

VILLAGE OF VERNON HILLS

ORDINANCE NO. 2013-053

AN ORDINANCE AMENDING VILLAGE DEVELOPMENT AND ENGINEERING
STANDARDS

THE 19th DAY OF NOVEMBER, 2013

Published in pamphlet form by the Authority of the
President and Board of Trustees of the Village of
Vernon Hills, Lake County, Illinois, this 20th Day of
November, 2013

ORDINANCE NO. 2013- 053

AN ORDINANCE AMENDING
VILLAGE DEVELOPMENT AND
ENGINEERING STANDARDS

BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF
VERNON HILLS, COUNTY OF LAKE AND STATE OF ILLINOIS:

SECTION I. That the Code of Ordinances of the Village of Vernon Hills, Appendix B,
Development Regulations, Article II, is hereby amended to include the following exhibits and
amendments:

The recommended amendments to the Village of Vernon Hills Code of Ordinances are as follows:

A. Appendix B - DEVELOPMENT REGULATIONS

Article I - Development Ordinances
Appendix II - Engineering Specifications

Section D.19.b.(ii). – STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.19.b.(ii). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (ii) In order to accommodate maintenance and emergency vehicles where deemed necessary in public property by the village engineer, an eight-foot (8) wide, six (6) inch minimum thickness, Hot-Mix asphalt pathway shall be constructed two (2) feet minimum above the normal ten-year (10) storm water level and eight (8) feet minimum horizontally from the normal water line measured from near the edge of the pathway.

Section D.20a. – STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20a. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

a. Storm sewerage system pipes:

Polyvinyl Chloride (PVC) with minimum SDR 26 conforming to ASTM D 3034, sizes four (4) inches to fifteen (15) inches. Polyvinyl Chloride (PVC) pipe shall have flexible elastomeric joints complying with ASTM D-3212. The pipe shall be made of PVC plastic having a minimum cell classification of 12454-C, and shall have a minimum pipe stiffness of forty-six (46) lbs. per inch per inch (317 kPa). Where underdrain pipe is required, the pipe shall be perforated Polyvinyl Chloride (PVC) with minimum SDR 26 requirements.

Ductile iron pipe conforming to ANSI A21.51 (AWWA C151) class D thickness designed per ANSI A 21.50 (AWWA C150), tar (seal) coated and cement lined per ANSI A 21.4 (AWWA C104), with mechanical or rubber ring (slip seal or push on) joints. Ductile iron fittings shall conform to ANSI/AWWA C110 for mechanical, push-on joints. Class thickness shall be minimum Class 52 and designed per ANSI A21.5 (AWWA C-150). Corrosion control shall be provided using polyethylene wrapping per ANSI/AWWA C-150/A21.5.

Reinforced Concrete Pipe (RCP), limited to diameters 12 Inches and larger, conforming to ASTM C76. Concrete pipe joints shall conform to ASTM C 361 or C 433 for flexible gasket material.

Section D.20.b. (i). -- STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20.b.(i). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (i) Manholes and catch basins shall have precast reinforced concrete barrel sections, tongue and groove joints, with integral precast-in-place bottoms conforming to ASTM C478. A continuous preformed bituminous butyl rope material shall be installed at all barrel section joints. Precast slab bottoms may be used for manholes to be built in existing storm sewerage system lines with the village engineer's approval. All pipe openings shall be constructed with cast-in-place precast watertight flexible resilient rubber connections, ASTM C-443 and C-923, with stainless steel bands.

Section D.20.c. (iv). -- STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20.c.(iv). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (iv) No more than one (1) major pipe connection is allowed per inlet. Sump pump connections, downspouts and underdrains and may be connected to inlets if their depth allows, and shall be cored and booted or precast with a flexible fitting in accordance with village exhibit no. 43.

Section D.20.d. (i). -- STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20.d.(i). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (iii) All grates in paved areas shall be bicycle-safe and meet current ADAGG requirements.

Section D.20.d.(ii). -- STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20.d. (ii). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (ii) Frames and grates equivalent to Neenah Foundry R-1712 shall be used where structures fall in pavement and require solid grates embossed with "*Storm Sewer*" and "*Dump No Wastes/Drains To Waterways*" per NPDES Phase II compliance. Alternate frames and grates meeting the current village approved casting list, shall be approved by the village engineer.

Section D.20.d.(iii). -- STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20.d.(iii). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (iii) Precast composite trench drains shall be used in commercial loading docks and all other applications for trench drains, and approved by the village engineer.

Section D.20.d.(iv). – STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20.d.(iv). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (iv) Frames and grates equivalent to Neenah Foundry Company R-3281 shall be used where structures fall in Type 11, B6.12 curb and gutter, and embossed with "*Storm Sewer*" and "*Dump No Waste! Drains To Waterways*" per NPDES Phase II compliance. Alternate frames and grates meeting the current village approved casting list, shall be approved by the village engineer.

Section D.20.d.(v). – STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20.d.(v). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (v) Frames and grates equivalent to Neenah Foundry Company R-3205 shall be used where structures fall in driveway depressed Type 9 B6.XX curb and gutter, and embossed with "*Storm Sewer*" and "*Dump No Waste! Drains To Waterways*" per NPDES Phase II compliance. Alternate frames and grates meeting the current village approved casting list, shall be approved by the village engineer. The curb, gutter and adjacent driveway apron (if necessary) shall be carefully shaped to drain to the grate flow line.

Section D.20.d.(vii). – STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20.d.(vii). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (vii) Castings shall not be allowed in sidewalk or bike path ramps.

Section D.20.d.(viii). – STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20.d.(viii). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (viii) Structures falling in green space areas where clogging will not be a issue shall have a grate equivalent to Neenah Foundry Company R-4340A, and structures falling in green spaces where clogging will be an issue (ditches, swales) clogging shall have a grate equivalent to Neenah Foundry Company R-4340B and will be embossed with "*Storm Sewer*" and "*Dump No Waste! Drains To Waterways*" per NPDES Phase II compliance. Alternate frames and grates meeting the current village approved casting list, shall be approved by the village engineer.

Section D.20.d.(x). – STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.20.d.(x). of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (x) A catch basin trap similar to Neenah Foundry R-3700 or similar approved shall be installed in all restrictor manholes.

Section D.21.f. – STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.21.f. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (f) Cutting of the pipe for any purpose shall be done in a neat, workmanlike manner without damage to any lining. Pipe cutting shall result in a smooth end at the proper angle to the axis of the pipe. A bevel shall be neatly filed or ground around the outside circumference of any ductile iron pipe or PVC pipe to not damage the gasket material at that joint. All debris from the cutting operation shall be removed from the inside of the pipe and from the joint area. Suitable adaptation couplings shall be specified for the joining of dissimilar pipes.

Flame cutting of the pipe shall not be allowed.

All existing drain tiles encountered during construction shall be reconnected by a method approved by the village engineer. Locations of the pipe and connections shall be shown on the as-built record drawings.

Structures shall not be broken to provide a pipe opening, but shall be cored and booted or neatly saw cut, concrete pipe only, with proper equipment. Openings shall be properly patched or booted and inspected before backfilling by the village engineer. All service connections into pipe and structures shall be installed per Exhibit No. 43.

Section D.21.h. – STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.21.h. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- (h) The trench shall be backfilled and compacted in accordance with the I.D.O.T. "Standard Specifications for Road and Bridge Construction", Latest Edition, and the Standard Specifications for Water and Sewer Construction in Illinois, current edition, except the backfill material shall be compacted everywhere, not just near and under pavements or sidewalks. Mechanical compaction is required on all trenches within the public right-of-way.

Section D.22.c. – STORM SEWERAGE SYSTEM AND DRAINAGE

That Section D.22.c. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

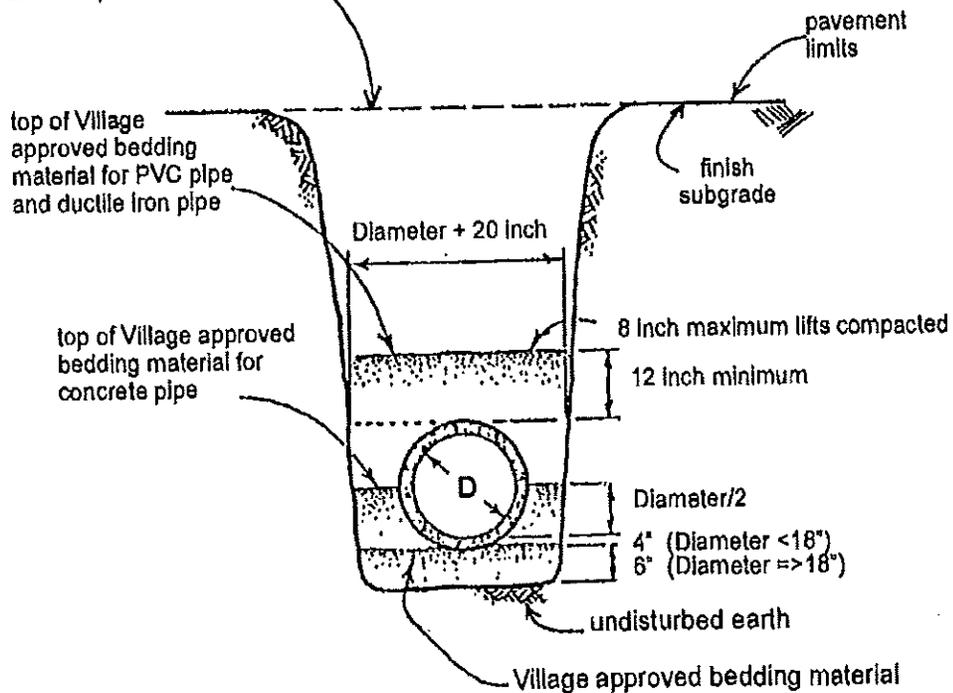
- c. Upon completion of construction and prior to the request for a final punchlist inspection a digital electronic recorded inspection shall be performed for all subdivisions, and public improvements to be accepted and maintained by the village. This work will also require that all storm sewer pipes and structures be cleaned to the satisfaction of the village engineer. If deemed necessary by the village engineer, for all other projects, a digital electronic recorded inspection shall be performed on any sections or portions of the sewer as directed by the village engineer. The developer/owner shall perform any necessary cleaning of the storm sewer pipes and structures prior to the recording. The digital electronic recorded inspection, in the format required by the village engineer, and a written report of the inspection, shall be provided to the village engineer prior to initial acceptance provided for in this ordinance. All deficiencies identified from this inspection shall be corrected to the satisfaction of the village engineer and a new digital electronic recorded inspection provided for approval. An electronic copy of the inspection and bound report shall be provided to the village engineer. Visual Pipes Viewer, latest version, shall be used for recording purposes. All fees and costs for this digital electronic recorded inspection, and all other costs associated with this work, shall be borne by the developer or owner.

VILLAGE OF VERNON HILLS EXHIBIT NO. 1

TYPICAL TRENCH AND STANDARD BEDDING

limit of trench and backfill:

- CA-7 crushed limestone in paved areas
- trench excavated material outside of paved areas

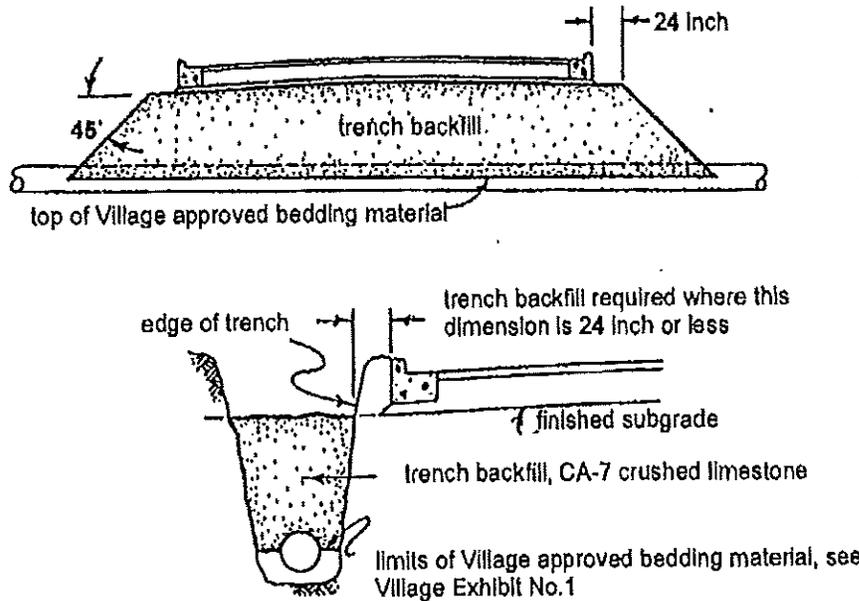


Notes:

1. Village approved bedding material for pipe shall be well compacted crushed limestone, CA-7.
2. Voids left by sheeting shall be filled with standard bedding materials as the sheeting is removed.
3. Once final grading has been completed, all trenches shall be exposed to the top of the aggregate trench within paved areas. Additional trench and backfill shall be added, if necessary, before subbase placement. Clay caps shall not be allowed.
4. Backfill material for trenches not within pavement or two (2) foot outside the limit of pavements may be backfilled with suitable excavated material from the trench. Frozen material shall not be considered acceptable. Each lift shall be compacted by mechanical means to the satisfaction of the Engineer.
5. No trenches shall be left open overnight without proper safety measures taken.

**VILLAGE OF VERNON HILLS
EXHIBIT NO. 2**

TRENCH BACKFILL



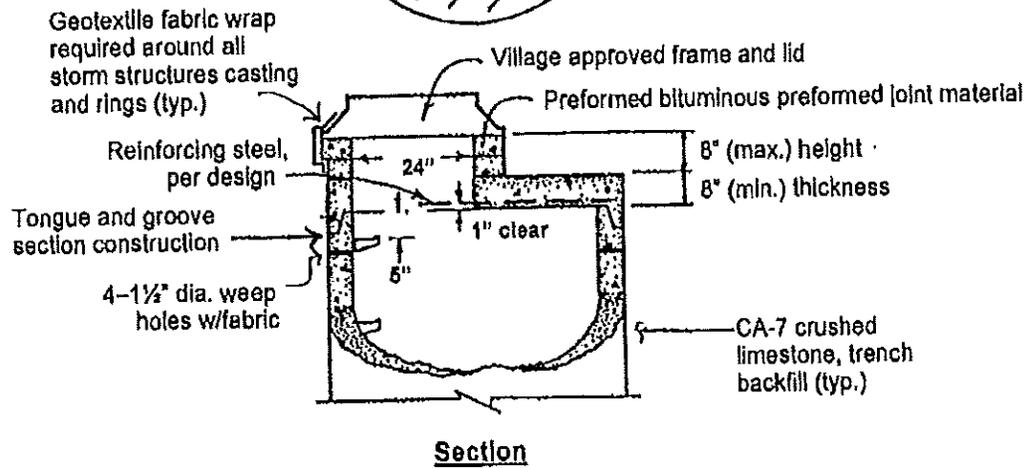
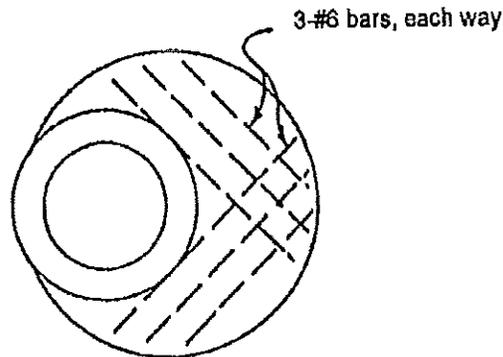
Notes:

1. Trench backfill shall conform to the provision of compaction of the I.D.O.T. Standard Specifications for Road and Bridge Construction, Latest Edition.
2. For instances where open cutting of an existing road for utility repairs has been allowed by the Village Engineer, the entire trench shall be backfilled with a controlled low-strength material in accordance with I.D.O.T. Section 593 for CLSM.
3. Trenches outside of the limits of trench backfill shall be compacted in lifts per the I.D.O.T. Standard Specifications for Road and Bridge Construction, Latest Edition. Backfill material shall be clean and compactable material.

**VILLAGE OF VERNON HILLS
EXHIBIT NO. 5**

FLAT SLAB TOP FOR STORM RESTRICTED DEPTH MANHOLE

Plan View



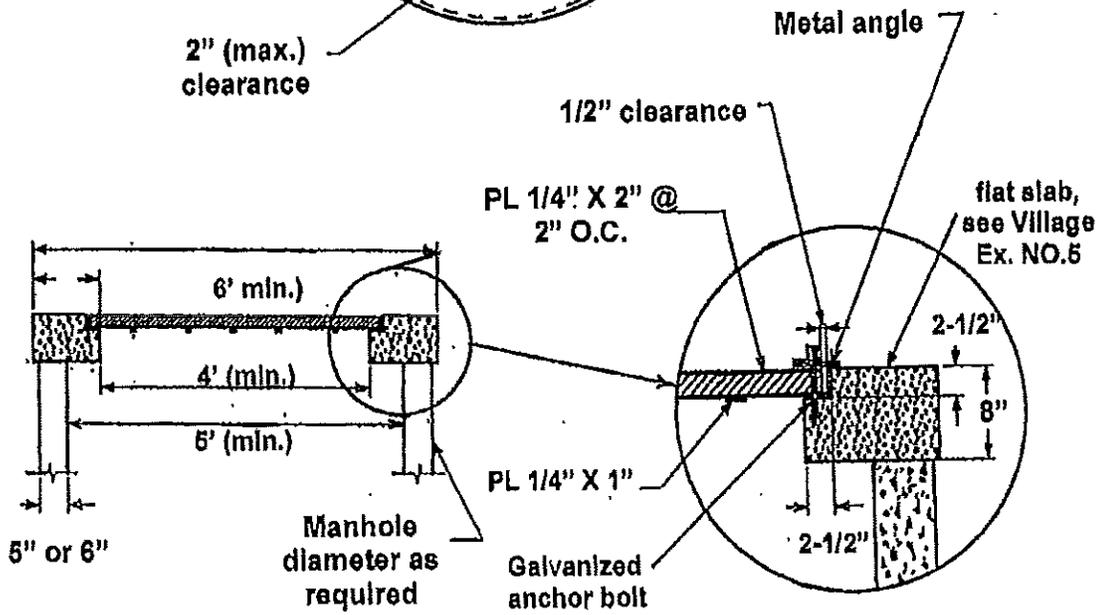
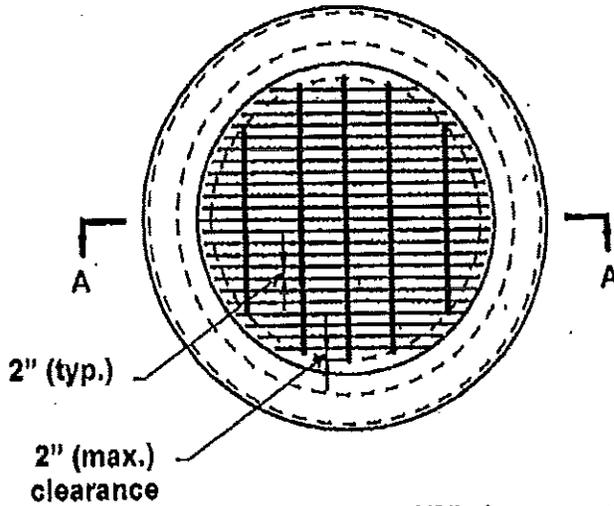
Notes:

1. A six (6) inch slab top may be allowed for forty-eight (48) inch diameter restricted depth manholes not in pavement with Village Engineer's approval.
2. See Exhibit No. 3 for structure barrel section details.

