1.0 **PURPOSE:**

This procedure describes the process used for in-house and consultant design of roadway systems, including bituminous concrete pavements.

2.0 **SCOPE:**

This procedure spans the Final Design process including those steps after the 30% Design Review through the Published Bid Package.

3.0 **RESPONSIBILITY:**

District Engineering office, Central office, Consultant Designers, and FHWA personnel

4.0 **EQUIPMENT NEEDED:**

Not applicable
5.0 PROCEDURE:

Final Design and Design Review Process

1. Input Approved Preliminary Plan
   - Conducts follow-up field view
   - Updates site survey if required
   - Updates site plan
   - Resolves utilities issues
   - Resolves Right-of-Way issues
   - Evaluates safety issues
   - Prepares final MPT
   - Prepares environmental mitigation plans
   - Complete non-pavement structures design
   - Conduct 60% Design Review
   - Finalizes non-pavement structures design
   - Finalizes pavement design and typical sections
   - Drafts final plans documents
   - Updates cost estimates
   - Finalize 90% complete plans
   - Submit 90% plans for review and approval

2. District Design Team and/or Design Consultant
   - Conducts follow-up field view
   - Updates site survey if required
   - Updates site plan
   - Resolves utilities issues
   - Resolves Right-of-Way issues
   - Evaluates safety issues
   - Prepares final MPT
   - Prepares environmental mitigation plans
   - Complete non-pavement structures design
   - Conduct 60% Design Review
   - Finalizes non-pavement structures design
   - Finalizes pavement design and typical sections
   - Drafts final plans documents
   - Updates cost estimates
   - Finalize 90% complete plans
   - Submit 90% plans for review and approval

3. District Traffic Engineer
   - Geotech Unit
   - Environmental Unit
   - Bridge Unit
   - Construction Unit
   - Utilities Unit
   - Right of Way Unit
   - Bureau of Design
   - District Maintenance Unit or County Manager
   - Conduct 90% design reviews in area of knowledge
   - Conduct 90% Constructability Review
   - Attend Final Design Office Meeting (FDOM)

4. FHWA
   - Reviews approved plan and cost estimates
   - Prepares comments
   - Approves or disapproves plan
   - Advises PENNDOT of decision
   - Attend Final Design Office Meeting (FDOM)

5. District Design Team or Design Consultant
   - Conducts final reviews and approvals
   - Finalizes 100% plans
   - Prepares PS&E package

6. Bureau of Design
   - Performs "plan check"

7. District Contract Management
   - Central Office Letting
   - Bid Package
   - Reviews approved plan
   - Prepares Bid package

   - Bid Package
   - prepares Contract Bid documents
   - Sends final bid package to FHWA

9. FHWA
   - Approval to Publish
   - Reviews and approves the PS&E package
   - Advertises project for bid

    - Electronic Bid Package
    - ECMS Project System

11. ECMS Project System
    - Finalized Bid Package

12. Output Published Bid Package
    - Interdisciplinary review conducted
    - Design complete and accurate with biddable documents
    - Project budget and schedule agree with programmed project funding
    - Constructible design within the constraints of the bid documents
    - Letting date achieved
    - All permits, clearances, and approvals acquired
    - Right-of-way acquired

Key Control Point

Notice: This hardcopy document must be used for reference purpose only. The user is responsible for assuring that it is the same as the current document revision level shown online.

C:\Documents and Settings\wgordon\Desktop\QPM002-03 Contract Development Final Design-Review 07-02-27 Rev 01.doc
Date Printed 3/23/2007
### 6.0 Revision Log

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Description</th>
<th>Requested By</th>
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<tr>
<td>00</td>
<td>01/26/07</td>
<td>Initial Release</td>
<td>PASIN Core Team</td>
<td>WKG</td>
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| 01       | 02/27/07 | 1. Replaced “If FHWA Oversight Project” with “If Federal Oversight Project” in block 2.  
2. Replaced “Non-Exempt Only” with “Federal Oversight Only” under block 6  
3. Replaced “Setup” with “System” in block 12  
3. Added “Finalizes pavement design and typical sections” under block 2  
4. Removed un-numbered box under block (Federal Oversight Only) and renumbered blocks “8 through 13 “to be 7 through 12” | Contract Development Work Group | WKG              |