Industrialized Housing & Buildings

Housing & Buildings Standards Division, PA Dept. of Community and Economic Development, DCED



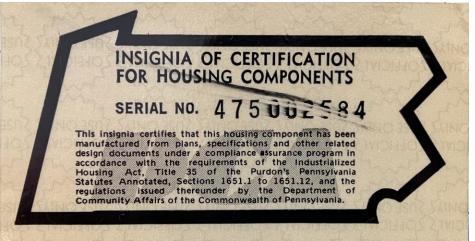
Dept. of Community Affairs

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DCA was created in 1966. In 1974, under HUD's Minimum Property Standards (MPS) and Technical Suitability of Products (TSP) Program for Category III State Administrators. Through legislation, DCA regulated industrialized (modular) housing, known as the Industrialized Housing Act. (Title 35 P.S. - Chapter 18, Health and Safety - §1651.1 - §1651.12)







Creation of DCED

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Under Pennsylvania Governor Tom Ridge, the Department of Community and Economic Development was created by the Community and Economic Development Enhancement Act (Act of Jun. 27, 1996, P.L. 403, No. 58), merging the Departments of Community Affairs.

Industrialized Housing Act now enforced by DCED.



Program Background

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- 1972 PA Industrialized Housing Act PA Department of Community Affairs (DCA)
- 1976 Manufactured Housing Construction and Safety Standards
- <u>1982</u> PA Manufactured Housing Authorization Act
- 1999 Uniform Construction Code enacted
- 2006 PA Manufactured Home Improvement Act
- 2012 PA Manufactured Home Improvement Act amended to address Relocated Manufactured Homes
- 2020 Transitioned to HUD Installation Program
- 2024 Commercial Modular Buildings (fully implemented)

Programs managed by DCED / Hsg. & Bldgs. Standards

pennsylvania
Division.

Division.

- Industrialized Housing & Buildings
 - Commonly referred to as "modular"

PA Programs funded through label and insignia fees collected, no tax dollar support.



Industry focuses on:

- ✓ Faster construction times.
- ✓ Lower costs
- Greater sustainability
 - ✓ less waste, more efficient
- Improved working conditions
- Design flexibility
- Reduced environmental impact
- Enhanced quality through regulation!



Manufactured & Industrialized Housing Exemptions S901(a)

 Certified (new) manufactured or industrialized (modular) housing shipped from the factory



Exemption

Manufactured & Industrialized Housing R403.1(b)(5) S901(a)

 The Uniform Construction Code does not apply to manufactured or industrialized housing shipped from the factory under section 901...as provided for §403.25



Pennsylvania Statutes Title 35 P.S. Health and Safety § 1651.5.

This chapter interprets and makes specific the provisions of the act, as provided in section 5 of the act (35 P.S. § 1651.5).

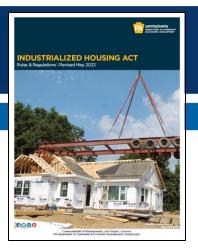
This chapter establishes administrative procedures for the implementation of the act which will facilitate the use of industrialized housing, buildings, and housing or building components in this Commonwealth consistent with safeguarding the health, safety and welfare of citizens of this Commonwealth and will carry out the purposes set forth in the legislative findings in section 2 of the act (35 P.S. § 1651.2). More specifically, this chapter is intended primarily to achieve the following objectives:

(1) Establish uniform standards affecting health, safety and welfare for the design, use of materials and methods of construction for industrialized housing, buildings, and housing or building components intended for sale, lease or installation for use in this Commonwealth.

The provisions of this § 145.2 adopted July 12, 1974, effective July 13, 1974, 14 Pa.B. 1403; amended November 4, 2016, effective November 6, 2017, 46 Pa.B. 6976.



From the IH Act



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§ 145.2. Purpose.

This chapter interprets and makes specific the provisions of the act, as provided in section 5 of the act (35 P.S. § 1651.5). This chapter establishes administrative procedures for the implementation of the act which will facilitate the use of industrialized housing, buildings, and housing or building components in this Commonwealth consistent with safeguarding the health, safety, and welfare of citizens of this Commonwealth and will carry out the purposes set forth in the legislative findings in section 2 of the act (35 P.S. §1651.2). More specifically, this chapter is intended primarily to achieve the following objectives:

§ 145.3. Scope.

Except to the extent otherwise stated in the act and the provisions of this chapter and in other applicable laws of the Commonwealth which are not inconsistent with or superseded by the act and this chapter, this chapter governs the design, manufacture, storage, transportation and installation of industrialized housing, buildings, and housing or building components which are sold, leased, or installed, or are intended for sale, lease, or installation, for use on a site in this Commonwealth. Industrialized buildings manufactured before November 6, 2017, may continue to be utilized in this Commonwealth subject to approval of the local code official.



Manufactured & Industrialized Housing R403.25 S901(a)

- (a) Manufactured housing is governed by the following under section 901(a) of the act (35 P.S. § 7210.901(a)):
- (1) Except as provided in paragraph (2), the Uniform Construction Code does not apply to new manufactured housing assembled by and shipped from the manufacturer and which bears a label which certifies that it conforms to Federal construction and safety standards adopted under the Housing and Community Development Act of 1974 (42 U.S.C.A. § § 5401—5426) and installation of new manufactured housing in conformity with the manufacturer's approved design applicable to the particular home.
- (2) Construction activities or processes including utility connections and grading not addressed by the manufacturer's approved design must comply with the Uniform Construction Code.
 - (3) The Uniform Construction Code applies to the following:
- (i) Alteration or repair to the unit that does not fall within 24 CFR 3280.1—3280.904 (relating to manufactured home construction and safety standards) and the manufacturer's installation instructions after assembly and shipment by the manufacturer.
 - (ii) Additions to the unit after delivery to the site.
- (iii) Construction, alteration, repair or change of occupancy if the manufactured housing is resold to a subsequent purchaser.
- (iv) Construction, alteration, repair or change of occupancy if the original purchaser relocates the manufactured housing.



Manufactured & Industrialized Housing R403.25 S901(a)

- (b) Industrialized housing is governed by the following under section 901(a) of the act:
- (1) Except as provided in subsection (b)(2), the Uniform Construction Code does not apply to industrialized housing assembled by and shipped from the manufacturer.
 - (2) The Uniform Construction Code applies to all of the following:
 - (i) Site preparation.
 - (ii) Foundation construction.
 - (iii) Utilities connection.
 - (iv) Construction, alteration or repair to the industrialized housing unit after installation.
 - (v) Construction, alteration, repair or occupancy if industrialized housing is resold to a subsequent purchaser.
 - (vi) Construction, alteration, repair or occupancy if industrialized housing is relocated.
- (c) The Department of Community and Economic Development may enforce and take action under the Industrialized Housing Act (35 P.S. § § 1651.1—1651.12) and the Manufactured Housing Construction and Safety Standards Authorization Act (35 P.S. § § 1656.1—1656.9).



