

Guidelines for  
High-Volume  
Commercial or Public  
Road Connections to a  
State-Maintained Route  
via an Access Permit

District 8

Updated April 2024

## Guidelines for High-Volume Commercial or Public Road Connections – District 8 Access Permit

*Disclaimer: Updates in the BDE Manual or Policies, PROWAG, or any other IDOT policy shall supersede this document.*

The purpose of these guidelines is to aid in understanding the review and approval process for obtaining a highway access permit to a State highway for large commercial developments. Below is a list of Developer/Consultant/Municipality responsibilities for obtaining access to significant developments adjacent to State highways:

- Each site varies in complexity, depending on existing and proposed roadway and drainage conditions, traffic demands at the time of construction and in the future, and land acquisition needs for the project. All access permit document submittals will be reviewed on a first-come, first-served basis and may require multiple resubmittals before approval is granted.
- The timeframe to receive an approved permit from the Department will vary based on multiple factors, including the frequency and quality of submittals, responsiveness to comments, and land acquisition procedures. It is reasonable to allow 18-24 months from the first submittal to the issuance of the permit for commercial or industrial developments, subdivisions, or projects requiring roadway widening and traffic signals. The time between submittals will be a factor in the overall timeframe of obtaining an Access Permit.
- The Developer will be responsible for the total cost of all required roadway improvements and any additional right-of-way along the State highway per Department Order 14-7, September 1, 1976. The Department will require a surety bond representative of the estimated cost to correct any foreseeable deficiencies or to completely remove substandard work. This bond will remain in effect for a period determined by the Department, at a minimum of five years. If roadway improvements are funded with State Motor Fuel Tax or other State-administered funds, the review process is handled through the Bureau of Local Roads and may add additional time to complete the project.
- An initial coordination meeting will be **required**, either in-person or via Zoom or WebEx between the Department, developer, consultant, and local municipality to discuss the permit process, right-of-way needs, construction requirements, and any other general questions each party may have. A conceptual level site plan showing the existing roadway network, existing property lines, entrance locations, internal roadways, buildings, parking, and other related features would be beneficial to all parties for a more detailed conversation.
- All submittals and correspondence related to the access permit must be directed to the Permits Unit Chief or assigned designee. Please allow 8-10 weeks for each submittal to be reviewed by the Department. Review times will vary based on staffing levels and workloads of each section involved in the review process such as Geometric Unit, Hydraulic Unit, Permits Unit. All resubmittals must include an itemized disposition of comments.
- The Department will require a letter of support from the local municipality addressing their approval of the site and required improvements.
- If a break in access control is requested for a proposed access point, the accessway must be a

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public road that ties into another public road. The break in access control must be requested in writing from the local municipality that will have jurisdiction of the new public road.

- The local municipality is required to be a Co-Applicant for all access permits involving signalized intersections. The local municipality will also be Co-Applicant for all access permits for unsignalized public road access points within State right-of-way.
- If a temporary construction access permit is requested, the Department will require a letter from the local municipality guaranteeing that no Building Permits will be granted until the site hydraulics has been approved by the Department, and no Occupancy Permits will be granted until issuance of the Access Permit with all required roadway improvements satisfactorily completed.
- All utility connections shall require a separate Utility Permit from the Department. The utility permits shall be coordinated with Chris Volkman, the District 8 Project Support Engineer at [618-346-3197](tel:618-346-3197) for more information.
- The width, number, and location of all entrances within the proposed development shall be in accordance with current IDOT policies, the *Policy on Permits for Access Driveways to State Highways*, the *Bureau of Design and Environment Manual*, and IDOT's *Drainage Manual*.
- A Traffic Impact Study may be required based on an initial assessment of the proposed development and if turn lanes or traffic signals are anticipated. Please refer to **Appendix A** for additional guidance on the preparation of the Traffic Impact Study.
- An Intersection Design Study (IDS) may be required for each entrance that requires turn lanes or traffic signals. The need for the IDS will be determined from the findings in the Traffic Impact Study. Please refer to **Appendix B** for additional guidance on the preparation of the Intersection Design Study.
- A Geometric Detail (GD) may be required for unsignalized entrances/intersections, such as an entrance functioning as a right-in/right-out only. The Geometric Detail should be in a similar format as an Intersection Design Study without traffic volumes or a capacity analysis and it shall be submitted on the same plan format as an IDS.
- Site hydraulics shall be reviewed by the Department for any development adjacent to a State highway, regardless of any entrance improvements. Hydraulic plans and calculations addressing storm water and detention shall be provided. Please refer to **Appendix C** for additional guidance.
- A Plat of Highways and Legal Description is required if additional state right-of-way is needed to accommodate the proposed improvements along the State highway. These are to be reviewed and approved by the District 8 Land Acquisition section. The Land Acquisition process may be a factor in the overall timeframe since no Access Permit can be approved until the Land Acquisition process is completed and the land donation approved. Please contact the D8 Chief of Plats and Plans at [618-346-3124](tel:618-346-3124) for guidance on Land Acquisition document submittal. A title commitment and CLEAR title for all parcels to be transferred to the State of Illinois are required before an access permit can be issued by the Department.

