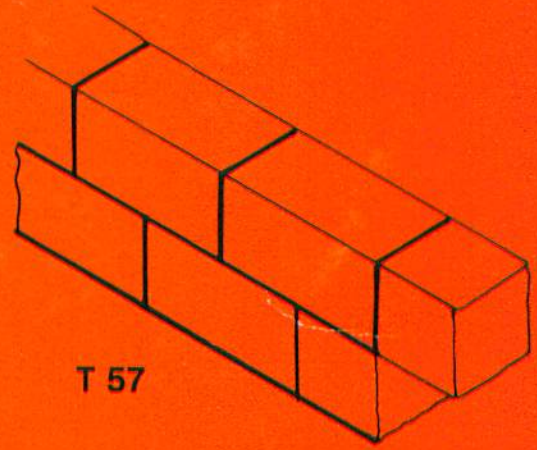
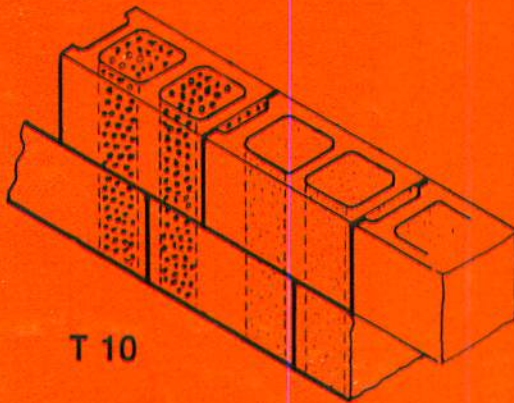


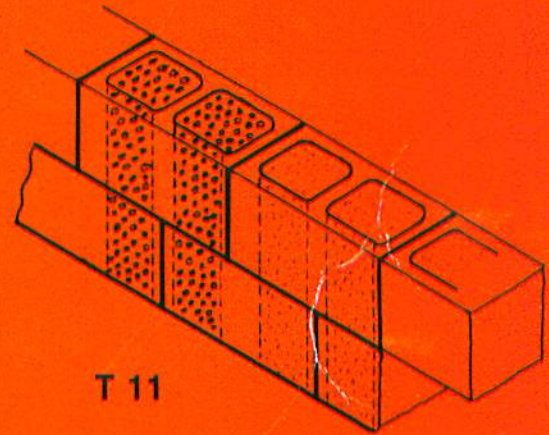
T 29



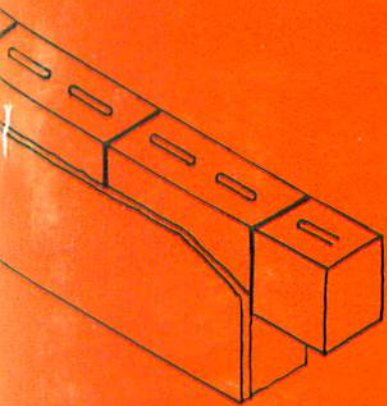
T 57



T 10



T 11



# FIRE RATED CONCRETE MASONRY WALL ASSEMBLIES



**FIRE RATE CONCRETE  
MASONRY WALL ASSEMBLIES**



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1501 Belvedere Road  
West Palm Beach, Florida 33406  
Telephone 407-833-5555



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# **RINKER MATERIALS CORPORATION**

## **FIRE RATED CONCRETE MASONRY WALL ASSEMBLIES**

These assembly drawings are provided as a service to Engineers, Architects, Building Department Officials, Builders, Contractors and others involved in the design, inspection and construction of structures utilizing concrete masonry. They show the numerous options that are available to produce desired fire resistance ratings using Rinker Materials Corporation concrete block. All the assembly ratings have been certified by an Engineer registered in the State of Florida. The concrete masonry units used in the assemblies are fully identified by Rinker type number. Rinker Materials Corporation will provide the support of its Engineering Department and Quality Control Department in obtaining acceptance of these assemblies, and provide complete documentation as needed to support the indicated fire resistance ratings.

The current editions of the Standard Building Code, of the Southern Building Code Congress International, and the South Florida Building Code, Dade and Broward County Editions, allows for the calculation of the Fire Resistance rating of walls constructed with concrete masonry. The fire rating is based on the physical properties of the concrete masonry unit used in the construction of the wall assembly. The fire rating of the assembly is determined based upon the equivalent thickness of solid material in the wall and the type of aggregate used in the manufacture of the concrete masonry unit. A fire resistive rating is then assigned to the assembly from tables found in the building codes. Each of the model building codes in the United States and Canada recognize this method of determination of fire ratings, which are based on the results of numerous fire tests conducted over the years on concrete masonry walls. Due to the predictable performance of concrete masonry in a fire test (it does not burn, emit toxic smoke or fail structurally) these procedures were able to be developed. Please see the Index of Specifications and Related Documents for additional sources of information.

The Building Codes also recognize the increase in the fire rating of a concrete masonry wall from the addition of supplemental materials into the cores of the block or finishes attached to the wall surface. Methods are provided in the codes to calculate the additional increase in the fire rating of the wall assembly by the addition of selected materials. These materials include masonry grout, loose fill materials such as perlite or vermiculite, and various plasters and gypsum wallboard. Examples of these calculations can be found in the listed references and in this manual.

In the assembly drawings found in this manual, Rinker Materials Corporation has taken several of the 4", 6", 8", 10", and 12" wide (nominal) concrete masonry units we produce, and calculated the fire resistance rating which could be attained using these units and various supplemental materials and finishes added to the units. A copy of each assembly, bearing a Registered Engineer's seal, and copies of the calculations are available from Rinker Materials Corporation upon request. In addition, complete certification of compliance with the applicable requirements of the building codes on the concrete masonry units used in the assembly will be provided. See example of letter of certification in this manual.



When you specify concrete masonry in fire resistive wall assemblies, you get the best material available to do the job. In addition to superior performance, you will benefit from reduced maintenance costs, high energy efficiency, protection from moisture and vermin damage, and lower fire insurance premiums.

All of the assembly fire ratings were calculated based on the physical properties of the indicated concrete masonry unit as produced by Rinker Materials Corporation. The **substitution** of other concrete masonry units for the indicated unit **may result** in a **lower** fire resistive rating than that listed and will **void** the certification of the rating by the Registered Engineer.

**All construction** of these assemblies **must** be in accordance with the applicable sections of the local building code in effect. Rinker Materials Corporation is only specifying the type of concrete masonry unit which must be used in the assembly, and the type and required thickness of the finishes added to the concrete block necessary to achieve the indicated fire resistance rating.

Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assemblies shown. Additionally we accept no responsibility for the construction of said assemblies.

For information on the price or availability of concrete block, please contact the Rinker Materials Corporation plant in your area or in the area you will be working. A listing of all Rinker plants is included in this manual for your convenience.

For technical information or questions about this manual, please contact the Rinker Materials Corporation Quality Control Department, 1501 Belvedere Road, West Palm Beach, Florida 33406, area code 407-833-5555 or 1-800-432-5521.



## **USE OF THIS MANUAL**

### **8 STEPS TO A SUPERIOR FIRE RATED ASSEMBLY**

1. Determine the wall assembly fire rating required from the applicable sections of the local building code in effect.
2. Determine the wall thickness necessary to satisfy the building code and your structural requirements.
3. Consult the appropriate Section(s) in the manual, listed by wall thickness and fire resistance rating, and select the type of assembly(ies) that best suits your design and purpose.
4. Contact the Rinker Plant in the area you will be building in as to the availability of the concrete block in the assembly(ies) you have selected. (see plant listing in this manual)
5. If a certain block texture is desired, consult with the plant as to available textures.
6. If a higher strength unit is required than that indicated by the ASTM Specification corresponding to the unit to be ordered, include the strength requirements in your specifications and consult the plant as to availability. Regular Rinker Concrete Block are certified to have an *f<sub>m</sub>'* strength of 1500 pounds per square inch.
7. When you have decided on the assembly(ies) you will use, request from the plant a copy of the assembly(ies) and calculations bearing the Engineers Seal, and attach the drawing(s) to your plans. You will also receive certification on the concrete masonry units to be provided.
8. Designate the required concrete masonry units by Rinker type number to insure you receive the proper units. Identify on plans where units go by type number to insure proper placement.





## **BUILDING CODE REQUIREMENTS**

### **ON SUPPLEMENTAL MATERIALS AND ATTACHMENT OF FINISHES**

#### **LOOSE FILL MATERIAL**

See Section 3101.6 of the Standard Building Code and Note 13 of Table 37-B of the South Florida Building Code for a listing of approved loose fill materials.

**All** of the core spaces and cavities in the wall assembly **must be filled** with approved loose fill materials to achieve the indicated fire resistance rating.

#### **MASONRY GROUT**

See Section 1410.1 of the Standard Building Code and Section 2704.10 of the South Florida Building Code for information on proper application in grouting concrete masonry.

**All** of the core spaces and cavities in the wall assembly **must be filled** with masonry grout meeting the requirements of the local building code in effect to achieve the indicated fire resistance rating.

#### **PORTLAND CEMENT-SAND PLASTER**

See Chapters 10, 18, and 31 of the Standard Building Code and Chapters 35 and 37 of the South Florida Building Code for information on the proper application of Portland Cement-Sand Plaster.

All of the assemblies in this manual were calculated using **Portland Cement-Sand Plaster** applied **directly** to the concrete masonry unit. Use of other types of plaster or different methods of attachment **will require** re-calculation of the assembly rating and **may result** in values other than indicated.

The indicated thickness of Portland Cement-Sand Plaster is the **minimum required** to achieve the indicated fire resistance rating. Use of other thicknesses **will require** re-calculation of the assembly rating and **may result** in values other than indicated.

#### **GYPSON WALLBOARD**

See Chapters 10, 18, and 31 of the Standard Building Code and Chapters 35 and 37 of the South Florida Building Code for information on the proper application of gypsum wallboard.

The indicated thickness and type of gypsum wallboard used in the assemblies is the **minimum required** to achieve the indicated fire resistance rating. Use of other thicknesses or types of gypsum wallboard **will require** re-calculation of the assembly rating and **may result** in values other than indicated.



Gypsum wallboard shall be attached to wood or steel furring members spaced not more than 16 inches on center.

Gypsum wallboard shall be installed with the long dimension parallel to the furring members and shall have the joints finished.

## **MULTI-WYTHE WALLS**

See Chapter 14 of the Standard Building Code and Chapter 27 of the South Florida Building Code for information on Multi-Wythe walls.

The size of the cavity between the wythes must be in accordance with the requirements of the local Building Code in effect.

The type, size and spacing of metal wall ties must be in accordance with the requirements of the local Building Code in effect.

## **MORTAR**

Standard Building Code - Mortars complying with the requirements of A.S.T.M. Specification C270 for Types M, S, N and O are suitable for use in masonry fire rated wall assemblies. See Section 1402.9 of the code for mortar type selection.

South Florida Building Code - Mortars complying with the requirements of A.S.T.M. Specification C270 for Types M and S are required in masonry fire rated wall assemblies rated 2 hours or more. See Section 2702.10 of the code for mortar type selection.



# INDEX OF SPECIFICATIONS, CODES AND RELATED DOCUMENTS

## SPECIFICATIONS

American Society for Testing and Materials  
1916 Race Street  
Philadelphia, PA 19103

A.S.T.M. C90 for "Hollow Load-Bearing Concrete Masonry Units"  
A.S.T.M. C145 for "Solid Load-Bearing Concrete Masonry Units"  
A.S.T.M. C55 for "Concrete Building Brick"

## CODES

Southern Building Code Congress International/Standard Building Code  
900 Montclair Road  
Birmingham, AL 35213-1206

Chapter 31 "Calculated Fire Resistance"  
Section 3101.5 Concrete Masonry Walls  
Section 3101.6 Cores of Masonry Filled  
Table 3101.4A Multiplying Factor for Finishes on Non-Fire Exposed Side of Wall  
Table 3101.4B Time Assigned to Finish Materials on Fire-Exposed Side of Wall  
Table 3101.5 Minimum Equivalent Thickness (inches) of Loadbearing or Non-loadbearing Concrete Masonry Walls  
Commentary on Chapter 31 "Calculated Fire Resistance"

### South Florida Building Code

DADE: Board of Rules & Appeals  
111 N.W. 1st Street  
Miami, FL 33128

BROWARD: Rules & Appeals Board  
955 S. Federal Highway  
Ft. Lauderdale, FL 33316

### Chapter 37 Fire Resistive Standards

Section 3701.1(b) General  
Section 3701.2(o) General  
Section 3703.14 Concrete Masonry Walls  
Table 37-B(27-31) and note 13 & 14 Rated Fire-Resistive Periods for Various Walls and Partitions  
Table 37-D Multiple Factor for Finishes on Non-Fire Exposed Side of Wall  
Table 37-E Time Assigned to Finish Materials on Fire Exposed Side of Wall



## **RELATED DOCUMENTS**

Florida Concrete and Products Association, Inc.  
649 Vassar Street  
Orlando, FL 32804-5382

Calculated Fire Resistance for Concrete and Concrete Masonry  
- Florida Code Approved Procedures  
The Florida Home - Your Concrete Advantage

National Concrete Masonry Association  
P.O. Box 781  
Herndon, VA 22070

TEK 80A Increasing the Fire Resistance of Concrete Masonry  
TEK 46 Fire Safe Concrete Masonry Construction

Concrete and Masonry Industry Firesafety Committee  
5420 Old Orchard Road  
Skokie, IL 60077-4321

Fire Protection Planning Report No. 13  
Analytical Methods Of Determining Fire Endurance of Concrete and Masonry Members  
- Model Code Approved Procedures



## **STATEMENT BY ENGINEER**

The physical properties of the concrete masonry units specified in the assembly drawings found in this manual have been tested under my supervision and to my satisfaction that the properties of the units are correct as indicated.

Physical testing of the units was conducted in accordance with A.S.T.M. Specification C140-75 "Sampling and Testing Concrete Masonry Units". Testing was conducted by an Engineering Laboratory qualified to conduct testing of concrete masonry units and inspected under the Engineering Testing Laboratory Inspection Program administered by the Concrete Materials Engineering Council or equal accreditation program.

I have verified the Fire Resistance Rating of all the assemblies in this manual to insure that the calculations were done correctly resulting in the values indicated, and to insure that all assemblies and calculations were in accordance with the approved procedures as found in the current editions of the Standard Building Code and the South Florida Building Code, Dade and Broward County editions.

A handwritten signature in black ink, appearing to read "Donald A. Beers", is positioned above the printed name.

Donald A. Beers, P.E.  
Fla. Registered Professional Engineer  
Rinker Materials Corporation



## **NOTE: RINKER TYPE NUMBERS**

Some of the Rinker Type Numbers, for identification of concrete masonry units as listed on the following page, may be different in some areas of the state.

