Design-Build 101 Part 2 of 2

Alternative Delivery Division

Texas Department of Transportation

Rev. 02
Released: 02/07/2025

Design-Build 101
Part 2 of 2

This is a self-directed overview of Design-Build contracting based on Version 7.0 of the Programmatic Documents

The object shown below on a slide provides reference to the Section of the Programmatic Documents

Sample
Contract Reference:
DBA GC, Sec. XXX

Design-Build 101 Part 2 of 2

Training Goals:

1. Provide participants a better understanding of the Design-Build process
2. Identify the various parts of the Design-Build project delivery method
3. Identify expectations and responsibilities of the entities involved in Design-Build
4. Identify the various parts of the Design-Build project delivery method

Table of Contents

1 References

Contract Documents (referred to as DB Contract)

Design-Build Agreement (DBA)

Includes DB specific and traditional contract language

Allows flexibility for district specific language

Design-Build General Conditions (DB GC)

Items 1-9 of the DB Specifications are the Design–Build General Conditions and provide the static terms and conditions for DB contracts

Design-Build Specifications Items 10-28 (DBS)

Includes DB programmatic contract language

Allows flexibility for project specifications and district preferences

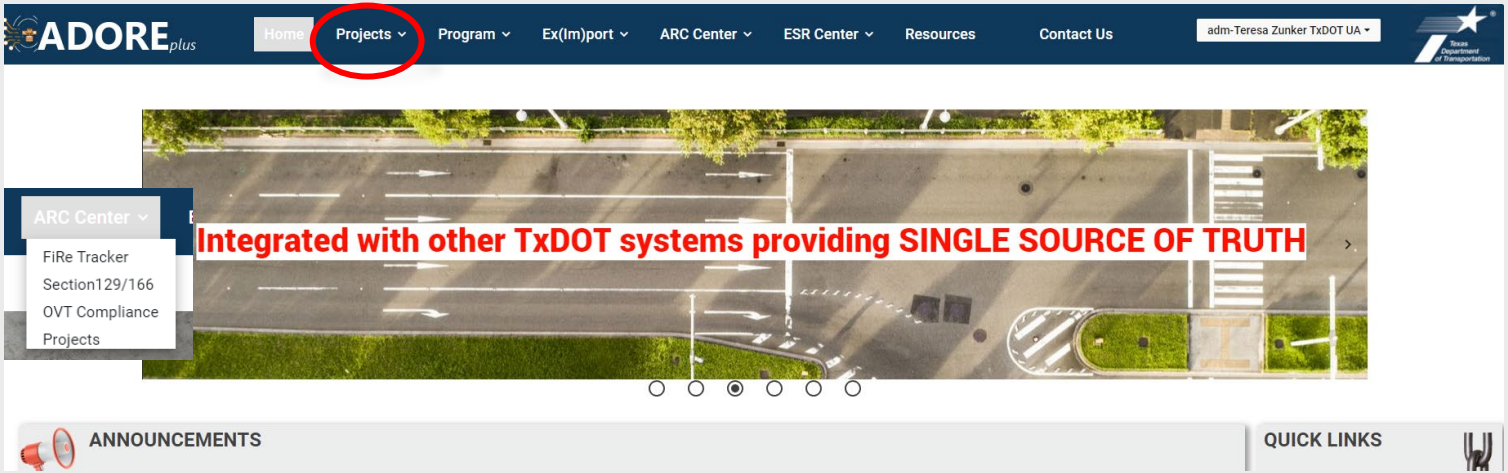
Capital Maintenance Agreement General Conditions (CMA GC):

Includes provisions for maintenance during construction & options for maintenance after substantial completion
Items 1-8 of the CMA Specifications are the CMA General Conditions and provide the static terms and conditions for CMA contracts; CMA Specifications are included in item 9

These and other resources can be found at:

ADOREplus

ADORE*plus* is the official document repository for the Alternate Delivery Program.



2 Design Management

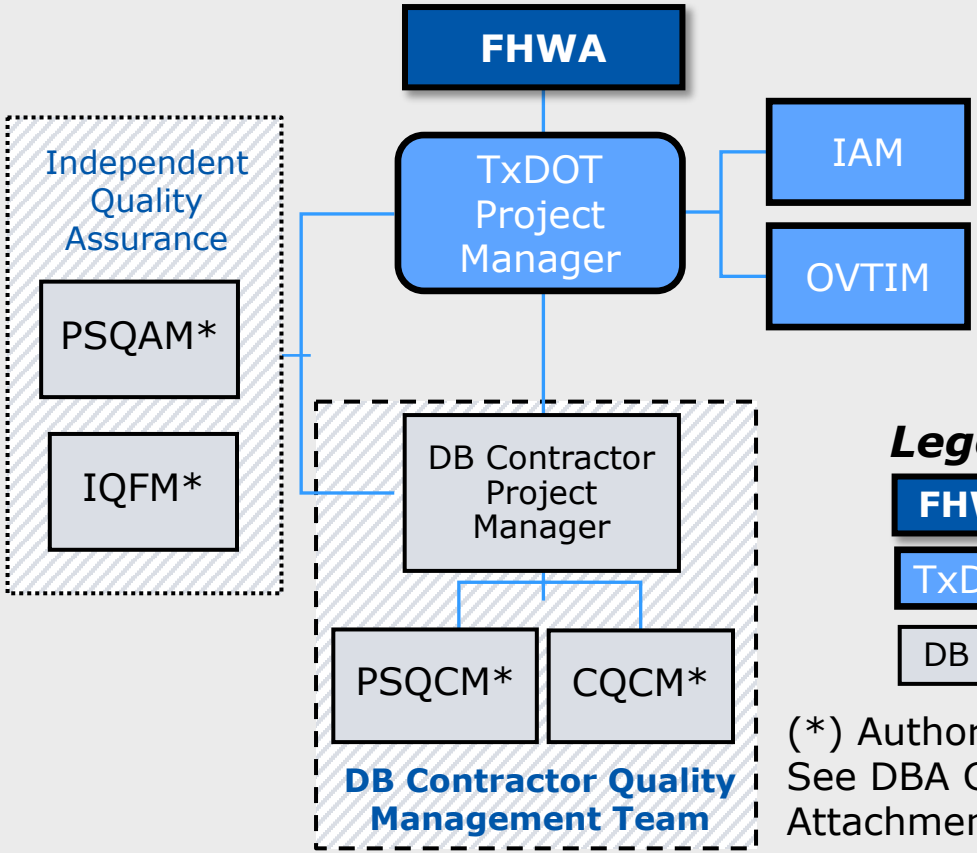
Quality Management System (QMS)

Outlined in the Quality Management Plans (PSQMP & CQMP), QMS processes are used to manage:

- Control of documents
- Control of records
- Quality training
- Process auditing
- Control of nonconformance
- Corrective and preventative action
- Opportunities for improvement

Quality Management Organization

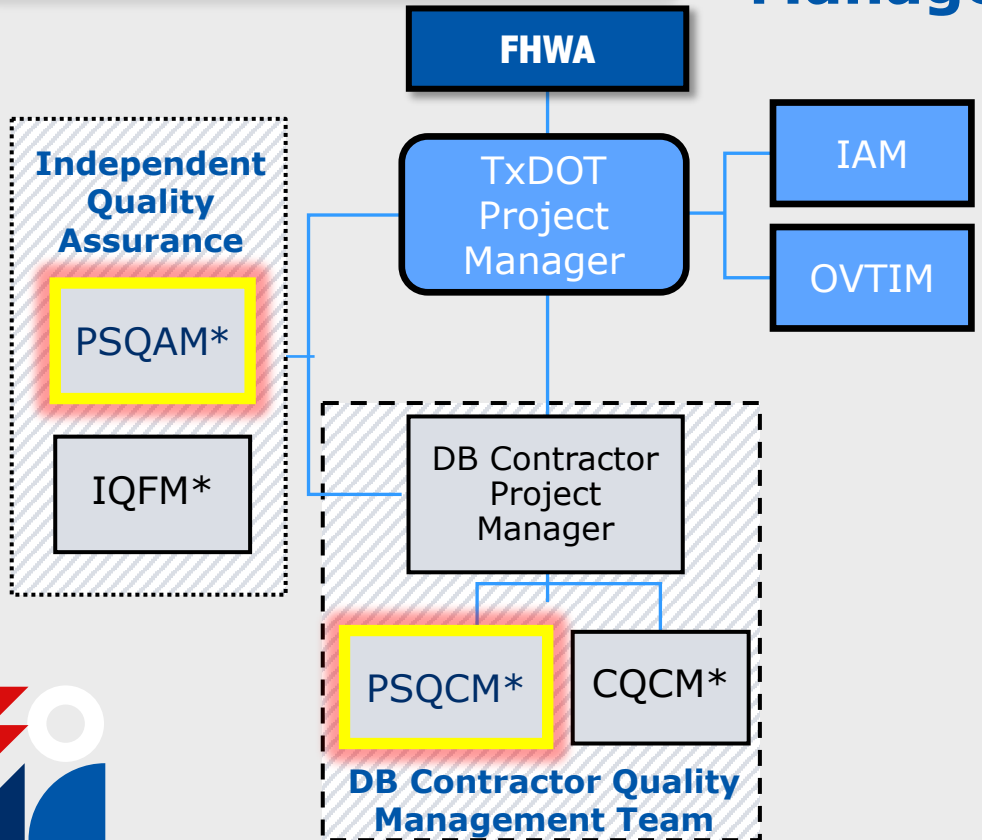
- (CQCM) Construction Quality Control Manager
- (IAM) Independent Assurance Manager
- (IQFM) Independent Quality Firm Manager
- (OVTIM) Owner Verification Testing & Inspection Manager
- (PSQAM) Professional Services Quality Assurance Manager
- (PSQCM) Professional Services Quality Control Manager



