

## **6- How to install a concrete stair within the keystone system?**

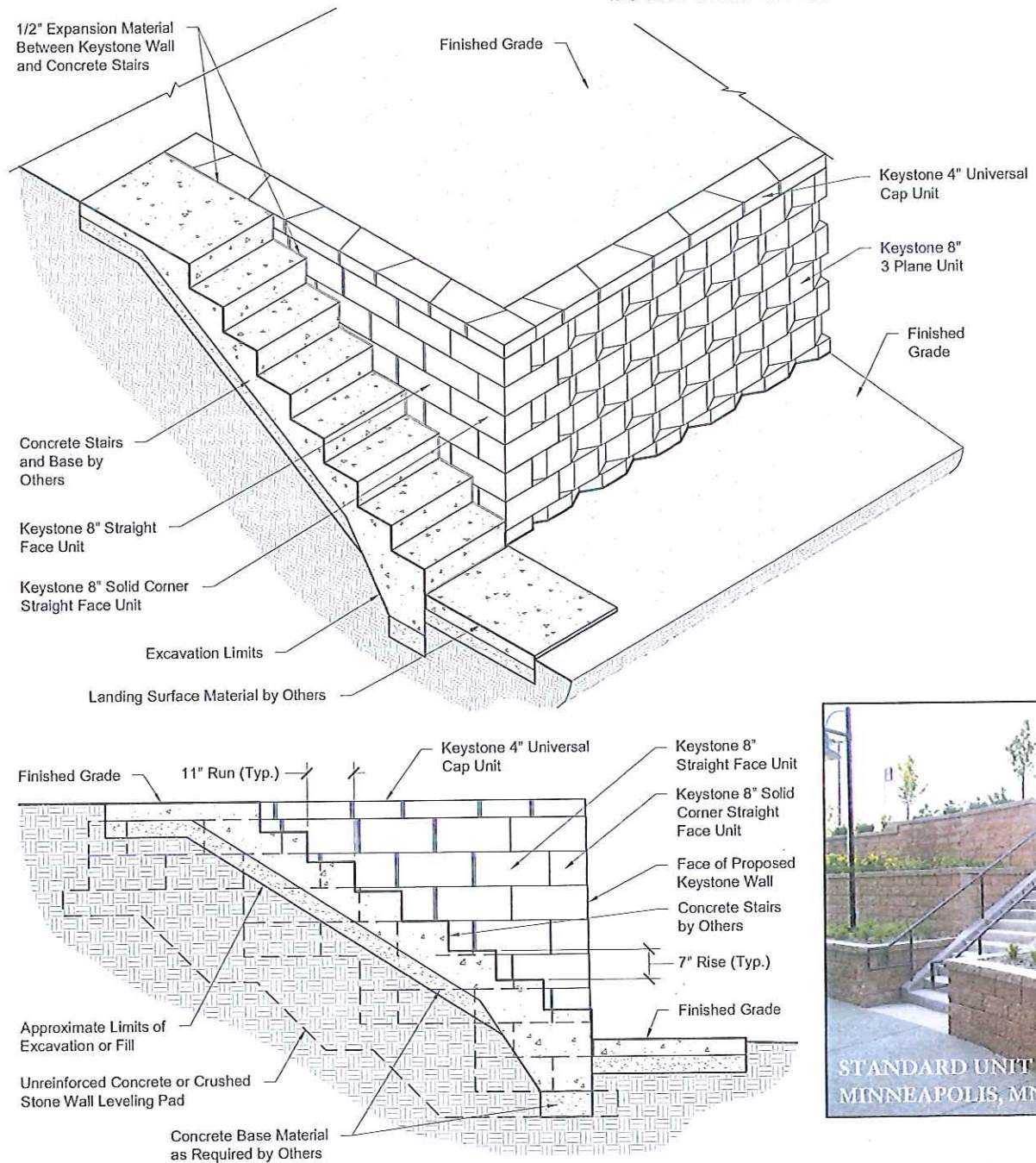
## Step & Stair Installation

Keystone walls can easily be constructed to incorporate CIP concrete stairs within the wall systems. The stairways can be designed to be incorporated into reinforced soil of the wall (see Figure V:3), or project out from the wall face (see Figure Y:3). Construct the Keystone wall as per design. Where a stairway is proposed, create a 90° outside corner with Keystone straight face and corner units. Construct the CIP concrete stairs as the project plans, making sure the include a 1/2 inch expansion joint between the stairs and the Keystone units.

