PRODUCTION SUPPORT BULLETIN 20-02
ROADWAY DESIGN BULLETIN 20-05

DATE: March 5, 2020

TO: District Directors of Transportation Development, District Design Engineers, District Consultant Project Management Engineers, District Roadway Design Engineers, District Traffic Operations Engineers, District Program Management Engineers

FROM: Paul Hiers, P.E., Manager, Production Support Office
       Michael Shepard, P.E., State Roadway Design Engineer

COPIES: Courtney Drummond, Will Watts, Tim Lattner, Rudy Powell, Stefanie Maxwell, Trey Tillander, Dan Hurtado, Jason Watts, Scott Arnold, Amy Tootle, Robert Robertson, Lora Hollingsworth, Erik Fenniman, Bren George (FHWA)

SUBJECT: FDM 124 (QA/QC Management Plan) and FDM 125 (Quality Assurance)

This bulletin announces the release of FDOT Design Manual (FDM) chapters 124 and 125.

REQUIREMENTS

Replace FDM 124 with Attachment A and add FDM 125 (Attachment B).

IMPLEMENTATION

The updated FDM 124 is effective with the release of the 2021 FDM. Districts may implement this chapter immediately at their discretion.

The new FDM 125 is effective immediately.

CONTACTS

FDOT Design Manual
Bobby Bull, P.E.
Bobby.Bull@dot.state.fl.us

Safety, Mobility, Innovation
www.fdot.gov
Attachment A
124 QA/QC Management Plan

124.1 General

Quality Assurance (QA) and Quality Control (QC) are two processes used to ensure that deliverables are complete, orderly, correct, and appropriate for the intended purposes. The quality of the deliverable must meet or exceed industry standards; i.e., "Due Diligence" ("Due or Ordinary Care").

Quality Control (QC) is the process of checking, reviewing, and revising deliverables to comply with Department requirements. Quality Assurance (QA) is enforcing and verifying that quality control procedures have been established and performed.

This chapter describes the Department’s QA/QC Management Plan for the development of deliverables. A deliverable is any professional service document (e.g., Plans, Specifications, Reports) that is produced for the Department.

124.2 Quality Control Plan

A Quality Control Plan establishes the review procedures that are to be performed on each deliverable. The Quality Control Plan includes the following elements:

- QA/QC Staffing Plan
- Review procedures for each deliverable type (e.g., reports, plans, model)
- Certificate of Compliance

A project-specific Quality Control Plan is not required for Department (in-house) design projects; however, these projects must follow the procedures outlined in this chapter.

Consultant design projects must either:

1. Develop a project-specific Quality Control Plan acceptable to the Department. The Quality Control Plan is completed and accepted before any design efforts begin; typically, within 20 days after Notice to Proceed.

2. Adopt the Quality Control Plan requirements outlined in FDM 124 by submitting a declaration email to the Department PM. Attach the proposed QA/QC Staffing Plan to the declaration email. With this option, the prime consultant is responsible for ensuring that subconsultants also adhere to the procedures outlined in this chapter.
124.2.1 QA/QC Staffing Plan

The QA/QC Staffing Plan contains a list of required deliverables and associated discipline area. The plan must identify the following staff:

- Engineer of Record (EOR) (professional that will sign and seal the document)
- Lead Technical Professional
- Quality Control (QC) Reviewer
- Quality Assurance (QA) Manager

Include the above information for the entire design team; i.e., include information for Geotechnical, Landscaping, Survey and Mapping, Environmental, and Utility staff.

The QC Reviewer must not be involved in the development of the deliverable. Assigned staff are to be experienced, qualified and professionally licensed.

The Lead Technical Professional is the professional responsible for the development of the deliverable, which is often the Engineer of Record.

For consultant design projects, provide the Department PM with an updated staffing plan whenever staffing changes are necessary.

