

### ARTICLE III. DESIGN STANDARDS

#### Sec. 15-46. Generally.

The included design standards are intended as a guide to sound land planning and are for typical development conditions. Should there be unusual topographic or property problems, these standards may be modified to greater or lesser conformance at the discretion of the planning commission. In general, every subdivision shall conform to the requirements and purposes of the comprehensive development plan or any parts thereof, as adopted by the planning commission and township board, the zoning ordinance and other ordinances of the township and the Public Acts of the State of Michigan. The construction and design standards shall also conform to the requirements of the county road commission and the current specifications as established by the township engineers in the publication "Procedure for New Land Development."

(Comp. Ords. 1986, § 16.041)

#### Sec. 15-47. Planned residential neighborhoods.

(a) *Description.* A planned residential neighborhood involves the concept of families with comparatively homogeneous characteristics occupying a defined area, large enough to support various community facilities. The boundaries of a neighborhood should be natural barriers, such as water or abrupt terrain or artificial barriers such as major streets or railroads. Area of the neighborhood should be sufficiently large to support an elementary school with adjacent playground. Planned neighborhood units are highly desirable, in that they allow for the efficient provision of services, while promoting the social cohesion of the area.

(b) *Effectuation.* Although few subdividers operate on a scale to construct an entire neighborhood, it is possible to achieve similar results with the township planning commission coordinating the many small subdivisions comprising a neighborhood. Proposed subdivisions should be analyzed in their relationship to planned neighborhoods as may be proposed in the comprehensive development plan.

(Comp. Ords. 1986, § 16.042)

#### Sec. 15-48. Streets and alleys.

(a) *General.* The specifications herein set forth in this section are hereby declared to be the minimum standards adopted by the planning commission for the width and location of all highways, streets and alleys which may hereafter be platted or accepted within the township. All such regulations are intended to be in harmony with all road and right-of-way standards and policies of the county road commission; however, where township standards are greater, they shall take precedence.

(b) *Layout.* The layout of proposed streets shall provide for the continuation of existing streets in surrounding areas and/or shall conform to a plan for the neighborhood approved by the planning commission in cases where topographical or other conditions preclude the continuation of existing streets. In general, such streets shall be of a width as great as that of the street so extended or wider if necessary to conform to existing regulations.

Due consideration shall be given to traffic safety. Minor residential streets shall be laid out so as to discourage their use by through traffic. Due consideration shall be given by the subdivider to the attractiveness of the street layout in order to obtain the maximum livability and amenity of the subdivision. Consideration shall also be given to the proposed use of the subdivision and proper allowance made in industrial subdivisions for potential and existing railroad rights-of-way and their relation to the street system.

Adjoining streets should be as nearly parallel to railroad rights-of-way as conditions will permit. Any intersection occurring on a street which crosses a railroad track shall not be less than four hundred (400) feet from the nearest railroad right-of-way. Greater distance may be required if it is deemed necessary for safety, approach gradients or future grade separations.

(c) *Major streets.* Where the subdivision abuts or contains an existing or proposed major street, the planning commission may, at its discretion, require the construction of marginal access streets, double frontage of lots with provision of a planting screen contained in a no-access reservation along the rear property lines, deep lots with rear-service alleys, or other treatment which the commission considers essential to adequate protection of residential lots and to separation of through and local traffic.

(d) *Private streets and alleys.* Private streets and alleys shall not be permitted, but rather all streets and alleys shall be dedicated to the public.

(e) *Access to property.* Each residential lot within a subdivision shall be provided with a satisfactory means of access. Building permits shall not be issued for the construction of buildings within a subdivision which do not have access onto a public street. There shall be no reserve strips controlling access to a street except where the control of such is definitely placed with the township board.

(f) *Sidewalks and bikepaths.* Sidewalks and bikepaths are subject to the following:

(1) *Sidewalks.* Sidewalks shall normally be required on both sides of streets for the safety of pedestrians and children at play, and should be constructed to a width, line, and grade as determined by the township engineer and in accordance with standards adopted by the township. The planning commission is empowered to waive part or all of the requirements of sidewalks under the following conditions:

a. Where one (1) side of a street abuts upon a railroad, park, golf course, cemetery or similar type of property, not conducive to sidewalk usage, the requirement may be waived on that side of the street.

b. In subdivisions where the minimum lot size is one hundred fifty-foot frontage (pie-shaped lots fronting on a cul-de-sac excepted), where conditions are such as to eliminate or discourage nonlocal traffic and street parking.

c. Along streets from which access to abutting property is eliminated by a greenbelt.

d. Where a proposed subdivision of a size and locality with respect to existing surrounding residential development that the requirement of a sidewalk installation would be inappropriate, incongruous, and not essential to the public health, safety and welfare.

