ARTICLE VIII
DESIGN STANDARDS AND IMPROVEMENT SPECIFICATIONS

SECTION-8.1 GENERAL IMPROVEMENT STANDARDS

A. General. All improvements shall be installed in complete accordance with the standards of this Chapter, with other particular specifications approved by the Planning Board and Borough Engineer and with all other applicable Municipal, County, State and Federal regulations. Should improvements be required which are not provided for within the particular sections of this Chapter, they shall be designed and constructed in accordance with good engineering practice and recognized design standards. The developer (or his engineer) shall submit detailed design calculations and construction specifications in each such instance. Prior to the initiation of such specialized design, the particular standards to be utilized shall be submitted for review by the Planning Board and Borough Engineer.

B. Standard Specifications and Construction Details. The Standard Specifications for Road and Bridge Construction of the New Jersey Department of Transportation (latest edition), including all addenda, and the Standard Construction Details of the New Jersey Department of Transportation (latest revision) as modified, supplemented, amended or superseded by the requirements of this Chapter, by the approved final plat, by particular agreement among the Planning Board, Borough Council and subdivider or by other applicable municipal, County, State or Federal regulations, shall govern the completion of the required improvements. Such Standard Specifications and Standard Construction Details are made a part of this Chapter by reference and will not be herein repeated. It is the responsibility of all developers to familiarize themselves with these standards, copies of which may be examined at the offices of the Borough Clerk and Borough Engineer and may be obtained, upon payment of the cost thereof, from the New Jersey Department of Transportation. The requirements of this Chapter, of an approved final plat or of particular agreements and conditions of approval and of applicable Municipal, County, State or Federal regulations shall govern and prevail in the case of conflict between them and the Standard Specifications or Standard Construction Details. Should the Borough adopt, subsequent to the effective data of this Chapter, particular and specific Standard Construction Details for the Borough, they shall govern and prevail over the Standard Construction Details of the New Jersey Department of Transportation previously referred to.

SECTION-8.2 GENERAL DESIGN STANDARDS

A. Objectives. All site plan and subdivision plats shall conform to design standards that will encourage desirable development patterns within the Borough. Where either or both an Official Map or Master Plan have been adopted, the site plan or subdivision shall conform to the proposals and conditions shown thereon. The streets, drainage rights-of-way, school sites, public parks and playgrounds and other municipal facilities shown on an adopted Master Plan or Official Map shall be considered in the review of site plans and subdivision plats. Where no Master Plan or Official Map exists, or makes no provisions therefor, streets and drainage rights-of-way shall be shown on the final plat in accordance with C.40:550-38, and shall be such as to lend themselves to the harmonious development of the municipality and the enhancement of the public welfare.

B. Responsibility for Design. Within the criteria established by and subject to the review and approval of the Planning Board, all design of a site plan or subdivision is the responsibility of the developer and he shall be responsible for and bear the entire cost of any and all investigations, tests, reports, surveys, samples, calculations, environmental assessments, designs, researches or any other activity necessary to the completion of the design. The standards set forth in this Chapter shall be taken to be the minimum necessary to meet its purposes as set forth elsewhere herein. The responsibility of the Planning Board shall be to see that these minimum standards are followed and, in those cases not covered by these standards, sufficient precautions are taken to assure that the eventual design is conducive to the implementation of the purposes of this Chapter and the Borough Master Plan. The Planning Board may employ professionals in various disciplines to advise and assist it in its determinations. Any decisions of the Planning Board regarding the suitability or sufficiency of any design proposal, taken upon advice of its professionals and subject to the provisions of this Chapter, shall be deemed conclusive.

C. Design Data. To properly execute the design of a site plan or subdivision, it is anticipated that the developer will obtain or cause to be obtained certain design data including, but not limited to, soil tests and analyses, environmental assessments, traffic studies and traffic projections, surveys, reports and similar design data. Any and all such data obtained by the developer, or by others retained by him to complete the design, shall be made available to the Planning Board and its employees and professional consultants, for the purpose of reviewing the proposed design. Should the Planning Board determine that the design data submitted is not sufficient for the purpose of completing a full review of the proposal, it may request the applicant to provide such additional information as is deemed necessary. Until the applicant supplies such information, no submission under the provisions of this Chapter shall be termed complete. Nothing contained herein shall be

interpreted to prevent the Planning Board from making or causing to be made such independent studies, calculations or other undertakings as it deems necessary in the review of any application for development.

D. Design Standards. When a developer determines that it will be necessary to utilize design standards in addition to or other than those minimum requirements established herein, he is advised to consult with the Borough Engineer prior to beginning his detailed design, for review and approval of his proposed design standards. Standards utilized should generally be nationally recognized and in common use in this area. Design standards may not be utilized if they do not have the approval of the Borough Engineer.

E. Waiver of Requirements. It is recognized that, in certain instances, preexisting conditions or the uniqueness of a particular proposal may require the waiver of some of the standards presented herein. The Planning Board may consider and, for cause shown, may waive strict conformance with such of these detailed design standards as it sees fit. Any developer desiring such action shall present with his application for development a listing of all such waivers desired together with the reasons therefor.

SECTION-8.3 BLOCKS

A. The block length, width, and acreage within bounding roads shall be such as to accommodate the size and dimensions of lots required for the zoning district by this Chapter and to provide for convenient access, circulation control, and safety of vehicles and pedestrians.

B. Block lengths may vary between five hundred (500) and three thousand (3,000) feet but blocks, along other than local or collector streets shall not be less than one thousand two hundred (1,200) feet long.

C. Interior crosswalks with a right-of-way twenty (20) feet wide containing a sidewalk of four (4) feet or greater in width and fenced on both sides may be required for blocks longer than one thousand two hundred (1,200) feet. and from the ends of the cul-de-sacs to-adjacent streets and elsewhere, as required by the public convenience, including the provision of walks giving access to schools, playgrounds and shopping centers without the necessity of crossing traffic thoroughfares.

SECTION-8.4 BUFFER AREAS, SCREENING, LANDSCAPING AND SHADE TREES

A. Buffer areas. All uses, other than single family detached dwellings and their accessory uses (except as otherwise provided in this Chapter), shall provide twenty (20) foot wide buffer areas along all front side and rear property lines.

1. For a proposed single family detached subdivision, a landscape plan should be submitted showing the proposed foundation of each dwelling, as well as street trees planted at 40' to 60' spacing.

2. If a home professional office, home occupation or an accessory use to a single family detached dwelling requires ten (10) or more off-street parking spaces, the Planning Board shall consider the need for a buffer area and may require that buffer areas of twenty (20) feet in width be provided along side and rear property lines adjacent to such accessory use and/or off-street parking.

3. If a proposed single family detached subdivision abuts a collector or arterial highway or an area zoned for or occupied by uses, other than residential, the Planning Board shall consider the need for buffer areas and may require:
   a. That a buffer strip not exceeding fifty (50) feet in width be provided and maintained in its natural state and/or suitably planted with screening and landscaping, or

   b. That the adjacent lots front on an interior street and have a depth of at least two hundred (200') feet with suitable screening and landscaping planted at the rear, or

   c. That other suitable means of separation be provided.

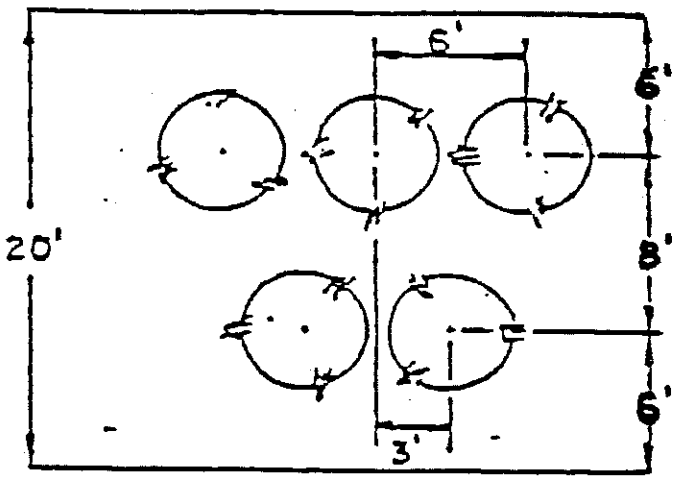
3. Buffer areas shall be maintained and kept free of all debris, rubbish, weeds and tall grass.

4. No structure, activity, storage of materials or parking of vehicles shall be permitted within the buffer area, except that, where permitted by the Planning Board, the buffer area may be broken for vehicular or pedestrian access and appropriate directional and safety signs provided.

B. Screening. Within buffer areas required by Section 8.4,A above, there shall be provided screening in accordance with the following regulation:

1. Except as otherwise provided herein, the screening area shall be a minimum of twenty (20) feet in width and shall be planted with a variety of evergreen trees approved by the Borough Shade Tree Commission (a list of suggested trees and species may be obtained from the Shade Tree Commission). Trees shall be planted in two staggered rows eight (8) feet apart and shall be between six (6) and eight (8) feet in height and shall conform to the current American Standard for Nursery Stock sponsored by the American Association of Nurserymen, Inc. Within each row, the trees shall be planted on six (6) foot centers (see Figure 1 below) Double staggered rows of approved evergreen trees.

FIGURE 1
STANDARD SCREENING

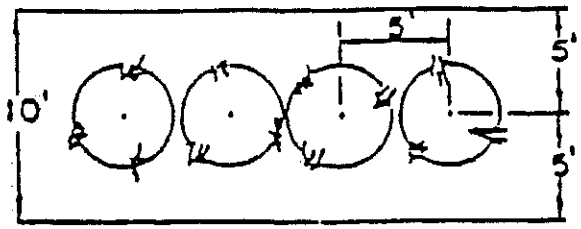


2. In cases where it is determined to be desirable by the Planning Board, a variety of evergreen trees planted with a minimum height of four (4) feet may be substituted for the six (6) to eight (8) foot trees required under Section 8.4, A provided the developer shall install a solid six (6) foot high stockade fence along the outside of the required screening strips in accordance with Section 8.14 prior to commencing the construction of improvements on the site. The stockade fence shall be maintained in good condition by the developer until such time as the evergreen trees have grown to a minimum height of ten (10) feet at which time, the developer may remove the stockade fence.

3. Where suitable trees exist within a screening area, they should be retained and supplemented with shade tolerant evergreen trees to provide the equivalent of the required screening as determined by the Borough Shade Tree Commission.

4. Where all proposed buildings, parking areas and other improvements are located fifty (50) feet or more from a property line abutting a residential zone, the Planning Board may permit a screening area ten (10) feet in width planted with a single row of evergreen trees in A location approved by the Planning Board planted on five (5) foot centers with a minimum height of six (6) to eight (8) feet of a type and species to be substituted for the screening area required in Figure 1.
(see Figure 2 below)

FIGURE 2
MODIFIED SCREENING



Single row of approved evergreen trees.

5. The required height for a screening area shall be measured in relationship to the elevation of the land at the nearest required rear, side or front yard setback line of the abutting residentially zoned properties. Where the average ground elevation of the location at which the screening strip is to be planted is less than the average ground elevation at the nearest required rear, side or front setback line on the abutting residentially zoned property, the Planning Board may require the height of trees planted in the required screening s strip be increased by an amount equal to the difference in elevation. Where the average ground elevation of the location at which the screening strip is to be planted is greater than the average ground elevation at the nearest required rear, side or front setback line on the abutting residentially zoned property, the Planning Board may permit the height of trees planted in the required screening strips to be decreased by an amount equal to one-half the difference in elevation, except that in no case, shall the required height be reduced to less than four (4) feet.

6. All trees in a screening area shall be watered weekly through the first growing season. The developer shall construct a six (6) inch deep earth saucer around each tree to hold water and fill with woodchips or other suitable mulch. Trees shall be nursery grown, balled and bagged, sheared and shaped, of the required height and planted according to accepted horticultural standards.

7. At the following locations within required screening areas, evergreen shrubs with a maximum mature height of thirty (30) inches or less, approved by the Borough Shade Tree Commission as to type, location and spacing, shall be provided in lieu of the evergreen trees specified above:

   (a) Within sight triangle easements

   (b) Within twenty-five (25) feet of intersections where sight triangle easements are not provided.

   (c) Within twenty-five (25) feet of access drives, and driveways.

8. Waiver: The Planning Board, after favorable recommendation by the Borough Engineer and Shade Tree Commission and after examination and review, may waive, fully or partially, provisions of this section in heavily wooded areas, in areas unsuitable for plantings or because of other exceptional conditions, and/or may require supplementary plantings.

C. LANDSCAPING

1. Topsoil Preservation: No topsoil shall be removed from the site or used as spoil, except excess topsoil remaining after all improvements have been installed in accordance with an approved site plan or subdivision map after topsoil has been redistributed in accordance with this paragraph. All topsoil moved during the course of construction shall be redistributed on all regraded surfaces so as to provide an even cover and shall be stabilized by seeding or planting. All retraced areas and all lawn areas shall be covered by a four (4) inch minimum thickness of topsoil. If sufficient top-soil is not available on the site, topsoil meeting the requirements of the Standard Specifications shall be provided to result in a four (4) inch minimum thickness.

2. Protection of Trees: No material or temporary soil deposits shall be placed within six (6) feet of any trees or shrubs designated to be retained on the preliminary and/or final plat. Where grading may be required, trees not shown for removal shall be walled in and extension tiled to the outer crown of the tree.

3. Removal of Debris: All tree stumps and other tree parts or other debris shall be removed from the site and disposed of in accordance with law. No tree stumps, portions of a tree trunk or limbs shall be buried anywhere in the development. All dead or dying trees, standing or fallen, shall be removed from the site. If trees and limbs are reduced to chips they may, subject to the approval of the Borough Engineer, be used as mulch in landscaped areas.

4. Slope Plantings: Landscaping of the area of all cuts or fills and terraces shall be sufficient to prevent erosion, shall be approved by the Borough Engineer and Shade. Tree Commission. All roadway slopes steeper than one (1) root vertically to three (3) feet horizontally shall be planted with suitable cover plants combined with grasses and/or sodding. Grasses or sodding alone shall not be acceptable.

5. Selective Thinning: Throughout the development except in areas specifically designated to remain in their natural state, in landscaped or buffer areas, on building lots and in open space areas for public or quasi-public use, the developer shall selectively thin to remove all dead or dying vegetation, either standing or fallen, and shall remove, including grubbing out stumps, all undesirable trees and other growth. The developer shall, in accordance with overall site development and his proposed landscaping scheme, provide cleared, graded and drained pathways approximately four (4) feet wide through all public or quasi-public open space in heavily wooded areas. Such pathways should be sited to conform to the existing natural conditions and should remain unobstructed. They are not intended to provide improved walkways, but only to provide easy access through open space areas.

6. Additional trees in single family subdivisions:Besides the screening and shade tree requirements, additional trees shall be planted throughout the subdivision in accordance with a planting plan approved by the Planning Board at the time of final approval. The number of trees planted shall not be less than ten (10) per acre, calculated on the basis of the entire subdivision tract. The variety of plantings may vary from those listed under shade tree requirements and may include flowering types and/or evergreens, not exceeding thirty percent (30%) of the total plantings.

7. Additional landscaping for non-residential uses: In conjunction with all uses other than single family homes, all areas of the site not occupied by buildings, pavement, sidewalks, required screening, required parking area landscaping, required safety islands, or other required improvements, shall be landscaped by the planting of grass or other ground cover acceptable to the Planning Board and a minimum of two (2) shrubs and one (1) tree for each two hundred fifty (250) square feet of open space.

8. Trees shall be planted with a minimum diameter of two (2) inches breast height.

9. Waiver: The Planning Board, after favorable recommendation by the Borough Engineer and Shade Tree Commission and after examination and review, may waive, fully or partially, provisions of this Section in heavily wooded areas, in areas unsuitable for plantings or because of other exceptional conditions and/or may require supplementary plantings.

10. Specifications: All planting, clearing, selective thinning, topsoiling, seeding and other landscaping work shall conform to the applicable requirements of the Standard Specifications.

11. Landscaping Plan: The placement of landscaping shall be in accordance with a landscaping plan submitted with the final plat. Relocated plantings: Existing plants may be salvaged and/or relocated from clearing areas within the development and utilized to meet the planting requirements of Section 8.4, C, 6 and 7, provided that:

    a. Each three (3) items of salvaged and/or relocated plant material shall be considered equivalent to two (2) items of new plant material, and

    b. All such salvaged and/or relocated plant material shall be of a type, size and quality acceptable to the Shade Tree Commission and the Borough Engineer, and

    c. All such salvaged and/or relocated plant material shall be dug, transported and replanted at a season of the year using a schedule and equipment, methods and materials conforming to the requirements of the Standard Specifications and subject to the approval of the Shade Tree Commission and the Borough Engineer.

d. The developer has received the approval of the Shade Tree Commission and the Borough Engineer of the items to be relocated and the schedule and methods of relocation prior to any work of salvaging and/or relocation taking place.

D. 1. In each subdivision of land, the developer shall plant between the sidewalk and right-of-way line proper shade and/or decorative trees of a type approved by the Shade Tree Commission at a maximum distance of fifty (50) feet between trees. The minimum distance between such trees planted shall be forty (40) feet. Planting sites shall be indicated on the final plat. Such plantings shall not be required within sight easements as required elsewhere herein.

2. All trees planted in accordance with the provisions of this ordinance shall be placed in a proper manner and in a good grade of tops oil and within the area of the tree well at the point where the tree is planted. In the event that any Individual person or group of individual persons desire to plant a tree or trees in a tree well or within the jurisdiction of the Borough Shade Tree Commission, such person or persons may do so, provided that they conform to the provisions of this Chapter, and further provided that permission of the said Shade Tree Commission is obtained.

3. All shade trees to be hereafter planted in accordance with this Chapter shall be nursery grown, or of substantially uniform size and shape and shall have straight trunks. Ornamental trees need not have straight trunks, but must conform in all other respects with the provisions for trees and tree plantings outlined in this Chapter.

4. All trees planted pursuant to this Chapter shall be planted in a dormant state.

5. Subsequent or replacement plants shall conform to the type of existing tree in a given area, provided that if any deviation is anticipated, it must be done only with the permission of the Shade Tree Commission. In a newly planted area, only one (1) type of tree may be used on a given street, unless otherwise specified by the Shade Tree Commission.

6. A hole in which a tree is to be planted shall be in each case, one-third (1/3) larger in width and in depth than the existing root ball of the particular tree to be planted. The hole for a tree to be planted shall contain proper amounts of topsoil and peat moss, but no chemical fertilizer shall be added until the tree has been planted for one (1) year.

7. All shade trees shall be planted in accordance with the landscaping requirements of the Standard Specifications.

SECTION-8.5 BULKHEADING

All development on tidal lagoons, navigable waterways or other bodies of water, either existing or proposed, shall provide for bulkheading. All development on tidal bodies of water, whether existing or proposed, shall provide for bulkheading or other appropriate permanent bank stabilization, acceptable to the Planning Board. In no case shall bank slopes, bulkhead, rip-rap, revetments, or other elements of bank stabilization be located within required minimum yard areas. Bulkheads may be constructed of treated timber, reinforced concrete, marine alloy steel or other materials in accordance with approved details (if adopted) and a detailed design to be submitted by the developer in each case for approval by the Borough Engineer, the Environmental Commission, and such other approval authorities, including, but not limited to, the United States Army Corps of Engineers, and New Jersey Department of Environmental Protection as may be necessary. All reconstructed lagoons shall have a minimum width of one hundred (100) feet and be provided with suitable turning basins.

The Planning Board may consider waiver and/or modification of this requirement when necessary to preserve wetlands or other natural features, provided that minimum lot sizes may be maintained and that all development may be made reasonably secure from erosion.

SECTION-8.6 BULK STORAGE

In Zoning Districts where bulk storage is a permitted accessory use, the following minimum requirements shall apply:

A. No bulk storage of materials or equipment shall be permitted in any required front yard area or within one hundred (100) feet of any public street, whichever is greater.

B. No bulk storage of materials or equipment shall be permitted in the front yard, or within any side or rear setback area required per the zoned district.

C. All bulk storage areas shall be screened, from public view by means of suitable fencing and/or evergreen plantings as required by the Planning Board. *Where the property is adjacent to a residential zone, the screening shall meet the minimum requirements of Section 8.4 of this Chapter.

* As recommended by the Shade Tree Commission and Borough Engineer.

D. No fence used to screen a bulk storage area shall be placed closer to any property line than the distance constituting the required front, side or rear setbacks and all setback areas shall be landscaped in accordance with the requirements of Section 8.4 of this Chapter.

E. All service roads, driveways and bulk storage areas shall be paved with bituminous concrete or other surfacing material, as required by the Planning Board, which shall be of sufficient strength to handle the anticipated use.

F. In no instance shall on-site bulk storage of material exceed the height of ten (10) feet.

G. No heavy equipment shall be operated or parked closer to the front property line than the front setback plus fifty (50) feet, except as the same may be in transit to or from the site.

SECTION-8.7 CLEARING AND GRADING

A. All grading, excavation or embankment construction shall be in accordance with the approved final plat and shall provide for the disposal of all stormwater runoff and such groundwater seepage as may be encountered. All clearing, excavation and embankment construction shall be in accordance with the applicable requirements of the Standard Specifications. No excavated material may be removed from the site except in accordance with an approved final plat nor without the prior approval of the Borough Engineer. Where borrow excavation materials from off-site sources are required to complete the necessary grading, such material shall meet the requirements of the Standard Specifications for Borrow Excavation, Zone 3, and shall be subject to the approval of the Borough Engineer.

B. Material which the Borough Engineer judges unsuitable for use in roadway embankment may be used for grading outside the roadway right-of-way or in building areas with the permission of the Borough Engineer and the Construction Official (for building areas). Any unsuitable material which cannot be satisfactorily utilized on the site shall be removed from the site and disposed of at places to be provided by the developer.

C. All construction layout and grading stakes shall be set by a licensed land surveyor or professional engineer employed by the developer or his contractor.

D. All rough grading must be completed prior to the construction of roadway subgrade. All sidewalk areas and slope areas must be fully graded prior to the construction of finished pavements or pavement base courses.

E. To preserve the integrity of pavements, embankments and excavations for streets or roadways, slopes shall be no steeper than one (1) foot vertical rise for every three (3) feet of horizontal distance.

F. Such slopes shall be suitably planted with perennial grasses or other ground cover plantings in accordance with the plans approved by the Planning Board. In areas where excavations or embankments would extend significantly beyond road rights-of-way, thereby causing disruption to the natural environment of the development, the Planning Board may, upon the application of the developer, consider or may, upon its own initiative, direct the use of terraces, retaining walls, crib walls or other means of maintaining roadway slopes. In any event, the entire roadway right-of-way shall be fully graded and any retaining walls, crib walls or terraces shall be located outside of the roadway right-of-way and their maintenance shall be the responsibility of the owner of the property on which they are constructed. The developer shall make suitable provisions in the instruments transferring title to any property containing such terraces, retaining walls or crib walls and shall provide a copy thereof to the Planning Board and the Borough Clerk. All graded areas within or outside of the roadway right-of-way shall be neatly graded, topsoiled, fertilized and seeded to establish a stand of perennial grasses.

