Concrete Masonry Product Guide









Regional Masonry Projects

County Materials works with exceptional architects and builders to create award-winning projects.





Wisconsin Masonry Alliance Best of Show / Best of Masonry Award - Mars' Cheese Castle, Kenosha, Wis.



WMA Excellence AwardMarathon City Fire Station, Marathon, Wis.



WMA Excellence AwardAlexander Court Residence, Waukesha, Wis.



WMA Best of Concrete Masonry Award Ishnala Trail Residence, Waukesha, Wis.



WMA Best of Concrete Masonry Award Badger Railing, Milwaukee, Wis.



WMA Excellence AwardSix Point East Condominiums, West Allis, Wis.



WMA E2/Energy & Environmental Award Starin Hall UW-Whitewater, Whitewater, Wis.



A Trusted Resource for Construction & Landscape Products

County Materials' manufacturing and sales locations proudly serve the industry with time-tested, quality concrete construction and landscape products, backed by excellent customer service and technical advice.

Concrete Block

- Burnished masonry
- Architectural and Decorative masonry
- Standard masonry
- Tumbled masonry
- · Insulating units
- Lightweight block
- Acoustical block
- Oversize block
- Concrete Thin Veneers
- Masonry Products

Brick & Stone

- Concrete Brick
- Clay brick
- Heritage Cast Stone
- Manufactured stone
- Natural stone
- Address stones
- Keystones
- Thin-cut natural stone

Prestress

- Hollowcore Roof and Floor systems
- AASHTO "I" type girders
- Wide flange girders
- Post & beam
- Flat panel
- Specialty prestress
- NU girders
- Railway bridge girders
- Deck panels

Pipe & Precast

- Reinforced concrete culvert & storm sewer pipe
- Reinforced concrete horizontal & elliptical pipe
- Precast concrete box culverts
- Precast storm sewer manholes, inlets and catch basins
- Stormwater quality treatment structures
- Outlet control / Overflow / Specialty structures
- Reincorced concrete sanitary pipe
- Precast sanitary sewer manholes, lift stations
- Jacking / Tunneling pipe
- Specialty products & structures
- Precast modular jail cells
- Top & base slabs

Municipality Product Lines

- Sign post bases
- Parking curbs
- Grass pavers

Water Management Materials

- · Galvanized-steel riveted culvert
- Geotextile fabrics
- · Erosion control blankets
- Permeable Pavers

Highway Products

- Guiderail components
- · Structural plate products
- W-beam and Thrie beam
- ET-2000 terminal ends

Ready-Mix & Materials

- · Front-discharge trucks
- ICF's (Insulated Concrete Forms)
- Telebelt® material conveyor
- Sand and gravel
- Colored concrete
- Aggregate

Landscaping

- Segmental retaining wall systems
- Garden wall units
- · Clay and concrete pavers
- Permeable pavers
- Patio stones, stepping stones and edgers
- · Patio products and furnishings
- · Outdoor Fireplaces and patio cabinets
- Sand, gravel, and aggregates
- Fieldstone
- Landscape fabric, adhesives, sealants and supplies
- Bagged mulch, aggregates, sands and soils



Introductory Information

County Materials Product Guide represents many of our quality Concrete Masonry Units (CMUs). However, it is impossible to include all of the construction materials and resources that we have available. Therefore, we invite you to explore the following avenues to obtain additional information on matters that you might not find within the confines of this quide.

WEB SITE

Please visit our web site at www.countymaterials.com for further valuable information:

- Photo gallery of projects utilizing various CMUs
- Integral color choices and availability
- County Materials Corp. locations and contact numbers
- Other County Materials Corp. products, including:
 - Landscape units
 - Concrete and clay pavers
 - Hollowcore planking
 - Septic tanks
 - Bridge beams
 - Precast concrete pipe and other products
 - Ready-Mix
 - ICFs (Insulated Concrete Forms)
- Links to NCMA Tek manual and construction details
- Technical Resources
- Events

SALES SHEETS & PRODUCT BROCHURES

For many of the individual products, sales sheets and product brochures are available through your local County Materials Sales Representative.

SUSTAINABLE CONSTRUCTION

County Materials is committed to providing our customers and communities assistance in achieving green building goals. We offer products that are produced with pre-consumer recycled content and use abundant, locally-sourced natural materials. Utilizing County Materials' products may contribute toward projects achieving sustainable building certifications, such as the U.S. Green Building Council's **LEED**® green building program.

WATER REPELLENTS

Integral water repellents can be added to most CMUs for improved performance both in the product and building structure. Water repellants are just one part of an improved wall system that includes proper design, sealers and professional workmanship.

Please call your County Sales Representative for a thorough discussion regarding the proper utilization of water repellants, manufacturer's recommendations on installation and use, details on proper flashing, weeps and other standard masonry practices.

INTEGRAL COLORING — SAMPLE KITS & PANELS

Integral colors can be added to most concrete masonry units. County Materials offers both solid and blended colors on most products. Please call your nearest County location samples.

MATERIAL SAFETY DATA SHEETS / LETTERS OF COMPLIANCE PRODUCT DATA SHEETS / SPECIFICATIONS

Many products have informative documentation. Please contact your County Materials Sales Representative for these items.

Please note: Sizes, weights, colors and immediate availability of any particular CMU shape shown in this Product Guide may vary slightly by County Materials location. Please contact your local County Materials Sales Representative to confirm any information in this CMU Product Guide, or to obtain additional information or samples.

If there is something that you do not find in this product guide, please call us at 800-289-2569 or contact your local County Materials Sales Representative.



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Information

MORTAR AND CEMENT MIXES

ALL TABLES PROVIDED ARE INTENDED AS A "RULE OF THUMB" ONLY.

MORTAR MIX & USE SELECTION:

1 PART MORTAR, 3 PARTS MASON SAND OR 9 BAGS OF MORTAR TO ONE CUBIC YARD OF MASON SAND

Number of Block per Bag of Mortar:

45 to 50 concrete block (4" or 6" regular) 35 to 40 concrete block (8" regular) 35 to 40 concrete block (12" regular)

Number of Modular Brick per Bag of Mortar:

Approximately 125 brick

DO NOT use Masonry Cements for producing concrete.

