Attachment 1

MDP CDA Geometric Design Criteria
<table>
<thead>
<tr>
<th>Maintenance (DP and ML)</th>
<th>Frontage Roads</th>
<th>Ramps/Direct Connectors</th>
<th>City Street</th>
<th>Collector/Distributor</th>
<th>Loop Ramps (2500/50)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roadway Classification</td>
<td>Urban Freeway or Tollway</td>
<td>Low Speed Urban Street</td>
<td>Urban Freeway or Tollway</td>
<td>Low Speed Urban Street</td>
<td>Urban Collector</td>
</tr>
<tr>
<td>Design Speed</td>
<td>Seg 2E: 60 mph</td>
<td>Seg 2E: 45 mph</td>
<td>Seg 2E: 30 mph</td>
<td>Seg 3A: 70 mph</td>
<td>Seg 3A: 50 mph</td>
</tr>
<tr>
<td></td>
<td>Seg 2A (STA 922-00) to southernmost construction limit; 55 mph</td>
<td></td>
<td></td>
<td>Seg 3A (SH 121): 55 mph</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seg 3B/C: 70 mph</td>
<td>Seg 3B/C: 50 mph See Note 1.9.</td>
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<td>Seg 3 B/C: 25 mph</td>
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<tr>
<td>Stopping Sight Distance</td>
<td>Seg 2E: 57'0&quot;</td>
<td>Seg 2E: 360'</td>
<td>Seg 2E: 200'</td>
<td>Seg 3A: 790' See Note 12.</td>
<td>Seg 3A: 420' See Note 8, 10, 12, 14.</td>
</tr>
<tr>
<td></td>
<td>Seg 3A (STA 922-00) to southernmost construction limit; 465'</td>
<td></td>
<td></td>
<td>Seg 3A (SH 121): 465'</td>
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</tr>
<tr>
<td></td>
<td>Seg 3B/C: 750'</td>
<td>Seg 3B/C: 425'</td>
<td>Seg 3B/C: 465'</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Horizontal Alignment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Super-Elevation Rate</td>
<td>6%</td>
<td>N/A</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Minimum Radius of Curvature</td>
<td>Seg 2E: 1340'</td>
<td>Seg 2E: 1340'</td>
<td>Seg 2E: 1000'</td>
<td>Seg 3A: 2050'</td>
<td>Seg 3A: 950'</td>
</tr>
<tr>
<td></td>
<td>Seg 3A: 105'0&quot;</td>
<td>Seg 3A: 635'</td>
<td>Seg 3A: 465'</td>
<td>Seg 3A (SH 121): 105'0&quot;</td>
<td>Seg 3A (SH 121): 950'</td>
</tr>
<tr>
<td></td>
<td>Seg 3B/C: 3050'</td>
<td>Seg 3B/C: 950'</td>
<td>Seg 3B/C: 450'</td>
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<tr>
<td><strong>Vertical Alignment</strong></td>
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</tr>
<tr>
<td>Minimum Grade</td>
<td>0.35%</td>
<td>0.35%</td>
<td>0.35%</td>
<td>0.35%</td>
<td>0.35%</td>
</tr>
<tr>
<td>imum Grade</td>
<td>Seg 2E: 3%</td>
<td>Seg 2A: 3%</td>
<td>Seg 3A (STA 922-00) to southernmost construction limit; 4%</td>
<td>Seg 3A: 3%</td>
<td>Seg 3A (SH 121): 4%</td>
</tr>
<tr>
<td></td>
<td>Seg 3A: 250'</td>
<td>Seg 3A: 2050'</td>
<td>Seg 3A: 950'</td>
<td>Seg 3B/C: 3050'</td>
<td>Seg 3B/C: 950'</td>
</tr>
<tr>
<td>Vertical Curve Length</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Crest (min. K-Value)</td>
<td>Seg 2E: 151</td>
<td>Seg 2E: 61</td>
<td>Seg 2E: 19</td>
<td>Seg 3A: 247</td>
<td>Seg 3A: 64</td>
</tr>
<tr>
<td></td>
<td>Seg 3A: 91'0&quot;</td>
<td>Seg 3A: 64'0&quot;</td>
<td>Seg 3A: 247</td>
<td>Seg 3B/C: 30'0&quot;</td>
<td>Seg 3B/C: 64'0&quot;</td>
</tr>
<tr>
<td>Vertical Curve Length</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sag (min. K-Value)</td>
<td>Seg 2E: 151</td>
<td>Seg 2E: 61</td>
<td>Seg 2E: 19</td>
<td>Seg 3A: 247</td>
<td>Seg 3A: 64</td>
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<tr>
<td></td>
<td>Seg 3A: 91'0&quot;</td>
<td>Seg 3A: 64'0&quot;</td>
<td>Seg 3A: 247</td>
<td>Seg 3B/C: 30'0&quot;</td>
<td>Seg 3B/C: 64'0&quot;</td>
</tr>
<tr>
<td><strong>Cross-Section</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane Width</td>
<td>12'</td>
<td>12' Lanes</td>
<td>14' (single lane)</td>
<td>12'</td>
<td>12'</td>
</tr>
<tr>
<td></td>
<td>24' for U-Turns</td>
<td></td>
<td></td>
<td>12' per Lane (multi-lane)</td>
<td></td>
</tr>
<tr>
<td>Shoulder Width (mm):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Shoulder</td>
<td>4' (2 or less lanes)</td>
<td>N/A (curbed)</td>
<td>4' See Note 2.</td>
<td>N/A Curbed</td>
<td>4' (2 or less lanes)</td>
</tr>
<tr>
<td>Outside Shoulder</td>
<td>10' (2 or more lanes)</td>
<td>N/A (curbed)</td>
<td>8' See Note 2.</td>
<td>N/A (curbed)</td>
<td>8' (2 or more lanes)</td>
</tr>
<tr>
<td>Curb Offset</td>
<td>N/A</td>
<td>2' Outside</td>
<td>1' Inside</td>
<td>N/A</td>
<td>1'</td>
</tr>
<tr>
<td>Cross-Section (typical)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Managed Lanes (ML):</td>
<td>2.50%</td>
<td>2.00%</td>
<td>2.00%</td>
<td>2.00%</td>
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<tr>
<td>General Purpose Lanes (GP):</td>
<td>2.50%</td>
<td>2.00%</td>
<td>2.00%</td>
<td>2.00%</td>
<td>2.00%</td>
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### NORTH TARRANT EXPRESS MDP CDA