(*) Authority to stop Work. See DBA GC Item 4, Attachments 4-1 and 4-2

★ *Contract Reference: DBA GC Item 4, Attachments 4-1*

Professional Services Quality Management Organization



- The PS Quality Control Manager (PSQCM) and PS Quality Assurance Manager (PSQAM) use the QMS to implement **reviews and audits** of:
  - Quality Control
  - Quality Assurance
  - Completeness
  - Consistency
  - Compliance with QMP
- PSQCM and PSQAM certify Design Packages and other submittals

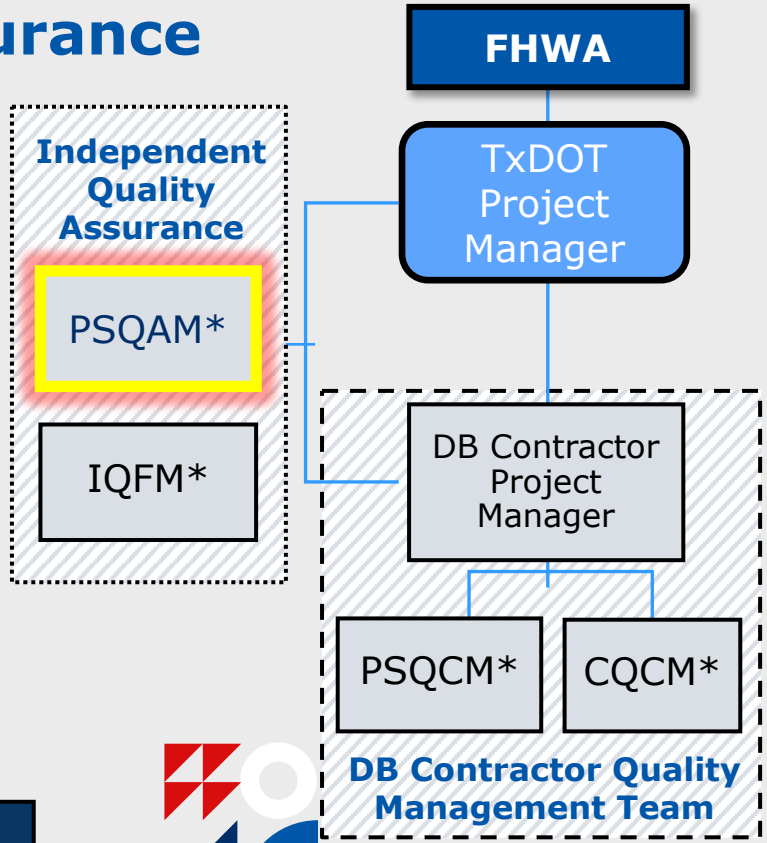
Contract Reference: DBA GC, Item 4
Attachment 4-1, Table 1

Professional Services Independent Quality Assurance

PSQAM Role and Responsibilities

- Management of the Professional Services Quality Assurance Program
- Performs independent quality assurance reviews of DB Contractor's Professional Services work products
- Audits of DB Contractor's PSQMP and professional services IQ/QC program
- Certifies that:
  - DB Contractor's submittal complies with the PSQMP
  - Submittal has been certified by the PSQCM
  - All responses to all comments have been addressed and incorporated into the Submittal

The PSQAM reports jointly to DB Contractor Management Team and TxDOT



TxDOT's Review Role

- Check for compliance with DBA
- Comments do not reflect TxDOT personal preferences

- Does not direct solutions.
- Does not shift risk to TxDOT
- Compliance Review.
- Not a QC or QA review

- TxDOT may reject incomplete or inaccurate submittals

Over the Shoulder Design Reviews

Partnering to Advance the Project

- Help reviewers understand the issues more quickly
- Provides the opportunity for quick informal comment with dialogue and context, and presentation of progress prior to submitting for formal TxDOT review
- Speeds up the formal review and comment process
- Keeps the Project moving forward
- Works best when TxDOT and DB Contractor are co-located

Partial DBA GC Table 4-3: QMP Submittals to TxDOT

Table 4-3: QMP Submittals to TxDOT

Submittals	Submittal Schedule	Department Action	Reference Section
Revisions to the QMP	1. Within 14 days of detection of a substantial or systemic problem; and 2. As directed by TxDOT. Prior to implementation	Approval	4.3
Quality records	When requested	For Information	4.3.2
Senior management review meeting minutes	Quarterly, within 14 days of meeting	For Information	4.3.2
Report on QMP effectiveness	Quarterly, within two weeks of senior management review	For Information	4.3.2
Results of Project quality audits	Within seven days of completion	For Information	Attachments 4-1 and 4-2
DB Contractor Nonconformance Reports	Within 48 hours of both issuance and resolution	For Information	Attachment 4-1
Responses to TxDOT Nonconformance Reports	Within 48 hours of receipt	Review and comment	Attachment 4-1
QMP – Professional Services Quality Management Plan	Prior to submitting design packages for TxDOT review	Approval	4.3.3
Copies of all Design Documents	Upon TxDOT request	For Information	Attachment 4-1

TxDOT Review Levels

DBB vs DB Design Process

Design-Bid-Build Plan Development => Full Plan Set

30% Design — 30 Day Review — 60% Design — 30 Day Review — 90% Design — 30 Day Review — Final Plans

Design-Build Plan Development

Design-Build Plan Development – Multiple Plan Packages designed to form one plan set when completed.

- Design/construction overlap => multiple design submittals (Plan Packages)
- TxDOT may limit the number of Packages under review at the same time
- Typically, packages require 3 submittals & 2 reviews but can have 4 submittals and 3 reviews
- Review times are shorter than Design-Bid-Build (DBB)
  - Review times are 10 business days unless otherwise specified

Professional Services Quality Management of other Submittals

- In addition to design packages, there are other Professional Services submittals with differing:
  - Levels of Design-Build Contractor QC/QA reviews and certifications
  - Levels and timing of TxDOT reviews
- A full list of submittals, corresponding certifications, and review times is provided in the QMP
- "Days" in programmatic documents and project documents are Calendar Days, unless otherwise specified

Design Submittal & Review

Team Coordination & Communication Addresses Challenges

Coordination and communication between DB Contractor and the agency are essential for project success

- Coordination of multiple packages with the team
- Comments may impact multiple submittals
- ATCs and optimizations could impact related design elements
- Follow through may be needed with IAJR, Environmental Commitments
- Documenting and conveying proposed changes to design or schedule
- Short & overlapping review times
- Timely comments & resolution of comments
- Non-compliant and incomplete submittals create project delay
- Packages developed to advance construction before design completion
- Decisions and plan concurrence are final

Comment Resolution Meeting (CRM)

Typical Design-Build Contractor's responses to review comments are:

- Agree – Need not be discussed in Comment Resolution Meeting (CRM)
- Disagree (or Rejected) – Should be discussed in CRM
- Need Further Clarification – Should be discussed in CRM
- Deferred (to next design submittal) – Should be discussed in CRM

- Hold Comment Resolution Meetings (CRM) and attend fully prepared
- Discuss sensitive comments with TxDOT in advance of CRM

3 Quality Assurance in Construction

Quality Assurance Reference Documents

FHWA	TxDOT
23 CFR 637 Part B Quality Assurance Procedures for Construction	**Guide Schedule for Sampling and Testing**
FHWA Technical Advisory T 6120.3 "Use of Contractor Test Results in the Acceptance Decision, Recommended Quality Measures, and the Identification of Contractor/Department Risks"	**Quality Assurance Program for CDA / Design Build Projects (DB QAP)**
FHWA Publication No. FHWA-HRT-12-039 "Construction Quality Assurance for Design Build Highway Projects"	**Programmatic Documents including DB GC Item 4, Attachments 4-1 and 4-2, and DBS Attachment 27-2**

U.S. Department of Transportation
Federal Highway Administration

Texas Department of Transportation

Quality Organizational Roles and Responsibilities

FHWA

- Federal Sampling and Testing Requirements
- Federal Oversight & Quarterly Audits
- Approval of TxDOT Quality Assurance Program (QAP)

