

Delaware County Engineer's Office (DCEO)
Final Engineering and Construction Plan
Abbreviated Review Checklist

The Delaware Co Engineers Standards Manual
can be found on the Design Resource Page at:
<https://engineer.co.delaware.oh.us/development/development-resources/>

<p>Proper design year storm used for Drive Pipes (10-year)? Drive pipes been sized for all drives? Drive pipe table on plans? y/n Co. standards used to compute design year flow (See Sec 900)? y/n Proper drive pipe length provided per Section 800, Section 802 H?</p>	<p>All structure/buildings upstream of culvert(s) must be shown on this plan. Provided? y/n Negatively impacted? y/n These headwater pools must also be shown on this Plan. Provided?</p>
<p>INTERSECTION SIGHT DISTANCE (ISD) – (See Section 602) ISD in accordance with ODOT L&D Manual, Current Edition? y/n ISD Exhibits required in final engineering plans. Notes: A. To maintain required "Clear" Sight Distance of Obstacles, County Engineer shall restrict the height of Embankments, locations of Buildings, Landscaping, and Screen Fencing in this area. B. At Intersection with Collector Street or above a 90-Foot (min) Clear Sight Distance area shall be provided. If more than 90-feet is required for ISD, this amount needs shown on the final plans. The actual length for clear sight distance shall be based on the ODOT L&D Manual, current ed. No landscaping or feature greater than 30" in height shall be permitted within this area. An exhibit showing this Clear Sight Distance area shall be submitted with the Final Engineering Plans and certified prior to the acceptance of the street onto the Public System. C. The Controlling Sight Distance Requirement shall be as set forth in the table at the end of Section 602 of the County Standards. The classification of the intersecting streets shall be as determined by the County Engineer. DITCH SETBACKS Where pavement widening along existing roads is not involved but the ditch does not meet current County Standards, the ditch shall be set back. See the ditch improvements on Standard Drawing DCED-2130 for what is required. Besides plan and cross sections, has a typical ditch cross section detail been provided on the plans? y/n POND PLANS, SECTIONS, & DETAILS (Section 900 & Standard Drawings) Ponding Tabulations (required and provided) y/n Correct Design Year Storm used for basin sizing?</p>	<p>POND PLANS, SECTIONS, & DETAILS (Cont'd) All pond outlet storm profiles must show and call out an anti-seep collar. Shown and called out? y/n Orifice Plate Details if used? y/n Orifice plates cannot be attached to endwalls or on the outlet pipe side of storm control structures. CULVERTS (403B) Is culvert material type per current Standards. All culverts beneath multiuse paths shall be backfilled with compacted granular backfill. Minimum cover from top of pipe to bottom of subgrade must be 24 Inches. A variance request is required for each pipe with less than the 24". Under no case shall a variance be granted if the minimum cover is less than 9". If variance approved by the County, has RCP pipe been called out with concrete encasement (required)? Detail drawings of all bridges, culverts/sewers 36" or greater provided, which follow ODOT L&D Manual and Bridge Design Manual? Plans scale shall be provided at 1"=10'? y/n For all culverts 36-inches in diameter or larger, shop drawings shall be submitted to the County Engineer for approval. For all bridges that are eventually going to be within public R/W, the plans needs to include a note that reads: 1. Shop drawings for the bridge need signed and sealed by an Ohio Registered PE and need submitted to the County before the bridge is cast. 2. The Fabricator also needs to sign and seal the load ratings for the bridge. Bridges must be approved by the County Engineer. INTERSECTION & CUL-DE-SAC DETAILS- Scale 1"=20' or 30'? y/n Spot elevations at centerline and along edge of pavements? y/n Adequate slope at corners? (No bath tubs holding water) y/n At connections of a new subdivision road with an existing roads, provide a full depth sawcut of the existing road a minimum of 1 foot from the edge of the existing road, with the final width of pavement sawcut to be determined by the County Engineer based on conditions onsite. Seal Joint per Item 401.08.B</p>
<p>STORM SEWER PROFILES Proper headwalls called out? y/n Headwalls are Cast-in-Place or Pre-Cast. For all pre-cast walls shop drawings shall be submitted to the County Engineer for approval. Storm sewer material per current Standards? y/n 5-Year HGL elevation line provided on the profiles? y/n (Insure that it does not exceed the top of inlets or window elevation) Has the 100-year water surface in the pond been compared to the top of castings of the storm sewer and grading to make sure water will not bypass the basins for the 100-year storm? y/n Clearance of all storm sewers shown – show in profile? y/n Has the maximum depth per current DCEO standard drawing(s) been verified for each catch basin(s)? y/n Storm Sewer Pipes will fit structures called out in the plans?</p>	<p>STORM SEWER PROFILES (Continued) Pipes have a minimum of 18 inches of cover beyond pavement and shoulders. y/n Curb inlet pipes shall not exceed 21-inch diameter. y/n Storm Pipes (main storm line) shall be separated from all inlets if the pipe diameter is > 21 inches unless a double inlet will allow the pipe to work. Pipe type, class, etc. shown in profile and carried to Estimated Quantities? Has Item 912, Compacted Granular, been shown beneath the roadway. y/n? Rock Channel Protection or other acceptable erosion protection provided where necessary (See Supplemental Specifications for design method.</p>
<p>BASIN PLANS All offsite flow srom upstream tributary areas been accounted for (either routed around or through the basins)? y/n See Section 904 G. Emergency spillway shown for >100-year storm? y/n BASIN PLANS (Continued) If retention basin is used for both water quantity & quality requirements, the more restrictive requirement shall apply if a conflict arises between two portions of the Standards (Section 904 G 5). Section 900 including Section 904 G? If an existing pond is to be used as a storm water control facility, the pond must be evaluated per current requirements (See Section</p>	<p>BASIN PLANS (Continued) Offsite water accounted in emergency spillway design if the offsite water was routed through the basin(s)? y/n Contours below normal pool elev on all wet ponds shown? y/n An ingress and egress easement is provided to and around all basins provided? y/n (Minimum of 15 feet wide) comply with requirements in the Standards. y/n BASIN PLANS (Continued) A paved channel or perforated pipe underdrains with an adequate outlet provided within detention basins with bottom slopes less than 2%. Provided? y/n</p>