Billboards: Leveraging GIS & Workflow Management

October 30, 2019

Presented by:
Cardno

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Introductions

Craig Payne, GISP | Asset Management & Geospatial Services Manager

29 years of experience

> Asset Management / Workflow Management

> GIS / Signage / Utilities / Software Implementation

Representative Project Experience

Signage Inventories

- George Department of Transportation
- Florida Department of Transportation
- Texas Department of Transportation
- City of Clearwater, FL
- City of St. Pete Beach, FL
- City of Cocoa, FL

Software Implementation

- SYNODAS
- Lucity
- Oracle WAM
- Cartegraph
- ESRI

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Introductions

Tanya Camacho, GISP | Senior Analyst

> 12 years of experience
> Asset Management / Workflow Management
> GIS / Signage / Utilities
> Software Implementation

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Agenda

- Regulations
- Asset Registry
  - GIS
  - Spreadsheets
  - Database
- Workflow Management
  - Applications
  - Permits
  - Invoices
  - Violations
- Open Discussion & Crossword Puzzle

Regulations

- **United States**
  - Highway Beautification Act of 1965
  - Federal & State Regulations
- **Canada**
  - Sign legislation has been in effect for over 50 years and is similar to other jurisdictions throughout North America.
  - Ontario Ministry of Transportation - Public Transportation and Highway Improvement Act (PTHIA)
  - The Transportation Infrastructure Act – Manitoba. Removal of Unauthorized Advertising
  - The Erection of Signs Adjacent to Provincial Highways Regulations, 1986
  - The Highway Transportation Act - Saskatchewan Department of Highways and Transportation

Regulations enable agencies with the legal authority to regulate signage upon or adjacent to a controlled route or provincial highway.

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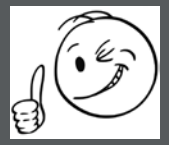
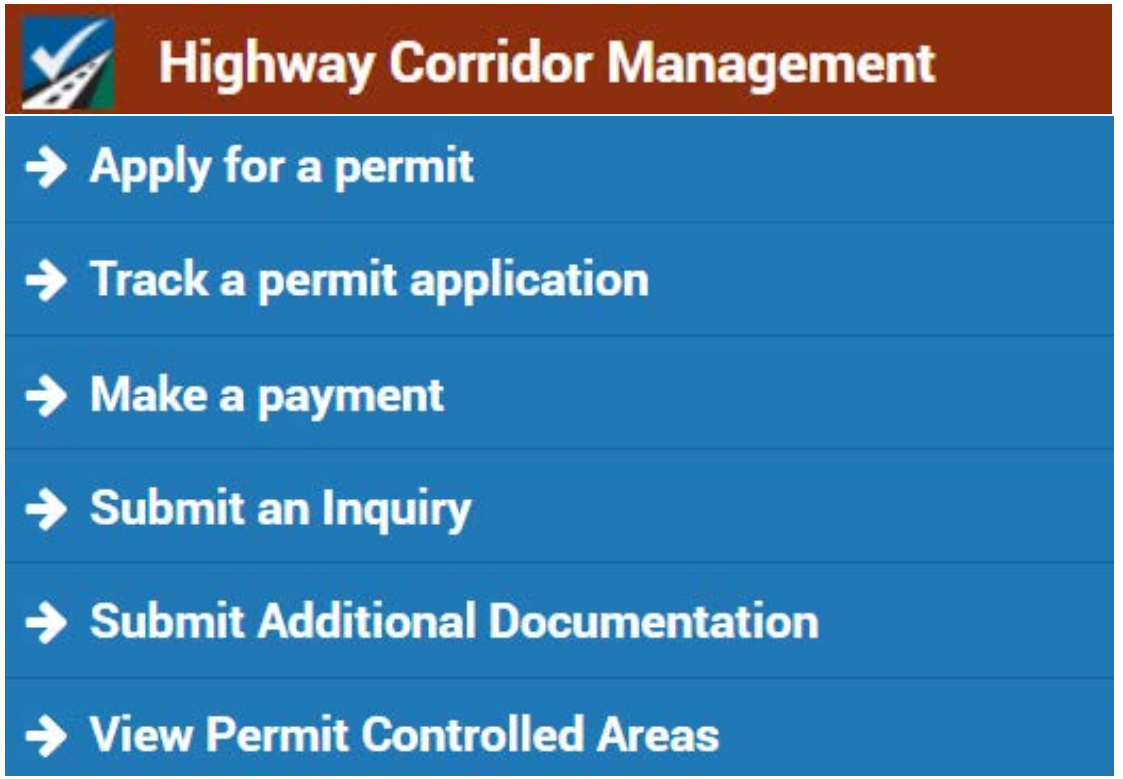


Applications

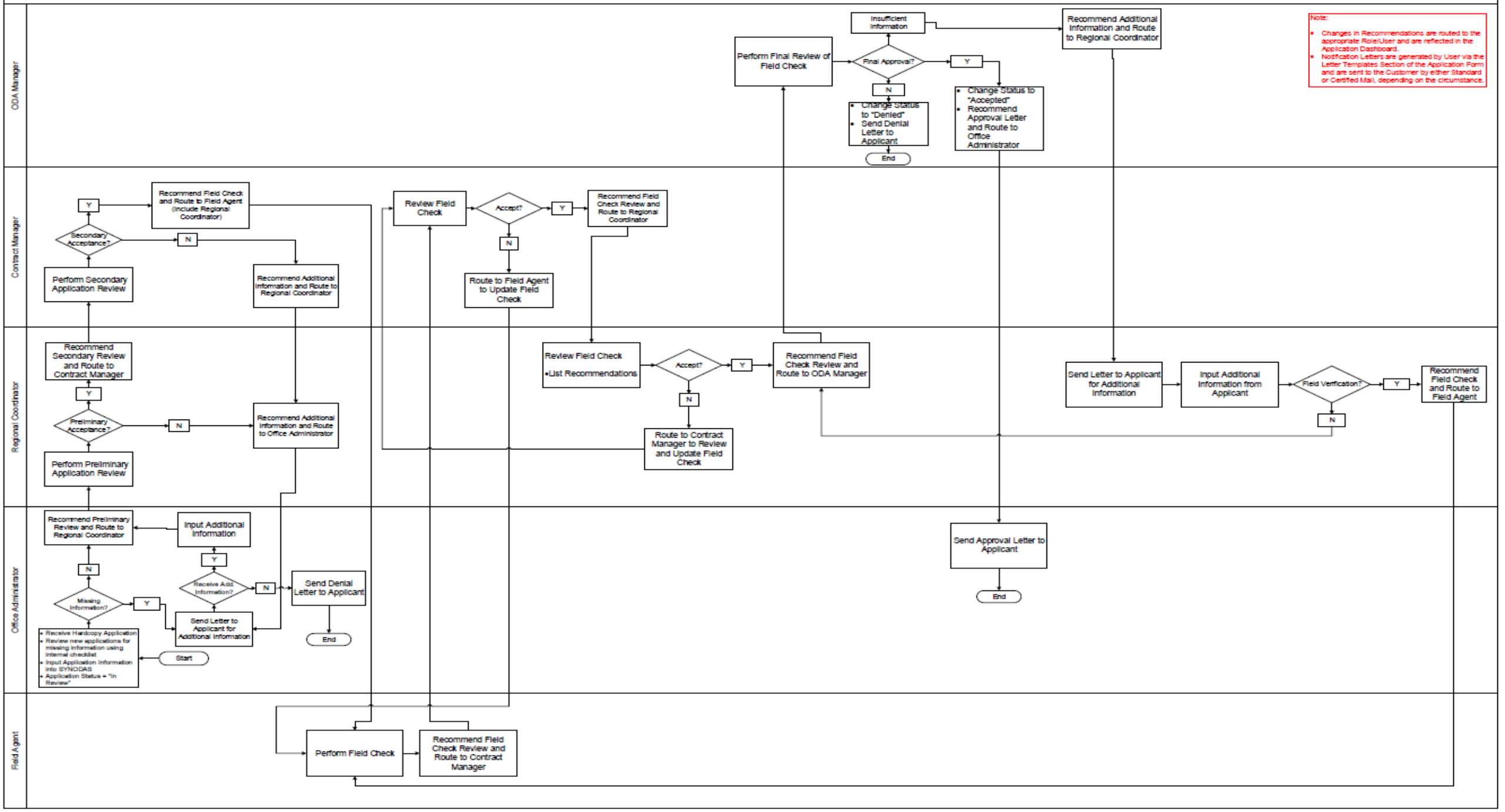
- Ontario Ministry of Transportation (MOT) Applications
  - Hard-Copy Application for Highway Corridor Management Permits - submitted to local Highway Corridor Management Office
  - Online Permit Portal



