




Federal Aviation Administration

Memorandum

DEC 08 2014

Date:

To: All Regional Airports Division Managers

From: 
Michael J. O'Donnell, Director of Airport Safety and Standards, AAS-1

Prepared by: National Plans and Specifications Workgroup

Subject: Implementation Plan for FAA Review of Construction Plans and Specifications
for AIP Funded Projects

PURPOSE:

This Memorandum provides information to Regional and Airports District Office (ADO) Program Managers (PMs) and Engineers about the implementation plan for reviewing construction plans and specifications (P&S) for Airport Improvement Program (AIP) funded projects. The guidance in this memo will also be useful for reviewing projects financed with any other funding source such as Passenger Facility Charge (PFC) or local funding. The FAA review of P&S should be done at the 90% design stage (at a minimum) in order to capture the near-final design state before the project goes to bid. Additionally, it may also be advantageous to review the P&S during earlier submittals as well.

BACKGROUND:

In order to standardize the review of construction P&S for AIP funded projects and to provide consistency among Regions and ADOs, the Office of Airports (ARP) 2011 Business Plan tasked the Office of Airport Safety and Standards (AAS) to "Complete a national template with risk-based criteria for the Federal Aviation Administration (FAA) review of plans and specifications and to establish the time frame for implementation."

In January 2011, the National Plans and Specifications Workgroup was established to develop a national template for reviewing AIP funded construction P&S. This template has been coordinated throughout the Regions for review and comment. In July 2012, AAS-100 released a DRAFT Engineering Brief (EB) #88, "Guidance for Reviewing Airport Construction Plans and Specifications" to obtain employee comments. All comments were

considered and many were incorporated into the attached Review Matrix (Appendix 1) and Review Guides (Appendices 2 & 3).

APPLICATION:

There are three levels of plans and specifications (P&S) review established using the Review Matrix: (1) No Review (Sponsor Certification); (2) General Review; and (3) Full Review. For No Review, FAA acceptance of P&S is based solely on submittal of a satisfactory executed sponsor certification per FAA Order 5100.38. For General Review, FAA acceptance of P&S is based upon a satisfactory executed sponsor certification and a cursory review of the P&S. For Full Review, FAA acceptance of P&S is based upon a satisfactory executed sponsor certification and a more comprehensive review of the P&S.

Based upon the type of project, type of airport, and total estimated construction (or equipment) costs, the PMs and/or Engineers, utilizing the Review Matrix (Appendix 1), must determine the applicable level of P&S review [i.e. sponsor's certification solely or General or Full Review Guides (Appendices 2 and 3)]. The PMs and/or Engineers who perform the review of the P&S will complete and sign the "PM/Engineer AIP Construction Plans & Specifications (At 90% Completion) Review Record," (Appendix 4) for placement in the grant file with the sponsor's certification.

A PM or Engineer may choose to review the sponsor's P&S at a higher level of review when the sponsor is designated high risk, or if the consultant is not familiar with the design standards or unusual conditions at a specific airport, or if the FAA has experienced previous issues with the consultant or airport sponsor, or if new technologies are being utilized or for other reasons.

In all cases, the objective of P&S review by the FAA is to verify: conformance to the approved scope of work and verification that the work meets AIP eligibility requirements; conformance to FAA design and construction standards (including provisions that are either deficient or exceed design standards); incorporation of required Federal provisions; and airport safety provisions. Review by the FAA must not be construed as a quality control check for the Engineer of Record, or in any other respect validating the technical engineering calculations. Moreover, nothing in this review (including failure by FAA to identify a nonstandard condition) may be construed as an official approval of a Modification of Standards. The FAA's review and comments do not in any way relieve the Engineer of Record of his or her professional duty to ensure the safety, constructability, functionality and/or performance requirements of the plans and specifications. At the same time, the FAA's comments must not be construed as giving technical direction to the Engineer of Record. Rather, the FAA provides its comments to the Airport Sponsor in connection with the requested AIP grant. Even if the FAA's reviewer is a licensed Professional Engineer, the FAA's reviewer should not in any way cite those credentials in providing their comments.

IMPLEMENTATION:

Effective immediately, Regional and ADO Program Managers and Engineers are encouraged to use the Review Matrix and Review Guides when reviewing construction plans and specifications.

Effective March 1, 2015, Regional and ADO Program Managers and Engineers are required to apply the Review Matrix for all AIP projects on Part 139 airports, and all AIP projects on General Aviation airports with an estimated cost of construction over 2 million dollars (for Full Review).

Effective October 1, 2015, Regional and ADO Program Managers and Engineers are required to apply the Review Matrix for all AIP funded construction projects.

APPLICABLE DOCUMENTS: The latest version of the applicable "Current FAA Advisory Circulars Required for Use in AIP and PFC Approved Projects" incorporated in the FAA Grant Assurances.

