Appendix N: Final Preferred Solutions Conceptual Designs – Hewitts Creek Watershed
THE CITY IS TO PROGRESSIVELY ACQUIRE LAND OR EASEMENTS FOR DRAINS, WATERCOURSES AND STORAGE AREAS CROSSING OR UPON PRIVATE PROPERTY WHERE IT IS CONSIDERED IN THE CITY’S INTEREST TO DO SO (BY-LAW 90-92: TO PROHIBIT OBSTRUCTION OF DRAINS & WATERCOURSES). PROPERTY ACQUISITION VIA EASEMENT, BLOCK, LOT OR PARCEL IS TO THE CITY’S DISCRETION.

THE SUBJECT ROAD HAS BEEN IDENTIFIED FOR FUTURE ROAD WIDENING AS PART OF THE TRANSPORTATION MASTER PLAN. THE CULVERT IMPROVEMENT SHOWN HAS BEEN DESIGNED FOR THE EXISTING ROAD WIDTH. THE CULVERT LENGTH TO BE CONFIRMED AS PART OF DETAILED DESIGN IN COORDINATION WITH THE TRANSPORTATION MASTER PLAN.

THE EXISTING STORM SEWER TO BE REMOVED

PROPERTY ACQUISITION:
A) 793 MAPLEVIEW DR. E. (PORTION OF) MINIMUM RECOMMENDED PROPERTY ACQUISITION TO BE CONFIRMED AT DETAILED DESIGN

LEGEND

- PR. CULVERT
- PR. STORM SEWER
- PR STORM MAINTENANCE HOLE
- EX. STORM SEWER
- EX. STORM MAINTENANCE HOLE
- EX. SANITARY SEWER
- EX. SANITARY MAINTENANCE HOLES
- EX. WATERMAIN
- EX. CULVERT
- EX. PROPERTY LNIE
- WATERCOURSE
- PROPERTY ACQUISITION
- REGRADE/SHAPE CHANNEL TO SUIT
- HEADWALL/WINGWALLS

Tatham Engineering
Barrie

DRAINAGE MASTER PLAN
FINAL PREFERRED ALTERNATIVE SOLUTION
PROJECT No. 125
CULVERT IMPROVEMENT No. 83
(MAPLEVIEW DRIVE E)
HEWITTS CREEK WATERSHED
SCALE = 1:500

DATE: MARCH 2019

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MAPLEVIEW E.
ROAD CLASSIFICATION = ARTERIAL
DESIGN FLOOD FREQUENCY CRITERIA = 1:100 YEAR

EXISTING: 1650 mm x 4800 mm CONC. BOX CULVERT
CONVEYANCE CAPACITY = 23.8 m³/s (EXISTING FLOWS)
DESIGN FLOOD FREQUENCY = 1:25 YEAR
DEPTH OF OVERTOPPING = 0.79 m (REGULATORY EVENT)

PROPOSED: 10.67 m OPEN BOTTOM SPAN STRUCTURE
CONVEYANCE CAPACITY = 70.8 m³/s (FUTURE FLOWS)
DESIGN FLOOD FREQUENCY = 1:100 YEAR
DEPTH OF OVERTOPPING = 0.39 m (REGULATORY EVENT)

PROPOSED CULVERT SIZE TO BE REVIEWED AT DETAILED DESIGN TO REDUCE DEPTH OF OVERTOPPING

THE CITY S DISCRETION.
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(MAPLEVIEW DRIVE E)
HEWITTS CREEK WATERSHED
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DATE: MARCH 2019

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EX. SANITARY MAINTENANCE

TRUNK STORM SEWER

CONC. BOX CULVERT

1650 mm ø TRUNK STORM SEWER

1500 mm ø TRUNK STORM SEWER

1350 mm ø TRUNK STORM SEWER

1200 mm ø TRUNK STORM SEWER

2400 mm x 1200 mm CONC. BOX CULVERT TRUNK STORM SEWER

TIE EXISTING STORM SEWER INTO PROPOSED TRUNK STORM SEWER

REMOVE AND REPLACE EXISTING LOCAL STORM SEWER WITH TRUNK STORM SEWER

Legend

EX. WATERCOURSE

EX. STORM MAINTENANCE HOLE

EX. STORM SEWER

EX. PROPERTY LINE

PROPERTY ACQUISITION

TRUNK STORM SEWER (PREFERRED ROUTE)

EX. SANITARY MAINTENANCE HOLES

EX. SANITARY SEWER

EX. WATERMAIN

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DRAINAGE MASTER PLAN

FINAL PREFERRED ALTERNATIVE SOLUTION

PROJECT No. 130
TRUNK STORM SEWER No. 6
HEWITT'S CREEK WATERSHED

SCALE = 1:1,500

DATE: MARCH 2019

PROPERTY ACQUISITION: NONE

AS PART OF DETAILED DESIGN, THE TRUNK STORM SEWER IS TO BE SIZED TO ELIMINATE OVERLAND FLOW DEFICIENCIES TO SUCH THAT THE CONSERVATION AUTHORITIES SAFE ACCESS/EGRESS CRITERIA IS SATISFIED.

AUTHORITIES SAFE ACCESS/EGRESS CRITERIA IS SATISFIED.

STORM SEWER IS TO BE SIZED TO ELIMINATE OVERLAND FLOW DEFICIENCIES TO SUCH THAT THE CONSERVATION AUTHORITIES SAFE ACCESS/EGRESS CRITERIA IS SATISFIED.

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