#### Geometric Design Criteria

<table>
<thead>
<tr>
<th>Clear Zone</th>
<th>Mainlines (DP and ML)</th>
<th>Frontage Roads</th>
<th>Ramps/Direct Connectors</th>
<th>City Street</th>
<th>Collector-Distributor</th>
<th>Loop Ramps (DNR360)</th>
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</thead>
<tbody>
<tr>
<td>Distance from Edge of Travel Lane (Unless Noted Otherwise)</td>
<td>30'</td>
<td>3' (measured from face of curb) [See Note 1]</td>
<td>18'</td>
<td>3' (measured from face of curb) [See Note 1]</td>
<td>18'</td>
<td>18'</td>
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<tr>
<td>Zone Depths</td>
<td>Inside Clear Zone: 6' max</td>
<td>Outside Clear Zone: 3' max</td>
<td>6' max</td>
<td>6' max</td>
<td>6' max</td>
<td>6' max</td>
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<tr>
<td></td>
<td>Vertical Clearance (Minimum)</td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td>Over Roadway: 18' 6&quot;</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Over Streets: 18' 6&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Over Expressways: 22' 6&quot;</td>
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<td></td>
<td></td>
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<td></td>
<td>Over Electric Light Rail: 26' 6&quot;</td>
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<tr>
<td></td>
<td>Overhead Signs: 21' 6&quot;</td>
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<td></td>
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<tr>
<td></td>
<td>Pedestrian Crossings: 17' 6&quot;</td>
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</table>

<table>
<thead>
<tr>
<th>Other</th>
<th>Design Vehicle</th>
<th>WB-SB</th>
<th>WB-50</th>
<th>WB-50Q</th>
<th>WB-50</th>
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<tr>
<td></td>
<td>Construction</td>
<td>N/A</td>
<td>30' min commercial</td>
<td>15' min residential</td>
<td>N/A</td>
<td>30' min commercial</td>
<td>15' min residential</td>
</tr>
</tbody>
</table>

**Notes:**

1. The face of new bridge columns shall be located 6 ft or more from the face of curb. This requirement is not applicable to medians on cross streets. A 1.5' minimum offset is permitted for medians on cross streets.
2. To mitigate restrictions on the design imposed by sight distance, it is acceptable to position the 8-foot shoulder on the inside of the curve and the 4-foot shoulder on the outside of the curve.
3. Ramps and direct connectors shall have a maximum grade of 4% with the exception of the following listed ramps and direct connectors in Segment 3A which shall have a maximum slope of 5%.

### Segment 3A:

- WR 500 from STA 500+00.00 to 520+48.58 shall be considered a Frontage Road and classified as a Low Speed Urban Street as shown on revised schematics.

### Segment 3B:

- STEADMAN from STA 10+00.00 to 19+30.00 shall be considered a Frontage Road and classified as a Low Speed Urban Street as shown on revised schematics dated 8/5/2009.
- WEA-BEL from STA 10+00.00 to 54+24.17 shall be considered a Frontage Road and classified as a Low Speed Urban Street as shown on revised schematics dated 7/30/2009.
- DC 1215B from STA 52+77.30 to 115+85.36 shall have a minimum SSD for 45 mph design speed.
- DC 1215N from STA 52+77.30 to 104+01.93 shall be considered a Direct Connector and classified as an Urban Freeway as shown on revised schematics dated 8/5/2009.
- DC 1215N from STA 52+77.30 to 104+01.93 shall be considered a Direct Connector and classified as an Urban Freeway as shown on revised schematics dated 8/5/2009.
- DC 1215B from STA 52+77.30 to 115+85.36 shall have a maximum SSD for 45 mph design speed.
- DC 35WLM from STA 83+62.35 to 90+25.27 shall be considered a Direct Connector and classified as an Urban Freeway as shown on revised schematics dated 8/5/2009.
- DC 1215B from STA 52+77.30 to 115+85.36 shall have a minimum SSD for 45 mph design speed.
- DC 1215N from STA 52+77.30 to 104+01.93 shall have a minimum SSD for 40 mph design speed.
- The following roadways shall be classified as Collector-Distributor per revised schematics. The outside shoulder width shall be as shown on the schematic and listed below:
  - Roadway connecting Spur 280 to SH121 NB: 8 ft outside shoulder width.
  - Roadway connecting SH121 SB to SH121 NB: 8 ft outside shoulder width.
  - Roadway connecting SH121 SB to SH121 NB: 10 ft outside shoulder width.
  - Ramps connecting WB-50 to Spur 280WB shall be classified as a Loop Ramp per revised schematic.
- DC 1215B/280SB shall have a minimum SSD for 40 mph design speed based on the September 2009 schematic.
- SPUR 280 is classified as an Urban Arterial with a minimum design speed of 35 mph as shown on the September 2009 schematic.

