CHAPTER 1189 Improvements

1189.01	Required Improvements
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CROSS REFERENCES

Cornerstones and permanent markers—See Ohio Revised Code 711.03 and 711.04 Fee of designated public land to vest when plat recorded—See Ohio Revised Code 711.07, 711.11

1189.01 REQUIRED IMPROVEMENTS

The improvements which are hereby required shall be designed, furnished and installed by the subdivider in accordance with the provisions of these Subdivision Regulations and other regulations of the state and village. They shall be installed before the final plat is approved or in lieu thereof, financial guarantees for such installation shall be approved prior to the approval of the final plat. The subdivider shall provide and install within the proposed subdivision improvements not less than set forth in Table 1.

IMPROVEMENTS

Table 1 Schedule of Required Improvements				
	Single-Family	Residential Subdivision by Average Lot Width		Multi-Family, Residential, Industrial and Business Subdivisions
	Less than 80 feet	80 feet to 120 feet	80 feet to over 120 feet	_
Drainage				
Grading	Streets, blocks, and lots	Streets, blocks, and lots	Streets, blocks, and lots	Streets, blocks, and lots
Storm Systems	Sewer system	Sewer system	Sewer system	Sewer system
Street Improvements for both New and Existing Streets				
Pavement	Required	Required	Required	Required (See Table 2)
Curbs & Gutters	Gutters Required	Gutters Required	Gutters Required	Gutters Required
Sidewalks	Both sides	Both sides	Both sides	Both sides
Street Signs	Required	Required	Required	Required
Street Lights	Required	Required	Required	Required
Street Trees	Required	Required	Required	Required
Sewer & Water				
	Central systems	Central systems	Central systems	Central systems
Public Sites				
	Required	Required	Required	Required
Monuments				
	Required	Required	Required	Required

Drainage: A drainage system shall be designed and constructed by the subdivider to provide for the proper drainage of the surface water of the subdivision and the drainage area of which it is a part. To this end, the subdivision shall be graded as required by Table 1, the Schedule of Required Improvements, and the following requirements and methods shall be followed:

<u>Drainage Plan:</u> Prior to the start of any construction (houses or streets), the subdivider shall furnish a plot plan showing the slab or floor elevation of each house proposed to be constructed. He/she shall also show by the use of arrows how he/she proposes

to surface drain each lot. The subdivider shall submit topographic maps showing the area to be drained with calculations prepared by a registered professional engineer in determining the proposed storm water collection system.

- Drainage Requirements (Grading): No final grading or sidewalk or pavement construction or installation of utilities shall be permitted in any proposed street until the final plat has been approved or conditionally approved. The subdivider shall grade each subdivision as specified in Table 1, the Schedule of Required Improvements, in order to establish street, block and/lot grades in proper relation to each other and to topography, as follows:
 - Street Grading Plan: A grading plan shall be prepared for the streets along with street improvement details. The grading of the roadway shall extend the full width of the right-of-way. Planing strips shall be graded at a gradient of not less than two percent or more than three percent upward from the curb to the sidewalk or property line.

Block and Lot Grading:

Block grading shall be as follows:

A ridge along rear lot lines, draining into the streets.

Parts of all lots draining to a sidewalk or ditch along rear lot lines.

- Lot grading shall be as follows: Lots shall be graded so that water drains away from each building at a minimum grade of two percent. Surface drainage swales shall have a minimum grade of one-half percent and shall be designed so that surface water will drain into a driveway, street gutter, storm sewer, drain inlet or natural drainage way. The minimum grades of driveways shall be four-tenths percent and a maximum of fifteen percent.
- <u>Topsoil:</u> If grading results in the stripping of topsoil, the topsoil shall not be removed from the site or used as fill, but shall be saved and uniformly spread over the lots as grading is finished.
- <u>Trees:</u> As many trees as can be reasonably utilized in the final development plan shall be retained and the grading adjusted to the existing grade at the trees (Ord. 1971-110. Passed 9/1/71).
- <u>Drainage System Requirements:</u> The design criteria for the drainage systems shall be based on the State of Ohio Department of Transportation, Manual of Location and Design. Runoff or design discharge for sewer design where the contributing area

generally consists of pavements and a narrow strip back of the pavements shall be obtained from the rational formula: Q=CIA. The following minimum design frequencies are to be used:

Roadway ditches 2 years

Storm sewers 5 years of 10 years

Culvert under roadways 25 years

Watercourses 10 years

RUNOFF COEFFICIENTS AND RAINFALL FREQUENCIES BASED ON GENERAL CHARACTER OF TRIBUTARY AREA

Description of Area	Rainfall Frequency (Years)	Range of Runoff Coefficient	Coefficient used in this Report
Open Space Conservation	5	0.25-0.40	0.30
Rural Residential	5	0.25-0.40	0.30
Low Density Urban Residential	5	0.30-0.50	0.40
Medium Density Urban Residential	5	0.30-0.50	0.50
High Density Urban Residential	10	0.50-0.70	0.60
High Density Multifamily Urban Residential	10	0.50-0.70	0.60
High Density Multifamily- Commercial Urban Residential	10	0.50-0.70	0.60
Local Commercial	10	0.50-0.70	0.50
Office and Limited Business	10	0.50-0.70	0.50
Community Commercial	10	0.70-0.90	0.80
Description of Area	Rainfall Frequency (Years)	Range of Runoff Coefficient	Coefficient used in this Report
Central Retail-Office	10	0.70-0.90	0.90
Intensive and Automotive Oriented Commercial	10	0.70-0.90	0.90
Highway Interchange Commercial	10	0.70-0.90	0.80
Industrial Research and Office	10	0.50-0.70	0.60
Industrial Manufacturing, Storage and Disposal	10	0.40-0.90	0.60
Railroad Yard Areas	10	0.20-0.40	0.30

- <u>Road Drainage System:</u> The road storm drainage system shall serve as the prime drainage system. It shall be designed to carry roadway, adjacent land and house storm water drainage.
 - Road storm sewers (enclosed). The design discharged used to determine pavement inlet spacing shall be based on the rational method mentioned in this subsection (a)(3). The gutter flow between inlets shall be calculated by the equation: Q=.56Z/N S1/2 F8/3. (See Manual of Location and Design).

The inlet spacing shall be based on a ten year frequency, fifteen minutes duration design storm. The spread of water on the pavement shall be limited to two feet into the traveled lane. In addition, standard manholes or combination manhole inlets for cleaning purposes shall be placed no further than 300 feet apart.

Storm sewer laterals. A storm sewer lateral shall be provided for each lot to accommodate footer drains and downspouts.

Off-road Drainage Systems

- The design of the off-road drainage system shall include the watershed affecting the allotment and shall be extended to a watercourse or ditch adequate to receive the storm drainage.
 - All watercourses or ditches with a design capacity not exceeding the capacity of a thirty-six inch concrete pipe shall be enclosed. Existing creeks or ditches constructed by the subdivider which exceed the above limit shall be constructed with a minimum fifteen foot wide continuous earth roadway to provide access for maintenance equipment to all sections of the ditch. The ditch easement shall be wide enough to contain such ditch slopes and roadway with ample clearance for the operation of maintenance equipment. Open ditches will have a side slope ratio of 2:1 and a minimum two foot bottom width.
 - No open ditch shall be constructed within 100 feet of the rear of a house, as measured from the house to the edge of the ditch easement.
 - Any storm drainage courses carried alongside lot lines shall be enclosed with approved pipe.
- Easements for drainage purposes shall be a minimum of twenty feet in width. Where the watercourse is large, easement widths shall be increased as determined by the City Development Engineer. Where watercourses cross plotted lots diagonally, the subdivider shall straighten such courses where practicable and shall substantially follow sublot lines. Easements shall be shown on the record plat and deeds shall

cover all existing or reconstructed watercourses.

