271 MAIN STREET EAST DUNDALK

TOWNSHIP OF SOUTHGATE GREY COUNTY

DRAWING <u>TITLE</u>

C100	TITLE PAGE
C101	GRADING PLAN
C102A	GENERAL SERVICING PLAN
C102B	CONNECTIONS TO EXISTING MAIN ST INFRASTRUCTUR
C103	PRE-DEVELOPMENT DRAINAGE PLAN
C104	POST-DEVELOPMENT DRAINAGE PLAN
C105	EROSION & SEDIMENT CONTROL PLAN
C106	EROSION & SEDIMENT CONTROL PLAN NOTES & DET
C107	CONSTRUCTION NOTES & DETAILS 1 OF 2
C108	CONSTRUCTION NOTES & DETAILS 2 OF 2



MUNICIPALITY

TOWNSHIP OF SOUTHGATE 185667 GREY RD 9 DUNDALK, ONTARIO, NOC 1B0

<u>DEVELOPER</u>

COUNTRYSIDE COMMUNITIES INC. 22746 RICHMOND ST N LONDON, ONTARIO, N5X 4B2

RE

TAILS



DEVELOPER'S ENGINEER



70 Huron Street, Suite 100 Collingwood, ON, L9Y 4L4 705-446-3510 www.cfcrozier.ca

LANDSCAPE ARCHITECT

MASTER LEGEND

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EXISTING FEATURES (EX.)

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EX. GRADE
EX. TREELINE
EX. WATERCOURSE
EX. DITCH
EX. WATERMAIN
EX. WATER SERVICE
EX. FIRE HYDRANT & VALVE
EX. SANITARY SEWER & MANHOLE
EX. SANITARY FORCEMAIN
EX. SANITARY SERVICE
EX. STORM SEWER & MANHOLE
EX. STORM CATCHBASIN
EX. STORM DOUBLE CATCHBASIN
EX. STORM CATCHBASIN MANHOLE
EX. STORM DOUBLE CATCHBASIN MANHOL
EX. GAS MAIN
EX. BELL LINE
EX. BELL PEDESTAL
EX. CABLE TELEVISION PEDESTAL
EX. HYDRO POLE
EX. LIGHT STANDARD
EX. SIGN
EX. BUILDING
EX. BENCHMARK NUMBER & LOCATION
EX. BOREHOLE NUMBER & LOCATION

#### PROPOSED FEATURES (PR.)



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#### GENERAL NOTES:

- 1. CONSTRUCTION EQUIPMENT TO USE ACCESS POINT, LOCATED AT MAIN STREET, AS INDICATED ON DRAWING C105. MUD MAT TO BE MAINTAINED AT ACCESS POINT.
- 2. ALL WORKS SHALL BE COMPLETED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT. THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE "CONSTRUCTOR" AS DEFINED IN THE ACT.
- 3. ALL SEDIMENT AND EROSION CONTROL FACILITIES AND WORKS ARE TO BE CONSTRUCTED AND IN PLACE TO THE APPROVAL OF THE SITE ENGINEER PRIOR TO ANY GRADING OPERATIONS COMMENCING. TYPICAL WORKS INCLUDE SILT FENCES, INTERCEPTOR SWALES, STRAW BALE CHECK DAMS AND SEDIMENT TRAPS.
- 4. ALL TEMPORARY TOPSOIL STOCKPILES ARE TO BE PROVIDED WITH THE NECESSARY SEDIMENT AND EROSION CONTROL FEATURES. 5. ALL INTERCEPTOR SWALES ARE TO BE SEEDED TO STABILIZE THEIR BANKS IMMEDIATELY FOLLOWING CONSTRUCTION. 6. REFER TO APPLICATION FORM FOR GRUBBING OF TREES WITHIN LIMITS OF FILL AREA.
- 6. REFER TO APPLICATION FORM FOR GROBBING OF TREES WITHIN LIMITS OF FILL AREA. 7. NO GRADING OF LANDS WILL OCCUR WITHIN SPECIFIED BUFFERS ALONG PROPERTY LINES AND INTERNAL TO SITE.
- THE LOCATION OF ALL UNDERGROUND AND ABOVEGROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE LOCATION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
   NON-WOVEN GEOTEXTILE TO BE TERRAFIX 270R OR APPROVED EQUIVALENT