### Segment NBC:

- Ramp SH 35W SB-US 287 shall have a Design Speed = 40 mph.
Attachment 2

Request for Information #30
Request for Information

RFI No.: 30B

Date: May 14, 2010

To: Alberto Gonzalez
NTE Mobility Partners 2-4
7700 Chevy Chase Drive
Chase Park One, Suite 500C
Austin, TX 78752

From: Matthew E. MacGregor
TxDOT, Dallas District
Tel.: 214.319.6571
Fax: 214.319.6580
E-Mail: MMACGREG@dot.state.tx.us

Subject: NTE SEGMENT 3A: MAXIMUM GRADES SEGMENT 3A INTERIM (SOUTH END OF PROJECT)

Attachments: Exhibit showing Alternative Design Concept for Interim northbound IH 35W Main Lane PGL

Information / Clarification Request:

Request for verification of Geometric Design Criteria for NTE Segment 3A (South End of Project):

As part of the project optimization process, NTE Mobility Partners 2-4 have developed an alternative design NTE segment 3A on IH 35W south of SH 121. The main purpose of this alternative is to utilize as much as possible the existing infrastructure on the interchange, and move the Existing general purpose lanes (when necessary) in order to open up an area for the construction of the Managed Lanes extension south of SH 121. Attached to this RFI is a plan and profile of Managed Lanes and General Purpose lanes of the Alternative South of SH 121 as requested previously by TxDOT in order to approve the RFI. Construction on IH 35 South Bound General Purpose Lanes South of SH 121 is interim, and is not in the Ultimate location (horizontally and vertically) as depicted on TxDOT Schematics for this segment. As seen on the plans, the profile of both bounds of the Interim General Purpose Lanes south of station 898+55 is parallel to the existing vertical profile, but the existing profile has grades that exceed the required 3 percent maximum grade. NTE DP 2-4 has submitted RFI 32 that requests clarifying a station range where the ultimate GPL is allowed to be designed for 55 mph beyond station 932+00, but this RFI will still not cover the interim construction of GPL that exceed three percent beyond station 905+70. The developer respectfully requests that both bounds of the Interim General Purpose Lanes South of 898+55 be allowed to be designed 55 MPH, and have a maximum grade of four percent.

Please verify that this criteria applies to the interim design also; therefore, the proposed interim IH 35W Managed & General Purpose Lanes south of East 4th Street will have a maximum grade of 4%. This request is being submitted based on the interim profile matching the existing profile which currently exceeds 3%.

☐ Please Verify.

Thank you.
Response Needed by (date): FRIDAY, April 30, 2010

Response:

TxDOT conditionally approves NTEMP's request to use a maximum PGL grade of 4% for the interim IH 35W General Purpose Lanes south of STA 898+55.

Final approval is dependent upon review and approval of the complete interim design proposal package and providing verification that the following vertical curves have been revised to meet a design speed of 55mph.

**Northbound IH 35W**
The vertical curve located at VPI Sta. 924+63, a curve length of 600', and a K value of 86 does not meet the criteria for a 55 MPH design for a crest vertical curve. The K value for a 55 MPH design for a crest curve is 114.

The vertical curve located at VPI Sta. 932+17, a curve length of 730', and a K value of 96 does not meet the criteria for a 55 MPH design for a sag vertical curve. The K value for a 55 MPH design for a sag curve is 115.

**Southbound IH 35W**
The vertical curve located at VPI Sta. 923+45, a curve length of 680', and a K value of 88 does not meet the criteria for a 55 MPH design for a crest vertical curve. The K value for a 55 MPH design for a crest curve is 114.

The vertical curve located at VPI Sta. 910+52, a curve length of 420', and a K value of 97 does not meet the criteria for a 55 MPH design for a sag vertical curve. The K value for a 55 MPH design for a sag curve is 115.

The vertical curve located at VPI Sta. 931+84, a curve length of 780', and a K value of 108 does not meet the criteria for a 55 MPH design for a sag vertical curve. The K value for a 55 MPH design for a sag curve is 115.

Prior to final approval of this request, TxDOT also requests that NTEMP24 provide documentation discussing why the permanent bridge structures over 49th Street and the RR cannot be constructed as part of the interim configuration. This documentation should include a review of the attached exhibit which proposes an alternate interim profile for the northbound main lanes in order to construct the permanent structures over 49th St and the RR. Please identify what factors preclude further development of this interim alternate design for the northbound IH 35W main lanes.

---

**Responder Name:** Matthew E. MacGregor, P.E.  **Response Date:** May 14, 2010

**Delivery Type:**  
- [ ] Courier  
- [x] Overnight  
- [ ] Mail  
- [x] Other: E-mail
North Tarrant Express Mobility Partners 2-4, LLC
7700 Chevy Chase Drive  9001 Airport Freeway
Chase Park One, Suite 500C  Suite 600
Austin, Texas 78752      North Richland Hills, TX 76180

Request for Information

<table>
<thead>
<tr>
<th>RFI No.:</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>March 10, 2010</td>
</tr>
<tr>
<td>To:</td>
<td>Matt MacGregor</td>
</tr>
<tr>
<td></td>
<td>4777 E. Highway 80</td>
</tr>
<tr>
<td></td>
<td>Mesquite, TX 75150-6443</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:mmacgreg@dot.state.tx.us">mmacgreg@dot.state.tx.us</a></td>
</tr>
<tr>
<td>From:</td>
<td>Kate Flanagan</td>
</tr>
<tr>
<td></td>
<td>NTE Mobility Partners 2-4 – Austin, TX</td>
</tr>
<tr>
<td>Tel.:</td>
<td></td>
</tr>
<tr>
<td>Fax:</td>
<td></td>
</tr>
<tr>
<td>E-Mail:</td>
<td><a href="mailto:kflanagan@cintra.us.com">kflanagan@cintra.us.com</a></td>
</tr>
<tr>
<td>Subject:</td>
<td>NTE SEGMENT 3A: MAXIMUM GRADES SEGMENT 3A INTERIM (SOUTH END OF PROJECT)</td>
</tr>
</tbody>
</table>

Attachments:

Information / Clarification Request:

Request for verification of Geometric Design Criteria for NTE Segment 3A (South End of Project):

Per the Geometric Design Criteria dated 1/5/2010, the maximum grade for Mainlanes (GP and ML) pertaining to “Seg 3A (South End of Project)” is 4%.

