DESIGN EXCEPTION REPORT GUIDANCE

The Engineer will prepare the Geometric Review Package and Design Exception Report in accordance with the Authority's adopted edition of the NJDOT's *Design Exception Manual* except as supplemented or modified by the following:

ALL SECTIONS

- All references to NJDOT Project Management, NJDOT design units, or any other NJDOT entity shall be inferred as the Authority's Project Manager.
- FHWA approvals, where noted, shall be inferred as requiring approval from the Authority's Chief Engineer or designee.
- Electronic and hard copy deliverables will be made in accordance with the Guidance for Electronic and Hard Copy Submittal of Documents.

1.0 GENERAL

- Submission of the Design Exception Report and Geometric Review packages will made with the appropriate Project Phase as noted in Section 3 of the NJTA Procedures Manual.

2.0 CONTROLLING DESIGN ELEMENTS

- Subsection 2.1 - Design Exception Type 1 (Design Speed ≥ 50 mph) controlling design elements shall apply for all roadways within Authority jurisdiction, regardless of design speed.
- Replace 2.1.1 with the following:
    - Stopping Sight Distance (crest vertical curves, horizontal curves, and non-signalized intersections)
    - Superelevation Rate (for mainline and ramps)
    - Horizontal Curve Radius (for mainline and ramps)
    - Cross Slope (Minimum and Maximum)
    - Lane Width (Through and Auxiliary)
    - Shoulder Width
    - Minimum and Maximum Grades
    - Through Lane Drop Transition Length
    - Acceleration and Deceleration Length
    - Design Speed (See Note #1 below, under Section 2.2)
- Except as referenced by 2.1, Subsection 2.2 through Subsection 2.4 shall not apply to Authority projects.

3.0 DESIGN STANDARDS AND RELATIVE RESOURCES

- NJTA Design Manual and NJTA Procedures Manual shall replace NJDOT Design Manual – Roadway and NJDOT Design Manual – Bridges and Structures for all roadways within Authority jurisdiction.

4.0 PROJECT TYPES REQUIRING A DESIGN EXCEPTION

- No changes

5.0 PROJECTS EXEMPT FROM THE DESIGN EXCEPTION PROCEDURE

- Projects exempt from Design Exceptions, as listed in Subsections 5.1 and 5.2, will be clearly defined within the initial project scope documents and shall be reaffirmed by the Authority for advancement of the PPA into PD and FD phases.
- Subsection 5.3 and Subsection 5.4 shall not apply to Authority projects.

6.0 DESIGN EXCEPTION REPORT FORMAT

- Submission of the Design Exception Report will made with the appropriate Project Phase as noted in Section 3 of the NJTA Procedures Manual.
- Replace NJDOT with New Jersey Turnpike Authority on Attachment 1 - Cover Letter.
- All submissions of the Design Exception Report will be sent to the Authority's Project Manager. Number of copies and format (electronic/hard copy) will be indicated in the Project Checklist.
- The final Design Exception Report will be sent to the Authority's Project Manager for approval by the Authority's Chief Engineer or designee; the Design Exception Report shall be modified for these approvals accordingly.

7.0 CRASH ANALYSIS

- The entire section is replaced with the following:

  The Design Exception Report will include a crash analysis for each substandard element for the most recent 3-year period. The designer is to thoroughly consider the crash data while recommending whether to allow the existing substandard condition to remain or to provide a safety improvement.

  The Engineer shall submit a request to the Authority for crash report data specific to the project location and the latest system-wide data averages for the Turnpike and Parkway in order for the Engineer to perform the Design Exception Crash Analysis. If the project includes local roads, coordinate with the Authority's Project Manager to request crash data from NJDOT and/or the local police.

  The request shall be made via email to the Authority's Project Manager and include the following information:

  - Project Name
  - OPS No.
  - Designer Firm / Project Manager
  - Authority Project Manager
  - Roadway / Interchange / Ramp Name
  - County / Municipality
  - Project Start / End Mileposts

- Desired crash record time frame (i.e. - most recent 3-year period)

The Authority's Project Manager will coordinate with the Authority's Operations Department to provide the requested data to the Engineer. Once received, the Engineer shall use the crash report data to determine if the crash rates of indicator crashes for any the following Controlling Substandard Design Elements (CSDE) exceed the respective system-wide averages. The indicator crashes for each type of CSDE are as follows:

CSDE	Indicator Crash Types[1]															
	01 - Same Direction (Read-End)	02 - Same Direction (Side Swipe)	03 - Right Angle	04 - Opposite Direction (Head on, Angular)	05 - Opposite Direction (Side Swipe)	06 - Struck Parked Vehicle	07 - Left Turn/U-turn	08 - Backing	09 – Encroachment	10 - Overturn	11 - Fixed Object	12 - Animal	13 - Pedestrian	14 - Pedalcyclist	15 - Non-fixed Object	16 - Railcar Vehicle
Stopping Sight Distance	X			X			X		X		X				X	
Superelevation Rate		X		X	X					X	X				X	
Horizontal Curve Radius		X		X	X					X	X				X	
Cross Slope		X		X	X					X	X				X	
Lane Width		X		X	X				X	X	X				X	
Shoulder Width											X				X	
Maximum Grades	X	X														
Vertical Clearance											X					

For each location where the percentage of indicator crashes for the CSDE exceeds the system-wide average, the Engineer shall provide a more detailed analysis of the crashes. The detailed crash analysis should include the type of crash, severity, contributing circumstances, environmental conditions, and time of day. A collision diagram may also be necessary for locations involving a significant number of crashes. The detailed analysis of crashes shall be submitted to the Authority's Project Manager for review and approval by NJTA Operations.

[1] https://www.state.nj.us/transportation/refdata/accident/pdf/NJTR-1CrashReportManual12517.pdf

8.0 GEOMETRIC REVIEW

- All submissions of the Geometric Review package will be sent to the Authority's Project Manager. Number of copies and format (electronic/hard copy) will be indicated in the Project Checklist.

9.0 REVISION SUMMARY

Revision	Date	Revised by	Summary
0	March 2024		Original document