

Development: _____

VOL Permit # _____ PES # _____ Review#: _____

(Information summarized from standard specifications/details, ordinances and practical engineering design standards, not intended to be fully comprehensive)

Table of Contents:

- A. General Information
- B. Required general information
- C. Required design information
 - 1. Engineering Plans
 - 2. Grading information
 - 3. Driveway information
 - 4. Sidewalk information
 - 5. Erosion information
 - 6. Retention of topsoil
 - 7. Parkway Trees
 - 8. Utility information
 - i. Water
 - ii. Sanitary
 - iii. Storm
 - 9. Stormwater Ordinance information (Surface Water Runoff Control/BMPs/Detention Calculations)
 - 10. Other misc. useful information
 - 11. Links to Village Code, Village Specifications, and Details
 - 12. Village Details

A. General Information:

Please do not combine architectural and civil engineering drawings. This helps send architectural plans on quicker for helping to expedite the review process.

Submittal requirements:

- Completed permit application
 - If all contractors are not known at the time of applying, they will be required prior to permit issuance. The contractors will need to have insurance, register, and/or provide a copy of their license before the permit will be issued. The requirements vary based on the contractor type.
- Architectural:
 - 3 sets of plans
- Civil Engineering: 4 sets of plans (24" x36" size maximum)
 - 4 sets of plans (scaled for using an engineer scale (i.e. 1"=10', 20', 30', etc.))
 - 2 sets of stormwater calculations (if required, see below), may be integrated into the plan set, if desired.
- General reminder: street cuts into the following streets must obtain approval from PD/FD/PW & may have restricted hours:
 - Main St, North Ave, Roosevelt Rd, Butterfield Road, St. Charles Rd, Westmore Ave, Grace St, Finley Rd, 22nd St, Route 53, Maple St, Wilson Ave, Madison St, and Highland Ave (south of IL 38)

B. Required general information that should be shown somewhere on the civil plans:

- North Arrow
- Scale
- Benchmarks: Village of Lombard/FEMA Benchmark(s) (if needed, provide equation from VOL to FEMA)
 - Village of Lombard benchmarks are available on the Village's website, just search for benchmarks.
- Revision block
- Professional engineer sign/seal with expiration date

C. Required design information (Village code (§) or specification book references shown in parenthesis):

1. Engineering Plans (§154.403)
 - a. General requirements for engineering plans
 - i. Whenever the constructions of public improvements are required by this Chapter (154), a "registered professional engineer" shall prepare engineering plans and specifications for all required improvements. The registered professional engineer shall also prepare cost estimates for the required public improvements as required by subsection 155.603(A) of this Chapter.
 - ii. The engineer's signature and the imprint of the engineer's seal shall be placed on all copies of required plans, specifications, and cost estimates
 - iii. The engineering plans shall comply with all requirements of the Lombard Specifications Manual
 - b. Final engineering plans
 - i. Detailed depiction and specification for all improvements required by Chapter 154 or other public improvements required by other ordinances of the Village of Lombard or other governmental bodies
 - ii. Compliance with all specifications included in Chapter 154, the Lombard Specification Manual, and other applicable rules and regulations.
 - iii. A comprehensive "Index of Sheets" which provides consistency of arrangement of plan sheets.
2. General grading related
 - a. Permit required (§150.280)
 - b. Submit topographical survey prerequisite to permit (§150.281)
 - c. If topographical survey required submission using U.S.G.A datum, a \$500 refundable deposit required in addition to filling fee. (§150.282) (amount included in the deposit for infill/rebuild lots)
 - d. Retaining walls over 3-ft high require structural design, signed/sealed by IL licensed structural engineer (Village Policy)
 - e. Detention/retention basin side slopes shall be no greater than 4:1 on a residentially zoned lot. (Chapter 200 VOL specifications)
 - f. Parkway: all public right-of-way shall be restored with topsoil and sod or topsoil and seed embedded erosion blanket/mat. The sod shall be installed per section 800 of the specifications manual. (Section 500.17 VOL Specification)
 - g. Following all site construction, but immediately prior to topsoil placement, the subgrade should be scarified to a depth of 4-inches by disking or harrowing to permit the bonding of the topsoil to the subsoil. All final subgrades should have adequate surface drainage prior to the addition of topsoil. In addition, slopes shall be no greater than 3:1 or 4:1 on residentially zoned lots. Otherwise structurally engineered retaining wall shall be incorporated into the design. Embankments or excavations adjacent to public ROW shall comply with 605 ILCS 5/9-115.1 (Section 800.02 VOL Specifications)
3. Driveway related (most utilized information, more detailed information available in the Village Code & Specifications)
 - a. Driveway pavements (§150.301(B)(3), Section 500.13 VOL Specifications)
 - i. Flexible (Bituminous/Asphalt/HMA):
 1. 2" Binder/Surface on 6" Sub-base
 - ii. Rigid (Concrete):
 1. 5" Concrete on 2" Sub-base
 - b. Driveway aprons (§150.301(B)(2), Section 500.13 VOL Specifications)
 - i. Flexible (Bituminous/Asphalt/HMA):
 1. Patches within aprons are not acceptable
 2. 3" Binder/Surface on 6" Sub-base
 - ii. Rigid (Concrete):
 1. Patches within aprons are not acceptable
 2. 6" Concrete on 2" Sub-base
 - c. Construction requirements:
 - i. Slopes of residential driveways shall meet 2%-8% slope on the private property side and 2%-5% on the apron. (driveway detail)

