Permit Procedures

Sanilac County Road Commission

Dated: February 12, 2003

1.00 DRIVEWAY PERMITS:

1.01 PERMIT REQUIRED

- Subsequent to the effective date of these rules, no person, organization or governmental unit shall undertake or conduct any of the following activities on or along county roads or within county Right-of -Way unless a permit to allow such activity has been obtained from the Sanilac County Road Commission Permit Department.
 - a. Construct, reconstruct, relocate, surface, and resurface a driveway.
 - b. Use the land served by the driveway when the land use has changed or expanded.
 - c. Operate, use or maintain a new driveway.
- 2. Construction of a new driveway or private road connections to a county road or reconstruction of a driveway or private road connecting to a county road shall be allowed only after an approved permit has been obtained from the Permit Department. The construction of reconstruction of all driveways or private roads shall be as described in an approved permit and plans or drawings accompanying the permit.
- 3. When the use of the land served by the driveway is changed or expanded, and the change or expansion causes the existing driveway to be a safety hazard, the driveway will be considered a new driveway as per Act 83, Public Acts of 1978. Factors that constitute a safety hazard shall include but are not limited to the following:
 - a. Increase accident rate at or near driveway.
 - b. Increase traffic volume on main road.
 - c. Increase turning movements using driveway.
 - d. Improper drainage.
 - e. Inadequate sight distance.
 - f. Excessive grades of driveway.
 - g. Improper driveway design for use.
 - h. Creates a foreseeable risk of harm to the traveling public.
- 4. If, upon inspection, a driveway or private road approach constructed or reconstructed after the effective date of these rules is found to be in violation of these rules, the owner shall correct any deficiencies within a period of time not less than 30 days, specified in a notice of violation sent by certified mail to the owner. Dangerous or hazardous conditions shall be corrected immediately. If the owner fails to make the necessary corrections within the period of time stated in this notice, the Board or its agents may perform the necessary correction(s), with the costs incurred to be reimbursed to the Board by the Owner.

2.00 NON-RESIDENTIAL DRIVEWAY PERMITS:

2.01 AUTHORIZED AGENTS

Applications for commercial driveway and private road permits shall be acceptable from:

The property owner, the owner's authorized legal agent, engineer, general contractor or from a governmental agency. Contractors or others employed by a property owner or lessee shall not be considered as authorized applicants.

This above does not apply to residential driveways.

2.02 APPLICATIONS

Applications for driveway permits shall be submitted in the manner prescribed by and on appropriate forms supplied by the Permit Department. Applications shall be accompanied by plans of drawings containing the information required by Rule 2.03 of these rules which shall include design standards for all proposed driveways in conformance with the requirements of Part 3.00 of these rules. Proof of current hhomeowner's liability insurance must be provided at the property address of the proposed driveway location if the owner constructs the driveway, otherwise, proof of current liability insurance must be submitted for the contractor that constructs the driveway.

2.03 REQUIREMENTS ON PLANS OF PROPOSED (NON-RESIDENTIAL) DRIVEWAY OR PRIVATELY BUILD ROAD

All permits applications excluding residential driveways, shall be accompanied by two (2) sets of plans approved by the Engineering Department which shall include all of the following features:

- A. Drawing on proper sheet size (24" x 36" or 18" x 24") at a scale not greater than 1" = 50'
- B. Existing road pavement, ditches, Right-of-Way and property lines, road appurtenances, medians (if existing) and dimensions thereof, and driveways on adjacent property and on property opposite the frontage and names of the existing roads.
- C. Existing and proposed Right-of-Way.
- D. All buildings, both proposed and existing and all appurtenances to any business being conducted and dimensions thereof including a notation as to present or proposed use of the building.
- E. Topography (tree, etc.)
- F. Location Map
- G. Location Map showing watershed area.

- H. Permanent Bench Mark Elevation
- I. Contours (2' intervals)
- J. Design standards (in accordance to Part 3.00 of these rules) of all driveways, tapers and right turn and passing lanes to be constructed, reconstructed, relocated, surfaced, resurfaced, operated, used or maintained to include the following dimensions and features:
 - a. Widths of all driveways.
 - b. Radii of driveway returns and other points of curvature.
 - c. Driveway grades or profile view of driveway.
 - d. Angle of the driveway(s) relative to the roadway edge of pavement.
 - e. Dimensions of roadside control islands and other traffic islands adjacent to the road.
 - f. Driveway surface material and traffic island surface material.
 - g. Sight distance for the approach.
- K. Distance from existing driveway(s) and proposed driveway(s) to the nearest intersecting street or crossroad dimensions, to property lines, buildings and business appurtenances.
- L. All roadside features, in addition to driveways, to be constructed within the Right-of-Way including roadside control island, curb, sidewalks, authorized traffic signs, and other roadside features such as manholes and poles.
- M. Existing and proposed drainage and control to include:
 - a. Size of drive culvert.
 - b. Type of culvert.
 - c. Type of culvert end treatment.
 - d. Grade of culvert.
 - e. Direction of surface water flow on and from adjacent property.
 - f. Drainage structures.
- N. North directional arrow and scale of drawing.
- O. Proposed street names on private roads.

2.04 CONDITIONS OF ISSUANCE OF DRIVEWAY PERMITS

All driveway permits issued in accordance with these rules shall be subject to the following conditions and limitations:

- 1. The Permit Department shall reserve the right of inspection by its authorized representatives of any driveway constructed within road Right-of-Way and the Permit Holder shall reimburse the Sanilac County Road Commission for the services of any on-the-job inspection, which may be required.
- 2. The Permit Department or its representative shall be given at least 48 hours notice (excluding Saturday, Sunday and holidays) notice prior to the commencement of any operation covered by the permit.
- 3. The Permit Holder shall have a copy of the permit available at the site during the construction.

- 4. The Permit Holder shall take, provide and maintain all necessary precautions to prevent injury or damage to persons and property from operations covered by the permit and shall use warning signs and safety devices which are in accordance with the current Michigan Manual of Uniform Traffic Control Devices.
- 5. The Permit Holder shall surrender the permit, cease operation and surrender all rights thereunder, whenever notified to do so by the Permit Department because of its need for the area covered by the permit or because of a default of any condition of the permit.
- 6. Altered natural drainage shall not be permitted to flow onto road Right-of-Way unless special provisions are approved by the Permit Department.
- 7. The Permit Holder shall remove all surplus materials to an area outside of the limits of the Right-of-Way unless the permit provides the manner of the disposal at locations within the Right-of-Way. Excavated material shall not be stockpiled so as to adversely affect safety of the traveling public.
- 8. All work authorized by the permit shall be completed to the satisfaction of the Permit Department on or before the completion date specified in the permit. Any request for an extension of time for the completion of work authorized by permit shall include reasons for request. Approval of extension of time shall be bases on extenuating circumstances indicated no neglect on the part of the Permit Holder. Additional requirements may be imposed as a condition of extension of time due to seasonal limitations and other circumstances.
- 9. There may be situations on particular roads necessitating the allocation of additional road Right-of-Way for the safe movement of vehicular traffic, resulting from the construction of a drive approach. This additional Right-of-Way shall be conveyed to the Sanilac County Road Commission prior to issuance of the permit.
- 10. The property owner or the owner's agent shall maintain all driveways set forth in the permit.

