

## CHAPTER 4: CONSTRUCTION SITE CONTROLS



- ❖ 4.1a Development Services Department
- ❖ 4.1b Department of Transportation,  
Engineering Division
- ❖ 4.1c Department of Transportation,  
Stormwater Management Section

# Chapter 4

## **4. Construction Site Controls**

### **4.1.a City of Tucson, Development Services Department**

#### Plan review

All new development and redevelopment plans for the private sector are reviewed for conformance with planning documents, City Code, ordinances, and development standard design manuals. The Development Services Department (DSD) issues building permits and grading permits following plan approval. DSD also administers the International Building Code (IBC), including the dedicated chapter on Excavation and Grading. Further discussion of DSD activities can be found under 1.2.a.

The City staffs stormwater inspectors to meet the construction inspection requirements of the AZPDES Construction General Permit. DSD's inspectors are responsible for Notice of Intent (NOI) verification, Stormwater Pollution Prevention Plan (SWPPP) and construction site stormwater compliance inspections for development activity outside of the public right-of-way for private development. Verification that the SWPPP and NOI are complete is a requirement for the issuance of a grading permit. In the 2008-09 fiscal year DSD reviewed approximately 61 SWPPPs.

#### Structural and Nonstructural Controls

DSD reviews all projects for conformance with the International Building Code. This code includes provisions for the following structural and nonstructural BMPs:

- Maximum fill and cut slopes;
- Maximum bench heights and widths;
- Types of allowable fill materials;
- Fill compaction requirements;
- Setbacks of fill slopes from property boundaries;
- Treatment of fill slopes and other slopes to prevent erosion from stormwater runoff;
- Requirements for maximum fill/cut slopes for drainage channels;
- Terracing drainage requirements, including erosion controls;
- Subsurface drainage controls for stability;
- Drainageway erosion control provisions;
- Requirements for interceptor drains at top of slopes to prevent erosion;
- City amendment prohibiting grubbing without first obtaining a grading permit;
- City amendment for reseeding requirements, including the posting of bond; and
- City amendment for proper construction of drainage facilities.

### Pre-Construction Meetings

DSD began holding pre-construction meetings for private construction projects in June 2005. The meeting provides an opportunity to review a standardized checklist of the City's requirements (see Appendix D) and to make sure the developer understands the stormwater controls that must be utilized. Inspectors conducted 138 pre-construction meetings in FY 2008-09.

### Construction Site Inspection

Construction site inspection is a task of DSD. All projects on private property are inspected for compliance with the International Building Code (IBC), which details requirements and enforcement procedures for construction activities. In addition to inspecting for IBC compliance, DSD has an AZPDES inspection program for construction sites within the City that disturb one or more acres. In FY 2008-09, a total of 843 inspections were made on active AZPDES permitted construction sites in the City. Each site inspection included 4 objectives:

- Verifying existence of a SWPPP for that construction site;
- Verifying that all substantial elements required by AZPDES Construction General Permit were addressed in the SWPPP;
- Verifying that the plan was implemented; and
- Verifying that the SWPPP had evolved to meet changing construction conditions.

During inspections the inspector looked for proper storage and use of construction site materials such as oils, hydraulic fluid and gasoline. City Inspectors made every effort to ensure that any compliance issues were quickly handled before enforcement action was needed. The City of Tucson uses codes such as the Excavation and Grading Ordinance to assist in the enforcement of AZPDES construction site requirements. Records of inspection are kept for a period of three years after the project has been completed. Additional records kept include the Notice of Intent and the Notice of Termination.

During the 2008-09 fiscal year there were 101 stormwater complaint inspections conducted and 77 enforcement actions taken.

### Outreach to Development Community

To enhance awareness within the construction and engineering communities regarding new development standards, ordinances and policies, DSD conducts monthly meetings with developers and provides informational flyers and brochures. Twelve such meetings were held last year. Types of information provided include flyers on AZPDES Construction Regulations, the Native Plant Preservation Ordinance, Historic Preservation Zones, Hillside Development Zones, Scenic Corridor Zones, Environmental Resource Zones, Special Exception Land Uses, Endangered Species Act, maintenance best management practices for stormwater detention/retention basins, and other information that impacts development.

#### **4.1.b City of Tucson, Department of Transportation, Engineering Division**

##### Plan Review

The Engineering Division reviews improvement plans for new development projects within the public right-of-way and for privately built drainage facilities that will be dedicated to the City. New development controls required in this process are discussed in greater detail in Section 1.2.e.

##### Construction Site Inspection

The Engineering Division administers the design and construction of public municipal separate storm sewer system and public roadway construction/maintenance projects. If a contractor for the City performs the construction, Engineering Division inspects the work. In addition, the Engineering Division is responsible for construction inspection for all work performed within the City right-of-way. Numbers of inspections and estimated costs are provided in 1.2.e.

#### **4.1.c City of Tucson, Department of Transportation, Stormwater Management Section**

##### Review Stormwater Pollution Prevention Plans

The Stormwater Management Section reviews the Stormwater Pollution Prevention Plan (SWPPP) and the Notice of Intent for any City Capital Improvement Project in the public right-of-way that will disturb one or more acres.

During FY 2008-09, the Stormwater Management Section reviewed 6 SWPPPs for City Capital projects. These reviews included verifying that a Notice of Intent (NOI) was completed as well as reviewing the Stormwater Pollution Prevention Plan (SWPPP) specifically for the construction site. Review of the SWPPP is based on verifying that all substantial elements required by the AZPDES General Permit for Construction are addressed, including both structural and nonstructural Best Management Practices (BMPs). Upon completion of the project, the Stormwater Management Section verifies that final stabilization has been achieved and that a NOT is submitted.

##### Construction Site Inspection

In FY 2008-09, the Stormwater Management Section conducted 57 site inspections of SWPPPs for City Capital Improvement Projects (CIP). There were no Notices of Violation (NOVs) issued. Costs of CIP inspections and plan reviews were estimated at \$3,032. An example inspection report is included in Appendix D.

##### Outreach to Construction Community

The City of Tucson conducts education and outreach during site inspections, and has made these efforts an integral part of the construction outreach. The overall objective of the public outreach program is to disseminate information regarding the NPDES program and to promote stormwater quality. The Development Service Department distributes a Construction Outreach packet that contains the following information:

- AZPDES General Permit for construction sites disturbing one or more acres (ADEQ's updated version for 2008);
- Notice of Intent form (ADEQ's updated version for 2008);
- Notice of Termination form (ADEQ's updated version for 2008);
- Stormwater flyer on BMPs for construction in the Right-of-Way;
- Construction Checklist for SWPPP submittals and guidance for maintaining site compliance (ADEQ's updated version for 2008);
- AZPDES Posting Requirements;
- ADOT Manual with BMP specifications and drawings;
- Example packet of SWPPP information;
- Example Site Inspection Report; and
- Form for List of Contractors/Subcontractors and Certifications.

This packet is used by Development Services for private construction projects and for City projects with the exception of transportation Capital Improvement Projects. For these projects, the Stormwater Management Section has developed a SWPPP Compliance Manual. Costs for assembling and distributing packets for the 2008-09 fiscal year are included under 2.5.a.

Additional public outreach and education efforts conducted by the Stormwater Management Section included:

- Attending 6 pre-construction meetings with City of Tucson departments for Capital Improvement Projects;
- Attending 9 City Utility Coordination Committee meetings;
- Distributing promotional materials including cups, sunglasses and rain gauges;

Additional information on public outreach to the construction community, including estimated attendance and costs, is in Sections 2.5.a and 2.5.g.