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- If additional widening is required along a State highway, the pavement will require a pavement design approved by the Department. Guidance on pavement design can be found in Chapter 54 of the *Bureau of Design and Environment Manual*. The Department will make the final determination of any proposed pavement structure. Also note the following:
  - The developer shall be required to resurface the entire project limits if pavement widening is proposed. The Department will make the final determination of any proposed pavement structure.
  - If pavement widening is not proposed, the developer will be required to resurface the project limits if old pavement markings or lane joint lines would leave conflicts.
- If traffic signals are warranted, soil borings must be obtained and a signed and sealed **Structure Report** for the foundation design must be submitted and approved by the Department. All traffic signals and related roadway improvements warranted within 5 years must be installed with the initial construction. A surety bond will be required to guarantee installation of any future traffic signals and related roadway improvements that may be warranted beyond the initial five-year period.
- If traffic signals are installed or modified along a route that has signal progression, a signal timing and coordination (SCAT) study will be required no earlier than six (6) months and no later than twelve (12) months after the opening of the first major traffic generator of the development.
- If improvements are required on the State highway, construction plans and special provisions are required for submittal and approval by the Department. Plans and special provisions are to be developed in accordance with Chapter 63 of the *Bureau of Design and Environment Manual*.

## **Traffic Impact Study Guidelines –District 8 Only**

Updated: 03/15/2024

The Traffic Impact Study shall address the impacts to all road users, motorized and non-motorized, that a proposed development will have to an existing State highway and adjacent roadways. For a development being constructed in “phases”, each phase of the development must be evaluated for its’ respective year of construction and impacts.

It is **required** to have a kickoff meeting prior to development of the Traffic Impact Study with the Department’s Permit Unit, additional district personnel, and local agency representatives. The purpose of this meeting is to discuss the permitting process, access requirements, local regulations, and define the study area.

All Traffic Impact Studies submittals to the Department shall include the following:

- The Traffic Impact Study shall be signed and sealed by a Professional Engineer licensed in the State of Illinois.
- The current edition of the ITE Trip Generation Manual shall be used when determining traffic generation for the proposed development. Supplemental traffic studies for developments not fully represented in the manual may be used with permission or at the request of the Department.
- The current edition of the Highway Capacity Manual shall be used in determining the analysis of the existing and proposed traffic. Capacity software used in the analysis should be the most recent version. For the IDS stage of project development, Highway Capacity Software (HCS) output will be required, and no substitute software will be allowed.
- Submit two bound paper copies and one electronic copy in PDF format of the traffic impact study. Submit electronic copies of the capacity analysis files.