Please verify that this criteria applies to the interim design also; therefore, the proposed interim I-35W Managed & General Purpose Lanes south of East 4th Street will have a maximum grade of 4%. This request is being submitted based on the interim profile matching the existing profile which currently exceeds 3%.

☐ Please Verify.

Thank you.

Response Needed by (date): FRIDAY, MARCH 26, 2010

Response:

Responser Name: ___________________________  Response Date: ___________________________

Delivery Type:  ☐ Courier  ☐ Overnight  ☐ Mail  ☐ Other
Attachment 3

Request for Information #31
Request for Information

RFI No.: 31 Date: April 20, 2010

To: Alberto Gonzalez
    NTE Mobility Partners 2-4
    7700 Chevy Chase Drive
    Chase Park One, Suite 500C
    Austin, TX 78752

From: Matthew E. MacGregor
    TxDOT, Dallas District
    Tel.: 214.319.6571
    Fax: 214.319.6580
    E-Mail: MIMACGRE@dot.state.tx.us

Subject: NTE Seg 3A interim ramp exceptions

Attachments: NTE Seg 3AI As-Builts of 4 existing ramps.pdf, Plans for interim Construction on the same area

Information / Clarification Request:

This is to request an exception for design speed on 4 interim ramps located along IH35W between the Trinity River and the SH121/IH 35W Interchange. The interim configuration shows existing mainlanes and frontage roads that are widened to accommodate the managed lane extension. New ramp designs are provided for the entrance and exits in approximate locations of the existing ramps. A review of the existing ramp as-builts indicate a design speed range of 25-50 mph based on horizontal and vertical curves (See attached). The current designs have accommodated a 35mph design speed. The 4 ramps to be considered for exception are: TRTA-GPSI, GPSI-121, TRTA GPNI, BELK-GPNI. The above listed ramps also do not comply with the minimum distance between ramps as required by the TxDOT Roadway Design Manual Figure 3-51, as it provides less than 1500ft of weaving distance in the auxiliary lane.

NTE Mobility Partners 2-4 respectfully requests both a deviation on the design speed of the above ramps, and a deviation with respect to the minimum distance between successive entrance and exit ramps.

This request applies only to the four ramps built for the Segment 3A interim configuration. This exception request is exclusive to the interim configuration. It has no impact on the ultimate design.

Response Needed by (date): 4-23-10

Response:

TxDOT conditionally approves the interim design and locations of the four ramps (TRTA-GPSI, GPSI-121, GPNI-TRTA and BELK-GPNI).

Final approval is dependent upon review and approval of the complete interim design proposal package.

Prior to final approval of this request, TxDOT also requests that NTEMP24 provide the proposed horizontal and vertical design for each of the subject ramps for review. Each ramp design should attempt to achieve the highest attainable design speed.

The AUX lane weaving distance between ramps TRTA-GPSI, GPSI-121 should also be maximized during final design of the interim configuration by refining ramp locations and optimizing ramp designs. For example, there may be an opportunity to increase the AUX lanes weaving distance by relocating the Ramp TRTA-GPSI gore further to the north (closer to the U-turn).

Responder Name: Matthew E. MacGregor, P.E. Response Date: May 14, 2010

Delivery Type: ☐ Courier ☐ Overnight ☐ Mail ☑ E-mail
Attachment 4

Request for Information #35
Request for Information

RFI No.: 35
Date: May 11, 2010

To: Matt MacGregor
4777 E. Highway 80
Mesquite, TX 75150-6443
mmacgre@dot.state.tx.us

From: Alberto Gonzalez
NTE Mobility Partners 2-4 – Austin, TX

Subject: NTE Segment 3A Existing NB IH35W Exit to Spur 280 NB

Attachments: Plan view at Spur 280 an IH 35W

Information / Clarification Request:

NTEMP 2-4 requests an additional design deviation for Segment 3A for the existing NB IH 35W Exit to Spur 280 NB. As part of the project optimization process, an in order to reduce a potential subsidy from TxDOT for the construction of the project, NTE Mobility Partners 2-4 have developed an alternative design NTE segment 3A on IH 35W south of SH 121. The main purpose of this alternative is to utilize as much as possible the existing infrastructure on the interchange of SH 121 with IH35W, and on the interchange of IH 35W with Spur 280. Attached to this RFI is a plan and profile of Managed Lanes and General Purpose lanes of the Alternative at the interchange of IH35W and Spur 280; as seen on the plans NTEMP 2-4 is using the existing NB IH35W loop ramp Exit to Spur 280 NB. Below is the table describing the existing loop ramp E35N280:

<table>
<thead>
<tr>
<th>NUM</th>
<th>DELTA</th>
<th>DEGREE</th>
<th>TANGENT</th>
<th>CURVE LENGTH</th>
<th>RADIUS</th>
<th>PI STATION</th>
<th>PI NORTING</th>
<th>PI EASTING</th>
<th>PC STATION</th>
<th>PC STATION</th>
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</thead>
<tbody>
<tr>
<td>E35N280-1</td>
<td>27° 14' 56.06&quot;</td>
<td>99° 52' 42.80&quot;</td>
<td>265.70'</td>
<td>580.00</td>
<td>14+03.14</td>
<td>6,846,989.71</td>
<td>10+93.32</td>
<td>13+75.22</td>
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<tr>
<td>E35N280-2</td>
<td>59° 41' 14.42&quot;</td>
<td>100° 00' 49.37&quot;</td>
<td>238.56'</td>
<td>150.00</td>
<td>14+89.01</td>
<td>6,961,145.95</td>
<td>2+137,207.63</td>
<td>15+15.22</td>
<td>15+15.78</td>
<td></td>
</tr>
<tr>
<td>E35N280-3</td>
<td>59° 41' 14.42&quot;</td>
<td>100° 00' 49.37&quot;</td>
<td>238.56'</td>
<td>150.00</td>
<td>14+89.01</td>
<td>6,961,145.95</td>
<td>2+137,207.63</td>
<td>15+15.22</td>
<td>15+15.78</td>
<td></td>
</tr>
<tr>
<td>E35N280-4</td>
<td>71° 15' 35.94&quot;</td>
<td>100° 00' 49.37&quot;</td>
<td>238.56'</td>
<td>150.00</td>
<td>14+89.01</td>
<td>6,961,145.95</td>
<td>2+137,207.63</td>
<td>15+15.22</td>
<td>15+15.78</td>
<td></td>
</tr>
</tbody>
</table>