G. Top of slopes in excavations and the toe of slopes in embankment areas shall not extend beyond the right-of-way line or, where provided, the exterior line of the six (6) foot wide shade tree and utility easement required herein. Sidewalk and easement areas shall slope at two percent (2%) to the top of the curb elevation, and sidewalk construction shall conform to this slope.

H. Lot Grading. Lots shall be graded to secure proper drainage and to prevent the collection of stormwater. Said grading shall be performed in a manner which will minimize the damage to or destruction of trees growing on the land. Topsoil shall be provided and/or redistributed on the surface as cover and shall be stabilized by seeding or planting. Grading plans shall have been submitted with the preliminary and final plats, and any departure from these plans must be approved in accordance with the requirements of this Chapter for the modification of improvements. Grading shall be designed to prevent or minimize drainage to structures or improvements when major storms, exceeding the design basis of the storm drainage system, occur.

1. Wherever possible, the land shall be graded so that the stormwater from each lot shall drain directly to the street. If it is impossible to drain directly to the street, it shall be drained to a system of interior yard drainage designed in accordance with the standards for drainage facilities and suitable drainage easements shall be provided.

2. Unless otherwise required by the Standard Specifications, all tree stumps, masonry and other obstructions shall be removed to a depth of two (2) feet below finished grade.

3. The minimum slope for lawns shall be one percent (1%) and for smooth hard-finished surfaces, other than roadways, five-tenths of one percent (5/10 of 1%).

3. The maximum grade for lawns within five (5) feet of a building shall be ten percent (10%) and for lawns more than ten (10) feet from a building, twenty-five percent (25%).

4. Retaining walls installed in slope control areas shall be constructed of heavy treated timber or logs, reinforced concrete, other reinforced masonry or of other construction acceptable to the Borough Engineer and adequately designed and detailed on the final plat to carry all earth-pressures, including any surcharges. The height of retaining walls shall not exceed one-third (1/3) of the horizontal distance from the foundation wall of any building to the face of the retaining wall. Should the Borough adopt, subsequently to this Chapter, standard details for such construction, the same shall govern.

5. The developer shall take all necessary precautions to prevent any siltation of streams during construction.

SECTION-8.8 RESERVED FOR FUTURE USE

SECTION-8.9 COMMON OPEN SPACES AND PUBLIC OPEN SPACES

Common Open Space or Public Open Space areas proposed to be provided in conjunction with applications for development for subdivisions or site plans shall be subject to the following requirements:

A. Cluster (Reduced Lot Size) Development Open Space Requirements

Open space areas within cluster (reduced lot size) subdivisions shall be subject to all provisions of this section and the following specific requirements:

1. A minimum of twenty (20%) percent of the tract of land proposed for development shall not be included in building lots or streets and shall be set aside for open space. If the subdivision is to be developed in sections, it shall be designed in a manner that at any stage of development at least twenty percent (20%) of the land area of the sections approved is set aside for open space.

2. Each open space area should contain a minimum of two (2) contiguous acres.

3. Open space areas should not be less than fifty (50) feet in width at any location, except where such open space is to be utilized primarily for walkway access from a public street to the open space at the rear of building lots, it may have a minimum width of twenty (20) feet for a length not to exceed two hundred fifty (250) feet.

4. Where possible, all of the following land areas and features shall be preserved as open space:

   a. Floodway and flood hazard areas,

   b. Areas containing a significant number of specimen trees as determined by the Environmental Commission.

   c. Existing watercourses, ponds,

   d. Land with a seasonal high water table of less than two (2) feet.

   e. Wetlands as defined by the New Jersey Wetlands Act of 1970 and delineated on wetlands maps prepared by the New Jersey Department of Environmental Protection.

   f. Wetlands as defined in Chapter 19 of the Revised General Ordinances of the Borough of Little Silver.

B. Site Preparation. Within open space areas, the Planning Board may require a developer to make certain site preparation improvements, which may include, but are not limited to the following:

1. Removal of dead or diseased trees.

2. Thinning of trees or other growth to encourage more desirable growth.

3. Removal of trees in areas planned for ponds, lakes, active recreational facilities or pathways.

4. Grading and seeding.

C. Reservation of Public Areas.

1. If the Master Plan or the official map provides for the reservation of designated streets, public drainageways, flood control basins, or public areas within the proposed development, before approving a subdivision or site plan, the Planning Board may further require that such streets, ways, basins or areas be shown on the plat in locations and sizes suitable to their intended uses. The Planning Board may reserve the location and extent of such streets, ways, basins or areas shown on the plat for a period of one (1) year after the approval, of the final plat or within such further time as may be agreed to by the developer. Unless during such period or extension thereof the municipality shall have entered into a contract to purchase or institute condemnation proceedings according to law for the fee or a lesser interest in the land comprising such streets, ways, basins or areas, the developer shall not be bound by such reservations shown on the plat and way proceed to use such land for private use in accordance with applicable development regulations. The provisions of this section shall not apply to streets and roads, flood control basins or public drainage ways necessitated by the subdivision or land development and required for final approval.

2. The developer shall be entitled to just compensation for actual loss found to be caused by such temporary reservation and deprivation of use. In such instance, unless a lesser amount has previously been mutually agreed upon, just compensation shall be deemed to be the fair market value of an option to purchase the land reserved for the period of reservation; provided that determination of such fair market value shall include, but not be limited to, consideration of the real property taxed apportioned to the land reserved and prorated for the period of reservation. The developer shall be compensated for the reasonable increased cost of legal, engineering or other professional services incurred in connection with obtaining subdivision approval or site plan approval, as the case may be, caused by the reservation.

D. Recreation Areas. Where it is considered appropriate by the Planning Board, portions of proposed open spaces may be designated for passive and/or active recreational activities. Passive recreational activities may include, but are not limited to, pedestrian paths, bicycle paths, sitting areas and naturally preserved areas. Active recreational activities may include, but are not limited to, swimming pools, tennis courts, and ball fields. The location and shape of any land to be designated for recreational activities shall be approved by the Planning Board based on, but not limited to, the following standards:

1. The Board shall consider the natural topography and shall attempt to preserve the same to the greatest extent possible.

2. The Board shall attempt to tailor the location and shape of recreational areas to harmonize with the shape of the entire development.

3. The Board shall consider the extent to which specific recreational areas shall be used for passive or active recreational purposes.

4. The Board shall request and consider recommendations from the appropriate Borough officials.

5. The Board shall consider the extent to which the residents of the development shall be served by other existing or future recreational facilities or lands within or in the vicinity of the development.

6. The Board shall consider the sequence of development.

7. The Board shall consider the effect which the location and shape of recreational areas in the development will have upon the application of sound planning principles as well as the general welfare, health and safety of the residents of the development.

E. Open Space Ownership.

1. The type of ownership of land dedicated for open space purposes shall be selected by the owner, developer, or subdivider subject to the approval of the Planning Board and may include, but is not necessarily limited to the following:

   a. The Borough of Little Silver, (subject to acceptance of the Borough Council).

   b. Other public jurisdictions or agencies (subject to their acceptance).

   c. Quasi-public organizations (subject to their acceptance).

   d. Homeowners' or condominium associations or organizations.

   e. Shared, undivided interest by all property owners in the development.

2. Any lands dedicated for open space purposes shall contain appropriate covenants and deed restrictions approved by the Planning Board, which insure that:

   a. The open space area will not be further subdivided in the future.

   b. The use of the open space areas will continue in perpetuity for the purpose specified.

   c. Appropriate provisions are made for the maintenance of the open space areas.

F. Maintenance of Common Open Space.

1. The Borough or other governmental agency may, at any time and from time to time, accept the dedication of land or any interest therein for public use and maintenance, but the Planning Board shall not require, as a condition of approval, that land proposed to be set aside for common open space be dedicated or made available to public use.

2. The developer shall provide for an organization for the ownership and maintenance of any open space for the benefit of owners or residents of the development, if said open space is not dedicated to the Borough or other governmental agency. Such organization shall not be dissolved and shall not dispose of any open space, by sale or otherwise, except to an organization conceived and established to own and maintain the open space for the benefit of such development, and thereafter such organization shall not be dissolved or dispose of any of its open space without first offering to dedicate the same to the Borough.

3. In the event that such organization shall fail to maintain the open space in reasonable order and condition, the Administrative Officer may serve written notice upon such organization or upon the owners of the development setting forth the manner in which the organization has failed to maintain the open space in reasonable condition, and said notice shall include a demand that such deficiencies of maintenance be cured within thirty-five (35) days thereof, and shall state the date and place of a hearing thereon which shall be held within fifteen (15) days of the notice. At such hearing, the Administrative Officer may modify the terms of the original notice as to deficiencies and may give a reasonable extension of time not to exceed sixty-five (65) days within which they shall be cured.

If the deficiencies set forth in the original notice or in the modification thereof shall not be cured within said thirty-five (35) day or any permitted extension thereof, the Borough, in order to preserve the open space and maintain the same for a period of one (1) year may enter upon and maintain such land. Said entry and maintenance shall not vest in the public any rights to use the open space except when the same is voluntarily dedicated to the public by the owners. Before the expiration of said year, the Administrative Officer shall, upon his initiative or upon the request of the organization theretofore responsible for the maintenance of the open space, call a public hearing upon fifteen (15) days written notice to such organization and to the owners of the development, to be held by the Administrative Officer, at which hearing such organization and the owners of the development shall show cause why such maintenance by the Borough shall not, at the election of the Borough., continue for a succeeding year. If the Administrative Officer shall determine that such organization is ready and able to maintain said open space in reasonable condition, the Borough shall cease to maintain said open space at the end of said year. If the Administrative Officer shall determine such organization is not ready and able to maintain said open space in a reasonable condition, the Borough may, in its discretion continue to maintain said open space during the next succeeding year, subject to a similar hearing and determination, in each year thereafter. The decision of the Administrative Officer in any such case shall constitute a final administrative decision subject to judicial review.

4. The cost of such maintenance by the Borough shall be assessed pro rata against the properties within the development that have a right of enjoyment of the open space in accordance with assessed value at the time of imposition of the lien, and shall become a lien and tax on said properties and be added to and be a part of the taxes to be levied and assessed thereon, and enforced and collected with interest by the same officers and in the same manner as other taxes.

SECTION-8.10 CONCRETE REQUIREMENTS

A. All concrete used in any subdivision or site improvement shall be prepared in accordance with the requirements of the Standard Specifications for the various classes of concrete used, except that the twenty-eight (28) day compressive strength of the concrete used shall not be less than the following:

Type of Concrete	Strength (pounds per square inch)
Class A	5,500
Class B	4,500
Class C	3,500
Class D	3,000

B. Unless specific written permission is obtained from the Borough Engineer to the contrary, only concrete obtained from dry-batched redi-mixed trucks shall be allowed.

SECTION-8.11 CONCRETE CURBS

A. General Requirements. Concrete curb shall be constructed along both sides of every street within a development. Any existing pavements damaged by curb construction shall be repaired to the standards herein and/or as shown on the final plat. Where one (1) side of the development boundary is along an existing street, the curb shall be constructed only on the development side. Curbs shall be constructed of Class B concrete, air-entrained, in accordance with the requirements of the Standard Specifications. Preformed bituminous cellular-type joint filler, one-half (1/2) inch thick cut to match the cross-section of the curb, shall be used at all expansion joints at intervals not greater than twenty (20) feet. Intermediate plate joints shall be provided at intervals not exceeding ten (10) feet. At places where a concrete curb abuts Portland cement concrete pavement, joints in the curb shall be placed to match the paving joints and intermediate joints shall be placed so as to create equal curb panels not longer than twenty (20) feet. Concrete curb cross-section shall be as shown in Figure 4.1 of the Residential Site Improvement Standards N.J.A.G Title 5, Chapter 21. The requirements of the Standard Specifications regarding curing precautions must be strictly observed.

B. Timing of Curb Construction. In areas with bituminous concrete pavement, required curb shall be constructed prior to the construction of the bituminous base courses. Any required repairs to curbs which are not suitable for acceptance shall be made prior to construction of the final pavement wearing course. In those areas having Portland cement concrete pavement, the curb shall be constructed after the construction and curing of the Portland cement concrete pavement.

C. Alternate Curb Types. In certain instances it may be necessary or desirable to construct alternate curb types. For example, these may be required by the Planning Board on the perimeter of channelizing islands or in the areas of unusually heavy gutter drainage flow, or may be desired by the developer for decorative purposes or to preserve vegetation (e.g.,

granite block curb, rolled concrete curb, etc.). If alternate, curb types are to be permitted, an appropriate construction detail shall be submitted for approval with the preliminary and final plats. Continuous slip-formed curb or combination curb and gutter may be permitted if such is considered to be acceptable by the Borough Engineer. The use of continuous slip-formed curb or combination curb and gutter may only be permitted if the Applicant submits for review and approval details and specifications concerning equipment, materials and methods proposed for use and if the Borough Engineer has inspected the installation and tested and approved a suitable sample section of such curb or combination curb and gutter. In the event the Borough Engineer does not approve the sample section of curb or combination curb and gutter, the developer shall remove the sample section and replace it with a type of curb or curb and gutter permitted by this Chapter or such other alternate as may be approved by the Planning Board.

SECTION-8.12 EASEMENTS

A. Drainage Easements.

1. If the property on which a proposed development is to be located is or is proposed to be traversed by a drainage facility of any kind, including a pipe, channel, stream or swale, the Planning Board shall require a stormwater and drainage easement or right-of-way along said facility be provided by the developer. If existing land drainage structures, such as french drains, are encountered during the course of construction of any development, such drainage structures shall either be removed entirely or a revised final plat showing the location of such drainage structures and accompanied with detailed cross-sections thereof shall be filed with the Borough Engineer for consideration by the Planning Board. The Planning Board, after consulting its Engineer and other appropriate agencies, shall either require a drainage easement, require that the structure be removed in part or in its entirety, or recommend such other action to the governing body as it deems appropriate.

2. All easements shall be shown on the final plat with a notation as to the purpose and restrictions of the easement. Easement lines on the final plat shall be shown with accurate dimensions and bearings unless the easement lines are parallel or concentric with lot lines.

3. The land which is the subject of an easement or right-of-way shall in the case of storm drains or constructed channels be of a suitable width meeting the requirements for design of drainage facilities, or be a strip which conforms substantially to the floodplain of any

watercourse along both sides of the watercourse to a width of fifty (50) feet in each direction from the centerline of the watercourse, whichever is the greatest; except, however, that if the location of such watercourse is at or near the boundary of the subdivision, the dimensions of the easement and right-of-way shall be modified to retain it within the confines of the development.

Said easement and right-of-way shall include provision assuring the following:

a. Preservation of the channel of the watercourse.

b. Except in the course of an authorized drainage improvement, prohibition of alteration of the contour, topography or composition of the land within the easement and right-of-way.

c. Prohibition of construction within the boundaries of the easement and right-of-way which will obstruct or interfere with the natural flow of the watercourse.

d. Reservation of a public right-of-entry for the purpose of maintaining the storm drain, drainage channel or the natural flow of drainage through the watercourse, of maintaining the any and all structures related to the exercise of the easement and right-of-way and of installing and maintaining a storm or sanitary sewer system or other public utility.

B. Conservation Easement.

1. Conservation easements shall be required along all wetland buffer boundaries, drainage and stormwater right-of-way in the development and may be required also along ponds, marshes, swamps and streams or other watercourses along which drainage rights-of-way are not required. Such easements are intended to help prevent the siltation of streams and other courses and the erosion of stream banks, other watercourses and adjacent lands. The land subjected to a conservation easement shall follow the buffer line associated with any wetland delineation, or be a strip at least twenty-five (25) feet but not more than one hundred (100) feet in width independently located or running adjacent to each side of any required drainage or stormwater right-of-way. Such conservation easement shall contain provisions to restrict the removal of trees and ground cover except for the following purposes: removal of dead or diseased trees; thinning of trees and

other growth to encourage the more desirable growth; removal of trees to allow for structures designed to impound water; and removal of trees in areas to be flooded for the creation of ponds or lakes. The easements shall also prohibit filling or grading of the lands or the disposal of refuse or waste material of any type within the limits of the easement.

2. The easement shall be indicated on the plat and shall be marked on the land by concrete monuments wherever the lines of such easement change direction or intersect lot lines.

C. Sight Triangle Easement. In addition to right-of-way widths required for the full design of all streets and the wider intersections as specified, sight triangle easements shall be required on all corners at all street intersections. Such easements shall include provisions to restrict the planting of trees or other plantings or the location of structures exceeding thirty (30) inches in height measured at road level that would obstruct the clear sight across the area of the easements and a reservation to the public right-of-entry for the purpose of removing any object, natural of otherwise, that obstructs the clear sight. Such easements shall include the area on each street corner that is bounded by the right-of-way lines and a straight line connecting points on each right-of-way line (25) twenty-five feet distant from the intersection of the right-of-way lines or their prolongation measured at street level. Where intersections occur on highways or roadways under the jurisdiction of the State of New Jersey or County of Monmouth, the sight triangle easements required by the State or the County of Monmouth may be substituted in lieu of the requirements above.

D. Sanitary Sewer Easement. Utility and sanitary sewer installations not located in public rights-of-way shall be located along side and/or rear lot lines where possible. Such easements shall be of sufficient width to accommodate the facilities, including access for maintenance, but shall not be less than twenty (20) feet in width.

SECTION-8.13 ENVIRONMENTAL IMPACT REPORT

An environmental impact report shall accompany all applications for preliminary subdivision and preliminary site plan approval. Such report shall provide the information needed to evaluate the effects of the project for which approval is sought upon the environment and shall include data to be distributed, reviewed and passed upon as follows:

A. A project description which shall specify what is to be done and how it is to be done, during construction and operation, as well as recital of alternative plans deemed-practicable to achieve the objective.

B. An inventory of existing environmental conditions at the project site and in surrounding region which shall describe air quality, water quality, water supply, hydrology, geology, soils and properties thereof, including capabilities and limitations, sewage systems, topography, slope, vegetation, wildlife, habitat, aquatic organisms, noise characteristics and levels, demography, land use, aesthetics, history and archeology. Air and water quality shall be described with reference to standards promulgated by the Department of Environmental Protection of the State of New Jersey and soils shall be described with reference to criteria contained in the Freehold Area Soil Conservation District Standards and Specifications.

C. An assessment of the probable impact of the project upon all topics set forth in B.

D. A listing and evaluation of adverse environmental impacts which cannot be avoided, with particular emphasis upon air or water pollution, increase in noise, damage to plant, tree and wildlife systems, damage to natural resources, displacement of people and businesses, displacement of existing farms, increase in sedimentation and siltation, increase in municipal services and consequences to municipal tax structure. Off-site impact shall also be set forth and evaluated.

E. A description of steps to be taken to minimize adverse environmental impacts during construction And operation, both at the project site and in the surrounding region, such description to be accompanied by necessary maps, schedules and other explanatory data as may be needed to clarify and explain the actions to be taken.

F. A statement concerning any irreversible and irretrievable commitment of resources which would be involved in the proposed action should it be implemented.

G. A statement of alternatives to the proposed project which might avoid some or all of the adverse environmental effects, including a no-action alternative.

H. Three (3) copies of the Environmental Impact Report shall. be submitted to the Planning Board of Little Silver together with a filing of the application.

I. The Planning Board shall submit the Environmental Impact Report to the Environmental Commission of the Borough of Little Silver and the Borough Engineer for review and recommendation. The Environmental Commission shall review the Report and submit to the Planning Board its recommendations respecting the same within sixty (60) days after receipt

thereof. Upon completion of all reviews and public hearings, but in any event not later than thirty (30) days after the date of its next regular meeting following the filing of the Report, the Planning Board shall either approve or disapprove the Environmental Impact Report as a part of its underlying function with respect to site plan review. In reaching a decision the Planning Board shall take into consideration the effect of the applicant's proposed project upon all aspects of the environment as outlined above as well as the sufficiency of applicant's proposals for dealing with any immediate or projected adverse environmental effects. If the Planning Board fails to act within the time period set forth above, unless extended by agreement with the applicant, the Report shall be deemed to have been disapproved.

J. Upon approval by the Planning Board, the Environmental Impact Report shall be marked or stamped "Approved" by the Secretary of the Planning Board and shall be designated as the "Final Environmental Impact Report".

K. Notwithstanding for foregoing, the Planning Board may, at the request of an applicant, waive the requirement for an Environmental Impact Report if sufficient evidence is submitted to support a conclusion that the proposed development will have a slight or negligible environmental impact. Portions of such requirement may likewise be waived upon a finding that a complete report need not be prepared in order to evaluate adequately the environmental impact of a particular project.

L. An Environmental Impact Report as required herein shall also be submitted as to all public or quasi-public projects unless such are exempt from the requirement of local law by supervening County, State or Federal law.

SECTION-8.14 FENCES AND WALLS

A. No fences or walls shall be erected, altered or reconstructed without a Fence Permit.

B. Fences and walls hereafter erected, altered or reconstructed in any zone in the Borough shall not exceed six (6) feet in height above ground level except as follows:

1. Walls and fences, which are not open fences as defined in this Chapter, located in a front yard, or within fifty (50) feet of any river, lagoon or other body of water, shall not exceed thirty-six (36) inches in height.

C. All fences must be erected within the property line, and no fence shall be erected so as to encroach upon a public right-of-way.

D. The following fences and fencing construction materials are specifically prohibited in all zones in the Borough; barbed wire, razor wire, canvas, cloth, electrically charged, expandable and collapsible fences.

E. All supporting members of a fence shall be located on the inside of the fence, and if erected along or adjacent to a property line, the supporting member of the fence shall face the principal portion of the tract of land of the property upon which the fence is erected.

F. Corner lots shall be allowed six (6) foot high fences along the road frontage that portion of the lot that is not utilized as dwelling front yard. The fence shall be located at the side yard setback from the property line of the zone in which the lot is located

SECTION-8.15 FIRE HYDRANTS

A. A Building Permit shall not be issued for new residential structure located in an area serviced by a public or private water company unless the distance from the midpoint of the frontage of such premises to a functioning fire hydrant, which has been tested and approved, as measured down to the centerline of connecting public streets, is four hundred (400) feet or less.

B. Final subdivision plats shall not be approved by the Planning Board unless fire hydrants are indicated on the final plat in accordance with the requirements herein contained as to location of and distances between fire hydrants.

C. Fire Hydrants shall not be placed at the closed end of a turnaround of a cul-de-sac unless the distance between the open end and the closed end is greater than four hundred (400) feet, in which event, the fire hydrants shall be placed at both the open end and the closed end of the cul-de-sac.

