1.0 **PURPOSE:**

The purpose of this procedure is to define the process by which NTTA Standards are drafted, proposed, revised, reviewed, approved and released.

2.0 **RESPONSIBILITIES:**

2.1 Director of Project Delivery (DPD) – The DPD shall be responsible for approving or rejecting all proposed or revised standards. At the discretion of the DPD, these may also be forwarded to the Assistant Executive Director of Infrastructure (AEDI) for approval.

2.2 NTTA Design Manager – The NTTA Design Manager shall be responsible for authorizing the development of new draft standards, and for review and recommendation of all new or revised standards to the DPD.

2.3 Corridor Manager(CM)/Project Manager or Design Section Engineer (DSE) – The CM/Project Manager or DSE shall identify and propose to the PD Standards Manager, any proposed or revised standard necessary to fulfill NTTA’s expectation of the project.

2.4 Engineer of Record (EOR) – The EOR shall be responsible for developing a draft standard when authorized by the NTTA Design Manager. The final deliverable to the PD Standards Manager shall include an electronic version of the final standard in .dgn and .pdf formats. Additionally, one copy of the standard on 11” X17” mylar shall also be provided bearing the official engineer’s seal and firm number.

2.5 Subject Matter Expert (SME) – SMEs are responsible for identification and recommendation to the PD Standards Manager, any proposal, revision and/or omission of an NTTA standard that may be necessary to achieve NTTA’s objectives. SMEs shall also be required to participate in the review process.

2.6 Project Delivery (PD) Standards Manager – The PD Standards Manager shall be responsible for management of standards development, and coordinating reviews by the Standards and Specifications Committee. Upon approval of a proposed standard, the PD Standards Manager coordinates release to NTTA Standards Library through PD Document Control, and inclusion in the Index of NTTA Standard Drawings in accordance with DM-01 and QM-12. Revised standards will require Committee approval at the discretion of the PD Standards Manager, dependent on the nature and impact of the revision. Upon approval of revisions, the PD Standards Manager shall coordinate release of the standard, as stated above, with the addition of supplying a revision number and date on the final sheet.

2.7 Standards and Specifications Committee – The committee responsible for all reviews, recommendations, and/or rejections on all proposed and revised NTTA Standards and Specifications. Committee members include the following roles:

2.7.1 PD Design Manager
2.7.2 PD Standards Manager
2.7.3 PD Specifications Manager
Title: NTTA Standards Management

2.7.4 PD Visual Quality Manager
2.7.5 PD Construction Oversight Manager
2.7.6 ITS Liaison
2.7.7 Maintenance Liaison/Representative
2.7.8 NTTA Technical Oversight Leader
2.7.9 NTTA Design Guidelines Manager
2.7.10 NTTA Legal Counsel*

*Required representation when the review is recommending proposed special specifications, special provisions and/or general notes that require Contractor’s signature or are legally binding in nature.

2.8 Project Delivery Document Control – PD Document Control shall be responsible to release new or revised standards in accordance with DM-01.

2.9 Originator – Any person who initiates and completes Form FD-01-F4. The originator is encouraged to participate in committee reviews.

2.10 Receiver – Potential users of NTTA Standards. The Receiver agrees to comply with the terms and conditions of NTTA’s CAD Standard Plan Files Disclaimer.

3.0 SCOPE/APPLICABILITY:
This procedure shall apply to all NTTA Standards considered for release or revision on NTTA projects and corridors.

4.0 REFERENCES:
Index of NTTA Standard Drawings
DM-01 Management of Controlled Documentation
QM-12 Control of QMS Documentation

5.0 DEFINITIONS & ACRONYMS:
NTTA Standard – A standard drawing that can be utilized on over 75% of NTTA facilities, and is recommended for development by the NTTA Design Manager and approved by the DPD or AEDI. The files are maintained in accordance with QM-12, Control of QMS Documentation.
Revised NTTA Standard – An existing NTTA Standard that is recommended for improvement with revisions.
Project Specific Standard – A standard drawing that does not meet the 75% threshold. The development shall be borne by the CM, PM, or DSE as a project specific design detail.
Modified Standard – An existing standard that is modified and resealed for a project specific purpose. Any modifications to an NTTA Standard, however minor, must be documented briefly and dated in the revision block of the sheet, and the designation "(MOD)" must be appended to the standard plan name inside the title block.
Each Modified Standard file must be signed and sealed by a licensed engineer. A Modified Standard does not apply to this procedure. All .dgn must be requested through the PD Standards Manager.

