

1. GENERAL NOTES
2. PAVEMENT AND STORM SEWER SPECIFICATIONS
3. SANITARY SEWER SPECIFICATIONS
4. WATER MAINS
5. GATE VALVES AND VALVE BOXES
6. FIRE HYDRANTS
7. SERVICE SADDLES
8. LIFT STATIONS
9. SEPTIC TANKS
10. NEW STREETS
11. DRAWINGS OF SPECIFICATIONS (ATTACHMENTS)

GENERAL NOTES

EXISTING UTILITIES

The exact location of all existing utilities shall be the responsibility of the Contractor. The Contractor shall be responsible for any and all damage to existing utilities caused his operations.

UTILITY OWNERSHIP

The Contractor shall notify all involved utility companies at least five construction days before any construction work is performed in the area where the utility lines are located. The Ohio Utility Protection Service (OUPS) shall be notified two (2) working days before digging by calling the toll free number 1-800-362-2764. Non members utilities must be contacted directly.

UTILITY ADJUSTMENT

Any or all worked required for public or private utilities will be done by and at the expense of their respective owner. unless other wise noted.

PERMITS

The Contractor will be responsible for any and all permits required by the Village of Wakeman County or the State of Ohio. All permits and tap fees must be paid in advance before construction begins or be subject to a \$50.00 a day fine.

MANHOLES

Blocked manholes may be substituted for precast concrete manholes in those instances where the depth of the manhole would require that conduit enter the manhole in the dome section.

CONNECTIONS TO EXISTING SEWERS

Where the plans provide for proposed conduit to be connected to or to cross either over or under and existing sewer. it shall be the responsibility of the Contractor to locate the existing pipe both as to line and grade before he starts construction of the proposed sewer. The Contractor shall be responsible for any damage to existing sewer resulting from his operation or negligence.

SAFETY REQUIREMENTS

The Contractor shall at all times follow all State and Local Safety Requirements during the construction of this project. Special care shall be taken during all

trenching operations. Sheeting and bracing, cribbing, ect., must be installed as required to provide maximum safety to the Contractor's workers in full compliance with OSHA Regulations.

MAINTENANCE AND RESTORATION

At all times during the progress of the work and until the release of the Contractor from his guarantee by the Village, the Contractor shall maintain the backfilled trenches. Any settlement that occurs during such time shall be immediately filled. The Contractor shall also replace all pavement, drives, walks, pipe, sod, etc., which has been disturbed, to a condition equal to that which existed before construction was started. At the completion of the required work, all debris and materials shall be removed from the job site. The Contractor will be responsible for cleaning all dirt, mud and dust off existing pavements, which may result from his operations.

PAVEMENT AND STORM SEWER SPECIFICATIONS

1. GENERAL

All material and construction shall be in accordance with the Standards and Specifications of the Village of Wakeman, the American Society for Testing and Materials (ASTM), the County Engineer and/or the Ohio Department of Transportation Construction and Material Specifications. In case of conflict, Village Standards and Specifications shall take precedence.

All references to standards are to the latest edition.

2. INSPECTION

The Village of Wakeman shall be notified seven (7) calendar days prior to the beginning of actual construction.

3. STORM SEWER PIPE

If 6" through 18" Type "B" or "C" conduit is specified, the Contractor may use polyvinyl Chloride PVC sewer pipe and fittings, ASTM designation D3034, SDRJ5.

Prior to final acceptance by the Village, all storm sewers shall be thoroughly cleaned and flushed with water.

4. STORM SEWER SERVICE CONNECTIONS

All storm sewer service connections shall be properly plugged and suitable staked at the end of the service connection plug. Stakes shall be 2" by 2" extend from the flowline to within 18" of the finished grade to aid in future locating of the service connection.

All storm sewer service connections shall be extended a minimum of 10 feet into each abutting a lot and within abutting property lines.