- ii. The minimum lateral separation between the edge of a driveway pavement and any above ground obstruction (i.e. posts, poles, utility boxes, etc.) shall be three (3) feet. Minimum lateral separation between a parkway tree and driveway shall be ten (10) feet. (Village Specs section 500.13(C))
 - iii. Above ground utility cabinets shall be located no less than 20-ft from any residential driveway (§97.012 (B))
 - iv. Location shall comply with §150.300 of Village Code.
 - 1. End of driveway curb cut to prolongation of nearest intersecting street property line not less than 20-ft on near side of intersection & not less than 10-ft on far side of intersection.
 - 2. Distance from end of driveway curb cut to the end of the intersecting street curb rounding not less than 5-ft.
 - 3. Distance from end of driveway curb cut to nearest cross-walk not less than 5-ft
 - 4. Distance from end of driveway curb cut to the nearest lateral property line not less than 5-ft.
 - 5. Where bus stops exist at locations where driveways are desired, the minimum allowable distance between driveways, measured at the curb line of the street shall be 40-ft.
 - 6. No driveway shall be constructed where the edge of the turning lane pavement is greater than 5-ft from the edge of the through pavement.
 - v. Design Specifications (§150.301)
 - 1. Residential driveways shall not exceed 20-ft in width nor be less than 9-ft width measured at the property line.
 - 2. Angle between curb line of street and center line of driveway not less than 60 degrees.
 - 3. Only 1 curb cut for a driveway is allowed per address. (Village Policy) Additional curb cuts require approval by the Director of Public Works. The request should be accompanied by a letter from the applicant addressed to the Director of Public Works stating the hardship requiring the additional curb cut. The approval is highly unlikely, as a paved turnaround can most likely be accommodated on the property for the intended purpose. Variance information in §150.298.
 - 4. All requests for permits for driveways which exceed the dimensions set forth shall be accompanied by a letter from the applicant addressed to the Director of Public Works stating the needs and justification for such additional driveway width. Permits for the construction of such driveways shall not be issued without the specific approval of the Director of Public Works (highly unlikely). Variance information in §150.303.
 - 5. Driveways/patios within 5-ft of the side/rear property line may require a 2" curb for drainage purposes. (Village Policy)
 - vi. Driveway safety standards (§150.302)
 - 1. No driveway will be permitted for the purpose of allowing vehicles to park on the public right-of-way.
 - 2. No driveway will be permitted into any facility which would require and or allow a vehicle to drive or maneuver on the sidewalk area in any manner other than to cross it.
 - 3. In no case shall a driveway be constructed in such a way as to present a hazard to pedestrians or traffic on the public right-of-way.
 - 4. In no case shall any obstruction of any kind be permitted to obscure vehicles entering into public right-of-ways. Such obstructions shall not exceed a height of 30 inches within a depth of 30 feet from front, side, or rear property lines.
4. Public sidewalk related (§154.504, Section 500.12 VOL Specifications)
- a. Minimum width 5-ft and may be wider
 - b. Construct in public right-of-way or dedicated sidewalk easement, typically 1-ft from the property line or easement line.
 - c. Minimum lateral separation between edge of sidewalk and any above ground obstruction shall be 1-ft. Lateral change in sidewalk alignment at 10:1 shall be made.
 - d. Refer to pavement details for required cross sections.
 - e. Sidewalk cuts for utility installation shall be replaced per panel of sidewalk. Partial replacements of a panel are not allowed. (Village policy)
5. Erosion and sedimentation control (§154.408)