### MAINTENANCE & OPERATIONS OF SEDIMENT CONTROLS

#### SILT FENCE

- 1. SILT FENCE MUST BE INSPECTED WEEKLY FOR RIPS OR TEARS, BROKEN STAKES, BLOW-OUTS AND ACCUMULATION OF
- SEDIMENT. 2. SILT FENCE MUST BE INSPECTED FOLLOWING ALL 15MM OR GREATER RAIN STORM EVENT OR AS DIRECTED BY SITE ENGINEER.
- SEDIMENT MUST BE REMOVED FROM SILT FENCE WHEN ACCUMULATION REACHES 50% OF THE HEIGHT OF THE FENCE.
  ALL SILT FENCES MUST BE REMOVED ONLY WHEN THE ENTIRE SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.
- STRAW BALE / ROCK CHECK DAM
- 1. REMOVE ACCUMULATED SEDIMENT UP STREAM OF THE CHECK DAM IF GREATER THAN ONE HALF OF DAM HEIGHT.
- SILT REMOVAL MUST BE UNDERTAKEN WITH CARE TO MINIMIZE DOWN STREAM SEDIMENTATION IN SWALE OR DITCH.
  STRAW BALE CHECK DAM AND ALL ACCUMULATED SEDIMENT MUST BE REMOVED WITH CARE ONCE THE CONSTRUCTION SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.

#### MUD MAT MAINTENANCE

- 1. INSPECT MUD MAT WEEKLY TO ASSESS CONDITION AND ENSURE OPERATION EFFICIENCY.
- 2. SUPPLY AND PLACE ADDITIONAL CLEAR STONE AS DIRECTED BY SITE ENGINEER.
- MAT TO REMAIN IN PLACE UNTIL SITE IS STABILIZED OR AS DIRECTED BY SITE ENGINEER.
  CONTRACTOR TO COMPLETE REGULAR STREET SWEEPING ON MAIN STREET EAST.

#### DECOMMISSIONING / RESTORATION

- 1. FOLLOWING COMPLETION OF CONSTRUCTION AND AS DIRECTED BY SITE ENGINEER, ALL EROSION AND SEDIMENT CONTROL WORKS ARE TO BE REMOVED INCLUDING ANY ACCUMULATED SEDIMENT.
- 2. ALL WORKS LOCATED ON LANDS OUTSIDE THE PROPOSED DEVELOPMENT AREA ARE TO BE GRADED TO MATCH EXISTING SURROUNDING GROUND AND HYDROSEEDED.
- 3. ALL SEDIMENT BUILD-UP TO BE REMOVED FROM SEDIMENT BASINS. CUT AREAS AND SEDIMENT BASINS TO BE TREATED WITH 25mm OF TOPSOIL AND HYDROSEEDED AS DIRECTED BY SITE ENGINEER.

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3.	THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LEVELS, AND DATUMS
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4.	THIS DRAWING IS TO BE READ AND UNDERSTOOD IN CONJUNCTION WITH
	ALL OTHER PLANS AND DOCUMENTS APPLICABLE TO THIS PROJECT.
5.	ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY
	THE CONTRACTOR PRIOR TO CONSTRUCTION.
6.	DO NOT SCALE DRAWINGS.





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STREET EAST DUNDALK HP OF SOUTHGATE	<b>C CROZIER</b>
EDIMENT CONTROL PLAN	Drawn By R.D.M. Design By J.L.A. /A.M. Project 2514-6796
TES & DETAILS	Check By J.L'A. Check By N.C.O. Drawing C106

CONSTRUCTION NOTES:

#### A) GENERAL - CONSTRUCTION

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH TOWNSHIP OF SOUTHGATE STANDARDS, OPSD AND OPSS. WHERE CONFLICT OCCURS, TOWNSHIP OF SOUTHGATE TO GOVERN. TRENCH BACKFILL (OPSD 802.010 & 802.013) TO BE SELECT NATIVE MATERIAL OR IMPORTED SELECT SUBGRADE TO
- OPSS 1010. BACKFILL TO BE PLACED IN MAXIMUM 200mm THICK LIFTS AND COMPACTED TO 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD). PIPE COVER AND BEDDING TO BE CLASS 'B' COMPOSED OF COMPACTED GRANULAR IF EXTENSIVE DEWATERING IS
- REQUIRED CLASS 'A'
- ALL TOPSOIL AND EARTH EXCAVATION TO BE STOCK PILED OR REMOVED TO AN APPROVED SITE AS DIRECTED BY ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETAILED LAYOUT OF THE WORK. THE DEVELOPER'S ENGINEER WILL CONFIRM ALL BENCH MARK ELEVATIONS AND HORIZONTAL ALIGNMENT FOR THE CONTRACTOR. ALL PROPERTY BARS TO BE PRESERVED AND REPLACED BY O.L.S. AT CONTRACTOR'S EXPENSE IF REMOVED DURING
- CONSTRUCTION THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR THE SUPPLY OF TEMPORARY WATER AND POWER. DEWATERING TO BE CARRIED OUT IN ACCORDANCE WITH OPSS-517 AND 518 TO MAINTAIN ALL TRENCHES IN A DRY
- CONDITION CONTRACTOR RESPONSIBLE FOR OBTAINING MECP PERMIT IF REQUIRED. ALL ENGINE DRIVEN PUMPS TO BE ADEQUATELY SILENCED, SUITABLE FOR OPERATION IN A RESIDENTIAL DISTRICT.
- DISTURBED AREAS OUTSIDE THE DEVELOPABLE LANDS TO BE REINSTATED TO PREVIOUS CONDITION OR BETTER. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK AND CO-ORDINATE CONSTRUCTION ACCORDINGLY.
- ALL EXCAVATION MUST BE CARRIED OUT IN FULL COMPLIANCE WITH MOST RECENT GUIDELINES OF OHSA. NATIVE SOILS ARE CLASSIFIED AS TYPE 3 & 4 SOIL AS PER GEOTECHNICAL REPORT (GREEN GEOTECHNICAL LIMITED, FEBUARY 2024)

