

**THE CORPORATION OF THE  
TOWNSHIP OF EAST ZORRA-TAVISTOCK**

**COUNTY OF OXFORD**

**BY-LAW #2011 - 2**

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**BEING A BY-LAW TO ADOPT A ROADS & PUBLIC  
WORKS - LEVEL OF SERVICE OBJECTIVES**

**WHEREAS** the Municipal Act, 2001, S.O. 2001, c. 25, gives a municipal corporation the powers of a natural person;

**AND WHEREAS** Section 44(1) of the Municipal Act, 2001 provides that "The municipality that has jurisdiction over a highway or bridge shall keep it in a state of repair that is reasonable in the circumstances, including the character and location of the highway or bridge."

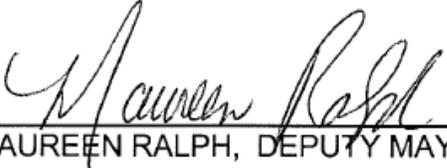
**AND WHEREAS** the Province of Ontario has established a Minimum Maintenance Standard by way of Regulation 239/02, as amended, under the Municipal Act, 2001;

**AND WHEREAS** Council deems it appropriate and necessary to establish a Roads & Public Works - Level of Service Objectives document that is consistent with and incorporates the provisions of the Minimum Maintenance Standards, while at the same time providing guidance on areas not identified in the Minimum Maintenance Standards;

**NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF EAST ZORRA-TAVISTOCK ENACTS AS FOLLOWS:**

1. That Council adopt the "Roads & Public Works - Level of Service Objectives" attached hereto as Schedule "A".

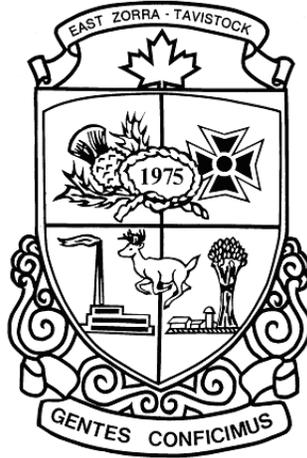
**READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED THIS 5<sup>th</sup> DAY OF JANUARY, 2011.**

  
MAUREEN RALPH, DEPUTY MAYOR

seal

  
BRENDA JUNKER, CLERK

# Township of East Zorra-Tavistock



## Roads & Public Works Level of Service Objectives

**Adopted January 5, 2011**

*Replaces*

*By-law #2004-18 adopted April 7, 2004 and,*

*Amended by By-law #2005-12*

*Amended by By-law #2008-49*

*Amended by By-law #2009-40*

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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# **Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives**

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## **Preamble**

This document outlines the level of service objectives the Township Roads & Public Works Department provides for the identified activities.

The following level of service objectives meet and/or exceeds the Minimum Maintenance Standards established by the Province of Ontario by way of Regulation 239/02 under the Municipal Act, 2001, as amended from time to time.

The Minimum Maintenance Standards may provide a legal defence against a claim arising from one of the 15 areas identified in the Minimum Maintenance Standards. Adoption of policies in other areas in the Level of Service document does not provide the same legal defence as established by Regulation 239/02: however, adopting a clear, workable Level of Service Policy for other Roads & Public Works activities will provide clear direction to staff and the public as to the Township's level of service.

The Roads/Public Works Manager shall be the primary person responsible for implementation and administration of these objectives.

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Section #1 - Hard Top Maintenance**

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Bituminous/Surface Treated Surfaces**

The major objectives for maintaining Bituminous Surfaces are:

- to provide a smooth, safe riding surface
- to eliminate hazards to vehicular traffic
- to protect the investment in the road surface

The level of service objectives are:

- cracks wider than 5 cm shall be repaired within 60 days
- depressions or bumps greater than 5 cm over a distance of 3 metres or more shall be corrected
- bumps or depressions exceeding 8 cm occurring at bridge approaches, catch basins, manholes, etc. shall be corrected as soon as practicable
- ruts or corrugations greater than 5 cm deep in the wheel path shall be corrected within 21 days

(during normal maintenance procedures and within the budget allowance for that particular item under the direction of the Public Works Manager)

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Street Cleaning**

The major objectives for cleaning streets are:

- to reduce environmental impact on natural waterways
- to prevent damage to pedestrians, property and vehicles caused by loose objects being thrown up by traffic
- to reduce the obscuring of pavement markings and to prolong the life of these markings
- to prevent the clogging of sewers
- to enhance the appearance of the community

The level of service objectives are:

**Spring Clean Up**

Spring clean up shall take place between March 15<sup>th</sup> and May 1<sup>st</sup>

**Residential Streets**

Curb and Gutter sections shall be cleaned mechanically twice generally between March 15<sup>th</sup> and November 30<sup>th</sup>

Non-curb and gutter sections cleaned at discretion of Public Works Manager

**Municipal Parking Lots**

Shall be cleaned manually twice per year, between April 1<sup>st</sup> and November 1<sup>st</sup>

Note: sweepings will be deposited at an appropriate site

## **Gravel Shoulders**

The major objective for maintaining gravel shoulders is:

- to maintain a smooth, safe shoulder that is relatively free from defects
- to safely accommodate emergency stopping of vehicles
- to provide lateral support of base and surface courses
- to prevent ponding of water on travelled portion of roadway thereby reducing the causes of surface defects

The level of service objectives are:

- persistently soft or wet areas of shoulder shall be repaired late in the spring when placing a subdrain is possible
- water shall not be allowed to run along shoulders during periods of runoff where adequate ditches exist
- rocks and debris shall be removed
- correct crossfall shall be maintained on all shoulder (minimum 4 %)
- shoulder dropoff exceeding 5 cm over a distance of 10 m shall be repaired within 7 days
- ruts in shoulders exceeding 8 cm shall be repaired within 7 days
- gravel windrow at pavement edge, outside shoulder edge or under guide rail shall be eliminated
- shoulder washouts caused by heavy rainfall shall be barricaded and repaired as soon as practical
- routine grading of gravel shoulder shall be concentrated in the spring and fall of each year to correct shoulder defects and control vegetation
- spot grading between spring and fall periods shall be limited to during or after a rain when moisture is present
- gravel will be added when there is not sufficient material to properly grade the shoulder.

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Shoulders and Road Wash Outs**

The major objective for maintaining shoulder and road wash outs is:

- to repair roads and road shoulders where failures can be attributed to flooding
- to maintain a smooth, safe road and road shoulder that is relatively safe from shoulder drop off
- to safely accommodate the emergency stopping of vehicles

The level of service objectives are:

- to be repaired as soon as practicable after a sudden thaw or heavy rainfall
- signs and barricades must be placed as soon as possible after notification if repairs cannot be done immediately
- reason for wash out to be corrected or, if problem is complex, report to Public Works Manager
- material that is being used will be at the discretion of the Public Works Manager
- anything from 2 " clear stone – pit run – to 5/8 crushed is acceptable

**Section #2 - Loose Top Maintenance**

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Patching Gravel Surfaces and Wash Outs**

The major objectives for patching gravel surfaces and wash outs are:

- to provide a smooth, safe riding surface, free from defects
- to eliminate hazards to vehicular traffic
- to protect the investment in the road surface

The level of service objectives are:

- gravel shall be added to restore sections of a gravel road when there is a general loss of surface material resulting in frequent breaks in the crust or extensive potting in a local area
- gravel patch shall be performed in the Spring or Fall when road is pliable and bonding is good
- wash outs shall be repaired as soon as practicable, after having been made aware of the problem, using Granular "A" material. If the wash out is extensive, more that 12" deep and requires more than one load of granular, Granular "B" material can be used first
- the road should be graded out as soon as possible
- if required barricades or pylons must be erected as soon as possible

## **Grading Gravel Surfaces**

The major objectives for grading gravel surfaces are:

- to provide a smooth, safe riding surface
- to eliminate hazards to vehicular traffic
- to protect the investment in the road surface

The level of service objectives are:

- the causes of water lying on the surface or running across the surface shall be corrected
- soft wet areas shall be repaired late in the spring when subdrains can be installed
- rocks greater than 8 cm in diameter heaved to the surface by frost action or grading shall be removed
- a crown with a crossfall of approximately 4% measured from the centre line to the edge of the road shall be maintained
- gravel windrows at the outside edge shall be removed
- grading of roads shall be performed in the Spring and Fall. Summer grading to be performed only if the road deteriorates quickly and moisture is supplied either by rain or water truck

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Dust Laying – Contract and Bags**

The major objectives for dust laying are:

- to protect the health and safety of the public by controlling dust on gravelled roads
- to protect the investment in a loose top road by consolidating the granular material
- to enhance the appearance of the municipality by reducing air borne granular particles

The level of service objectives are:

- liquid dust suppressant shall be applied once only in the late spring to gravel roads
- water shall be applied to surface prior to application if dry weather persists
- roads will be fine graded immediately before dust suppressant application
- rate of application between 2 ½ to 6 tonnes per mile, as per road section map
- Public Works Manager or designate shall test by a hydrometer, the specific gravity of the product and compare to Temperature Gravity Chart, and have suppressant applied to the roads according to the predetermined quantities shown on a road section map for that year

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Gravel Resurfacing Contract**

The major objectives for a gravel resurfacing contract is:

- to add gravel to gravel roads so that proper grading operations can maintain a smooth, safe riding surface, free from defects. This supposedly compensates for the loss of fines and subsequent loss of stones due to traffic in that year, and helps keep a crown in the road
- Required every other year at present

Method:

- by contract – using amounts shown on road section map compiled each year
- all gravel will be levelled by grader when applied

Note:

- All material is to be weighed.
- No material is to be accepted without the signature of a Township road employee who has verified shipment.
- This same employee is to place gravel according to predetermined quantities, as per road section map for that year.
- Gravel test are to be taken, by sieve analysis for Granular "A" and compared to an MTO chart grade system.

