



## Group Home New Construction

*Presented by  
Timothy Baldwin*

*Fire Chief Ct Department of Developmental  
Disabilities*

*DFM- Towns of Southbury and Middlebury*

*Office of Education and Data  
Management*

*Spring 2016 Career Development Series*

---

---

---

---

---

---

---

---

## Group Home New Construction

- ▶ Introduction
- ▶ Instructor info
- ▶ Agency info



---

---

---

---

---

---

---

---

## Group Home New Construction

- ▶ What this program is going to cover
  - 2005 code compliant new construction
  - The next code cycle code development
  - Fire Prevention Code
  - DDS initiatives
- ▶ What is it not going to cover
  - Existing



---

---

---

---

---

---

---

---

## Services for Intellectual Disabilities

- ▶ Historic perspective
  - Almost always Institutional setting
  - Connecticut
    - Mansfield Training School
    - Southbury Training School
    - Regional Centers



---

---

---

---

---

---

---

---

## Services for Intellectual Disabilities

- ▶ Historically less than favorable conditions
  - Willowbrook: "The Last Disgrace" by Heraldo Rivera, 1972
  - "Are We Gambling with our Retarded Citizens Lives" Fire Journal 1985 (Chief Michael DJ Skurat)



---

---

---

---

---

---

---

---

## Services for Intellectual Disabilities

- ▶ This generated a call for code changes from the traditional "boarding homes" at the time
  - "Certified" as capable of self preservation
  - Multiple Death fires
  - Inadequate exits
  - Combustible interior finish
  - Unenclosed stairs, lack of staff training
  - Lack of protection systems

---

---

---

---

---

---

---

---

## Services for Intellectual Disabilities

- ▶ Residential Board and Care
  - In response to the need for code changes
  - Evacuation Scores
    - Home
    - Staff
    - Resident capabilities
  - Assigned Level
    - Prompt
    - Slow
    - Impractical



---

---

---

---

---

---

---

---

## Fire History

- ▶ The Fire Problem
  - Historically high incident of multiple death fires
  - Area of origins
    - Cooking
    - Smoking
    - Intentional
    - Clothes washer and dryers
    - Heating equipment



---

---

---

---

---

---

---

---

- ▶ The Fire Problem
- ▶ In Connecticut
  - Two deaths in one setting
  - Origin and Cause never confirmed
    - Heavy review of cooking equipment
  - Intentionally set fire
    - Sleeping room
    - No injuries
    - Equipment failed



---

---

---

---

---

---

---

---

- ▶ How do we know we have a “group home” that falls under the code?
  - How many people are living there?
  - What is their evacuation capability?
  - Nursing Care, Custodial Care?



---

---

---

---

---

---

---

---

- ▶ So..... we have three people living here....
- ▶ Some are getting nursing care
- ▶ Some may not be capable of self preservation
- ▶ What am I?



---

---

---

---

---

---

---

---

- ▶ But they want to put a sprinkler system in, are you sure?
- ▶ They may have reasons why
  - Licensing
  - Future development (not so much any more)



---

---

---

---

---

---

---

---

- ▶ Generally speaking, IRC
- ▶ R-3
- ▶ How can we be sure it remains in this threshold?
  - DDS licensing
  - Other agencies may not have the oversight as DDS does

---

---

---

---

---

---

---

---

- ▶ So what is it that we have here?



---

---

---

---

---

---

---

---

- ▶ DDS desire
  - I-2
  - R-4's have been problematic

---

---

---

---

---

---

---

---

## Definitions

- ▶ Boarding House
- ▶ Community Training Homes
- ▶ Group Home Personal Care Services
- ▶ Custodial Care
- ▶ Nursing Home
- ▶ Incapable of Self Preservation
  - 2012 ICC definition
  - 2005 (2003 ICC definition)



---

---

---

---

---

---

---

---

## Definitions worth discussing

- **Boarding House**: A building arranged or used for lodging for compensation, with or without meals and not occupied as a single family unit
- DDS term: **Community Training Homes** –does not quite meet it
- Use Group
  - R-1 when not more than 30 days
  - R-2 when they stay more than 30 days



---

---

---

---

---

---

---

---

- **Group Home**
  - "A facility for social rehabilitation, substance abuse or mental health problems that contains a group housing arrangement that provides custodial care but does not provide acute care"
  - I-1 and R-4 lists Group Homes under their sections of the code
  - However– Capable of Self Preservation? If so, how about 5 years from now? What then?