The following Rinker Type Numbers are interchangeable, and do not affect the fire resistance rating of the assemblies:

Rinker Type Number	Alternative Number
201	209
215	814
10 or 11	14
333	335



# INDEX OF CONCRETE MASONRY UNITS IN THE ASSEMBLY DRAWINGS

RINKER TYPE NO.	SIZE	DESCRIPTION	A.S.T.M. DESIGNATION	EQUIVALENT THICKNESS	FIRE RESISTANCE RATING	
					STANDARD BUILDING CODE (Table 3101.5)	SOUTH FLORIDA BUILDING CODE (Table 37-B)
<b>4 INCH UNITS</b>						
201	4" x 8" x 16"	2 core hollow partition	C90	2.6"	56 minutes	56 minutes
220	4" x 8" x 16"	solid partition	C145	3.6"	100 minutes	100 minutes
<b>6 INCH UNITS</b>						
215	6" x 8" x 16"	2 core hollow partition	C90	3.2"	80 minutes	81 minutes
997	6" x 8" x 16"	2 core solid partition	C145	4.5"	150 minutes	150 minutes
214	6" x 8" x 16"	solid partition	C145	5.6"	217 minutes	216 minutes
<b>8 INCH UNITS</b>						
10 or 11	8" x 8" x 16"	2 core hollow unit	C90	3.7"	105 minutes	120 minutes
18 or 11A	8" x 8" x 16"	2 core hollow unit	C90	4.1"	125 minutes	126 minutes
28	8" x 8" x 16"	2 core hollow unit	C90	5.2"	195 minutes	192 minutes
29	8" x 8" x 16"	3 core solid unit	C145	6.0"	240 minutes	240 minutes
57	8" x 8" x 16"	solid unit	C145	7.6"	240 minutes	240 minutes
<b>10 INCH UNITS</b>						
333	10" x 8" x 16"	2 core hollow unit	C90	4.5"	150 minutes	150 minutes
334	10" x 8" x 16"	solid unit	C145	9.6"	240 minutes	240 minutes
<b>12 INCH UNITS</b>						
306	12" x 8" x 16"	2 core hollow foundation unit	C90 1¼" face-shell	5.1"	187 minutes	186 minutes
315	12" x 8" x 16"	2 core hollow foundation unit	C90 1½" face-shell	5.8"	232 minutes	228 minutes
901	12" x 8" x 16"	2 core hollow foundation unit	C90	7.7"	240 minutes	240 minutes
<b>BRICK UNITS</b>						
B.B.	4" x 2¼" x 8"	Besser Brick	C55	3.6"	60 minutes	60 minutes
660	4" x 4" x 16"	Split Face	C145	3.6"	100 minutes	100 minutes

All units are Grade N, Normal weight (125 pounds per cubic foot)  
All units are manufactured with limestone coarse aggregate



## INDEX OF ASSEMBLY DRAWINGS

ASSEMBLY NO.	DESCRIPTION	FIRE RESISTANCE RATING	
		STANDARD BUILDING CODE	SOUTH FLORIDA BUILDING CODE
<b>4 INCH UNIT - 1 HOUR</b>			
4-1-220	T-220 unit	100 minutes	100 minutes
4-1-201G	T-201 w/grout	100 minutes	100 minutes
4-1-201F	T-201 w/fill	100 minutes	100 minutes
4-1-201P	T-201 w/5/8" plaster either side	80 minutes	81 minutes
4-1-201W	T-201 w/3/8" gypsum wallboard either side	66 minutes	66 minutes
<b>4 INCH UNIT - 2 HOUR</b>			
4-2-220P	T-220 w/5/8" plaster either side	130 minutes	132 minutes
4-2-220W	T-220 w/5/8" gypsum wallboard either side	130 minutes	130 minutes
4-2-220WF	T-220 w/1/2" fire code gypsum wallboard either side	125 minutes	125 minutes
<b>6 INCH UNIT - 1 HOUR</b>			
6-1-215	T-215 unit	80 minutes	81 minutes
<b>6 INCH UNIT - 2 HOUR</b>			
6-2-997	T-997 unit	150 minutes	150 minutes
6-2-215P2	T-215 w/5/8" plaster both sides	142 minutes	144 minutes
6-2-215PW	T-215 w/5/8" plaster+ 3/8" gypsum wallboard	120 minutes	120 minutes
6-2-215W2	T-215 w/1/2" gypsum wallboard both sides	120 minutes	120 minutes
<b>6 INCH UNIT - 3 HOUR</b>			
6-3-214	T-214 unit	217 minutes	216 minutes
6-3-215G	T-215 w/grout	217 minutes	216 minutes
6-3-215F	T-215 w/fill	217 minutes	216 minutes
6-3-997P	T-997 w/5/8" plaster either side	187 minutes	186 minutes
6-3-997W	T-997 w/5/8" gypsum wallboard either side	180 minutes	180 minutes
<b>6 INCH UNIT - 4 HOUR</b>			
6-4-214P	T-214 w/5/8" plaster either side	240 minutes	240 minutes
6-4-214W	T-214 w/5/8" gypsum wallboard either side	240 minutes	240 minutes



## INDEX OF ASSEMBLY DRAWINGS *(Continued)*

ASSEMBLY NO.	DESCRIPTION	FIRE RESISTANCE RATING	
		STANDARD BUILDING CODE	SOUTH FLORIDA BUILDING CODE
<b>8 INCH UNIT - 1 HOUR</b>			
8-1-10	T-10 unit	105 minutes	120 minutes
8-1-11	T-11 unit	105 minutes	120 minutes
<b>8 INCH UNIT - 2 HOUR</b>			
8-2-18	T-18 unit	125 minutes	126 minutes
8-2-11A	T-11A unit	125 minutes	126 minutes
8-2-10P	T-10 w/5/8" plaster either side	135 minutes	138 minutes
8-2-11P	T-11 w/5/8" plaster either side	135 minutes	138 minutes
8-2-10W	T-10 w/1/2" gypsum wallboard either side	120 minutes	120 minutes
8-2-11W	T-11 w/1/2" gypsum wallboard either side	120 minutes	120 minutes
8-2-10SF	T-10 unit		120 minutes
<b>8 INCH UNIT - 3 HOUR</b>			
8-3-28	T-28 unit	195 minutes	192 minutes
8-3-10W2	T-10 w/2 layers 1/2" gypsum wallboard both sides	200 minutes	202 minutes
8-3-11W2	T-11 w/2 layers 1/2" gypsum wallboard both sides	200 minutes	202 minutes
8-3-18P2	T-18 w/5/8" plaster both sides	200 minutes	198 minutes
8-3-18W2	T-18 w/5/8" gypsum wallboard both sides	190 minutes	192 minutes
8-3-18PW	T-18 w/5/8" plaster + 5/8" gypsum wallboard	190 minutes	192 minutes
8-3-11AP2	T-11A w/5/8" plaster both sides	200 minutes	198 minutes
8-3-11AW2	T-11A w/5/8" gypsum wallboard both sides	190 minutes	192 minutes
8-3-11APW	T-11A w/5/8" plaster + 5/8" gypsum wallboard	190 minutes	192 minutes
<b>8 INCH UNIT - 4 HOUR</b>			
8-4-29	T-29 unit	240 minutes	240 minutes
8-4-57	T-57 unit	240 minutes	240 minutes
8-4-10G	T-10 w/grout	240 minutes	240 minutes
8-4-11G	T-11 w/grout	240 minutes	240 minutes
8-4-10F	T-10 w/fill	240 minutes	240 minutes
8-4-11F	T-11 w/fill	240 minutes	240 minutes
8-4-28P2	T-28 w/5/8" plaster both sides	240 minutes	240 minutes
8-4-28PW	T-28 w/5/8" plaster + 1/2" gypsum wallboard	240 minutes	240 minutes
8-4-28W2	T-28 w/5/8" gypsum wallboard both sides	240 minutes	240 minutes



## INDEX OF ASSEMBLY DRAWINGS *(Continued)*

ASSEMBLY NO.	DESCRIPTION	FIRE RESISTANCE RATING	
		STANDARD BUILDING CODE	SOUTH FLORIDA BUILDING CODE
<b>10 INCH UNIT - 2 HOUR</b>			
10-2-333	T-333 unit	150 minutes	150 minutes
<b>10 INCH UNIT - 3 HOUR</b>			
10-3-333P	T-333 w/5/8" plaster either side	187 minutes	186 minutes
10-3-333W	T-333 w/5/8" gypsum wallboard either side	180 minutes	180 minutes
<b>10 INCH UNIT - 4 HOUR</b>			
10-4-334	T-334 unit	240 minutes	240 minutes
10-4-333G	T-333 w/grout	240 minutes	240 minutes
10-4-333F	T-333 w/fill	240 minutes	240 minutes
10-4-333W2	T-333 w/2 layers 1/2" gypsum wallboard both sides	240 minutes	240 minutes
<b>12 INCH UNIT - 3 HOUR</b>			
12-3-306	T-306 unit	187 minutes	186 minutes
12-3-315	T-315 unit	228 minutes	228 minutes
<b>12 INCH UNIT - 4 HOUR</b>			
12-4-901	T-901 unit	240 minutes	240 minutes
12-4-306F	T-306 w/fill	240 minutes	240 minutes
12-4-306G	T-306 w/grout	240 minutes	240 minutes
12-4-315P	T-315 w/5/8" plaster either side	240 minutes	240 minutes
12-4-315W	T-315 w/1/2" gypsum wallboard either side	240 minutes	240 minutes
12-4-306P2	T-306 w/5/8" plaster both sides	240 minutes	240 minutes
12-4-306PW	T-306 w/5/8" plaster + 5/8" gypsum wallboard	240 minutes	240 minutes
12-4-306W2	T-306 w/5/8" gypsum wallboard both sides	240 minutes	240 minutes
<b>MULTI-WYTHE WALLS</b>			
B-1	Besser Brick or Clay Brick	60 minutes	60 minutes
B/201-4	T-201 w/Brick veneer	240 minutes	240 minutes
660/201-4	T-201 w/T-660 veneer	240 minutes	240 minutes
B/215-4	T-215 w/Brick veneer	240 minutes	240 minutes
B/10-4	T-10 w/Brick veneer	240 minutes	240 minutes
B/11-4	T-11 w/Brick veneer	240 minutes	240 minutes
201/201-3	T-201 Double Wythe	234 minutes	234 minutes
201/201P-4	T-201 Double Wythe w/5/8" plaster	240 minutes	240 minutes
201/201W-4	T-201 Double Wythe w/3/8" gypsum wallboard	240 minutes	240 minutes
215/215-4	T-215 Double Wythe	240 minutes	240 minutes
215/201-4	T-215 + T-201 Double Wythe	240 minutes	240 minutes

**1 HOUR FIRE RATING**

**4 inch C.M.U.**

# 1 HOUR FIRE RATING

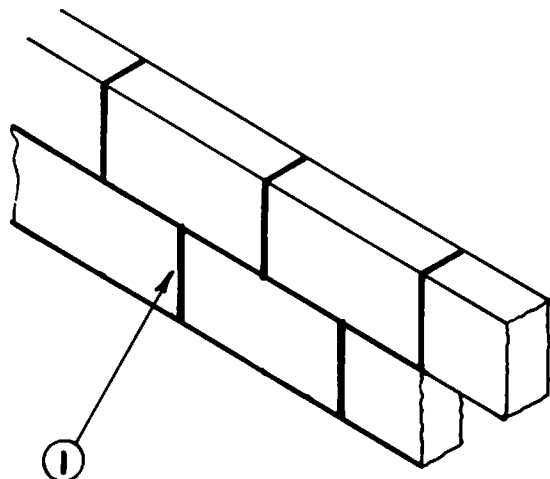
# 4 inch C.M.U.

FIRE RATING: 1 hour

No. 4-1-220

FIRE RATING: 1 hour

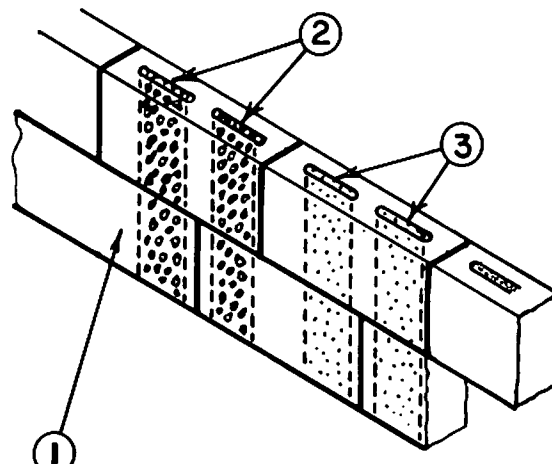
No. 4-1-201G/F



T 220

### ASSEMBLY DETAILS

1. Rinker Type T-220 C.M.U., 4" x 8" x 16" nominal



T 201

### ASSEMBLY DETAILS

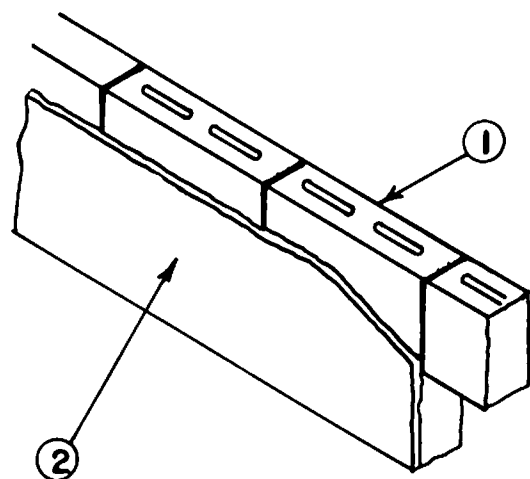
1. Rinker Type T-201 C.M.U., 4" x 8" x 16" nominal
  2. Masonry grout - all cells filled
- OR
3. Approved loose fill material - all cells filled

FIRE RATING: 1 hour

No. 4-1-201P

FIRE RATING: 1 hour

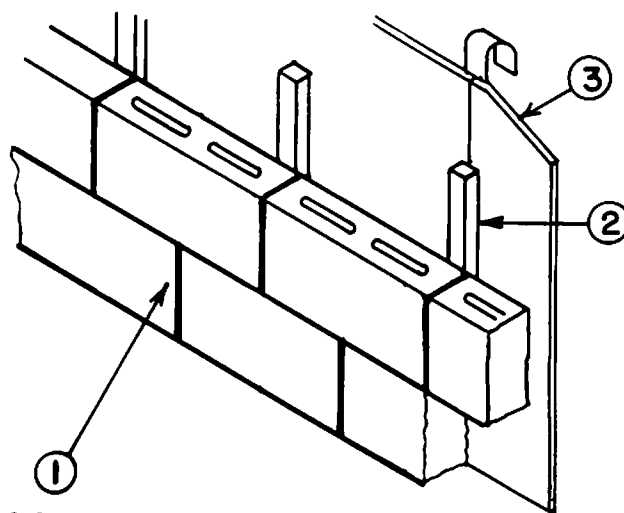
No. 4-1-201W



T 201

### ASSEMBLY DETAILS

1. Rinker Type T-201 C.M.U., 4" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.



T 201

### ASSEMBLY DETAILS

1. Rinker Type T-201 C.M.U., 4" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 3/8" thick - long dimension parallel to furring members - all joints finished

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

**2 HOUR FIRE RATING**

**4 inch C.M.U.**



# 2 HOUR FIRE RATING

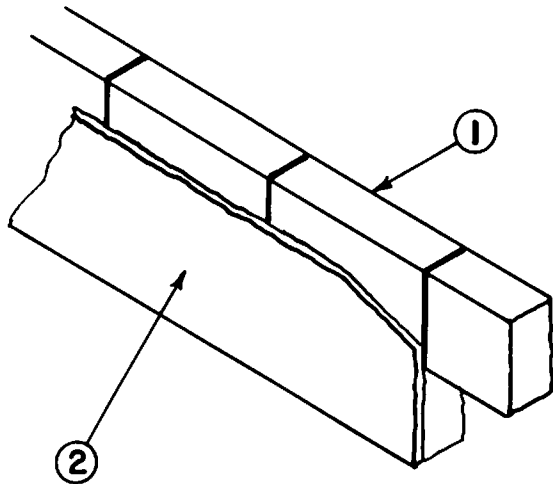
# 4 inch C.M.U.