**Section #3 - Roadside Maintenance**

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Grass Control**

The major objectives for grass control are:

- to improve vision
- to improve the general appearance of the roadside
- to reduce the need for weed and brush control
- to reduce the effort required to maintain roadside ditches and shoulders

The level of service objectives are:

- areas sprayed for weeds shall not be mowed until at least 5 days after spraying
- the average effective growing season for this area is from about May 1<sup>st</sup> to September 7<sup>th</sup>. Therefore the earliest mowing should be planned to begin about May 15<sup>th</sup> and the last mowing planned to end about October 15<sup>th</sup>
- this level of service normally requires 2 mowing per summer season
- all intersections to be cut back for maximum visibility where possible
- all roads to receive 2 passes per cutting where possible

# Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives

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## Weed, Brush and Tree Control

The major objectives for weed, brush and tree control is:

- to prevent the spread of noxious weeds onto adjacent properties
- to maintain correct sight distances
- to reduce or eliminate drifting snow conditions
- to conform to the Weed Control Act
- to eliminate dangerous trees
- to ensure safety to the public by removing dead limbs and trees

The level of service objectives are:

For Weed Control

- noxious weed patches shall not be allowed to mature or spread to adjacent properties
- rural roadsides, where weeds are not controlled by mowing, shall be sprayed between May 1<sup>st</sup> and July 15<sup>th</sup> every other year

For Brush Control

- brush growth within the right-of-way restricting drainage and sight distance shall be removed as required
- brush catching snow and forming drifts near the travelled surface shall be removed as conditions and time permits

For Tree Control

- dead or dangerous trees, trees near the roadway or limbs that are diseased, weakened, unsound, undermined or leaning such that they might fall on or across the roadway shall have branches trimmed or be removed
- trees shall be trimmed where obscuring signs
- tree stumps, in urban areas or in lawns of rural lots, shall be removed to a depth of 15 to 20 cm and excavation filled with topsoil and seeded in urban areas
- permission must be obtained before entering onto private property to remove limbs or trees encroaching on municipal property

Note:

- previous Township policy with regards to removal of wood on road allowances is to be rescinded
- tree planting shall generally follow the previous years ditching program with approximately 200 trees per year being planted. This item is subject to budget approval.

(tree type and size shall be reviewed annually)

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Debris Pick up**

The major objectives for debris pick up are:

- to keep the roadside and travelled surface in a clean and safe condition by removing unsightly and hazardous objects
- to allow for maximum productivity in grass mowing
- to help insure proper operation of drainage courses

The level of service objectives are:

- debris shall not be allowed to disrupt mowing operations or obstruct drainage ways
- debris shall not be allowed to accumulate on lightly travelled roads and thus encourage dumping
- all debris shall be cleaned up as soon as practicable after becoming aware of it

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Leaf Pick up**

The major objectives for leaf pick up are:

- to keep the roadside in a clean and safe condition
- to help insure proper operation of storm water inlets

The level of service objectives are:

- work is to be generally carried out during the months of October and November
- leaves to be removed from curb lines and catch basin grates to allow for proper drainage
- leaf depots shall be set up in Hickson, Innerkip and Tavistock for rate payers to deposit leaves. They will then be disposed of in an appropriate manner by the road department

# Township of East Zorra-Tavistock

## Roads & Public Works - Level of Service Objectives

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### Ditches

The major objectives for ditch maintenance are:

- to drain moisture from the road base
- to maintain the drainage system so as to control and remove surface water within the right-of-way limits and surrounding area
- to prevent erosion of shoulders and roadsides

The level of service objectives are:

- obstructions in the flow line shall be removed
- ditches shall be regularly inspected and cleaned of debris if necessary during October and November prior to the winter season, and during April and May during the spring run off
- ditch lines will be reinstated when a farmer works his land into the ditch obstructing road base drainage
- ditch grade lines shall have a uniform fall and be free from obstructions or sudden drop offs
- weeds growing in the ditch line shall be removed prior to the winter season
- brush growing in the ditch line shall be cut during the winter season – December through March, time and finances permitting
- side slopes shall have a maximum uniform slope of 2 to 1, or less, and shall be corrected where necessary, time and finances permitting
- slopes shall be corrected for erosion caused by run off
- ditches shall be filled where effective drainage has been accomplished by other means, where time and money permit
- equipment used will be the most economical for the job- gradall, grader, front end loader, hand shovel

## **Other Roadside Maintenance**

The major objectives for other roadside maintenance are:

- repairs of roadside mischief
- accidental markings by farm equipment
- damage caused by vehicular accidents to road or ditch
- spillage of farm products on roadside
- environmentally dangerous spills

The level of service objectives are:

- work to be done as soon as practicable after becoming aware of the problem
- environmentally dangerous spills shall be cleaned up by those responsible for the spill under the supervision of Ministry of the Environment

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Storm Sewer Repairs**

The major objectives for sewer repairs:

- to prevent damage to public and private property and pollution of the environment
- to avoid health hazards

The level of service objectives are:

- collapsed sections of pipe shall be repaired
- repairs to sewers will be in accordance the East Zorra-Tavistock road construction standards

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Manhole Repairs**

The major objectives for manhole repairs are:

- to maintain the manholes in a sound, safe condition

The level of service objectives are:

- the Township shall maintain storm sewer manholes only
- any problems with sanitary manholes shall be reported to the County of Oxford Water Department
- casting depressed or protruding greater than 5 cm in the travelled portion of the road shall be corrected
- manhole walls, lids, castings, etc shall be maintained in a structurally sound condition and checked regularly for cracks
- loose or noisy lids shall be corrected
- manhole steps that are broken, deteriorated or in an unsafe condition shall be reported immediately and replaced upon proper scheduling
- benching and channels shall be smooth throughout the manhole
- where possible precast concrete sections shall be used in repairs
- when a manhole is considered unsafe the manhole should be repaired
- all openings not required for flow shall be plugged with non-shrinking grout

## **Catch Basin Cleaning and Repair**

The major objectives for catch basin cleaning and repair are:

- to clean out basins before their capacity has been exceeded
- to periodically clean catch basins and inlets so that the grating, openings, traps and outlets are kept free from obstructions which might interfere with the free flow of run off, reduce surface ponding
- to reduce discharge of grit, etc into combined sewage system and water courses
- to maintain the catch basins in a sound, safe condition

The level of service objectives are:

- all catch basins and inlets shall be cleaned once per year, after spring clean up, if possible
- it may be necessary in local areas to clean catch basins more than once per year due to:
  - restricted sump capacities
  - amount of dirt and debris reaching the road surface
  - planned frequency of road cleaning
  - catch basins considered unsafe should be replaced upon proper scheduling
  - catch basins shall be repaired whenever there are loose bricks, cracked or broken barrels
  - frames and covers that are cracked, chipped or broken shall be noted and replaced upon proper scheduling

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Curbs and Gutters**

The major objectives for curb and gutter maintenance are:

- to facilitate the removal of surface water from the wearing surface
- to prevent water from spilling over and eroding side slopes
- to protect boulevards, lawns and sidewalks from vehicles

The level of service objectives are:

Concrete Curb and Gutter

- curb and gutter sections which have settled or heaved by more than 5 cm shall be reset if possible
- investigation and thorough study of causes shall precede repair work
- if resetting is impossible, sections shall be reconstructed
- holes or gouges deeper than 5 cm shall be repaired when feasible
- all repairs to concrete curb and gutter should be made with concrete in accordance with township standards

Asphalt Curb and Gutter

- asphalt curb and gutter sections shall be replaced if deterioration or damage prevents the curb and gutter from serving its intended purpose

**Section #4 - Bridges and Culverts**

## **Bridge Maintenance**

The major objectives for bridge maintenance are:

- to provide safety to the user through preventive maintenance
- to protect the investment in structures
- to extend the useful life span of the structure
- to maintain the aesthetic appearance of the municipality

The level of service objectives are:

- structure cleaning of winter sand and debris shall be performed during summer periods by brooming and water flushing
- damage to structures resulting from traffic accidents shall be repaired and/or damaged section replaced and the costs billed to the offending parties, if possible
- bridge drains shall be inspected once per year in the spring and cleaned if required
- bridge seats, rollers and other expansion elements that do not function properly shall be repaired
- cleaning and flushing of expansion joints and bearings shall be carried out annually in the spring when winter sanding is completed
- washouts around abutments shall be repaired
- bridge deck spalls with a depth of 8 cm over 1000cm<sup>2</sup> shall be repaired within 7 days
- a surface discontinuity (uneven joint) of 5 cm or more shall be repaired within 7 days on class 3 roads and 21 days on class 4 and 5 roads
- major reconstruction or rehabilitation will be done in conjunction with the 5 year capital budget

# Township of East Zorra-Tavistock

## Roads & Public Works - Level of Service Objectives

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### Culverts

The major objectives for culvert maintenance are:

- to keep culverts clean, free from debris and functioning properly
- to ensure the flow of surface water running in natural streams, collected on the high side of the right-of-way, or running down the ditch line, under roads, streets or driveway entrances