### NOTE:

International Building Code (IBC) indicates that stair facilities shall have a minimum riser height of 4 inches and a maximum height of 7 1/4 inches. Keystone Compac and Standard units are 8 inches high, therefore will not meet IBC code for stair riser use.

**FIGURE V:3 - INSET STAIRWAY DETAILS**



The information contained herein has been compiled by Keystone® Retaining Wall Systems, Inc. and to the best of our knowledge, accurately represents the Keystone product use in the applications which are illustrated. Final determination of the suitability for the use contemplated and its manner of use are the sole responsibility of the user. Structural design and analysis shall be performed by a qualified engineer.

## Step & Stair Installation

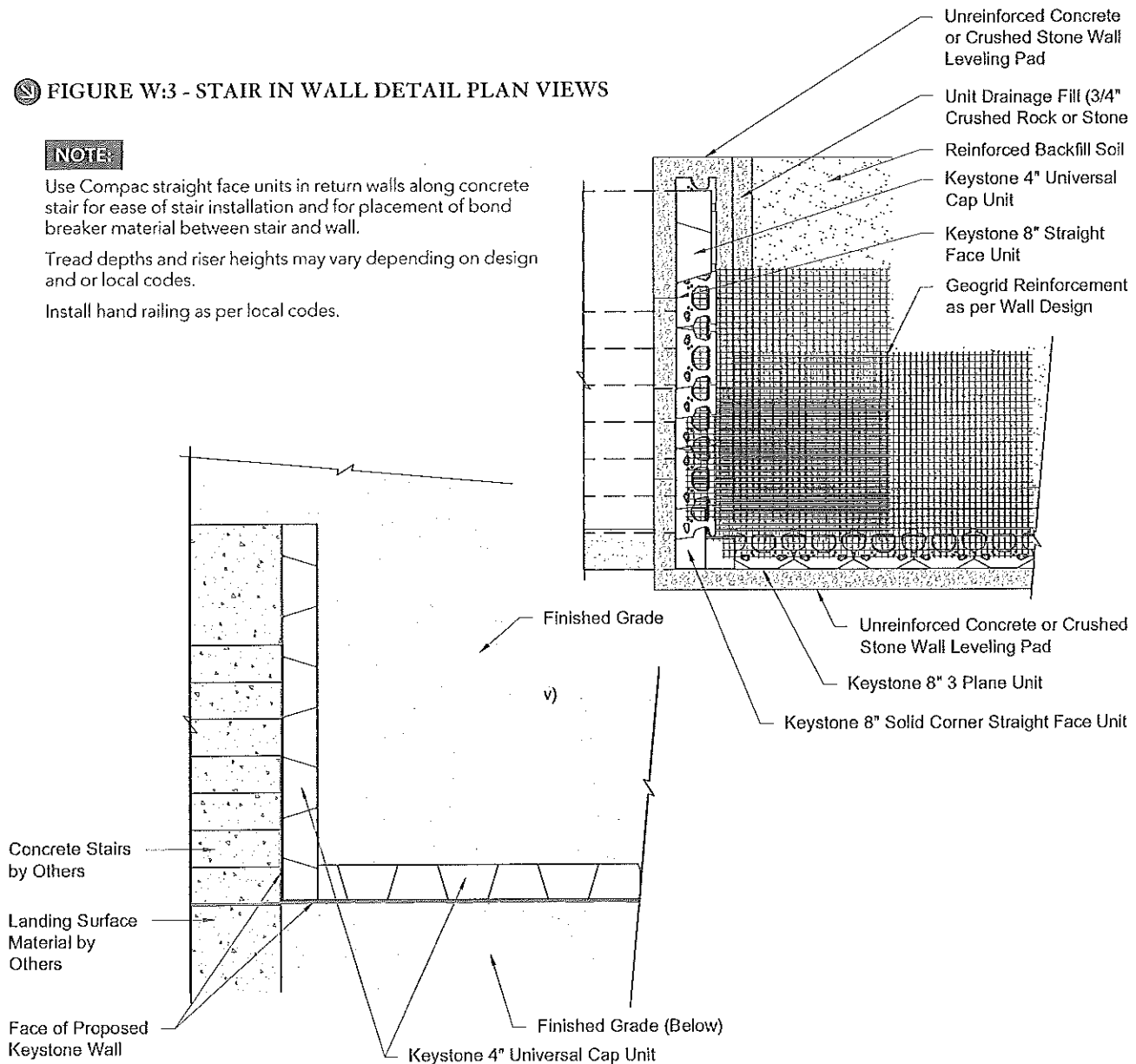
**FIGURE W:3 - STAIR IN WALL DETAIL PLAN VIEWS**