VILLAGE OF VERNON HILLS
EXHIBIT NO. 6

RESTRICTOR MANHOLE DETAILS

PLAN VIEW



SECTION A-A

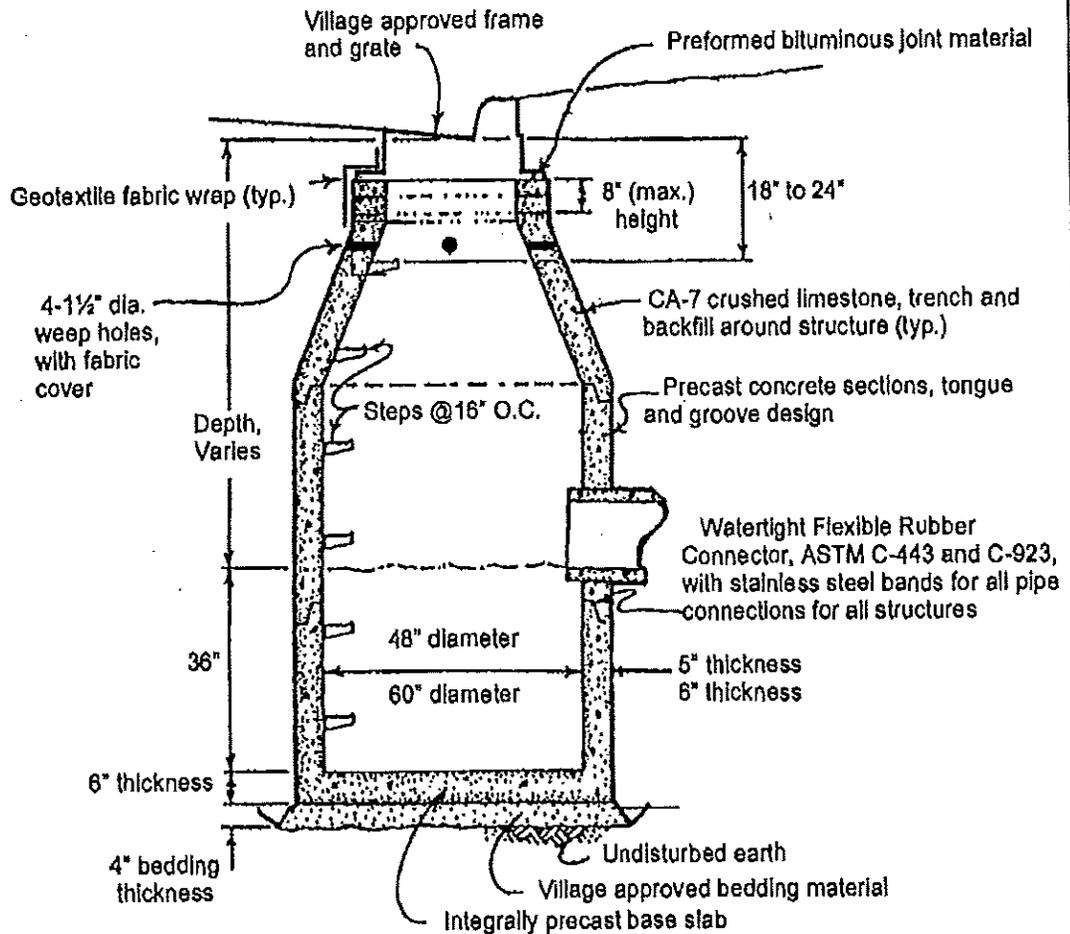
DETAIL

NOTES:

1. All grates shall be galvanized steel.
2. For larger diameter grates, lift hooks shall be incorporated to grate.
3. Grates shall be bolted down for safety.

**VILLAGE OF VERNON HILLS
EXHIBIT NO. 7**

CATCH BASIN

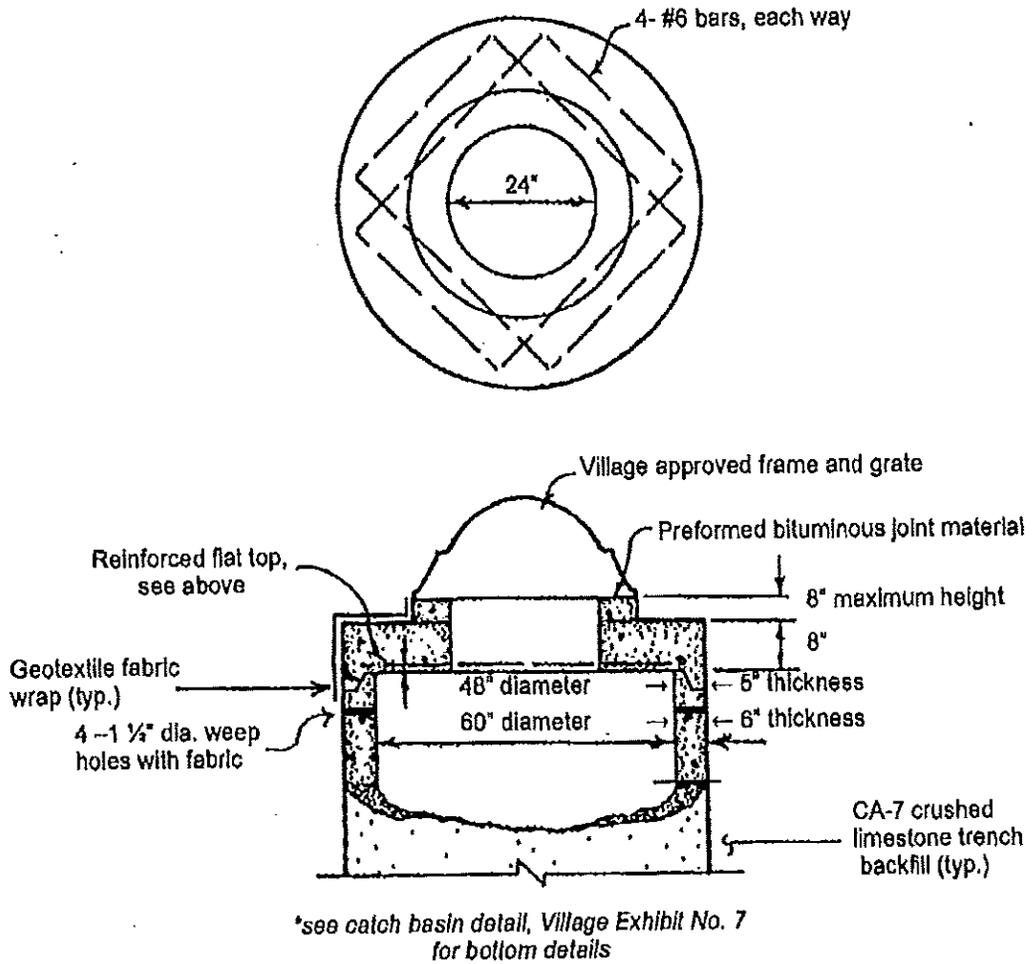


Notes:

1. For sewer pipes twenty-four (24) inches or less in diameter, use forty-eight (48) inches diameter catch basin; for sewer pipes more than twenty-four (24) inches in diameter, use sixty (60) inch diameter catch basin.
2. All structure sections shall be joined in tongue and groove method with a preformed bituminous joint sealer throughout the sealing surface.
3. All castings shall conform to the current Village approved casting list.
4. Outlet pipe shall be no less than twelve (12) inches in diameter.
5. Trench backfill is required around all structures.

**VILLAGE OF VERNON HILLS
EXHIBIT NO. 8**

FLAT SLAB TOP FOR STORM RESTRICTED DEPTH CATCH BASIN

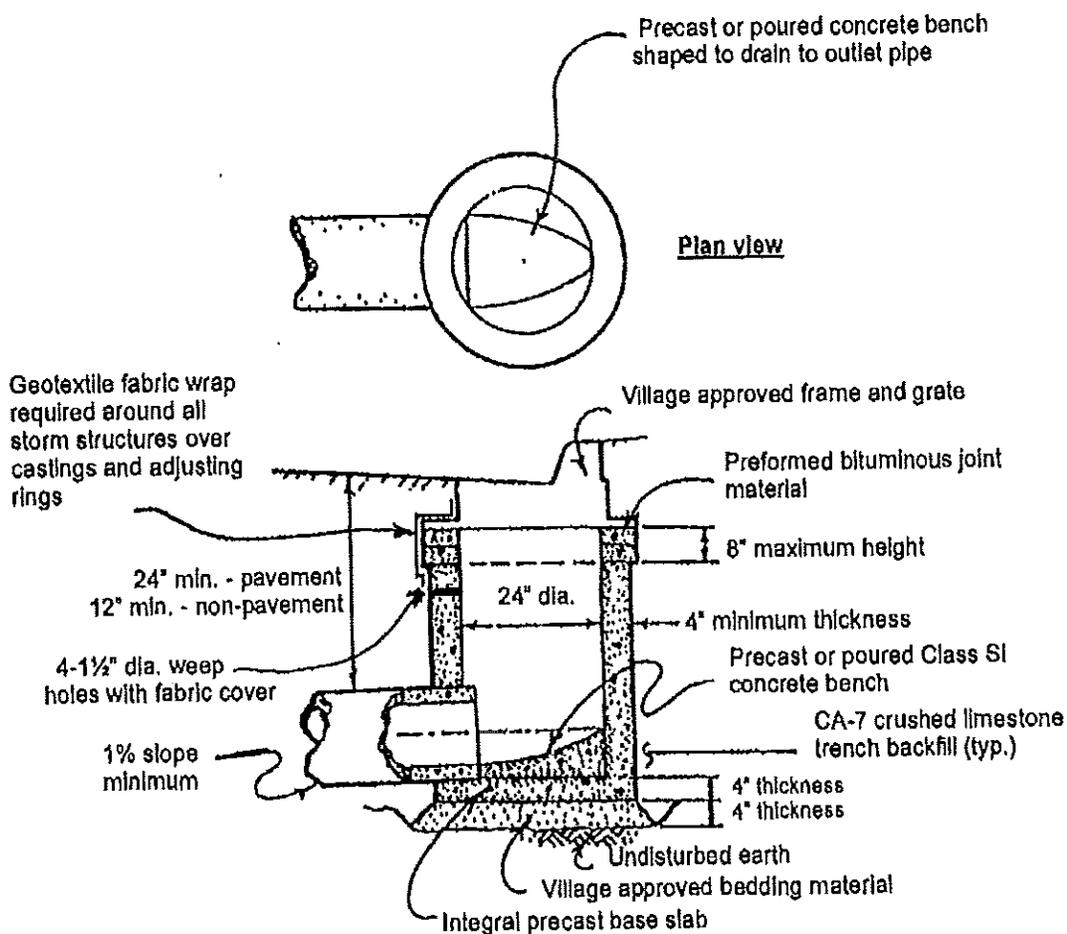


Notes:

1. A six (6) inch thick slab top may be allowed for forty-eight (48) inch diameter restricted depth catch basins not in pavement.
2. Tongue and groove sections are required.
3. Steps are not required in restricted depth catch basins.
4. Trench backfill is required around all structures.

**VILLAGE OF VERNON HILLS
EXHIBIT NO. 9**

STORM SEWER INLET

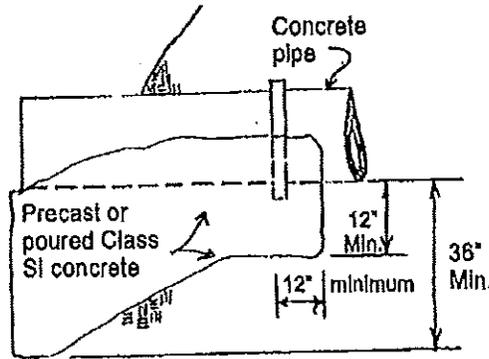
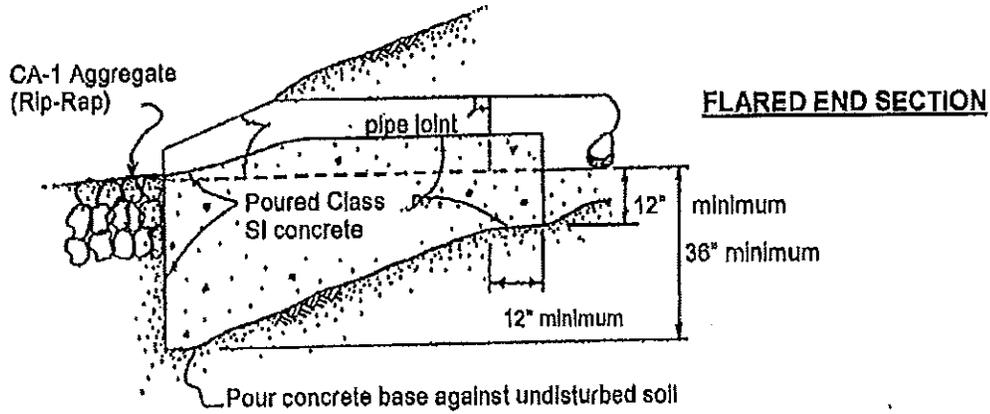


Notes:

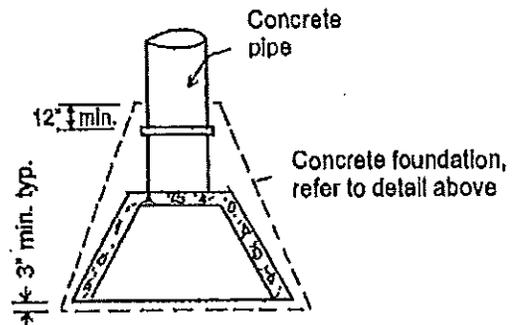
1. Inlet barrel sections shall conform to A.S.T.M. Designation C478.
2. Minimum pipe size for Inlets for Public Improvements is twelve (12) inch in diameter.
3. Ductile Iron pipe, Class 52, shall be used in paved areas of public streets for inlet connections if less than two (2) feet of cover over the pipe is not provided.
4. A Watertight Flexible Rubber Connector, ASTM C-443 and C-923, with stainless steel bands for all pipe openings.
5. Trench backfill required around all structures.

**VILLAGE OF VERNON HILLS
EXHIBIT NO. 10**

**FOUNDATION DETAILS FOR HEADWALLS, SUBMERGED PIPES
AND FLARED END SECTIONS**



SUBMERGED PIPE



HEADWALL

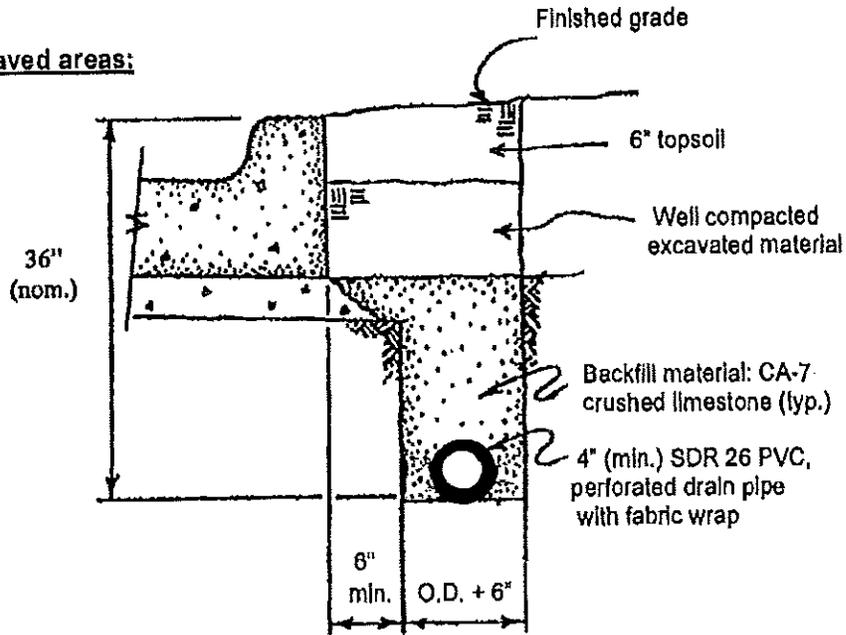
Notes:

1. Width of the foundation shall be minimum three (3) inches wider than the headwall, submerged pipe, or flared end section. The top of foundation shall extend half-way (1/2) up the side of the headwall, submerged pipe, or flared end section.
2. The bottom of the foundation shall rest on undisturbed earth. The bottom of the foundation shall be no less than three (3) feet deep at the open end of the headwall, pipe, or flared end section.
3. Grates are required for all flared end sections twelve (12) inches in diameter or greater.

