City of Nashua, NH

Case Study

EOC Incident Data collection

In Early 2008, the City of Nashua, NH acquired the Capturx for ArcGIS Extension. The aim was to utilize the extension and its ability to capture GIS data easily through the use of an electronic pen to facilitate the management of public safety incidents. In October 2008 the City held a full scale drill in which the extension was utilized to create situation maps which were sent to participating agencies facilitating the planning and execution of the incident management. The electronic ink capture procedure was utilized in both the planning and execution phases of the drill. The capabilities of the extension will be demonstrated using the case study materials developed during the exercise

City of Nashua, NH

Case Study

EOC Incident Data Collection

- Problem
  - Collect information at incident location
  - Distribute to all necessary parties
  - Perform task as rapidly as possible
- Solution
  - Collect information with Adapx digital pen
  - Store data in personal geodatabase
  - Transmit data using wireless connection to EOC

- Process
  - Preplan Incident database with points, lines and polygons
  - Modify Adapx annotation to fit needs
  - Create mxd to fit most needs
  - Include necessary elements in legend to facilitate data collection
  - Collect data at site
  - Upload data to server
  - Display data at EOC

Points, Lines Polygons

EOCPoint
Type
Citizen Down
Command Location
Device Found
EMT
Fire
Fire Truck
Hazardous Material
Officer Down
Perpetrator Location
Perpetrator Vehicle
Police Vehicle
Staging Point

EOCLines
Detour Route
Evacuation Route
Incident Perimeter
Police Line
Street Closed

Incident Annotation
[Drawing]
Black Pen
Green Pen
Blue Pen
[Markup]
Red Marker
Yellow Marker
Orange Marker

EOCPoly

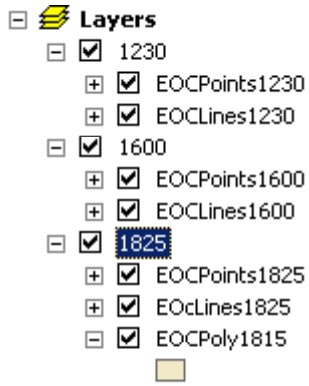
Layout with Legend

- Data Collection
  - Print map with digital pattern
  - Accomplished through extension print option
  - Simple process of striking through legend element and marking map with location

- Upload collected data to workstation
  - Pen is docked in USB port and data uploaded to Database

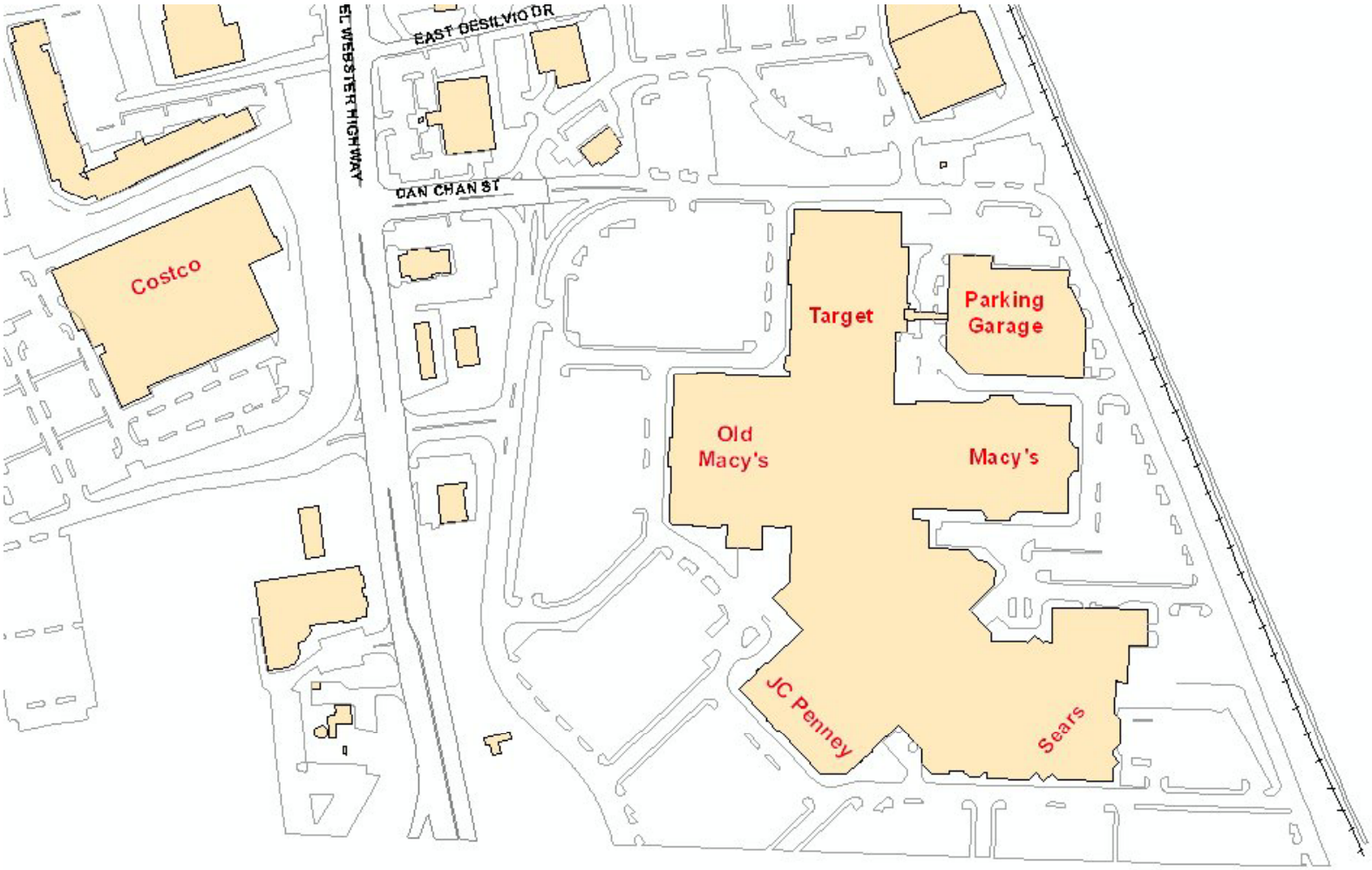
  - Opportunity to accept or reject data
  - Data is editable
  - Accepting data saves to database

