VILLAGE OF ADDISON
ENGINEERING DESIGN CHECKLIST FOR
COMMERCIAL / INDUSTRIAL / SUBDIVISIONS

The documentation listed below are minimum requirements for plan submittals and may include more or less than what is shown based on the specific project.

General Documents Required for Commercial / Industrial / Subdivision Permits

- Complete set of Site Development Plans prepared to an engineering scale. Plans shall be signed and sealed by an Illinois Licensed Professional Engineer.
- An itemized engineer's cost estimate of all on-site and off-site improvements.
- A completed Village of Addison Stormwater Management Certification Application (fillable PDF is available on the Village's website)
- A complete tabbed Stormwater Management Report. A copy of the report will be forwarded to the Village's Stormwater Consultant for review.

General Design Requirements for Engineering Plans

1. Plans shall be designed in accordance with the Village of Addison Standard Specifications for Design and Construction latest edition, along with all other required Federal, State and Local regulations as applicable.
2. Plans shall typically include the following sheets:
   A. Cover Sheet
   B. Existing Topographic Survey
   C. Demolition Plan
   D. Site Plan (Geometric & Paving)
   E. Grading Plan
   F. Utility Plan
   G. Soil Erosion Plan
   H. General Notes
   I. Details Sheet
3. The Cover Sheet shall have the following information:
   A. Location Map
   B. Benchmarks
   C. Legend
   D. Index of Sheets
   E. Engineer's Seal with signature and date
   F. General Notes
   G. Title of Project
   H. Information Data Block
   I. Design Engineer's Certification that the development meets the minimum criteria for stormwater management (Village will provide).

J. Design Engineer's Certification that the development meets the ADA Act and the IAC Code (Village will provide).

4. Establish Project Benchmarks on all fire hydrants within 300' of the project. Use the north east flange bolt where applicable, at all other times use the flange bolt at tip of open arrow. A minimum of two (2) benchmarks shall be established.
   a. A minimum of two vertical geodetic control points shall be established on or adjacent to the project to tie the elevations of each project to NAVD88. (15-33)
   b. Indicate the location of at least two DuPage County Benchmarks on NAVD88 datum that are used to set the site benchmark. (15-33.B)
   c. Indicate the Datum used on the Grading Plan.
5. On the Cover Sheet, include an "Information Data Block" with the following information:
   a. Square footage of the parcel.
   b. Zoning of the parcel.
   c. Square footage of the proposed building, or square footage of the existing building and any proposed addition
   d. Number of Units in the existing or proposed building.
   e. Square footage of the existing impervious area of the site, the proposed impervious area of the site and change in impervious area.
   f. Square footage of all disturbed areas.
   g. List all Ordinances approved for this site. Include the Ordinance Number and the date the Ordinance was approved.
   h. List all Variations being requested for this site. Include the Ordinance Number and the date the Ordinance was approved.
6. All elevations need to be U.S.G.S. Datum (NAVD88).
7. Show adjoining properties for a distance of not less than 200 feet.
8. Show existing topography, top of foundation elevation, parking lots, streets, utilities, etc.
9. Ground slopes shall be a minimum of 2% and a maximum of 20%. Slopes steeper than 20% may be allowed in certain instances with an approved variation.
10. B-6.12 concrete curb and gutter shall be installed in, and around the perimeter of all parking lots and all new pavement.
11. Show the top of curb and edge of pavement grades.
12. Show striping for parking lots and roadways.
13. Show parking lot lighting. Show the location of the light standards on the Site Plan, and the illumination levels on a Photometric Plan.
14. Concrete wheel stops shall be provided at each parking space abutting a building, an existing sidewalk that is less than 7 feet in width or along the perimeter of a parking lot where curb is not provided.
15. Concrete wheel stops shall be secured to the pavement with a minimum of two (2) steel pins eighteen (18) inches long and one half (1/2) inch in diameter.
16. Each accessible parking space shall have the symbol painted on the pavement. Pavement slopes for the accessible parking space and adjacent access aisle shall not exceed 1:50 (2%) in all directions.
17. Each accessible parking space shall have a Reserved Parking sign (R7-8) and a $250 fine sign (R7-I101). The bottom of the $250 fine sign shall be 5 feet above finished grade.
18. Open cutting of Village streets is not allowed unless absolutely necessary. Any allowed

pavement opening will require a refundable $2,000 bond and a fee assessed at the rate of $125 per square yard of pavement opening ($500 minimum).