Applications Process

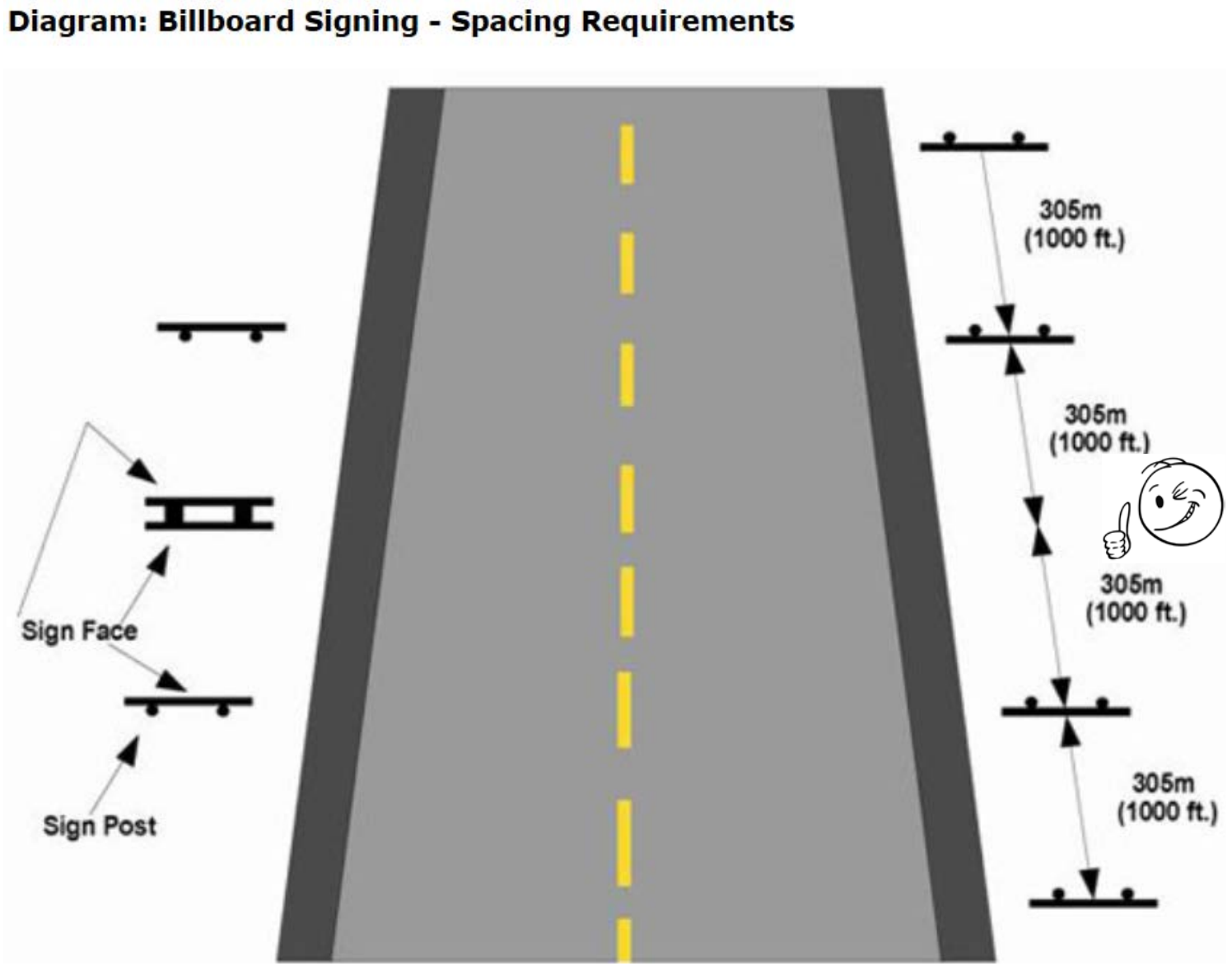
- Review
- Field Check
- Request for Additional Information
- Secondary Application Review
- Approval/Denial

Workflow – Standard and Multi-Message Sign Permit Application



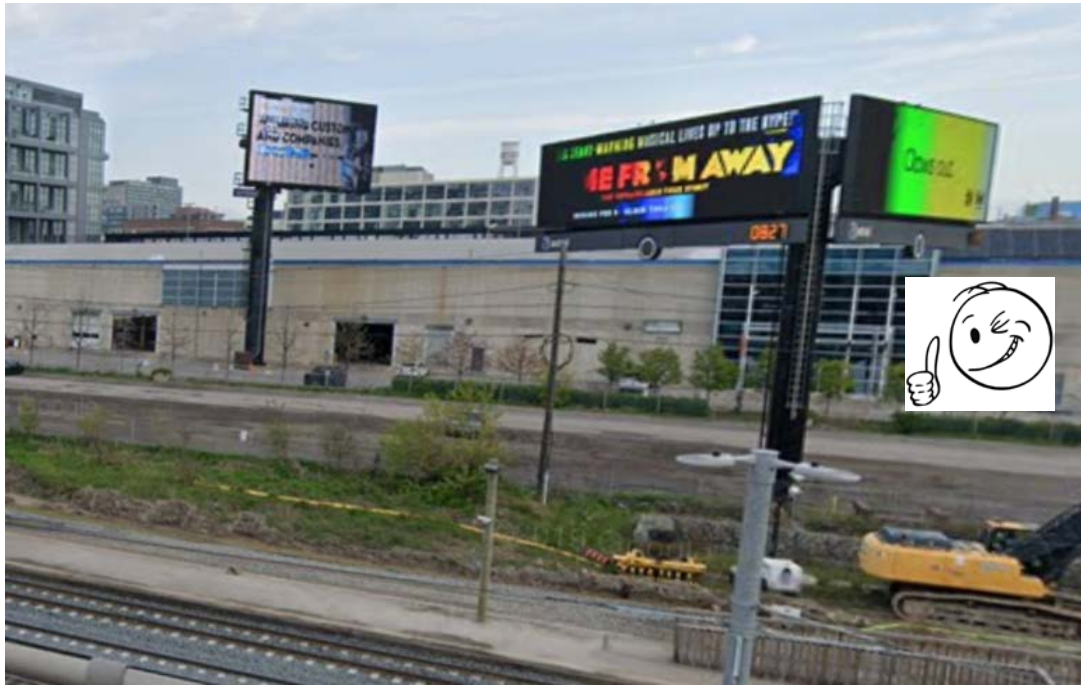
Applications Review

- Message on the Billboard
- Billboard Requirements
  - Dimensions
  - Number of Faces
  - Sign Height
  - Location
  - Angle As Related to Highway
  - Setback Distance
  - Proximity to Built-Up Areas
  - Standard/MMS
  - Spacing Requirements
  - And more!



