***Problem 1*** *– Minimise number of stations built (LSCP)*

: index of demand points (neighbourhoods)

: index of candidate station locations

: set of stations within within a travel time of neighbourhood , with:

* : shortest travel time from each to each
* : maximum time needed to reach a station (service radius)

: binary, 1 if station built, and 0 otherwise (decision variable)

***Problem 2*** *– Minimise total walking time to station (P-Median problem)*

: index of demand points (neighbourhoods)

: index of candidate station locations

: shortest travel time from each to each

: population at

: predefined number of stations to be located

: binary, 1 if assign demand to station , and 0 otherwise (decision variable)

: binary, 1 if station built, and 0 otherwise (decision variable)