19. Provide parking lot calculations on the Site Plan.

Single Unit	Retail	
1 space / 250 s.f. of office	1 space / 180 s.f.	0 - 9,999 s.f.
1 space / 1,500 s.f. of warehouse	1 space / 250 s.f.	10,000 - 40,000 s.f.
1 space / 1,500 s.f. of manufacturing	1 space / 250 s.f.	> 40,000 s.f.

Multi Unit

1 space / 250 s.f. of office

8 spaces / first 3,000 s.f. of warehouse (each unit) 1 space / each 1000 s.f. thereafter

20. Residential / Arterial street pavement:
    Sub-base: 4 inches of compacted crushed limestone (CA-6).
    Prime: 0.35 gal. per square yard.
    Binder: 8 inches / 9 inches Arterial
    Surface: 2 inches.
21. Commercial / Industrial street pavement:
    Sub-base: 4 inches of compacted crushed limestone (CA-6)
    Prime: 0.35 gal. per square yard.
    Binder: 10 inches.
    Surface: 2 inches.
22. Parking Lot pavement:

Asphalt

Sub-base: 12 inches of compacted crushed limestone (CA-6)
Prime: 0.35 gal. per square yard.
Binder: 2 inches.
Surface: 2 inches.

Concrete

Sub-base: 4 inches of compacted crushed limestone (CA-6)
Reinforcement: No. 6 welded wire fabric
Concrete: 8 inches.

23. Street Patch (when permitted by the Village through the issuance of a Street Opening Permit):
    Trench Backfill: CA-6 deposited in uniform layers not exceeding 12 inches thick. Each layer shall be compacted by mechanical methods to 95% modified proctor density.
    Sub-base: 4 inches of compacted crushed limestone (CA-6).
    Prime: 0.35 gal. per square yard.
    Binder: 8 inches residential, 10 inches commercial/industrial, 11 inches arterial
    Surface: 2 inches, all areas.
24. Type 1 Frames with Open Grates, shall be furnished with an R-2015 grate, with the words "Dump No Waste, Drains To Waterways" imprinted on the grate.
25. A Neenah R-4340-B grate, when allowed, shall not be used on any restricted depth structure without the use of an adjusting ring, 6 inch minimum in size.
26. Type 1 Frame and Grates shall be used for all closed lid structures with a Type "B" lid

design and the corresponding word “Sanitary”, “Storm” or “Water” imprinted on the lid. Frame and grates used in paved areas shall be Neenah R-1713 while those in non-paved areas shall be Neenah R-1700-A.

27. Show elevations of all utility crossings, using a utility crossing schedule. Correct any conflicts. Add any special notes.
28. Blind tie connections are not permissible for storm sewers. Structures shall be used for all connections.
29. Granular trench backfill (CA-6) is required up to the subgrade for all trenches under or within 2 feet of any paved surface (existing or proposed).
30. Each residential lot shall have access to a rear yard drainage structure. A 4 inch minimum diameter sump pump stub shall be provided to the lot from that structure.
31. Valve Vaults are required for all valves 4 inches and larger.
32. Water and Sanitary services shall be provided to the center of each residential lot with 10 foot minimum horizontal separation, and shall extend from the main line to a minimum of 5 feet beyond the right-of-way.
33. B-Boxes shall be located in the parkway so they are 8 – 10 feet from the front property line. B-Boxes shall be a minimum of 2 feet from all paved surfaces.
34. Provide stormwater management calculations.
35. Provide on-site storm sewer design calculations when requested.
36. Pipe in pipe restrictors are not approved for use in Addison. Stormwater routing should be through an outlet control structure catch basin that will provide a controlled discharge rate. This will require one (1) restrictor within a baffle wall and a Vortex Valve attached to the incoming side of the baffle wall. The restrictor should be located at the invert elevation of the incoming pipe and sized to convey the 100-year critical duration storm event discharge of no more than 0.10 cfs per acre. The elevation of the top of the baffle wall shall be set at the 100-year HWL. The overflow within the outlet control structure should be capable of conveying flows in excess of the 100-year storm event.
37. Provide a detail of the outlet control structure. Show the size and invert elevation of the restrictor along with the elevations of the rims and top of baffle wall.
38. Provide calculations for the control structure verifying that the structure is designed for the maximum release rate at the 100 year high water elevation, and the conveyance of the runoff from the 100 year high water to the one (1) foot free board elevation.
39. Provide calculations verifying that the downstream storm sewer has the capacity to convey the run off from the 100 year storm from the basin. If not, provide a spillway.
40. Show flood routing.
41. Provide 1 foot of free board above the 100 year high water level.
42. Maintain a minimum of 10 feet plus 1.5 times the depth of the basin, to any adjacent property line.
43. Maintain a minimum bottom slope of 2% for all dry basins.
44. Provide an aerator, complete with an operation and maintenance guide, for all wet bottom basins.
45. Provide Stormwater Easements over all stormwater facilities.
46. Where wetlands are involved, provide an operation and maintenance guide, prepared by a professional naturalist.
47. Maintenance and Monitoring will be required for all Wetland and Native planted basins

