

SECTION VII

GRADING AND LANDSCAPING

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A. REGULATION OF TREES AND RELATED WORK ON PUBLIC PROPERTY

All planting, removal or other construction or development work involving, or occurring near or affecting any tree or shrub in any public street, parkway or other public place shall require a permit therefor pursuant to, and shall in all respects comply with, Chapter 25 of the Municipal Code. All other applicable Village codes and ordinances shall also be followed in connection with such work.

All trees and shrubs planted shall be placed subject to the direction and approval of the Director of Public Works or his designee.

In making excavations in streets, rights-of-ways or other public places, proper care shall be taken to avoid injury to the roots of any tree or shrub, wherever possible.

Shrubbery, bushes, or evergreen bushes now existing in the dedicated right-of-way of any street shall not exceed thirty (30) inches in height. No planting, fence, sign or other obstruction to vision shall be maintained on any dedicated right-of-way, alley, other public ground, or other property if it is detrimental to public health, safety or welfare.

B. PROTECTION AND RESTORATION REQUIREMENTS

1. Protection of Property and Surface Structures

Trees, shrubbery, irrigation and sprinkler systems, fences, poles and all other property and surface structures shall be protected during construction operations. Trees shall be protected pursuant to the requirements of the Municipal Code. All fences, poles or other man-made surface improvements which are moved or disturbed shall be restored to their original condition after construction is completed. Any trees, shrubbery or other vegetation, which are approved for removal shall be removed completely, including stumps and roots. Responsibility for any damage or claims for damage caused by construction operations to shrubbery or other landscape improvements, which were not authorized for removal, or trimming shall be assumed by the contractor/developer and/or owner. Settlement of any damage or claims for damage shall be made by the contractor/developer and/or owner as soon as possible and in a manner satisfactory to the Village Engineer.

2. Restoration of Existing Improvement Surfaces

The contractor/developer shall restore all pavements, sidewalks, driveways, curbs, gutters, trees, shrubbery, lawns, fences, poles, public utilities, and other property and surface structures removed or disturbed during or as a result of construction operations to a condition which is equal in appearance and quality to that which existed before the work began. The surface of all improvements shall be constructed of the same material and match in appearance the surface of the improvements which were removed.

3. Cultivated Lawns

When cultivated lawns are damaged as the result of construction activities, the areas so damaged shall be restored by furnishing and placing topsoil and sod as detailed in this Section and where directed by the Village Engineer with a minimum one (1) year guarantee period.

4. Protection of Existing Trees and Shrubs

(a) Code Compliance:

The developer shall comply with the requirements of Chapter 25 of the Municipal Code in connection with all work in the vicinity of, or affecting, existing trees and shrubs in any way, whether such trees and shrubs are located on or off the site being developed.

(b) Village Engineer Review:

The developer's proposed methodology for saving existing trees shall be reviewed by the Village Engineer and work shall only be in accordance with an approved tree construction activity plan. If, in the opinion of the Village Engineer, the developer has not taken the necessary precautions to preserve the tree asset, the Village Engineer, or his designee, may issue a stop order on all site development work in progress.

(c) Tree Plan Approval:

The criteria for approving a tree plan shall include all applicable requirements of Village codes and ordinances, as well as the following:

- (1) General design.
- (2) Planting specifications.
- (3) General environmental considerations.
- (4) Preservation in a natural state of forested land.
- (5) Extent of existing tree coverage.
- (6) Techniques for the preservation and protection of existing trees during construction.

C. PUBLIC EASEMENTS AND UTILITIES (See Section 11 - Water Distribution System and Appurtenances)

D. NOTIFICATION

A forty-eight (48) hour advance notification to the Department of Public Works is required prior to tree planting to allow sufficient time for inspection of any trees, shrubs or landscaping required by any applicable code, ordinance, agreement or approved plan. A call to "J.U.L.I.E." (sometimes known as Joint Utility Locating Information for Excavators, or Julie, Inc.) at 1-800-892-0123 and a request to the Public Works Department (847-272-4711) for utility locations is required prior to excavation for tree planting.

E. PARKWAY TREES (See Chapter 25 of the Municipal Code)

F. SODDING AND SEEDING

All non-pervious areas within dedicated street rights-of-way shall be graded and seeded or sodded in an approved manner. Restoration work shall be performed to the satisfaction of the Village Engineer.

