Development Services

From Concept to Construction

Phone: 503-823-7300 Email: bds@portlandoregon.gov 1900 SW 4th Ave, Portland, OR 97201
More Contact Info (http://www.portlandoregon.gov//bds/article/519984)

APPEAL SUMMARY

Status: Decision Rendered - Reconsideration of ID 18935

Appeal ID: 18963	**Project Address:** 2211 SW 4th Ave
Hearing Date: 2/6/19	**Appellant Name:** Joshua Scott
Case No.: B-016	**Appellant Phone:** 2067551290
Appeal Type: Building	**Plans Examiner/Inspector:** Gail Knoll
Project Type: commercial	**Stories:** 6 **Occupancy:** R-2 **Construction Type:** III-A over I-A
Building/Business Name:	**Fire Sprinklers:** Yes - Throughout, NFPA 13
Appeal Involves: Reconsideration of appeal	**LUR or Permit Application No.:** 16-274966-CO
Plan Submitted Option: pdf [File 1] [File 2] [File 3]	**Proposed use:** Multi Family Residential

APPEAL INFORMATION SHEET

Appeal item 1

Code Section 602.3, Table 601, 704.1, 2303.2

Requires OSSC Section 602.3 – Type III:…Fire-retardant-treated (FRT) wood framing complying with Section 2303.2 shall be permitted within exterior wall assemblies of a 2-hr rating or less.

OSSC Section 2303.2 Fire-Retardant-Treated Wood: FRT wood is any wood product which, when impregnated with chemicals by a pressure process or other means during manufacture, shall have, when tested in accordance with ASTM E84 or UL 723, a listed flame spread index of 25 or less and show no evidence of significant progressive combustion when the test is continued for an additional 20 minutes. Additionally, the flame shall not progress more than 10 ½ feet beyond the centerline of the burners at any time during the test.

Proposed Design This project consists of Type III-A construction using Fire retardant treated 2x6 studs and sheathing. At certain locations, 5 ¼" x 5 ½" PSL columns are utilized to support window headers at taller walls. In lieu of pressure-impregnated FRT wood, these columns will receive a tested (in accordance with ASTM E84) fire retardant treatment (on all sides and ends) to provide equivalent protection as pressure-impregnated FRT lumber. See the attached fire retardant coating product test report, a similar product proposed for other appeals 14674 and 18504 which were approved for application to protect glulams in similar Type IIIA construction projects.

Additionally, there are several locations in which a standard sawn lumber 6x6 will carry the required loading. The fire retardant pretreatment options for a 6x6 are restrictive in that it is a special order item and takes several weeks to complete. It is proposed that where applicable, the same fire retardant treatment (tested in accordance with ASTM E84) would be utilized at these locations as well. The locations of the 6x6 columns, should they be utilized in substitution for PSL

columns would be defined by a subsequent permit revision. The intent is to achieve approval prior to making the substitution revision.

Reconsideration Text:
An alternative product to the previously offered product has been proposed. The alternative product (FlameStop IM) beats the required testing protocol to be code compliant as a fire retardant treatment.

Reason for alternative Type IIIA construction allows engineered lumber such as PSL's, but as part of the exterior wall system, they must be fire-retardant treated. There are no available pressure impregnated fire retardant treatment options available for a PSL beam or column. Solid sawn lumber is often not capable of resisting the design loads for the columns in question. The option proposed of utilizing a non-toxic, non-corrosive alternative offers an equivalent fire protection of the columns.

APPEAL DECISION

Alternate method for fire retardant treatment of wood columns: Granted as proposed.

The Administrative Appeal Board finds that the information submitted by the appellant demonstrates that the approved modifications or alternate methods are consistent with the intent of the code; do not lessen health, safety, accessibility, life, fire safety or structural requirements; and that special conditions unique to this project make strict application of those code sections impractical.

Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 180 calendar days of the date this decision is published. For information on the appeals process and costs, including forms, appeal fee, payment methods and fee waivers, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.

