

**DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS
CONSTRUCTION CODES
ADMINISTRATIVE BULLETIN CC2015-01**

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Purpose: This document sets forth procedures and requirements for the filing, review, approval, and documentation of underpinning details, and for special inspection of construction projects that (a) share a Party Wall with an attached or semi-detached one and two-family dwelling and (b) are not subject to the special inspection requirements of Chapter 17 of the Building Code.

Related Code Sections: 2013 District of Columbia Building Code: 12 A DCMR §§ 106.1, 109.3.8, 109. 3.13, 109.3.13.1.9; 2012 IBC §§1704 & 1705

Subject(s): Underpinning of Party Walls shared with attached or semi-detached one and two-family dwellings

I. Background

The purpose of this Administrative Bulletin (Bulletin) is to provide guidance and clarity on underpinning details that permit applicants will be required to submit prior to permit issuance and to establish special inspection requirements when underpinning of a Party Wall is required in connection with Construction Work on projects that share a Party Wall with an attached or semi-detached one or two-family dwelling (including townhouses). This Administrative Bulletin is necessary to protect against any adverse effect on the structural strength and support of Party Walls as a result of Construction Work on a neighboring construction site.

The sensitive nature of structural work along a Party Wall necessitates periodic or continuous inspections, particularly for underpinning. Moreover, submission of sufficient information during the permit application process is needed, so that DCRA may review the proposed underpinning and confirm that a registered design professional has reviewed and/or certified the structural details of the proposed underpinning.

Consequently, effective upon publication of this Administrative Bulletin in the *DC Register*, DCRA shall require permit applicants proposing and permittees undertaking

Construction Work on a project that shares a Party Wall with an adjacent attached or semi-detached one and two-family dwelling to comply with the submittal documents and special inspection requirements set forth in this Administrative Bulletin. These requirements are applicable to the types of projects specified in this Administrative Bulletin regardless of whether the applicable code governing the project is the *Building Code*, *Existing Building Code*, or *Residential Code*. However, this Bulletin does not apply to projects that are subject to the special inspection requirements in Chapter 17 of the Building Code.

The term “Party Wall” shall mean any wall located on a property line between adjacent buildings, which is used or adapted for joint service between the two buildings. “Construction Work” for purposes of this Bulletin includes new construction, alteration, demolition, excavation, and raze activities.

This Administrative Bulletin does not relieve the party undertaking the Construction Work from complying with Section §3307.1 of the *2013 District of Columbia Building Code*, which requires adjoining public and private property to be protected from damage during construction, alteration, repair, demolition, or raze of a premises at the expense of the person causing the work. Section 3307.1 requires protection for lots and for all elements of a building or other structure, including but not limited to footings, foundations, Party Walls, chimneys, skylights, and roofs. Section 3307.1 also requires provisions to be made to control water runoff and erosion during construction, demolition, or raze activities.

II. Submittal Documents

Section 106.1.1.1 (item 13) of the *2013 District of Columbia Building Code* expressly requires permit holders to submit shop drawings with underpinning details. However, the shop drawing requirement has not been sufficient to identify projects involving Party Walls and to review the structural details of the proposed underpinning. The code official has authority, as set forth in Section 106.1 of the *Building Code*, “[w]here special conditions exist... to require additional construction documents to be prepared by a registered design professional.”

Pursuant to this authority, effective upon publication of this Administrative Bulletin in the *D.C. Register*, permit applicants for projects that will or do share a Party Wall with an attached or semi-detached one or two-family dwelling must determine whether underpinning is required to protect a Party Wall based on the nature of the Construction Work on the project. If an applicant is not clear about the requirement or necessity for underpinning, a DC-licensed engineer should be consulted.

Where there is a requirement or necessity for underpinning, the applicant shall provide the following information, plans, and details regarding underpinning-of the adjoining premises prior to permit issuance:

1. Pictures of the construction site showing the Party Wall and the adjoining premises;
2. Site and structure-specific plans, including details and sequence of work and identification of requirements for sheeting, preloading, wedging with steel wedges, jacking, or dry packing;
3. Details and calculations of sufficient clarity to show that the underpinning is designed and will be installed in a manner that will limit the lateral and vertical displacement of the adjacent structure to permissible values (which should be included in the submittal);
4. Lateral support for underpinning, if needed, shall be accounted for in the design of new construction; the calculations, design, and construction sequence of temporary lateral supports used prior to installation of foundation walls shall be included on the design drawings;
5. The design shall take into account the effects on foundation and structure produced by the lateral earth pressure exerted on the underpinning;
6. The owner shall retain a design professional registered in the District of Columbia to prepare the plans and construction documents. Once the plans are ready, the owner shall select a general contractor and Special Inspections Engineer of Record (SIER) and an Inspection and Testing Agency; each must be identified by name on the application. The SIER and testing agency must be selected from the list of agencies approved by DCRA to conduct special inspections and material testing. In no case shall the SIER and the material testing agency be retained by the general contractor or by any of its subcontractors;
7. A plan for monitoring adjacent structures or property where underpinning of a Party Wall is required, prepared by the design professional engineer, taking into account the structures or property to be monitored and the conditions thereof (based on an examination of the structure and the excavation of test pits). This document should include a contingency plan that outlines the procedures taken in the event the underpinning of the Party Wall exceeds the preset lateral and/or vertical movement threshold. These procedures should include (but are not limited to) identifying the cause of the movement, change in the monitoring frequency as well as the details of the remedial work required;
8. The owner or the permit applicant shall submit a “Statement of Special Inspections” completed by a design professional responsible-in-charge (whose seals and signatures are on the plans and construction documents) to DCRA

Permitting Operations Division with the permit application as a prerequisite to the issuance of the building permit. The Statement of Special Inspections can be found on the DCRA website

(http://dcra.dc.gov/sites/default/files/dc/sites/dcra/publication/attachments/Statement%20of%20Special%20Inspection_rev1_0.pdf). The Statement of Special Inspections shall reflect the scope of the special inspections related to various elements of the project, and the soil and concrete inspections listed in Section III below must be performed by the SIER or his/her personnel assigned to the project;

9. Compliance with the requirements of Section 3307.2 of the *2013 District of Columbia Building Code* for notification of adjoining property owners; and
10. If not otherwise provided in the application, the submittal documents shall also include (a) dimensioned footing and foundation plans, cross-sections and proximity to lot lines; (b) dimensioned underpinning foundation systems (horizontal or vertical) and proximity to lot lines; (c) test pit results and photo of test pits at the location of existing footings; (d) width of existing footings; (e) geotechnical engineering evaluation of the in-situ soils.

III. Special Inspections

The *2013 District of Columbia Building Code*, 12-A DCMR, Section 109.3.8, authorizes the code official to require independent inspection agencies, including special inspection agencies, to perform inspections of any Construction Work. Sections 109.3.13.1 and 109.3.13.1.9 of 12-A DCMR authorize the code official to require special inspectors for construction or work requiring special knowledge and experience, involving unusual hazards, or requiring periodic or continuous inspection.

Underpinning involves unusual hazards and requires periodic or continuous inspection, as well as special knowledge and experience. The special inspections process, as implemented by DCRA, will allow for an additional level of oversight and monitoring of the design and construction of underpinning to support a Party Wall shared with an attached or semi-detached one or two family dwelling, and provide a greater level of comfort to property owners who adjoin a construction site.

Therefore, effective upon publication of this Administrative Bulletin in the *D.C. Register*, all underpinning of a Party Wall shared with an attached or semi-detached one or two family dwelling, shall be subject to the following inspections, in addition to any other required inspections, which must be performed by the SIER (and identified and approved prior to permit issuance).

A. Verification and Inspections of Soils:

1. Verify that the materials at the bottom of the underpinning pits are adequate to achieve the design-bearing capacity.
2. Verify that the excavation of underpinning pits meet the dimension specified on the approved plans and construction documents.
3. Verify that any deviation or nonconforming items has been brought to the notice of the structural engineer of record for resolution and evaluation before proceeding with the concreting operations.
4. Verify the installation of lateral bracing of Party Walls if required by the approved plans and construction documents.

B. Verification and Inspections of Concrete Construction:

1. Verify concrete batch mix in conformance with approved concrete mix design prior to placement.
2. Verify reinforcing steel, where included in approved design, is in conformance with submittal documents and code requirements including size, location, splicing, and clear cover.
3. Verify the excavations are free of debris and loose materials.
4. Inspect form work used to place concrete for stability & proper dimensions.
5. Prepare test cylinders per ASTM C-31 for laboratory verification of Engineer of Record's specified minimum compressive strength. Lab-cured specimen shall be used to verify the specified concrete strength.

The permit holder is responsible for coordinating and scheduling all inspections with the Special Inspections Engineer of record and the testing agency.

In order to get a final inspection and/or certificate of occupancy, a final report of Special Inspections must be submitted to DCRA after review and approval by the SIER in accordance with the requirements of DCRA's Special Inspection Program. (See DCRA website at: <http://dcra.dc.gov/service/special-inspections>). DCRA shall accept for review the report of Final Inspection for the underpinning as complete and approved as indicated along with any conditions set out by the Special Inspector.

A copy of this administrative bulletin is available at:
<http://dcra.dc.gov/page/administrative-bulletins>