An example of a QA/QC Staffing Plan is shown in Table 124.2.1.
Table 124.2.1 Example QA/QC Staffing Plan

<table>
<thead>
<tr>
<th>Element/Task</th>
<th>Deliverable</th>
<th>Lead Tech. Professional</th>
<th>QC Reviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Management</strong> (PM: Luke S. Walker, PE) (QA Manager: Dew Wright, PE)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Schedule</td>
<td>Schedule</td>
<td>Luke S. Walker, PE</td>
<td>Dep Abillaba, PE</td>
</tr>
<tr>
<td>Quality Assurance</td>
<td>Quality Control Plan</td>
<td>Luke S. Walker, PE</td>
<td>Dep Abillaba, PE</td>
</tr>
<tr>
<td>Variations/Exceptions</td>
<td>Sidewalk Variation</td>
<td>Luke S. Walker, PE</td>
<td>Dep Abillaba, PE</td>
</tr>
<tr>
<td>Typical Section</td>
<td>Typical Section Package</td>
<td>Luke S. Walker, PE</td>
<td>Dep Abillaba, PE</td>
</tr>
<tr>
<td>Pavement Design</td>
<td>Pavement Design Package</td>
<td>Luke S. Walker, PE</td>
<td>Dep Abillaba, PE</td>
</tr>
<tr>
<td>Project Control</td>
<td>Roadway Plans</td>
<td>Chad Bane, PE</td>
<td>Anna King, PSM</td>
</tr>
<tr>
<td>Roadway Design</td>
<td>Roadway Plans</td>
<td>Chad Bane, PE</td>
<td>Dep Abillaba, PE</td>
</tr>
<tr>
<td></td>
<td>3D Corridor Model</td>
<td>Mora d’ Minbas, E.I.</td>
<td>Sabrina Ren, PE</td>
</tr>
<tr>
<td>Drainage Design</td>
<td>Roadway Plans</td>
<td>Flow Fast, PE</td>
<td>Dep Abillaba, PE</td>
</tr>
<tr>
<td>Quantity Computations</td>
<td>QTDSRD files</td>
<td>Mora d’ Minbas, E.I.</td>
<td>Sabrina Ren, PE</td>
</tr>
<tr>
<td>Specifications, TSP</td>
<td>Specifications Package</td>
<td>Luke S. Walker, PE</td>
<td>Dep Abillaba, PE</td>
</tr>
<tr>
<td><strong>Signing &amp; Pavement Marking</strong> (EOR: Tara Full, PE)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signing Design</td>
<td>S&amp;PM Plans</td>
<td>Tara Full, PE</td>
<td>Luke S. Walker, PE</td>
</tr>
<tr>
<td>Pavt Marking Design</td>
<td>S&amp;PM Plans</td>
<td>Tara Full, PE</td>
<td>Luke S. Walker, PE</td>
</tr>
<tr>
<td>Quantity Computations</td>
<td>S&amp;PM Plans</td>
<td>Chad Bane, PE</td>
<td>Luke S. Walker, PE</td>
</tr>
<tr>
<td><strong>Survey and Mapping</strong> (SOR: Anna King, PSM)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design Survey</td>
<td>Survey Files</td>
<td>Anna King, PSM</td>
<td>Bob Afett, PSM</td>
</tr>
<tr>
<td>Terr Mobile LiDAR</td>
<td>SURVRD01.dgn file</td>
<td>Anna King, PSM</td>
<td>Bob Afett, PSM</td>
</tr>
</tbody>
</table>
124.2.2 Quality Control Review

This check and back check review process is performed by the applicable design group (in-house design units or consultants) before the deliverable is submitted for the Department’s ERC Review. The Quality Control Review may be conducted on either a printed paper copy or a PDF of the deliverable.

A formal and documented Quality Control Review is to be performed on all draft and final Reports, Documents and Plans where the final deliverable is signed and sealed. The project schedule must allocate time to complete this review prior to submittal date; typically, one to three weeks (depending upon complexity of the deliverable).

The deliverable that has completed the Quality Control Review is referred to as the “QC Document”. Documents that contain multidisciplinary information must show documentation of all applicable discipline reviews. For a paper review, scan the QC Document to PDF.

For consultant design projects, the QC Document must be included with the submittal of any deliverable in which the final document is to be signed and sealed; e.g., Typical Section Package, Pavement Design Package, Specifications Package, Plans (all phase submittals), Lighting Justification Report.

For all projects, the Department PM must place the QC Document in the project file.