#### B) ROADS

- ALL EXCAVATION SHALL CONFORM TO THE CURRENT ONTARIO PROVINCIAL SPECIFICATION FOR GRADING OPSS 206 THE DEVELOPER SHALL RETAIN A QUALIFIED SOILS CONSULTANT TO CARRY OUT COMPACTION TESTS ON THE COMPLETED SUBGRADE AND SUBSEQUENT LIFTS
- OF GRANULAR BASE MATERIAL BEFORE PLACEMENT OF NEXT GRANULAR OR ASPHALT LIFT ALL VEGETATION, BOULDERS OVER 150mmø, TOPSOIL AND ORGANIC OR FROST-SUSCEPTABLE MATERIALS SHALL BE REMOVED FROM THE ROAD BASE TO A
- DEPTH OF AT LEAST 1.2m BELOW FINISHED GRADE AND REPLACED WITH SUITABLE MATERIAL BOULEVARD MATERIAL TO BE COMPACTED TO A MINIMUM DRY DENSITY OF AT LEAST 95% SPMDD. IN THE ZONE WITHIN 1.0m BELOW THE PAVEMENT SUBGRADE, THE BACKFILL SHOULD BE COMPACTED TO AT LEAST 98% SPMDD WITH THE WATER CONTENT 2% TO 3% DRIER THAN THE OPTIMUM. IN THE LOWER ZONE, A 95% OR GREATER
- COMPACTION IS ADEQUATE GRANULAR 'A' AND 'B' ROAD BASE TO BE COMPACTED TO 100% OF THE MATERIAL'S RESPECTIVE SPMDD AND PLACED IN MAX. 150mm LIFTS. REFER TO GEOTECHNICAL REPORT FOR FURTHER DETAILS.
- PROPOSED LANEWAY TO BE CONSTRUCTED WITH MINIMUM 450mm GRANULAR 'B' TYPE 1, 150mm GRANULAR 'A', 80mm HL8 BASE COURSE ASPHALT, & 50mm HL3 SURFACE COURSE ASPHALT (HEAVY DUTY PAVEMENT STRUCTURE, SEE DETAIL ON THIS DRAWING. BOULEVARD FROM PROPERTY LINE TO THE BACK OF CURB TO BE TREATED WITH A TOPSOIL DEPTH OF 200mm AND SOD. PER RECOMMENDATIONS INCLUDED IN GEOTECH REPORT (GREEN, 2024)/PER TOWNSHIP STANDARDS DATED JUNE, 2022. SELECT SUBGRADE MATERIAL, OR IMPORTED GRANULAR MATERIAL APPROVED BY THE ENGINEER, COMPACTED TO 98%
- SPMDD TO BE USED AS FILL IN ALL AREAS WHERE PROPOSED PIPE INVERTS ARE HIGHER THAN EXISTING GRADE OR AS INSTRUCTED BY THE ENGINEER. ALL GRANULARS AND ASPHALT MATERIALS AND PLACEMENT TO BE IN ACCORDANCE WITH OPSS 314 AND OPSS 310. JOINTS WITH EXISTING ASPHALT TO BE SAW CUT STRAIGHT WITH MIN. 0.3m LAP JOINT PRIOR TO PLACING NEW
- ASPHALT AND TACK COAT APPLIED TO EXISTING ASPHALT.
- STOP SIGNS AND STREET SIGNS TO TOWNSHIP STANDARDS REINSTATEMENT OF ALL DISTURBED BOULEVARDS TO INCLUDE REGRADING, 200mm TOPSOIL AND SOD TO OPSS 570 AND 571
- 100mm Ø PIPE SUBDRAINS SHALL BE PROVIDED UNDER EDGE OF PAVEMENT ON LOWER (GUTTER) SIDE OF THE ROAD. 3. ALL SUBDRAINS TO BE CONSTRUCTED IN ACCORDANCE WITH OPSS 405. SUBDRAIN TO BE INSTALLED IN GRANULAR 'A' TRENCH AND CONNECTED TO EACH CB OR CBMH.
- 4. SUBDRAINS TO BE PERFORATED OTHER THAN THE 2m SECTION IMMEDIATELY UPSTREAM OF ALL STRUCTURES WHICH SHALL BE NON-PERFORATED
- 15. ALL CONCRETE SIDEWALKS TO BE CONSTRUCTED AS PER OPSD 310.010. ALL SIDEWALK RAMPS SHALL CONFORM WITH OPSD 310.030, 033, 039 AND COMPLETE WITH TACTILE PLATES.
- C) SANITARY SEWERS
- M.H.'S TO OPSD 701.010, 701.030, & 704.010.
- BENCHING TO OPSD 701.021. STEPS TO OPSD - 405.010.
- BACKFILL AND EMBEDMENT TO OPSD 802.010 CLASS 'B', GRANULAR 'A' BEDDING. IF EXTENSIVE DEWATERING IS REQUIRED, A CLASS 'A' BEDDING MAY BE REQUIRED (SUBJECT TO GEOTECHNICAL RECOMMENDATIONS.)
- TRENCH BACKFILL TO BE SELECT NATIVE MATERIAL AS APPROVED BY ENGINEER OR IMPORTED GRANULAR MATERIAL. FRAMES AND COVERS TO OPSD - 401.01 TYPE 'A' (CLOSED COVER). SERVICE CONNECTIONS TO OPSD - 1006.020 (125mm), GRANULAR 'A' BEDDING, TERMINATE AT SERVICING CORRIDOR LIMITS WITH A TEST FITTING, PLUG AND 2x4 MARKER POST PAINTED GREEN REFER TO TOWNSHIP STANDARD S3. MINIMUM GRADE TO BE 2.0%. SERVICE CONNECTIONS TO