Permitting

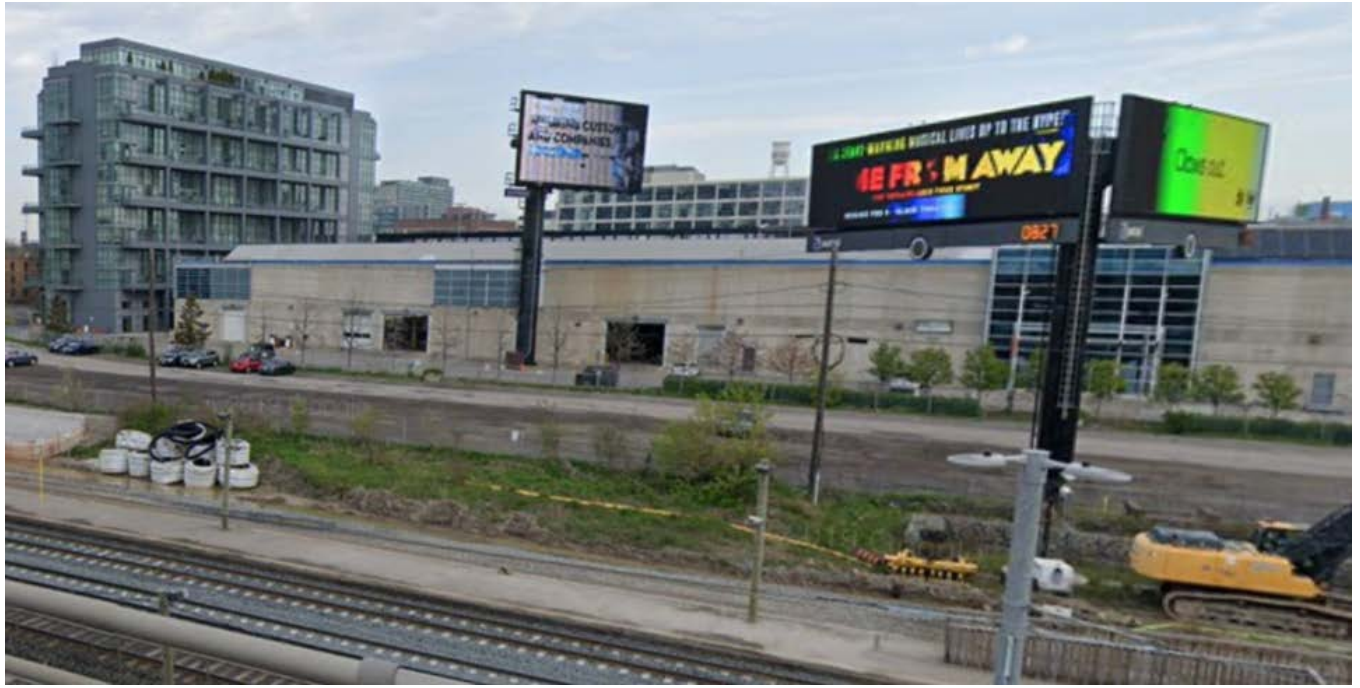
- Permit Compliance
  - Signs Must Be Placed Within Six Months Of Issuance Of Permit
  - Each Billboard Must Be Covered By A Permit Up To 5 Years
    - One Permit Per Sign
    - Renewal annually up to a maximum of (5) five years at which time a new application may be required from the initial date of the original permit.
    - Five year requirement not required for sign permits issued prior to September 24, 1994
  - Maintain approved permit specifications



Asset Registry

- Annual Inventory

  - GPS/GIS
  - Sign Location
  - Sign Description
  - Condition Assessment
  - Photos
  - Permit Compliance
- Unauthorized Advertising
- Controlled Route/Provisional Highway



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Challenges

- Challenges of Signage
  - Accurate Inventory
  - Regulatory Enforcement
  - Unauthorized Advertising
  - Communication with Customers
  - Missing Application Data
  - Sign Removal
  - Change Management
  - Funding

Sign Management

- Sign Management Recommendations
  - Annual GIS-based Inventory
  - Workflow Management System (WMS)
    - Central repository
    - Business process tracking
    - Permit lifecycle tracking
    - GIS Interface/Integration
    - Online application & payment processing
    - Public Permit Search
    - Customer Access Portal

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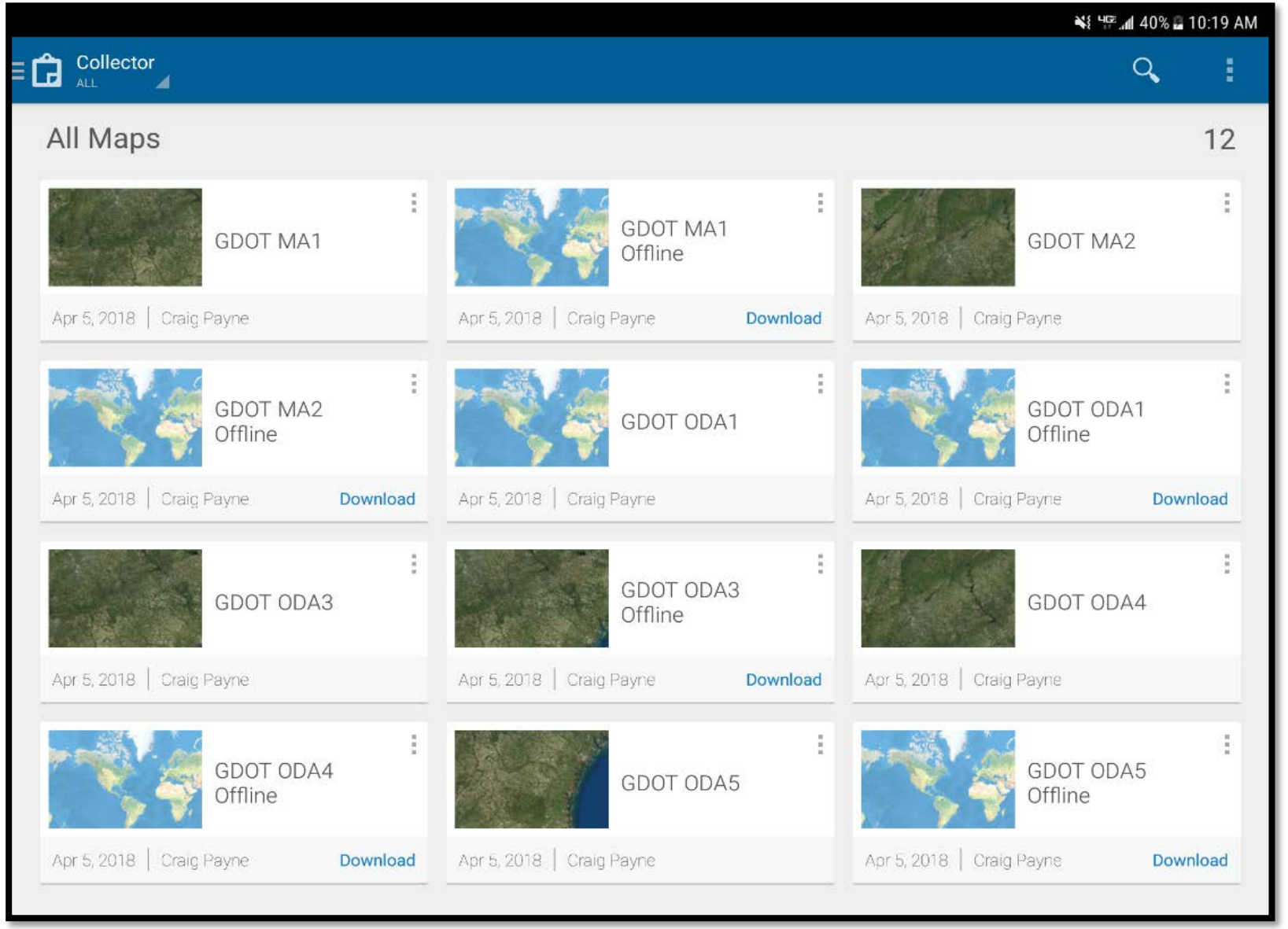
Mobile Data Collection

