# City of Kitchener
## Standard Drawings Index

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</tbody>
</table>
NOTES
1. UTILITY CORRIDOR (HYDRO & TELECOMMUNICATIONS) SHALL BE 0.6m WIDE.
2. UTILITY CORRIDOR TO HAVE A MINIMUM COVER OF 0.9m.
3. WATERMAIN TO HAVE MINIMUM COVER OF 2.0m for 300mm and smaller diameter and 1.8m for 450mm diameter and larger.
4. CLEAR SEPARATION BETWEEN WATERMAIN AND SEWERS SHALL BE AS PER MOE REQUIREMENTS.
5. JOINT USE TRENCHES SHALL BE USED BY HYDRO AND TELECOMMUNICATION.

6. THE FOLLOWING IS A MINIMUM ROAD BASE AND WILL REQUIRE A SOILS REPORT VERIFICATION TO DETERMINE IF ADDITIONAL THICKNESS IS REQUIRED.
   - 40mm HL3
   - 60mm HL4
   - 150mm GRANULAR "A"
   - 450mm GRANULAR "B"

7. SUBGRADE SHALL BE COMPACTED TO 100% OF STANDARD PROCTOR DENSITY AT MAX. DRY DENSITY.

<table>
<thead>
<tr>
<th>20.0m MINOR COLLECTOR R.O.W.</th>
<th>The Corporation Of The CITY OF KITCHENER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
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<th>N.T.S.</th>
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<tr>
<td>1</td>
<td>MANUAL UPDATE JULY 2012</td>
</tr>
<tr>
<td>NO.</td>
<td>REVISION</td>
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</table>
30.0m SECONDARY ARTERIAL R.O.W.

The Corporation Of The
CITY OF KITCHENER

NOTES
1. UTILITY CORRIDOR (HYDRO & TELECOMMUNICATIONS) SHALL BE 0.8m WIDE.
2. UTILITY CORRIDOR TO HAVE A MINIMUM COVER OF 0.9m.
3. WATERMAIN TO HAVE minimum COVER OF 2.0m FOR 300mm AND SMALLER DIAMETER AND 1.8m for 450mm DIAMETER AND LARGER.
4. CLEAR SEPARATION BETWEEN WATERMAIN AND SEWERS SHALL BE AS PER MOE REQUIREMENTS.
5. joint USE TRENCHES SHALL BE USED BY HYDRO AND TELECOMMUNICATION.
6. THE FOLLOWING IS A MINIMUM ROAD BASE AND WILL REQUIRE A SOILS REPORT VERIFICATION TO DETERMINE IF ADDITIONAL THICKNESS IS REQUIRED.
   - 40mm HL3
   - 100mm HL4
   - 150mm GRANULAR "A"
   - 450mm GRANULAR "B"
7. SUB-BASE SHALL BE COMPACTED TO 100% OF STANDARD PROCTOR DENSITY AT MAX. DRY DENSITY.
8. REFER TO REGION OF WATERLOO STANDARD DRAWING 211 FOR BOULEVARD CONCRETE EDGE STRIP DETAILS.
NOTES

1. MIN. DEPTH OF COVER FOR GAS AND UTILITIES IS 0.9m.

2. WHEN ROAD R.O.W. IS LESS THAN 20m PROPERTY LINE SHALL HAVE A RADIUS OF 4.5m.
### DRAINAGE

<table>
<thead>
<tr>
<th>Description</th>
<th>Over 50% Sand</th>
<th>Under 50% Sand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. WATER TABLE BETWEEN 600mm &amp; 1200mm</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2. WATER TABLE BELOW 1200mm—NO SEwers</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>3. WATER TABLE BELOW 1200mm—SANITARY SEwers</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>4. WATER TABLE BELOW 1200mm—STORM SEwers</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>5. WATER TABLE BELOW 1200mm—STORM &amp; SAN. SEwers</td>
<td>3</td>
<td>6</td>
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### TRAFFIC