---

---

---

---

---

---

---

---

◦ **Personal Care Services**

- The care of persons who do not require medical care. Personal Care involves responsibility for the safety of the persons while inside the building



---

---

---

---

---

---

---

---

◦ **Custodial Care**

- Assistance with day to day living tasks; such as assistance with cooking, taking medication, bathing, using toilet facilities, and other tasks of daily living. Custodial Care include occupants who evacuate at a slower rate and/or who have mental and psychiatric complications
- I-1 or R-4 works....
- Sounds like we found the definition.... But what if they are incapable of self preservation?

---

---

---

---

---

---

---

---

◦ **Nursing Home**

- Facilities that provide care, including both intermediate care facilities and skilled nursing facilities where any of the persons are incapable of self preservation



---

---

---

---

---

---

---

---

▶ Incapable of Self Preservation

- 2012 ICC definition: Persons because of age, physical limitations, chemical dependency, mental limitations, or medical treatment who cannot respond as an individual to an emergency situation
- 2005 (2003 ICC) definition is different; (term- Self Preservation) "The occupants are capable of responding to an emergency situation without physical assistance"



---

---

---

---

---

---

---

---

**DDS Philosophy in New Home Development**

- ▶ An option to age in place, this is their home, in a regular home in a regular neighborhood
  - What happens when the 55 year old has a life changing medical condition that affects their ambulation ability?
  - Aging has an effect on ability of self preservation



---

---

---

---

---

---

---

---

- ▶ I-2 seems to work the best
- ▶ We do have some R-4 that pop up



---

---

---

---

---

---

---

---



## 2005 CT Code I-2 Use Group

- ▶ Why the I-2
  - Incapable of self preservation issue
  - Debates on how many that are incapable generates a use group change
  - As we proceed remember that this program is about Group Home development, not nursing homes.



---

---

---

---

---

---

---

---

## 2005 CT Codes

- ▶ Height and Area:
  - Remember that the developers are trying to have a regular home in a regular neighborhood, generally purchasing existing housing stock
  - Type V construction limited to V-A
  - V-B is not permitted



---

---

---

---

---

---

---

---

### ▶ Sprinkler Protection

- 407.12.1 (SBC) requires a NFPA 13 system to be installed (ref 903.3.1.1)
- Quick response or Residential heads
- The historical use of 13D or 13R is not referenced to be used.
- In neighborhoods that lack municipal water requires stored water, fire pump, generator



---

---

---

---

---

---

---

---

- ▶ Outside door or window
  - Required for every sleeping room



---

---

---

---

---

---

---

---

- ▶ Interior finish
  - Based on a sprinkler protected facility
  - Class B for all vertical exits, exit access corridors and other exit ways, as well as all rooms and exit passageways
  - Class C permitted in administrative areas and in rooms with a capacity of four or less
    - Sleeping room with less than four in the room, Class C okay

---

---

---

---

---

---

---

---

- ▶ Fire Alarm (SBC 907.2.6)
  - Manual fire alarm boxes are generally required at exits
    - Nursing station exemption applicable
  - Electrically Supervised
  - Smoke Detection
    - May not be required in the corridors
      - UL268 system with corridor visualization
      - Patient sleeping room doors with integral smoke detection
  - Emergency Forces Notification– Required 9.7.9.3



---

---

---

---

---

---

---

---

▶ Means of Egress

- Illumination required
- Emergency power illumination required
- Minimum door width 32" unless there is bed movement and then 41 1/2"
- Access controlled locks not permitted ( they may look for a mod)
- Delayed egress is permitted with all of the code requirements

---

---

---

---

---

---

---

---

▶ Means of Egress

- Ramps not permitted- sloped walkways (SBC 1022) for exterior



◦ \*\*

---

---

---

---

---

---

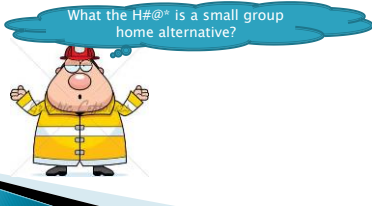
---

---

## What if it is a small home?

Current (2005 code) provides some relief to the developers for a small home

Ct SBC 407.12 "Small Group Home Alternative"



---

---

---

---

---

---

---

---

## Small Group Home Alternative

- ▶ A Group I-2 group home that serves four to six persons who are not capable of self preservation that comply with the alternative provisions..... shall be considered as code compliant
  
- ▶ What are these provisions?