(2) *Bikepaths.* Where a subdivision either fronts along a public right-of-way that is part of the township bikeway master plan or is bisected by a part of the master plan, a bike path, in lieu of a sidewalk, shall be installed as part of the subdivision. Bikepaths shall generally be eight (8) feet wide and four (4) inches thick asphalt construction with a thickness of six (6) inches at all driveways and be in accordance with the standards adopted by the township and the determination of the township engineer.

(g) *Intersection.* Intersecting streets shall be laid out so that the intersection angles are approximately ninety (90) degrees, but in no case shall the angle of intersection be less than sixty (60) degrees. Streets convening at one (1) point shall be reduced to the least practicable number.

(h) *Visibility.* No fence, wall, structure, planting or topographic or grading arrangement shall be erected, established or maintained on any corner lot which will obstruct the view of a driver of a vehicle approaching the intersection, excepting that shade trees would be permitted where all branches are not less than eight (8) feet above the road level. Such unobstructed corner shall mean a triangular area formed by the street property lines and a line connecting them at points twenty-five (25) feet from the intersection of the street lines or in the case of a rounded property corner from the intersection of the street lines, produced along the subtangents of the curve to such point of intersection.

(i) *Half-streets.* Generally, half-streets shall not be permitted except for such major streets of over sixty (60) feet in right-of-way width as may be recommended in the township's comprehensive development plan or by the county road commission. They shall be permitted only when the planning commission considers the use of a half-street essential to the reasonable development of the subdivision in accordance with the intent of these regulations and where the commission finds it practicable to require the dedication of the other half of the right-of-way when the adjoining property is subdivided. Wherever there already exists a dedicated and recorded half-street or half-alley on an adjoining plat, the other half shall be dedicated on the proposed plat to make the street or alley complete.

(j) *Street jogs.* Street jogs with centerline offsets of not less than one hundred and twenty-five (125) feet shall be avoided. Where streets intersect major streets, their alignment shall be continuous.

(k) *Cul-de-sacs.* Where required for the full and best utilization of the property, cul-de-sacs may be utilized. The maximum permissible length of cul-de-sacs shall be six hundred (600) feet measured from the right-of-way line of the nearest intersecting street to the farthest point on the right-of-way of the cul-de-sac. A cul-de-sac of a maximum of five hundred (500) feet is more desirable and only in extreme cases should the length of six hundred (600) feet be permitted. Each cul-de-sac shall be provided at its closed end with a turnaround having a diameter at the outside of the roadway pavement of at least eighty (80) feet and a property line diameter of at least one hundred ten (110) feet. The remaining portion of the cul-de-sac shall have a right-of-way width of at least sixty (60) feet. The straight portion of the right-of-way shall be joined to the circular portion of the right-of-way by circular curves with radii of not less than fifty (50) feet.

(l) *Dead-end streets.* Dead-end streets shall be permitted only in cases where the planning commission is of the opinion that there is a reasonable expectation that such streets will be extended to a suitable outlet when the adjacent property is platted. If the commission permits the platting of dead-end streets with the expectation of such future expansion, the commission shall determine whether the subdivider shall provide a temporary turnaround at the closed end of the street.

(m) *Alley.* Alleys shall not be permitted in residential areas, but may be permitted or required in commercial or industrial areas for the purpose of service access, such as for off-street parking and loading. All such alleys shall have a minimum width of twenty-six

(26) feet. A diagonal cutoff shall be made at all acute and right angle intersections of two (2) alleys sufficient to provide an inside turning radius of thirty (30) feet.

(n) *Street trees.* Street trees shall be planted between curb and sidewalk at intervals of forty (40) to fifty (50) feet, but not closer than twenty-five (25) feet from any street intersection. Their growth shall be guaranteed by the proprietor and/or developer for a period of one (1) year. All trees shall be a minimum caliper of one and one-fourth (1 1/4) to one and one-half (1 1/2) inches, measured at one and one-half (1 1/2) feet from the ground level. Recommended street trees include Sugar Maple, Schwedler Maple, Norway Maple, Green Ash and Sycamore. Any other type of tree may be planted only after planning commission approval.

