

**Site Engineering Requirements
City of Lancaster
Department of Engineering**



Last Updated: December 2025

DESIGN SUBMISSION

Plans

All construction plans shall be digitally submitted as a PDF file, along with 3 full size and 3 half size sets. PDF sheets and full size sheets shall be formatted as 22"x34" sheets and have a minimum text size of 0.14". Half size sheets shall be printed on 11"x17" paper. All scales used shall be standard scales and a minimum of 1" = 30'. An exception to this is schematic plan sheets may be a minimum of 1" = 50'. Once final plans have been approved a 22"x34" archive quality mylar title sheet shall be submitted for signatures. At the conclusion of the project, the contractor's as-built drawings shall be utilized by the engineer to complete record drawings. Record drawings shall be submitted on 22"x34" archive quality mylar and also digitally submitted as a PDF file and an AutoCAD file.

A set of construction drawings should contain the following sheets, as applicable:

1. Cover/Title Sheet
2. General Notes Sheets
3. Street Plan and Profile Sheets
4. Basin Sheets
5. Storm Sewer Plan and Profile Sheets
6. Water Plan and Profile Sheets (if not included on Street Plan)
7. Sanitary Sewer Plan and Profile Sheets
8. Grading Plan Sheets
9. Erosion and Sediment Control Plan Sheets
10. Street Lighting Sheets
11. Frontage and Off-site Improvements Sheet
12. Street Cross Section Sheets
13. Signage and Striping Plan
14. Maintenance of Traffic Plan

Plans for sanitary sewers may be submitted separately to allow for earlier approvals and start of construction. This should only be done with the knowledge that revisions and

field adjustments may be needed once site plans are approved. It is the responsibility of the designer to coordinate any changes between the sanitary plans and the street, water, storm, and grading plans. In the case of large or phased developments, a master utility plan may be required.

The minimum plan requirements shall be:

I. Cover/Title Sheet

1. Vicinity Map.
2. Bench Marks and Datum.
3. Estimate of Quantities.
4. Index of Sheets.
5. List of applicable Standard Drawings.
6. General Note 000 (regarding applicable specifications)
7. Any required Special Notes.
8. Ohio Professional Engineer's signature.
9. Developer's Statement of Intent (for privately funded projects only).
10. Index/Overall tributary area map.
11. OUPS symbol and phone number.
12. Name, Address, and Telephone Number of the developer and consultant preparing the plans.
13. City signature block.

II. General Notes Sheet(s)

1. These sheets shall contain a listing of the current General Notes that apply to the project being constructed by the plans. The note number and note should be shown in numerical order.

III. Plan View Guidelines

1. North Arrow pointing either to the top or the left of the sheet.
2. Scale shall be no less than 1" = 30'.
3. Proposed work shall be the heaviest line weight on the sheet.
4. All new structures shall be located by dimensions or station offsets and numbered. Numbering shall begin at 1 at the most downstream point and increase in numerical order in the upstream direction.
5. All new mains shall be located by bearings and distances.
6. The proposed sewer line shall be stationed increasing from the downstream most end (and not from the street centerline).
7. If any match lines are required, they shall be at even 100 foot stations.
8. Label adjacent property owners.
9. Label pavement replacement type and location, if required.
10. Show all existing utilities as dashed lines and label type and size.
11. Note material of pipe that is to be used.
12. Note type of bedding that is to be used.
13. Label location where tunneling or steel casing pipe is to be used, especially under streams and railroads, if required.
14. Centerline Stationing (West to East or South to North) with 50 foot stationing. Existing Centerline shall be stationed from plan.
15. Centerline Bearings and Distances
16. Beginning and Ending Work Stations
17. Typical Section with relative Stations
18. Intersection Details
19. Cul-de-Sac, Eyebrow, and other Special Paving Detail
20. Street Geometric Information
21. Curb Geometric Information
22. Right-of-Way Widths (Existing and Proposed)
23. Edge of Pavement
24. Joint Sawing Diagram (If Applicable)
25. Pavement Relief Joints (If Applicable)

26. Street Names
27. Lot lines and Lot Numbers
28. Existing topography with one foot (1') intervals
29. Guardrails, signs, and other miscellaneous items
30. Work and clearing limits
31. Temporary and permanent easements, including widths

IV. Profile View Guidelines

1. Scales shall be a minimum 1" = 30' horizontal and 1" = 30' vertical for road profiles, and 1" = 10' horizontal and 1" = 10' vertical for sewer profiles.
2. Stationing and numbering of proposed sewer and structures shall match plan view.
3. Show and label all proposed and existing utility crossings and street crossings with appropriate stationing.
4. Label proposed structure types and stationing with regards to the sewer.
5. Label sewer pipe with respect to material, size, length, and slope.
6. Show any existing features as a dashed line type and label with an existing drawing number.
7. Show special backfill limits with appropriate stationing.
8. Show and label existing and proposed ground surfaces which are to be cut along centerline of sewer.
9. Label elevations of stubs or bricked openings in manholes that are for future use.
10. For plan clarity, only one utility shall be shown on the street profile. This utility will be the utility that most parallels the centerline of the street and will generally be the water line. If needed and approved the gas line may also be shown on the street profile. All other profiles shall be shown as separate drawings.
11. Profile grades as Top of Curb (both sides) or Centerline where there is no curb.

12. Vertical Curve Information

13. Stations and elevations for beginning of project, end of project, PC and PT points, Grade Breaks, Curb Returns, Centerline Intersections, Eyebrows, Cul-de-sacs, and other points necessary for construction staking.

