



DHS/FEMA Incident Level Symbols Workgroup

INCIDENT AND PRE-INCIDENT MAP SYMBOLOGY



GOALS

× Goals

- + Simple, flexible, and consistent
- + Can be hand drawn
- + Doesn't re-invent the wheel

× Guidelines

- + Clear background for "At Incident"
- + Solid background for "Before Incident"



WHO AND HOW



First
Conference
Call

- Set Agenda
- Goals

Second
Conference
Call

- Assign Map Challenge

In Person
Meeting

- Map Challenge Show and Tell
- Set Guidelines
- Make Recommendations



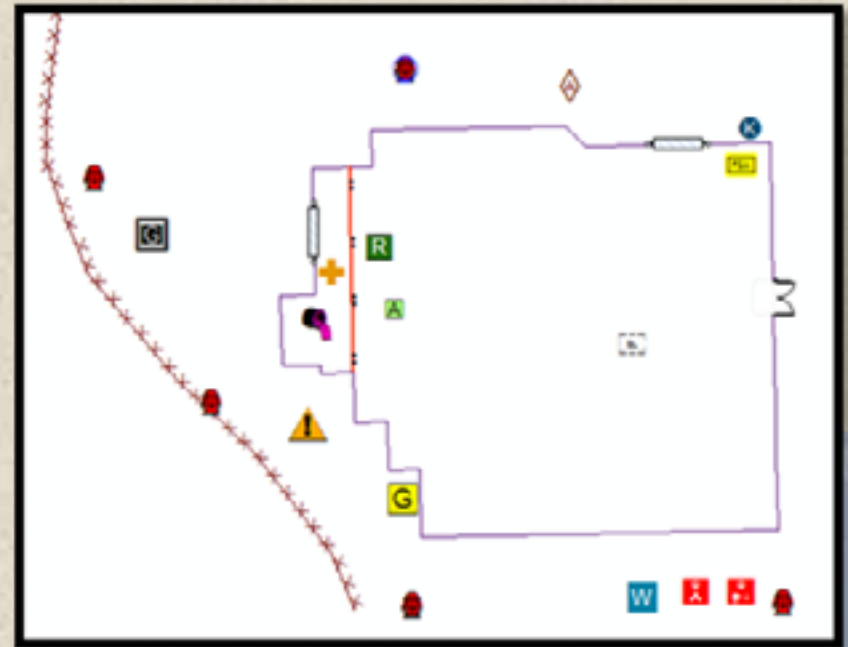
MAP CHALLENGE (COSTCO/SAM'S CLUB)

- ✘ It is a place we all have been to
- ✘ It is a target hazard
- ✘ It is a large but simple building
- ✘ It will help provide a baseline of our different ideas on how we would represent and solve a problem at a similar location



PREPLAN MAP

- ✘ Standard fire department preplan
- ✘ Only show what exists (Objective)
- ✘ Output
 - + What a task level employee is likely to access (Paper)
 - + Expand to what is possible



GUIDING PRINCIPLES

- ✘ Emphasis on guideline
- ✘ Bring everybody's ideas together
 - + It's better to error on the side of having a contribution instead of discarding it
- ✘ This is on going



WHY GUIDELINE VS. STANDARDS

✘ What is this?

Rescue

Ambulance



Squad

Medic

Aid Car



WHAT WAS ACCOMPLISHED?

Department of Homeland Security
Science and Technology Directorate
Washington, DC



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22-24, 2011

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by

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- × Identify best practices in:
 - + Pre-Incident Planning
 - + Incident-level Symbology
- × Established effective process:
 - + Limited common symbol set
 - + Simple and Flexible symbology requirements
- × Output
 - + Geo Data Model
 - + Map Templates for easy field-based implementation

INCIDENT MAP TYPES

| Map | What is viewed on map | Examples | Symbols Examples |
|-----------|------------------------------|--|-------------------|
| Tactical | A single problem emergency | Building fire, active shooter, kidnapping, single wildfire, search for single victim | NWCG |
| Strategic | A multiple problem emergency | Earthquake, Tsunami, Multiple wildland fires, urban conflagrations, civil disturbances | The DHS Symbology |