The contents of the study shall be clearly labeled, and all sheets numbered for cross-referencing. The study should be presented in the following order:

### **Cover Sheet**

- State Route
- City
- County
- Project Name
- Developer Name
- Location Map showing regional and local references

### **Table of Contents**

## **Executive Summary**

This section of the Traffic Impact Study should summarize the proposed development, the impacts to all road users, motorized and non-motorized, and the proposed scope of work for all phases of the development. It should also indicate tentative construction start dates for all phases of the development as well as the full build-out date.

## **Introduction and Description of Existing Roadway Network**

This section of the Traffic Impact Study should include a discussion on the type of proposed development and description of the study area, including existing State highways and adjacent roadways.

- Include existing Average Daily Traffic (ADT) and traffic diagrams showing the Design Hourly Volume (DHV) for turning movements at all roadways and intersections within the study area including the construction year and 20-year no-build scenario. Include the manual counts in the Appendix.
- Identify the AM and PM peak hours for the study area.
- Identify existing accommodations for non-motorized roadway facility users, including pedestrians, bicycles, and transit facilities within the study area.
- Identify any intersections or roadway segments within the study area that are classified as Critical or High crash locations within a 5-year crash period. Identify if any Pedestrian Safety Corridors are identified within the study area.
- Identify any planned roadway improvements by the local agencies or IDOT within a 5-year timeframe.
- Identify any other planned major developments within the study area that may impact the existing roadway network within a 5-year timeframe.
- Include a discussion and tables of the existing Level of Service (LOS), delay, and queues of all intersections, roadway segments, and ramp terminals within the study area that may be impacted by the proposed development in the AM and PM peak hours for the construction year and 20-year no-build scenario. Provide the capacity software printouts in the Appendix.

## **Site Development Plan and Proposed Roadway Improvements**

This section of the Traffic Impact Study should include a discussion on the proposed development and its impacts to the existing roadway network within the study area.

- Include a preliminary site plan showing approximate building and parking locations and all points of ingress/egress. The site plan should include the following:
  1. Dimensions for existing and proposed turn lanes and tapers.
  2. Dimensions between all entrances and intersections.
  3. Locations of all existing and proposed drainage basins.
  4. Existing ROW for all public roadways adjacent to the development.
  5. Any additional pertinent information.
- Include a determination of background traffic growth rate.
- Include traffic generation tables for the proposed land uses.

- Include traffic diagrams showing traffic distribution for each phase of the development, including construction year, full build-out, and 20-year design.
- Include traffic diagrams showing anticipated traffic volumes at all impacted intersections (background traffic plus trips generated) for each phase of the development, including construction year, full build-out, and 20-year design.
- Include a discussion of left and right turn lane warrants for each phase of development. Provide the BDE nomographs in the Appendix.
- Include a discussion on traffic signal warrants at all impacted intersections for each phase of the development, including construction year, full build-out, and 20-year design. Provide the signal warrant analysis in the Appendix, if applicable.
- Include a discussion and tables of the proposed Level of Service (LOS), delay, and queues of all intersections, roadway segments, and ramp terminals within the study area that will be impacted for each phase of the development in the AM and PM peak hour for the construction year, full build-out year, and 20-year design. Provide the capacity software printouts in the Appendix.

### **Safety Analysis**

This section of the Traffic Impact Study should include a crash summary of the existing roadway network within the study area and how the proposed improvements may affect crashes in the future.

- Include a crash summary of the most recent 5-year crash period where data is complete. The summary should include the number of crash types, predominant crash types, and causes. The 5-year crash data can be provided by the Department.
- Include any roadway segments or intersections identified in the Critical or High Safety Tier or in an identified Pedestrian Safety Corridor. This information can be provided by the Department.
- Include any existing operational or other safety concerns within the study area and how this project will improve or not worsen those concerns.

### **Pedestrian and Bicycle Analysis**

This section of the Traffic Impact Study should include a discussion of the existing non-motorized accommodations within the study area, the impacts the proposed development will have to those accommodations, and proposed improvements to mitigate those impacts.