- Upload database to server
  - Export features to database with time stamp
  - Data can be grouped in MXD to show time increments
  - Allows for viewing incremental data as incident progresses
  - Upload database to server

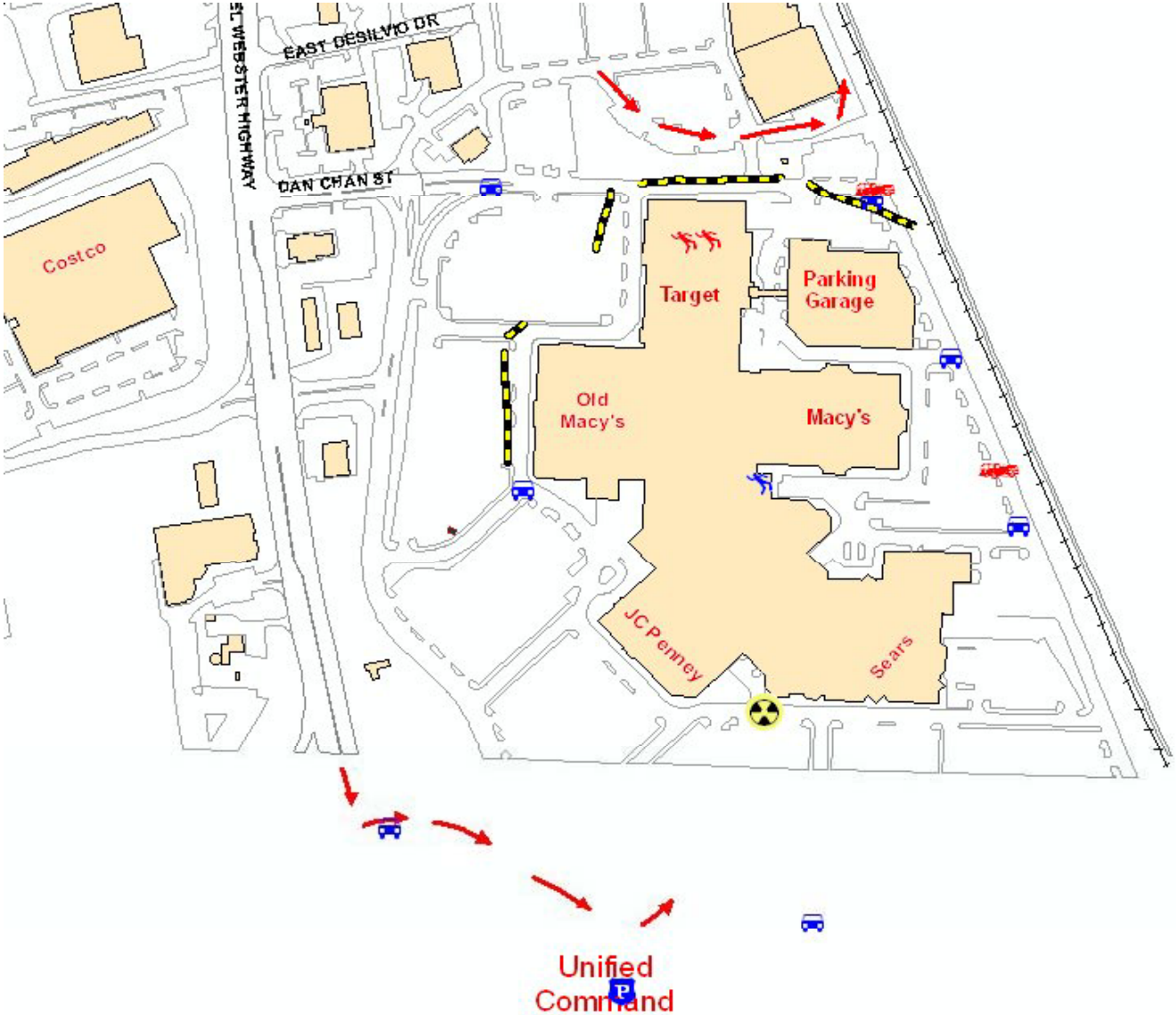


- Realized Benefits
  - Data uploaded in near real time and displayed at EOC
  - EOC stakeholders (Police, Fire, Mayor, etc.) able to see incident unfold
  - Near real time information utilized in planning and decision making
  - Enhanced decision making to respond to incident and media