**FIRE RATING: 2 hour**

**No. 4-2-220P**

**FIRE RATING: 2 hour**

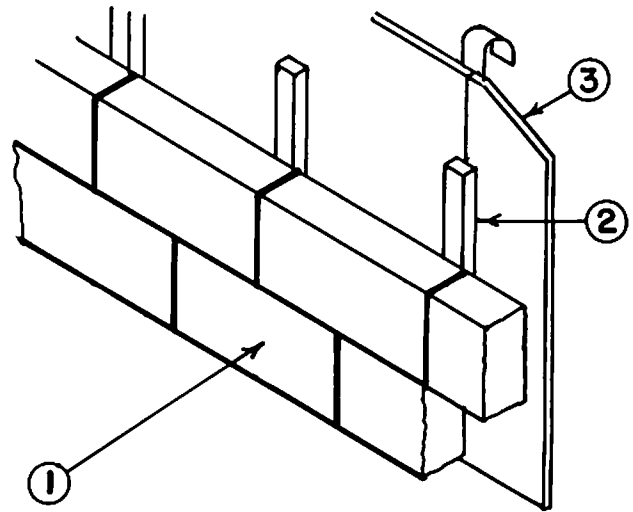
**No. 4-2-220W**



**T220**

### ASSEMBLY DETAILS

1. Rinker Type T-220 C.M.U., 4" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.



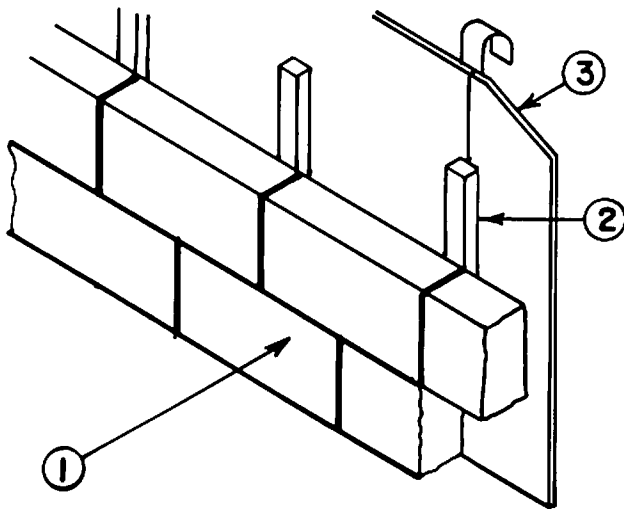
**T220**

### ASSEMBLY DETAILS

1. Rinker Type T-220 C.M.U., 4" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 5/8" thick - long dimension parallel to furring members - all joints finished

**FIRE RATING: 2 hour**

**No. 4-2-220WF**



**T 220**

### ASSEMBLY DETAILS

1. Rinker Type T-220 C.M.U., 4" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 1/2" thick firecode - long dimension parallel to furring members - all joints finished

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

**1 HOUR FIRE RATING**

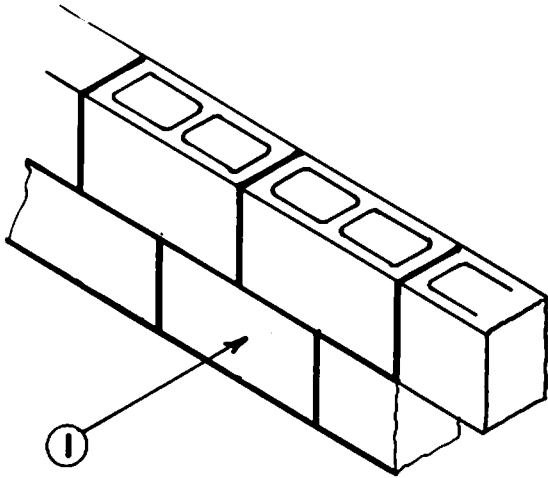
**6 inch C.M.U.**

# 1 HOUR FIRE RATING

# 6 inch C.M.U.

FIRE RATING: 1 hour

No. 6-1-215



T 215

### ASSEMBLY DETAILS

1. Rinker Type T-215 C.M.U., 6" x 8" x 16" nominal

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

# **2 HOUR FIRE RATING**

**6 inch C.M.U.**

# 2 HOUR FIRE RATING

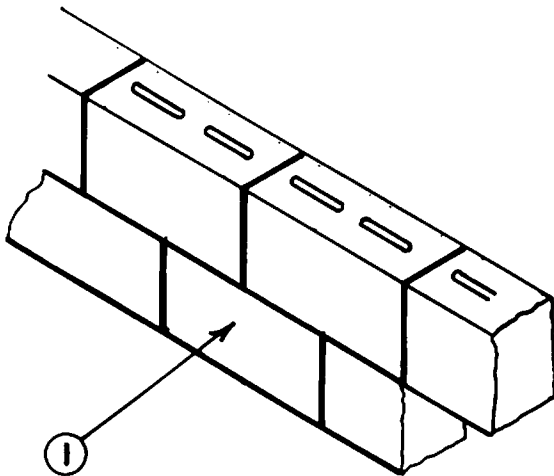
# 6 inch C.M.U.

**FIRE RATING: 2 hour**

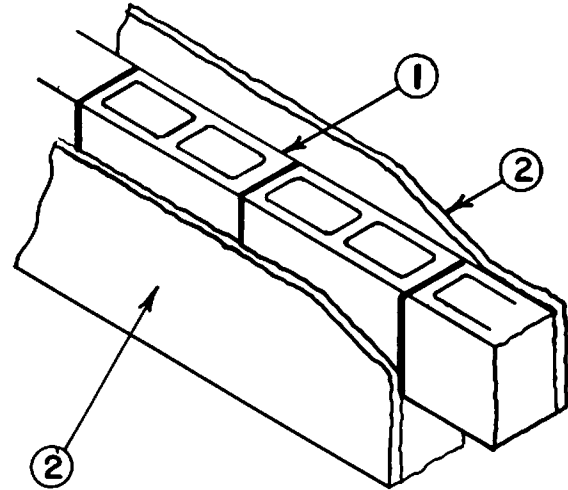
**No. 6-2-997**

**FIRE RATING: 2 hour**

**No. 6-2-215P2**



**T 997**



**T 215**

### ASSEMBLY DETAILS

1. Rinker Type T-997 C.M.U., 6" x 8" x 16" nominal

### ASSEMBLY DETAILS

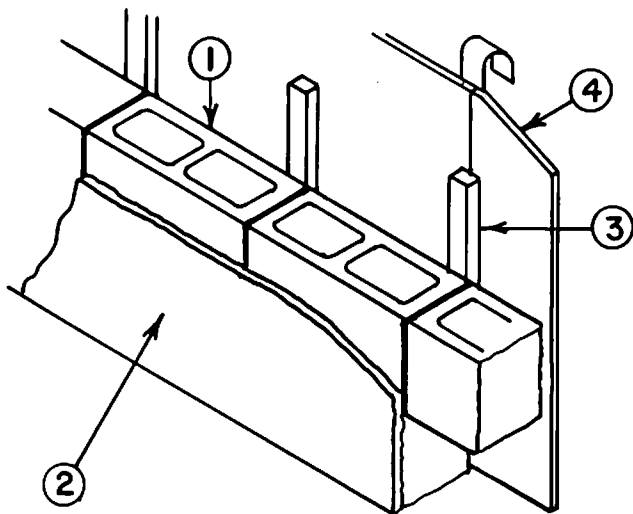
1. Rinker Type T-215 C.M.U., 6" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick - both sides - applied directly to C.M.U.

**FIRE RATING: 2 hour**

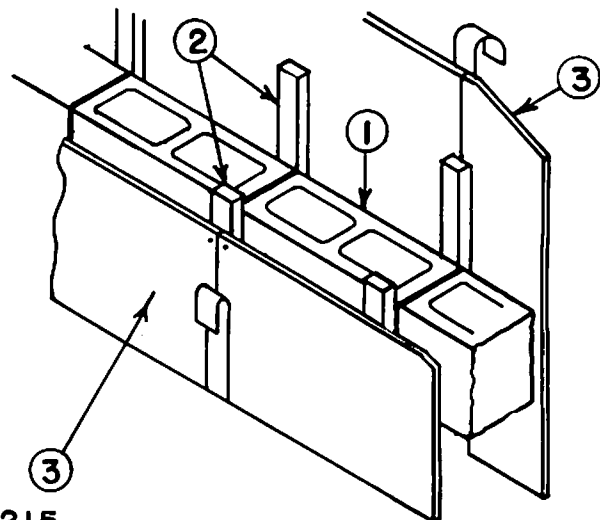
**No. 6-2-215PW**

**FIRE RATING: 2 hour**

**No. 6-2-215W2**



**T 215**



**T 215**

### ASSEMBLY DETAILS

1. Rinker Type T-215 C.M.U., 6" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.
3. Wood or metal furring - 16" o.c. maximum
4. Gypsum wallboard - 3/8" thick - long dimension parallel to furring members - all joints finished

### ASSEMBLY DETAILS

1. Rinker Type T-215 C.M.U., 6" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 1/2" thick - both sides - long dimension parallel to furring members - all joints finished

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

**3 HOUR FIRE RATING**

**6 inch C.M.U.**

# 3 HOUR FIRE RATING

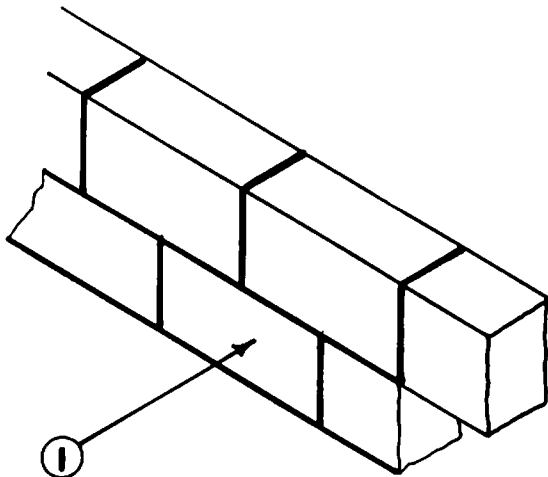
# 6 inch C.M.U.

FIRE RATING: 3 hour

No. 6-3-214

FIRE RATING: 3 hour

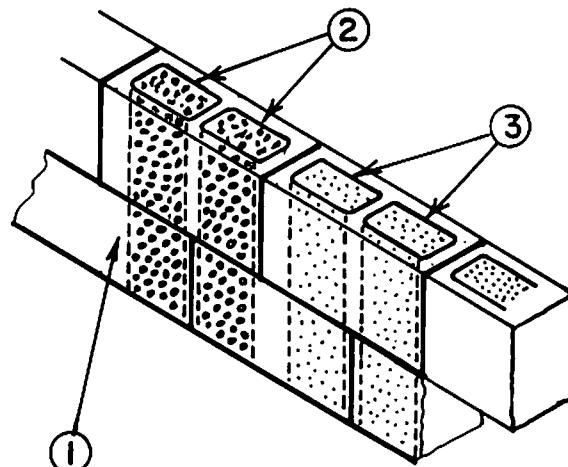
No. 6-3-215G/F



T 214

### ASSEMBLY DETAILS

1. Rinker Type T-214 C.M.U., 6" x 8" x 16" nominal



T 215

### ASSEMBLY DETAILS

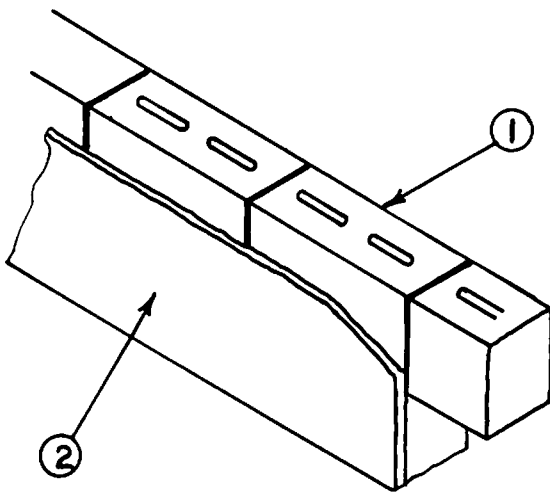
1. Rinker Type T-215 C.M.U., 6" x 8" x 16" nominal
  2. Masonry grout - all cells filled
- OR
3. Approved loose fill material - all cells filled

FIRE RATING: 3 hour

No. 6-3-997P

FIRE RATING: 3 hour

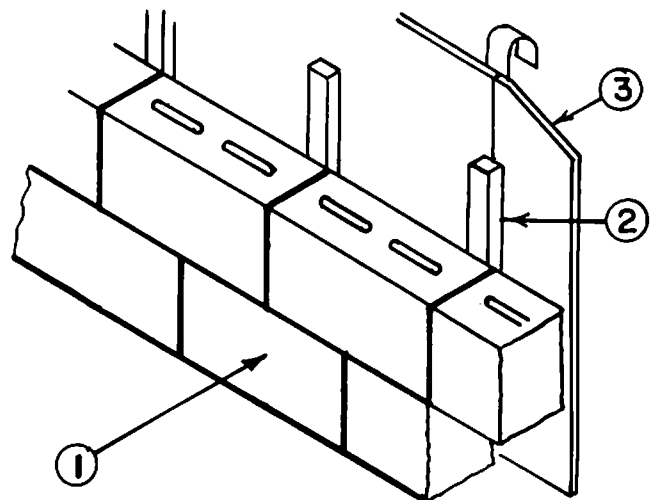
No. 6-3-997W



T 997

### ASSEMBLY DETAILS

1. Rinker Type T-997 C.M.U., 6" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.



T 997

### ASSEMBLY DETAILS

1. Rinker Type T-997 C.M.U., 6" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 5/8" thick - long dimension parallel to furring members - all joints finished

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."



**4 HOUR FIRE RATING**

**6 inch C.M.U.**

# 4 HOUR FIRE RATING

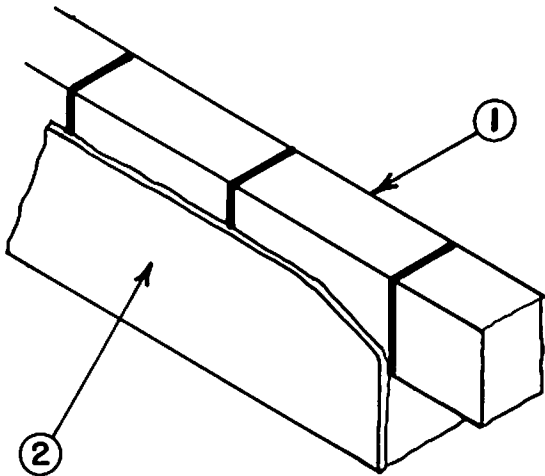
# 6 inch C.M.U.

