**April 08, 2025**

**File: 0552-001**

# General Design Standards Amendment #2

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The City of Beaumont Engineering Department has amended the following items in the current General Design Standards, March 2021. The revised items are highlighted in blue.

## 1. Section 1.0 – Process:

1.1. Item 1.2.1.1 Engineering Submissions, b. Supplementary Studies, *Page 17:*

- Addition: The City reserves the right to request corrections for any omissions or error after the acceptance of Issued for Acceptance (IFA) and Issued for Construction (IFC) drawings and documents.

1.2. Item 1.2.3.4 Engineering Drawings, l. Standard Details Plans, Underground v., *Page 27:*

- Revision: Design with Valves Type "A"/ slider types for landscaped areas, and type "B" for hard surface areas.

1.3. Item 1.3.3.3 Final Acceptance Certificate, *Page 39:*

- Addition: FAC application/package to be submitted within a maximum of 90 days after the final inspection where the municipal improvement was deemed acceptable. Failure to submit the certificate application will incur the requirement to perform another re-inspection.

## 2. Section 2.0 – Surface:

2.1. Item 2.1.1.3 Local Residential Roadways, c. Multi-Use Paths (MUP) and Trails, *Page 51:*

- Addition: vi. Multi-Use Pathways (MUPs) and trails shall be designed to avoid sharp turns, incorporating gradual transitions with larger radius.

2.2. Item 2.1.1.3 Local Residential Roadways, e. Driveways, *Page 51:*

- Addition: vii. Driveways shall maintain a minimum setback of 1 meter from the widest point of the curb ramp apron and a minimum of 1.5 meters from any fire hydrant.

2.3. Item 2.1.1.3 Local Residential Roadways, f. Lanes, *Page 51*:

- Addition: iv. Lanes with dead ends shall be designed to accommodate adequate turnaround space for large vehicles.

2.4. Item 2.1.2 Table 2.2 Road Classification, *Page 54:*

- Revision: 3 x 3 legal corner cutoffs (m) is required for the lane intersecting the major and minor road classifications.

2.5. Item 2.1.5.4 Pavement Construction, c., *Page 63:*

- Addition: For new construction and/or if directed by Engineering, it is imperative that all catch basins, manholes, water valves, and other fixtures elevation be adjusted to adequate grade prior to the final lift of paving. Temporary protection shall be provided as necessary until the completion of the paving. Should these fixtures not be raised before the final lift of paving and require adjustment thereafter, penalties may be imposed on a per-occurrence basis (e.g., per manhole, per catch basin). Such penalties will be duly documented and assessed by Engineering.

2.6. Item 2.3.3 Swales, *Page 80:*

- Addition: A catch basin shall be installed at the terminus of a concrete or grass swale within the public lands to effectively capture overland flow and prevent its intrusion onto walkways, trails, or designated pedestrian paths.

2.7. Item 2.3.3 Swales, *Page 80:*

- Revision: Swales without a concrete channel must maintain a minimum longitudinal gradient of 2.0% and are permitted exclusively in designated park areas or for conveying surface drainage between the flankages of two lots, or across the rear of no more than two lots. In instances where drainage must be conveyed across more than two lots, a concrete swale with a minimum longitudinal gradient of 0.75% is required unless otherwise permitted by the City.

## 3. Section 3.0 – Underground:

3.1. Item 3.1.1.1 Water Distribution System, *Page 91:*

- Addition: Additional separation may be required at the discretion of the City.

3.2. Item 3.1.1.1 Water Distribution System, i Depth, Table 3.1, *Page 92:*

- Revision: Minimum depth of cover from finished grade to the top of the pipe.

3.3. Item 3.1.1.1 Water Distribution System, c. Valves, *Page 92:*

- Addition: Water valves elevations shall be raised or adjusted to the final grade prior to the application of the asphalt overlay. Failure to do so may result in the imposition of a penalty by the City.
- Addition: Landscaped areas shall require Type "A" sliding water valves, while Type "B" water valves shall be designed for hard surface areas.

3.4. Item 3.2.5.1 Minor System, a. Pipe Sizing Capacity, c. Separation, *Page 101:*

- Addition: Additional separation may be required at the discretion of the City.

3.5. Item 3.3.2 Waste Water Sewer Main Alignments and Location, b., *Page 112:*

- Addition: Additional separation may be required at the discretion of the City.