and/or PCBMP's.

48. All PCBMP's installed will need to be recorded as a note to title for the property.
49. Fire lanes shall be provided when any portion of an exterior wall is located more than 150 feet from the fire department access point. Fire lanes shall be a minimum of 20 feet in width. The nearest edge of the fire lane to the building shall be a minimum of 10 feet, and a maximum of 30 feet. Fire lanes shall be constructed to withstand the weight of a 72,000 pound vehicle exerting 120 P.S.I. minimum. All fire lanes shall be posted "Fire Lane, No Parking".
50. Show the location of the grease trap for any unit serving food.
51. Provide Field Locking Gaskets on the last 60' of a dead end watermain.
52. Provide a 10' Public Utility and Drainage Easement on each side of a watermain.
53. Fire hydrants shall be a maximum of 5' from watermains.
54. Provide a fire hydrant within 50' of a fire department sprinkler connection.
55. Provide dimensions from the property line to all buildings.

NOTE: Underground fuel tanks cannot be located closer than 20' to an IDOT ROW.

Supporting Documents to be provided along with Engineering Plans (as applicable).

1. Include in the plan set the following sheets:
   A. Landscape drawings showing the location, size, common name, botanical name, quantity and key numbers of the various plants and materials to be used. Attach to the plan set and add to the sheet index on the cover sheet.
   B. Subdivision Plat or Plat of Survey for the project showing all proposed easements, and document numbers for all existing easements. Attach to the plan set and add to the sheet index on the cover sheet.
   C. Street/Parking Lot Lighting Plan which shows the location of the light standards, fixture details, location and size of conduit, location of the control center, etc. Illumination levels shall also be shown and for clarity purposes should be on a separate Photometric Plan. Attach to the plan set and add to the sheet index on the cover sheet.
   D. Stormwater Pollution Prevention Plan. Show the location of all on-site storm structures along with all storm structures that are within 300' of the project site. Inlet protection shall be provided for all of the existing and proposed structures within this area through the use of reusable inlet baskets. Some storm structures may require the construction of Sedimentation Basins around them. Include provisions for concrete truck washout.
   E. Retaining Wall plans showing location, height, details, manufacture specifications, etc. Walls that are 3 feet or higher shall be designed by an IL Licensed Structural Engineer and include calculations.
2. Provide I.E.P.A. permit applications where applicable.
3. Provide an I.D.O.T. highway permit where applicable.
4. Provide a DuPage County highway permit where applicable.

5. Provide a Village of Addison Stormwater Management Certification Application (fillable PDF available on the Village's website).
6. Provide the Village with a complete Stormwater Management Report, conforming to the requirements found in the DuPage County "County Wide Stormwater and Floodplain Ordinance" **and** the Village of Addison's "Stormwater and Floodplain Ordinance."

Add the following Statement to the cover sheet of the plans.

