CITY & COUNTY OF DENVER COMMUNITY PLANNING & DEVELOPMENT BUILDING PERMIT POLICY					
Subject:	EXCAVATION AND SHORING for IRC Structures				
Approved: Ed Kocman, P.E., Interim Building Official					
Number:	ADMIN 130.2A	Effective Date: Revised:	September 26, 2008 October 17, 2011; June 1, 2015	Page:	1 of 1

Reference: ADMIN Section 130.2. IBC and IBCA Section 3307

**Scope:** This policy establishes the conditions, procedures and specific submittal requirements for the review and inspection of shoring for any structure designed and permitted under the International Residential Code, including additions and accessory structures.

**Policy:** When excavations for construction would result in slopes to the walls of the excavation exceeding 1.5 feet horizontal to 1 foot vertical, or as indicated in the geotechnical investigation report, shoring is necessary which must be designed by a licensed engineer and permitted. Permitting for shoring may be included in the submittal for a construction permit, but shall be issued separately as a 'shoring only' permit for the excavation and shoring.

## **Shoring specific submittals.** Shoring submittal shall include:

- 1. One copy of geotechnical investigation report with banking/shoring evaluation bearing the Colorado registered seal and signature of the soils engineer of record.
- 2. One set of the shoring design calculations and two sets of the shoring construction documents prepared and sealed by a Colorado registered professional engineer.
  - Construction documents must show adjacent property lines, distance of shoring installation from the property lines, and any structures that are within 10 feet of the proposed shoring.
     The adjacent structures shall include those on adjacent properties if within the 10 feet.
  - Shoring design shall reference the soils report and provide recommendations on the type of shoring based on that soils report.
- 3. Submit evidence of notification to adjacent property owners per IBCA Section 3307.1.1.
- 4. Provide name and phone number of designated special inspector/engineer inspecting installation of shoring.
- 5. Copy of the Excavation Bond approval from the Department of Public Works, Right- of-Way Permitting for those excavations that extend within one foot of the angle of repose, or a slope of one to one, to any public sidewalk, street, alley or other public property, per the provisions of IBCA Section 3307.3.
- 6. Other information required for completion of permit application.

**Prior to excavation or shoring a pre-inspection is required.** Before starting any excavation or shoring work, the contractor shall meet the Building Inspection Division Construction Inspector on site to review construction/excavation procedures, including but not limited to, fencing and signage, as well as compliance with and appropriateness of the shoring plan. Use the automated Inspection Request System to schedule this inspection.

**Special inspection is required.** The owner must hire the special inspector.

**Finaling the shoring.** Once the required shoring has been inspected by the Special Inspector and the concrete and reinforcement is in place, the shoring piers have been given the required time to cure (usually 7 days) and the excavation is completed, contact the Building Inspection Division to schedule a final inspection. The special inspector shall provide a report of their inspection of the shoring installation with an original wet stamp of an engineer which shall be provided to the Construction Inspector at the time of final inspection.

Once the shoring has obtained its final sign off from the Building Inspection Division Construction Inspector, then the permit for the construction of the structure may be issued.