5. MANHOLES AND CATCH BASINS

All manholes and catch basins shall be constructed without sumps or traps, except where the receiving sewer is a combined sewer. All manholes and catch basins shall be free of all foreign matter and in a clean condition before acceptance.

When manholes are located within the pavement, the uppermost surface of the lid or frame shall be 114" below the pavement surface. When manholes are located outside the pavement, the top shall be set 1" above the finished ground grade.

The joint between the manhole or catch basin frame and chimney shall be made using cement mortar. Any sealant used between the adjustment or grade rings of the chimney shall not be used in this joint.

6. BACKFILL

Trench backfill shall consist of finely divided soil free from stones, rubbish or large lumps and mechanically tamped in 12" layers. Backfill material under driveways and paved streets, or within 5' of the edge of pavement shall be ODOT Item 310.02 granular backfill and placed in 6" layers and mechanically tamped. Compaction of the backfill shall be at least 98% as determined by the Standard Proctor Test.

7. BEDDING

All pipe shall have Class B Bedding as a minimum and shall meet the requirements of The State of Ohio and the Village of Wakeman, and The American Society of Testing and Materials (ASTM).

8. PIPE SPECIALS

All pipe bends, tees, wyes and other fittings shall be factory made.

9. MONUMENTS

All monuments and existing survey monuments, bench marks, property corner points and control points damaged or disturbed by construction shall be replaced by a registered land surveyor at the expense of the Contractor. Should the Contractor fail to replace these points, the Village of Wakeman will replace these points at the Contractors expense.

10. RESTORATION

All existing features that are disturbed due to construction, such as mailboxes, shrubs, bushes, guardrails, driveways, swales, sewers, catch basins, berms, seeded grass, etc., shall be replaced to their original condition in accordance with applicable ODOT specifications, and to the satisfaction of the Village of Wakeman.

11. SEEDING, MULCHING AND FERTILIZING

All areas within right-of-way lines shall be seeded, mulched and fertilized in accordance to the Village of Wakeman's specifications.

12. CONNECTIONS TO EXISTING CONDUITS

Where the plans provide for a proposed conduit to be connected to, or to cross either over or under an existing conduit, it shall be the responsibility of the Contractor to verify the line and grade of the existing conduit before starting construction.

SANITARY SEWER SPECIFICATIONS

1. GENERAL

All material and construction shall be in accordance with the Standards and Specifications of the Village of Wakeman, the American Society for Testing and Materials (ASTM), Huron County and/or the Ohio Department of Transportation (ODOT) Construction and Material Specifications. In case of conflict, Village of Wakeman Standards and Specifications shall take precedence.

All references to standards are to the latest edition.

2. INSPECTION

The Village of Wakeman shall be notified seven calendar days prior to the beginning of actual construction. All sanitary sewer installation and testing shall be inspected by the Village of Wakeman.

3. SANITARY SEWER PIPE

All pipe for sanitary sewer shall be (PVC) Sewer Pipe and Fittings (ASTM) D3034-SDR 35, Gasketed pipe.

4. CLEAN WATER CONNECTIONS

Roof drains, foundations and all other clean water connections to the sanitary sewer are prohibited.

5. TESTING

After the pipe has been laid and backfilled, a low pressure air test shall be made on each section of the pipe line between manholes. All service laterals shall be independently tested.

The air test for the test section shall be considered acceptable if the time elapsed for 1.0 psi pressure drop is equal to or greater than time, in minutes indicated in the following table.