TxDOT

- Develop Quality Assurance Program (QAP) Requirements
- Owner Verification Testing and Inspection Plan and execution (OVTI)
- Independent Assurance (IA).
- State Oversight & Auditing

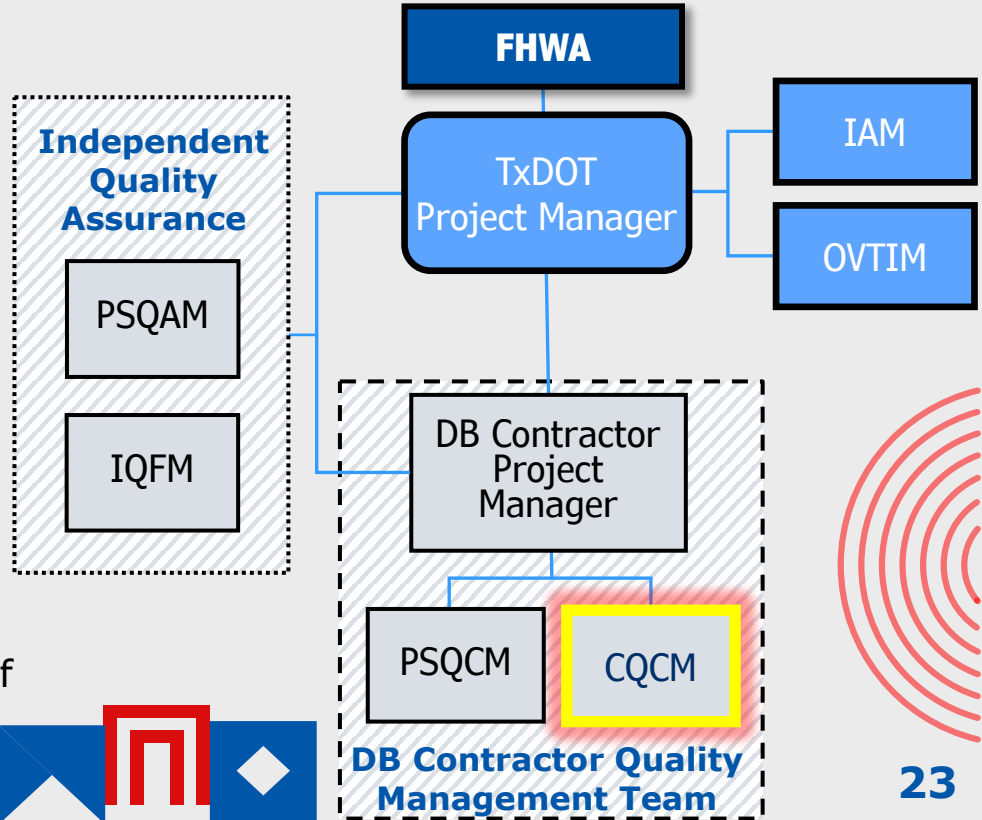
DB Contractor

- Quality Management Plan.
- Construction Quality Control
  - Processes and testing to assure work is per contract and CQMP
- Construction Quality Assurance.
  - IQF
  - Independent testing and monitoring
  - CQMP compliance

Construction Quality Control Manager (CQCM) Role and Responsibilities

Contract Reference: DBA GC, Attachment 4-2, Table 1

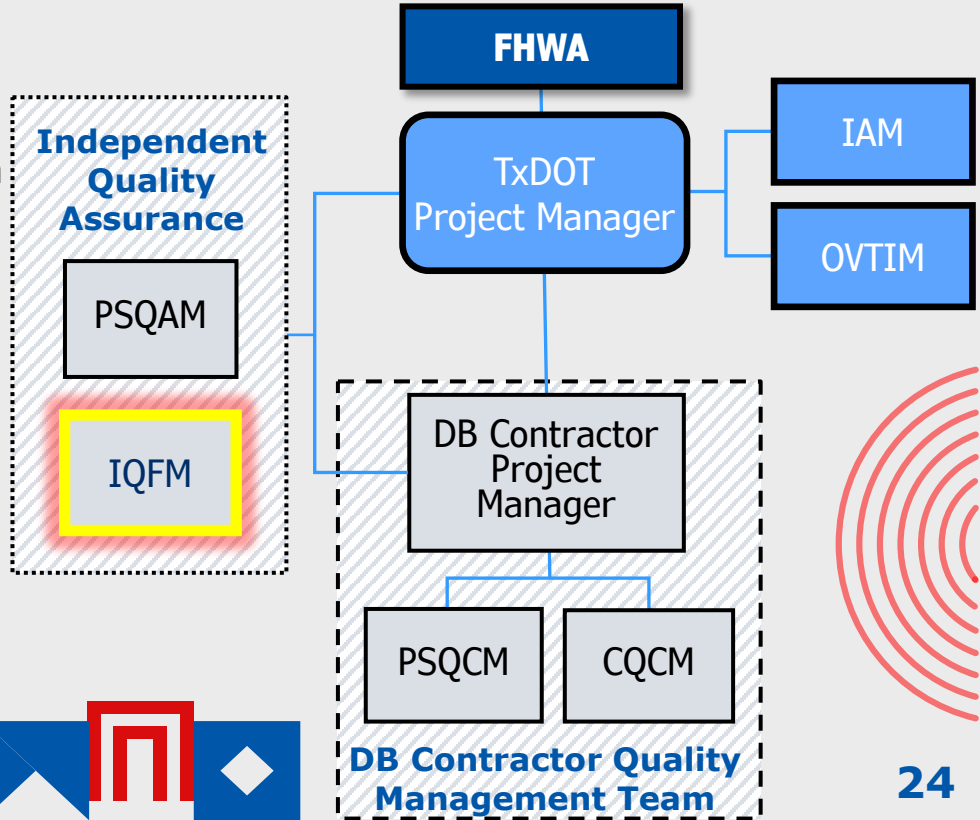
- Management of the QC program for the Construction Work
- Ensure the methods and procedures contained in the approved CQMP are implemented and followed in the performance of the Work
- Manage the QC inspection and material sampling, and testing staff
- Provide nonconformance reporting including corrective measures and development of preventive action
- Ensure the receiving, handling, inspection, documentation and storage of materials are compliant with the CQMP
- Provide quality training



Independent Quality Firm Manager (IQFM) Role and Responsibilities

★ *Contract Reference: DBA GC, Attachment 4-2, Table 1*

- Oversee the implementation of the CQMP by DB Contractor
- Manage the Independent Quality Program
- Manage the IQF inspection and material sampling/testing staff
- Prepare a monthly report documenting inspections and testing performed and results
- Perform audits as described in the CQMP
- Certify that the record drawings accurately depict the work
- Report jointly to DB Contractor Management Team and TxDOT



TxDOT Quality Assurance Program

★ *Contract Reference: DBA GC, Attachment 4-2*

Reference:
Quality Assurance Program for Comprehensive Development Agreement (CDA)/Design-Build Projects (DB QAP)

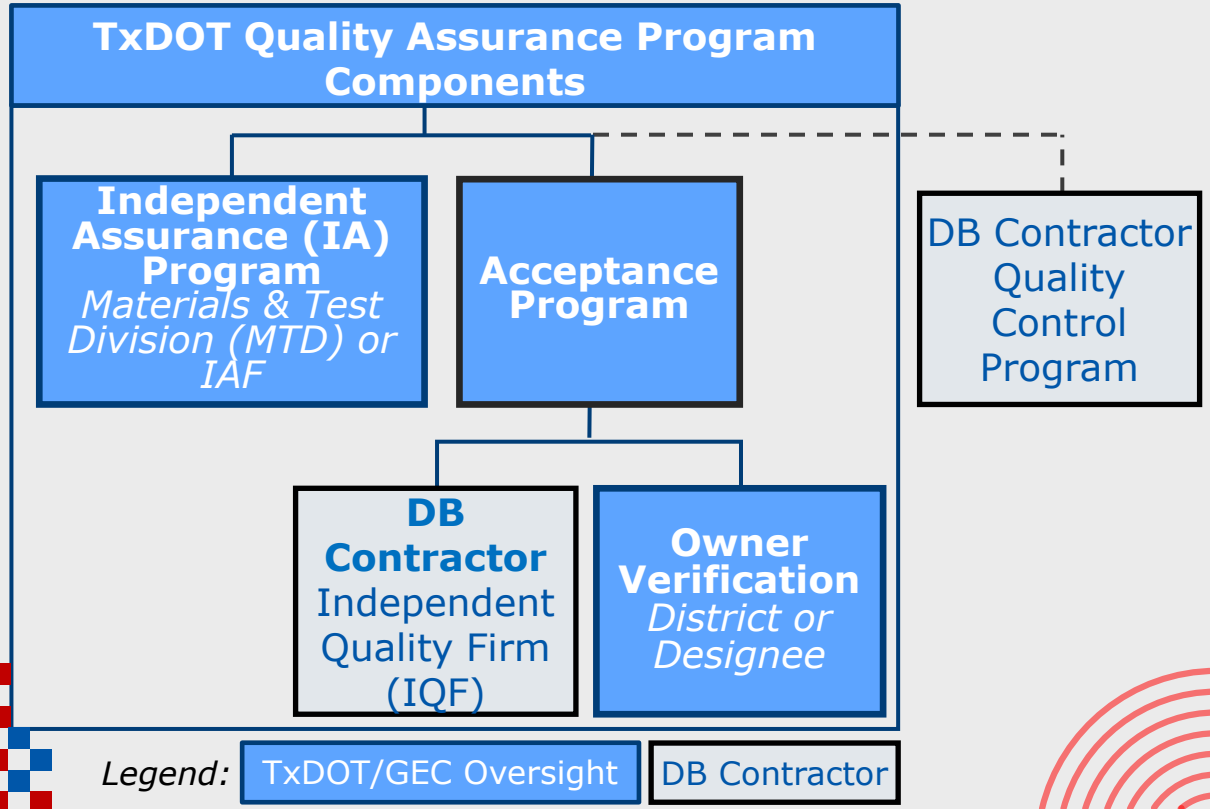
Section 2 – Quality Control Program
Describes the requirements for the Design-Build Contractor's Construction Quality Management Plan (CQMP)