Exemption

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Manufactured & Industrialized Housing R403.25(c) S901(a)

(c) The Department of Community and Economic may enforce and take action under the **Industrialized Housing Act (35 P.S. § 1651.1—1651.12)** and the Manufactured Housing Construction and Safety Standards Authorization Act (35 P.S. § § 1656.1—1656.9).



PA L& I Advisory

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Advisory on Industrialized Buildings and Building Components

Section 901 of the Pennsylvania Construction Code Act (PCCA) (35 P.S. § 7210.901) exempts new manufactured and industrialized housing and housing components as defined by the Industrialized Housing Act (35 P.S. § 1651.5). The PCCA does not, however, specifically address "industrialized buildings and building components."

Recently, the Department of Community and Economic Development (DCED), under authority of section 5 of the Industrialized Housing Act amended regulations (Chapter 145) to monitor production and certification of industrialized commercial buildings and building components for placement in the Commonwealth of Pennsylvania.

The PCCA does not address "industrialized buildings and building components" and since they are permitted under the Industrialized Housing Act, the PCCA and Uniform Construction Code does not prohibit them. The Department of Labor & Industry does not enforce the Industrialized Housing Act, but certification of industrialized buildings and building components by DCED mirrors the current DCED program that certifies industrialized housing and housing components.

A manufacturer of industrialized buildings and building components must provide documentation to the Code Official that the building components were constructed following the code in effect in Pennsylvania at the time of construction. The Code Official is then required to perform inspections similar to those related to industrialized housing and housing components. Such inspections must include, but are not limited to, the following:

- · Site conditions
- · Utility connections
- · Mechanical connections within the structure
- · Accessibility and means of egress

Inspections should be performed in a non-destructive manner, but the Code Official has the authority to perform any inspections on the building components that they feel are necessary for the life safety component of the building and for its occupants.

Department of Labor & Industry | BOIS Director's Office | 651 Boas Street, Room 1613 | Harrisburg, PA 17121 717.783.6304 | Fax 717.787.8363

> Auxiliary aids and services are available upon request to individuals with disabilities. Faual Opportunity Employer/Program



UCC Sections <u>not enforced</u> by construction code officials under <u>Industrialized Housing Act</u>

§ 401.3. Certification required.

- (a) A person may not perform a plan review of construction documents, inspect construction or equipment, or administer enforce the Uniform Construction Code without being currently certified or registered by the Department in the category applicable to the work that is to be performed.
- (b) A person may not approve plans or perform inspections relating to accessibility requirements without being certified by the Department as an accessibility inspector/plans examiner. DCED also requires this certification (ICC).



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All plan reviews and inspections with respect to the *building* as constructed *offsite* are conducted by <u>ICC certified</u> third party agencies, plans examiners, and inspectors under DCED's authority!



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 Since DCED is not requiring UCC certifications (do require ICC) for any plans examiner or inspector of the building offsite, the code administrator is also not enforcing UCC Section 401.6 or Section 401.7 with respect to certification categories or category specification.

*This applies *only* to the building while *offsite* and not for plan review or inspection onsite for those portions that are completed on-site.



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§ 401.13. List of code administrators.

The Department will maintain a list of code administrators indicating their categories of certifications on its Internet website (www.dli.state.pa.us). The Department will also make the list available to municipalities and, upon request, the public.

The Department will continue to maintain the list as required by UCC 401.13 but *will not* have information on anyone not registered with the Department, such as the ICC certified plans examiners and inspectors approved by DCED and not Commonwealth registration.



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UCC Sections *partially not enforced* by construction code officials under Industrialized Housing Act



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§ 403.42a. Permit application.

(c) A licensed architect or licensed professional engineer shall prepare the construction documents under the Architects Licensure Law (63 P. S. §§ 34.1—34.22), or the Engineer, Land Surveyor and Geologist Registration Law (63 P. S. §§ 148—158.2). An unlicensed person may prepare design documents for the remodeling or alteration of a building if there is no compensation and the remodeling or alteration does not relate to additions to the building or changes to the building's structure or means of egress.

DCED ensures that design and preparation of construction documents for construction of *offsite buildings* will be in compliance with regulations and the applicable (local) codes. It will remain the code official's responsibility to ensure compliance with this section for all <u>onsite requirements and construction</u>. All alterations and modifications that occur prior to the completion of the sale, the home or building manufacturer MUST provide approval.

Should any remodeling or alterations occur after the sale, the local official has the authority as it occurred on-site and without manufacturers oversight.



DCED / TPA Approvals

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STATE: PENNSYLVANIA

BUILDING CODE: 2018 IRC 2017 NEC 2018 IECC 2018 IECC USE GROUP: SINGLE FAMILY DWELLING CONSTRUCTION TYPE: VB-WOOD FRAME UNPROTECTED

ROOF CENTERS = 24" O.C. ROOF PITCH = 5/12 WIND SPEED = 115 VULT FLOOR LOAD = 40 PSF CLIMATE ZONE=5a (6999 HDD)

DELIVERY ADDRESS: 180 TEXTOR SCHOOL ROAD, ZELIENOPLE, PA 16063 BUTLER COUNTY

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ZASADNI

BUILDER: RIVERVIEW



PFS CORPORATION APPROVED Plans Certified to comply with all

Applicable codes and regulations of the PA DCED Industrialized Housing Regulation

Signature: Staff Plan Reviewer

> Harold Digitally signed by Harold Raup, on-Harold Raup, on-Har Raup | 045 | 028 2038 0000 105100

The Manumenture of the Structure Casumpton #2.00 Scartianville Pennsylvania Certifies That This Structure (Quote No. Q-32446) is not a manufactured house subject to the provision of the National Manufacture Housing and Safety Standards 1.) designed only for erection or installation

New Fra building systems O-32446 27-6" X 58' RANCH CV-

STATE OF: PENNSYLVANIA

015 INTERNATIONAL BUILDING CODE W/ PA IHA AMENDMENTS

2015 INTERNATIONAL MECHANICAL CODE 015 INTERNATIONAL PLUMBING CODE

015 INTERNATIONAL ENERGY CONSERVATION CODE

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THREE STORY APARTMENT BUILDINGS I-P84593 (CORE UNIT), ON-P84742 (END UNIT)

C DRAWINGS ARE PROPERTY OF PROFESSIONAL BUILDING SYSTEMS, INC. AND SHALL BE REPRODUCED AND OR COPIED WITHOUT AUTHORIZATION. MIL BE CONSIDERED AS A SUB-CONTRACTOR IN ALL BUILDING PROJECTS, LYING A BUILDING COMPONENT TO A OBJERAL CONTRACTOR OR BUILDER. ALL S MITH REFERENCE TO "NI-PELLO", "On-STEE" OR "BY BUILDER" ARE PERTAINING THE PERFORMBLITIES OF THE COMERAL CONTRACTOR. APPLICANT SHALL SUBMIT A MINIMUM OF (3) SETS OF BUILDING MENTS FOR THE UNIT BEING SUBMITTED WITH SEAL OF THE ETS OF PERTINENT SET UP INSTRUCTIONS SHALL BE SUBMITTED BY 1 AS SIRVIG.

