



## MDH Issues and FGI Adoption

Benjamin Zwart | Health Care Engineer - Supervisor

- About Us
- Data on Projects Received
- Recent Changes on Plan Submittals
- Issues on Plan Reviews/Inspections
- FGI Adoption
- Common Tags from SFM survey

- **Engineering Services Section (Federal)**
  - Plan review and inspection of Health Care Facilities
    - Requirements beyond the building code
    - Hospitals, Nursing Homes, Ambulatory Surgery, SLF (ICFIID, MSOP), ESRD, PRTF, Others?
    - Our group does NOT do AL

- **Staff**
  - Myself
  - Fernando Nacionales
  - Rex Stromquist
  - Cathy Tran

## Contact Information

To find out more about the services provided, or to discuss any new or existing projects, please contact the Engineering Team by phone at 651-201-4200 or by email: [health.healthcareengineers@state.mn.us](mailto:health.healthcareengineers@state.mn.us)

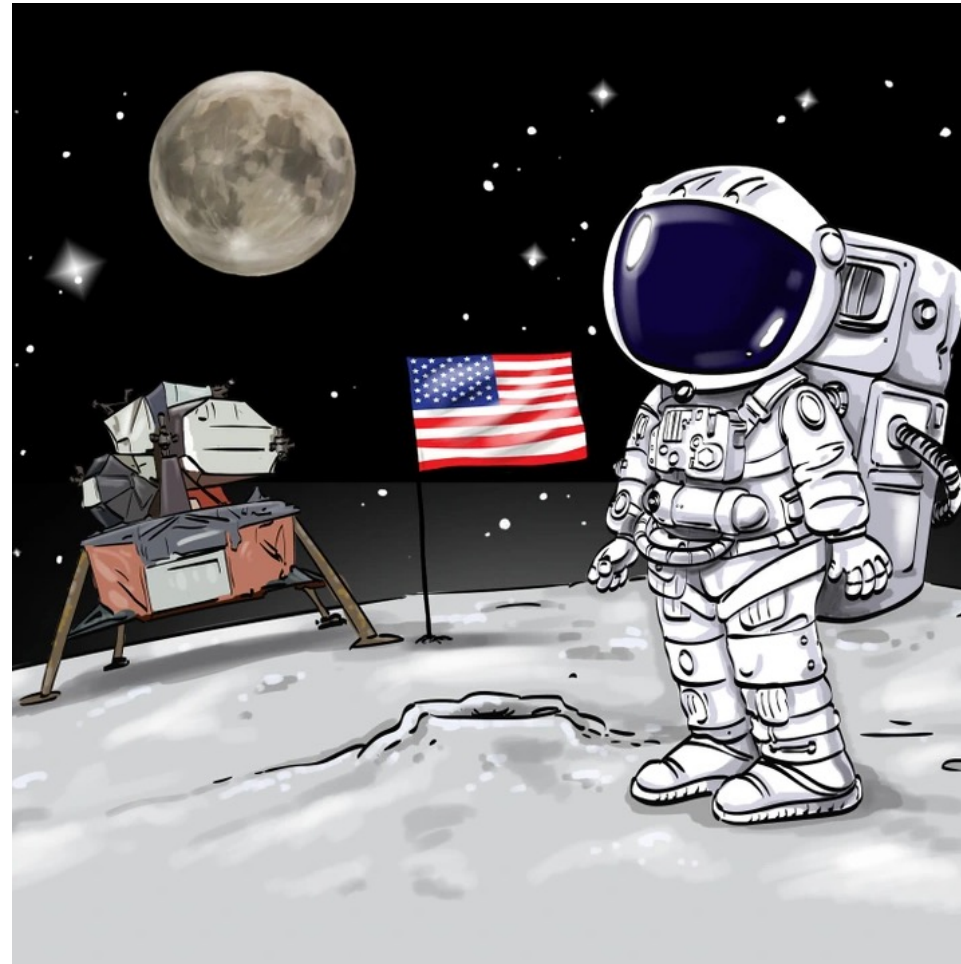
- **2021: 222 Plan Submittals Received**
  - 158 Hospital; 36 NHs
  - Est Const Cost: \$523M
  - Compare to 2011: 91 Plans Received

- **2022: ~220 Plan Submittals Received**
  - 220 Hospital, 50 NHs, 40 Other
  - Est Const Cost: \$580M

# PLAN SUBMITTAL/REVIEW PROCESS

- **100% remote for all Engineering Staff**
- 99% of prelim reviews now via teleconference
- Hard copy of plans no longer required
  - Need hard copy of submittal form required with the plan review fee
- **PDFs of plans required**
  - Should be via email or file download
  - Must submit PDF of submittal form
  - Our website is being updated!!!
  - [Engineering Construction Plan Submittal Process - Minnesota Dept. of Health \(state.mn.us\)](#)

# What's Wrong (or interesting) about the Picture





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Link to the video

<https://photos.google.com/photo/AF1QipN7e3jMGF51RTZIHdwXWj9vNCjtpx-cbC4pljmg>

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# COMMON ISSUES AT PLAN REVIEWS/INSPECTIONS

## Double Leaf Swinging Corridor Doors

- Inactive leaf must have auto flush bolts with closer if active leaf is less than min clear width, or
- Semi-auto if active leaf provides min clear width