C 270 - 07 TABLE X1.1 Guide for the Selection of Masonry Mortars

Mortar Type			
Location	Building Segment	Recommended	Alternative
Exterior,	Load-bearing wall	N	SorM
above grade	Non-load-bearing wall	OB	NorS
	Parapet wall	N	S
Exterior, at or below grade	Foundation wall, retaining wall, manholes, sewers, pavements, walks, and patios	S ^c	M or N ^c
Interior	Load-bearing wall	N	SorM
	Non-load-bearing partitions	0	N
Interior or Exterior	Tuck pointing	See Appendix X3	See Appendix X3

- **A.** This table does not provide for many specialized mortar uses, such as chimney, reinforced masonry, and acid-resistant mortars.
- **B.** Type O mortar is recommended for use where the masonry is unlikely to be frozen when saturated, or unlikely to be subected to high winds or other significant lateral loads. Type N or S mortar should be used in other cases.
- **C.** Masonry exposed to weather in a nominally horizontal surface is extremely vulnerable to weathering. Mortar for such masonry should be selected with due caution.

TYPICAL STU	CCO MIXES:	Measured in	n Parts
	Portland	Hydrated	Plaste

	Portland Cement	Hydrated Lime	Plaster Sand
Scratch Coat	1	1	6
Brown Coat	1	1	7.5
Finish Coat	1	2	9

(1) CUBIC FOOT BAG WEIGHTS

Portland Cement (94 lb. bag)
Lime (50 lb. bag)
M = 80 lbs.
S = 75 lbs.
N = 70 lbs.

DO NOT use Masonry Cements for producing concrete.

TYPICAL CONCRETE MIX:

Portland Cement (94 lb. bag) Concrete Sand (235 lbs.) 3/4" to 1" Rock (259 lbs.)

This concrete mix will yield 3.5 to 3.75 cubic feet of concrete (27 cubic feet = 1 cubic yard)

Cubic Feet =
Length (ft.) x Width (ft.) x

Cubic Feet

Cubic Feet

Cubic Yards = 27

• Do not use excessive water in your concrete mix!

Excessive water will reduce the strength of the concrete and

- Curing of the concrete is very important and must be started immediately after the finishing of the surface.
- Sealing of the concrete surface is also important. Sidewalks, patios and driveways should be sealed to prevent surface deterioration. Contact County Materials Corporation for recommended curing and sealing products.

SAND & MORTAR CEMENT – VOLUMES/RATIOS:

Yard/Cubic Foot Volume

Mason Sand: (1) cu. yd. = 27 cu. ft. = approx. 2,700 lbs. = 1.35 Ton Mortar/Masonry Cements: (1) bag = (1) cu. ft.

Mason sand ratio: and a minimum of 2-1/4 to a maximum of 3 times the volume of cement materials.

Sand to Mortar 1Ton 7 bags 300 lbs. 1 bag

Mortar Type Proportions (Cement: Lime: sand)

M S N O K 1:0.25:3.75 1:0.5:4.5 1:1:6 1:2:9 1:3:12



Information

CALCULATING QUANTITIES

MORTAR PREMIX M,S,N

MORTAR ESTIMATING CHART FOR 80LB. BAG

Masonry Units	Yield Per 80 lb. Bag	No. of Bags Per 1,000 Units	
Modular Brick	40	25	
Queen Sized Brick	34	30	
King Sized Brick	27	37	
Utility Brick	16	63	
4" Block	12	83	
6" Block	12	83	
8" Block	11	90	
10" Block	11	90	
12" Block	10	100	

CORE FILL GROUT *Estimating Chart for 80lb. Bag*

Masonry Units	Bags Required per 100 sq. ft.
4"	14
6"	35
8"	47
12"	80

NUMBER OF BLOCK PER (5) FT³ BAG OF POLYSTYRENE BEADS:

	Compacted Block/Bag	Loose Block/Bag	
8" Regular	18	23	
8" Thermal	22	28	
8" Thermal 1 Stuffer	37	40	
12" Regular	11	15	
12" Thermal	11	15	
12" Thermal 1 Stuffer	14	19	
12" Thermal 2 Stuffers	18	23	

NUMBER OF CLAY BRICK PER SQ. FT.*:

	W x H x L in inches	Sq. Ft. Mult. by
Modular	$3^{5/8} \times 2^{1/4} \times 7^{5/8}$	6.86
Standard	3 ⁵ / ₈ x 2 ¹ / ₄ x 8	6.55
Roman	3 ¹ / ₂ x 1 ⁵ / ₈ x 11 ⁵ / ₈	6.00
Oversize/Scotty/Queen/ Engineer	3 ¹ / ₂ x 2 ³ / ₄ x 7 ⁵ / ₈	5.76
Princess, Builders Special	$3 \times 2^{3/4} \times 8^{3/4}$	5.05
Kingsize	3 ¹ / ₈ x 2 ⁵ / ₈ x 9 ⁵ / ₈	4.8
Norman	3 ⁵ / ₈ x 2 ¹ / ₄ x 11 ⁵ / ₈	4.57
Engineer, Kingsize	3 x 2 ¹³ / ₁₆ x 9 ⁵ / ₈	4.52
Closure, Economo	35/8 x 35/8 x 75/8	4.55
Utility	35/8 x 35/8 x 115/8	3.00

NUMBER OF CONCRETE BLOCK PER SQ. FT.*:

	Square Feet Multiplied by
Concrete Block (8"x16" face)	1.125

HERITAGE COLLECTION DESIGNER SERIES:

CONCRETE BRICK* (see page 40)	W x H x L in inches	No. Required per Sq. Ft.
Modular	$3^{5/8} \times 2^{1/4} \times 7^{5/8}$	6.85
Engineer	3 ⁵ /8 x 2 ³ / ₄ x 7 ⁵ / ₈	5.67
King	3 ⁵ / ₈ x 3 x 9 ³ / ₄	4.2
Closure	3 5/8 x 35/8 x 7 5/8	4.5
Utility	35/8 x 35/8 x 115/8	3
Half High	3 5/8 x 35/8 x 15 5/8	2.25

For metric conversions, refer to the tables on page 68.



^{*} Includes mortar joint

Estimating Guides

ALL TABLES SHOWN BELOW ARE INTENDED AS A "RULE OF THUMB" ONLY.