MINIMUM HOLDING TIME IN MINUTES REQUIRED FOR 1.0 PSI PRESSURE DROP LENGTH OF MAIN LINE TESTED*

<u>P i p e Diameter</u>	<u>100'</u>	<u>200'</u>	<u>300'</u>	<u>400'</u>	<u>500'</u>	<u>600'</u>
8"	1 ¼	2 ¼	3 ½	3 ¾	3 ¾	3 ¾
10"	1 ¾	3 ¾	4 ¾	4 ¾	4 ¾	4 ¾
12"	2 ¾	5 ¼	5 ¾	5 ¾	5 ¾	5 ¾
15"	4	7	7	7	7	7

18"	5	8 ½	8 ½	8 ½	8 ½	8 ½
21"	8	10	10	10	10	10

24"	10 ½	11 ¼	11 ¼	11 ¼	11 ¼	11 ¼
27"	12 ¾	12 ¾	12 ¾	12 ¾	12 ¾	12 ¾
30"	14 ¼	14 ¼	14 ¼	14 ¼	14 ¼	14 ¼

* Time for intermediate lengths shall be interpolated.

The air test shall be unacceptable if the elapsed time is less than the stated period.

The Contractor may air test sections before backfilling the trench as a check for defects and workmanship. Such tests are at the option of the Contractor and are not a substitute for tests required after backfilling has been completed.

The maximum rate of infiltration or exfiltration for the sanitary sewer is 200 gallons per inch diameter per mile of pipe, per 24 hours.

All visible leakage in sewer or manholes must be repaired to the satisfaction of the Village of Wakeman, even though the leakage is at a lower rate than the maximum allowed.

If the PVC pipe is used, deflection tests shall be run not less than 30 days after final full backfill has been placed in the presence of a representative of the Village of Wakeman. Where possible, electronic equipment shall be used to measure and record the deflection of 5%. If such equipment is not available, the deflection test can be run by use of rigid balls or mandrels, having diameters equal to 95% of the inside diameter of the pipe, which shall be pulled through the sewer line. If rigid balls or mandrels are used, tests shall be performed without mechanical pulling devices.

Should any section of the conduit fail to meet any of the above test requirements, it shall be the Contractor's responsibility to provide television inspection and to provide necessary corrections. The cost of all materials, labor and incidentals necessary for performing the tests and making the corrections and replacements shall be included in the price bid for the pertinent conduit item.

6. SANITARY MANHOLES

For sewers with a diameter of 33 inches or less, manholes shall be constructed with approved precast manhole sections conforming in general to ASTM C478.

Precast reinforced concrete riser rings and domes shall comply with the requirements of ODOT Item 706.02, except for minimum designs and marking. Minimum wall thickness shall be 5 inches and circular reinforcement shall be a minimum of 0.18 sq. in. per ft. Concrete shall have a minimum strength of 4,000 lbs. per sq. inch.

1-1/4" holes for handling may be cast into domes and rings. Minimum drop pipe

diameter for sanitary sewer manholes shall be 6" . A drop pipe shall be provided for a sewer entering a manhole at an elevation of 30" or more

above the manhole invert.

Openings for the inlet and outlet sewer pipe shall be drilled or cast in the precast ring and shall be fitted with a gasketed flexible water-tight connection, Kor-N-Sol Boot or approved equal, to prevent infiltration.

Sanitary sewer manholes shall have flexible watertight joints, using rubber gaskets for sealing the joint conforming in general to ASTM C443. The joints shall be of such design as will permit placement without appreciable irregularities in the interior wall surface of the manhole. Acceptable 48" diameter joints shall be of the "O" Ring Gasket type, or approved equal.

Access through manholes shall be by means of steps meeting the requirements of ODOT Item 604.

Adjusting rings shall be precast, reinforced with No. 3 gage wire or equivalent. They shall be a minimum of 4 inches, maximum of 16" thick. The entire outer surface of adjusting rings and manhole castings shall be plastered with ½" minimum Portland Cement mortar unless otherwise detailed on the drawings or directed by the Engineer.

The joint between the manhole frame and chimney shall be made using cement mortar, and sealant used between the adjustment or grade rings of the chimney shall not be used in this joint.

Where stubs are placed in a sanitary manhole, the Contractor shall form or grout the bottom of the manhole from the pipe invert to the main flow channel so that sedimentation does not occur.

