

## Uptown BRT Project

### 2013 vs Proposed 2015 Modeling Assumptions

| Assumptions                                       | 2013 Analysis | 2015 Analysis   |
|---|---------------|---|
| <b>Employment &amp; Population</b>                |               |   |
| Study area population-2018                        | 10,500        | Use updated data from H-GAC   |
| Study area employment-2018                        | 84,450        | Use updated data from H-GAC   |
| Study area population-2035                        | 19,400        | Use updated data from H-GAC   |
| Study area employment-2035                        | 89,300        | Use updated data from H-GAC   |
| <b>BRT headway</b>                                |               |   |
| Peak  | 5 min         | METRO recommends testing 6 and 8 minutes peak headway. Final headway will be derived based on 11 buses (14 including spares) and travel time.   |
| Off-peak  | 5 min         | METRO recommends testing 12 minutes off-peak headway. Final headway will be derived based on 11 buses (14 including spares) and travel time.  |
| <b>BRT round trip travel time</b>                 |               |   |
| Mixed flow  | 42 min        | N/A   |
| Elevated busway                                   | 28 min        | 32 minutes (based on average speed assumptions below)   |
| <b>Average speed (for Elevated busway option)</b> |               | Current 33 Post Oak averages 11 MPH between NWTC and proposed BUTC. Recent incomplete work by Uptown suggests speeds slower than 14 MPH on Post Oak. METRO is conducting its own analysis which is underway. At this time, METRO suggests following speeds) |
| Average speed for Post Oak bus lanes (Peak)       | 14 MPH        | 12 MPH  |
| Average speed for Post Oak bus lanes (Off peak)   | 14MPH         | 12 MPH  |
| Average speed for elevated busway (Peak)          | 45 MPH        | 40 MPH  |

|   |   |   |
|---|---|---|
| Average speed for elevated busway (Off peak)    | 45 MPH                                    | 40 MPH  |
| Maximum acceleration/deceleration rate          | 2.7 ft/sec <sup>2</sup>                   | 2.7 ft/sec <sup>2</sup>   |
|   |   |   |
| Transfer time @NWTC                             | 1 min                                     | 2 min   |
| Transfer time @BUTC                             | 2 min                                     | 3 min   |
|   |   |   |
| Free fare transfers from Commuter buses & local | Yes                                       | Yes   |
|   |   |   |
| Dwell time                                      | 20 sec                                    | 20 sec (to be included in the red band (signalization) at each station) |
|   |   |   |
| Fares   | \$1.25                                    | \$1.25  |
|   |   |   |
| Capacity constraint on BRT                      | No  | No  |
|   |   |   |
| Used scaled down LRT bias                       | Yes                                       | Yes   |
|   |   |   |
| Underlying Bus network in 2018                  | Current bus network                       | New Bus Network   |
|   |   |   |
| Underlying Transit network in 2035              | 2035 RTP (includes Ph III rail Expansion) | 2035 RTP (includes Ph III rail Expansion)                               |
|   |   |   |
| Parking demand at BUTC                          | Not restricted                            | Restrict to 100 spaces  |
| Parking demand at NWTC                          | Not restricted                            | Restrict to 500 spaces  |
|   |   |   |
| Number of stations                              | 9   | 8   |
|   |   |   |
| P&R Assumptions                                 | Please see the following page             | Please see the following page   |
|   |   |   |