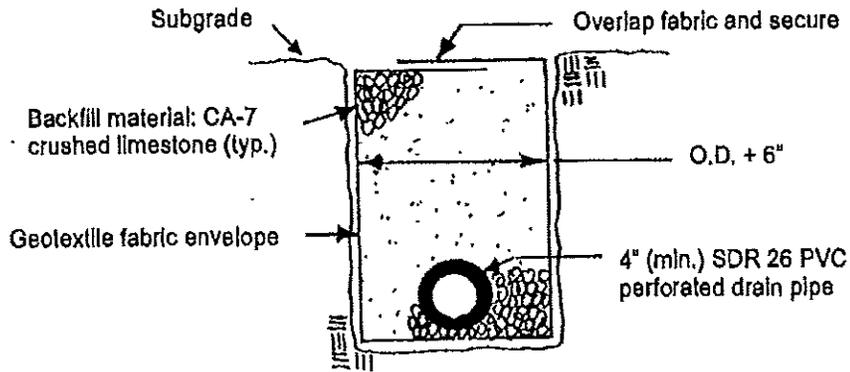
VILLAGE OF VERNON HILLS
EXHIBIT NO. 11

UNDERDRAIN

for use in paved areas:



alternate method:



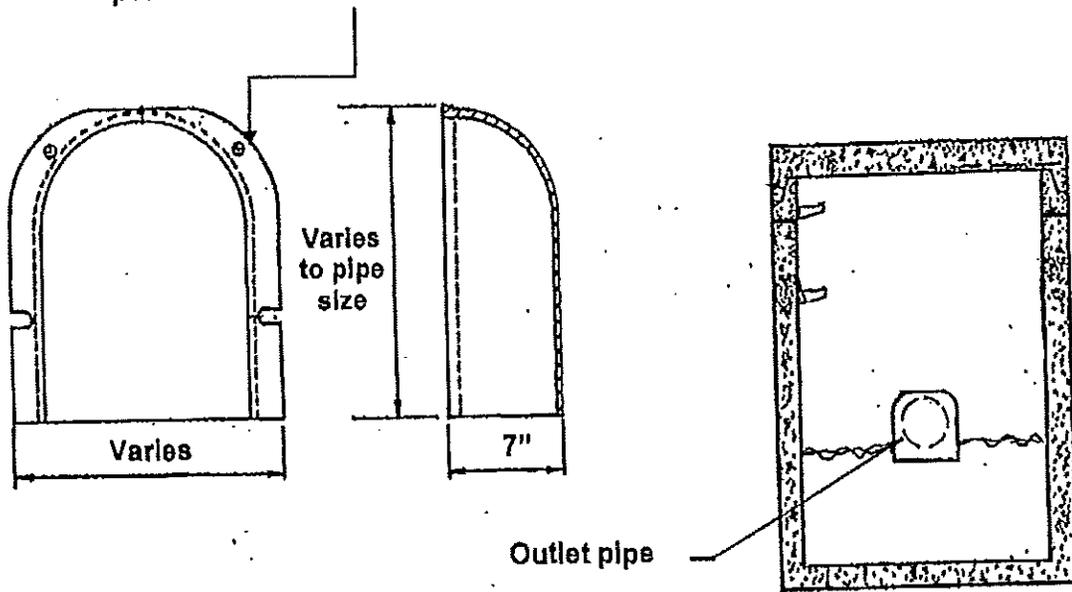
Notes:

1. Underdrain connections to storm structures and concrete pipes shall be machine cored and booted. See Village Exhibit No. 43.
2. Underdrain is required for all parking lot landscape islands.
3. Underdrain shall be required on either side of the low point drainage structures within Public Improvement areas, for a distance of 100 feet in either direction.

VILLAGE OF VERNON HILLS
EXHIBIT NO. 12

CATCH BASIN TRAPS

4 each, galvanized anchor bolts
per manufacturer



CATCH BASIN
For reference only

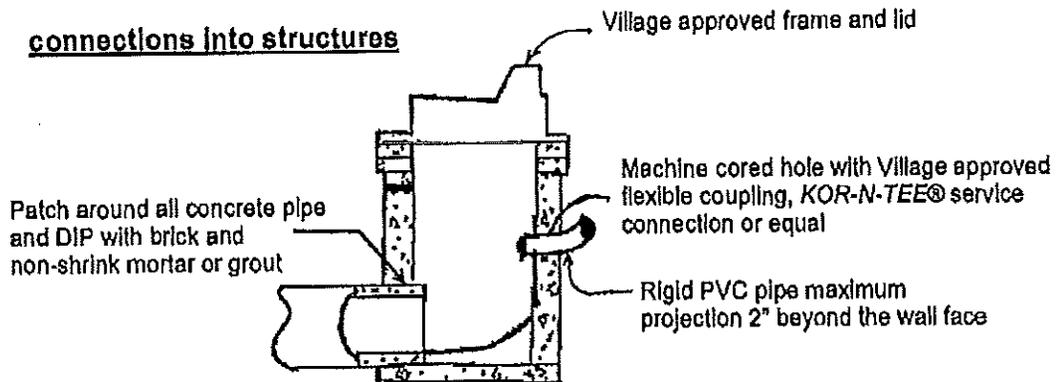
NOTES:

1. Bottom of Catch Basin traps shall be mounted a minimum of six (6) inches below the pipe flow line.
2. Mounting of traps shall be installed on a flat wall only.
3. Traps shall be cast iron, unless approved by the Village Engineer.
4. Traps shall be approved by the Village Engineer before installation.

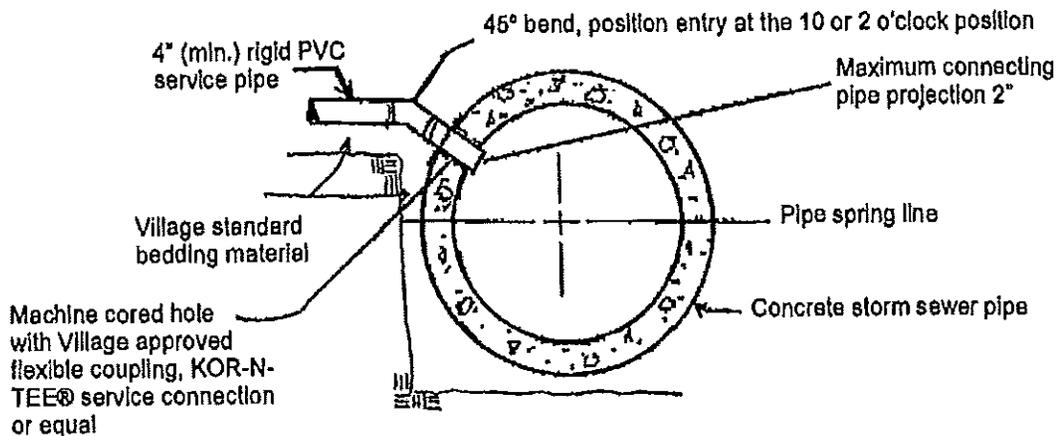
**VILLAGE OF VERNON HILLS
EXHIBIT NO. 43**

STORM SEWER SERVICE CONNECTIONS

connections into structures



connection into pipes

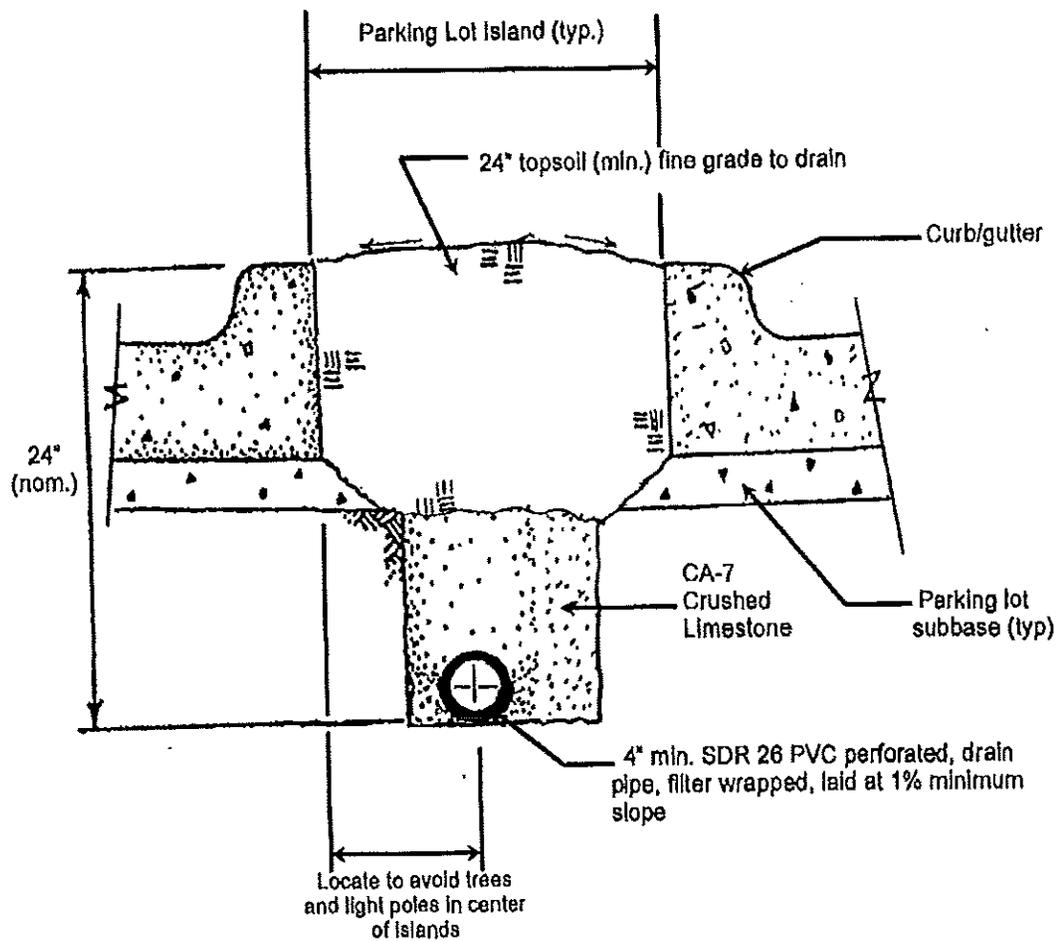


Notes:

1. The PVC service pipe shall be well supported across the storm sewer trench.
2. For storm sewer connections into PVC or DIP mainline pipe material, use in-line wyes or tees.
3. All connections shall be inspected and approved by the Village before backfilling.
4. Village approved trench and backfill, see Village Exhibits No.1 and 2 shall be used under all paved areas or within two (2) feet of any pavement or proposed pavement areas.
5. Remove core debris from pipe.

**VILLAGE OF VERNON HILLS
EXHIBIT NO. 46**

PARKING LOT ISLAND DRAIN PIPE



Notes:

1. Drain pipe shall be connected to the nearest storm structures or pipe, and shall connect by machine core and boot, see Village Exhibit No. 43.
2. Village approved Trench Backfill is required for all pipe runs within pavement areas.
3. The Contractor shall coordinate the location of signs, monuments, and light pole foundations within the islands for placement of the drain pipe and to avoid damaging the drain pipe.

CDB:

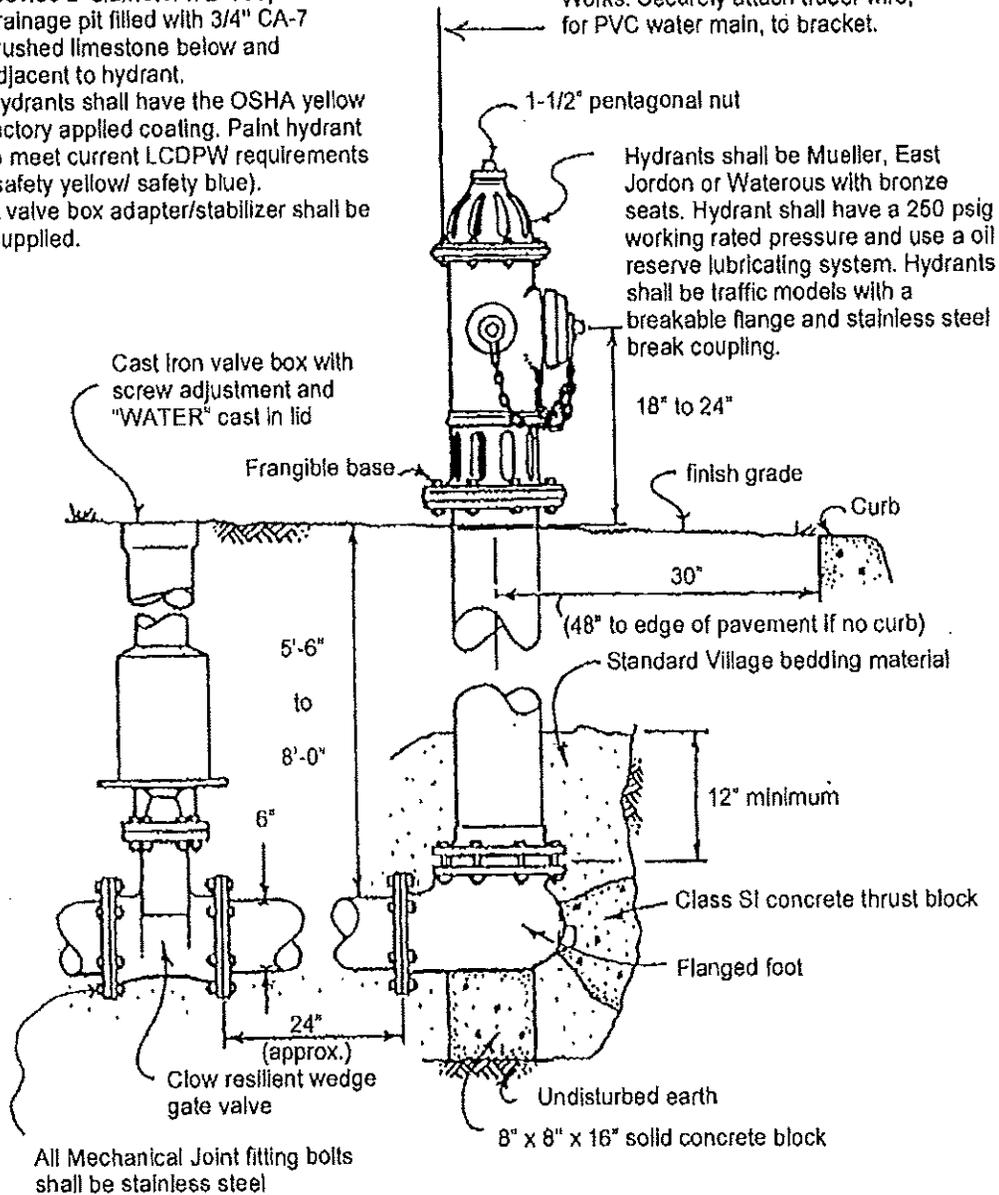
VILLAGE OF VERNON HILLS
EXHIBIT NO. 17

FIRE HYDRANT

Notes:

1. Steamer port to face pavement, 30" minimum from the back of curb.
2. Provide 2' diameter x 2' deep drainage pit filled with 3/4" CA-7 crushed limestone below and adjacent to hydrant.
3. Hydrants shall have the OSHA yellow factory applied coating. Paint hydrant to meet current LCDPW requirements (safety yellow/ safety blue).
4. A valve box adapter/stabilizer shall be supplied.

Reflective marker required by Lake County Department of Public Works. Securely attach tracer wire, for PVC water main, to bracket.



The recommended amendments to the Village of Vernon Hills Code of Ordinance are as follows:

A. Appendix B - DEVELOPMENT REGULATIONS

- Article I - Development Ordinances
- Article II - Engineering Specifications

Section H.2. - STREETS AND PAVEMENTS

That section H.2. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

2. *Design references.* All pavements shall be designed and constructed in accordance with one or more of the following Illinois Department of Transportation, Latest Edition, and references as they apply:
 - a. Standard Specification for Road and Bridge Construction
 - b. Supplemental Specifications and Recurring Special Provisions
 - c. "Manual of Instructions for the Structural Design of Flexible Pavements on Projects Involving MFT, FAS and FAUS Funds"
 - d. Bureau of Construction (BC)
 - e. Construction Manual
 - f. Design Manual Highway Standards
 - g. Bureau of Materials and Physical Research (BMPR)
 - h. Bureau of Design and Environmental Manual (BDE)
 - i. Manual on Uniform Traffic Control Devices (MUTCD)

Section H.4. - STREETS AND PAVEMENTS

That section H.2. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

4. *Design Standards:*
 - a. Table of pavement design and right-of-way widths (curb flag = joint between pavement and edge of combination curb and gutter):

| Street Classification | Minimum Right-of-Way Width (feet) | Width (curb flag to curb flag) (feet) | Minimum Crown (Inches) | Minimum IBR |
|--|-----------------------------------|---------------------------------------|------------------------|-------------|
| Major (primary) | 110 | 82 | 8 | 4.5 |
| or | | | | |
| <i>state requirements, whichever is more restrictive</i> | | | | |
| Major (secondary) | 96 | 52 | 6 | 4.0 |
| Collector, office/industrial, retail/business | 80 | 36 | 5 | 3.5 |
| Local; lots greater than 40,000 square feet | 68 | 20 | 3 | 3.0 |
| Local; lots 40,000 square feet or smaller | 66 | 24 | 4 | 3.0 |
| Frontage | 50 | 24 | 4 | 3.0 |

Notes:

Additional right-of-way may be required for additional driving lanes.
 No cul-de-sac shall be longer than 600 feet measured from the right-of-way line of the intersecting street to the center of the turnaround.
 The right-of-way at the turnaround shall allow at least 2.50 feet of clearance between the back of curb and the right-of-way line.

The village engineer shall approve the designated classification of any proposed street.

For local streets serving lots larger than 40,000 square feet, three-foot granular shoulders may be substituted for curb and gutter.
 In some non-residential streets the village engineer may allow the replacement of ten feet of right-of-way width with two ten-foot easements paralleling and abutting the right-of-way.

- b. Vertical tangent gradients shall not exceed six (6) percent unless approved by the village engineer. Vertical tangent gradients shall be at least 0.50 percent.
- c. The minimum length of vertical curve shall be 100 feet for each 1.50 percent of difference in gradient. For each additional 1.00 percent difference in gradient over 1.50 percent, the minimum length of vertical curve shall be increased by 50 feet.
- d. Design speed shall be subject to the approval of the village engineer.
- e. The minimum horizontal curve radius at the center of the lane with the shortest radius shall be:

| Street Classification | Minimum Radius (feet) |
|---------------------------------|-----------------------|
| Local | 275 |
| Collector, business, industrial | 525 |

For reverse horizontal curves, the minimum horizontal curve radius at the center of the lane with the shortest radius shall be:

| Street Classification | Minimum Radius (feet) |
|---------------------------------|-----------------------|
| Local | 500 |
| Collector, business, industrial | 850 |

Reverse horizontal curves shall not be used where design speed is 35 miles per hour or more.

