

Lucy Ramirez

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DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

APPROVED
By Lucy Ramirez at 1:38 pm, Feb 22, 2024

KEY PLAN



| No. | DATE | REVISION |
|-----|-----------|-------------------------|
| 4 | JAN 25-23 | RE-ISSUED FOR APPROVAL |
| 3 | JUL 28-22 | RE-ISSUED FOR APPROVAL |
| 2 | JAN 12-22 | ISSUED FOR APPROVAL |
| 1 | JAN 11-22 | ISSUED FOR COORDINATION |

D. B. GRAY ENGINEERING INC.
Professional Management - Consulting & Engineering - James D. Gray, P. Eng. & Associates
700 Long Point Circle 613-425-8044
Ottawa, Ontario d.gray@dbgrayengineering.com

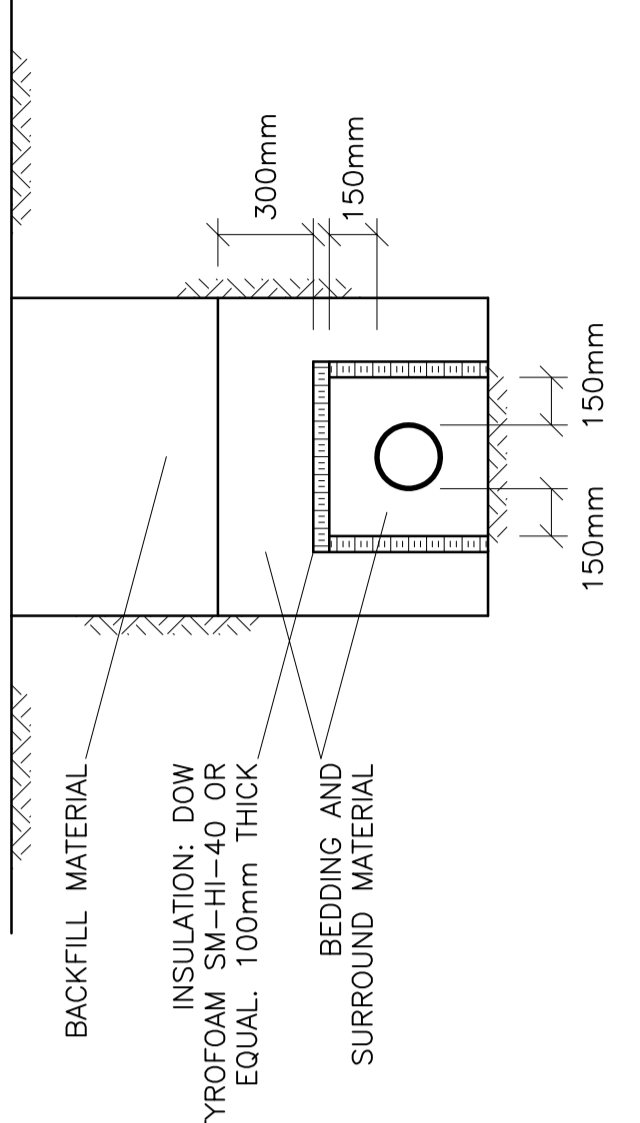
Project
**PROPOSED 2 STOREY
VOLVO DEALERSHIP
1328 MICHAEL STREET**
OTTAWA, ONTARIO

Drawing Title
**DETAILS &
SCHEDULES**

Engineer's Seal
Professional Engineer
D.B. GRAY
17016502
JAN 25-23
BOARD OF ENGINEERS
OF ONTARIO

Drawing No.
**C-5
of 8**
NOT VALID UNLESS
SIGNED & DATED

D07-12-22-0012 #18651



INSULATE SEWER AS INDICATED AND WHERE DEPTH OF COVER IS LESS THAN 2000mm. CENTER INSULATION OVER PIPE. JOINTS BETWEEN SHEETS OF INSULATION SHALL BE STAGGERED.