<table>
<thead>
<tr>
<th>Description</th>
<th>Minimum Asphalt</th>
<th>Minimum Base 16mm Crushed Gravel</th>
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<tbody>
<tr>
<td>1. ARTERIAL STREETS</td>
<td></td>
<td></td>
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<tr>
<td>- ROUTE LONGER THAN 1.6km</td>
<td>18</td>
<td>150mm</td>
</tr>
<tr>
<td>- ROUTE SHORTER THAN 1.6km</td>
<td>12</td>
<td>150mm</td>
</tr>
<tr>
<td>2. RESIDENTIAL STREETS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- ROUTE LONGER THAN 0.8km</td>
<td>6</td>
<td>100mm</td>
</tr>
<tr>
<td>- ROUTE SHORTER THAN 0.8km</td>
<td>3</td>
<td>100mm</td>
</tr>
</tbody>
</table>

### FROST

- See Frost Value Chart

### Design Curve

- Use design curve if total value is within limits

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–7</td>
<td>8–14</td>
<td>15–22</td>
<td>23–31</td>
<td>32–41</td>
</tr>
</tbody>
</table>

- Add values from Drainage, Frost and Traffic Tables
EVALUATION OF SOIL WITH RESPECT TO FROST SUSCEPTIBILITY INDICATED BY LARGE NUMBERS

BASED ON U.S. BUREAU OF SOILS CLASSIFICATION FOR PARTICLE SIZE.
EXAMPLE 1. 20% CLAY
60% SILT
20% SAND

EXAMPLE 2. 30% CLAY
19% SILT
48% SAND
3% GRAVEL

FROST VALUE - 7
GENERAL NOTES:

1. If the driveway is concrete, expansion joint material shall be installed at the back of the sidewalk.

2. Saw cuts shall be placed at the centreline of the driveway ramp and extended through the sidewalk and curb.

3. Except in new development, driveway ramps may be poured monolithically with the adjacent sidewalk; in which case tooled saw cut joints shall be placed along the front edge of the sidewalk, across the driveway entrance, where boulevard is less than 1.5m.

4. The distance along the curb from the extended edge of the driveway at the back of the sidewalk to the bottom of the depressed curb shall be 1/4 of the distance from the back of curb to the front of sidewalk to a maximum of 1000 mm, but shall not be less than 500 mm. New development shall be 0.3 m.

5. Saw cuts shall be placed in the sidewalk where the driveway ramp tapers intersects and in the curb at the bottom of grade transition.

6. Tooled joints in the driveway portion of the sidewalk shall be spaced equally to match the typical jointing of sidewalk as close as possible.

7. Where driveway ramp width exceeds 3000 mm, a longitudinal saw cut joint is to be provided at the mid-point.

8. Allowable ramp widths at the sidewalk are between 3.65 m and 7.30 m.

9. Depressed curb and gutter at driveway entrances shall have an additional 50 mm bench to support adjacent concrete ramps, refer to OPSD 600.040.

10. Refer to OPSD 350.010 for commercial/industrial ramp design.


12. For new development, ramp width at front of sidewalk is to equal the width of the driveway at the back of sidewalk.

STANDARD DROP CURB AND DRIVEWAY RAMP DETAILS
CROSS SECTION OF COMBINED WALK, CURB & GUTTER

CROSS SECTION OF COMBINED WALK, BOULEVARD, CURB & GUTTER

PLAN OF COMBINED WALK, CURB & GUTTER

NOTE:
CONCRETE STRENGTH 32MPa,
AIR ENTRAINMENT: 5% TO 8%
MIN. CEMENT CONTENT: 365kg./m³
COARSE AGGREGATE: 20mm NOMINAL MAX. SIZE
MAXIMUM WATER/CEMENTING MATERIALS RATIO 0.45

