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

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.
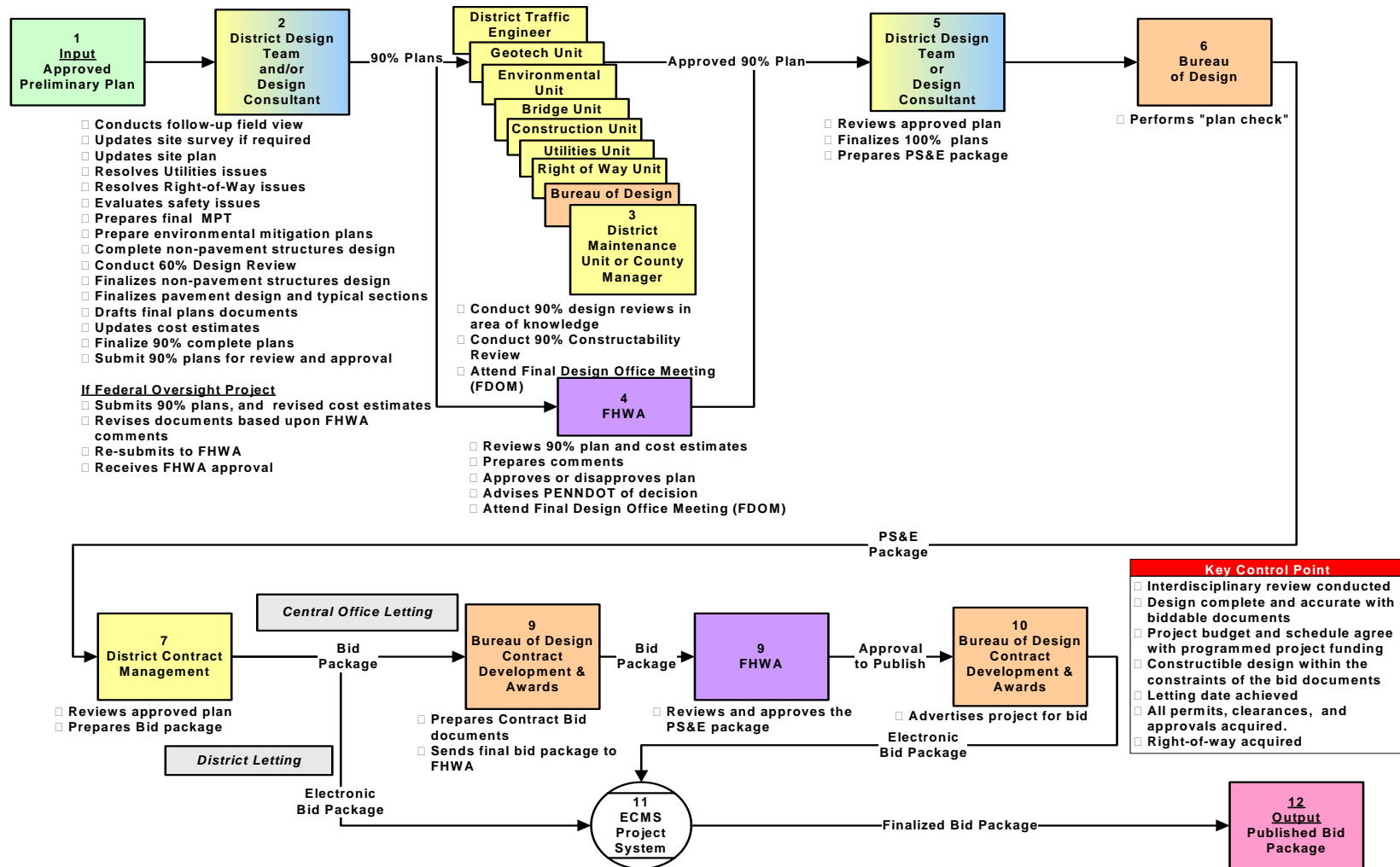
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Date Printed 3/23/2007

5.0   PROCEDURE:

Final Design and Design Review Process

1
Input
Approved
Preliminary Plan

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
☐ Prepare 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

If Federal Oversight Project
☐ Submits 90% plans, and revised cost estimates
☐ Revises documents based upon FHWA comments
☐ Re-submits to FHWA
☐ Receives FHWA approval

90% Plans

District Traffic Engineer
Geotech Unit
Environmental Unit
Bridge Unit
Construction Unit
Utilities Unit
Right of Way Unit
Bureau of Design

3
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 90% plan and cost estimates
☐ Prepares comments
☐ Approves or disapproves plan
☐ Advises PENNDOT of decision
☐ Attend Final Design Office Meeting (FDOM)

Approved 90% Plan

5
District Design
Team
or
Design
Consultant

☐ Reviews approved plan
☐ Finalizes 100% plans
☐ Prepares PS&E package

6
Bureau
of Design

☐ Performs "plan check"

PS&E
Package

7
District Contract
Management

☐ Reviews approved plan
☐ Prepares Bid package

Central Office Letting

District Letting

Bid
Package

Electronic
Bid Package

9
Bureau of Design
Contract
Development &
Awards

☐ Prepares Contract Bid documents
☐ Sends final bid package to FHWA

Bid
Package

9
FHWA

☐ Reviews and approves the PS&E package

Approval
to Publish

10
Bureau of Design
Contract
Development &
Awards

☐ Advertises project for bid

Electronic
Bid Package

Key Control Point
☐ 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

11
ECMS
Project
System

Finalized Bid Package

12
Output
Published Bid
Package

6.0   Revision Log

Revision	Date	Description	Requested By	Completed By
00	01/26/07	Initial Release	PASIN Core Team	WKG
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