As seen on the table above, the existing loop ramp curve E35N280-4 has a radius of 120 ft, that do not comply with the Ultimate alignment geometric requirements listed in the document North Tarrant Express MDP CDA Geometric Design under Loop Ramp (design speed requirement of 25 MPH). The stated alignment currently only complies with a design speed of 20 MPH based on Low Speed Urban Street table 2-5 of the TxDOT Roadway Design Manual. NTEMP 2-4 respectfully requests to TxDOT to add a note on the document North Tarrant Express MDP CDA Geometric Design Criteria Allowing the developer to comply with a design speed of 20, and to classify this existing loop ramp as a Low Speed Urban Street.
Response Needed by (date): 05-13-10

Responses:

TxDOT conditionally agrees to the use of the existing horizontal loop ramp curve E35N280-3 which has a radius of 120ft and a design speed of 20 mph.

Final approval is dependent upon review and approval of the complete interim design proposal package.

The Draft MDP Geometric Design Criteria Table will not be updated to reflect interim design criteria since the table is intended as a reference document for the ultimate design of the facility.

<table>
<thead>
<tr>
<th>Responder Name: Matthew E. MacGregor, P.E.</th>
<th>Response Date: May 14, 2010</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Delivery Type:</th>
<th>Courier</th>
<th>Overnight</th>
<th>Mail</th>
<th>Other</th>
<th>E-mail</th>
</tr>
</thead>
</table>
Attachment 5

Request for Information #28
**Request for Information**

**RFI No.:** 28  
**Date:** March 10, 2010

**To:** Alberto Gonzalez  
NTE Mobility Partners 2-4  
7700 Chevy Chase Drive  
Chase Park One, Suite 500C  
Austin, TX 78752

**From:** Matthew E. MacGregor  
TxDOT, Dallas District  
Tel.: 214.319.6571  
Fax: 214.319.6580  
E-Mail: MMACGRE@dot.state.tx.us

**Subject:** NTE SEGMENT 3A: INTERIM CLOVERLEAF RAMP (IH35NB TO SPUR 280 WB) TO RETAIN CLASSIFICATION AS LOOP RAMP.

**Information / Clarification Request:**

Request for verification on NTE Segment 3A Interim Ramp connecting IH35NB to Spur 280WB: Classification to remain the same as MDP/Ultimate Design.

The NTE Segment 3A Interim design of Ramp 35NB280 requires the vertical profile to be raised in order to tie into Spur 280 WB. The new vertical profile has a maximum grade of 7%.

Per the Geometric Design Criteria dated 1/5/2010, under the Notes section, it states:

**Segment 3A:**

16. Ramp connecting IH35NB to Spur 280WB shall be classified as a Loop Ramp per revised schematic.

The maximum grade for a Loop Ramp (35NB280) is 7%. Please confirm this criteria may be used in the Interim design and a grade of 7% for Ramp 35NB280 is acceptable.

☐ Please Confirm.

**Response Needed by (date):** FRIDAY, MARCH 26, 2010

**Responses:**

The use of a grade of 7% for Ramp 35NB280 for the Interim design per the MDP Draft Geometric Design Criteria Table is approved.

<table>
<thead>
<tr>
<th>Responder Name:</th>
<th>Matthew E. MacGregor, P.E.</th>
<th>Response Date:</th>
<th>March 16, 2010</th>
</tr>
</thead>
</table>

**Delivery Type:**  
☐ Courier  ☐ Overnight  ☐ Mail  ☐ Other  E-mail
Attachment 6

Request for Information #34
Request for Information

RFI No.: 34  Date: May 11, 2010

To: Matt MacGregor  From: Alberto Gonzalez
4777 E. Highway 80  NTE Mobility Partners 2-4 – Austin, TX
Mesquite, TX 75150-6443

mmacgre@dot.state.tx.us

Tel.:  Fax:

E-Mail: agonzalez@cintia.us.com

Subject: NTE Seg 3A Cypress Street

Attachments: Alternate Intersection Design Concept for Cypress Street Intersection

Information / Clarification Request:

NTEMP 2-4 requests an additional design deviation for Segment 3A. The deviation is for Cypress Street alignment. As part of the project optimization, NTEMP 2-4 has connected the SB Managed Lanes to Spur 280 in order to take advantage of the existing connection of Spur 280 to IH 30. To achieve the above stated goal, the Spur 280 NB was moved towards the East to make room for the Direct Connector coming from IH 35W Manage Lane South Bound, requiring that the Cypress Street overpass to be re-constructed and at the same time be raised to meet minimum clearance (current bridge only has 14ft 11in clearance with respect to the NB spur 280). Below is the table describing Cypress Street Alignment:

<table>
<thead>
<tr>
<th>CURVE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>CYPRESS-1</td>
</tr>
<tr>
<td>CYPRESS-2</td>
</tr>
</tbody>
</table>

The construction limits within Cypress will creep slightly within the existing curve Cypress-1 in order to raise the Overpass. Cypress being a cross street will have to meet the geometric requirements under the column of City Street within the document North Tarrant Express MDP CDA Geometric Design criteria for a design speed of 35 MPH. Existing Curve Cypress-1 has a radius of 75 ft between stations 10+00 to 11+59.05; this existing radius only complies with a design speed of 15 MPH based on Low Speed Urban Street table 2-5 of the TxDOT Roadway Design Manual. NTEMP 2-4 respectfully requests to TxDOT that a note be added to the document North Tarrant Express MDP CDA Geometric Design Criteria that grants a deviation on the design speed for the curve between stations 10+00 to 11+59.05 for 15 MPH.
Response Needed by (date): 05-13-10

Responses:

TxDOT conditionally agrees to the use of the horizontal radius of 75 ft between stations 10+00 to 11+59.05 for the proposed design configuration of the Cypress Street Intersection.