1. Topsoil Placement

Topsoil shall be furnished and placed to a depth of six (6) inches. The work to be done includes preparing the subgrade, removal of surplus earth, filling all irregularities or depressions in the planting area due to settlement, weathering or other causes, furnishing, placing, raking, and rolling topsoil, and removal of debris. The topsoil furnished shall consist of loose, friable, loamy, non-acid soil, rich in organic matter and free from clay and other objectionable matter. Before topsoil is placed, the area to be covered shall be shaped, trimmed and finished so that the specified amount of topsoil shall bring the area to the proper grade. If the existing surface has become hardened or crusted, it shall be raked or otherwise loosened to provide a suitable bond with the topsoil. The topsoil shall be deposited and spread over the planting surface and carefully rolled to leave a smooth surface.

2. Sodding

Furnishing and placing sod shall include preparing the ground surface and, furnishing transporting and placing the sod and other materials required in the sodding operation. The dirt sod shall be a well-rooted mixture of Kentucky Bluegrass and conform to the Illinois Department of Transportation's Standard Specifications. Each piece of sod shall be well-covered with turf grass, free from noxious weeds and other objectionable plants, and shall not contain substances injurious to growth. The grass shall be mowed to a length of not less than two (2) inches, nor more than four (4) inches before the sod is cut. The consistency of adherent soil shall be such that it will not break, crumble, or tear during handling and placing of the sod. The sod shall be cut in square or rectangular pieces with its shortest side not less than twelve (12) inches nor more than eighteen (18) inches long. Sod which has been cut more than thirty-six (36) hours prior to being placed shall not be used without the approval of the Village

Engineer. All sod in stacks shall be kept moist and protected from exposure to the sun, wind and from burning. Agricultural ground limestone and nutrients shall be included as required. A minimum of three (3) waterings within two (2) weeks of placing the sod shall be provided and more frequent watering may be necessary during the summer months.

Any defective, dead or dying sod shall be removed and replaced during the guarantee period.

3. Seeding

Furnishing and spreading an approved seed mixture may be used in lieu of sod at the discretion of the Village Engineer when approved in writing. Use of a blanched mulch or a hydro-mulch may be permitted in areas designated by the Village Engineer.

4. Growth Required

An established growth of live sod or grass at a height of not less than two inches shall be required prior to issuance of a final certificate of occupancy for buildings on the project site.

G. LANDSCAPE SCREENING (See Section 9-107 of the Zoning Code)

H. SOIL EROSION AND SEDIMENT CONTROL

Final Engineering Plans, specifications and the Engineer's Cost Estimate shall include planned and scheduled soil erosion and sediment control measures during the construction stage and until a permanent surface is established. Positive measures shall include but not be limited to storm water runoff diversions, sediment basins, straw bales, seeding and mulch covering and watering to control dust. Retention ponds shall be excavated to provide for future sedimentation with aquatic standards. Twenty-five (25) percent of the pond's bottom area should be greater than ten (10) feet deep to prevent winter fish kill and an additional five (5) percent for future sedimentation. Inlet basket filters (typar 3201 fabric or approved equal) must be used in all new developments during construction.

The Procedures and Standards for Urban Soil Erosion and Sediment Control in Illinois must be followed. This manual is available for purchase at the North Cook County Soil and Water Conservation District Office and a copy is on file with the Village Engineer.

The Village Engineer is hereby designated to receive, investigate and enforce compliance of the Village's soil erosion and sediment control regulations.

I. LAND GRADING AND DRAINAGE

1. Permits

No person, firm or corporation shall alter, cause or permit the alteration of any existing land grade, contour or drainage pattern in any manner, whether or not

pursuant to building, grading or other permits, without first complying with the provisions of these Standards and obtaining a grade alteration permit pursuant hereto; provided, however, that the Village Engineer may in writing waive the requirement of such permit based upon his finding that the proposed alteration will not affect existing surface water drainage onto or off of the subject property.

2. Lot Grading

- (a) Grading of parking lots and rear/front/side yards within the Village shall be accomplished in such a manner so as to prevent minor ponding of water in excess of twelve (12) inches in the event of complete failure of the storm sewer system. Overland flow routes for storm water runoff shall be adequately identified, sized and located within public drainage and utility easements for 100 year storm events. The only exceptions to allowing the maximum ponding shall be for ponds or detention basins, which may be deeper.
- (b) Longitudinal grading on all grassed areas of lots shall be kept within the range of one (1) vertical to five (5) horizontal unless otherwise approved by the Village Engineer. If slopes up to two (2) horizontal to one (1) vertical or steeper are approved, retaining walls or other grade treatments approved by the Village Engineer shall be required. Earthen surface slopes of three (3) horizontal to one (1) vertical or greater must be sodded. Minimum slopes for yards and swales shall be one and one-half (1-1/2) percent.
- (c) Residential driveway grades on all lots, as measured from the top of curb to the finished garage floor, shall be kept within the range of two (2) percent to eight (8) percent, except when a grade of either (8) percent or less is not practical due to topographical conditions, in which case the Village Engineer may approve driveway grades up to ten (10) percent. If depressed driveways are needed due to topographical conditions, it must be done in such a way that rainfall from the 100-year storm is not directed into the building.