CONSTRUCTION DETAIL OF SIDEWALK, CURB & GUTTERS

The Corporation Of The CITY OF KITCHENER

Scale: R.T.S.
Rev. Date: JUNE 2010
No. REVISION DATE Std. No.: 110
NOTES:
FOR CONCRETE SIDEWALK DETAILS SEE CITY OF KITCHENER STANDARD SPECIFICATIONS.
CONC. SIDEWALK TO BE CENTRED IN R.O.W.
AREA NOT COVERED WITH CONC. S/W TO BE SODDED WITH No.1 NURSERY
SOD INCLUDING A MINIMUM 0.15m OF TOPSOIL.
NOTES — 1. ALL CONCRETE TO BE 20 MPa.
2. MIN. 25mm THICK CASTING PLATE ON CHAMBERS LOCATED IN TRAVELLED PORTION OF ROAD.
3. ALL MATERIAL PLACED AROUND CHAMBER TO BE PROPERLY COMPACTED.
4. A/R—AS REQUIRED BY LOAD AND SITE CONDITIONS.

DIMENSIONAL STANDARDS
FOR Poured VALVE CHAMBER
(FOR 450mm GATE VALVE)

The Corporation Of The
CITY OF KITCHENER

KITCHENER

No. REVISION DATE Std. No.: 201
NOTES –

1. ALL CONCRETE TO BE 20 MPa.

2. MIN. 25mm THICK CASTING PLATE ON CHAMBERS LOCATED IN TRAVELLED PORTION OF ROAD.

3. ALL MATERIAL PLACED AROUND CHAMBER TO BE PROPERLY COMPACTED.

4. A/R – AS REQUIRED BY LOAD AND SITE CONDITIONS.
STORTZ CONNECTION

50 TO 150 FINISHED GRADE

ATTACH TRACING WIRE TO FLANGE BOLT

BY APPROVED MECHANICAL C-CLAMP

CONNECTION OR APPROVED EQUIVALENT

TAPE ONLY "B" SIDE
OF TRACER LOOP

COPPER TRACER WIRE

GRAN. 'A' OR APPROVED NATIVE
MATERIAL FILL, COMPACTED TO 95%
SPD ON UNDISTURBED SOIL

CADWELD TRACING WIRE TO TOP OF
BOOT BY APPROVED METHODS

MIN. OF 1 CUBIC METER OF 19mm
CLEAR STONE SURROUNDED WITH
FILTER CLOTH

BOND BREAKER

PRECAST SOLID 400X200X200
CONCRETE BLOCK

20MPa CAST IN PLACE CONCRETE BLOCK

PRECAST SOLID 400X200X200
CONCRETE BLOCK TO UNDISTURBED SOIL

PLAN VIEW OF HYDRANT BRANCH
(SEE NOTES 11&12 BELOW)

"A" SIDE OF TRACER WIRE LOOP

"B" SIDE OF TRACER WIRE LOOP

MANUFACTURED ITEMS LIST

1. REGULAR 150mm DIA. BARREL USE EXTENSION IF
REQUIRED.
2. MINIMUM DIA. PIPE FOR HYDRANT LEADS TO BE
150mm DIA.
3. MINIMUM SIZE M.J. GATE VALVE TO BE
150mm DIA.
4. VALVE BOX
5. USE ANCHOR TEE UP TO AND INCLUDING
450mm DIA.
6. FOR TEES LARGER THAN 450mm DIA. USE
MECHANICAL RESTRAINTS.