3.6. Item 3.4.1 Design Criteria, e. Hydraulic Design, *Page 118:*

- Revision: The system shall be designed to meet the criteria contained in the "Water Supply for Public Fire Protection, 1999 (or latest edition) as produced by the Fire Underwriters Survey. The values in the table represent the minimum design fire flow and are in addition to an allowance for peak day demand: The minimum design fire flow shall be as follows, plus allowance for peak day demand:

| | |
|---|---|
| Commercial | 270 L/s |
| High-Density Residential (buildings 4 storeys or greater, with or without mixed-use components) | 270 L/s |
| Educational/ Institutional | 180 L/s |

| | |
|---|---|
| Medium-Density Residential (Row housing and low-rise buildings 3-storeys or less, with or without mixed-use components) | 180 L/s |
| Low-Density Residential (Single-Detached and Semi-Detached Single-Family Dwellings) | 100 L/s |

3.7. Item 3.4.2 System Materials, e. Valves, *Page 120:*

- Addition: Temporary flush points installation may be required at the City's discretion. It shall be enclosed by a hard surface (either gravel or asphalt if deemed necessary) and protected by barricades. Furthermore, the surrounding area must be graded to facilitate positive drainage away from the temporary flush points.

3.8. Item 3.6.3 Natural Gas Servicing, *Page 126:*

- Revision: The minimum depth of cover shall be 0.8 meters for gas services located within the right-of-way or private property, and no less than 1.1 meters for those situated within roadways.

3.9. Item 3.5.1 Minimum requirements, c., *Page 123:*

- Revision: c. Minimum size of the water service shall be as shown in the following table:

| Building Class | Minimum Service Size (ID) | Material |
|---|---|---|
| Single Family Dwelling* | 25 mm | Type K copper conforming to AWWA C800 |
| Multi Family Dwelling on a single titled lot* | 38 mm, or<br><br>25 mm service to each individual unit where they are fronting public road right-of-way | Type K copper conforming to AWWA C800 |
| Mult-Family Dwelling on separately titled fee simple lots* | 25 mm service to each lot | Type K copper conforming to AWWA C800 |

1. * Where the length of the water service from the main to the curb stop is 20 m or greater, the service must be increased to the next standard service size.

2. * A larger service size than that which is indicated in the table above is required where the conditions warrant an increase in the service size, including the service length, service demand, building height, supply pressure and velocity, and others as applicable.

3. * For non residential buildings, water services shall be installed in accordance with Section 5.9.

4. * Water services shall be sized in compliance with the National Plumbing Code of Canada and comply with the above noted minimums.

5. * Direct tapping is not preferred and is only permitted for service connections up to 25 mm and to new PVC mains only. For larger service connections up to 50 mm and all other main pipe materials, a tapping saddle, sleeve or approved alternate method is required.

**4. Section 4.0 – Landscaping:**

4.1. Item 4.3.3.1 General, *Page 138:*

- Addition: c. i. New trees that cannot be installed because of conflicts or insufficient space will cost $1,050.00 per tree.

- Addition: c. ii. Existing trees (installed and establish within 2 to 5 years) that have sustained damage during construction or must be removed to accommodate design modifications or structures will either require replacement or a payment in lieu, costing $1,100.00 per tree. The cost of replacing trees that have been installed and established for over 5 years will be determined on a case-by-case basis, based on the species and the number of years since establishment.

- Addition: c. iii. The City will evaluate the allowable percentage for a payment in lieu on an individual basis when the required planting totals cannot be met.

- Addition: Note: The above costs are subject to change on an annual basis.

4.2. Item Table 4.1 Approved Tree Species, Spread and Spacing Requirements, *Page 148-150:*

- Revision: Please see attachment #1 for revised table.

4.3. Item Table 4.2 Tree Setback Distances from Roads, Walks and Utilities, *Page 151:*

- Revision: Minimum Setback Required is 5.0 m for both Stop and Yield Signs.

4.4. Item Table 4.2 Tree Setback Distances from Roads, Walks and Utilities, *Page 151:*

- Revision: 1.0m.

4.5. Item 4.4.1.6 Tree Stake Coding, *Page 151:*

- Revision: See revised table below:

| YEAR | COLOUR |
|---|---|
| 2022 | Yellow |
| 2023 | Green |
| 2024 | Blue |
| 2025 | White |
| 2026 | Yellow |

4.6. Item 4.4.5.2 Sodding, *Page 154:*

- Addition: h. Additional sodding may be needed in areas connecting to the existing infrastructure if determined necessary during the CCC or FAC inspection.

4.7. Item 4.5.1 Fencing, *Page 157:*

- Addition: Fencing shall be installed along the rear and side flankages of all lots that abut arterial roads, collector roads, Public Utility Lots, or Municipal Reserve areas.