7. BEDDING

Pipe embedment shall consist of No. 57 or No. 8 stone placed a minimum of 6" under, beside and/or over the pipe.

WATER MAINS

1.1 GENERAL

In general, all material and construction shall be in accordance with the current American Water Works Association Standards and Specifications, and/or the current Ohio Department of Transportation Standards and Specifications, and/or the current Ohio Environment Protection Agency Standards and Specifications, and The Village of Wakeman.

A minimum of ten (10) feet horizontally and eighteen (18) inches vertically from any sanitary sewer must always be maintained. No entry or contact with a sewer manhole is permitted.

1.2 ESTIMATED QUANTITIES

The estimated plan quantities are for the purpose of competitive bidding and are not necessarily the final pay quantities. Final field measurements and calculations will determine the final quantities to be paid, unless otherwise specified in these General Notes.

1.3 REGULATIONS

All work must comply with applicable Federal, State, and Local regulations in all respects, including compliance with the Occupational Health and Safety Act.

1.4 CONSTRUCTION LIMITS

The Contractor must at all times conduct his operations within the public right-of-way, easements, or work agreement as shown in the plans.

1.5 UNDERGROUND UTILITIES

The location of the underground utilities shown on the plans are as obtained from the owners of the utility.

1.6 UTILITIES NOTIFICATION

At least two (2) working days prior to commencing construction operations in an area which may involve underground utility facilities, the Contractor shall notify the Project Engineer, the registered utility protection service (1-800-362-2764), and the owners of each underground utility facility shown in the plans.

The owner of the underground utility facility shall, within forty-eight (48) hours, excluding Saturday, Sundays, and legal holidays after notice is received, stake, mark or otherwise designate the location of the underground utility facilities in the construction area in such a manner as to indicate their course together with the approximate depth at which they were installed. The marking of location shall be coordinated to stay approximately two (2) days ahead of the planning construction.

1.8 PRESSURE PIPE AND FITTINGS SPECIFICATIONS

The water main may be of Polyvinyl Chloride (PVC) pipe in accordance with the

following specifications:

PVC pressure pipe shall conform to the requirements of AWWA Standard C-900 latest revision, DR18, Class 150. All pipe must be a minimum of 4 " or meet Ohio E.P.A. requirements.

Fitting shall be of ductile cast iron, shall conform to ANSI A21.1 0 (Class 250 minimum) and shall be coated and lined as specified for the pipe. Fittings shall be of the mechanical joint type. The branch of the tees for fire hydrants shall be compatible with the anchoring pipe as shown in the standard drawings. Provide required standard and tapped mechanical joint plugs.

Mechanical joints and push-on joints shall be in accordance with ANSI A21.11 incorporating rubber gaskets.

The Contractor shall be required to install a detectable tracer tape directly over and on the center of the PVC main for its entire length to provide a reflection path (inductive) to determine pipe alignment and location after installation.

Detectable tracer tape shall consist of a continuous aluminum foil core inseparably bonded to both sides with tough high density cross laminated plastic films pigmented in blue warning colors. Bond strength of the traces tape must prevent pitting or degradation after 300 hours continuous testing per ASTM B-1 17. Tracer tape shall have final elongation of three times its original length before parting. Detectable tracer tape on the above project shall be equal to ALARMATAPE as manufactured by Paul Potter Warning Tapes, Inc. Wheaton, Illinois, or equal. Specify catalog numbers #AT- 3100- BW, 3" -1,000 foot rolls with identification " " BURIED WATERLINE BELOW ". Identifying printing shall be 1½ inch high bold black letters repeated every 21 inches. Three inch (3") wide ALARMA TAPE is to be buried 30 inches deep.

1.9 MANUFACTURER'S AFFIDAVIT

The manufacturer shall furnish an affidavit indication that all tests and requirements of the pipe, fittings, and appurtenances have been fully met.