FIRE RATING: 4 hour

No. 6-4-214P

FIRE RATING: 4 hour

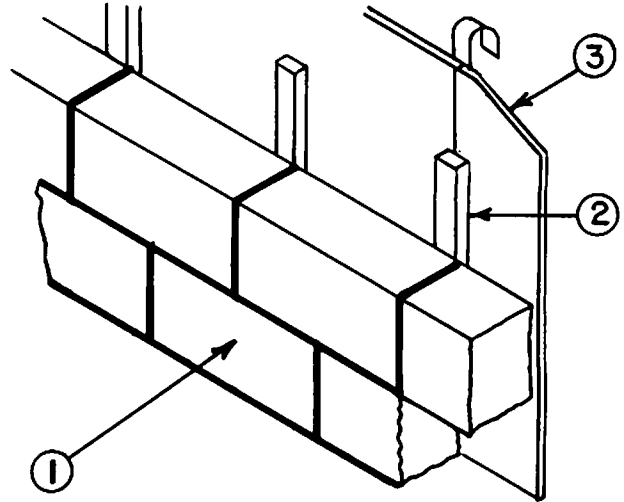
No. 6-4-214W



T 214

### ASSEMBLY DETAILS

1. Rinker Type T-214 C.M.U., 6" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.



T 214

### ASSEMBLY DETAILS

1. Rinker Type T-214 C.M.U., 6" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 5/8" thick - long dimension parallel to furring members - all joints finished

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

# **1 HOUR FIRE RATING**

**8 inch C.M.U.**

# 1 HOUR FIRE RATING

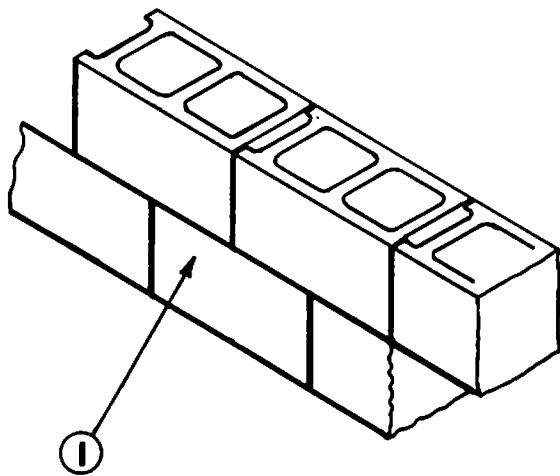
# 8 inch C.M.U.

FIRE RATING: 1 hour

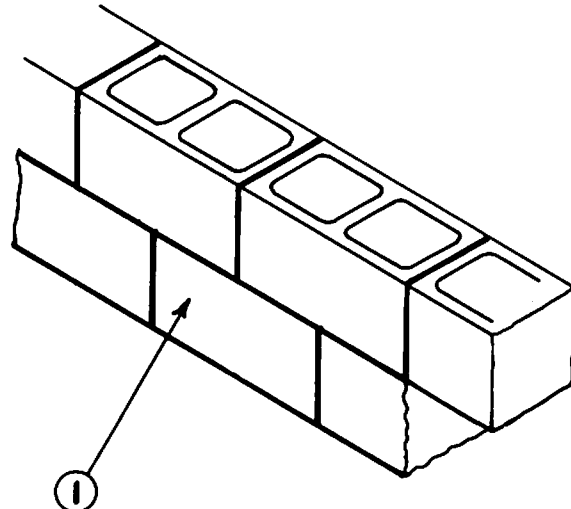
No. 8-1-10

FIRE RATING: 1 hour

No. 8-1-11



T 10



T 11

### ASSEMBLY DETAILS

1. Rinker Type T-10 C.M.U., 8" x 8" x 16" nominal

### ASSEMBLY DETAILS

1. Rinker Type T-11 C.M.U., 8" x 8" x 16" nominal

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

**2 HOUR FIRE RATING**

**8 inch C.M.U.**

# 2 HOUR FIRE RATING

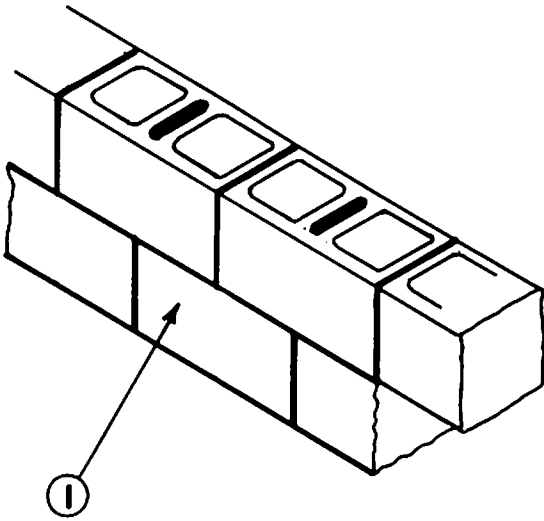
# 8 inch C.M.U.

FIRE RATING: 2 hour

No. 8-2-18

FIRE RATING: 2 hour

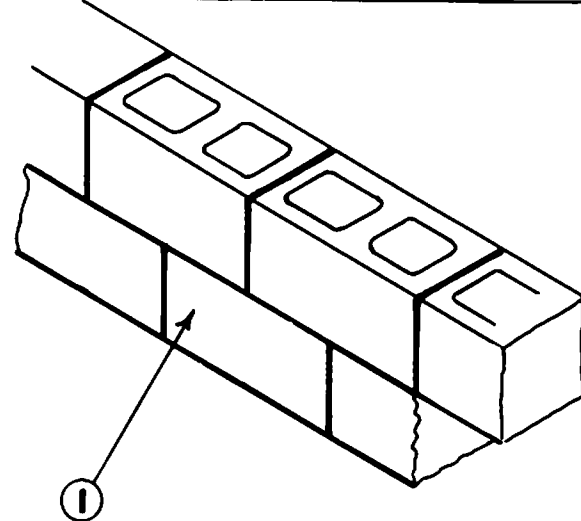
No. 8-2-11A



T 18

### ASSEMBLY DETAILS

1. Rinker Type T-18 C.M.U., 8" x 8" x 16" nominal



T 11A

### ASSEMBLY DETAILS

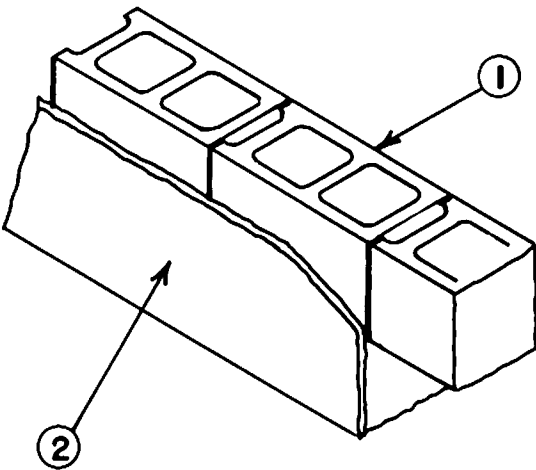
1. Rinker Type T-11A C.M.U., 8" x 8" x 16" nominal

FIRE RATING: 2 hour

No. 8-2-10P

FIRE RATING: 2 hour

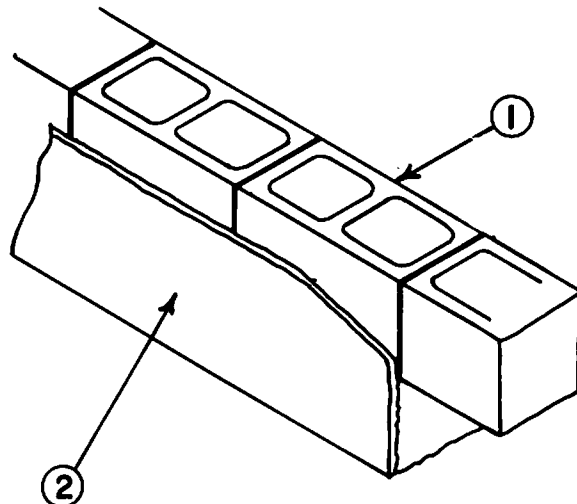
No. 8-2-11P



T 10

### ASSEMBLY DETAILS

1. Rinker Type T-10 C.M.U., 8" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.



T 11

### ASSEMBLY DETAILS

1. Rinker Type T-11 C.M.U., 8" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

# 2 HOUR FIRE RATING

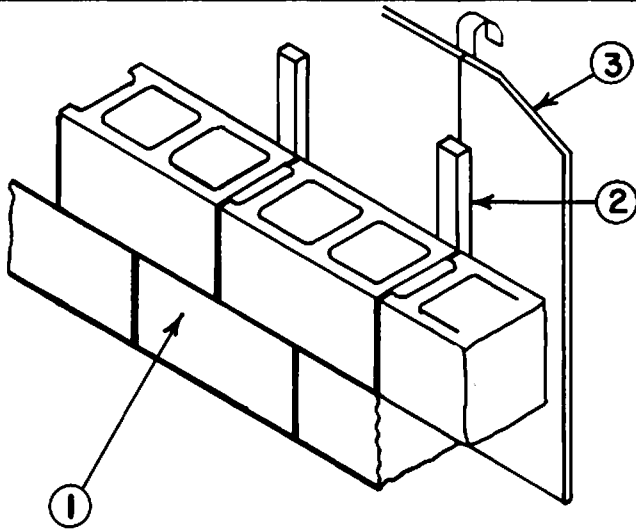
# 8 inch C.M.U.

FIRE RATING: 2 hour

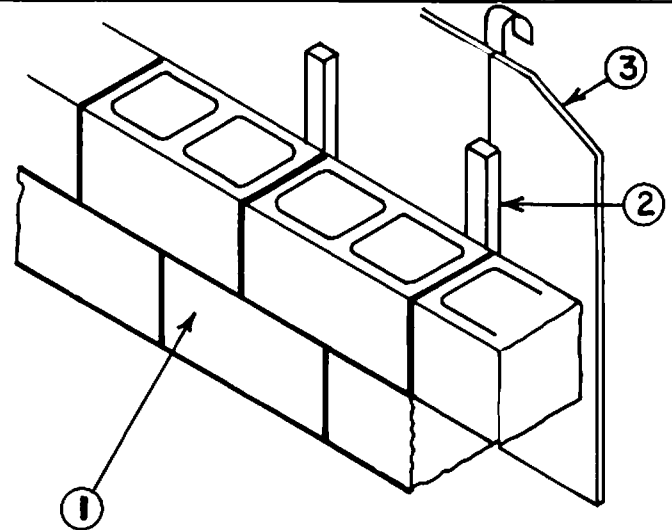
No. 8-2-10W

FIRE RATING: 2 hour

No. 8-2-11W



T 10



T 11

### ASSEMBLY DETAILS

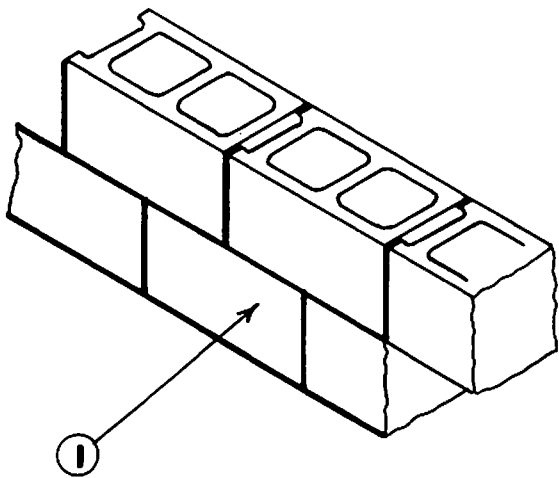
1. Rinker Type T-10 C.M.U., 8" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 1/2" thick - long dimension parallel to furring members - all joints finished

### ASSEMBLY DETAILS

1. Rinker Type T-11 C.M.U., 8" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 1/2" thick - long dimension parallel to furring members - all joints finished

FIRE RATING: 2 hour

No. 8-2-10SF



T 10

### ASSEMBLY DETAILS

1. Rinker Type T-10 C.M.U., 8" x 8" x 16" nominal

SOUTH FLORIDA BUILDING CODE  
BROWARD COUNTY ONLY

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."



**3 HOUR FIRE RATING**

**8 inch C.M.U.**

# 3 HOUR FIRE RATING

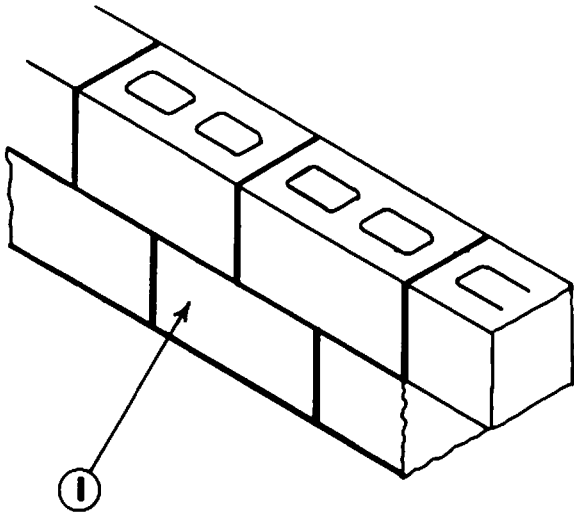
# 8 inch C.M.U.

FIRE RATING: 3 hour

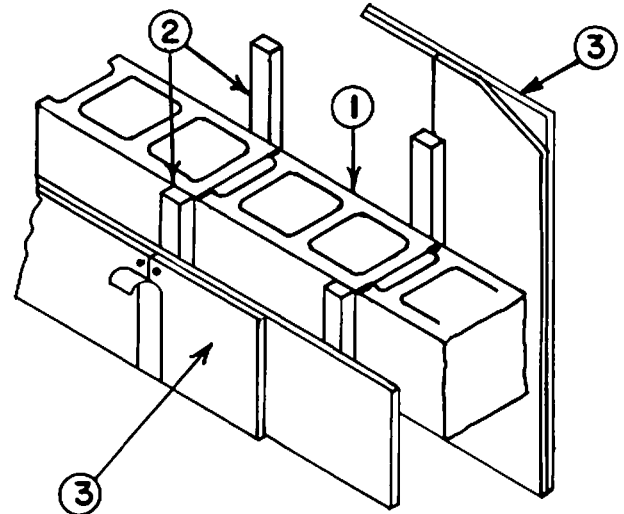
No. 8-3-28

FIRE RATING: 3 hour

No. 8-3-10W2



T 28



T 10

### ASSEMBLY DETAILS

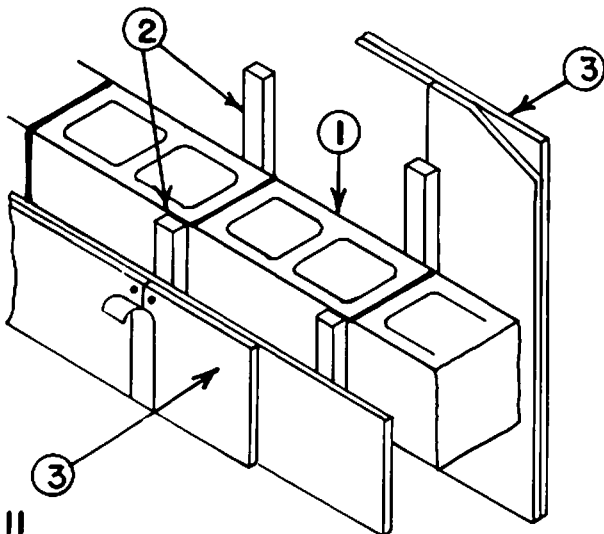
1. Rinker Type T-28 C.M.U., 8" x 8" 16" nominal

### ASSEMBLY DETAILS

1. Rinker Type T-10 C.M.U., 8" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 2 layers 1/2" thick - both sides - long dimension parallel to furring members - all joints finished

FIRE RATING: 3 hour

No. 8-3-11W2



T 11

### ASSEMBLY DETAILS

1. Rinker Type T-11 C.M.U., 8" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 2 layers 1/2" thick - both sides - long dimension parallel to furring members - all joints finished

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# 3 HOUR FIRE RATING

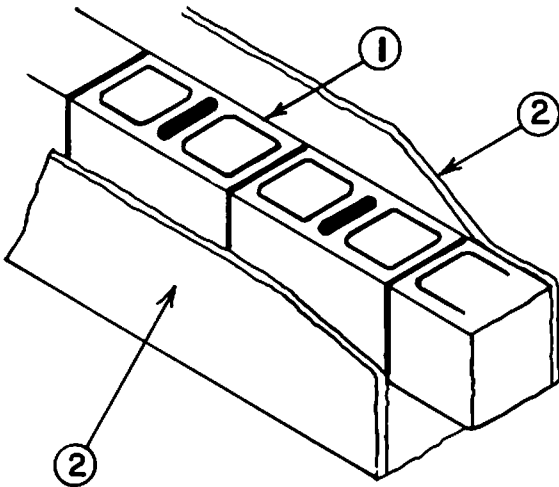
# 8 inch C.M.U.