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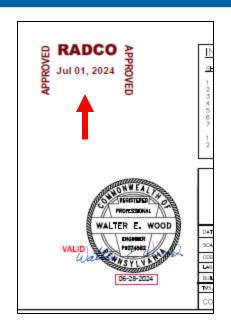
MANDATORY FOR THE BUILDER TO COMPLETE THIS HOME IN COMPLIANCE
HE INTERNATIONAL BUILDING CODE REQUIREMENTS ADDITIONAL SITE WORK

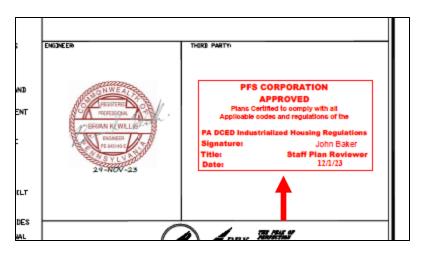
DAVID R TOMPOS ENGINEER No. 074686 Jul 03, 2019

DCED / TPA Approvals

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> succeed











If a problem is found.....

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".....and there's an issue with the ADA toilets in the restrooms, that was done at the factory."



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§ 403.45. Inspections.

(c) The permit holder or an authorized agent shall notify the construction code official when work is ready for inspection and provide access for the inspection. The work shall remain accessible and exposed for inspection. A construction code official may inspect the construction and equipment only during normal hours at the construction site unless the permit holder or agent requests or agrees to another time. Inspections may be conducted under § 403.86 (relating to right of entry to inspect).

Accessible and exposed for inspection is not applicable to *offsite* construction, but only to onsite construction and connections.



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§ 403.85. Release, retention and sharing of commercial construction records.

(a) A building code official shall keep records of all applications received, permits issued, reviewed building plans and specifications, certificates issued, fees collected, reports of inspections, notices and orders issued for all commercial buildings and structures under the Uniform Construction Code. A building code official shall retain these records as long as the related building, structure or equipment remains in existence.

DCED is the repository of the building plans and specifications for review, construction, and inspection of anything occurring *offsite*. The code official *shall* retain all other records including applications, review, and inspection reports for this building at a particular location for as long as it remains in existence. There is no change to the retention of records requirement, just that DCED will retain records that are related to the "industrialized" portions.



DCED's Role

- Enable the industry to design and construct to a uniform standard
- Provide assurance that off site construction follows an approved quality assurance program (production facilities)
 - ✓ Including plan review and inspection
 - With mechanisms to address problem
- Consumers and public protected through continual monitoring
- Provides for monitoring of QA program on <u>behalf of the local code officials!</u>
- Provides for continuity and cooperation with other Commonwealth agencies.

Cooperation!

- UCC relies on DCED's programs to assure compliance off-site.
- DCED relies on the UCC to assure compliance on-site.





Appropriate Use

Industrialized housing is One & Two Family Dwellings, Townhouses and other construction under Use Group R

Industrialized <u>buildings</u> used for other than Group R.



Industrialized Housing and Buildings

DCED establishes building code

- The current IRC and / or IBC
 - Generally consistent with UCC (different timeframe)
 - Local amendments may be recognized per §145.45 (buildings included)
- Provides mechanisms for building plan review and inspections
 - Through independent third-party agencies
 - DCED provides oversight
- Dialogue with local municipalities



Limitations of the Programs

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- Limited to <u>CERTIFIED/NEW INDUSTRIALIZED</u> HOMES and BUILDINGS to first purchaser.
- Limited to initial location of the home.
- In all cases, rely on cooperation with local code enforcement.
- No special consideration for land lease communities.
- Any aspect not addressed in these programs, must follow UCC.



No Regulatory Program for...

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- Relocated commercial modular buildings
- Seasona
 Tiny Hone
- "Shed Home" Shipping Container





No Regulatory Program for...

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Park Models –
Constructed to ANSI 119.5

Tiny Homes – Constructed to?