4.8. Item 4.5.4 Site Furniture, *Page 158:*

- Addition: g. All waste receptacles shall have a minimum capacity of 260 liters per bin.

4.9. Item 4.5.5.1 Subdivisions, *Page 158:*

- Addition: Entrance features for multi-family and commercial sites shall be entirely located on the private property and maintained at the property owner's expense.

## 5. Section 5.0 - Commercial, Institutional, and Multi-Family:

5.1. Item 5.8 Water Distribution System, d. Hydraulic Design, *Page 192:*

- Revision: The system shall be designed to meet the criteria contained in the "Water Supply for Public Fire Protection, 1999 (or latest edition) as produced by the Fire Underwriters Survey. The values in the table represent the minimum design fire flow and are in addition to an allowance for peak day demand: The minimum design fire flow shall be as follows, plus allowance for peak day demand:

| | |
|---|---|
| Commercial | 270 L/s |
| High-Density Residential (buildings 4 storeys or greater, with or without mixed-use components) | 270 L/s |
| Educational/ Institutional | 180 L/s |
| Medium-Density Residential (Row housing and low-rise buildings 4 storeys or less, with or without mixed-use components) | 180 L/s |
| Low-Density Residential (Single-Detached and Semi-Detached Single-Family Dwellings) | 100 L/s |

5.2. Item 5.8 Water Distribution System, e., *Page 193:*

- ❖ Revision: Above-ground hydrants shall be painted with RUSTOLEUM High-Performance V7400 System 340 VOC DTM Paint, Cloverdale Marine Enamel, or an equivalent type and quality from an alternative supplier, ensuring that the color is precisely matched to that of Rustoleum.

5.3. Item 5.9.1 Minimum Requirements, c., *Page 196:*

- ❖ Revision: c. Service connections* for commercial lots, institutional, industrial lots, and apartment developments shall be sized according to the anticipated user requirements and in compliance with the National Plumbing Code of Canada

    1. * The minimum size of water servicing for a commercial building shall be 50 mm ID.

    2. * Direct tapping is not preferred and is only permitted for service connections up to 25 mm and to new PVC mains only. For larger service connections up to 50 mm and all other main pipe materials, a tapping saddle, sleeve or approved alternate method is required.

## 6. Appendix 1 – Process:

6.1. Item - Safe Disposal of Materials, Concrete and Cement-Based Products:

- ❖ Revision: Construction wastewater, waste, and other debris should not enter the City's storm and sanitary systems. Keeping construction wastewater, waste, and other debris out of the sewer systems helps prevent sewer blockage, damage to the sewer systems, road flooding and harmful substances from entering local waterways and harm aquatic habitat.

6.2. Item - Closed Circuit Television (CCTV) Sewer Inspection requirements and Guidelines, 1 CCTV Inspection Reports, *Page 1:*

- ❖ Revision: A digital video shall be provided in conjunction with a comprehensive PDF-format inspection report prepared by the consultant, in accordance with the standards set by the National Association of Sewer Service Companies (NASSCO). This report shall identify the specific locations and severity of each leak or any issue observed during the television inspection, including, but not limited to, open joints, broken, cracked, deformed, or collapsed pipes, as well as the presence of grease, roots, debris, accumulation, obstructions, infiltration, variations in water depth, and other notable findings.

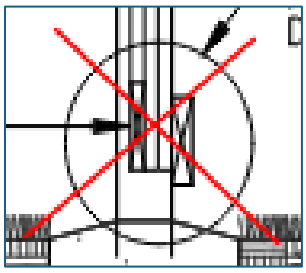
## 7. Standard Detail Drawings

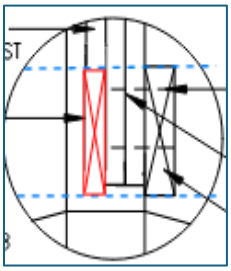
7.1. Item – Dwg No. 3-16, Valve Support Detail, Notes:

- Addition: 5. Landscaped areas shall require Type "A" sliding water valves, while Type "B" water valves shall be utilized in hard surface areas.

7.2. Item – Dwg No. 4-2, 1.8m-2.5m Noise Attenuation Fence, Notes:

- Addition: Fascia boards on both sides (development and public) shall be aligned and maintain a minimum gap of 50mm from the bottom of the board and the finished grade.





7.3. Item – Dwg No. 4-23, Tree Protection Zone, Notes:

- Revision: Tree to be transplanted if feasible.

Please contact Engineering Services at engineering@beaumont.ab.ca if you have any questions or concerns.

