

April 13, 2023

File: 0552-005-Bulletins

Engineering Bulletin #005

General Design Standards Amendment #1

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. Page 25 Item 1.2.3.4 Engineering Drawings sub item h. Franchise Utilities and Street Hardware Plans: added item [viii. Garage locations to be shown on plan.](#)
2. Page 34 Item 1.3.3.1 Inspection Requirements:
 - 2.1. sub item a. revised to: [Surface, underground and fencing improvements to be scheduled and completed between May 15 and November 15, weather dependant and at City's discretion. Specifically for FAC landscaping improvements: to be scheduled and completed between June 1 and September 15, weather dependant and tree canopy must still be at 90% and with all leaves still green.](#) Items i. and ii. to remain as is.
 - 2.2. Sub item b.: revised to: [All inspections are weather dependant and at City's discretion.](#)
3. Page 35 Item 1.3.3.2 Construction Completion Certificate: Revise dates to [May 15](#) to November 15.
4. Page 37 Item 1.3.3.3 Final Acceptance Certificate: revise to [Inspections for Final Acceptance Certificate \(FAC\) issuance will be undertaken by Engineering Services from May 15 to November 15 for surface, underground and fence improvements. For FAC landscaping improvements, inspections to be scheduled and completed between June 1 and September 15, weather dependant and tree canopy must still be at 90% and with all leaves still green. A shortening or extension of this period may be made based on weather conditions and snow coverage.](#)
5. Page 47 Item 2.1.1: item k added: [Medians are not allowed on any roads without widening cross section to accommodate median.](#)
6. Page 56 Item 2.1.4 Road Structures, Table 2.3, multi-use path/trails: granular base changed to [300mm minimum.](#)



7. Page 66 Item 2.1.6.4 Asphalt Concrete: Last paragraph: revised to Asphalt concrete pavement shall be compacted to meet the following standards (% of Maximum Theoretical Density (MTD)).
8. Page 68 Item 2.1.6.6 Asphalt Thickness Table 2.16: "MM" revised to % unit.
9. Page 68 Item 2.1.6.7 Asphalt Oil Content section title changed to Asphalt Cement Content Tolerances.

9.1. 1st paragraph: **Removed.**

9.2. 2nd paragraph revised to: **Deficient Asphalt Cement Content: Please see sections below and Tables 2.17a and Table 2.17b. If it is a Superpave Mix design, compaction is measured to MTD. If it is a Marshall Mix design, compaction is measured to the 'Marshall' density.**

10. Page 68 Table 2.17 has been removed and replaced with Tables 2.17a and 2.17b as follows:

Asphalt Cement Tolerance for SGC Hot Mix Asphalt (LT/HT/20mmB Superpave)

The allowable variation from the approved design asphalt content shall be $\pm 0.30\%$ by mass of mix.

Deficient Asphalt Cement Content: If the asphalt cement content, as determined by ESS indicates low or high asphalt cement content, the represented area of mat may be accepted subject to a pay factor according to Table 2.17a and is to be applied to the unit price of the 250 tonnes or equivalent area of hot-mix in the mat.

Table 2.17a: Asphalt Cement Content Pay Factor

ESS ASPHALT CEMENT CONTENT (%)	PAY FACTOR (%)
$\pm 0.00 - 0.30$	100.0
$\pm 0.31 - 0.35$	94.0
$\pm 0.36 - 0.40$	90.0
$\pm 0.41 - 0.45$	86.0
$\pm 0.46 - 0.50$	78.0
≥ 0.51	Reject: Grind & Resurface

Asphalt Cement Tolerance for Marshall Mixes (ACR/ACO/ACB)

Deficient Asphalt Cement Content: is the asphalt cement content as determined by the Quality Assurance agency indicates low or high asphalt cement content, the represented area of mat may be accepted subject to a pay factor according to Table 17.b to be applied to the unit price of the 250 tonnes or equivalent area of hot-mix in the mat.