INSULATION OF STORM SEWERS & SERVICE CONNECTIONS IN SHALLOW TRENCHES
N.T.S

WATER SERVICE PROFILE TABLE

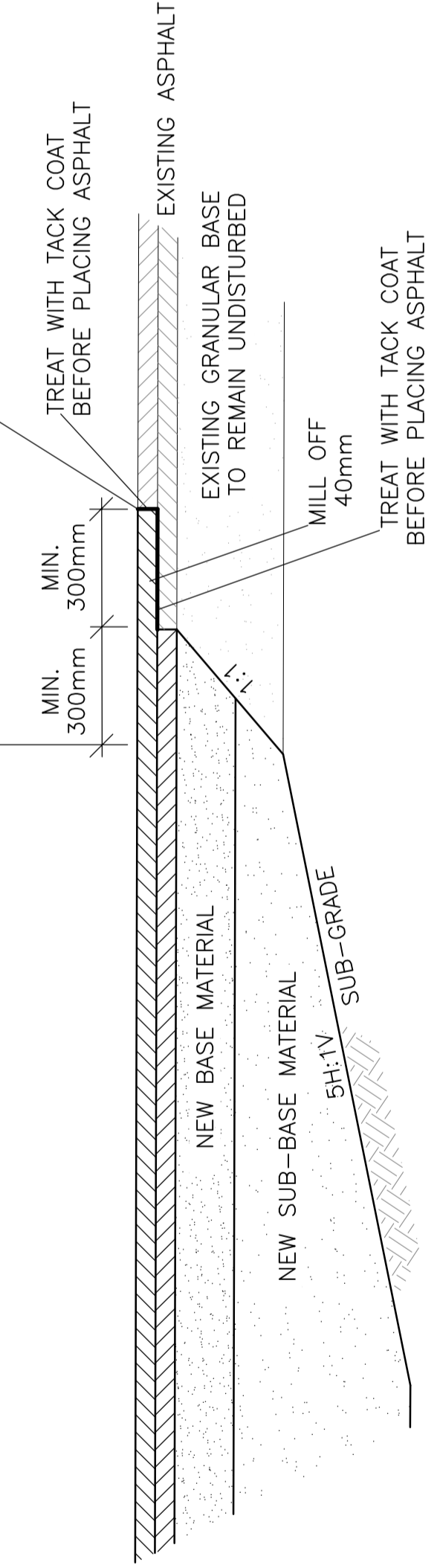
MATERIAL:
150mm PVC PRESSURE CLASS 150 DR18

| STATION | DESCRIPTION | GRADE ELEVATION | TOP OF PIPE | DEPTH OF COVER | NOTES |
|---------|---------------------------------------------------------------------------------------|-----------------|-------------|----------------|--------------------------------------------------------------------------------------|
| 0+00.0 | 150mm x 150mm TEE CONNECTION IN 150mm MUNICIPAL WATERMAIN TO CITY OF OTTAWA STANDARDS | ±69.10 | ±66.45 | ±2.65 | - |
| 0+05.4 | 11.25' VERTICAL BEND UP TO CITY OF OTTAWA STANDARDS | ±69.20 | 66.45 | ±2.75 | - |
| 0+06.9 | 11.25' VERTICAL BEND DOWN TO CITY OF OTTAWA STANDARDS | 69.35 | 66.75 | 2.60 | - |
| 0+07.9 | - | 69.38 | 66.75 | 2.63 | CROSSING 300 SANI TOP ±66.35 WM U/S 66.60 - 250mm REQ'D CLEARANCE (MIN. 250mm REQ'D) |
| 0+08.0 | - | 69.38 | 66.75 | 2.63 | CROSSING 450 ST INV ±67.55 WM TOP 66.75 - 800mm CLEARANCE (MIN. 500mm REQ'D) |
| 0+08.4 | - | 69.39 | 66.75 | 2.64 | BACK OF SIDEWALK |
| 0+11.7 | 150mm VALVE & VALVE BOX TO CITY OF OTTAWA STANDARDS | 69.56 | 66.75 | 2.81 | - |
| 0+12.7 | - | 69.61 | 66.75 | 2.86 | ENTRY INTO BUILDING |