- <u>Protection of Drainage Systems:</u> The subdivider shall adequately protect all ditches (roadways and watercourses) to the satisfaction of the Portage County Development Officer or the Village Engineer as follows:
 - Any watercourse having a gradient in excess of two and one-half percent shall be enclosed with pipe with the necessary inlets and shall be piped to a storm sewer, if nearby, or otherwise to a natural watercourse. Where a street is of considerable length and of various gradients, part of which require storm sewers, the lengths between the storm sewers even though less than two and one-half percent gradient shall also be enclosed in pipe, when required by the Portage County Development Officer or the Village Engineer. Material and construction shall be in accordance with the specifications of the Portage County Development Officer or the Village Engineer. Watercourses or road gutters having a gradient exceeding one and onehalf percent shall be sodded or paved with brick, concrete, half tile or broken concrete slabs. All areas within the right-of-way not paved or sodded shall be fertilized and seeded.
 - All adjoining land where the vegetation has been injured or destroyed or where the land is in need of protection to prevent erosion, deposits in the drainage facilities and/or unsightly conditions shall be restored and protected as directed by the Portage County Development Officer or the Village Engineer.
 - In all cases, any drainage facility within the subdivision shall be in a stable condition, free from either erosion or sedimentation and/or other debris.
 - No construction shall begin until the subdivider has complied with all of the provisions of the Village Codified Ordinances, and obtained all permits required by the Ohio Environmental Protection Agency and the Army Corp of Engineers and Portage County, Ohio.
- <u>Pipe Policy:</u> The following pipe policy and the pipe policy of the State of Ohio Department of Transportation, "Construction and Material Specifications, 706, 707," shall be used in designing storm sewer systems subject to the approval of the Portage County Development Officer or the Village Engineer.
 - All pipe lines (including culverts and storm sewers) which are located beneath the roadway shall meet the requirements set forth for Class A pipe.

- Longitudinal storm sewer lines, not under the main roadways, shall be Class D or Class E pipe. Where these sewers are shallow or located beneath drives, Class B or Class C pipe shall be specified.
- Longitudinal roadway drainage lines, for which sealed joints are unnecessary or undesirable, shall be Class H pipes. Portions of these drains that require stronger pipe because of shallow cover or location beneath drives shall be Class C pipe.
- Open end driveway pipe twenty-four inches or less in diameter may be Class F pipe and larger pipes shall be Class B or Class C pipe.
- Outlet pipe or open-joint drains (Class H or I), shall be in accordance with the provisions of Class F pipe and will usually be ten feet in length.

Pipe under drains shall be Class I pipe.

Pipe arches or elliptical pipes shall be Class G pipe.

Street Improvements:

- The subdivider shall design and construct pavements of the sizes and types not less than set forth in Table 2 for all streets. Pavement cross sections shall be as shown in Appendix H. The construction and materials shall be as specified by the State of Ohio Department of Transporation construction and Material Specifications or as specified by the Portage County Development Officer or the Village Engineer.
- Henceforth all curbs installed in the Village, whether they be installed by the Village, governmental agency, private individual or corporation, shall be straight curbs and the same shall be six inches by eighteen inches.
- There is hereby established a standard for the installation or construction of catch basins in the Village by either the Village, governmental agency, private individual or corporation. All catch basins shall have a six-inch thick concrete slab at the bottom of the same and the bottom of the basin shall be considered to be two feet below the bottom of the inlet or outlet pipe.

Table 2 Pavement Standards						
Street Type	Subbase ²	Base	Curb and/ or Gutter ⁴ s/ Base	Traveled Width	Width Surface ⁵	Width Total

Rural Residential 120' Frontage or More (See notes below)						
	2"310	6"451	Integral	27'	25'	26'
	2"310	7"452	Integral	27'	25'	26'
	4"304	5"301 or 302	1.5"403 Curb/Gutter 24"	27'	25'	26'
	6"304	3"301 or 302	1.5"403 Curb/Gutter 24"	27'	22'	26'
	7"411	1.5"302	1.5"403 Curb/Gutter 24"	27'	22'	26'
	9"304	2"302	1.5"403 Curb/Gutter 24"	27'	22'	26'
	2"310	6:451	Integral	27'	25'	26"
	2"310	7"452	Integral	27'	25'	26'
*Urban Single-family Residential (Less than 80' or 80' to 120' frontage)						
	5"304	5.5"301 or 302	1.5"403 24" C/G/	27'	22'	26'
	7"304	4"301 or 302	1.5"403 24"C/G	27'	22'	26'
	7"411	2"302	1.5"403 24" C/G	27'	22'	26'