FIRE RATING: 3 hour

No. 8-3-18P2

FIRE RATING: 3 hour

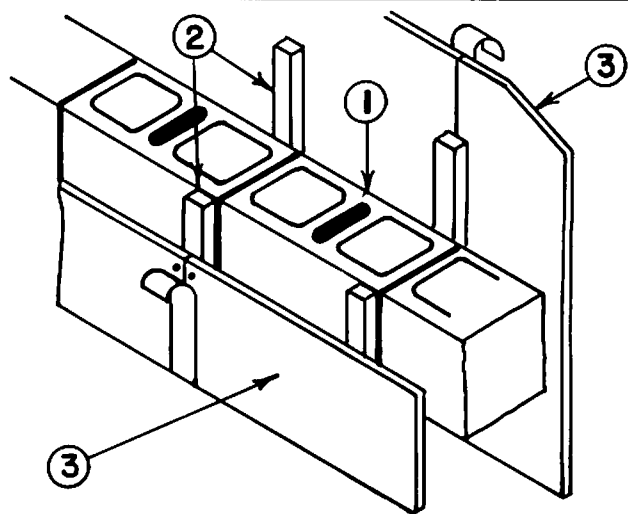
No. 8-3-18W2



T 18

### ASSEMBLY DETAILS

1. Rinker Type T-18 C.M.U., 8" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick - both sides - applied directly to C.M.U.



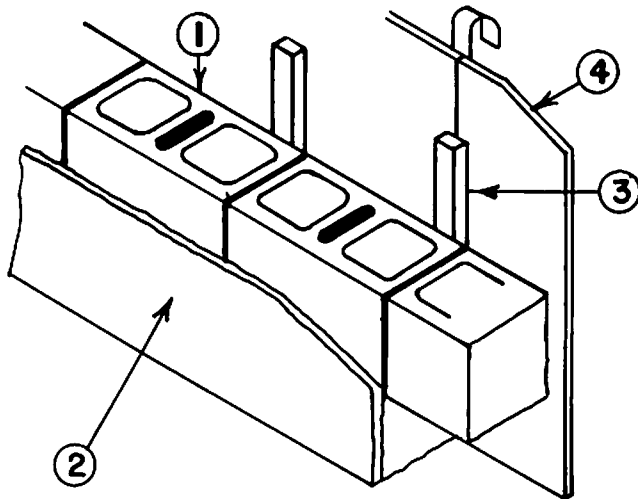
T 18

### ASSEMBLY DETAILS

1. Rinker type T-18 C.M.U., 8" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 5/8" thick - both sides - long dimension parallel to furring members - all joints finished

FIRE RATING: 3 hour

No. 8-3-18PW



T 18

### ASSEMBLY DETAILS

1. Rinker Type T-18 C.M.U., 8" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.
3. Wood or metal furring - 16" o.c. maximum
4. Gypsum wallboard - 5/8" thick - long dimension parallel to furring members - all joints finished

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

# 3 HOUR FIRE RATING

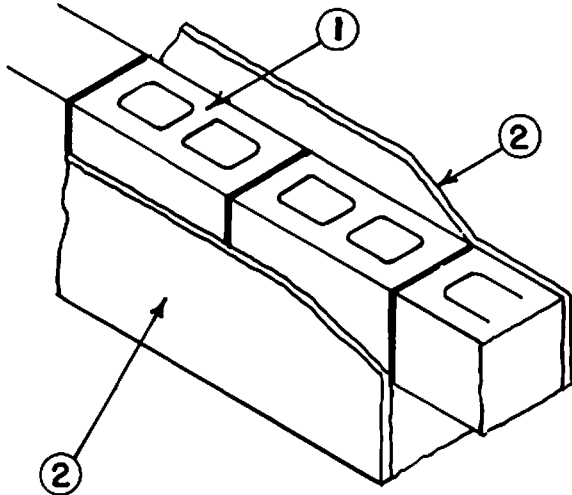
# 8 inch C.M.U.

**FIRE RATING: 3 hour**

**No. 8-3-11AP2**

**FIRE RATING: 3 hour**

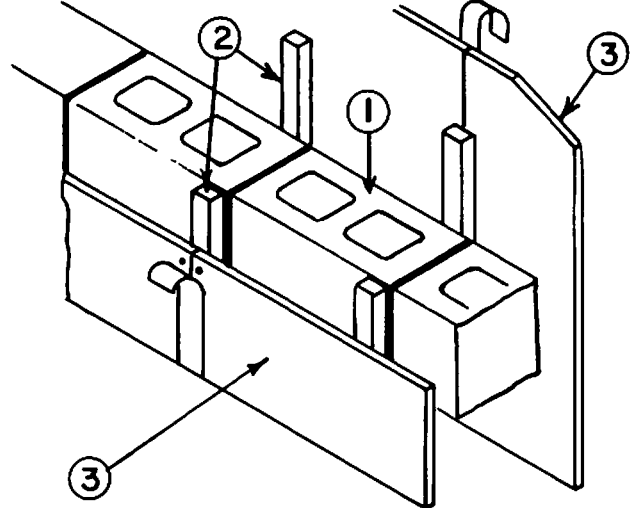
**No. 8-3-11AW2**



**T I I A**

### ASSEMBLY DETAILS

1. Rinker Type T-11A C.M.U., 8" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick - both sides - applied directly to C.M.U.



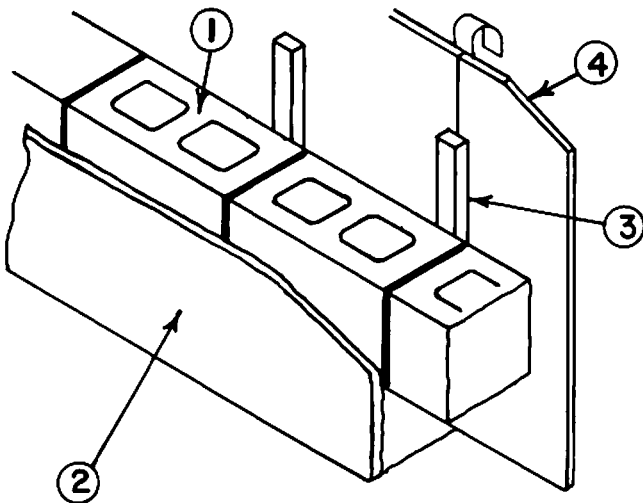
**T I I A**

### ASSEMBLY DETAILS

1. Rinker Type T-11A C.M.U., 8" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 5/8" thick - both sides - long dimension parallel to furring members - all joints finished

**FIRE RATING: 3 hour**

**No. 8-3-11APW**



**T I I A**

### ASSEMBLY DETAILS

1. Rinker type T-11A C.M.U., 8" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.
3. Wood or metal furring - 16" o.c. maximum
4. Gypsum wallboard - 5/8" thick - long dimension parallel to furring members - all joints finished

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**4 HOUR FIRE RATING**

**8 inch C.M.U.**

# 4 HOUR FIRE RATING

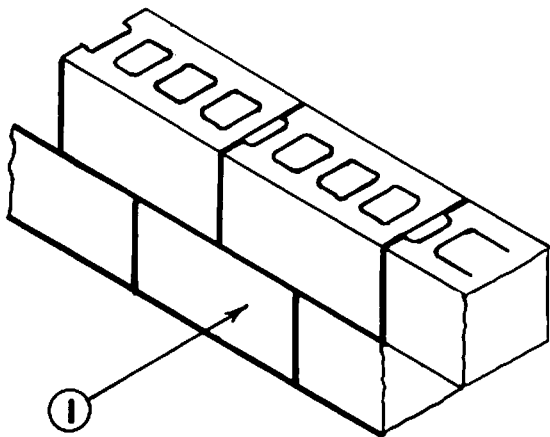
# 8 inch C.M.U.

FIRE RATING: 4 hour

No. 8-4-29

FIRE RATING: 4 hour

No. 8-4-57

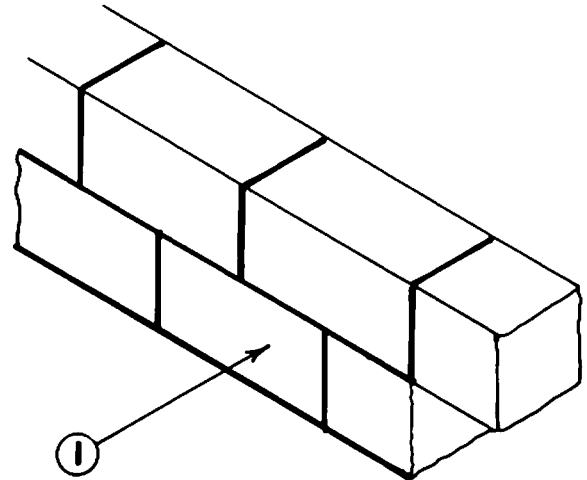


①

T 29

### ASSEMBLY DETAILS

1. Rinker Type T-29 C.M.U., 8" x 8" x 16" nominal



①

T 57

### ASSEMBLY DETAILS

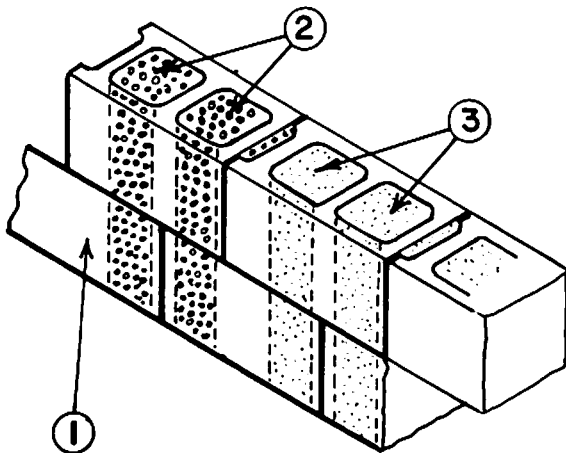
1. Rinker Type T-57 C.M.U., 8" x 8" x 16" nominal

FIRE RATING: 4 hour

No. 8-4-10G/F

FIRE RATING: 4 hour

No. 8-4-11G/F

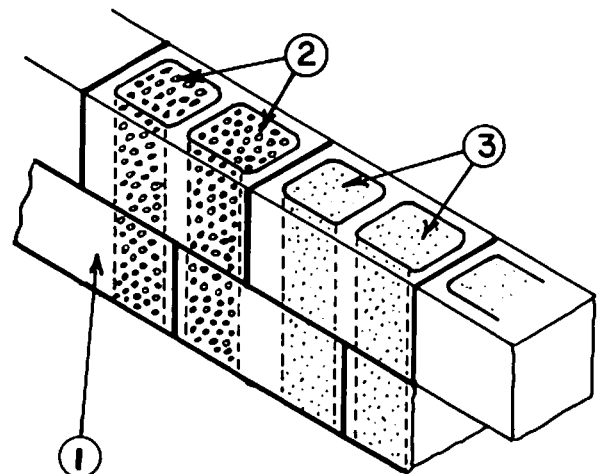


①

T 10

### ASSEMBLY DETAILS

1. Rinker Type T-10 C.M.U., 8" x 8" x 16" nominal
  2. Masonry grout - all cells filled
- OR
3. Approved loose fill material - all cells filled



①

T 11

### ASSEMBLY DETAILS

1. Rinker Type T-11 C.M.U., 8" x 8" x 16" nominal
  2. Masonry grout - all cells filled
- OR
3. Approved loose fill material - all cells filled

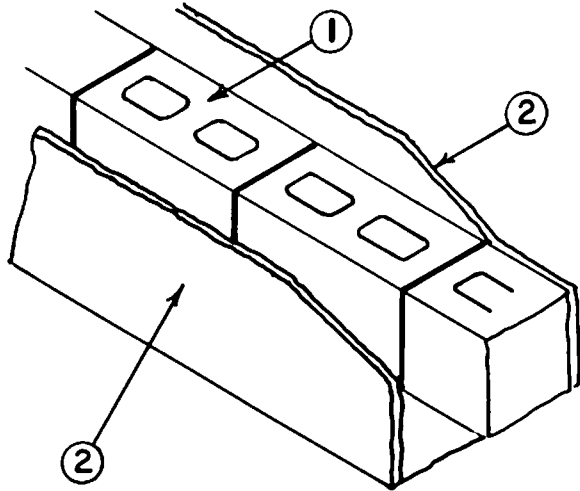
"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

# 4 HOUR FIRE RATING

# 8 inch C.M.U.

FIRE RATING: 4 hour

No. 8-4-28P2



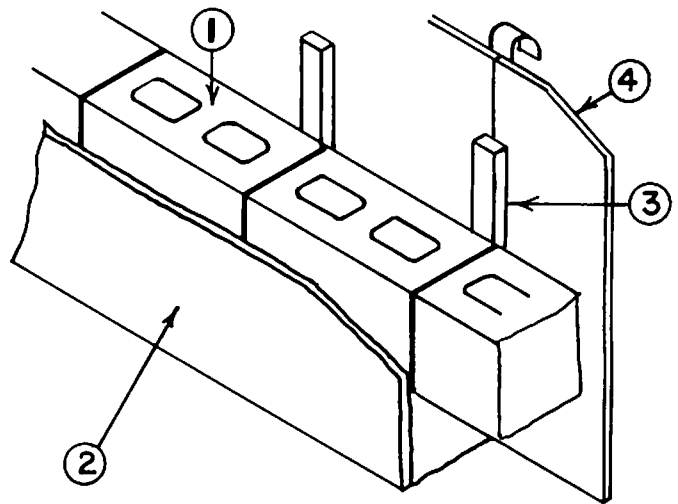
T 28

### ASSEMBLY DETAILS

1. Rinker Type T-28 C.M.U., 8" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick - both sides - applied directly to C.M.U.

