Bridging the Gap in Arizona: Clearly Communicating Environmental Commitments from Design to Construction

SCOE & SCOD - July 20, 2017
Concurrent Session 3a:
Putting the Buildability into Your Projects

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This bridge requires two approaches

- Mitigation Measure Reform
- Communication: EPIC Plan Sheet

- And one short detour for an example of plan sheets for a complex project
Mitigation Measures vs. Environmental Commitments

- Large list of ‘Commonly Used Mitigation Measures’
  - Many were not true mitigation measures
  - Many duplicated existing contract specifications
- Some true mitigation measures were included
  - Compensation for environmental impacts
  - Habitat restoration, wetland impact in-lieu fees, debris containment systems, etc.
Environmental Specification

- Transform the 'laundry list' into a new Environmental Commitment Specification
- Multidisciplinary Team
  - Planners
  - Environmental Technical Specialists
  - Contracts and Specifications Staff
- Aim to cover 80% of situations with the specification
Environmental Specification

- Streamline Environmental Commitments
  - Relied on Standard Specifications to eliminate duplication
- Reviewed list to see what already existed in specifications or should be drafted into a new one
- Technical staff provided draft language
- C&S revised to meet legal contract requirements
- ADOT Standards Committee Review
EPIC Plan Sheet
(Environmental Permits, Issues, Commitments)*

- A clear way to communicate commitments within ADOT and ultimately the contractor
- Included as part of the plan set

*Thank you to TxDOT for the shameless plagiarism of the original sheet
EPIC Plan Sheet

- Used the TxDOT sheet as a starting point
- Met with environmental technical teams to determine needs
  - Indicate permit requirements
  - Match with contract specifications
  - Communicate special requirements/needs
  - Provide way to track mitigation measures
I. SURFACE WATER POLLUTION PREVENTION – Clean Water Act (CWA) SECTION 402
   No Action Required

   1. ☐ National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) coverage applies (105WVEP needed)
      a. Endangered Species (information attached, NMFS CGP Appendix D)
         • For Criterion C, attach a copy of the Notice of Intent (NOI). For Criterion B, c, or e, attach the NOI any communications between ADOT and the US Fish and Wildlife Service (USFWS).

         b. Historic Properties (information attached, NPDES CGP Appendix E)
            Project located on a property of religious or cultural significance to an Indian tribe
            ☐ No □ Yes, Name of Tribe:
            Will any stormwater controls require subsurface earth disturbance?
            ☞ No ☞ Yes

   2. ☐ Arizona Pollutant Discharge Elimination System (AZPDES) permit coverage applies (105WVEQ needed)
      Project within Municipal Separate Storm Sewer System (MS4)
      ☐ Project is within 5 miles of Outstanding Arizona Water or impaired water
      Name of Water:
     Sampling and Analysis Plan (SAP) needed
      ☐ Yes No
      Pollutant(s) to be sampled:

   3. ☐ De Minimis General Permit (DMGP) needed (Environmental Commitments)

II. SPILL PREVENTION, CONTROL, AND COUNTERMEASURES – CWA SECTION 311
   ☐ No Action Required
   ☐ Spill Prevention, Control and Countermeasure (SPCC) Plan required

III. WORK IN WATERS OF THE UNITED STATES (WUS) – CWA SECTION 404/401
   ☐ No Action Required
   US Army Corps of Engineers (USACE) permit required for filling, dredging, excavating in Waters of the US (WUS). The contractor must adhere to all of the terms and conditions associated with the following permits:
   ☐ No Permit Required
   ☐ Nationwide Permit (WP) – with attachments
   ☐ National Permit E – without attachments
   ☐ Regional General Permit, with attachments
   ☐ Regional General Permit, without attachments
   ☐ Individual Permit
   ☐ Certification
   **Permits are attached to Special Provisions.

   Project specific actions:
   Flagging required, contact Environmental Planning at least 10 business days prior to ground disturbing activities. Environmental Planning will provide Flagging.

IV. PROTECTED SPECIES (THREATENED, ENDANGERED, PROPOSED, SENSITIVE)
   ☐ No Action Required

   Project specific actions:
   • Species
   • Critical Habitat in project area
   Flagging required, contact Environmental Planning at least 10 business days prior to ground disturbing activities.
   • Salvage Plan needed

V. VEGETATION RESOURCES
   ☐ No Action Required

   Project specific actions:
   1. 2.