D. The installation of fire hydrants with respect to any subdivision shall not be considered a subdivision improvement to be included in the bonding requirements of this Chapter but rather the proper installation of fire hydrants shall be a condition of the issuance of Certificates of Occupancy.

F. All fire hydrants installed in the municipality shall have no less than two (2), two and one-half *(2½)* inch hose connection nozzles and one (1), four and one-half (4½) inch pumper nozzle. All threads are to be National Standard fire hose threads.

G. Hydrants shall be set plumb with nozzles eighteen (18) inches above the ground or, where they are to be placed in hose houses, eighteen (18) inches above the floor.

SECTION-8.16 GUARD-RAILS

Guard-rails, pipe railing or other appropriate barricades, as required by the Planning Board shall be designed and placed at drainage structures, streams, embankment limits, curves and other required locations. Guard-rails shall be standard steel beam type with galvanized steel posts in accordance with the Standard Construction Details. Alternate design of guardrails and barricades may be used and shall be submitted for approval as part of the final plat submission.

SECTION-8.17 LOTS

A. Lot Size. Minimum lot size and dimensions shall be governed by the requirements of the respective zoning districts as set forth in this Chapter, except that:

1. The Planning Board may require larger lots where additional area will partially or completely eliminate the necessity of changes in grade which in the opinion of the Board would cause unreasonable destruction of the topography or environment or would create drainage or erosion problems.

2. The Planning Board may require larger lots adjacent to collector or arterial streets where, in the opinion of the Board, the larger lots would promote the health, safety and general welfare of the public and the residents of the development.

B. Lot and Block Numbers.

1. In accordance with the Tax Map specifications of the State of New Jersey dated May 1975, prepared by the State of New Jersey Department of the Treasury, as amended, subdivided lots and blocks shall generally bear the original numbers with a number added as a subscript. The use of letter designations should particularly be avoided.

2. Prior to final plat approval by the Planning Board, two (2) copies of the map shall be submitted to the Borough Tax Assessor for proper assignment of lot and block numbers and for the tax assessor's signature. One copy of said map shall be returned with the new lot and block numbers shown. The other copy will be retained for tax map purposes.

C. Area and Side Lot Lines.

Except as otherwise provided in this Chapter, lot dimensions and area shall not be less than the requirements of the zoning district. Insofar as is practical, side lot lines shall be at right angles to straight streets and radial to curved streets.

D. Lot Frontage.

Each lot shall front on an approved street accepted or to accepted by the Borough.

E. Lot Line on Widened Street.

Where extra width is to be provided for the widening of existing streets, lot measurements shall begin at the proposed right-of-way line, and all setbacks shall be measured from such lines unless otherwise provided by this Chapter.

F. Unsuitable Lots.

All lot shall be suitable for the purpose for which they are intended to be used. To prevent the use of lots which are not suitable because of adverse topography, environmental, flood conditions or similar circumstances, the Planning Board may require such revisions in a layout of the subdivision as will accomplish one (1) of the following:

1. That the area of the unsuitable lot is included in other lots by increasing the size of the remaining lots.

2. That it is included in an area to be deeded to the Borough or other public or quasi-public body and will be held in its natural state for conservation and/or recreation purposes.

3. That some other suitable arrangement is made.

G. Driveways

All structures must be accessible by means of a driveway.

For single family lots, driveways shall not be less than five (5) feet from the side property line and shall not exceed a slope of twelve (12) percent..

For all non-single family uses, driveways must provide turnarounds to eliminate the necessity of any vehicle backing onto any street.

SECTION-8.18 MONUMENTS AND IRON STAKES

A. Monuments shall be of a size and shape required by Section 4, Chapter 358 of the Laws of 1953, and shall be placed in accordance with said statute. In addition to the required monuments, after grading is finished, the developer shall install a steel stake one (1) inch in diameter and thirty (30) inches in length on lot corners, lot line angle points or other changes in direction, not marked by monuments, and at all angle points or discontinuities in easement lines where such easements are not parallel to property lines.

B. Monuments shall also be installed along the elevation six (6) contour the NGVD datum as it traverse the property to delineated the limits of the coastal wetland areas within the Borough.

SECTION-8.19 OFF STREET LOADING

A. For every building, structure or part thereof having over ten thousand (10,000) square feet of gross floor area erected and occupied for any use other than residential, there shall be provided at least one (1) truck standing loading and unloading space on the premises not less than twelve (12) feet in width, thirty-five (35) feet in length and a minimum vertical clearance of fourteen (14) feet. Buildings that contain in excess of fifteen thousand (15,000) square feet of gross floor area shall be required to provide additional off street loading spaces as determined by the Planning Board during site plan review.

B. Access to truck standing, loading and unloading areas may be provided directly from a public street or alley or from any right-of-way that will not interfere with public convenience and will permit orderly and safe movement of truck vehicles.

C. Unless otherwise permitted, fire zones shall not be used as standing,

loading or unloading areas.

D. Loading areas, as required by this Section, shall be provided in addition to off-street parking spaces and shall not be considered as supplying off-street parking spaces.

E. No off-street loading or unloading area shall be permitted in any required front yard area.

F. Every commercial and business use shall provide a dedicated parking space for express mail and package delivery vehicles. The dedicated space shall be provided in addition to off-street parking spaces and shall not be considered as supplying off-street parking spaces.

SECTION-8.20 OFF-STREET PARKING

In all zones and in connection with every industrial, commercial, institutional, professional, recreational, residential or any other use, there shall be provided off-street parking spaces in accordance with the following requirements and parking lot standards:

A. Type of Parking Permitted. Each dead storage bay of an off-street parking space may be perpendicular with the aisle, parallel with the aisle, or at any angle between sixty (60°) degrees and ninety (90°) degrees. No angle parking layout shall be permitted with an angle less than sixty (60°) degrees.

B. Stall Size.

1. Automobiles: Each perpendicular or angle off-street parking space shall occupy a rectangular area of not less than nine (9) feet in width and eighteen (18) feet in depth, for shopping centers shall be not less than ten (10) feet in width and twenty (20) feet in depth. exclusive of access drives and aisles, except that parking spaces for the physically handicapped shall be twelve (12) feet wide and sixteen (16) feet wide for van accessible parking. Parallel parking spaces shall occupy a rectangular area ten (10) feet by twenty-three (23)feet.

2. Other Vehicles:

a. Uses that own, rent or service motor vehicles larger than automobiles which must be parked and/or stored on the site shall indicate in the statement of operations submitted with the site plan, the size of such vehicles and the anticipated largest, number of such vehicles to be stored and/or parked

on-the site at any single time and the site plan shall show a sufficient number of parking and/or storage stalls at an adequate size for the largest number of such vehicles to be parked and/or stored on the site at any one tine. Aisles providing for access to such parking and/or storage stalls shall be of adequate width for the vehicles to be served.

b. Failure of an applicant to indicate, where applicable, in the statement of operations that vehicles larger than automobiles are to be parked and/or stored on the site and provide for such parking and/or-storage on the site plan shall be a violation of this Chapter, and any building permit or Certificate of Occupancy that has been issued shall not be valid and may be revoked.

c. Any change of use to a use which requires parking and/or storage space for a greater number of vehicles larger than automobiles than the previous use shall be required to make application for site plan approval.

3. When off-street parking is provided in connection with a use which will assign or can control the utilization of parking areas (for example, employee only parking areas), the Planning Board may approve separate parking areas for subcompact vehicles having a length of less than seventeen (17) feet and a width of eight (8) feet or less. Appropriate signing and marking shall be required. The number of parking stalls which may be designed for subcompact vehicles shall be determined by the Planning Board based upon documentation submitted by the applicant.

C. Aisle Widths

1. Aisles from which cars directly enter or leave parking spaces shall not be less than twenty-four (24) feet wide for perpendicular parking or for parking at any angle greater than sixty (60°) degrees, and twenty (20) feet wide for sixty (60°) degree angle parking, except that all two-way aisles shall be a minimum of twenty-four (24) feet wide.

2. Only angle parking stalls or parallel parking stalls shall be used with one-way aisles.

D. Access Drives. (See Figures 5 and 6)

1. Entrance and exit drives shall have a minimum width of eighteen (18) feet for those designed for one-way traffic and twenty-four

(24) feet for those carrying two-way traffic.

2. Parking areas for twenty-five (25) or more cars and access drives for all parking areas on arterial highways shall provide curbed return radii of not less than twenty-five (25) feet for all right turn movements and left turn access from one-way streets and concrete aprons on entrance and exit drives.
3. Parking areas for less than twenty-five (25) cars shall utilize concrete aprons without curb returns at entrance and exit drives which are not located on a minor arterial or principal arterial highway.

E. Paint Striping.

All parking areas may provide paint striping to delineate parking stalls, barrier lines, lane lines, directional arrows, stop lines, fire lanes and other striping as may be required to insure safe and convenient traffic circulation. Such striping shall be in substantial conformance with the Uniform Manual on Traffic Control Devices.

F. Traffic Signs.

All parking areas shall provide traffic control signs and devices necessary to insure safe and convenient traffic circulation. Such devices shall be in substantial conformance with the Uniform Manual on Traffic Control Devices.

G. Curbing.

The perimeter of all parking areas and internal islands within all parking areas open to the general public shall have continuous cast in place concrete curbing in accordance with Section 8.10 of this chapter with a six (6) inch face or such alternate curb types as may be approved by the Planning Board at the time of site plan approval. The Planning Board may waive the requirement for curb in parking areas open only to employees, service vehicles or for loading and unloading, provided that drainage, vehicle control and safety can be properly accommodated by alternate means.

H. Paving.

All parking areas shall provide pavement in accordance with the requirements of local streets set forth in Section 8.22 of this Chapter, except as follows:

I. 1. Parking areas for less than fifty (50) cars which the Planning Board determines are not likely to be utilized by heavy truck traffic or drive-up window service, may be paved with two (2) inches of surface pavement, Mix I-5, over a four (4) inch stabilized bituminous base, Mix 1-2, all in accordance with the specifications contained in Section 8.22.

2. In parking areas for one hundred (100) or more cars, access drives and aisles, which the Planning Board determines are likely to be utilized by heavy trucks or unusually high traffic volumes, shall provide paving in accordance with the requirements for streets other than local streets set forth in Section 8.22 of this Chapter.

3. Parking areas in residential zones for uses other than single family dwellings may be located in any rear or side yard, but may not be located in any required front yard.

4. Where parking is permitted between the front building line and the street line, whether by this Chapter or variance, a safety island or raised median separating the public street from the parking area shall be provided in accordance with the following minimum requirements:

   a. The width of the safety island shall be that width between the proposed curb line to a point eight (8) feet inside the property line. When this width is less than eighteen (18) feet, the parking area shall be reduced to provide a minimum width for the safety island of eighteen (18) feet. All required tree and shrub plantings shall be placed on the on-site portion of the safety island.

   b. When perpendicular or angled parking spaces abut the safety island, the stall depth shall be measured from a point two (2) feet outside the face of the curb for perpendicular spaces or angled spaces greater than sixty (60) degrees, and three (3) feet outside the face of the curb for sixty (60) degrees angle spaces. Such parking spaces shall be separated from access drives by curbed islands with a minimum width, of ten (10) feet.

   c. Safety islands shall be landscaped, topsoiled and seeded, except that they may, as an alternative to seeding, be provided with cover or mulch of maintenance free materials which provide a clear and unmistakable distinction between the parking area and the safety island.

d. Notwithstanding the use of maintenance free materials, there shall be provided at least, one (1) desiduous tree two (2) inches in diameter at breast height every forty (40) feet, or part thereof, on all safety islands. A greater distance will be allowed for plantings is necessary for traffic safety. The area between trees shall be planted with a minimum of three (3) evergreen type shrubs. The portions of any safety island within twenty-five (25) feet of any access drive or street intersection shall be planted with evergreen shrubs less than thirty (30) inches in height. Alternate or additional plantings may be omitted by the Planning Board in accordance with an approved site plan.

e. No commercial signs, light stands or other aboveground obstructions other than plantings shall be permitted within ten (10) feet of the street right-of-way.

5. All required parking spaces and facilities shall be located on the same lot or parcel as the structure or use it shall serve. In the case of non-residential uses, parking facilities may be provided on other lots or parcels within a radius of three hundred (300) feet from the boundary of the lot containing the use to which said parking facilities are accessory, provided the said lots are in the same ownership as the lot containing the principal use and subject to deed restrictions binding the owner and his heirs, successors and assigns to maintain the required number of spaces available and required facilities throughout the life of such use.

6. Required parking spaces for the physically handicapped should be located to provide convenient access to building entrances by way of depressed curbs and ramps in accordance with State regulations.

a. Parking spaces for the physically handicapped shall be a minimum of twelve (12) feet in width and a minimum of sixteen (16) feet in width for van accessible and the number or spaces to be provided be determined by the following table:

Total Parking Spaces in Parking Area	Minimum Number of Spaces to be Provided for Physically Handicapped
up to 25	1 (van accessible)
26 to 50	2 (1 shall be van accessible)
51 to 75	3 (1 shall be van accessible)
76 to 100	4 (1 shall be van accessible)
over 100	4 plus 1 for each 50 over 100 spaces (2 van accessible)

b. Where possible, such spaces shall be located so that persons in wheelchairs or using braces or crutches are not compelled to wheel or walk behind parked cars.

c. Lines designating the handicapped spaces shall be painted in blue paint, and a sign(s) shall be posted and maintained, said sign(s) to conform to regulations adopted by the Director of Motor Vehicles and/or be in conformance with N.J.S.A. 39:4-198.

d. All signing, pavement marking, depressed curbing and/or ramps shall be maintained in good and proper condition, including but not limited to the condition of required markings and signs which should remain distinctly visible at all times.

e. Any owner of premises required to provide handicapped parking stalls who fails to maintain stalls, curbing, signs, or markings in proper condition shall be subject to a fine of not less than Fifty Dollars ($50.00) nor more than Two Hundred Fifty Dollars ($250.00). Each date that an owner fails to satisfy the obligations of this Article shall constitute a separate violation.

J. Small Parking Areas. Parking lots having fifty (50) or less spaces shall be designed to provide the following minimum design requirements.

1. A safety island where parking is permitted in the front yard area.

2. A five (5) foot unbroken landscaping strip along side and rear property lines. The five (5) foot landscaping strips shall have the same minimum planting requirements as safety islands, except that:

   a. Where screening is required under this Chapter, the screening requirements shall take precedence.

   b. Where the property abuts a lot zoned for non-residential purposes, but utilized for residential purposes, the Planning Board may also require screening.

3. Not more than one (1) two -way access drive or two (2) one-way access drives shall be permitted on any street.

4. Where possible, access drives shall not be located closer than one hundred (100) feet from the nearest right-of-way line of an intersecting street, or closer than twenty-five (25) feet to any side or rear property line.

5. No parking stall shall be located to require a vehicle to back into any portion of the right-of-way in order to enter or exit the parking stall.

6. All parking areas for ten (10) or more vehicles shall have artificial lighting that will provide a minimum lighting level of 0.5 horizontal foot candles throughout the parking area and access drives. Free standing light poles shall be no higher than the height of the highest principal building plus five (5) feet. Shielding shall be required where necessary to prevent glare upon adjacent properties or streets.

K. Large Parking Areas. Parking lots which have a capacity for parking more than fifty (50) vehicles shall incorporate the following minimum design standards:

1. All the minimum design standards for small parking areas.

2. All entrance drives shall extend a minimum distance of one hundred (100) feet back from the street curb line or to an access aisle.

3. All exit drives shall extend a minimum distance of sixty (60) feet back from the street curb or to a major access aisle.

4. No parking stalls shall utilize the required entrance and exit drives or major circulation drives as access aisles.

5. Wherever feasible, access drives located along one-way streets or divided highways shall be separate one-way drives. Said drives shall be located so that vehicles enter the parking area at the beginning of the property and exit at the far end of the property unless other considerations, such as a median opening, dictate otherwise.

6. Access drives shall not be located closer than one hundred (100) feet from the nearest right-of-way line of an intersecting street, except that for uses such as shopping centers, which in the opinion of the Planning Board will generate large traffic volumes, access drives shall not be located closer than two hundred (200) feet from the nearest right-of-way line of an intersecting street.

7. No driveway shall be located less than twenty-five (25) feet from the side property line or within fifty (50) feet of an existing drive, whichever is greater.

8. Properties having a frontage in excess of five hundred (500) feet on any one street shall be permitted two-way and one-way access drives providing for not more than two (2) entrance and two (2) exit movements on the street. Properties having a frontage in excess of one thousand (1,000) feet on any one street nay be permitted to have additional access drives subject to the approval of the Planning Board.

9. Where the Planning Board determines that the total number of off-street parking spaces required by this Chapter may not be immediately required for a particular use, it may permit a staged development plan, which requires that only a portion of the parking area, but not less than sixty-five (65%) percent of the required spaces, be completed initially, subject to the following regulations:

   a. The site plan shall clearly indicate both that portion of the parking area to be initially paved and the total parking needed to provide the number of spaces required by this Chapter.

   b. The site plan shall provide for adequate drainage of both the partial and total parking areas.

   c. The portion of the parking area not to be paved initially shall be landscaped in accordance with Section 8.4, C of this Chapter.

   d. The applicant shall post separate performance guarantees in addition to the performance guarantees required under Article VII of this Chapter which shall reflect the cost of installing the additional parking facilities necessary to provide the total number of parking spaces required.

   e. In lieu of a permanent Certificate of Occupancy, a temporary Certificate of Occupancy shall be issued for a period of two (2) years. Prior to the expiration of the two (2) year period, the applicant may either (1) install the additional parking shown on the site plan and apply to the Construction Official for issuance of a permanent Certificate of Occupancy or (2) apply to the Planning Board after the use has been in operation a minimum of eighteen (18) months for a determination as to whether or not the initial parking area provided is adequate. If the Planning Board determines that the parking facility is adequate as originally constructed, the performance guarantees may be released and a permanent Certificate of Occupancy issued. If, however, the Planning Board determines that the partial off-street parking area, is not adequate, the applicant shall be required to install the additional parking facilities in accordance with the terms of the performance guarantees prior to issuance of a permanent Certificate of Occupancy.

   f. Any change of use on a site for which the Planning Board may have approved a partial paving of off-street parking areas, to a use which requires more parking spaces than are provided on the site, shall require submission of a new site plan.

L. Parking Area Landscaping. Every parking lot with more than one hundred (100) spaces shall be divided as nearly as possible into smaller lots of fifty (50) spaces separated by landscaped dividing strips, excepting the area for access aisles. The plantings required within the parking area shall be considered exclusive from any other plantings that may be required for screening or safety island planting. All landscaping for dividing strips shall be shown as part of the detailed landscaping plan submission, where required. The following criteria shall apply for internal landscaped dividing strips:

1. They shall have a minimum width of ten (10) feet.

2. They shall be seeded and topsoiled. The use of maintenance free material other than seeding and topsoil may be permitted if the same provides a safe and attractive alternative.

3. Unless otherwise approved by the Planning. Board, they shall be planted with deciduous trees of two (2) inch diameter at breast height with a maximum distance between trees at ground level of forty (40) feet. All trees shall be planted in a dormant state and in accordance with the appropriate requirements of Section 8.4. The area between trees shall be planted with a minimum of three (3) evergreen type shrubs.

4. The depth of perpendicular or angled parking stalls, which abut a landscaped dividing strip, shall be measured from a point two (2) feet outside the face of the curb for perpendicular spaces or angled spaces greater than sixty (60°) degrees and three (3) feet outside the face of the curb for sixty (60°) degree angled spaces.

M. Retaining Walls and Embankment Slopes.

1. In the event that parking is proposed on a lot or site having a slope greater than ten (10%) percent, regardless of site, it shall be terraced, utilizing retaining walls or properly reinforced embankment slopes and providing for adequate safety, stability and drainage. At no time should an embankment slope that is not reinforced, or any other earthen material having a greater elevation than the adjacent parking area, have a slope exceeding a ratio of three to one (3:1).

2. When retaining walls, terraces, embankment slopes or similar types of earthen retaining devices are necessitated adjacent to or within the parking area, they shall be kept in good repair or otherwise maintained so as to keep the parking area free of debris and dirt.

N. Access to Adjoining Property. No unrestricted vehicular access shall be permitted between adjacent properties. Vehicular access, if agreed upon by the owners or possessors of adjacent properties, or if required by the Planning Board, shall normally be limited to one (1) opening providing two (2) lanes of traffic and shall be located in such a manner as to offer continuity of a similar access drive on the adjacent property. The opening shall occur at a point having the greatest distance from the street line which would facilitate the joining of properties. Access shall normally be denied across the remainder of the side lines by construction of a landscaped dividing strip, five (5) feet in width on the property being developed. If and when the adjacent property is developed, there shall be a similar dividing strip at least five (5) feet wide. All dividing strips shall be landscaped as provided in this section. The Planning Board may also require that provision be made for future connection to adjacent undeveloped properties.

O. Minimum Off-street Parking Spaces Required.

1. Automotive Repair Garage or Body Shop: one (1) parking space for each four hundred (400) square feet of gross floor area.

2. Automotive Sales and Service: one (1) parking space for each four hundred (400) square feet of gross floor area shall be provided for customer and employee parking. These areas shall be in addition to areas utilized for display and storage of vehicles. Site plans shall specify which parking spaces are designated for customers, employees, display and storage.

3. Automotive Service Station: five (5) parking spaces for each service bay, exclusive of vehicle service area. In no instance shall there be less than five (5) off-street parking spaces.

4. Banks, Savings and Loan Associations and Similar Financial Institutions: one (1) parking space for each two hundred (200) square feet of gross floor area.

5. Barber and Beauty Shop: three (3) parking spaces for each chair (if known) , but not less than one (1) parking space per two hundred (200) square feet of gross floor area.

6. Business Offices: one (1) parking space for each one hundred fifty (150) square feet of gross floor area.

7. Church, Temple or Chapel: one (1) parking space for each four (4) seats in the main congregation seating area. Where no individual seats are provided, twenty (20) inches of bench shall be considered as one (1) seat. Where seats or benches are not provided, or are provided only in a portion of the main congregation seating area, one (1) parking space for each fifty (50) square feet of floor area within the main congregation seating area.

8. Community Center, Library, Museum, Art Gallery: one (1) parking space for each two hundred (200) square feet of gross floor-area.

9. Community Club, Private Club, Lodge: one (1) parking space for each one hundred (100) square feet of gross floor area, plus one and one-half (1.5) spaces for each boat slip where applicable.

10. Meeting Rooms, Assembly or Exhibition Hall: one (1) parking space for each fifty (50) square feet of gross floor area.