Final approval is dependent upon review and approval of the complete interim design proposal package.

Prior to final approval of this request, TxDOT also requests that NTEMP24 consider alternate cost effective design improvements for the Cypress Creek intersection since this will be the permanent configuration of the intersection. See the attached alternate design concept. Consideration should also be given to straightening the Cypress Creek alignment north of the bridge to create a "T-intersection".

The Draft MDP Geometric Design Criteria Table will not be updated to reflect interim design criteria since the table is intended as a reference document for the ultimate design of the facility.

<table>
<thead>
<tr>
<th>Responder Name:</th>
<th>Matthew E. MacGregor, P.E.</th>
<th>Response Date:</th>
<th>May 14, 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Type:</td>
<td>☐ Courier</td>
<td>☐ Overnight</td>
<td>☐ Mail</td>
</tr>
</tbody>
</table>
Attachment 7

Request for Information #26
Request for Information

RFL No.: 26

Date: February 8, 2010

To: Alberto Gonzalez
NTE Mobility Partners 2-4
7700 Chevy Chase Drive
Chase Park One, Suite 500C
Austin, TX 78752

From: Matthew E. MacGregor
TxDOT, Dallas District
Tel.: 214.319.6571
Fax: 214.319.6580
E-Mail: MMACGRE@dot.state.tx.us

Subject: Use of 4' inside shoulder on six-lane Managed Lanes per TxDOT schematics.

Attachments:

Information / Clarification Request:

Request for verification of inside 4' shoulder width on Managed Lanes:

Per the NTE Segment 3B TxDOT schematics, the proposed Managed Lanes show a 4 foot inside shoulder for a 6 lane freeway (i.e. 3 managed lanes in each direction).

For reference, please see TxDOT schematic roll 7 of 26, Dated July 28, 2009, prepared by Civil Associates, Inc. and entitled: IH 35W (URBAN FREEWAY) NORTH (FROM IH 820 TO SOUTH OF SH 114) TARRANT COUNTY CSJ 0014-16-252 AND 0081-12-041

On this schematic, please see IH 35W typical sections from STA 1538+00 to 1581+00.

We request to retain a 4' shoulder in this area. Please verify that the intent is to have a 4' shoulder and verify that a design exception has been processed or will be granted.

☐ Please Verify and Approve.

Response Needed by (date): Friday, February 20, 2010

Responses:

The request to retain a 4’ inside shoulder on the proposed NB and SB Managed Lanes in Segment 3B between the IH 820 and Basswood Blvd connections is approved.

The proposed IH 35W typical sections from STA 1538+00 to STA 1581+00 as shown on TxDOT schematic Roll 7 of 26 will be updated to show two ML and one AUX lane in each direction.

No design exception will be required for this section of roadway given the proposed lane classification.

Responder Name: Matthew E. MacGregor, P.E.
Response Date: March 5, 2010

Delivery Type: ☑ Courier ☐ Overnight ☐ Mail ☑ Other E-mail
Attachment 8

Request for Information #29
Request for Information

RFI No.: 29
Date: March 10, 2010

To: Alberto Gonzalez
NTE Mobility Partners 2-4
7700 Chevy Chase Drive
Chase Park One, Suite 500C
Austin, TX 78752

From: Matthew E. MacGregor
TxDOT, Dallas District
Tel.: 214.319.6571
Fax: 214.319.6580
E-Mail: MMACGRE@det.state.tx.us

Subject: USE OF 4' INSIDE SHOULDER ON SIX-LANE MANAGED LANES PER TxDOT SCHEMATICS.

Attachments:

Information / Clarification Request:

Request for verification of inside 4' shoulder width on Managed Lanes:

Per the NTE Segment 3A TxDOT schematics, the proposed Managed Lanes show a 4 foot inside shoulder for a 6 lane freeway (i.e. 3 managed lanes in each direction).

For reference, please see TxDOT schematic roll 1 of 16, stamped: PRELIMINARY 100% SUBMITTAL AUGUST 5, 2009, prepared by Civil Associates, Inc. and entitled: IH 35W (URBAN FREEWAY) SOUTH (FROM MEACHAM BLVD TO SPUR 280) TARRANT COUNTY CSJ 0014-16-179...
On this schematic, please see IH 35W typical sections from STA 707+20 to 722+98.

We request to retain a 4' shoulder for this segment in the Interim and MDP/Ultimate design. Please verify that the intent is to have a 4' shoulder and verify the extent to which the design exception has been processed.

☐ Please Verify and Approve.

Thank you.

Response Needed by (date): FRIDAY, MARCH 26, 2010

Response:

The request to retain a 4' inside shoulder on the proposed NB and SB Managed Lanes in Segment 3A between the pair of wishbone connections for the Interim and Ultimate design is approved.

The proposed IH 35W typical sections from STA 707+20 to STA 722+98 as shown on TxDOT Schematic Roll 5 of 16 will be updated to show two ML and one AUX lane in each direction as shown on the proposed IH 35W typical sections from STA 745+00 to STA 772+00 on TxDOT Schematic Roll 6 of 16.

No design exception will be required for this section of roadway given the proposed lane classification.