- Include a discussion of any existing pedestrian or bicycle accommodations and transit facilities within the study area. Provide any bicycle route maps and/or transit route or facility maps in the Appendix.
- Include a discussion of any local agency plans for future pedestrian, bicycle, and transit facilities within a 5-year timeframe within the study area.
- Include a discussion of any proposed mitigation to address pedestrian, bicycle, and transit facility impacts.

### **Other Roadway Impacts (optional)**

This optional section of the Traffic Impact Study should include additional information that may be beneficial to identify prior to development of the Intersection Design Study (IDS). This information may include:

- Discussion of design vehicle selection for intersection improvements.
- Discussion of opposing left turn vehicle clearances to determine signal phasing. Provide any AutoTurn diagrams in the Appendix, if applicable.
- Discussion of alternate roadway improvements investigated.
- Discussion of anticipated design exceptions.

### **Conclusion Stating Recommendations**

This section of the Traffic Impact Study should summarize the proposed development, and the impacts to all road users, motorized and non-motorized.

- Include the results of the analysis and the proposed improvements at each stage of development.
- Include the impacts to the State highway and adjacent roadways.
- Include the impacts to existing signalized intersections and if any proposed signalized intersections will be included with this project.
- Include any adverse impact the development may have on the existing roadway network.

### **Appendices**

This section of the Traffic Impact Study should be separated by category and cross-referenced in the content of the text. It may include, but is not limited to the following:

- Supplemental traffic studies used to determine trip generation and distribution
- Manual traffic counts, indicating the date, time, and method obtained
- Crash data provided by the Department
- Capacity software printouts to determine LOS and queueing
- Left and right turn lane nomographs
- Traffic signal warrant analysis
- Bicycle route maps and transit route maps
- Map of local agency comprehensive plans showing proposed land uses
- AutoTurn diagrams
- Any additional information pertinent to the study

## Intersection Design Study Checklist IDOT District 8

Project Location: \_\_\_\_\_ with \_\_\_\_\_

Designer: \_\_\_\_\_ Firm: \_\_\_\_\_

Date Submitted: \_\_\_\_\_

This checklist is intended to be used as a guideline in the design and review process of Intersection Design Studies. All design elements and preparation of the IDS shall conform to the design standards outlined in the *Bureau of Design and Environment Manual*, the *Bureau of Local Roads and Streets Manual*, and all other District policies. Completion of this checklist does not guarantee IDS approval.

### Submittal Requirements for Geometric Review

- Two 22" x 34" paper copies of the IDS are provided. Printouts are printed to the proper scale. No shading, coloring, or half-tone lines are permitted on the IDS.
- AUTOTURN DIAGRAMS ARE TO BE INCLUDED AS PART OF THE IDS. The printouts clearly show each turning movement and are printed to the proper scale. The distances between opposing lefts are labeled on all appropriate sheets.
- Color photographs for each intersection approach are provided. Each photograph is labeled with the route, location, and direction of view for clarification.
- Highway capacity software (HCS) printouts for the AM and PM design year capacity analysis for each intersecting route are provided. Capacity analysis software used shall be HCS or SigCinema, unless an alternative has been specifically requested by the District.
- Written justification for all requested Design Exceptions is provided. These justifications state District policy, the proposed design, and why District policy cannot be met. All deficient design elements within the influence of the intersection have been addressed.

### Elements Controlling Design

- Provide all information for the Preferred Route and Secondary Route.
- The type of traffic control is included with the following statements:
  - Traffic Control will be one-/two-/all-way stop control.
  - Traffic Signals will be installed or Existing Traffic Signals will be adjusted.
  - Traffic Signals meet warrants \_\_\_\_\_
  - Traffic Control will be yield at entry for roundabouts.
- The design vehicle is provided. The design vehicle has been chosen by functional classification or truck route designation, whichever is larger.
- The truck route designation is provided and matches truck route maps.
- The design criteria used is provided (new construction, reconstruction, 3R, safety, etc.) All geometric features match those listed in the Geometric Design Criteria tables in the BDE or BLRS manuals.
- A statement indicating if bicycle and pedestrian warrants are met for this project. The warrants are based upon the Bikeway and Pedestrian Needs Assessment presented in **Chapter 17** of the **BDE manual**. If warrants are met, then an additional statement indicating the existing and/or bicycle and pedestrian accommodations is required.
- Examples of the statements are as follows:

- Bicycle and pedestrian warrants are met for the project area.
- Bicycles are accommodated by an existing 6 ft shoulder and pedestrians are accommodated by an existing 5 ft sidewalk along IL Route \_\_\_\_\_.
- Bicycles and pedestrians are accommodated by a proposed 10 ft shared use path along IL Route \_\_\_\_\_.

### **General Notes**

- A note regarding if profiles are/are not provided is listed. All existing grades to remain in place that are greater than 1% and all new profiles are shown for all intersecting roads. Existing profile grades to remain that are less 1% need not be shown, but this shall be stated.
- The type of curb and gutter to be used on the outer edges of the traveled way, shoulders, channelizing islands, medians, and corner islands is provided. If there are no curb and gutter, these notes may be deleted.
- The type of dimensioning (E-E, F-F, etc.) is provided.
- All design exceptions are listed with the BDE and/or BLRS approval dates. All design exceptions shall be presented at a District Bi-Monthly Monitoring meeting. BDE and/or BLRS approval for the design exceptions must be obtained prior to District IDS approval.
- A statement that all entrances comply with IDOT's "Access to State Highways" is provided, if applicable.
- A statement regarding pavement marking is provided. (i.e., "Pavement marking to be high type, where applicable, with raised reflective pavement markers to delineate lines. All pavement markings are to be installed per the MUTCD and IDOT policies. All existing conflicting pavement markings are to be removed and shown in the Phase II plans.")
- A statement regarding lane designation arrows is provided. (i.e., "Lane designation arrows are for information only. Actual location of the arrows will be determined through coordination with the Bureau of Operations.")
- A statement regarding if parking/no parking is to be permitted is provided.
- A statement indicating that intersection sight distance meets IDOT policy is provided. This statement is required for two-way stop controlled and roundabout intersections.

### **Title/Signature Block and Location Map**

- The route names, section number, county, and scale are provided and have been verified. The preference route is listed first in the title block.
- The title and signature block is located in the lower right-hand corner of the IDS. The signature block only appears on the first sheet of the IDS, whereas the title block is on each subsequent sheet.
- The signature block provides the name of the design engineer along with the firm name and submittal date.
- The signature block provides for the following signatures and date:
  - Geometric Engineer
  - Program Development Engineer
  - Operations Engineer
  - Region Five Engineer
- All other signatures (City Engineer, County Engineer, etc.) have been obtained prior to District approval, if applicable.

- A location map is provided that clearly shows the project location, the existing road network, and any municipalities adjacent to the improvement. The map is oriented the same as the intersection layout.

### **Capacity Design Study Table**

- All data has been entered for signalized intersections and meets District policy for LOS criteria.
- All data has been entered for unsignalized intersections and meets District policy for LOS criteria.
- All data has been entered for roundabout intersections and meets District policy for LOS criteria.
- Each approach is labeled (A, B, C, D) with the direction of travel (SB, NB, EB, WB) and the road name.
- All data in the capacity table is accurate and has been cross-checked with the HCS printouts (SIDRA for roundabouts), the turning movement diagram, the traffic data table, and the phasing diagram.

### **Turning Movement Diagrams and Traffic Data Table**

- A diagram is provided for both the existing traffic and design year traffic and they are oriented the same as the intersection layout.
- AM and PM traffic volumes are shown for each diagram.
- Each approach of the intersection is labeled (A, B, C, D) and the road names are shown.
- The traffic volumes shown are accurate and have been cross-checked with the traffic data table, the turning movement diagrams, and the capacity table.