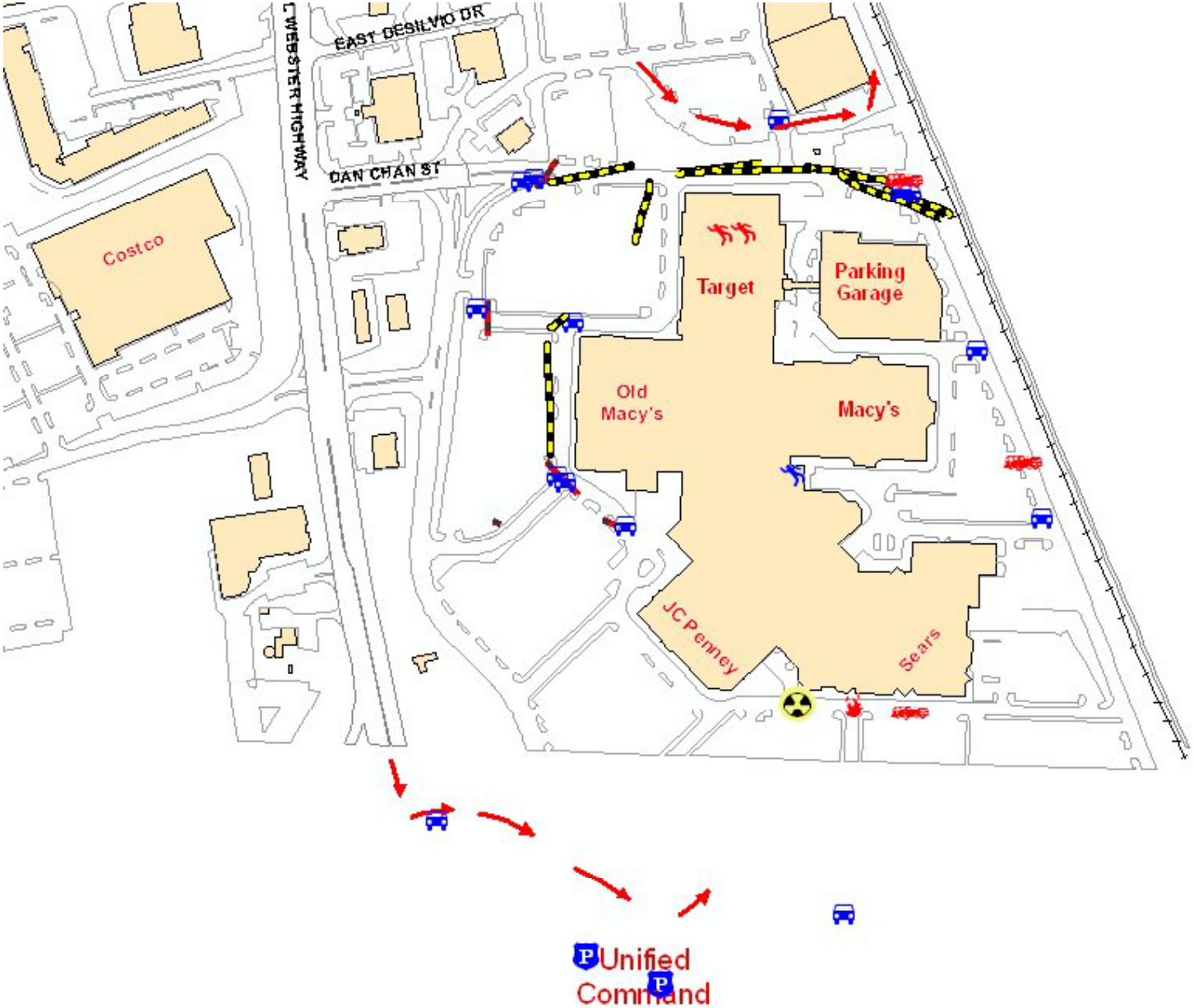
Incident Layout



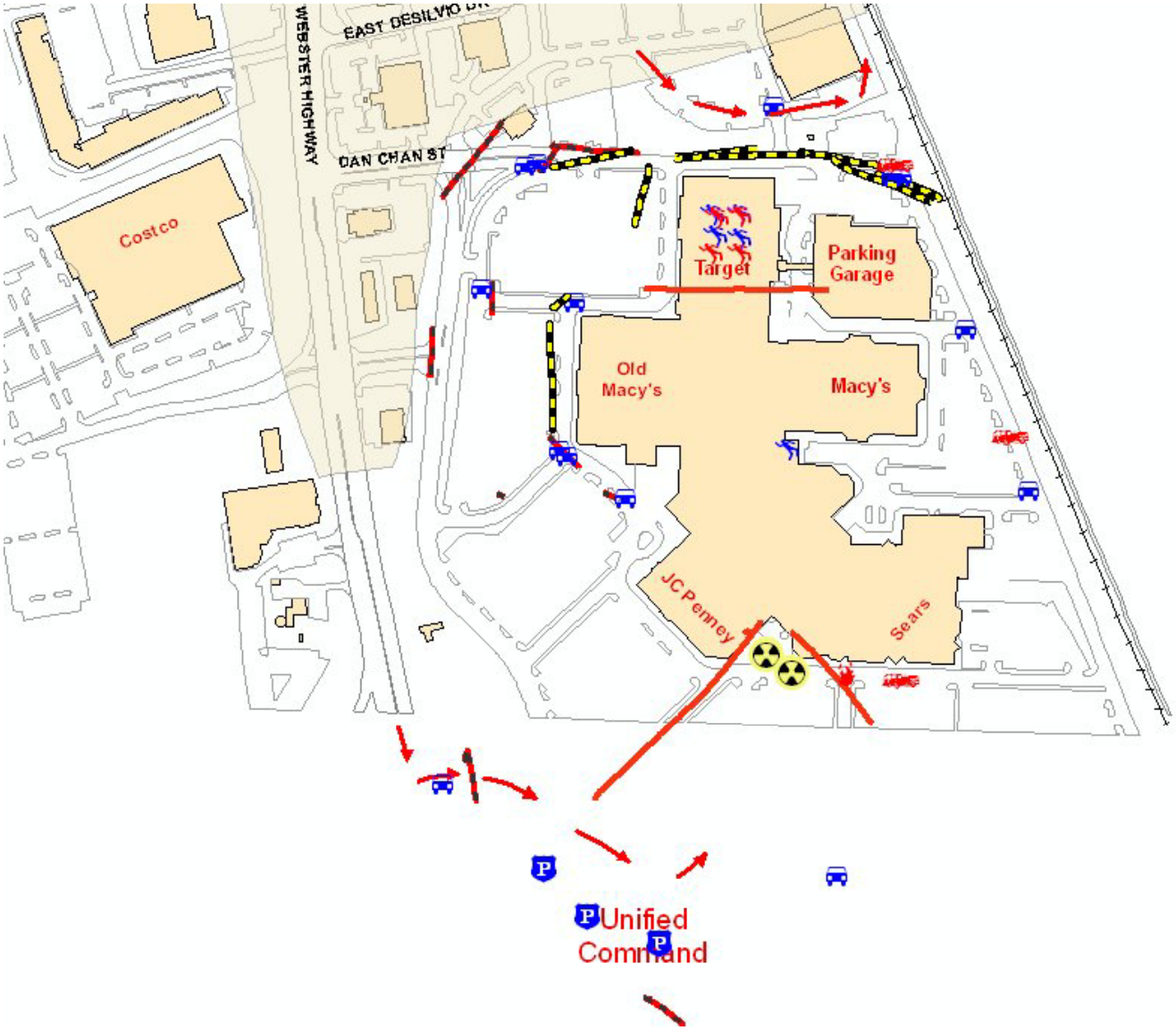
Incident at 1230



Incident at 1600



Incident at 1825



Incident at 1825 with Ortho

- Final step is distribution
  - Easiest method is to convert to pdf and distribute
  - Pdf can be emailed or posted to web
  - Possible distribution with ArcGIS Server

- Demonstration

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