Responder Name: Matthew E. MacGregor, P.E.
Response Date: March 16, 2010

Delivery Type: ☐ Courier ☐ Overnight ☐ Mail ☑ Other  E-mail
Attachment 9

Request for Information #21
Request for Information

RFI No.: 21  
Date: 12/07/09

To: Alberto Gonzalez  
From: Matthew E. MacGregor
NTE Mobility Partners 2-4  
TxDOT, Dallas District
7700 Chevy Chase Drive  
214.319.6571
Chase Park One, Suite 500C  
Fax: 214.319.6580
Austin, TX 78752  
E-Mail: MMACGRE@dot.state.tx.us

Subject: Traffic Control Plan Design Criteria for Sections 2E, 3A, and 3B

Attachments:

Information / Clarification Request:

Design for the Temporary Traffic Control Plan during construction are based on the following parameters:

- Typical Min. Design Speed: 55 mph on Interstate and State Highways; Absolute Min. 40 mph at major alignment transitions or areas where higher speeds cannot be attained due to geometric and safety constraints; 25 mph on Frontage Roads and Cross Streets.
- Number of lanes on Frontage Roads may be reduce to 1 lane, as needed, for phasing traffic during construction.
- Number of lanes on cross streets may be reduced by one lane in each direction, as needed, for phasing traffic during construction.
- Lane widths: Minimum 11' with exceptions of 10' lanes in limited circumstances in short distances during construction.
- Shoulders: 1' min. offset from edge of travel way to edge of pavement or barrier.

Response Needed by (date): Friday, January 1, 2010

Response:

The Design Requirements for Temporary Control Plans for the MDP shall be in accordance with CDA Books 2 and 3, Section 18.3, Traffic Control, Design Requirements, the TXMUTCD and the TxDOT traffic control plan standards.

The Design Speed on Interstate and State Highways shall be 55 mph in accordance with CDA Book 2, Section 18.3.1.1.1. The absolute minimum design speed shall be 45 mph as approved by TxDOT.

The number of lanes on frontage roads during construction shall be in accordance with CDA Book 2 Section 18.3.1.1.2, Table 18-1a. TxDOT approval is required for a reduction in the number of frontage road lanes.

The number of lanes on cross streets shall be in accordance with CDA Book 2 Section 18.3.1.1.1 and 18.3.1.1.2 or as approved by TxDOT.

Lane widths during construction shall be a minimum of 11' in accordance with CDA Book 2 Section 18.3.1.1.1. For minor cross streets only, TxDOT may, at its sole discretion, approve the use of 10' lanes in limited circumstances as stated in Section 18.3.1.1.1.

A 1' minimum offset from edge of travel way to edge of pavement or barrier is permitted in accordance with Section 18.3.1.1.1.

Responder Name: Matthew E. MacGregor, P.E.  
Response Date: December 16, 2009

Delivery Type:  □ Courier  □ Overnight  □ Mail  □ Other  E-mail
Attachment 10

TTA Book 3 Geometric Design Criteria
**Table 11-2: Geometric Design Criteria**

<table>
<thead>
<tr>
<th></th>
<th>MAINLANES</th>
<th>FRONTAGE ROADS</th>
<th>RAMPS/DIRECT CONNECTORS</th>
<th>CROSSING STREETS ²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roadway Classification</td>
<td>Urban Freeway or Tollway</td>
<td>Low Speed Urban Street</td>
<td>Urban Freeway or Tollway</td>
<td>Low Speed Urban Street</td>
</tr>
<tr>
<td>Design Speed</td>
<td>60 mph</td>
<td>40 mph</td>
<td>50 mph</td>
<td>30-40 mph</td>
</tr>
<tr>
<td>Stopping sight distance</td>
<td>570'</td>
<td>305'</td>
<td>425' ⁴</td>
<td>200' (30 mph)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>305' (40 mph)</td>
</tr>
<tr>
<td><strong>HORIZONTAL ALIGNMENT</strong></td>
<td>6%</td>
<td>N/A</td>
<td>6%</td>
<td>N/A</td>
</tr>
<tr>
<td>Min. Radius of Curvature</td>
<td>1340'</td>
<td>675'</td>
<td>835'</td>
<td>675' (40 mph)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>300' (30 mph)</td>
</tr>
<tr>
<td><strong>VERTICAL ALIGNMENT</strong></td>
<td>0.35 percent</td>
<td>0.35 percent</td>
<td>0.35 percent</td>
<td>0.35 percent</td>
</tr>
<tr>
<td>Minimum grade</td>
<td>3.0 percent</td>
<td>7.0 percent</td>
<td>4.0 percent⁵</td>
<td>7.0 percent (40 mph)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.0 percent (30 mph)</td>
</tr>
<tr>
<td>Vertical curve length</td>
<td>151</td>
<td>44</td>
<td>84</td>
<td>44 (40 mph)</td>
</tr>
<tr>
<td>Crest (Min. K-Value)</td>
<td></td>
<td></td>
<td></td>
<td>19 (30 mph)</td>
</tr>
<tr>
<td></td>
<td>136</td>
<td>64</td>
<td>96</td>
<td>64 (40 mph)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>37 (30 mph)</td>
</tr>
<tr>
<td><strong>CROSS-SECTION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane width</td>
<td>12'</td>
<td>12' lanes</td>
<td>14' (single lane)</td>
<td>12'</td>
</tr>
<tr>
<td></td>
<td>24' for U-Turns</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shoulder Width (min.)</td>
<td>4' (2 or less lanes)</td>
<td>NA (curbed)</td>
<td>4' ¹</td>
<td>NA (curbed)</td>
</tr>
<tr>
<td>Inside Shoulder</td>
<td>10' (3 or more lanes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NA (curbed)</td>
<td>8' ¹</td>
<td>NA (curbed)</td>
</tr>
<tr>
<td>Outside Shoulder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curb offset</td>
<td>N/A</td>
<td>1'</td>
<td>N/A</td>
<td>refer to Table 11-3</td>
</tr>
<tr>
<td>Cross-slope (typical)</td>
<td>2.5 percent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managed Lanes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Purpose Ln</td>
<td>2.5 percent</td>
<td>2.0 percent</td>
<td>2.0 percent</td>
<td>2.0 percent</td>
</tr>
<tr>
<td>- Inside 2 lanes</td>
<td>2.5 percent</td>
<td>2.0 percent</td>
<td>2.0 percent</td>
<td>2.0 percent</td>
</tr>
<tr>
<td>- Outside lanes</td>
<td>2.5 percent</td>
<td>2.0 percent</td>
<td>2.0 percent</td>
<td>2.0 percent</td>
</tr>
<tr>
<td>- Shoulders</td>
<td>2.5 percent</td>
<td>2.0 percent</td>
<td>2.0 percent</td>
<td>2.0 percent</td>
</tr>
<tr>
<td><strong>DISTANCE FROM EDGE OF TRAVEL LANE</strong></td>
<td>30'</td>
<td>3' (measured from face of curb)</td>
<td>16'</td>
<td>refer to notes 1 and 2</td>
</tr>
<tr>
<td></td>
<td>6:1</td>
<td>6:1</td>
<td>6:1</td>
<td>6:1</td>
</tr>
<tr>
<td></td>
<td>3:1 max</td>
<td>3:1 max</td>
<td>3:1 max</td>
<td>3:1 max</td>
</tr>
<tr>
<td><strong>VERTICAL CLEARANCE</strong></td>
<td>16'-6&quot;</td>
<td>16'-6&quot;</td>
<td>16'-6&quot;</td>
<td>16'-6&quot;</td>
</tr>
<tr>
<td>Over Roadway</td>
<td>16'-6&quot;</td>
<td>16'-6&quot;</td>
<td>16'-6&quot;</td>
<td>16'-6&quot;</td>
</tr>
<tr>
<td>Over Streets</td>
<td>16'-6&quot;</td>
<td>16'-6&quot;</td>
<td>23'-0&quot;</td>
<td>23'-0&quot;</td>
</tr>
<tr>
<td>Over Railroad</td>
<td>23'-0&quot;</td>
<td>23'-0&quot;</td>
<td>26'-6&quot;</td>
<td>26'-6&quot;</td>
</tr>
<tr>
<td>Over electrified light</td>
<td>21'-0&quot;</td>
<td>21'-0&quot;</td>
<td>21'-0&quot;</td>
<td>21'-0&quot;</td>
</tr>
<tr>
<td>Overhead Signs</td>
<td>17'-6&quot;</td>
<td>17'-6&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedestrian Crossings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design Vehicles</td>
<td>MAINLANES</td>
<td>FRONTAGE ROADS</td>
<td>RAMPS/DIRECT CONNECTORS</td>
<td>CROSSING STREETS</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------</td>
<td>----------------</td>
<td>-------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td>WB-50</td>
<td>WB-50</td>
<td>WB-50</td>
<td>As noted in Table 11-3</td>
</tr>
<tr>
<td>Driveway Radius</td>
<td>N/A</td>
<td>30' min commercial, 15' min. residential</td>
<td>N/A</td>
<td>30' min commercial, 15' min. residential</td>
</tr>
</tbody>
</table>