11. Dwellings: two (2) parking spaces for each single family dwelling.

12. Dental or Medical Offices: one (1) parking space for each one hundred (100) square feet of gross floor area, except that if located within a building housing three (3) or more separate, unassociated practioners the requirement shall be one (1) parking space for each one hundred fifty (150) square feet of gross floor area.

13. Farmers Market: One (1) parking space for each one thousand (1,000) square feet of land area in the site.

14. Furniture, Appliance Stores or Similar Types of Uses Requiring Large Amounts of Storage: one (1) parking space for each four hundred (400) square feet up to four thousand (4,000) square feet, plus one (1) parking space for each eight hundred (800) square feet of gross floor area above four thousand (4,000) square feet.

15. Government Office: to be determined by the Planning Board, except that governmental offices within privately owned buildings shall provide, a minimum of one (1) parking space for each one hundred fifty (150) square feet of gross floor area.

16. Hardware, Auto Supply Stores: one (1) parking space for each four hundred (400) square feet of gross floor area.

17. Laundromats or Similar Coin-operated Cleaning: one (1) parking space for each two hundred (200) square feet of gross floor area.

18. Manufacturing or Industrial Establishment, Research or Testing Laboratory, Bottling Plant or Similar Uses: one (1) parking space for each five hundred (500) square feet of gross floor area.

19. Professional Office: One (1) parking space for each two hundred (200) square feet of gross floor area.

20. Public and Private Utilities, Electrical Substation, Gas Regulator, Water Works. Pumping Station and Similar Facilities: to be determined by the Planning Board based on the specific need of the use.

21. Restaurant, Cafe, Diner: one (1) parking space for each fifty (50) square feet of gross floor area.

22. Recreation Facilities: those not specifically mentioned herein shall be determined by the Planning Board.

23. Residential: for all residential developments, parking shall be provided as set forth in the Residential Site Improvement Standards (RSIS), as set forth in Table 4.4.-Parking Requirements for Residential Land Uses.

24. Retail Stores, Except Otherwise Specified: one (1) parking space for each one hundred fifty (150) feet of gross floor area.

25. Studio: art, music, dance, gymnastics and similar for the purpose of giving instruction rather than shows or exhibitions: one (1) parking space for each one hundred (100) feet of gross floor area.

26. Schools:

    a. Elementary: one (1) parking space for each eight (8) students based on design capacity.

    b. High School: one (1) space for each three (3) students based on design capacity.

27. Nursery School, Day Camp or Similar Uses: one (1) parking space for each five hundred (500) square feet of gross floor area.

28. Shopping Centers: six (6) parking spaces for each one thousand (1,000) square feet of gross floor area.

29. Veterinary Clinics or Hospitals or Animal Care Facilities: one (1) parking space for each four hundred (400) square feet of gross floor area.

30. Warehouse, Wholesale, Machinery or Large Equipment Sales; one (1) parking space for each one thousand. five hundred (1,500) square feet of gross floor area, plus one (1) parking space for each vehicle used in connection with the business.

P. Criteria for Determining Required Parking Spaces. In computing the number or the above required parking spaces, the following rules shall govern:

1. Where fractional spaces result, the required, number shall be construed to be the nearest whole number.

2. The parking space requirements for a use not specifically mentioned herein shall be the sane as required for a use of similar nature as determined by the Planning Board based upon that use enumerated herein which is most similar to the proposed use. If there is no use enumerated herein having sufficient similarity to the use proposed to enable the Planning Board to establish rational parking requirements, the Planning Board may, in its discretion, direct the applicant to furnish the Planning Board with such data as may be necessary to enable the Planning Board to establish rational parking requirements.

3. Nothing in the above requirements shall be construed to prevent the joint use of off-street parking facilities by two (2) or more uses on the same site, provided the total of such spaces shall not be less than the sum of the requirements for various individual uses computed separately by the above requirements.

4. No part of off-street parking required by a structure or use shall be included as part of an off-street parking requirement of another use unless substantial proof and assurances are presented and it is determined by the Planning Board that the use of this parking will not be simultaneous.

SECTION 8-21 PRIVATE SWIMMING POOLS

A. Type of Pools.

1. Permanent underground.

2. Permanent above ground: above ground pools equipped with fences built above the top level of the pool.

3. Temporary above ground: above ground pools not equipped with fences built above the top level of the pool.

B. Lighting. All lighting fixtures for a private swimming pool shall be installed so as to comply with all applicable safety regulations, and shall be shielded so as to prevent any direct beam of light from shining on any adjoining property.

C. Electric Lines. All electrical service lines shall be buried underground cable and/or conduit shall be in accordance with the building.

D. Building Permit. When an application is made for a permit to construct and locate a private swimming pool, the Applicant shall show an approval from the Board of Health of the Borough as to the suitability and adequacy of design, materials and construction or construction specifications of said pool, including all accessory equipment, apparatus and appurtenances thereto. The application for a private swimming pool building permit shall identify the building lot, the location of the residence, location of swimming pool, all

accessory equipment and apparatus, type of pool, all basic dimensions, location of steps, diving stands, boards and location and detail specification of enclosure and gate on the lot.

E. Pool Location. An outdoor private swimming pool shall be located not less than twenty-five feet (25') from the side or rear of the residence on a building lot in a R-l or R-1A Zone and fifteen feet (15') in any other zone. No pool, pool fence or pool accessory shall be located in a front yard.

F. Pump Location. The pump of a filtration or pumping station of a private swimming pool shall be located not less than twenty feet (20') from any side or rear property line.

G. Drainage. Private pools situated or extended above ground level and less than fifty (50) feet from an abutting property shall be surrounded by a suitable grading or drainage system leading to a street or brook so as to be able to carry away all the water in the pool in the case of a break.

H. Enclosures. Private swimming pools, spas and hot tubs shall be enclosed in accordance with Sections H. and I.
Outdoor private swimming pool: An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be provided with a barrier which shall comply with the following:

1. The top of the barrier shall be at least 48 inches (1219 mm) above finished ground level measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between finished ground level and the barrier shall be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above finished ground level, such as an above-ground pool, the barrier shall be at finished ground level, such as the pool structure, or shall be mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).

2. Openings in the barrier shall not allow passage of a 4 inch (102 mm) diameter sphere.

3. Solid barriers shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.

4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45

inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1 3/4 inches (44 mm) in width. Decorative cutouts shall not exceed 1 3/4 inches (44 mm) in width.

5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Decorative cutouts shall not exceed 1 3/4 inches (44 mm) width.

6. Maximum mesh size for chain link fences shall be a 1 ¼ inch (32 mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1- 3/4 inches (44 mm).

7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall be not more than 1 3/4 inches (44 mm) .

8. Where a wall of a dwelling serves as part of the barrier, one of the following shall apply:

   a. All doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and its screen, if present, are opened. The alarm shall sound continuously for a minimum of 30 seconds immediately after the door is opened. The alarm shall have a minimum sound pressure rating of 85 dBA at 10 feet (3048 mm) and the sound of the alarm shall be distinctive from other household sounds such as smoke alarms, telephones and door bells. The alarm shall automatically reset under all conditions. The alarm shall be equipped with manual means, such as touchpads or switches, to deactivate temporarily the alarm for a single opening from either direction. Such deactivation shall last for not more than 15 seconds. The deactivation touchpads or switches shall be located at least 54 inches (1372 mm) above the threshold of the door.

   b. The pool shall be equipped with an approved power safety cover.

9 . Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a fixed or removable ladder or steps, the ladder or steps shall be surrounded by a barrier which meets the requirements of items 1 through 8 of Section H. A removable ladder shall not constitute an acceptable alternative to enclosure requirements.

10. Prohibited locations; Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

11. Exemptions: The following shall be exempt from the provisions of this section:

a. A spa or hot tub with an approved safety cover.
b. Fixtures which are drained after each use.

I. Access gates shall comply with the requirements of items 1through 7 of Section H and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outwards away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device islocated less than 54 inches (1372 mm) from the bottom of the gate:

(a) the release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate; and (b) the gate and barrier shall not have an opening greater than ½ inch (13 mm) within 18 inches (457 mm) of the release mechanism.

SECTION 8-22 ROADWAY CONSTRUCTION

A. General Requirements. Roadways and all appurtenances, including subgrade, subbase, base courses and pavements, shall be constructed in accordance with the applicable requirements of the Standard Specifications as modified herein. All subsurface utilities including service connections (terminating at least two (2) feet behind sidewalk) to each lot and all storm drains shall be installed in all roadway areas prior to the construction of final pavement surfaces.

B. Type of Pavement. All roadways shall be constructed with either a bituminous concrete flexible pavement structure or a portland cement concrete rigid pavement structure. Only one (1) type of pavement shall be utilized throughout any development.

C. Pavement Structure Design.

1. The pavement structure design for each particular development utilizing either a flexible or rigid pavement type shall be the responsibility of the developer or his engineer. The pavement design shall be based upon traffic loading projections and field sampling and laboratory analysis of the subgrade solids to be encountered in roadway areas in the development and shall follow current design recommendations of the Asphalt Institute, the Portland Cement Concrete Association or such other generally recognized standards as may be acceptable to the Borough Engineer.

2. As minimum requirements, rigid Portland cement paving shall be expansion joint type paving utilizing joints similar to Type A expansion joints, according to the Standard Construction details of the New Jersey Department of Transportation, shall be reinforced, constructed with Class B air-entrained concrete and shall have a minimum thickness of six inches for minor collector streets and eight (8) inches for other classifications. Flexible bituminous concrete pavements shall have an equivalent structural depth of at least ten (10) inches for local, local collector and minor collector streets having a minimum wearing surface of not less than one and one-half (1½) inches of pavement. Type FA-BC-1, and a minimum bituminous stabilized base course of not less than four (4) inches and a dense graded aggregate base course to provide the remaining depth; and an equivalent structural depth of at least thirteen (13) inches for other street classifications, having a minimum wearing surface of not less than two (2) inches of pavement. Type FA-BC-1 a minimum bituminous stabilized base course of not less than five (5) inches, and a dense graded aggregate base to provide the remaining depth, Bituminous stabilized base may be substituted for aggregate base on a one to three (1-3) ratio (stabilized base to aggregate base) all in accordance with the applicable requirements of the Standard Specifications.

D. Subgrades

All subgrade shall be prepared in accordance with the applicable requirements of the Standard Specifications for bituminous concrete and reinforced concrete pavements. Prior to the construction of any subbase, base or pavement course, all soft or unyielding portions of the subgrade which do not attain the required stability will be removed and replaced with the suitable material, and the whole surface of the subgrade shall be compacted. The provision of a uniform roadway subgrade meeting the requirements of the Standard Specifications shall be the full responsibility of the developer. In certain cases, special treatment may be required because of the character or nature of the subsoil. Such special treatment may include lime or cement stabilization, wet excavation, or construction of underdrainage fields. Any proposal by the developer to stabilize subgrade shall be subject to the approval of the Borough Engineer.

E. Subbase and/or Aggregate Base Courses. Where granular subbase courses are included in the payment design section proposed by the developer, they shall be constructed in accordance with the Applicable requirements of Section 901.08 of soil Aggregate designated I-5 conforming to Section 901.08 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction. Asphalt concrete pavements (and stabilized bases) may be constructed on subgrade without subbase or aggregate base courses, provided that the subgrade can be satisfactorily prepared as hereinbefore described. Dense graded aggregate base courses shall comply with the requirements of the Standard Specifications for Soil Aggregate, Type 5, Class A, or Type 2, Class A or B. Portland cement concrete pavements must be constructed with a minimum

of six (6) inches of a granular type subbase meeting the requirements of the Standard Specifications for Soil Aggregate, Type 4, Class E. Any subbase course of aggregate base course to be utilized with any type of pavement shall have a minimum thickness of four (4) inches.

F. Bituminous Base Courses.

1. Bituminous base courses for use with bituminous concrete pavements shall consist of base course in accordance with the requirements of Section 301.02 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction except that the requirements for the construction of the base course shall be amended to allow the laying of the base course with a single lift maximum thickness not exceeding four (4) inches.

2. Prior to placement of any asphalt concrete base course, the finished surface of any underlying subbase or aggregate base shall receive a prime coat in accordance with the requirements of Section 304.02 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction.

G. Bituminous Pavements. Bituminous pavements shall consist of a asphalt surface course, in accordance with the requirements of Section 404.02 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction. The bituminous pavement wearing surface should generally not be installed until just prior to the time the streets are prepared for final acceptance. Prior to the installation of a bituminous concrete surface, the bituminous base course shall be inspected by the Borough Engineer. Any areas of the base course in need of repair shall be removed and replaced at the direction of the Borough Engineer. If the Borough Engineer directs, a leveling course of FA-5C material shall be placed on any uneven or below grade base courses prior to the placement of finished pavement. No pavement surfaces shall be placed unless permission to do so has been granted by the Borough Engineer.

H. Concrete Pavements. Concrete pavements shall be constructed in accordance with the requirements of the Standard Specifications. Expansion joints shall be New Jersey State Department of Transportation Type A Expansion Joints. The developer may submit, at the time of the submission of the preliminary plat, an alternate expansion joint detail. The use of such an alternate detail must be recommended by the Borough Engineer and approved by the Planning Board. Where existing concrete roadways are being widened as the result of the development of abutting properties, the widened pavement shall be required to be of Portland cement concrete. The remaining pavement in the development may, if the subdivider elects, be bituminous concrete. This will be an exception to the requirements that all pavement constructed within a development be of one (1) type.

I. Alternate Pavement Types. In areas where alternate pavement types are proposed or desired either-for decorative purposes, because of physical restrictions or existing conditions, or because of limitations or shortages in certain types of construction materials, a detail of the type and/or location of alternate pavement types proposed shall be submitted for approval with the preliminary and/or final plat. The use of alternate pavement types may only be permitted if the applicant submits for review and approval details and specifications concerning the equipment, materials and methods proposed for use, and if the Borough Engineer has inspected the installation of, and tested and approved a suitable sample section of such pavement. In the event the Borough Engineer does not approve the sample section of pavement, "the developer shall remove the same section and replace it with a type" of pavement permitted by this Chapter or such other alternate as may be approved by the Planning Board.

SECTION 8-23 SCREENING OF EQUIPMENT OR MACHINERY

A. When the effective operation of a building or structure, or equipment within a building or structure, necessitates placing machinery, motors, generators or similar devices for cooling, heating or generating purposes, outside or on top of any structure, they shall be screened from public view. Said screening may consist of the following:

1. Densely planted evergreen shrubs, which shall grow to not less than five (5) feet after one (1) growing season., and

2. A solid and uniform fence at least five (5) feet in height on four (4) sides of said equipment, or

3. A masonry wall at least five (5) feet in height on four (4) sides of said equipment, or

4. Extensions of parapet walls or mansard roof lines of structural or ornamental screens or baffles, or

5. Any similar type of solid or uniform screening, which will prevent exposure of such equipment to public view.

B. The above requirements shall not be construed to prevent an opening in any required screening for maintenance purposes. However, any such opening shall be made as inconspicuous as is possible so as not to present any unsightly display of said equipment to public view.

SECTION 8-24 SEWAGE DISPOSAL

A. The design and construction or approval of all public systems for extensions of existing sewerage system(s) either publicly or privately owned, shall be under the jurisdiction of the Two Rivers Water Reclamation Authority.

B. Prior to the approval of any final plat, the full approval of any sewage disposal system must have been obtained from the Two Rivers Water Reclamation Authority and filed with the Planning Board, or the final approval will be conditioned upon full approval of the Two Rivers Water Reclamation Authority.

C. Any sanitary sewage collection system shall be adequate to handle all present and probable future development. Alignments outside streets shall require either rights-of-way, or easements in accordance with Section 8-27, Easements.

SECTION 8-25 SIDEWALKS AND APRONS

A. General Requirements

1. Sidewalks shall be constructed at the ending cul-de-sacs unless the Planning Board deems sidewalks are not necessary. Where the development abuts an existing street, the sidewalk shall be constructed only on that side. Sidewalks shall also be constructed at any other places, such as pedestrian walkways or access points to open space, as shown on or required at the approval of the final plat.

2. The requirements of the Standard Specifications regarding curbing precautions must be strictly observed.

B. Location.

Sidewalks within street right-of-way shall generally be located with the sidewalk edge farthest from the roadway placed one (1) foot from the property line. Sidewalk not within street right-of-way shall be located to provide for the most likely routes of pedestrian travel. In cases where the topography dictates a proposed development provides for the extension of an existing street or abuts an existing street, where sidewalks have already been installed in a location other than as specified above or where such variations in sidewalk locations are needed to preserve trees or natural features, the Planning Board may approve alternate sidewalk locations in order to provide for the preservation of physical features or the continuation of the existing sidewalks.

C. Sidewalk Construction.

Sidewalks shall be four (4) feet wide and four (4) inches thick, except crossing driveways, where the thickness shall be increased to six (6) inches with reinforced, welded wire fabric mesh for residential uses and all drives to parking areas of less than fifty(50) spaces and to eight (8) inches with reinforced welded wire fabric mesh, or all other uses. Sidewalks shall be six (6) feet in width where designed to be adjacent to driveways or parking spaces subject to vehicle overhang. Where the Planning Board determines that a sidewalk may be subject to unusually heavy pedestrian traffic it may require that its width be increased (to a maximum of eight (8) feet.) All sidewalk construction shall be in accordance witch the applicable requirements of the Residential Site Improvement Standards N.J.A.C. Title 5, Chapter 21, Section 5:21-4.18. Concrete shall be Class B, air-entrained. Preformed bituminous cellular joint fillers one-half (½) inch thick shall be placed at intervals not exceeding twenty (20) feet. Dummy (formed) joints shall be cut into the concrete sidewalk between the expansion joints at equal intervals not exceeding the width of the sidewalk.

The sidewalk subgrade shall be compacted prior to the placement of any sidewalk. Any unsuitable material encounter in the subgrade shall be removed and replaced with suitable material acceptable to the Engineer.

D. Apron Construction.

Reinforced concrete aprons shall be constructed at all driveways between the concrete curb and the concrete sidewalk. Such aprons shall be six (6) inches thick for residential uses and all drives to parking areas of less than fifty (50) spaces and to eight (8) inches for all other uses and shall be reinforced with welded wire fabric (66-1212), or an equivalent approved by the Borough Engineer. Concrete shall be Class B air-entrained. The width of the apron at the curbline shall be not less than the width of the driveway plus ten (10) feet or a minimum of twenty (20) feet, whichever is greater.

E. Driveway Depressions.

At each driveway without curb return radii the concrete curb shall be depressed to form a driveway opening. The depression shall be equal in length to the width of the driveway plus ten (10) feet but not less than twenty (20) feet. At driveways with curb return the curb depression shall accommodate the exterior limits of the radii. The depression shall be smoothly formed to maintain a lowered curb face across the depression of at least one (1) inch. but not more than two (2) inches. The bottom of the curb shall be lowered to maintain full curb depth across the depression.

F. Alternate Sidewalk or Apron Types and/or Locations.
In areas where alternate sidewalk or apron types and/or locations are proposed or desired, either for decorative purposes or because of physical restrictions or existing conditions, a detail of the type and/or location of sidewalk and apron proposed shall be submitted for approval with the preliminary and/or final-plat. Continuous slip-formed sidewalks may be permitted if such is considered to be desirable by the Borough Engineer. The use of continuous slip-formed sidewalks may only be permitted if the applicant submits, for review and approval, details and specifications concerning the equipment, materials and methods proposed for use; and if the Borough Engineer has inspected the installation and tested and approved a suitable sample section of such sidewalk. In the event the Borough Engineer does not approve the sample section of continuous slip-formed sidewalk, the developer shall remove the sample section and replace it with a type of sidewalk permitted by this Chapter or such other alternate as may be approved by the Planning Board.

G. Curb Ramps for the Physically Handicapped. Curb ramps for the physically handicapped shall be constructed on all street curb returns and where appropriate, in parking areas. In general, two (2) curb ramps shall be constructed at each corner (see Figure No. 6A). A single ramp at the center of the corner is acceptable when site conditions preclude the use of the two (2) ramp system (see Figure No. 6B). Curb ramps for the physically handicapped shall be constructed in accordance with the standards shown on Figures No. 6A and 6B. If there is a grass or landscaped area between the curb and the sidewalk, side ramps need not be provided. Curb ramps shall be provided at all four (4) corners of full intersections and at the two (2) corners plus a location across the street from both of the ramps at "T" intersections. The developer shall submit a detailed intersection grading plan for approval of the Borough Engineer prior to installation of the curbs, sidewalks and curb ramps at the intersection.

Curb ramps shall be constructed with a rough broom finish in accordance with New Jersey Department of Transportation specifications and shall be flush with the street pavement at the gutter line.

SECTION 8-26 SIGNS

A. General Provisions

1. All signs shall conform to the structural requirements of the New Jersey Uniform Construction Code as adopted by the Borough of Little Silver.

2. All signs to be erected, inscribed, installed, replaced or altered shall require a sign permit except permitted signs for private residences, permitted window signs and temporary signs, and name plate signs not exceeding two (2) square feet in size. Application for such sign permit shall be made in the same manner as applications for non-residential building permits for the erection or construction of buildings. The application fee for such permit shall be $100.00. All sign applications shall be approved by the Planning Board. Any variance from the provisions of this section shall be reviewed by the Planning Board in accordance with N.J.S.A. 40:55D-70 (c).

3. The maximum height for free standing or projecting signs, unless otherwise provided, shall not exceed twelve (12) feet above ground level.

4. All signs shall be located within the building line of the property, unless otherwise specifically provided.

5. No permanent marquees or canopies shall extend over a required front yard or over a public walk.

6. Official signs erected by the Borough, County, State or Federal Government shall be permitted in all districts.

7. One free standing sign for identification shall be permitted for schools, churches, hospitals or similar institutions, permitted clubs and lodges and businesses, provided that the area shall not exceed twenty-five (25) square feet in size. Each freestanding sign may have one telephone number listed on each face of the sign.

8. Flood lights shall not be located more than twelve (12) feet above ground level and shall be so placed and shielded as to prevent any glare or blinding effect upon any lane of moving traffic.

9. No sign shall be located in such a manner as to materially impede the view of any street or intersection.

10. No signs except window or special event signs shall be placed on private or public property except for the purpose of identifying a use or uses actually conducted upon the premises upon which such signs are erected and for no other purpose.

11. Signs placed in windows are permitted subject to the following provisions. Except for "For Rent" and "For Sale" signs, any temporary sign or other advertising material glued or otherwise attached to a window or otherwise exposed to public view shall be removed at the expiration of the event of sale for which it was erected or posted, whichever shall have occurred sooner.

    Not more than 15 percent of the square footage of any single window or single window display area shall be devoted to signs or other advertising material attached thereto or otherwise exposed to public view. No window signs shall span several windows.