Plan Notes

1. DO NOT SCALE DRAWINGS. REFER ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
2. TYPICAL FLOOR FRAMING CONSISTS OF FINISH PER ARCH. OVER 1 ½" CONCRETE TOPPING OVER ¾" CDX PLYWOOD, FACE GRAIN PERPENDICULAR TO SUPPORTS OVER JOISTS PER PLAN. NAIL SHEATHING WITH 8D @ 6" O.C. EDGES AND OVER SHEARWALLS, 12" O.C. FIELD
3. ALL INTERIOR HEADERS SHALL BE (2) 2X8'S UNLESS NOTED OTHERWISE. AT CONTRACTORS OPTION, (2) 2X8'S MAY BE SUBSTITUTED WITH 4X8 OR 6X6. REFER TO 8/S4.1 FOR HEADER FRAMING
4. PROVIDE (2) BEARING STUDS AT EACH END OF ALL HEADERS AND BEAMS UNLESS NOTED OTHERWISE.
5. ALL BUNDLED STUDS CALLED OUT ON PLAN OR AT ENDS OF HEADERS AND BEAMS SHALL BE PROVIDED AT EACH LEVEL, TERMINATING AT CONCRETE SUPPORT BELOW. REFER 3/S4.1 AND 7/S4.1 FOR BUNDLED STUD FRAMING THROUGH BUILDING.
6. "BW" INDICATES BEARING WALL BELOW FRAMING SHOWN. REFER BEARING WALL SCHEDULE ON PLAN. ALL STRUCTURAL WALLS SHOWN ARE TO BE BW1 UNLES NOTED OTHERWISE.
7. "SW" INDICATES PLYWOOD SHEATHED SHEARWALL BELOW FRAMING SHOWN. REFER SHEARWALL SCHEDULE ON DETAIL 2/S4.1. PROVIDE JOIST OR BLOCKING ABOVE ALL SHEARWALLS PER DETAIL 6/S4.1. ALL EXTERIOR WALLS SHALL BE SW1 UNLESS NOTED OTHERWISE.
8. PLUMBING, MECHANICAL, AND ELECTRICAL SYSTEMS SHALL BE DESIGNED AND BUILT TO ACCOMMODATE A 3/8" PER FLOOR WOOD SHRINKAGE. (EXCLUDES LOFT FLOORS)
9. REFER 10/S4.1 FOR NAILING AT SHEARWALL INTERSECTIONS.
10. DOUBLE TOP PLATE SPLICE TO BE FRAMED PER 4/S4.1
11. REFER GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

Legend

- STRUCTURAL WOOD WALL BELOW
- STRUCTURAL WOOD WALL BELOW TO ALIGN W/ HOLDOWN BELOW (Cxx) HOLDDOWN STRAP REFER 11/S4.2; TO ALIGN W/ HOLDOWN BELOW (Hxx) HOLDDOWN PER 12/S4.2 — 8
- (X) # OF BUNDLED STUDS
- CORRIDOR LIVE LOAD = 100 PSF

Schedules

Joist Schedule

MARK	JOIST
J1	11⅞" TJI/560 @ 24"oc
J2	11⅞" TJI/560 @ 16"oc
J3	11⅞" TJI/230 @ 16"oc
J4	2x6 @ 16"oc
J5	(2)2X6 @ 12"oc

Post Schedule

MARK	POST
P1	4x4 W/ CCQ/ECCQ CAP
P2	6x6 W/ (2)HGA10 @ TOP & BOT.
P3	HSS 5x5x¼ PER DTL. X/X.XX
P4	P.T. 6x6 W/ CC66 CAP

Wood Column Schedule

MARK	LEVEL	2x4	2x6
WC1	ALL	–	FULL-HT PSL 5¼x5¼ W/ (2)A35 TO T&B PLATE
WC2	6TH	2	2
	5TH	2	2
	4TH	2	2
	3RD	2	2
	2ND	3	2
WC3	6TH	2	2
	5TH	2	2
	4TH	3	3
	3RD	4	3
	2ND	5	3