1.10 ANCHORS AND SUPPORTS

Concrete anchors and supports (thrust blocks) shall be provided at all fittings and changes in direction of pipe. They shall be constructed as shown on the drawings and shall be placed against firm undisturbed soil. Mechanical restraints shown on the plan detail sheet may be used where applicable.

1.11 PIPE EMBEDMENT

Pipe embedment shall include granular material placed to a plane six (6) inches above the outside shell of the pipe.

The material shall be placed in layers not exceeding six (6) inches in thickness and securely compacted by hand or mechanical tamping to secure a good compaction.

Granular material shall be of No. 57 or No. 8 stone conforming to Table 703-1 of the 1991 Ohio Department of Transportation (ODOT), Construction and Material Specification.

54

1.12 BACKFILLING

Backfilling shall include the material placed above a plane six (6) inches above the top of the pipe. Backfill shall consist of finely divided soil free from stones, rubbish, large lumps or other harmful debris. The backfill shall be tamped in six (6) inch layers.

Backfill within existing paved or stone streets, alleys, driveways, parking areas and proposed sidewalks, or within five (5) feet of these areas shall consist of a durable gravel, sand, or crushed stone meeting the requirements of Item 310.02 of the 1991 ODOT Construction and Material Specifications. Slag will not be permitted for bedding, backfill foundations, or any other use on this project. The granular backfill shall be mechanically tamped in six (6) inch layers so that the backfill will have a density equal to a minimum of 95% of that possible under optimum moisture content as determined by Standard Proctor Test. The cost of granular backfill shall be included in the waterline pipe.

1.13 TRENCH WIDTH

The maximum trench width to be used for calculation of quantities for payment shall be two (2) feet plus the inside diameter of the pipe.

1.14 CONNECTIONS TO EXIST

New mains shall be connected to existing mains, using proper fittings. No cut-ins or connections to existing mains shall be made unless at least forty-eight (48) hours notice of such cut-in or connections is given to the local official in charge of the water works and to the Engineer, and the related portion of the new main has been sterilized and all testing completed, as subsequently specified.

Extreme care shall be taken in making such connections to prevent contamination of the existing mains. All fittings, valves, and pipe shall be washed with clean water and the sterilized by washing with a chlorine solution having a residual chlorine strength or not less than 50ppm.

1.15 ROCK EXCAVATION

Rock excavation shall include excavation of such rock as may be necessary in connection with work on the project, together with its removal and disposal. Except under special permission from the Engineer, rock removed by excavation shall not be used for backfill, but shall be disposed of by the Contractor off the project site.

1.16 MAINTENANCE OF TRENCHES AND EXCAVATIONS

At all times during the progress of the work and until release of the Contractor from his guarantee by the Owner, the Contractor shall maintain the backfilled trenches and other excavations. In particular, those trenches or excavations which are within fifteen (15) feet of the edge of pavements or the edge of traveled roadways, shall be kept filled up to the same level as the adjacent undisturbed ground. Any settlement which occurs during this period shall be immediately filled in to prevent the possibility of accidents.

1.17 WATER MAIN TESTING

Disinfection - All new waterlines shall be disinfected in accordance with procedures outlined in AWWA C651. As previously specified, all pipe interiors shall be cleaned before laying and shall be kept clean thereafter. Chlorination may be accomplished by the continuous feed method or the slug method.

After a main has been completed, it shall be filled with the portable water from the public supply while exhausting air from the other end and at intermediate places along the main, i.e., at the fire hydrants and corporation stops installed at the extremities of the main for this purpose. After filling, the residual chlorine strength of the solution of clean water and chlorine in the main shall be determined. All filling operations must be conducted under the supervision of the Project Inspector.