NOTES:

1. HYDRANT TO BE SET PLUMB WITH STEM EXTENSIONS TO SUIT DEPTH OF BRANCH. BRANCH TO BE SET LEVEL.
   EXTENSIONS TO BE INSTALLED BETWEEN UPPER AND LOWER BARREL SECTION. ONLY ONE EXTENSION (MAX.
   1.0m LONG) PER HYDRANT, IF MORE HEIGHT IS REQUIRED, THEN A LONGER BARREL SHALL BE USED.
2. ALL BLOCKING TO BE AGAINST UNDISTURBED TRENCH WALL.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
4. BOND BREAKER TO BE USED BETWEEN CONCRETE AND FITTINGS.
5. CORROSION PROTECTION SHALL BE AFFIXED AS PER STANDARD SPECIFICATIONS FOR WATERMAIN
   CONSTRUCTION.
6. NO BENDS ON HYDRANT LEADS UNLESS APPROVED.
7. ALL JOINTS TO BE FULLY RESTRAINED FROM HYDRANT BOOT TO TEE (THREADED RODS SHALL NOT BE USED).
8. PLUG DRAIN HOLE IN HIGH WATER TABLE.
9. HYDRANTS SHALL BE CLEAR OF OBSTRUCTIONS FOR A DISTANCE OF 0.6m REAR, 2.0m ON SIDES AND CLEAR
   TO CURB IN FRONT.
10. TRACER WIRE NOT REQUIRED FOR METALLIC WATERMAIN.
11. "A" SIDE OF TRACER WIRE LOOP TO BE
    CADWELDED TO:
    a) ANCHOR TEE
    b) HYDRANT VALVE
    c) HYDRANT BARREL
12. "B" SIDE OF TRACER WIRE LOOP TO BE
    TAPE ONLY TO:
    a) HYDRANT BARREL
    b) HYDRANT LEAD
    c) WATERMAIN
NOTES—
1. CHAINAGE TO BE WATERMAIN CHAINAGE
   NOT ⌂ OF ROAD.
2. A MIN. OF 2 TIES AT RIGHT ANGLES
   OR LESS ARE REQUIRED FOR VALVES
   AND FITTINGS OTHER THAN CURB STOPS
3. MEASUREMENTS BETWEEN CURB STOPS
   ON CURBES ARE TO BE CHORD
   MEASUREMENTS.
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2. A MIN. OF 2 TIES AT RIGHT ANGLES OR LESS ARE REQUIRED FOR VALVES AND FITTINGS OTHER THAN CURB STOPS.

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2. A MIN. OF TIES AT RIGHT ANGLES OR LESS ARE REQUIRED FOR VALVES AND FITTINGS.

3. MEASUREMENTS BETWEEN CURB STOPS ON CURVES ARE TO BE CHORD MEASUREMENTS.
<table>
<thead>
<tr>
<th>LOCATION</th>
<th>FROM M.H.</th>
<th>TO M.H.</th>
<th>DEPTH OF TRENCH (top of pipe)</th>
<th>WIDTH OF TRENCH</th>
<th>BACKFILL MATERIAL TYPE</th>
<th>WEIGHT (kg/m)</th>
<th>STATIC LOAD (kg/m)</th>
<th>SUPERIMPOSED LOAD (kg/m)</th>
<th>TOTAL LOAD (kg/m)</th>
<th>SAFETY FACTOR</th>
<th>DESIGN LOAD (kg/m)</th>
<th>BEDDING TYPE</th>
<th>PIPE STRENGTH REQ'D (kg/m)</th>
<th>PIPE SECTION DIA.</th>
<th>TYPE</th>
<th>CLASS</th>
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The Corporation Of The CITY OF KITCHENER

PIPE STRENGTH AND BEDDING DESIGN CHART

SCALE: N.T.S.
DATE: Jul-10
NO. REVISION DATE STANDARD NO.: 301
NOTES
1. REINFORCED CONCRETE PIPE MANUFACTURED TO CSA SPECIFICATION.
2. MANHOLE RISER MANUFACTURED TO CSA SPECIFICATION.
3. PRECAST MANHOLE RISER MAY BE SPIGOT OR BELL END UP, DEPENDING ON SUPPLIER.
4. MANHOLE RISER SECTION REINFORCING WELDED TO PIPE REINFORCING, JOINT GROUTED WITH NON-SHRINK MORTAR.
5. REFER TO OPSD FOR DETAILS OF FRAME AND COVER AND ADJUSTMENT.
6. RUNGS SHALL BE INSTALLED ON LEFT SIDE, LOOKING AT SPIGOT END OF PIPE.
7. RUNGS TO BE GALVANIZED AS PER OPSD & INSTALLED ON 300mm CENTRES TO SPRINGLINE.
NOTES
1. CONCRETE TO BE 30MPa AT 28 DAYS.