The level of service objectives are:

- obstructions restricting the flow of water through culverts shall be removed
- culverts shall be regularly inspected and cleaned of debris if constricted by more than 25% during October and November, prior to the winter season, and during April and May during the spring runoff
- culverts shall, in addition, be inspected after heavy storms or periods of high runoff and corrective measures taken if necessary
- during storms and floods critical areas shall be patrolled and culvert inlets kept clear
- badly worn or broken culverts shall be repaired or replaced as soon as possible to minimize the possibility of damage to the road bed by water saturating the fill material
- culvert aprons and head walls which are scoured or broken shall be repaired if needed
- damaged embankments at culvert inlets or outlets shall be repaired and ripped as soon as possible
- application for a permit shall be made by the property owner to the Roads Department if an entrance culvert is desired where none existed before
- installation shall be made by the township in accordance with current standards and specifications
- the property owner is responsible for cost of the initial installation
- subsequent maintenance of the culvert shall be the responsibility of the Roads Department

**Section #5 - Safety Devices**

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Street lights**

The major objectives of street lighting are:

- To provide a well lit and safe environment in the Townships villages and built up areas.
- To provide lighting at busy intersections

The level of service objectives are:

- All luminaries shall be inspected at least once per year and employees will be encouraged to observe lights when conducting night time patrols and maintenance activities.
- All lights found to be not working will be reported promptly to the Township office to be forwarded to the Township's service provider for repair. Address and pole number should be supplied when possible.
- Lights will be repaired in a time frame that meets or exceeds the minimum maintenance standards. (Ie. When three or more luminaries in a row are not working they must be repaired within 14 days).
- Requests for new or additional street lights shall be subject to budget and/ or Council approval.

# Township of East Zorra-Tavistock

## Roads & Public Works - Level of Service Objectives

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### Sign Maintenance

The major objectives for sign maintenance are:

- to control, safeguard or expedite traffic
- to provide information as to highway routes, directions, road/street destinations and points of interest

The level of service objectives are:

- all signs shall be inspected during normal road patrol operations
- All regulatory and warning signs shall be checked for reflectivity once per year as per the Minimum Maintenance Standards O. Reg. 239 - s 7, 8, 10
- stop, stop ahead, do not enter, checkerboard, yield and yield ahead signs that are downed, broken damaged or defaced shall be replaced or repaired as soon as practicable after becoming aware of the fact
- all remaining regulatory and warning signs that are downed, broken damaged or defaced shall be replaced or repaired during regular working hours, within 14 days
- all signs with incorrect wording and spelling shall be replaced
- any illegal sign shall be reported to the proper authority
- dirt or snow accumulation on signs that impairs legibility or reflectivity shall be removed or cleaned during inspection
- any obstruction of signs by structures, trees, brush or weeds shall be removed upon scheduling
- sign post out of plumb by more than 15 cm in 2 m shall be reset
- signs that are off level by more than 15 cm in 2 m shall be re-levelled
- all signs shall be mounted in accordance with MTO "Manual of Uniform Traffic Control Devices"
- signs incorrectly placed shall be corrected
- missing, loose or defective bolts and fasteners on all signs shall be repaired

**Temporary Signs and Barricades  
and Other Sign Activity**

The major objectives for temporary signs and barricades and other sign activities are:

- signs and barricades temporarily erected
- construction signs for construction projects
- maintenance signs erected for different activities
- snow emergency closure signs – Highway #59 (see notation)
- detour signs during construction

The level of service objectives are:

- all temporary condition signs are to be placed in accordance with "Ontario Traffic Manual, Book #7 Temporary Conditions" and must be accompanied by a traffic plan
- signs to be erected prior to maintenance activity
- signs to be removed as soon as activity is completed
- signs to be kept clean and straight while in use
- signs or barricades to be repaired and painted during times of inclement weather

NOTE:

Snow emergency signs will be placed according to O.P.P. instruction, as illustrated in the Traffic Control Manual

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Guide Rail / Guide Posts**

The major objectives for guide rail/guide posts maintenance are:

- to maintain these facilities so as to effectively serve as guides to vehicular traffic
- to define sharp curves, high fills, or other hazardous objects or locations

The level of service objectives are:

- **Steel Beam Guide Rail**
  - steel beam shall be aligned horizontally and vertically with the general line of installation
  - all post shall be sound and solidly set in the ground
  - all bolts shall be tight
  - steel beam guide rail will not be painted
  - damaged end sections shall be replaced
  - broken offset blocks shall be replaced
  - overlap of steel beams must be in the direction of traffic
- **Cable Guide Rail**
  - cable guide shall be maintained in accordance with MTO "Manual of Uniform Traffic Control Devices"
- **Guide Posts**
  - all posts shall be sound and solidly set in the ground
  - there shall be reflective strips in clean, good condition on each end post and every third post on curves and on each end post and every fifth post on tangents and straight runs
  - guide post shall be maintained in accordance with MTO "Manual of Uniform Traffic Control Devices"

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Section #6 - Winter Control**

# Township of East Zorra-Tavistock

## Roads & Public Works - Level of Service Objectives

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### Winter Control

The major objectives for a winter control policy are:

- to remove snow accumulations in excess of the depths shown in the attached table
- to provide the motoring public with the safest driving surface possible
- for the purpose of planning for plowing and salt/sanding

Season

- the road department shall have sufficient winter control equipment, schedules and manpower in place to commence winter control operation on the 15<sup>th</sup> day of November of each year. Winter control equipment and manpower will be available on a continuous basis 7 days a week to respond to a winter event, as needed, until the 1<sup>st</sup> day of April, the following year

The level of service objectives are:

- patrols of “representative roads” shall be done in the early morning (3-4 a.m.) when conditions dictate so that operators can be called in for a 5 a.m. start time. The patroller on duty shall monitor roads throughout the day as conditions dictate
- **plowing operations will begin by 5 a.m.** following designated routes and will continue until the level of service as set out in the table below has been met when possible
- the township does not operate an afternoon shift but will recall operators to service selected roads
- while snow continues to accumulate our goal shall be to maintain snow depths below those listed in the chart below
- after snow accumulations has ended and after becoming aware that the snow accumulation is greater than the depth set out in the chart below to clear the snow accumulation and return the roadway to the desired surface condition
- if a winter event becomes so severe that operations cannot safely continue, the operations will be suspended until conditions improve
- winging back windrowed snow to provide storage for subsequent snowfalls will be completed during normal daylight hours
- loading and hauling away of snow in the core are of Tavistock shall be done at night (11 p.m. to 6 a.m. ) when accumulation of snow interferes with traffic flow and/or parking. This operation shall be scheduled so that it does not interfere with the normal clearing of snow from other roadways

## Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives

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**Table Snow Accumulation**

| Road Class | Depth | Time   | Surface Conditions |
|------------|-------|--------|--------------------|
| 3          | 8 cm  | 12 hrs | bare pavement      |
| 4          | 8 cm  | 16 hrs | centre bare        |
| 5          | 10 cm | 24 hrs | snow packed        |

### **REPRESENTATIVE ROAD PATROLS**

A representative road patrol shall be conducted during the Township's "declared" winter season and will include portions of the following roads:

- the 16th line
- Maplewood road
- 14th line
- some Tavistock streets
- the 11th line
- the Braemar road
- The 10th line.

The rationale for choosing these roads is to capture as many conditions created by winter weather as possible. All patrollers will be aware of this designated route.

This route exposes the patroller to:

- several bridges
- protected areas
- areas prone to drifting
- hills and curves
- rural and urban roads
- All areas of the Township, North South East and West
- hard top and loose top surfaces
- 50kmh and 80kmh posted speed zones

# Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives

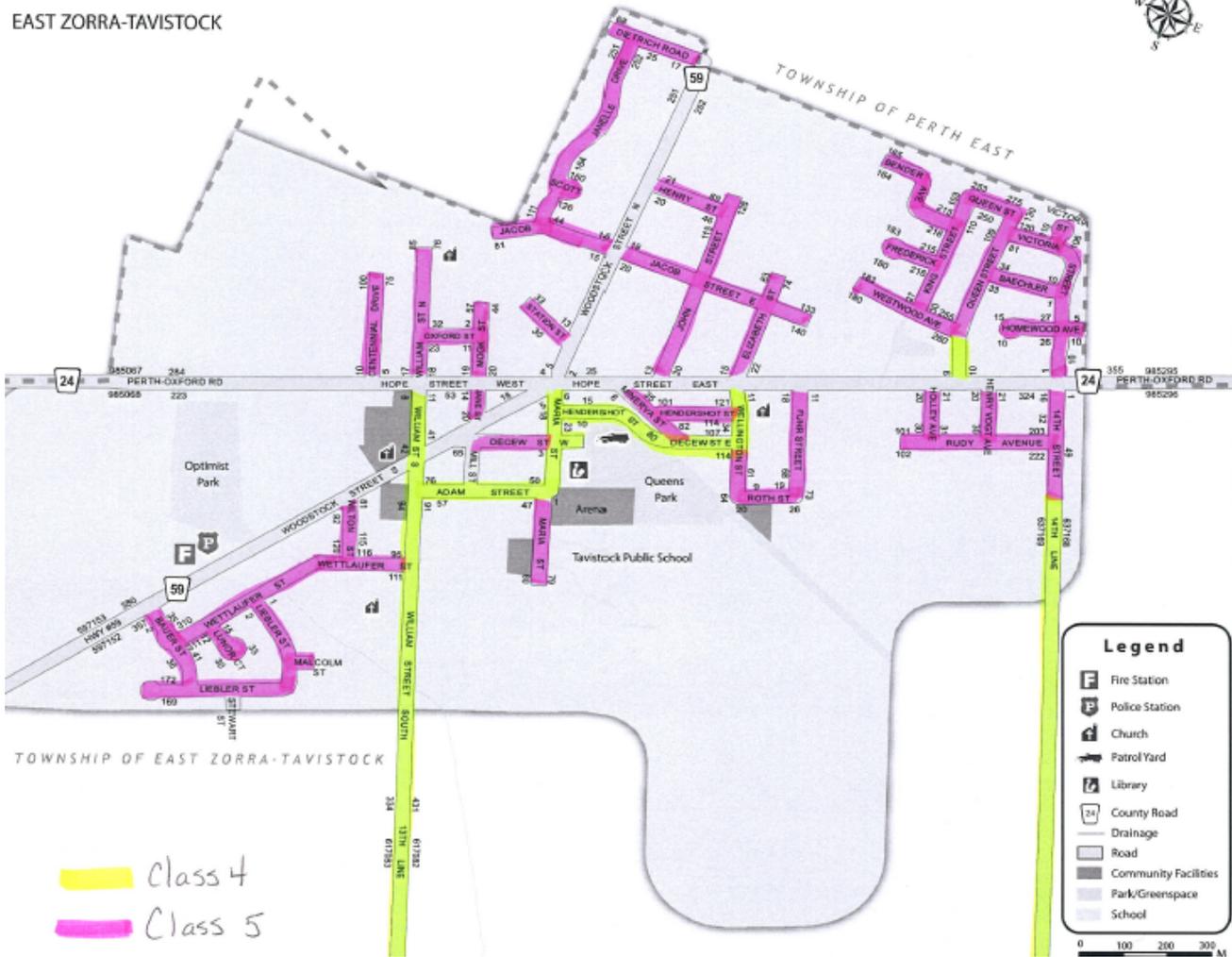
## Road Classification Maps

### TOWNSHIP OF EAST ZORRA-TAVISTOCK



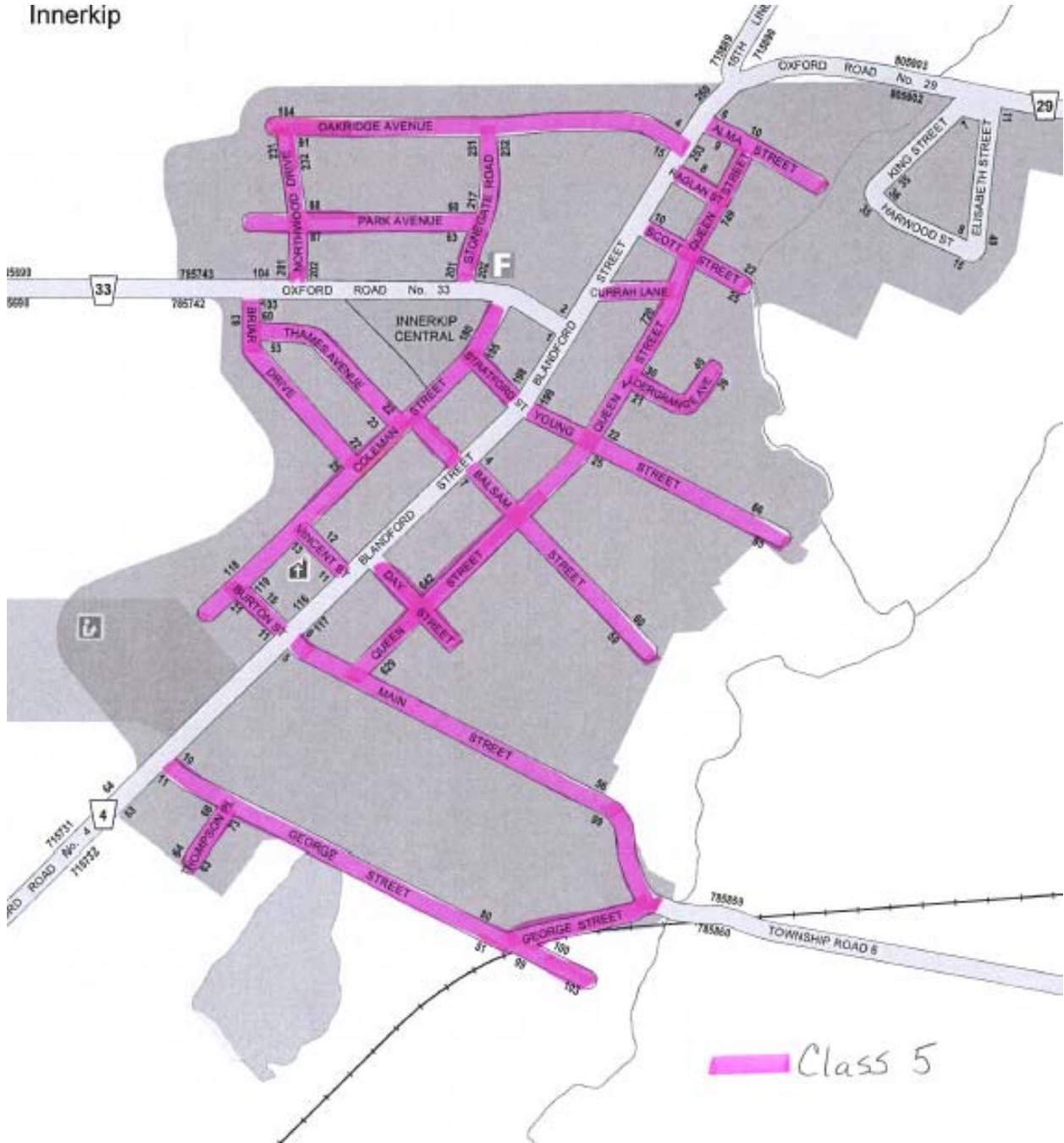
# Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives

**TAVISTOCK**  
EAST ZORRA-TAVISTOCK



# Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives

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**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Ice Blading**

The major objectives for ice blading are:

- to maintain safe, passable public transportation and school bus routes
- to facilitate the handling of emergencies by fire, police and ambulance services
- to reduce the hazards of icy roads to motorists
- to reduce the economic losses to the community caused by workers not being able to get to their jobs

The level of service objectives are:

- ice blading shall be done in conjunction with sanding intersections
- ice blading shall only be done when there is an ice build up or when snow packed roads icing over.
- ice blading will commence immediately after an ice storm, not during
- wide roads will have two passes
- narrow roads will have one pass
- all intersections double pass for 75m each way

NOTE:

Chains should be used on graders only when necessary for traction.

## **Snow Fence Erection and Removal**

The major objectives for snow fence erection and removal are:

- to trap snow and deposit it on the ground surface before it accumulates on the roadway

The level of service objectives are:

### **Snow Fence Erection**

- installation of snow fence shall be undertaken only where abnormal drifting occurs at discretion of Lead Hand or Public Works Manager
- snow fence shall be erected after the 15<sup>th</sup> of November unless prior permission received
- property owner shall be contacted before entering private property to erect snow fence
- new snow fence shall be located at least 40 metres from the edge of the travelled portion on the prevailing upwind side of the road

### **Snow Fence Removal**

- snow fence shall be removed before April 15<sup>th</sup> each year
- snow fence shall be rolled up, fastened and stored on site
- repairs required to snow fence shall be made while fence is in place, prior to removal if possible

## **Other Winter Maintenance**

The major objectives of other winter maintenance are:

- to keep roads from flooding
- to keep roads from washing out during a spring thaw
- to keep water from running onto roads and freezing causing a dangerous situation

The level of service objectives are:

- when time permits, remove snow banks from both ends of large culverts with a backhoe or front end loader or shovel
- open ditches on steep hills where water runs out onto roads
- check all road crosspipes for snow blockages, when time permits

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Section #7 - Miscellaneous**

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Shop and Public Works Building**

The major objectives for maintaining a shop and Public Works building are:

- to ensure a safe, clean working environment
- to keep the Public Works building clean
- to make work area safe
- to repair buildings and keep in good condition
- to tidy work yard and remove snow in winter

The level of service objectives are:

- to sweep up after servicing a piece of equipment
- to put away tools in proper place daily
- the Lead Hand is to keep supplies ordered and old containers for oil, grease and hydraulic oil returned
- to clean lunch room and washroom facilities weekly
- to do all necessary repairs as directed by Public Works Manager or Lead Hand
- all grounds will be kept in a tidy condition

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Crew and Safety Meetings**

The major objectives for having crew and safety meetings are:

- to keep good public relations and communications between management and staff
- to provide a forum, for open discussion (both ways)
- to keep employees abreast of any new safety measures
- to comply with the Occupational Health & Safety Act

The level of service objectives are:

- to comply with the Township's Health & Safety Program
- recommendations from crew and safety meeting to be implemented, if within reason and the Public Works Manager agrees. If extravagant the recommendation is then to be brought to Council

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Machine Maintenance**

The major objectives for machine maintenance are:

- to keep all municipal equipment in good repair
- to include machine number (unlicensed)
- to record time employee is working on machine
- all repairs to be written in Machine Maintenance Book

The level of service objectives are:

- all machines to be serviced as per operators manual
- all machines to be washed before servicing
- hours to be kept in Machine Maintenance Book
- hour meters to be kept in repair
- after daily walk-around inspection, any repairs necessary for safe operation must be performed immediately
- other repairs which can wait must be written in the service book and the Public Works Manager notified so repairs can be scheduled
- all machines will be fuelled at day's end