- a. Erosion and sedimentation control shall be provided in compliance with the Lombard Specifications Manual which shall establish minimum standards for the avoidance or control of potential environmental problems resulting from the movement of earth or re-sculpturing of the land during, or subsequent to development. Additionally, erosion and sedimentation control shall conform to the applicable standards and requirements contained in standards and specifications for soil erosion and sediment control in Northeastern Illinois, current edition, as compiled by the Kane-DuPage Soil and Water Conservation District
 - b. The following general principles shall apply to any movement of earth and efforts to control soil erosion and sedimentation.
 - i. The smallest practical area of land, as determined by the Director of Community Development, shall be exposed at any given time during development.
 - ii. Such minimum area exposure shall be kept to as short a duration of time as is practical, as determined by the Director of Community Development.
 - iii. Sediment basins, debris basins, de-silting basins, or silt traps shall be installed and maintained to remove sediment from run-off waters from land undergoing development.
 - iv. Provision shall be made to effectively accommodate the increased run-off waters from land undergoing development.
 - v. Permanent, final plant covering or structures shall be installed as soon as possible.
 - vi. The plan of development shall relate to the topography and soils of the site so that the lowest potential for erosion is created.
 - vii. Natural plant covering shall be retained and protected and shall be deemed a dominating factor in developing the site.
 - viii. Wind-blown dust problems shall be minimized by appropriate periodic watering
 - c. Fill permit required. Before any land modification is made, a permit for the proposed work shall be obtained from the Director of Community Development. The application for permit shall be submitted on forms provided by the Director of Community Development and at a minimum shall include the following information:
 - i. All information required on the application form including the location of the proposed work, a grading plan showing existing and proposed conditions and purpose for which the work is proposed.
 - ii. For land modifications, the application shall include the area of land that will be stripped of vegetation, the location of any proposed soil stock piles, the limits of any excavation, the measures taken to keep soil erosion and sedimentation to a minimum, the effects on drainage, schedule of land modification activities including re-vegetation.
 - iii. Grading plan shows the existing land conditions including elevations, drainage, structures and natural objects, and proposed elevations, drainage, structures and natural objects.
 - iv. Land modification shall mean any modification to the existing land surface, including fills or more than 2,500 cubic feet (70.79 cubic meters), excavations of more than 2,500 cubic feet (70.79 cubic meters), drainage changes that will affect drainage onto or off of adjacent property, or surface disturbances of more than 5,000 square feet.
6. Retention of topsoil (\$154,408)
- a. Topsoil shall not be removed from residential lots or used as spoil, but shall be redistributed so as to provide at least six inches of cover on the lots and at least four inches of cover between sidewalks and curbs. Top soil shall be stabilized by seeding or planting.
 - b. All improved areas within the dedicated right-of-way or other public areas shall be graded and seeded, sodded, or planted in an approved manner. Restoration work shall be performed to the satisfaction of the Director of Public Works. All parkways shall be graded smooth and topped with at least four inches of black dirt after compacting and removal of stumps, trees that cannot be saved, boulders, and other debris. Such areas shall be sodded to the satisfaction of the Director of Public Works
7. Parkway Trees
- a. 1 tree required every 40-ft of property frontage, Village takes \$350/tree & Village will plant during spring or fall planting season.
 - b. Spacing of trees (\$99.04(E))

