

AMG Fence Task Group Overview



Agenda

- AMG Fence Task Group- Who are we?
- Task Group Scope
- 2009 Initiatives
- Overview of New Details
- Feedback



AMG Fence Task Group

- Comprised of members of the Arizona Masonry Guild (AMG) and the Arizona Masonry Contractors Association (AMCA).
 - CMU Manufacturers
 - Masonry Fence Contractors
 - Engineering Professionals



AMG Fence Task Group Scope

- To ensure the quality construction of masonry fences throughout the state of Arizona.
- This will be accomplished by:
 - Monitoring changes to building codes & how they may impact the design & construction of masonry fences.
 - Providing technical support/resources pertaining to the design & construction of masonry fences.
 - Creating an open forum for members to share best practices related to the construction of masonry fences.



2009 Fence Task Group Initiatives

- Provide municipalities with a set of masonry fence details that align with current building codes which may be approved as a standard within each jurisdiction:
 - 4" Interlocking
 - 6" Interlocking
 - 6" Standard (mortar head joints)
- Designed to minimum lateral wind load= 10 PSF on fence per ASCE 7-02 Section 6.1.4.1.
- Applies to interior fences only.

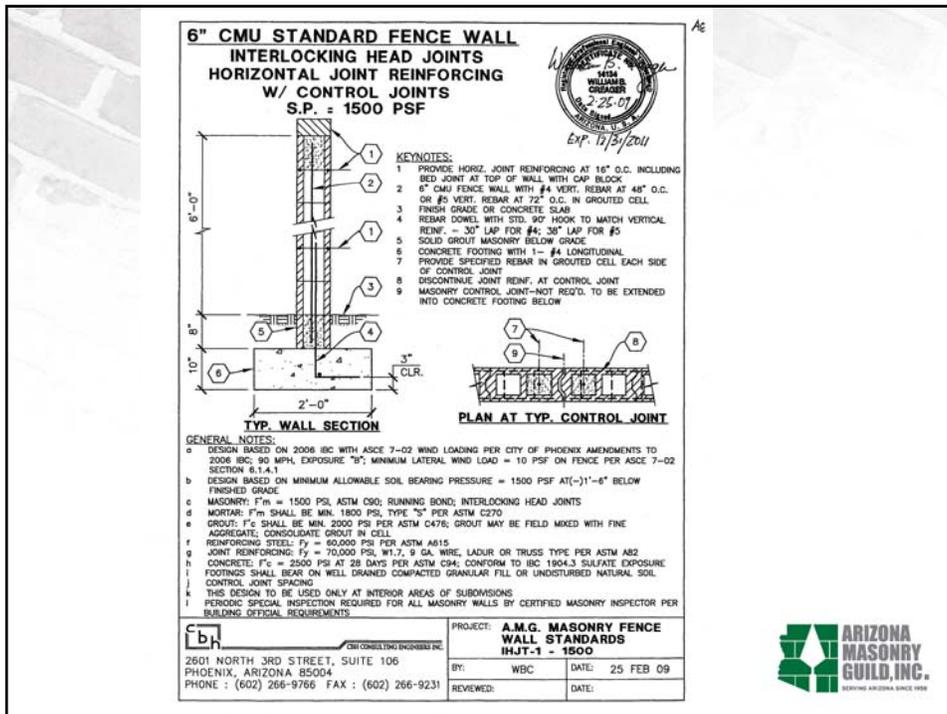


Benefits

- Municipalities can provide standard details minimizing confusion and improper construction.
- Ensures the quality construction of masonry fences.
 - Inspections are a proactive measure that will provide the customer (Home Builder and the Home Owner) the assurance that their masonry fence is constructed with the correct materials and in a manner that aligns with current building codes.
 - Minimizes potential defects and liability for all parties involved.



6" CMU Interlocking Fence Wall



6" CMU Standard Fence Wall



6" CMU STANDARD FENCE WALL MORTARED HEAD JOINTS W/ CONTROL JOINTS S.P. = 1500 PSF

KEYNOTES:

- 1 BOND BEAM AT TOP OF WALL--#4 REBAR IN CONTINUOUS GROUTED CELL OR OPTIONAL CAP BLOCK WITH JOINT REINF. AT 16" O.C. AND IN BED JOINT AT TOP OF WALL.
- 2 6" CMU FENCE WALL WITH #4 VERT. REBAR AT 48" O.C. OR #5 VERT. REBAR AT 72" O.C. IN GROUTED CELL.
- 3 FINISH GRADE OR CONCRETE SLAB
- 4 REBAR COWL WITH STD. 90° HOOK TO MATCH VERTICAL REINF.--30" LAP FOR #4; 36" LAP FOR #5
- 5 SOLID GROUT MASONRY BELOW GRADE
- 6 CONCRETE FOOTING WITH 1--#4 LONGITUDINAL
- 7 PROVIDE SPECIFIED REBAR IN GROUTED CELL EACH SIDE OF CONTROL JOINT
- 8 DISCONTINUE JOINT REINF. AT CONTROL JOINT. BOND BEAM REINF. MAY BE DISCONTINUOUS OR CONTINUOUS AT CONTROL JOINT. PROVIDE 12" PLASTIC SLEEVE TO BREAK BOND AT CONTINUOUS INSTALLATIONS
- 9 MASONRY CONTROL JOINT--NOT REQ'D. TO BE EXTENDED INTO CONCRETE FOOTING BELOW