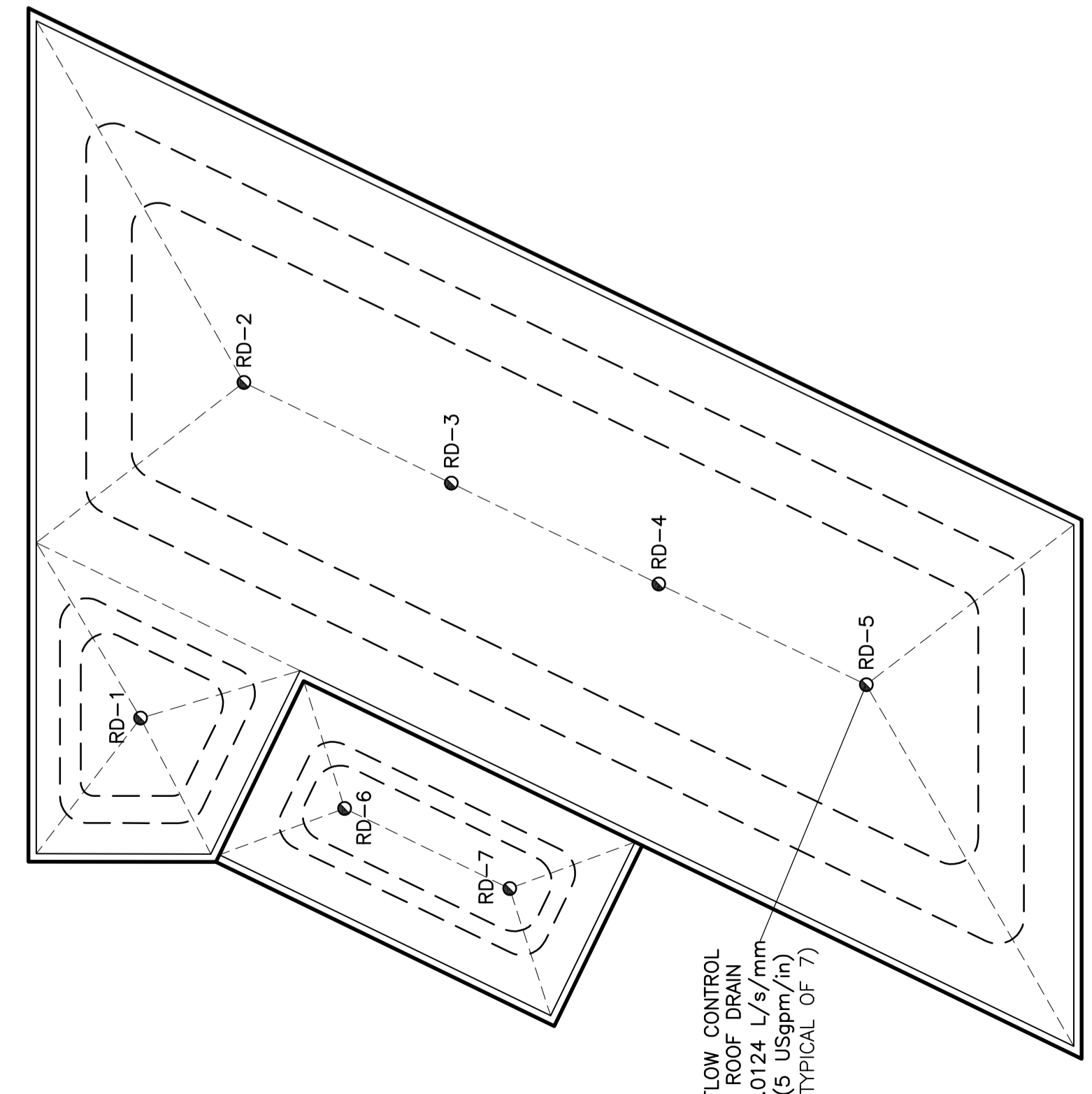
CATCH-BASIN & MANHOLE SCHEDULE

| REF | TOP | SIZE | TYPE | INVERT | | NOTES |
|-------------|--------|----------------|---------------------------------------|-----------------------|-----------|---------------------------------------------------------------------------------------------------------------------|
| | | | | AT INLET | AT OUTLET | |
| STORM SEWER | | | | | | |
| CB/MH-1 | 69.49 | 1200mm | PRE-CAST CONCRETE CATCH-BASIN/MANHOLE | - | 67.52 | TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO DRAWING No. S25 & S28.1 |
| CB/MH-2 | 69.12 | 1200mm | PRE-CAST CONCRETE CATCH-BASIN/MANHOLE | 67.42(E) | 67.42(S) | TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO DRAWING No. S25 & S28.1 |
| CB/MH-3 | 69.04 | 1200mm | PRE-CAST CONCRETE CATCH-BASIN/MANHOLE | 67.40(N) | 67.40(S) | TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO DRAWING No. S25 & S28.1 INSTALL GCI IN OUTLET PIPE |
| MH-4 | 69.07 | CDS PMSU2015-4 | PRE-CAST CONCRETE MANHOLE | 67.39(N) | 67.38(S) | TO OPSD 701.010 & CITY OF OTTAWA STANDARDS EXCEPT WITH A DEEP SUMP AS REQUIRED BY CDS INSTALL WATERTIGHT COVER |