REGULAR BLOCK			
UNIT QUANTITIES	A		ATE VOLUME REQUIRED ORE VOIDS IN BLOCK
Standard Block (8" high x 16" long)-(nominal dimensions)	6 x 8 x 16	2 core	0.19 cu. ft./block or 46% void
1.125 block per square foot of wall area Concrete Brick King = 4.2 brick per square foot of wall area Utility = 3 brick per square foot of wall area Half-high Block (4" high x 16" long)	8 x 8 x 16	2 core	0.27 cu. ft./block or 47% void
	10 x 8 x 16	2 core	0.37 cu. ft./block or 52% void
	12 x 8 x 16	2 core	0.48 cu. ft./block or 56% void
	14 x 8 x 16	2 core	0.55 cu. ft./block or 55% void
2.25 block per square foot of wall area	16 x 8 x 16	2 core	0.64 cu. ft./block or 55% void

Calculation example: 5,000 - 8" block to be filled: $5,000 \times 0.27 = 1,350$ cu. ft. $\div 27$ cu. ft. per cu. yard = 50 cu. yards

BOND BEAM & LINTEL BLOCK

APPROXIMATE VOLUME OF GROUT REQUIRED TO FILL BOND BEAMS AND LINTELS

6" BOND BEAM



├ 5 ⁵/₈ **├**

8" BOND BEAM



10" BOND BEAM



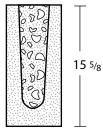
9 5/8

12" BOND BEAM



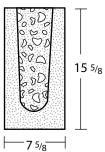
0.56 cu. ft. / 67% void

6"	LINTE	L -
ŀ	C/OUTS	5

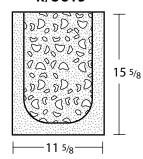


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8" LINTEL -**K/OUTS**



12" LINTEL -**K/OUTS**



CUBIC FEET AND % VOID TO FILL ONE BLOCK 6" Bond Beam 0.16 cu. ft. / 39% void

8" Bond Beam 0.20 cu. ft. / 37% void 10" Bond Beam 0.27 cu. ft. / 39% void 12" Bond Beam 0.33 cu. ft. / 41% void 6" Lintel 0.19 cu. ft. / 47% void 8" Lintel 0.32 cu. ft. / 58% void



12" Lintel

75/8

Fire Resistance Ratings

INTERNATIONAL BUILDING CODE Table 721.3.2 Minimum Equivalent Thickness (Inches) of Bearing or Nonbearing Concrete Masonry Walls a, b, c, d **FIRE-RESISTANCE RATING (hours) TYPE OF AGGREGATE** 1/2 3/4 1.0 1-1/4 1-1/2 1-3/4 2-1/4 2-1/2 2-3/4 3.0 3-1/4 3-1/2 3-3/4 1.5 1.9 2.1 2.5 2.7 3.0 3.2 3.4 3.6 3.8 4.0 4.2 4.4 4.5 4.7 Pumice or expanded slag Expanded shale, clay or slate 1.8 2.2 2.6 2.9 3.3 3.4 3.6 3.8 4.0 4.2 4.4 4.6 4.8 4.9 5.1 Limestone, cinders or unexpanded slag 1.9 2.3 2.7 3.1 3.4 3.7 4.3 4.5 4.8 5.0 5.2 5.5 5.7 5.9 4.0 2.0 2.4 2.8 3.2 3.6 4.2 4.5 4.8 5.0 5.3 Calcareous or siliceous gravel 3.9 5.5 5.8 6.2

For SI: 1 inch - 25.4 mm

- **a.** Values between those shown in the table can be determined by direct interpolation.
- **b.** Where combustible members are framed into the wall, the thickness of solid material between the end of each member and the opposite face of the wall, or between members set in from opposite sides, shall not be less than 93 percent of the thickness shown in the table.
- c. Requirements of ASTM C 55, ASTM C 73 or ASTM C 90 shall apply.
- **d.** Minimum required equivalent thickness corresponding to the hourly fire-resistance rating for units with a combination of aggregate shall be determined by linear interpolation based on the percent by volume of each aggregate used in manufacture.



