

1. Design Building Code

International Building Code, 2012 Edition

2. Geotechnical Report

Firm: Alpha Testing, Inc.
 Report No. G140086 Dated: April 29, 2014
 Allowable Bearing Capacity 1500 psf, 2500 psf

3. Geotechnical Criteria

Bearing on Stiff Natural Undisturbed Clayey Soils or Compacted and Tested Soils

Allowable Bearing = 1500 psf, min.
 Friction Angle between Base of Wall and Soil = 17 deg

Backfill Soil Parameters:
 Backfill Soil - Natural Clays or Fill Soils
 Backfill Angle of Internal Friction PHI = 26 deg

Backfill Soil - Gravel or Stone
 Backfill Angle of Internal Friction PHI = 35 deg

Base Soil Parameters:
 Soil at Toe - Natural, Undisturbed or Fill Soils
 Angle of Internal Friction PHI = 26 deg

Bearing on Remediated Base

Allowable Bearing = 2500 psf, min.
 Friction Angle Between Base of Wall and Soil = 28 deg

Backfill Soil Parameters:
 Backfill Soil - Natural Clays or Fill Soils
 Backfill Angle of Internal Friction PHI = 26 deg

Backfill Soil - Gravel or Stone
 Backfill Angle of Internal Friction PHI = 35 deg

Base Soil Parameters:
 Soil at Toe - Natural, Undisturbed Soils
 Angle of Internal Friction PHI = 26 deg

4. Materials:

Rock for Wall Construction:

Average density of masonry stone wall varies from 135 pcf to 145 pcf. Size of stone within wall varies from 4" to 18". Crushed concrete is acceptable to be used in the wall construction in place of natural stone. Face stone to be coordinated between contractor and owner/developer.

Drainage Zone Materials:

Drainage zone materials may be composed of clean gravel or stone ranging from 1" to 5". Crushed concrete is acceptable provided it is clean and generally free of dust or other deleterious materials. Drainage zone shall be wrapped with filter fabric. Filter fabric shall be Mirafi 140N or approved equal.

Portland Cement Mortar for Retaining Wall Construction.

The portland cement mortar used for construction of the masonry retaining walls shall be provided with the following proportions per cubic yard of concrete. The portland cement mortar supplier shall provide "batch tickets" clearly indicating that the appropriate amount of materials are provided in each concrete mixer truck load. The batch tickets shall clearly indicate the amount batched, the date, the project name and shall be provided to Falkofsk Engineering, Inc. for review, documentation, and file.

Contents	Amount per cubic yard
Type 1 Portland cement:	414 lbs
Type F Fly Ash	103 lbs
Fine Aggregate (sand):	2987 lbs
Sika-Air	2 oz
Plastiment ES	20.6 oz
Sikament 686	15.5 oz
Potable Water	258 lbs

Concrete retarders may be used at the discretion of the masonry wall contractor. A greater amount of retarder is typically used during hot periods and a less amount of retarder is typically used during cool weather.

Please note that the above proportions will provide a portland cement mortar with a compressive strength of about $f_c = 2000$ psi. Falkofsk Engineering, Inc. does not require any concrete testing provided the above proportions are verified by way of the "batch tickets".

5. Construction Reviews

Falkofsk Engineering, Inc. shall be called for construction review of masonry wall.

6. Retaining Wall Design Constraints

Retaining walls should not have solid fence placed on top of wall other than that shown on these plans. Retaining walls shall not have additional surcharge placed above wall other than that shown on these plans. Retaining walls shall not have slope at base or top of wall that exceed that which is shown on these plans. The retaining walls noted above require special design.

Minor variations in the construction of the retaining walls from these documents may be accepted at the discretion of the design engineer.

RELEASED FOR CONSTRUCTION
 ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN
 REMAINS WITH THE DESIGN ENGINEER. THE CITY
 OF ROCKWALL, IN REVIEWING AND RELEASING
 PLANS FOR CONSTRUCTION, ASSUMES NO
 RESPONSIBILITY FOR ADEQUACY OR ACCURACY
 OF DESIGN.

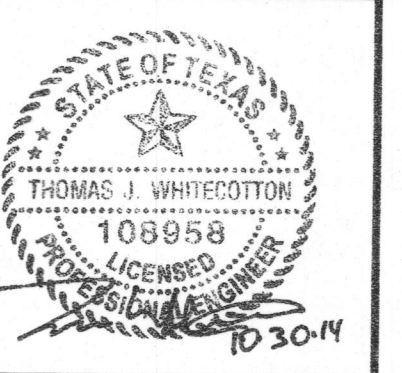
CITY _____ DATE _____

NO.	DATE	BY	REVISION

FALCOFSKE ENGINEERING, INC.
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 Texas Registered Engineering Firm: # F-4038
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MASONRY RETAINING WALLS - NOTES & STANDARD DETAILS
 BREEZY HILL - PHASE 4
 LIFE SPRINGS DRIVE AT JOHN KING BOULEVARD
 ROCKWALL, TEXAS
 RPM xCONSTRUCTION, LLC
 PLANO, TEXAS



JOB NO. 285.14

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