124.2.2.1 5-Step Review

The 5-step review described in this section pertains to a review of a paper print of the QC Document. It is expected that minor differences to the 5-step review process described will occur based on office or business adopted practices; however, each of the five steps must be carried out.

A color scheme other than the one described in this section may be used. Specify the colors used within the QC stamp.

Step 1 – Origination

The Lead Technical Professional assembles the review document and applies a QC Stamp to the cover of a bound set of documents or to individual sheets, if unbound. The QC Stamp may be digitally generated. An example of a QC Stamp is shown in Figure 2.4.1.
The Lead Technical Professional enters a description for the QC Document in the block provided; e.g., Phase II Plans, Draft Typical Section Package. By initialing and dating the Origination block, The Lead Technical Professional affirms that the documents are ready for checking.

**Figure 124.2.1 Example QC Stamp**

<table>
<thead>
<tr>
<th>Submittal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>QC Stamp</td>
</tr>
<tr>
<td>Step</td>
</tr>
<tr>
<td>Origination</td>
</tr>
<tr>
<td>Checked</td>
</tr>
<tr>
<td>Correct - Yellow Highlight</td>
</tr>
<tr>
<td>Change - Red Comments</td>
</tr>
<tr>
<td>Concurrence</td>
</tr>
<tr>
<td>Agree - Green Check</td>
</tr>
<tr>
<td>No change - Green 'X'</td>
</tr>
<tr>
<td>Changes Made</td>
</tr>
<tr>
<td>Green Highlight</td>
</tr>
<tr>
<td>Changes Verified</td>
</tr>
<tr>
<td>Blue Check</td>
</tr>
</tbody>
</table>

**Step 2 – Checking**

The QC Reviewer checks the QC Document:

- Yellow highlight is used to identify the elements of the document that are deemed to be acceptable. Items not checked are not to be highlighted.

- Red mark is used to identify the elements of the document that are deemed to be in error or are questionable (i.e., provide comments).

Black pen (or similar) is used to perform interim manual calculations or make notes for reference on the document.

By initialing and dating the Checked block, the QC Reviewer affirms the completion of the checking process.

**Step 3 – Concurrence**
The Lead Technical Professional indicates agreement with the suggested change by placing a green check mark by the QC comment. This affirms that this change is to be made. The Lead Professional indicates disagreement with the suggested change by placing a green “X” mark over the QC comment. This affirms that this change is not to be made. This is done only after the Lead Professional has discussed the comment with the QC Reviewer and they reach this conclusion together. Clarification of comment resolution may be provided near the QC comment using blue ink.

By initialing and dating the Concurrence block, the Lead Professional affirms completion of this Concurrence step.

**Step 4 – Changes Made**

The Lead Professional makes the agreed-upon changes and uses green highlight to identify that the change has been made.

By initialing and dating the Changes Made block, the Lead Professional affirms that all agreed-upon changes have been made.

**Step 5 – Changes Verified**

The QC Reviewer verifies that comments have been appropriately interpreted and addressed by placing a blue check by the QC comment. The QC Reviewer will coordinate any unresolved issues with the Lead Professional for final resolution, and Step 4 will be repeated when necessary.

By initialing and dating the Changes Verified block, the QC Reviewer affirms that all agreed-upon changes have been verified.

**124.2.2.2 PDF Review**

When conducting a Quality Control Review within a PDF document, use an electronic comment review, resolution, and documentation process mimicking the 5-Step Review Process. Place the QC Stamp only on the first sheet of the QC Document. Bluebeam® offers a collaborative approach to performing digital QC reviews and is recommended for multidiscipline reviews; other software applications may be used that provide similar workflow.
124.2.2.3  3D Model Review

3D model reviews should be conducted and documented by using an electronic comment review, resolution, and documentation process that incorporates the 5-step structure.