Section 3 – Acceptance Program
Describes the requirements for the IQF section of the Design-Build Contractor's CQMP and for Owner Verification

Section 4 – Independent Assurance Program
Describes the requirements for the Independent Assurance Quality Plan including Personnel and Laboratory Qualifications

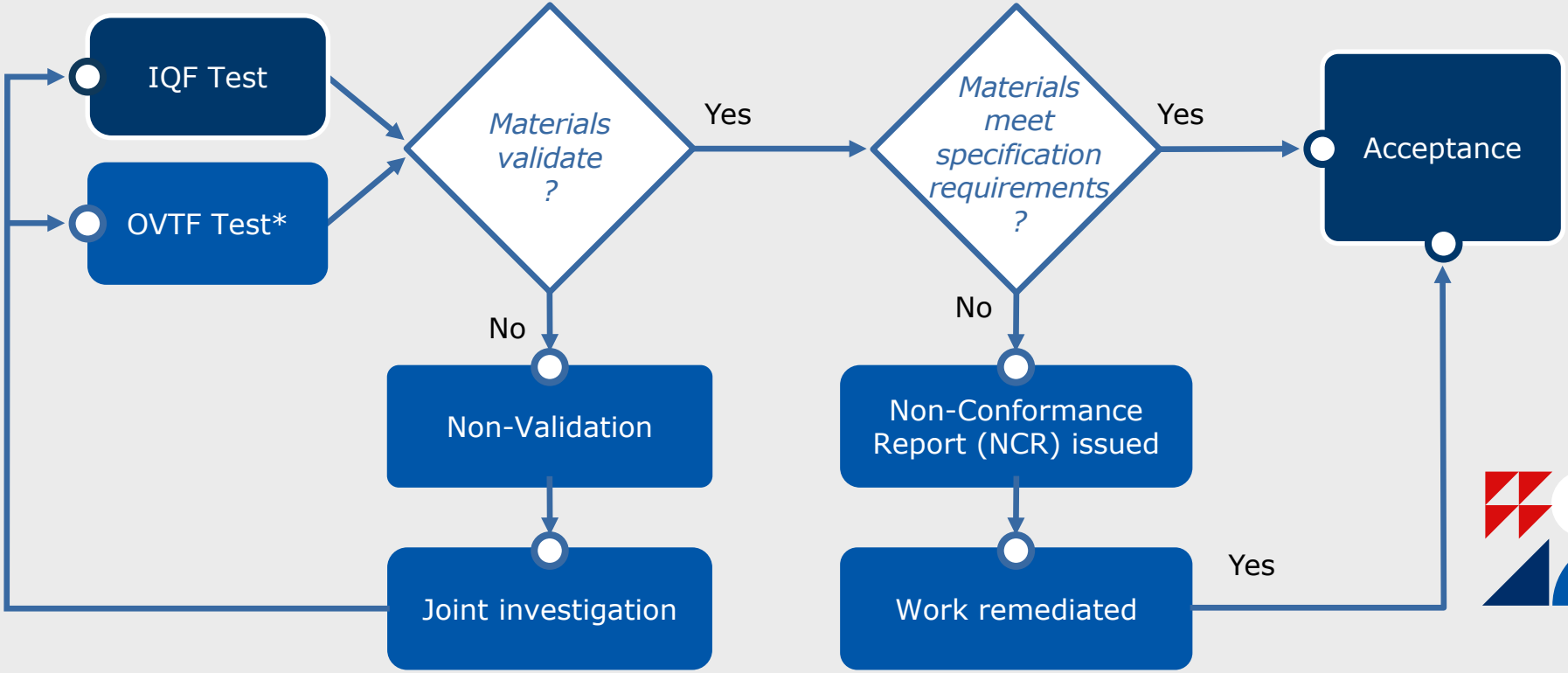
TxDOT QAP Components and Relationships

★ *Contract Reference: DBA QAP, Sec. 1.1*



- The CQMP complies with the requirements of the version of the QAP for DB Projects in effect on the Effective Date
- In the event of a conflict between the CQMP and the QAP for DB Projects, the QAP for DB Projects in effect on the Effective Date will control

Material Acceptance Flowchart



* Levels of Owner Verification are found in the QAP and determine the rate of IQF vs OVTF testing.

Nonconforming Work and Construction Deficiencies

Nonconforming Work and Construction Deficiencies

- Shall be documented by DB Contractor per the QMP and QMS in a Nonconformance Report (NCR)
- Included in the NCR are options for the work:
  - Accepted as is
  - Repaired
  - Reworked
  - Replaced

Acceptance Program Reporting

- **On-going:**
  - Inspection reports/forms
  - Materials Test Results (IQF)
  - Owner Verification reporting (OVTI)
  - Nonconformance and Construction Deficiency Reports

- **Periodic:**
  - Monthly Material Certification
  - FHWA Quarterly Report
    - Statistical Analysis Results
    - Non-Validation Investigations
    - Nonconformance Log
    - Engineering Judgment Log
    - Construction Certifications
  - Audit reports
  - IA Lab Annual Report
- **Final:**
  - Final Statistical Analysis Report
  - Final Material Certification Letter

Compliance Audits

DB Contractor uses QMS processes to audit

- Compliance with QMP
- Sample audited/reviewed activities:
  - Construction safety
  - Construction QC
  - Documentation
  - Sampling and testing
  - Inspection Reports
  - Nonconformance resolution

TxDOT Internal Audits

- Compliance with Owner Verification Testing and Inspection Plan (OVTIP)
- Sample audited/reviewed activities:
  - OV sampling/testing procedures
  - OV testing frequency
  - Timeliness of OV activities
  - Sufficiency of non-validation investigations

4 Draw Requests and Schedule Updates

DBA GC Table 8-1: Submittals to TxDOT

Table 8-1: Submittals to TxDOT

Submittals	Submittal Schedule	Department Action	Reference Section
Schedule of Values	Submitted with Project Baseline Schedule PBS2 and updated whenever a Change Order is agreed	Approval	8.5.2
Project Baseline Schedule (PBS2)	Prior to issuance of NTP2	Approval	8.5.3
Project Baseline Schedule (PBS3)	Prior to Commencement of Construction	Approval	8.5.3
Progress Submittal	On the first day of each month after NTP1 and as part of the Draw Request	Approval	8.5.4
Project Schedule Updates	Monthly after initial PBS2 and PBS3 submittals	Acceptance	8.5.5
Project Schedule Revisions	As necessary	Approval	8.5.6
Change Order Revisions	As necessary	Approval	8.5.8
Time Impact Analysis	As necessary; within 15 days of receiving the request from TxDOT	Approval	8.5.8.2
As-Built Schedule	Prior to Final Acceptance	Approval	8.5.9

Monthly Progress Submittals

Progress submittals precede and support the monthly Draw Request:

- Work progress in the last month
- % complete on deliverables
- DB Contractor & TxDOT may meet and discuss & resolve comments before Draw Request

Progress Submittal and Draw Request Timeline

Progress Submittal

24 25 26 27 28 29 30 1 2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Submitted by the 1st of every month following NTP1

Prep Time — *TxDOT Review Time 10 business days* — TxDOT Schedule Approval

Draw Request

24 25 26 27 28 29 30 1 2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Submitted on or about the 5th day of the month

Prep Time — *TxDOT Review Time 10 business days* — *5 business days*

Project Schedule Update

24 25 26 27 28 29 30 1 2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Submitted within 5 days of a Draw Request

Prep Time — *TxDOT Review Time 10 days* — *Resolve TxDOT Comments*

Legend:

- DB Contractor preparation time
- TxDOT Review Time
- TxDOT Payment
- Data Date
- Approval
- Submittal
- Payment

Progress Payment

Work Completed + Materials on Hand

− Deductions

- TxDOT or Third-Party loss due to DB Contractor
- Liquidated Damages (LD)s:
  - Delay
  - Key Personnel unavailability or change
  - Lane Rental
  - Other Qualifying Delay Late Fees
- Nonconforming work deductions
- Withholding for failure to pay subs, vendors, others
- Fines or reimbursements:
  - QMP or documents deficiency
  - Failure to maintain schedule
  - Comments not addressed
- Other - per DB GC 9.4.1.