**NOTE:**

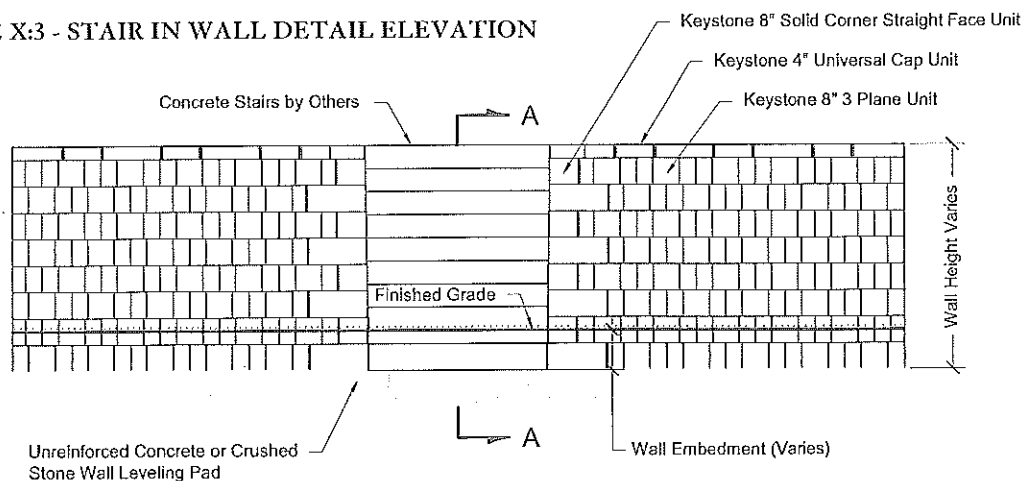
Use Compac straight face units in return walls along concrete stair for ease of stair installation and for placement of bond breaker material between stair and wall.

Tread depths and riser heights may vary depending on design and or local codes.

Install hand railing as per local codes.



