

## Municipality of North Huron

### Development Standards



Standards are primarily needed to provide consistent, appropriate development of sites that are building services that will be municipally or privately owned.



Municipalities should  
have standards and  
apply them consistently.



### Standards:

- Roads
- Storm Sewers and Stormwater Management
- Grading and Surface Drainage
- Water distribution and service
- Sanitary Sewage collection
- Sidewalks and Surface works
- Utilities – phone, hydro, gas, cable, etc.



### Road Standards

Throughout time road standards have adapted to the transportation methods of the day.



Since the time of the Romans, Roads have been built to recognize the importance of an efficient transportation system.








Many Roman roads were built to handle the two-way traffic of carts or chariots drawn by two horses. The literature identifies many roads of width in the order of 20 feet.





And the Romans had standards of structural construction -- a much more permanent design than the corduroy that we all read about.


Modern roads must serve a purpose – they must be structurally sound, and of sufficient width to transport their desired loads.





And the construction must look at how they will be maintained – and:





Their relationship with the surrounding environment, especially drainage issues, is vital.




## Ontario MTO

Established standards for road design; and established standards for new residential roads in subdivisions. (1960's)




At that time the standards for new roads: (3)

1. Cottage roads - <50 v.p.d
2. Suburban roads – frontages > 100 ft.
3. Urban roads – frontages < 100 ft.

Until the roads subsidy disappeared, these standards had to be used by Ontario municipalities to maintain their subsidies.

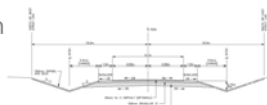


Since the early 1990's, municipalities have had much more freedom to establish standards. All of the municipalities we are associated with have established policies similar to the old MTO standards.



### Cottage:

- 20 m. ROW
- 5.5 m. surface
- 1.0 m. shoulders
- Rural cross-section
- Gravel surface
- No utilities



### Suburban Cross-section:

- 6.0-7.0 m. surface
- 1.2 m. shoulders
- Rural cross section
- Some Storm sewer
- Paved surface
- Some utilities

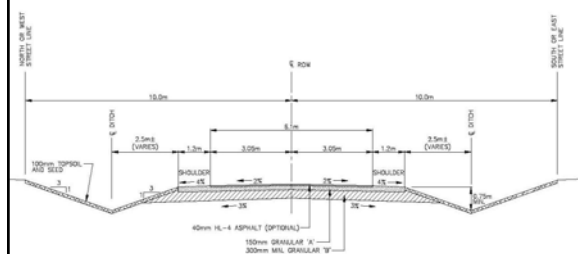


### Suburban:

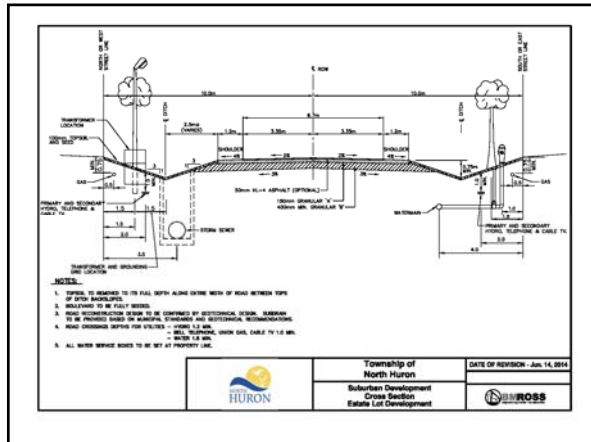
Problems with drainage and conversion



### Suburban :







## Storm Sewers and Stormwater Management



## Storm Sewer Design:

Storm sewers are designed for what we call the Minor Storm – generally the 5-year storm.

Larger events should be handled with overland flow.

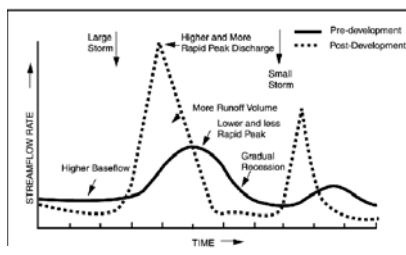


## Stormwater Management

Looks at stormwater quantity and quality. Storm discharges are limited to peak flow rates which do not exceed pre-development peaks. The quality of stormwater is improved by providing opportunity for sedimentation.



## Quantity



## Quality



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## Sanitary Sewers and Watermains

To MOE guidelines and OPSS and  
OPSD.



## Sanitary Sewers are designed for:

- Flow from predicted sources
- Extraneous flows – I/I allowance  
(inflow/infiltration)