3.00 DRIVEWAY DESIGN STANDARDS:

3.01 DRIVEWAY LOCATIONS

- 1. Driveways shall be located to provide the required sight distance, the most favorable grade, and so that no due interference with free movement of road traffic will result.
- 2. Driveways, including the radii but not including right turn lanes, passing lanes and tapers, shall be located entirely within the permit applicant's frontage. Encroachment of curb and radii on adjacent frontage shall be permitted only upon written certification from adjacent property owners agreeing to such encroachment and/or when the Permit Department has determined that such an encroachment is necessary to preserve the safety of the road.

- 3. If the driveway is to be located adjacent to an intersection, the point of curvature of the driveway radius shall be at least 77 feet from the centerline of the intersecting road and at least 17 feet from the future proposed Right-of-Way line, whichever distance is greater. The driveway radius shall not encroach on an intersection radius unless such encroachment is physically unavoidable.
- 4. Driveways shall not be constructed along the acceleration or deceleration lanes and tapers unless no other reasonable access point is available.

3.02 CLEAR VISION AREA, BUFFER AREAS AND SIGHT DISTANCE

- At intersections or railroad crossings where the Sanilac County Road Commission
 controls limited access Right-of-Way to provide a clear vision area, no driveway shall
 enter or cross any part of the clear vision area. Where the Sanilac County Road
 Commission has an easement for a clear vision area at an intersection or railroad
 crossing, driveways shall not be permitted through the clear vision area if another
 reasonable access point is available.
- 2. Adjacent to driveways, a buffer area between the Right-of-Way line and the pavement edge shall be used, as physical barrier between moving traffic and private property. A buffer area is needed to provide an unobstructed vision area and to physically prohibit potentially hazardous movement of vehicles (especially at undesirable angles of approach) from and to the road. To permanently establish this buffer area it shall consist of a lawn area, a low shrub area, a ditch or equivalent method. Where encroachment of parked vehicles takes place or may take place, the Permit Department may require this buffer area to be established by guardrail, guard posts, curb or equivalent method. In every case, an area of unobstructed vision shall be provided at either side of driveways. This may require the removal of trees, brush, earth embankments and other obstructions.
- 3. A driveway shall be so located that no undue interference with the free movement of highway traffic will result. A drive shall be so located also to provide the most favorable vision and grade conditions possible for motorists using the highway and the driveway consistent with development of the site considering proper traffic operations and safety.

Sight distance will be determined in accordance with the current AASHTO Design Policy. Sight distance will be measured from an eye height of 3.5 feet at a point 10 feet from the edge of the traveled portion of gravel roads or 15 feet from the edge of pavement on paved roads, to an object height of 4.25 feet on the roadway.

a. Minimum sight distance for commercial, residential, and private road approaches will be in accordance with the following table:

SPEED LIMIT, M.P.H.	MINIMUM SIGHT DISTANCE
25	260
30	310
35	360
40	415
45	465
50	515
55	580

If the proposed driveway can not meet the above-mentioned sight distance requirements, the driveway permit application will only be granted pending approval by the County Engineer. The County Engineer will determine if the driveway location is in the best possible location, have an absolute minimum 400 feet sight distance or have at least 8 seconds of reaction time from the time the vehicle can be seen. The advisory speed signs per the County Engineer's recommendation.

3.03 COMMERCIAL DRIVEWAYS AND PRIVATE ROAD APPROACHES

- 1. The permit applications shall specify the driveway system requested, including the number and type (Two-way, One-way, Divided, or Directional) of driveways. The Permit Department may approve the requested system or may require changes to promote safe driveway operation.
 - a. One driveway may be permitted for each separately owned parcel with less than 100 feet of frontage, provided that the parcel is wide enough for the minimum driveway width plus the required radii.
 - b. Additional driveways may be permitted for the commercial property with more than 100 feet of frontage provided that the sum of the driveway widths of these additional does not exceed 15 percent of the frontage in excess of the first 100 feet and further provided that the above traffic volume, safety and operational considerations are met.
 - c. Two commercial driveways may be permitted in lieu of the above, to serve as a circle drive if the frontage is 125 feet or more.
 - d. Commercial driveways on the same property must be at least 70 feet apart, center to center.
- 2. The permit applicant is strongly encouraged to consider the benefits of auxiliary left-turn passing. These additional lanes, located at the driveway, will enhance the accessibility, safety and image of the proposed development. Traffic volumes may warrant the prohibition of left turns at driveways on two-way, two-lane road without passing lanes.

3.04 RESIDENTIAL DRIVEWAYS, UTILITY STRUCTURE DRIVEWAYS AND FIELD ENTRANCES

- 1. The number of residential driveways that may be permitted shall be determined as follows:
 - a. One residential driveway shall be permitted for each platted lot or unplatted residential property with less than 100 feet of frontage.
 - b. Additional residential driveways may be permitted for residential property with more than 100 feet of frontage, provided that the sum of the driveway widths of these additional does not exceed 15 percent of the frontage in excess of the first 100 feet.
 - c. Two residential driveways may be permitted on the same property, in lieu of the above, to serve as a circle driveway if the frontage is 80 feet or more.
 - d. The dimensions for residential driveways shall conform to those given in Table 2 or Table 3.
- 2. Field Entrances may be permitted for cultivated land, timber land or undeveloped land. The dimensions of a field entrance and of the Utility Structure driveway shall conform to those given in Table 4.

3.05 SURFACING AND CURBING

- 1. Commercial driveways and private road approaches in the public Right-of-Way adjacent to paved public roads shall be paved to the end of the larger radius (point "b" in Table 1). If the road is uncurbed, the curb ending adjacent to the road shall be located at least 10 feet from the road edge of pavement and shall be parallel to the road.
- 2. When the road is unpaved:
 - a. Commercial, residential driveways and private road approaches may be surfaced with stabilized gravel. Gravel on private road approaches shall have an 8 inch sand sub base, when proper ditching is available to prevent bathtub conditions. If this is not the case, County Engineer's approval is required.
 - b. If driveways are paved, the paving shall extend no closer to the road than five feet from the edge of the road.
- 3. Field Entrances and Utility Structure driveways may be surfaced with stabilized gravel and may be uncurbed. In certain locations, paving and curbing may be required on Utility Structure driveways.
- 4. The surface of paved commercial driveways and private roads including tapers without right turn lanes shall be concrete or asphalt surfacing material. The structural pavement section shall be sufficient to provide the bearing capacity needed to carry the proposed traffic loads. Either of the following pavement sections should be acceptable for normal commercial driveway traffic loads over stable soil:
 - a. Three inches (330 pounds per square yard) of bituminous mix on 6 inches of compacted 22-A gravel and 8 inches of sand sub base.
 - b. Seven inches of concrete over 8 inches of sand sub base.

