

DRAWINGS

FIG. 1

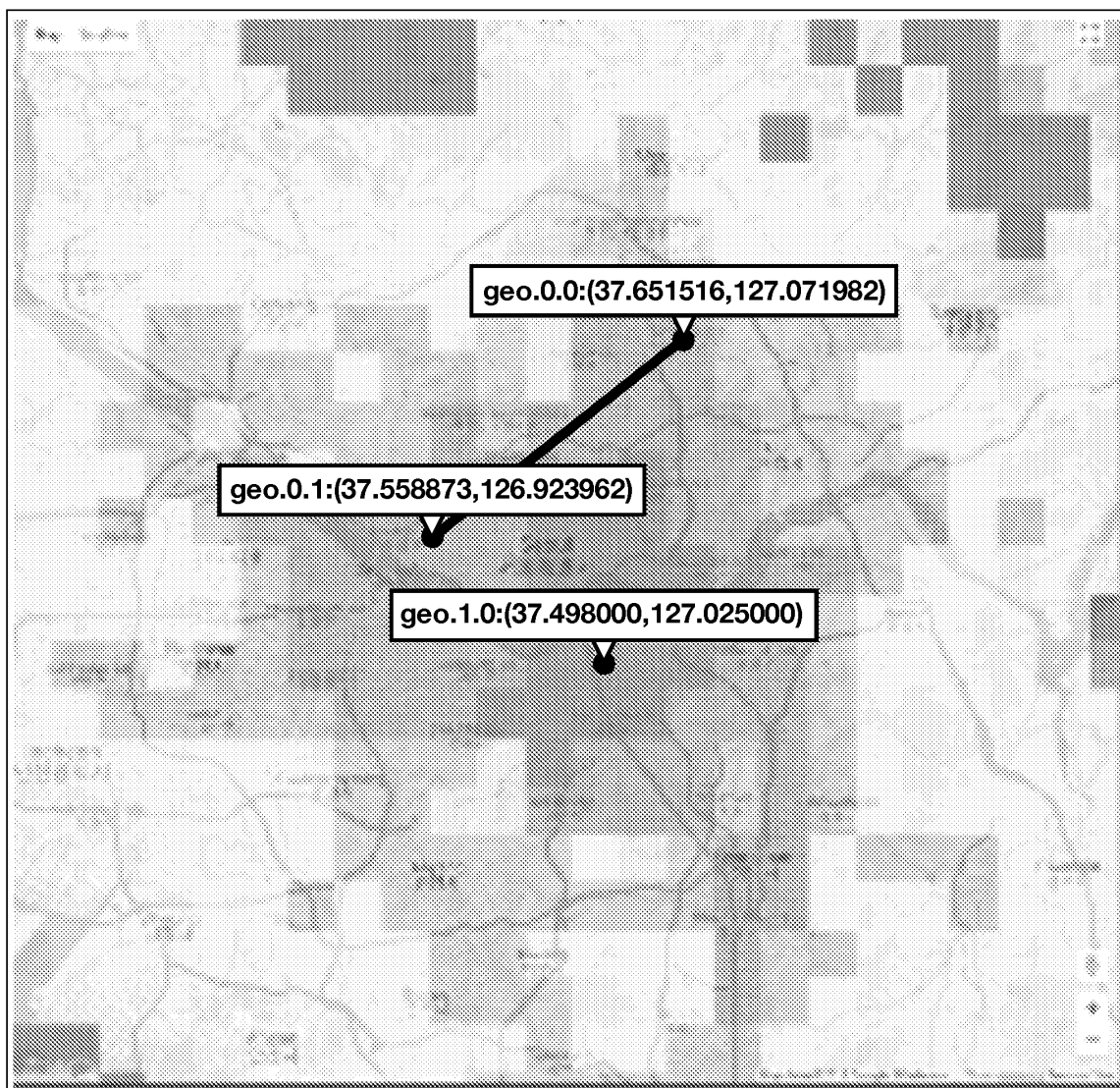


FIG. 2

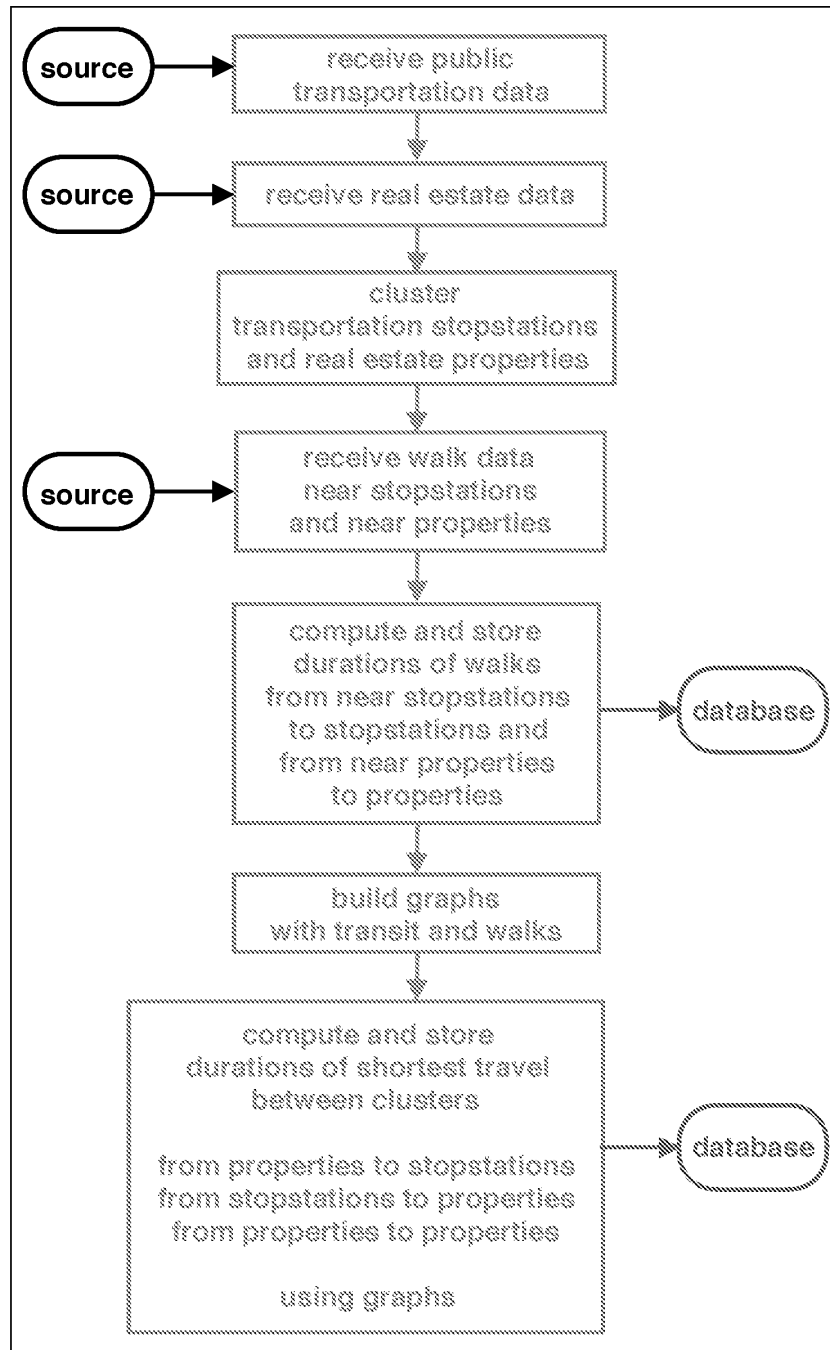


FIG. 3

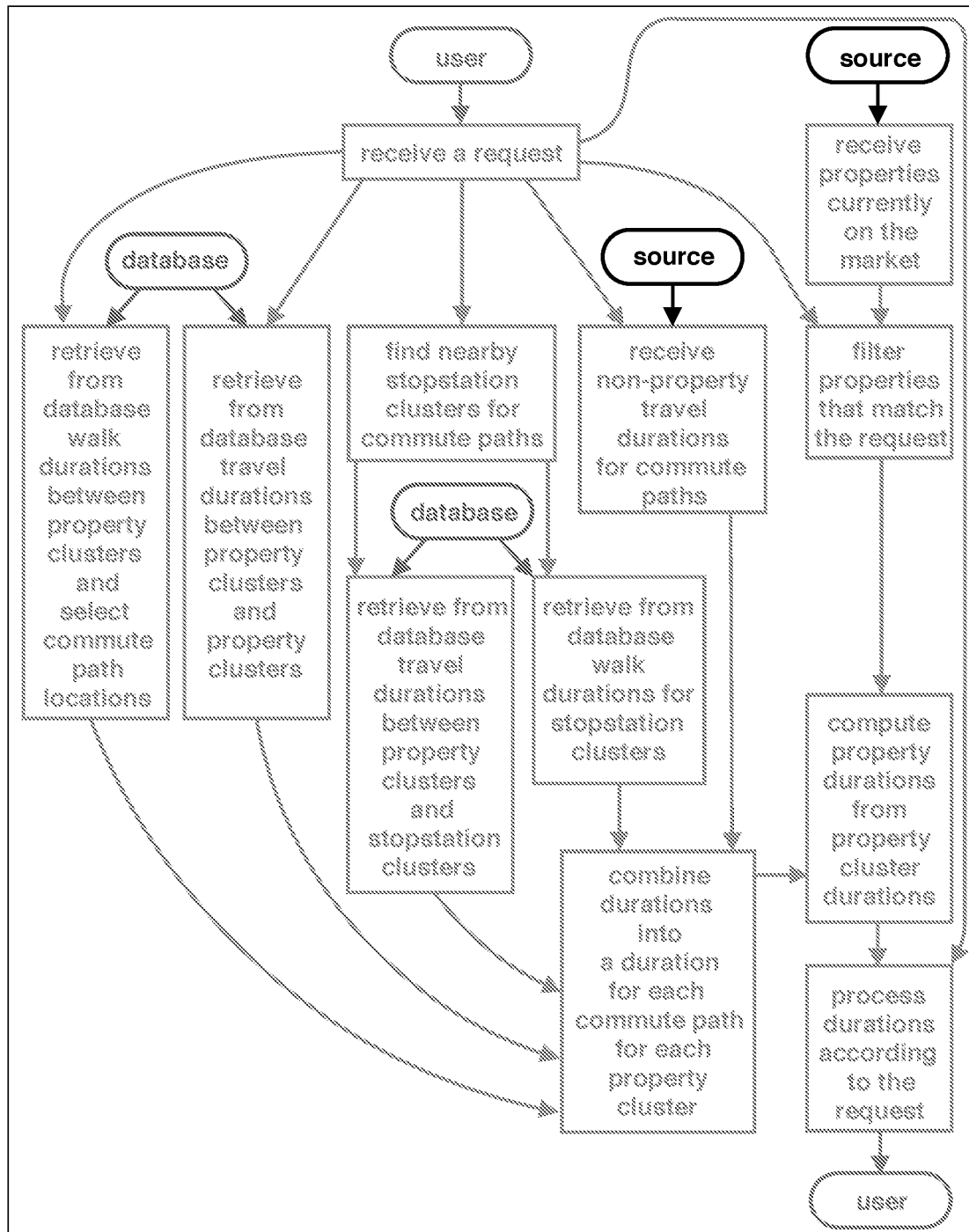


FIG. 4

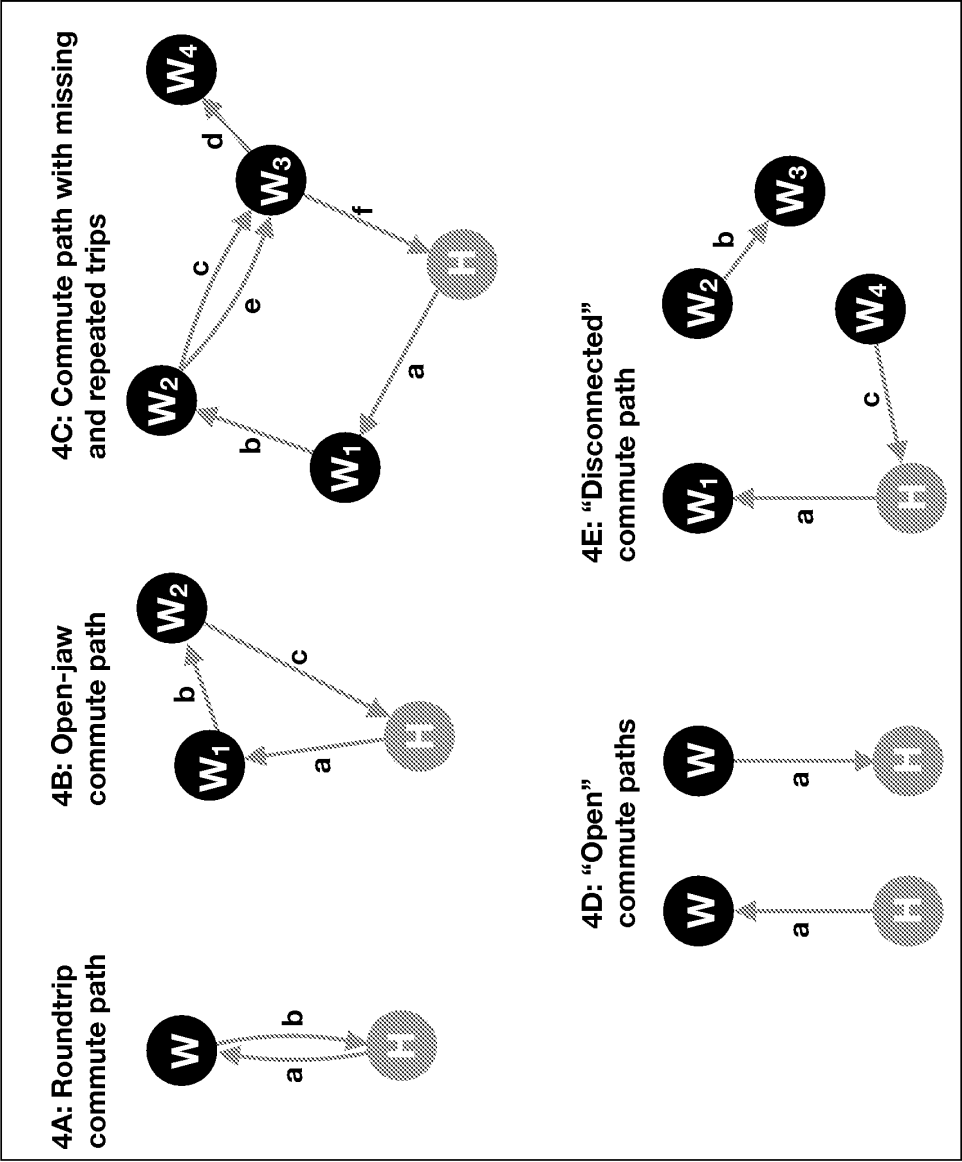