Perform a 3D model review as outlined in Chapter 9 of the *CADD Manual*. As a minimum, a 3D model review should assess the following:

1. Geographical Coordinate System is defined in the model(s)/design file
2. 3D Baseline/Centerline is displayed in the model(s)
3. Referenced 3D model break lines match the 2D planimetric lines
4. Completeness of model(s), visually:
   (a) Gaps along the model
   (b) Spikes or lips along seams
   (c) Overlapping components
   (d) Transition between corridors and templates
   (e) Transition between varying slope values
   (f) Transitions at curb ramps and driveway locations
   (g) Slope harmonization with existing surface
   (h) Median Crossovers
   (i) Separator Islands
5. Verify Typical Section Elements:
   (a) Depths (pavement, base, concrete, etc.)
   (b) Widths (lane, shoulder, sidewalk, etc.)
   (c) Cross Slope (lane, shoulder, sidewalk, etc.)
6. Verify Station Offset Elevation at Critical Locations:
   (a) EOP at Drainage Nodes
   (b) Begin / End Taper Transitions
   (c) PC/PT of curves
7. Verify Vertical Clearance
8. Clash Detection - Interference Checking
9. 3D Deliverable Created:
124.2.3 Certificate of Compliance

For consultant produced deliverables, the firm’s designated person for overseeing quality control activities (e.g., Quality Control Officer, Quality Assurance Manager) must review and certify that established quality control procedures have been performed. The purpose of the Certificate of Compliance is to attest that the level of effort used to complete the quality control review adheres to industry standards.

Coordinate requirements for the Certificate of Compliance with the Department PM.

124.3 Independent Peer Review

An independent peer review is supplemental to the Quality Control Review and is performed on selected consultant projects. This review is conducted by an independent team of qualified reviewers on specific design elements or portions of a project. Members of the independent peer review team are not assigned to the same organizational unit that managed and produced the project.

124.4 Field Review

A field review (A.K.A. Plans-in-Hand Review) is supplemental to the Quality Control Review. The review is held at the project site for the purpose of verifying the compatibility of the design with the field conditions encountered during construction. A record of the field review includes the following:

- Date and time.
- List of attendees.
- Documented site conditions and observations; may include marked up plan sheets, photographs or any other method deemed appropriate.

For consultant projects, provide the Department PM with a copy of the review record.
Attachment B
125 Quality Assurance

125.1 General

This chapter describes the planned and coordinated evaluation procedures conducted by FDOT Districts and the Central Office for the purpose of verifying and enforcing that established requirements are being met. Evaluation procedures ensure compliant and consistent performance by the districts and central office units that implement transportation programs.

Section 20.23(3)(a), Florida Statutes (F.S.), requires the establishment of departmental policies, rules, procedures and standards.

Section 334.048, F.S. states the Legislative intent with respect to the Central Office role in the Department's management accountability and monitoring systems, including corrective actions when appropriate.

125.2 District Quality Assurance Activities

Districts must conduct Quality Assurance (QA) Audits on consultant prepared plans and documents to verify that a Quality Control (QC) review was performed for each deliverable (see FDM 124). To complete the requirements of the QA Audit, districts must verify that the completed QC document demonstrates that the review procedures were completed; e.g., QC check prints, Bluebeam or Adobe QC PDF file, 3D-CADD file check list and notes.

Districts must also verify that the Certificate of Compliance was provided (see FDM 124.2.3).

125.2.1 Electronic Review Comment (ERC) Reviews

ERC Reviews are conducted by the Department utilizing the ERC system in accordance with FDOT Electronic Review Comments (ERC) System User Manual. The ERC system is an application used to track the review process (comments and responses) for project submittals in a database. The purpose of an ERC Review is to assure that the submitted documents meet Department requirements.

Documents are uploaded into the ERC system only after the required quality control procedures have been performed. It is expected that comments associated with poor
quality work are minimal; the focus of the ERC Review is to validate that the designs and reports are acceptable to the Department.

Discipline experts (reviewers of the document) are assigned through the ERC system, along with the required due date for providing comments. All comments must be adequately addressed before closing out the ERC Review.

125.3 Central Office Quality Assurance Review (QAR) Program

The Office of Design (Central Office) has a formal Quality Assurance Review (QAR) Program which is led by the Office of Design QAR Program Manager. The Office of Design evaluates the District Design Offices for compliance with Department policies, procedures, and manuals through this program.