2. ALL JOINTS AND LIFTING HOLES TO BE COMPLETELY FILLED WITH A 1:3 MORTAR MIX AND POINTED BEFORE BACKFILLING.

3. WHERE INLET IS PLACED ACROSS DITCH AND IS ACCESSIBLE TO VEHICULAR TRAFFIC, GRATE SLOPE IS TO BE 6:1 OR FLATTER.

4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH OPSD-403-01 FOR GRATE AND ANCHOR BOLT DETAILS.

5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH M.T. FORMS 407 AND 1351.

<table>
<thead>
<tr>
<th>TABLE OF OPENING DIMENSIONS (IN MILLIMETRES)</th>
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<td>POSITION</td>
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</tr>
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<td>INLET OR DITCH SLOPE</td>
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<td>4:1</td>
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<tr>
<td>5:1</td>
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<tr>
<td>INLET ACROSS DITCH</td>
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PRECAST DITCH INLET WITH SUMP

The Corporation Of The
CITY OF KITCHENER

KITCHENER

Scale: [Scale]
Rev. Date: JUNE 2010
No. REVISION DATE Std. No.: 304
SECTION B–B

SECTION A–A

PIPE REINFORCED WITH NO. 1 GAUGE (17.11mm) CORRUGATED SHEET. 3 FULL CORRUGATIONS BY 250mm AND BOLTED TO PIPE BY 2 BOLTS IN EACH OF THREE CONSECUTIVE DIPS.

NOTE: BARS SPACED 150mm C.C. AND CENTRE BAR PRODUCED THROUGH ROLLED BAR BY 40mm

CENTRE OF CHANNEL

NOTES
1. CORRUGATED SHEET TO BE NO. 1 GAUGE (7.11mm) AND BOLTED TO PIP BY 2 BOLTS IN EACH OF 3 CONSECUTIVE DIPS.
2. FOR PIPE 2400mm AND OVER GRATE BARS INCREASED TO 25mm. THREE VERTICAL 25mm BARS TO SPAN THE THREE CENTRAL HORIZ. BARS AT 500mm INTERVALS.
3. UNLESS NOTED ALL DIMENSIONS IN MILLIMETRES.

<table>
<thead>
<tr>
<th>PITCH OF CORR. METAL PIPE</th>
<th>PITCH OF CORR. METAL PIPE</th>
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</thead>
<tbody>
<tr>
<td>68</td>
<td>203X57 a 5.22kg/0.3m</td>
</tr>
<tr>
<td>76</td>
<td>229X64 a 6.08kg/0.3m</td>
</tr>
<tr>
<td>152</td>
<td>152X51 a 5.90kg/0.3m</td>
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</tbody>
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NOTE:

1. SANITARY AND WATER CONNECTIONS SHALL BE PLACED IN A COMMON TRENCH AND BE INSTALLED TO THE CENTER OF A SINGLE FAMILY LOT. VERTICAL/HORIZONTAL SPACING OF SERVICES AS PER M.O.E. AND O.B.C. FOR A SEMI-DETACHED LOT THE CONNECTIONS SHALL BE INSTALLED TO THE QUARTER POINTS OF THE LOT.