V. Basin Sheet Guidelines

1. Scale shall not be less than 1" = 30' horizontal and 1" = 30' vertical.

2. Plan and cross sectional view should be provided.

3. Information on field staking/locating should be included.

4. Plan view should include:

a. Existing grades

b. Proposed grades

c. Appropriate storm sewers

d. Property lines

e. The view port should show enough around basin to be able to easily locate it in project.

f. Show emergency spillway

g. Any other information to aid in construction and clarification of operation

5. Cross sections should include:

a. Existing ground

b. Proposed grade

c. Label normal water surface (if applicable)

d. Label 100 year water elevation

e. Label safety bench

f. Label emergency spillover elevation

g. Any other information to aid in construction and clarification of operation

6. Any special notes required for this construction should be included

VI. Grading Plan Guidelines

1. Scale shall not be less than 1" = 30'.
2. North Arrow
3. Lot Numbers
4. Street Names
5. Existing Topographic Information
6. Lot Hold Down Information (If Applicable)
7. Top of Casting Elevations
8. A sufficient number of spot grades to build the site from and to demonstrate drainage scheme of development should be shown. Spot elevations shall be provided at the right-of-way, the house, the rear lot lines, and grade breaks. A commercial or multi-family site will need a staking plan to layout the site for construction. The plat serves this purpose for a subdivision.
9. Finished ground elevations and first floor elevations for all proposed buildings should be shown.
10. Site layout including street centerlines, curb, right-of-way, building line, lot lines, and street names.
11. The path of the 100 year storm water routing should be shown.
12. Special Flood Hazard Areas
13. Stormwater Management System and Structure Numbers
14. Landscaping and buffer areas
15. Confirm that grades comply with ADA requirements (drives, sidewalks, parking, etc.).
16. Upon request, a driveway detail and profile shall be included.

VII. Erosion and Sediment Control Plan Guidelines

1. Scale shall not be less than 1" = 50'
2. Site layout
3. Proposed control measures in the heaviest line weight on the page
4. Legend for the drawing

5. Any general or special notes required
6. Flood routing information
7. Erosion and Sedimentation Control Narrative, including:
 - Name and Address of Owner or Operator
 - Facility Name and Address
 - Type of Facility
 - Name of Receiving Water
 - Description of Project
 - Estimated Timetable
 - Acres to be Disturbed
 - Location and Type of Construction Activity
 - Map of Site
 - Proposed measures to control stormwater pollution
 - Existing site conditions
 - Soils
 - Land use
 - Areas of Concern

VIII. Street Lighting Plan

1. Scale shall not be less than 1" = 50'
2. Site Layout
3. Proposed Light Locations
4. Proposed Circuit Layout
5. Legend for Drawings
6. Light type, manufacturer, and product number

IX. Frontage and Off-site Improvements

1. Existing and Proposed Pavement Width
2. Existing and Proposed Sidewalks
3. Existing and Proposed Curb Location
4. Existing and Proposed Structures
5. Existing and Proposed Ditch Centerlines
6. Typical Section
7. Beginning and Ending Stations
8. Signage and Striping

9. Maintenance of Traffic Plans
10. Limits of Planing
11. Existing and Proposed Utilities and Relocations
12. Lane Width
13. Utility Sleeve Locations
14. Plan and Profile views, as described above
15. Proposed drive culverts
16. Signage and Striping Plans

X. Street Cross Sections

1. Scales shall be a minimum 1" = 10' horizontal and 1" = 10' vertical.
2. Cross Section shall be from Right-of-way to Right-of-way
3. Ditch slopes
4. Pavement section
5. Cross sections shall be shown at every 50 feet, in addition to intersections and other appropriate locations
6. Underground Utilities
7. Existing ground and proposed elevations
8. Cut and Fill calculations
9. Station Numbers to match plans

Calculations

Appropriate calculations to document and justify the engineering design of the project shall be submitted for review. The calculations shall be stamped by the design engineer. A partial list of calculations that may be required is given below. All of these calculations may not apply to every project.

- Required
 - Storm Sewer Design Calculations – Indicating drainage to and capacity of storm sewers
 - Culvert Design Calculations – Indicating drainage to and capacity of culverts
 - Channel Calculations – Indicating drainage to and capacity of all channels (for new construction)
 - Storage Calculations – Indicating the amount of storage required and amount provided
 - Orifice Calculations – Indicating sizing
 - Weir Calculations – Indicating sizing
 - Other calculations, as required.

- If requested
 - Downstream Capacity Calculations-Verifying capacity of downstream systems
 - Spread Calculations – Indicating the gutter capacity of streets and amount of pavement flooded
 - Grate Calculations – Indicating the capacity of inlet grates to handle storms
 - Time of Concentration Calculations – Documenting existing and design time of concentration
 - C and CN Calculations – Documenting existing and design C and CN values
 - Other calculations, if requested.

Tributary Map

A tributary map showing all areas draining to the proposed stormwater system shall be provided. The map shall be no smaller than 1" = 100' and include both upstream and downstream areas tributary to the drainage system. All proposed stormwater facilities shall be shown with the appropriate tributary boundaries for each inlet, structure or basin. The routing path for major storms shall be indicated.

Department Contact Information

Engineering Department

121 E. Chestnut Street, Suite 100 Phone: (740) 687-6614
Lancaster, Ohio 43130

Certified Building Department

104 E. Main Street Phone: (740) 687-6649
Lancaster, Ohio 43130

Lancaster Municipal Gas

1424 Campground Road Phone: (740) 687-6670
Lancaster, Ohio 43130 Fax: (740) 687-6672

Department of Transportation

815 Lawrence Street Phone: (740) 687-6668
Lancaster, Ohio 43130 Fax: (740) 687-6694

Division of Water

420 W. Sixth Avenue Phone: (740) 687-6630
Lancaster, Ohio 43130 Fax: (740) 687-6638

Water Pollution Control Department

800 Lawrence Street Phone: (740) 687-6664
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