| MH-5 | ±68.85 | 1200mm | PRE-CAST CONCRETE MANHOLE | 67.36(N) ±67.31(E) | ±67.30(W) | TO OPSD 701.010 & CITY OF OTTAWA STANDARDS EXCEPT WITH A DEEP SUMP AS REQUIRED BY CDS INSTALL WATERTIGHT COVER |

NEW EXISTING PAVEMENT



PAVEMENT TRANSITIONS
N.T.S.



| PONDING DEPTHS AT ROOF DRAINS | 100-YEAR | 5-YEAR |
|-------------------------------|----------|--------|
| RD-1 | 116mm | 86mm |
| RD-2,3,4,5 | 114mm | 81mm |
| RD-6,7 | 89mm | 61mm |

UPPER ROOF: INSTALL A MINIMUM OF 9 SCUPPERS, EACH A MINIMUM 300mm WIDE. BOTTOM OF SCUPPERS SHALL BE 150mm ABOVE ROOF DRAINS (REFER TO ARCHITECTURAL FOR EXACT LOCATIONS AND DETAILS). ROOF SHALL BE DESIGNED TO CARRY THE LOAD OF WATER HAVING A 50mm DEPTH AT SCUPPER OR 200mm DEPTH AT ROOF DRAIN (REFER TO STRUCTURAL).

LOWER ROOF: INSTALL A MINIMUM OF 2 SCUPPERS, EACH A MINIMUM 300mm WIDE. BOTTOM OF SCUPPERS SHALL BE 150mm ABOVE ROOF DRAINS (REFER TO ARCHITECTURAL FOR EXACT LOCATIONS AND DETAILS). ROOF SHALL BE DESIGNED TO CARRY THE LOAD OF WATER HAVING A 50mm DEPTH AT SCUPPER OR 200mm DEPTH AT ROOF DRAIN (REFER TO STRUCTURAL).

ROOF DRAINAGE PLAN

FLOW CONTROL ROOF DRAIN
0.0124 L/s/mm
(5 USgpm/m)
(TYPICAL OF 7)