The Office of Design QAR Program is conducted by Central Office staff; typically, by Roadway Design, Structures Design, and Production Support offices, but may include other offices as necessary. The overall goal of the QAR Program is to achieve an objective assessment on the Department’s performance in following established requirements.

The Office of Design QAR Program consists of:

1. Development and adoption of an annual QAR Plan
2. Conducting QARs on various topics (which cover specific requirements contained within Policies, Procedures, and Manuals) and reporting the findings to the districts and other stakeholders, accomplished through the development and distribution of a QAR Memorandum
3. Annual QAR Plan Summary Report

125.3.1 QAR Plan Development

Annual QAR Plans are developed based on Fiscal Year; i.e., the FY 19/20 QAR Plan begins July 1, 2019 and completed by June 30, 2020. An example of a QAR Plan is shown in Exhibit 125.1.

The development and adoption of a QAR Plan occurs between February and April preceding the fiscal year that the plan will cover.
125.3.1.1 FY QAR Plan Development Meeting

For planning the upcoming fiscal year’s QAR activities, the Office of Design QAR Plan Development Meeting is held in early February and is led by the Office of Design QAR Program Manager. Representatives from the Roadway Design, Structures Design and Production Support offices attend the QAR Plan Development Meeting; staff from other FDOT offices and FHWA may also be in attendance. Agenda topics discussed at this meeting include:

1. Status of current fiscal year QAR Plan

2. QAR Topics to be considered for the upcoming fiscal year QAR Plan, based on the following priorities:
   a) Safety concerns
   b) Construction issues
   c) Conformance with new, changed, or existing departmental policies, rules, procedures and standards
   d) Non-compliance or needed improvement identified on previous QARs
   e) Opportunities to streamline processes and apply innovation

3. Cycle period to complete QARs for all districts. The following general practice applies, based on complexity of QAR and available resources:
   a) For each QAR topic identified, the established practice is to complete the reviews for all districts in a single fiscal year; however, a two or three-year cycle may be appropriate for topics requiring extensive evaluations, or on-going Department programs; e.g., ADA, Pavement Design.
   b) Typically, QARs are conducted on contract documents, or design processes that were completed in the fiscal year preceding the fiscal year of the QAR Plan. Each project will be evaluated for compliance based on the manuals, policies, and procedures in place at the time the document or design was completed.
   c) QAR evaluations should be conducted in the 1st (July-September), 2nd (October-December), and 3rd (January-March) quarters of each fiscal year QAR Plan.
   d) The Final QAR Memorandum is to be completed and distributed by the end of the quarter following the quarter in which the QAR evaluation was
performed; e.g., Final QAR Memorandum is distributed by December 31st for a QAR conducted in the 1st quarter.

4. Assess QAR topics for future fiscal year plans; typically, a one to two-year look ahead.

125.3.1.2 DRAFT FY QAR Plan

QAR representatives from the Roadway Design, Structures Design, and Production Support offices reconvene in early March to complete the DRAFT FY QAR Plan. The focus of this meeting is to select the proposed QAR Topics to be included in the plan.

To complete the DRAFT FY QAR Plan, the following information is identified:

1. **Office Unit** – Unit responsible for conducting the QAR.

2. **QAR Leader** – Individual who will take the lead in conducting the QAR.

3. **Authority** – Department policy, rule, procedure, or standard governing the QAR Topic.

4. **QAR Topic/Purpose**
   
   a. **Topic**: The area or subject of the planned QAR evaluation.
   
   b. **Purpose**: The QAR objective and specific requirements being evaluated.

5. **QAR Cycle** – The fiscal year quarter in which the QAR will begin. The FY QAR Plan should not subject any district to excessive reviews within the planned year, or within a single quarter.

125.3.1.3 FY QAR Plan Adoption

The DRAFT FY QAR Plan is presented to the District Design Engineers (DDE) and District Consultant Project Management Engineers (DCPME) in early April. Following the presentation, districts have two weeks to request additional information as to the intent of the QAR Topic or suggest changes to the QAR Cycle.