ArcGIS Collector

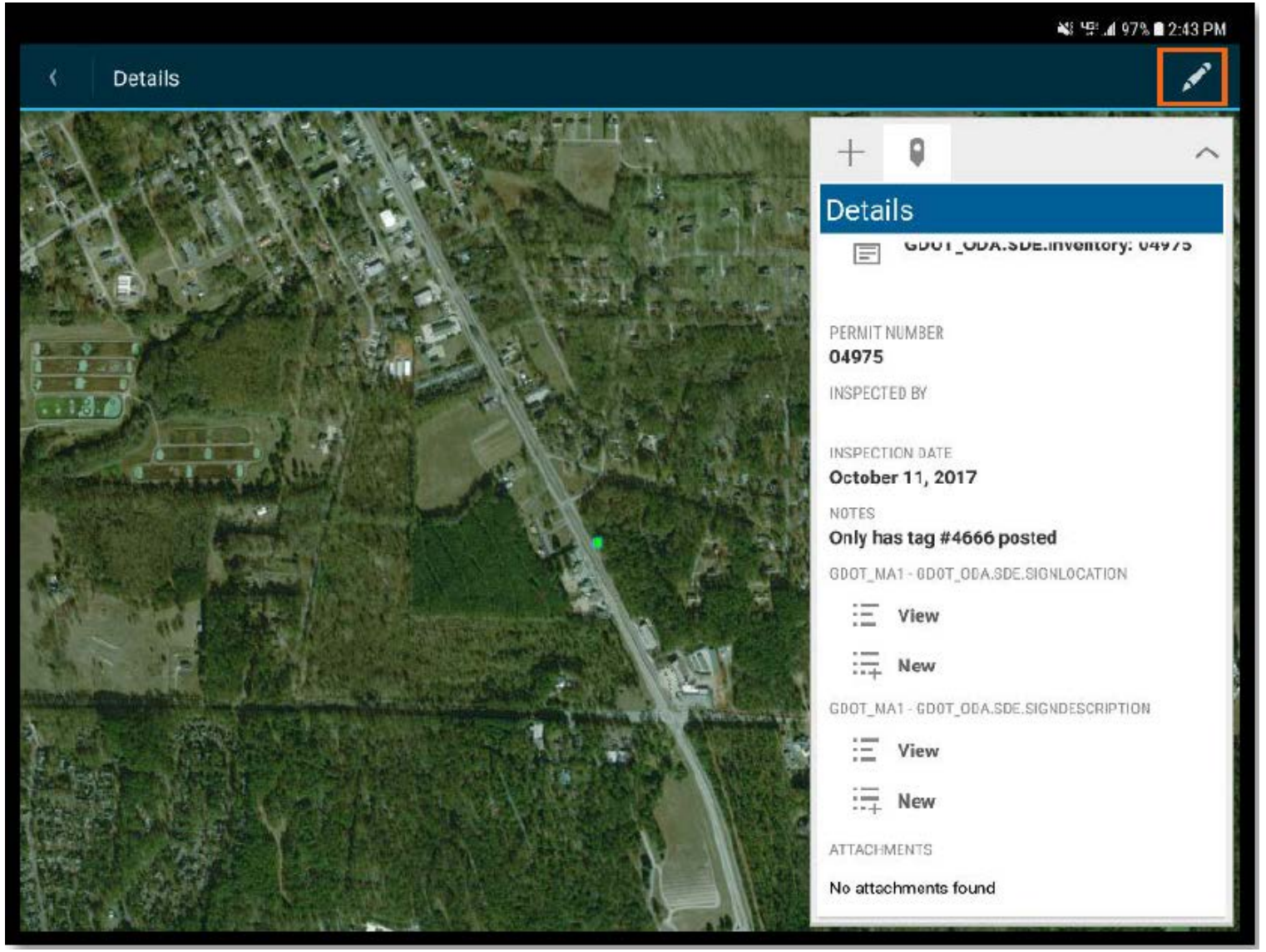
- ArcGIS Online
- ArcGIS Portal
- Map Service
  - Online/Offline Editing
  - ESRI Basemaps