Sterilization can be accomplished with a solution of clean water and chlorine having a residual strength of 50ppm. The solution shall be tested at the extremities of the main and at the intermediate points to make sure the solution has the required strength. If the solution in the main contains less than 50ppm chlorine, a solution of clean water and chlorine having residual strength of 50ppm shall be pumped into the main from a cleaned and sterilized container, while exhausting the existing solution shall remain in the main for at least 12 hours to assure complete sterilization.

During the sterilizing process, the main shall be isolated from existing adjacent mains and extreme care shall be used to prevent the pressure in the main from rising about 20 psi. This low pressure is to prevent a possibility of highly chlorinated water from entering adjacent water mains which are in service. After the main has been filled with the chlorine solution, the existing solution, until a chlorine residual of 50 ppm is obtained throughout the main.

After sterilizing the main, it shall be thoroughly flushed with potable water from the public supply until the water in the main has approximately the same chlorine content as water in the existing mains. Bacteriological samples shall not be taken for testing until the main has been tested for leakage.

When the water runs clear, shut off the main and let the water remain in the pipe for at least three (3) days. At the end of at least three (3) days, flush out the entire contents of the main. Care shall be taken during this operation to completely remove the old water from the main. After this is done, shut off the main and let water remain in the pipe for 24 hours. After 24 hours, an employee of the Village of Wakeman will test the water for a determination of the alkalinity and pH. In case the alkalinity and pH are not satisfactory, the main shall be flushed again to remove the old water. After this is done, shut off the main and let the water remain in the pipe for at least four (4) hours. At the end of at least four (4) hours, repeat until the alkalinity and pH are approved by the Village of Wakeman.

In all cases, tests for chlorine content shall be in accordance with DPD test in APHA Standard Methods, 16th Edition, (1985).

The Contractor shall furnish all materials, corporation stops, labor and equipment required to sterilize the main.

1.18 PRESSURE AND LEAKAGE TESTS

All new waterlines shall be pressure and leakage tested in accordance with procedures outlined in AWWA C600-87. When a main has been sterilized and flushed, a leakage test shall be applied to it. The main shall remain isolated from adjacent mains and a pressure of at least 150 pounds per square inch shall be applied by pumping clean water containing 10 ppm chlorine from a cleaned and sterilized container through a 1 inch corporation stop installed in the ends of the

main, with the Contractor to provide an initial pressure of 150-160 psi.

56

The pressure test shall be started in an afternoon and the pressure shall be on for 18 hours and then the pressure shall be maintained at 150 psi or more for an additional 6 hours by pumping water from the container. A minimum test pressure of the 6 hours period the water shall be measured and the loss by leakage shall not exceed that as determined by the formula:

$$L = \frac{S \times D \times (P)^{1/2}}{133,200}$$

in which the L is the allowable leakage in gallons per hour; S is the length in feet of main line being tested; D is the nominal diameter of the pipe in inches; and P is the average test during the leakage test in pounds per square inch gage.

When Hydrants are in the test section the test shall be made against the closed hydrant.

Pressure testing of each side of the intermediate valves shall be done at this time by shutting each valve and exhausting the pressure on one side and then applying the test pressure of 150 psi or more to the main on the opposite side of the valve. This procedure shall be repeated for each intermediate valve.

If the main valves do not pass leakage test the leak or leaks shall be located and repaired and the testing procedure repeated.

Upon completion of the leakage tests, the main shall be thoroughly flushed with potable water from the public supply until water in the main has approximately the same chlorine content as water in the existing main.

The Contractor shall furnish all materials, labor and equipment for testing.

1.19 BACTERIOLOGICAL TESTS

After a water main has been sterilized and tested for leakage, bacteriological samples shall be collected from the extremities and intermediate points along the main by an employee of the Village of Wakeman experienced in the taking of water samples. Bacteriological samples shall not be taken by the Contractor.