**Notes:**
1. See Table 11-3 for crossing street functional classification
2. The face of the new bridge columns shall be located 6 feet or more from the face of curb
3. To mitigate restrictions on the design imposed by sight distance, it is acceptable to position the 8-foot shoulder inside of the curve and the 4-foot shoulder on the outside of the curve.
4. Ramps and direct connectors shall have a minimum stopping sight distance (SSD) of 425' with the exception of the following listed ramps and direct connectors, for which the minimum SSD is as noted.
   **Segment 1**
   - DC ramp connecting IH35W-NB to I-820-WB shall have a minimum SSD of 305'.
   - DC ramp connecting IH35W-NB to I-820-EB shall have a minimum SSD of 305'.
   - DC ramp connecting IH35W-SB to I-820-WB shall have a minimum SSD of 360'.
   - DC ramp connecting IH35W-SB to I-820-EB shall have a minimum SSD of 360'.
   - DC ramp connecting I-820-WB to IH35W-NB shall have a minimum SSD of 360'.
   - DC ramp connecting I-820-WB to IH35W-SB shall have a minimum SSD of 305'.
   - DC ramp connecting I-820-EB to IH35W-NB shall have a minimum SSD of 305'.
   - DC ramp connecting I-820-EB to IH35W-SB shall have a minimum SSD of 305'.
   - Managed Toll Lane DC ramp connecting IH35W-NB to I-820-EB shall have a minimum SSD of 360'.
   - Managed Toll Lane DC ramp connecting IH35W-SB to I-820-EB shall have a minimum SSD of 305'.
   - Managed Toll Lane DC ramp connecting I-820-WB to IH35W-NB shall have a minimum SSD of 305'.
   - Managed Toll Lane DC ramp connecting I-820-WB to IH35W-SB shall have a minimum SSD of 305'.
   - DC ramp connecting SH 183-WB to I-820-SB shall have a minimum SSD of 360'.
   **Segment 2**
   - DC ramp identified on the RID schematic as WR8248 shall have a minimum SSD of 360'.
   - DC ramp identified on the RID schematic as WR248 shall have a minimum SSD of 305'.
5. Ramps and direct connectors shall have a maximum slope of 4% with the exception of the following listed ramps and direct connectors for which shall have a maximum slope of 5%. However, Developer shall prepare the design using Good Industry Practice having flatter slopes where possible.
   - Managed Toll Lane DC ramp connecting IH35W-NB to IH35W-EB (RID schematic Sta. 20+50 to Sta. 30+25)
   - Managed Toll Lane ramp connecting I-820-EB to Haltom Road (RID schematic Sta. 25+00 to Sta. 38+00)
   - Managed Toll Lane ramp connecting I-820-WB to US77 (RID schematic Sta. 18+10 to Sta. 25+00)
   - Ramp connecting I-820-EB to Rufe Snow (RID schematic Sta. 18+25 to Sta. 23+50)
   - Ramp connecting SH26 to I-820-WB (RID schematic Sta. 25+50 to Sta. 32+80)
   - Ramp connecting I-820-WB to Iron Horse Drive (RID schematic Sta. 22+00 to Sta. 29+50)