- i. Minimum distance of 10-ft from driveway aprons.
 - ii. Minimum distance of 5-ft from water/sewer lines.
 - iii. Minimum distance of 15-ft from crosswalks.
 - iv. Minimum distance of 15-ft from street light poles and utility poles.
 - v. Minimum distance of 10-ft from fire hydrants.
 - vi. Minimum distance of 15-ft from any traffic control device, not including signs.
 - c. No tree will be allowed to be planted in a parkway less than 4-ft in width.
 - d. Tree protection is required to be provided based on the tree size. Tree protection shall be shown to be a minimum of 1-ft radius from the trunk of the tree for every 1-inch of diameter from the location the tree trunk meets the ground. Damage to parkway tree roots can be fined, per Village code.
8. Utility related
 - a. All street cuts required for utility connections/disconnections shall be patched. There is no longer a requirement to the center of the street. However, if the street is a concrete street, full panel replacement is required.
 - b. Section 500.01 Specifications, any damage to newly constructed or existing improvements (including, but not limited to graffiti) shall be repaired, or replaced, in a manner which is satisfactory to PES Division.
 - c. Water service:
 - i. §154.404
 1. (H): All water distribution facilities shall comply with the Lombard Specification Manual including specifications for required material, corrosion treatment, capacity, sizing, spacing, and installation. All such materials and specifications shall conform to the applicable standards established by the American Water Works Association and all watermains shall comply with the Standard Specifications for Water and Sewer Main Construction of Illinois.
 - ii. Chapter 400 VOL Specifications:
 1. Approved materials:
 - a. Ductile Iron Pipe (ANSI A21.51 or AWWA C-151, Class 52TJ thickness designation
 2. Horizontal/Vertical Separation per section 400.03
 3. Valves shall be installed in pre-cast 60" internal diameter vaults w/ stainless steel valve trim bolts.
 4. Water service lines shall be a minimum 5-ft and maximum 8-ft bury depth.
 5. Minimum water service size is 1-inch.
 6. All lead service lines encountered in the public right-of-way shall be abandoned from the corporation stop to the curb stop and upgraded to 1-inch copper.
 - d. Sanitary service:
 - i. §154.405:
 1. (A) Where a public sanitary (or combination storm and sanitary) sewer is currently accessible, the developer shall install adequate sanitary sewer facilities (including the installation of laterals to the right-of-way). If public sewer facilities are not currently available to the site, the developer shall be responsible for extending the village sewer lines to service the proposed subdivision or development.
 2. (B) In all areas serviced by sanitary sewer systems, the developer shall be responsible for providing separate sewer systems within his subdivision and linking the separate systems into the combined system at the perimeter of the subdivision or development
 3. (E) All sanitary sewer systems shall comply with the Lombard Specifications Manual specifications for materials, jointing, sealing, sizing, infiltration requirements, method and depth of installation, and all other requirements for sanitary sewer systems. All such materials and methods shall conform to the applicable minimum standards established by the American Society for Testing and Materials, and all sewer mains shall comply with standard specifications for water and sewer main construction in Illinois
 4. All required sanitary sewer systems shall be connected with the sewer system of the Glenbard Waste Water Authority. As determined by the Village Engineer, before any connection can be

made, the developer shall apply to the Glenbard Waste Water Authority through the Village for permission to connect. In addition, the applicant shall obtain all necessary approvals of the Illinois Environmental Protection Agency. It is understood that each of the agencies cited above shall operate only within their respective jurisdiction. (as required)