The FY QAR Plan is formally adopted in early May.
125.3.2 Conducting a QAR

Conducting a QAR involves the following activities:

1. Conducting a QAR Kick-off Meeting
2. Evaluation of projects for compliance with the QAR purpose statement
3. Documenting the findings in a Draft QAR Memorandum
4. Resolution of Findings
5. Distribution of Final QAR Memorandum

Depending on complexity, a QAR may be conducted by remote review, district visit, or a combination of the two methods. Conducting a QAR involves Central Office and district staff working together to complete the review activities.

125.3.2.1 QAR Kick-off Meeting

The QAR Leader should contact the appropriate district staff at the beginning of the quarter in which the QAR is to be conducted to schedule the QAR kick-off meeting. The QAR Kick-off meeting agenda should include the following:

1. QAR topic and purpose
2. Identification of Central Office and district staff that will participate in the QAR
3. Proposed schedule
4. Selected projects to be evaluated and the best method for obtaining the data.
5. Agree-upon date to complete the gathering of the required information.

125.3.2.2 Evaluation of Projects

Central Office staff will evaluate district documentation in accordance with the QAR purpose statement. Evaluation of provided documents is typically conducted through office reviews; however, a field review or district visit may be appropriate.

The findings should be tabulated with a clear indication that the project was in full compliance, compliant with opportunity for improvement, partial compliance, or non-
compliance. An explanation as to what triggered any partially or non-compliance determination is to be provided.

Project evaluations should be completed by the end of the quarter in which the QAR is to be conducted. The findings of the QAR are documented within a draft QAR Memorandum which is shared with the district.

125.3.2.3 QAR Memorandum

A district-specific QAR Memorandum is to be developed for each QAR Topic. The memorandum contains the following sections:

1. Executive Summary
2. Projects Selected for Review
3. Evaluation Method (Optional)
4. Findings
5. Observations (Optional)
6. Recommendations

Executive Summary

This section should be succinct (1-3 paragraphs) and should not extend to a 2nd page.

1. First paragraph should state which design office conducted the review (include other offices if it was a joint review) and the quarter in which the review took place. Include the names of the Central Office and district key staff that participated in the review.

2. Second paragraph should provide the stated purpose of the review; e.g., “The specific purpose of this QAR was to verify inclusion of applicable documents in the required E&O file.”

3. Last paragraph should provide the results of the evaluation by indicating that the district was in full compliance, compliant with opportunity for improvement, partial compliance, or non-compliance.

Projects Selected for Review

This section should provide a description of how the projects were selected to be included in the QAR.
1. First paragraph should describe the general project attributes that qualified it for inclusion of the QAR evaluation; e.g., “This QAR included projects with a letting date between July 1, 2017 and June 30, 2018 and proposed a new or extended bridge culvert. Eight projects were identified that met these parameters”.

2. Subsequent paragraphs should include discussion on why projects were added or subtracted from the list to be evaluated.

3. Last paragraph should state the number of projects that were selected for evaluation.

**Evaluation Method (Optional)**

This optional section is used to provide a description of the process used to evaluate the compliance of selected projects.

**Findings**

This section should indicate how the district performed overall and whether the projects met the stated requirements. At a minimum, this section should include:

1. First paragraph should begin with “The following table provides a summary of the findings for each project evaluated as part of this QAR.” The table may be omitted if there were only one or two projects identified.

2. Flexibility in content and format of tabulated findings should be exercised to clearly convey the information. Only include information that is the basis for why the district did or did not comply with requirements along with statements about what was missing or incomplete. Do not include comments concerning the quality of the document or submittal.

3. Subsequent paragraphs should include discussion concerning the assessment of specific projects if additional information would help to clarify findings.

**Observations (Optional)**

This optional section is used to provide comments concerning faults or best practices in district processes, quality of project deliverables, or any other topic that may have contributed to the findings. It may include discussion on benefits of compliance (improved safety and operational performance or cost savings) and missed opportunities identified through the QAR.
Recommendations

This section should list actions the district should consider for improving compliance with the stated requirements. Include suggested participation in training opportunities directly related to the QAR Purpose. This section may also include recommendations for Central Office improvements (e.g., new, improved or additional training, clarification to departmental policies, rules, procedures and standards).

