Straight line diagrams (SLDs) are a time-tested tool that transportation departments have long used to quickly review information about their roadways. They provide on one page an abundance of information about roadway configuration, inventory and conditions. SLDs present side-by-side graphic representations of physical roadway characteristics, such as speed limits, bridges, number of lanes and so forth.

**Hexagon’s SLD**

Most SLDs are snapshots of the roadway data – meaning the data only reflects the road characteristics at the time the SLDs were produced. Depending on the production cycle, the data represented in the SLDs could be days, weeks or months old by the time the data is used. Furthermore, data quality and timeliness can be adversely affected by the manual or semi-automated methods used by many organisations to create their SLDs.

Hexagon’s SLD solution lets you produce SLDs on demand. An SLD is automatically generated at the time it is requested and uses real-time data. Users have the flexibility to select which route to display, what portions of the route to display and what data to display about them. This provides only the information you want – based on the most current data – with minimum effort. Furthermore, because this is a web-based solution, more users than ever – inside and outside of the organisation – can easily access this valuable tool.

**SLD functionality**

- Analyse selected locations along a roadway
- View road characteristics simultaneously and side by side
- Split out carriage-way or lane characteristics individually
- View intersection locations along roads
- Provide analysts, engineers, consultants and others with content for an SLD map book

**Hexagon’s SLD capabilities**

- Custom SLD configurations
- Synchronise with Linear Referencing System (LRS)
- Configure with maps such as Google, Bing, OpenStreetMap
- Define the route and route length to analyse
- Specify sheet count or miles per sheet
- Select which road characteristics to include in the SLD
- Color code characteristics based on attribute values and ranges
- See tooltips for each road characteristic
- Pan and zoom on map, schematic or chart panel
SLD Components

Hexagon’s solution returns the SLD in the following configurable panels:

- **Map** – Depicts a plan view of the selected portion of the route
- **Schematic** – Provides a diagram of the route and its relationship with other roadway elements
- **Chart** – Displays multiple roadway attributes together

Hexagon SLD differentiators

- **Current** – Generated on demand using live data
- **Flexible** – Configurable per user
- **Accurate** – Automatic result generation prevents manual errors
- **Cost-saving** – Less labor intensive versus manual methods
- **Browser-based** – Wider distribution through web enablement

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