2. FRONT YARD INFILTRATION FACILITIES SHOULD BE SHARED BETWEEN TWO HOUSES ON THE OPPOSITE SIDE OF THE PAIRED DRIVEWAYS.

3. THE FRONT YARD INFILTRATION FACILITY SHALL HAVE MINIMUM 2.44m SEPARATION WITH THE WATER SERVICE.

4. SEWER AND WATER SERVICE CONNECTIONS SHALL NOT BE INSTALLED WITHIN 1.5m OF THE CENTER OF A SUBMERSIBLE TRANSFORMER VAULT OR WITHIN 0.9m OF A PROPOSED ELECTRICAL SERVICE STUB.

5. FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN 3.0m OF A PROPOSED LIGHT POLE OR HYDRO POLE STANDARD.

6. STORM AND SANITARY CONNECTIONS SHALL BE EXTENDED 1.5m INSIDE THE PROPERTY LINE OR TO THE EXTENT OF ANY EASEMENTS.
NOTES:

1. Extruded Polystyrene Insulation to be 50mm thick Multi-purpose STYROFOAM Brand SM Insulation with shiplap edge treatment or approved equivalent.
2. Trench width dimensions to conform to Region of Waterloo Standard Drawing SSMS E1–01.
3. Granular 'A' bedding to extend to a minimum of 1500mm below finished grade.
4. Insulation along trench side slope to extend all the way to the bottom of the bedding.
5. Minimum bedding depth to conform to Region of Waterloo Standard Drawing SSMS E1–01.
6. When the spring line of the pipe is below 1.5m insulation is not required.
A. All dimensions are in millimetres unless otherwise shown.
1. All swales to be min. 2' wide with min. 100mm (4") pipes. Proposed swale to be designed around utilities and flow diversion lines.

2. All swales to be min 0.15m wide and max 0.2m according to site type with 1.0 difference between building and street grade.

3. A min 0.2m apron to be maintained against all dwelling units to allow proper drainage of the area.

4. Streets within lots are to have a max. grade of 2.1% structural.

5. Difference between site door sill and ground elevation to be max.

6. Difference between top of foundation wall and building line elevation.

7. A min of 0.15m of the rear lot area from the back of the house shall be graded between lot 10 to a max. 6%.

8. Type "A" and type "C" lots with through drainage from other type lots.

9. Driveway grades:

- Average grade 2% max.
- Grade 0.5% min.

10. All swales to be min 2' wide with min. 100mm (4") pipe. Proposed swales to be designed around utilities and flow diversion lines.

11. Flow diversion lines are to be designed to divert flow to the swale.

12. Proposed elevation at rear.

13. Proposed elevation at street level.

14. Location and direction of house.

15. Location within the lot.


17. 1st floor.

18. Vanes.

19. Street line.

20. House type.

21. Extenion of ground elevation.

22. Proposed elevation at rear.

23. Drainage swale entrance.


25. Approx. 3.0m apron.

26. Approx. 0.75m apron.

27. Approx. 0.3m apron.

28. Min. 0.9 wide swale.

29. Localized blockage line.

30. Flow to be carried around (for all ground types).

31. GENERAL NOTES.
GENERAL NOTES

1. Lot or Grading (required)
   - Lot number
   - Proposed front elevation of the house
   - Proposed rear elevation of the house
   - Location and direction of driveway
   - Street elevation at the front
   - Street elevation at the rear
   - Elevation above road
   - Existing ground elevation
   - House type

2. 20% slope to be min. 2.0' with min. 100mm of pervious surface (grass)
   - All slabs to be min. 6.0' and max. 12.0' according to site yard width.
   - 1' difference between building line elevation and site yard elevation is
     (for all grading trees)
GENERAL NOTES

1. Difference between building line elevation and side walk swale elevation (for all grading types).

2. All swales to be min. 2 ft. wide but min. 1 ft. Sharrow shaper subbase (see).

3. A min. 0.3m Approach is to be maintained against all dwelling units to allow access from side entrance to the front and rear yards. 0.3m access to other.