- ii. Chapter 300 VOL Specifications:
 - 1. Additional rules and regulations governing the construction of sanitary sewers in Village of Lombard's Code of Ordinances, Chapter 50.
 - 2. Approved materials:
 - a. Reinforced Concrete Sewer Pipe (ASTM C-76)
 - b. Ductile Iron Pipe (ANSI A-21.51 Class 52)
 - c. Polyvinyl Chloride Pipe (PVC SDR-26, ASTM D-3034)
 - d. Polyvinyl Chloride Pipe (PVC SDR-26, Class 160 PSI ASTM D-2241)
 - 3. Protection of water mains and water service lines from sanitary sewers, storm sewers, house sewer service connections and drains. See Chapter 400 in Specs and §154.306 to 154.406.
 - 4. Depth of pipe sufficient so as to prevent freezing.
 - 5. Manholes located in areas subject to inundation shall be furnished with waterproof, bolt-down frames and covers (Neenah Foundry R-19160-C, East Jordan Iron Works 1022-3PT or equal approved by the PES Division.
 - 6. Drop manhole assemblies are not allowed within the Village without written approval from PES Division.
 - 7. Cleanout for service lines shall be on private property, just on the private side of the property line. (PW Policy)
 - 8. Sanitary service shall be a minimum of 1%, per Standard Specifications for Water and Sewer Construction in Illinois.
- e. Storm sewer
 - i. §154.406
 - 1. The Plan Commission shall not approve or recommend for approval any plat of subdivision or development proposal which does not make adequate provision for storm or flood water run-off channels, basins and/or drainage systems. The storm water drainage system shall be designed in compliance with the Lombard Specifications Manual. A copy of design computations shall be submitted with the engineering plans. Inlets shall be provided so that surface water is not carried across or around any street intersection, nor for a distance of more than 450 feet in the gutter. When calculations indicate that curb capacities are exceeded at a point, no further allowance shall be made for flow beyond that point. Surface water drainage patterns shall be shown for each and every lot and block
 - 2. Where a public storm sewer is accessible, the developer shall install storm sewer facilities connecting to such system; or if no outlets are within a reasonable distance, adequate provision shall be made for the disposal of storm waters.
 - 3. Where storm water detention basins or areas are required, they shall be provided in accordance with specifications and requirements of Lombard Flood Control Ordinance (Title 19.04). All detention basins shall be developed in accordance with the requirements of the Lombard Flood Control Ordinance. All stormwater detention or retention areas shall be located on separate lots of record (outlots) unless otherwise specifically approved by the Director of Community Development or the Board of Trustees.
 - 4. All storm water control systems shall comply with the Lombard Specifications Manual specifications for method of drainage, capacity, detention, type of materials, and method and depth of installation for all storm water control structures and facilities. All such materials and methods shall conform to the applicable minimum standards established by the American Society for Testing Materials
 - 5. All proposed developments shall comply with the requirements established in the Flood Control Ordinance (Title 19.04) of the Village of Lombard
 - ii. Chapter 200 VOL Specifications:
 - 1. As a minimum:

- a. Shall be designed to convey stormwater from a 10-yr storm by gravity flow (without surcharging the sewer). The Design Engineer shall provide necessary plans and calculations (including HGL) to document compliance.
- b. Where a proposed storm sewer or stormwater drainage system connects to an existing sewer or drainage system, the Design Engineer shall furnish any and all studies and calculations to demonstrate that the existing system has the capacity to accommodate the additional flows without adversely affecting the existing system or other properties. (Refer to Chapter 200 of the VOL Specifications for more information.)
- c. All storm sewer systems shall be designed and constructed at a minimum cleansing velocity of 3 fps. (Not a Village requirement, but maintenance wise, it is best to keep the pipe velocity below 10 fps.)
- d. All culverts, storm drain, and sewer pipe shall be of proper type and class for the depths intended and shall have a minimum cover of 2-feet.
- e. Allowable storm sewer materials:
 - i. RCCP
 - ii. Ductile Iron
 - iii. PVC may be used in landscaped areas or for roof drain connections when located under privately maintained paved areas, but only when approved in writing by PES.
 - iv. Pre-coated fully-lined galvanized corrugated steel pipe allowed for residential driveway crossings, only when a ditch section is present.
- f. Trench backfill required for all storm sewers located under or within 2-ft of proposed or existing paved surfaces, stabilized shoulders, curb, or sidewalks.
- g. Storm structures:
 - i. Only inlet type structures or structures without sumps shall be permitted in non-paved areas.
 - ii. During construction silt boxes or filter baskets shall be staked or installed in-place at each structure to prevent debris and foreign material from entering the sewer system. They shall be maintained until vegetation has matured enough to prevent erosion, unless otherwise required by PCBMP requirements. (A piece of filter fabric under the lid is not acceptable.)
 - iii. Manholes shall be located at the junction of 2 storm sewer pipes or at any change of grade, alignment or size of pipe. Maximum spacing of manholes is 300-feet.
 - iv. Storm sewer outlet structures (end sections, FES, box inlets, etc.) with an opening greater than 12-inches in diameter, shall be covered with a grate whose openings are 3-inch horizontal by 8-inch vertical and which is rakeable (STORM 12)
 - v. All FES shall have additional hydraulic cement to provide a 3-inch collar around the connection to the pipe.
- f. Other public utilities (§154.406)
 - i. All public utility lines for telephone, cable television and electric services shall be placed in easements and entirely underground.
 - ii. Where telephone and electric service lines are placed underground entirely throughout a subdivided area, said conduits or a cable shall be placed within easements or dedicated public ways in a manner which will not conflict with other underground services. Further, all transformer boxes shall be located so as to not be unsightly or hazardous to the public. Transformer boxes or other necessary ancillary utility features shall not be installed in front yards except where unavoidable.
 - iii. All gas mains shall be placed within the street right-of-way or within easements.
 - iv. Underground work, either the installation of new, or the repair of existing, sewer and water systems, may not commence until the appropriate public utilities are staked and the Village Engineer has been notified to arrange for appropriate inspection