Sincerely,

**Engineering Team**
Engineering & Environment Services | Infrastructure

*Encl. Attachment # 1 - Tree list 2025 Update (GDS Amendment #2 - 2025)*

# Attachment #1 (GDS Technical Amendment #2 - 2025)

Updated January 2025

| BOTANICAL NAME | COMMON NAME | SPACING | LOCATION |
|---|---|---|---|
| **BOULEVARD/ROADWAY** | | | |
| Acer platanoides 'Columnare' | Columnar Norway Maple | TBD | BLVD |
| Acer freemanii 'Jeffersred' | Autum Blaze Maple | TBD | BLVD |
| Aesculus glabra | Ohio Buckeye | TBD | BLVD |
| Fraxinus pensylvanica 'Foothills' | Foothills green ash | 8m | BLVD & PUL |
| Fraxinus pensylvanica 'Patmore' | Patmore Green Ash | 8m | BLVD & PUL |
| Fraxinus pensylvanica 'Prairie Spire' | Prairie Spire Green Ash | 8m | BLVD & PUL |
| Fraxinus pensylvanica 'Trojan' | Trojen Green Ash | 8m | BLVD & PUL |
| Syringa recticulata 'Ivory Silk' | Ivory Silk Tree Lilac | TBD | BLVD |
| Malus x 'Courageous' | Courageous Flowering Crabapple (upright shape & small minimal fruit) | TBD | PUL |
| Malus x 'Gladiator' | Gladiator Flowering Crabapple (upright shape & small minimal fruit) | TBD | PUL |
| Malus  'Jefspire' | Purple Spire Crabapple (upright shape & small minimal fruit) | TBD | PUL |
| Quercus macrocarpa | Bur Oak | 8m | BLVD & PUL |
| Tilia Americana 'True North' | True North Linden | 8m | BLVD & PUL |
| Tilia x Flacescens 'Dropmore' | Dropmore Linden | 8m | BLVD & PUL |
| Tilia cordata | Little Leaf Linden | 8m | BLVD & PUL |
| Tilia cordata 'Greenspire' | Greenspire Linden | 8m | BLVD & PUL |
| Ulmus Americana 'Brandon' | Brandon Elm | 8m | BLVD & PUL |
| Ulmus Americana 'Patmore' | Patmore | 8m | BLVD & PUL |

| BOTANICAL NAME | COMMON NAME | SPACING | LOCATION |
|---|---|---|---|
| **Storm Water Management Facility - Below 1:5 Year Floodline** | | | |
| Acer negundo | Manitoba Maple | 8m | SWMF |
| Fraxinus pensylvanica 'Foothills' | Foothills green ash | 8m | SWMF |
| Fraxinus pensylvanica 'Patmore' | Patmore Green Ash | 8m | SWMF |
| Fraxinus pensylvanica 'Prairie Spire' | Prairie Spire Green Ash | 8m | SWMF |
| Fraxinus pensylvanica 'Trojan' | Trojen Green Ash | 8m | SWMF |
| Populus x 'Assiniboine' | Assiniboine Populus | 8m | SWMF |
| Populus x 'Northwest' | Northwest Poplar | 10m | SWMF |
| Populus tremuloides | Trembling Aspen (also called quaking aspen) | 5m | SWMF |
| Salix alba 'Vitellina' | Golden willow | 10m | SWMF |
| Salix pentandra | Laurel Leaf Willow | 10m | SWMF |