3 SYMBOLS CATEGORIES

- ✘ Data Collected
 - + At Incident
 - + At or Before Incident (Hazard ID)
 - + Before the Incident



INCIDENT SYMBOLS

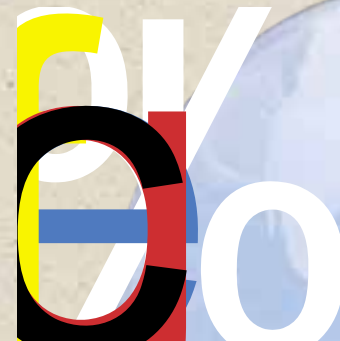
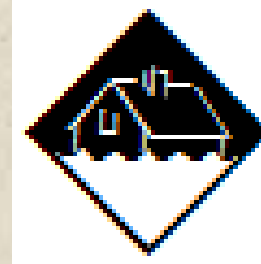
- ✘ Collected at Incident
- ✘ Clear Background
- ✘ May be hand drawn

| Symbol Category | Definition | Physical Examples | Symbol Shape | Symbol Examples |
|--------------------|--|--|--|--|
| Command Feature | Common command features | Command Post, Base Camp, Staging Area | Circle  |  |
| Units | A unit within an organization that accomplishes a task or where a group of responders are attached | Engine, Ladder, Battalion, Police Officer, SWAT Team, Command Unit, Rehab Unit | Oval  |   |
| Task Groups | A group of units or unit combined to assign a specific task at an incident | Groups, Sectors, Sections, Branches, Divisions, Areas, Individuals persons with specific tasks (PIO, Observer, etc.) | Rectangle  |  |
| Exposures or Sides | | | | "A" "B" "C" "D" |










HAZARD

- ✘ Collected at or before incident
- ✘ Diamond seemed to be a consistent shape
- ✘ Takes advantage of DOT, NFPA, DHS symbols
- ✘ Can be clear or have filled background



PRE-INCIDENT

| | | | |
|---|---|-----------------------------------|--|
| Access Point | Access point and ways to access a building or incident area and features related to | Knox Box, Elevator, Access Point |  |
| Assessment Features | Alarms and other | Burglar Alarm, Fire alarm control |  |
| Utility Shutoffs | Location of where you shutoff utilities | |  |
| Detection/Extinguishing Equipment | Detectors and building extinguishment systems | Smoke, Duct, Pull Station |  |
| Ventilation | Place to manage the exhaust of gases | Skylight, Smoke Control |  |
| Water Flow Control Valves and Water Sources | Water flow devices | Fire department connections, PIV |  |
| Equipment Rooms. | Location of features | |  |

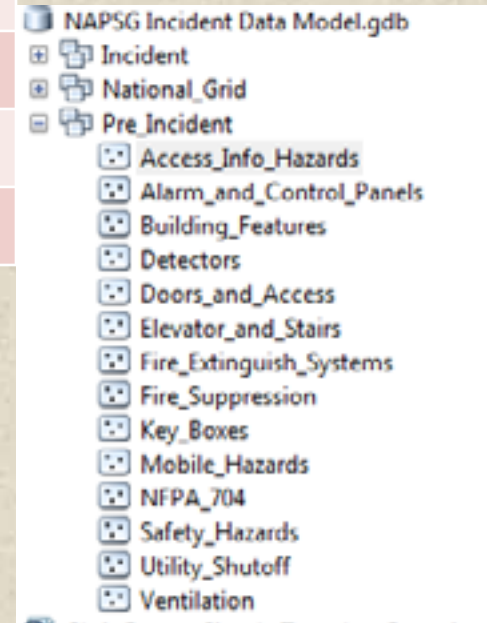
- ✘ Collected before incident
- ✘ NFPA 170
- ✘ Colored Background
- ✘ May use graphic or simple text