Mobile Data Collection

ArcGIS Collector

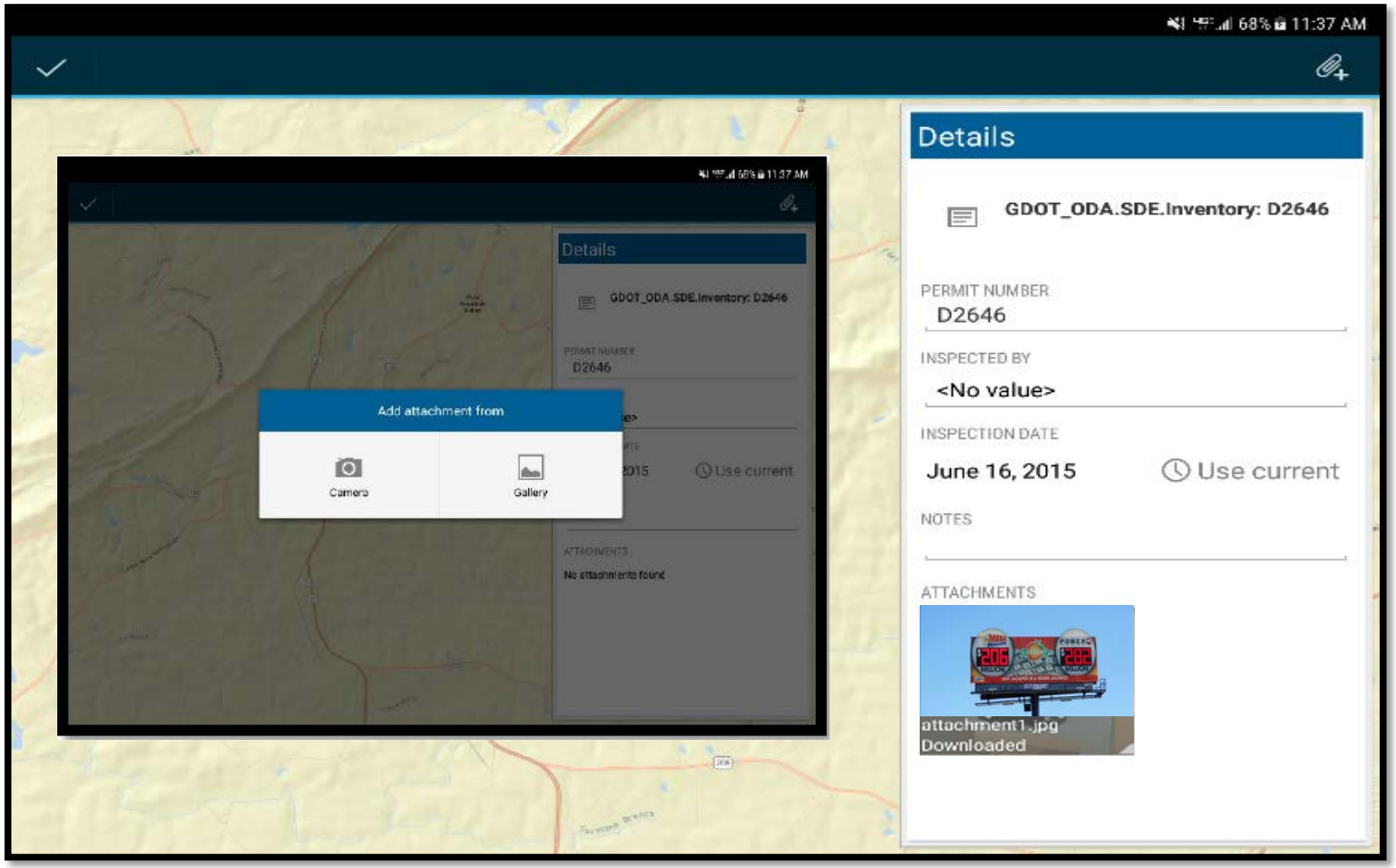
- Permit Details
- Inspection Information
- Related Tables
  - Sign Location
  - Sign Description
  - Additional Inspections
    - Vegetation Management



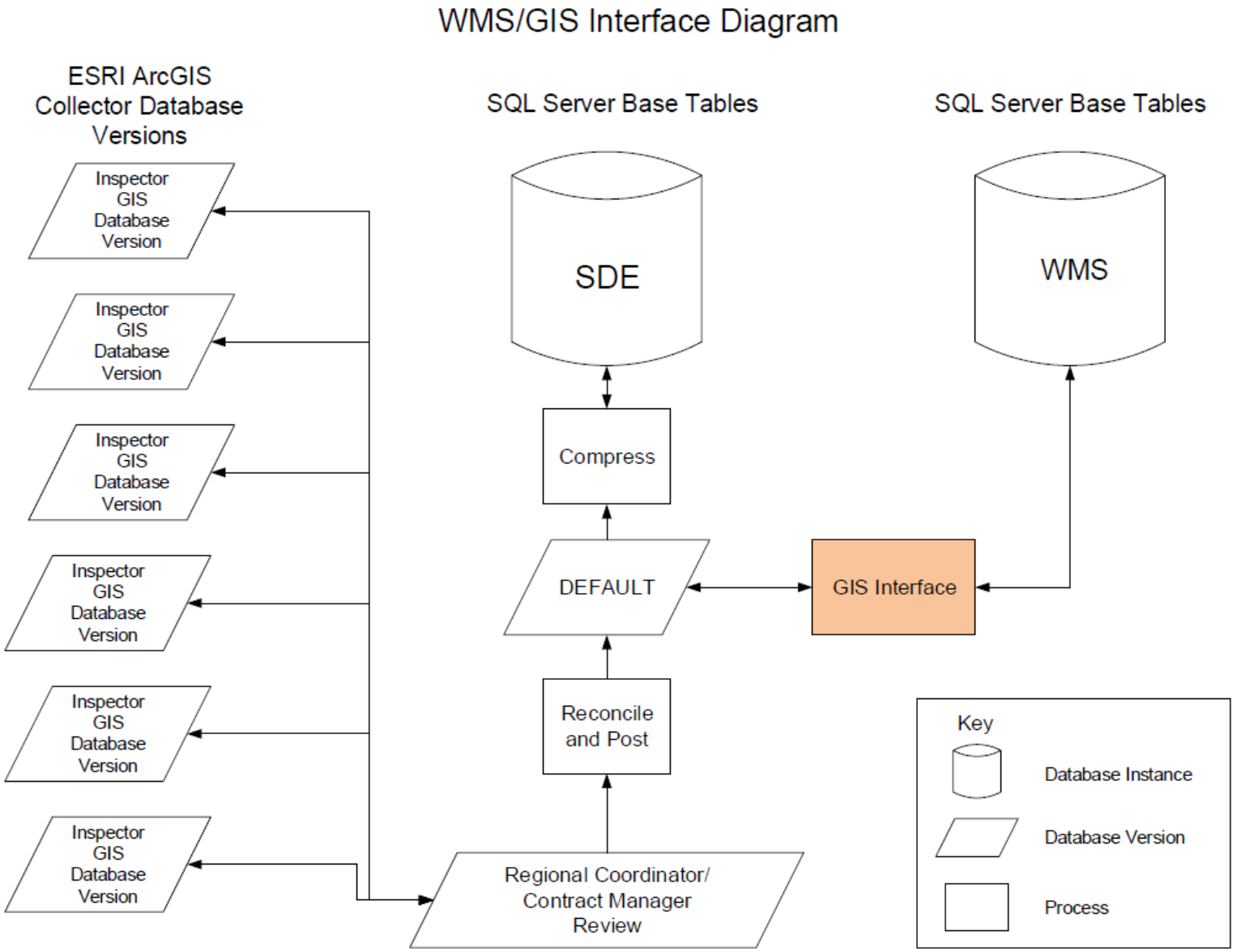
Mobile Data Collection

ArcGIS Collector

- Inspection Information
- Attachments
  - Photos



Workflow Management System/GIS Interface



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GIS Interface

Home > Permits > Permits Dashboard > Permit

Details | Permit Actions | Appeals/Violations

Permit Number: D1270
Permit Date: 7/5/2001
Permit Expiration Date: 4/1/2020
County: Baldwin (13009)
Jurisdiction: Tennille
Permit Type: Standard Sign

Application # 47878-59601 |
UNA Sign # n/a
Tag Number: 3418R
Sign Install Deadline:
City:
Permit Status: Active

0 Appeal(s) 0 Violation(s)
Tag Status: In Place
Inspection Date: 12/03/2018
Route: 002400

Sign Status: Standing
GPS Date: 04/30/2013
Map Location

Permit Owner

Owner Name: 84 Outdoor, LLC (10485)

