

# **I-40 On-Ramp Capstone Project Tasks Outline**

## **Task 1: Existing Studies**

- 1.1 Site Visit
- 1.2 Process Survey Data From GIS
- 1.3 Studying/Analyzing Existing Drainage Studies
- 1.4 Runoff Calculations
- 1.5 Analyze Existing Geotechnical Information
- 1.6 Enter Existing Geometry into CAD
- 1.7 Create Existing Cross-Sections
- 1.8 Create Roadway Alignments/Base files

## **Task 2: Design**

- 2.1 Create Proposed Cross-Sections
- 2.2 Initial Design
  - 2.2.1 Intersection Design
  - 2.2.2 On-Ramp Design
- 2.3 Final Design Geometry/Cross Sections
- 2.4 Final Drainage Design
- 2.5 Erosion Prevention Plan
- 2.6 Construction Plan Set
- 2.7 Capacity Analysis

## **Task 3: Impacts**

- 3.1 Social Impacts Assessment
- 3.2 Economic Impacts Assessment
- 3.3 Environmental Impacts Assessment

## Task 4: Project Management

- 4.1 Grading Instructor Meetings
- 4.2 Client Meetings
- 4.3 Technical Advisor Meetings
- 4.4 Schedule Management
- 4.5 Cost/Resource Management

## Task 5: Deliverables

- 5.1 Grading Instructor Meetings
- 5.2 30% Submittal
- 5.3 60% Submittal
- 5.4 90% Submittal
- 5.5 Final Design Report