If this is not the case, County Engineer approval is required.

Residential drives shall be paved with three (3) inches (330 pounds per square yard) bituminous mix on five (5) inches of compacted gravel or five (5) inches of concrete over existing ground within the public road Right-of-Way.

- 5. The pavement of all additional lanes and accompanying tapers shall be the same material as pavement of the road unless the Permit Department allows the use of an equivalent pavement. The cross-slope of all additional lanes and all tapers shall be a continuation of the cross-slope of the existing road pavement unless other wise specified by the Permit Department.
- 6. The surface of the road shoulder adjacent to all additional lanes and tapers shall be of the same material as the surface of the road shoulder and conform to the current Michigan Department of Transportation Standard Specifications for Road and Bridge Construction.
- 7. Curbing shall either be the same detail as the existing curb or shall conform to the current Michigan Department of Transportation specifications for the types and details specified by the Permit Department.

3.06 DRAINAGE AND PROFILE

- 1. The driveway shall be constructed so that the drainage is not adversely affected by the driveway. The drainage and stability of the road sub grade will not be altered by driveway construction or roadside development.
- 2. Drainage from adjacent parking or storage areas on private property in excess of assumed agricultural runoff shall not be discharged directly into the road drainage system.
- 3. All culvert pipe used shall be of a size adequate to carry the anticipated natural flow of the ditch; the culvert shall be no smaller than the size determined by the Permit Department nor shall it be less than 12 inches inside diameter. All culverts, catch basins, drainage channels and other drainage structures required within the road Right-of-Way shall be manufactured or constructed and installed in accordance with the current Michigan Department of Transportation Standard Specifications for Road and Bridge Construction or to Road Commission Standards as directed by Engineering. The minimum length of the culvert may be determined as the sum of the driveway width at the culvert and the distance needed to provide slopes on both sides of the driveway, maximum slope of 1 on 3. The use of headwalls on culvert ends will not be permitted. The use of sloped end sections is encouraged.
- 4. The driveway profile shall be determined using the following criteria:
 - a. If road is uncurbed, the grade of the driveway between the road edge of the pavement and the edge of the shoulder shall conform to the slope of the shoulder.

b. The elevation of two-way, one-way and divided commercial driveways shall be within six inches of the edge of pavement grade at a point 25 feet from the edge of pavement. At a point 75 feet from the edge of pavement the elevation shall be within 4.5 feet of the edge of pavement grade.

4.00 SUPPLEMENTAL SPECIFICATIONS – DRIVEWAYS AND PRIVATE APPROACHES:

4.01 Excavation

- 1. All organic material, topsoil and other unsuitable materials shall be removed and, where necessary, replaced with sound earth material compacted in place.
- 2. All surplus excavated material shall be stored outside of the County road Right-of-Way.
- 3. Surplus and unsuitable materials shall be disposed of in areas other than the county road Right-of-Way and if placed in areas adjacent to the road, it shall be leveled so as not to alter the existing drainage courses.

4.02 DRAINAGE

- 1. The Permit Holder shall maintain all existing road drainage. If necessary the Permit Holder shall relocate existing ditches, extend existing culverts, abandon, adjust and/or alter existing drainage systems as directed by the County Engineer.
- 2. Where the situation warrants it, the Permit Holder shall install an enclosed drainage system. If significant increased runoff is going to occur into road drainage facilities, the Permit Holder may be required to construct separate or additional drainage. The size of storm sewer, the size and location of structures and the installation or extending of edge drainage shall be subject to approval by the County Engineer.
- 3. Inlets, catch basins and manholes must conform to Michigan Department of Transportation current Standard or as approved by County Engineer.
 - a. Inlets: Only one inlet is allowed per sewer run and it must outlet into a manhole or catch basin with a sump. The total depth of the inlet structure cannot exceed 6 feet
 - b. Manholes: Are to be used at intermediate cleanout points or at points where the pipe makes a change in alignment. It must have a sump if an inlet outlets into it. A structure must be placed at least every 350 feet on a run for cleanout purposes.

4. Ditches

a. When it is necessary for the Permit Holder to relocate a ditch, changes in horizontal alignment shall be gradual enough that the side slopes of the ditch will not erode. Any ditch slopes greater than a 1 on 3 slope shall be protected with either sod or mulch blanket as directed by the County Engineer.

b. If a ditch cannot be constructed, the Permit Holder will be required to install a curb with an enclosed drainage system with catch basins located a maximum of every 350 feet or as directed by the County Engineer.

4.03 BACKFILLING AND COMPACTION OF BACKFILL

- 1. All trenches, holes, pits and other excavations shall be filled with sound earth (except peat, marl, blue clay, topsoil, frost heave and similar materials) or with sand-gravel if so provided, placed in successive layers not more than 9 inches in depth, loose measure, and each layer shall be thoroughly compacted by tamping. All backfill outside of the roadbed shall be compacted sufficiently to prevent future settlement. "Mounding" over excavations to allow for future settlement will not be permitted. If settlement does occur, the required material be brought in to fill the settled area.
- 2. All under drain systems which are disturbed shall be rebuilt using new material and in a manner that completely restores the function of the drain system.

4.04 CURB CUTS

- 1. The curb or curb and gutter shall be removed to the nearest joint and replaced with the appropriate curb or curb and gutter.
- 2. Horizontal sawing to remove the top portion of the concrete curb may be permitted provided approved equipment is used.

4.05 SURFACE

1. Concrete Pavement

- a. All concrete shall be M.D.O.T. grade 35p concrete or an approved equivalent. All concrete shall be supplied from an approved source. The Permit Holder will be required to provide proof of certification of concrete used within the Sanilac County Road Commission Right-of-Way.
- b. Concrete pavement shall be cured by use of a membrane curing compound or other approved method.
- c. An expansion joint shall be placed at the right-of-way line on concrete approaches.

2. Asphalt Pavement

a. All asphalt paving contractors working within the Sanilac County Road Commission Right-of-Way shall provide proof of current liability insurance. The Permit Holder will be required to have certification of materials used within the Right-of-Way.

- b. When the approved plans require 3 inches of M.D.O.T. graded 1100T/L asphalt over 6 inches of 22A gravel, the asphalt shall be placed in two courses unless otherwise approved. The 22A gravel shall be compacted to 98% density.
- c. When the plans call out for 8 inches of sand sub base, M.D.O.T. standard specification for granular material, Class II, shall be used.