Contact Information

Name: Cheri Bomar
Phone: 724-228-3636
Ext:
E-Mail: cheri.bomar@84lumber.biz

Edit

Property Owner

Owner Name: Childre,Phillip (9230)

Contact Information

Name: Phillip Childre
Phone: 478-696-3839
Ext:
E-Mail: echildre@windstream.net

Edit

GIS Interface

Sign Description

Sign Construction Type: Stacked/Back-to-Back
Number of Faces: 4
Illuminated?:
Sign in Place?:
Existing Permit Cancelled
Structure Height (ft): 44
Height Above Roadway (ft): 47
Structure Status: Standing
Number of Poles: 1
Pole Type: Metal
Description:

Length (ft)	Height (ft)	Area (sq.ft.)	Viewed Direction	MMS	MMS Type
	10.00	200.00	E		
	10.00	200.00	E		
20.00	10.00	200.00	W		
20.00	10.00	200.00	W		

Sign Description Data from GIS

Sign Location

County: Baldwin
City:
Route: 002400
Milepoint: 20.726
Latitude: 33.1518942
Longitude: -83.2745748
GPS Locator: AC
GPS Date: 04/30/2013
Distance from nearest right-of-way (ft): 36.00
Side of Roadway: S
Nearest Cross Routes:
Incorporated Area?:
Zoned Jurisdiction?:

Sign Location Data from GIS

Additional Controlled Routes

Is location visible to other controlled routes ? Please Select

Status Log

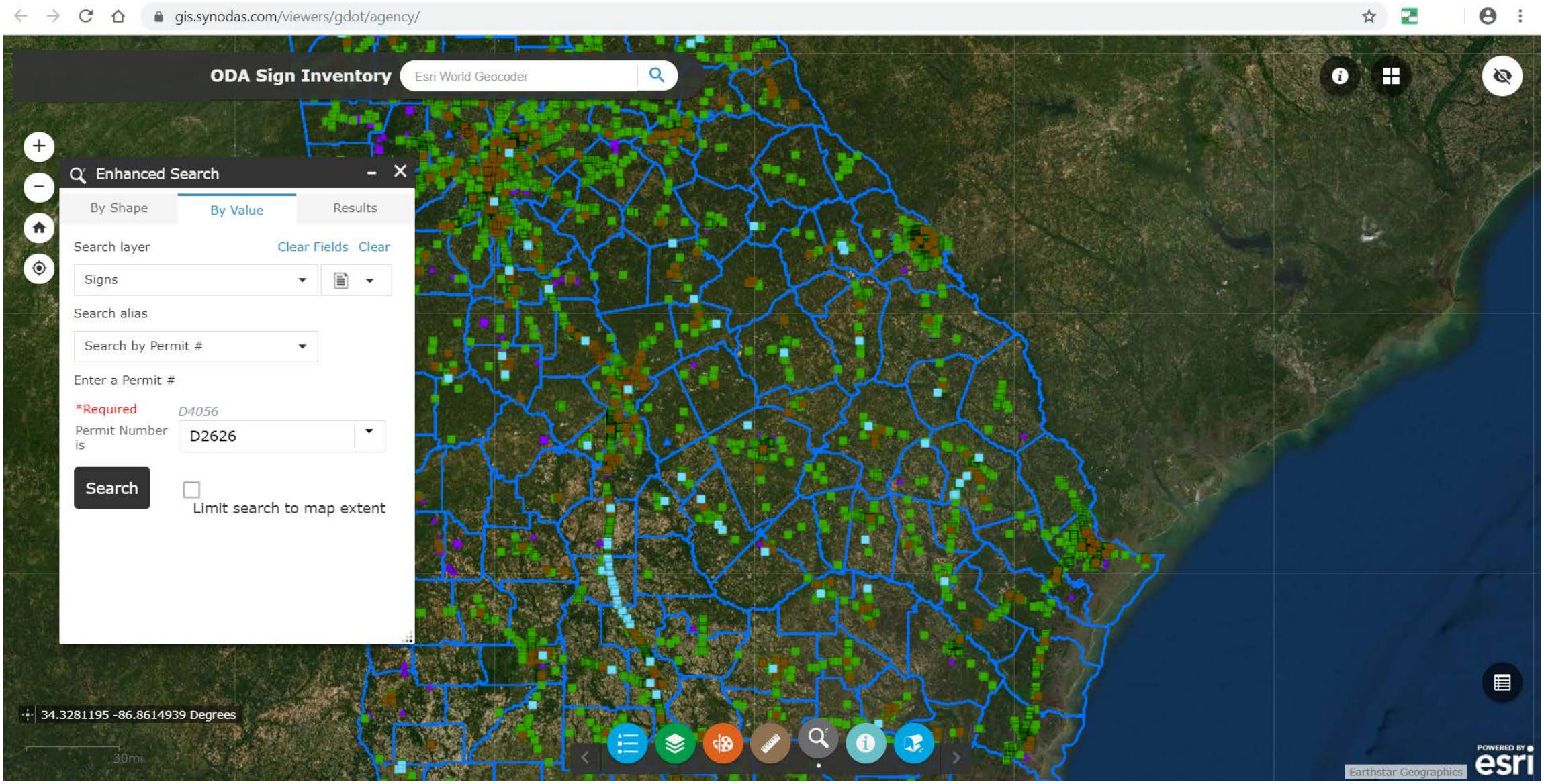
Permit Status: Please Select
Sign Status: Please Select
Status Comment:
Submit

Please Note: Sign Status changes submitted here should also be routed as a Data Change Request with a Field Check

