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Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Manila

097.13 DPWH
OF. 17. 2017

DEPARTMENT ORDER)

NO. 68)
Series of 2017)

SUBJECT: Minimum Design Standards for Industry Roads Under the DTI-DPWH Convergence Program for Roads Leveraging Linkages for Industry and Trade (ROLLIT)


In line with the mandate of the DPWH to ensure the quality and safety of road infrastructure, hereunder are the prescribed minimum design standards in preparing the engineering design of industry road projects included in the Department of Trade and Industry (DTI) – DPWH Convergence Program for ROLLIT, for the guidance and compliance of all concerned.

| Design Element | Requirement |
|---|--|
| Pavement Type | Portland Cement Concrete Pavement (PCCP) |
| Pavement Width | Minimum of 6.70m for two lanes |
| Pavement Thickness | Minimum of 280mm (11 inches) |
| Shoulder <ul style="list-style-type: none">• Width• Material | Minimum of 1.50m Minimum gravel surfacing |
| Roadway Cross Slope | 1.50% |
| Radius of Horizontal Curve | Minimum of 50m |
| Length of Tangent between Point of Curvature (PC) and Point of Tangency (PT) of reverse curve | Minimum of 30m |
| Length of Vertical Curve | Minimum of 60m |
| Design Speed | Terrain Type: (Minimum Values) <ul style="list-style-type: none">• Flat - 60kph• Rolling - 40kph• Mountainous - 30kph |
| Longitudinal Grade | Minimum of 0.50% and maximum of 8% on cut sections |
| Side Slope Ratio (H:V) | Cut Slope Material Type: (Prescribed Values) <ul style="list-style-type: none">• Common Materials - 1:1 to 1.5:1• Soft/Rippable Rock - 0.5:1 to 1:1• Hard/Solid Rock - 0.25:1 to 0.5:1 Minimum fill slope of 1.5:1 |

| Design Element | Requirement |
|-------------------------|---|
| Road Drainage Structure | Box Culvert - 25-year flood Pipe Culvert - 25-year flood - Minimum diameter of 910mm |
| Slope Protection | As needed |
| Road Safety Provisions | Refer to DPWH Highway Safety Design based on DPWH Highway Safety Design Standards (May 2012) <ul style="list-style-type: none"> • Part 1: Road Safety Design Manual • Part 2: Road Signs and Pavement Markings Manual |
| Bridges | <ul style="list-style-type: none"> • Permanent Structures (Concrete or Steel) • Structural design based on AASHTO HL-93 Loading, using peak ground acceleration for seismic analysis and 50-year flood frequency for hydraulic analysis |

Nevertheless, the corresponding design analysis for each design element shall still be undertaken to determine if the design values exceed the above-stated minimum requirements. If so, the computed design values shall be adopted.

This order shall take effect immediately.


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