Table 2 Pavement Standards (Continued)						
Street Type			Curb and/ or Gutter ⁴ s/ Base a		Width Surface ⁵	Width Total
Light Industrial						
	2"310	6"451	Integral	31'	29'	30"
	2"310	7"452	Integral	31'	29'	30'
	5"304	6"301 or 302	1.5"403 24 C/G	31'	26'	30'
	7"304	4"301 OR 302	1.5"403 24 C/G	31'	26'	30'
	8"411	2"302	1.5"403 24 C/G	31'	26'	30'
	10"3042	5"302	1.5"403 24 C/G	31'	26'	30'
Collector						
	2"310	7"451	Integral	33'	31'	32'
	2"310	8"452	Integral	33'	31'	32'
	6"304	6"301 or 302	1.5"403 6" X 18"	33'	30'	32'
	8"304	5"301 or 302	1.5"403 6" X 18"	33'	30'	32'
	8"411	2.5"302	1.5"403 6" X 18"	33'	30'	32'

10"304	3"302	1.5"403 6" X 18"	33'	30'	32'
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Notes:

- All methods of construction, materials and machinery used shall meet the requirements of the current State of Ohio Construction and Materials Specifications and the specifications of the Village or Portage County, Ohio, unless otherwise ordered by the Portage County Development Officer or the Village Engineer.
- Subgrades shall be inspected and approved by the Portage County Development Officer or the Village Engineer before any materials are placed. Each material course shall be accepted by the Portage County Development Officer or the Village Engineer before the succeeding course is constructed. (The requirement for subbase course under pavements may be waived by the Portage County Development Officer or the Village Engineer).
- The type and quantities of materials to be used will be determined by the Portage County Development Officer or the Village Engineer. The surface preparation shall be a prime coat (407) or a tack coat (408) as required by the Portage County Development Officer or the Village Engineer.
- Except where 452 or 451 pavement is used, all curbing shall be 24" wide combination curb and gutter sections, constructed of Portland cement concrete. Minimum gutter thickness shall be 6". The specified subbase material shall extend the full width under the curb and gutter section, to the subgrade line. Underdrains shall be installed and connected to curb inlets.

Residential curb shall be standard curb 6" higher than the gutter. Curbing on collector and industrial streets shall be standard curb 6" higher than the gutter (6" X 18").

Curb openings for ditches, drains, etc., are not permitted.

- Surface width is the area between the curb and gutter sections. Total width is back to back of curbings.
 - <u>Pavements.</u> Higher standards and/or greater widths than indicated herein may be required by the Planning Commission to adequately provide for unusual soil conditions or extraordinary traffic volume or loads. After the underground utilities and house connections are installed and rough grading completed, the roadway subgrade shall be shaped, rolled and compacted. The subdivider may construct a temporary roadway of slag or stone for use during the building construction period. Such pavements shall be maintained in a safe and passable condition by the subdivider without expense to the Village.