Technical and Delivery Data

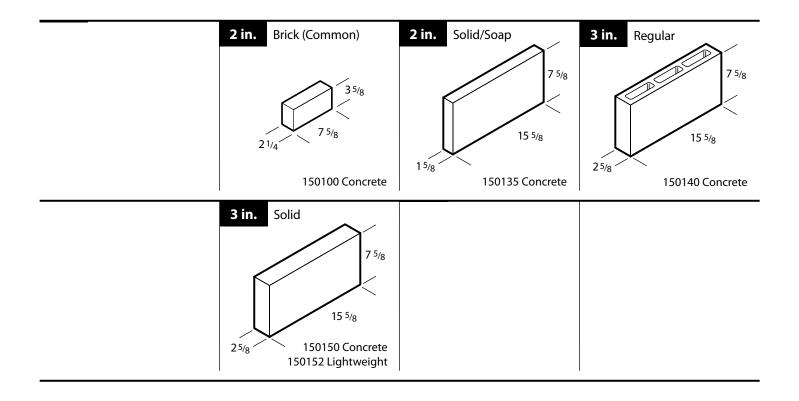
	STANDARD CONCRETE BLOCK				STANDARD LIGHTWEIGHT BLOCK			
BLOCK SIZE & DESCRIPTION width x height x length	STOCK NO.	AVERAGE WT. PER BLOCK*	NO. BLOCK PER SKID*	FIRE RATING*	STOCK NO.	AVERAGE WT.PER BLOCK*	NO. BLOCK PER SKID*	FIRE RATING*
CONCRETE BRICK	150100	4	768	-	_	_	-	-
2 x 8 x 16 Solid (Soaps)	150135	15	225	-	-	-	-	-
3 x 8 x 16 Solid	150150	27	135	-	-	24	135	1 Hr.
4x8x16 REGULAR	040000	25	150	-	040200	18	150	1 Hr.
4 x 8 x 16 Solid	040054	35	120	1 Hr.	040254	26	120	2 Hrs.
4 x 4 x 16 Half Course	040008	12	341	-	040208	9	341	-
4 x 8 x 8 Half Block	040002	13	300	-	040202	10	300	-
6 x 8 x 16 REGULAR	060000	28	130	1 Hr.	060200	20	130	1 Hr.
6 x 8 x 16 Solid	060054	54	60	3 Hrs.	060254	40	60	4 Hrs.
6 x 4 x 16 Half Course	060008	14	260	-	060208	10	260	-
6 x 8 x 8 Half Block	060002	15	200	-	060202	11	200	-
8 x 8 x 16 REGULAR	080000	38	90	1 Hr.	080200	28	90	2 Hrs.
8 x 8 x 16 Special 2 Hr. Fire	080040	43	90	2 Hrs.	-	-	-	-
8 x 8 x 16 Solid	080055	78	45	4 Hrs.	-	-	-	-
8 x 8 x 16 Firewall 3 Hr. Fire	080045	56	60	3 Hrs.	-	-	-	-
8 x 8 x 16 - 75% Solid	-	-	-	-	080250	47	75	4 Hrs.
8 x 4 x 16 Half Course	080008	19	195	-	080208	14	195	-
8 x 8 x 4 Quarter Block	080001	19	210	-	080201	14	210	-
8 x 8 x 8 Half Block	080002	20	180	-	080202	16	180	-
8 x 8 x 12 Three Quarter Block	080003	33	120	-	080203	24	120	-
10 x 8 x 16 REGULAR	100000	45	80	2 Hrs.	100200	33	80	3 Hrs.
10 x 4 x 16 Half Course	100008	23	169	-	100208	17	169	-
10 x 8 x 4 Quarter Block	100001	24	182	-	100201	17	182	-
10 x 8 x 8 Half Block	100002	24	156	-	100202	18	156	-
10 x 8 x 12 Three Quarter Block	100003	36	102	-	100203	26	102	-
12 x 8 x 16 REGULAR	120000	50	65	2 Hrs.	120200	36	65	4 Hrs.
12 x 8 x 16 Firewall 3 Hr. Fire	120045	59	65	3 Hrs.	-	-	-	-
12 x 8 x 16 Firewall 4 Hr. Fire	120050	66	55	4 Hrs.	-	-	-	-
12 x 4 x 16 Half Course	120008	25	130	-	120208	18	130	-
12 x 8 x 4 Quarter Block	120001	26	140	-	120201	20	140	-
12 x 8 x 8 Half Block	120002	26	130	-	120202	20	130	-
12 x 8 x 12 Three Quarter Block	120003	40	60	-	120203	28	60	-
14 x 8 x 16 REGULAR	140000	60	54	3 Hrs.		46	54	4 Hrs.
16 x 8 x 16 REGULAR	160000	68	45	4 Hrs.		51	45	4 Hrs.

^{*} Average weights, number of blocks per skid and fire ratings may vary slightly by location.



Sizes: 2" and 3"

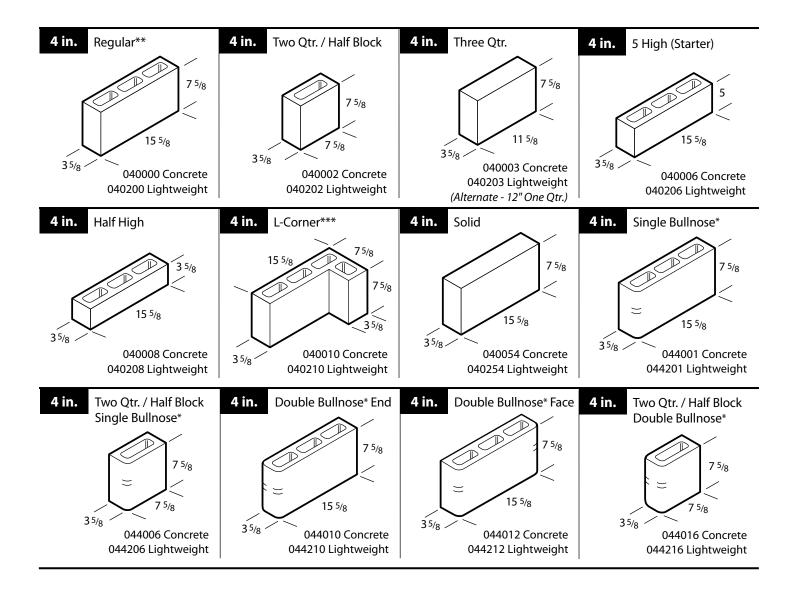
SHAPES AND SIZES





Sizes: 4"

SHAPES AND SIZES



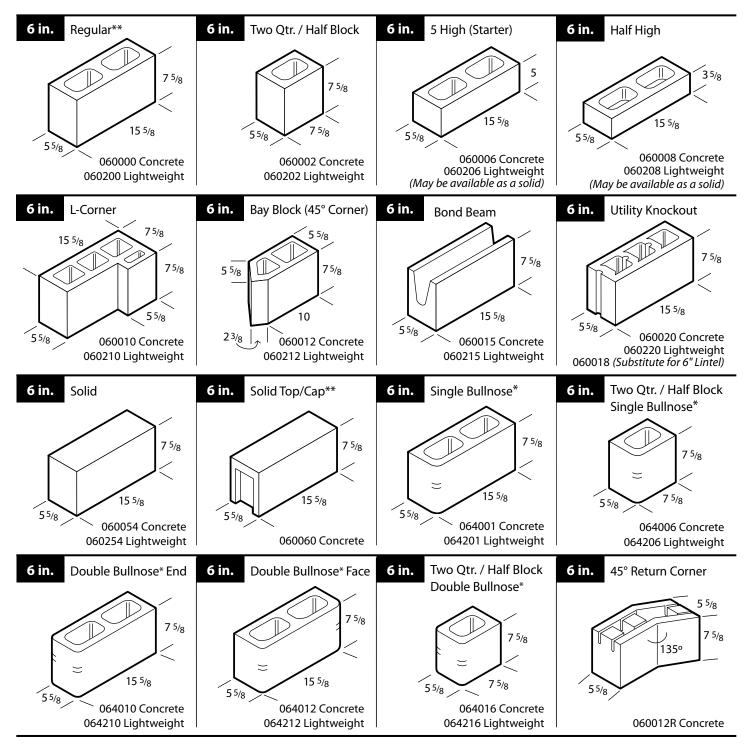




^{*} All Bullnose have 1" radius.