GENERAL NOTES:

- a DESIGN BASED ON 2006 IBC WITH ASCE 7-02 WIND LOADING PER CITY OF PHOENIX AMENDMENTS TO 2006 IBC, 90 MPH, EXPOSURE "B", MINIMUM LATERAL WIND LOAD = 10 PSF ON FENCE PER ASCE 7-02 SECTION 6.1.4.1
- b DESIGN BASED ON MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 1500 PSF AT (-)1'-6" BELOW FINISHED GRADE
- c MASONRY: F_m = 1500 PSI, ASTM C90; RUNNING BOND; MORTARED HEAD JOINTS
- d MORTAR: F_m SHALL BE MIN. 1800 PSI, TYPE "S" PER ASTM C270
- e GROUT: F_c SHALL BE MIN. 2000 PSI PER ASTM C476; GROUT MAY BE FIELD MIXED WITH FINE AGGREGATE; CONSOLIDATE GROUT IN CELL
- f REINFORCING STEEL: F_y = 60,000 PSI PER ASTM A615
- g JOINT REINFORCING: F_y = 70,000 PSI, 9 GA. WIRE, LADUR OR TRUSS TYPE PER ASTM A82
- h CONCRETE: F_c = 2500 PSI AT 28 DAYS PER ASTM C84, CONFORM TO IBC 1904.3 SULFATE EXPOSURE
- i FOOTINGS SHALL BEAR ON WELL DRAINED COMPACTED GRANULAR FILL OR UNDISTURBED NATURAL SOIL
- j MASONRY CONTROL JOINTS TO BE CONSTRUCTED AT MAX. SPACING OF 24 FT. O.C.
- k THIS DESIGN TO BE USED ONLY AT INTERIOR AREAS OF SUBDIVISIONS
- l PERIODIC SPECIAL INSPECTION REQUIRED FOR ALL MASONRY WALLS BY CERTIFIED MASONRY INSPECTOR PER BUILDING OFFICIAL REQUIREMENTS

EXP. 12/31/2011

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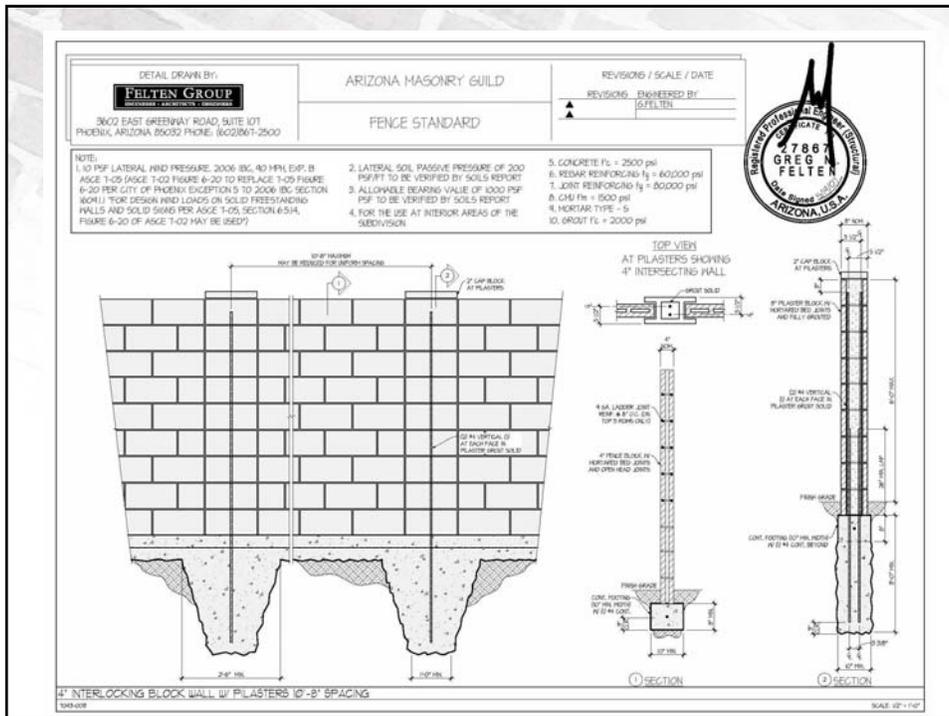
PROJECT: **A.M.G. MASONRY FENCE WALL STANDARDS MHJT-1 - 1500**

BY: WBC DATE: 25 FEB 09

REVIEWED: DATE:

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4" Interlocking Fence Wall



Sound, Retaining, & Combination Wall Designs

- AMG's ADOT Task Group is currently developing masonry wall designs & details for:
 - Sound Walls up to a height of 26 feet.
 - Retaining Walls up to a height of 14 feet.
 - Combination Walls- Sound walls sitting on top of retaining walls.
- Designed to AASHTO and ADOT Standards.
- Wall designs & details will be made available to all municipalities by late summer/early fall 2009.



For more information about these details or to answer any questions in regards to today's presentation, please contact the following AMG Fence Task Group Members:

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**To improve the quality of life for all people through
the creation and development of timeless and
environmentally friendly masonry structures.**