12. The bottom of all projecting signs must be at least eight (8) feet above ground level, but shall not be above the first floor ceiling line. The top of projecting signs shall not extend above the eaves of the roof. Projecting signs shall be at right angles to the building and the outermost point of the sign shall not be more than five (5) feet from the side of the building.

13. Internally illuminated signs in accordance with the following standards:
    a. All outdoor lighting shall be shown on the site plan in sufficient detail to allow determination of the effects at the property line and on nearby streets and driveways, residences, and overhead sky glow.
    b. No lighting source (the bulb) shall be visible from windows, streets and driveways, nor shall lighting be a nuisance by shining directly into, or reflecting into windows or onto streets and driveways where the light may interfere with driver vision.
    c. No lighting shall be of a yellow, red, green or blue beam nor be a rotating, pulsating or other intermittent frequency.
    d. The intensity of light and the shielding, direction and reflection of lighting and similar characteristics shall be subject to site plan approval by the Approving Authority.
    e. Lighting for sign shall not extend beyond property line.
    f. Shall not produce a glare.
    g. Lighting intensity in the immediate area of the sign shall not exceed 20 footcandles.

B. Maintenance

If a Borough Official shall find that any sign is unsafe, insecure or in need of repair, or is not maintained in proper painted condition, that Official shall give written notice to the permittee thereof. If the permittee fails to repair or remove it within thirty (30) days after such notice, such sign may be removed in order to comply, by the Official at the expense of the permittee or owner of property on which it is located.

C. Prohibited Signs

1. No rotating beam of flashing illumination shall be used in connection with any sign.

2. Signs with any lighting or control mechanism which may cause radio or television interference.

3. Any sign so erected, constructed or maintained as to obstruct or be attached to any fire escape, door or opening used as means of egress or ingress, or for fire fighting purposes, or placed so as to interfere with any opening for ventilation required by law.

4. Signs utilizing the colors red or green in their illuminations when the signs are placed within fifty (50) feet of a street intersection.

5. Any sign which is of such a form, character or shape as to confuse or dangerously distract the attention of a motor vehicle.

6. Any advertisement that uses a series of two or more signs or units, placed in a line parallel to the street, or in similar fashion, all carrying a single advertising message, part of which is contained on each sign.

7. Signs which in any way simulate official directional or warning signs erected or maintained by the State of New Jersey, Monmouth County or Borough , or by any railroad, or public utility or similar agency concerned with the protection of the public health or safety.

8. Pennants, multi-color streamers or banners, except during a ten (10) day period following the commencement of business by a new owner or tenant.

9. Signs, which rotate or move or which have rotating or moving parts.

10. Signs which are above the parapet of a building.

11. Signs which are attached to utility poles or trees.

12. Signs which advertise that real estate has been sold or rented.

13. Neon signs.

14. Signs with rolling messages.

15. Signs containing multiple phone numbers. (one phone number per sign shall be permitted.

16. Signs containing description of services provided or promoting identification other than the building name or location that exceed two (2) line and/or eight (8) words, excluding telephone numbers.

17. Signs containing advertising.

D. Permitted Signs In Residential Zones

1. Signs to identify a permitted professional use or the occupant of a residence, and trespassing signs, or signs indicating the private nature of a driveway or premises, provided that the area of any such sign shall not exceed two (2) square feet, shall not exceed four (4) feet in height above ground level, shall not be artificially lighted and shall be situated within the property lines of the premises it identifies.
2. One (1) non-illuminated temporary sign advertising the prospective sale or rental of the premises upon which it is maintained, provided that the area of any such sign shall not exceed three (3) square feet, shall not exceed four (4) feet in height above ground level and that it shall be removed within thirty (30) days after consummation of a lease or sale transaction and further provided that the words "For Sale" or "For Rent" or similar words must be the largest wording on the sign.

3. One free standing sign for each major subdivision, provided such sign shall not exceed twenty (20) square feet in area and shall not exceed eight (8) feet in height. Any sign remaining in the area after all work on the subdivision is completed shall not exceed four (4) square feet and shall not exceed eight (8) feet in height above ground level.

(a) One (1) non-illuminated temporary directional sign for each major subdivision may be placed in accordance with the restrictions on signs set forth in this Section. For the purposes of this Section, "Temporary Directional Sign" means one (1) temporary sign that solely indicates the residential subdivision, or a portion thereof, is for sale and provides directions to the property.

All temporary directional signs are subject to the following conditions:

1) Size. The area of the sign shall not exceed three (3) square feet in size.

2) Height. The vertical distance measured from ground level to the highest point of such sign or sign structure or other support shall not exceed four (4) feet.

3) Application required. A properly completed Development Permit Application with location and written permission of the owners of the property on which the sign shall be located is required. In addition, a $10.00 temporary sign fee shall accompany each Application.

4. No more than one permanent sign per lot shall be permitted unless otherwise specified, for each use permitted in this zone.

E. Permitted Signs In Nonresidential Zones

1. Each nonresidential use may have a wall sign on the front of the building, not exceeding a total of ten (10) percent of the front building face area; including all doors and windows, but excluding the roof, and not exceeding thirty (30) square feet in area.

2. Each commercial building may have:

   (a) One (1) projecting sign not exceeding five (5) percent of the front building face area, with a maximum sign area of twenty-five (25) square feet; or

   (b) One (1) free standing sign not exceeding a sign area of twenty-five (25) square feet.

3. The overall sign area of all signs shall not exceed fifteen (15) percent of the front building face area, including all doors and windows.

4. Where a nonresidential structure is located at the intersection of two (2) streets, or a street and a parking lot, an additional wall sign may be erected or inscribed, upon the side wall, provided that such wall sign does not exceed five (5) percent of the face area of the front of the building.

5. Where the rear of a non-residential structure adjoins a parking area or public access to a street, a wall sign not exceeding ten (10) square feet may be erected or inscribed, provided the total sign area of the premises does not exceed fifteen (15) percent of the face of the building. However, where a public entrance exists at the rear of a non-residential structure, a wall sign not exceeding two square feet and stating the name of the premises only may be erected or inscribed, which shall not be counted toward the fifteen percent limitation imposed in this subsection.

6. One temporary sign advertising the sale or rental of real estate on which it is located shall be permitted, provided that the area on one side of such sign shall not exceed an area of twenty-five square feet.

7. Directional and trespassing signs may be permitted on the premises, however no such sign shall exceed six (6) square feet in area.

8. No free standing sign shall be erected, installed or maintained nearer than fifty (50) feet from the boundary of any residential zone unless such free standing sign is of a size and type permissible in a residential zone and unless the illumination, if any, of such sign is from within and of such intensity and so directed as not to cause a nuisance to adjacent property owners.

9. Permitted signs shall be limited to a maximum number of one (1).

10. Where a free-standing gang sign displaying tenants located in that particular structure has been erected no individual tenant signs shall be erected.

F. Special Event Signs

1. Civic groups or service organizations may erect a temporary sign prior to a special event provided that permission is granted by the Mayor and Council.

2. Any business, industrial or professional user shall be allowed to erect advertising material which conforms to the requirements of Section 8.26 for a period not to exceed a total of fourteen days during each calendar year. Approval of temporary signs shall be required by the Zoning Officer upon submission of a completed sign application together with a scale drawing clearly showing the dimensions and location of the temporary sign.

3. Temporary residential real estate open house signs may be placed in accordance with the restrictions on signs set forth in this Section. For the purposes of this Section, "Residential Real Estate Open House Sign" means a temporary sign that solely indicates that residential property, or a portion thereof, is for sale, lease, or rent and provides directions to the property and "open house" information.
All temporary residential real estate open house signs are subject to the following conditions:

   1. Size. The total face area of the signs shall not exceed two (2) feet by two (2) feet in size.

   2. Height. The vertical distance measured from ground level to the highest point of such sign or sign structure or other support shall not exceed three (3) feet.

   3. Local address. Signs shall only advertise a residence in the Borough of Little Silver.

   4. Limit. No more than three (3) temporary residential real estate open house signs per property for sale, lease or rent shall be posted and is limited to one (1) open house sign and not exceeding two (2) directional signs.

   5. Type. Signs shall be mounted either on stakes placed in the ground or with an A-frame support of sufficient weight so that the sign remains upright when mounted. Signs and any supporting structures shall be maintained in good condition at all times and shall be constructed out of quality materials normally used in professional signage. No balloons or flags or similar devices may be affixed to the sign.

6. Time. Signs shall only be displayed during the "open house" and only on Sundays (or federal or state holidays) not earlier than 11 A.M. and must be removed no later than dusk or 6 P.M., whichever occurs first.

7. Application required. A properly completed Development Permit Application with locations and written permission of all property owners of property on which signs are to be located is required. In addition, a $10.00 temporary sign fee shall accompany each Application. Applications shall be submitted at least 10 days in advance of the open house.

8. Penalty. Violation of this Ordinance for failure to obtain a permit or failure to remove the signs in a timely manner shall be subject to a fine of $250.00 for the first violation with escalating penalties up to $2,000.00 for subsequent violations.

SECTION 8.27 SOLID WASTE STORAGE

Solid wastes from all uses other than single or two family homes, if stored outdoors, shall be placed in metal receptacles within a screened refuse area subject to the following minimum standards:

A. The screened refuse area shall not be located within any front yard area..

B. The refuse storage area shall be surrounded on three (3) sides by a solid uniform fence or wall not less than five (5) feet nor more than eight (8) feet in height. Such fence shall be exempt from the provisions of any ordinance of the Borough regulating the height of fences and requiring permits therefor.

C. A five (5) foot minimum width landscaping area shall be provided along the fence or wall enclosing the refuse storage area. The landscaping to be provided shall be shown on the site plan submitted for Planning Board approval.

D. The opening in the enclosed refuse area should be located to minimize the view of refuse from adjoining properties or public streets.

E. If located within or adjacent to a parking area or access drive, the enclosed refuse area shall be separated from such parking area or access drive by curbing.

F. The enclosed refuse area shall not be located so as to interfere with traffic circulation or the parking of vehicles.

G. All refuse shall be deposited in containers maintained within the refuse area. No containers shall be maintained anywhere on-site except in a refuse area meeting these requirements.

H. If outdoor storage of solid waste is not proposed, the site plan submission shall detail the methods proposed for accommodating solid waste within the structure. The Planning Board may require that a suitable area be set aside, but not improved, for a future solid waste storage area meeting these requirements, even if indoor accommodations for solid waste are proposed.

SECTION 8-28 STORM DRAINAGE FACILITIES

A. General Requirements. All development shall have a stormwater management plan. All storm drainage facilities shall be constructed in accordance with the applicable requirements of the Standard Specifications. The developer (or his engineer) shall submit complete calculations, specifications, plans and details for all proposed storm drainage facilities. Any field samples or laboratory tests required to document the conclusions of such calculations shall be formed at the sole expense of the developer.

B. Storm Drain Pipe. All storm drain pipes shall be reinforced concrete pipe conforming to ASTM designation C-76, reinforced concrete area culvert conforming to ASTM designation C-506 or, of a wall thickness sufficient to meet the proposed conditions of service; but in any event, no wall thickness less than Class 3, Wall B, for concrete pipe. Generally, concrete pipe will be used except, in areas of steep grades or other restrictive physical conditions where corrugated, metal or other, types of pipe may be permitted. No concrete pipe may be laid on grades exceeding ten percent (10%). Concrete pipe below thirty (30) inches (or equivalent) in size will be jointed using a mortared joint in accordance with the specifications. Concrete storm drain pipes, thirty (30) inches or larger in diameter will be jointed using a preformed bituminous mystic pressure-type joint sealer or rubber-ring-type or other equivalent approved joint. All storm drains shall be tangent between inlets, manholes or other structures. Prior to laying any storm drains, the bottom of all trenches shall be inspected by the Borough Engineer. Should the Engineer determine that the trench is unsuitable for the placement of the pipe, the developer shall take all necessary action to remove or eliminate any unsuitable conditions. These may include, but are not limited to,

excavation and backfilling with suitable material, placement of bedding material, construction of pipe cradles or such other action necessary to remove all unsuitable conditions. Proposed storm drainage installations which do not conform to the above must be fully detailed and approved as part of the final plat.

C. Inlets and Manholes. Inlets and manholes shall be constructed where required in accordance with the requirements of the Standard Specifications and Standard Construction Details.

D. Headwalls. All pipe terminations shall be provided with poured concrete headwalls or precast concrete end sections in accordance with the approved final plat. Poured concrete headwalls shall be wing-type headwalls with aprons in accordance, with the Standard Construction Details.

E. Inlet and Manhole Location.

1. In continuous conduit runs, spacing between structures (inlets or manholes) shall not exceed four hundred (400) feet.

2. Structures (inlets or manholes) shall be located so as not to interfere with primary routes of pedestrian travel or any proposed handicapped ramp or similar facility.

3. In general, surface flow length, for flows of four (4) or more cubic feet per second, on paved surfaces shall not exceed four hundred (400) feet, provided that:

   a) Gutter flow widths on local and. local collector streets shall not exceed eleven (11) feet, or such narrower width as may be necessary to provide a twelve (12) foot wide clear lane in the center of the roadway.

   b) Gutter flow widths on minor collector streets shall not exceed nine (9) feet, or such narrower width as may be necessary to provide two twelve (12) foot wide clear lanes in the center of the roadway.

   c) Gutter flow widths on major collector streets without shoulders shall not exceed five (5) feet, or such narrower width as may be necessary to provide four ten (10) foot wide clear lanes in the center of the roadway.

d) Gutter flow widths on minor and principal arterial streets and major collector streets with shoulders shall be retained within the shoulder areas.

e) Swale gutter flow widths in parking areas shall not exceed five (5) feet.

4. Maximum design capacities which may be used to determine actual inlet location and spacing are:

Not in Sump Conditions	
Type B	4 cubic feet per second
Type E (in paved areas)	4 cubic feet per second
Type E (in yard areas)	1.5 cubic feet per second

In Sump Conditions
To be individually designed

5. Only Type B inlets shall be used in curbed roadways or curbed access or major circulation drives.

6. Generally, sufficient inlets will be placed to eliminate any flaw exceeding two (2) cubic feet per second across any intersections.

7. Parking areas may be designed to allow ponding in order to decrease intensity of runoff. In such case, ponding will not be allowed in any access or major circulation drive or in any area of heavy pedestrian activity and shall not exceed six (6) inches at any point calculated for the 25 year design storm event.

F. Type of Inlets and Manholes. All curb inlets shall be New Jersey Department of Transportation Standard Type B in accordance with N.J.A.C. 5:21-7.4 and all yard inlets shall be Standard Type E; all manholes shall be New Jersey Department of Transportation standard four (4) foot diameter, unless a larger diameter is necessary.

G. Open Channels.

1. Open channels shall be designed to contain the required flow and shall have a design velocity low enough, in the judgment of the Borough Engineer, to prevent erosion. The minimum easement for open channel sections shall be the maximum design width of the channel section segment plus twenty-five (25) feet rounded to the next highest five (5) foot increment. The excess easement area shall be provided offset to that side of the channel most convenient for use by maintenance crews. The minimum distance between the channel top edge and any easement line shall be five (5) feet. Excess velocity, if any, as determined by the Borough Engineer, in open channels must be controlled by sod, rip-rap, paving, ditch checks or other suitable methods. Changes of direction in open channels must have a maximum radius of eight hundred (800) feet or be adequately paved or rip-rapped.

2. Generally, unlined open channel cress-sections shall have side slopes not steeper than four to one (4:1) for channel depths of two (2) feet or less and not steeper than eight to one (8:1) for channel depths of more than to (2) feet. Lined open channel side slopes shall not be steeper than two to one (2:1).

3. The bottoms of all unlined open channels and the channel side slopes, to at least the design flow level, will be sodded with suitable coarse grass sod.

4. All unlined open channel side slopes above the design minimum flow level will be topsoiled and seeded or otherwise suitably stabilized in accordance with an approved soil disturbance permit.

5. All unlined open channels which can be expected to have a base flow of five (5) cubic feet per second or more will be provided with a low flow channel using gabions, rip-rap, lining, other arrangements approved as part of the final plat submission.

H. Minimum Basis for Calculations.

1. Design Storm Frequency

a) For closed conduits, the twenty-five (25) year storm event; or if the above results in a conduit size at least equivalent to a forty-eight (48) inch reinforced concrete pipe, then fifty (50) year storm event shall be used.

b) For open channels, twenty-five (25) years; of if the tributary area exceeds ten(10) acres, then one hundred (100) years. The flooding limits for storms with a return period of twice the design storm shall be determined for all open channels. Such limits shall be the drainage or conservation easements delineated on the plat.

c) For detention facilities, a twenty-four (24) hour flood with a return period not less than one hundred (100) years.

d) For retention facilities, double the capacity obtained by applying the requirements for detention facilities.

e) For gutter flow calculations, ten (10) years for local, local collector and minor collector streets, twenty-five (25) year for major collectors and minor arterials and fifty (50) years for principal arterials.

2. Runoff Calculations: Runoff determinations should be made using the rational formula or, in unusual cases, other methods with the prior approval of the Planning Board. Upstream areas should be considered based on their full development potential according to current zoning or the current use, whichever produces the greatest runoff. Runoff coefficients used should generally fall in the following ranges:

Classification Fully Developed	Range of Coefficient
Public parks, open space and land conservation	0.15 - 0.30
Low density residential	0.30-0.45
Medium density residential	0.40 - 0.60
High density residential	0.55 - 0.70
Commercial and industrial	0.60 - 0.90.
Pavements, roadways, shoulders	1.00

3. Velocity Restriction:

a) In general, velocities in closed conduits at design flow should be at least two (2) feet per second, but not more than that velocity which will cause erosion damage to the conduit. In general, velocities in open channels at design flow shall net be less than one-half (1/2) foot per second and not greater thin that velocity which will begin to cause erosion or scouring of the channel. For unlined earth channels the maximum velocity allowed will be two (2) feet per second. For other channels sufficient design data and soil tests to determine the character of the channel shall be made by the developer and shall be made available to the Planning Board at the time of drainage review.

b) At transitions between closed conduits and open channels or different types of open channels suitable provisions must be made to accommodate the velocity transition. These provisions may include rip-rapping, gabions, lining, aprons, chutes and checks, or others, all suitably detailed and approved as part of the final plat submission. For all flow of forty (40) cubic fast per second or more, tailwater depth and velocity calculations shall be submitted.

4. Design Formulas and Friction Factors: In general, the Manning formula will be used by the Planning Board to review the adequacy of proposed drainage facilities. Other formulas may be used in particular cases with the previous agreement of the Board. A friction factor (n) of twelve-thousandths (0.012) will be used for nonporous concrete pipe; a factor of twenty-thousandths (0.020) will be used for fully coated corrugated metal pipe with paved invert. Commensurate factors will be used for other pipe type or shapes. A friction factor (n) not less than twelve-thousandths (0.012) will be used for fully lined concrete channels; a factor not less than twenty-five thousandths (0.025) will be used for good earth channels and a factor not less than one hundred thousandths (0.100) will be used for fair to poor natural streams and water courses. Commensurate factors will be used for other channel types.

5. All drainage facilities carrying runoff from tributary areas larger than one-half (1/2) square mile must have the approval of the New Jersey Division of Water Policy and Supply.

6. All encroachments of natural waterways must be referred to the New Jersey Division of Water Policy and Supply for approval in accordance, with statute. The State may retain jurisdiction in which case a permit will be necessary as set forth above or may refer the matter to the County Engineer for review.

7. All non-pipe culverts shall be designed for AASHO H20-44 loading. All culverts of any type shall be carried to the roadway right-of-way and shall terminate with headwalls or ether approved end treatment. All conduits terminating or beginning in open channels shall be provided with headwalls or other appropriate end treatment.

8. Guardrails and/or railings shall be placed at all drainage structures where the interests of pedestrian or vehicular safety would dictate. The Planning Board may require that any open channel, other than naturally occurring streams, be fenced with chain link fencing forty-eight (48) inches high if the banks of the channel are steeper than one (1) foot vertically for every four (4) feet horizontally and either the total depth of the channel exceeds four (4) feet, or the channel would be expected to have a depth of flow greater than two(2) feet more often than once every ten (10) years. For maintenance purposes, gates may be required by the Planning Board at approximately two hundred (200) foot intervals.

9. Storm drainage systems shall be designed to include not only the proper drainage of the actual area of the specific development and the area tributary thereto, but shall also include the disposal of the stormwater, runoff to an adequate outlet or other means of final disposal of the stormwater, such as an ocean, river, running stream, lagoon or an existing adequate storm sewer.

10. The use of siltation and oil separation basins with controlled outflows will be required to prevent pollution of waterways when discharge is into a lagoon, bay or other standing body of water.

11. Whenever sump conditions occur an analysis shall be made of the effect of the occurrence of a major storm having at least 100-year return frequency. The effect of such storm and the flooding limits anticipated shall be shown. Site design, grading and drainage, shall anticipate such major storm and be so arranged so as to prevent damage to existing or proposed structures or adjacent properties under such conditions. Outfall structures shall be designed with removable aluminum safety grating for inlet orifices.

I. Special Drainage Provisions

1. The existing system of natural drainage within each development shall be preserved to the maximum extent possible. To this end, the Board may require the preservation of natural drainage swales, recharge areas, wet weather ponds and similar features and may require suitable drainage and conservation easements and possible increases in lot size to allow usable lots with the preservation of such features.

2. Subject to review and approval by the Board, the design of the development may be modified to take advantage of the natural drainage features of the land. In such review, the Board will use the following criteria:

   a) The utilization of the natural drainage system to the fullest extent possible.

   b) The maintenance of the natural drainage system as much as possible in its unimproved state.

   c) When drainage channels are required, wide shallow swales with natural vegetation will be preferred to other actions.

   d) The construction of flow retarding devices, detention areas and recharge berms to minimize runoff value increases.

e) Maintenance of the base flew in streams, reservoirs and ponds.

f) The reinforcement, improvement and/or extension of the natural drainage system to such an extent as is necessary to eliminate flooding and excess maintenance requirements.

3. All developments or portions or total schemes of development which, based upon the preliminary plat submission, proposed to disturb more than one (1) Acre or create more than one quarter of one Acre (0.25) of new impervious surface will be expected to comply with Section 8.28.1 of the Ordinance.

8.28.1: Purpose

A. Policy Statement

Flood control, groundwater recharge, and pollutant reduction through nonstructural or low impact techniques shall be explored before relying on structural BMPs. Structural BMPs should be integrated with nonstructural stormwater management measures and proper maintenance plans. Nonstructural measures include both environmentally sensitive site design and source controls that prevent pollutants from being placed on the site or from being exposed to stormwater. Source control plans should be developed based upon physical site conditions and the origin, nature, and the anticipated loading of potential pollutants. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for water quality, quantity, and groundwater recharge.

B. Purpose

It is the purpose of this ordinance to establish minimum stormwater management requirements and controls for major development.