General reminder: street cuts into the following streets must obtain approval from PD/FD/PW (internal VOL):

- o Main St, North Ave, Roosevelt Rd, Butterfield Road, St. Charles Rd, Westmore Ave, Grace St, Finley Rd, 22nd St, Route 53, Maple St, Wilson Ave, Madison St, and Highland Ave (south of IL 38)

9. **Surface Water Runoff Control/BMPS/Detention Calculations:** Please note, there is no longer a residential subdivision development size allowance anymore as part of the countywide stormwater ordinance (as of the 2012 Countywide Ordinance overhaul). All lots and subdivisions, regardless of size or development type, are now subject to the following requirements. **If the development requires BMPs or detention per the below requirements, a completed DuPage County Stormwater Application is required with the submittal.** The fillable form can be accessed on the Village's website: <http://www.villageoflombard.org/79/Engineering>.
- Stormwater tracking (if no separate detailed calculations are provided, minimally add this as a note on the plans)
- Provide existing impervious coverage in square feet.
 - Existing impervious as of 4/23/13 (for BMP requirements)
 - Existing impervious as of 7/1/12 (for detention requirements)
 - Existing impervious as of 9/1/01 (for compliance with §151.54 (now §151.04(B))
 - Provide proposed impervious coverage in square feet. The proposed is based on building roof line, not the footprint of the structure, per DuPage County.
 - **Note for newer subdivisions, lots are considered for the existing/proposed impermeable coverage based on lot size as of 4/25/12, not the individual lots if the subdivision occurred after 4/25/12.**
 - **Add note if property is being built or substantially developed (§151.55 (now §151.04(A)(D)(1)): “No building shall be started for any property which is being built or substantially improved in accordance with Chapter 151, Chapter 154 or until storm water detention or retention improvements have been completed or installed so that they are operational.”**
 - This does not necessarily mean all final grading is in, but that the system substantially functions in the way it was designed.
 - Some exceptions to this can be found under §151.55(D) (now §151.04(A)(D))
- Is the development a single family residential development? (Lombard requirement)
- Is the new impervious coverage (since 9/1/01) over 500 square feet (cumulatively)?
 - If yes, does the property meet a minimum slope of 1%?
 - If no, a dry well may be required per §151.54 (now §151.04(B)).
 - Does the new impervious area drain toward a depression area? (Please call to ask)
 - If yes, drywell may be required per section §151.54 (now §151.04(B))
 - If storage required per §151.54 (now §151.04(B)), dry well shall be located and sized to contain volume equal to the new impervious area times 0.58 feet of runoff. Existing impervious area to be subtracted from proposed impervious area to determine the increase in impervious area.
- Further detailed calculations are required when the following apply (regardless of development type):
- Is the proposed net new impervious over 2,500 SF, based on existing on 4/23/13?
 - If yes, need BMPs for all new, not just net new impervious surfaces
 - PCBMP (refer to Water Quality Best Management Practices Technical Guidance Manual, Appendix E of the DCSFPO)
 - VCBMP: 1.25” for all impervious surfaces
 - **If a drywell is being proposed, is there a minimum clearance of 2-ft between the seasonal high water table and the bottom of the dry well? (County requirement, due to concern for groundwater contamination)** A soils test must be submitted to verify this requirement. If this cannot be met, fee-in-lieu of providing the BMP will be allowed for the VCBMP portion of the requirement. PCBMPs still need to be addressed if fee-in-lieu is allowed. Note: a drywell provides both PCBMP & VCBMP.
 - Is net new TIA (Total Impervious Area) proposed over 5,000 SF, based on existing on 7/1/12? (Same as County Ordinance, except the amount of square footage when required)
(The other variation from the County Ord is, as the Village is more restrictive than the County's ordinance, until 25,000 SF net new is met, the 5,000 SF TIA is per lot, regardless of when it was subdivided. Once

