Solutions

Traffic Impact Assessment Geographic Information System is a WebGIS-based system for querying related geographic information. Furthermore, the system also contains the function for the staffs to edit and query traffic impact assessment cases. The system adopts SuperWebGIS 2 to develop WebGIS platform and Microsoft SQL 2000 as database platform. Hence, the staffs can quickly and conveniently obtain the related geographic information of traffic impacts for the staffs by integrating the GIS technologies with the mass GIS data and the Internet. Furthermore, it is convenient for the staffs to query and apply the data to study and analysis cases via the Internet browser.

In addition, Traffic Impact Assessment Geographic Information System can provide the references of related geographic information of traffic impacts for the staffs by integrating the GIS technologies with the mass GIS data and the Internet. Furthermore, it is convenient for the staffs to query and apply the data to study and analysis cases via the Internet browser.

Traffic Impact Assessment GIS will maintain and update the image data, traffic basic information, traffic parameter, laws and regulations and assessment cases to assist the related staffs in effectively assessing traffic impacts.

Traffic Impact Assessment GIS will maintain and update the image data, traffic basic information, traffic parameter, laws and regulations and assessment cases to assist the related staffs in effectively assessing traffic impacts.

In this highly developed society, the development of land has been a continuous activity, which causes a great connection between land usage and transportation demand. Large scale of development of land changes original land-use intensity to result in redistribution of trip and reassignment of transportation so that the impacts on roads and transportation system occur. Therefore, the investigation of Traffic Impact Assessment (TIA) can predict and improve the possible traffic impact on the primary planning stage of development of land. As a result, TIA plays a significant role on land use management in highly developed country.

Institute of Transportation Modelling (ITM) conducted the research plan—"The Establishment of Traffic Impact Assessment Geographic Information System" in 2005 and "The research of Establishing TIA spatial database and application mechanisms" in 2006 to predict and improve the possible traffic impact on site developments. The two researches not only construct GIS platform but also contain five related databases, Images Database, Basic Traffic Information Database, Traffic Parameter Database, Laws and Regulations Database and Case Study Database to assist the evaluation work of TIA.

Traffic Impact Assessment GIS will maintain and update the image data, traffic basic information, traffic parameter, laws and regulations and assessment cases to assist the related staffs in effectively assessing traffic impacts.

Traffic Impact Assessment GIS will maintain and update the image data, traffic basic information, traffic parameter, laws and regulations and assessment cases to assist the related staffs in effectively assessing traffic impacts.

Traffic Impact Assessment Geographic Information System has been planned to be a large domestic traffic database, able to provide comprehensive related traffic information for users to assess or author reports. Traffic Impact Assessment Geographic Information System has six main functions. In addition, Map Manipulation Function is also developed for manipulating electric maps in the system.

1. Map Manipulation: This function provides users to have basic manipulation on the maps, such as zoom the map to full-extent, zoom in/out, pan the map, query attributes, overview map etc.
2. User Management: The system administrator is the only authorized user who is allowed to query, edit, and add the information of all levels of users. A system administrator can set the user permission of each user through this function.
3. Case Report Upload: The main purpose of this function is to upload case reports to Case Study Database. Users can query, edit and create case reports in this function. In addition, users can create coordinate data of case reports by clicking the map so that users can clearly understand each case reports spatial distribution.
4. Traffic Parameter Data Operation and Query: The main purpose of this function is to provide the traffic parameter data of large reports for querying. Users can quickly query parameter data according to the report classifications and definitely get to know the applications of related parameters.
5. Laws and Regulations Query: This function allows users to query laws and regulations. Moreover, Traffic Impact Assessment Geographic Information System also provides the external link for users to query other related laws and regulations on other websites.
6. Layer Overlay: The system supports to overlay different layers, including socio-economic data, land-use layer, sensitivity layer, urban plan layer, parking lot layer, etc., for advanced analytic applications. Moreover, users can also query related spatial conditions, such as environmental assessment information, cross road, and road section, and show the results on the map in a spatialized way.
7. Case Assessment: Case Assessment allows assessors to assess the assessment status of each case and historical data. Assessing the assessment status of each case, assessors can only assess the cases which they are in charge of and edit the basic information of cases. Besides, the key points of assessments, relevant laws and regulations, and related cases are provided in this function to assist assessment in querying and accomplishing the assessment. Once the case assessment is finished, the case will be classified as historical case for all assessors to query.
Solutions

Traffic Impact Assessment Geographic Information System is a WebGIS-based system for querying-related geographic information. Furthermore, the system also constrains the function for the staffs to edit and query traffic impact assessment cases. The system adopts SuperWebGIS 2.0 to develop WebGIS platforms and Microsoft SQL 2000 as database platform. Hence, the staffs can quickly and conveniently query the related geographic information of traffic impacts for the staffs by integrating the GIS technologies with the mass GIS data and the internet. Furthermore, it is convenient for the staffs to query and apply the data to study and analysis cases via the internet browser.

Traffic Impact Assessment Geographic Information System will maintain and update the image data, traffic basic information, traffic parameter, laws and regulations and assessment cases to assist the related staffs in effectively assessing traffic impacts. Traffic Impact Assessment GIS will maintain and update the image data, traffic basic information, traffic parameter, laws and regulations and assessment cases to assist the related staffs in effectively assessing traffic impacts. Traffic Impact Assessment GIS will maintain and update the image data, traffic basic information, traffic parameter, laws and regulations and assessment cases to assist the related staffs in effectively assessing traffic impacts.