C. Applicability

1. This ordinance shall be applicable to all site plans and subdivisions for major developments that require preliminary or final site plan or subdivision review:

   a. Non-residential major developments; and

   b. Aspects of residential major developments that are not pre-empted by the Residential Site Improvement Standards at N.J.A.C. 5:21.

2. This ordinance shall also be applicable to all major developments undertaken by the Borough of Little Silver.

D. Compatibility with Other Permit and Ordinance Requirements

Development approvals issued pursuant to this ordinance are to be considered an integral part of development approvals under the subdivision and site plan review process and do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act, or ordinance. In their interpretation and application, the provisions of this ordinance shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare.

This ordinance is not intended to interfere with, abrogate, or annul any other ordinances, rule or regulation, statute, or other provision of law except that, where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, the more restrictive provisions or higher standards shall control.

E. Definitions for this Section are found in 8.28.13 "Definitions."

F. This Borough of Little Silver ordinance was based on the "Model Stormwater Control Ordinance for Municipalities" proposed by the NJ DEP in "NJDEP-NJ Stormwater Best Management Practices Manual-April 2004-Appendix D" at http://www.state.nj.us/dep/stormwater/

8.28.2. General Standards

A. Design and Performance Standards for Stormwater Management Measures

1. Stormwater management measures for major development shall be developed to meet the erosion control, groundwater recharge, stormwater runoff quantity, and stormwater runoff quality standards in Section 8.28.3. To the maximum extent feasible, these standards shall be met by incorporating nonstructural stormwater management strategies into the design. If these strategies alone are not sufficient to meet these standards, structural stormwater management measures necessary to meet these standards shall be incorporated into the design.

2. The standards in this ordinance apply only to new major development and are intended to minimize the impact of stormwater runoff on water quality and water quantity in receiving water bodies and maintain groundwater recharge. The standards do not apply to new major development to the extent that alternative design and performance standards are applicable under a regional stormwater management plan or Water Quality Management Plan adopted in accordance with Department rules. Such alternative standards shall provide at least as much protection from stormwater-related loss of groundwater recharge, stormwater quantity and water quality impacts of major development projects as would be provided under the standards in this subchapter.

3. For site improvements regulated under the Residential Site Improvement Standards (RSIS) at
N.J.A.C.5: 21, the RSIS shall apply in addition to this section except to the extent the RSIS are superseded by this section or alternative standards applicable under a regional stormwater management plan or Water Quality Management Plan adopted in accordance with Department rules.

4. All structural and nonstructural BMP's utilized in the stormwater design for major development shall be deed restricted from any future use and be binding upon subsequent owners of the property.

8.28.3: Stormwater Management Requirements for Major Development

A. The development shall incorporate a maintenance plan for the stormwater management measures incorporated into the design of a major development, in accordance with Section 8.28.9.

B. Stormwater management measures shall avoid adverse impacts of concentrated flow on habitat for threatened and endangered species as documented in the Department's Landscape Project or Natural Heritage Database established under N.J.S.A. 13: 1B-15.147 through 15.150, particularly *Helonias bullata* (swamp pink) and/ or *Clemmys muhlnebergi* (bog turtle).

C. The following linear development projects are exempt from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements at Sections 8.28.3.F and 8.28.3.G:

1. The construction of an underground utility line provided that the disturbed areas are revegetated upon completion;

2. The construction of an above ground utility line provided that the existing conditions are maintained to the maximum extent practicable; and

3. The construction of a public pedestrian access, such as a sidewalk or trail with a maximum width of 14 feet, provided that the access is made of permeable material.

D. A waiver from strict compliance from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements at Sections 8.28.3.F and 8.28.3.G may be obtained for the enlargement of an existing public roadway or railroad; or the construction or enlargement of a public pedestrian access, provided that the following conditions are met:

1. The applicant demonstrates that there is a public need for the project that cannot be accomplished by any other means;

2. The applicant demonstrates through an alternatives analysis, that through the use of nonstructural and structural stormwater management strategies and measures, the option selected complies with the requirements of Sections 8.28.3.F and 8.28.3.G to the maximum extent practicable;

3. The applicant demonstrates that, in order to meet the requirements at Sections 8.28.3.F and 8.28.3.G, existing structures currently in use, such as homes and buildings would need to be condemned; and

4. The applicant demonstrates that it does not own or have other rights to areas, including the potential to obtain through purchase or condemnation lands not falling under Section 8.28.3D.3 above within the upstream drainage area of the receiving stream, that would provide additional opportunities to mitigate for requirements of Sections 8.28.3.F and 8.28.3.G that were not achievable on-site.

E. Nonstructural Stormwater Management Strategies

1. To the maximum extent practicable, the standards in 8.28.3.F and 8.28.3.G shall be met by incorporating nonstructural stormwater management strategies at 8.28.3.E into the design. The applicant shall identify the nonstructural measures incorporated into the design of the project. If the applicant contends that it is not feasible for engineering, environmental, or safety reasons to incorporate any nonstructural stormwater management measures identified in 8.28.3.E.2 below into the design of a particular project, the applicant shall identify the strategy considered and provide a basis for the contention.

a. For every commercial or residential development that triggers the requirement for conformance to the Stormwater Management Rules, N.J.A.C. 7:8, the Applicant must submit a Nonstructural Strategies Point System Analysis in accordance with N.J.A.C. 7:8-5.2(a) to the Borough as an attachment to the Stormwater Analysis Report.

b. The nonstructural strategies point system will be used to evaluate the effectiveness of these nonstructural strategies being incorporated into the site design of major developments. The point system will be utilized by the Borough to determine if sufficient nonstructural stormwater management measures have been utilized in the design to the maximum extent practicable.

2. Nonstructural stormwater management measures incorporated into site design shall:

a. Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss;

b. Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces and lawns in excess of one (1) acre;

c. Maximize the protection of natural drainage features and vegetation;

d. Minimize the decrease in the "time of concentration" from pre-construction to post construction. "Time of concentration" is defined as the time it takes for runoff to travel from the hydraulically most distant point of the watershed to the point of interest within a watershed;

e. Minimize land disturbance including clearing and grading;

f. Minimize soil compaction;

g. Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticides.

h. Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas;

i. Provide other source controls to prevent or minimize the use or exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runoff. These source controls include, but are not limited to:

(1) Site design features that help to prevent accumulation of trash and debris in drainage systems, including features that satisfy Section 8.28.8.E.3 below:

(2) Site design features that help to prevent discharge of trash and debris from drainage systems;

(3) Site design features that help to prevent and/or contain spills or other harmful accumulations of pollutants at industrial or commercial developments; and

(4) When establishing vegetation after land disturbance, applying fertilizer in accordance with the requirements established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4: 24-39 et seq., and implementing rules.

3. Site design features identified under Section 8.28.3.E.2.i.(2) above shall comply with the following standard to control passage of solid and floatable materials through storm drain inlets. For purposes of this paragraph, "solid and floatable materials" means sediment, debris, trash, and other floating, suspended or settleable solids. For exemptions to this standard see Section 8.28.4.E.3.c below.

a. Design engineers shall use either of the following grates whenever they use a grate in pavement or another ground surface to collect stormwater from that surface into a storm drain or surface water body under that grate:

(1) The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines (April 1996); or

(2) A different grate, if each individual clear space in that grate has an area of no more than seven (7.0) square inches, or is no greater than 0.5 inches across the smallest dimension.

Examples of grates subject to this standard include grates in grate inlets, the grate portion (non-curb-opening portion) of combination inlets, grates on storm sewer manholes, ditch grates, trench grates, and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater basin floors.

b. Whenever design engineers use a curb-opening inlet, the clear space in that curb opening (or each individual clear space, if the curb opening has two or more clear spaces) shall have an area of no more than seven (7.0) square inches, or be no greater than two (2.0) inches across the smallest dimension.

c. This standard does not apply:

(1) Where the review agency determines that this standard would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets that meet these standards;

(2) Where flows from the water quality design storm as specified in Section 8.28.3.G.1 are conveyed through any device (e.g., end of pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed, at a minimum, to prevent delivery of all solid and floatable materials that could not pass through one of the following:

(a) A rectangular space four and five-eighths inches long and one and one-half inches wide (this option does not apply for outfall netting facilities); or

(b) A bar screen having a bar spacing of 0.5 inches.

(3) Where flows are conveyed through a trash rack that has parallel bars with one-inch (1") spacing between the bars, to the elevation of the water quality design storm as specified in Section 8.28.3.G.1; or

(4) Where the New Jersey Department of Environmental Protection determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register listed historic property.

4. Any land area used as a nonstructural stormwater management measure to meet the performance standards in Sections 8.28.3.F and 8.28.3.G shall be dedicated to a government agency, subjected to a conservation restriction filed with the Monmouth County Clerk's office, or subject to an approved equivalent restriction that ensures that measure or an equivalent stormwater management measure approved by the reviewing agency is maintained in perpetuity.

5. Guidance for nonstructural stormwater management measures is available in the New Jersey Stormwater Best Management Practices Manual. The manual is available on the Department of Environmental Protection's stormwater web page at http://www.njstormwater.org.

F. Erosion Control, Groundwater Recharge and Runoff Quantity Standards

1. This section contains minimum design and performance standards to control erosion, encourage and control infiltration and groundwater recharge, and control stormwater runoff quantity impacts of major development.

a. The minimum design and performance standards for erosion control are those established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4: 24-39 et seq. and implementing rules.

b. The minimum design and performance standards for groundwater recharge are as follows:

(1) The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at Section 8.28.4, either:

(a) Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the site; or

(b) Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the 2-year storm is infiltrated.

(2) This groundwater recharge requirement applies to all project areas within the Borough of Little Silver, as defined by this ordinance.

(3) The following types of stormwater shall not be recharged:

(a) Stormwater from areas of high pollutant loading. High pollutant loading areas are areas in industrial and commercial developments where solvents and/ or petroleum products are loaded/ unloaded, stored, or applied, areas where pesticides are loaded/ unloaded or stored; areas where hazardous materials are expected to be present in greater than 'reportable quantities' as defined by the United States Environmental Protection Agency (EPA) at 40 CFR 302.4; areas where recharge would be inconsistent with Department approved remedial action work plan or landfill closure plan and areas with

high risks for spills of toxic materials, such as gas stations and vehicle maintenance facilities; and

(b) Industrial stormwater exposed to "source material". "Source material" means any material(s) or machinery, located at an industrial facility, that is directly or indirectly related to process, manufacturing or other industrial activities, which could be a source of pollutants in any industrial stormwater discharge to groundwater. Source materials include, but are not limited to, raw materials; intermediate products; final products; waste materials; by-products; industrial machinery and fuels, and lubricants, solvents, and detergents that are related to process, manufacturing, or other industrial activities that are exposed to stormwater.

(4) The design engineer shall assess the hydraulic impact on the groundwater table and design the site so as to avoid adverse hydraulic impacts. Potential adverse hydraulic impacts include, but are not limited to, exacerbating a naturally or seasonally high water table so as to cause surface ponding, flooding of basements, or interference with the proper operation of subsurface sewage disposal systems and other subsurface structures in the vicinity or down gradient of the groundwater recharge area.

c. In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at Section 8.28.4, complete one of the following:

(1) Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the 2, 10, and 100 year storm events do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events;

(2) Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the 2, 10, and 100 year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site. This analysis shall include the analysis of impacts of existing land uses and projected land uses assuming full development under existing zoning and land use ordinances in the drainage area;

(3) Design stormwater management measures so that the post-construction peak runoff rates for the 2, 10 and 100 year storm events are 50, 75 and 80 percent, respectively, of the pre-construction peak runoff rates. The percentages apply only to the post-construction stormwater runoff that is attributable to the portion of the site on which the proposed development or project is to be constructed. The percentages shall not be applied to post-construction stormwater runoff into tidal flood hazard areas if the increased volume of stormwater runoff will not increase flood damages below the point of discharge; or

(4) In tidal flood hazard areas, stormwater runoff quantity analysis in accordance with 1, 2 and 3 above shall only be applied if the increased volume of stormwater runoff could increase flood damages below the point of discharge.

2. Any application for a new agricultural development that meets the definition of major development at Section 12 shall be submitted to the appropriate Soil Conservation District for review and approval in accordance with the requirements of this section and any applicable Soil Conservation District guidelines for stormwater runoff quantity and erosion control. For the purposes of this section, "agricultural development" means land uses normally associated with the production of food, fiber and livestock for sale. Such uses do not include the development of land for the processing or sale of food and the manufacturing of agriculturally related products.

G. Stormwater Runoff Quality Standards

1. Stormwater management measures shall be designed to reduce the post-construction load of total suspended solids (TSS) in stormwater runoff by 80 percent of the anticipated load from the developed site, expressed as an annual average. Stormwater management measures shall only be required for water quality control if an additional (one-quarter) 1/4 acre of impervious surface is being proposed on a development site. The requirement to reduce TSS does not apply to any stormwater runoff in a discharge regulated under a numeric effluent limitation for TSS imposed under the New Jersey Pollution Discharge Elimination System (NJPDES) rules, N.J.A.C.7: 14A, or in a discharge specifically exempt under a NJPDES permit from this requirement. The water quality design storm is 1.25 inches of rainfall in two hours. Water quality calculations shall take into account the distribution of rain from the water quality design storm, as reflected in Table 1. The calculation of the volume of runoff may take into account the implementation of non-structural and structural stormwater management measures.

Table 1: Water Quality Design Storm Distribution

Time (Minutes)	Cumulative Rainfall (Inches)	Time (Minutes)	Cumulative Rainfall (Inches)
0	0.0000	65	0.8917
5	0.0083	70	0.9917
10	0.0166	75	1.0500
15	0.0250	80	1.0840
20	0.0500	85	1.1170
25	0.0750	90	1.1500
30	0.1000	95	1.1750
35	0.1330	100	1.2000
40	0.1660	105	1.2250
45	0.2000	110	1.2334
50	0.2583	115	1.2417
55	0.3583	120	1.2500
60	0.6250		

2. For purposes of TSS reduction calculations, Table 2 below presents the presumed removal rates for certain BMPs designed in accordance with the New Jersey Stormwater Best Management Practices Manual. The BMP Manual may be obtained from the address identified in Section 8.28.6, or found on the Department's website at www. njstormwater. org. The BMP Manual and other sources of technical guidance are listed in Section 8.28.6. TSS reduction shall be calculated based on the removal rates for the BMPs in Table 2 below.

Alternative removal rates and methods of calculating removal rates may be used if the design engineer provides documentation demonstrating the capability of these alternative rates and methods to the review agency. A copy of any approved alternative rate or method of calculating the removal rate shall be provided to the Department at the following address: Division of Watershed Management, New Jersey Department of Environmental Protection, PO Box 418 Trenton, New Jersey, 08625-0418.

3. If more than one BMP in series is necessary to achieve the required 80% TSS reduction for a site, the applicant shall utilize the following formula to calculate TSS reduction:

$R = A + B - (A \times B)/ 100$

Where

R = total TSS percent load removal from application of both BMPs, and

A = the TSS percent removal rate applicable to the first BMP

B = the TSS percent removal rate applicable to the second BMP

Table 2: TSS Removal Rates for BMPs

Best Management Practice	TSS % Removal Rate
Bioretention Systems	90
Constructed Stormwater Wetland	90
Extended Detention Basin	40-60
Infiltration Structure	80
Manufactured Treatment Device	See Section 8.28.5.C
Sand Filter	80
Vegetative Filter Strip	60-80
Wet Pond	50-90

4. If there is more than one onsite drainage area, the 80% TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site in which case the removal rate can be demonstrated through a calculation using a weighted average.

5. Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated from the water quality design storm. In achieving reduction of nutrients to the maximum extent feasible, the design of the site shall include nonstructural strategies and structural measures that optimize nutrient removal while still achieving the performance standards in Sections 8.28.3.F and 8.28.3.G.

6. Additional information and examples are contained in the New Jersey Stormwater Best Management Practices Manual, which may be obtained from the address identified in Section 8.28.6.

7. In accordance with the definition of FW1 at N.J.A.C.7: 9B-1.4, stormwater management measures shall be designed to prevent any increase in stormwater runoff to waters classified as FW1.

8. Special water resource protection areas shall be established along all waters designated Category One at N.J.A.C.7: 9B and perennial or intermittent streams that drain into or upstream of the Category One waters as shown on the USGS Quadrangle Maps or in the County Soil Surveys, within the associated HUC14 drainage. These areas shall be established for the protection of water quality, aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, and exceptional fisheries significance of those established Category One waters. These areas shall be designated and protected as follows:

a. The applicant shall preserve and maintain a special water resource protection area in accordance with one of the following:

(1) A 300-foot special water resource protection area shall be provided on each side of the waterway, measured perpendicular to the waterway from the top of the bank outwards or from the centerline of the waterway where the bank is not defined, consisting of existing vegetation or vegetation allowed to follow natural succession is provided.

(2) Encroachment within the designated special water resource protection area under Subsection (1) above shall only be allowed where previous development or disturbance has occurred (for example, active agricultural use, parking area or maintained lawn area). The encroachment shall only be allowed where applicant demonstrates that the functional value and overall condition of the special water resource protection area will be maintained to the maximum extent practicable. In no case shall the remaining special water resource protection area be reduced to less than 150 feet as measured **perpendicular to the top of bank of the waterway or centerline of the waterway where the bank is undefined. All encroachments proposed under this subparagraph shall be subject to review and approval by the Department.**

b. All stormwater shall be discharged outside of and flow through the special water resource protection area and shall comply with the Standard For Off-Site Stability in the "Standards for Soil Erosion and Sediment Control in New Jersey", established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4: 24-39 et seq.

c. If stormwater discharged outside of and flowing through the special water resource protection area cannot comply with the Standard For Off-Site Stability in the "Standards for Soil Erosion and Sediment Control in New Jersey", established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4: 24-39 et seq., then the stabilization measures in accordance with the requirements of the above standards may be placed within the special water resource protection area, provided that:

(1) Stabilization measures shall not be placed within 150 feet of the Category One waterway;

(2) Stormwater associated with discharges allowed by this section shall achieve a 95% TSS post-construction removal rate;

(3) Temperature shall be addressed to ensure no impact on receiving waterway;

(4) The encroachment shall only be allowed where the applicant demonstrates that the functional value and overall condition of the special water resource protection area will be maintained to the maximum extent practicable;

(5) A conceptual project design meeting shall be held with the appropriate Department staff and Soil Conservation District staff to identify necessary stabilization measures; and

(6) All encroachments proposed under this section shall be subject to review and approval by the Department.

d. A stream corridor protection plan may be developed by a regional stormwater management planning committee as an element of a regional stormwater management plan, or by a municipality through an adopted municipal stormwater management plan. If a stream corridor protection plan for a waterway subject to **Section 8.28.3.G.8** has been approved by the Department of Environmental Protection, then the provisions of the plan shall be the applicable special water resource protection area requirements for that waterway. A stream corridor protection plan for a waterway subject to **Section 8.23.3.G.8** shall maintain or enhance the current functional value and overall condition of the special water resource protection area as defined in **Section 8.28.G.8.a.(1)** above. In no case shall a stream corridor protection plan allow the reduction of the Special Water Resource Protection Area to less than 150 feet as measured perpendicular to the waterway subject to this subsection.

e. This subsection does not apply to the construction of one individual single family dwelling that is not part of a larger development on a lot receiving preliminary or final subdivision approval on or before February 2, 2004, provided that the construction begins on or before February 2, 2009.

8.28.4: Calculation of Stormwater Runoff and Groundwater Recharge

A. Stormwater runoff shall be calculated in accordance with the following:

1. The design engineer shall calculate runoff using one of the following methods:

a. The USDA Natural Resources Conservation Service (NRCS) methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph, as described in the NRCS National Engineering Handbook Section 4—Hydrology, and Technical Release 55—Urban Hydrology for Small Watersheds; or

b. The Rational Method for peak flow and the Modified Rational Method for hydrograph computations.

2. For the purpose of calculating runoff coefficients and groundwater recharge, there is a presumption that the pre-construction condition of a site or portion thereof is a wooded land use with good hydrologic condition. The term "runoff coefficient" applies to both the NRCS methodology at Section 8.28.4.A.1.a and the Rational and Modified Rational Methods at Section 8.28.4.A.1.b. A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or portion of the site for at least five years without interruption prior to the time of application. If more than one land cover have existed

on the site during the five years immediately prior to the time of application, the land cover with the lowest runoff potential shall be used for the computations. In addition, there is the presumption that the site is in good hydrologic condition (if the land use type is pasture, lawn, or park), with good cover (if the land use type is woods), or with good hydrologic condition and conservation treatment (if the land use type is cultivation).

3. In computing pre-construction stormwater runoff, the design engineer shall account for all significant land features and structures, such as ponds, wetlands, depressions, hedgerows, or culverts, that may reduce pre-construction stormwater runoff rates and volumes.

4. In computing stormwater runoff from all design storms, the design engineer shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site. To calculate runoff from unconnected impervious cover, urban impervious area modifications as described in the NRCS Technical Release—55, Urban Hydrology for Small Watersheds, and other methods may be employed.

5. If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C.7: 13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.

B. Groundwater recharge may be calculated in accordance with the following:

1. The New Jersey Geological Survey Geological Survey Report GSR-32 A Method for Evaluating Ground-Water Recharge Areas in New Jersey, incorporated herein by reference as amended and supplemented. Information regarding the methodology is available from the New Jersey Stormwater Best Management Practices Manual; at http://www.state.nj.us/dep/njgs/; or at New Jersey Geological Survey, 29 Arctic Parkway, P. O. Box 427 Trenton, New Jersey 08625-0427; (609) 984-6587.

8.28.5: Standards for Structural Stormwater Management Measures

A. Standards for structural stormwater management measures are as follows:

1. Structural stormwater management measures shall be designed to take into account the existing site conditions, including, for example, environmentally critical areas, wetlands; flood-prone areas; slopes; depth to seasonal high water table; soil type, permeability and texture; drainage area and drainage patterns; and the presence of solution-prone carbonate rocks (limestone).

2. Structural stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure as appropriate, and shall have parallel bars with one-inch (1") spacing between the bars to the elevation of the water quality design storm. For elevations higher than the water quality design storm, the parallel bars at the outlet structure shall be spaced no greater than one-third (1/3) the width of the diameter of the orifice or one-third (1/3) the width of the weir, with a minimum spacing between bars of one-inch (1") and a maximum spacing between bars of six inches (6"). In addition, the design of trash racks must comply with the requirements of Section 8.28.7.D.

3. Structural stormwater management measures shall be designed, constructed, and installed to be strong, durable, and corrosion resistant. Measures that are consistent with the relevant portions of the Residential Site Improvement Standards at N.J.A.C.5: 21-7.3, 7.4, and 7.5 shall be deemed to meet this requirement.

4. At the intake to the outlet from the stormwater management basin, the orifice size shall be a minimum of two and one-half inches (2-1/2")in diameter.