3. Gravel Approaches

All gravel approaches shall be constructed with a minimum of 6 inches of 22A processed gravel or equivalent. Gravel private roads approaches shall have an 8 inch sand sub base per M.D.O.T. standard specification for granular material, Class II.

4.06 GRADES

1. The following are standard rates of various surfaces. When possible, these grades should be used as a guide, however, the Permit Holder should determine if these grades are applicable for his/her own specific situation.

a.	Concrete or Asphalt Pavement	.02 foot per foot
b.	Gravel Roads	.03 foot per foot
c.	Gravel Shoulders	.05 foot per foot
d.	Sodded Area between Curb & Walk	.05 foot per foot
e.	Sidewalk	.02 foot per foot

4.07 SHOULDER RESTORATION

- 1. All shoulders which are removed shall be completed rebuilt with a minimum of 5 inches of 23A gravel. If the shoulders have a sub base, it shall also be restored. If the shoulders are contaminated with excavated material, the contaminated portion shall be removed and replaced with 23A gravel. The Permit Holder shall place any additional gravel necessary to restore the shoulders to the proper relative relationship with the road surface. Shoulder restorations shall be done immediately following the installation. When satisfactory progress is not being made on the shoulder restoration, the other work shall be suspended until the shoulder work has been caught up.
- 2. Widenings and passing lanes shall have a minimum of 2 foot shoulders.
- 3. If the shoulders cannot be installed because of right-of-way limitations, the Permit Holder shall install curb and an enclosed drainage system.

4.08 MATERIALS

All materials used in construction within the Right-of-Way must meet current M.D.O.T. specifications or Road Commission specifications for the type of work performed.

4.09 FINAL CLEANUP AND GRADING

- 1. All shrubs, bushes and trees which, in the opinion of the Engineer, impair adequate sight distance shall be removed by the Permit Holder.
- 2. The ditches shall be graded to drain properly.
- 3. The area between the shoulder or curb and the right-of-way line shall be fine graded, seeded and mulched or sodded as directed by the Permit Department.
- 4. Landscaping which will be detrimental to the proper sight distance or road drainage shall not be permitted.

4.10 NOTIFICATION

- 1. The Permit Holder must notify the Permit Department of the Sanilac County Road Commission at least 48 hours in advance as to when he/she intends to commence operations. Failure to provide the required notification shall result in an additional inspection charge of four (4) hours of inspection time to cover time lost in disruption of scheduling and other related costs incurred by the Permit Department.
- 2. Activities performed without proper inspection may be rejected. Where inspection and testing of the materials may be done after installation, all cost for this shall be borne by the Permit Holder. Where materials or installation procedures meet Sanilac County Road Commission specifications, they will be accepted following payment of all fees, if they do not meet specifications they will have to be replaced, removed or reconstructed.
- 3. The Permit Holder must notify the Sanilac County Road Commission by mail of the completion of the project and request in writing a final inspection for the release of the permit.

UTILITY, UNDERGROUND, DITCHING AND CONSTRUCTION PERMITS

5.01 PERMIT REQUIRED:

- Subsequent to the effective date of these rules, no person organization or Governmental unit shall undertake or conduct any of the following activities on or along county roads or within county Right-of-Way unless a permit to allow such activity shall have been obtained from the Sanilac County Road Commission Engineering Department.
 - a. Construct, reconstruct, relocate, repair any facilities (sewer, Water gas, electric, drains, telephone, cable TV, etc.)
- 2. No work shall be allowed within road Right of Way unless an approved Permit has been obtained from the Permit Department. The construction,

- maintenance or reconstruction of all facilities shall be as described in an approved permit and plans or drawings accompanying the permit.
- 3. The Road Commission Permit Department will issue permits after May 1st of each calendar year. All permits issued must have seeding completed by October 10th and clean up completed by November 1st of the same calendar year. Any permits not completed by November 1st must be renewed with the Road Commission.

5.02 AUTHORIZED APPLICANTS:

Applications for utility, underground and ditching permits shall be acceptable from:

The property owner, the owner's authorized legal agent, engineer, general contractor, governmental agencies, public utilities or corporations. Contractors or others employed by a property owner or lessee shall not be considered as authorized applicants.

5.03 APPLICATIONS FOR PERMIT:

Applications for driveway permits shall be submitted in the manner prescribed by and on appropriate forms supplied by the Permit Department. Applications shall be accompanied by plans of drawings containing the information required by Rule 7.04 of these rules.

5.04 PLAN REQUIREMENTS:

All permit applications shall be accompanied by three (3) sets of plans previously approved by the Permit Department which shall include all of the following features:

- 1. Drawing(s) on a proper size sheet (11" x 17" minimum to 24" x 36" maximum) at a reasonable scale for the proposed work not greater than 1" = 200'.
- 2. Existing road pavement, ditches, cross culverts and dimensions thereof.
- 3. Location of all existing utilities and driveways including surface type and diameter and length of culverts.
- 4. Show location of all proposed construction from right of way line and edge of road.
- 5. Location map (1" = 2,000").

6. Ditching plans must show watershed area, existing and proposed grades, ditch depth relative to roadway and calculations used in culvert sizing.

Variations to these procedures must be approved by the Road Commission Permit Department.

5.05 REQUESTS FOR FIELD CHANGES:

When unforeseen conditions are encountered in the field, changes may be approved by the Engineer, the Engineering Foreman or their designated representative as follows:

- 1. The utility companies authorized representative shall contact the Road Commission representative and request the specific change required.
- 2. The Road Commission representative will review the requested change as soon as conditions and workload will allow.
- 3. If the change is approved, it will be authorized in writing by the Road Commission representative. Verbal changes will not be allowed.
- 4. The utility company shall submit reviewed drawings showing the authorized changes within thirty (30) days of the completion of the project.
- 5. Should the contractor or the utility company elect to install the facility at the new location before approval, they will assume all risks should the new location not be approved. The fact that facilities have already been installed will have no bearing on the evaluation of the requested change. Any unauthorized work completed while the change is being reviewed shall immediately be removed and the disturbed area restored. Abandoning such unauthorized work will not be allowed.

5.06 POLICY FOR FIBER OPTIC CABLES:

Due to the repair cost and service disruption associated with fiber optic cables in the event of breakage, the following additional rules will be observed:

- 1. All provisions of the current rules for working in the right of way shall apply in addition to the following.
- 2. All fiber optic cables shall be installed between 28' and 33' from the center of the road right of way.
- 3. Installations shall be in straight lines in-so-far as possible, with deflections subject to approval in advance.
- 4. The cable shall be a minimum of 30" below the surface of the ground and a minimum of 30" below the existing roadbed elevation regardless of location

- within the right of way (exceptions may be granted by the Engineer if special arrangements are made to minimize future delays and conflict.)
- 5. A marker post shall be installed at 500' intervals to clearly mark the location. Additional markers will be required at deflections.
- 6. A caution ribbon shall be installed with the cable. Caution ribbons must 12"-18" above the cable.
- 7. One set of Mylar maps shall be provided to the Road Commission showing location and depth at 500' intervals and at deflections.