VI. CULTURAL RESOURCES
   ☐ No Action Required

   Project specific actions:
   Flagging needed, contact Environmental Planning at least 10 business days prior to ground disturbing activities.
   □ Qualified monitor needed, contact environmental Planning at least 10 business days prior to ground disturbing activities.
   □ Avoid all flagged and/or otherwise designated sensitive resource areas within or adjacent to the project area.
   Location (MP):

VII. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES
   General (applies to all projects)
   The contractor shall be responsible for the proper containment and cleanup of all product spills.
   Contact the Engineer if any of the following are detected:
   • Trash piles, drums, containers, barrels, or other containers
   • Evidence of leaking or seepage of substances
   ☐ No Action Required

   Asbestos present?
   ☐ No ☐ Yes (202AASB needed)

   Lead-based paint present?
   ☐ No ☐ Yes (202LEAD needed)

   Location (MP):

   Project specific actions:
   1.

VIII. NOISE ISSUES
   Will any noise mitigation or noise walls be present?
   ☐ No ☐ Yes

   Date of noise study/verify no design changes
   ☐ No ☐ Yes

   Design changes?
   ☐ No ☐ Yes

IX. AIR QUALITY ISSUES
   ☐ No Action Required

   Dust Permit needed (Maricopa, Pima, Pinal Counties)
   ☐ Yes No

   Open Burn Permit needed (Arizona Department of Environmental Quality (ADEQ), Maricopa, Pima, Pinal Counties)

X. OTHER ENVIRONMENTAL ISSUES
   ☐ No Action Required

   Project specific actions:
   1.

XI. MITIGATION MEASURES
   ☐ No Action Required

   Environmental Planning 602-212-7967

   Planner Name

   Date

   Project No.

   Record Drawing

   Federal Aid No.

   ADOT STANDARD DRAWINGS

   ENVIRONMENTAL PERMITS, ISSUES, AND COMMITMENTS

   Environmental Planning 602-212-7967
EPIC Plan Sheet

- The EPIC will be in CAD. Project Management (PM) Consultant will be in charge of completing sheet
  - Started when preliminary work begins to assure project details are not overlooked
  - NEPA Planner to review and route sheet
  - Technical specialists will review to ensure that the information is correct and accurate
EPIC Sheet

- At Stage IV (95%) will be recirculated to Environmental Planning to verify information on the EPIC sheet is current and correct
- Then sent to Contracts & Specs to be included in the plan set and bid documents
Piloting the EPIC and Environmental Commitment Specification

- Pilot will work out fatal flaws prior to implementation on all projects
- Three (3) upcoming projects selected
- Kick-off meeting held with technical specialists, C&S, and Project Managers
Early Project Example – Apache Trail

- Biology and cultural concerns along 20+ mile corridor in Tonto National Forest
- Developed key map and environmental sheets in plan set
- Moved biology commitments into separate contract bid item
- Matrix of commitments in Biological Opinion and where they were captured in contract and plans
See Special Provisions – Items 9240050 and 9240051 for details regarding construction
Notes:
1. Downstream work area shall be accessible only by foot traffic.
2. Protect existing Willow Tree root belts in place.
Biological Commitment Matrix

<table>
<thead>
<tr>
<th>Commitment in Biological Opinion</th>
<th>Environmental Commitments Included in Contract Special Provisions</th>
<th>Items to Include in Contract Specs or Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>A plan for managing temporary water diversion will be implemented during construction to protect sensitive aquatic resources and meet pollution and erosion control requirements.</td>
<td>The contractor shall adhere to both the environmental and construction requirements for the Tortilla Creek Ford Crossing Repair listed under the project Special Provision Items 9240050 and 9240051. These Special Provision Items include environmental mitigation measures that are not subject to change without the approval from the Federal Highway Administration (FHWA) and ADOT Environmental Planning.</td>
<td>Project Plans: Show allowed work area. Item 9240050: Temporary Water Management Plan</td>
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</tbody>
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For more information:

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