# Township of East Zorra-Tavistock

## Roads & Public Works - Level of Service Objectives

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### Sidewalks

The major objectives for maintaining sidewalks are:

- to provide safe sidewalk conditions for pedestrian traffic
- This includes:
  - replacing hazardous cracked or broken slabs
  - realigning dangerously heaved or depressed slabs
  - resurfacing badly spalled slabs with hot mix asphaltic materials
  - to protect the investment in sidewalks
  - remove snow and ice to provide safe winter use

The level of service objectives are:

#### Replacing Sidewalks

- All sidewalks shall be inspected annually
- Sidewalks which have surface discontinuities of more than 2 cm shall be treated within 14 days.
- broken sidewalk slabs which are heaved or depressed by less than 2cm shall be monitored and considered for replacement in the annual "sidewalk repair program", subject to available funds.
- The cost of replacing sidewalk slabs, broken or removed during installation or repair of utilities shall be the responsibility of the Utility Company. Replacement will be in accordance with the road department Standards and Specifications
- concrete will be used when replacing sidewalk sections actual repairs to the sidewalk will be the responsibility of the roads department

#### Winter control

- Woodstock Street from William Street to Jacob Street, and Hope Street from William Street to Minerva Street will be governed by By-Law # 16-91
- All other Township sidewalks, with the exception of the sidewalk on the north side of Oxford Road 8 (Loveys Street E) in Hickson, will be plowed once per day by Township or contracted equipment when snow accumulations exceed 8 cm.
- The intent of the Township is not to obtain bare sidewalks, but to provide a safe walking path for pedestrians. If required, subsequent cleanings per day or between storms shall be at the discretion of the Patroller
- Salt and/or sand will be applied when slippery conditions exist
- Plowing will begin in conjunction with road activities at 5:00 am and will be completed within an 8 hour shift
- Sod damage from plowing operations will be repaired in the spring after the winter season has passed.

**Section #8 - Other Information**

**Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives**

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**Utility Cut Repair**

The major objectives for utility cut repair are:

- to restore the base and surface to the standard of the whole street

The level of service objectives are:

- utility cuts shall be backfilled and temporary repairs using cold mix asphaltic concrete made to the street surface by the Utility Company making the utility repair or installation
- cost of the backfill and temporary surfaced patch up to 1 year after the installation or until the surface is permanently repaired shall be the responsibility of the Utility Company
- the cost and installation of the initial permanent surface patch shall be the responsibility of the Utility Company
- all utility cut repairs shall be completed to the satisfaction of the Public Works Manager or the lead hand

## **Towing of Municipal Equipment**

The major objectives in towing of municipal equipment are:

- To ensure continuity in all phases of maintenance activities
- To ensure that no further damage occurs from improper towing of municipal equipment

The level of service objectives are:

- The Public Works Manager will be notified immediately once a vehicle becomes disabled
- Upon reviewing the situation the Public Works Manager will determine the most practical method of towing the disabled vehicle i.e. loader, grader, towing service, etc
- Only when a light pull is required, will a municipal vehicle be directed to pull another municipal vehicle
- Towing a municipal vehicle will only be allowed when the vehicle being towed has the engine running for hydraulic control or steering and brakes

## **Unclaimed Wood On Road Allowance Policy**

The wood from trees cut on road allowance belongs to the property owner if we can fall the tree onto their property. If the tree is felled into the road ditch, the property owner has first right for 60 days.

Any wood left after 60 days or any wood not wanted by the property owner shall be disposed of by the roads department. Trees that cannot be felled safely shall be removed by a competent contractor.

**Request for Emergency Assistance by a Surrounding  
Municipality**

Should a request be made by a surrounding municipality for emergency assistance, the Public Works Manager may, at his discretion, make available a maximum of 50% of the roads/public works employees and necessary equipment. A commitment of greater than 50% would require approval of Council.

This policy is to be implemented only in an emergency situation (e.g. tornado, ice storm, flood, etc.), and only if the remaining work force and equipment can maintain services at a reasonable level in East Zorra-Tavistock.

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Private Drainage Connections (P.D.C.)**

P.D.C.'s will not be required in new subdivision developments provided that the following conditions are met:

- That a soil survey be conducted in the Spring and Fall during draft plan process.
- The soil survey must show no signs of high water table with the Township Engineer having the final authority.
- P.D.C.'s shall be required if high water exists or is known to exist.
- Storm drainage shall have a minimum four (4) feet of cover.
- If P.D.C.'s are provided, a condition shall be included in the subdivision agreement that each lot shall install a backwater valve as part of the hook-up.
- The subdivision agreement shall also state that where P.D.C.'s are not provided and problems arise in the future, the cost to provide same shall be borne by the lot owner.

Where P.D.C.'s exist in the Township:

During reconstruction – each owner should be contacted to determine if they have an existing connection when reconstruction of a road is started.

The owner shall be encouraged to use a sump pump if no high water is known to exist.

Any replacement drains constructed by Township forces shall be installed at the existing depth, or at a greater depth than that of existing drains.

The Township will install P.D.C.'s at existing depth at time of construction if the owner is planning to make hook-up immediately. Back water valve shall also be installed.

Existing tile found to be blocked or substandard will not be connected to the new system unless total replacement of private drain is made by homeowner at this expense.

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Environmental Spills/Emergencies**

The major objectives regarding environmental spills/emergencies are:

- to assist in protecting the health and safety of the public
- to prevent unnecessary damage to private and public property

The level of service objectives are:

- the road department will respond and provide assistance when required by the Fire Department or the Ministry of the Environment
- in the case of a major spill or vehicle accident, the road department crew will respond after the Fire Chief, Ministry of the Environment officials and senior municipal staff have consulted with each other
- every incident shall be addressed on an individual basis after consultation with senior staff because of the dangers or hazards that may affect municipal staff assisting

The Township Emergency Response Plan shall take effect when applicable

Every effort will be made to identify the owner of the product or the party responsible for the spill. This individual will be encouraged to contact a spills action team.

The Township will ensure that all spills are reported to the Ministry of Environment

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Private Signs on Road Allowance**

Signs with illuminations or which are in conflict with traffic control devices will not be allowed.

The placement of private signs on road allowances will generally be discouraged

Election signs will be allowed provided they do not present a hazard to the motoring public.

Real estate signs may be placed on road allowance provided that they do not present a hazard to the motoring public and they are placed temporarily (60-90 days)

All other private signs will be placed in accordance with the instructions of the Public Works Manager, provided a more suitable location off the road allowance is not available.

**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Mailbox Policy**

This section will outline the Township's objectives and policy in regards to damage to rural mailboxes and the type of post permitted on Township right of ways. The intent is to create a policy that is fair and addresses the safety concerns of the motoring public on Township roads.

1. Mailbox Construction and Replacement Specifications

- a. All rural mailboxes must be mounted on a steel or wooden post at a height of 107cm (42") from the road surface to the bottom of the mailbox as per current Canada Post standards.
- b. The post that the box is mounted on shall be a maximum of :
  - i. 150mm diameter in the case of wooden posts
  - ii. 75mm diameter hollow post in the case of steel posts
- c. The post shall be mounted such that the opening of the mailbox is at the outside edge of the shoulder of the road.
- d. Mailboxes shall be installed on the right hand side of the road according to the courier's direction of travel where it is reasonably accessible and does not impede pedestrian or vehicular traffic. The Township reserves the right to require relocation of mailboxes situated where heavy snow accumulations are problematic.
- e. Replacement boxes shall be a standard size (45cm x 17.5cm x 17.5cm), weather resistant, steel, rural type mailbox.
- f. Damaged mailboxes shall be replaced as weather and manpower permit as completion of winter control services on the roadway is a priority.

2. The Township will not be responsible for damage in the following circumstances:

- a. Damage to any mailbox constructed contrary to Items 1.a – d.
- b. Damage to any mailbox struck by snow or ice during normal snow removal operations.
- c. Any damage to a mailbox struck by a snow plow where the box is buried in a snow bank.

# Township of East Zorra-Tavistock

## Roads & Public Works - Level of Service Objectives

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### **Canada Post Standards for Rural Mailboxes**

#### **Part I**

These regulations may be cited as: Postal standards for rural mailboxes.

Mail may be delivered by means of deposit in rural mail boxes and mail may be collected from rural mail boxes where the rural mail box is:

1. constructed in accordance with the specifications set out in Part II;
2. placed outdoors at a location on a rural mail route approved by the local postmaster; and
3. located, erected and identified as required by Section 2.

A rural mail box shall be:

1. located along the right hand side of the road according to the courier's line of travel in a position where the courier can reach and service it from his vehicle without being an impediment to pedestrian or vehicular traffic;
2. erected so that:
  - a. the box is securely attached to a fixed post or cantilever arm;
  - b. the bottom of the box is three and one half feet (105 cm) above the roadway; and
  - c. the box does not obstruct or obscure other boxes located nearby or be an impediment, in itself or in its mountings, to effecting ready delivery or collection of mail;
3. identified by having the name of each boxholder printed in indelible lettering not less than one inch (2.5 cm) high on the side of the box or on a name plate attached to the box so that it is visible to the courier as he follows his line of travel.

#### **Part II**

#### **Specifications for Rural Mail Boxes**

##### **Materials:**

1. The material used for a box shall:
  - be sufficiently sturdy to bear the weight of the box and contents without distortion; and
  - be sufficiently weatherproof to enable it to withstand the climate in which it is used.