(o) *Street names.* Street names shall not be permitted which might cause confusion with names of existing streets in or near the township. Streets that will be continuations of existing streets shall be called by the same names as such existing streets. All names shall be approved by the planning commission and the county road commission.

(p) *Building lines and setback lines.* Building lines shall conform to the requirements of the township zoning ordinance.

(q) *Right-of-way width.* Minimum right-of-way width shall be sixty (60) feet. Greater right-of-way widths for major streets as may be required by the county road commission or as may be designated on the township's comprehensive plan may be required as necessary.

(r) *Horizontal alignment.* Centerline of pavement shall coincide with centerline of right-of-way, except for irregular rights-of-way widths.

(s) *Street grades.* Profiles may be required on all streets at the discretion of the planning commission. The minimum gradient allowed shall be 0.4 percent with the maximum of six (6) percent.

(t) *Street curvature.* The minimum horizontal centerline radii of curved local streets shall be two hundred (200) feet. Greater radii may be required for principle streets having through traffic. A minimum fifty-foot tangent shall be introduced between reverse curves on streets of sixty-foot right-of-way. Greater tangents may be required on streets of greater right-of-way.

(u) *Radii at intersections.* Minimum pavement radii at intersections shall be forty (40) feet at intersections of county primary roads, twenty-five (25) feet at intersections with major streets of over sixty-foot right-of-way, and twenty (20) feet on local streets.

(v) *Curb and gutters.* Permanent concrete curb (integral if pavement is concrete) or separate concrete curb and gutter (for asphalt paving) shall be installed on all streets in accordance with the construction standards adopted by the township.

(w) *Surface drainage.* The preferred plan for yard drainage shall provide for drainage away from the structure and from rear of lot to front of lot, with a minimum grade of one (1) percent and a maximum grade of three (3) percent. Swales along side lot lines shall slope from rear of lot to front of lot and in no instance shall grading be allowed which will deposit surface runoff onto adjoining property. Surface drainage which does not meet the above requirements will be allowed only in the case of extreme hardship to the developer.

(1) If it is found to be essential to the economic development of substantial portions of a project, a rear yard drainage easement may be provided. In this event, the rear yard grade shall be not less than one (1) percent nor more than three (3) percent and the grade from

the house to the street shall be not less than one (1) percent with the building grade being not less than twelve (12) inches above the street grade.

(2) Where rear yard easements are essential to the economical development of major portions of the project, the longitudinal grade of such easement shall not be less than 0.4 percent and the length of run of such longitudinal easement shall not exceed five hundred (500) feet of continuous drainage with no more than one hundred (100) feet of such distance being upstream from the bend in the easement.

(3) Where required by the township engineer, a drain tile sufficient in size to handle the runoff shall be provided for easement drainage. The depth of grade and outlet for such tile shall be subject to the township engineer's approval.

(x) *Access to streets across ditches.* Subdividers shall provide access to all proposed streets across water courses or ditches in a standard manner approved by the county road commission and the county drain commission.

(Comp. Ords. 1986, § 16.043)

#### Sec. 15-49. Utility and other easements.

(a) The subdivider shall contact the township engineer and the public utility company involved regarding the preferred location of utilities. In general, utilities will be placed within the road right-of-way in the locations noted in section 15-54. Where necessary, utility easements shall be required along rear or side property lines. These utility easements shall not be less than twelve (12) feet in total width, with six (6) feet located on each side of the property line. Utility easements six (6) feet wide are permissible along rear property lines in cases where such rear property lines abut unplatted land.

(b) Drainage easements shall be provided which conform substantially with the lines of any natural watercourse, drainage ditch, channel or stream. Such easements shall be of adequate width for the particular conditions of the site. If within a public right-of-way, the drain will be tiled and enclosed.

(Comp. Ords. 1986, § 16.044)

#### Sec. 15-50. Lots.

(a) *General.* The size, shape, and orientation of lots shall be appropriate for the location of the subdivision and for the type of development and use contemplated. Lots shall be of such size as to permit a variety of house types, to provide side yards for desirable access, light, air, privacy and safety from fire hazards, and to provide for setbacks from the street line and allow sufficient space for household purposes.

(b) *Access.* All lots shall abut by their full frontage on a public street.

