EXHIBIT A
SCOPE OF SERVICES
INTERCHANGE JUSTIFICATION REPORT (IJR)
FOR INTERSTATE 75 AT OVERPASS ROAD

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SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES
PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDIES
INTERCHANGE JUSTIFICATION REPORT

This Exhibit forms an integral part of the agreement between Pasco County (hereinafter referred to as the COUNTY) and URS Corporation Southern (hereinafter referred to as the PROFESSIONAL) relative to the transportation facility described as follows:

Description: ***Overpass Road from Old Pasco Road east to US 301, including a New Interchange at I-75, Pasco County, Florida***

The work activities described in this Exhibit will be undertaken by the PROFESSIONAL.

1.0 PROJECT DESCRIPTION

This project consists of the preparation of all analyses and documentation required to complete an Interchange Justification Report (IJR) for the I-75 and Overpass Road interchange. This study will follow the technical analysis requirements for interchange proposals on limited-access facilities as set forth in the latest edition of the Florida Department of Transportation's (DEPARTMENT'S) "Interchange Handbook," 2nd Edition, July 2002 (hereafter referred to as the "Handbook") and the "Policy Resource Documents for the Interchange Handbook," January 2003.

The procedure and methods described in the Handbook will apply. Unless otherwise approved by the COUNTY and the DEPARTMENT, the procedures described therein will be required and represent the preferred process. Should clarification be necessary, the PROFESSIONAL, the COUNTY and the DEPARTMENT will consult with the DEPARTMENT'S Central Office/Systems Planning Office (CO/SPO) and the Federal Highway Administration (FHWA) in order to provide a coordinated response consistent with policy objectives for this study.

2.0 STUDY OBJECTIVE

The COUNTY and the DEPARTMENT are proposing to construct an interchange at the proposed Overpass Road and I-75. Due to projected traffic volumes and development growth in the surrounding areas, the existing interstate system interchanges are no longer sufficient to provide acceptable level of service to the area.

3.0 SERVICES TO BE PERFORMED

The PROFESSIONAL shall perform all necessary tasks to fulfill the requirements set forth in the "Handbook," including policies set forth by the Federal Highway Administration (FHWA), as described

in the "Handbook." Specific steps and processes as defined in the "Handbook" shall be followed, unless otherwise directed by the COUNTY, the DEPARTMENT, and/or FHWA.

3.1 Methodology Letter of Understanding

The PROFESSIONAL shall prepare a Draft Methodology Letter of Understanding (MLOU) documenting the procedure that will be used in the IJR study. The PROFESSIONAL shall submit the Draft MLOU to the COUNTY, the DEPARTMENT District Office (DO) and CO, and FHWA for their review and comments and a methodology meeting will be held with the four parties. Upon receipt of written review comments and after the methodology meeting, the PROFESSIONAL shall revise the Draft MLOU and re-submit the Revised Draft MLOU.

The Final MLOU will be signed and submitted by the COUNTY to the DEPARTMENT DO District Interchange Review Committee (DIRC) Chairman or designee for signature by both the DEPARTMENT'S DO and CO/SPO, with FHWA concurrence.

3.2 Existing Roadway Characteristics

The PROFESSIONAL will collect existing roadway information including but not limited to the following: as-built plans for I-75, Overpass Road, Old Pasco Road, Boyette Road, and other local roadways, as necessary and as available; existing drainage characteristics including typography, cross-drains, structures, conveyances, ponds, etc.; existing horizontal and vertical roadway geometry for all applicable roadways; existing pavement conditions for all applicable roadways; and existing right-of-way (ROW) for all applicable roadways.

3.3 Existing Structure Characteristics

The PROFESSIONAL shall collect information for the existing Overpass Road Bridge over I-75 and any other existing structures along the I-75 corridor within a mile of the Overpass Road Bridge. Sources including existing bridge plans, official inspection reports, pile driving records, geotechnical reports, scour reports, and field reviews may be used to obtain this information.

3.4 Base Map

The PROFESSIONAL shall develop a CADD database that includes existing characteristics. CADD database information shall be compatible for use on aerial photography used for Public Hearing presentations and alternative plans. The base maps will be prepared at a scale of 1" = 200'.

3.5 Existing Conditions Traffic Analysis

The PROFESSIONAL shall conduct an analysis of the existing traffic conditions within the study area to provide an existing operational baseline for comparison of the "Build" and "No-Build" Alternatives. Traffic analysis will be conducted using the 2000 Highway Capacity Manual (with the associated Highway Capacity Software), aided as necessary by traffic microsimulation tools such as Synchro/SimTraffic, CORSIM and/or VISSIM.