FIRE RATING: 4 hour

No. 8-4-28PW



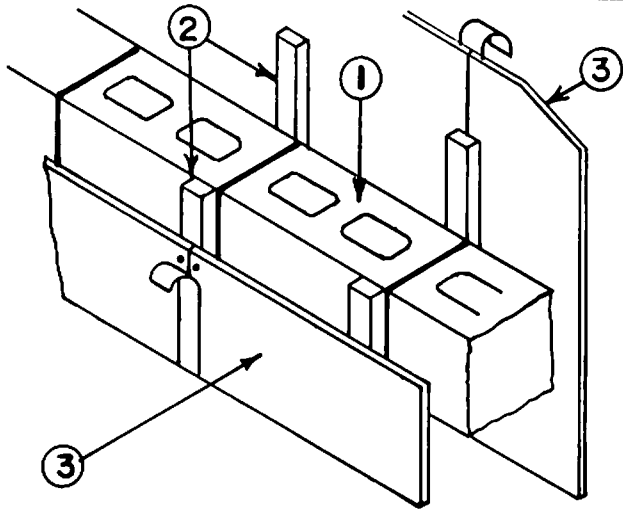
T 28

### ASSEMBLY DETAILS

1. Rinker Type T-28 C.M.U., 8" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.
3. Wood or metal furring - 16" o.c. maximum
4. Gypsum wallboard - 1/2" thick - long dimension parallel to furring members - all joints finished

FIRE RATING: 4 hour

No. 8-4-28W2



T 28

### ASSEMBLY DETAILS

1. Rinker Type T-28 C.M.U., 8" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 5/8" thick - both sides - long dimension parallel to furring members - all joints finished

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

**2 HOUR FIRE RATING**

**10 inch C.M.U.**

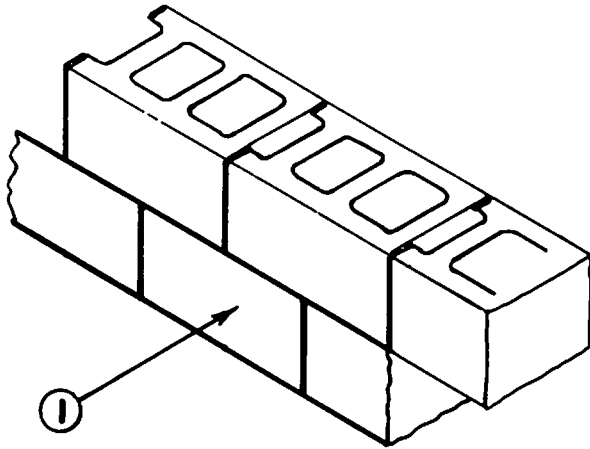


# 2 HOUR FIRE RATING

# 10 inch C.M.U.

FIRE RATING: 2 hour

No. 10-2-333



T 333

### ASSEMBLY DETAILS

1. Rinker Type T-333 C.M.U., 10" x 8" x 16" nominal

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

**3 HOUR FIRE RATING**

**10 inch C.M.U.**

# 3 HOUR FIRE RATING

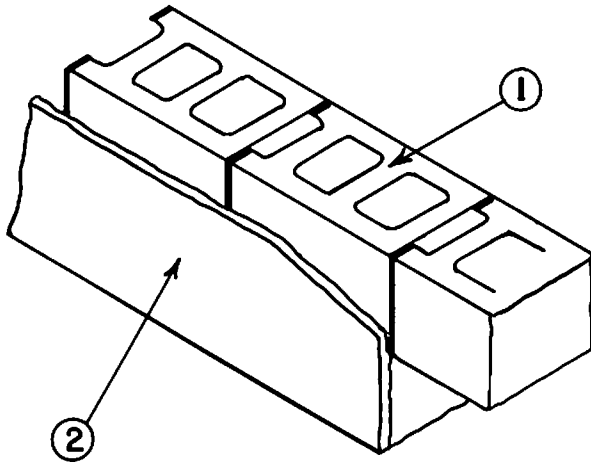
# 10 inch C.M.U.

FIRE RATING: 3 hour

No. 10-3-333P

FIRE RATING: 3 hour

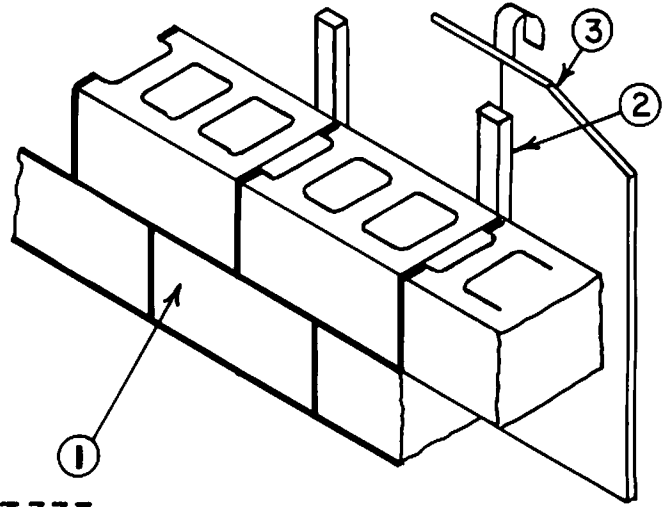
No. 10-3-333W



T 333

### ASSEMBLY DETAILS

1. Rinker Type T-333 C.M.U., 10" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.



T 333

### ASSEMBLY DETAILS

1. Rinker Type T-333 C.M.U., 10" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 5/8" thick - long dimension parallel to furring members - all joints finished

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**4 HOUR FIRE RATING**

**10 inch C.M.U.**

# 4 HOUR FIRE RATING

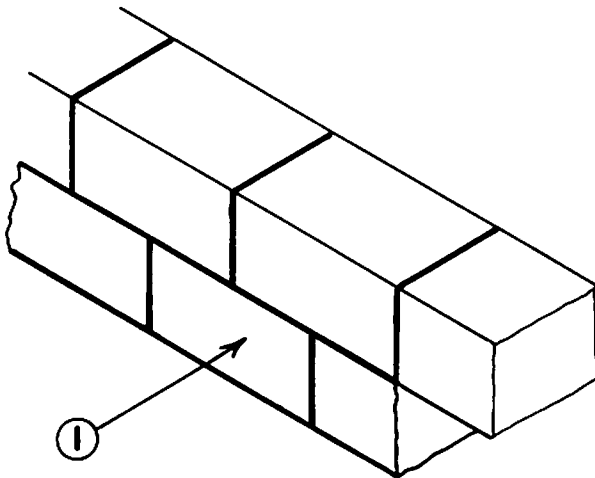
# 10 inch C.M.U.

FIRE RATING: 4 hour

No. 10-4-334

FIRE RATING: 4 hour

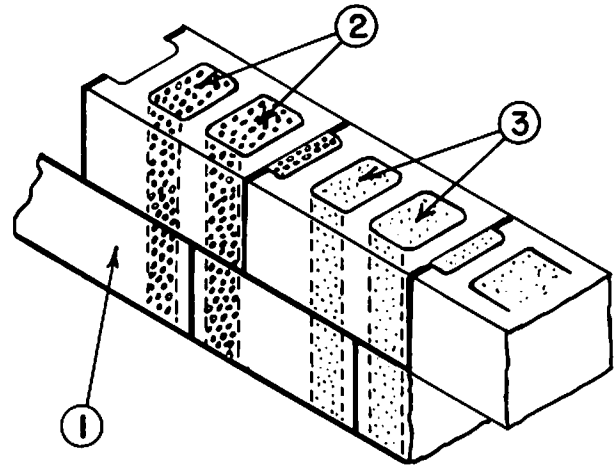
No. 10-4-333G/F



T 334

### ASSEMBLY DETAILS

1. Rinker Type T-334 C.M.U., 10" x 8" x 16" nominal



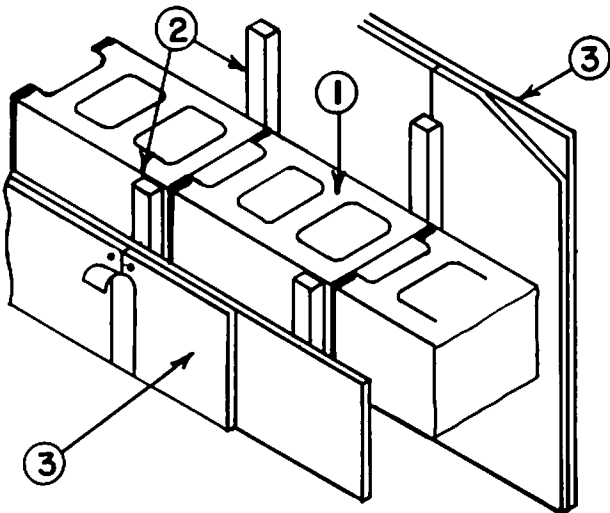
T 333

### ASSEMBLY DETAILS

1. Rinker Type T-333 C.M.U., 10" x 8" x 16" nominal
  2. Masonry grout - all cells filled
- OR
3. Approved loose fill material - all cells filled

FIRE RATING: 4 hour

No. 10-4-333W2



T 333

### ASSEMBLY DETAILS

1. Rinker Type T-333 C.M.U., 10" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 2 layers 1/2" thick - both sides - long dimension parallel to furring members - all joints finished.

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

**3 HOUR FIRE RATING**

**12 inch C.M.U.**

# 3 HOUR FIRE RATING

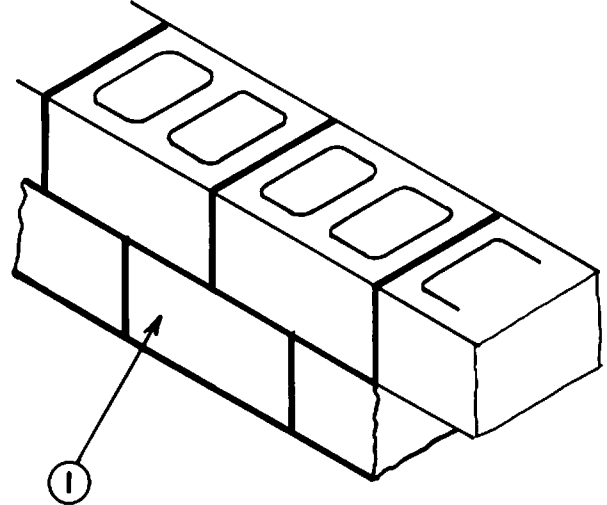
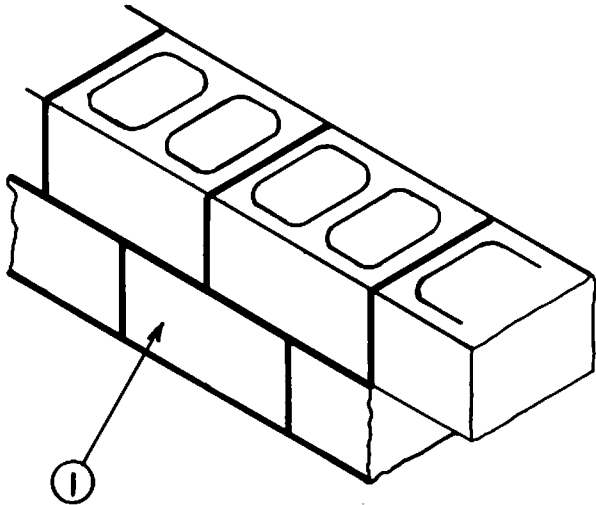
# 12 inch C.M.U.

FIRE RATING: 3 hour

No. 12-3-306

FIRE RATING: 3 hour

No. 12-3-315



**T 306**

**T 315**

### ASSEMBLY DETAILS

### ASSEMBLY DETAILS

1. Rinker Type T-306 C.M.U., 12" x 8" x 16" nominal

1. Rinker Type T-315 C.M.U., 12" x 8" x 16" nominal

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

**4 HOUR FIRE RATING**

**12 inch C.M.U.**



# 4 HOUR FIRE RATING

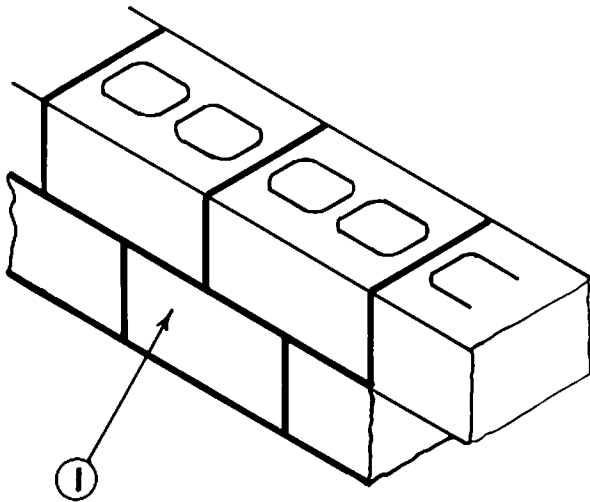
# 12 inch C.M.U.

FIRE RATING: 4 hour

No. 12-4-901

FIRE RATING: 4 hour

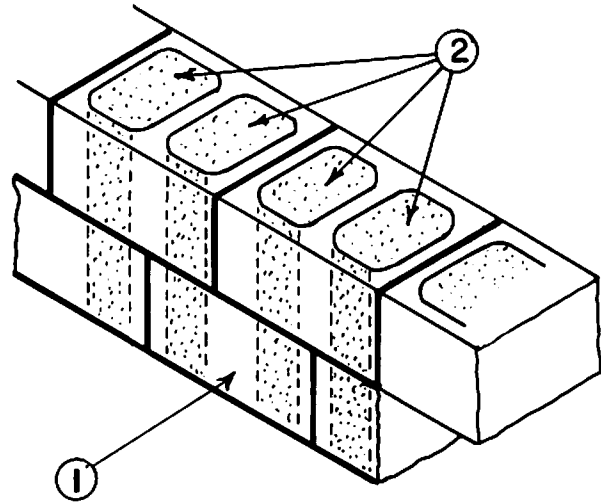
No. 12-4-306F



T901

### ASSEMBLY DETAILS

1. Rinker Type T-901 C.M.U., 12" x 8" x 16" nominal



T306

### ASSEMBLY DETAILS

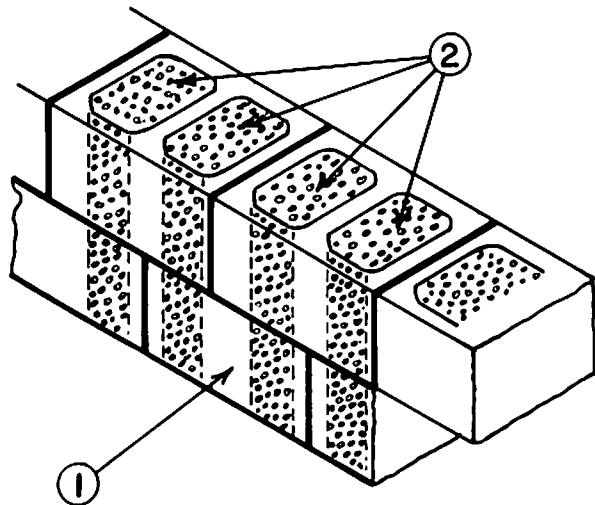
1. Rinker Type T-306 C.M.U., 12" x 8" x 16" nominal
2. Approved loose fill material - all cells filled

FIRE RATING: 4 hour

No. 12-4-306G

FIRE RATING: 4 hour

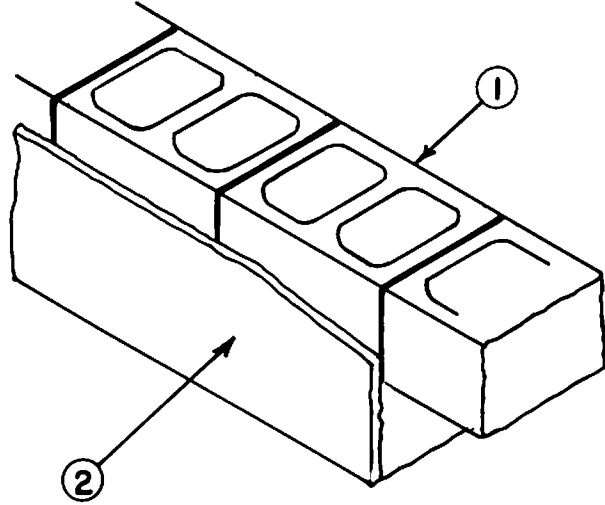
No. 12-4-315P



T306

### ASSEMBLY DETAILS

1. Rinker Type T-306 C.M.U., 12" x 8" x 16" nominal
2. Masonry grout - all cells filled



T315

### ASSEMBLY DETAILS

1. Rinker Type T-315 C.M.U., 12" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.

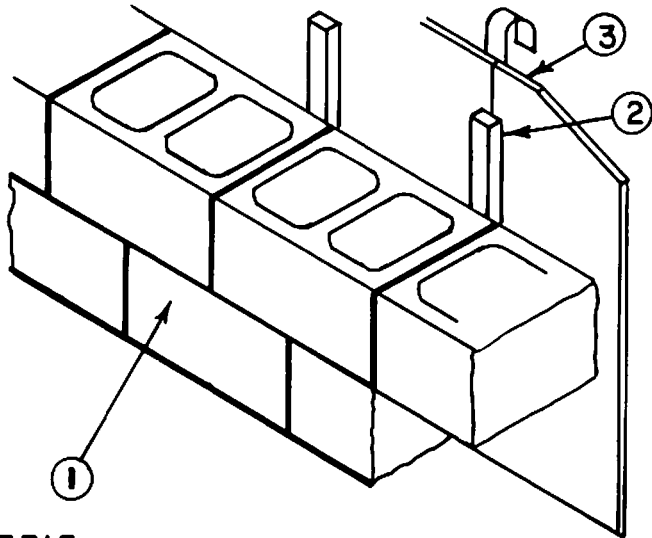
"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