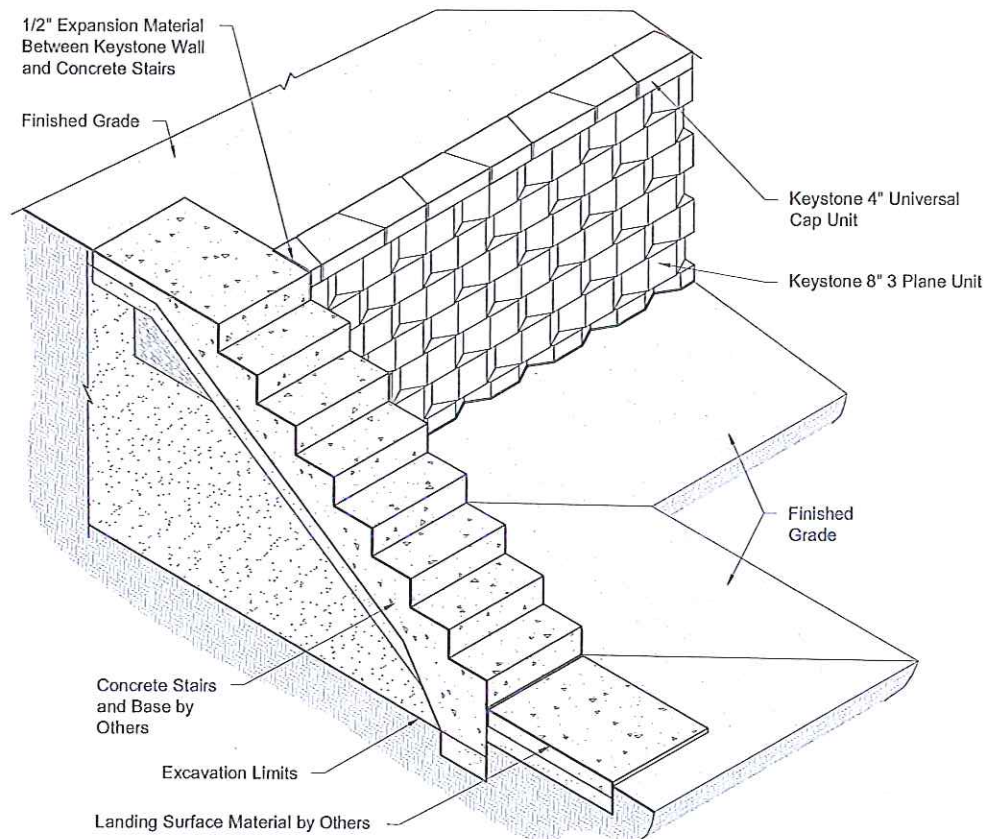
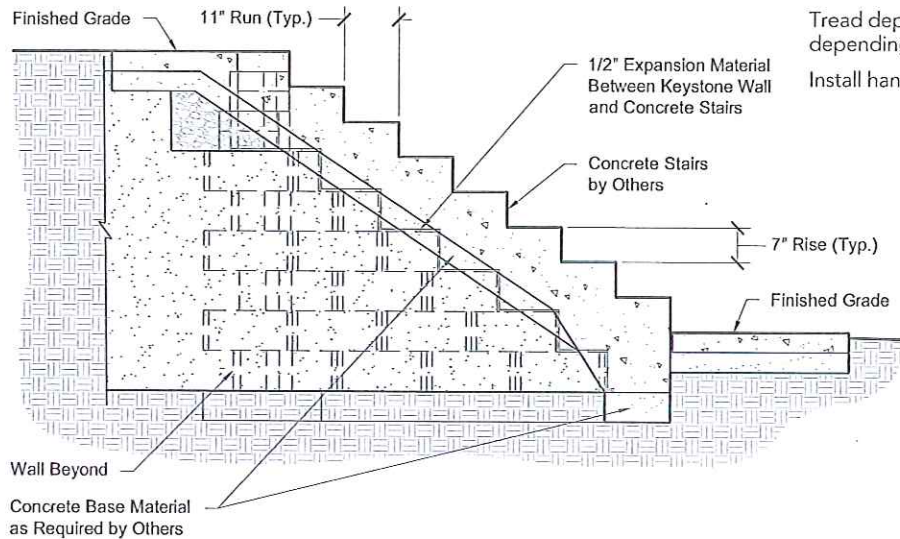
**FIGURE X:3 - STAIR IN WALL DETAIL ELEVATION**