## **Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives**

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### **Design:**

A rural mail box shall:

- be equipped with a door for a box opening in accordance with section 4; and
- be designed in such a manner that the name plate or the space reserved for the name of the box holder is not obscured by the signal device.

### **Box Dimensions:**

The minimum interior dimensions of a box are:

- 18 inches (45 cm) in length by 7 inches (17.5 cm) in width by 7 inches (17.5 cm) in height, in the case of a rectangular box; and
- 18 inches (45 cm) in length by 10 inches (25 cm) in diameter, in the case of a cylindrical box.

### **Box Opening:**

Each box shall be equipped with a door that:

- is located in the front of the box;
- cannot be secured with a lock;
- has a minimum effective opening of:
  - 7 inches (17.5 cm) in width and 7 inches (17.5 cm) in height, if the opening is rectangular, or
  - 10 inches (25 cm) in diameter, if the opening is round;
- is capable of remaining in the open position while mail is being deposited or withdrawn and shall be a tight fit and self-sealing when closed;
- has an aid for opening, such as a handle, lip or flange, and
- is constructed of a material sturdy enough to withstand normal everyday handling.

### **Signal Device**

- Each box shall be equipped with a signal device that may be rendered visible above the box and that, when it is so visible, will indicate from a distance, either to the courier or the householder, that mail has been deposited in the box for pick-up.
- The signal device shall be:
  - located on the right hand side when facing the box from the front;

## **Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives**

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- affixed so that it does not impede vehicular or pedestrian traffic.
- The actuating mechanism of the signal device shall not interfere in any way with the interior of the box.

### **Mounting**

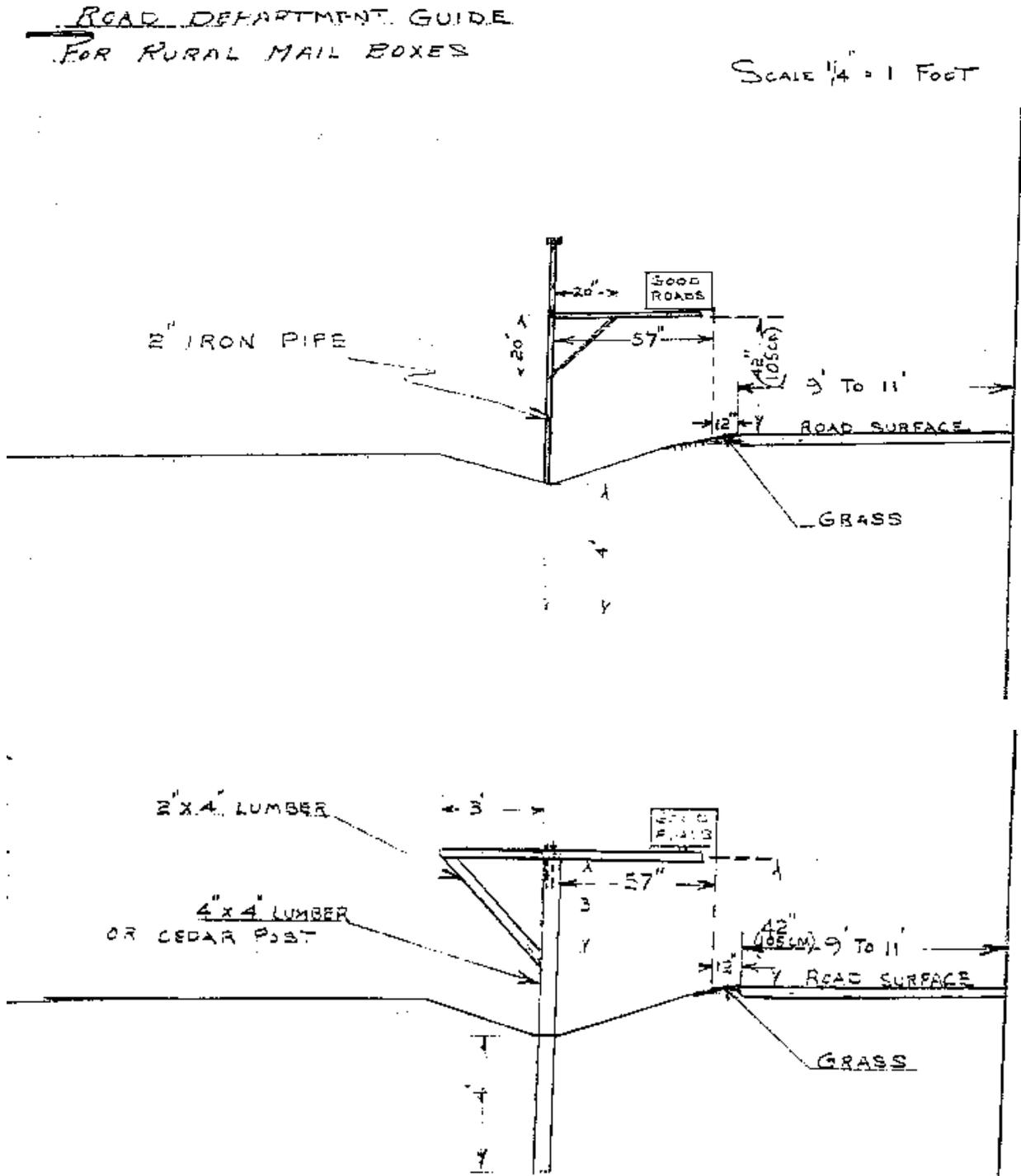
The mounting hardware shall be such as to be flush with the interior of the box.

### **Instructions**

The manufacturer of rural mail boxes should enclose in each box a reproduction of part 1, section 2 of these regulations to which shall be appended the instruction “when the box has been erected notify your local postmaster”.

Township of East Zorra-Tavistock  
Roads & Public Works - Level of Service Objectives

Road Department Recommended Installation:



**Township of East Zorra-Tavistock**  
**Roads & Public Works - Level of Service Objectives**

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**Entrances from Roadways**

1. Purpose

- a. The purpose of this Policy is to set out the criteria and standards for implementing the approval, construction, alteration and maintenance of Entrances providing access to roads within the Township Road System, in accordance with the By-law.
- b. The primary objective of Entrances to Township Roads is to provide safe and orderly access consistent with the functional and operational requirements of Township Roads and the accessibility needs of the adjacent land uses. There is a direct correlation between the number of entrances on a road and the number of collisions on that road. Each additional entrance potentially increases the risk of collision and reduces the safety of the motoring public. In implementing the policy, it is the Township's objective to evaluate all proposed new Entrances in accordance with criteria and standards pertaining to location, design, maintenance, number and width with a view to minimizing risk to the public.
- c. Pursuant to Sections 2, 3 and 4 of the Policy, new Entrances and alterations to existing Entrances shall conform to and be completed in accordance with the following criteria and standards.

2. Definitions

- a. The following definitions shall apply to this policy:
  - i. "*Agent*" means a person or business or corporation acting on behalf of and with the permission of the Owner.
  - ii. "*Applicant*" means the person, business, corporation or Municipality applying for the Entrance Permit. An Applicant may be the Owner or an Agent of the Owner.
  - iii. "*Commercial/Industrial/Institutional/Multi-residential Entrance*" means an entrance which provides access to a business, institutional facility or multi-residential use permitted in the zoning By-law.
  - iv. "Common Entrance" has the same meaning as "Mutual Entrance"
  - v. "*Culvert*" means an open-ended underground pipe, conveying surface storm water across a Township Road ("Highway Culvert") or across an

## **Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives**

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- entrance (“Entrance Culvert”).
- vi. “*Sight Triangle*” means the triangular space formed by the street lines and a line drawn from a point on one street line to a point drawn on the other street line, each such point being nine (9) metres, measured along the street line from the point of intersection of the street lines.
  - vii. “*Emergency Entrance*” means an Entrance which provides access to subdivision developments for emergency vehicles only, in the event that the main entrance to the development is not passable.
  - viii. “*Farm Entrance*” means an Entrance which provides access to farm buildings and agricultural lands including any residence(s) located on the same property.
  - ix. “*Field Entrance*” means an Entrance which provides access to agricultural fields.
  - x. “*Mutual Entrance*” means an Entrance which serves more than one lot or more than one use on a single lot such as a farm business, campground or commercial use with an accessory residence.
  - xi. “*OPSD*” means the Ontario Provincial Standard Drawing from the Ontario Provincial Standards for Roads and Public Works, <http://www.raqsa.mto.gov.on.ca/techpubs/ops.nsf/OPSHomepage>
  - xii. “*OPSS*” means the Ontario Provincial Standard Specification from the Ontario Provincial Standards for Roads and Public Works, <http://www.raqsa.mto.gov.on.ca/techpubs/ops.nsf/OPSHomepage>
  - xiii. “*Owner*” means any persons, business, corporations or Municipality(s) that owns or has an interest in the property that is the subject of the Entrance Permit Application.
  - xiv. “*Public Entrance*” means an Entrance which provides access onto a Township Road from a registered subdivision by means of a public road or street
  - xv. “*Residential Entrance*” means an Entrance which provides access to a residential dwelling containing no more than two units.
  - xvi. “*Rural Cross-section*” means a road cross section comprising the Roadway bounded by shoulders and ditches on either side.