### **Phasing Diagram**

- The phasing diagram clearly shows all protected and permitted traffic movements for each phase and is oriented the same as the intersection layout.
- The cycle length is shown for both the AM and PM and is between 60 and 120 seconds.
- Protected left turn movements are provided for all state maintained approaches.
- Permitted left turn movements are prohibited in areas where a sight line is hindered by horizontal curvature, vertical profile, or an obstacle. Permitted lefts are also prohibited for offset turn lanes.
- A minimum 6 seconds of green time and 1 second of all-red time are provided for each phase.
- Yellow time provided is based on the design speed. (3 seconds for speeds  $\leq$  30 mph, 4 seconds for speeds 35-50 mph, and 5 seconds for speeds  $>$  50 mph)
- The phasing diagram accurately matches the data shown in the HCS printouts and capacity analysis table.

### **Intersection Layout and Design**

- A bar scale and north arrow are provided on each layout sheet of the IDS.
- All intersecting roads are labeled and the centerline stationing is shown for each road. The station equation is provided for all intersecting roads.
- The angle of intersection is shown and complies with District policy.
- The lengths and taper rates for all auxiliary lanes and tapers are provided. All auxiliary lane storage lengths meet D-distances stated in the Capacity Analysis chart or deceleration

requirements, whichever is greater. A minimum 115 ft left turn bay is provided for isolated intersections.

- The minimum “throat widths” and minimum turning radii are provided for dual left turn lanes.
- A minimum 4 ft shoulder is provided around the radius returns and adjacent to auxiliary lanes.
- All taper lengths and stopping distances have been adjusted for profile grades greater than 3%.
- All limiting topographic features or cultural developments are shown on the IDS, these shall include, but are not limited to:
  - Existing and proposed access driveways – Stationing, widths, and pavement types provided
  - Existing and proposed right-of-way lines and access control limits – Station/offsets provided
  - Property lines are shown with property and business names listed and buildings are shown
  - Sidewalks, curb ramps, and retaining walls
  - Utilities
- All existing and proposed traffic signals are shown and meet the following design criteria:
  - Mast arm length does not exceed 55 ft. preferred. In extreme cases, up to 75’ may be allowed.
  - Mast arms are located 10 ft from the edge of pavement without curb; or 2 ft from the back of shoulder, whichever is greater.
  - Mast arms are located a minimum 5 ft from the face of curb.
  - Each signal head is aligned with the center of each lane.
  - A near right signal is provided unless waived by the Bureau of Operations.
  - A distance less than 150 ft from the stop bar is provided for at least one of the two signal heads.
- All existing and proposed signs are shown and labeled.
- All existing pavement striping is shown, and all proposed pavement striping is shown and meets the following design criteria:
  - All existing conflicting pavement markings have been removed.
  - All stop bars are shown, stationed, and labeled. 12-inch stop bars are provided for speeds < 45 mph; 24-inch stop bars are provided for speeds ≥ 45 mph. Stop bars are located in accordance to the MUTCD and are 10 ft - 30 ft from the edge of pavement.
  - All flush painted medians utilize 45° 12-inch diagonals spaced 20 ft for speeds < 45 mph and 30 ft for speeds ≥ 45 mph.
  - A painted envelope is provided around islands using 45° 12-inch diagonals spaced 10 ft apart. Channelization around the island requires 8-inch white lines.
  - Crosswalk lines are 6-inch minimum, or one-half the width of the stop bar. Crosswalks maintain a 6 ft width between lines. A 4 ft width is maintained between the crosswalk and the stop bar.
  - Auxiliary lane arrows are spaced 25 ft from the ends of the storage bay. If the space between arrows is greater than 150 ft, then a third arrow is placed. No auxiliary bay has more than 3 arrows, unless directed otherwise by the District.
- All raised corner islands conform to District policy and meet the following design criteria:
  - Islands are offset the width of the approach shoulder, and are not to exceed 8 ft.
  - Island sides are a minimum 12 ft, but preferably 15 ft after rounding the corners.
  - Islands are a minimum 75 sq ft in urban areas and 100 sq ft in rural areas.
  - Ramped noses are not used where traffic signal posts, telephone poles, or crosswalk cutouts exist.