6.0 SUPPLEMENTAL UTILITY PERMIT SPECIFICATIONS:

6.01 ROAD CROSSINGS:

- 1. All crossings of "County Primary" and paved roads will be done by approved methods other than the open-cut method unless otherwise approved by the Sanilac County Road Commission.
 - a. When there is tunneling under the road surface, the tunnel shall be adequately sheeted or shored to prevent the sides and top from collapsing and the pavement from settling or cracking.
 - b. When the pipe is installed by boring and jacking, the leading edge of the pipe shall proceed the auger by ½ times the diameter of the pipe. If the auger cannot be operated inside the utility pipe, a casing pipe will be required. A casing pipe may also be required at other times when deemed necessary by the Road Commission. Directional boring methods may not require casing. If directional boring is to be used, the Road Commission Permit Department will evaluate requirements on a case by case basis.

See Section 13 Item 13 for additional boring requirements.

- c. All shafts or pits shall be located at least 10 feet off the edge of pavement on major roads and 5 feet off the edge of pavement on subdivision roads. If the shaft or pit must be closer to the road than the above dimensions due to the location of the utility to be tapped, sheeting or shoring must be used on all sides of the excavation which are closer to the road than the above requirements. Backfill shall meet trench backfill requirements.
- d. All voids shall be filled by pressure grouting or other approved methods
- e. If any settlement or other change in grade occurs, the road shall be reconstructed to proper grade.

- 2. If the Road Commission approves crossing the road by the open cut method, the provisions for handling traffic will be as directed by the Road Commission. All expenses shall be borne by the Permit Holder
 - a. No road will be closed without prior approval of the Road
 Commission. Approval of road closures will usually require that
 detours be installed in accordance with section 9.05, Maintaining
 Traffic, Detours. Requests for road closures must be made in writing
 and include the location, length of time the road will be closed,
 approximate starting and completion dates and reasons for the request.
 - b. If a road closure is not approved, traffic shall be maintained at all times. Sheeting may be required to protect the road if conditions warrant sheeting. The road surface may not be used for the storage of materials or any other construction purpose without prior approve of the Road Commission. Depending on traffic volumes and other conditions, the Road Commission may require the Permit Holder to provide bypass lanes (either paved or unpaved), may allow one-lane traffic properly controlled, or some combination of the two. Traffic control shall be in accordance with Section 9.04, Maintaining Traffic, Partial Closures.
 - c. Open-cut crossings shall be made during off-peak traffic hours, normally between the hours of 9:00 AM and 3:00 PM unless otherwise approved and/or directed by the Road Commission.

6.02 PAVEMENT REMOVAL:

- 1. All utility trenches crossing major roads by the open-cut method shall remove the pavement to a minimum width of 5 feet and at least 1 foot wider on each side than the trench.
- 2. If the pavement is concrete, the remaining slab shall have a width of at least 5 feet from the patch to an existing joint. The cutting of the pavement shall be made by sawing to a minimum depth of 5 inches. Cuts in concrete residential and commercial drives shall be as above except that the patch width shall be a minimum of 3 feet and the remaining slab width from the patch to the existing joint shall be a minimum of 3 feet.
- 3. If the pavement is asphalt, the pavement shall be cut by sawing unless otherwise approved.
- 4. All saw cuts shall be made in a straight line and shall be parallel to existing transverse and longitudinal joints unless otherwise approved.

6.03 BACKFULL AND COMPACTION OF BACKFILL:

All backfill shall be in accordance with the following:

1. General Requirements:

- a. Compaction shall be accomplished by suitable mechanical compaction equipment and methods approved by the Sanilac County Road Commission.
- b. Where Sand-Gravel material is approved, it shall meet the following: Sand-gravel backfill material shall consist of approved bank-run sand or gravel or an approved mixture of sand with gravel or stone. All of the material shall be of such size that it will pass through a screen having a 2 ½ inch square opening, unless otherwise authorized.
- c. When granular material is not specified, excavated material capable of meeting the compaction requirements may be used. Peat, muck marl and blue clay are not acceptable materials and shall not be used.
- d. Frozen Materials of any type shall not be used.
- 2. Requirements based on trench locations:

Trench Location

- a. Within roadbed or under concrete or asphalt sidewalks, driveways or parking areas.
- b. Outside the roadbed but within the zone of influence or under unpaved sidewalks, driveways or surfaced areas.
- c. Outside the roadbed and zone of influence, and not under sidewalks, driveways or surfaced areas.

Backfill Requirements

a. Granular material shall be used unless otherwise approved by the Engineer if the road is unpaved and is not expected to be paved within a few years, the use of excavated material capable of meeting compaction requirements will usually be approved by the Road Commission. The backfill shall be placed in layers of not more than nine inches of thickness. Each layer shall be compacted to not less than 95% of maximum unit weight.

- b. Excavated material may be used, proved that density requirements can be met. The backfill shall be placed in layers of not more than nine inches of thickness. Each layer shall be compacted to not less than 90% of maximum unit weight. If required compaction cannot be obtained, granular material will be required.
- c. Suitable excavated material may be used. The backfill shall be placed in layers of not more than one foot in thickness. Each layer shall be thoroughly compacted.
- 3. All under drain systems which are disturbed shall be rebuilt in a manner that completely restores their function.
- 4. The Permit Holder shall supply sufficient density tests from an approved independent testing laboratory to assure the Sanilac County Road Commission that compaction requirements are being accomplished.

6.04 PAVEMENT REPLACEMENT:

- 1. All pavement removed in crossing and/or paralleling paved County Road shall be temporarily replaced by the Permit Holder in accordance with the following:
 - a. From May 1, * through October 31, * a minimum of 3 inches compacted thickness of hot mixed bituminous pavement (1100T) over 8 inches of compacted 22A gravel.
 - b. From November 1, * through April 30, * when hot mixed bituminous material is not normally available a minimum of 3 inches compacted cold patch asphalt over 8 inches of compacted 22A gravel. If conditions warrant, the Road Commission may require that the cold patch material be removed and be replaced with a temporary hot mixed bituminous pavement when it becomes available.
 - c. * The dates shown herein are approximate only. If hot mixed bituminous material is reasonably available between November 1 and April 30, it shall be used.
 - d. Temporary pavements must be placed immediately after utility installation in the crossing of main roads and within five days after crossing on subdivision streets. Failure to do so shall be just cause for either the temporary or permanent suspension of the Permit Holder's permit. Temporary pavements may be placed in accordance with the requirements of paragraphs B & C below as permanent pavement,