**TxDOT (MOD) Standards for NTTA** - Pre-drafted TxDOT standards with slight modifications for use on the NTTA system. The DSE should review all modifications prior to affixing seal and signature. These pre-drafted standards are available through the PD Standards Manager and/or PD Document Control.

**Aesthetic Guidelines** - A set of drawings providing additional details to supplement NTTA’s Design Guidelines. These drawings are for aesthetic purposes and must be further designed by the DSE to include engineering details.

### 6.0 PROCEDURES:

6.1 The Originator identifies a need to propose or revise a standard. Form FD-04-F1 is completed by the originator and submitted to the PD Standards Manager.

6.2 The PD Standards Manager reviews the request and determines if any additional information is needed from the Originator. If the “Request Type” is for a revision to an existing standard, the PD Standards Manager may proceed to Step 6.6 or advise the Originator to develop a Modified Standard. If the “Request Type” is for a new standard, a standard reference number is assigned by the PD Standards Manager, and the Standards Review Committee is assembled for an introductory review.

6.3 At the discretion of the PD Standards Manager, the introductory review process to determine the need and applicability may be accomplished via email distribution, as opposed to a formal meeting. Committee members shall provide feedback by addressing all Committee members on email correspondence related to the review. Standards and Specifications Committee members must be present at all meetings, or assign a representative to fulfill their obligation. The CM/Project Manager, DSE, SME and/or Originator may be requested to participate in the introductory review process.

6.4 The introductory review process shall determine if the proposed standard can be applied to over 75% of NTTA’s existing and proposed system facilities. If the 75% threshold cannot be met, the PD Standards Manager ends the process by notifying the Originator to pursue the design as a Project Specific Standard to be incorporated in the project plans.

6.5 Form FD-04-F1 is forwarded to the NTTA Design Manager. The NTTA Design Manager authorizes the development of a draft standard by signing Form FD-04-F1, and initiates the development by utilizing PD or consultant staff.
6.6 The PD Standards Manager oversees the development of the standard by determining the need for convening the Standards and Specifications Committee for review of the draft standard. If the draft standard is a New NTTA Standard, Committee reviews are mandatory. If, at the discretion of the PD Standards Manager, the revision is minor enough to where the original intent of the standard is preserved, may forego the Committee review, proceed to Step 6.8, otherwise, the draft standard and Form FD-01-F5, Comment and Review Form is distributed to all parties described in 2.7, and any other party at the PD Standards Manager’s discretion.

6.7 The Standards and Specifications Committee shall review the draft standard and provide comments to the PD Standards Manager within a two-week review period. The PD Standards Manager shall consolidate the comments and schedule a follow-up meeting to resolve any outstanding issues. The follow-up meeting will serve to establish solutions to issues and determine common ground among Committee Members. Responses and a Standards Action Plan will be documented on Form FD-01-F5.

6.8 The final draft standard and completed Form FD-01-F5 are returned to the Standards and Specifications Committee for final review, confirmation and acceptance. This review cycle may occur electronically, so long as the PD Standards Manager ensures all committee members receive an opportunity to review the final draft standard.

6.9 If consensus is obtained and acceptance is made by the Standards and Specifications Committee, the PD Standards Manager shall make a recommendation for approval by completing Form QM-12-F1. Otherwise return to Step 6.6.

6.10 Upon receipt and approval by the PD Standards Manager, the final draft standard shall be promoted to an NTTA Standard and shall be sealed by the EOR.

6.11 The PD Standards Manager shall provide to PD Document Control one .dgn electronic copy and one .pdf electronic copy for upload of the newly approved standard to the NTTA Standards Library in accordance with QM-12, and 1 mylar copy for the Project Delivery Plan Room. A completed QM-12-F1, Document Release Notice and a copy of the final draft standard shall be provided PD Document Control.

7.0 REGULATORY REQUIREMENTS:
N/A
8.0 RELATED BOARD POLICY:

NTTA’s CAD Standard Plan Files Disclaimer –
1. The NTTA makes no warranty of any kind, express or implied, with respect to the CAD Standard Plan File(s).