- TOWNSHIP STD S4 RADIUS BENDS TO BE USED ON SANITARY SEWER CONNECTIONS WHERE THE ANGLE OF CONNECTION BETWEEN THE SERVICE AND SEWER EXCEEDS 90".
- BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD). MANHOLES FRAMES TO BE SET TO BASE COURSE ASPHALT ELEVATION AND RAISED BY ADDING RISER RINGS PRIOR
- TO PLACING SURFACE COURSE ASPHALT PIPE SUPPORT AT MAINTENANCE HOLES AS PER OPSD 708.020.
- ALL MAINTENANCE HOLES, UNLESS EXPRESSLY IDENTIFIED ARE 1200mm Ø. SANITARY MANHOLE JOINTS TO BE
- SEALED WITH "MEL-ROL" AS PER MUNICIPAL STANDARD. GENERAL INSTALLATION AND TESTING OF SEWERS AND APPURTENANCES TO BE IN ACCORDANCE WITH OPSS 407, 408, 409 (CCTV), 410, 421 AND ALL SPECIFICATIONS REFERENCED WITHIN THESE SECTIONS.
- SANITARY SEWER SDR 35 PVC SANITARY SERVICE - SDR 28 PVC - 125mm.
- 16. FROST STRAPS PER OPSD 701.100.
- ALL PIPE JOINTS MUST BE LEAK-PROOF AND /OR ALL JOINTS SHOULD BE WRAPPED IN A WATERPROOF MEMBRANE (SUBJECT TO GEOTECHNICAL RECOMMENDATIONS). ALL MANHOLE JOINTS ARE TO BE SEALED USING MEL-ROL OR RISE-WRAP.
- D) WATERMAINS
- BACKFILL AND EMBEDMENT TO OPSD 802.010 CLASS 'B', GRANULAR 'A' EMBEDMENT. REFER TO GENERAL NOTES. TRENCH BACKFILL TO BE SELECT NATIVE MATERIAL AS APPROVED BY ENGINEER OR IMPORTED GRANULAR MATERIAL. THRUST BLOCKS TO OPSD - 1103.010 AND 1103.020 WHERE SUITABLE SOILS ARE ENCOUNTERED
- SERVICE CONNECTIONS TO OPSD 1104.010, 100mm GRANULAR 'A' EMBEDMENT AND COVER OVER PIPE. TERMINATE
- AT SERVICING CORRIDOR LIMITS C/W CURB STOP AND BOX. HYDRANTS AS PER OPSD 1105.010 ARE TO BE EQUIPPED WITH ANCHOR TEE'S & VALVES. DRAIN PLUGS SHALL BE
- INSTALLED WHERE HIGH WATER TABLE IS ENCOUNTERED. ANCHOR TEE AND VALVE TO BE USED AT HYDRANTS BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S
- STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
- MINIMUM COVER ON WATERMAIN AND SERVICES TO BE 2.0m
- GATE VALVES, BENDS AND HYDRANT LEADS AND FITTINGS TO BE CONNECTED WITH ROLMAC GRIPPER RING RESTRAINING GLANDS. MECHANICAL RESTRAINTS ARE TO BE ONE OF THE FOLLOWING:
- UNI-FLANGE SERIES 1300 MANUFACTURED BY FORD METER BOX COMPANY INC.
- MEGALUG SERIES 1100 FOR DUCTILE IRON PIPE MEGALUG SERIES 2000 PV FOR PVC C900 PIPF
- STARGRIP SERIES 3000 FOR DUCTILE IRON PIPE
- PVC STARGRIP SERIES 4000 FOR PVC C900 PIPE ALL SERVICES TO BE DIRECT TAPPED.
- FOLLOWING TESTING, CONTRACTOR SHALL OPERATE EACH WATER SERVICE TO VERIFY FULL FLOW AND PRESSURE AT THE CURB STOP TO THE SATISFACTION OF THE ENGINEER.
- GENERAL INSTALLATION AND TESTING OF WATERMAIN AND APPURTENANCES TO BE IN ACCORDANCE WITH OPSS 701 AND ALL SPECIFICATIONS REFERENCED WITHIN THESE SECTIONS. COMPLETE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH REQUIREMENTS OF AWWA STANDARD C651-99, REFER TO DETAIL ON DWG 113D FOR TYPICAL TEMPORARY CONNECTION. ALL WATERMAIN TESTING & CHLORINATION WILL BE CONDUCTED BY THE TOWNSHIP AT CONTRACTORS COST. WATERMAINS ARE NOT TO BE CONNECTED TO EXISTING WATERMAINS UNTIL BACTERIOLOGICAL TESTING HAS BEEN SUCCESSFULLY COMPLETED & CERTIFIED
- BY CPU. 12. COMPLETE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH REQUIREMENTS OF O. REG. 459/00 &
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- THE CONTRACTOR PRIOR TO CONSTRUCTION. DO NOT SCALE DRAWINGS.