---

---

---

---

---

---

---

---

- ▶ Automatic Sprinkler system provisions
  - Allows for the 13 D system
    - Key to developing a home in areas without municipal water
  - 30 minutes of water
  - All storage, habitable and occupiable rooms shall be sprinklered
  - Valves to be electrically supervised



---

---

---

---

---

---

---

---

- ▶ Height and Area- remains the same
- ▶ Construction type V-A plus interior walls to be covered with 5/8" type X gypsum board
- ▶ Sleeping room walls- Smoke Partitions
- ▶ Sleeping room doors- 20 minute and self closing or auto closing



---

---

---

---

---

---

---

---

- ▶ Means of Egress– in addition to Chapter 10, all client sleeping rooms shall have a door leading directly to the exterior at the level of exit discharge
- ▶ Exit signs may not be required
- ▶ Fire alarm compliant with the core components of I-2 plus single or multiple station detectors that are interconnected

---

---

---

---

---

---

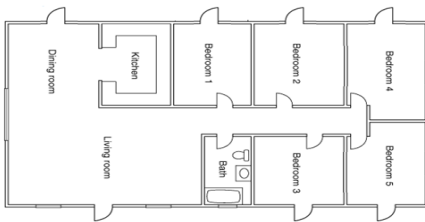
---

---



## Current Small Group Homes

### ▶ Current Code



---

---

---

---

---

---

---

---

### ▶ Problems encountered

- Difficult to take an existing home from the housing stock to create an I-2
  - Type V-A construction
  - NFPA 13 system
  - Construction costs close to 1 million for a home to serve 4 to 6 people

---

---

---

---

---

---

---

---



▶ Problems encountered

- Difficult to take and make a Small Group Home Alternative
  - Type V-A with the 5/8" Type X gypsum
    - Requires a demo of the entire house
  - Doors to the exterior from the sleeping rooms
    - Elopement issues
    - Square footage in the sleeping rooms required to be bigger due to two doors required
  - Inability to use ramps
    - Existing homes with a ramp required excessive landscaping to replace the ramps at times



---

---

---

---

---

---

---

---

▶ Problems encountered

- Attached garages- what do we do with them, 13D does not cover garages, it could be used for storage. Most garages are not candidates for single dry heads
- Finished basements



---

---

---

---

---

---

---

---

## Mod approach

- ▶ Modification created to address the problems
- Allowed for V-B construction
  - Created a smoke separation between the sleeping room areas and the rest of the house
  - No longer required door to exterior from each sleeping room but one from the corridor via a non lockable space and MoE windows
  - Attic protection
  - Attic access for emergency forces