Shipping Containers

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Shipping Containers

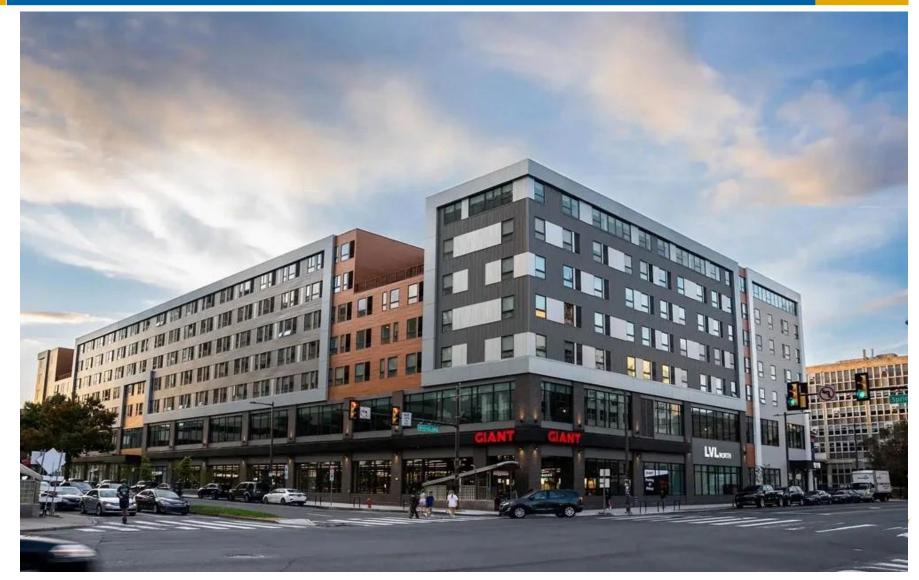
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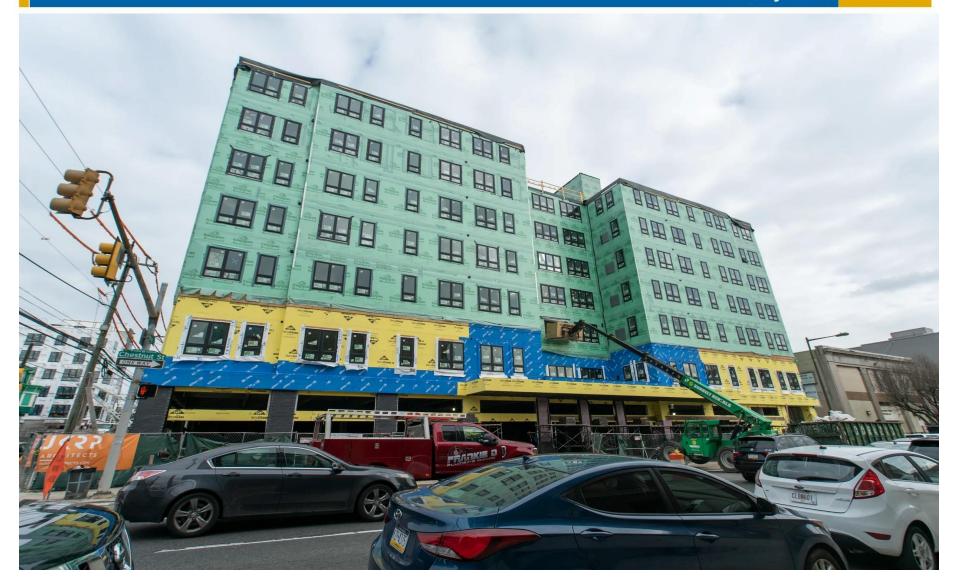
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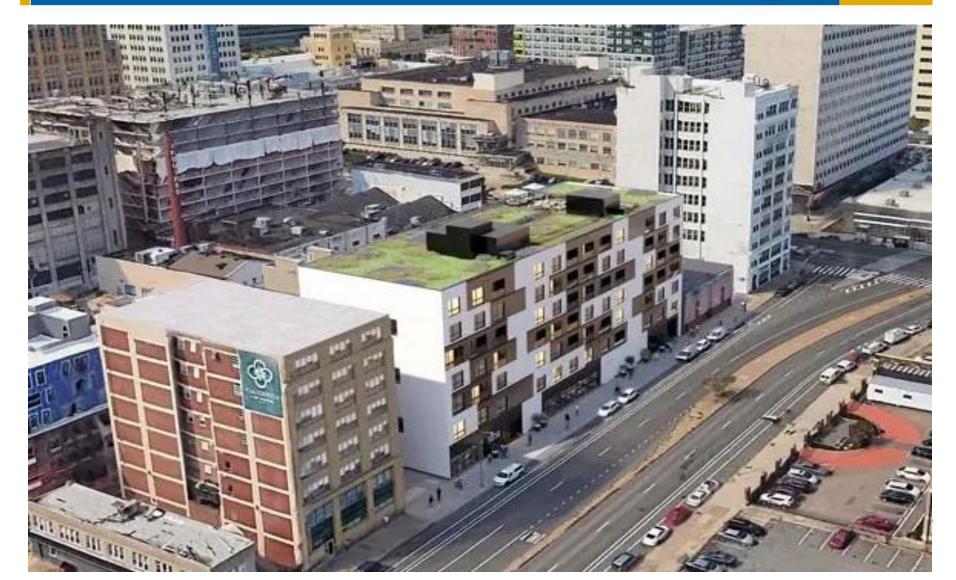
Although the 2021 IRC and IBC address the use of Intermodal Shipping Containers, the shipping container is "repurposed", therefore DCED will NOT approve the use of repurposed shipping containers.

These sections provide local officials additional information.





















Uniform Construction Code

UCC Regulations §403.25

<u>Industrialized Housing</u> – The UCC applies to:

- Site preparation
- Foundation construction
- Utility connection
- Construction, alteration, repair after delivery
- Construction, alteration, repair or change of occupancy if resold or relocated
 pennsylval

Uniform Construction Code

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For example, regarding <u>Industrialized Housing</u> the UCC applies to:

- Soil issues
 - Frost heave protection, bearing capacity, site grading...
- Basement/Masonry crawl space design/construction
- Connection to utilities
- After market alterations



Industrialized Housing Adopted Standards/Codes

- DCED has full authority and responsibility to establish the standard
 - Current version of the International Codes (2018)
 - Generally, the same as UCC
 - Local amendments per §145.45
 - Local enforcement agency to propose to DCED to adopt municipal amendments
 - Disputes (regarding building code) channeled through DCED per §145.36



Industrialized Housing Adopted Standards/Codes

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PA UCC anticipates to "go live" with the 2021 I-Codes on January 1, 2026.

DCED anticipates to enforce the 2021 I-Codes in all new construction beginning June 1, 2026.



- Required documents specific to the Industrialized home:
 - Current "Notice of Approval"
 - Blank "Site Installation Inspection Form"
 - Approved manufacturer installation instructions/design
- Permits should identify the home as INDUSTRIALIZED.

KEEP IN MIND – INDUSTRIALIZED MODULAR HOMES ARE REAL ESTATE!



Permitting

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Notice of Approval

- Annually issued to approved manufacturers.
- IH Regulations require this notice to be provided to BCO at permit application time [§145.82(a)].

20XX - NOTICE OF APPROVAL

This notice serves to inform all interested parties that the following manufacturer of industrialized housing or housing components is approved consistent with the Pennsylvania Industrialized Housing Act (the Act). This notice is issued after the manufacturer's building systems documentation and compliance assurance program has undergone evaluation and continued monitoring by third party evaluation and inspection agencies as provided for in the Act. Having satisfied the requirements provided for in the Act, the following manufacturer may affix the appropriate insignia of certification for homes and/or components produced under this program.

Manufacturer's Name: Manufacturer, Inc

1234 Main Street Anytown, PA 12345

Approval Summary & Limitations: One & Two Family Dwellings and Townhouses (IRC),

Residential Group R. (IBC)

Evaluation Agency: PFS
Inspection Agency: PFS

Expiration Date: December 31, 20XX

A copy of this notice should accompany all installation instructions, as well as the site installation inspection report form and any other documents submitted as a part of the building permit application process. The approval identified above is limited to the construction that takes place in the factory. Site related work, including installation, is to be inspected by the Construction Code Official, consistent with the submitted installation instructions, where applicable. The presence of the insignia of certification shall be presumptive evidence that the modules or components produced in the factory compty with the provisions of the Pennsylvania Industrialized Housing Act and are deemed to compty with locally enacted building codes. If the code official believes that there is a failure to comply with the building code of reference, information in this regard must be channeled through this office for review and determination.

This notice of approval is NOT applicable to manufactured housing subject to the provisions of the Manufactured Housing Construction and Safety Standards Act (please see the exclusion note on the data plate in the home).