Traffic data will be collected as part of the IJR project at all locations where there are no traffic counts less than one year old. For purposes of developing a fee estimate, it is estimated that up to twelve (12) intersections and twenty-four (24) roadway, ramp, or freeway segments will be counted. Daily counts will be conducted for up to seventy-two (72) hours and peak hour turning movement counts will be conducted from 7 to 9 a.m. and from 4 to 6 p.m.

The existing conditions analysis will include basic freeway segments on I-75 as well as ramp merge/diverge areas, signalized ramp terminal intersections, major intersections, and roadway segments in the study area at the following locations:

- I-75 from north of SR 52 to SR 54,
- I-75 from SR 54 to south of SR 56,
- Old Pasco Road,
- Overpass Road from Old Pasco Road to Boyette Road,
- Overpass Road at Old Pasco Road,
- Overpass Road at Boyette Road,
- US 301 at Kinnan Street,
- I-75 at SR 52,
- I-75 at SR 54, and
- I-75 at SR 56.

The PROFESSIONAL shall summarize in graphical and/or tabular format the levels of service resulting from the existing conditions analysis in a technical memorandum (Draft Existing Conditions Analysis).

3.6 Crash Data Analysis

The PROFESSIONAL shall obtain and analyze available data from the DEPARTMENT'S COMPUTER (Program numbers AARPJ12 and AARPJ13) and local sources for various highway segments required. Obtain data for previous five years on the mainline, interchanges, and major cross streets along the interchanging roadways. The data collected shall include the number and type of accidents, accident locations, number of fatalities and injuries, and estimates of property damage and economic loss.

Based on the information obtained from the crash data, the PROFESSIONAL shall identify project needs associated with the safety of the existing facility. The PROFESSIONAL will identify crash patterns, analyze data, and propose improvements as needed.

3.7 Travel Demand Forecasting

The PROFESSIONAL will use the latest version of the Tampa Bay Regional Planning Model (TBRPM) to develop future year daily traffic projections for the "Build" and "No-Build" Alternatives. Build alternatives may include one or more interchange configurations and/or the

implementation of a full or partial collector/ distributor (C/D) system on one or both sides of I-75 between SR 52 and SR 56.

The latest version of Pasco County's socioeconomic (SE) data prepared by Pasco MPO for the year 2035 will be used in the development of travel forecasts. This SE data may also be updated in order to include reasonable amounts of approved and/or pending Developments of Regional Impact (DRIs) and Master Planned Unit Developments (MPUDs) estimated to be built by opening year (2020) and design year (2035).

The PROFESSIONAL shall code the TBRPM roadway networks associated with the "No-Build" Alternative for the opening year (2020) and the design year (2035) and run the model to obtain an estimate of the future year Peak Season Weekday Average Daily Traffic (PSWADT) volumes that would be expected to be present on the study roadway network in the opening year and design year, if the proposed interchange was not present. The PROFESSIONAL shall convert the PSWADT volumes to Average Annual Daily Traffic (AADT) volumes using the appropriate Model Conversion Factor (MOCF) to be obtained from the DEPARTMENT. The "No-Build" Alternative AADT volumes will be checked for reasonableness by reviewing the resulting traffic growth rates on a link-by-link basis and comparing the growth in traffic volumes to the growth in traffic analysis zone (TAZ) population and employment data.

The PROFESSIONAL shall code the TBRPM roadway networks associated with the "Build" Alternatives for the opening year and design year and run the model to obtain an estimate of the future year PSWADT volumes that would be expected to be present on the study area network in the opening year and the design year if the proposed interchange or the C/D Network is constructed. The PROFESSIONAL shall convert the PSWADT volumes to AADT volumes and assess the reasonableness of the Build Alternative volumes. In addition, an interim year (2027) will be analyzed for the "Build" Alternatives. Interim year volumes will be developed by interpolating between the opening year (2020) and future year (2035) socioeconomic data sets and the model will be run to obtain the PSWADT volumes and converted to AADT volumes.

The AADT volumes estimated for the "Build" and "No-Build" Alternatives will be compared on a link-by-link basis for the roadway segments included in the study area to determine the impact that the proposed interchange or C/D Network is projected to have on the distribution of traffic throughout the study area. Manual adjustments to the traffic assignments and traffic projections may be necessary and will be properly documented and coordinated with the review agencies.