Sizes: 6"

SHAPES AND SIZES

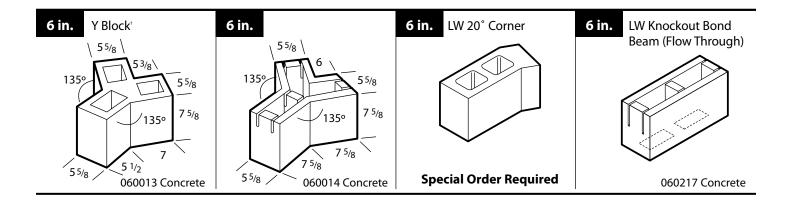


^{*} All Bullnose have 1" radius.



Sizes: 6"

SHAPES AND SIZES



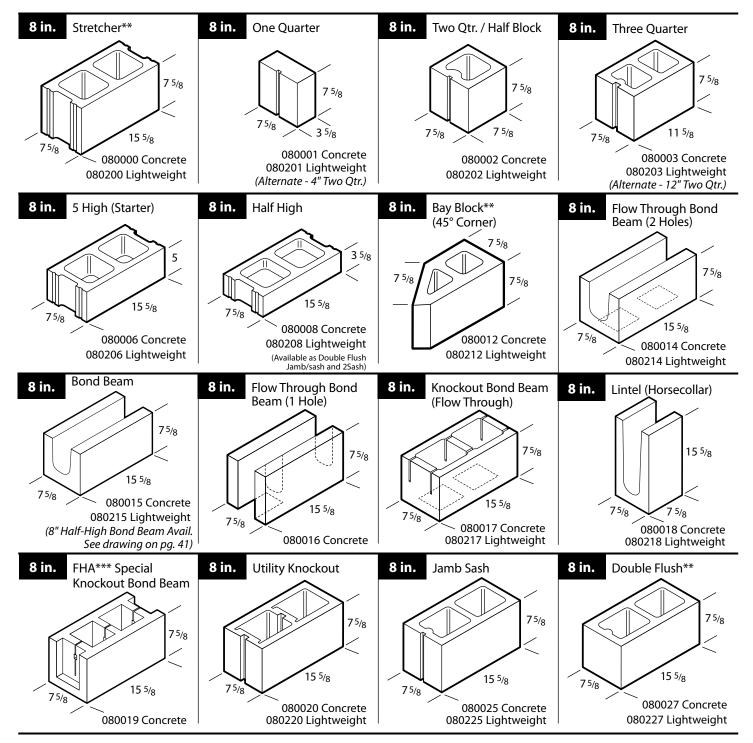
* All Bullnose have 1" radius.

The two "Y" block shown above, with and without knockouts, are not compatable. Select one or the other for your project.



Sizes: 8"

SHAPES AND SIZES

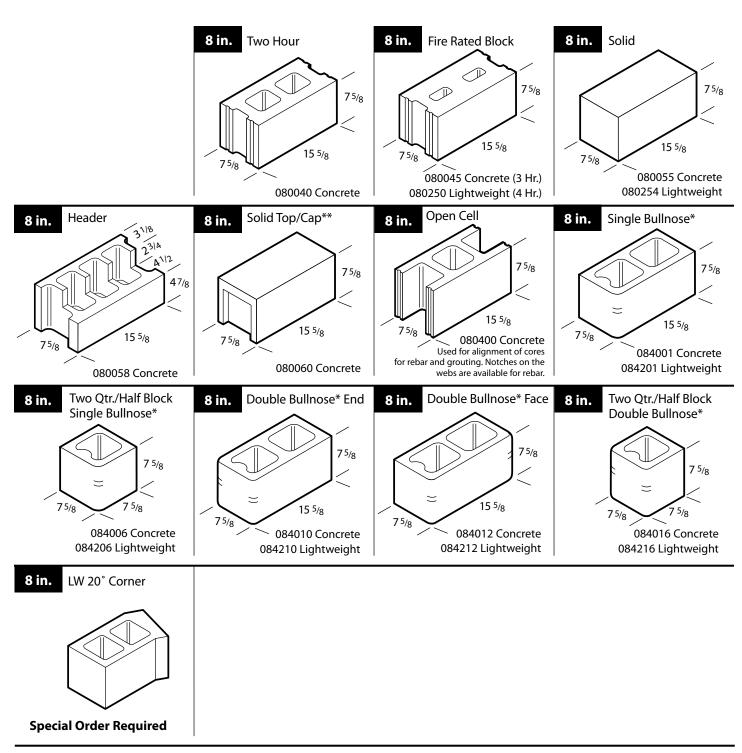


*** FHA = Federal Housing Authority Approved



Sizes: 8"

SHAPES AND SIZES

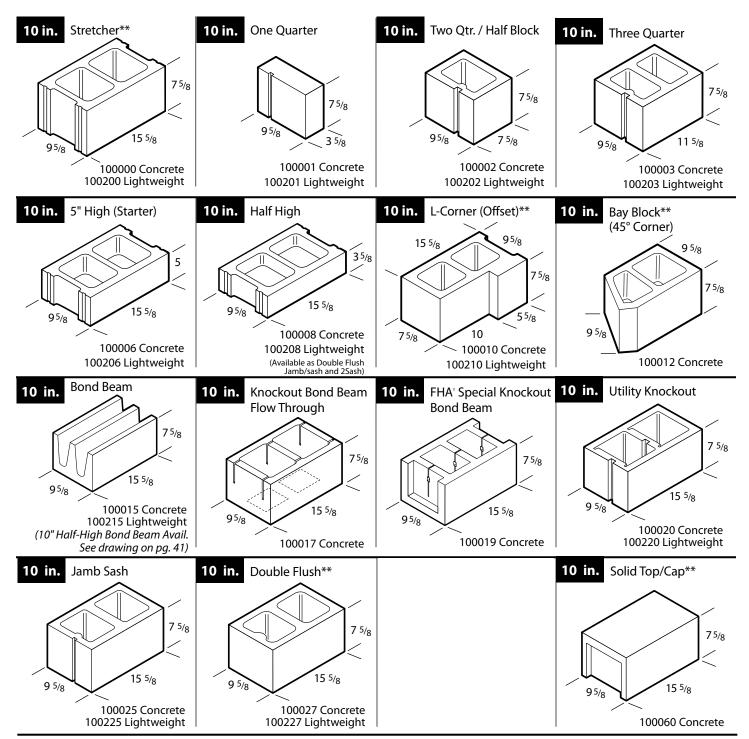


^{*} All Bullnose have 1" radius.