FIG. 5

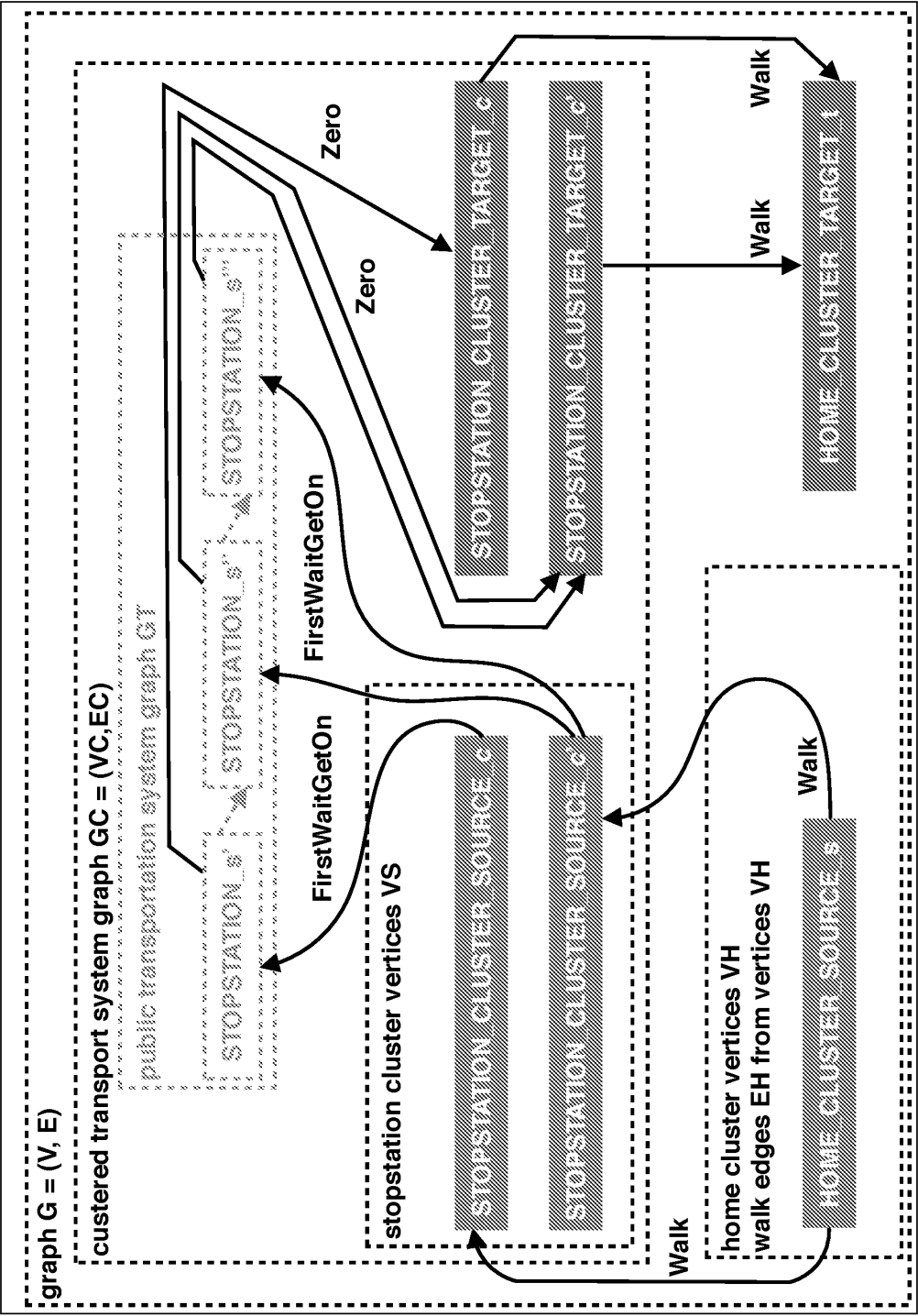


FIG. 6

stopstation cluster to home cluster						home cluster to stopstation cluster					
noHomeClusterSource						reversed, noHomeClusterTarget					
StopstationClusterSource						StopstationClusterTarget					
						→					
HomeClusterTarget						HomeClusterSource					
s_1	h_1	h_2	h_3	h_4	h_m	h_1	h_2	h_3	h_4	h_5	h_m
s_1	12	255	52	0	134	...	49				
s_2	2	23	67	9	243	...	194				
*	*										
*	*										
*	*										
s_n	12	255	52	0	134	...	49				

s_1	h_1	h_2	h_3	h_4	h_5	h_m
s_1	11	255	53	0	139	...
s_2	2	26	69	12	255	...
*	*					
*	*					
*	*					
s_n	13	250	50	0	130	...