## **Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives**

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- xvii. "Settlement" means the area where development is concentrated and a variety of land uses may be present. Settlements only include designated Rural Clusters, Hamlets, Villages, Serviced Villages and Large Urban Centres.
- xviii. "TAC Guide" means the Transportation Association of Canada's Geometric Design Guide for Canadian Roads, as amended.
- xix. "Temporary Entrance" means an Entrance which provides access to properties for a limited period not to exceed six months for the purpose of construction, repairs or improvement on that property or to facilitate a staged development.
- xx. "Urban Cross-section" means a road cross-section comprising the Roadway bounded by curbs or curb and gutter on either side.
- xxi. "User Fees" means the fees approved by Council from time to time for Township services and products.

### **3. Permit Required**

- a. Pursuant to Section 2 of the Policy, Entrance Permits are required for:
  - i. Construction of a new Entrance (paved or unpaved),
  - ii. Changing the design of an existing Entrance,
  - iii. Changing the location of an existing Entrance,
  - iv. Changing the use of an existing Entrance (e.g. from residential to commercial) or,
  - v. Construction of a Temporary Entrance or the use of any part of the Township Road right-of-way as a means of temporary access.

### **4. Location of Entrances**

- a. New entrances shall be located so as to provide, in the opinion of the Public Works Manager:
  - i. No undue interference with the safe movement of vehicular traffic, pedestrians, or other users of the Township Road.

## **Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives**

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- ii. Safe and convenient vision, grade, and alignment conditions for all traffic using the proposed Entrance to the Township Road.
- b. New entrances will not be permitted where one or more of the following criteria exist:
- i. Where safer and more reasonable access can be gained via a County right-of-way, with consideration given to the traffic volumes and the roadway geometrics. In general access from lower volume roads is preferred.
  - ii. Along a lane that is identified for the purpose of an exclusive vehicular turning movement.
  - iii. Within the Sight Triangle at any intersection.
  - iv. Within 20 metres centre to centre of another same-side entrance in areas outside of Settlements with rural cross-sections.
  - v. Where the new Entrance would oppose the non-through leg of a “T” intersection, except where the new entrance is a Public Entrance or a Commercial, Industrial, Institutional, Apartment or Multi-residential Entrance.
  - vi. Outside of settlement areas where a proposed entrance is in close proximity to intersections and where the following minimum distance from the nearest edge of pavement, taken from the TAC Guide, Figure 3.2.8.2 Suggested Minimum Corner Clearances to Accesses or Public Lanes at Major Intersections, is not met:

| Speed Limit | Minimum Distance |
|-------------|------------------|
| 50 km/hr    | 85 metres        |
| 60 km/hr    | 110 metres       |
| 70 km/hr    | 140 metres       |
| 80 km/hr    | 170 metres       |

## **Township of East Zorra-Tavistock Roads & Public Works - Level of Service Objectives**

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- vii. Outside of settlement areas where the following minimum sight distance requirements, taken from the TAC Guide, Figure 2.3.3.4 Sight Distance for Turning Movements from Stop, are not met:

| Speed Limit | Minimum Sight Distance |
|-------------|------------------------|
| 50 km/hr    | 160 metres             |
| 60 km/hr    | 200 metres             |
| 70 km/hr    | 250 metres             |
| 80 km/hr    | 300 metres             |

- viii. Adjacent to a bridge or other structure, where the following minimum sight distance requirements, taken from the TAC Guide, Table 2.3.3.5,:

| Speed Limit | Minimum Sight Distance |
|-------------|------------------------|
| 50 km/hr    | 115 metres             |
| 60 km/hr    | 135 metres             |
| 70 km/hr    | 150 metres             |
| 80 km/hr    | 170 metres             |

- ix. In areas where the speed limit is less than 80 km/hr and the sight distances in sub-paragraphs vi), vii) or viii) above cannot physically be achieved and the restriction of the location of an Entrance relative to the bridge or other structure can be relaxed or waived without negatively affecting the safety of the Township Road at that location, the Public Works Manager may permit an Entrance.

### **5. DESIGN STANDARDS**

#### **a. Entrance Grade and Back Slope (For All Entrances)**

- i. The finished surface of the Entrance must drop away from the edge of the highway-driving surface to the end of the shoulder rounding at a rate equal to the slope of the shoulder. Entrances shall be constructed as shown in the applicable OPSD.
- ii. Each Entrance to a Township Road must be designed, constructed, and maintained in a manner that will prevent surface water from the entranceway or from the adjoining property being discharged via the entrance onto the traveled portion of the Township Road.
- iii. The design of all Entrances must be submitted to, and approved, by the Public Works Manager and an Entrance Permit issued prior to work commencing on the entrance within the limits of the road allowance of

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- a Township Road or any works related to said entrance.
  - iv. Filling in of ditches in front of properties is prohibited, with the exception of works carried out as part of a drainage works under the Drainage Act.
- b. Field Entrance
- i. The property Owner shall provide to the Public Works Manager a drawing showing the proposed Entrance including dimensions. The Entrance shall be surfaced with at least 150 mm (6") pit run gravel (Granular "B" and 30 mm (2") of crushed gravel (Granular "A") and the Culvert must be of sufficient length to provide the required slope up from the ditch invert to an Entrance width as specified in Section 6 of this Schedule. The minimum cover of granular material on the Culvert is to be 300 mm (12").
- c. Farm or Residential Entrance
- i. The property Owner shall provide to the Public Works Manager a drawing showing the proposed Entrance, including dimensions and grading plan. The Entrance shall be surfaced with a minimum of 150 mm (6") of crushed gravel (Granular "A") and 150 mm (6") of pit run gravel (Granular "B"). A Farm or Residential Entrance shall not be hard surfaced except in areas with urban cross-sections including curb and gutter. All existing hard surfaced Entrances within the Township Road are the sole responsibility and risk of the property Owner and will not be maintained by the Township. The Culvert must be of sufficient length to provide the required slope up from the ditch invert to an Entrance width as specified in Section 6 of this Schedule. The minimum cover of granular material on the Culvert is to be 300 mm (12").
- d. Commercial/Industrial/Institutional/Multi-residential Entrance
- i. The property Owner shall provide to the Public Works Manager technical drawings prepared by a qualified professional showing the proposed Entrance, including dimensions, grading plan and projected traffic flows. All other Entrances within 300 metres of the proposed Entrance shall be shown on the drawing. It shall be surfaced with a minimum of two lifts, not less than 50mm (2") each, of hot mix asphalt and where a Culvert is required, its length will be dictated by the Entrance design which will be site specific, having regard for number and type of vehicles expected to utilize the Entrance. The Entrance width shall be as specified in Section 6 of this Schedule. The minimum

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cover of asphalt and granular material on the Culvert is to be 450 mm (18"). The specific design of the sub-grade and granular base is to be designed by the property Owner or his Agent for the intended type and volume of traffic and subject to the Public Works Manager's approval.

#### e. Temporary Entrance

- i. A Temporary Entrance shall be designed and constructed in a manner that is appropriate for the intended use, subject to the approval of the Public Works Manager.
- ii. Where any part of the Township Road right-of-way is used for a Temporary Entrance, the right-of-way shall be restored to its original condition by the Owner to whom the Entrance Permit is issued before the expiry date of the permit. A deposit of \$1000.00 shall be forwarded to the Township to be held as a security deposit until the restoration is completed to the satisfaction of the Public Works Manager.
- iii. If the temporary entrance is not removed before the expiry date of the permit, the Township may remove the entrance and deduct the cost for the removal from the deposit. The remainder of the deposit will then be returned to the Owner.
- iv. Temporary Entrance permits shall specify: the expiry date, the extent and nature of the works to be done on the property and the Owner's responsibility to clean up all mud and debris from the road in a timely fashion, all to the satisfaction of the Public Works Manager. If a time extension is required for a Temporary Entrance Permit, the Owner must apply for a new permit prior to the expiration of the existing permit.

#### f. Public Entrance

- i. The subdivision Owner shall provide to the Public Works Manager technical drawings prepared by a qualified professional showing the proposed Entrance, including dimensions, grading plan and projected traffic flows. All other Entrances within 300 metres of the proposed Entrance shall be shown on the drawing.

#### g. Emergency Entrance

- i. The property Owner shall provide to the Public Works Manager technical drawings prepared by a qualified professional showing the proposed Entrance, including dimensions, grading plan and projected traffic flows. The drawings shall also clearly indicate the measures to

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be incorporated in the Emergency Entrance to prevent (adequately discourage) non-emergency use such as by private residents or delivery vehicles. All other Entrances within 300 metres of the proposed Entrance shall be shown on the drawing.

#### **h. Curb and Gutter**

- i. Where a curb and gutter exists at the location of the proposed Entrance, the Applicant shall be required to construct a drop curb at the Entrance location. The existing curb shall be cut or removed and replaced using materials and construction methods as per the applicable OPSSs and OPSDs.
- ii. The area between the curb and sidewalk is to be hard surfaced with a minimum 50mm (2"), of hot mix asphalt, 150 mm (6") of concrete or suitable interlock pavers, in accordance with the Township's requirements. If there is no sidewalk, the entrance is to be hard surfaced a minimum distance of two metres behind the curb.