Sizes: 10"

SHAPES AND SIZES

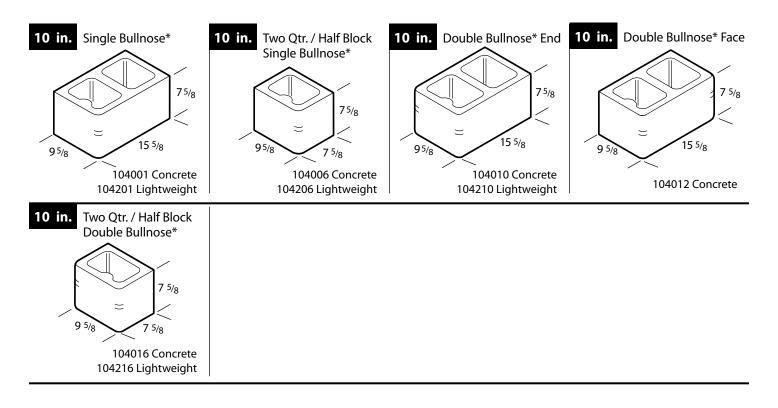


†FHA = Federal Housing Authority Approved



Sizes: 10"

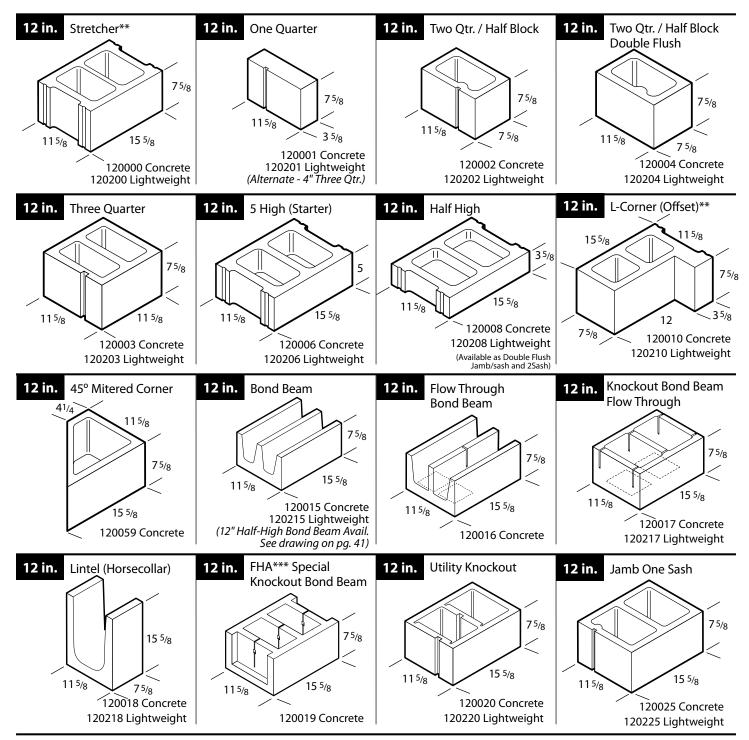
SHAPES AND SIZES





Sizes: 12"

SHAPES AND SIZES

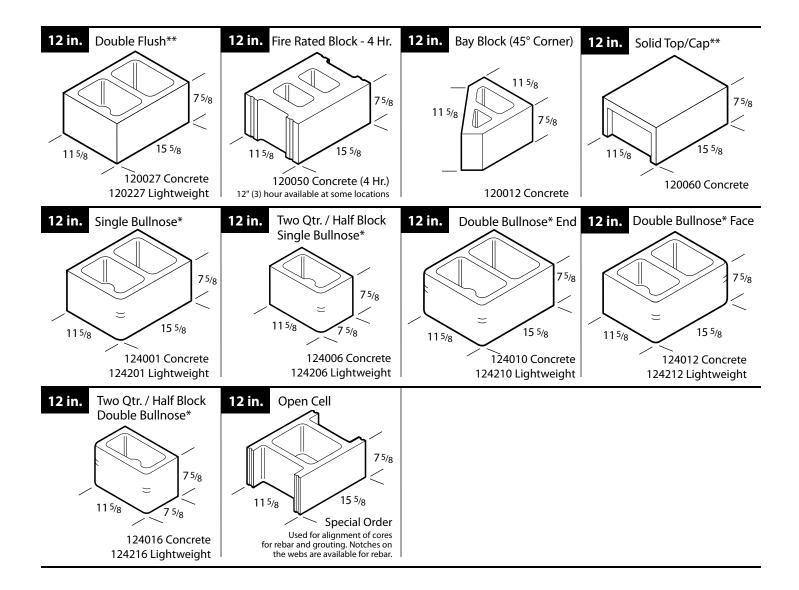


*** FHA = Federal Housing Authority Approved



Sizes: 12"

SHAPES AND SIZES

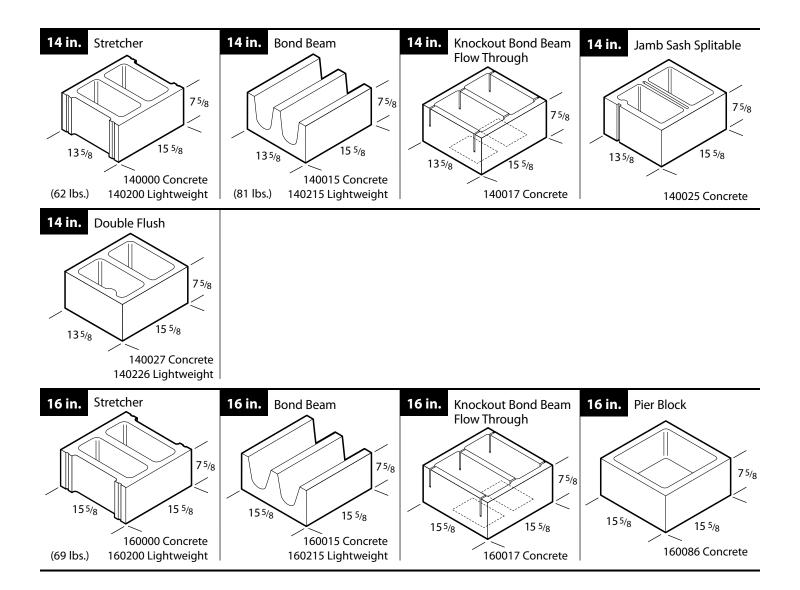


*All Bullnose have 1" radius.