If results of two consecutive sets of bacteriological tests show the water to be safe, the main may be placed in service. If bacteriological results show the water to be unsafe the main shall be completely sterilized and retested again. Sterilizing of the main is the responsibility of the Contractor who shall provide all necessary materials and labor and the main will not be placed in service and accepted until the bacterial quality of water has been approved by the Village of Wakeman. The Village of Wakeman will perform two sets of bacteriological tests at no charge to the Contractor. Additional tests will be at the expense of the Contractor.

After the bacteriological tests are satisfactory, a representative of the Village of Wakeman will open all valves to place the line in service.

1.20 COMPLETION OF TEST

When all tests on the water main have been successfully completed and the main is

placed in service by the Owner no further work on the main or valves will be permitted without full knowledge of the work by the Village of Wakeman.

GATE VALVES AND VALVE BOXESGATE VALVES AND VALVE BOXES

All gate valve shall be compression resilient seated valves conforming to the latest standard specifications of the American Water Works Association (AWWA) C-509. Valves shall be Mueller A2360-20 or approved equal, by the Village of Wakeman. Clockwise to close.

CAST IRON VALVE BOXES

All valve boxes need to be Cast Iron Valve Boxes Two Piece Screw Type. Valve boxes when finished should be brought up to grade. All service boxes for water service should be Cast Iron Adjustable:

CAST IRON SERVICE BOXES, ADJUSTABLE - 6500 SERIES, SCREW TYPE

CAST IRON VALVE BOXES, TWO-PIECE - 6850 SERIES, SCREW TYPE

FIRE HYDRANTSCOPE

This item shall include the furnishing and installation of all fire hydrants with watch valves and valve boxes and the required anchoring pipe and fittings as herein specified.

HYDRANT TYPE

Mueller Super Centurion Fire Hydrant:
A-423 5' Bury with Wakeman Hose Specifications
5 1/4" three-way 2 Hose nozzles and 1 Pumper nozzle

SERVICE SADDLES

PVC PIPE C - 900

Mueller service saddles ductile or bronze. Saddles can be used in single or double strap styles.

SERVICE LINES

Should be $\frac{3}{4}$ " or more, service lines should be type K Copper or high pressure plastic.

LIFT STATIONS

LIFT STATIONS

All lift stations must be EPA Approved, per Village of Wakeman specifications.

1. All lift stations must have back-up power, hook-ups, per Village of Wakemans specification.

2. All lift stations must have pad to pull motors in station.

3. Village of Wakeman takes precedence over Contractors.

SEPTIC TANKS

All Septic Tanks shall be Ohio EPA approved and must be concrete. Tanks must have 6 " of #57 or #8 stone under and around tank up to inlet and outlet. All tanks must be filled with water as soon as installed. Tanks must be no less than 10 ft from building and no further than 100 feet from the roadway. no 90 degree bends from the building to the inlet of the tank. A clean out must be installed either on the inside of building or outside. All tanks must be inspected by the Village of Wakeman before placing cover around or over. all septic tank lids must be exposed

NEW STREETS

All new streets in the Village of Wakeman shall be either asphalt or concrete. All new streets in the Village of Wakeman shall have a right-of-way of not less than sixty feet (60'). All street construction shall be in compliance with the specifications set forth by the County Commissioners of Huron County.

ASPHALT STREETS:

All new asphalt streets in the Village of Wakeman shall have an eight inch (8") crushed limestone base that is graded for water shed and a minimum of a two inch (2") base of blacktop paving plus one and one-half inches (1½") of top coat. All asphalt streets must have concrete curb and gutters.

CONCRETE STREETS:

All new concrete streets in the Village of Wakeman must be curbed and guttered. All concrete streets must meet the requirements as in the following page (detail sheet) headed "Pavement Typical Section".

SANITARY SEWER

TRENCH DETAIL

* For Sewers Up to 24" I.D. (Max. Is 18" For Sewers Over 24" I.D.)

*** For Pay Limits Only, Maximum Trench Width Shall Be The Same As The Trench Width At The Top Of The Pipe*