### Park and Ride bus assumptions (2013)

| Corridor/Type | Route | Description                | Direction     | Headway |          | Comments               |
|---------------|-------|----------------------------|---------------|---------|----------|------------------------|
|               |       |                            |               | Peak    | Off-Peak |                        |
| Northwest     | 214   | Northwest Station          | Inbound       | 5       | N/A      | No Change              |
|               |       |                            | Outbound      | 5       | N/A      | Stops at NWTC          |
|               | 216   | W. Little York/Pinemont    | Inbound       | 12      | N/A      | Stops at NWTC          |
|               |       |                            | Outbound      | 12      | N/A      | Stops at NWTC          |
|               | 217   | Cypress                    | Inbound       | 10      | N/A      | Stops at NWTC          |
|               |       |                            | Outbound      | 10      | N/A      | Stops at NWTC          |
|               | 286   | W. Little York             | To Galleria   | 15      | N/A      | Stops at NWTC          |
|               |       |                            | From Galleria | 15      | N/A      | Stops at NWTC          |
| Katy          | 221a  | Kingsland                  | Inbound       | 5       | N/A      | Stops at NWTC          |
|               |       |                            | Outbound      | 5       | N/A      | Stops at NWTC          |
|               | 221b  | Kingsland                  | Inbound       | 20      | N/A      | Stops at NWTC; Pk Hdwy |
|               |       |                            | Outbound      | 20      | N/A      | Improved Peak Headway  |
|               | 222   | Grand Parkway              | Inbound       | 5       | N/A      | Stops at NWTC          |
|               |       |                            | Outbound      | 5       | N/A      | Stops at NWTC          |
|               | 228   | Addicks                    | Inbound       | 6       | N/A      | Stops at NWTC          |
|               |       |                            | Outbound      | 6       | N/A      | Stops at NWTC          |
|               | 229   | Kingsland/Addicks          | Inbound       | N/A     | 45       | No Change              |
|               |       |                            | Outbound      | N/A     | 45       | No Change              |
|               | 298a  | Addicks/NWTC               | To TMC        | 20      | N/A      | Stops at NWTC          |
|               |       |                            | From TMC      | 20      | N/A      | Stops at NWTC          |
|               | 298b  | Addicks/NWTC               | To TMC        | 20      | N/A      | No Change              |
|               |       |                            | From TMC      | 20      | N/A      | No Change              |
|               | 274   | Westchase/Gessner          | Inbound       | 15      | N/A      | Stops at BUTC          |
|               |       |                            |               |         |          |                        |
| Southwest     | 262a  | Westwood                   | Inbound       | 10      | N/A      | Stops at BUTC          |
|               |       |                            | Outbound      | 10      | N/A      | Stops at BUTC          |
|               | 262b  | Westwood                   | Inbound       | 30      | N/A      | No Change              |
|               |       |                            | Outbound      | 30      | N/A      | No Change              |
|               | 265a  | West Bellfort              | Inbound       | 5       | N/A      | Stops at BUTC          |
|               |       |                            | Outbound      | 5       | N/A      | Stops at BUTC          |
|               | 265b  | West Bellfort              | Inbound       | 5       | N/A      | Stops at BUTC          |
|               |       |                            | Outbound      | 5       | N/A      | Stops at BUTC          |
|               | 269   | Westwood/West Bellfort     | Inbound       | N/A     | 5        | No Change              |
|               |       |                            | Outbound      | N/A     | 5        | No Change              |
|               | 292   | West Bellfort/Westwood/TMC | To TMC        | 15      | N/A      | No Change              |
|               |       |                            | From TMC      | 15      | N/A      | No Change              |

## Park and Ride bus assumptions (2015 – New Bus Network (NBN) )

(Revised based on NBN and revised proposed service plan and P&R stopping pattern)

| Corridor/Type | Route | Description                      | Direction | Current | Proposed | Comments   |
|---------------|-------|----------------------------------|-----------|---------|----------|--|
|               |       |                                  |           | Headway | Headway  |  |
| Northwest     | 214   | Northwest Station                | Inbound   | 7       | 7        | Every trip stops at NWTC                                     |
|               |       |                                  | Outbound  | 8       | 8        | Every trip stops at NWTC                                     |
|               | 216   | W. Little York                   | Inbound   | 17      | 17       | Every trip stops at NWTC                                     |
|               |       |                                  | Outbound  | 16      | 16       | Every trip stops at NWTC                                     |
|               | 217   | Cypress                          | Inbound   | 6       | 6        | Every trip stops at NWTC                                     |
|               |       |                                  | Outbound  | 10      | 10       | Every trip stops at NWTC                                     |
|               | 219   | Northwest Station (Midday)       | Inbound   | 60      | 60       | Every trip stops at NWTC (Midday Service)                    |
|               |       |                                  | Outbound  | 60      | 60       | Every trip stops at NWTC (Midday Service)                    |
| Katy          | 222   | Grand Parkway                    | Inbound   | 11      | 22       | Every other trip stops at NWTC                               |
|               |       |                                  | Outbound  | 14      | 28       | Every other trip stops at NWTC                               |
|               | 228   | Addicks                          | Inbound   | 9       | 18       | Every other trip stops at NWTC                               |
|               |       |                                  | Outbound  | 10      | 20       | Every other trip stops at NWTC                               |
|               | 229   | Kingsland/Addicks                | Inbound   | 34      | 34       | Every trip stops at NWTC                                     |
|               |       |                                  | Outbound  | 60      | 60       | Every trip stops at NWTC                                     |
|               | 298   | Addicks/NWTC                     | To TMC    | 9       | 9        | Every trip stops at NWTC                                     |
|               |       |                                  | From TMC  | 10      | 10       | Every trip stops at NWTC                                     |
| Southwest     | 262   | Westwood                         | Inbound   | 13      | 26       | Every other trip stops at BUTC                               |
|               |       |                                  | Outbound  | 13      | 26       | Every other trip stops at BUTC                               |
|               | 265   | West Bellfort                    | Inbound   | 5       | 15       | Every third trip stops at BUTC                               |
|               |       |                                  | Outbound  | 8       | 24       | Every third trip stops at BUTC                               |
|               | 269   | Westwood/West Bellfort (Evening) | Inbound   | 60      | 60       | Every trip stops at NWTC - Its only two trips in the evening |
|               |       |                                  | Outbound  | 60      | 60       | Every trip stops at NWTC - Its only two trips in the evening |
|               | 292   | West Bellfort/Westwood/TMC       | To TMC    | 16      | 16       | Every trip stops at BUTC                                     |
|               |       |                                  | From TMC  | 19      | 19       | Every trip stops at BUTC                                     |
| Westpark      | 151   | Westpark Express                 | Eastbound | 8       | 8        | Every trip stops at BUTC                                     |
|               |       |                                  | Westbound | 8       | 8        | Every trip stops at BUTC                                     |