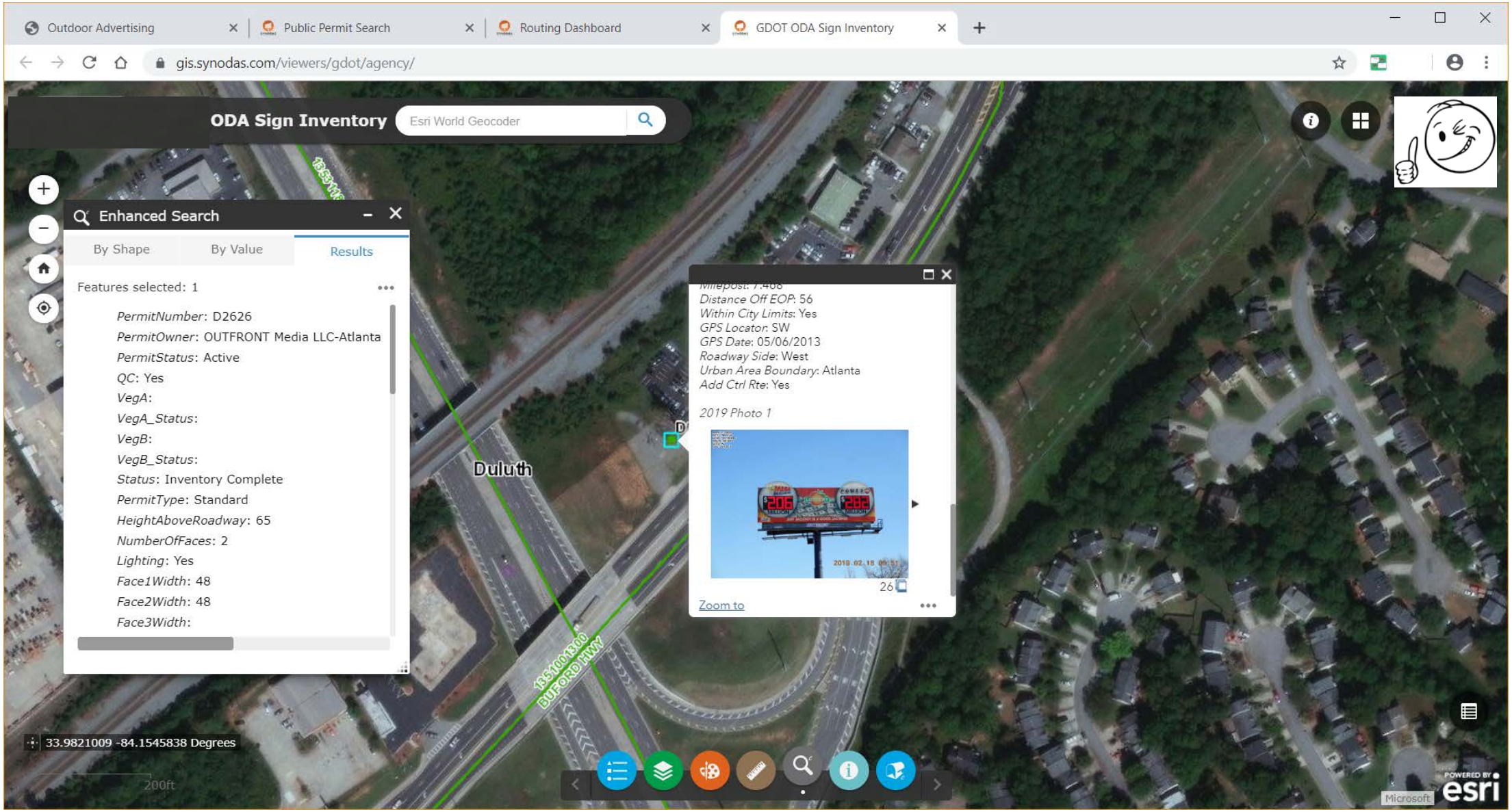
Status Updated	Permit Status	Sign Status	User	Comment
No Status Log Information.				

view all

GIS Viewer

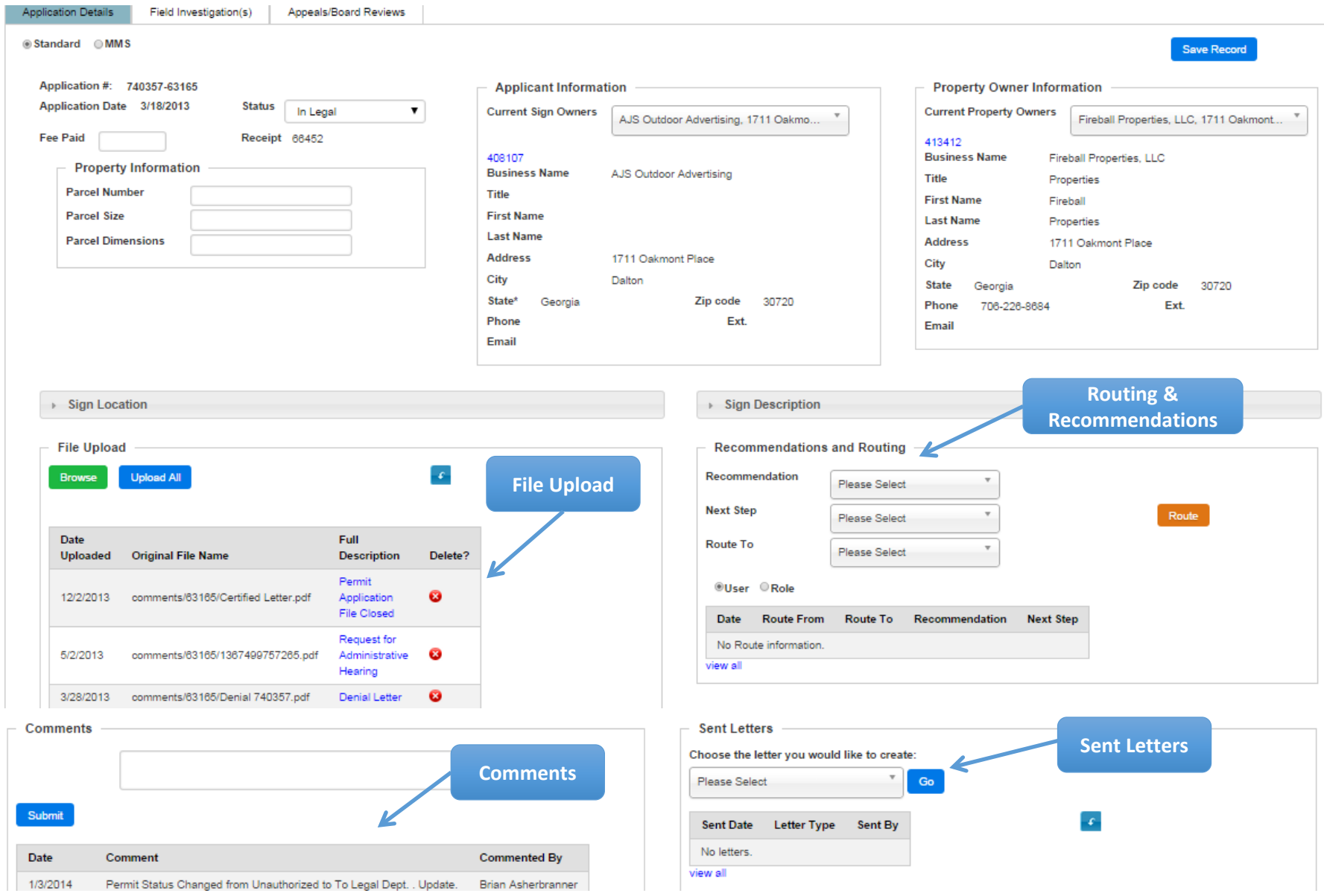

gis.synodas.com/viewers/gdot/agency/
ODA Sign Inventory
Esri World Geocoder
Enhanced Search
By Shape
By Value
Results
Search layer
Clear Fields
Clear
Signs
Search alias
Search by Permit #
Enter a Permit #
*Required
D4056
Permit Number is
D2626
Search
Limit search to map extent
34.3281195 -86.8614939 Degrees
30mi
Earthstar Geographics
POWERED BY esri

GIS Viewer


Outdoor Advertising
Public Permit Search
Routing Dashboard
GDOT ODA Sign Inventory
gis.synodas.com/viewers/gdot/agency/
ODA Sign Inventory
Esri World Geocoder
Enhanced Search
By Shape
By Value
Results
Features selected: 1
PermitNumber: D2626
PermitOwner: OUTFRONT Media LLC-Atlanta
PermitStatus: Active
QC: Yes
VegA:
VegA_Status:
VegB:
VegB_Status:
Status: Inventory Complete
PermitType: Standard
HeightAboveRoadway: 65
NumberOfFaces: 2
Lighting: Yes
Face1Width: 48
Face2Width: 48
Face3Width:
Distance Off EOP: 56
Within City Limits: Yes
GPS Locator: SW
GPS Date: 05/06/2013
Roadway Side: West
Urban Area Boundary: Atlanta
Add Ctrl Rte: Yes
2019 Photo 1
Zoom to
Duluth
33.9821009 -84.1545838 Degrees
200ft
Microsoft
esri