- All pertinent dimensioning is shown. These include, but are not limited to:
  - Existing and proposed lane and shoulder widths
  - Existing and proposed shoulder and curb and gutter types
  - Stationing for stop bars, storage bays, tapers, etc.
  - End points of all curves
  - Compound curves are called out and include offsets to tangent
  - Edge to centerline widths for each leg
  - Centerline to median edge and/or lane lines
  - Edge of pavement to raised island

### **Horizontal and Vertical Alignment**

- Horizontal curve information is included with superelevation rates and transition stations for all existing and proposed curves.
- All horizontal curves conform to District policy and meet or exceed the minimum curve radii, and provide policy superelevation rates based on functional classification. Superelevation rates, transition lengths, and tangent runout lengths have been calculated and are accurate.
- All horizontal curves meet minimum length of curvature, but do not exceed the maximum length of curve.
- All grades through the intersection are less than 3% for State maintained routes and less than 4% for local roads and entrances.
- All side roads drain away from the intersection at a minimum 1% and maximum 2% for the expected storage distance or 50' minimum.
- All vertical curve lengths meet or exceed minimum curve length  $3V$  for speeds  $\leq 60$  mph or  $5V$  for speeds  $> 60$  mph.
- All vertical curves meet or exceed stopping sight distance and have been adjusted for downgrade.
- The profiles have been checked for proper drainage. The low point and superelevation transitions are located at points that will not cause water to be trapped and cause ponding.
- Profiles show the project limits and all points of intersection.

### **Turning Movements**

- Right turn movements have been verified and a 2 ft clearance is maintained from the edge of pavement or the face of curb.
- Left turn movements have been verified and avoid using right turn flares to complete a movement.
- The design vehicle has been used to verify the 10 ft clearance between opposing lefts for protected and permissive left turns.
- Dual left turn movements utilize an SU in the inside lane and the design vehicle for the outside lane.

### **Projects with Multiple Intersection Design Studies**

- An overview sheet has been provided showing the entire project limits and each intersecting road. This sheet is printed to 1":50' scale and has a title block only. This sheet does not include any notes, charts, or a signature block.
- An IDS is provided for each intersecting road and a signature block is provided for each. Each IDS is printed to 1":20' scale.

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## **Hydraulic Review Requirements –District 8 Only**

Updated: 6/02/2023

Responsibilities and Departmental policies regarding drainage and Highway Access Permits are outlined in Section 1-500 of IDOT's *Drainage Manual*. The "DRAFT" rules titled "Permits for Drainage Outlets" are listed in Addendum 1-803 of IDOT's *Drainage Manual* and will be adhered to in obtaining a permit from the Department. These rules are attached as reference.

Drainage plans should accompany any construction plans and should include the following:

- Plans and calculations showing the existing runoff conditions for the 10-year and 100-year storm events. These shall be in accordance with procedures outlined in IDOT's *Drainage Manual*, Chapter 1, Section 106 and Chapter 2.
- Bulletin 75 shall be used for all drainage calculations. A 50-year storm event shall be used when designing storm sewer systems.
- Drainage area maps for pre- and post-development drainage areas.
- Drainage narrative describing the existing conditions and proposed impacts.
- Detention should be provided to ensure no increase in runoff into the State drainage system(s). Detention setbacks must meet the requirements of Public Act 86-616. A cross-section from the edge of pavement through the detention basin may be required as documentation of compliance with the Public Act.
- Direct connection into existing storm sewer along the State highway is prohibited. All discharge pipes must terminate at a point 10' behind the right-of-way line. Refer to IDOT's policy regarding accepting effluent as surface water in the attached section 11-900 of the *Bureau of Operations Maintenance Policy Manual*.
- No plastic pipes or french drains will be permitted on State ROW. All pipe culverts and storm sewer shall be reinforced concrete culvert pipes (RCCP).
- Drainage studies and/or hydraulic reports along with calculations should be submitted electronically.