

**RESEARCH PROBLEM STATEMENT**

<b>DATE:</b> 09/21/2018	<b>PROJECT AREA:</b> Special Projects
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**TITLE:** Cost/Benefit Evaluation of Soil Reclamation Excavated from Construction Sites

**PROBLEM STATEMENT:**

A recurring dilemma for ARDOT is the lack of vegetation growth in completed construction projects, especially slope areas. This project would evaluate the economic benefit of stockpiling and reincorporating in-situ topsoil along with establishing a test protocol of the soil to ensure vegetation growth is possible.

During the construction process, nutrient rich in-situ topsoil is removed and discarded. Currently, ARDOT does not require the contractor to stockpile topsoil which was removed during the construction process. This topsoil could be reused to recover finished areas which should aid in vegetation growth. Before the project is at substantial completion, soil samples from known stockpiles as well as vegetation areas would be retaken to establish the current soil conditions to ensure soil properties are adequate enough to sustain vegetation and prevent erosion. Addressing potential issues before seeding could be more efficient and effective use of Department resources.

**OBJECTIVES:**

1. Survey other DOT's for current practices and evaluate the feasibility of stockpiling topsoil on or near the construction site
2. Determine which line items for construction projects would be vegetation management and maintenance, and estimate those costs to determine a more accurate ROI
3. Conduct soil testing to document soil analysis to determine if soil conditions are adequate to promote vegetation growth post construction using the UA Extension Office testing lab

**FORM OF RESEARCH IMPLEMENTATION AND RETURN ON INVESTMENT:**

1. Draft revisions for Section 628 Topsoil Furnished and Placed
2. Implement (or update) the Integrated Vegetation Management program developed by the EPA for ROW maintenance, which could lower overall vegetation management costs

**Estimated Project Duration:** 24 Months

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Standing Subcommittee  
Ranking

Advisory Council  
Ranking

Statement Combined with  
Statement Number(s)