4. Steps within lot area to have a max. grade of 1:1. Stairway running to evolve.

5. Difference between site door sill and ground elevation to be max. 0.4m.

6. Difference between top of foundation wall and building elevation to be min. 15 cm.

7. A min. of 6m of the rear lot area from the back of the house shall be.

8. Permethrin 2 to a Max. 4.


AVOIDING THE TRENCH, LOT LINE TO BE A MIN. OF 1.2m IN WIDTH.

FROM CURB TO STREET LINE MIN. 2.0m, Optimum 4.0m. Max. 8.0m.
NOTE:

OPTIMUM SIDE SLOPE: 1 VERTICAL TO 6 HORIZONTAL
MAXIMUM SIDE SLOPE: 1 VERTICAL TO 3 HORIZONTAL
MINIMUM GRADIENT: 2%
MAXIMUM GRADIENT: 8%
GRADE TRANSITIONS SHALL BE SMOOTH TO FACILITATE THE MOWING OPERATION
MINIMUM SWALES DEPTH 150 mm
MAXIMUM SWALES DEPTH 300 mm
NOTE:
ALL POST DEPTH SHALL BE
AS PER CK-135 SPECIFICATION.
NOTE:
CONSULT SPECIFICATION CK-135 REGARDING FENCE AND FOOTING REQUIREMENTS.
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TYPICAL SECTION

HOME BASE

6.71m (22'-0")

6.89m (23'-6")

7.77m (25'-6")

7.63m (25'-0")

HOME BASE

8.20m (26'-11")

8.20m (26'-11")

7.82m (25'-9")

7.82m (25'-9")

(ONE HALF OF BACKSTOP SHOWN)

10' FT. BACK

(ONE HALF OF BACKSTOP SHOWN)

20' FT. BACK

MAJOR BACKSTOP
TOP OF ASPHALT TO BE 10mm ABOVE ADJACENT SURFACE

HAND TAMP EDGES TO 45° ANGLE WHERE ASPHALT MEETS ADJACENT SURFACE. TEMPORARILY REMOVE ANY OBSTRUCTIONS INTERFERING WITH HAND TAMING OPERATIONS. RESTORE EDGE UPON COMPLETION.

MEET PROPOSED / EXISTING GRADES
2% CROSS SLOPE OR CROWN

3000

EDGE TREATMENT
(SEE ABOVE DETAIL)

REPAIR EDGE WITH TOPSOIL AND SEED

40mm COMPACTED HL3 ASPHALT
50mm COMPACTED HL4 ASPHALT

300mm GRANULAR 'A'
COMPACTED TO 98% S.P.D.

SUB-GRADE COMPACTED TO 98% S.P.D.

NOTE: EXCAVATE TO MINIMUM DEPTH OF 15" [390mm] OR END OF TOPSOIL LAYER TO A MAXIMUM DEPTH OF 33" [840mm]. FILL ADDITIONAL EXCAVATED TOP SOIL WITH COMPACTED GRANULAR 'B' BASE TO A MAXIMUM DEPTH OF 18" [450mm]
NOTE: EXCAVATE TO MINIMUM DEPTH OF 16" [400mm] OR END OF TOPSOIL LAYER TO A MAXIMUM DEPTH OF 34" [850mm]. FILL ADDITIONAL EXCAVATED TOP SOIL WITH COMPACTED GRANULAR 'B' BASE TO A MAXIMUM DEPTH OF 18" [450mm].
WASHED GRAVEL WRAPPED IN
GEOTEXTILE FABRIC – TERRAFIX
270R OR APPROVED SUBSTITUTE
MIN. 1000mm OVERLAP

200-250mm RIVER STONE

100mm STONEDUST SURFACE
COMPACATED AND GRADED SMOOTH

50mm TALL GRAVEL BORDER

200mm MIN., 15mm Ø
CLEAR WASHED GRAVEL

MAX. 25mm TOPSOIL/DUFF
LAYER REMOVAL

SECTION