| BOTANICAL NAME | COMMON NAME | SPACING | LOCATION |
|---|---|---|---|
| **Parks and Open Spaces** | | | |
| Acer ginnala | Amur Maple | 4m | Open Space |
| Acer negundo | Manitoba Maple | 8m | Open Space |
| Acer platanoides | Prairie Splendor Maple | TBD | Open Space |
| Acer Saccarum | Sugar Maple | TBD | Open Space |
| Acer saccharinum 'Silver Cloud' | Silver Cloud Silver Maple | 10m | Open Space |
| Acer tataricum 'GarAnn' | Hot Wings Tatarian Maple | 6m | Open Space |
| Acer x Freemanni 'Jeffersred' | Autum Blaze | TBD | Open Space |
| Aesculus glabra | Ohio Buckeye | 5m | Open Space |
| Alnus hirsute 'Harbin' | Prairie Horizon Alder | 8m | Open Space |
| Caragana arborescens 'Sutherland' | Sutherland Caragana | 3m | Open Space |
| Caragana mordenensis 'Snowbird' | Snowbird Hawthorn | 5m | Open Space |
| Caragana mordenensis 'Tobas' | Taboa Hawthorn | 5m | Open Space |
| Elaugnus angustifolia | Russian Olive | 8m | Open Space |
| Fraxinus pensylvanica 'Foothills' | Foothills green ash | 8m | Open Space |
| Fraxinus pensylvanica 'Patmore' | Patmore Green Ash | 8m | Open Space |
| Fraxinus pensylvanica 'Prairie Spire' | Prairie Spire Green Ash | 8m | Open Space |
| Fraxinus pensylvanica 'Trojan' | Trojen Green Ash | 8m | Open Space |
| Malus x 'Big River' | Big River Crabapple | 4m | Open Space |
| Malus x 'Dolgo' | Dolgo Crabapple | 5m | Open Space |
| Malus x 'Durleo' | Durleo Crabapple | 3m | Open Space |
| Malus  'Royalty' | Royalty Crabapple | 4m | Open Space |
| Malus  'Rudolph'' | Rudolph Flowering Crabapple | 5m | Open Space |
| Malus  x 'Spring Snow' | Spring Snow Crabapple | 5m | Open Space |
| Malus x 'Thunderchild' | Thunderchild Crabapple | 5m | Open Space |
| Populus x 'Assiniboine' | Assiniboine Poplar | 8m | Open Space |
| Populus x 'Northwest' | Northwest Poplar | 10m | Open Space |
| Populus Tremuloides | Trembling Aspen | 5m | Open Space |
| Quercus ellipsoidalis | Northern Pine Oak | TBD | Open Space |
| Quercus macrocarpa | Bur Oak | 8m | Open Space |

| | | | |
|---|---|---|---|
| Salix Alba 'Vitellina' | Golden Willow | TBD | Open Space |
| Salix Pentandra | Laurel Leaf Willow | 10m | Open Space |
| Sorbus Americana | American Moutain Ash | 6m | Open Space |
| Sorbus aucuparia 'Black Hawk' | Black Hawk Mountain Ash | 5m | Open Space |
| Sorbus aucuparia 'Fastigiata' | Pyramidal Mountain Ash | 4m | Open Space |
| Sorbus aucuparia 'Rossica' | Russian Mountain Ash | 4m | Open Space |
| Syringa reticulate 'Ivory Silk' | Japanese Tree Lilac | 5m | Open Space |
| Tamarack | Larix Laricina | TBD | Open Space |
| Tilia Americana 'True North' | True North Linden | 8m | Open Space |
| Tilia x Flacescens 'Dropmore' | Dropmore Linden | 8m | Open Space |
| Tilia cordata | Little Leaf Linden | 8m | Open Space |
| Tilia cordata 'Greenspire' | Greenspire Linden | 8m | Open Space |
| Ulmus Americana 'Brandon' | Brandon Elm | 8m | Open Space |
| Ulmus Americana 'Patmore' | Patmore | 8m | Open Space |
| | | | |
| Larix sibirica | Siberian Larch | 5m | Open Space |
| Picea glauca | White Spruce | 4m | Open Space |
| Picea pungens | Colorado Green Space | 4m | Open Space |
| Picea pungens 'Glauca' | Colorado Blue Spruce | 4m | Open Space |
| Picea abies | Norway Spruce | 4m | Open Space |
| Pinus banksiana | Jack Pine | 6m | Open Space |
| Pinus cembra | Swiss stone pine | 4m | Open Space |
| Pinus contorta latifolia | Lodgepole Pine | 3m | Open Space |
| Pinus ponderosa | Ponderosa Pine | 6m | Open Space |
| Pinus sylvestris | Scots Pine | 10m | Open Space |
| Pinus uncinata | Mountain Pine | 3m | Open Space |

| BOTANICAL NAME | COMMON NAME |
|---|---|
| Approved Shrubs | |
| Hydrangea macrophylia | Hydrangeas |
| Symphoricarpos | Snow Berry |
| Betula pubescens | Arctic Bush |
| Philadelphus | Mock Orange |
| Euonymus alatus | Burning Bush |
| Lonicera x xylosteoides | Mini Globe Honey Suckle |
| Florida Variegata | Weigela |
| Potentila fruticosa | Potentillas |
| Spiraea japonica | Spirea |
| Physocarpus | Nine Bark |
| Cornus | Dog Wood |
| Cytisus scoparius | Brooms |
| Oxycoccus palustris | Cranberries |
| Syringa | Lilacs |

**Note:** TBD - To be determined during the Landscaping drawing review - COB

Tree Stake Code

| COLOUR | YEAR |
|---|---|
| BLUE | 2024 |
| WHITE | 2025 |
| YELLOW | 2026 |
| GREEN | 2027 |
| BLUE | 2028 |