APPENDICES:

There are four Appendices to this Memo:

1. AIP Construction Plans and Specifications "Review Matrix"
2. Construction Plans and Specifications "General Review Guide"
3. Construction Plans and Specifications "Full Review Guide"
4. PM/Engineer AIP Construction Plans & Specifications (at 90% completion) "Review Record"

If you have any questions, please contact John R. Dermody at (202) 267-7669 or Thomas Mai at (202) 267-8754.

APPENDIX 1

AIP CONSTRUCTION PLANS AND SPECIFICATIONS REVIEW MATRIX

	Required Submittals in advance of 90% P&S					Acceptance of Plans & Specs Based On				
	Consultant Scope of Work	Engineering Design Report	Const. Safety & Phasing Plan	Sponsor Cert for P&S	Eligibility Verification	Contract Provisions**	139/Primary Less than \$1M*	139/Primary Greater than \$1M*	139/Primary Greater than \$5M*	
Runway New Construction-139/Primary	x	x	x	x	x	x	General	Full	Full	
Runway Rehab-139/Primary	x	x	x	x	x	x	Sponsor Cert	General	Full	
Runway Safety Area Improvements	x	x	x	x	x	x	General	Full	Full	
Taxiway New Construction-139/Primary	x	x	x	x	x	x	General	General	Full	
Taxiway Rehab-139/Primary	x	x	x	x	x	x	General	General	Full	
Taxiway Safety Area Improvements	x	x	x	x	x	x	General	Full	Full	
Apron New Construction-139/Primary	x	x	x	x	x	x	General	General	Full	
Apron Rehab-139/Primary	x	x	x	x	x	x	Sponsor Cert	General	Full	
Runway Airfield Lighting-139/Primary	x	x	x	x	x	x	General	General	Full	
Taxiway/Apron Airfield Lighting-139/Primary	x	x	x	x	x	x	General	General	Full	
AWOS	x	x	x	x	x	x	Sponsor Cert	General	General	
NAVAIDS	x	x	x	x	x	x	General	General	Full	
SRE Bldgs	x	x	x	x	x	x	Sponsor Cert	General	General	
ARFF Building	x	x	x	x	x	x	Sponsor Cert	General	General	
Terminals 139	x	x	x	x	x	x	Sponsor Cert	General	General	
Equipment	x	n/a	n/a	x	x	x	General	General	General	

	Required Submittals in advance of 90% P&S					Acceptance of Plans & Specs Based On				
	Consultant Scope of Work	Engineering Design Report	Const. Safety & Phasing Plan	Sponsor Cert for P&S	Eligibility Verification	Contract Provisions**	NP Less than \$300K*	NP Less than \$500K*	NP Greater than \$500K*	
Runway New Construction- NP	x	x	x	x	x	x	General	General	Full	
Runway Rehab-NP	x	x	x	x	x	x	Sponsor Cert	General	General	
Runway Safety Area Improvements	x	x	x	x	x	x	General	General	Full	
Taxiway New Construction-NP	x	x	x	x	x	x	Sponsor Cert	General	General	
Taxiway Rehab-NP	x	x	x	x	x	x	Sponsor Cert	General	General	
Taxiway Safety Area Improvements	x	x	x	x	x	x	General	General	Full	
Apron New Construction-NP	x	x	x	x	x	x	Sponsor Cert	General	General	
Apron Rehab-NP	x	x	x	x	x	x	General	General	General	
Runway Airfield Lighting-NP	x	x	x	x	x	x	Sponsor Cert	General	General	
Taxiway/Apron Airfield Lighting-NP	x	x	x	x	x	x	Sponsor Cert	Sponsor Cert	General	
AWOS	x	x	x	x	x	x	General	General	General	
NAVAIDS	x	x	x	x	x	x	General	General	General	
Hangars/GA Terminal Bldgs	x	x	x	x	x	x	Sponsor Cert	General	General	
SRE Bldgs	x	x	x	x	x	x	Sponsor Cert	General	General	
Equipment	x	n/a	n/a	x	x	x	Sponsor Cert	General	General	

* The dollar amounts shown above reflect the total estimated construction (or equipment) costs (not limited to federal share) for the P&S to be reviewed

** If changes have been made to the Standard Provisions, the Sponsor needs to identify them

APPENDIX 2 CONSTRUCTION PLANS AND SPECIFICATIONS "GENERAL REVIEW GUIDE"