- <u>Curbs and gutters.</u> Concrete curbs shall be provided where indicated on the required improvement schedule.
- Sidewalks. Sidewalks shall be provided as specified in the required improvement schedule and in the location shown by the typical cross section in Appendix H. Sidewalks shall be constructed of concrete four inches thick with the thickness increased to six inches where the sidewalk is crossed by a driveway. The construction and materials shall be as specified in 608 of the State of Ohio Department of Transportation Construction and Material Specifications or as specified by the Portage County Development Officer or the Village Engineer.
- <u>Street name signs.</u> The subdivider shall install a street sign showing the names of all streets at all street intersections. The signs shall conform to the specifications of the Portage County Development Officer or the Village Engineer and be mounted at a height of approximately seven feet above the top of the curb or the crown of the pavement. Signs shall be erected by the time the prospective rights-of-way are open for public use, or the base paving coat is installed, whichever is sooner. The sign shall be located as directed by the Portage County Development Officer or the Village Engineer.
- <u>Street lights and underground utility lines.</u> In all new allotments or reallotments, all utility lines including those for street lighting, shall be installed underground and all street light poles shall be of the approved metal type. All owners or petitioners for subdivision of land shall grant easements for such lines and areas as are needed by the utilities for installation, maintenance and replacement of their lines and needed equipment including street lighting. Street lights shall be installed by the utility company when ordered by the Portage County Development Officer or the Village Engineer. However, in all new allotments street lights shall be installed prior to completion of the development and release of the developer's bond. The subdivider shall arrange for the installation of street lights in the subdivision.
- <u>Street trees.</u> The trees shall be provided only on streets with curbs and gutters as required in the improvement schedule and as follows:

Species

The trees shall be species which are resistant to damage and disease and which do not cause interference with underground utilities or street lighting. The species of trees suggested are Red Maple, Norway Maple, Sugar Maple, Sycamore Maple, Red Oak, Thornless Honey Locust, London Plane Tree, Amur Cork Tree, and Sweet Gum, Buckeye, Ruby Red Horse-Chestnut, European Hornbeam, Hornbeam, American Hop Horn-Beam, and varieties of each, and European Linden. Trees which have undesirable characteristics such as fruit, low branches, unpleasant odors, excessively thick foliage, susceptibility to disease or attack by insects, or large root systems such as Poplar, Willow, Cottonwood, American Elm, Ailanthus, Mountain Ash, Silver Maple, Ashed Leaved Maple and Oregon Maple and evergreens are prohibited in the planting strip. Poplar, Willow or Cottonwood trees, if planted on private property, shall be located not less than 100 feet from any public sewer. The subdivider shall furnish plans prepared by a landscape architect or a qualified person having knowledge and experience in the landscape industry; plans shall show location, spacing, size, variety and other pertinent data concerning street trees. Also the subdivider shall install them in an approved plan. Such plans and installation shall be done with the approval and cooperation of the Planning Commission. It is advised that a tree with an ultimate height of less than four feet be used. Trees to be planted shall be one and threequarters inches to two inches in diameter measured one foot above ground. Lowest branches should not be less than four feet, nor higher than six feet above the ground. Trees shall be balled and burlaped in condition according to American Nurseryman Standards. Trees normally should not be planted closer than forty feet to each other. No tree should be planted closer than twenty-five feet to the squared sidewalk corner of a street intersection, preferably this distance will be closer to thirty-five feet. (See Appendix I). Present and future approaches to dwellings and garages shall be considered in location of trees. Best results will be obtained if planting is done during the months of April, May, October or November. Where condition or type of soil is unfavorable to plant growth, a volume of not less than one cubic yard of good topsoil should be placed around the roots. Trees should be mulched and artificially watered to stimulate good root, stem, and leaf growth.

Location

(See Appendix I).

Tree and Tree Planting Specifications

Trees shall be one and three-quarters inches to two inches in trunk diameter, measured six inches above the ground level, balled and burlaped, in condition. Height of tree shall be ten to twelve feet with lowest branching between four and six feet, straight trunked and grown as a street tree in the nursery row. Size, balling, branching and quality of tree shall be according to U.S.A. standard for Nursery Stock (USAS Z60.1 1-1969).