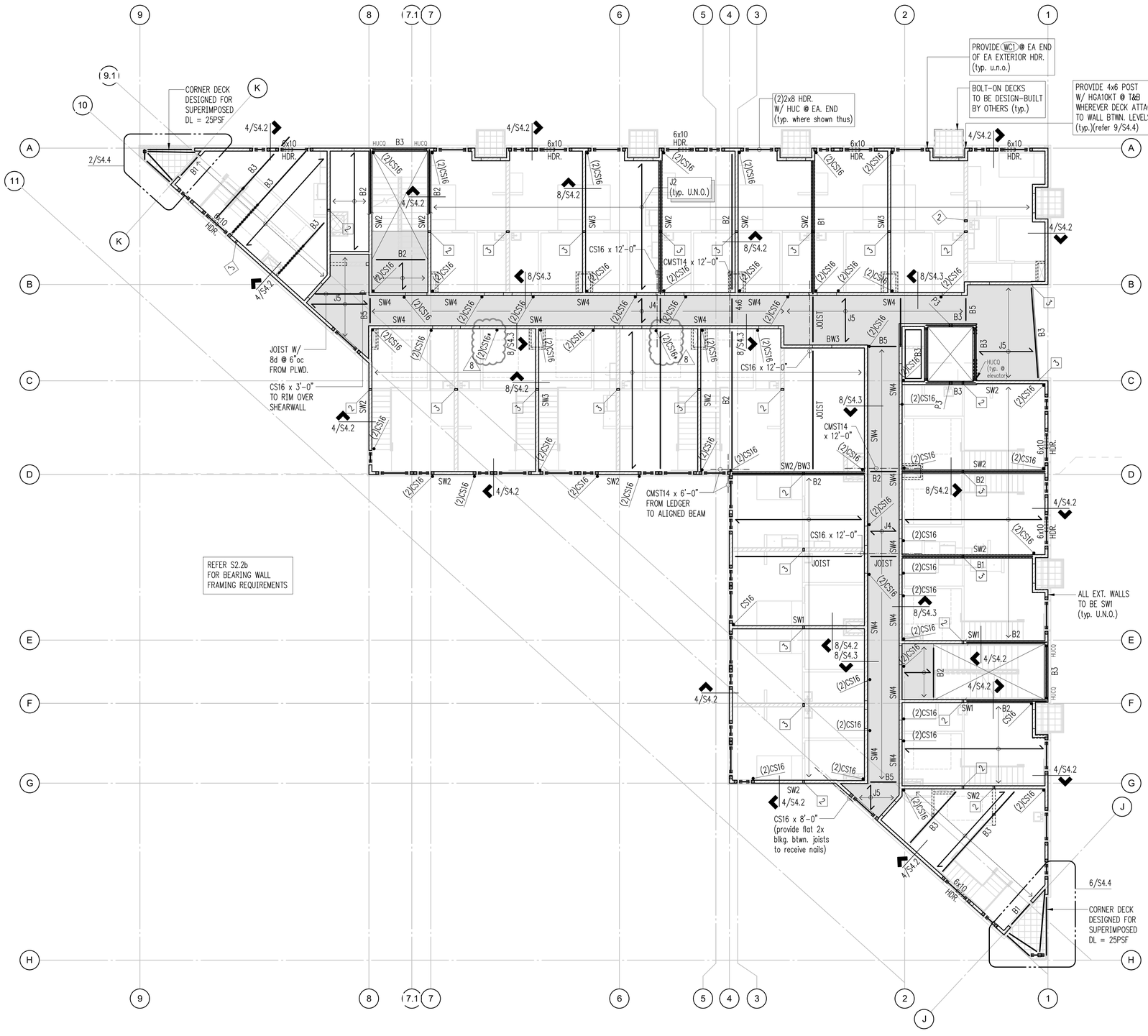
Beam Schedule

MARK	SIZE	HANGER
B1	LSL 1¾x11⅞	HU11
B2	LSL 3½x11⅞	HHUS410
B3	PSL 5¼x11⅞	HGUS5.50/12
B4	PSL 7x11⅞	HGUS7.25/10
B5	4x6	HU46
B6	P.T. 6x10	HUCQ610-SDS
B7	GLB 5⅛x7½	–

Bearing Wall Schedule

MARK	LEVEL	2x4	2x6
BW1 ②	6TH	@ 16"	@ 16"
	5TH	@ 16"	@ 16"
	4TH	@ 16"	@ 16"
	3RD	@ 16"	@ 16"
	2ND	@ 16"	@ 16"
BW2 ①	6TH	–	(2) @ 16"
	5TH	–	(2) @ 12"
	4TH	–	(2) @ 16"
	3RD	–	(2) @ 16"
	2ND	–	(2) @ 12"
BW3 ①	6TH	–	@ 16"
	5TH	–	(2) @ 16"
	4TH	–	(2) @ 16"
	3RD	–	(2) @ 12"
	2ND	–	(2) @ 12"

① BW2 & BW3 MAY NOT BE BUILT W/ 2x4 STUDS.
② STRUCTURAL WALLS TO BE BW1 (typ. U.N.O.).
③ BEARING WALLS NOTED ON S2.2B SHALL CONTINUE ON ALL LEVELS ABOVE.