Airport Name:		AIP Grant Number:			
Location:	LOCID:				
Project(s):		Engineer's Estimated Construction Cost:			
This is an abbreviated guide identifying specific FAA expectations.					
PLANS					
COVER SHEET					
		Yes	No	NA	Comments
1	Airport name				
2	Airport location				
3	Owner/Sponsor name				
4	AIP project number				
5	Project title				
6	Index of drawing sheets				
GENERAL					
		Yes	No	NA	Comments
1	Is the development shown on the site drawing consistent with the approved ALP?				
2	Is the development shown on the site drawing consistent with the proposed AIP grant?				
3	Do the plans incorporate any construction or related environmental mitigation measures associated with the applicable Federal Environmental Finding and/or other permits?				
4	RW / TW Width meets requirements per AC 150/5300-13				
5	RW / TW Safety area width/length per AC 150/5300-13				
6	Pavement section and thicknesses (match Pavement Design)				
7	Building/Equipment eligibility determination (by FAA)				
8	Design meets geometric separation and dimensional standards per AC 150/5300-13				
9	Review for ineligible items or unallowable costs.				
10	Modification to Design Standards documented and approved				
11	Do the plans properly show the required Construction Safety and Phasing Plan elements (i.e. phasing, work limits, barricades, haul routes, storage areas, clearance surfaces, etc.)?				
PAVEMENT MARKING (Reference AC 150/5340-1)					
		Yes	No	NA	Comments
Runway markings:					
1	Runway threshold markings				
2	Runway designation markings				
3	Runway centerline markings				
4	Runway aiming point marking				
5	Runway touchdown zone markings				
6	Runway threshold bar				

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7	Demarcation bar				
8	Arrows and arrowheads				
9	Chevrons				
10	Runway holding position markings on runways				
11	Temporary markings during construction				
	Taxiway markings:				
1	Taxiway centerline markings				
2	Runway holding position markings on taxiways				
3	Edge Markings Needed?				
4	Surface Painted Holding Sign				
	SIGNS (Reference AC 150/5340-18)				
		Yes	No	NA	Comments
1	Signage- Layout				
2	Sign and marking plan approved for Part 139				
	LIGHTING PLAN (Reference AC 150/5340-30)				
		Yes	No	NA	Comments
1	Threshold/ Runway End lights (Color Coding, Height, Location & Spacing)				
2	Runway Lights (Color Coding, Height, Location & Spacing)				
3	Taxiway lights (Color Coding, Height, Location & Spacing)				
	NAVAIDS (PAPI, REILS, AWOS, ILS, etc.)				
		Yes	No	NA	Comments
1	Non-Fed coordination (for ILS/AWOS/PAPI)				
2	Location shown				
3	Siting criteria addressed in Design Report				
	SPECIFICATIONS				
		Yes	No	NA	Comments
1	Construction Safety & Phasing Plan incorporated in bid package (and reviewed and coordinated in OE/AAA)				
2	Modification to Construction Standards documented and approved				
3	AC 150/5370-10 latest revision used and any modifications identified				
4	Federal wage rates				In bid package or attached to contract
5	DBE goal identified				
	Note: "Yes" also means the element meets standards				
	ADDITIONAL COMMENTS:				

**APPENDIX 3
CONSTRUCTION PLANS AND SPECIFICATIONS "FULL REVIEW GUIDE"**

Airport Name:			AIP Grant Number:		
Location:		LOCID:			
Project(s):			Engineer's Estimated Construction Cost:		
This is a review guide identifying specific FAA expectations.					
PLANS					
COVER SHEET					
		Yes	No	NA	Comments
1	Airport name				
2	Airport location				
3	Owner/Sponsor name				
4	AIP project number				
5	Project title				
6	Index of drawing sheets				
GENERAL					
		Yes	No	NA	Comments
1	Is the development shown on the site drawing consistent with the approved ALP?				
2	Is the development shown on the site drawing consistent with the proposed AIP grant?				
3	Do the plans incorporate any construction or related environmental mitigation measures associated with the applicable Federal Environmental Finding and/or				
4	Building/Equipment eligibility determination (by FAA)				
5	Review for ineligible items				
6	Modification to Design Standards documented and approved				
7	Do the plans properly show the required Construction Safety and Phasing Plan elements (i.e. phasing, work limits, barricades, haul routes, storage areas, clearance surfaces, etc.)?				
LAYOUT & TYPICAL SECTIONS					
		Yes	No	NA	Comments
1	Design meets Geometric Separation and Dimensional Standards per AC 150/5300-13				
2	Pavement sections and thicknesses conforms to design report				
3	Drainage Plan				
RUNWAY					
		Yes	No	NA	Comments
1	Plan sheet shows existing pavement survey elevations and final longitudinal and transverse grades of pavement surface meeting grading standards per AC 150/5300-13				
2	Shoulder width meet standards				
3	Safety area width, length and grading meets standards for design category				

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CONSTRUCTION PLANS AND SPECIFICATIONS "FULL REVIEW GUIDE"

