



Information Bulletin:

Revised ES54 Section B Pull and Splice, Service, and Junction Box Standards

1.0 Items Covered

ES54 B3-06	Lightweight Service Box Circular Concrete Service Box
ES54 B5-01	832 Pull and Splice Box Non-Traffic Duty
ES54 B5-02	832 Pull and Splice and Junction Box Sidewalk Duty
ES54 B5-03	832 Pull and Splice and Junction Box Access Lane Duty
ES54 B5-04	832 Pull and Splice, Service, and Junction Box Bottomless

This advisory and the standards listed above can be found at bchydro.com/distributionstandards.

2.0 Overview

The design of the circular concrete service box by the supplier, Langley Concrete, has been revised to eliminate the need of an additional extension unit.

The design of the 832 service box has been revised to align with BC Hydro's renewed designs with its two suppliers, AE Concrete and Langley Concrete. The revised 832 box weights and dimensions are similar to previously supplied products and should be applied in the same design applications in terms of functionality.

Key changes are:

- a. Lifting inserts will be cast into the internal side walls of the 832 service box. Depending on the supplier, four Starcon lifting clutches or four Dayton Swift Lift lifting eyes will be required to lift these boxes;
- b. Weights of the vault sections have changed (all weights in kg):
 - i. Circular concrete service box base – from 315 to 460
 - ii. 832 box – from 2000 to 3800
 - iii. 832 bottomless box – from 3500 to 2905
 - iv. 832 riser – from 400 to 500
 - v. 832 sidewalk collar (with 3 lids) – from 1000 to 800
 - vi. 832 laneway collar (with 3 lids) – from 1200 to 830
 - vii. Pullbox lid type A slab – from 75 to 155

- viii. Pullbox lid type B slab – from 84 to 170
- c. Outside dimensions of these products have changed (all dimensions in mm)
 - i. Circular concrete service box base – from 674 high to 914 high
 - ii. 832 box – from 1015 x 1030 x 2790 to 1100 x 1120 x 2870
 - iii. 832 riser – from 1070 x 150 x 2840 to 1255 x 150 x 3030
 - iv. 832 sidewalk collar – from 1150 x 150 x 2840 to 1255 x 180 x 3030
 - v. 832 laneway collar – from 1150 x 300 x 2940 to 1260 x 180 x 3030
 - vi. Pullbox lid type A slab – from 1050 x 100 x 230 to 1010 x 100 x 460
 - vii. Pullbox lid type B slab – from 1050 x 100 x 230 to 1010 x 100 x 460

A new material number will be used for the extended circular concrete service base while the existing base and extension will be removed.

Product type	Removed material nos.	New material no.
Large circular concrete service box	9701-0149	9701-1476
Large circular concrete service box extension	9701-0152	

The material numbers for the 832 box and the remaining items for the large circular concrete service box remain the same.

Product type	Material number
Large circular concrete service box collar	9701-0151
Large circular concrete service box riser	9701-0150
Splice or pull box type 832	400-0990
Riser type 832	400-0992
Collar c/w frame type 832	400-0993
Lane duty collar c/w frame type 832	9601-6179
Pull/splice/junction box, type bottomless 832	9601-3341
Type A slab	400-0960
Type B slab	400-0961

Previous iterations of the above ground switchgear vault standards can be found in BC Hydro's FileNet through the engineering standards search page.

Designers and Engineers

Designers and engineers shall use the latest ES54 B3-06 and B5 revisions for underground residential distribution (URD), underground distribution (UD), and installations using service boxes. Functional applications of this structure remain the same and should not impact existing design applications. Designers should use the updated dimensions for clearance and separation requirements.

Civil Installers

Civil installers should:

- a. Use the latest ES54 B3-06 and B5 revisions for updated weights and dimensions;
- b. Stock and use Dayton Swift Lift lifting eyes for appropriate lifting practices of precast concrete structures supplied by AE Concrete; and
- c. Stock and use Starcon lifting eyes for appropriate lifting practices of precast concrete structures supplied by Langley Concrete.

3.0 Contact

Customer and Customer Representatives

Please direct questions and concerns to your local BC Hydro representative.

BC Hydro Employees and Contractors

Please direct questions and concerns related to the standards to distribution.standards@bchydro.com.

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