FIG. 7

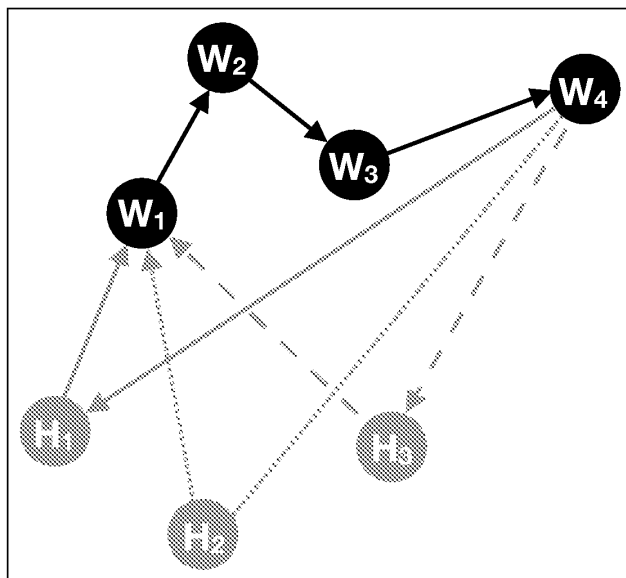


FIG. 8

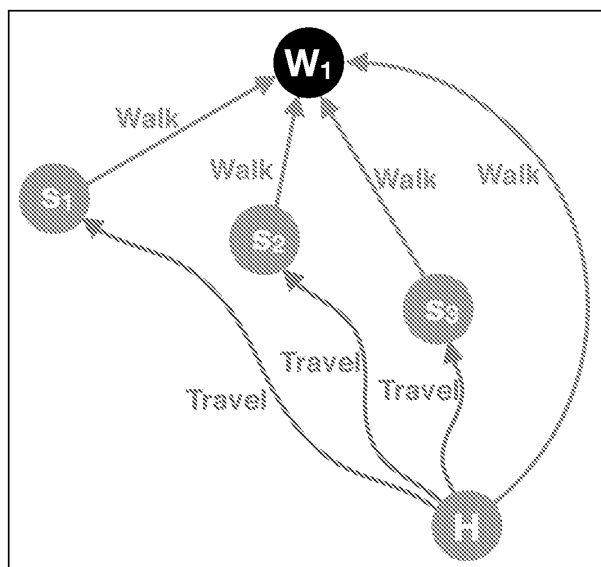


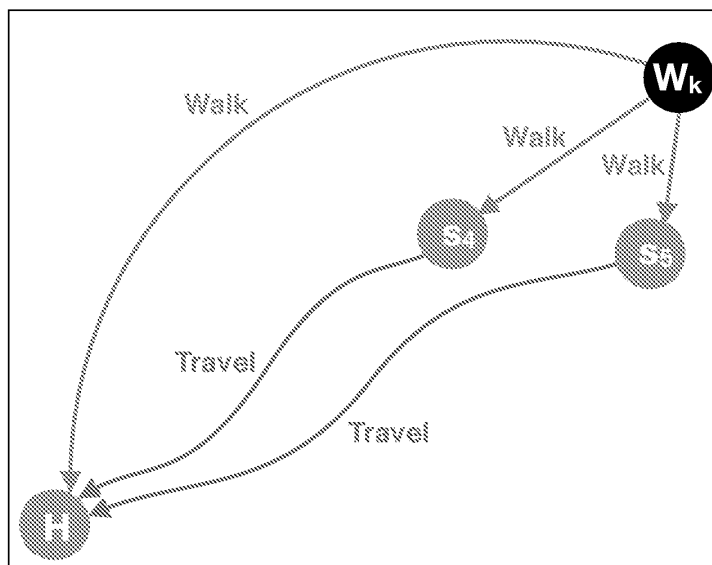
FIG. 9

FIG. 10

```
vector home_cluster_durations;  
CoordinatewiseSetInfinity(home_cluster_durations);  
  
limit_meters = 2000;  
  
// Travel and walk.  
vector stopstation_clusters;  
vector walk_seconds;  
(stopstation_clusters, walk_seconds) =  
    storage.geo_walks.WalksFromStopstationClustersTo(  
        W, limit_meters);  
for i = 1 to stopstation_clusters.size() {  
    stopstation_cluster = stopstation_clusters[i];  
    walk_second = walk_seconds[i];  
  
    vector home_cluster_seconds =  
        storage.shortest_paths.HomeClusterSecondsToStopstationCluster(  
            stopstation_cluster);  
    // Dense vector operation.  
    for j = 1 to home_cluster_seconds.size() {  
        home_cluster_durations[j] =  
            min(  
                home_cluster_durations[j],  
                home_cluster_seconds[j] + walk_second);  
    }  
}  
  
// Direct walk.  
vector home_clusters;  
(home_clusters, walk_seconds) =  
    storage.geo_walks.WalksFromHomeClustersTo(W, limit_meters);  
// Sparse vector operation.  
for i = 1 to home_clusters.size() {  
    home_cluster = home_clusters[i];  
    walk_second = walk_seconds[i];  
    home_cluster_durations[home_cluster] =  
        min(  
            home_cluster_durations[home_cluster],  
            walk_second);  
}  
  
return home_cluster_durations;
```