- f. Minimum length of horizontal curve shall be:

| Street Classification | Minimum Length (feet) |
|---------------------------------|-----------------------|
| Local | 100 |
| Collector, business, industrial | 200 |

- g. Major streets and some other classifications may require a state standard design at the option of the village engineer. Dedicated or special turning lanes shall be required for all turning movements from a major street at any new street intersection and at village-designated high-volume commercial entrances.
- h. The layout of streets in a development shall be subject to the approval of the village engineer based on the intent of this standard.
- i. At the points of intersection of proposed roads with existing roads, the minimum stopping sight distance indicated below for the legal speed limits shall be provided on existing roads.

| Legal Speed Limit (mph) | Minimum Stopping Sight Distance (feet) |
|-------------------------|--|
| 25—30 | 200 |
| 35—40 | 300 |
| 45—50 | 400 |
| 55 | 500 |

If projected conditions for the intersection in question are such that in the opinion of the village engineer a greater stopping sight distance is desirable, the next higher legal speed limit range shall be used in determining the required stopping distance.

- j. Streets shall intersect as nearly perpendicularly as possible. No offset intersections are allowed. Center lines of opposite intersecting streets shall be no closer to each other than 150 feet unless they are directly across from each other.
- k. Cul-de-sac streets shall include a paved turnaround with a minimum radius of 50 feet. The pavement edge reverse curves at the throat of the turnaround shall have a radius of at least 50 feet. All measurements are to the edge-of-pavement/curb flag.

Driveway entrances, fire hydrants, street lights, and trees shall not be allowed in the 20 feet centered at the furthest extreme of the turnaround for a distance of ten feet behind the curb. The intent of this provision is to leave a place to store plowed snow.

- l. Minimum curb radius measured at the curb flag shall be:

| Street Classification | Minimum Radius (feet) |
|----------------------------|-----------------------|
| Local-local | 30 |
| Local-collector, major | 35 |
| Collector-collector, major | 40 |
| Major-major | 50 |
| All others | 40 |

The required curb radius for traffic making right turns from a state or U.S. highway may be larger than shown above. In some cases, a three-center compound curve may be required.

- m. All pavements not having an aggregate base course shall include a four (4) inch minimum crushed limestone aggregate subbase course. In any case, subbase or aggregate base course shall extend under the curbs.
- n. Minimum structural numbers shall be coordinated with minimum pavement course thicknesses as follows:

| Structural Number Required | Minimum Thickness Required | |
|--|----------------------------|------------------|
| | Binder* (Inches) | Surface (Inches) |
| <i>Flexible Pavements:</i> | | |
| 2.00 — 3.00 | 2-¼ | 1-½ |
| 3.01— 3.99 | 2-¼ | 1-½ |
| 4.00 and up | 2-½ | 1-½ |
| <i>Rigid Pavements:</i> | | |
| 3.00 — 3.99 | 7 to 8 | |
| 4.00 — 4.99 | 8 to 10 | |
| <i>*Binder or first surface course</i> | | |

No more than fifteen (15) inches of aggregate subbase and aggregate base together shall be allowed in the design of flexible pavements.

Hot-Mix asphalt thickness shall meet the minimum lift thickness for the current I.D.O.T. District One Hot-Mix Asphalt Pavement requirements.

No rigid pavement course shall be less than eight (8) inches in thickness.

Rigid pavements for a required structural number of 3.01 or larger shall be epoxy steel coat reinforced.

- o. A copy of all design assumptions and computations on which the proposed pavement design is based shall be submitted to the village engineer.
- p. Subgrade, subbase and base course drainage is of paramount importance. If the design of facilities for pavement drainage is not well conceived, the village engineer shall reject an otherwise adequate pavement design. Two-hundred (200) feet minimum of underdrain shall be required on each side of the pavement at each low point, centered at

the low point, except underdrain shall not be required within forty (40) feet of a pavement high point.

Section H.5. - STREETS AND PAVEMENTS

That section H.5. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

5. *Materials.* Pavement materials shall comply with the minimum requirements shown in the following table. Listed with these materials are the coefficients to be used for computing the pavement structural number and shall meet the Illinois Bureau of Local Roads and Streets, District One. The sum of the products of the coefficients and the course thickness is the calculated structural number.

| Material | Strength Requirements | | | Structural Layer Coefficient |
|--|-----------------------|-----------------------------------|---------------|------------------------------|
| | M.S. | IBR | PSI | |
| Bituminous surface course: | | | | |
| Hot Mix Asphalt N50 | 1700 | | | 0.40 |
| Subbase Course: | | | | |
| Crushed Limestone P.G.E. , CA-1 Undercuts | | | | |
| Crushed Limestone Aggregate, CA-6, Type A | | 80 | | 0.13 |
| Bituminous Binder Course: | | | | |
| Hot Mix Asphalt N50 | 1700 | | | 0.33 |
| Water bound Macadam | | 110 | | 0.14 |
| Bituminous Aggregate, Mixture | 1300 | | | 0.28 |
| Portland Cement Concrete: | | | | |
| 6.0 bag (Class PV with 5%-8% air entertainment, slump 2" -4" | | | 3500 (14 day) | .50 |
| M.S.= Marshall Stability | | IBR=Illinois Bearing Ratio | | |

- All aggregate material for subbase and base courses shall be crushed limestone CA-6 (grade 8 or 9).
- Where stone is required for undercut areas, it shall be three (3) inch minimum crushed limestone; no round or sub angular material shall be used.
- Crushed concrete and asphalt screenings are not permitted for use without written approval from the village engineer.
- Calcium chloride is not permitted for use in concrete mixes.
- Admixture use may be used in accordance with the requirements of Art. 1020 of the I.D.O.T. Standard Specification for Road and Bridge Construction, and shall approved by the village engineer in the mix design.

Section H.6.a. - STREETS AND PAVEMENTS

That section H.6.a. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- a. Subgrade material shall have a minimum Illinois Bearing Ratio (IBR) of 3.0 in all areas to be paved. The IBR of the subgrade shall be shown in the plans.

When the subgrade is undercut and replaced with angular stone three (3) inches (CA-1) in diameter or larger, the depth of undercut shall be a minimum of twelve (12) inches. In addition, a well-graded aggregate shall be included with the larger aggregate to fill the voids. The use of an acceptable geo-textile fabric, approved by the engineer, in undercut areas to be used in conjunction with stone.

Undercutting shall be done very carefully to avoid damage to shallow improvements. The village engineer will carefully inspect shallow improvements for damage. The contractor responsible for any damage and the developer or owner shall affect the proper and timely repair of damaged improvements. All repairs shall be made to the satisfaction of the village engineer.

Section H.6.b. - STREETS AND PAVEMENTS

That section H.6.b. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- b. The subgrade of all paved areas shall be properly graded and rolled to within one-tenth (1/10) foot of the proposed final subgrade elevation, in accordance with the I.D.O.T. "State Standard Specification for Road and Bridge Construction", Latest Edition. Embankment shall be placed and compacted in accordance Section 301 of the I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition, except as modified in these standards and specifications.

Section H.6.d. - STREETS AND PAVEMENTS

That section H.6.d. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- d. The subgrade shall be proofrolled in the presence of the village engineer, the contractor or developer, and their geotechnical engineer. The subgrade shall be free from any frost, saturated or standing water. All deficiencies shall be repaired before the subbase or the base course is placed.

Proofrolling shall be performed using a three-axle dump truck together with load weighing at least twenty-five (25) tons. The tires shall be

designed for highway use and shall be properly inflated. The load shall be uniformly placed in the dump body. The subgrade shall be shaped to the tolerance of the contract or within one-tenth (1/10) foot of the proposed planned subgrade, and rolled flat prior to a proofroll request.

Subgrade allowing deflection of more than one-fourth (1/4) inch at any wheel shall be either re-compacted to meet this standard or shall be undercut as directed by the contractor or developer's geotechnical engineer. The subgrade deflection is to be reduced to the above tolerance prior to the placement of suitably compacted replacement material. Village engineer's approval is to be received prior to the placement of subgrade material. In situations where an approved clay subgrade is to be used for structural fill, the material shall be placed and compacted with a sheep's foot roller under the direction of the geotechnical engineer.

The use of lime to modify or stabilize soils must be approved by the village engineer. A geotechnical report must be furnished to the village engineer prior to consideration.

Proofrolling shall be clearly specified in each set of plans and specifications.

The intent of this provision is to ensure that the subgrade is everywhere adequate to support the pavement structure and the loads it is designed to carry.

Section H.7.a. - STREETS AND PAVEMENTS

That section H.7.a. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- a. Flexible pavement materials may be installed until November 15th, weather permitting. Any work done after November 15th shall require written authorization from the village engineer. This authorization will in no way void the contractor's and developer's or owner's guarantee of the work done. Paving will not be allowed if conditions do not meet the minimum I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition, except as modified in these standards and specifications. The owner/developer's geotechnical engineer shall be present for all pavement placement operations, and material reports for density, compaction and moisture shall be provided to the village engineer after placement is complete.

Section H.7.d. - STREETS AND PAVEMENTS

That section H.7.d of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- d. Once Hot-Mix Asphalt binder course has been placed, the flexible pavement shall set for a minimum period of at least six (6) months including a winter and spring season. After this setting period has passed, one (1) pavement core per nine-hundred (900) lineal feet of measured pavement shall be taken on all Village streets. A report shall be submitted to the village engineer listing thicknesses and densities of base and binder courses and the type and condition of subgrade material as determined from the cores. If the results of the coring indicate pavement deficiencies, additional cores shall be taken as required by the village engineer. All cores taken shall be numbered and delivered to the village engineer.

Section H.7.f. - STREETS AND PAVEMENTS

That section H.7.f of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- f. The developer or owner shall notify the village engineer at least forty-eight (48) hours prior to the installation of any Hot-Mix Asphalt surface course. An as-built record drawing shall be submitted, by the developer/owner, to the village engineer prior to the request for a final punchlist inspection, or the placement of final surface. All punchlist work, landscaping, and other deficiencies shall be repaired and the binder course cleaned and primed prior to the final surface course placement. Final pavement markings and signage shall be installed immediately after final surface placement.

Section H.7.g. - STREETS AND PAVEMENTS

That section H.7.g of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended by removing the content.

Section H.7.h. - STREETS AND PAVEMENTS

That section H.7.h of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- h. The design of the paving machine shall require the approval of the village engineer. Generally, full specification machines shall be required for all paving operations within the village. Paving machines shall meet the I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition, except as modified in these standards and specifications requirements, and be self-propelled.

Section H.8. - STREETS AND PAVEMENTS

That section H.8. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- a. Rigid pavements shall be constructed in conformance with Section 420 of the I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition. Materials testing shall be done as specified in the I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition. Reports shall be provided to the village engineer.
- b. Pavement joints shall be provided. All joints shall be saw cut within 24 hours of concrete finishing, and sealed in accordance with Section 420 of the I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition, except as modified in these standards and specifications.
- c. All concrete and structures shall conform to Section 1020 of the "Standard Specification for Road and Bridge Construction", Latest Edition, including the shipping and handling of precast concrete products.
- d. No concrete shall be placed on frozen subgrade or subbase, nor shall frozen aggregates be used in concrete. Concrete placed during cold weather shall be produced, delivered, and finished in a manner to provide for a minimum loss of heat. Concrete placed in hot weather shall be produced, delivered and finished in a manner to reduce the effects of the increased rate of cement hydration, plastic-shrinkage, thermal cracking, and drying shrinkage.
- e. Finished concrete shall be cured and protected in a manner that will protect it until the desired strength is attained. A method of the I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition, shall be used.
- f. The developer or owner shall notify the village engineer forty-eight (48) hours prior to the placement of any pavement course.

Section H.9.b. - STREETS AND PAVEMENTS

That section H.9.b. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- b. Depressed curb for driveway entrances as detailed in Exhibit No. 34 and 35 shall be provided at each known driveway entrance. Depressed curb as detailed in Exhibit No. 28 and 28A shall be provided at each sidewalk intersecting the curb line. State-type M-4.XX combination curb and gutter shall be required at mailbox turnouts.

Section H.9.e. - STREETS AND PAVEMENTS

That section H.9.e. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- e. Control joints shall be installed in all curb and in all combination curb and gutter at intervals not to exceed fifteen (15) feet in length. They shall be saw cut to a depth of not less than one and one-half (1½) inches, within twenty-four (24) hours of being poured. They shall also be located so as to match any central joints in abutting pavement or sidewalk. All control, expansion, contraction, and construction joints shall be cleaned and filled with poured joint sealer in accordance with Section 452. of the I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition. All curb and gutter shall be cured and protected immediately in accordance with I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition.

Section H.9.f. - STREETS AND PAVEMENTS

That section H.9.f. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- f. Curb and gutter subgrade shall be shaped and then proofrolled prior to the placement of the aggregate subbase materials. The subgrade shall be free from any frost, saturated or standing water. Any areas showing deflection of more than one-fourth (1/4) inch shall be corrected before subbase material is placed. All combination concrete curb and gutter shall be constructed atop at least four (4) inches of well compacted CA-6 crushed limestone aggregate subbase course material. Generally, any required aggregate subbase course material or the first four (4) inches of aggregate base course material shall be placed and compacted to extend a minimum of one (1) foot beyond the back of the curb. It is the intent of this provision that the curb and gutter not block drainage of the subgrade, subbase, or base courses.

Section H.9.g. - STREETS AND PAVEMENTS

That section H.9.g. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- g. All concrete items shall conform to the I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition, Section 1020.

Section H.10.c. - STREETS AND PAVEMENTS

That section H.10.c. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- c. All village street pavement marking shall be thermoplastic pavement marking in conformance with the appropriate material specifications of the I.D.O.T. "Standard Specifications for Traffic Control Items", MUTCD, and I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition, Section 1095, except parking areas and private roads, which may be painted. Pavement areas to be striped shall be cleaned

and pavement marking material applied in accordance to the manufacturer's and the I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition, requirements.

Section H.10.f. - STREETS AND PAVEMENTS

That section H.10.f. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- f. Immediately after the final asphalt surface has been placed, permanent pavement markings shall be installed. If pavement markings cannot be installed immediately, temporary pavement marking tape or paint shall be installed before traffic shall be allowed to use the pavement. All temporary pavement markings shall be removed completely after final markings have been installed. Temporary pavement markings shall be re-applied as necessary during winter conditions.

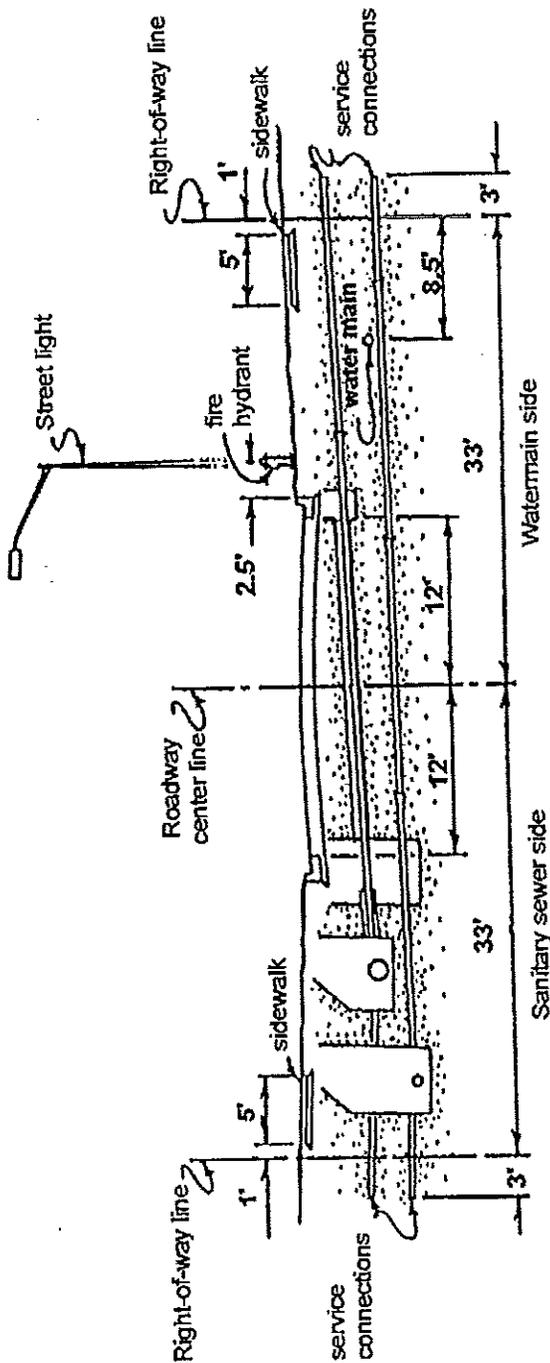
Section H.11. - STREETS AND PAVEMENTS

That section H.11. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

11. *Signage.* Locations for traffic-control signs ("stop" "slow", "one-way", etc.) shall be shown on the plans and approved by the village engineer. All signs, signposts and hardware for assembly shall meet the village standards and conform to the current I.D.O.T. and MUTCD requirements. Signs and signposts shall be provided and installed by the developer or owner. Required "no parking" and "street name" signs and signposts shall be provided and installed by the village for the developer or owner at cost. The quantity of signs and signposts shall be shown in the summary of quantities and the cost shall be included in the estimate.