Level 6 Framing Plan
Scale: ⅛" = 1'-0"

SSF STRUCTURAL ENGINEERING
934 Broadway - Suite 100 - Tacoma, WA 98402
p: 253.284.9470 ssfengineers.com

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 21593PE OREGON RYAN H. REICHMAN

EXPIRATION DATE: 12/31/2018

DRAWN: JAD
DESIGN: CCP
CHECKED: RHR
APPROVED: RHR

REVISIONS:

1	BLDG. DEPT. CORRECTION	Feb. 14, 2017
2	BLDG. DEPT. CORRECTION	Apr. 05, 2017
3	ARCH. REVISIONS	May 01, 2017
4	BLDG. DEPT. CORRECTION	Aug. 21, 2017
5	CRANE FOOTING	Mar. 14, 2018
6	ARCH. REVISIONS	Mar. 16, 2018
7	ARCH. REVISIONS	Mar. 22, 2018
8	ARCH. REVISIONS	May 23, 2018
9	ARCH. REVISIONS	June 11, 2018
10	ARCH. REVISIONS	June 28, 2018
11	ARCH. REVISIONS	July 19, 2018

DPD:

PROJECT TITLE:

4th & Grant
Student Housing
4th & Grant
Portland, OR

ARCHITECT:

KOZ Development
1208 10th St, Suite 201
Snohomish, WA 98290
PH 206.755.1290
kozdevelopment.com

ISSUE:

Permit

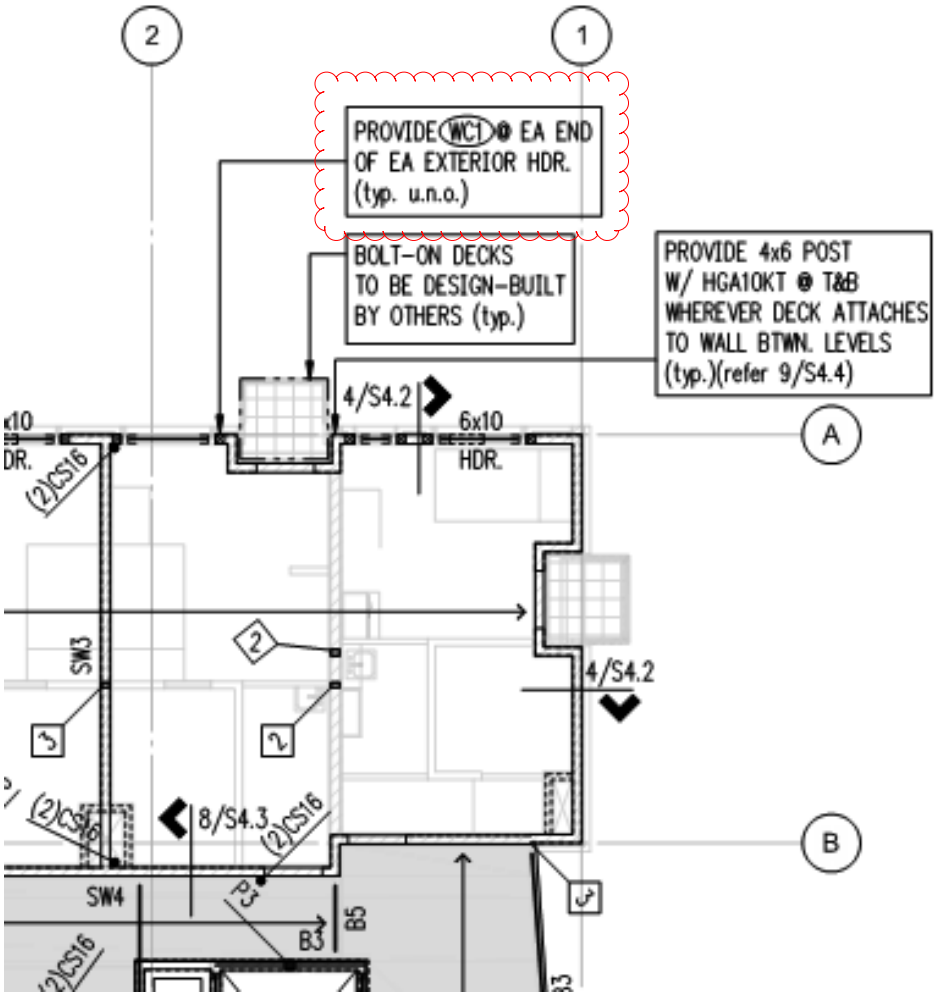
SHEET TITLE:

Level 6 Framing Plan

SCALE: ⅛" = 1'-0" U.N.O.
DATE: July 19, 2018
PROJECT NO: 10526-2016-01
SHEET NO:

S2.6

NO: OF SHEETS:



Wood Column Schedule

MARK	LEVEL	2x4	2x6
WC1	ALL	–	FULL-HT PSL 5¼x5¼ W/ (2)A35 TO T&B PLATE
WC2	6TH	2	2
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	4TH	2	2
	3RD	2	2
	2ND	3	2
WC3	6TH	2	2
	5TH	2	2
	4TH	3	2
	3RD	4	3
	2ND	5	3

EXCERPTS FROM SHEET S2.6
FROM PERMIT DOCUMENTS

FLAME STOP® IM
PRODUCT DATA SHEET

FLAME STOP INC.™
1-877-397-7867

DESCRIPTION:

Flame Stop Intumescent Paint (IM) is a 30-minute rated, latex based, post-treatment, interior fire retardant. When the treated material comes in contact with an open flame, the paint shall intumesce to reduce the flame spread and self-extinguish fire with minimal smoke developed. On compatible materials such as Douglas fir wood, Flame Stop IM shall provide a Class A rating. Flame Stop IM is a labor-saving coating which can achieve a Class A rating with only one coat applied at 150 square feet per gallon. When two coats are applied at a combined 100 square feet per gallon, the substrate achieves a 30-minute rating equivalent to FR treated lumber. Flame Stop IM is non-toxic, non-combustible, non-carcinogenic, easy to apply, and contains no PDBE's.

BASIC USES:

Flame Stop IM is engineered for commercial and residential interior surfaces such as: panelling, non-porous substrates, veneer, wood trusses, gypsum board, structural wood, plastic, previously coated surfaces, and MDF. FOR INTERIOR USE ONLY.

ADVANTAGES:

Flame Stop Intumescent Paint achieved a Class A rating with a Flame Spread of 10 and Smoke Developed of 45 for one coat (ASTM E84) and Flame Spread of 0 and Smoke Developed of 110 for two coats (ASTM E84 extended to 30 minutes). Flame Stop IM is water-based, non-toxic, mold resistant, stain blocking, fast curing, and will not alter the structural integrity of wood such as pressure treatment.

LIMITATIONS:

Storage Range: 45 – 110 degrees Fahrenheit (7 – 43 Celsius)
Shelf Life: One year, if kept within storage range.
A compatibility test is strongly recommended.
Do not dilute.
Interior use only.

TECHNICAL SUPPORT

Total solids:	**60%**
Wt per gallon:	**11 Lbs.**
Color:	**Black / White**
Bacterial:	**Excellent resistance**
Fungus:	**Excellent resistance**
Volatility:	**None**
Toxic:	**No**
Biodegradeable:	**Yes**
Insects, rodents and mold:	**Excellent resistance**

CONTACT US AT:

924 Blue Mound Rd.
Ft. Worth, TX 76131
817-306-1222
FAX 817-306-1733
info@flamestop.com

VISIT US AT:

www.flamestop.com

APPLICABLE STANDARDS:

Flame Stop IM was tested to the following standards: ASTM E-84, NFPA 255, UL 723: Omega Point Laboratories #8746-108578 ASTM E-84, NFPA 255, NFPA 703 30 MIN: SWRI (Southwest Research Institute) #01.10932.01.195 BML:California State Fire Marshal Listing Service: Listing No. 2280-1664:100

APPLICATION:

Ensure that all materials are clean prior to application. Apply Flame Stop IM as is by spraying, brushing, or rolling. Apply at the rate of 150 square feet per gallon for one coat or 200 square feet per gallon per coat for two coats. When doing multiple coats, wait until the first coat has dried before beginning the next application. This paint requires a 48-hour curing period. For spray application, use an airless sprayer suitable for applying a latex-based paint and a .017 tip size.

**** After treatment a 48-hour conditioning period is necessary before testing ****

TESTING:

A small-scale test can be performed with the utilization of a sample of the treated material and a small flame (butane lighter or match). Hold a 4" x 12" piece of the treated material vertically and apply the flame to the lower portion for 10 seconds and then remove the ignition source. The flame must self-extinguish within two (2) seconds. This test is similar to the small-scale NFPA 701 field test.

FLAMESPREAD 10 AND SMOKE DEVELOPED 45 PER ASTM-E84
FLAMESPREAD 0 AND SMOKE DEVELOPED 110 PER NFPA 703 (30 minutes, two coats) May, 2010

TESTED BY:
U.S. TESTING COMPANY INC. (SGS NORTH AMERICA)
OMEGA (INTERTEK) COMMERCIAL TESTING
C-14401

NOTES:

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WARRANTY:

Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use or the inability to use the product. Before using, user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith.