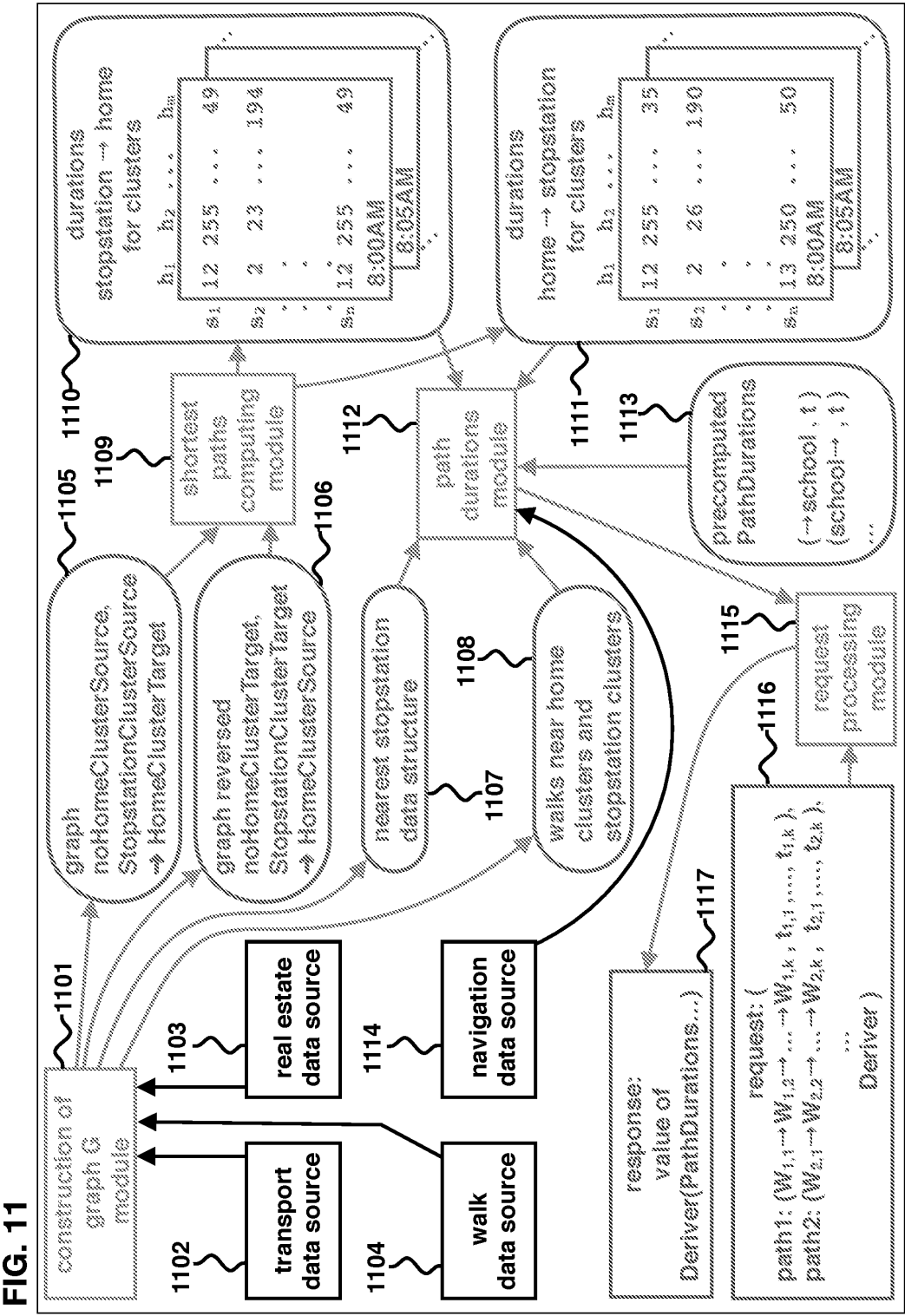


FIG. 12

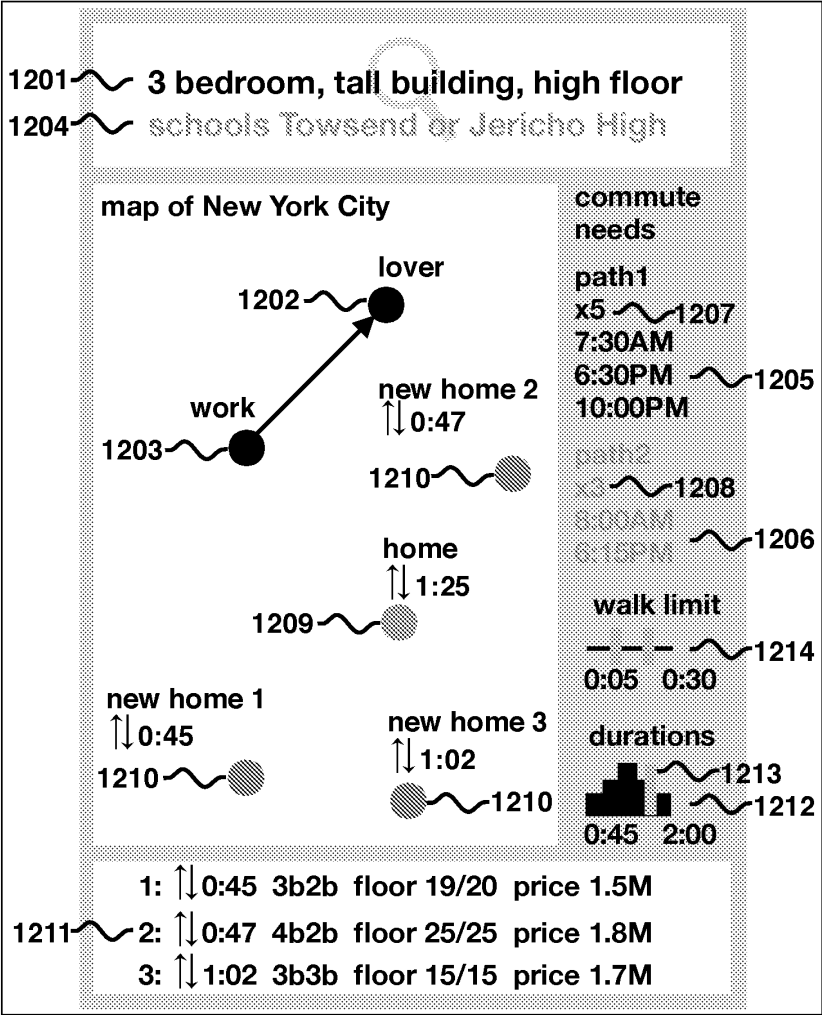


FIG. 13