= PROGRESS PAYMENT

Draw Request Contents

Draw Requests Include:

- Progress schedule
- Draw request data sheet showing the to-date percentage completion of Payment Activities in a format approved by TxDOT
- Certification by DB Contractor and PSQAF and/or IQF, as appropriate
  - All work checked or inspected per QMP
  - All work is performed and conforms to contract
  - % work complete is accurate
  - Any unit price payments are accurate

Draw Request Data Sheet

Example of Draw Request Data Sheet

Progress Activity	Column1	Approved Price	Current Period Earned Value	Period % Complete	To-Date Earned Value	To-Date % Complete
1.1.1	Mobilization	$ 8,800,800	$ -	0%	$ 8,800,800	100%
1.1.2	Submittals and Permitting	$ 324,430	$ 714	0.22%	$ 324,430	100%
1.1.3	Insurance Premiums	$ 9,000,000	$ -	0.00%	$ 5,302,946	59%
1.1	Subtotal Admin	$ 18,125,230	$ 714	0.00%	$ 14,428,176	**80%**
1.2.1	Acquisition	$ 43,549,138	$ 59,590	0%	$ 43,541,470	100%
1.2	Subtotal RW Acquisition	$ 43,549,138	$ 59,590	0.14%	$ 43,541,470	**100%**
1.3.1	Utility Coordination	$ 11,274,830	$ 25,289	0%	$ 11,057,648	98%
1.3.2	Utility Relocation	$ 250,083,125	$ 199,183,934	79.65%	$ 249,560,123	100%
1.3	Subtotal Utility Adjustments	$ 261,357,955	$ 199,209,223	76.22%	$ 260,617,771	**100%**
1.4.1	Gen Act and Field Work	$ 29,525,101	$ 375,000	1%	$ 24,512,343	83%
1.4.2	Roadway Design	$ 10,445,805	$ 625,897	5.99%	$ 8,569,239	82%
1.4.3	Drainage Design	$ 6,773,562	$ 2,369,807	34.99%	$ 6,258,975	92%
1.4.4	Bridge Design	$ 37,872,640	$ 3,852,692	10%	$ 9,516,324	25%
1.4.5	Retaining Wall Design	$ 7,512,599	$ 2,358,479	31.39%	$ 4,596,241	61%
1.4.6	Traffic Management	$ 1,464,768	$ 259,420	17.71%	$ 378,925	26%
1.4	Subtotal Design	$ 93,594,475	$ 9,841,295	10.51%	$ 53,832,047	**58%**
1.5.1	Traffic Control	$ 9,852,060	$ -	0%	$ 2,914,237	30%
1.5.2	Environmental Mitigation	$ 3,873,235	$ 206,514	5.33%	$ 2,893,846	75%
1.5.3	Earthwork	$ 100,914,435	$ 7,802,312	7.73%	$ 45,740,954	45%
1.5	Subtotal Construction	$ 114,639,730	$ 8,008,826	6.99%	$ 51,549,037	**45%**
	Original Contract Earned	$ 531,266,528	$ 217,119,648	40.87%	$ 423,968,501	**80%**
1.6	Change Orders	$ 1,896,917	$ 790,156	41.65%	$ 1,546,231	**82%**
	Total Price	$ 533,163,445	$ 217,909,804	40.87%	$ 425,514,732	**80%**

Draw Request Submittal

Contract Reference: DBA GC, Sec. 9.3.1 and Attach. 9-1 Exhibit 1-3

EXHIBIT 3 TO ATTACHMENT 9-1
DRAW REQUEST CONTENTS CHECKLIST.

- Provides a complete list of Draw Request requirements which includes updated cash flow curves
- Progress Payments cannot exceed the Maximum Payment Schedule

DBA GC Attachment 9-1 Exhibits

Exhibit 1 – Form of Draw Request and Certificate

Appendix 1 to Exhibit 1 – Materials on Hand Summary

Appendix 2 to Exhibit 1 – Deductions Summary

Exhibit 2 – Draw Request Certifications

Exhibit 3 – Draw Request Contents Checklist

Draw Request Submittal (Cont'd)

Includes updated schedule in Primavera.xer and a narrative report.

- **Narrative Report:**
  - Critical Path changes
  - Work scheduled vs work completed
  - Table of completion dates & milestones
  - Planned Project resources vs actual Project resources
  - Potential Project schedule issues and DB Contractor's plan to mitigate, avoid, or resolve
  - One month look-ahead
  - Maintenance changes

Project Schedule Updates

Contract Reference:
DBA GC, Sec. 8.5.5

- Maintenance changes made in the Project Schedule Update:
  - Logic changes to out-of-sequence work
  - Split activities for payment purposes
  - Minor adjustments to WBS or activities with more than 60 days float
- Submitted to TxDOT:
  - 5 days after submittal of each Draw Request.
  - .xer format
  - Reflects progress shown in the Progress Submittal and any maintenance changes

Project Schedule Revisions

Contract Reference:
DBA GC, Sec. 8.5.6

- Revisions permitted:
  - Logic changes, splitting activities, adjustment to cost loading below WBS level 5, and minor adjustments
- Revision report:
  - Requires narrative of the scope of changes and the impact
  - Comparison plots and comparison analysis before and after change(s)
- TxDOT Review and approval:
  - Return as *approved, approved with comments to address in the next Project Schedule Revision, or returned for resubmission in 14 days*
  - Schedule Revision may be rejected if delay matters aren't addressed in 3 months; results elevating addressing schedule comments of a delay through the Recovery Schedule provisions

Recovery Schedule

Contract Reference:
DBA GC, Sec. 8.5.7

A Recovery Schedule is *required:*

- If the Project Schedule shows a delay in achieving the Completion Deadline that is the greater of *either:*
  - 30 days in the aggregate, *or*
  - # of days in the aggregate of 5% of the days remaining to the Completion Deadline

- *And*, the Completion Deadline has not been remedied to the satisfaction of TxDOT through a Project Schedule Revision, for 3 consecutive months

DB Contractor must obtain TxDOT approval of the Recovery Schedule within 30 days

Submittal requirements

- Narrative describing the recovery plan to achieve Completion Deadlines:
  - Revision analysis report
  - Reason for Recovery Schedule
  - Proposed changes
  - How Completion Dates will be achieved
  - Comparison plots and analysis before and after change

5 Change Management

Change Management Terms

Change Order

A change made to the DBA in the scope, schedule or price of work

Deviation

An exception from DB Specifications

Ex: Material specification

Allowance

A budget limit or cap established by TxDOT to limit expenditures and to offset potential risks

Ex: Aesthetics budget

Amendment

A modification to or correction of any term of a contract by the consent of both parties

Change Orders

Contract Reference:
DBA GC, Sec. 4.6

Change order (CO)– The term "Change Order" means a written amendment to the terms and conditions of the Contract Documents

Design-Build Contract Documents Define

- What constitutes a change
- What is/is not eligible for a change order (entitlement)
- Roles/responsibilities and steps for processing a change order

General Reasons for DB Contract CO

- Modify the scope of work
- Revise a completion deadline
- Revise the price
- Revise other terms and conditions of the contract
- Modify the DB Specifications

Change Order Preferences

Change Orders to Consider

- Value-added concepts
- Deleting work that is no longer required
- Extending deadlines due to TxDOT delays
- Innovation to reduce cost, time, or impacts
- Required to maintain the project goals

Change Orders to Avoid

- Impacting other projects
- Precedence setting/third party initiated
- Unnecessary change to risk allocation
- Reduction in quality
- Changes that conflict with existing TxDOT agreements or financing covenants

Key to change management in design-build – speed of decision-making

Change Orders - Examples

Key Terms Used in Change Order Process	Use	Example/Reason
Directive Letter	Issued by TxDOT for any matter for which a change order could be issued or in the event of claim or dispute related to work required by the DBA documents DB Contractor required to proceed with work as directed	**Removal of Culvert**
Request for Change Proposal	A written notice issued by TxDOT to DB Contractor advising that TxDOT may issue a TxDOT-directed change. Also initiates a process to develop and negotiate the change order	**New Interchange Configuration**
Unilateral Change Order	Issued by TxDOT at any time, regardless of whether a request for change proposal has been transmitted. If appropriate, DB Contractor is entitled to compensation for additional work and can request extension of the completion deadlines	**Unsuitable Materials**
Potential Change Order Notice	A written notice delivered by DB Contractor stating that an event or situation has occurred that could result in a change order	**Delay in ROW Access provided by TxDOT**
Request for Change Order	A written notice issued by DB Contractor advising TxDOT that they request a change order	**3rd Party Delays**
Partnering	Voluntarily initiated formal partnering discussions if a potential change order or dispute is anticipated	**Unidentified Utility**