---

---

---

---

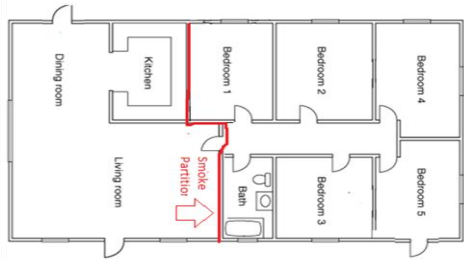
---

---

---

---

### Modified Small Group Home



---

---

---

---

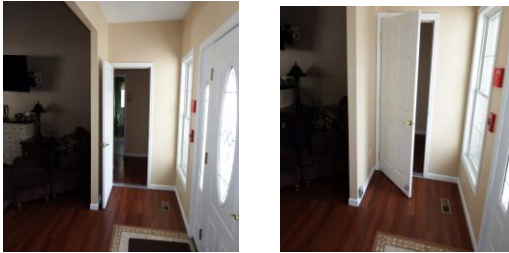
---

---

---

---

### Modified approach



---

---

---

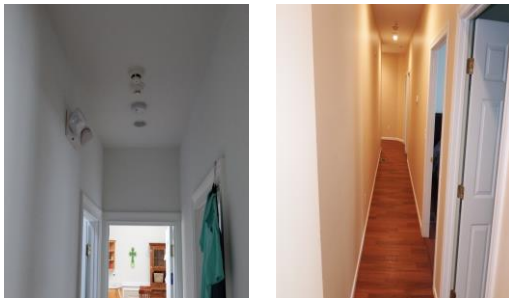
---

---

---

---

---



---

---

---

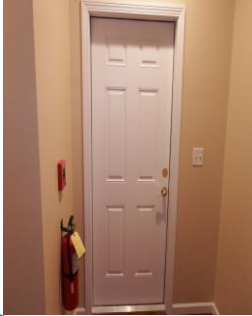
---

---

---

---

---



---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---

## 2012 ICC codes

- ▶ New Code
- ▶ 407.13 "Small I-2Homes"
  - Addressed many of the identified problems
  - Cleaned up some issues with the "mod" approach

5/12 illust. issue



---

---

---

---

---

---

---

---



## Next Code Cycle

- ▶ New "Small 1-2 Homes"
- ▶ Height and Area: Chapter 5 and 6 remain
- ▶ Type V-B is permitted



---

---

---

---

---

---

---

---

## Next Code Cycle

- ▶ Type V-B permitted when
  - Limited to a single story dwelling
  - Not more than 4500 square feet
  - Attic space is protected either by heat detection or sprinkler protection
  - And is connected to the building fire alarm system



---

---

---

---

---

---

---

---

## Next Code Cycle

- ▶ Door sizes
  - Minimum width of all doors shall provide a clear width of 34 inches
  - Measuring of the clear width of door ways with swinging doors shall be measured between the face of the door and the stop with the door open 90 degrees



---

---

---

---

---

---

---

---

## Next Code Cycle

- ▶ Door latches
  - Every door to closets, storage areas and other similar spaces need to be openable from the inside
  
  - Client sleeping room and bathroom doors- shall be designed to allow the opening from the inside and a opening device be accessible to the staff in an emergency



---

---

---

---

---

---

---

---

## Next Code Cycle

- ▶ Exterior Ramps
  - Will be permitted in accordance with section 1026 of the SBC
- ▶ Means of Escape-
  - In addition to Chapter 10, the sleeping rooms shall have means of escape windows- in accordance with SBC 1029



---

---

---

---

---

---

---

---

## Next Code Cycle

- ▶ Sleeping room walls
  - Smoke walls separating the room from the hallway and other habitable areas
    - Does not need to be continuous through a concealed space and through the ceiling



---

---

---

---

---

---

---

---

## Next Code Cycle

- ▶ Sleeping Area Separation
  - Requires a door to the exterior from the created "wing"
  - Door needs to be at the level of exit discharge
  - A smoke partition
  - Separates the sleeping rooms from the common areas
  - 20 minute door
  - Self closing or automatic closing

---

---

---

---

---

---

---

---



## Next Code Cycle

- ▶ Automatic fire sprinkler system
  - Enhanced 13D or 13R
    - 30 minutes of water minimum
    - Design area, 2 heads @ 13 gpm X 30 minutes
  - All storage, habitable and occupiable rooms



---

---

---

---

---

---

---

---

## Next Code Cycle

- ▶ Garage exception:
  - Unheated garages may be code compliant without sprinkler protection with
    - 1 hour resistive construction
    - 45 minute opening protection
    - Heat detection connected to the building fire alarm



---

---

---

---

---

---

---

---

- ▶ Laundry Rooms
  - Table 704 requirements
  - 100 sq. feet apply to the “footprint” of the appliances

---

---

---

---

---

---

---

---



## Next Code Cycle

- ▶ Fire Alarm and detection system
  - System required
  - Detection required
    - Smokes- all sleeping rooms and common spaces
    - EXCEPT kitchens and bathrooms
    - Heat Detection as required elsewhere in this section
      - Attic space, garages, etc...
- ▶ Carbon Monoxide
  - Battery operated okay

---

---

---

---

---

---

---

---



## Next Code Cycle

- ▶ Attic space access
  - Required
  - 36 X 36
  - Unless existing single family home, then 30 X 22