- subject to acceptance by the Sanilac County Road Commission at the time of final inspection.
- e. All temporary pavements must be maintained in good condition by the Permit Holder until the final pavement replacement is made.
- 2. Final pavement replacement shall be made within the first paving season (May 1 through October 31) following construction of the utility providing suitable settlement has taken place over a period of a least four months, unless otherwise directed in writing by the Road Commission. Utility bituminous overlay patches shall be a minimum thickness of 1½ inches of 1100 T Bituminous Aggregate Pavement, placed over the road (or section thereof) after replacing the damaged asphalt in specifications. The permit holder will be required to taper small utility patch overlays 1 foot beyond the joint. For large utility patches, the final area of the pavement to be replaced and/or capped shall be determined by the Road Commission. The final repaying shall be done by a paving contractor in accordance with the currently Sanilac County Road Commission standards. The name of the proposed paving contractor and a list of his equipment and source of materials that will be used during his/her pavement replacement shall be submitted in writing to the Road Commission and approved in writing by the Road Commission before pavement replacement is started. The Road Commission must be notified two working days before pavement replacement is started. All pavement damage due to the Permit Holder's operations shall be restored to the satisfaction of the Road Commission.
- 3. The final pavement replacement shall be the same type and thickness as existing pavement and in accordance with the following conditions:
 - a. Asphalt on a gravel base replace with a minimum of 3 inches of 1100T Bituminous Aggregate Pavement on a minimum of 8 inches of 22A gravel. Sub base to match existing sub base.
 - b. Asphalt on concrete sub base is to match existing sub base, concrete base shall be a minimum of 8 inches and the asphalt surface shall match existing asphalt surface with a minimum thickness of 2 inches of 1100T Bituminous Aggregate Pavement. When approved by the Road Commission, the pavement may be replaced with full-depth asphalt equal in thickness to the concrete base and asphalt cap, with a minimum thickness of 10 inches.
 - c. Concrete Pavement replace with concrete pavement of the same thickness and type as the existing pavement on a sand sub base equal to the existing sub base in thickness and compacted to 98% density. All concrete shall be M.D.O.T. Grade 35 p unless otherwise required by the Road Commission. High early or "extra" high early 9 sack with or without admixtures may be required.

4. Utility companies will not be allowed to remove recently constructed asphalt pavement on County roads until 2 years after the end of construction for resurfaced pavement and 5 years after the end of construction for reconstructed pavement. If emergency work in a recently constructed asphalt County road is required, the utility company shall resurface the road as determined by the County Engineer.

6.50 GRAVEL ROADS:

1. All trenches are to be backfilled with approved material within the limits of the roadbed. Immediately after the trench is backfilled and compacted, the affected portion of the road and ditches shall be rough graded to the appropriate gravel cross section indicated in these specifications and the affected portion of the road surface shall be stabilized with a minimum of 8 inches of compacted processed road gravel (M.D.O.T. 23A or approved equal). If road surface areas outside of the trench excavation are used for storage of construction materials or excavated materials, or are otherwise contaminated due to construction operations, a minimum of 2 inches of M.D.O.T. 23A road gravel shall be place over such contaminated areas immediately following construction. All excess construction materials, excavated materials and other contaminated materials shall be removed prior to the placement of gravel unless otherwise approved. The road surface shall be maintained in a good, smooth, dust free condition at all times and gravel of the type noted above shall be added if settlement occurs. Before final acceptance, the entire roadway shall be top dressed with 2 inches of compacted M.D.O.T. 23A road gravel.

6.51 SHOULDER RESTORATION:

Road shoulders will be restored to the same type, width and thickness as existed.

- 1. Gravel shoulders which are removed during construction are to be replaced with 5" of 23A gravel. If the shoulder has a sand sub base, it shall also be replaced.
- 2. Gravel shoulders which are not removed but are contaminated, rutted or otherwise destroyed shall be restored by removing the contaminated material and replacing it with 23A gravel to the original thickness and slope and flush with road surface. If the road is resurfaced, sufficient gravel shall be added to bring the shoulder up to the new surface elevation.
- 3. If the shoulders were grass covered, they shall be so restored to a stable condition. Where gravel existed under the grass, the finished shoulder shall have gravel under the grass.

6.52 MAINTENANCE & RESTORATION OF RIGHT-OF-WAY:

- 1. All road drainage shall be restored as soon as possible behind the utility construction. Ditches, ditch slopes and other areas within the Right-of-Way shall be restored to meet the current standards.
- 2. All culverts and ditch enclosures in good structural condition removed by the Permit Holder shall be relayed in the proper location. All culverts and ditch enclosures or section thereof which are not in good condition after removal, shall be replaced with pipe meeting current Road Commission Standards unless otherwise approved culverts and other drainage structures that are damaged but not removed during the Permit Holder's operations must be fully repaired to the satisfaction of the Road Commission or be replaced in accordance with current Road Commission Standards.
- 3. All areas within the road Right-of-Way outside the traveled portion of the road which are disturbed as the result of the Permit Holder's operations, must be restored as soon as possible during the first growing season. Restoration shall not be delayed until project completion. Failure to comply with this specification shall be just cause for the Road Commission to stop the remaining construction work until the required restoration is completed. The specified ground cover shall be maintained until final settlement has occurred and growth is established.
 - a. Sodding shall be required at all locations shown on the plans. Sodding may be advisable and/or necessary in areas where top soiling, seeding and mulching cannot reasonable be expected to provide the effective ground cover required because of steep slopes or grades, volumes of water or other conditions. Merion Blue grass shall not be used except where the abutting lawn area is Merion Blue grass. Sod placed in established lawns and/or areas indicated for sod on the plans shall be M.D.O.T. Class A sod. M.D.O.T. Class B sod shall be used in other locations. All sod shall be placed on 2 inches of topsoil.
 - b. Areas that are not to be sodded shall be top soiled, seeded and mulched. The seed shall be M.D.O.T. roadside seed mixture applied at a rate of 100 pounds per acre. Chemical fertilizer shall be applied at a rate of 240 pounds per acre of chemical fertilizer nutrients, in equal proportions of Nitrogen, Phosphoric Acid and Potash. Topsoil shall be placed 3 inches deep. Mulch shall be spread over the ground and held in place by a spray coating of asphalt emulsion.

6.53 GRADE OF TOP OF STRUCTURES:

The height of the top of structures shall be determined as follows:

- 1. If the structure falls within a paved road or other paved surface the cover shall be flush with the pavement on all sides.
- 2. If the structure falls within a gavel road or the unpaved shoulder of a paved road, the cover shall be 6 inches below the structure.
- 3. If the structure falls within a ditch, the cover shall be set at top of ditch elevation and the ditch shall be relocated around the structure and away from the road with a stable earth berm around the structure. Where called for on the plans or as directed by the Sanilac County Road Commission, a culvert shall be installed next to the structure and the ditch enclosed.
- 4. Any structure on the ditch slopes shall not protrude more than 6 inches above the slope.