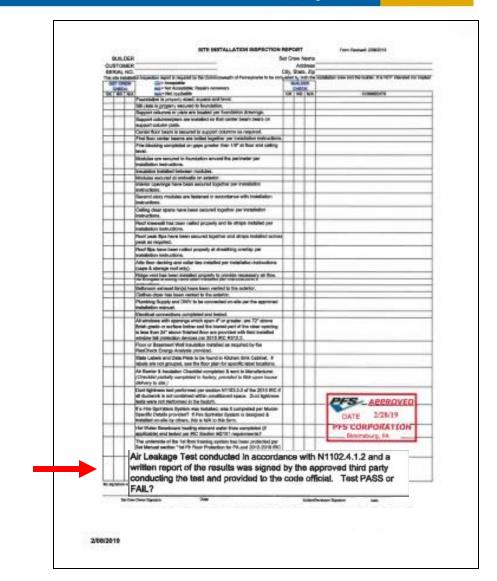
Permitting

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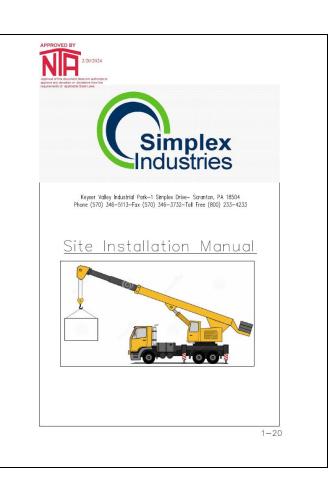
Site Installation Inspection Form

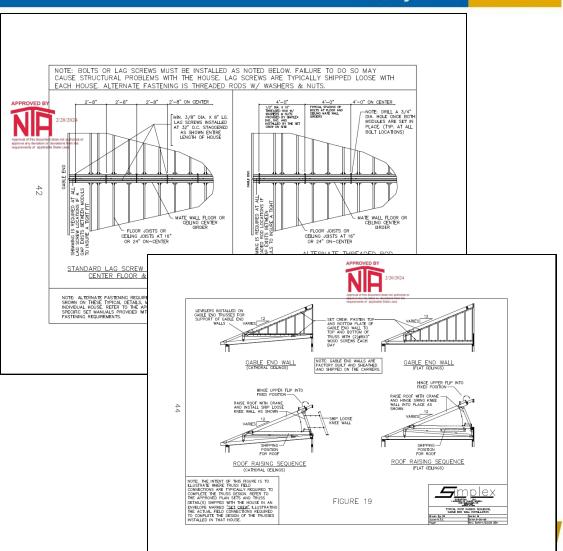
- A tool for builders and code officials to identify important on-site construction requirements.
- Key issues: <u>air leakage test</u>, window sill height/guards, floor insulation, fire sprinklers, etc.



Permitting

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Commonwealth Approved Industrialized Housing Evaluation & Inspection Agencies

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- Evaluation Agency stamp is evidence of plan review for compliance with applicable standard in effect at date of manufacturer.
 - See data plate
- Local Plan review for:
 - Plot plan
 - Details for decks, garages, porches, etc.
 - Any work beyond the Industrialized Home and installation



Industrialized Housing Identification

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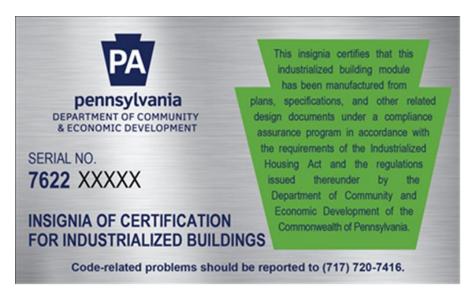






INDUSTRIALIZED HOUSING





INDUSTRIALIZED BUILDING



INDUSTRIALIZED HOUSING COMPONENT

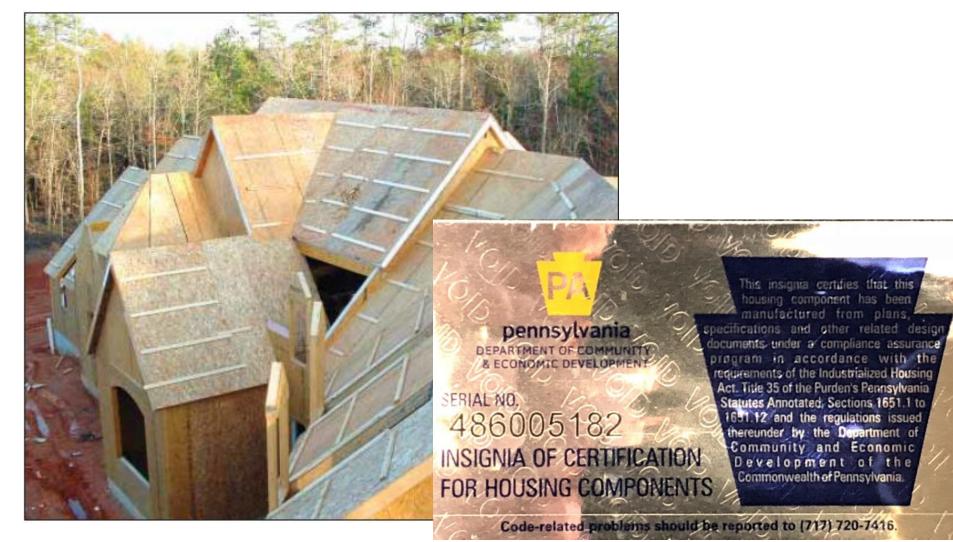
INDUSTRIALIZED BUILDING COMPONENT

Industrialized SIP's

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Structural Insulated Panels









ES Evaluation Report

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Page 12 of 12



ICC-ES Evaluation Report



ESR-4696

Reissued April 2023

This report is subject to renewal April 2024.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 06 00 00-WOOD, PLASTICS, AND COMPOSITES Section: 06 12 00-Structural Panels

REPORT HOLDER:

THE MURUS COMPANY, INC.

EVALUATION SUBJECT:

STRUCTURAL INSULATED PANELS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018 and 2015 International Building Code® (IBC)
- 2018 and 2015 International Residential Code® (IRC)

Property evaluated:

Structural

2.0 USES 2.1 General:

Structural Insulated Panels are used as structural insulated

roof and wall panels capable of resisting transverse, axial and in-plane shear loads.

2.2 Construction Types:

Structural Insulated Panels shall be considered combustible building elements when determining the construction type in accordance with IBC Chapter 6.

2.3 Fire Resistive Assemblies

Structural Insulated Panels shall not be used as part of a fire-rated assembly unless suitable evidence and details are submitted and approved by the authority having jurisdiction.

3.0 DESCRIPTION

3.1 General:

Structural Insulated Panels are factory-assembled engineered-wood-faced, structural insulated panels (SIPs) with an expanded polystyrene (EPS) foam core. The product is intended for use as load-bearing or non-loadbearing wall and roof panels. Structural Insulated Panels are available in 45/s-inch (117.5 mm) through 15-inch (381 mm) overall thicknesses and are custom-made to the specifications for each use. The maximum product size is 8 feet (2438 mm) wide and up to 24 feet (7315 mm) in

3.2 Materials:

3.2.1 Facing: The facing consists of two single-ply oriented strand board (OSB) facings a minimum of 7/16-inchthick (11.1 mm) conforming to the properties shown in Table