4	Runway OFA clear of all objects not fixed by function				
5	RW Width meets Runway Design Code				
TAXIWAY					
		Yes	No	NA	Comments
1	Plan sheet shows existing pavement survey elevations and final longitudinal and transverse grades of pavement surface meeting grading standards per AC 150/5300-13				
2	Shoulder width meet standards				
3	Safety area width and grading meets standards for design category				
4	Fillet Layouts shown, if required, and meet TDG				
5	Runway/taxiway/taxi lane separation meet standards				
6	Taxiway OFA clear of all objects not fixed by function				
7	Drainage Plan				
8	TW Width determined by Taxiway Design Group				
GRADING & DRAINAGE					
		Yes	No	NA	Comments
1	Contour lines/Spot Elevations				
2	Edge drains/outlets, etc.				
3	Drainage Structures proper for aircraft loads?				
4	Direction of flows indicated				
5	Ditches are outside of the safety areas				
MARKING (Reference AC 150/5340-1)					
		Yes	No	NA	Comments
1	Marking plan approved for Part 139 airports				
RUNWAY MARKINGS					
1	Runway designation markings				
2	Runway centerline-markings				
3	Runway threshold markings				
5	Runway aiming point marking				
6	Runway touchdown zone markings				
7	Runway side stripe markings				
8	Runway Displaced Threshold markings				
9	Runway demarcation bar				
10	Arrows and arrowheads				
11	Chevrons				
12	Runway holding position markings on runways				
13	Runway shoulder markings				
14	Temporary markings during construction**				
TAXIWAY MARKINGS					
1	Taxiway centerline markings				
2	Enhanced taxiway centerline markings				
3	Edge Markings Needed?				
4	Runway holding position markings on taxiways				

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5	Surface Painted Holding Position Sign				
6	ILS Critical area, POFZ and other hold markings				
7	Intermediate Holding position marking for txy-tyx intersection				
8	Surface Painted taxiway location Marking				
SIGNAGE (Reference AC 150/5340-18)					
		Yes	No	NA	Comments
1	Signage- Layout				
2	Mandatory Instruction Signs				
3	Location signs				
4	Direction signs				
5	Destination signs				
6	ILS critical area/POFZ boundary sign				
7	Sign plan approved for Part 139 airports				
LIGHTING (Reference AC 150/5340-30)					
		Yes	No	NA	Comments
RUNWAY LIGHTING					
1	Threshold/Runway End lights (Color Coding, Height, Location & Spacing)				
2	Runway edge lights (Color Coding, Height, Location & Spacing)				
3	Runway Centerline Lights (Color Coding, Location & Spacing)				
3	TDZ Lights (Color Coding, Location & Spacing)				
TAXIWAY LIGHTING					
1	Taxiway Edge Lights (Color, Height, Location & Spacing)				
2	Taxiway Centerline Lights (Color-Coding, Spacing)				
3	RGL (Inpavement/Elevated; Color)				
4	Is there a SMGCS plan that requires specific lighting in this project?				
NAVAIDS (PAPI, REILS, etc.)					
		Yes	No	NA	
1	Non-Fed coordination (for ILS/AWOS/PAPI)				
2	Location shown				
3	Siting criteria addressed in Design Report				
SPECIFICATIONS					
		Yes	No	NA	Comments
1	Construction Safety & Phasing Plan incorporated in bid package (and reviewed and coordinated in OE/AAA)				
2	Buy American contract language				
3	Modifications to Construction Standards documented and approved				
4	AC 150/5370-10 latest revision used and any modifications identified				
5	Federal wage rates				In bid package or attached to contract

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CONSTRUCTION PLANS AND SPECIFICATIONS "FULL REVIEW GUIDE"**

6	DBE Goal Identified				
	Note: "Yes" also means the element meets standards				
	** Separate plan sheet provided				
ADDITIONAL COMMENTS:					

**APPENDIX 4
PM/ENGINEER AIP CONSTRUCTION PLANS AND SPECIFICATIONS (AT 90% COMPLETION)
REVIEW RECORD**

Airport Name:		AIP Grant Number:	
Location:	LOCID:		
Grant Description:		Engineer's Estimated Construction Cost:	
Project Planner/Manager:			

		Yes	No	NA	Comments
1	Is the proposed development shown consistent with the approved ALP?				
2	Is the proposed development consistent with the approved Scope of Work?				
3	What is the date of the "CURRENT FAA ADVISORY CIRCULARS REQUIRED FOR USE IN AIP FUNDED AND PFC APPROVED PROJECTS" list applicable for review of this project?				Date:

I, the undersigned, have reviewed the Construction Project Plans and Specifications to the best of my ability in accordance with the memorandum and find them acceptable. My review shall not be construed as a quality control check for the Airport Sponsor. The Airport Sponsor is ultimately responsible for certifying that the Plans and Specifications meet FAA requirements.

Signature	Date

I acknowledge that the review of plans and specifications has been completed by the PM/ Engineer based on my review of the Appendices under this memorandum.

Manager Signature	Date