



# Texas Department of Transportation

## DESIGN-BUILD SPECIFICATIONS Items 10-28

### Attachment 27-2 Baseline Inspection Requirements

November ~~2023~~2024

## ATTACHMENT 27-2: BASELINE INSPECTION REQUIREMENTS

Provide photographic records and physical measurements referenced by location to establish an agreed reference condition for each Performance Section as follows:				
ELEMENT CATEGORY	ELEMENT	INSPECTION/MEASUREMENT METHOD	MEASUREMENT REF*	MEASUREMENT RECORD
<b>1) PAVEMENT</b>				
1.1	Ride quality	Physical measurement	1.1.1	Location and depth of any individual discontinuity (e.g. bumps and depressions) that is greater than 3/4"
1.2	Edge drop-offs	Physical measurement	1.2.1	Location and depth of any individual edge drop-offs that is greater than 2" for more than 10 feet in length
<b>1a) PAVEMENT (ASPHALT)</b>				
1a.1	Ruts	Physical measurement	1a.1.1	Location and depth of any individual rut that is greater than 1/2"
1a.2	Cracking	Physical measurement	1a.2.1	Location and length of any unsealed cracking with a width greater than 1/4" and a length exceeding 5 feet.
<b>1b) PAVEMENT (CRCP)</b>				
1b.1	Spalled Cracks	Physical measurement	1b.1.1	Location and length of any individual spalling of any crack greater than 12" length
1b.2	Popouts and Punchouts	Physical measurement	1b.2.1	Location and number of any popouts greater than 4" wide or long exceeding a depth of 1";  Location and number of any punchout with a maximum dimension of 24" or more exceeding 1/4" vertical fault dimension compared to adjacent intact slab
1b.3	Longitudinal Cracking	Physical measurement	1b.3.1	Location and length of any longitudinal cracks with width exceeding 1/8"
<b>1c) PAVEMENT (JCP)</b>				
1c.1	Damaged Joints and Cracks	Physical measurement	1c.1.1	Location and length of any individual spalling of joints or cracks more than 3" in width and greater than 12" length

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ELEMENT CATEGORY	ELEMENT	INSPECTION/MEASUREMENT METHOD	MEASUREMENT REF*	MEASUREMENT RECORD
1c.2	Slabs with cracks in multiple directions	Visual Inspection	1c.2.1	Location and number of any slabs separated into three or more pieces by a combination of transverse cracks and longitudinal cracks of any width extending from edge to edge of the slab
1c.3	Slabs with Longitudinal Cracks	Physical measurement	1c.3.1	Location and length of any longitudinal cracks in any slab with width exceeding 1/8"
<b>2) DRAINAGE</b>				
2.1	Non-bridge class culverts, pipes, ditches, channels, catch basins, inlets, manholes and outfalls	Visual Inspection	2.1.1	General condition
2.2	Drainage treatment devices	Visual Inspection	2.2.1	General condition
2.4	Erosion	Visual inspection	2.4.1	Location and general condition of any erosion greater than 12" deep along ditches, swales, ponds, and channels
2.5	Channels and ditches - Permanent erosion control measures	Visual inspection	2.5.1	Location and general condition of any undermined or damaged erosion control measures
<b>3) STRUCTURES</b>				
3.1	Structures components	Visual inspection	3.1.1	General condition
		Physical measurement and records of previous inspection	3.1.2	Location of any individual deck, superstructure or substructure with condition rating less than seven (7)
3.3	Gantries and high-masts	Visual inspection	3.3.1	General condition
3.4	Access points	Visual inspection	3.4.1	General condition
3.5	Retaining walls	Visual inspection	3.5.1	General condition
<b>4) PAVEMENT MARKINGS, OBJECT MARKERS, BARRIER MARKERS AND DELINEATORS</b>				
4.1	Pavement markings	a) Markings - General Visual inspection (to include a record of visibility of markings under low beam headlights)	4.1.1	Marking visibility under low-beam headlight
		Physical measurement	4.1.2	Location and length of pavement marking where there is loss of material

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ELEMENT CATEGORY	ELEMENT	INSPECTION/MEASUREMENT METHOD	MEASUREMENT REF*	MEASUREMENT RECORD
		<b>b) Profile markings</b> - visual inspection	4.1.3	General condition
4.2	Raised reflective markers	Visual inspection	4.2.1	Location and number of raised reflective markers that are ineffective in any 10 consecutive markers (ineffective includes missing, damaged, settled or sunk)
4.3	Delineators & Markers	Visual inspection	4.3.1	General condition
<b>5) CURBS, GUARDRAILS, SAFETY BARRIERS AND IMPACT ATTENUATORS</b>				
5.1	Curbs	Visual inspection	5.1.1	General condition
5.2	Guardrails and safety barriers	Visual inspection	5.2.1	General condition
5.3	Impact attenuators	Visual inspection	5.3.1	General condition
<b>6) TRAFFIC SIGNS</b>				
6.1	General – All signs	Visual inspection	6.1.1	General condition
6.2	Warning and regulatory signs	Visual inspection	6.2.1	General condition
<b>7) TRAFFIC SIGNALS</b>				
7.1	General	Visual inspection	7.1.1	General condition
7.2	Pedestrian elements and vehicle detectors	Visual inspection	7.2.1	General condition
<b>8) LIGHTING</b>				
8.1	Roadway lighting - general	Visual inspection	8.1.1	General condition
8.2	Sign lighting	Visual inspection	8.2.1	General condition
8.3	Aesthetic lighting	Visual inspection	8.3.1	General condition
8.4	Electrical supply	Visual inspection	8.4.1	General condition
8.5	Access panels	Visual inspection	8.5.1	General condition
8.6	High-mast lighting	Visual inspection	8.6.1	General condition
<b>9) FENCES, WALLS AND SOUND ABATEMENT</b>				
9.1	General	Visual inspection	9.1.1	General condition
<b>10) ROADSIDE MANAGEMENT</b>				
10.6	Sidewalks and pedestrian curb ramps	Visual inspection	10.6.1	General condition
<b>11) REST AREAS AND PICNIC AREAS (NOT USED)</b>				
<b>12) EARTHWORKS, EMBANKMENTS AND CUTTINGS</b>				
12.1	Slope failure	Visual inspection	12.1.1	Location and severity of any slope failure

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12.2	Slopes – General	Visual inspection	12.2.1	General condition
12.3	Slopes – Erosion	Visual inspection	12.3.1	Location and depth of any erosion greater than 6" deep
12.4	Slopes – Permanent Erosion Control Measures	Visual inspection	12.4.1	Location and general condition of any undermined or damaged erosion control measures
<b>13) ITS EQUIPMENT</b>				
13.1	ITS Equipment-Maintenance	Visual inspection and records of malfunction	13.1.1	General condition
13.2	Dynamic Message Sign Equipment	Visual inspection and records of malfunction	13.2.1	General condition
13.3	CCTV Equipment	Visual inspection and records of malfunction	13.3.1	General condition
13.4	Vehicle Detection Equipment	Visual inspection and records of malfunction	13.4.1	General condition

**Notes**

\* Measurement ref to be cross-referenced with Attachment 27-1.