2. The receiver agrees to indemnify, defend and hold harmless the NTTA, its officers, and employees from and against any and all claims, suits, losses, damages or costs incurred from using the files.

3. If the files that are modified after receipt, the receiver agrees to indemnify, defend and hold harmless the NTTA from and against any and all claims, suits, losses, damages or costs, from the use of outdated design files.

4. The receiver assumes all risk and liability for any losses, damages, claims or expenses resulting from the use or possession of any file(s).

5. The official Contract Documents of record are stored at NTTA’s Project Delivery Plan Room 5900 West Plano Parkway, Suite 800, Plano, Texas 75093, consisting of mylar documents produced by various firms which bear the company seal and signatures.

6. The design files standards are copyrighted by the NTTA and may not be resold.

9.0 COMPONENT DOCUMENTS:

FD-01-F5 Comment Review form
QM-12-F1 Document Release Notice form
FD-04-F1 Standard Request form
10.0 FLOWCHART:

NTTA Standards Management  
- FD-04 -

Originator:
- Identifies a need to propose or revise a NTTA Standard
- Submits request for new/revised Standard using form FD-04-F1

PD Standards Manager:
- Reviews request to determine if more information is necessary
- If request is to modify existing Standard, go to step 6.6
- If request is for a new Standard, proceed to next step

PD Standards Manager:
- Evaluates applicability to NTTA existing and proposed system facilities

PD Specification Manager:
- If the proposed Standard cannot be applied to over 75% of NTTA existing and proposed system facilities, then the process ends
- Originator is notified

If yes, proceed to next step

NTTA Design Manager:
- Approves or disapproves work to begin on new/revised Standard

PD Standards Manager:
- Development (or updates) of new/revised Standard is overseen by the Standards Manager
- Once completed, the Standard is reviewed to ensure compliance with NTTA drawing standards

Committee:
- Standard circulated to Standards & Specification Committee for review, technical confirmation (and consensus)
- Comments are documented on form FD-01-FS

PD Standards Manager:
- Compiles reviewers comments into one document
- Resolves conflicts and/or issues with Standards & Specification Committee members
- Action Plans documented to resolve issues and/or conflicts on form FD-01-F5

PD Standards Manager:
- Returned for updates if consensus is not obtained
- When consensus is obtained, proceed to next step

PD Standards Manager:
- Standard recommended for approval
- Form FD-04-F1 used to capture recommendation

PD Standards Manager:
- Creates DRN (form QM-12-F1), attaches hardcopy Standard and submits to PD Document Control for final approval
- Reference procedure QM-12

PD Standards Manager:
- Creates DRN (form QM-12-F1), attaches hardcopy Standard and submits to PD Document Control for final approval
- Reference procedure QM-12
### 11.0 REVISION HISTORY:

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<th>Revision</th>
<th>Revised by</th>
<th>Date Issued</th>
<th>DRN</th>
<th>Reason for Revision</th>
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<td>0</td>
<td>Noelle Ibrahim</td>
<td>06/05/2008</td>
<td></td>
<td>Added further detail to the review and approval process, and defined the members of the standards committee, and added FD-03-F1 Standard/Specification Release Notice and FD-04-F1 Standard/Specification Request Form</td>
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<tr>
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<td>Noelle Ibrahim</td>
<td>09/09/2008</td>
<td></td>
<td>Updated Responsibilities, Definitions &amp; Acronyms, and Procedures to better define for reviewing and approving Standards. Also redesigned form FD-04-F1 and obsolete form FD-03-F1.</td>
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<td>2</td>
<td>Darla Payberah</td>
<td>09/16/2009</td>
<td>10020</td>
<td>Updated new/replaced roles, referenced new procedures, and made minor revisions for clarity. Updated flowchart.</td>
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<tr>
<td>4</td>
<td>Darla Payberah</td>
<td>04/28/2011</td>
<td>10283</td>
<td>Updated new/replaced roles, referenced new procedures, and made minor revisions for clarity. Updated flowchart.</td>
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<td>Darla Payberah</td>
<td>03/26/2012</td>
<td>10392</td>
<td>Minor editorial revisions to clarify the intent and instruction of this procedure.</td>
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