---

---

---

---

---

---

---

---

## Next Code Cycle

- ▶ Standby power
  - Required- standby only



---

---

---

---

---

---

---

---

## Operational Issues



---

---

---

---

---

---

---

---

## Operational issues, fire prevention code

- ▶ 13 D sprinkler systems (CSFPC 13.3.3.2.1)
  - Required for monthly maintenance
    - Visual for sprinkler obstruction
    - Valves are open
    - Air Pressure for dry systems
    - Water level

---

---

---

---

---

---

---

---

- ▶ 13D sprinkler systems cont'd
  - Required quarterly maintenance
    - Test all water flow alarms
    - Testing of alarm system
  - Damaged or painted heads....
- ▶ 13R- in accordance with NFPA 25



---

---

---

---

---

---

---

---

---

---

- ▶ Fire Extinguishers
  - Required- number determined by NFPA 10
  - DDS regulations require 2
    - Kitchen, Basement
  - Tags
    - Occasionally may be approached to remove the tags and place them with the fire plan



---

---

---

---

---

---

---

---

---

---

- ▶ Means of Egress
- ▶ Delayed egress locking
  - Unlocks for any of these conditions
    - Sprinkler activation
    - Not more than one heat detector
    - Not more than 2 smoke detectors
    - Loss of power



---

---

---

---

---

---

---

---

---

---

▶ Unlocking conditions cont'd

- Irreversible process unlocks within 15 seconds
  - With specific reqm'ts
  - Sounds a local alarm
  - Relocking has to be manually done
- Sign Requirements
  - "PUSH UNTIL ALARM SOUNDS, DOOR CAN BE OPENED IN 15 SECONDS"
  - The signage has been problematic at times
  - The locking mechanism as well



---

---

---

---

---

---

---

---

## Fire Plans (CSFPC 20.4 / 10.9)

### Evacuation and Relocation Plans

"The administration of every health care occupancy shall have in effect and available to all supervisory personnel written copies of a plan for the protection of all persons in the event of a fire, for their evacuation to areas of refuge and for their evacuation from the building when necessary"



---

---

---

---

---

---

---

---

## Fire Plans

- ▶ GIN 97-02
- ▶ The GIN talks about "for keeping persons in place"
- ▶ No "Areas of Refuge"
- ▶ Small 1-2 Home we cannot "defend in place"
- ▶ Conceptually a temporary action taken, aka "Staged Evacuation"



---

---

---

---

---

---

---

---

## Fire Plans

- ▶ Plan requirements (10.9.2)
  - Procedures for reporting of emergencies
  - Occupant and staff response to emergencies
  - Evac procedures appropriate to the home
  - Design and conduct of fire drills
  - Type and coverage of fire protection systems
  - Other items required by the AHJ

---

---

---

---

---

---

---

---

---

---



## Fire Plans

- ▶ Plan requirements (20.4.2.2.2)
  - Use of alarms
  - Transmission to the FD
  - Emergency Phone Call to the FD
  - Response to alarms
  - Isolation of Fires
  - Evacuation of immediate areas
  - Evacuation of smoke compartment
  - Prep for evacuation
  - Extinguishment

---

---

---

---

---

---

---

---

---

---



<http://www.ct.gov/dds/cwp/view.asp?a=12&q=440280>

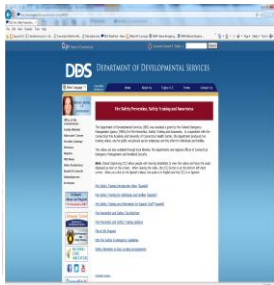


### Fire Safety and Emergency Guidelines



**DBS**

Revised March 2004  
Revised and Revised 1/10  
Revised August, 2008




---

---

---

---

---

---

---

---

---

---





## Fire Plans

- ▶ Can they perform to the fire plan?
  - What is the order of removal?
  - Does it meet the needs of the home and the people who live there?
  - Recent experiences
    - 3<sup>rd</sup> shift drill findings
    - FD arrival findings
    - Strict order of removal that does not meet the needs of the home



---

---

---

---

---

---

---

---

## Fire Plans

- ▶ “All employees shall be periodically instructed and kept informed with respect to their duties under the plan”
  - Does the drill report indicate compliance with the plan?
  - Recent findings staff did not know how to operate fire alarm panel for the drill-??????
  - New staff on a different shift?
  - DDS requires annual fire safety training
  - Drills are an opportunity for refresher on their plan



