

DISTRIBUTION CONSTRUCTION STANDARD  
 Civil Construction



Approved By:  
 J.D. 2017-08-14  
 Drafted By:  
 B.D.  
 Designed By:  
 J.D.

## CONDUITS

### CONCRETE ENCASED AND DIRECT BURIED DUCTS

Original Issue:  
 G.D./C.P. 2002-07-11

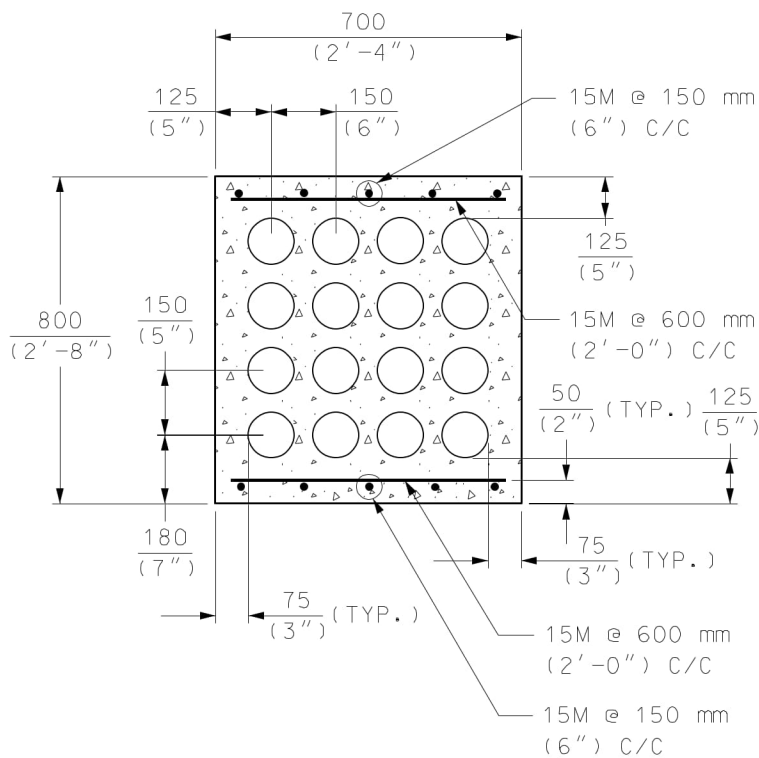
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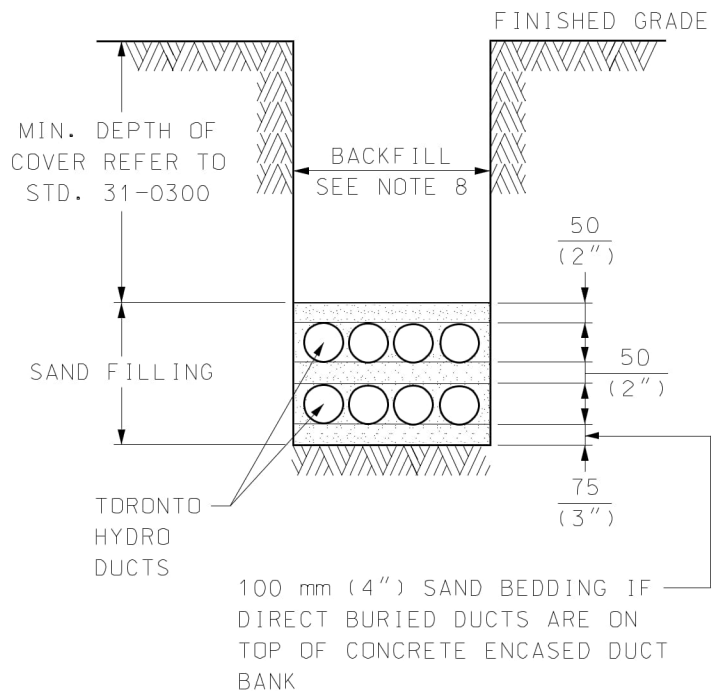
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### REINFORCED DUCT BANK

SEE NOTE 3



### DIRECT BURIED DUCTS

SEE NOTES 2, 9 and 10

#### NOTES:

- 1) REFER TO STD. 31-0300 FOR MIN. DEPTH OF COVER.
- 2) IN AN OPEN TRENCH CONSTRUCTION, ENCASE THE DUCTS IN CONCRETE IF:
  - DUCTS ARE CARRYING PRIMARY CABLES (750 V OR MORE),
  - DUCTS ARE UNDER ROADWAY OR DRIVEWAY,
  - DUCT HAVE 90 DEGREE BENDS,
  - THE NUMBER OF DUCTS ARE MORE THAN 8.IF NONE OF THE ABOVE CATEGORY APPLIES, THEN THE DUCTS SHALL BE DIRECT BURIED.
- 3) REINFORCED DUCT BANK SHALL BE USED ONLY IN PDOR SOIL CONDITIONS OR WHERE THERE IS HIGH WATER TABLE.
- 4) CONCRETE SHALL BE A MIN. 20 MPa, WITH 10 mm (3/8") AGGREGATES.
- 5) REINFORCING SHALL CONFORM TO CSA STANDARD G30.18-09,  $F_y = 400 \text{ MPa}$ .
- 6) ALL DUCTS SHALL BE 100 mm (4") IN DIAMETER UNLESS NOTED OTHERWISE.
- 7) HORIZONTAL AND VERTICAL SEPARATION BETWEEN DUCTS IS CONTROLLED DURING CONSTRUCTION BY PLASTIC DUCT SPACERS.
- 8) EXCAVATION SHALL BE BACKFILLED TO GRADE AS PER SPECIFICATION #CV-CON-01 CLAUSE 5.1.17 AND/OR TORONTO'S LATEST BACKFILLING REQUIREMENT.
- 9) MAX. NUMBER OF DIRECT BURIED DUCTS SHALL BE 8. DUCTS MAY BE PLACED IN AN IRREGULAR FORMATION IN A MAX. OF TWO ROWS.
- 10) RED DUCT SHALL BE USED IN ALL NEW AND REBUILD UNDERGROUND DIRECT BURIED INSTALLATIONS. THIS INCLUDES ELECTRICAL CABLES AND COMMUNICATION CABLES. IF REQUIRED, 50 mm (2") DUCT CAN BE USED FOR COMMUNICATION CABLES.

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