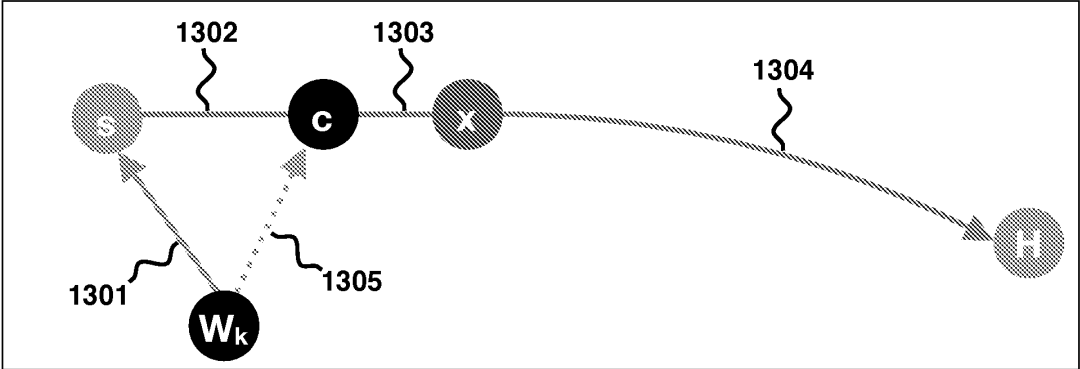


FIG. 14

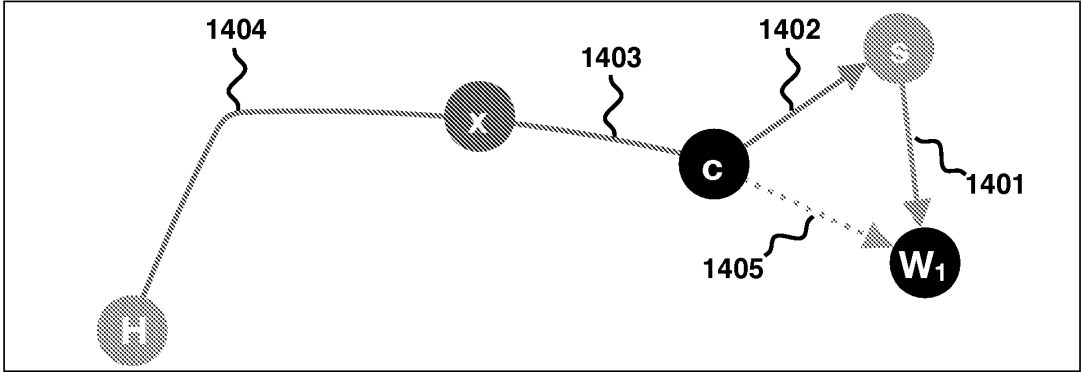


FIG. 15

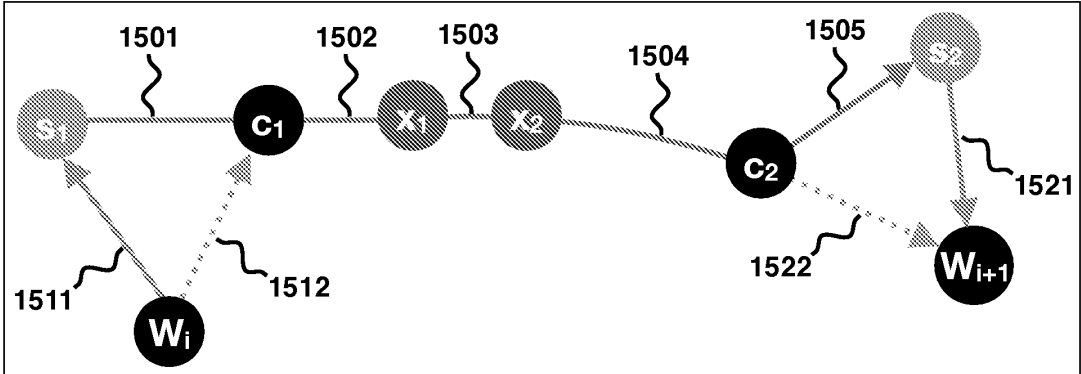