- SATISFACTION OF THE TOWNSHIP
- ATTACHED TO UNDERSIDE OF BOTTOM FLANGE OF FIRE HYDRANTS. GREATER THAN 20.0m IN LENGTH.
- 15. MAIN STOPS ARE TO BE ONE OF THE FOLLOWING:
- CURB STOPS ARE TO BE ONE OF THE FOLLOWING:

- JOINT FITTINGS 19. ALL CURB STOPS FOR SERVICES WITHIN ASPHALT TO BE LOCATED IN VALVE BOXES INSTALLED FLUSH TO FINISHED
- GRADE OF ASPHALT. CAP FOR VALVE BOX TO BE MARKED WITH 'W' & PAINTED BLUE.
- RADIO READ AS DETERMINED BY THE TOWNSHIP.
- VALVE BOX C/W
- CAP PAINTED BLUE. VALVE AND VALVE BOX PER TOWNSHIP STD W2. . MECHANICAL JOINT DUCTILE FITTINGS AWWA/ANSI C153/A21.53.
- TO BE POSITIONED ON THE RIGHT PORT AS VIEWED FROM STREET. FOR REQUEST
- HYDRAN1
- 28. ALL WATERMAIN FITTINGS TO BE LEAD FREE.
- 30. MECHANICAL JOINTS ARE REQUIRED ON ALL FITTINGS AND BENDS. PEDESTAL 32
- BE PLACED ON TOP & ATTACHED IN WO PLACES ON EACH LENGTH OF PVC WATERMAIN. ALL CONNECTIONS SHALL BE MADE WITH "DRYCONN WATERPROOF CONNECTORS" OR APPROVED EQUAL
- OF PIPES.
- 35. 75mm PVC SLEEVES SHALL BE PROVIDED WHERE CURB-STOPS ARE LOCATED IN DRIVEWAYS E) STORM SEWERS
- MH TO OPSD 701.010 AND DCBMH TO OPSD 701.011, 701.012, 701.013. SUMPS - 450mm PIPES AND UNDER REQUIRE 600mm SUMP IN CATCHBASINS AND MAINTENANCE HOLES BENCHING - REQUIRED FOR PIPES OVER 450mm DIAMETER. STEPS TO OPSD 405.010
- M.H. FRAMES AND GRATES TO OPSD 401.01 OPEN COVER.
- DICB'S TO OPSD 705.030, 705.040 (TYPE A). DCBMH FRAMES AND GRATES TO BE OPSD - 400.100, & OPSD-400.110 (SQUARE)
- PIPE SUPPORT AT DCBMH'S TO OPSD 708.020.
- 10. PROTECTION DURING CONSTRUCTION TO OPSD 808.010.
- 13. FROST STRAPS PER OPSD 701.100. 14. STORM SEWERS 375mmø OR LESS TO BE PVC DR35. STORM SEWERS 450mm OR MORE TO BE CONCRETE CL-65D UNLESS
- OTHERWISE NOTED.
- 17. INLINE AREA DRAINS (AD) TO BE NYLOPLAST 15" (DWG No. 7003-110-026).







13. WATERMAIN - C900 PVC CLASS 235 (DR 18), B 137.3 WITH RING-TITE JOINTS AND TRACER WIRE. TRACER WIRE IS TO BE #12 AWG CLAD STEEL, HIGH STRENGTH WITH MINIMUM 450LB BREAK BURIAL AND COLOR CODED BLUE. DIRECT BURY WIRE SHOULD HAVE 3-WAY LOCABLE CONNECTORS. ABOVE GROUND TRACER WIRE ACCESS BOXES SHALL BE 14. SINGLE WATERMAIN SERVICES (25mmø) - COPPER SEAMLESS TYPE 'K' FOR SERVICES LESS THAN OR EQUAL TO 20.0m IN LENGTH. CROSS-LINKED POLYETHYLENE ("MUNICIPEX" BY REHAU AND "BLUE 904" BY IPEX) FOR SERVICES

CAMBRIDGE BRASS, BALL STYLE, SERIES 301NL (NO LEAD), AWWA X CB COMPRESSION ASSEMBLY MUELLER CANADA, MUELLER 300, BALL TYPE, NO LEAD, B-25008, AWWA X MUELLER "CC" COMPRESSION ASSEMBLY FORD METER BOX COMPANY, BALL STYLE, FB-1000-NL, NO LEAD, AWWA X "CC" COMPRESSION ASSEMBLY CURB STOPS TO 203-H3H3, BALL STYLE WITH DRAIN. BLOW OFFS AS PER TOWNSHIP STD W1.

CAMBRIDGE BRASS, BALL STYLE, SERIES 202NL (NO LEAD), CB COMPRESSION X CB COMPRESSION ASSEMBLY MUELLER CANADA, MUELLER 300, BALL TYPE, NO LEAD, MUELLER "CC" X MUELLER "CC" COMPRESSION ASSEMBLY FORD METER BOX COMPANY, BALL STYLE, B44 SERIES, NO LEAD, "CC" COMPRESSION ASSEMBLY 18. A CURB STOP & EXTENSION SERVICE BOX & MAIN STOP MUST BE INSTALLED ON EACH SERVICE USING COMPRESSION