5. Stormwater management basins shall be designed to meet the minimum safety standards for stormwater management basins at **Section 8.28.3.**

B. Stormwater management measure guidelines are available in the New Jersey Stormwater Best Management Practices Manual. Other stormwater management measures may be utilized provided the design engineer demonstrates that the proposed measure and its design will accomplish the required water quantity, groundwater recharge and water quality design and performance standards established by **Section 8.28.3.**

C. Manufactured treatment devices may be used to meet the requirements of 8.28.1 et.seq. provided the pollutant removal rates are verified by the New Jersey Corporation for Advanced Technology and certified by the Department.

8.28.6: Sources for Technical Guidance

A. Technical guidance for stormwater management measures can be found in the documents listed at 1 and 2 below, which are available from Maps and Publications, Department of Environmental Protection, 428 East State Street, P. O. Box 420, Trenton, New Jersey, 08625; telephone (609) 777-1038.

1. Guidelines for stormwater management measures are contained in the New Jersey Stormwater Best Management Practices Manual, as amended. Information is provided on stormwater management measures such as: bioretention systems, constructed stormwater wetlands, dry wells, extended detention basins, infiltration structures, manufactured treatment devices, pervious paving, sand filters, vegetative filter strips, and wet ponds.

2. The New Jersey Department of Environmental Protection Stormwater Management Facilities Maintenance Manual, as amended.

B. Additional technical guidance for stormwater management measures can be obtained from the following:

1. The "Standards for Soil Erosion and Sediment Control in New Jersey" promulgated by the State Soil Conservation Committee and incorporated into N.J.A.C.2: 90. Copies of these standards may be obtained by contacting the State Soil Conservation Committee or any of the Soil Conservation Districts listed in N.J.A.C.2: 90-1.3(a) 4. The location, address, and telephone number of each Soil Conservation District may be obtained from the State Soil Conservation Committee, P. O. Box 330, Trenton, New Jersey 08625; (609) 292-5540;

2. The Rutgers Cooperative Extension Service, 732-932-9306; and

3. The Freehold Soil Conservation District located at 4000 Kozloski Road, P.O. Box 5033, Freehold, New Jersey 07728; (732) 683-8500.

8.28-7: Safety Standards for Stormwater Management Basins

A. This section sets forth requirements to protect public safety through the proper design and operation of stormwater management basins. This **subchapter** applies to any new stormwater management basin.

B. The provisions of this section are not intended to preempt more stringent municipal or county safety requirements for new or existing stormwater management basins.

C. Requirements for Trash Racks, Overflow Grates and Escape Provisions

1. A trash rack is a device designed to catch trash and debris and prevent the clogging of outlet structures. Trash racks shall be installed at the intake to the outlet from the stormwater management basin to ensure proper functioning of the basin outlets in accordance with the following:

a. The trash rack shall have parallel bars, with no greater than six inch (6") spacing between the bars.

b. The trash rack shall be designed so as not to adversely affect the hydraulic performance of the outlet pipe or structure.

c. The average velocity of flow through a clean trash rack is not to exceed two and one-half (2.5) feet per second under the full range of stage and discharge. Velocity is to be computed on the basis of the net area of opening through the rack.

d. The trash rack shall be constructed and installed to be rigid, durable, and corrosion resistant, and shall be designed to withstand a perpendicular live loading of 300 lbs/ ft sq.

e. The trash rack shall be secured to the outlet structure but removable for emergencies and maintenance.

2. An overflow grate is designed to prevent obstruction of the overflow structure. If an outlet structure has an overflow grate, such grate shall meet the following requirements:

a. The overflow grate shall be secured to the outlet structure but removable for emergencies and maintenance.

b. The overflow grate spacing shall be no less than two inches (2") across the smallest dimension.

c. The overflow grate shall be constructed and installed to be rigid, durable, and corrosion resistant, and shall be designed to withstand a perpendicular live loading of 300 lbs/ ft sq.

3. For purposes of this subsection, escape provisions means the permanent installation of ladders, steps, rungs, or other features that provide easily accessible means of egress from stormwater management basins. Stormwater management basins shall include escape provisions as follows:

a. If a stormwater management basin has an outlet structure, escape provisions shall be incorporated in or on the structure. With the prior approval of the reviewing

agency identified in Section 8.28.7.D a free-standing outlet structure may be exempted from this requirement.

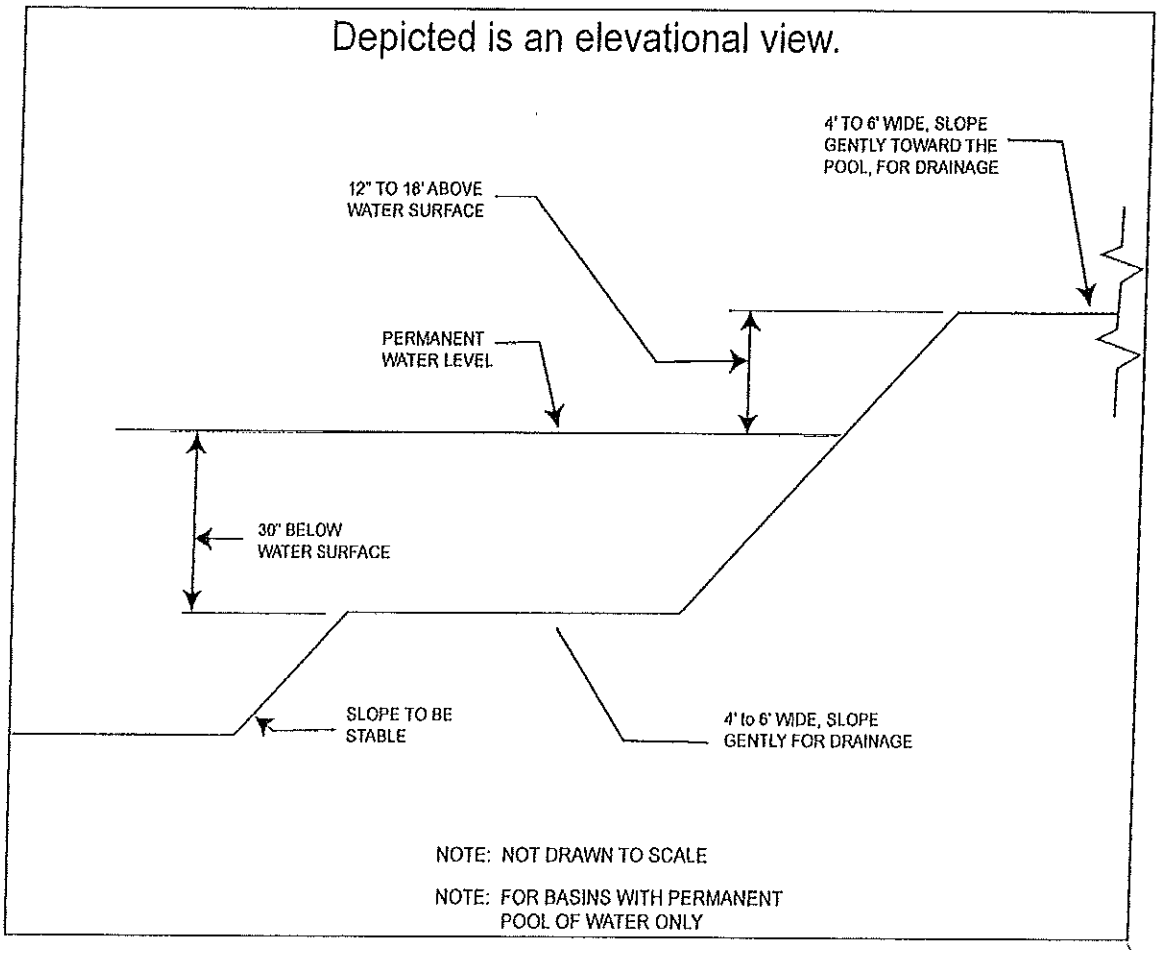
b. Safety ledges shall be constructed on the slopes of all new stormwater management basins having a permanent pool of water deeper than two and one-half feet. Such safety ledges shall be comprised of two steps. Each step shall be four to six feet in width. One step shall be located approximately two and one-half (2-1/2) feet below the permanent water surface, and the second step shall be located one to one and one-half feet above the permanent water surface. See Section 8.28.7.E for an illustration of safety ledges in a stormwater management basin.

c. In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than 3 horizontal to 1 vertical.

D. Variance or Exemption from Safety Standards

1. A variance or exemption from the safety standards for stormwater management basins may be granted only upon a written finding by the appropriate reviewing agency of the **Borough of Little Silver, County of Monmouth or New Jersey Department of Environmental Protection,** that the variance or exemption will not constitute a threat to public safety.

Illustration of Safety Ledges in a New Stormwater Management Basin



8.28.8: Requirements for a Site Development Stormwater Plan

A. Submission of Site Development Stormwater Plan

1. Whenever an applicant seeks municipal approval of a development subject to this ordinance, the applicant shall submit all of the required components of the Checklist for the Site Development Stormwater Plan at 8.28.8.C below as part of the submission of the applicant's application for subdivision or site plan approval.

2. The applicant shall demonstrate that the project meets the standards set forth in this ordinance.

3. The applicant shall submit eight (8) copies of the materials listed in the checklist for site development stormwater plans in accordance with Section 8.28.8.C of this ordinance.

B. Site Development Stormwater Plan Approval

The applicant's Site Development project shall be reviewed as a part of the subdivision or site plan review process by the municipal engineer and the municipal board or official from which municipal approval is sought. That municipal board or official shall consult the engineer retained by the Planning and/or Zoning Board (as appropriate) to determine if all the checklist requirements have been satisfied and to determine if the project meets the standards set forth in this ordinance.

C. Checklist Requirements

The following information shall be required:

1. Topographic Base Map

The reviewing engineer may require upstream tributary drainage system information as necessary. It is recommended that the topographic base map of the site be submitted which extends a minimum of 200 feet beyond the limits of the proposed development, at a scale of 1"= 200' or greater, showing 2-foot contour intervals. The map as appropriate may indicate the following: existing surface water drainage, shorelines, steep slopes, soils, erodible soils, perennial or intermittent streams that drain into or upstream of the Category 1 waters, wetlands and flood plains along with their appropriate buffer strips, marshlands and other wetlands, pervious or vegetative surfaces, existing man-made structures, roads, bearing and distances of property lines, and significant natural and manmade features not otherwise shown.

Additionally, a Drainage System Map shall be submitted showing all areas which extend a minimum of 2000 feet beyond the limits of the proposed development, at a scale of 1"=200', showing all wetland areas, rivers, and streams, based on Geographic Information System (GIS) data from the New Jersey Department of Environmental Protection (NJ DEP), the New Jersey Geological Survey (NJGS), or both.

2. Environmental Site Analysis

A written and graphic description of the natural and man-made features of the site and its environs. This description should include a discussion of soil conditions, slopes, wetlands, waterways and vegetation on the site. Particular attention should be given to unique, unusual,

or environmentally sensitive features and to those that provide particular opportunities or constraints for development.

3. Project Description and Site Plan(s)

A map (or maps) at the scale of the topographical base map indicating the location of existing and proposed buildings, roads, parking areas, utilities, structural facilities for stormwater management and sediment control, and other permanent structures. The map(s) shall also clearly show areas where alterations occur in the natural terrain and cover, including lawns and other landscaping, and seasonal high ground water elevations. The map(s) shall also show the location of streams and rivers, and each type of wetlands, based on Geographic Information System (GIS) data from the New Jersey Department of Environmental Protection (NJ DEP), the New Jersey Geologic Survey (NJGS), or both. A written description of the site plan and justification of proposed changes in natural conditions shall also be provided.

4. Land Use Planning and Source Control Plan

This plan shall provide a demonstration of how the goals and standards of Sections 8.28.2 through 8.28.5 are being met. The focus of this plan shall be to describe how the site is being developed to meet the objective of controlling groundwater recharge, stormwater quality and stormwater quantity problems at the source by land management and source controls whenever possible.

5. Stormwater Management Facilities Map

The following information, illustrated on a map of the same scale as the topographic base map, shall be included:

a. Total area to be paved or built upon, proposed surface contours, land area to be occupied by the stormwater management facilities and the type of vegetation thereon, and details of the proposed plan to control and dispose of stormwater.

b. Details of all stormwater management facility designs, during and after construction, including discharge provisions, discharge capacity for each outlet at different levels of detention and emergency spillway provisions with maximum discharge capacity of each spillway.

6. Calculations

a. Comprehensive hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in Section 8.28.3 of this ordinance.

b. When the proposed stormwater management control measures (e. g. infiltration basins) depends on the hydrologic properties of soils, then a soils report shall be submitted. The soils report shall be based on onsite boring logs or soil pit profiles. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.

7. Maintenance and Repair Plan

The design and planning of the stormwater management facility shall meet the maintenance requirements of Section 8.28.9.

8. Waiver from Submission Requirements

The municipal official or board reviewing an application under this ordinance may, in agreement with the **Borough** Engineer, waive submission of any of the requirements in Sections 8.28.8.C.1 through 8.28.8.C.6 of this ordinance when it can be demonstrated that the information requested is impossible to obtain or it would create a hardship on the applicant to obtain and its absence will not materially affect the review process.

8.28.9: Maintenance and Repair

A. Applicability

1. Projects subject to review as in Section 8.28.1.C of this ordinance shall comply with the requirements of Section 8.28.9.B and 8.28.9.C.

B. General Maintenance

1. The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major development. Guidelines for developing a maintenance and inspection program are provided in the New Jersey Stormwater Best Management Practices Manual and the NJDEP Ocean County Demonstration Study, Stormwater Management Facilities Maintenance Manual, dated June 1989 available from the NJDEP, Watershed Management Program.

2. The maintenance plan shall contain specific preventative maintenance tasks and schedules; cost estimates, including estimated cost of sediment, debris, and trash removal; and the name, address, and telephone number of the person or persons responsible for preventative and corrective maintenance (including replacement). Maintenance guidelines for stormwater management measures are available in the New Jersey Stormwater Best Management Practices Manual. If the maintenance plan identifies a person other than the developer (for example, a public agency or homeowners' association) as having the responsibility for maintenance, the plan shall include documentation of such person's agreement to assume this responsibility, or of the developer's obligation to dedicate a stormwater management facility to such person under an applicable ordinance or regulation.

3. Responsibility for maintenance shall not be assigned or transferred to the owner or tenant of an individual property in a residential development or project, unless such owner or tenant owns or leases the entire residential development or project.

4. If the person responsible for maintenance identified under Section 8.28.9.B.2 above is not a public agency, the maintenance plan and any future revisions based on Section 8.28.9.B.7 below shall be recorded upon the deed of record for each property on which the maintenance described in the maintenance plan must be undertaken.

5. Preventative and corrective maintenance shall be performed to maintain the function of the stormwater management measure, including repairs or replacement to the structure; removal of sediment, debris, and trash; restoration of eroded areas; snow and ice removal; fence repair or replacement; restoration of vegetation; and repair or replacement of nonvegetated linings.

6. The person responsible for maintenance identified under Section 8.28.9.B.2 above shall maintain a detailed log of all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development, including a record of all inspections and copies of all maintenance-related work orders.

7. The person responsible for maintenance identified under Section 8.28.9.B.2 above shall evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and the deed as needed.

8. The person responsible for maintenance identified under Section 8.28.9.B.2 above shall retain and make available, upon request by any public entity with administrative, health, environmental, or safety authority over the site, the maintenance plan and the documentation required by Sections 8.28.9.B.6 and 8.28.9.B.7 above.

9. The requirements of Sections 8.28.9. B. 3 and 8.28.9. B. 4 do not apply to stormwater management facilities that are dedicated to and accepted by the municipality or another governmental agency.

10. In the event that the stormwater management facility becomes a danger to public safety or public health, or if it is in need of maintenance, the municipality shall so notify the responsible person in writing. Upon receipt of that notice, the responsible person shall have fourteen (14) days to effect maintenance and repair of the facility in a manner that is approved by the municipal engineer or his designee. If the responsible person fails or refuses to perform such maintenance and repair, the municipality or County may immediately proceed to do so and shall bill the cost thereof to the responsible person.

C. Nothing in this section shall preclude the municipality in which the major development is located from requiring the posting of a performance or maintenance guarantee in accordance with N.J.S.A. 40: 55D-53.

8.28.10: Penalties

Any person who erects, constructs, alters, repairs, converts, maintains or uses any building structure or land in violation of this ordinance shall be subject to a fine not to exceed two thousand ($2,000.00) dollars, or up to 90 days in jail, or both. As an alternate penalty, a convicted person may be ordered to perform community service for a period not to exceed 90days.

This ordinance shall take effect immediately upon the approval by the County review agency, or sixty (60) days from the receipt of the ordinance by the County review agency, should they fail to act.

8.28.11: Effective Date

This ordinance shall take effect after final passage, adoption, and publication by the Mayor and Council of the Borough of Little Silver, in the manner prescribed by law.

8.28.12: Severability

If the provisions of any article, section, subsection, paragraph, subdivision, or clause of this ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any article, section, subsection, paragraph, subdivision, or clause of this ordinance.

8.28.13: Definitions

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

"CAFRA Planning Map" means the geographic depiction of the boundaries for Coastal Planning Areas, CAFRA Centers, CAFRA Cores and CAFRA Nodes pursuant to N.J.A.C.7: 7E-5B. 3.

"CAFRA Centers, Cores or Nodes" means those areas within boundaries accepted by the Department pursuant to N.J.A.C.7: 8E-5B. "Compaction" means the increase in soil bulk density.

"Compaction" means the increase in soil bulk density.

"Core" means a pedestrian-oriented area of commercial and civic uses serving the surrounding municipality, generally including housing and access to public transportation.

"County review agency" means an agency designated by the County Board of Chosen Freeholders to review municipal stormwater management plans and implementing ordinance(s). The county review agency may either be:

A county planning agency; or

A county water resource association created under N. J. S. A 58: 16A-55.5, if the ordinance or resolution delegates authority to approve, conditionally approve, or disapprove municipal stormwater management plans and implementing ordinances.

"Department" means the New Jersey Department of Environmental Protection.

"Designated Center" means a State Development and Redevelopment Plan Center as designated by the State Planning Commission such as urban, regional, town, village, or hamlet.

"Design engineer" means a person professionally qualified and duly licensed in New Jersey to perform engineering services that may include, but not necessarily be limited to, development of project requirements, creation and development of project design and preparation of drawings and specifications.

"Development" means the division of a parcel of land into two or more parcels, the construction, reconstruction, conversion, structural alteration, relocation or enlargement of any building or structure, any mining excavation or landfill, and any use or change in the use of any building or other structure, or land or extension of use of land, for which permission is required under the Municipal Land Use Law, N.J.S.A. 40: 55D-1 et seq. In the case of development of agricultural lands, development means: any activity that requires a State permit; any activity reviewed by the County Agricultural Board (CAB) and the State Agricultural Development Committee (SADC), and municipal review of any activity not exempted by the Right to Farm Act, N. J. S. A 4: 1C-1 et seq.

"Drainage area" means a geographic area within which stormwater, sediments, or dissolved materials drain to a particular receiving waterbody or to a particular point along a receiving waterbody.

"Environmentally constrained area" means the following areas where the physical alteration of the land is in some way restricted, either through regulation, easement, deed restriction or ownership such as: wetlands, floodplains, threatened and endangered species sites or designated habitats, and parks and preserves. Habitats of endangered or threatened species are identified using the Department's Landscape Project as approved by the Department's Endangered and Nongame Species Program.

"Environmentally critical areas" means an area or feature which is of significant environmental value, including but not limited to: stream corridors; natural heritage priority sites; habitat of endangered or threatened species; large areas of contiguous open space or upland forest; steep slopes; and well head protection and groundwater recharge areas. Habitats of endangered or threatened species are identified using the Department's Landscape Project as approved by the Department's Endangered and Nongame Species Program.

"Empowerment Neighborhood" means a neighborhood designated by the Urban Coordinating Council "in consultation and conjunction with" the New Jersey Redevelopment Authority pursuant to N. J. S. A 55: 19-69.

"Erosion" means the detachment and movement of soil or rock fragments by water, wind, ice or gravity.

"Impervious surface" means a surface that has been covered with a layer of material so that it is highly resistant to infiltration by water.

"Infiltration" is the process by which water that seeps into the soil from precipitation.

"Major development" means any "development" that provides for ultimately disturbing one or more acres of land or increasing impervious surface by one-quarter acre or more. Disturbance for the purpose of this rule is the placement of impervious surface or exposure and/ or movement of soil or bedrock or clearing, cutting, or removing of vegetation. Projects undertaken by any government agency which otherwise meet the definition of "major development" but which do not require approval under the Municipal Land Use Law, N.J.S.A. 40: 55D-1 et seq. are also considered "major development."

"Municipality" means any city, borough, town, township, or village.

"Node" means an area designated by the State Planning Commission concentrating facilities and activities which are not organized in a compact form.

"Nutrient" means a chemical element or compound, such as nitrogen or phosphorus, which is essential to and promotes the development of organisms.

"Person" means any individual, corporation, company, partnership, firm, association, Borough of Little Silver, or political subdivision of this State subject to municipal jurisdiction pursuant to the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq.

"Pollutant" means any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, medical wastes, radioactive substance (except those regulated under the Atomic Energy Act of 1954, as amended (42 U. S. C. 2011 et seq.), thermal waste, wrecked or discarded equipment, rock, sand, cellar dirt, industrial, municipal, agricultural, and construction waste or runoff, or other residue discharged directly or indirectly to the land, ground waters or surface waters of the State, or to a domestic treatment works. "Pollutant" includes both hazardous and nonhazardous pollutants.

"Recharge" means the amount of water from precipitation that infiltrates into the ground and is not evapotranspired.

"Sediment" means solid material, mineral or organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water or gravity as a product of erosion.

"Site" means the lot or lots upon which a major development is to occur or has occurred.

"Soil" means all unconsolidated mineral and organic material of any origin.

"State Development and Redevelopment Plan Metropolitan Planning Area (PA1)" means an area delineated on the State Plan Policy Map and adopted by the State Planning Commission that is intended to be the focus for much of the state's future redevelopment and revitalization efforts.

"State Plan Policy Map" is defined as the geographic application of the State Development and Redevelopment Plan's goals and statewide policies, and the official map of these goals and policies.

"Stormwater" means water resulting from precipitation (including rain and snow) that runs off the land's surface, is transmitted to the subsurface, or is captured by separate storm sewers or other sewage or drainage facilities, or conveyed by snow removal equipment.

"Stormwater management basin" means an excavation or embankment and related areas designed to retain stormwater runoff. A stormwater management basin may either be normally dry (that is, a detention basin or infiltration basin), retain water in a permanent pool (a retention basin), or be planted mainly with wetland vegetation (most constructed stormwater wetlands).