25,000 SF net new is exceeded for the development, we have to follow the County interpretation of the overall area, not per lot.)

Refer to the County Stormwater Ordinance for any definitions.

- If yes, need detention for all disturbed areas, not just net new impervious surfaces
 - Maximum of 0.10 cfs/acre release rate, based on the 24-hr, 100-yr storm per ISWS Bulletin 71 rainfall depth.
 - For sites less than 5-acres in area, the unit area site runoff storage nomograph from the Northeastern Illinois Planning Commission publication “Investigation of Hydrologic Methods for Site Design in Northeastern Illinois” will be considered an acceptable calculation methodology for determining the volume of site runoff storage required in lieu of modeling. (I have a copy, just ask if you would like one)
 - For sites 5-acres or greater, a hydrologic model that produces a runoff hydrograph shall be utilized.
- **UNLESS** (calculations required):
 - a) the net TIA without detention will be within 5,000 sf of the TIA that existed on 2/15/92,
 - b) the TIA will decrease by at least 5% from its highest level in the past 3 years,
 - c) the TIA will be less than 10% of the entire development property area

Additional helpful items for review for detailed detention review:

- Is soil type and hydrologic soil group properly identified?
- Are calculations done per the allowable methods?
- ISWS Bulletin 71, NE section rainfall statistics
 - Continuous simulations: NOAA continuous record from 1949 to present at Wheaton gage
 - Facilities with trib.
 - Area over 100-acres: perform critical duration analysis & highest peak discharge for conveyance design, testing events up to 24-hr duration.
 - If property has depressional area with tributary area over 20-acres, requires DuPage County review for floodplain regulations.
- Site under 5 acres: hydrograph allowed; however, NIPC/CMAP publication “Investigation of Hydrologic Methods for Site Design in NE IL” nomograph is acceptable calculation method in lieu of modeling. Hydrograph may be required for BMP release timing, per the County Ordinance.
- Over 5 acres, must use hydrograph method
- Utilize NRCS Curve Number (small excerpt below of most used) (from TR-55)

	Average % Impervious Area	A	B	C	D
Open Space : Good (Pervious)		39	61	74	80
Paved (Impervious)		98	98	98	98
Gravel		76	85	89	91
Urban District: Commercial/Business	85	89	92	94	95
Urban District: Industrial	72	81	88	91	93

- Design rainfall depth for 100-yr, 24-hr storm is 7.58” (per ISWS Bulletin 71)
- Release rate: 0.10 cfs/acre, unless existing release rate is less, then lower rate shall be followed
- If 5% or more of the site flows off-site unrestricted, then the flow of that area counts against the allowable release rate of the restrictor. (DCSFPO 15-72.G)
- Overflow conveyance designed for 1 cfs/acre

10. Other Miscellaneous, useful information:

- a. Call 630-620-5750 to schedule inspections
- b. Any property that has special management areas (floodplain, wetland or associated buffer zones) will require a DuPage County Special Management review/certification prior to Village approval/Stormwater certification for a permit. A county pre-application meeting will be required by the county for any projects they need to review, a conceptual idea of the site is required discussion purposes at this meeting. The County’s review timeline varies on the number of special management

areas that are affected. The permit may take a few months to obtain and the process should be started as soon as possible. As of April 1, 2005, DuPage County requires a \$200 application fee that is required at the time of submittal to the County. The fees may change from time to time. Verify these fees on the County's website.