- 3. Additionally, facing materials shall conform to DOC PS 2, Exposure 1, Rated Sheathing with a span index of 24/16. Panels may be manufactured with the facing strength axis oriented in either direction with respect to the direction of product bending provided the appropriate design values are
- 3.2.2 Core: The core material is EPS foam plastic insulation conforming to ASTM C578, Type I. The foam core, up to 4-inch (101.6 mm) thickness, has a flame spread rating not exceeding 75 and a smoke-developed rating not exceeding 450 when tested in accordance with ASTM E84. Cores used in structural insulated panels up to 15 inches (381 mm) thick, comply with IBC Section 2603.3
- 3.2.3 Adhesive: Facing materials are adhered to the core material using a thin-film adhesive. The adhesive is applied during the lamination process in accordance with the inplant quality system documentation
- 3.2.4 Material Sources: The facing, core and adhesive used in the construction of Structural Insulated Panels must be materials from approved sources as identified in the inplant quality system documentation. A list of material suppliers is provided in Table 16.
- 3.2.5 Splines: Structural Insulated Panels are interconnected with surface splines, block splines, or I-joists (Figure 1). Connections using dimensional lumber splines or engineered structural splines not specifically addressed in this report must be designed in accordance with accepted engineering practice to meet applicable code requirements.
- 3.2.5.1 Surface Splines: Surface splines (Figure 1) consist of 3-inch-wide (76.2 mm) by 7/16-inch-thick (11.1 mm) or thicker OSB. At each panel joint, one surface spline is inserted into each of two tight-fitting slots in the core. The slots in the core are located just inside the facing.
- 3.2.5.2 Block Splines: Block splines (Figure 1) are manufactured in the same manner as the SIP except with an overall thickness that is 1 inch (25.4 mm) less than the overall thickness of the panels to be joined.
- 3.2.5.3 I-Joist Splines: Structural capacities for prefabricated wood I-joists splines (Figure 1) shall be established and monitored in accordance with ASTM D5055 with properties equal to or greater than those shown in Table 4. The overall depth of the joist is 1 inch (25.4 mm) less than the overall thickness of the panels to be joined.

4.0 DESIGN AND INSTALLATION

4.1.1 Overall Structural System: The scope of this report is limited to the evaluation of the SIP component. Panel

ESR-4696 | Most Widely Accepted and Trusted

FIGURE 1-SIP SPLINE TYPES

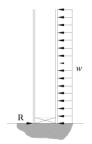
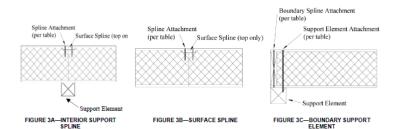


FIGURE 2—ZERO BEARING SUPPORT



ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an enhormment of the subject of the report or a recommendation for its use. There is no warrancy by ICC Evaluation Service, ILC, express or implied, as to any finding or other matter in this report, or as to any product convert by the report.



Procedural Change!

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> succeed

SIP manufacturers who construct these components and have an evaluation report verifying compliance to the applicable (local) codes by an ISO / IEC 17065 accredited agency, the component will no longer fall under the DCED industrialized program and will not be required to receive a DCED insignia of certification. The local design professional will need to include the evaluation report with their designs (similar to an engineered roof truss) and obtain a licensed Pennsylvania engineer seal, like a typical site-built structure, acceptable to the local authority having jurisdiction.
Therefore, these products will not fall under the exemption of the Pennsylvania Uniform Construction Code (PA UCC).



TO: PENNSYLVANIA APPROVED THIRD-PARTY AGENCIES

FROM: MICHAEL MOGLIA, CHIEF, HOUSING & BUILDINGS STANDARDS 100

DIVISION, PA DCED

SUBJECT: CERTIFICATION OF STRUCTURAL INSULATED PANEL

COMPONENTS (SIPS)

DATE: 8/29/2024

This memorandum is being sent to provide clarification of the certification requirements for Structural Insulated Panels (SIPs), when constructed as a component.

The Pennsylvania industrialized housing act initially included the approval and certification of structural insulated panel components as there were no alternative evaluation or inspection processes that were provided to assure compliance to the applicable building codes. Currently manufacturers of these types of products are now being evaluated and inspected by agencies with an ISO (International Organization for Standardization) / IEC (International Electrotechnical Commission) accorditation.

As a result, the Pennsylvania Department of Community and Economic Development has made a procedural change regarding the certification of SIP components falling under the DCED Program.

SIP manufacturers who construct these components and have an evaluation report verifying compliance to the applicable (local) codes by an ISO / IEC 17065 accredited agency, the component will no longer fall under the DCED industrialized program and will not be required to receive a DCED insignia of certification. The local design professional will need to include the evaluation report with their designs (similar to an engineered roof truss) and obtain a licensed Pennsylvania engineer seal, like a typical site-built structure, acceptable to the local authority having jurisdiction. Therefore, these products will not fall under the exemption of the Pennsylvania Uniform Construction Code (PA UCC).

PLEASE NOTE: If a manufacturer of structural insulated panels (SIPs) designs and constructs an entire structure, residential or commercial, the manufacturer will continue to fall under the authority of the PA industrialized housing act and will be required to be evaluated and inspected by the DCED third-party agency and apply the appropriate DCED insignia of certification and will remain exempt under the PA UCC.

This information is being also provided to Pennsylvania code officials.

As always, should you have any questions feel free to contact me at 717-720-7416 or by email: mmoplia@pa.gov.

Industrialized "Pod Units"

> ready > set

> succeed





pennsylvania

DEPARTMENT OF COMMUNITY & ECONOMIC DEVELOPMENT

SERIAL NO.

8500 XXXXX

INSIGNIA OF CERTIFICATION FOR INDUSTRIALIZED BUILDING COMPONENTS

This insignia certifies that this industrialized building component has been manufactured from plans, specifications, and other related design documents under a compliance assurance program in accordance with the requirements of the Industrialized Housing Act and the regulations issued thereunder by the Department of Community and Economic Development of the Commonwealth of Pennsylvania.

Code-related problems should be reported to (717) 720-7416.



pennsylvania

DEPARTMENT OF COMMUNITY & ECONOMIC DEVELOPMENT

SERIAL NO.

48600 XXXX

INSIGNIA OF CERTIFICATION FOR HOUSING COMPONENTS

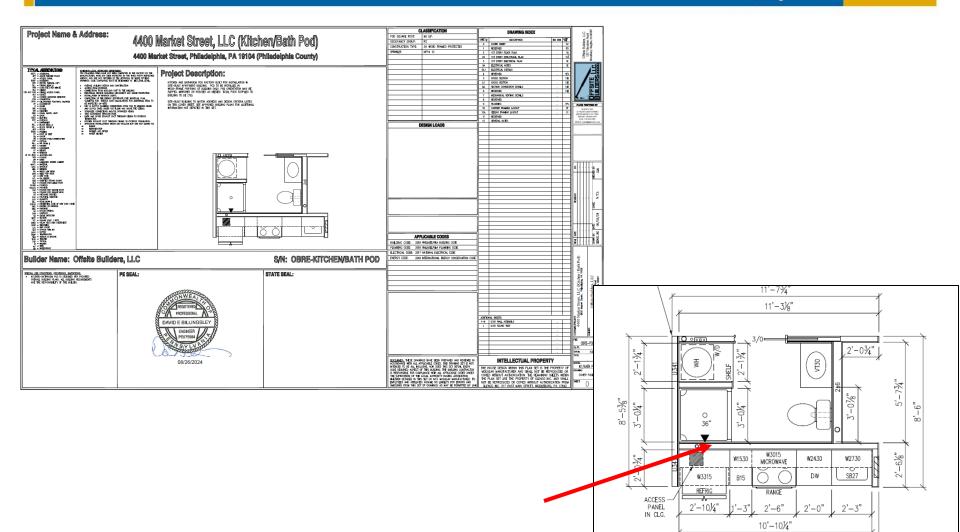
This insignia certifies that this housing component has been manufactured from plans, specifications, and other related design documents under a compliance assurance program in accordance with the requirements of the Industrialized Housing Act. Title 35 of the Purden's Pennsylvania Statutes Annotated Sections 1651.1 to 1651.12 and the regulations issued thereunder by the Department of Community and Economic Development of the Commonwealth of Pennsylvania.