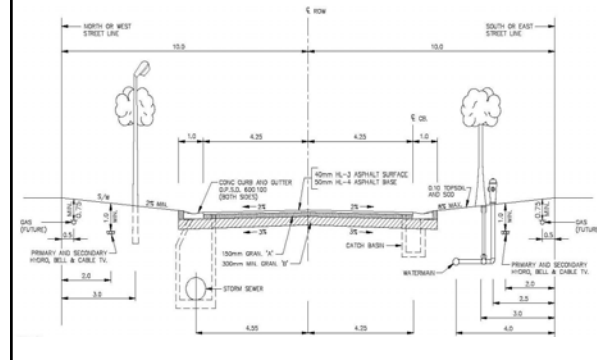


## Water distribution

- Flows for predicted peak demands
- Fire flows



## Utilities



## Questions:







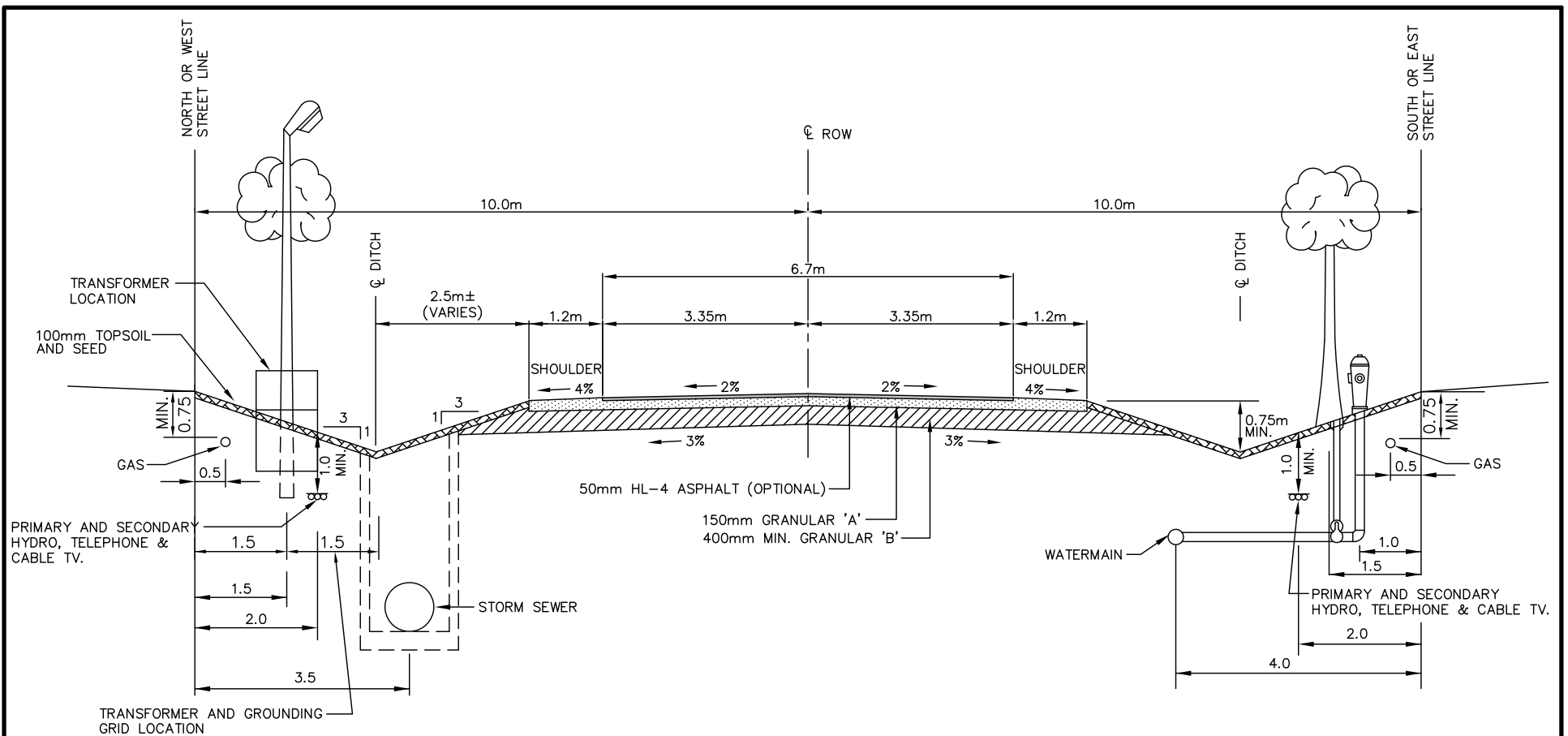
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- NORTH  
HURON

**Typical 20 meter Urban Subdivision  
Section and Service Locations  
Local Residential Streets**

**DATE OF REVISION - Jun. 14, 2018**







#### NOTES:

1. TOPSOIL TO BE REMOVED TO ITS FULL DEPTH ALONG ENTIRE WIDTH OF ROAD BETWEEN TOPS OF DITCH BACKSLOPES.
2. BOULEVARD TO BE FULLY SEEDDED.
3. ROAD RECONSTRUCTION DESIGN TO BE CONFIRMED BY GEOTECHNICAL DESIGN. SUBDRAIN TO BE PROVIDED BASED ON MUNICIPAL STANDARDS AND GEOTECHNICAL RECOMMENDATIONS.
4. ROAD CROSSINGS DEPTHS FOR UTILITIES - HYDRO 1.2 MIN.  
- BELL TELEPHONE, UNION GAS, CABLE TV 1.0 MIN.  
- WATER 1.8 MIN.
5. ALL WATER SERVICE BOXES TO BE SET AT PROPERTY LINE.



**Township of  
North Huron**

**Suburban Development  
Cross Section  
Estate Lot Development**

**DATE OF REVISION - Jun. 14, 2014**

