Reviewer 3

I can see that the authors made great efforts to this version. However, the authors added more references to the neighborhood characteristics and the physical characteristics of networks. I believe there must be some misunderstanding in Comment 1.

Different from the neighborhood characteristics and the physical characteristics of streets, the characteristics of networks is a combination of the physical and the behavioral characteristics. For example, the stochasticity and the environmental costs. Specifically, in the urban traffic network, the stochasticity comes from the different perception abilities of the travelers. The environmental cost is an internal cost perceived by travelers. Both of them are highly human-oriented. Moreover, to the best of our knowledge, Shanghai is the fastest growing city in electric vehicle ownership. In this context, the stochasticity and the environmental costs of a network may be more direct and human-oriented factors in the future. Thus, more references on the stochastic networks, environmental costs, and electric vehicles are recommended.

Response: We agree that the characteristics of networks is a combination of the physical and the behavioral characteristics. Therefore, apart from physical characteristics we have addressed in the original paper, the revised paper expanded on references on the effects of network characteristics on people’s travel walking and route choice, i.e. behavioural characteristics, especially in the context of Shanghai (section 1.2, line 60-71; section 2.2, line 208-212).

The main purpose of this paper is to develop a 5Ds analytical framework and further encourage physical activity and public health. Even though we believe that the electric vehicle share keeps increasing in Shanghai, and it is interesting to consider how these changes may effect environmental costs, we think this is beyond the scope of the present study, but it is an important topic for future studies.

Since this paper is a case study, data exposure is critical. I suggest that the authors should publish their data to any public platform.

Response: We have uploaded the datasets used in this paper.

1. LBS_Kernel.gdb which include LBS points.
2. database.gdb which includes following feature classes:
   • poi_yangpu: POI related data
   • yangpu_district: boundary of Yangpu District.
   • Shanghai_WGS84_Road_sDNA_clip: a street path-center line map of Yangpu district extracted from route data in Baidu Maps (with accessibility result computed using the whole Shanghai map).
   • Yangpu_Streetquality_variables: street quality results used in Figure 12.

All other my concerned have been addressed.