The opening year, interim year and design year AADT projections for the "Build" and "No-Build" Alternatives will be summarized in graphical and tabular format and submitted to the COUNTY for their review and approval. Upon receipt of COUNTY approval, the AADT projections will then be submitted to the DEPARTMENT'S DIRC. The AADT projections shall be reviewed and approved by the DIRC and the DEPARTMENT'S CO prior to the PROFESSIONAL proceeding with the development of the design hour traffic volumes.

Upon receipt of DIRC and the CO approval of the future year AADT volumes, the PROFESSIONAL shall develop a.m. and p.m. peak hour volumes for the opening year and the design year for the "Build" and "No-Build" Alternatives. The design hour traffic factors documented in the approved I-75/Overpass Road Interchange Feasibility Study shall be used to derive the peak hour volumes. Consistent with this document, the recommended set of design hour traffic factors to be used include a K_{30}-factor of 9.6 percent and a D_{30}-factor of 55.0 percent.

The PROFESSIONAL shall summarize in graphical and tabular format the a.m. and p.m. peak hour volumes developed for the "Build" and "No-Build" Alternatives and submit this information to the COUNTY for review and approval. The COUNTY-approved peak hour volumes will then be submitted to the DIRC. The peak hour volumes will be reviewed by the DIRC. After DIRC approval, the PROFESSIONAL will proceed with the operations analysis of alternatives.

3.8 Operational Analysis of Alternatives

The PROFESSIONAL shall conduct an analysis of the future year traffic operations within the study area. The operational analysis is a thorough, technical traffic engineering evaluation that should identify the proposed interchange's operational characteristics, anticipated impact on mainline and adjacent interchange operations and anticipated impacts on the surrounding street system within the study area. Software to be used will be HCS, Synchro/SimTraffic, CORSIM and/or VISSIM, in a manner/process consistent with FHWA Traffic Analysis Toolbox. The peak hour levels of service associated with the freeway mainline segments, the mainline merge/diverge areas (i.e., on/off-ramps), the ramp terminal intersections, the adjacent surface street segments, and key surface street intersections will be estimated for the "Build" and "No-Build" Alternatives.

The PROFESSIONAL shall also conduct an off-ramp queue length analysis for the proposed interchange to evaluate the effective deceleration length for the freeway off-ramp movements. The results of the off-ramp queue length analysis will be used by the PROFESSIONAL during the development of the interchange conceptual layouts. The PROFESSIONAL shall summarize the results of the traffic operations analysis (i.e., levels of service) and queue length analysis in graphical and/or tabular format.

3.9 Typical Section Analysis

The PROFESSIONAL shall develop all appropriate typical section alternatives for the proposed I-75/Overpass Road interchange, ramps, and approach roadways and for Overpass Road from Old Pasco Road to Boyette Road. These will include the DEPARTMENT'S standard typical sections, and any typical sections that may result in minimizing right-of-way, or those proposed in light of the DEPARTMENT'S policy on Transportation Design for Livable Communities. The typical sections will be for a full and complete facility including bicycle, pedestrian, and transit accommodations.

3.10 Interchange and Roadway Design Alternatives

The PROFESSIONAL will develop and evaluate preliminary design alternatives for a new interchange with I-75 and the necessary extension and or widening of existing Overpass Road. This will include the conceptual design of several interchange concepts as appropriate for the location and projected traffic as well as a No-Build alternative for comparison purposes.

3.11 Prepare Concept Plans

The PROFESSIONAL will overlay Concept Plans for all viable alternatives on the base maps. At a minimum, the concept plans should include all environmental resources, existing and/or proposed right-of-way lines, proposed stormwater management facility sites, any proposed widening, and any other information that a design engineer would need to continue the project through the design phase.

3.12 Drainage Analysis

The PROFESSIONAL shall perform preliminary drainage design for all viable alternatives within the immediate interchange area (i.e. from Old Pasco Road to Boyette Road) in order to determine potential outfall locations and preliminary sizes (volume and area) of required detention and/or retention facilities for stormwater management facilities. The location and size of potential stormwater management facilities will be determined for all viable alternatives. The PROFESSIONAL **shall not** use vaults for stormwater management facilities.

The PROFESSIONAL shall prepare a Location Hydraulics Report for the project in accordance with Part 2, Chapter 24 of the PD&E Manual. This document shall meet the requirements of Chapter 7 of the Drainage Manual. An assessment of floodplain encroachment will be included in the document

The PROFESSIONAL shall identify any historic maintenance problems involving drainage or flooding. Data collection shall include scour reports and other information where available. The history and past hydraulic performance should be noted on all structures.