VILLAGE OF VERNON HILLS
EXHIBIT NO. 24

TYPICAL SECTION LOCAL STREET, 66'



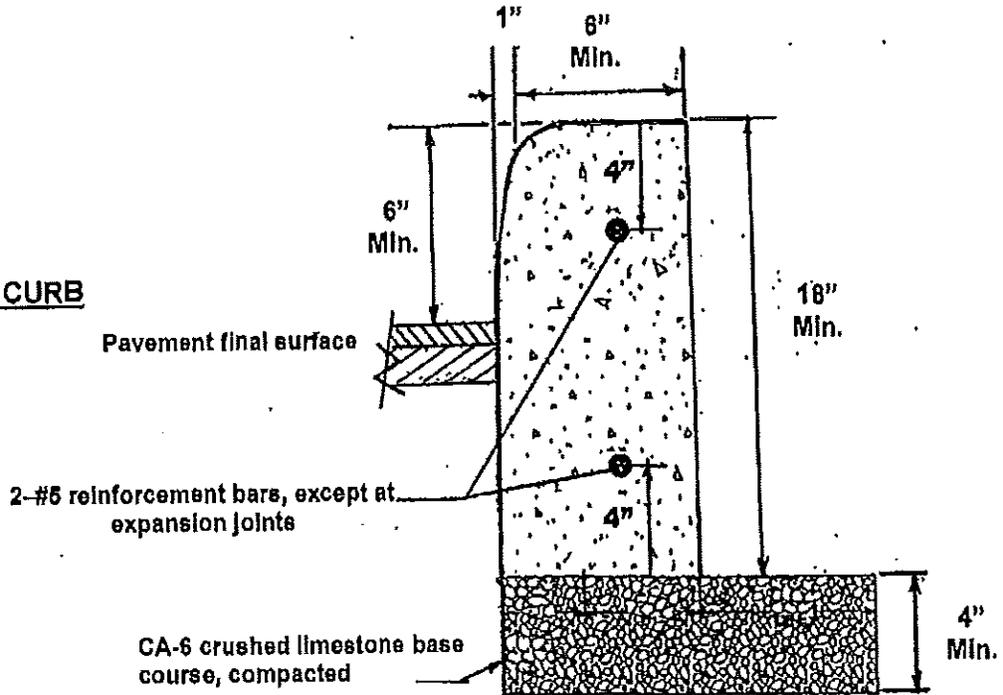
Notes:

1. Watermain side shall be that side of the street with most inside curves.
2. Parking shall be on sewer side only.

VILLAGE OF VERNON HILLS
EXHIBIT NO. 28-A

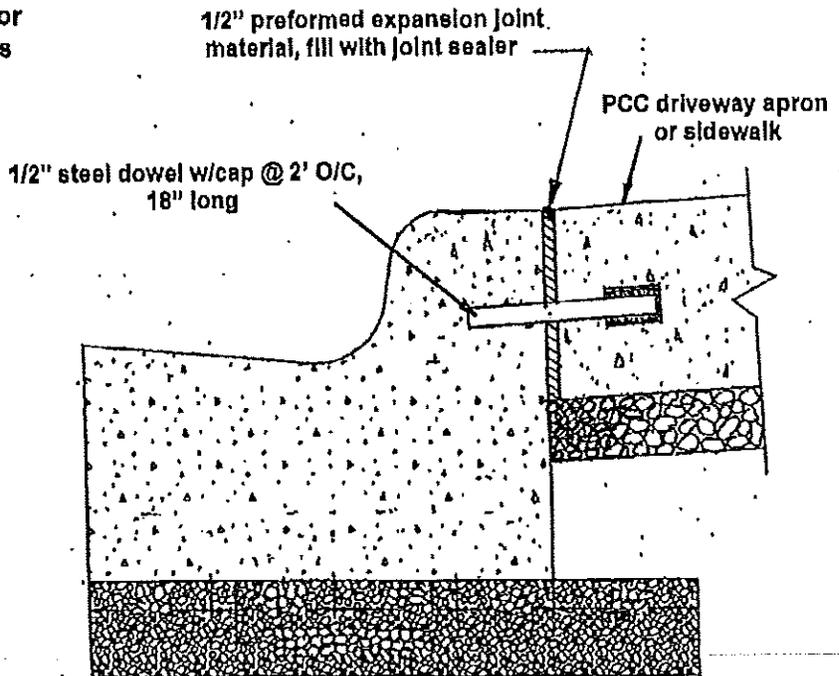
BARRIER CURB AND GUTTER

PCC BARRIER CURB



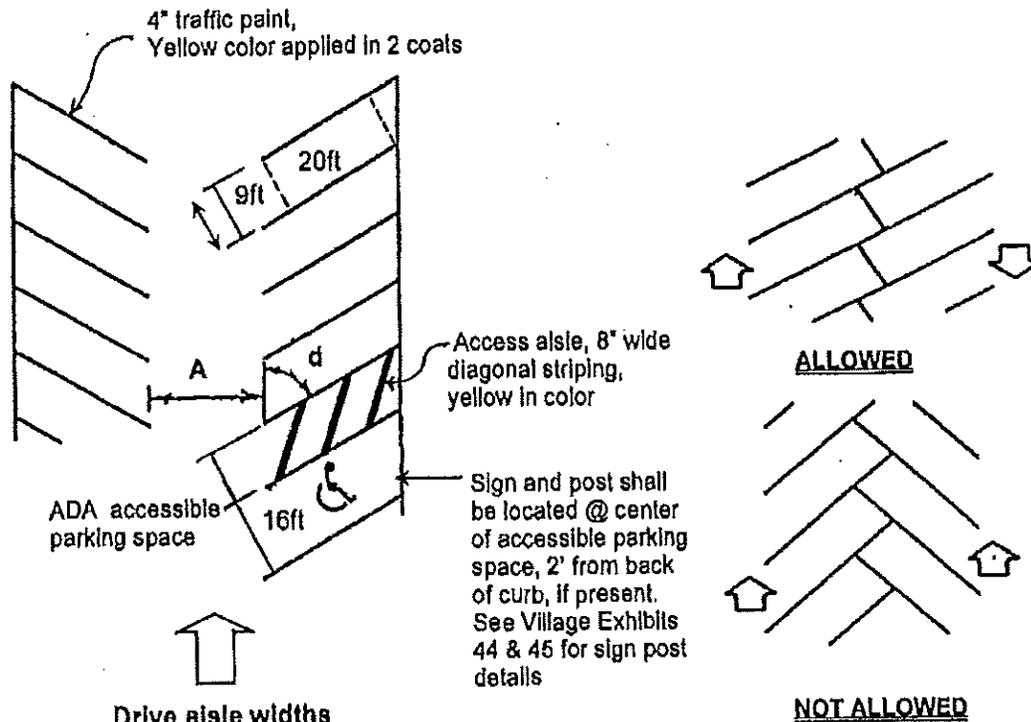
NOTE: See Village Exhibit NO. 28 for additional curb/gutter requirements

PCC CURB/GUTTER
ADJACENT TO SIDEWALK
OR DRIVEWAY APRON



**VILLAGE OF VERNON HILLS
EXHIBIT NO. 36**

PARKING AREA LAYOUT



Drive aisle widths

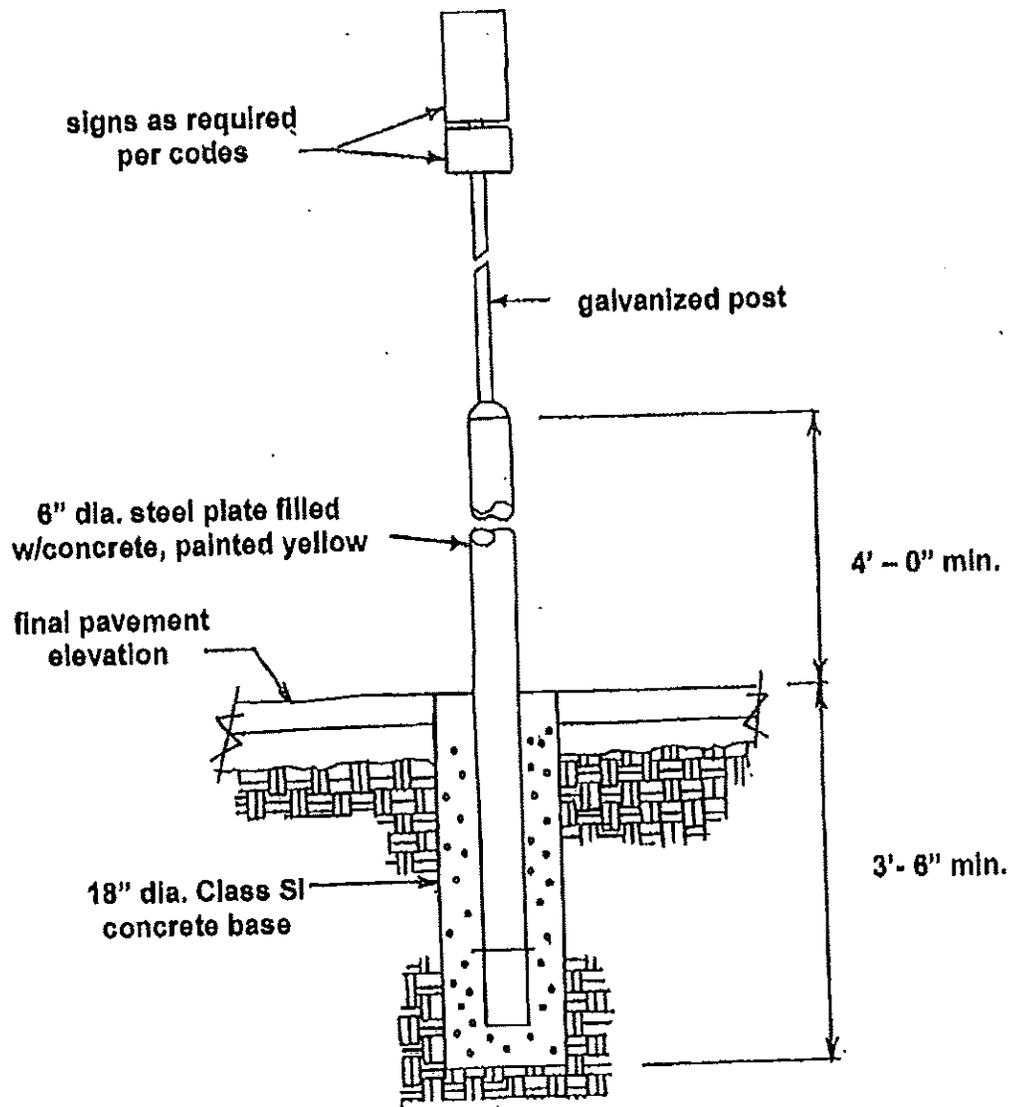
| <u>d</u> | <u>A</u> |
|----------|----------|
| 45° | 13' |
| 60° | 18' |
| 90° | 24' |

Notes:

1. Each ADA accessible parking space shall consist of a 16' wide parking space including an 8' wide diagonally striped access aisle. Adjacent parking spaces shall not share a common access aisle.
2. All striping shall conform to the current ADAAG, State of Illinois Accessibility Code, and Village codes. A high quality yellow pavement marking paint shall be used, applied in 2 coats.
3. All accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance.
4. Accessible parking spaces and access aisles shall be level with surface slopes not exceeding 2% (1:50) in all directions.
5. All two-way aisles shall be 24' wide.
6. Parking space length shall not be less than that shown above. No deduction shall be made for perimeter parking space overhang distance.
7. Parking provisions of the zoning ordinance shall take precedence over provisions illustrated here if they are more restrictive.

VILLAGE OF VERNON HILLS
EXHIBIT NO. 44

SIGN POSTS LOCATED WITHIN PAVEMENT

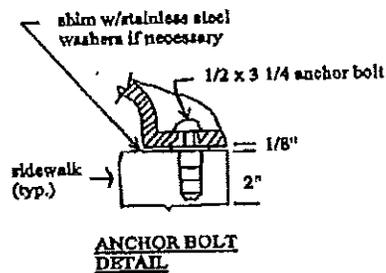
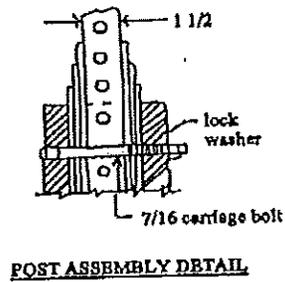
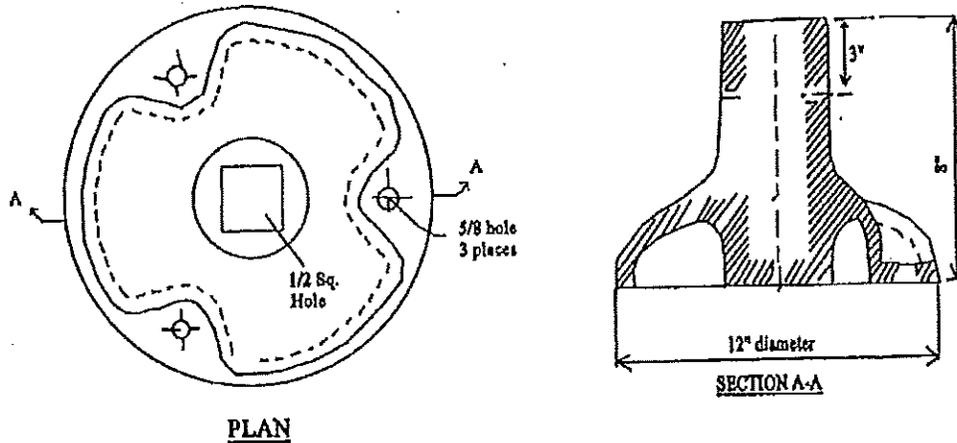


NOTES:

1. All other sign posts not within pavement shall be placed at a minimum of 2' from the back of curb, but not more than 5' from the back of curb.
2. Minimum mounting height for handicap parking signs is 4' from bottom of sign to finish grade. All other signs shall be 7' from bottom of sign to finish grade.

VILLAGE OF VERNON HILLS
EXHIBIT NO. 45

SURFACE MOUNTED SIGN POST BASE



TYPICAL APPLICATION FOR SIGNS MOUNTED ON SIDEWALKS

Notes:

1. For signs and posts located within pavement, refer to Exhibit No. 44.
2. Signs and posts not within pavement shall be set 2.5' behind back of curb.
3. Minimum mounting height for sign panels is 7' from bottom of sign panel to finished grade.
4. Minimum mounting height for Handicap Parking signs is 4' from bottom of R7-8 sign panel to finished grade.
5. A galvanized metal sign post is recommended to prevent rust.

The recommended amendments to the Village of Vernon Hills Code of Ordinance are as follows:

A. Appendix B - DEVELOPMENT REGULATIONS

- Article I - Development Ordinances
- Article II - Engineering Specifications

Section I.1.e. - SIDEWALKS

That section I.1.e. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- e. Retail/business streets and parking lots: Same as b. above. Considered public sidewalk.

Section I.2. - SIDEWALKS

That section I.2. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- 1. *Design Standards* (see Exhibit No. 29 and 30):

Section I.2.b. - SIDEWALKS

That section I.2.b. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- b. All public sidewalks, sidewalks in public right-of-way or easement shall be constructed in conformance with Exhibit No. 29 and 30.

Section I.2.d. - SIDEWALKS

That section I.2.d. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- d. All sidewalks ending at the curb or pavement shall include a handicap ramp of a design that meets current ADAAG, Illinois Accessibility Code and IDOT requirements, and is functionally similar to those of Exhibit No. 30. The village engineer shall approve a precast truncated dome, detectable warning tile(s), "Brick Red" in color, required for all sidewalk ramps.

Section I.2.f. - SIDEWALKS

That section I.2.f. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- f. One-half (1/2) inch preformed bituminous expansion joint material shall be placed at ninety (90) degrees from the edge of the sidewalk with two and one-fourth (2-1/4) inch smooth dowels, evenly spaced, with caps shall be required as follows:

- (i.) Transverse joints at fifty (50) foot intervals longitudinally.
- (ii.) Transverse joints to match existing expansion joints in abutting curb or pavement.
- (iii.) Transverse or longitudinal joints, as appropriate, between concrete pavements or curbs and sidewalk.
- (iv.) Transverse joints at points where placement of concrete is interrupted for thirty (30) minutes or more.

Spacing of transverse expansion joints shall be adjusted at increments equal to the control joint spacing without exceeding the fifty (50) foot maximum interval to avoid placing such joints in driveway crossings.

Section 1.2.i. – SIDEWALKS

That section 1.2.i. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- i. Sidewalks abutting all curb, sidewalks and concrete pavements shall be doweled to new and existing concrete by one-half (1/2) inch smooth dowels, twelve (12) inches long with caps, at twenty-four (24) inches on center. The support dowels shall be installed through the one-half (1/2) inch bituminous expansion joint material. All expansion joints shall be trimmed and filled with an approved joint sealer in accordance with the IDOT "Standard Specification for Road and Bridge Construction", Latest Edition.

Section 1.3.b. - SIDEWALKS

That section 1.3.b. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- b. Concrete for use in sidewalks shall meet or exceed the requirements of the I.D.O.T. "Standard Specifications for Road and Bridge Construction", Latest Edition, for Class SI concrete, 4000 psi 6.0 bag mix (minimum), except that the entrained air shall be between five (5) and eight (8) percent, slump of two (2) to four (4) inches. Calcium chloride, fly ash, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix design are not permitted for use within the Village.

Section 1.4.a. - SIDEWALKS

That section 1.4.a. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- a. In fill areas, the topsoil shall be removed and the proper grades achieved by placing embankment material and compacting in lifts not to exceed six (6) inches loose thickness. In cut areas, the topsoil shall be removed and the proper grade achieved by excavation. Over excavated areas

shall be filled with select fill material or crushed limestone, gradation CA-6, in six (6) inch or less lifts and shall be compacted and brought to correct grade. Subgrade shall be proofrolled, and failed areas shall be corrected before subbase placement, another proofroll may be required by the village engineer. Subgrade preparation shall extend to at least six (6) inches beyond the edge of the sidewalk. Saturated or frozen subgrade shall not be proofrolled. Subgrade shall be protected from frost or saturation until aggregate subbase is placed. All areas not protected shall be re-proofrolled if required by the village engineer.

Section I.4.d. - SIDEWALKS

That section I.4.d. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- d. All concrete items shall conform to the IDOT "Standard Specifications for Road and Bridge Construction", Latest Edition, Section 1020. Forms shall be securely held to line and grade with stakes and braces. The top of the form shall be at the plan grade for the appropriate edge of the sidewalk.

Aggregate base course material disturbed by the placement of the forms shall be repaired and re-compacted by hand prior to the placement of the concrete. Aggregate subbase shall not be placed on saturated and frozen subgrade.

When replacing an existing section of sidewalk, the new sidewalk shall be doweled to the existing sidewalk, using a method approved by the village engineer.