# 4 HOUR FIRE RATING

# 12 inch C.M.U.

FIRE RATING: 4 hour

No. 12-4-315W



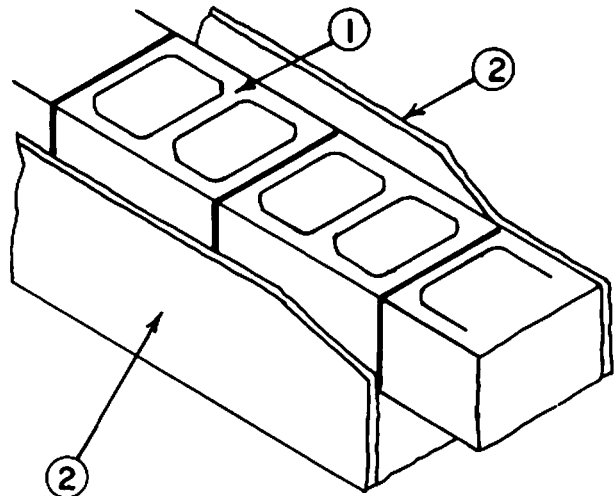
T 315

### ASSEMBLY DETAILS

1. Rinker Type T-315 C.M.U., 12" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 1/2" thick - long dimension parallel to furring members - all joints finished

FIRE RATING: 4 hour

No. 12-4-306P2



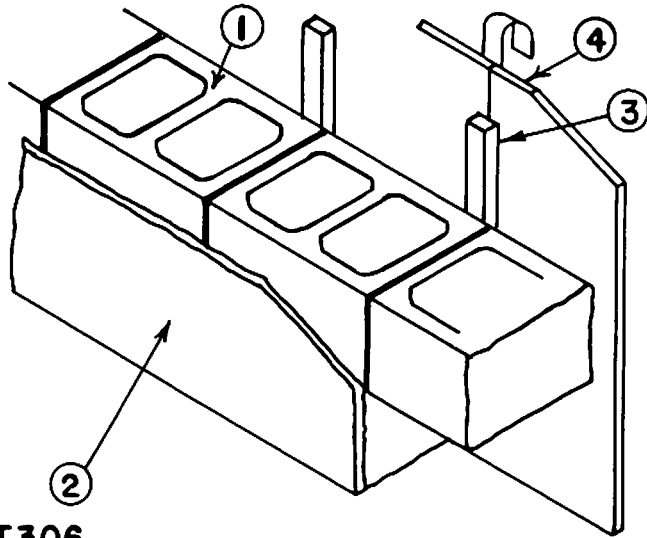
T 306

### ASSEMBLY DETAILS

1. Rinker Type T-306 C.M.U., 12" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick - both sides - applied directly to C.M.U.

FIRE RATING: 4 hour

No. 12-4-306PW



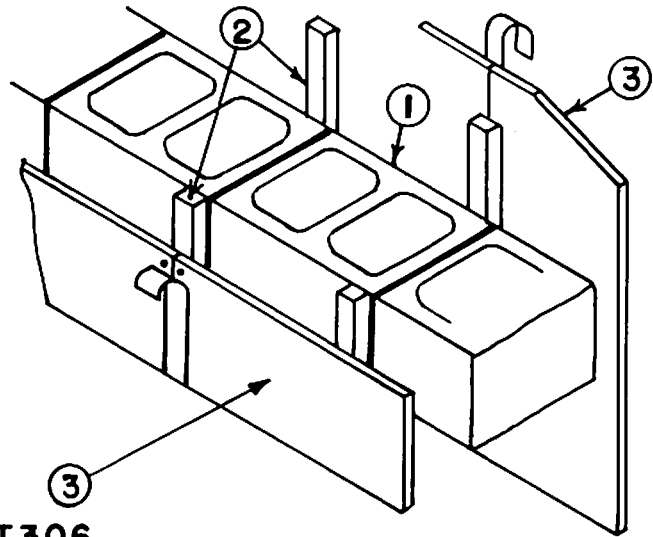
T 306

### ASSEMBLY DETAILS

1. Rinker Type T-306 C.M.U., 12" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.
3. Wood or metal furring - 16" o.c. maximum
4. Gypsum wallboard - 5/8" thick - long dimension parallel to furring members - all joints finished

FIRE RATING: 4 hour

No. 12-4-306W2



T 306

### ASSEMBLY DETAILS

1. Rinker Type T-306 C.M.U., 12" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 5/8" thick - both sides - long dimension parallel to furring members - all joints finished

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

# **MULTI-WYTHE WALLS**

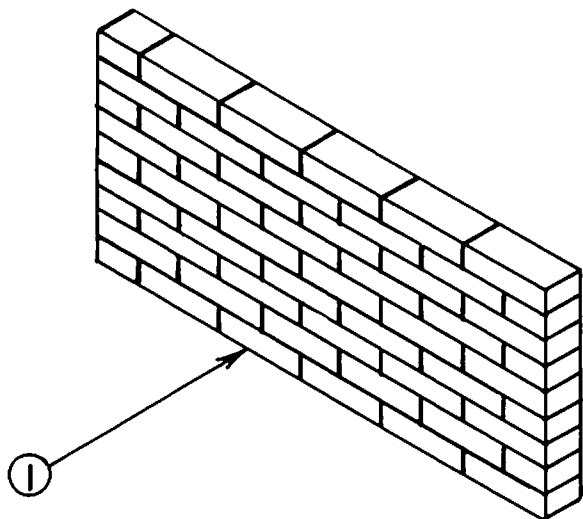
# MULTI-WYTHE WALLS

**FIRE RATING: 1 hour**

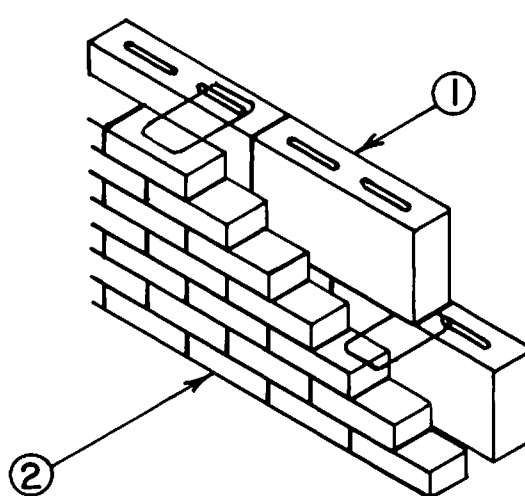
**No. B-1**

**FIRE RATING: 4 hour**

**No. B/201-4**



**B.B.**



**T 201**

**B. B.**

**ASSEMBLY DETAILS**

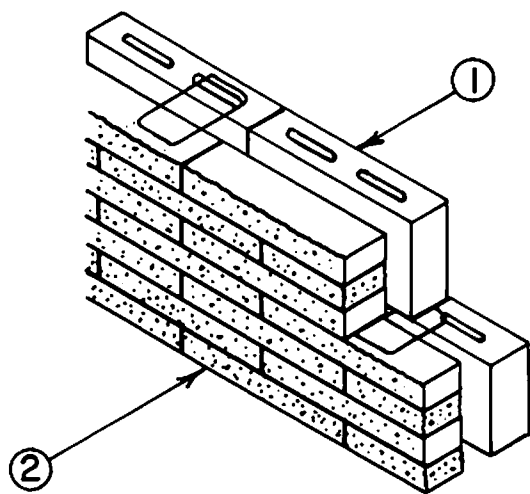
1. Rinker Besser Concrete Brick, 4" x 2 1/4" x 8" nominal, or solid clay brick

**ASSEMBLY DETAILS**

1. Rinker Type T-201 C.M.U., 4" x 8" x 16" nominal
2. Rinker Besser Concrete Brick, 4" x 2 1/4" x 8" nominal, or solid clay brick

**FIRE RATING: 4 hour**

**No. 660/201-4**



**T 201**

**T 660**

**ASSEMBLY DETAILS**

1. Rinker Type T-201 C.M.U., 4" x 8" x 16" nominal
2. Rinker Type T-660 C.M.U., 4" x 4" x 16" nominal split face

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

# MULTI-WYTHE WALLS

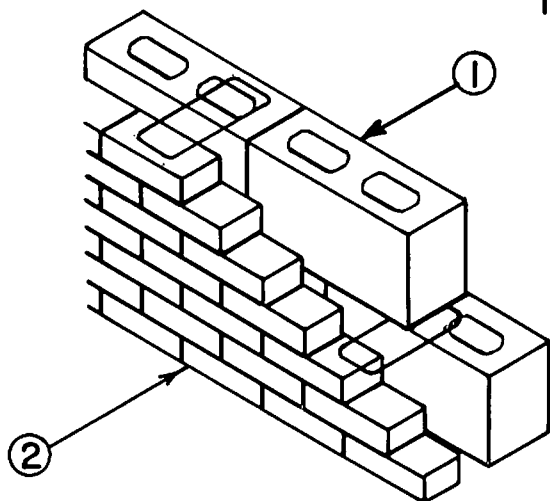
**FIRE RATING: 4 hour**

**No. B/215-4**

**FIRE RATING: 4 hour**

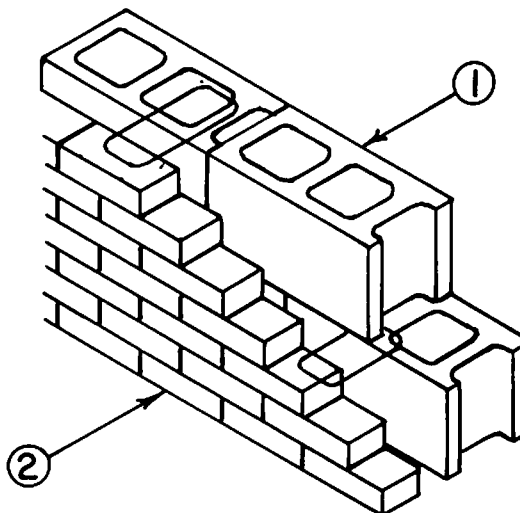
**No. B/10-4**

**T 215**



**B. B.**

**T 10**



**B. B.**

**ASSEMBLY DETAILS**

1. Rinker Type T-215 C.M.U., 6" x 8" x 16" nominal
2. Rinker Besser Concrete Brick, 4" x 2¼" x 8" nominal, or Solid Clay Brick

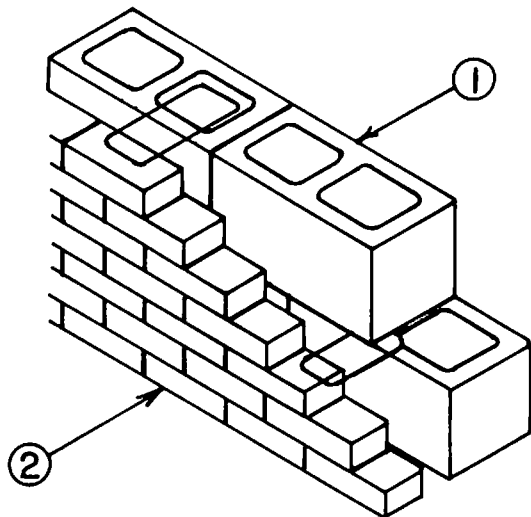
**ASSEMBLY DETAILS**

1. Rinker Type T-10 C.M.U., 8" x 8" x 16" nominal
2. Rinker Besser Concrete Brick, 4" x 2½" x 8" nominal, or Solid Clay Brick

**FIRE RATING: 4 hour**

**No. B/11-4**

**T 11**



**B. B.**

**ASSEMBLY DETAILS**

1. Rinker Type T-11 C.M.U., 8" x 8" x 16" nominal
2. Rinker Besser Concrete Brick, 4" x 2¼" x 8" nominal, or Solid Clay Brick

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

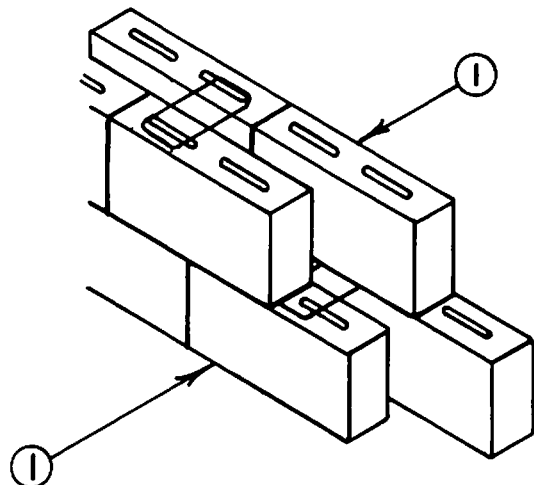
# MULTI-WYTHE WALLS

**FIRE RATING: 3 hour**

**No. 201/201-3**

**FIRE RATING: 4 hour**

**No. 201/201P-4**

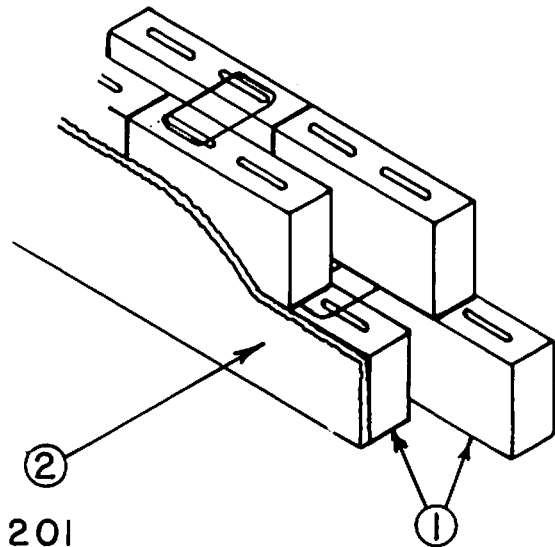


T 201

T 201

### ASSEMBLY DETAILS

1. Rinker Type T-201 C.M.U., 4" x 8" x 16" nominal



T 201

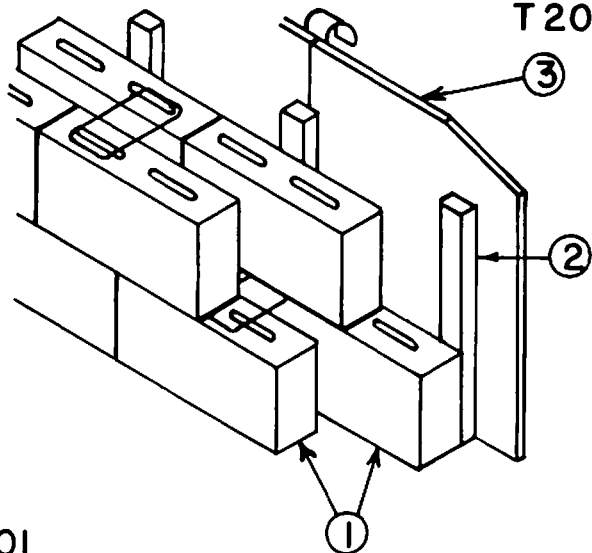
T 201

### ASSEMBLY DETAILS

1. Rinker Type T-201 C.M.U., 4" x 8" x 16" nominal
2. Portland cement stucco - 5/8" thick applied directly to C.M.U.

**FIRE RATING: 4 hour**

**No. 201/201W-4**



T 201

T 201

### ASSEMBLY DETAILS

1. Rinker Type T-201 C.M.U., 4" x 8" x 16" nominal
2. Wood or metal furring - 16" o.c. maximum
3. Gypsum wallboard - 3/8" thick - long dimension parallel to furring members - all joints finished