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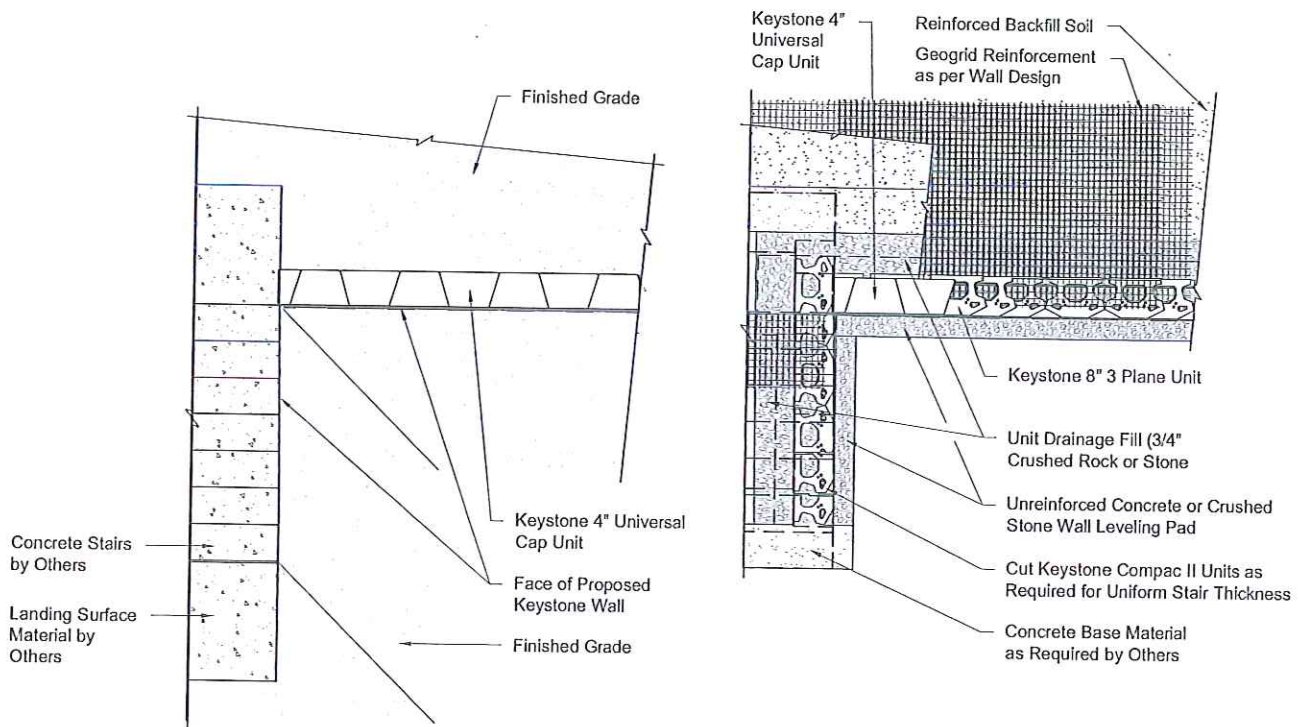
FIGURE Y-3 - PROJECTED STAIRWAY DETAIL



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## Step & Stair Installation

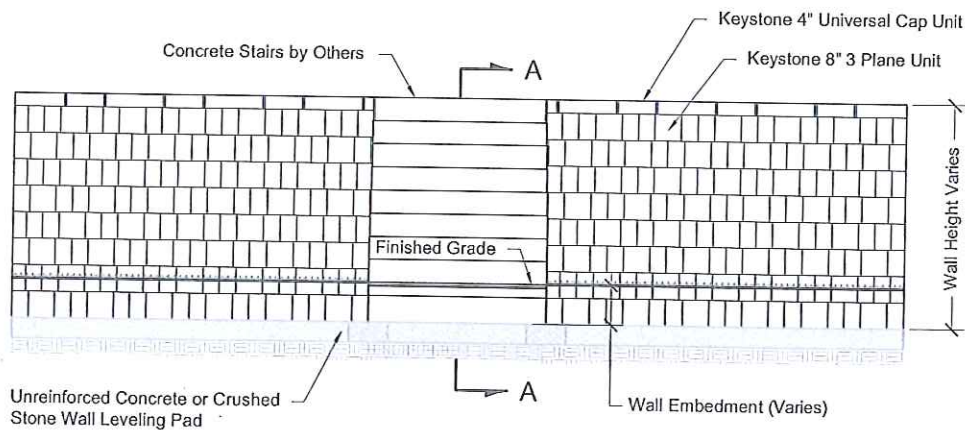
FIGURE Z:3 - STAIR IN FRONT OF WALL DETAIL PLAN VIEWS



Typical Stair Section Plan View - Final  
Near Vertical Setback Shown

Typical Stair Section Plan View - Partial  
Near Vertical Setback Shown

FIGURE A:4 - STAIR IN FRONT OF WALL DETAIL ELEVATION



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## Terrace Wall Application

COMPAC UNIT - CHILLIWACK, BRITISH COLUMBIA



COMPAC UNIT - BLUFFDALE, UT



SPECIALTY - TERRACE

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