AUTO FLUSH



SEMI AUTO



MANUAL



## Double Leaf Corridor, Smoke or Fire Doors

- Need meeting edge protection



## Caulking and Sealing

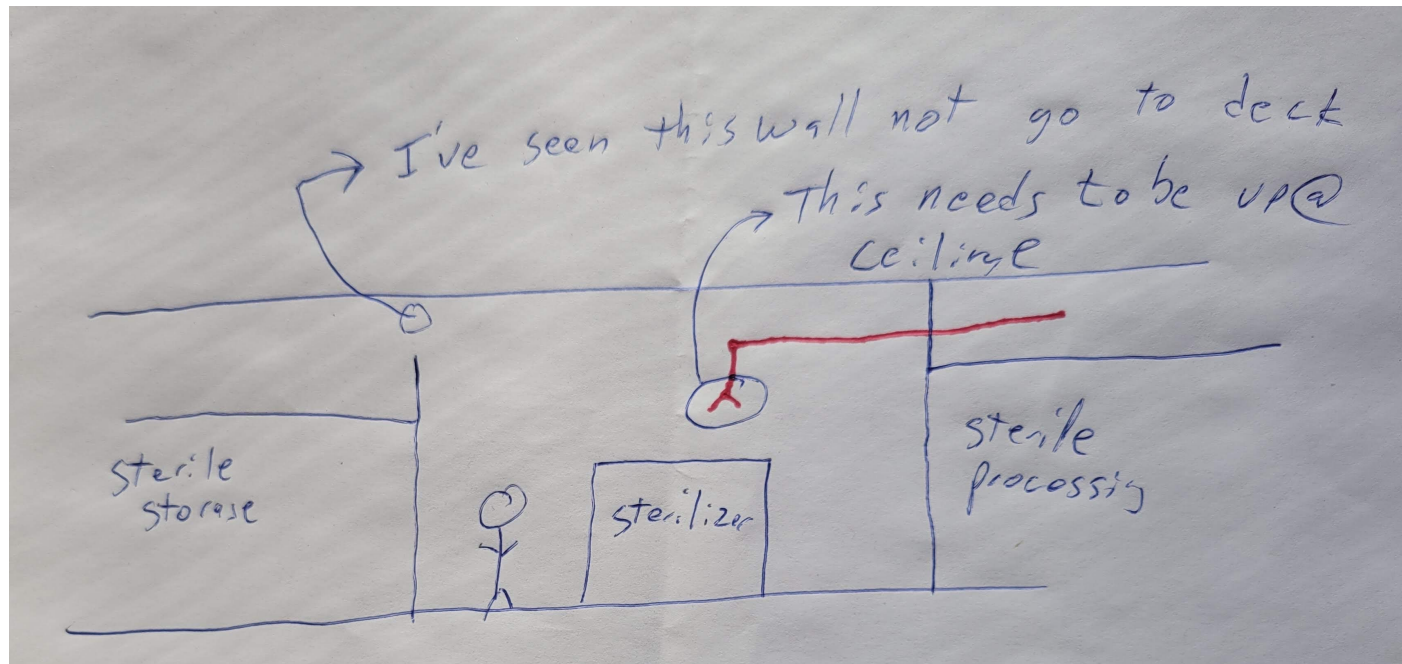
- Drain and supply penetrations under sinks
- Return grills in ORs
- Door frame/floor
- Backsplash