6.54 DUST CONTROL:

The Permit Holder shall maintain his work area in a safe, dust free condition until he has completed all work in a given area, including the hauling of materials.

Dust control shall be provided on any unpaved detour, bypass and shoulder which is to be used by traffic. The use of oil for dust control will not be permitted unless approved by the Road Commission. Chloride shall not be used for dust control on paved streets.

6.55 TREES:

- 1. Permit Requirements.
 - a. The Permit Holder will be required to show on the construction plans or on separate sheets similar to the plans, the location, size and species of all trees which may be affected by the proposed construction in such a way as they are readily identifiable in the field. He must also indicate thereon which individual trees he proposes to remove, tunnel or trim. If a tree is to be trimmed, the type and extent of trimming must be indicated.
 - b. Before destroying or removing any tree larger than 4 inches in diameter located on the Right-of-Way which has not been indicated by plat, deed or recorded easement, the Permit Holder must give at least 10 days notice of his intent to destroy or remove any tree, by certified mail to the owner of record of the land where the tree is located. This notification applies to the area within the "assumed 33 foot Right of

Way" along either side of road centerline adjacent to unplatted property.

2. Disposal of Materials.

a. All stumps, limbs litter and logs are to be disposed outside of the road Right-of-Way. The abutting property owner has the right to the wood if they want it. Logs and major limbs may be cut into fireplace lengths and piled neatly in the Right-of-Way, at least 10 feet from the traveled road for removal by others. If, after two weeks, the wood has not been removed by others, the Permit Holder shall dispose of it. All Elm Wood and brush is to be disposed of burning, or other methods as approved by the Michigan Department of Agriculture.

3. Tunneling or Boring Under Trees

a. The tunnel or boring must be below the major root system and extend a distance of one (1) foot on either side of the tree for each two (2) inches of trunk diameter. All voids around the tunneled or bored facility shall be backfilled with excavated material and thoroughly compacted to avoid settlement. If the tree is severely damaged or dies within one year as a result of the tunneling or boring, the Permit Holder will be required to remove it and plant another tree in its place.

4. Replacement of Trees

a. As a condition of this permit, the Permit Holder will be required to replace trees on a 1 on 1 basis unless otherwise approved in writing by the Sanilac County Road Commission. Plans submitted with the application for the forestry permit shall show the species, size and planting location for each location for each replacement tree as well as the trees to be removed. Replacement trees shall be well formed sturdy stock of a size and variety approved by the Road Commission.

6.56 WEIGHT RESTRICTIONS:

- 1. Unless otherwise approved, state weight restrictions MVC Act 300, P.A. 1949, commonly defined as "Class B" weight restrictions will be in effect at all times, except on designated "Class A" roads and except during the period when reduced springtime weight restrictions are in effect.
- 2. If due to the high volume of trucking damage occurs to the roads, the Permit Holder must either enter into an agreement with the Sanilac County Road Commission to make appropriate repairs of the road or reduce loads carried on the road sufficiently to eliminate possible damage. The use of crawler

mounted equipment on road pavements shall not be permitted. Extended transportation permits for non-conforming loads of equipment may be issued upon request and application can be obtained at the Sanilac County Road Commission. See sections 18.00 and 19.00.

6.57 CONDUCT OF OPERATIONS:

Any Permit Holder who conducts his/her operations in a manner detrimental to the Road Commission's statutory obligation of maintaining roads and streets at all time in a safe and fit condition for the traveling public will be required to cease all operations within the Right-of-Way. If necessary, additional cash deposits and expense of maintaining a Road Commission inspector (full time) may be required from the Permit Holder before the resumption of work.

6.58 DISPOSAL OF WATER:

- 1. Any water disposed of by the Permit Holder or any other party in excess of normal agriculture run-off natural precipitation into the Sanilac County Road Commission road drainage system shall not be discharged directly or indirectly into the road Right-of-Way in such a manner as to create a hazardous condition to either pedestrian or vehicular traffic or to cause erosion, siltation or ponding which adversely affect the stability of the roadway or damages adjacent property. The out letting of waters into roadside ditches for extended periods of time will generally be unacceptable. The placement of discharge lkines on or across the surface of the traveled portion of any road will not be allowed without written permission from the Sanilac County Road Commission.
- 2. The Permit Holder agrees to do all necessary restoration of the road drainage system. If the Road Commission deems it necessary for the Permit Holder to either alter dewatering operations or to cease dewatering operations altogether for public safety, the Permit Holder shall locate all dewatering facilities as far from the road surface as possible. If, due to extenuating circumstances, these facilities are located closer to the road than the back slope of the ditch, a flashing light shall be required at each location.

6.59 VERTICAL CLEARANCE OF OVERHEAD UTILITIES:

1. Vertical clearance of wires, conductors, and cables over Sanilac County roadways and state trunk lines roadways for an un-loaded sag with no wind at 60 degrees F shall not be less than 18 feet. The vertical clearance of wires, conductors, and cables over these roadways for a loaded sag with ice at 32 degrees F shall not be less than 15ft. 6 inches.

6.60 DEPTH OF COVER FOR UNDERGROUND UTILITIES:

- 1. All utilities shall have a minimum cover of 30 inches below existing ground and 30 inches below the road surface regardless of location within the road right-of-way. Where approved plans require depth greater than 3 feet, the plan depth shall govern.
- 2. All utilities shall be 4 feet below existing cross culverts or conform to Illustration 2 for going around cross culverts.
- 3. Buried service leads must have a minimum cover of 18" below existing ground.

6.61 NUMBER OF ACTIVE CONTRACTS:

1. The Sanilac County Road Commission reserves the right to limit the number of permits issued to a contractor. The number of permits that can be issued to a contractor will be determined by the number of active contracts the contractor has and the available work force; normally this will be two permits. Failure of a contractor to comply with permit provisions on other active permits shall be just cause to delay issuance of additional permits.

6.62 STEEL PLATING:

1. Whenever small openings such as "window cuts" are made in a road pavement that must remain open to traffic during the time there is not work activity, they shall be covered with steel plates. The steel plates shall be of adequate size and thickness to support all legal axle loads and shall overlap existing pavement by at least one foot on all sides of the hole for trenches less than 6 feet deep an two feet on all side of the trench for trenches deeper than 6 feet. The following table shows the minimum size and thickness required for a range of hole sizes:

Hole area	Minimum Plate	Minimum Thickness
Up to 3' x 4'	5' x 6'	3/2"
Up to 4' x 6'	6' x 8'	3/4"
Up to 4' x 10'	6'x 12'	1"

2. Side by side plating may be used to cover cuts longer than 10 feet provided the abutting edges are supported by a steel beam of adequate strength, firmly supported on sound earth for at least one foot on each end. Steel plates shall be bedded in cold patch and held in position by bolts or pins at least 3 inches long. Cold patch ramps shall be used along all edges of the plates. Steel plates shall also be used to cover concrete patches during the curing period. Upon removal of the steel plates, all cold patch shall be removed from

pavement and disposed of outside the road Right-of-Way. The necessary steel plates must be on the job site before the pavement is removed.