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

# MULTI-WYTHE WALLS

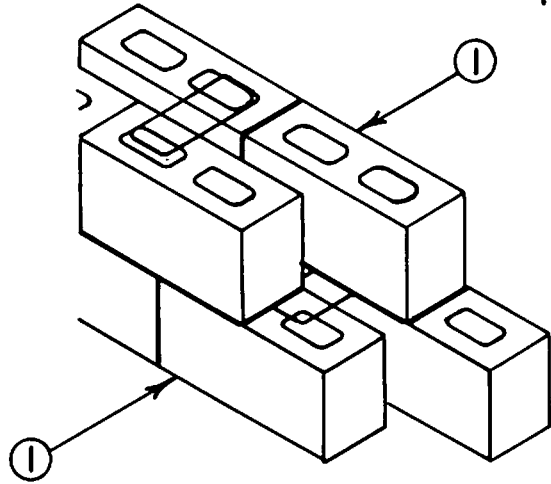
**FIRE RATING: 4 hour**

**No. 215/215-4**

**FIRE RATING: 4 hour**

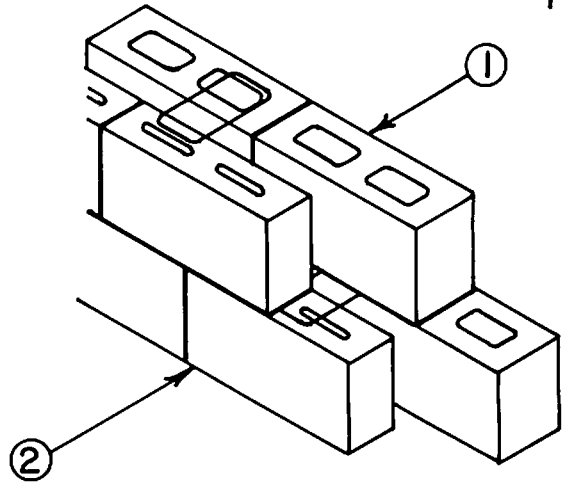
**No. 215/201-4**

**T 215**



**T 215**

**T 215**



**T 201**

**ASSEMBLY DETAILS**

1. Rinker Type T-215 C.M.U., 6" x 8" x 16" nominal

**ASSEMBLY DETAILS**

1. Rinker Type T-215 C.M.U., 6" x 8" x 16" nominal
2. Rinker Type T-201 C.M.U., 4" x 8" x 16" nominal

"Rinker Materials Corporation accepts no responsibility for the proper application of the rated wall assembly shown. Additionally we accept no responsibility for the construction of said assemblies."

ASSEMBLY NO. 8-3-18PW

ASSEMBLY RATING 3 hours

TYPE OF CMU T-18 2 hour unit

STANDARD BUILDING CODE		SOUTH FLORIDA BUILDING CODE	
Equivalent Thickness of unit	<u>4.1"</u>	Equivalent Thickness of unit	<u>4.1"</u>
Thickness of Finish on Non-Fire side X multiple factor <u>5/8" plaster</u> (Table 3101.4A)	+ = <u>4.7" = 160 minutes</u>	Thickness of Finish on Non-Fire side X multiple factor <u>5/8" plaster</u> (Table 37-D)	+ = <u>4.7" = 162 minutes</u>
	+ = <u>190 minutes</u>		+ = <u>192 minutes</u>
Time for Finish on Fire Side <u>5/8" gypsum wallboard</u> (Table 3101.4B)	<u>30 minutes</u>	Time for Finish on Fire Side <u>5/8" gypsum wallboard</u> (Table 37-E)	<u>30 minutes</u>
(Add actual thickness of portland cement sand plaster applied directly to masonry if less than 5/8" thick)		(Add actual thickness of portland cement sand plaster applied directly to masonry if less than 5/8" thick)	
<b>Two Calculations Required? YES <u>X</u> NO <u>    </u></b>		<b>Two Calculations Required? YES <u>X</u> NO <u>    </u></b>	
Equivalent Thickness of unit	<u>4.1"</u>	Equivalent Thickness of unit	<u>4.1"</u>
Thickness of Finish on Non-Fire side X multiple factor <u>5/8" gypsum wallboard x (1.00)</u> (Table 3101.4A)	+ = <u>4.7"</u>	Thickness of Finish on Non-Fire side X multiple factor <u>5/8" gypsum wallboard x (1.00)</u> (Table 37-D)	+ = <u>4.7"</u>
	+ = <u>5.3" = 200 minutes</u>		+ = <u>5.3" = 198 minutes</u>
Time for Finish on Fire Side <u>5/8" plaster</u> (Table 3101.4B)	<u>.6"</u>	Time for Finish on Fire Side <u>5/8" plaster</u> (Table 37-E)	<u>.6"</u>
(Add actual thickness of portland cement sand plaster applied directly to masonry if less than 5/8" thick)		(Add actual thickness of portland cement sand plaster applied directly to masonry if less than 5/8" thick)	
<b>FIRE RESISTIVE RATING <u>190 minutes</u></b>		<b>FIRE RESISTIVE RATING <u>192 minutes</u></b>	

SAMPLE CALCULATION





**RINKER**  
MATERIALS CORP.

FIRST  
WITH  
THE  
BEST

QUALITY CONTROL LABORATORY

P. O. BOX 24635

WEST PALM BEACH, FL 33416-4635

TELEPHONE (305)833-5555

## STANDARD BUILDING CODE

August 7, 1987

ABC Masonry Construction  
111 Any Street  
Anytown, FL 33333

RE: Your Project  
Your Job Address  
Anywhere, FL 33333

Gentlemen:

This is to certify that the concrete masonry unit, designated Type 11A, 8" x 8" x 16" nominal, 2 core double corner, supplied by Rinker Materials Corporation for the above project, meets the requirements of A.S.T.M. Specification C90-85 for "Hollow Load-Bearing Concrete Masonry Units", Grade N, for normal weight units.

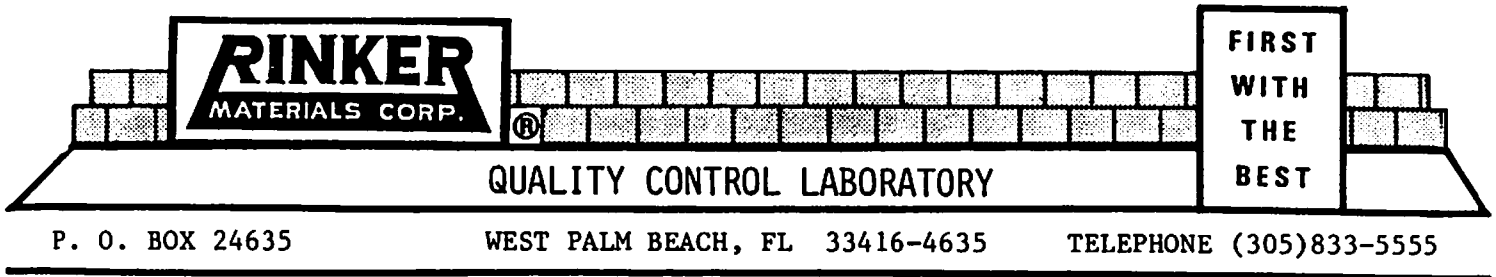
This is to certify that the Type 11A unit, as described above, meets the requirements of the Standard Building Code for a 2.00 hour Fire Resistance Rating, in accordance with Section 3101.5 of the Code. The type of aggregate used in manufacture is limestone, and the equivalent thickness of the unit is 4.1 inches.

Sincerely yours,

RINKER MATERIALS CORPORATION

Thomas F. Herrell  
Quality Control Laboratory Supervisor

TFH/ljs



## **SOUTH FLORIDA BUILDING CODE**

August 7, 1987

ABC Masonry Construction  
111 Any Street  
Anytown, FL 33333

RE: Your Project  
Your Job Address  
Anywhere, FL 33333

Gentlemen:

This is to certify that the concrete masonry unit, designated Type 18, 8" x 8" x 16" nominal, 2 core double corner with double center web, supplied by Rinker Materials Corporation for the above project, meets the requirements of A.S.T.M. Specification C90-85 for "Hollow Load-Bearing Concrete Masonry Units", Grade N, for normal weight units.

This is to certify that the Type 18 unit, as described above, meets the requirements of the South Florida Building Code for a 2.00 hour Fire Resistance Rating, in accordance with Section 2702.5(a)(2) and Table 37-B of the Code. The type of aggregate used in manufacture is limestone, and the equivalent thickness of the unit is 4.1 inches.

Sincerely yours,

RINKER MATERIALS CORPORATION

Thomas F. Herrell  
Quality Control Laboratory Supervisor

TFH/ljs



**ADDITIONAL RINKER MATERIALS CONCRETE MASONRY UNITS WHICH MAY BE USED IN THE FIRE RATED ASSEMBLIES**

RINKER TYPE NO.	SIZE	DESCRIPTION	APPLICABLE ASSEMBLIES
-----------------	------	-------------	-----------------------

T-210	4" x 8" x 8"	Half Partition Hollow	4-1-201G 4-1-201F 4-1-201P 4-1-201W
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T-211	4" x 8" x 8"	Half Partition Solid	4-1-220 4-2-220P 4-2-220W 4-2-220WF
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T-440	6" x 8" x 8"	Half Partition Hollow	6-1-215 6-2-215P2 6-2-215PG 6-2-215W2 6-3-215G 6-3-215F
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T-438	6" x 8" x 8"	Half Partition Solid	6-3-214 6-4-214P 6-4-214W 6-4-214W2
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T-520	6" x 4" x 16"	Half High Partition	6-1-215 6-2-215P2 6-2-215PG 6-2-215W2
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T-219	6" x 8" x 16"	Bond Beam	All 6 inch Assemblies
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\* Unit to be filled solid with Masonry Grout



**ADDITIONAL RINKER MATERIALS CONCRETE MASONRY UNITS WHICH MAY BE USED IN THE FIRE RATED ASSEMBLIES**

(Continued)

RINKER TYPE NO.	SIZE	DESCRIPTION	APPLICABLE ASSEMBLIES
-----------------	------	-------------	-----------------------

**8 INCH UNITS**

T-150	8" x 8" x 8"	Half Block Hollow	8-1-10, 8-2-11A, 8-2-10P, 8-2-11P, 8-2-10W, 8-2-11W, 8-2-10SF
T-1110	8" x 9" x 16"	Full 9" High Hollow	8-1-10, 8-2-11A, 8-2-10P, 8-2-11P, 8-2-10W, 8-2-11W, 8-3-10W2, 8-3-11W2, 8-3-18P2, 8-3-11AP2, 8-3-18PW, 8-3-11APW, 8-4-10G, 8-4-11G, 8-4-10F, 8-4-11F
T-1014	8" x 9" x 16"	9" High Nominal Hollow	8-1-10, 8-2-11A, 8-2-10P, 8-2-11P, 8-2-10W, 8-2-11W, 8-3-10W2, 8-3-11W2, 8-3-18P2, 8-3-11AP2, 8-3-18PW, 8-3-11APW, 8-4-10G, 8-4-11G, 8-4-10F, 8-4-11F
T-177	8" x 8" x 8"	Half Block Hollow	8-3-28, 8-4-28P2, 8-4-28PW, 8-4-28W2
T-178	8" x 8" x 8"	Half Block Solid	8-4-29
T-158	8" x 8" x 8"	Half Block Solid	8-4-57
T-350	8" x 4" x 16"	Half High Hollow	8-1-10, 8-2-11P, 8-2-10P, 8-2-11P, 8-2-10W, 8-2-11W, 8-3-10W2, 8-3-11W2, 8-3-18P2, 8-3-11AP2, 8-3-18PW, 8-3-11APW, 8-4-10G, 8-4-11G, 8-4-10F, 8-4-11F
T-380	8" x 4" x 8"	1/2 Half High Hollow	8-1-10, 8-2-11P, 8-2-10P, 8-2-11P, 8-2-10W, 8-2-11W, 8-3-10W2, 8-3-11W2, 8-3-18P2, 8-3-11AP2, 8-3-18PW, 8-3-11APW, 8-4-10G, 8-4-11G, 8-4-10F, 8-4-11F
T-35	8" x 8" x 16"	A-Block	8-1-10, 8-2-11P, 8-2-10P, 8-2-11P, 8-2-10W, 8-2-11W, 8-3-10W2, 8-3-11W2, 8-3-18P2, 8-3-11AP2, 8-3-18PW, 8-3-11APW, 8-4-10G, 8-4-11G, 8-4-10F, 8-4-11F
T-40	8" x 8" x 16"	G-Block	8-1-10, 8-2-11P, 8-2-10P, 8-2-11P, 8-2-10W, 8-2-11W, 8-3-10W2, 8-3-11W2, 8-3-18P2, 8-3-11AP2, 8-3-18PW, 8-3-11APW, 8-4-10G, 8-4-11G, 8-4-10F, 8-4-11F
T-81	8" x 8" x 16"	Bond Beam	All 8 inch Assemblies
T-100	8" x 8" x 16"	U-Intel	All 8 inch Assemblies
T-105	8" x 16" x 8"	U-Beam	All 8 inch Assemblies

\*Units to be filled solid with Masonry Grout

**ADDITIONAL RINKER MATERIALS CONCRETE MASONRY UNITS WHICH MAY BE USED IN THE FIRE RATED ASSEMBLIES**



RINKER TYPE NO.	SIZE	DESCRIPTION	APPLICABLE ASSEMBLIES
-----------------	------	-------------	-----------------------

T-337	10" x 8" x 16"	Bond Beam	All 10 inch Assemblies
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**10 INCH UNITS**

T-325	12" x 8" x 8"	Half Block Hollow	12-4-306G 12-4-306F
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T-324	12" x 8" x 8"	Half Block Solid	12-3-306 12-3-315 12-4-901 12-4-315P 12-4-315W 12-4-306P2 12-4-306PW 12-4-306W2
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T-305	12" x 8" x 16"	Foundation Block	12-3-306 12-4-306F 12-4-306G 12-4-306P2 12-4-306PW 12-4-306W2
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T-307	12" x 8" x 16"	Bond Beam	All 12 inch Assemblies
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\* Units to be filled solid with Masonry Grout



**ADDITIONAL RINKER MATERIALS CONCRETE MASONRY UNITS WHICH MAY BE USED IN THE FIRE RATED ASSEMBLIES**

(Continued)

RINKER TYPE NO.	SIZE	DESCRIPTION	APPLICABLE ASSEMBLIES
-----------------	------	-------------	-----------------------

**COLUMN BLOCK**

Maximum Fire Rating for Type of Construction

T-30	8" x 8" x 16"	Pilaster	Column
T-360	12" x 4" x 16"	4 hours	1½ hours
T-310	12" x 8" x 16"	4 hours	3 hours
T-801	12" x 8" x 12"	4 hours	3 hours
T-501	16" x 8" x 16"	4 hours	3 hours
T-361	16" x 4" x 16"	_____	4 hours

(1) Units to be filled solid with Masonry grout or concrete.  
 (2) Minimum cover to main reinforcement 1½ inches.