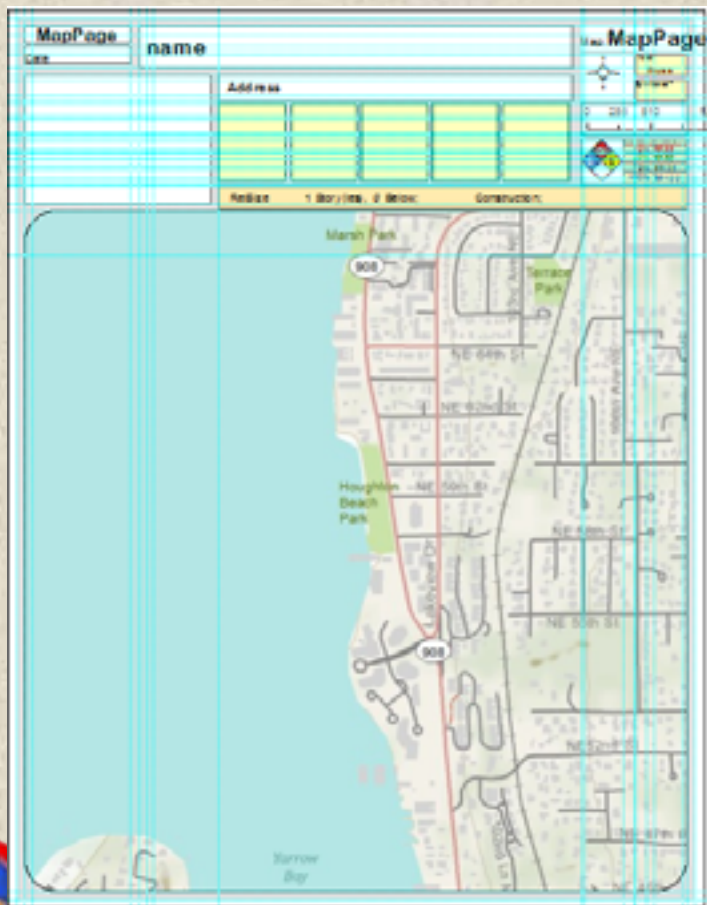
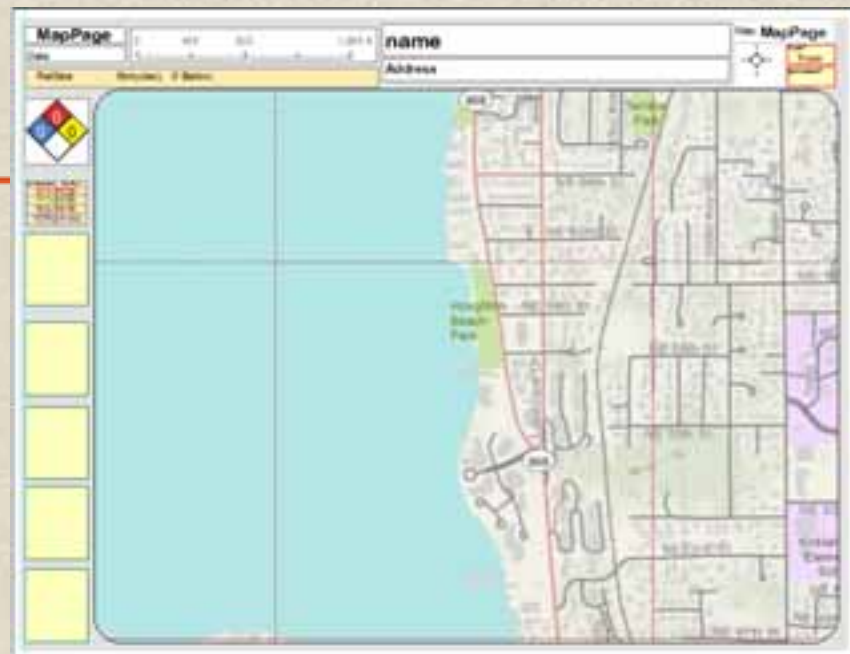
DATABASE

| Field | Type |
|--------------------|-----------------|
| Type | Text |
| Floors | Text |
| Intermediate Floor | Short (Boolean) |
| Number of Features | Short |
| | |

✘ Took FIMT Schema for Incident



TEMPLATES



THE FUTURE

- ✘ Solicit feedback and consensus from stakeholders
- ✘ Continue guideline work
- ✘ Test Work



RESOURCES

- ✘ NAPSOG Webinar Group ArcGIS.com
- ✘ <http://www.napsogfoundation.org>





2011 ESRI User
Conference

THANKS!

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Technologies for Critical
Incident Preparedness
Conference
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