Sizes: 14" & 16"

SHAPES AND SIZES

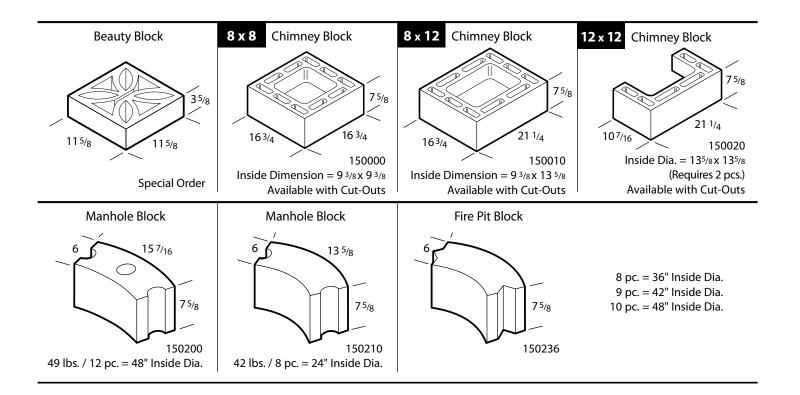


Note: Not all block immediately available at all County Materials locations.



Special Block

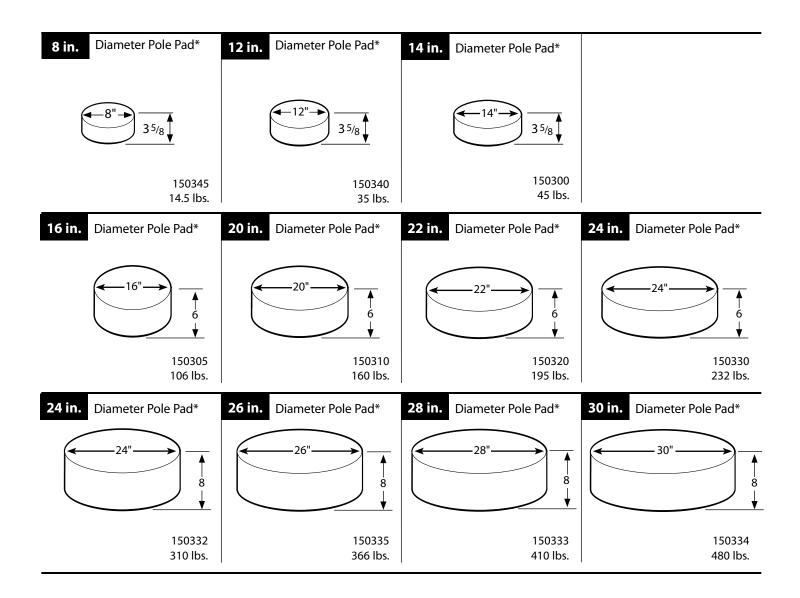
SHAPES AND SIZES





Special Block

SHAPES AND SIZES



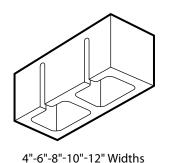


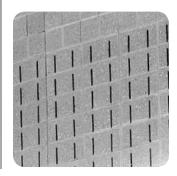
Acoustical Masonry Units

SHAPES AND SIZES

SOUNDBLOX®

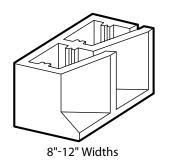
Sound absorbing structural masonry units*. Featuring the new Types 'RSC' and 'RSC-RF'.

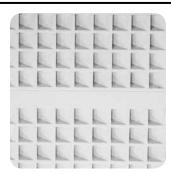




SOUNDCELL®

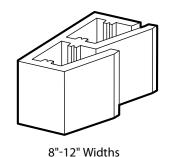
SOUNDCELL'S **innovative configuration*** effectively absorbs noise, diffuses sound energy, and thoroughly captures flutter echo, standing waves and sound intensity annoyances. This acoustical masonry is also visually appealing.





ACOUSTADE®

ACOUSTADE offers a new look* while providing the same load-bearing aesthetics and superior sound control characteristics as experienced with Sound Cell. Finally, you now have the choice to blend form and function.





All acoustical units are special order.

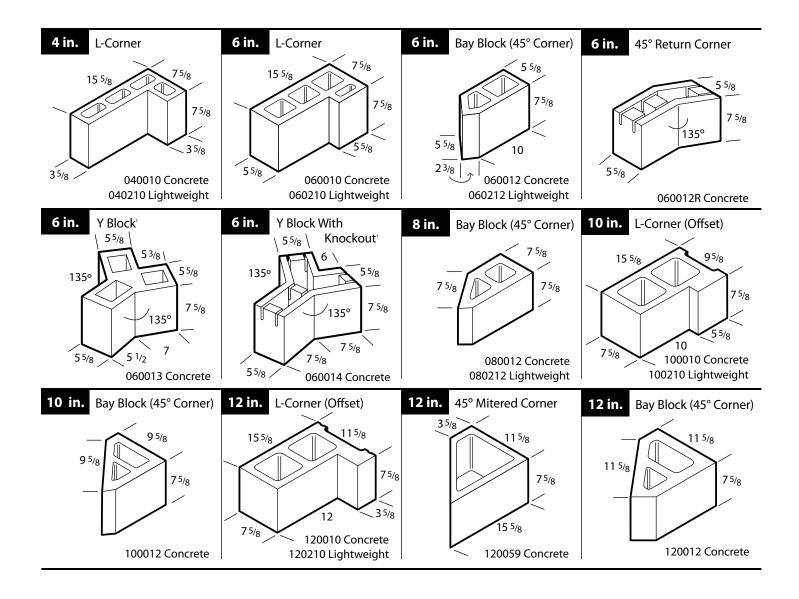
*SoundCell®, Acoustade® and SoundBlox® units are a product of the Proudfoot company.

Note: Stout Face Block may be used in conjunction with SoundCell or Acoustade units to ensure proper alignment. See Stout Faced units on page 56. Note: Not all block immediately available at all County Materials locations.



