. Finally, the bus calls the method to simulate the passenger departure from the stop. Please not the object parameters for the high/low parameter for each of these functions are not passed as method parameters as they are contained within the classes themselves. The calculation of the exact numbers for each of these steps is handled within the method itself and does not require an additional function call.

## Updates around time to next stop functionality:

Sequence diagram has been updated to explicitly show the calculateTimeOfNextStop function getting the latitude and longitude of the two relevant stops in order to calculate the time to next stop.

## **Updates around replay functionality:**

At the end of the moveToNextStop function of the bus class the method createReventMoveBusEvent is called in order to produce a RevertMoveBusEvent, which is returned along with the time of the next MoveBusEvent. This is in turn returned by the moveBusEvent for the simulation to update its ReplayEvents.

Note: Additional requested functionality included in separate sequence diagrams submitted.