#### **i. Culverts**

- i. All Culverts shall be constructed to the proper grade ensuring that free and unimpeded flow of surface water is maintained to the satisfaction of the Public Works Manager.
- ii. Culverts required for new or re-designed entrances must be of sufficient diameter to maintain the free flow of water in ditch and be installed to the satisfaction of the Public Works Manager in order to avoid future maintenance problems.
- iii. The minimum Culvert diameter for all entrances is 400 mm (15"). Exceptions to these standards for Culverts shall be at the discretion of the Public Works Manager.
- iv. When the roadside ditch is part of a municipal drain, the diameter of the Culvert is subject to municipal standards. The Township must consult with the municipal drainage superintendent for advice on the requirements relating to the municipal drain such as the appropriate diameter of Culvert.
- v. Where the upstream Culvert is wider than the minimum standard, the Culvert for the proposed entrance must be at least the same diameter in order to avoid "bottlenecks".

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- vi. The length of an Entrance Culvert shall be equal to the width of the entrance plus the width of the slopes on both sides of the entrance, as measured at the bottom of the ditch.
  - vii. OPSD Standards (800 series) shall be used to determine the specifications of the Culvert (type, material, guage, etc.) and the bedding requirements.
  - viii. A Culvert shall be constructed of new material only, as approved by the Public Works Manager.
- j. Curbs and/or Headwalls
- i. No curb or headwall can extend above the surface of the roadway shoulder within the limits of the shoulder and it's rounding.
  - ii. All existing curbs and headwalls within the Township Road are the sole responsibility and risk of the property Owner and may be removed, if necessary, at the discretion of the Public Works Manager and at the property Owner's expense.

#### **6. MAINTENANCE OF ENTRANCES**

- a. Property Owners with an Entrance to a Township Road are solely responsible for the maintenance of the Entrance according to the applicable standards specified in this Schedule, as well as any necessary dust control and the removal of snow and ice to keep the Entrance in a safe condition for vehicular traffic.
- b. The Township shall not be liable for any damage due to shoulder grading, snowplowing or other maintenance activities undertaken by the Township or by a contractor employed as an agent of the Township done to paving stones, surface treatment, asphalt pavement or concrete pavement on Township Roads.
- c. A Culvert installed under the terms of the Entrance Permit shall become the property of the Township upon acceptance of the work by the Public Works Manager. All subsequent replacement, maintenance, repairs or alterations to the Culvert and drainage through it shall be carried out by the Township. The Township shall bear the costs of such maintenance work for the first or only Entrance to a property except for widening or other alteration as may be approved through an Owner's request for a change. The costs for all maintenance to any second and subsequent Entrances are the sole responsibility of the property Owner and, if necessary, shall be recovered from that property Owner by the Township as permitted under section 446 of

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the Municipal Act, 2001.

### **7. NUMBER AND WIDTH OF ENTRANCES**

- a. Notwithstanding the provisions of the Township Zoning By-laws, the Township shall specify the width and number of Entrances to Township Roads. The widths specified in Section 7.b) below are the driving surface of the entrance measured at the location of the culvert or the curb cut.
- b. The Township shall limit the number of Entrances per property to the minimum number required for access while maintaining the greatest possible level of safety for the motoring public. The number of Entrances permitted shall be as follows:
  - i. Residential Entrance - one per property where residential uses are permitted except in the case of Mutual Entrances where one Entrance will serve multiple properties. Outside of Settlements, the maximum width is nine (9) metres (30'), in Settlements the maximum width is four (4) metres (13') for a single driveway or six (6) metres (20') for a double driveway or Mutual Entrance.
  - ii. Farm Entrance - one Farm Entrance per farm property with one additional Field Entrance and where natural obstructions within the field physically prevent access across the field or, where the property frontage exceeds 400 metres. An additional Field Entrance may be permitted for each additional 400 metres of frontage at the discretion of the Public Works Manager. The maximum Entrance width is twelve (12) metres (39'). Minor variations in width shall be permitted at the discretion of the Public Works Manager to satisfy specific industry requirements, such as the Dairy Farmers of Ontario.
  - iii. Commercial/Industrial/Institutional /Multi-residential Entrance – one per property where C/I/I/MR uses are permitted unless a peer-reviewed Traffic Impact Study demonstrates that a second Entrance is necessary for the preservation of safe and efficient traffic flow on the affected Township Road(s). In no circumstances will site plan deficiencies be accepted as a reason for a second Entrance, nor will additional Entrances be permitted to preclude the installation of warranted traffic signals. The width is to be nine (9) metres (30') at the property line with five (5) metre (16.5') radii.
  - iv. Temporary Entrances – the number and dimensions will be based on the proposed use.

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- c. Special Circumstances – notwithstanding Section 7.b), Where there is a valid need for an exception to these criteria and standards based on topography or other special circumstance, such an exception may be granted at the discretion of the Public Works Manager.

**8. MUTUAL ENTRANCES**

- a. Mutual Entrances will be required where deemed necessary by the Public Works Manager during the development process when direct access to a Township Road is sought for contiguous lots. Mutual Entrances shall be subject to the criteria and standards of this Schedule for the purpose the Entrance is intended to serve.

**9. ENTRANCE PERMIT APPLICATION PROCESS**

- a. Applications for new Entrances, or reclassifications of or alterations to existing Entrances shall be submitted by the property Owner or an Agent on forms supplied by the Public Works Department. Approval of an Entrance Permit shall be subject to conditions, technical, financial or otherwise, prior to, or as part of the installation of the Entrance.
- b. Proposed Entrance location(s) shall be clearly illustrated on a drawing as required in Section 5 of this Schedule, which is to accompany the application. The drawing for a Field, Farm or Residential Entrance may be a hand-drawn sketch, but it must provide enough information to enable staff to locate it in the field (i.e.) dimensions to buildings and/or landmarks such as fences hedgerows, tree lines etc.
- c. The following criteria will be considered in determining whether or not to grant approval to applications for new Entrances or alterations to existing Entrances:
  - i. Protection of the public through the orderly control of traffic movements onto and from Township Roads, including possible requirements for left and/or right turn lanes.
  - ii. Maintenance of the traffic carrying capacity of the Township Roads System.
  - iii. Protection of the public investment in Township Roads System.
  - iv. Minimization of Township expenditures on the maintenance of Entrances.

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- v. Minimization of risk of future maintenance problems and reconstruction costs.
- vi. Existence of sufficient legal access onto Township Roads via easement, right-of-way or mutual entrance through adjacent property.
- d. An Entrance Permit will be issued upon satisfaction of the Public Works Manager that all necessary arrangements, agreements and financial securities and fees are provided to the Township.
- e. Should the ownership of the property change after the date of the application, the new Owner shall become the Applicant.

### **10. INSTALLATION OF THE ENTRANCE**

- a. The Entrance shall be installed by the Township, at the Applicant's expense, to the relevant OPSS and OPSD and in accordance with this Schedule. Fee will be collected after installation has been completed. In the case of Commercial, Industrial, Institutional or Multi-residential developments where a licensed contractor undertakes site servicing, installation of the Entrance by the contractor may be permitted, subject to prior approval of the Public Works Manager.
- b. Work on an installation or a development for which a permit is granted must be completed within six (6) months of the date of issue of the permit. Failure to complete the required work within six (6) months of permit issuance shall result in the automatic cancellation of the Entrance Permit without written notice, unless otherwise extended by the Public Works Manager.
- c. All works related to or forming a part of an Entrance shall be carried out in accordance with the approved plans, specifications and conditions, and are subject to the approval of the Public Works Manager.
- d. Where installation by the Applicant's contractor is approved by the Public Works Manager, the Applicant shall be responsible for the construction, marking, and maintenance of the detours required, and for maintaining safety measures for the protection of the public during the construction of any works in respect of the Entrance.

### **11. INSPECTION OF THE ENTRANCE**

- a. Where a contractor installs the Entrance with the approval of the Public Works Manager, the installation of the Entrance will be inspected by the Public Works Manager or his designate upon completion. It shall be the Applicant's responsibility to contact the Township Public Works Department

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for an inspection of the Entrance installation 24 hours prior to construction.

- b. Should any adjustments to the constructed or altered Entrance be required by the Public Works Manager, said adjustments shall be completed within ten (10) days of written notification by the Public Works Manager of the adjustments that are required.

**12. ENTRANCE PERMIT FEE**

- a. The fees charged for Entrance Permits shall be in accordance with the approved "User Fees" in effect at the time of application.

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**Entrance Permit Application Form**

(for entrances from roads under the control of the Township of East Zorra-Tavistock ONLY)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

\_\_\_\_\_ Email: \_\_\_\_\_

Entrance Location Information:

Road Name: \_\_\_\_\_ 911#: \_\_\_\_\_ Lot: \_\_\_\_\_

Size of Entrance Requested:

Length: \_\_\_\_\_ Culvert Size and Type: \_\_\_\_\_

Location Sketch: Provide a sketch of the requested culvert location and layout on the back of this page.

I hereby agree to pay the Township of East Zorra-Tavistock for the entrance and other fees indicated within 30 days of being invoiced.

\_\_\_\_\_  
Applicant's Signature

|  |  |  |
|--|--|--|
| <u>For Township Use</u>  |  | Permit # _____                                 |
| <input type="checkbox"/> Approved, as submitted                    |  | <input type="checkbox"/> Not Approved          |
| <input type="checkbox"/> Approved, subject to changes as indicated |  | <input type="checkbox"/> New 911 Sign Required |
| Cost Information:  | Culvert _____  |  |
|  | 911 Sign _____   |  |
|  | Other Special Charges _____  |  |
|  | Total Cost _____   |  |
| _____<br>PW Manager Signature                                      |  | _____<br>Date                                  |
| Distribution   | Copy to Applicant<br>Copy to Accounts Receivable<br>Original Public Works File |  |