---

---

---

---

---

---

---

---

## Fire Plans- Drills

- ▶ Drills shall include the transmission of a fire alarm signal and simulation of emergency fire conditions
  - Improves drill times
  - Keeps training current
- ▶ Drills required to be quarterly on each shift



---

---

---

---

---

---

---

---

## Fire Plans- Drills

- ▶ IFC 2012-401.7
- ▶ “an unplanned evacuation may not substitute for a required drill”
- ▶ NOT APPLICABLE

---

---

---

---

---

---

---

---



## Fire Plans- Procedures in Case of Fire

- ▶ Fire Plan should reflect
- ▶ 1) Removal of those directly involved with the fire emergency
- ▶ 2) Transmission of the fire alarm
- ▶ 3) Confinement by closing doors
- ▶ 4) Relocation, staged evacuation, total evacuation.... Aka
- ▶ The RACE Plan

---

---

---

---

---

---

---

---



## Fire Plans- Smoking

- ▶ Required to have a regulation
  - Prohibition in areas of flammable liquids, combustible gasses, and oxygen with signage
  - Where building prohibits smoking- signage at major entrances
- Smoking by occupants classified as not responsible smoking shall be prohibited unless under direct supervision
- Noncombustible and safe ashtrays

---

---

---

---

---

---

---

---



### Other .....

- ▶ Rated curtains, traditional health care applications
- ▶ Combustible decoration prohibited except
  - Retardant/ treated, 701 approved etc.
  - Photos, paintings etc.. applied to walls ceilings and non rated doors shall
    - Not interfere with door latching
    - Less than 30% of the surface




---

---

---

---

---

---

---

---

### Other

- ▶ Linen and trash containers have requirements- 32 gallon size
- ▶ Clean waste and record recycling awaiting destruction limited to 96 gallon container
- ▶ Portable Space Heating Devices
  - Prohibited..... unless both of the following are met
  - Non sleeping staff and employee area
  - The heating element does not exceed 212 degrees




---

---

---

---

---

---

---

---

### Items that have been wrestled with

- ▶ Group Home (pre 2005= Res Board and Care)
  - Wants to add square footage for another sleeping room
  - Wants to perform interior renovations to repurpose the room to add a sleeping room
  - What does the design professional design to?




---

---

---

---

---

---

---

---

### Items that have been wrestled with

- ▶ Pre 2005 group home recently had a reduction in census to less than 4.
- ▶ It stays that way for a couple of years
- ▶ They have maintained the house for these two years in accordance with Part 4 and CFPC
- ▶ They now want to add two people to make it a five bed home
- ▶ Part 3 (I-2 or R-4) or Part 4 (Res B/C)



---

---

---

---

---

---

---

---

### Items that have been wrestled with

- ▶ Part 4 is acceptable
- ▶ DDS will be maintaining the licenses as a regulated structure



---

---

---

---

---

---

---

---

### Problems out there

- ▶ DDS is responsive to the safety concerns
- ▶ Quality Management, Licensing
- ▶ STS FD- in cooperation with the OSFM
  
- ▶ If we go out ( all hours, all shifts), the local FM is notified, follow up is provided
- ▶ Reports to QM, DDS Region, Provider, OSFM and AHJ as applicable



---

---

---

---

---

---

---

---

## Summary

- ▶ Extensive history
- ▶ 3 bed homes, single family, still presents with concerns but limited jurisdiction
- ▶ R-4 a possible answer for a home design
- ▶ DDS avoids due to the self preservation issue
- ▶ I-2
- ▶ I-2 Small Group Home Alternative
- ▶ I-2 SGHA mod
- ▶ NEW Small I-2 Home coming to a family of codes.... Some time soon



---

---

---

---

---

---

---

---

## Thank you

Timothy Baldwin  
Ct Department of Developmental Services  
Southbury Training School Fire Department  
PO BOX 872  
Southbury Ct 06488  
203-586-2638

[timothy.baldwin@ct.gov](mailto:timothy.baldwin@ct.gov)



---

---

---

---

---

---

---

---