Planting Procedure

Tree pits should be dug with sides approximately vertical to a depth of twentytwo inches and with a diameter of thirty-six inches. When rock, hard-pan, stumps and roots, and any undesirable material is encountered, the pit shall be dug a minimum nine inches greater than the approximate required depth. All undesirable material shall be removed and replaced with topsoil. Plant the tree at the same level or slightly higher than it had been at the nursery. Back fill used around the tree in the planting process shall be of a good quality topsoil free of stones, roots, weeds and other undesirable material. Peat moss may be mixed with topsoil backfill. Under no circumstances shall dry peat moss be used in the mixing process. A saucer shall be left around tree and tree watered. (See "Tree Pit and Staking Detail," Appendix I). Stake trees with two-inch by two-inch by eight-foot hardwood stake or snow fence stake. Use a cross-tie in the form of an "X" to support the tree and tie the stake in such a manner that the wind does not cause the tree to be de-barked upon the stake. (See "Tree Pit and Staking Detail, Appendix I). The trunk shall be wrapped to prevent sun-scald. Mulching shall be of well-rotted manure or wood chips within the saucer area. When wood chips are used, a commercial fertilizer shall be used prior to placement of chips.

Planting Screens or Fences

The Planning Commission may require and permit planting screens or fences where reverse frontage lots abut a major arterial street or between a major arterial thoroughfare and a marginal access street, provided that such planting screens or fences shall not constitute a safety hazard. A plan of proposed planting screens or fences shall be submitted for approval with the final plat.

Street Traffic Control Devices and Regulatory Signs

The subdivider shall install traffic signs showing the parking restrictions and traffic movement limitations on all proposed streets. Signs shall be erected by the time the prospective rights-of-way are open for public use, or the base paving coat is installed, whichever is sooner. The signs shall conform to the specifications of the Portage County Development Officer or the Village Engineer and be mounted at a height of approximately seven feet above the top of the curb or the crown of the pavement. The signs shall be located as directed by the Portage County Development Officer or the Village Engineer and be mounted at a height of approximately seven feet above the top of the curb or the crown of the pavement. The signs shall be located as directed by the Portage County Development Officer or the Village Engineer.

Sewer and Water Facilities

Adequate central sanitary sewer, including manholes, house laterals and other incidentals and water supply systems, shall be provided by the subdivider, either by the installation of new systems or by connection to existing systems which are deemed adequate by the Portage County Development Officer or the Village Engineer to handle the additional demands and volume which will result from the proposed subdivision. The subdivider, prior to the submission of the plat for approval by the Planning commission, must receive the prior written approval for the extension or installation of the central water system and central sanitary sewer system from the Portage County Development Officer or the Village Engineer, the Ohio Department of Health, and a particular private or public utilities involved. All sanitary sewer pipes shall be coupled with a gasket to conform with the requirements of ASTM (American Society Testing Material) Designation C-700-70-T or the latest revision thereof. Sewer joints shall be designed to minimize infiltration and to prevent the entrance of roots. The leakage outward or the infiltration should not exceed 500 gallons per inch of pipe diameter per mile per day for any section of the system.

Every manhole installed in this Village, whether the same shall be of precast concrete or brick, shall have underneath an eight-inch concrete base slab.

The base slab shall be SHD Class "C" concrete.

- Where a precast concrete manhole is used, the base ring shall be blocked up in the excavation with concrete brick and an eight-inch concrete base slab shall be poured into the excavated bottom so that the concrete flows under, in back of and outside of the precast base ring.
- The provisions hereof shall apply whether the base slab is installed by this Village, other governmental agency, contractor, individual, partnership or corporation.

Public Sites

- The Planning Commission shall require the dedication of land, parks, playgrounds, open space and/or school sites as necessary.
- Any land dedicated for a public park or open space (other than buffer areas which separate industrial or business areas from residential areas) shall be graded, fertilized and seeded as listed as the following:

Fertilizing: Commercial fertilizer, 12-12-12 applied at the rate of twenty pounds per 1000 square feet.

Seeding:

40% Kentucky Blue Grass

15% Saturn Perennial Rye

15% Prizm Perennial Rye

15% Manhattan 3 Perennial

15% Affinity Perennial Rye *Applied at the rate of 5 lb./m

<u>Monuments.</u> Monuments shall be one-inch pipe or steel rods set in and running through a concrete block at least six inches in diameter and at least thirty inches long and the bottom of such block shall be set at least thirty inches deep, below finished grade in the plat, and the points at which they may be found shall be designated on the plat. All monuments set in pavements shall be set in standard type monument boxes. Where new streets intersect existing highways, monuments shall be placed on the center line of the new road at the right-of-way of the existing road. Four monuments shall be set in each plat of ten lots or less, and not less than six shall be set in each plat containing over ten lots. Iron pins shall be set at all lot corners and in all changes in lot line direction. Monuments shall be set on center line and right-of-way and all P.C., P.T. and street intersections with additional monuments to be placed at the direction of the Portage County Development Officer or the Village Engineer.