Section I.4.g. - SIDEWALKS

That section I.4.g. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- g. Concrete for sidewalk shall be placed and compacted in conformance with the I.D.O.T. "Standard Specification for Road and Bridge Construction", Latest Edition. Concrete sidewalks shall have a transverse broom finish. No concrete shall be placed on frozen or saturated subbase, nor shall frozen aggregates be used in concrete. Concrete placed during cold weather shall be produced, delivered, and finished in a manner to provide for a minimum loss of heat. Concrete placed in hot weather shall be produced, delivered, and finished in a manner to reduce the effects of the increased rate of hydration, plastic-shrinkage, thermal cracking, and drying shrinkage.

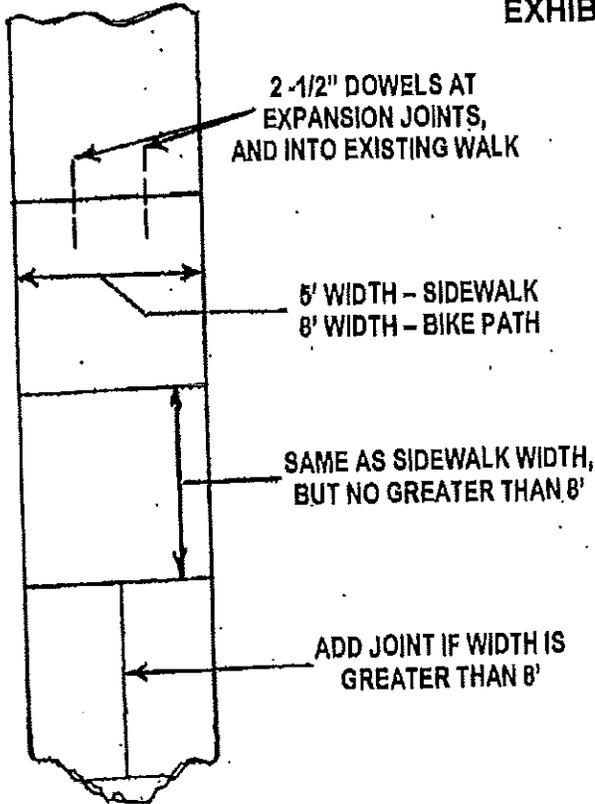
Section I.4.h. - SIDEWALKS

That section I.4.h. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- h. Finished concrete shall be cured and protected in a manner that will protect it until the desired strength is attained. A method of the IDOT "Standard Specification for Road and Bridge Construction", Latest Edition shall be used.

VILLAGE OF VERNON HILLS
EXHIBIT NO. 29

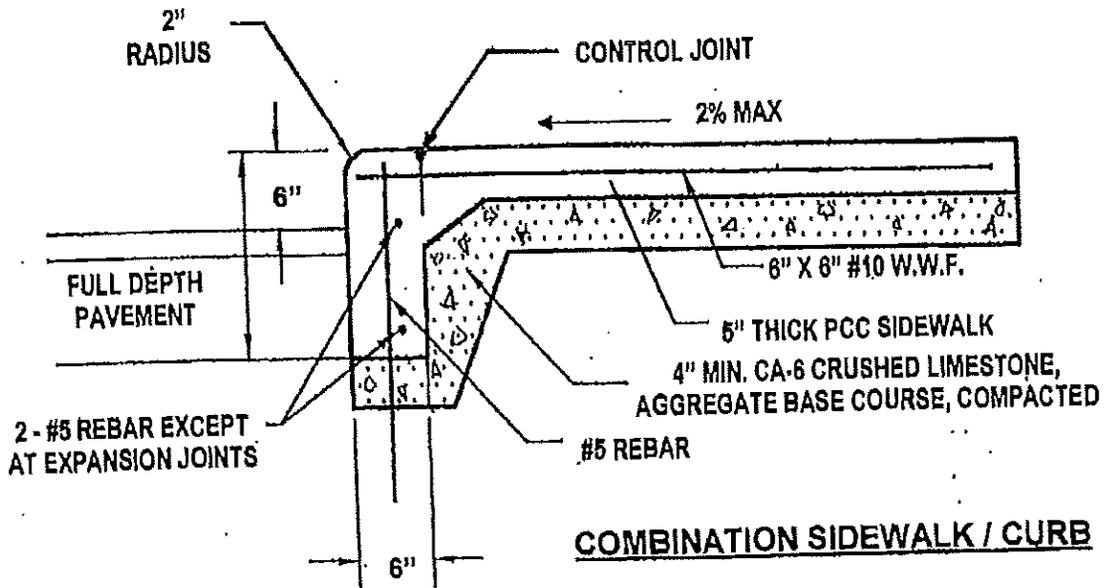
SIDEWALK



TYPICAL

NOTES:

1. 1/2" thick preformed expansion joint material with 2-1/2" dowels shall be required at no more than 50' intervals. Joints will be sealed with a Village approved Joint sealer.
2. Sidewalk crossing through driveways shall be at least 8" thick.
3. Sidewalks shall have no more than 2% cross slope. Parkways adjacent to sidewalks shall be between 2% - 8% max.
4. 2 - #5 deformed steel bars; 10' long are required to be centered over all trench crossings.
5. Sidewalks abutting curb shall be doweled per Village Exhibit No. 28-A.
6. Joints between the sidewalk and curb shall be sealed with a Village approved joint sealer.

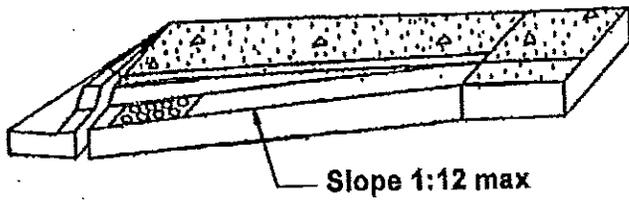


COMBINATION SIDEWALK / CURB

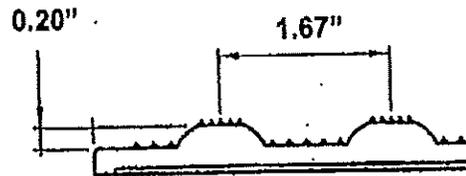
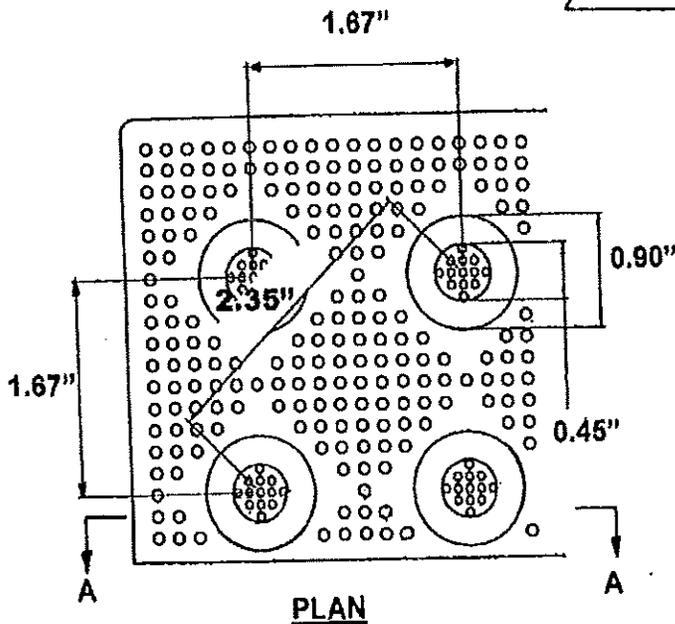
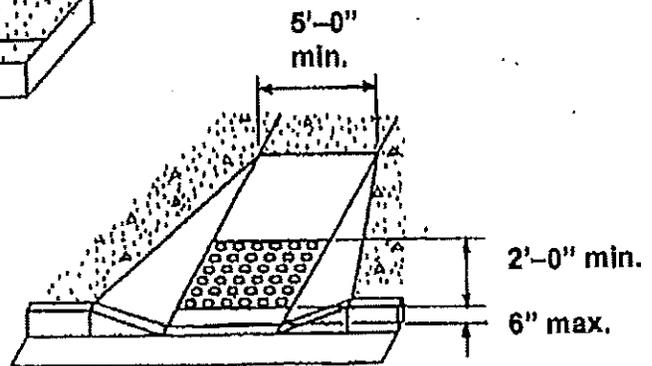
NOTE: SEE VILLAGE EXHIBIT 29-A FOR SIDEWALK CURB RAMPS

VILLAGE OF VERNON HILLS
EXHIBIT NO. 30

SIDEWALK CURB RAMPS



TYPE B -- RAMP PROFILE



SECTION A-A

NOTES:

1. Precast Detectable Warnings Tile(s), Federal color 'Brick Red' minimum 2'-0" x 3'-0" dimension, submit for Village Engineer's approval.
2. This detail shall be used with Village Exhibit NO. 29.
3. Sidewalk ramps shall meet current Federal, State, ADAGG and Village Requirements.

The recommended amendments to the Village of Vernon Hills Code of Ordinances are as follows:

Appendix B - DEVELOPMENT REGULATIONS

Article I - Development Ordinances
Appendix II - Engineering Specifications

Section J.2. - Street Lighting System

That Section J.2. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

2. *Design References.* All street or parking area lighting systems shall be designed and constructed in accordance with one or more of the following references, current editions, as they apply:
 - a. "National Electrical Code."
 - b. "Standard Specifications for Road and Bridge Construction" Illinois Department of Transportation.
 - c. "Supplemental Specifications and Recurring Special Provisions" Illinois Department of Transportation.
 - d. "Standard Specifications for Traffic Control Items" Illinois Department of Transportation.
 - e. "Design Manual" Illinois Department of Transportation.
 - f. "American National Standard Practice for Roadway Lighting" by the Illuminating Engineering Society and published by A.N.S.I.
 - g. Manufacturer- supplied literature.
 - h. Village of Vernon Hills electrical code.

Section J.3.g. - Street Lighting System

That Section J.3.g. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- g. All cable runs shall be routed through conduit.

Conduit sleeve crossings for electrical cable laid under local street pavements shall be Schedule 80 PVC, gray in color, or SDR 21, four (4) inch diameter minimum regardless of street classification.

Electrical cable laid in nonlocal streets or parking lot pavements shall be routed through Schedule 40 PVC, gray in color, or SDR 26. Minimum conduit inside diameter is two (2) inches for electrical cables.

All fittings shall be installed to keep the conduit watertight.

All conduit shall be buried a minimum of two (2) feet below finished grade, and extend two (2) feet beyond the edge of pavements, sidewalks, driveways, and back of curb.

Section J.4.a. – Street Lighting System

That Section J.4.a. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- a. Street lighting poles on major, collector, industrial, business, and frontage streets shall meet the requirements shown on Exhibit No. 31. The village engineer may require ornamental poles for major and collector streets per Exhibit No. 32 if they are residential in character.

Street lighting poles shall include a grounding lug, shroud-type covers for anchor bolts, and a hand hole.

Village ornamental street lighting per Exhibit No. 32, 'Hadco' lighting catalog No. S5904 and S5904-B poles, or similar approved, cast aluminum, factory-done black acrylic finish meets the requirements of this provision.

Village Street lighting per Exhibit No. 31, 'Hapco' lighting, or similar approved, aluminum alloy, dark bronze anodized finish meets the requirements of this provision.

Luminaries for all street lights shall be 'Shoe-Box' style, high pressure sodium roadway/area luminaries per Exhibit No. 33 meets the requirements for this provision.

Section J.4.c. – Street Lighting System

That Section J.4.c. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- c. Hand holes outside of pavement areas shall be made of a polymer concrete material approved by the Village. The lid shall read "STREET LIGHTING".

Section J.4.e. – Street Lighting System

That Section J.4.e. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- e. Concrete foundations, hand holes, cable hooks, French drains, etc., shall conform to those shown in the IDOT Standard Specifications for Road and Bridge Construction, current editions, applicable sections.

Section J.4.g. – Street Lighting System

That Section J.4.g. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- g. All service conduits shall be galvanized steel conduit and conform to the requirements of ANSI C80.1. Proper bushings and fittings shall make the entire conduit run watertight.

Section J.4.h. – Street Lighting System

That Section J.4.h. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- h. Schedule 40 and Schedule 80 PVC conduit, gray in color, shall conform to the requirements of the National Electrical Manufacturers Association. Where dissimilar conduit material is required to be used, a flexible non-shear watertight fitting shall be required.

Section J.5.e. – Street Lighting System

That Section J.5.e. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- e. Ten (10) feet of slack shall be left coiled within four (4) feet of the Commonwealth Edison tie-in point. The contractor shall leave enough conduit and fittings to reach the tie-in point. The ends of the conduit shall be temporarily sealed to keep out water and debris.

Two (2) feet of slack shall be left at all Village street lighting hand holes.

Three (3) feet of slack shall be left at all Village in-ground hand holes/pull boxes.

All other lighting, hand hole and traffic signal cable slack shall meet the requirements of the IDOT Standard Specifications for Road and Bridge Construction, latest Edition, applicable sections.

Section J.5.h. – Street Lighting System

That Section J.5.h. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- h. All street light poles and light bollards shall be set on a reinforced concrete foundation per Exhibit No.37. The lower portion of the foundation shall be cast directly against undisturbed earth except where a full-depth preformed tube is used in an un-augured hole or where the soil conditions require the use of a full-depth preformed

tube. The steel reinforcement rebar cage, the raceway conduits, ground rod, and the anchor bolts shall be secured in place to each other and properly positioned in the augured hole so that at the time of pouring concrete the above said components retain their proper positions. Tops of street light foundations and bollards shall be two (2) inches above the top of curb or finish grade unless otherwise approved by the village engineer. Tops of foundations in parking lot pavement areas and within two (2) feet of the back of curb shall be thirty (30) inches above finish pavement grade and top of curb. Tops of the foundations shall be finished so that water will shed away from the center of the foundation.

Section J.5.i. – Street Lighting System

That Section J.4.i. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- i. PVC raceway conduit shall be terminated no less than two (2) inches above the top of foundation with proper bushings or fittings.

Section J.4.k. – Street Lighting System

That Section J.4.k. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- k. Four (4) inch Schedule 80 PVC or SDR 21 conduit crossings shall be installed under all proposed pavements and prior to curb and gutter installation to prevent undermining.

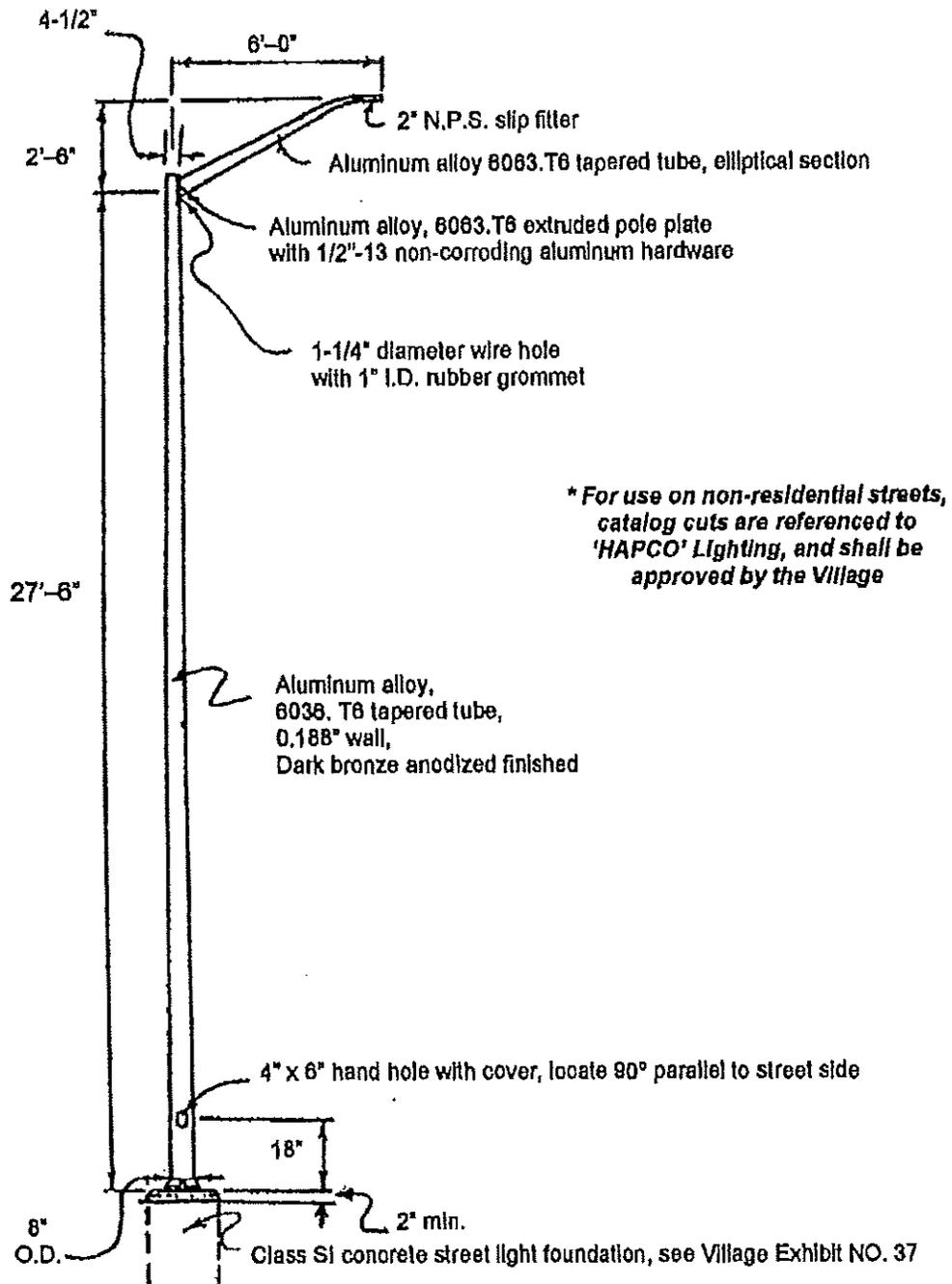
Section J.4.n. – Street Lighting System

That Section J.4.n. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- n. Existing improvements affected by installation of the street lighting system include restoration of the area to the satisfaction of the village engineer and of the property owner involved, if any, within fourteen (14) days of installation.