- c. The dimension of the home to the property lines shall be shown. The setbacks (front, sides, and rear) shall be shown or called out on the detailed grading plan.
- d. Any driveways/utility connections in the right-of-ways of other jurisdictions will require a right-of-way permit from those jurisdictions (I.E. IDOT, DuPage DOT, etc.) before a permit from the Village can be issued. To expedite the process, please provide the Village with a copy of those permits once obtained.
- e. **A spot survey is required to be approved prior to the building going vertical from the foundation.**

11. Links to Village Code, Village Specifications, and Details

- Village code and details and specifications/notes are available in both .dwg and .pdf formats on the Village's website, www.villageoflombard.org. Shortcuts are listed below for your use.
 - Village Code: https://www.municode.com/library/il/lombard/codes/code_of_ordinances
 - Village Specifications/Details: <http://www.villageoflombard.org/310/Specifications-Manual>

12. Available Village Details (Use when applicable; otherwise, provide other details):

Storm Details:			
Stm 1:Manhole Type A	Stm 2:Inlet Type A	Stm 3:Catch Basin Type A	Stm 4:Catch Basin Type C
Stm 5:Precast Tee Manhole (1)	Stm 5A:Precast Tee Manhole (2)	Stm 6A:Connection Box for Precast Manhole (1)	Stm 6B:Connection Box for Precast Manhole (2)
Stm 6C:Connection Box for Precast Manhole (3)	Stm 7:Casting Adjustments for Structures in Paved Areas	Stm 8:Casting Adjustments for Structures in the Curb Line	Stm 9:Subsurface Drain Tile Connection
Stm 10:Sump Pump Connection (1)	Stm 10A:Sump Pump Connection (2)	Stm 11:Storm Sewer Trench Section (1)	Stm 11A:Storm Sewer Trench Section (2)
Stm 12:Storm Sewer Grate for Box Inlet	Stm 13:Manhole Step	Stm 14: Open Lid Sediment Protection	Stm 15:Silt Fence Installation
Stm16:Retaining Wall (1)	Stm 16A:Retaining Wall (2)	Stm 17:Split-Rail Fence	Stm 18:Dry Well
Stm 19:Restrictor	Stm 20:Swale		
Sanitary Details:			
San 1:Sanitary Manhole	San 2:Drop Connection to Sanitary Manhole	San 2A:Interior Drop Connection	San 3:Sanitary Manhole Frame & Grate
San 4:Riser w/ Cleanout Service Lateral (1)	San 4A:Riser w/ Cleanout Service Lateral (2)	San 5:Sanitary Sewer Trench Section (1)	San 5A:Sanitary Sewer Trench Section (2)
San 6:Precast Cone and Chimney	San 7:Casing	San 8:Coring Boot	
Water Details:			
Wtr 1:Water Service Tap & Connection	Wtr 2:Hydrant Setting	Wtr 3:Valve Box Installation	Wtr 4:Water Tight Valve Vault
Wtr 5:Valve Vault Frame & Cover	Wtr 6:Thrust Block Installation	Wtr 7:Water Main Trench Section	Wtr 8:Water & Sewer Separation
Wtr 9:Concrete Saddle Support	Wtr 10:Typical Pressure Connection in Vault	Wtr 11:B-Box encasement	Wtr 12:Water Service w/ Hydrant
Wtr 13: Water Service w/o Hydrant			
Pavement Details:			
Pmt 1:Concentric Cul-de-sac	Pmt 2:Sidewalk	Pmt 3A:Handicapped Sidewalk Ramp (1)	Pmt 3B:Handicapped Sidewalk Ramp (2)
Pmt 4:Sidewalk Construction	Pmt 5:Typical Pavement Cross Section	Pmt 6:Residential Driveway Apron	Pmt 7:Commercial Driveway Apron
Pmt 8:Curb & Gutter	Pmt 9:Storm Sewer Inlet Curb & Gutter	Pmt 10:Rigid Pavement Utility Trench	Pmt 11:Flexible Pavement Utility Trench
Pmt 12:Pavement Butt Joint	Pmt 13:Typical Parking Lot Pavement	Pmt 14:Handicap Stall	Pmt 15:Driveway Curb Edge
Lighting Details:			
Lt 1:Lighting Foundation Size Chart	Lt 2A:Lighting Foundation		
Erosion & Sediment Control:			
Land 1: Parkway Tree Protection			