Table 2.17b: Asphalt Cement Pay Factors

QUALITY ASSURANCE ASPHALT CEMENT CONTENT (%)	PAY FACTOR (%)
±0.00 - 0.20	100.0
+0.21 - 0.25	98.0
±0.26 - 0.30	94.0
±0.31 - 0.35	90.0
±0.36 - 0.40	86.0
±0.41 - 0.45	82.0
±0.46 - 0.50	78.0
≥0.51	Reject: Grind & Resurface

11. Page 80 Item 2.3.2 Lot Grading, item a. Lot Grading Plan: Added sub item v. [provide a detail showing which lots have fills of 1.0m or more and also provide a table.](#)
12. Page 94 Item 3.1.1.2 Water and Sewer Services item e., point i.: Revised to [within 4 months of construction completion](#);
13. Page 96 Item 3.2.3.2 Stormwater Management (Major System): portion of 1st paragraph removed and replaced with: [For lots backing onto SWMFs, the lowest permitted building opening elevations are to be above the ultimate design high water level for the facility by at least 300mm if the facility has an emergency overflow provided at the high water level; or at least 500mm if such overflow is not provided. Building footings shall also be at least 150mm above the normal \(permanent\) water level of wet storage facilities. Lot grading plans are to include appropriate notation of the requires to establish building elevations accordingly. This notation and the specific requirements for building elevations and the grading of the property are to be consistent with the requirements set out in easemments and restrictive covenants against the affected properties.](#)
14. Page 109 Item 3.2.8.2 Materials of Construction sub item a.iii. VI.: Replace clause with: [Inline Tees are acceptable, and Inserta Tees may be used where pipe sizes are equal to or larger than 450mm.](#)
15. Page 115 4th paragraph removed.
16. Page 116 Item 3.3.4 Testing and Acceptance 10th and 11th paragraphs: removed, and revised to: [The maximum allowable deflection for any PVC pipe shall not exceed 5% of the CSA base inside diameter \(BID\) for short term observations \(i.e. more than 30 days and less than 1 year\); and 7.5% of CSA BID for long term observations \(1 year or greater\).](#)



17. Page 119 Item 3.4.2 System Materials d. Hydrants: revised to: Above ground hydrants shall be painted with RUSTOLEUM High Performance V7400 System 340 VOC DTM Paint, Cloverdale Marine Enamel or equivalent type and quality from another supplier, but it must be colormatched to Rustoleum.
18. Page 123 Item 3.5.1 Minimum requirements item c: Revised to 19mm diameter water service type K copper required when the length of service from the main to the curb stop is less than 20metres.
25mm diameter water service Type K copper required when the length of service from the main to the curb stop is 20 metres or more.
19. Page 138 Item 4.3.3.3 Local and Collector Boulevards item e.: Revised to: Boulevards separated by a walk must be graded, top-soiled to a minimum 200mm depth, and sodded between the back of curb and the walk.
20. Page 176 Item 5.6.3.2 Stormwater Management (Major System): 2nd paragraph removed and repalced with: For lots backing onto SWMFs, the lowest permitted building opening elevations are to be above the ultimate design high water level for the facility by at least 300mm if the facility has an emergency overflow provided at the high water level; or at least 500mm if such overflow is not provided. Building footings shall also be at least 150mm above the normal (permanent) water level of wet storage facilities. Lot grading plans are to include appropriate notation of the requires to establish building elevations accordingly. This notation and the specific requirements for building elevations and the grading of the property are to be consistent with the requirements set out in easemments and restrictive covenants against the affected properties.
21. Appendices: Appendix 1: Process: Construction Completion Certificate and Final Acceptance Certificates removed. Please download them from the City of Beaumont's Website.
22. Appendices: Appendix 3: Underground: Table 3.3 Huff Distribution Design Storms for Lake Drawdown Analysis Only:
 - 22.1. Time 360 minutes + Return Frequency 100 years: corrected to 14.99;
 - 22.2. Time 450 minutes + Return Frequency 25 years: corrected to 5.85;
 - 22.3. Time 1125 minutes + Return Frequency 50 years: corrected to 1.54
23. Detail Drawing 3-15: Measurement updated to reflect that Typical Hydrant Connection: bottom of hydrant flange to be 100 to 150mm above proposed finished grade. In addition, note #6 added: hydrant lead to be upsized if lead is equal or greater than 5m.



24. Detail Drawing 3-22: 50mm and smaller Water Service: **mispelling corrected "mainstop"**
25. Detail Drawing 4-1: Asphalt Trail detail: depth of gravel base corrected to **minimum 300mm**.
26. Detail Drawing 4-3: 1.8m Wood Screen Fence Installation: clarity provided. **Fascia boards required at top and bottom on public side, and stringers top, middle and bottom on private side.**

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

Yours truly,

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