**VILLAGE OF VERNON HILLS
EXHIBIT NO. 31**

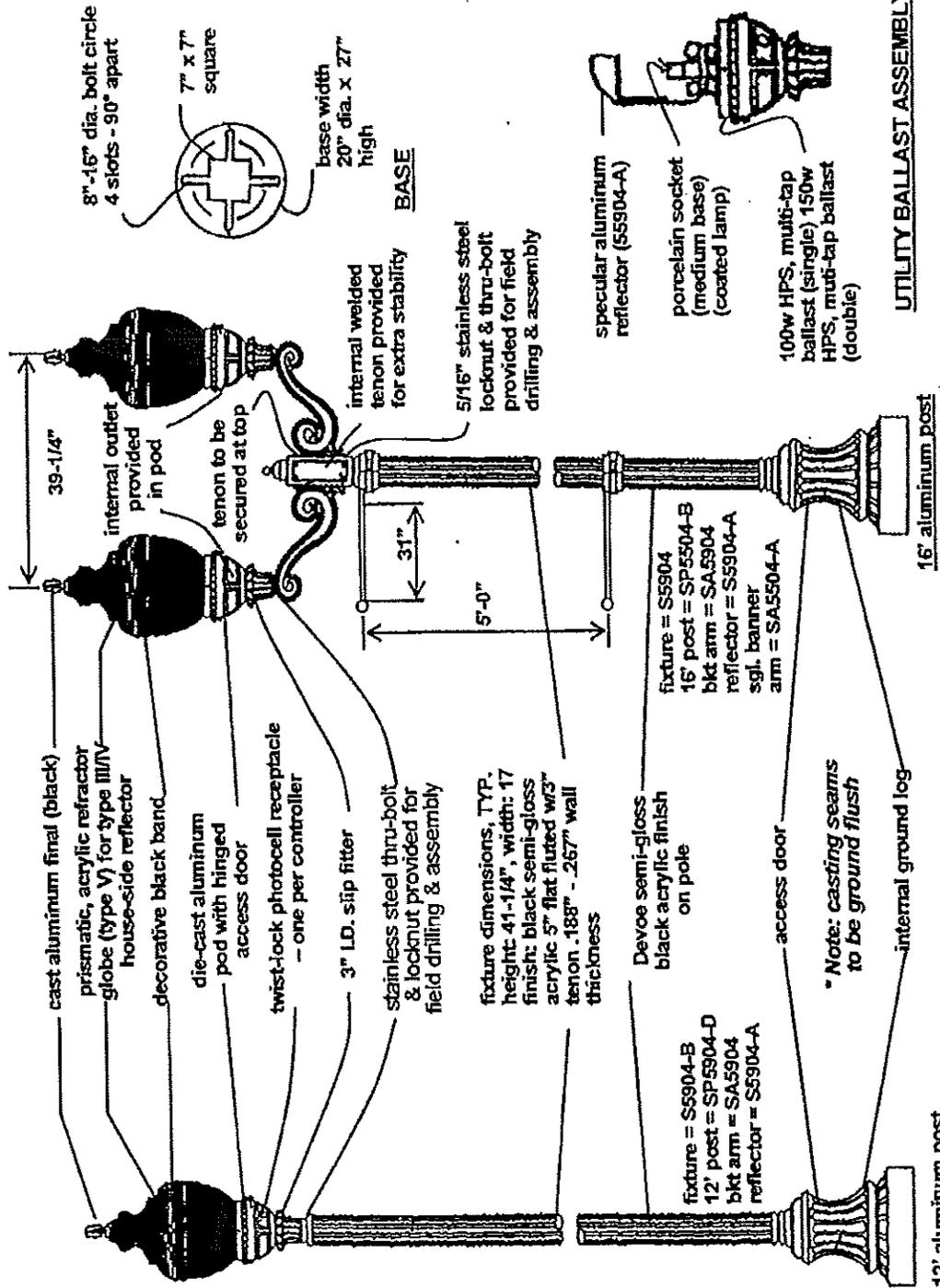
VILLAGE STREET LIGHT



VILLAGE OF VERNON HILLS
EXHIBIT NO. 32

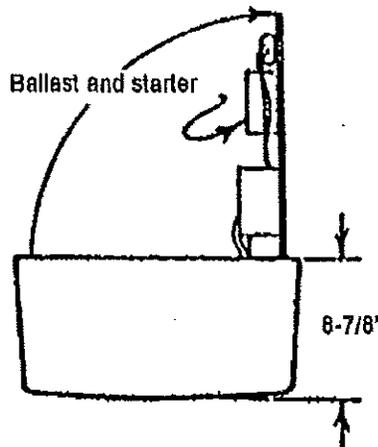
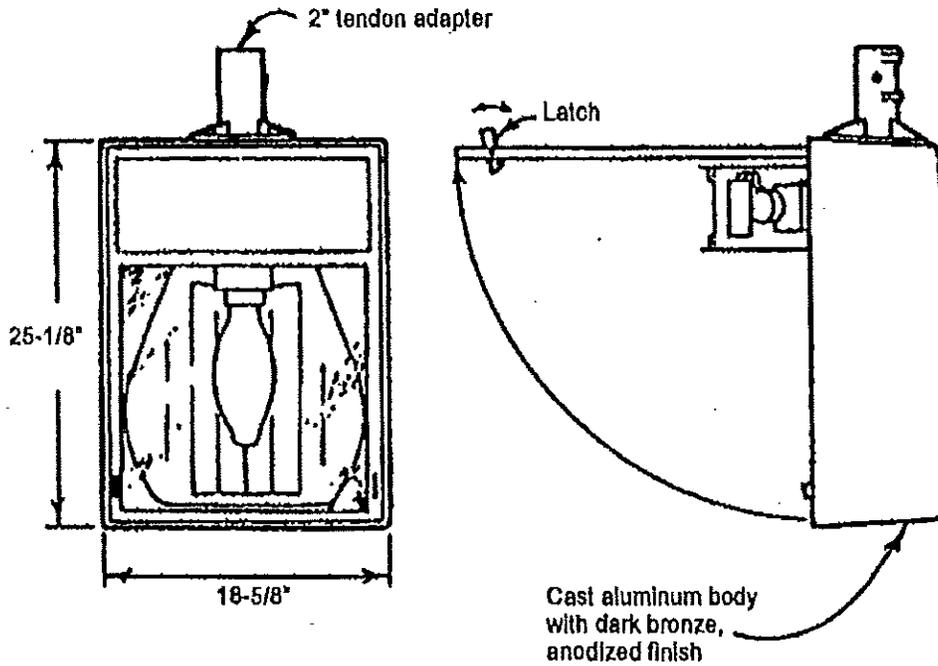
VILLAGE ORNAMENTAL STREET LIGHT - 12' TO 16'

* NOTE: This drawing is for reference only. Catalog numbers shown reference 'HADCO Lighting'. Village approval is required.



**VILLAGE OF VERNON HILLS
EXHIBIT NO. 33**

VILLAGE STREET LIGHT LUMINAIRE



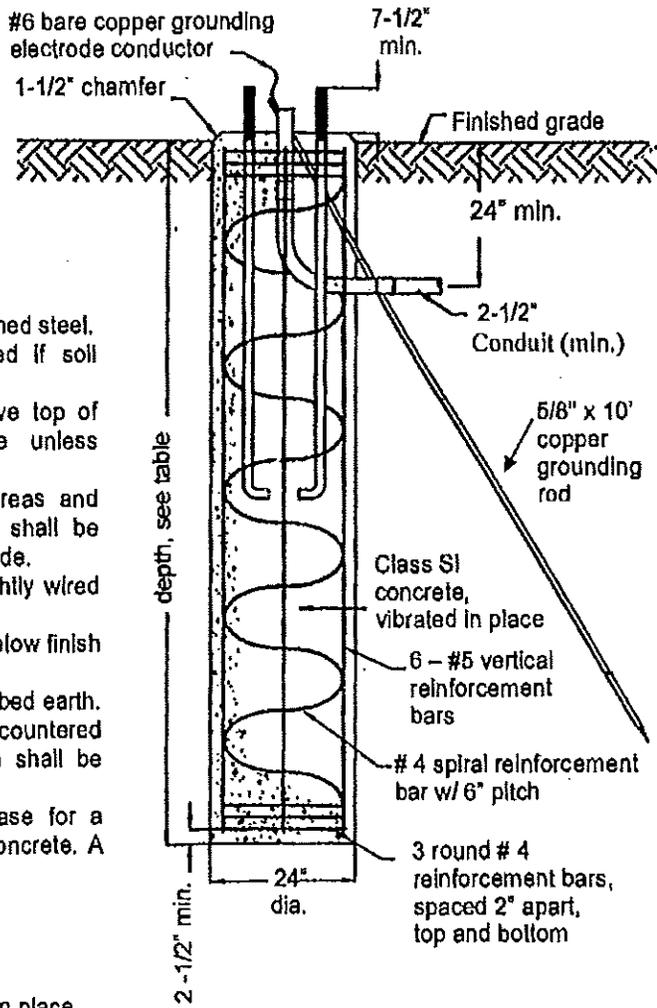
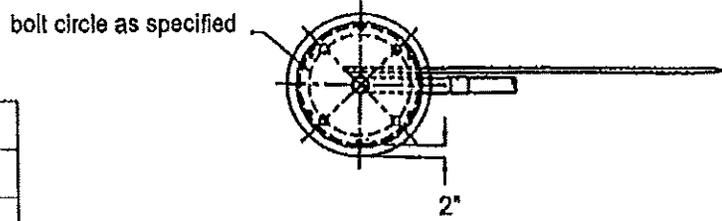
Notes:

1. 100 watt fixture shall be used with poles up to 20 feet in mounting height.
2. 250 watt fixtures shall be used with poles 21 to 30 feet in mounting height.
3. 400 watt fixtures shall be used with poles greater than 31 feet in mounting height.
4. 120 volt constant voltage ballast shall be required at all luminaires.
5. All lighting fixtures shall be approved by the Village.

VILLAGE OF VERNON HILLS
EXHIBIT NO. 37

STREET LIGHT FOUNDATION DETAIL

| pole height | depth |
|-------------|-------|
| up to 20' | 6' |
| 20' to 30' | 8' |
| 30' to 40' | 11' |



Notes:

1. All reinforcement bars shall be deformed steel.
2. Deeper foundations will be required if soil conditions warrant.
3. Top of foundation shall be 2" above top of adjacent curb for finished grade unless approved by the Village Engineer.
4. Top of foundations in pavement areas and when within 24" of back of curb, shall be extended 30" above finished final grade.
5. Rebar "cage" is to be welded or tightly wired so as to remain rigid.
6. Formwork is to extend at least 18" below finish grade.
7. Concrete shall be poured to undisturbed earth. For instances where loose soil is encountered the entire length of the foundation shall be formed.
8. Light pole shall not be set on base for a minimum of 7 days after pouring concrete. A method of curing is required.

** Pole anchor rods shall meet pole manufacturers' specifications and set in place before pouring concrete.

The recommended amendments to the Village of Vernon Hills Code of Ordinances are as follows:

A. Appendix B - DEVELOPMENT REGULATIONS

- Article I - Development Ordinances
- Article II - Engineering Specifications

Section N.3.a. - DRIVEWAY ENTRANCE, DRIVEWAYS, AND OFFSTREET PARKING

That Section N.3.a. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- a. *Commercial off-street parking area* shall be a parking area serving more than four (4) residential units or serving educational, religious, commercial, medical, industrial or similar concerns. All parking areas and access-ways to parking areas shall be maintained to meet the requirements of the Village of Vernon Hills Code of Ordinances and Development Regulations, BOCA National Property Maintenance Code and ADA Accessibility Guidelines (ADAAG).

Section N.3.c. - DRIVEWAY ENTRANCE, DRIVEWAYS, AND OFFSTREET PARKING

That Section N.3.c. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- c. *Driveway entrance/apron* shall be a paved way from the roadway to the driveway or parking area over the parkway. A driveway entrance shall include the curb cut and the driveway entrance pavement (driveway apron) itself but not the sidewalk.

Section N.3.d. - DRIVEWAY ENTRANCE, DRIVEWAYS, AND OFFSTREET PARKING

That Section N.3.d. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- d. *Residential off-street parking area* shall be a parking area serving no more than four (4) residential units with a maximum of four (4) individual parking spaces including garage spaces per residential unit. All parking areas and access-ways to parking areas shall be maintained to meet the requirements of the Village of Vernon Hills Code of Ordinances and Development Regulations, BOCA National Property Maintenance Code and ADA Accessibility Guidelines (ADAAG).

Section N.5.d. - DRIVEWAY ENTRANCE, DRIVEWAYS, AND OFFSTREET PARKING

That Section N.5.d. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- d. Each off-street parking area space shall encompass a rectangular area with a minimum width of nine (9) feet and a minimum length of twenty (20) feet unless otherwise required in the zoning ordinance. A space for the use of handicapped individuals shall conform to current ADA Accessibility Guidelines (ADAAG). Perimeter parking spaces shall not be reduced in size.

Section N.5.g. - DRIVEWAY ENTRANCE, DRIVEWAYS, AND OFFSTREET PARKING

That Section N.5.g. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

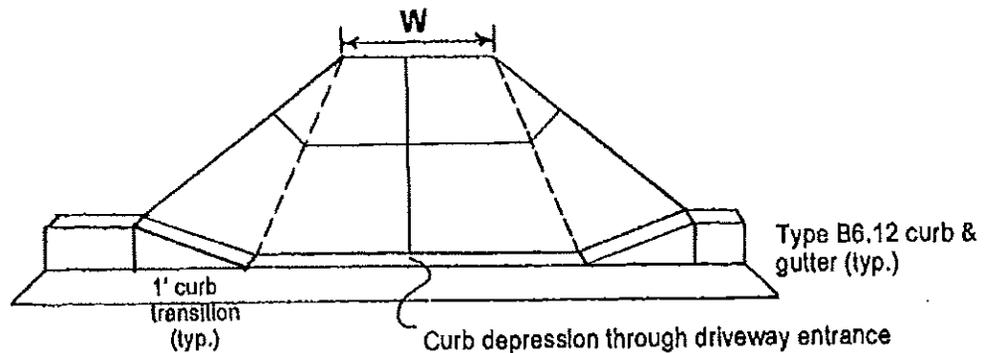
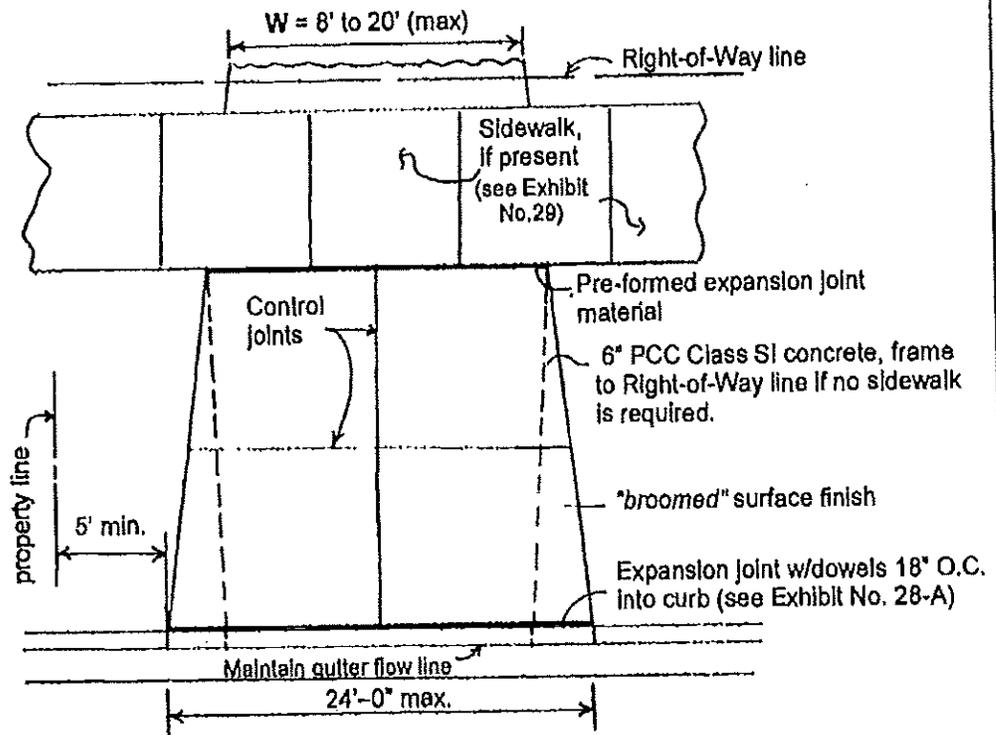
- g. Full depth bituminous or concrete pavements shall be placed on a well-compacted CA-6 crushed aggregate base course, at least four (4) inches thick. The intent of this provision is to provide for a sure drainage path for subsurface water reaching the subgrade.

Section N.3.i. - DRIVEWAY ENTRANCE, DRIVEWAYS, AND OFFSTREET PARKING

That Section N.3.j. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended by removing this statement.