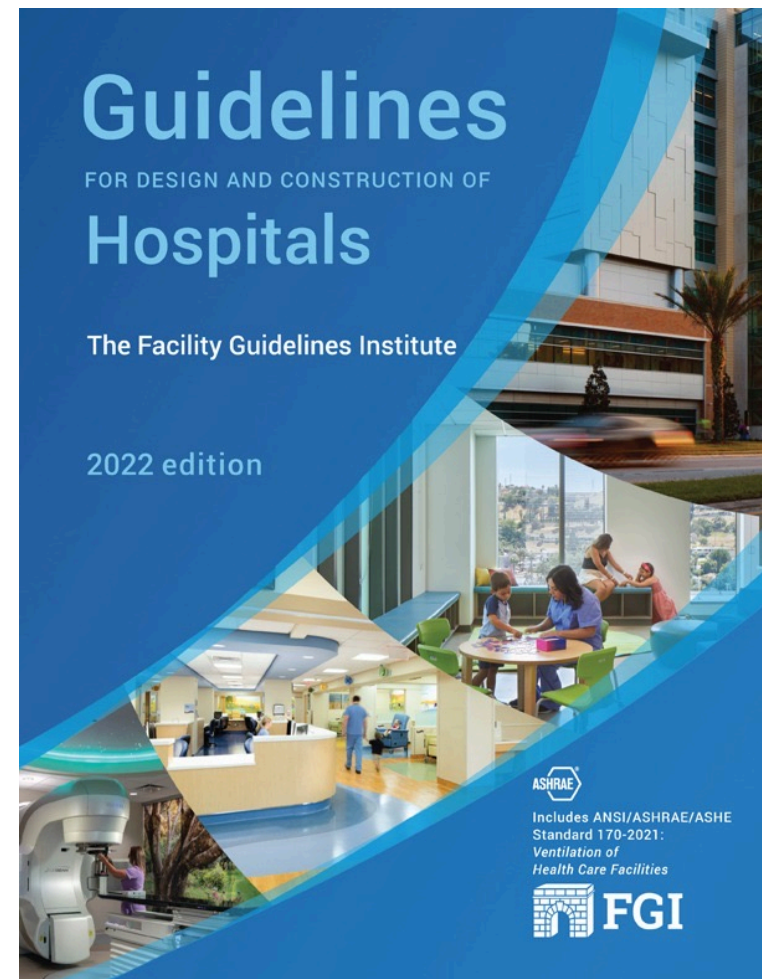


# COMMON ISSUES AT PLAN REVIEWS/INSPECTIONS

**Look at this awesome drawing!!!**



Minnesota has adopted the 2022 Edition of the Facility Guidelines Institute, Guidelines for Design and Construction of Hospitals



- Please see MN Statutes 144.55 Subd. 3. (b) for this language
- (b) Hospitals must meet the applicable provisions of the 2022 edition of the Facility Guidelines Institute *Guidelines for Design and Construction of Hospitals*. This minimum design standard must be met for all new licenses, new construction, change of use, or change of occupancy for which plan review packages are received on or after January 1, 2024. For the purposes of this subdivision, "Facility Guidelines Institute *Guidelines for Design and Construction of Hospitals* " does not include any appendices to the guidelines.



- Do you need to comply?
  - See 1.1-3.1.2 Exceptions
  - Where major structural elements make compliance impractical or impossible
  - Minor renovations or replacements

- Issues so far
  - Conflicts with other codes
  - 4' Doors 2.1-7.2.2.2.2 it calls out 44.5" door in clear width, this is a 48" door
  - Dining living space in Psychiatric Units 2.5-2.2.10.2
    - 25 square feet per resident of dining/living space in the unit, and there must be 2 areas one for quiet one for loud activities

## TOP 10 LIFE SAFETY CODE DEFICIENCIES

- K353- Sprinkler Maintenance (243)
- K712- Fire Drills (202)
- K345- Fire Alarm Testing (182)
- K918- Essential Electrical System Maintenance (153)
- K914- Electrical Outlet Testing (122)
- K920- Extension Cords and Power Strips (120)
- K761- Fire Door Inspections (119)
- K321- Hazardous Enclosures (95)
- K923- Oxygen- Cylinder and Container Storage (94)
- K355- Portable Fire Extinguishers (81)

## **Data Tag K353 – Sprinkler System Maintenance**

- Cited 242 times
- Annual Inspections
- Quarterly Testing
- 5 year internal pipe inspection
- 5 year gauge recalibration/replacement
- Dirty or painted sprinklers
- Spare sprinkler box

## Data Tag K712 – Fire Drills

- Cited 202 Times
- Missing drills
- Not varying times
- Not documenting use of alarm during drill
- No staff signatures
- Missing dates and times

## **Data Tag K345 – Fire Alarm Testing and Maintenance**

- Cited 182 Times
- Annual tests
- Semiannual inspections
- Devices missing from inspection report
- Devices not tested
- Sensitivity testing
- Alarm panels in trouble
- Blocked pull stations

## **Data Tag K918 – Essential Electrical System Maintenance**

- Cited 153 Times
- Missing monthly run test
- Missing weekly inspection
- Not meeting 30% load monthly
- No annual load bank in lieu of monthly load
- Missing test/inspection info
- No three-year load bank 4-hour Test
- No annual fuel sample for diesel
- Batteries not replaced per the manufacturer

## Data Tag K914 Outlet Testing

- Cited 122 Times
- No test records
- No benchmark for hospital grade outlets
- Not listing each outlet tested
- Not identifying four items of test
- No date of test



## **Data Tag K920 Extension Cords and Power Taps**

- Cited 120 Times
- Daisy chained power taps
- Extension cords improper use
- High amperage appliances
- Not properly listed for use
- Medical equipment used with power taps

## **Data Tag K761 Fire Door Assembly Inspection**

- Cited 119 Times
- No records of inspection
- Missing all 11 required points
- No date of inspection
- Doors not properly identified
- Repairs not made

## **Data Tag K321 Hazardous Enclosures**

- Cited 95 Times
- No door closer
- Door won't close or wedged open
- Door won't latch
- Penetrations in walls above the ceiling

## **Data Tag K355 Portable Extinguishers**

- Cited 81 Times
- Annual inspection missed
- Monthly inspection missed
- No annual report
- Missing tags
- Blocked access
- Low on agent

## **Data Tag K923 Oxygen Cylinder and Container Storage**

- Cited 38 Times
- Empty and Full tanks are not separated
- Unsecured tanks
- Improper storage of multiple tanks in resident rooms

# Thank You!

**Benjamin Zwart**

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