20. SERVICE BOXES TO NUMBER 7, D-I CLOW OR MUELLER, 24" BLACK ROADS STRAIGHT C/W CAP PAINTED BLUE. 21. ALL SERVICES SHALL BE METERED AS PER TOWNSHIP STD W7. METERS TO BE COMPLETE WITH REMOTE READOUT OR

22. HYDRANTS - CENTURY NUMBER 1, OPEN LEFT (O/L), 2 HOSE, 33B PLUMBER PORT. 6" MJ BASE, SELF-DRAINING RED WITH RED STORZ CAP. CANADA VALVE CENTURY COMPRESSION TYPE VALVE SEALS OR CLOW CANADA BRIGADIER HERITAGE STYLE HYDRANT WITH MCAVITY M59M SHAPE, BOTH WITH STORZ PUMPER CONNECTION. 23. VALVES - RESILIENT SEATED, RSGV MECHANICAL JOINT, OPEN LEFT CLOW OR MUELLER WITH 5-SL-48 SLIDING

25. HYDRANTS TO BE INSTALLED C/W HYDRANT MARKER STAKES PER TOWN & CPU STANDARD "FLEX STAKE HYDRANT MARKER MODEL FHV804, 48" LONG, COLOUR YELLOW WITH REFLECTIVE HYDRANT GRAPHIC ON BOTH SIDES". MARKER 26. ALL VALVES TO BE OPERATED BY THE TOWNSHIP (IF REQUIRED). CONTRACTOR TO PROVIDE MIN. 48hr NOTIFICATION

27. HYDRANTS ARE TO BE 1.67m (5'6") LONG. MAKE-UP PIECES, IF REQUIRED, ARE TO BE INSTALLED BELOW THE

29. MECHANICAL JOINT RESTRAINTS TO BE USED DURING TRANSITION OF WATERMAIN INSTALLATION IN NATIVE SOILS TO ENGINEERED FILL. MECHANICAL JOINT RESTRAINTS TO BE UNI-FLANGE SERIES 1300, MANUFACTURED BY FORD METER BOX COMPANY INC. OR APPROVED EQUAL. FINAL LIMITS TO BE FIELD DECISION.

WATER SAMPLING STATION - THE KUPFERLE FOUNDRY COMPANY ECLIPSE #88 FOR FREEZING CLIMATES ON A CATHODIC PROTECTION REQUIRED ON ALL METALLIC FITTING AND PIPE AS PER OPSS 702 & TOWNSHIP STANDARDS 33. THE PVC PIPE INSTALLATION SHALL INCLUDE TRACER WIRE. TRACER WIRE TO BE 12 GAUGE, MULTI-STRAND SHALL

MUNICIPALITY MUST BE ON SITE DURING ANY TRACER WIRE CONTINUITY TESTING. ABOVE GROUND TRACER WIRE ACCESS BOXES SHALL BE ATTACHED TO UNDERSIDE OF BOTTOM FLANGE OF FIRE HYDRANTS. CLEARANCE BETWEEN WATERMAINS AND SEWER TO BE AS PER MOE GUIDELINES. THE MINIMUM HORIZONTAL

SEPARATION BETWEEN THE WATER MAIN AND ANY SEWER SHALL BE 2.5m. A MINIMUM VERTICAL SEPARATION OF 0.5m MUST BE MAINTAINED BETWEEN WATER MAIN AND SEWERS. CLEARANCES ARE MEASURED FROM OUTSIDE EDGES

DCB LEADS MINIMUM 300mm & CONNECTION FOR RIGID & FLEXIBLE MAIN PIPE SEWER AS PER OPSD - 708.010, 708.030.

BACKFILL AND EMBEDMENT TO OPSD - 802.010 (FLEXIBLE PIPE) CLASS 'B', GRANULAR 'A' EMBEDMENT OR OPSD - 802.030, 802.031 AND 802.032 (RIGID PIPE) GRANULAR 'A' EMBEDMENT. REFER TO GENERAL NOTES.

12. BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S SPMDD.

15. STORM SERVICES TO BE 100mmø PVC DR28 COLORED WHITE, WHERE SHARED STORM SERVICES ARE USED, SERVICE BETWEEN STORM SEWER CONNECTION AND PIPE TO BE 125mmø. MINIMUM SLOPE TO BE 1% AND MINIMUM COVER 1.2m. 16. CATCHBASIN LEADS TO REAR YARD CATCHBASINS TO BE CONCRETE CL-100D.





LIGHT DUTY PAVEMENT STRUCTURE

![](_page_8_Figure_113.jpeg)

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