"Stormwater management measure" means any structural or nonstructural strategy, practice, technology, process, program, or other method intended to control or reduce stormwater runoff and associated pollutants, or to induce or control the infiltration or groundwater recharge of stormwater or to eliminate illicit or illegal non-stormwater discharges into stormwater conveyances.

"Stormwater runoff" means water flow on the surface of the ground or in storm sewers, resulting from precipitation.

"Tidal Flood Hazard Area" means a flood hazard area, which may be influenced by stormwater runoff from inland areas, but which is primarily caused by the Atlantic Ocean.

"Urban Coordinating Council Empowerment Neighborhood" means a neighborhood given priority access to state resources through the New Jersey Redevelopment Authority.

"Urban Enterprise Zones" means a zone designated by the New Jersey Enterprise Zone Authority pursuant to the New Jersey Urban Enterprise Zones Act, N.J.S.A. 52: 27H-60 et. seq.

"Urban Redevelopment Area" is defined as previously developed portions of areas:

(1) Delineated on the State Plan Policy Map (SPPM) as the Metropolitan Planning Area (PA1), Designated Centers, Cores or Nodes;

(2) Designated as CAFRA Centers, Cores or Nodes,

(3) Designated as Urban Enterprise Zones; and

(4) Designated as Urban Coordinating Council Empowerment Neighborhoods.

"Waters of the State" means the ocean and its estuaries, all springs, streams, wetlands and bodies of surface or ground water, whether natural or artificial, within the boundaries of the State of New Jersey or subject to its jurisdiction.

"Wetlands" or "wetland" means an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support.. and that under normal circumstances does support, aprevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

SECTION 8-29 STREET DESIGN

A. Street Extensions. The arrangement of streets within a development shall provide for the extension and/or realignment of existing streets except that local and local collector streets should only be extended, when such extension is necessary and the Planning Board concurs that such extension will promote safety and conform to the street standards contained elsewhere in this Chapter.

B. Street Widening. Where developments abut existing roadways, sufficient right-of-way shall be reserved to provide the right-of-way width proposed for the functional classification of the street in question.

C. Design of Local Streets. Local streets shall be designed in accordance with the schedule of street design standards and the following requirements:

1. Local streets shall be arranged so that there exists a minimum possibility of their use by traffic which does not have its origin or destination at the lots to which the local streets provide access.

2. Cul-de-sac (dead end streets) should have a centerline length, from the intersecting street centerline to the center point of the turnaround of the cul-de-sac of not less than one hundred (100) feet nor longer than one thousand (1,000) feet, and should not provide access to more than twenty (20) lots. They shall provide an end turn-around with a property line radius of not less than fifty (50) feet, which shall have its center point at or to the left of the centerline of the street, when viewed toward the closed end. In the event it is contemplated that a dead end street shall be extended in the future, a temporary turnaround, meeting the aforementioned design criteria, shall be required.

3. Loop streets should provide access to not more than forty-five (45) lots, except that where access is provided by a combination of a short loop street and cul-de-sac, the maximum shall be sixty (60) lots. provided that the length of the loop street alone will not exceed three thousand (3,000) feet. Loop streets shall have both of their termini located on the same street.

4. P-loops, which are loop streets with a single access point, should have an entrance not exceeding seven hundred (700) feet in distance from the loop intersection. There should also be provided an emergency vehicular and pedestrian right-of-way of fifteen (15) feet minimum width from the loop and providing access to a street which is. not a part of the P-loop. The loop of a P-loop should have a street length not exceeding three thousand (3,000) feet. P-loops should provide access to no more than sixty (60) lots and the entrance street should be designed in accordance with the design standards for collector streets.

5. Artificial modifications in street rights-of-way for the purpose of increasing lot frontage shall be prohibited. Such prohibited modification shall include, but not be limited to. widening the right-of-way of a continuous street through the use of semicircular projections.

6. Reduced Paving Width: When a cul-de-sac or loop streets provide access to twenty (20) or fewer lots, the Planning Board may consider the use of reduced paving width where, by reason of topography, physical features or other conditions the reduced paving width would substantially reduce disruption of the development's environment. In no case shall the paving width of a two-way cul-de-sac or loop street be reduced to less than twenty-six (26) feet. The Planning Board may consider the use of one-way loop streets with a minimum paving width of twenty-two (22) feet. Such one-way streets with reduced paving width are subject to the review and approval of the Traffic Bureau of the New Jersey Department of Transportation. Such review and approval must be obtained by the developer before approval of a final plat will be granted.

D. Classification of Streets.

In any development it shall be the duty of the Planning Board to approve classification of proposed streets according to their use. In making its decision, the Planning Board shall refer to the Master Plan and shall consider conditions within the development and the surrounding areas and shall use as a guide the following street classifications and criteria:

1. Local Street: A local street is a street serving only single-family residences and where feasible should be either a cul-de-sac or a loop street meeting the requirements hereinabove set forth. A street which serves traffic having origins and destinations other than within the lots which abut the street shall not be considered a local street. The traffic normally expected on a local street shall be four hundred (400) vehicles per day.

2. Collector Streets: A collector street is generally a street gathering traffic from local streets and feeding it into a system of arterial highways. Even if laid out as a local street, a street should be considered a collector street if it provides access or could provide access to more than one hundred fifty (150) lots, or would be utilized by traffic other than residential in nature. Collector streets should generally be expected to carry traffic volumes of approximately three thousand (3,000) vehicles per day. The design speed of collector streets, for alignment and sight distance purposes, should be fifty (50) miles per hour.

3. Arterial Highways: Arterials are any Federal, State or County highway or municipal street or read intended to carry traffic between other arterials and from the Borough to destinations outside the Borough. Arterial highways should have a design speed of sixty (60) miles per hour and should be designed to carry traffic exceeding ten thousand (10,000) vehicles per day.

4. Classification Criteria: Street classifications will be approved by the Planning Board in accordance with the foregoing definitions, in accordance with the provisions of the Master Plan and Official Map if such be adopted, in accordance with the provisions of applicable County and State regulations or plans or, in the absence of specific information from the above, in accordance with its own best judgment concerning the use to which the various streets in any development will be put.

E. Lots Abutting Collector Streets and Arterial Highways.

In any subdivision abutting or being traversed by a collector street or arterial highway, one (1) of the following conditions shall be required by the Board:

1. A marginal street meeting the classifications herein for a local street shall be provided along each collector, or arterial highway, and shall be separated from the collector or arterial highway by a landscaped strip at least twenty-five (25) feet in width.

2. The frontage of all lots abutting the collector or arterial highway shall be reversed so that the lots will front on an internal local street; a natural wooded or landscaped buffer strip at least fifty (50) feet in width will be provided on the abutting lots along the right-of-way of the collector or arterial highway. The area of such buffer strip shall not be considered part of the required minimum lot size.

3. All lots abutting collector streets may, in lieu of the above, be provided with suitable driveway-turnarounds eliminating any necessity for vehicles to back into the collector street.

4. Other means of providing a satisfactory buffer separating through and local traffic shall be provided as may be deemed proper by the Planning Board.

5. Dwellings on corner lots shall have their driveway access on the roadway designed and intended to carry the lesser amount of traffic.

F. Street Design Standards. Street design standards shall be appropriate to the expected use of the street, soil, topographical and other physical conditions and to the maintenance of the purposes of this Chapter, but shall not be less than those set forth in the Schedule of Street Design Standards (Figure No. 9).

FIGURE 9

SCHEDULE OF STREET DESIGN STANDARDS

	CLASSIFICATION		
	Local	Collector Streets	Arterial Highways
Normal Traffic Capacity (ADT)	400	3,000	10,000
Minimum Right-of-Way Width	50 ft.	60 ft.	100 ft.
Minimum Paving Width:			
Two Way	30 ft.	40 ft.	0 ft.
One Way	22 ft.	--	--
Shoulder (or Parking Area Width) (1)	--	--	2 @ 8 ft.
Sidewalks:			
Width	4 ft.	4 ft.	4 ft.
Setback (from face Of curb)	3 ft.	3 ft.	7 ft.
Design Speed (MPH) (3)	40	50	60
Minimum Radius of Horizontal Curvature			
At Centerline	150 ft.	500 ft.	2,000 ft.
Minimum Tangent Between Reverse Curb	100 ft.	200 ft.	600 ft. (4)
Maximum Longitudinal Grade	8%	8%	4%
Minimum Longitudinal			
Grade Desirable	0.75%	0.75%	0.75%
Absolute	0.40%	0.40%	0.40%
Maximum Longitudinal Grade for 200' from Each side of an intersection	3.5%	3.00%	--

FIGURE 9

SCHEDULE OF STREET DESIGN STANDARDS

CLASSIFICATION

	Local	Collector Streets	Arterial Highways
Minimum Curb Return Radius at Intersection (2)	25 ft.	35 ft.	45 ft.
Vertical Curve (5)			
Crest: Minimum Length equals 100' Based on stopping sight distance at design speed			
Sag: Minimum Length equals 100'-Based on headlight illumination & stopping sight distance at design speed.			
Maximum Superelevation Not Required			
Pavement Cross Slope Minimum	3.00%(7)	3.33% (8)	1.50% (8)
Curb Face Required (6)	6"	6"	8"
Minimum Property Line Corner Radius (2)	15'	15'	30'

NOTES:

(1) Shoulders or parking areas in required as indicates.
(2) When dissimilar streets intersect the large radius will be used.
(3) For sight distance and vertical curve calculation only.
(4) Or as required to run out superelevation (1% per sec. of travel at design speed).
(5) Not required if algebraic difference of intersecting grades does not exceed 1.
(6) Except in superelevation areas.
(7) 6" crown.
(8) 8" crown.

G. Street Intersections. Street intersections shall be designed according to the following standards:

1. No more than two (2) streets shall cress the same point. Street intersections shall be at right angles wherever possible, and intersections of less than seventy (70°) degrees (measured at the centerline of streets) shall not be permitted.

2. Streets should not enter the same side of local collector streets at intervals of less than five hundred (500) feet, or arterials at intervals of less than one thousand two hundred (1,200) feet. Streets which enter collectors or arterials from opposite sides shall be directly opposite to each other or must be separated by at least three hundred (300) feet between their centerlines measured along the centerline of an intersected collector; or five hundred (500) feet along the centerline of an arterial.

3. Approaches of any collector or arterial street to any intersection of another collector or arterial street shall be tangent or have a centerline radius greater than five thousand (5,000) feet for at least five hundred (500) feet from the intersection.

4. Where a collector or arterial street intersects with a collector or arterial street, the right-of-way of each collector shall be widened by ten (10) feet (five (5) feet for each side) for a distance of three hundred (300) feet in all directions from the intersection of the centerlines and the right-of-way of each arterial shall be widened by twenty (20) feet (ten (10) feet each side) for five hundred (500) feet in all directions from the intersection of the centerlines.

5. Approaches of any local street to any other street shall:

   a) Be tangent (straight) for a distance of at least fifty (50) feet from the intersection, or
   b) Have a centerline radius greater than one thousand (1,000) feet for at least one hundred fifty (150) feet from the intersection, and
   c) Have a clear site of a point three (3) feet high in the intersection for a distance of not less than four hundred (400) feet.

H. Street Layout.

1. Curved local streets are preferred to discourage speed and monotony. The maximum straight line distance should not exceed one thousand (1,000) feet.

2. The Planning Board in all cases may require provisions for continuing circulation patterns onto adjacent properties and, for this purpose, may require the provision of stub streets abutting adjacent properties.

3. Residential development areas containing more than one hundred fifty (150) lots should have two (2) access points from collector streets or arterial highways.

I. Street Names. Street names and development names shall not duplicate nearly duplicate or be phonetically similar to the names of any existing streets or development in the Borough or contiguous areas of other communities. Any continuation of an existing street shall have the same street name.

J. Limit of Improvements. The developer shall complete all improvements to the limits of the development, unless other provisions have been made and approved by the Planning Board. In those instances where completion of certain improvements would not be possible until the development of adjacent land takes place, alternate temporary improvements may be constructed subject to the approval of the Planning Board, and cash or a certified check representing the difference between the value of the temporary improvements and the required improvements may be accepted by the Borough Council to be credited toward the completion of such improvements at such time as the adjacent land develops.

K. Streets Serving Other Than Single- family Detached homes.
The right-of-way width and other standards for internal roads and alleys in non-residential developments shall be determined by the Board on an individual basis and shall in all cases be of sufficient width and design to safely accommodate maximum traffic, parking and loading needs, and maximum access for firefighting equipment and shall generally conform to the requirements herein.

L. Reserve Strips. There shall be no reserve strips or areas controlling access to streets except where control and disposal of the land comprising such strips or areas have been placed in the hands of the governing body under conditions approved by the Planning Board.

SECTION 8-30 STREET LIGHTING

Street lights shall be of a type approved by resolution of the Borough Council and by the electric utility company serving the proposed development, and located so as to provide a minimum lighting level of five-tenths (0.5) horizontal foot candle on all local and collector streets and one (1) horizontal foot candle on all arterial streets. The developer shall pay the full cost for initial installation of any street lights. After final acceptance, operation and maintenance costs shall be the responsibility of the Borough.

SECTION 8-31 STREET SIGNS

Street signs shall be of a type and size approved by resolution of the Borough Council and shall be properly installed at each street intersection. Street signs shall be placed, two (2) per intersection, on the near right hand corner as viewed from both directions on the street which is expected to carry the greatest traffic through the intersection. Mountings shall be in accordance with the standard procedures of the Borough or with requirements adopted by the. Borough Council. Street signs shall be placed before any certificate of occupancy for houses on the subject street are issued.

SECTION 8-32 TRAFFIC CONTROL DEVICES

The developer shall, prior to final acceptance, install all traffic control devices required within any development or, with the consent of the Borough Council, may pay to the Borough Treasurer a nonrefundable sum, in cash or certified check, in the amount set by the Borough Engineer equal to the cost of all necessary traffic control devices not installed by the developer. Traffic control devices shall include, but are not limited to, signs, traffic lines, lights, reflectors and channelizing markers. The number, type, legend, placement and size of all traffic control devices shall be in accordance with the Manual on Uniform Traffic Control Devices by the United States Department of Transportation and the requirements of municipal, County and State regulations and shall be according to an approved plan submitted at the time of final plat approval. Construction details of all proposed traffic control devices shall be in accordance with standards prepared by the Borough Engineer and approved by the Borough Council.

SECTION 8-33 UTILITY INSTALLATIONS

All utility lines and necessary appurtenances including, but not limited to, electric transmission and electric, gas and water distribution, communications, street lighting and cable television, shall be installed underground within easements or dedicated public rights-of-way. The developer shall arrange with the serving utility for the underground installation of the utilities supply lines and service connections in accordance with the provisions of the applicable standard terms and conditions of its tariff as the same are then on file with the State of New Jersey Board of Public Utility Commissioners and shall submit to the Planning Board prior to the granting of approval a written instrument from each serving utility which shall evidence full compliance with the provisions of this section; provided, however, that lots which abut existing easements or public rights-of-way where overhead utility lines have theretofore been installed may be supplied with service from such overhead lines if no new utility poles are required. In any event, new building service connections for all multi-family developments, and for any industrial, commercial or office development containing a floor area of ten thousand (10,000) square feet or more, shall be installed underground. All other new building service connections shall also be installed underground unless specific waiver is granted by the Planning Board. Wherever the utility is not installed in the public right-of-way, an appropriate utility easement not less than twenty-five (25) feet in width shall be provided.

SECTION 8-34 WATER SUPPLY

The design and construction approval of all public and individual water supply systems (or extensions of existing systems shall be under the jurisdiction of the owner of the utility or the Borough Board of Health (and the State of New Jersey), respectively. Prior to the approval of any final plat, the full approval of any public water system must have been obtained from the appropriate agency and filed with the Planning Board, or the final approval will be conditioned upon full approval from the appropriate agency.

SECTION 8-35 RECYCLABLE MATERIALS STORAGE

1. For each subdivision application for 50 or more single family units, the applicant shall provide a storage area of at least 12 square feet within each dwelling unit to accommodate a four week accumulation of mandated recyclables (including but not limited to: newspaper, glass bottles, aluminum cans, tin and bin-metal cans) . The storage area may be located in the laundry room, garage, basement or kitchen.

2. For each subdivision application for 25 or more multifamily units, the applicant shall provide a storage area of at least 3 square feet within each dwelling unit to accommodate a one week accumulation of mandated recyclables (including but not limited to: newspaper, glass bottles, aluminum cans, tin and bi-metal cans). The storage area may be located in the laundry room, garage, or kitchen. Unless recyclables are collected on a weekly basis from each dwelling unit, one or more common storage areas must be provided at convenient locations within the development.

3. For each site plan application for commercial and industrial developments that utilize 1000 square feet or more of land, the applicant shall provide the Municipal Agency with estimates of the quantity of mandated recyclable materials (including but not limited to: newspaper, glass bottles, aluminum cans, tin and bi-metal cans, high grade paper, and corrugated cardboard) that will be generated by the development during each week. A separated storage area must be provided to accommodate a one to four weeks accumulation of recyclable material. The Municipal Agency may require the location of one or more common storage areas at convenient locations within the development.

SECTION 8-36 Affordable Housing Growth Share Requirement

A. Mandatory Provision of Affordable Housing. All development, other than the categories of exempted development specified pursuant to Subsection 3-4.S. "Affordable Housing Development Fees", shall provide for affordable housing through actual construction, through an affordable housing development fee or a combination of both.

The following provisions shall apply to all development approvals to enable the Borough to address the Borough's third round growth share obligation for affordable housing.

1. Any residential development in any zoning district in the Borough of Little Silver proposing nine (9) or more dwelling units shall set-aside eleven and one-tenth percent (11.1%) of said units (rounded to the next higher number if 0.5 or greater) for affordable housing as said term is defined under the New Jersey State Fair Housing Act (FHA) and the New Jersey Council on Affordable Housing (COAH) rules and regulation. In the event the number of units constructed is not a multiple of nine (9) and the number of units does not round up, the developer shall pay the affordable housing development fee for those units. For example, if a developer constructs twelve (12) units, it must reserve one (1) unit for a low-income household and pay the affordable housing development fee for three (3) units. The residential development shall comply with the following:

   a) The developer shall construct the affordable units on-site with the market rate units of the residential development. The Borough, in its sole discretion, may approve the construction of affordable units off-site provided that the developer demonstrates, and the Borough determines, that the off-site location is within the Borough and has been planned and zoned for residential development. The developer shall further demonstrate to the satisfaction of the Borough that the off-site location is approvable, suitable, and developable for affordable housing.

   b) Affordable dwelling units shall be built in accordance with the following schedule:

Percentage of Market Rate Unites Completed	Minimum Percentage of Low and Moderate Income Units Completed
25	0
25 + 1 unit	10
50	50
75	75
90	100

The affordable housing units shall be disbursed throughout the inclusionary development to the greatest extent possible and shall be designed to be architecturally indistinguishable from the market rate units to the greatest extent possible. To that end, the scale, massing, roof pitch and architectural detailing (such as selection of exterior materials, windows, doors, etc.) of the buildings containing the affordable housing units shall be similar to and compatible with that of the market rate units.

2. Residential development proposing the new construction of eight (8) or fewer residential dwelling units shall satisfy the affordable housing requirement by the payment of the affordable housing development fee set forth in Subsection3-4.S.

3. Nonresidential development that creates twenty-five (25) jobs or more shall provide one(1) non-age restricted affordable residential unit for every twenty-five (25) jobs projected to be created by the development. The calculation of the number of jobs and employment opportunities shall be in accordance with Appendix E to N.J.A.C. 5:94-1, et seq. entitled "UCC Use Groups for Projecting and Implementing Nonresidential Components of Growth Share." If the calculation for the number of jobs results in a fraction of an affordable unit, then the number of units required will be rounded up to the next higher number if the fraction is 0.5 greater. If the fraction is less than 0.5, then the fractional portion of the development shall be subject to a development fee that will be calculated based upon the proportion f building floor area generating the fractional unit. The developer shall satisfy its affordable housing production obligation through a mechanism approved by the borough and authorized by COAH regulations. The permissible mechanisms include:

   a) On-site housing production in connection with a residential component of the project provided that the residential component is permitted by the zone. In the alternative, the Borough may approve the construction of affordable units off-site provided that the developer demonstrates, and the Borough determines, that the off-site location is located within the Borough and is appropriately zoned for residential development. The developer shall further demonstrate to the satisfaction of the Borough that the off-site location is approvable, suitable, and developable for affordable housing.

   b) Participation in a Borough by-down/write –down program for sales units.

   c) Participation in a Borough buy-down/rent-down program.

   d) Participation in the creation of a Borough program for affordable accessory apartments.

e) Participation in a program to produce affordable housing that is approved by the Borough of Little Silver and that will provide credit for the Borough's third round housing fair share pursuant to COAH's rules and regulations.

4. For nonresidential development generating less than twenty-five (25) jobs, the development shall satisfy its affordable housing obligation by the payment of the Affordable Housing Development Fee set forth in Subsection 3-4.S.

B. The Applicant for approval of a residential or non residential development shall present the planned method of affordable housing compliance to the Borough at the time of application filing. The plan submitted by the Applicant for affordable housing compliance shall be based upon the bull build out of the property for residential and/or nonresidential development.

C. Full and complete satisfaction and compliance with the affordable housing requirements of the Borough shall be a specific, automatic, essential, and non-severable condition of all approvals And any extension of approval. Pursuant to this condition, the Applicant must demonstrate that it has satisfied the affordable housing requirement shall be a continuing condition of all approvals for development.

D. The affordable unit(s) to be produced shall be available to a low income individual or household should only one (1) affordable unit be required. Thereafter, the units shall be split evenly between low and moderate-income individuals and households except in the event of an odd number in which event the unit shall be a low-income unit. Pursuant to N.J.A.C. 5:94 et seq. and N.J.A.C. 5:80-26 et seq., all affordable units shall comply with COAH's rules and policies including, but not limited to, phasing, bedroom distribution, controls on affordability, range of affordability, affirmative marketing, income qualification, etc. It shall be the developer's responsibility, at its cost and expense, to arrange for the administering authority approved by COAH and designated by the Borough to ensure full COAH compliance and file such certifications, reports and/or monitoring forms as may be required to verify COAH compliance for each affordable unit.

E. As to residential developers, nothing herein shall affect the Borough's ability to generate more affordable housing than the one (1) affordable residential unit for eight (8) market rate residential units standard set forth above in the event that the developer secures a density bonus or other compensatory benefit through a zoning change or through a use variance.

F. As to nonresidential developers, nothing herein shall affect the Borough's ability to generate more affordable housing that the one (1) affordable residential unit for every twenty-five (25) jobs standard set forth above in the event that the developer secures an increased floor area ratio or other compensatory benefit through a zoning change or through a use variance.