6 Risk Sharing

Contractual Risk Sharing

★ *Contract Reference: DBA GC, Sec. 6.9*

★ *Contract Reference: DBA GC, Sec. 4.5 and 4.6*

- DB GC sections described above and project specific clauses in the DBA reflect Project risk assignments
  - Delay and Project overhead costs of certain events are shared in a tiered relief system
    - **Deductibles** – where DB Contractor is entitled to no schedule relief or project overhead
    - **Relief Days** – where delay days and/or costs are shared
    - **Caps** – after a certain number of days DB Contractor is entitled to extension of the Contract Completion date for delay days on the critical path and entitled to project overhead

- DB Contractor has responsibility and incentive to manage and mitigate risks

Six Qualifying Delays

Qualifying Delays

1. **Uncooperative Utility Delay**
2. **Utility Owner Delay**
3. **Unidentified Utility Delay**
4. **Differing Site Condition Delay**
5. **Force Majeure Delay**
6. **Eminent Domain Delay**

Qualifying Delay Late Fee

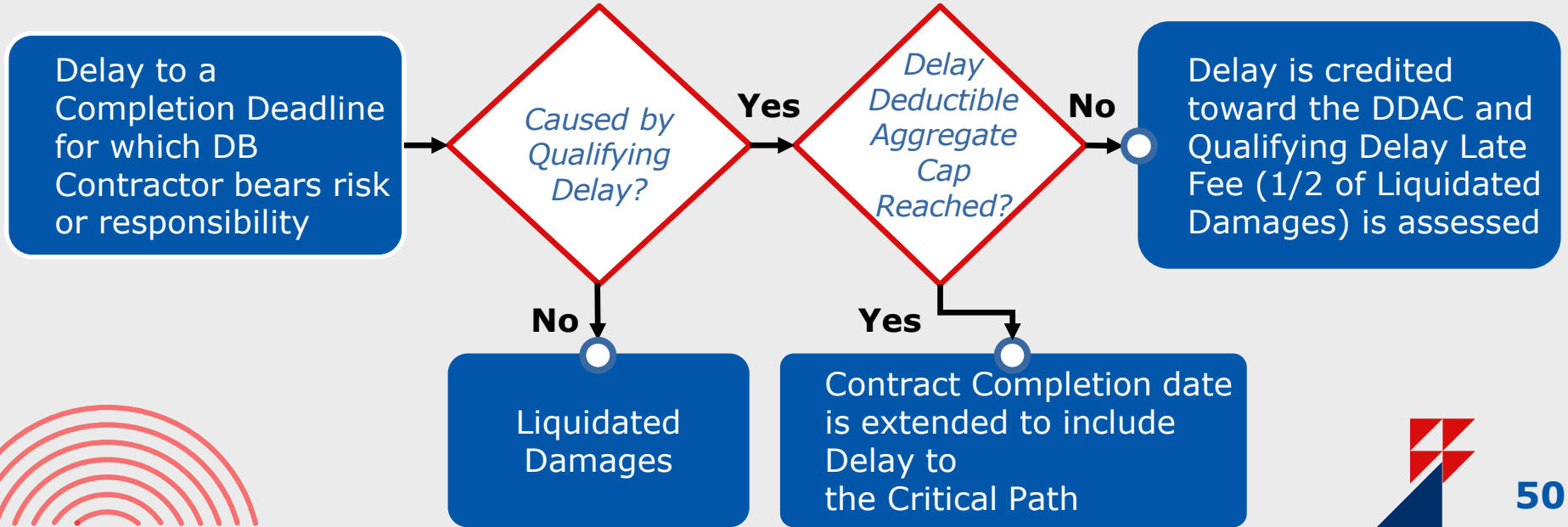
- For Qualifying Delays, that do not exceed the DDAC, DB Contractor pays a Qualifying Delay Late Fee (QDLF) instead of Liquidated Damages
- The QDLF = ½ the cost of Liquidated Damages

Delay Deductible Aggregate Cap

- Only Qualifying Delays are applied toward the Delay Deductible Aggregate Cap (DDAC) after which TxDOT bears all risk
  - Found in the DBA.
  - Between 10-25% of the days from NTP1 to Substantial Completion
  - Once all Qualifying Delays combined reach the DDAC DB Contractor gets schedule relief and Project overhead

Delay Deductible Aggregate Cap & Qualifying Delay Late Fee

DB Contractor must request a Delay Deductible Determination from TxDOT in writing using the form in DBA Exhibit 14 to have any Qualifying Delay count toward the Delay Deductible Aggregate Cap



Potential Change Order (PCO) with Time Impact Analysis (TIA)

DB Contractor submits PCO/RCO

- DB Contractor initiates the Delay Deductible Determination with a Potential Change Order (PCO) Notice which includes a Time Impact Analysis (TIA)
- May be followed up with a Request for Change Order (RCO) including the scope and cost of the change with TIA & other supporting documentation
- DB Contractor must submit a TIA within 15 days of a request from TxDOT

Step 1

Status Prior to Impact

Using the latest Project Schedule before the impact

Step 2

Prediction of Impact duration

- Float
- Milestones
- Completion

Step 3

Track and Mitigate

Incorporate into the Project Schedule

Step 4

Status After Impact

Within 30 days after completion of impact

Example 1 of Risk Sharing

Contract Reference:
DBA GC, Section 4.6.9.3.1

This example applies to the Qualifying Delay – **Force Majeure Event Delay**

DB Contractor Risk	Risk Sharing	TxDOT Risk
DB Contractor Deductible Days	Shared Relief	TxDOT Relief

First 30 cumulative days	Cumulative Days 31 - 90	Cumulative Days over 90
DB Contractor has no entitlement to time or money	DB Contractor will have ½ the approved days added to the schedule DB Contractor is entitled to Project Overhead for ½ the approved days	DB Contractor will have all the approved days added to the schedule DB Contractor is entitled to Project Overhead for all the approved days

Days will be included in Delay Deductible Aggregate Cap

Days will not be included in Delay Deductible Aggregate Cap

Example 2 of Risk Sharing

Contract Reference:
DBA GC, Section 4.5.5.1

This example applies to the Qualifying Delay – **Uncooperative Utility Delay**

DB Contractor Risk	Risk Sharing	TxDOT Risk
DB Contractor Deductible Days	Shared Relief	TxDOT Relief

First 60 cumulative days	Cumulative Days 60 - 120	Cumulative Days 120 - 180	Cumulative Days over - 180
DB Contractor has no entitlement to a time extension or Project Overhead.	DB Contractor is entitled to a time extension	DB Contractor will have ½ the days added to the schedule	DB Contractor will have all the days added to the schedule
	DB Contractor is not entitled to Project Overhead	DB Contractor is entitled to Project Overhead for the days added to the schedule	DB Contractor is entitled to Project Overhead for all the days

Days will be included in Delay Deductible Aggregate Cap.

Days will *not* be included in Delay Deductible Aggregate Cap.

Summary of Six Qualifying Delays

Contract Reference:
DBA GC, Section 4.5.5.1

	DB Contractor - 100% Risk	Risk Sharing		TxDOT -100% Risk
Qualifying Delay	DB Contractor Deductible	Relief Days - Costs Shared		TxDOT bears all costs
Uncooperative Utility Delay	Cumulative Days First 60	Cumulative Days 61 - 120	Cumulative Days 121 - 180	Cumulative Days over - 180
Utility Owner Delay	Cumulative Days First 60	Cumulative Days 61 - 120	Cumulative Days 121 - 180	Cumulative Days over - 180
Unidentified Utility Delay	Cumulative Days First 60	Cumulative Days 61 - 120		Cumulative Days over - 120
Differing Site Condition Delay	Cumulative Days First 15	Cumulative Days 16 - 30		Cumulative Days over - 30
Force Majeure Delay	Cumulative Days First 30	Cumulative Days 31 - 90		Cumulative Days over - 90
Eminent Domain Delay	Not Applicable	Cumulative Days 100		Cumulative Days over - 100

Tiered Relief for Non-Qualifying Delays

- Non-qualifying delays do not qualify for the Delay Deductible Aggregate Cap or the Qualifying Delay Late Fee
- The non-qualifying delays specified in the Programmatic Documents as having tiered relief are:
  - Hazardous Material Delay
  - Supply Chain Disruption Delay
  - Karst Plan Delay