Bay, "Y" & Corner Block

SHAPES AND SIZES



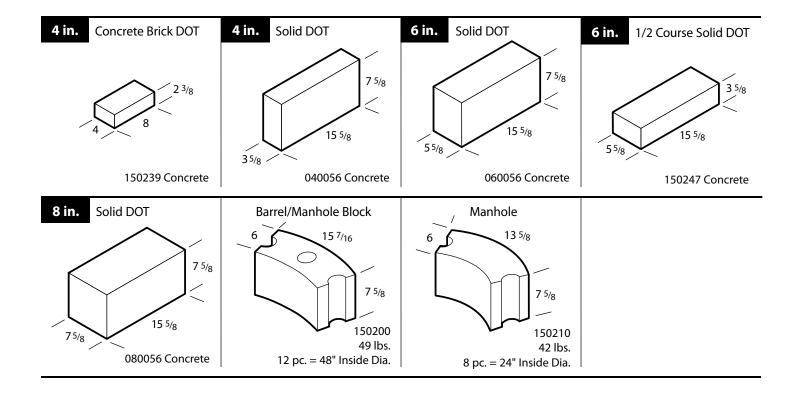
[†]The two "Y" block shown above, with and without knockouts, are not compatable. Select one or the other for your project.

Note: Not all block immediately available at all County Materials locations.



DOT & Labor Saving Block

SHAPES AND SIZES



Note: Not all block immediately available at all County Materials locations.

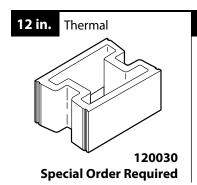


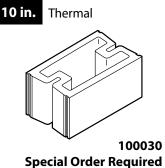
Insulating Units

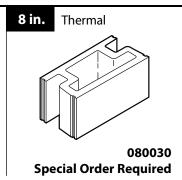
SHAPES AND SIZES

THERMAL BLOCK

THERMAL BLOCKS have **rigid insulating inserts installed** in them during the manufacturing process to reduce jobsite labor. Additional thermal protection between units may be installed in the field. Note: *These units are available in Splitface/Fullface Split/Rockface*.







FACTORY INSTALLED INSERT SIZE 1⁷/₁₆" x 7 ⁵/₈" x 11¹⁵/₁₆" - 152010

 $\frac{\text{FIELD INSTALLED INSERT SIZE}}{1^{1}/2" \times 6" \times 16" - 8" \& 12" - 152040} \\ ^{3}/4" \times 6" \times 16" - 10" - \text{Special Order}$

*Insert sizes vary by location

U-Values & Fire Ratings	BLOCK SIZE									
5-values & life hattings	12"		•	10"	8"					
SYSTEM USED	CONCRETE U-VALUE	LIGHT WEIGHT U-VALUE	CONCRETE U-VALUE	LIGHT WEIGHT U-VALUE	CONCRETE U-VALUE	LIGHT WEIGHT U-VALUE				
Unfilled	0.301	0.215	.0318	0.235	0.4	0.305				
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	2 Hours	2 Hours				
One Factory Installed Insulation Insert	0.281	0.184	0.292	0.205	0.355	0.25				
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	2 Hours	2 Hours				
Two Factory Installed Insulation Inserts	0.261	0.16	0.267	0.182	-	-				
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	-	-				
One Factory & One 11/2" Field Installed	0.236	0.176	0.269	0.182	0.32	0.212				
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	2 Hours	2 Hours				
Two Factory & One 11/2" Field Installed	0.223	0.144	0.25	0.164	-	-				
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	-	-				
EPS Loose Fill Only – Field Installed	0.21	0.134	0.255	0.166	0.324	0.217				
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	2 Hours	2 Hours				
One Factory & EPS Loose Fill – Field Installed	0.209	0.132	0.254	0.165	0.322	0.213				
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	2 Hours	2 Hours				

Note: The chart above shows "U"-Values for concrete and lightweight Thermal Block using the "Series-Parallel Method," effective 4/1/97 for compliance with ASHRAE – IES Standard 90.1. **State of Wisconsin Block Approval #930043-R**



Insulating Units

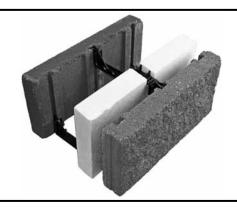
SHAPES AND SIZES

ONESTEP CFMU BUILDING SYSTEM

The OneStep CFMU Building System dramatically simplifies the construction process and reduces the environmental impact of high performance buildings. OneStep Concrete Form Masonry Units can be used to build the entire exterior structure of a building with only One Product, One Trade, One Step.

Units available in four sizes:

12"W x 4"H - 7-3/8" Solid Concrete Member 12"W x 8"H - 2" Rigid Insulation 16"W x 4"H - 11" Solid Concrete Member 16"W x 8"H - 2-1/2", or 3" Rigid Insulation



Benefits:

- Withstand extreme wind loads, bullet and blast resistance, four hour fire wall rating
- Flexibility in design options for exterior and interior walls.
 Can accommodate concrete masonry, clay brick, and natural stone face options
- Mason friendly and lower construction costs (twothirds lighter than 12" standard block for quick and easy installation)
- High R values, dense thermal mass, no thermal path through the wall that yield reduced thermal costs
- Can contribute to high number of LEED credits
- Five layer moisture blocking system designed to prevent black mold, water leakage, and condensation
- Fewer products, fewer trades, and less steps result in lower construction costs
- Installation for a typical 10,000 SQFT gym is four to six weeks
- Offers improved indoor air quality, a safe environment, quiet buildings.
- Design simplicity saves natural and human resources, transportation and energy costs

Features:

- -Thermal efficiency is achieved through a combination of 105 lbs thermal mass per sq ft, a continuous rigid insulation blanket, a continuous weep cavity/air space, and a 2"thick outer face shell
- 7-3/8" of solid concrete = four hour fire rating
- Patented connector system eliminates the thermal path though the wall
- Only one trade required for wall construction
- 12" OneStep with insulation and a density of 135 pcf has a CFMU R-Value of 15.02, calculated by using the Series-Parallel method
- Array of colors available from our County Materials Corporation color listing
- Normal compatibility with built in items

OneStep complies with ASTM C-90 for concrete masonry.

Specifications can be found at Masterformat Section 04-28-23, Concrete Masonry Units.

CAD details are available.

Please contact our sales department for more product and price information.





ASK FOR MORE INFORMATION ON OUR FULL LINE OF CONSTRUCTION AND LANDSCAPING PRODUCTS:

