Code-related problems should be reported to (717) 720-7416.

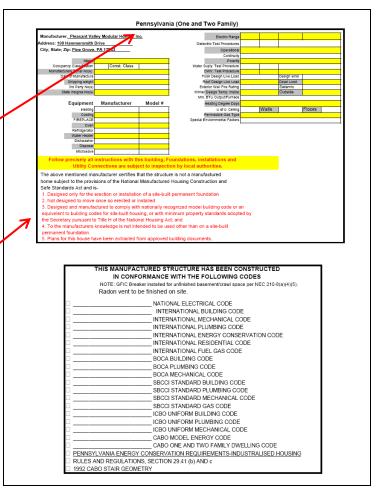
Industrialized "Pod Units"

> ready > set > succeed

11'-3"



- Inspections inside the home
 - Data Plate
 - Pennsylvania approval
 - Specific instructions
 - Exclusion language





- Inspections to the designs provided for permit application
- Completed "Site Installation Inspection Form"
- In the event that a manufacturing defect is observed, inform DCED
 - Possible other homes are affected
 - May indicate breakdown in QA or inspection process
- Only the manufacturer can authorize the repair
 - Unauthorized repairs can void homeowner's warranty/protections



Modification of Industrialized Housing

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- Until "Certificate of Occupancy" is issued by AHJ, industrialized (modular) housing may NOT be modified unless the modification is approved in advance by manufacturer.
- After the AHJ issues a "Certificate of Occupancy" the industrialized home may be modified subject to local enforcement of the UCC.
 - Industrialized housing designed and constructed to model building codes



Industrialized Commercial Buildings



Industrialized Commercial Buildings

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> succeed

Act 13 of 2009 – amended the Industrialized Housing Act to include Industrialized Commercial Buildings and Building Components

Program was to begin in November 2017 but was delayed.

- ✓ DCED implemented these regulations on February 22, 2023, published in the Pennsylvania Bulletin.
- Phase In Period Ended December 31, 2023.
- ✓ As of January 1, 2024, all industrialized (off-site) commercial buildings must be certified under the PA DCED Program.

PROGRAM MIRRORS HOUSING PROGRAM!



Commonwealth Approved Industrialized Buildings Evaluation & Inspection Agencies

> ready > set

> succeed







T.R. ARNOLD & ASSOCIATES, INC.

Engineering
 Plan Review
 Inspection









Industrialized Housing and Buildings:

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The PA Industrialized Housing Act at §145.81:

Local enforcement agencies shall assist the Department in enforcing the Act at the time of installation in the jurisdiction of their local government in the following respects (a):

- 1. Site Inspections damage to the structure or other apparent nonconformities.
- 2. Site inspections of the installation consistent with those elements of installation addressed on the Site Installation Inspection Checklist.
- 3. Notifications to the Department for damage or nonconformities, "shall be channeled through the Department".
- 4. Notification to the Department of any violation of the IHA or a structure that does not bear the required insignia.
- 5. Cooperation with the Department to remedy violations to prevent future occurrences.



Industrialized Housing and Buildings

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The PA Industrialized Housing Act at §145.81:

(b) Site inspections of industrialized housing and housing components which a local enforcement agency performs under this chapter shall include, and be limited to, any type of visual exterior inspection and monitoring of tests performed by other persons during installation in accordance with the installation requirements in the Building System Approval Report. Destructive disassembly of the industrialized housing, housing components, industrialized buildings or building components may not be performed, and nondestructive disassembly may not be performed in the course of an inspection except to the extent of opening access panels and cover plates.



Industrialized Housing and Buildings:

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The PA Industrialized Housing Act at §145.82:

(b) The local enforcement agency may not withhold the issuance of a building permit for certified industrialized housing or a housing structure in which will be installed certified housing components, industrialized buildings or structures containing industrialized building components if the applicant submits the documents required by this section, and the application for a building permit complies with applicable locally-enacted codes and ordinances with regard to set-up and site details, and land use.



Industrialized Housing and Buildings:

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The PA Industrialized Housing Act at §145.83:

The local enforcement agency may not withhold the issuance of a certificate of occupancy or other similar permit for certified industrialized housing or a housing structure in which has been installed certified housing components, industrialized buildings or structures containing building components if the properly completed Site Installation Inspection Checklist is submitted and the structure was constructed and installed on the site under a validly issued building permit and in other respects complies with applicable locally-enacted codes and ordinances not pre-empted by the act and this chapter.



Notice of Approval & Site Checklist

> ready > set > succeed



2025 - NOTICE OF APPROVAL

This notice serves to inform all interested parties that the following manufacturer of industrialized housing, housing components, industrialized buildings and building components is approved consistent with the Pennsylvania Industrialized Housing Act (the Act). This notice is issued after the manufacturer's building systems documentation and compliance assurance program has undergone evaluation and continued monitoring by third party evaluation and inspection agencies as provided for in the Act. Having satisfied the requirements provided for in the Act, the following manufacturer may affix the appropriate insignia of certification for homes and buildings produced under this program.

Champion Home Builders, Inc. - Div#270 Manufacturer's Name

> 451 Southern Avenue PO Box 269 Strattanville, PA 16258

One & Two Family Dwellings and Townhouses (IRC) Approval Summary & Limitations:

> Residential Group R (IBC) Commercial Buildings

Evaluation Agency: PFS TECO PFS TECO Inspection Agency:

Expiration Date: December 31, 2025

A copy of this notice must accompany all installation instructions, as well as the site installation inspection checklist and any other documents submitted as a part of the building permit application process. The approval identified above is limited to the construction that takes place in the factory. Site related work, including installation, is to be inspected by the Construction Code Official, consistent with the submitted installation instructions, where applicable. The presence of the insignia of certification shall be presumptive evidence that the modules or components produced in the factory comply with the provisions of the Pennsylvania Industrialized Housing Act and are deemed to comply with locally enacted building codes, if the code official believes that there is a failure to comply with the building code of reference, information in this regard must be channeled through this office for review and determination.