Risk Sharing – Non-Qualifying Delays

	DB Contractor - 100% Risk	Risk Sharing	TxDOT -100% Risk
Qualifying Delay	**DB Contractor Deductible**	**Relief Days - Costs Shared**	**TxDOT bears all costs**
Hazardous Material Delay	Up to 30 Days*	Not Applicable	Delay over 30 Days*
Supply Chain Disruption Delay	Cumulative Days First 30	Cumulative Days 31 – 90‡	Cumulative Days over - 90
Karst Plan Delay	Up to 35 Days†	Not Applicable	Delay over 35 Days†

(*) Per location and up to an aggregate amount of 120 days for all locations on the Project, then the risk of Hazardous Materials Delay in excess of 120 days shall be borne by TxDOT

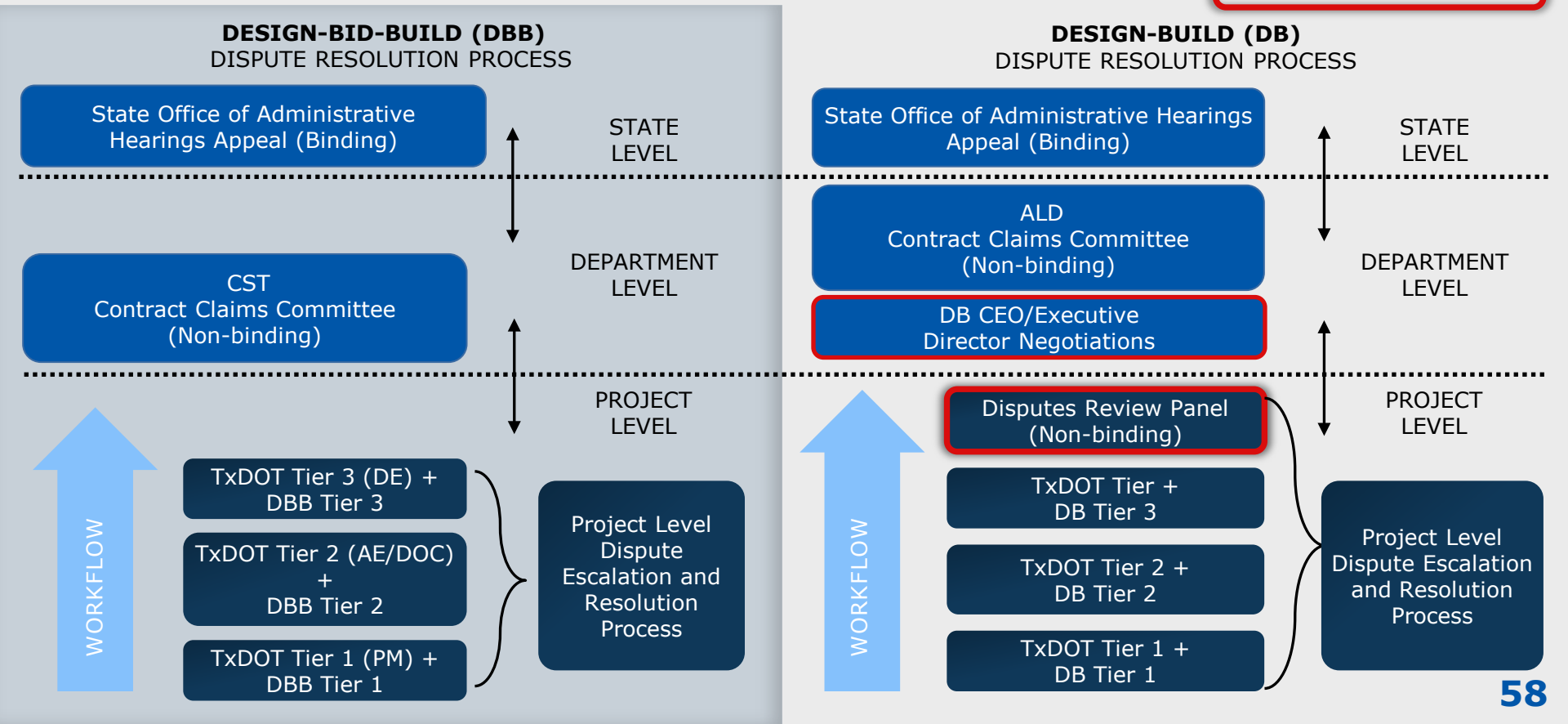
(‡) DB Contractor and TxDOT shall share equally the risk

(†) Per individual unknown Karst Feature and up to a cumulative total of 180 days for all unknown Karst Feature locations, then the risk of Karst Plan Delays in excess of 180 days shall be borne by TxDOT

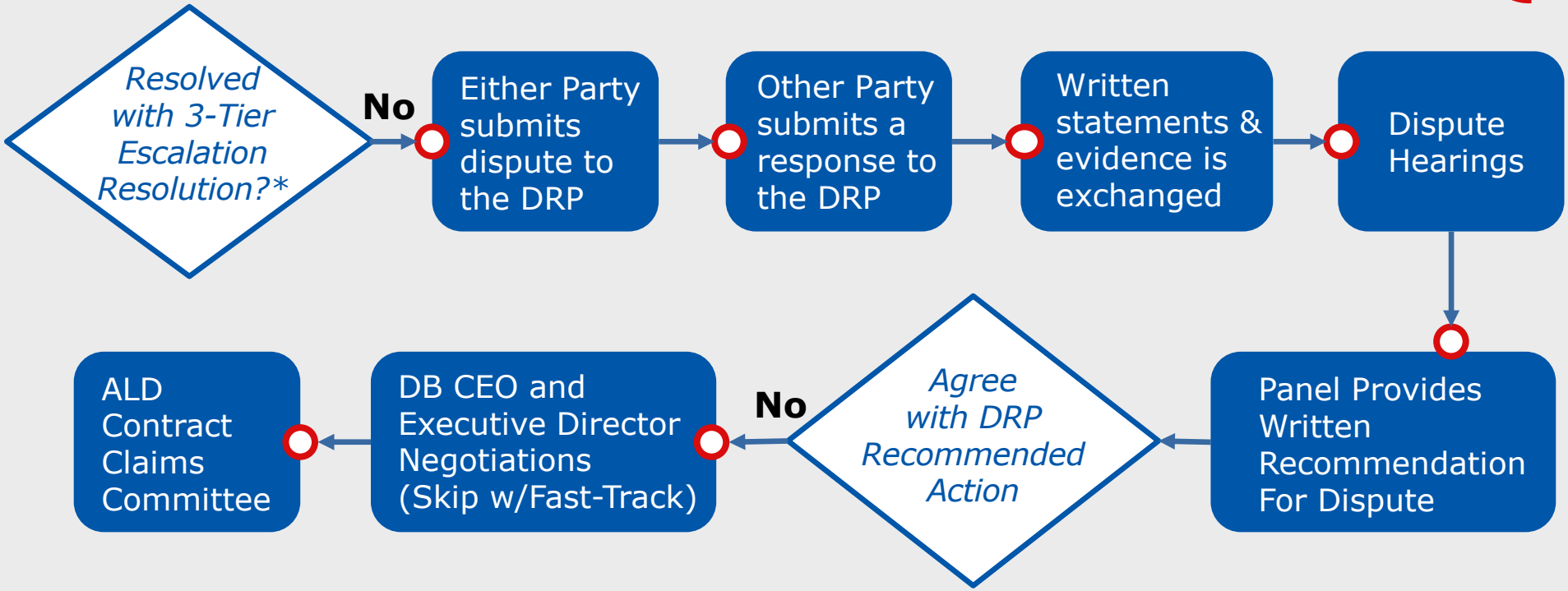
7 Disputes Review Panel

Disputes Resolution Workflow DBB vs DB

Step Unique to DB



Disputes Review Panel (DRP) – Process Flowchart



*Disputes Escalation Required Prior to Referring to DRP

Disputes Review Panel

Resolution Focused

- Avoiding dispute escalation
- Proactive Panel motivates greater cooperation between parties

Cost Effective

- Cost-effective preventative measure
- Costs of DRP < cost & time of formal disputes

Quick & Informed Opinions

- Impartial highway construction experts are engaged and available at the project level

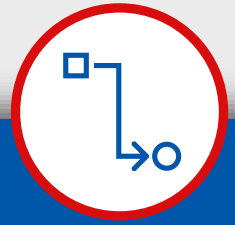
Disputes Review Panel – Position Papers

Overview

- Issue description
- Background
- Timelines
- Relevant Documents

Entitlement

- The Time Extension Decision (Excusable or Non-Excusable)
- The Money Decision (Compensable or Non-Compensable)



Impact Analysis

- Crew Impacts
- Project Delay
- Time Impact Analysis

Cost Analysis

- Direct Crew Costs
- Indirect Overhead Costs

8 Completion & Acceptance

Substantial Completion (SC)

Contract Reference:
DBA GC, Section 5.11

- SC Requirements:
  - All traffic lanes are in their final configuration and available for public use
  - All major safety features are installed and functional
  - A full list in DBA
  - DBA requirements for SC are met
  - Certificate of SC is requested by DB Contractor and issued by TxDOT

Punch List is prepared (finalized after SC).

