

**Project Addendum No. 8  
To Agreement For  
On Demand Consulting Engineering Services  
Traffic Engineering Projects  
For the Period June 18, 2012 through June 17, 2014**

**SOUTH OVERLAND PARK TRANSPORTATION PLAN  
(TS-1630)**

THIS PROJECT ADDENDUM NO. 8 (the "Addendum") is entered into on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between the City of Overland Park, Kansas, (the "City") and HNTB Corporation (the "Consulting Engineer/Architect").

WHEREAS, the Engineering/Architectural Services Agreement, dated June 18, 2012 (the "Original Agreement"), requires that for each Project executed thereunder, an Addendum be executed in order to set forth the scope of each Project, its associated fee and its duration; and

WHEREAS, the City and the Consulting Engineer/Architect desire to enter into this Addendum for the Consulting Engineer/Architect to provide the City services related to performing traffic engineering services for the study of streets in southern Overland Park to determine their future capacity needs.

NOW, THEREFORE, in consideration of these premises and mutual covenants herein contained, the parties hereto agree to amend the Original Agreement to incorporate the following:

**SCOPE OF SERVICES**

Consulting Engineer/Architect agrees to perform the services outlined in Exhibit A to this Addendum No. 8, attached hereto and incorporated by reference herein to the City's full satisfaction.

**TIME SCHEDULE**

Upon receipt of a written notice to proceed, the Consultant Engineer/Architect hereby agrees to complete the Scope of Services on or before August 29, 2014.

**COMPENSATION**

The City agrees to pay the Consulting Engineer/Architect an amount not to exceed One Hundred Thousand Twenty Six and no/100 Dollars (\$100,026.00) including reimbursables. The fee is specifically described in Exhibit B to this Addendum No. 8 and is based on the performance of the scope of services outlined in this Addendum and billed using hourly rates and equipment charges as set forth in Exhibit A of the Original Agreement.

**INCORPORATION INTO ORIGINAL AGREEMENT**

All provisions of the Original Agreement dated June 18, 2012 shall remain in full force and effect, except as specifically modified by this Addendum, including all policies of insurance

which shall cover the work authorized by this Addendum.

IN WITNESS WHEREOF, the parties hereto have executed this Project Addendum in triplicate.

HNTB CORPORATION

\_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_

CITY OF OVERLAND PARK, KANSAS

\_\_\_\_\_  
Carl Gerlach  
Mayor

ATTEST:

\_\_\_\_\_  
Marian Cook, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Attorney for the City

# South Overland Park Transportation Plan Scope of Services

November 18, 2013

## Project Description

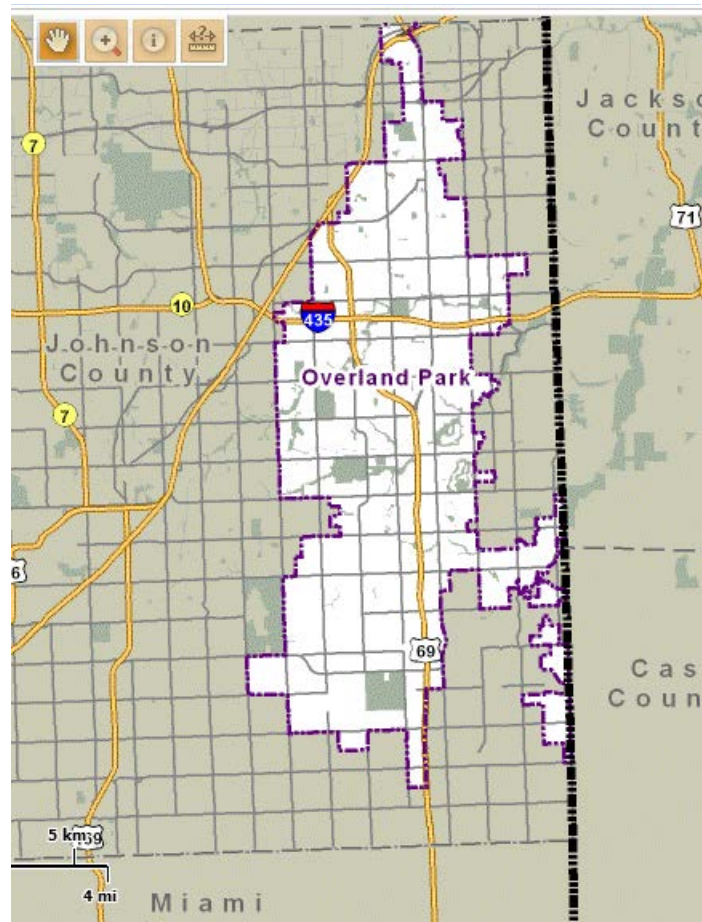
The purpose of the South Overland Park Transportation Plan Study is to develop a transportation plan of existing and future travel needs in south Overland Park. The Transportation Plan will be based on existing and future travel conditions. This is a high level study with the primary study objectives to:

- Analyze existing and future roadway and intersection traffic needs,
- Develop roadway classification and design standards, and
- Develop a South Overland Park Transportation Plan that will be used to update the City's Transportation Master Plan

The limits of the study area are from 159th Street on the north, the Miami County line on the south, Black Bob Road on the west and the state line on the east. The study area represents an area approximately 7 x 8 square miles, 112 roadway centerline miles, and over 252 lane miles. The figure shows the general study limits.