(c) *Width.* The minimum width of any lot shall be sixty-five (65) feet, except that greater widths may be required in the zoning ordinance. Where desirable to plat wedge-shaped lots so as to best utilize a parcel of land, the required lot width shall be measured at the front building line, located thirty-five (35) feet from and parallel to the front property line, when the front lot line is narrower than the rear lot line. When the rear lot line is narrower than the front lot line, the lot width shall be measured at the rear building line and be parallel to the rear property line.

(d) *Depth.* No lot shall be less than one hundred twenty (120) feet in depth. The depth of a lot should not exceed a depth to width ratio of three (3) to one (1).

(e) *Corner lots.* Corner lots shall be provided extra width sufficient to permit the maintenance of building setback lines on both the front and side street lines in order to protect similar setbacks on both the front and side streets which exist or are planned. Where lots have side yards abutting upon a street on the same side of which other residential lots front, the lots shall be of such width to permit a side yard setback on the street equivalent to the required front yard setback of the lots fronting on such street, in accordance with the township zoning ordinance.

(f) *Side lot lines.* Side property lines shall generally be perpendicular to straight street lines or radial to curved street lines unless a variation from this rule will result in better lot plan. Property lines on sides and rear of lots should be straight.

(g) *Area.* Lot areas shall be in conformance with the zoning ordinance. Where a parcel of land contiguous to a body of water is presented for subdividing, a recreational park bordering on such body of water shall be dedicated for such purpose, the privileges of which and riparian rights of user incident thereto, are to be reasonably enjoyed by the owners and occupants of lots included in any plat or plats recorded within such riparian parcel and only such owners and occupants, provided that such recreational park is dedicated at the time of recording the first plat in such parcel; provided that, where such a recreational park is dedicated for the use of owners and occupants of lots contained in such recorded plat or plats, at least two (2) lineal feet of water frontage and one hundred and fifty (150) feet in depth shall be provided for each lot not having water frontage; provided, however, that the minimum width of such lot shall be fifty (50) feet.

(h) *Business or commercial lots.* No lot or parcel zoned commercial shall be platted that is less than sixty-five (65) feet in width. The area of such lot or parcel shall be sufficient in size as to provide sufficient area for off-street parking and loading in accordance with the requirements of the zoning ordinance.

(Comp. Ords. 1986, § 16.045)

#### Sec. 15-51. Blocks.

(a) *General.* The size and shape of blocks shall be appropriate for the type of lots and land use proposed. Blocks shall be designed so as to permit good lot orientation, safe street design and economical use of the land.

(b) *Length.* Length of blocks between intersecting streets shall normally be from eight hundred (800) to one thousand (1,000) feet. This form shall be altered only where the topography of the land makes it advisable to do so in order to protect the public safety and convenience, and in no event shall blocks be less than five hundred (500) feet or more than one thousand three hundred and twenty (1,320) feet in length. Where blocks planned primarily for residential development exceed nine hundred (900) feet in length, an easement five (5) feet in width may be required by the planning commission near the center of such block for a pedestrian walkway across the width of the block. A public sidewalk conforming to township sidewalk specifications shall be constructed by the developer within this easement.

(c) *Width.* Width of blocks shall be equal to the total depth of two (2) tiers of lots and shall not be less than two hundred forty (240) feet.

(d) *Nonresidential blocks.* Blocks intended for purposes other than residential shall be especially designed for such purposes, and shall have adequate provisions for off-street parking and loading in accordance with the requirements of the zoning ordinance.

Commercially planned blocks over five hundred (500) feet in length shall contain a pedestrian walkway, if required by the planning commission, near the center of the block. Such walkway shall contain a sidewalk conforming to township sidewalk specifications in a properly planted and maintained easement fifteen (15) feet in width.  
(Comp. Ords. 1986, § 16.046)

Sec. 15-52. Open spaces.

In the design of the plat, thorough and equitable consideration shall be given by the subdivider and the planning commission to the provision of suitable sites for recreational, school, and other public purposes. The location of these areas should conform to the objectives of the comprehensive development plan and shall not be unreasonable in area in relation to the land being subdivided and to the prospective uses of such land.  
(Comp. Ords. 1986, § 16.047)

Sec. 15-53. Use.