1189.02 OVERSIZE AND/OR OFF-SITE IMPROVEMENTS

Oversize and/or off-site extensions of utilities, pavements and other improvements shall be designed and constructed to facilitate the orderly development of nearby land which is an integral part of the neighborhood service or drainage area. Where the Portage County Development Officer or the Village Engineer determines that improvements in excess of the size needed to serve the proposed subdivision are necessary, the subdivider shall install all improvements required to serve his/her subdivision plus the additional oversize and/or off-site improvements required. The subdivider may contract with adjacent property owners and/or subdividers of adjacent land for reimbursement of the oversize and/or off-site improvements required. Such improvements shall be available for connections by individual property owners and/or subdividers of adjoining land.

1189.03 CONSTRUCTION RQUIREMENTS

<u>Preconstruction Meeting and Work Schedule.</u> A preconstruction meeting will be held with the Portage County Development Officer or the Village Engineer prior to the commencement of any project. At this time, the project will be discussed in regard to procedure, plans, materials, inspections, etc.

Construction Inspections.

<u>Responsible Official.</u> The Portage County Development Officer or the Village Engineer shall be responsible for the inspection of all improvements.

- <u>Authority and Duties of Inspectors.</u> Inspectors for the Village shall be authorized to inspect any work done and all materials furnished. Such inspection may extend to all or any part of the work and to the preparation, fabrication or manufacture of the materials to be used. The inspector shall not be authorized to revoke, alter or waive any requirements of the specifications or plans. He/she shall be authorized to call the attention of the contractor to any failure of the work or materials to conform to the specifications and contract. He/she shall have the authority to reject materials which do not meet specification requirements or suspend the portion of the work involved until any question at issue can be referred to and decided by the Portage County Development Officer or the Village Engineer. Inspection during the installation of improvements shall be made by the inspector to insure conformity with the approval plans and specifications as contained in the subdivider's construction agreement. (See Section 1181.05 for fees).
- <u>Final Inspection.</u> Upon completion of all the improvements, the subdivider shall request in writing a final inspection by the Portage County Development Officer or the Village Engineer. Portage County Development Officer or the Village Engineer shall make a final inspection of improvements.

Construction Responsibilities.

- <u>Cooperation of subdivider and/or contractor.</u> The subdivider and/or contractor shall have available on the project at all times, two approved copies of all required plans and specifications. He/she shall cooperate with the inspector and with other contractors in every way possible. The subdivider and/or contractor shall at all times have a competent superintendent acting as his/her agent on the project. The superintendent shall be capable of reading and thoroughly understanding the plans and specifications. He/she shall have full authority to execute the plans and specifications and to promptly supply such materials, tools, plant equipment and labor as may be required. A superintendent shall be furnished irrespective of the amount of work sublet.
- <u>Work schedules.</u> The subdivider and/or contractor shall submit work schedules to the Portage County Development Officer or the Village Engineer. Work which has not been properly scheduled shall not be accepted by the Portage County Development Officer or the Village Engineer.
- <u>Grade stakes.</u> Pavement and pipe grade stakes shall be set at twenty-five foot intervals on horizontal and vertical curves and for all grades less than one percent. Tangent pavement grades and pipe grades over one percent may be set at a maximum interval of fifty feet. The inspector may ask for additional grade stakes if it is deemed necessary.