STORMWATER MANAGEMENT STATEMENT

TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE STORMWATER AND DRAINAGE OF SURFACE WATERS MEET THE MINIMUM CRITERIA FOR STORMWATER MANAGEMENT IN ACCORDANCE WITH LOCAL AND COUNTY STANDARDS.

DATED THIS DAY OF_____, 20___

_____ (Seal)
ENGINEER

ILLINOIS LICENSED PROFESSIONAL ENGINEER NO. _____

MY LICENSE EXPIRES ON _____

Add the following Statement to the cover sheet of the plans.

ACCESSIBLITY STATEMENT

I,_____, A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THESE SITE DRAWINGS HAVE BEEN REVIEWED TO THE BEST OF MY KNOWLEDGE AND THAT I BELEVE THEY ARE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA), AND THE ILLINOIS ACCESSABILITY CODE (IAC).

DATED THIS DAY OF_____, 20___

_____ (Seal)
Signature

ILLINOIS LICENSED PROFESSIONAL ENGINEER NO. _____

MY LICENSE EXPIRES ON _____

Stormwater Management

It is recommended that a preliminary stormwater management plan be submitted early in the review process to allow time for Village staff and their Stormwater Consultant to discuss the plan.

2,500 SF of New Impervious Area

Projects adding more than two thousand five hundred (2,500) square feet of net new impervious area, cumulatively, require Post Construction Best Management Practices (PCBMPs) per the DuPage County Stormwater and Floodplain Ordinance.

Trash Enclosure:

A Trash Enclosure shall be of masonry construction to match the building, and supported on a poured concrete footing and foundation.

In Lieu of providing a Trash Enclosure:

Pursuant to Section 1213 of the Village of Addison's, Standard Specifications for Design and Construction, a Masonry Trash Enclosure shall be provided. In lieu of providing a Masonry Trash Enclosure, as the owner of this property I agree to keep the trash dumpster inside the building, only bringing the dumpster outside 24 hours before pickup and returning the dumpster back inside the building no later than 24 hours after pickup.

_____	_____	_____
Owner's Signature	Print Name	Date

Trash Compactor in lieu of providing a Trash Enclosure:

Pursuant to Section 1213 of the Village of Addison's, Standard Specifications for Design and Construction, a Masonry Trash Enclosure shall be provided. In lieu of providing a Masonry Trash Enclosure, a Trash Compactor is provided on site. Not adhering to the strict application of the Section to the subject property, will result in no practical difficulties or unnecessary hardships inconsistent with the general purpose and intent of the Section.

General Notes:

Add the applicable Village of Addison's General Notes to the Engineering Plans. Notes will forwarded upon request from the Village's Engineering Department.

Provide one (1) FEMA Bench Mark.

Per DuPage County Ordinance, Section 15-33, all topographic maps and exhibits shall be tied to a minimum of two (2) DuPage County Benchmarks. (NAVD 88).

All elevations shall be tied to the NAVD 88 datum.

NPDES

All permits issued that disturb one (1) or more acres of land shall follow the National Pollution Discharge Elimination System (NPDES) Phase II rules, which include;

1. A Stormwater Pollution Prevention Plan (SWPPP).
2. Certification of the SWPPP by the "Operator", Design Engineer, Contractor, and Sub-Contractors responsible for implementation of the SWPPP,
3. Submittal of a Notice of Intent (NOI) by the "Operator" to the Illinois Environmental Protection Agency (IEPA). Part of an NOI, is a consultation with the Illinois Historic Preservation Agency and the Illinois Department of Natural Resources in relation to Endangered Species. Upon submittal of an NOI, construction may begin upon the approval of the plan:
    A. Forty eight (48) hours after the date the NOI is postmarked, if the project had established compliance with the Illinois law regarding Illinois historic preservation and endangered species requirements prior to submitting the NOI; or
    B. Thirty (30) days after the date the NOI is post marked, if the project has not established compliance with Illinois historic preservation and endangered species requirements prior to submitting the NOI.

DETENTION BASIN SETBACK

"No detention basin shall be constructed within a distance often 10' plus one and one half times the depth of the basin to any property line unless an easement is established for the purpose of a detention basin across the property line. (See Ordinance 0-91-60)", as per Section 1403 of the Village of Addison Standard Specifications for Design and Construction.