This notice of approval is NOT applicable to manufactured housing subject to the provisions of the Manufactured Housing Construction and Safety Standards Act (please see the exclusion note on the data plate in the home).

> Housing & Buildings Standards Division 400 North St., 4th Floor | Commonwealth Keystone Bldg. | Harrisburg, PA 17120-0225 mmoglia@pa.gov | 717.720-7416 | dced.pa.gov/mh

Owne	ers Name:	Phone No.
	Address:	
	Address:	
Municipa	lity:	County:
Comme	ercial Building Stats.	
Size of	Manufactured Unit: X	
Serial(s) # of Unit(s):	
Under	the Structure	
	Site is properly graded.	
	Ground moisture barrier is installed.	
	No holes or tears are present in the bottom board.	
	Skirting is properly installed.	
	Crawl space is properly ventilated.	
Exterio		
	rteer to tree treit damager	
	Roof ridge vent is installed correctly (if applicable).	
	Any penetration in the roof is properly sealed Siding is free from damage.	d.
_		
Interio		
	Ceilings, walls and floors are free from major defects. Windows operate properly.	
	Exterior/Interior doors operate properly.	
	Marriage line is properly sealed from air infiltration.	
System	s	
	Electrical fixtures operate	
_	properly (Operational / Polarity).	
	Water lines are free from defects (leaks).	
	Smoke alarms (if present) operate properly. Air leakage test per (2018 IECC) must meet	Section C402 5 requirements
	All rearrage test per (2010 ILCC) Must meet	Section 5-102.5 requirements.
ecord or her the pr Codes go acks prio	nave the authority of the owner of record to grant to operty and the Commercial unit, at any reasonal	
INSTALLER SIGNATURE:		DCED I.D.# DATE://
PRINT NA	ME (legibly):	Phone No.:
Address:		



Industrialized Commercial Buildings

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Industrialized Commercial Buildings

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Panelized Industrialized Commercial Buildings

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Multiple Manufacturers

> ready > set > succeed



Certify the internal components.



Relocatable (Fleet) Commercial Modulars

> ready > set



- These are typically treated as relocated or relocatable existing buildings or structures
- Chapter 13 of the 2018 International Existing Building Code would normally be the code provisions to comply with
- Because they were constructed at varying points in time, documentation should be required that they complied with the commercial codes in effect at the time of construction
- A majority of these units will contain insignias from multiple states.



Relocatable (Fleet) Commercial Modulars

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INSERT PHOTOS HERE OF DATA PLATE, THIRD PARTY INSPECTION STICKER, AND ANY OTHER STATE



"The national average is as many as 8 state labels/insignias, depending on the market in the US. When the unit returns from the first location, it will be quickly dispatched again, on another lease order. Units transfer routinely between states to fulfill lease orders."



Relocatable (Fleet) Commercial Modulars

- DCED Regulations: "Intended for sale, lease or installed in Pennsylvania"
- Presently DCED will not issue approval for fleet units when shipped to other states.
 - If initially shipped and sited in PA will be approved.
- These units have the possibility to be used in the state where shipped and after being used be brought into PA for use.
 - Manufacturer loses control of these units.
 - Possible alterations.



DIVISION WEBSITE

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Manufactured Housing

Commercial Modular Buildings

Manufactured Home Installer FAQ

COMMERCIAL MODULAR BUILDINGS DCED > Housing and Development > Commercial Modular Buildings

What are "Commercial Modular Buildings"?

UPCOMING TRAINING

Association of

Modular buildings are wholly or mostly made, constructed, fabricated or assermanufacturing facilities. These structures are then shipped to the destination and installation. Modular buildings do not include "manufactured homes" (for

Although modular buildings are primarily designed for residential use, there a which the buildings are used for commercial purposes.

Approved Manufacturers

DCED has issued the Pennsylvania Notice of Approval to each of the listed manufacturers of industrialized housing, housing components industrialized buildings or building components that indicates the approval of the manufacturer's building systems documentation, compliance assurance program and the authority to receive and attach insignlas of certification.

This list identifies the limitations of each manufacturers approval, (residential, commercial or both) as noted on the Notice of Approva

What is DCED's role regarding commercial modular buildings?

The PA Department of Community & Economic Development (DCED) regulations establish a program for modular buildings "Industrialized" that are intended to be used for non-residential purposes. Every modular building and building component constructed for placement in the Commonwealth of Pennsylvania will be certified and bear the Pennsylvania Insignia of Certification (shown below), as well as the insignia of the





IMPORTANT INFORMATION REGARDING THE PA MANUFACTURED HOUSING PROGRAM AND THE INSTALLATION OF NEW AND RELOCATED MANUFACTURED HOMES.

DCED > Housing and Development > Manufactured Housing

DCED works in cooperation with the US Dept. of Housing & Urban Development (HUD) and municipal code officials to assure all manufactured homes installed in Pennsylvania comply with all applicable requirements. HUD establishes the construction standards and enforcement regulations for new manufactured homes, as the State Administrative Agency, DCED enforces these requirements in the Commonwealth of Pennsylvania. HUD also administers a Dispute Resolution Program (*) to assist the industry in resolving certain issues.

DCED handles all consumer complaints for new manufactured homes and establishes habitability and installation standards for relocated manufactured homes

For more information about factory built structures in Pennsylvania, please email us.





DIVISION WEBSITE

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https://dced.pa.gov/housing-and-development/

Additional information is now posted on the website:

- All contracted Third-Party Agency Contact Information (Residential & Commercial)
- 2. All Approved Manufacturers for both Industrialized Residential & Commercial.

Coming Soon:

- Instructions how to use installation manuals.
- 2. Code Official Resources / FAQ's



DIVISION WEBSITE

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MANUFACTURER	CITY	STATE	APPROVED FOR
ACME Panel Company	Radford	VA	Residential / Commercial
Adventure Homes	Garrett	IN	Residential
Apex Homes	Middleburg	PA	Residential / Commercial
Buckhorn Builders, Inc.	Millersbug	OH	Residential
Champion Home Builders, #7	Claysburg	A	sidential / Commercial
CHampion Home Builders, #270	Strattanville	A	Residential / Commercial
Champion Modular, Inc. #41	Liverpe	PA	Residential / Commercial
Chanpion Skyline Corporation #231	Su rcre	ОН	Residential
CMH Mfg, dba Marlette/Schult	Le	PA	Residential
Colony Crafted Homes	penville	PA	Residential / Commercial
Commodore Homes	Shippenville	PA	Residential / Commercial
Cozy Cabins	New Holland	PA	Residential
Durabult Homes	Selinsgrove	PA	Residential
Eagle River Homes	Leola	PA	Residential
Energy Panel Structures	Graettinger	IA	Residential / Commercial / Panelized
Esh Construction dba Modern Country Homes	Newville	PA	Residential
Fischer SIP's	Lousiville	KY	Residential / Panelized



Contact Information

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Mike Moglia, Chief

717-720-7416 mmoglia@pa.gov

