

# ISO/TS 22726-1:2025-11 (E)

## Intelligent transport systems - Dynamic data and map database specification for connected and automated driving system applications - Part 1: Architecture and logical data model for harmonization of static map data

---

### Contents

Page

|  |           |
|--|-----------|
| Foreword.....  | v         |
| Introduction.....  | vii       |
| <b>1 Scope.....</b>  | <b>1</b>  |
| <b>2 Normative references.....</b>   | <b>1</b>  |
| <b>3 Terms and definitions.....</b>  | <b>1</b>  |
| <b>4 Abbreviated terms and symbols.....</b>  | <b>3</b>  |
| <b>5 Document structure and conformance.....</b>                                     | <b>4</b>  |
| 5.1 Document structure.....  | 4         |
| 5.2 Conformance.....   | 4         |
| <b>6 Architecture.....</b>   | <b>4</b>  |
| <b>7 Logical data model of map data.....</b>   | <b>5</b>  |
| 7.1 Overall data model of map data.....  | 5         |
| 7.2 Transportation package.....  | 6         |
| <b>8 MHAD package.....</b>   | <b>7</b>  |
| 8.1 Configuration of MHAD package.....   | 7         |
| 8.2 Belt concept for roadway, intersection and lane.....                             | 10        |
| 8.3 Relationship between road feature and road structures and equipment feature..... | 11        |
| 8.4 MHAD class.....  | 11        |
| <b>9 MHADCommonProperty package.....</b>   | <b>12</b> |
| 9.1 General.....   | 12        |
| 9.2 GeneralCommonProperty package.....   | 13        |
| 9.2.1 General.....   | 13        |
| 9.2.2 Class definitions.....   | 14        |
| 9.3 CommonPhysicalCharacteristics package.....                                       | 20        |
| 9.3.1 General.....   | 20        |
| 9.3.2 Class definitions.....   | 22        |
| 9.4 TrafficRegulation package.....   | 36        |
| 9.4.1 Modelling policy of Traffic regulations.....                                   | 36        |
| 9.4.2 General description.....   | 37        |
| 9.4.3 TrafficRegulation(Main) sub-package.....                                       | 38        |
| 9.4.4 TimeCondition sub-package.....   | 48        |
| 9.4.5 VehicleCondition sub-package.....  | 59        |
| <b>10 RoadBeltNetwork package.....</b>   | <b>81</b> |
| 10.1 General.....  | 81        |
| 10.2 RoadBeltNetworkFeature sub-package.....   | 81        |
| 10.2.1 General.....  | 81        |
| 10.2.2 Modelling policy of RoadBeltNetwork.....                                      | 84        |
| 10.2.3 Modelling policy of Manoeuvre Path.....                                       | 87        |
| 10.2.4 Class definitions.....  | 88        |
| 10.3 RoadBeltFeatureProperty sub-package.....  | 114       |
| 10.3.1 General.....  | 114       |
| 10.3.2 Class definitions.....  | 116       |
| 10.4 RoadBeltSegmentProperty sub-package.....  | 123       |
| 10.4.1 General.....  | 123       |
| 10.4.2 Class definitions.....  | 124       |

|           |  |            |
|-----------|--|------------|
| <b>11</b> | <b>LaneBeltNetwork package</b> .....   | <b>137</b> |
| 11.1      | General.....   | 137        |
| 11.2      | LaneBeltNetworkFeature sub-package.....  | 138        |
| 11.2.1    | General.....   | 138        |
| 11.2.2    | Modelling policy of the LaneBeltNetwork.....   | 140        |
| 11.2.3    | Modelling policy of Manoeuvre Lane Path.....   | 141        |
| 11.2.4    | Class definitions.....   | 142        |
| 11.3      | LaneBeltFeatureProperty sub-package classes.....   | 160        |
| 11.3.1    | General.....   | 160        |
| 11.3.2    | Class definitions.....   | 160        |
| 11.4      | LaneBeltSegmentProperty sub-package.....   | 164        |
| 11.4.1    | General.....   | 164        |
| 11.4.2    | Class definitions.....   | 166        |
| <b>12</b> | <b>RoadStructureAndEquipment package</b> .....   | <b>171</b> |
| 12.1      | General description.....   | 171        |
| 12.1.1    | Configuration of RoadStructureAndEquipment package.....  | 171        |
| 12.1.2    | Position and geometry policy for the road structures and pieces of road<br>equipment features.....           | 172        |
| 12.1.3    | RoadStructureAndEquipment class.....   | 173        |
| 12.2      | RoadEquipment sub-package.....   | 175        |
| 12.2.1    | General description.....   | 175        |
| 12.2.2    | RoadEquipmentFeature sub-package.....  | 175        |
| 12.2.3    | RoadEquipmentProperty sub-package.....   | 201        |
| 12.3      | RoadMarking sub-package.....   | 208        |
| 12.3.1    | General description.....   | 208        |
| 12.3.2    | RoadMarkingFeature sub-package.....  | 208        |
| 12.3.3    | RoadMarkingProperty sub-package.....   | 221        |
| 12.4      | RoadStructure sub-package.....   | 229        |
| 12.4.1    | General description.....   | 229        |
| 12.4.2    | RoadStructureFeature sub-package.....  | 229        |
| 12.4.3    | RoadStructureProperty sub-package.....   | 250        |
| 12.5      | RSECommonProperty package.....   | 255        |
| 12.5.1    | General description.....   | 255        |
| 12.5.2    | Class definitions.....   | 256        |
| <b>13</b> | <b>Relation between the MHAD and the dynamic information</b> .....   | <b>261</b> |
|           | <b>Annex A (normative) Abstract test suite</b> .....   | <b>262</b> |
|           | <b>Annex B (informative) Basic data types and stereotypes — concepts and definitions</b> .....               | <b>263</b> |
|           | <b>Annex C (informative) Resolution and accuracy of the MHAD</b> .....                                       | <b>265</b> |
|           | <b>Annex D (informative) Comparison of the road network models of MHAD and existing map<br/>models</b> ..... | <b>266</b> |
|           | <b>Bibliography</b> .....  | <b>269</b> |