- <u>Repair of damage.</u> Any damage done to the improvements by construction traffic, local traffic or by any other means shall be repaired or the damaged materials replaced before the next item of construction is begun.
- <u>Final cleaning up.</u> Upon completion of work and before acceptance, the subdivider and/or contractor shall clean all ground occupied or affected by him in connection with the work. The entire area shall be left in a neat and presentable condition satisfactory to the inspector.
- Maintenance of improvements of dedicated streets. The subdivider shall be responsible for the maintenance of the improvements during the construction period and shall be responsible for providing the services necessary to guarantee access to all occupied lots, until final acceptance of the improvements by the Portage County Development Officer or the Village Engineer. The subdivider shall be notified by the Portage County Development Officer or the Village Engineer of the need for such maintenance or service. If the subdivider fails to perform such necessary maintenance or service within a time specified by the Portage County Development Officer or the Village Engineer may perform such maintenance or service and bill the subdivider for such service. Payment shall be guaranteed by the performance bond. In addition, the subdivider shall maintain all improvements for such periods specified in Section 1189.04 (d).

1189.04 AGREEMENTS AND GUARANTEES

No subdivision shall be approved until the improvements required have been constructed or a cash bond, as determined by the Village Solicitor, has been deposited with the Village Clerk guaranteeing the faithful performance of the construction of such streets, sidewalks, storm sewers, sanitary sewers and other required improvements in any new subdivision.

<u>Construction Agreement.</u> To assure construction and installation of improvements required by these Subdivision Regulations, the subdivider shall execute a construction agreement with the Portage County Development Officer or the Village Engineer in form and substance as approved by the Village Solicitor. This agreement shall provide that all such improvements shall be constructed and installed at the subdivider's expense in compliance with the standards and specifications for each of the various types of improvements; such improvements shall be available to and for the benefit of the lands within such subdivision; that such improvements will be completed and installed within twenty-four months of the further provisions that the Village Solicitor may deem necessary in the public interest may be added. The construction agreement shall further provide that, in the case where approval of the final plat has been given before construction of improvements and a performance guarantee has been provided and if the improvements are not completed within the specified time, the Village upon proper notice, may complete the improvements and recover full costs and expenses thereof from the subdivider and may appropriate such portion of money or bonds posted for the faithful performance of such work.

<u>Commencement of Improvements.</u> No construction of any improvements or clearing, grubbing and grading shall be commenced prior to the approval of the construction agreement by the Portage County Development Officer or the Village Engineer.

Performance Guarantee.

- <u>Type.</u> The subdivider, in lieu of actual installation or completion of the required improvements when requesting conditional approval of a final plat, shall execute and file a construction agreement and cash bond in accordance with Section 1183.04(e)(3) A.
- <u>Term.</u> Guarantees shall be for a period of not longer than two years unless the Director of Public Service shall extend the time period by resolution.
- <u>Amount.</u> The financial guarantee shall be in an amount equal to the subdivider's estimate approved by the Portage County Development Officer or the Village Engineer of the cost of construction of all improvements plus ten percent.
- <u>Maintenance Guarantees.</u> A cash maintenance bond shall be posted with the Village Clerk in the amount of ten percent of the cost of improvements and shall be arranged for a period of twenty-four months from date of acceptance of improvements by the Portage County Development Officer or the Village Engineer. The subdivider shall be responsible for routine maintenance of all improvements and shall repair all failures due to faulty construction as soon as they become apparent.
- <u>Liability Insurance.</u> The subdivider shall furnish such insurance as is deemed necessary by the Manager or his/her designee which shall indemnify and save harmless the Village from any and all liability arising by reason of the conditions which may arise or grow out of the construction or installation of such facilities. The insurance shall be of such duration as determined by the Village Solicitor but shall in no case be allowed to expire earlier than the effective period of any maintenance bond. A copy of the insurance policy shall remain at all times with the Village Solicitor.
- <u>Title Insurance.</u> A title insurance policy in an amount to be determined by the Village Solicitor will be issued insuring the title of the lands to be dedicated, and that all taxes are paid on any streets or other lands dedicated to public use. The title insurance policy shall show the release by the mortgage holder, if any, of all interest in all property dedicated to a public use. These conditions must be complied with before final effective approval of the subdivision.