- (a) *Control.* No property shall be subdivided for residential use if such is unsuitable for building purposes.
- (b) *Restrictions.* Wherever property is subdivided with the intention that it shall have a use less restrictive than that designated in the zoning ordinance, such use shall be stated in an application for an amendment to the zoning ordinance or in a separate statement filed with the planning commission. Conformance with the objectives of the comprehensive development plan shall be required so as to ensure general uniformity of land uses within blocks and neighborhoods.
- (c) *Conformance with zoning ordinance.* Property use and area restrictions must be at least in accordance with the minimum requirements of the zoning ordinance.
- (d) *Business and commercial lots.* Business or commercial lots, when platted, shall bear a reasonable relation to trade area or office space potential. The planning commission shall recommend the location of business and commercial lots in accordance with the comprehensive development plan and the zoning ordinance.
- (e) *Land subject to flooding.* Any areas of land within the proposed subdivision which are subject to flooding or inundation by stormwater shall be clearly shown on the final plat. Such land shall not be platted for residential occupancy nor for such other uses as may increase danger to health, life or property, or unduly aggravate the flood hazard.  
(Comp. Ords. 1986, § 16.048)

Sec. 15-54. Utilities and improvements.

- (a) *General.* In order to provide healthful, clean and desirable living conditions, the subdivider shall be entirely responsible for installing the following site improvements, or shall furnish to the township a surety bond executed by a surety company authorized to do business in the state, sufficient to permit the completion of all contemplated improvements before a plat shall be accepted by the township.
- (b) *Street pavement and storm drainage.* In those subdivisions wherein the majority of lots are less than one-half acre, or have frontage of less than one hundred fifty (150) feet, all streets and intersections shall have concrete paving or they shall all have asphalt paving, in conformance with the specifications of the county road commission. In both cases, concrete curb and gutter is required. In addition, all such streets shall have

enclosed storm drains. All subdivisions having a majority of lots greater than one-half acre in size and with frontage of one hundred fifty (150) feet or greater must provide paving in accordance with the specifications of the county road commission, and any other township regulations pertaining thereto. Generally, storm sewer laterals shall be located on the north or east side of the street, and in all cases on the same side of the street as the water mains. Laterals shall be generally twelve (12) feet off the property line in streets having curb and gutter. In areas not having curb and gutter, the centerline of the ditch shall be generally sixteen (16) feet off the property line.

(c) *Sanitary sewer system.* Where provided, the location and design of all trunk line and lateral sanitary sewers and any other necessary appurtenances such as pumping stations shall be first approved by the township engineer and all applicable reviewing agencies, and all work shall be carried out under the supervision of the township engineer.

Generally, sanitary sewer laterals shall be located on the south or west side of the street and in all cases on the opposite side of the street as the water mains. Laterals shall be generally 7.5 feet off the property line.

(d) *Water system.* Where provided, the location and design of water mains with house connections and the installation of fire hydrants, and any other necessary appurtenances shall be first approved by the township engineer and water department and all applicable reviewing agencies as to suitability, and all work shall be carried out under the direction of the township engineer. Generally, water mains shall be located on the north or east side of the street. Mains shall be generally 7.5 feet off the property line.

(Comp. Ords. 1986, § 16.049)

Sec. 15-55. Street signs.

For the proper identification of streets, the subdivider shall provide and erect street signs meeting the standards of the township or those as established by the county road commission.

(Comp. Ords. 1986, § 16.050)

Sec. 15-56. Protection of natural features.

Due regard shall be shown for all natural features, such as large trees, exceptionally fine groves of trees, watercourses, scenic points, historic spots and similar community assets, which if preserved, will add attractiveness and value to the subdivision.

(Comp. Ords. 1986, § 16.051)

Sec. 15-57. Public street lights.

A street light shall be required, and if necessary, installed and dedicated to the public by the proprietor as a public improvement, at each intersection of a new or existing street providing access to the subdivision, with a street having an existing or proposed right-of-way width of eighty-six (86) feet or more. The street light shall meet the design, construction, location and approval standard of the road commission for Oakland County and utility company that will provide the source of power, and be shown and disclosed on the preliminary plat and in the letter of intent required by section 15-28. The cost of maintenance and operation of a street light required by this section shall be the responsibility of the properties in subdivision being accessed, to be assessed and



collected by the township as a special assessment. The proprietor shall record notice of said requirement on or with the final plat.

(Ord. of 5-12-97, § 1)

Secs. 15-58--15-75. Reserved.