125.3.2.4 Resolution of Findings

The Draft QAR Memorandum is shared with district staff involved in the QAR, followed by a discussion of findings and recommendations. The resolution of findings is typically face-to-face to assure open dialog between Central Office and district staff. Video conference or teleconference may be used in lieu of face-to-face meeting when deemed appropriate.

125.3.2.5 Distribution of Final QAR Memorandum

The memorandum is finalized after agreed-upon edits from the resolution of findings have been made. The Final QAR Memorandum is typically sent from the manager of the Roadway Design, Structures Design, or Production Support office, as appropriate.

The memorandum is addressed to the District Secretary, with the following recipients copied:

1. Director, Office of Design
2. District Director of Transportation Development
3. District Design Engineer
4. Office of Design QAR Program Manager
5. FHWA Design Program Manager
6. FHWA Quality Assurance Manager

125.3.2.6 Quality Management Dashboard

Quality Management Dashboard (QMD) is a Department enterprise application that is used to store QAR information. The QAR Leader will upload QAR findings and recommendations into the QMD after the Final QAR Memorandum is distributed.
125.3.3 QAR Summary Report

When all the district QAR Memorandums have been completed on a QAR topic, the QAR Leader will summarize findings for that QAR topic in a QAR Summary Report. This report should be no more than one page and is not intended to repeat the individual district QAR Memorandums. This report will summarize recommendations, action items, lessons learned, and best practices identified through that year’s QARs for that QAR topic. The QAR Leader will submit this QAR Summary Report to the Office of Design QAR Program Manager prior to June 30th.

The Office of Design QAR Program Manager will compile the individual QAR Summary Reports into a Summary of Recommendations and Action Items Report that should be provided to FHWA no later than August 31st of each year.

The Office of Design QAR Program Manager maintains a library of the Annual QAR Plans, QAR Memorandums, QAR Summary Reports, and a QAR Findings Log.
# Office of Design
## FY 2019/2020 QAR Plan

<table>
<thead>
<tr>
<th>Office Unit</th>
<th>Leader</th>
<th>Authority</th>
<th>Topic / Purpose</th>
<th>QAR Cycle by District</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production Support Office</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
| Value Engineering                 | Kurt Lieblong     | Topic No. 625-030-002 | **Topic**: Value Engineering (VE) Procedures  
Purpose: Assess the determination of eligible projects, work plan submission, team member criteria and the 6 phases of the VE job plan. | 1,4,5,6  
2,3,7,T |
| Landscape Architecture            | Jeff Caster       | Work Program Instructions | **Topic**: Part III - Ch 16: Landscape Installation  
Purpose: Evaluate compliancy with requirements for the inclusion of landscape plans in a construction contract. | 1,6  
4,T |
| **Roadway Design Office**         |                   |           |                                                                                  |                       |
| Standard Plans                    | Derwood Sheppard  | Topic No. 625-010-003 | **Topic**: Longitudinal Barriers  
Purpose: Determine if new standards and associated policies are being implemented | 5  
2  
4,T |
| Pavement Management               | Rhonda Taylor     | Work Program Instructions | **Topic**: Pavement Resurfacing  
Purpose: Evaluate compliancy and consistency in selecting and programming projects in the resurfacing program. | ALL |
|                                   |                   | Topic No. 625-010-002  
Topic No. 625-010-005  
Topic No. 625-010-006 | **Topic**: Pavement Design Policy  
Purpose: Evaluate compliancy and consistency with state standards in developing pavement designs. | 4  
7 |
| Drainage                          | Carlton Spirio    | Topic No. 625-040-002 | **Topic**: Bridge Hydraulic Reports  
Purpose: Evaluate consistency in format and content. | 3, T  
1,5 |
| Quality Assurance                 | Jeremy Fletcher   | Topic No. 625-020-016 | **Topic**: Americans with Disabilities Act (ADA)  
Purpose: Evaluate design content in Architectural Plans and accessibility issues with existing facilities. | 5  
2  
3 |
| **Structures Design Office**      |                   |           |                                                                                  |                       |
| Structures                        | Scott Arnold      | Topic No. 625-000-002 | **Topic**: FDM 121 Bridge Project Development  
Purpose: Follow-up from the 2015 QAR | 2,3,6,7 |

Adopted: May 3, 2019