6.63 STORAGE OF MATERIALS:

1. The Permit Holder shall store all materials far enough away from the road surface that they are not a hazard to the traveling public. The Permit Holder shall maintain sufficient clear areas on the shoulder that a car can park off the road in an emergency. Materials and equipment shall not block the vision of traffic seeking ingress onto the road. Only those materials that will be used by the Permit Holder in his immediate operations can be stored in the Right-of-Way. All other materials, equipment and trailers must be stored in a yard outside of the Right-of-Way.

6.64 MATERIALS:

1. All materials used in the Right-of-Way must meet MDOT or SCRC current specifications for the type of work performed.

6.65 EROSION CONTROL:

1. The Permit Holder shall conform to Act 347, P.A. of 1972 and Act 245, P.A. of 1929 in controlling erosion and sedimentation in the Sanilac County Road Commission Right-of-Way. Sodding, seeding and settling basins must be used to control erosion and sedimentation during and after construction.

7.0 MAINTAINING TRAFFIC AND TRAFFIC CONTROLS:

7.01 SIGNS AND SIGNING:

- All signs, sign support standards, barricades and traffic control devices
 necessary for the protection of traffic in accordance with Road Commission
 Standards shall be furnished by the Permit Holder. The Road Commission
 may furnish and erect temporary speed limit signs along the project. The
 Permit Holder shall relocate and maintain the temporary speed limit signs as
 directed by the Road Commission. All traffic control devices used shall
 conform to the Michigan Manual of Uniform Traffic Control Devices.
- 2. The Permit Holder shall not begin any operations in a given area until all construction signs are in place, auxiliary barricades erected and flasher lights attached to all required barricades. They shall be properly maintained and operated during the construction or maintenance activity. They shall be removed immediately following completion of the activity.

- 3. When necessary, traffic control signs and street name signs shall be removed, temporarily reset and maintained by the permit Holder. The traffic control signs shall be reset in locations where the regulations apply and continue to serve their intended purposes. The signs shall be mounted so as to be easily visible and legible to traffic.
- 4. Upon completion of the project, permanent traffic control signs and street name signs will be reset in their proper position by the Road Commission.
- 5. All signs erected or relocated by the Road Commission shall be at the expense of the Permit Holder. All erected and existing signs which are damaged during the course of construction will be charged to the Permit Holder at the rate of no less than \$100.00 for each sign. The Road Commission will inventory all signs at the beginning of a project and upon project completion before final acceptance is made.
- 6. Warning signs in construction areas shall have a black legend on an orange background. Color for other signs shall follow the standard for all highway signs. For speed limits of 40 MPH or less, 36" warning signs can be used. If the speed limit is 45 MPH or greater, 48" various signs used in construction areas.
- 7. At least one orange flag shall be placed at the top of all construction or maintenance signs. The flags are used to draw the attention of motorists.
- 8. All signs to be used during hours of darkness shall be reflector zed and require two flashers.
- 9. The bottom height of a sign should be 5' from the roadway's elevation and a minimum of 6' off the edge of pavement. In cases where pedestrian traffic may occur, the minimum sign height is to be 7' while the lateral placement may be a 2' minimum.
- 10. For short term activities where portable sign mountings are used, the minimum bottom sign height may be one foot.

7.02 BARRICADES:

- 1. Barricades should be one of three types shown in Illustration 2.
- 2. Markings for barricades shall be alternative orange and white strips at a 45 degree angle in the direction traffic is to pass. They are to be reflector zed for night use.

3. Steady burn lights are to be used on each barricade if used at night.

7.03 PARTIAL CLOSURE OF ROADS:

- 1. When partial closure of a road is approved by the Road Commission for purposes of open-cut crossings or construction within or immediately adjacent to the traveled portion of the road the following requirements shall apply:
 - a. All required signing shall be in place and bypass lanes, if required, shall be completed before the partial closure begins.
 - b. At all one-way traffic blocks which are 250 feet or less in length and where there are no visibility problems; one flagger will be required in the working area. The flagger shall be properly dressed and instructed in the use of traffic control equipment.
 - c. Where there are one-way traffic blocks over 250 feet in length or where there is a visibility problem, one flagger shall be required at each end of the working area. Additional flaggers may be required due to heavy traffic, intersections, etc., as determined by the Sanilac County Road Commission.
 - d. The flaggers shall devote full time to the control of traffic and shall not be used to assist in the construction operations. During the flagger's coffee breaks, lunch period, etc., another flagger must be assigned to perform his/her duties as long as the partial closure is in effect.
 - e. Where a flagger or flaggers are used, the "Flagman Ahead" sign (W13-2-36) shall be posted in advance of the flagger's station in accordance with the current Road Commission requirements.
 - f. After working hours, signs which are not appropriate shall be covered or removed so that motorists shall not be confused.
 - g. When a partial closure must remain in effect overnight, proper lighting will be required.
 - h. The Road Commission reserves the right to require that the Permit Holder cease operations and restore the road to full use during the periods of peak traffic volume. The County Highway Engineer shall direct when conditions warrant this requirement.

7.04 DETOURS:

- No road or street will be closed to through traffic without specific permission
 of the Sanilac County Road Commission. Requests for permission to close a
 road or street will be made in writing by the applicant or by the Permit Holder.
 The Road Commission will determine the necessity of a posted detour. Local
 traffic must be maintained at all times.
 - a. Signing for all approved detours will be installed by the Permit Holder unless other arrangements are made with the Road Commission in advance. The Engineer may agree to install such signing at the expense of the Permit Holder when the Road Commission sign crew's work load will allow. The Permit Holder must give the Road Commission at least two weeks advance notice, not including Saturdays, Sundays or Holidays for all detours.
 - b. The Permit Holder shall be responsible for notifying all concerned parties, such as police and fire departments, school officials, etc., when the detour will be in effect. Upon completion of the use of the detour, the Permit Holder shall notify the same concerned parties that the road has been reopened and that the detour is no longer in effect.
 - c. If, if in the opinion of the Road Commission, the road or roads over which the detour will be routed cannot reasonably be expected to handle the resulting increased traffic, it will be the responsibility of the Permit Holder to make necessary improvements to handle the increased traffic prior to the posting of the detour, and to maintain the route in the improved condition as directed by the Road Commission during the life of the detour. If conditions warrant, the Road Commission may require additional improvements during the use of the detour.
 - d. Upon completion of use of the detour and reopening of the closed road a final inspection of the detour route will be made. Any damage as a result of the detours use must be repaired prior to release of the Permit Holder responsibility or bond.