Project Design Phase
Proposed Solution Template

Date	15 February 2025
Team ID	LTVIP2025TMID36498
Project Name	TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

Proposed Solution Template – TrafficTelligence

S.No.	Parameter	Description
1	Problem Statement (Problem to be solved)	Urban traffic congestion is increasing due to unpredictable variables like weather, events, and insufficient forecasting systems. Transportation authorities lack tools to make real-time adjustments, while urban planners and commuters face delays and inefficiencies.
2	Idea / Solution Description	TrafficTelligence is a machine learning-based system that predicts traffic volume with precision by analyzing historical traffic data, weather patterns, and local events. It supports dynamic traffic management, infrastructure planning, and commuter guidance by offering real-time and forecast-based traffic insights.
3	Novelty / Uniqueness	The solution integrates multiple data streams (historical data, real-time weather, and event data) into a predictive ML model. Unlike conventional traffic apps, it not only reports current conditions but also

		predicts future congestion, making it proactive rather than reactive.
4	Social Impact / Customer Satisfaction	Enhances commuter experience by reducing delays and stress. Helps authorities reduce congestion and pollution. Aids urban planners in making smarter, data-driven infrastructure decisions. Contributes to sustainable smart city development.
5	Business Model (Revenue Model)	The solution can be monetized via B2G (government contracts for traffic management systems), B2B (licensing to navigation app providers), and subscriptions for city planners or real estate developers requiring traffic forecast data.
6	Scalability of the Solution	Highly scalable across cities, regions, or countries. Can be integrated into existing ITS (Intelligent Transportation Systems), and continuously improves with more data, enabling deployment across smart cities, navigation platforms, and infrastructure projects.