**VILLAGE OF VERNON HILLS
EXHIBIT NO. 34**

RESIDENTIAL DRIVEWAY ENTRANCES

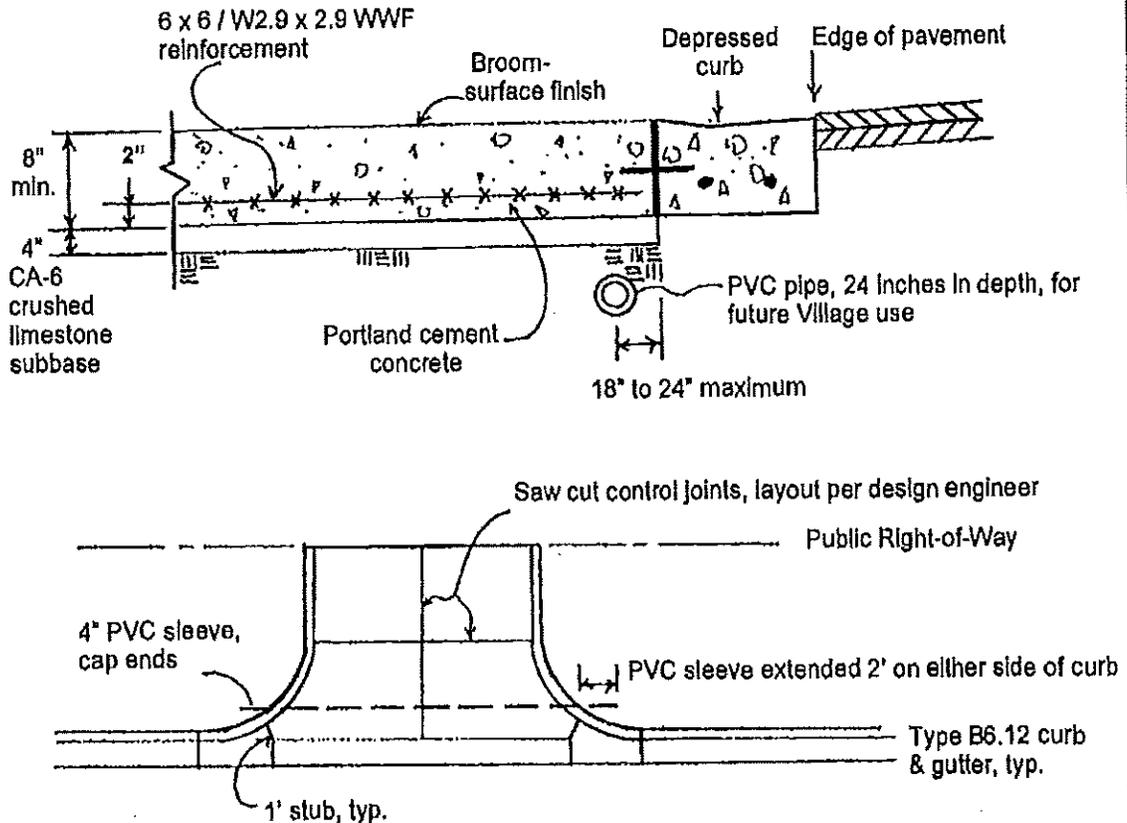


Notes:

1. The driveway entrance shall be Class SI concrete, six (6) inch thick with WWF6 x 6- W2.9 x W2.9 steel mesh placed and supported at mid-pavement depth. All overlaps shall be tied together. Fiber mesh may be used in lieu of wire reinforcement with Village Engineer approval
2. Driveway entrance pavement shall be placed on a compacted four (4) inch CA-6 crushed limestone aggregate subbase.
3. A three and one-half (3.5) foot clear distance is to be maintained from all above ground features (i.e., fire hydrants, light poles, etc.) to the edge of the driveways.

**VILLAGE OF VERNON HILLS
EXHIBIT NO. 35**

COMMERCIAL DRIVEWAY ENTRANCES



Notes:

1. Concrete driveway entrances shall be doweled into the abutting curbs by 1/2" dia. steel bars, 18" long at 24" centers with 3/4" thick preformed bituminous expansion joint material. Trim expansion joint material and caulk.
2. Wire mesh reinforcement shall be tied at all overlaps and supported at mid-pavement depth during pour.
3. A four (4) inch diameter PVC sleeve, SDR 26 or Schedule 80, shall be installed across all driveway openings that abut Public streets for future Village use.

The recommended amendments to the Village of Vernon Hills Code of Ordinances are as follows:

A. Appendix B - DEVELOPMENT REGULATIONS

Article I - Development Ordinances
Appendix II - Engineering Specifications

Section M.7. - PUBLIC UTILITIES

That Section M.7. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

7. All utility trenches shall be backfilled in accordance to Village Exhibits 1 and 2.

Section M.8. - PUBLIC UTILITIES

That Section M.8. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

8. The open cutting of any Village road is not permitted. In the case that open cutting of the pavement is necessary, the village engineer shall approve of the method for removal and replacement, and the limits. If open cutting is permitted, the contractor shall neatly saw cut the pavement for removal. The sides of the excavation shall be shored up to prevent cave-in and undermining of the adjacent pavement areas. The trench shall be backfilled using a concrete mix flow-able fill material approved by the village engineer. The trench shall be backfilled to the bottom limits of the existing flexible or rigid pavement. Pavement cross section shall be equal to the adjacent pavement.

Section M.9. - PUBLIC UTILITIES

That Section M.9. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

9. Pavement, landscaping, sidewalk, curb and gutter, driveways and all other existing structures shall be protected from damage and equipment by the contractor during all utility work. Dewatering of any utility structures and trenches shall be performed to not allow sediment and debris from entering any street and storm drainage structure. A filtering device shall be used for all dewatering operations.

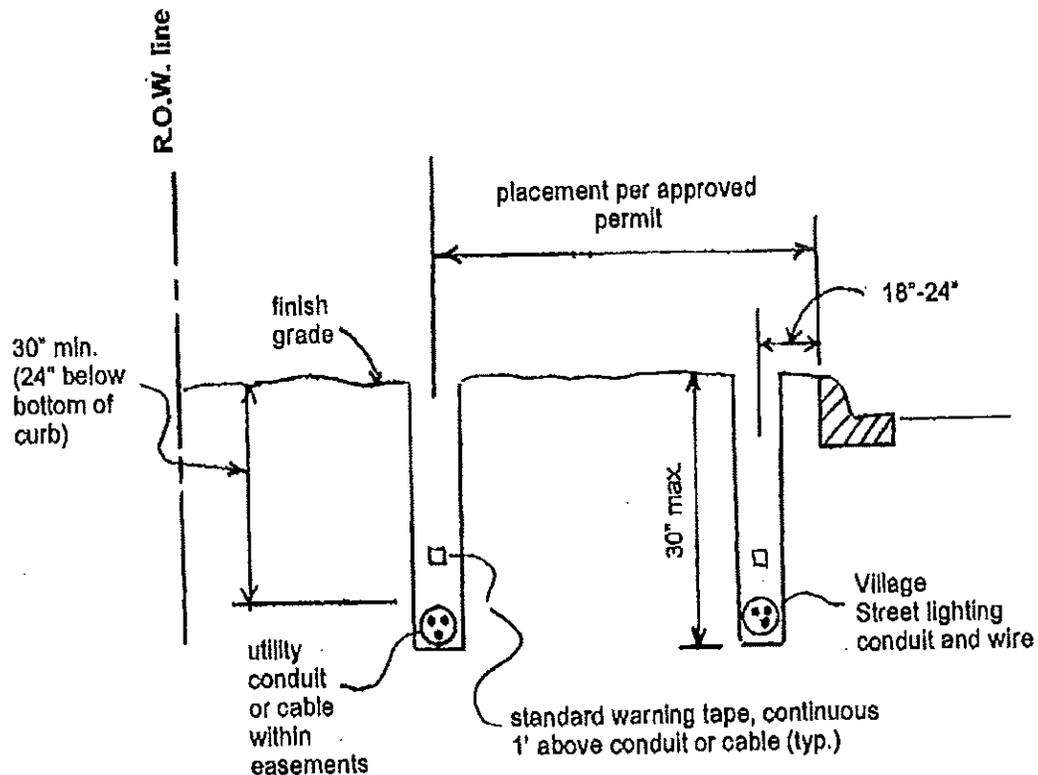
Section M.10. - PUBLIC UTILITIES

That Section M.10. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

10. All disturbed areas shall be restored to its original or better condition within fourteen (14) days of completion of the public utility work.

VILLAGE OF VERNON HILLS
EXHIBIT NO. 41

UTILITY CABLE IN TRENCH



Notes:

1. Backfill material for trenches not within pavement or two (2) feet outside the limit of pavement, curb/gutter, sidewalks, driveways and aprons may be backfilled with suitable excavated material from the trench. Frozen material shall not be considered acceptable. Each lift shall be compacted by mechanical means to the satisfaction of the Village.
2. In new construction, Village approved trench backfill shall be used, see Village Exhibits NO. 1 & 2.
3. If approved by the Village Engineer, open cutting of existing Public Streets may be permitted. Trenches shall be backfilled using a concrete mix, IDOT flow-able fill, filled to within 12" of the finished grade. Remaining pavement cross-section shall match the existing surrounding pavement material.
4. No holes shall be left unprotected overnight. No holes shall be left open for more than twenty-four (24) hours. Securely fastened steel plates may be required.
5. All disturbed areas shall be restored within 14 days of work, and restored to original condition or better.

The recommended amendments to the Village of Vernon Hills Code of Ordinances are as follows:

A. Appendix B - DEVELOPMENT REGULATIONS

Section P.2. - AS-BUILT RECORD DRAWINGS

That Section P.2. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

2. *Improvements which require verification:*
 - a. Watermain and sanitary distribution and collection systems, and storm drainage system.
 - b. Stormwater management facilities.
 - c. Residential lot survey as-builts.
 - d. Commercial and retail development
 - e. Site lighting improvements and modifications.

Section P.3. - AS-BUILT RECORD DRAWINGS

That Section P.3. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

3. *Method of verification required:* The verification of the required improvements shall be in the form of two (2) complete sets of 24" x 36" blue-line bound prints for the review process which depict the information required for each category of improvements. The information shall be reviewed by a registered professional engineer in the State of Illinois who shall provide a signed and sealed statement of opinion regarding the contents of the information provided with respect to its as-constructed ability to function within the parameters of the approved design.

The cover sheet for water, sanitary sewer and storm sewer, site grading, pavement, site lighting and Stormwater management submittals shall have a statement clearly printed thereon, indicating that the project was constructed in substantial conformance to the approved civil engineering plans, and as depicted on the as-built record drawings, prior to the final surface course placement, final occupancy permit and/or acceptance being issued. The statement shall bear the signature, date of signature and seal of the Illinois Registered Professional Engineer that prepared the record civil engineering design plans. In addition, a letter prepared by the same Illinois Registered Professional Engineer shall be submitted with the original ink handwritten signature, date of signature and impressed seal. Illinois Registered Engineer signatures over 90 days old at the date of the record drawing submittal to the village will not be accepted.

In addition, each sheet shall be clearly labeled, dated and initialed by the professional engineer using the standard legend denoting "as-built record drawing". In addition, the cover sheet shall include the project name and address.

Section P.4. – AS-BUILT RECORD DRAWINGS

That Section P.4. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

4. *Record drawing material specifications:* For review submittals, the verification of the required improvements shall be in the form of a complete set of 24" x 36" scaled blue line bound drawings for each sheet which depict the information required for each category of improvements.
Upon final review and acceptance by the village engineer, the original design engineer shall submit the approved as-built record drawings in PDF and disk format with an accompanying statement of compliance letter, stamped/dated/signed, prepared by the Illinois Registered Professional Engineer.

Section P.5. – AS-BUILT RECORD DRAWINGS

That Section P.5. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

5. *Record drawing information requirements:* General comments: A complete set of the original approved final engineering plans, including general notes and details shall, be utilized as the base sheets for the as-built record drawings. The information shall be clear and legible. Standard dimensioning techniques shall be used. As-built record drawings shall include actual elevations alongside planned elevations. Planned elevations shall be neatly crossed out so they are legible to compare to the as-built record elevations. Any elevation that can not be verified shall be neatly crossed out and noted that it can not be verified. All elevations shall be referenced to the same benchmark datum as the original design plans. The appropriate benchmarks shall be noted on the cover sheet.

Section P.5.a. – AS-BUILT RECORD DRAWINGS

That Section P.5.a. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- a. Watermain, sanitary sewers and storm sewers.
 - (i) *Watermain.*
 - a. Rim elevation for valve vaults and valve boxes,
 - b. Breakaway flange elevation on fire hydrants
 - c. Linear distance along watermain from appurtenance to appurtenance (e.g. valve vault to tee, tee to bend, bend to valve, etc.), including pipe material and size.
 - d. Horizontal ties to all valve vaults, valve boxes, and B-Boxes (1.0 foot tolerance) from two (2) above ground permanent structures (e.g. hydrants, light poles, building corners).
 - (ii) *Sanitary Sewer.*
 - a. Rim elevation on manholes.
 - b. Invert elevations for all pipes in manholes.
 - c. Linear distance along sewer from structure to structure, including pipe

- material and size.
 - d. Recalculated pipe slopes based on invert to invert elevation along the linear distance between manholes.
 - e. Location of service connections along main and service lines into structures. Horizontal ties to stub terminals.
 - f. Complete record drawings of lift stations, including all piping, electrical elements and pumping elements.
- (iii) *Storm sewers.*
- a. Rim elevations on all inlets, catch basins, manholes, and other special structures.
 - b. Invert elevations of all pipes within inlets, catch basins, manholes, end sections, submerged pipes, headwalls, culverts and other special structures.
 - c. Linear distance along sewer from structure to structure, pipe material and size.
 - d. Recalculated pipe slopes based on invert to invert elevations along the linear distance between structures.
 - e. Location of service connections along main, and service lines into structures. Horizontal ties to stub terminals.

(iv) *Utilities systems identification.* Privately owned utility mains that are connected to public utility mains shall be clearly labeled as such on the as-built record plans together with a note that states private utility mains shall not be maintained by the governing entity. If a custodial agreement has been reached then it shall be identified where applicable.

Section P.5.b. – AS-BUILT RECORD DRAWINGS

That Section P.5.b. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- b. *Stormwater management.* Upon completion of final grading or completion of all:
- (i) Detention basins.
 - (ii) Retention basins.
 - (iii) Constructed or re-graded streams and channels.
 - (iv) Overflow routes (street areas that act as overflow routes).
 - (v) Street depressions, which are, planned detention areas.

A topographical survey of the Stormwater management areas outlined above shall be prepared by an Illinois Registered Professional Engineer. The plans shall contain sufficient spot elevations of the constructed curb and gutter, sidewalks, pavement, finish floor elevations, structures, facilities and all approved plan revisions demonstrating that they have been constructed in compliance with the approved civil engineering design plans. Record information for all public improvements within the Stormwater management area must be depicted on the record plans. Additionally, the as-constructed Stormwater management volume together with the approved final engineering planned volume shall be depicted in tabular form. The

potential as constructed average and peak release rates as compared with the design release rates must be provided in tabular form.

Section P.6 – AS-BUILT RECORD DRAWINGS

That Section P.6 of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

6. *Submittal of as-built record drawings for review by village staff:* For review submittals, the verification of the required improvements shall be in the form of two (2) complete sets of 24" x 36" blue-line bound prints which depict the information required for each category of improvements. The information shall be reviewed by a registered professional engineer in the State of Illinois who shall provide a signed and sealed statement of opinion regarding the contents of the information provided with respect to its as-constructed ability to function within the parameters of the approved design. Drawing sets shall be submitted by the developer or the Illinois Registered Professional Engineer that prepared them to:

Village of Vernon Hills
Public Works Department, Engineering Division
490 Greenleaf Drive
Vernon Hills, IL 60061

Section P.7.e. – AS-BUILT RECORD DRAWINGS

That Section P.7.e. of the Code of Ordinances, Village of Vernon Hills, Illinois, is hereby amended to read as follows:

- e. Upon final review and acceptance by the village engineer, the original design engineer shall submit the approved as-built record drawings, in a PDF and disk format, with an accompanying letter prepared by the Illinois Registered Professional Engineer with the original ink handwritten signature, date of signature and impressed seal. Copies shall also be provided separately to the Lake County Department of Public Works staff. Illinois Registered Engineer signatures over 90 days old at the date of the record drawing submittal to the village will not be accepted.

SECTION II. SEVERABILITY. In the event that any section, clause, provision or part of this Ordinance shall be found and determined to be invalid by a court of competent jurisdiction, all valid parts that are severable from the invalid parts shall remain in full force and effect. If any part of this Ordinance is found to be invalid in any one or more of its several applications, all-valid applications that are severable from the invalid application shall remain in effect.

SECTION III. REPEAL AND SAVINGS CLAUSE. All ordinances or parts of ordinances in conflict herewith are hereby repealed; provided, however, that nothing herein contained shall affect any rights, actions or causes of action which shall have accrued to the Village of Vernon Hills prior to the effective date of this ordinance.

SECTION IV. PUBLICATION. This ordinance shall be published in pamphlet form in the manner provided by law.

SECTION V. EFFECTIVE DATE. This ordinance shall be in full force and effect from and after its passage, approval and publications as provided by law.

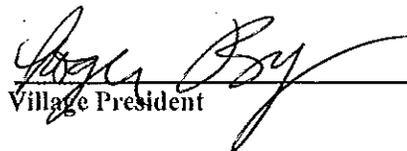
SECTION VI. ORDINANCE NUMBER. This ordinance shall be known as Ordinance Number 2013-053.

ADOPTED BY ROLL CALL VOTE AS FOLLOWS:

AYES: 5 - Koch, Hebda, Williams, Marquardt, Schultz

NAYS: 0 - None

ABSENT AND NOT VOTING: 1 - Schwartz

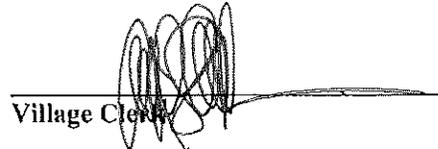

Village President

PASSED: 11/19/2013

APPROVED: 11/19/2013

PUBLISHED IN PAMPHLET FORM: 11/20/2013

ATTEST:


Village Clerk

AFFIDAVIT OF SERVICE

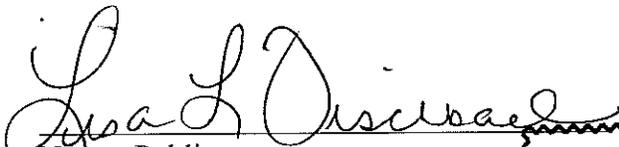
STATE OF ILLINOIS)
)
COUNTY OF LAKE)

I, MICHAEL S. ALLISON, BEING FIRST DULY APPOINTED, DEPOSES AND SAYS ON OATH THAT AS VILLAGE CLERK OF THE VILLAGE OF VERNON HILLS, HE DID CAUSE THE FOREGOING CERTIFICATE FOR ORDINANCE 2013-053, AN ORDINANCE AMENDING VILLAGE DEVELOPMENT AND ENGINEERING STANDARDS TO BE POSTED IN THE VILLAGE HALL AS REQUIRED BY LAW FROM NOVEMBER 20, 2013 TO DECEMBER 10, 2013.



MICHAEL S. ALLISON, VILLAGE CLERK

SUBSCRIBED AND SWORN TO BEFORE
THIS 20th DAY OF NOVEMBER, 2013



Notary Public