The PROFESSIONAL shall coordinate with the Federal Emergency Management Agency (FEMA), the appropriate Water Management District and local agencies to obtain and evaluate hydraulic/hydrologic models of the existing control structures system and to estimate/ determine consistency with regulated floodways.

The PROFESSIONAL shall determine the risk and significance of the encroachment. The encroachment categories are to be listed in the report. These can be found in the PD&E Manual, Part 2, Chapter 24.

3.13 Structures

The PROFESSIONAL will identify alternative conceptual bridge structures and span types for the bridges associated with the interchange as well as any bridges necessary for water crossings or drainage conveyance.

Comparative Analysis of Interchange Alternatives

The DEPARTMENT and the COUNTY will determine which viable interchange alternative(s) will be evaluated further through the engineering and environmental evaluation. The possibility exists that the "No-Build" Alternative may be selected at this point.

3.14 Comparative Evaluation of Alternatives and Matrix

The PROFESSIONAL shall prepare a matrix to evaluate each of the viable interchange alternatives as previously agreed to in the MLOU. The engineering and environmental evaluation criteria shall include, at a minimum, the following items:

- Compliance with FHWA requirements,
- Conformance with the DEPARTMENT requirements,
- Traffic Operations,
- Fatal Flaw Analysis of Potential Environmental Impacts,
- Project Costs, and
- Achievement of Applicant's objectives.

3.15 Construction Cost Estimates

The PROFESSIONAL shall develop construction cost estimates for each viable interchange design alternative for inclusion in the alternatives evaluation matrix. The construction cost estimates shall be developed in accordance with the DEPARTMENT'S long-range estimating (LRE) program.

3.16 Selection of Preferred Alternative(s)

The PROFESSIONAL shall recommend a preferred interchange alternative(s) based on the comparative analysis of all engineering, environmental, and cost issues related to the project.

3.17 Conceptual Design Plans (Recommended)

The PROFESSIONAL will finalize concept plans for the preferred alternative.

3.18 Funding/Implementation Plan

The PROFESSIONAL will assist the COUNTY in the development of a Funding and Implementation Plan. This plan will identify the specific funding programs or sources needed to support the improvements proposed in this report. Activities may include coordination/meetings with developers, FHWA and FDOT, evaluation of potential impact fee and/or proportionate share payments, and the drafting of the funding plan.

3.19 Preliminary Interchange Justification Report (PIJR)

The PROFESSIONAL shall prepare a Preliminary Interchange Justification Report (PIJR) documenting the results of all of the tasks conducted previously. The PROFESSIONAL shall submit up to fifteen (15) copies of a Draft PIJR to the COUNTY and the DEPARTMENT for their review and comment. The PROFESSIONAL shall revise the Draft PIJR in response to the comments provided by the COUNTY/the DEPARTMENT.

The PROFESSIONAL shall revise the PIJR in response to comments provided by the DIRC and re-submit ten (10) copies of the Revised PIJR to the COUNTY. The COUNTY shall transmit ten (10) copies of the Revised PIJR to the DIRC Chairman or designee for subsequent submittal to the DEPARTMENT'S Central Office for their review.

3.20 Final IJR

The PROFESSIONAL shall revise the Revised PIJR to respond to the comments received from the Central Office and submit fifteen (15) copies of the Draft Final IJR to the COUNTY. The COUNTY shall transmit ten (10) copies of the Draft Final IJR to the DIRC Chairman or designee for subsequent submittal to the DEPARTMENT'S Central Office and FHWA.

The PROFESSIONAL shall revise the Draft Final IJR to respond to any comments provided by FHWA. The PROFESSIONAL shall submit ten (10) copies of the Final IJR to the COUNTY for their transmittal to the DIRC Chairman. The DEPARTMENT shall transmit the Final IJR to FHWA for their approval. The FHWA shall review the Final IJR provided by the DEPARTMENT and the COUNTY and make a determination of its acceptability and completeness. If the FHWA has no objection or unanswered questions, the IJR should be approved and signed by the FHWA.

Meetings and Coordination

As part of the above referenced tasks, the PROFESSIONAL will be available for meetings and presentations with Pasco County, FDOT, FHWA and/or other stakeholders. A total of sixteen (16) meetings are estimated as part of this project.