The study will analyze all arterial roadways within the study area but only provide recommendations for roadways located with the Overland Park Master Plan limits. Not shown in the study area maps, but included in the study area is Quivira Road from 151<sup>st</sup> Street to 159<sup>th</sup> Street.

**General Study Area**



## **Scope of Services**

### **1.0 Data Collection**

HNTB will work with the city to collect data in the study area. Data collection will include:

- Available daily and peak hour counts from the city (City and County)
- New traffic counts will be collected at locations approved by the City by a sub-consultant (10 locations)
- Geometric data will be collected through Google maps and field reconnaissance
- Pavement conditions (City will provide)

### **2.0 Existing Transportation Conditions**

HNTB will identify the existing transportation conditions within the study area. This information will develop the baseline conditions of the transportation network. Baseline information will include existing qualitative and quantitative assessment of travel characteristics.

2.1 Existing street functional class – HNTB will work with the City to identify the functional classification of the roads in the study (major arterial, minor arterial and collector).

2.2 Existing traffic characteristics – HNTB will develop exhibits, which show existing traffic characteristics.

- Number of lanes (Google maps/field reconnaissance)
- Existing traffic counts (City and Sub-consultant)
- Deficient Roadways – All roadway segments will be evaluated using a volume/capacity analysis in GIS from the City's TransCAD .shp files. Up to 10 representative intersections will be evaluated using Synchro HCM level of service analysis based on average motorist delay.

### **3.0 Roadway Design**

HNTB will develop a range of typical section options from a 2-lane roadway to a 6-lane roadway with variations in between (up to 6 typical sections are assumed). A table of volume thresholds by LOS for different functional classifications will be developed. An exhibit of typical sections will be developed to include features such as bike lanes and sidewalks.

### **4.0 Future Transportation Conditions**

HNTB will analyze transportation conditions within the study area to identify future transportation needs.

#### **4.1 Travel Demand Model**

Initially, HNTB will use the city's most current travel demand model to develop future base traffic volumes based on an unconstrained assignment. In addition to the base volumes, HNTB will also look at historical trends of traffic volume growth, where the data is available.

#### **4.2 Ultimate Roadway Needs**

Finally, HNTB will use the city's most current travel demand model to develop future base traffic volumes based on a recommended lane capacity assignment. HNTB will determine ultimate

traffic demand. The final model output will utilize a high level post processing to develop final traffic forecasts.

- Assignment results from the initial model run.
- Geometric Improvements (typical sections for each segment of roadway)
- Missing Connections

4.3 HNTB will perform a high-level assessment of arterial and selected intersection level of service using 2010 Highway Capacity Manual methodology in Synchro.

- Arterial 2040 LOS - volume to capacity (from travel demand model for all locations)
- Intersection 2040 LOS – HCM volume to capacity (from travel demand model for 10 locations)

#### 4.4 Project Prioritization

Recommended improvement projects will be identified. Roadways will be analyzed by a number of different transportation factors.

1. Traffic growth from the OP Model
2. Land development potential and constraints based on interviews with the City and surrounding communities
3. Traffic analysis results
4. Pavement conditions (City will Provide)

(Note: Costs and safety will not be considered in this evaluation)

### 5.0 Recommended South Overland Park Transportation Plan

A draft and final South Overland Park Transportation Plan report will be prepared which documents the study purpose, methodology, results and recommendations. The report will include study methodology and goals, existing conditions, future conditions and project recommendations. The project recommendations will include 11x17 maps of:

- Existing and Future Traffic
- Prioritized improvements
- Typical sections

The report is anticipated to be 5 - 15 pages with accompanying exhibits. The draft and final reports will be delivered in electronic formats. Results will be incorporated into the Overland Park Transportation Master Plan.

### 6.0 Project Management and Study Coordination

#### 6.1 Managing and Coordinating the Study

HNTB will assure that the efforts of the study team will be coordinated and comprehensive. Coordination among the work groups will be overseen by HNTB to ensure that the study progresses expeditiously and its conclusions are sound.

## 6.2 Meetings

Five meetings are anticipated throughout the study. Each of these meetings is outlined below.

- **Meeting #1 – Prepare for and attend kick-off meeting.** HNTB will work with the city staff to kick-off the meeting to develop study goals, collect data from the City and discuss the project schedule.
- **Meeting #2 – Prepare for and attend one meeting with Spring Hill, Johnson County and Olathe** to understand their future land use plans within the study area that could affect the Overland Park Travel Model. (Any changes to the travel model are outside the scope of this project.)
- **Meeting #3 – Prepare for and attend existing and future analysis and preliminary recommendations meeting.** HNTB will present analysis results and preliminary recommendations for team discussion.
- **Meeting #4 – Attend Public Works Committee meeting** to present the draft study findings.
- **Meeting #5 – Attend governing body meeting** to present the draft study findings.