FIG. 16

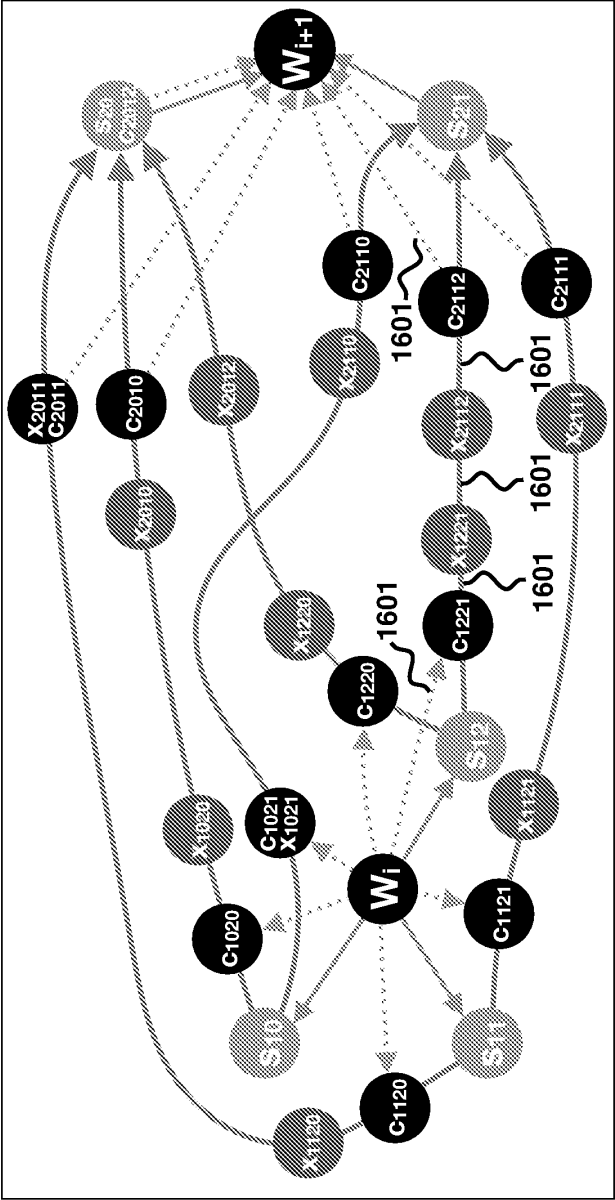
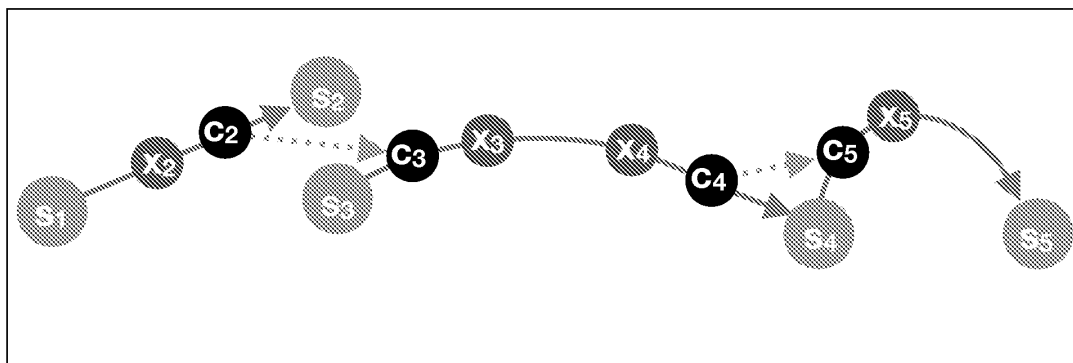


FIG. 17**FIG. 18**