3. Drainage

It shall be unlawful to undertake or cause any alteration of an existing land grade, contour or drainage pattern in the Village which, in the Village Engineer's professional opinion, will cause surface water to be unreasonably diverted onto or detained on abutting or nearby property or unreasonably alter natural or existing drainage patterns or unreasonably increase or concentrate runoff of storm water onto abutting or nearby property.

4. Lot Grading Certification

At the time of final occupancy and after landscaping, the developer's registered/licensed engineer or registered/licensed surveyor shall furnish to the Director of Development a certificate stating that the finished lot grades around all structures conform to the approved grading plan and that each lot drains properly. The "as-built" topographic plans shall have the results of an elevation survey of the

completed work denoted, showing actual locations and elevations of: (1) the yard (rear/side/front: 20 feet maximum spacing); (2) the drainage structures, public sidewalk, curb and gutter, driveway, patio, deck, pools, window wells...etc.); (3) the utility service lines - sanitary service; - water service (B-Box); - sump pump connection, etc. - each location for which an elevation was denoted on the approved grading Plan. These "as-built" plan elevations shall be denoted next to the original elevation, which shall have a thin line drawn through it so as to remain legible.

#### J. SURVEY BENCHMARKS AND MARKERS

The developer's registered/licensed surveyor shall place permanent benchmarks at every quarter (1/4) mile interval in both the north-south and east-west direction for large parcels. A minimum of one permanent benchmark in each development is required. When required by the Village Engineer, the proposed benchmark shall be in National Geodetic Vertical Datum of 1929 and shall be checked to a reference mark elevation noted in the FEMA Flood Insurance Study. The permanent benchmark shall be a brass disk set in a concrete monument per IDOT's Standard Specifications.

#### K. WETLANDS

##### 1. Location and Identification

The developer shall examine the current National Wetland Inventory Map on file with the Village Engineer and determine if one is located on the proposed site. This must be reflected on the proposed site, grading and landscape plan. If a wetland appears on the map or if required by the Village Engineer, the developer shall have a site specific wetlands delineation performed by a qualified environmental engineer.

##### 2. Permit Process

For development or modification of a wetland the developer shall complete and fulfill the U. S. Army Corp. of Engineers "Joint Application" to obtain a permit from the Illinois Environmental Protection Agency.

The developer must furnish a certified copy of this permit to the Village Engineer prior to final plat and engineering plan approval.

##### 3. Mitigation

Any and all existing isolated wetlands that are no longer under the jurisdiction of the United States Army Corps of Engineers that are altered by the proposed development shall be mitigated on site at a 1:1 ratio. If on-site mitigation is not possible, then the Village Engineer will work with the developer to find a suitable off-site location within the Village, preferably in the same watershed.

L. STREAM PRESERVATION

1. Purpose and Need

The developer of a parcel adjacent or tributary to an existing drain, reach, tributary of a river or stream shall remove and dispose of obstructions, overgrown vegetation, trash, debris and construction materials and shall improve the existing channel's ability to carry floodwater, and clean out blockages of a channel caused by overgrowth debris and sediment deposits.

2. Design Considerations

Bank erosion (rip-rap, gabions, etc., and other protective measures as deemed necessary by the Village Engineer, including specific landscape methods, shall be instituted and approved by the Village Engineer to discourage illegal dumping, improve the aesthetic value, and reduce future maintenance costs. The developer shall permanently permit vehicular access for maintenance work through recorded easements.

3. Inspection and Maintenance

The Village Engineer and Director of Public Works or their duly appointed representatives shall jointly review improvements and routinely inspect the adjacent stream to reduce the possibility of storm water conveyance and nuisance problems.

4. Compliance

Any work undertaken within the floodway, flood fringe or floodplain must be considered an appropriate use as defined by the Illinois Department of Transportation's Division of Water Resources and under proper permit from the applicable Federal, State, County, and these Standards.