## 6.3 Quality Reviews

Technical adequacy is dependent on the quality of information in the Study. HNTB will ensure that data collected and study results are reasonable, valid and objective. All deliverables will be reviewed by HNTB's project manager and designated discipline specific QA/QC staff.

## 6.4 Administration and Cost Control

HNTB will establish/maintain a project cost control system to process and track project costs including implementation and coordination of financial reporting requirements and formats; reporting policies and guidelines; and invoicing and payment of project costs. HNTB will prepare invoicing and payment requests.

### **Project Deliverables**

- South Overland Park Transportation Plan Report
- Modified TransCAD model files

### **Schedule**

The proposed schedule is to complete the services outlined above in a 6-month period.

### **Fee**

The proposed fee for the services outlined above is \$100,026. A detailed breakdown of the fee proposal is attached.

**EXHIBIT B - SCOPE OF SERVICES****South Overland Park Transportation Plan  
11/18/2013**

Item of Work	Principal in Charge	Project Manager	Sr. Traffic Engineer	Civil Engineer	Trans. Planner/ Technician	Project Assistant	Total		
<b>1.0 Data Collection</b>									
• Collect available daily and peak hour counts from the city		2		8	2		12		
• Collect new traffic counts where needed by a sub-consultant (10 locations)		2		4			6		
• Collect geometric data through Google maps and field reconnaissance		2		10	40		52		
<b>Data Collection Subtotal</b>		<b>6</b>		<b>22</b>	<b>42</b>		<b>70</b>	<b>\$8,612.86</b>	<b>9.1%</b>
<b>2.0 Existing Transportation Conditions</b>									
• HNTB will work with the City to identify the functional classification of the roads in the study (major arterial vs. minor arterial)		2		4	16		22		
• HNTB will analyze existing conditions		4		32	12		48		
<b>Existing Transportation Conditions Subtotal</b>		<b>6</b>		<b>36</b>	<b>28</b>		<b>70</b>	<b>\$9,031.04</b>	<b>9.5%</b>
<b>3.0 Roadway Design Typical Sections</b>									
• Develop typical sections and design standards for the different functional classifications within the study area (6 typical sections are assumed)		2	4	80			86		
• Develop exhibits for the various typical sections					20		20		
<b>Roadway Design Typical Sections Subtotal</b>		<b>2</b>	<b>4</b>	<b>80</b>	<b>20</b>		<b>106</b>	<b>\$13,781.40</b>	<b>14.5%</b>
<b>4.0 Future Transportation Conditions</b>									
<b>4.1 Travel Demand Model</b>									
• HNTB will use the city's most current travel demand model to develop future base traffic volumes		4		32			36		
• Review historical trends		2		4	4		10		
• Run initial TransCAD model		8		24	24		56		
<b>4.2 Ultimate Roadway Needs</b>									
• Determine geometric improvements for final model run		4		16			20		
• Determine missing connections to construct		2		4	4		10		
• Run 2040 TransCAD model with build network of the 1 scenario (AM & PM)		2		10	8		20		
• Display results in graphical format		2		4	24		30		
<b>4.3 Level of Service</b>									
• HCM 2010 analysis of 2040 intersection level of service		2		24			26		
• Arterial mainline V/C Ratios		2		12			14		
• Display results in graphical format		2			12		14		
<b>4.4 Project Prioritization</b>									
• Recommend improvement projects		4		8	8		20		
• Display results in graphical format		2		2	12		16		
<b>Future Transportation Conditions Subtotal</b>		<b>36</b>		<b>140</b>	<b>96</b>		<b>258</b>	<b>\$36,519.68</b>	<b>38.4%</b>

Item of Work	Principal in Charge	Project Manager	Sr. Traffic Engineer	Civil Engineer	Trans. Planner/ Technician	Project Assistant	Total																																															
<b>5.0 Recommended South Overland Park Transportation Plan</b>																																																						
• Draft report		24		24	12		60																																															
• Address city comments and complete final report		8		4	10		22																																															
<b>Recommended South Overland Park Transportation Plan Subtotal</b>		<b>32</b>		<b>28</b>	<b>22</b>		<b>82</b>	<b>\$12,959.46</b>	<b>13.6%</b>																																													
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• Meetings		13		9			22																																															
• Quality reviews		8					8																																															
• Administration and cost control		4				18	22																																															
<b>Project Management and Study Coordination Subtotal</b>	<b>6</b>	<b>41</b>		<b>9</b>		<b>24</b>	<b>80</b>	<b>\$14,121.30</b>	<b>14.9%</b>																																													
<b>HNTB Hours Total</b>																																																						
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