Final Acceptance (FA)

Contract Reference:
DBA GC, Section 5.12.1

FA Requirements

- All contract work is complete, and the site is in good condition and working order
- Punch List items completed & accepted
- Third parties have accepted work
- As-Builts / Record Docs / Reports delivered

- All Financial Responsibilities fulfilled with no outstanding damages, fees or claims
- Project Close-out Checklist completed
- A full list is in the DBA
- Written notification given by DB Contractor and Certificate of Completion issued by TxDOT

9 Operations & Maintenance

DB Contractor Maintenance

- Keep ownership of **lifecycle risks** with the party who can best mitigate and manage the risk by constructing quality Work
- DBA includes:
  - A 1-year General Warranty, ***and***

A 5-year Performance Warranty

or

A separate Capital Maintenance Agreement (CMA) executed along with the DBA

Protection from Defects

★ *Contract Reference: DBA GC, Section 3.8*

★ *Contract Reference: DBA Section 11*

1-Year Materials and Workmanship Warranty	5-Year Performance Based Warranty	3x5-Year Capital Maintenance Agreement
General Warranty	Extended Warranty w/ Performance thresholds	Long-Term obligation w/ Performance Thresholds
Guarantees quality Standard in DBB & DB	Guarantees durability of the Capital Assets in the initial 5 years	Guarantees the durability of the Capital Assets for up to 15 years

- **One year design and construction Warranty (all DBAs):**
  - Guarantees quality of work, materials and equipment for one year
  - DB Contractor is responsible for design & construction related defect repairs
  - Warranty cost included in Design-Build Contract Price

Protection from Defects (Cont'd)

★ *Contract Reference: DBA, Exhibit 4*

★ *Contract Reference: DBS, Attachment 32-1*

1-Year Materials and Workmanship Warranty	5-Year Performance Based Warranty	3x5-Year Capital Maintenance Agreement
General Warranty	Extended Warranty w/ Performance thresholds	Long-Term obligation w/ Performance Thresholds
Guarantees quality Standard in DBB & DB	Guarantees durability of the Capital Assets in the initial 5 years	Guarantees the durability of the Capital Assets for up to 15 years

- **Five Year Performance Based Warranty**
  - Guarantees durability of the Capital Assets (5 years), Non-Capital Assets (2 years)
  - Mandates minimum levels of performance – skid, ride, rutting, settlements, etc.
  - Warranty Action for Warranty Defect repairs is part of the DB Contract Price, however, TxDOT may make deductions from the invoiced amount of Warranty Payments if DB Contractor does not perform specified duties
  - An annual Warranty Payment is made from TxDOT to DB Contractor for satisfactory performance

Protection from Defects (Cont'd)

★ *Contract Reference: CMA GC, Items 1-8*

★ *Contract Reference: CMA Specs, Item 9*

1-Year Materials and Workmanship Warranty	5-Year Performance Based Warranty	3x5-Year Capital Maintenance Agreement
General Warranty	Extended Warranty w/ Performance thresholds	Long-Term obligation w/ Performance Thresholds
Guarantees quality Standard in DBB & DB	Guarantees durability of the Capital Assets in the initial 5 years	Guarantees the durability of the Capital Assets for up to 15 years

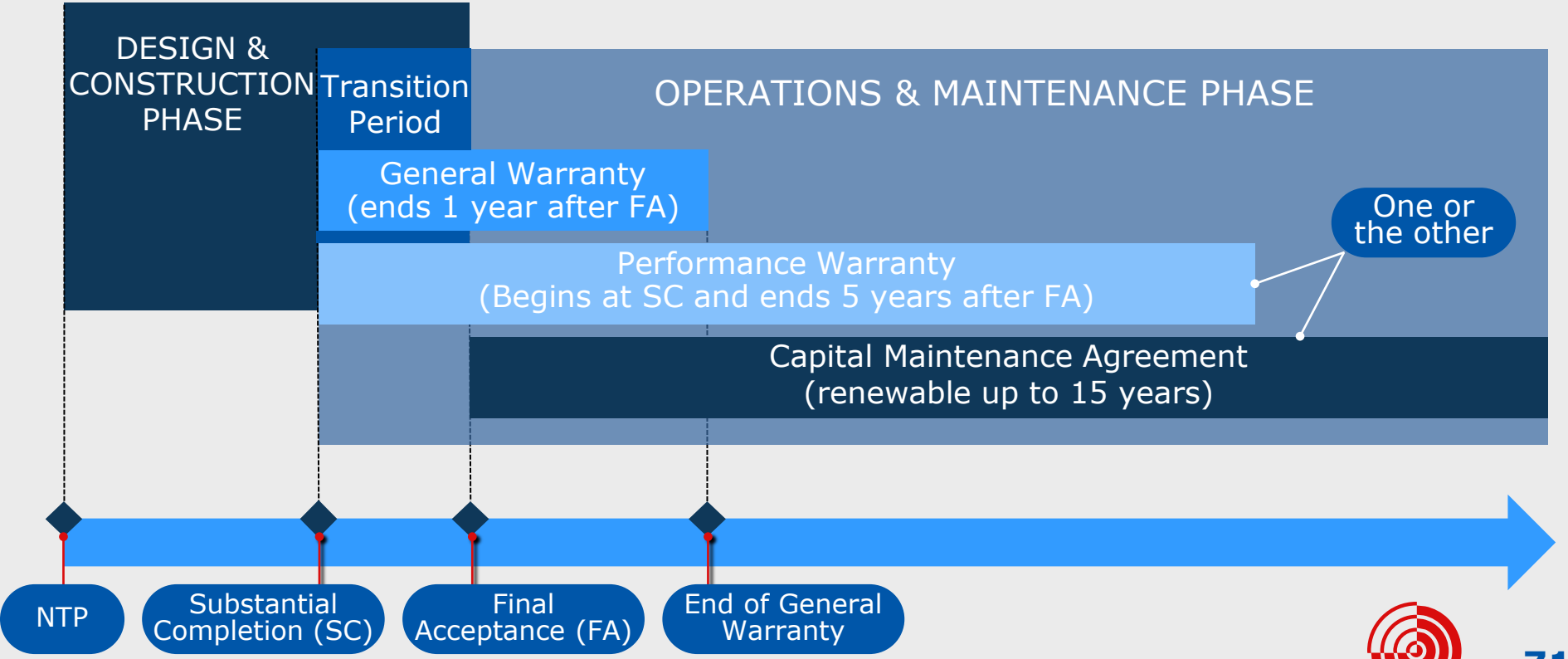
- **15-Year Capital Maintenance Agreement (CMA)**
  - Three renewable 5-year terms
  - Performs all maintenance of Capital Assets to mandated Performance Standards
  - Includes preventative maintenance (overlays, rehabilitation, crack sealing)
  - CMA costs are priced separately from Design-Build Contract Price through a separate agreement that is simultaneously executed with DBA

CMA - Maintenance Terms

TxDOT retains the option to extend the second and third term of the CMA by issuing Maintenance NTP 90 days before the expiration of the prior term

- Initial Maintenance Term (5 years) (begins at Final Acceptance)
- Second Maintenance Term (5 years) (begins after the expiration of the prior term)
- Third Maintenance Term (5 years) (begins after the expiration of the prior term)

Timeline of CMAs and Warranties



Purpose of CMA

- Encourages DB Contractor to integrate quality construction

- TxDOT protection from defects

- DB Contractor responsibility for durability over many years

DB Contractor vs TxDOT Maintenance Responsibilities in CMA

Scope Element	DB Contractor	TxDOT
Pavement	X	
Drainage (District Choice)	X	
Structures	X	
Earthworks, Embankments	X	
Pavement Markers		X
Curbs, Guardrail		X
Traffic Signs		X
Traffic Signals		X
Lighting		X
Fences, Walls		X
Roadside Management		X
Snow & Ice Control		X
Emergency Response		X

CMA Features

- DB Contractor furnishes maintenance work including preventative maintenance (overlay, rehab) of the Maintained Elements
- TxDOT responsibilities include operations and maintenance of all other elements (roadside, incidents, mowing, litter, sweeping)
- DB Contractor must monitor asset performance
- Joint Periodic (Monthly or Quarterly) and Final Inspections

TxDOT's Contract Administration Tools

- TxDOT may remedy or cure DB Contractor's Nonconforming Work and deduct costs from the amounts due to DB Contractor
- TxDOT has step-in rights but not the obligation to cure DB Contractor's default

- TxDOT may withhold or deduct portions of the General Maintenance Payment or Work Payments similar to the Deductions taken from Progress Payments for LDs, fees and/or fines

- TxDOT can suspend or terminate the CMA if DB Contractor's default is not cured

Texas Department of Transportation

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HELP

#EndTheStreakTX

End the streak of daily deaths on Texas roadways.

TxDOT.gov (Keyword: #EndTheStreakTX)

#EndTheStreakTX Toolkit