Workflow Management

- WMS Features
  - Central Repository
  - Routing & Recommendations
  - Customer Letters & Violation Templates
  - Batch Invoicing
  - Online application submittals
  - Online payment processing
  - Permit Transfers
  - Permit Inquiry



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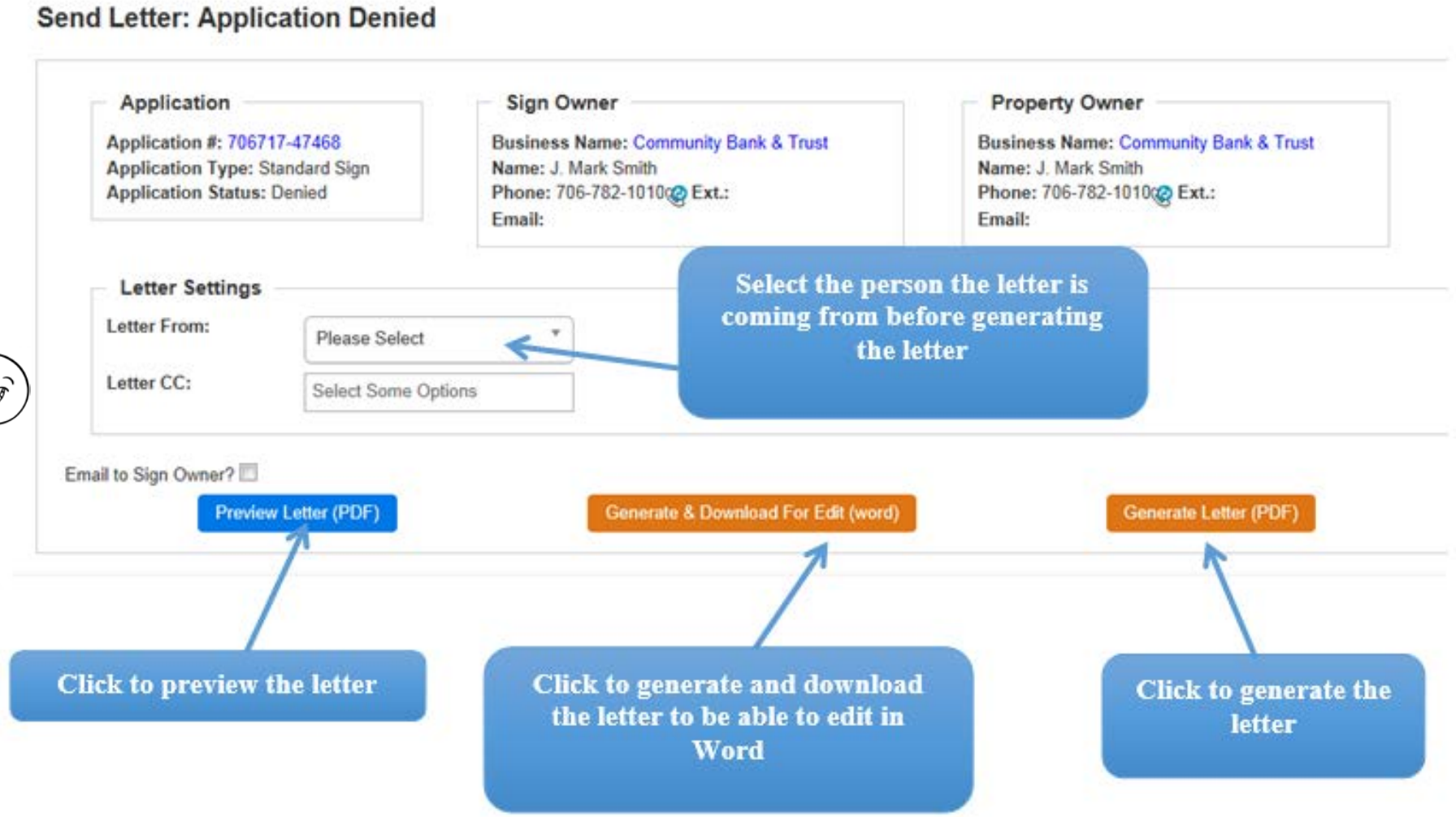

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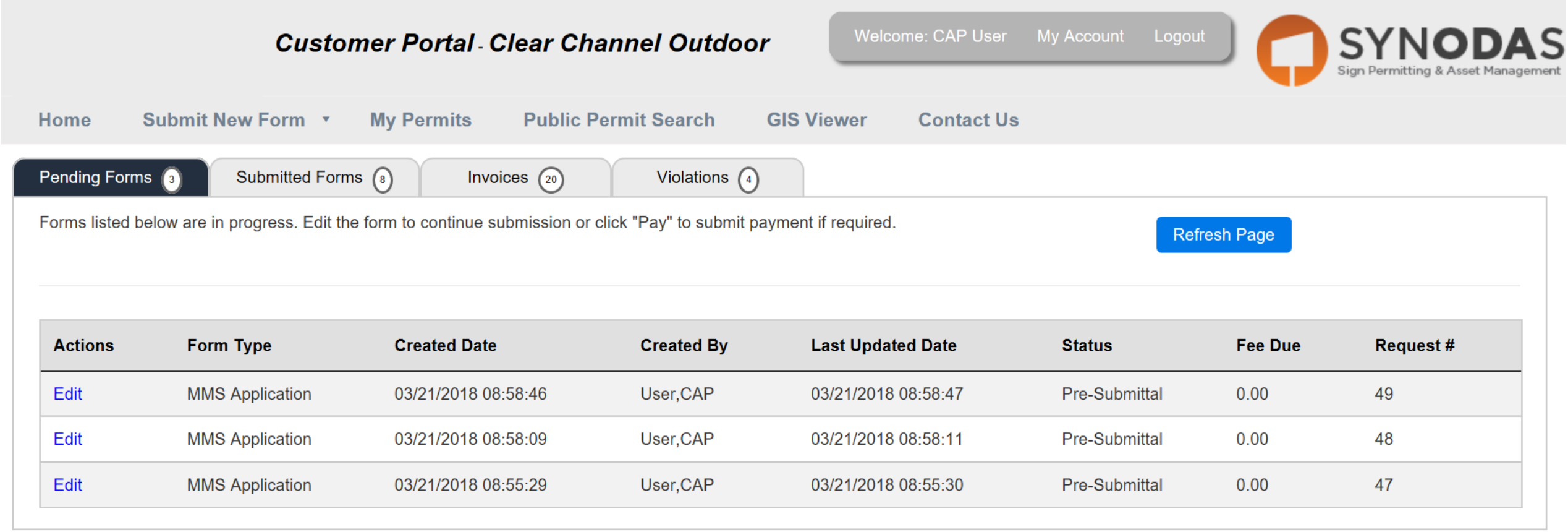
Customer Access Portal

- Online application submittals & payment processing
- Customers can view assets, invoices, and violations
- Track Application Status
- E-mail Notifications
- Public Permit Search
- GIS Viewer



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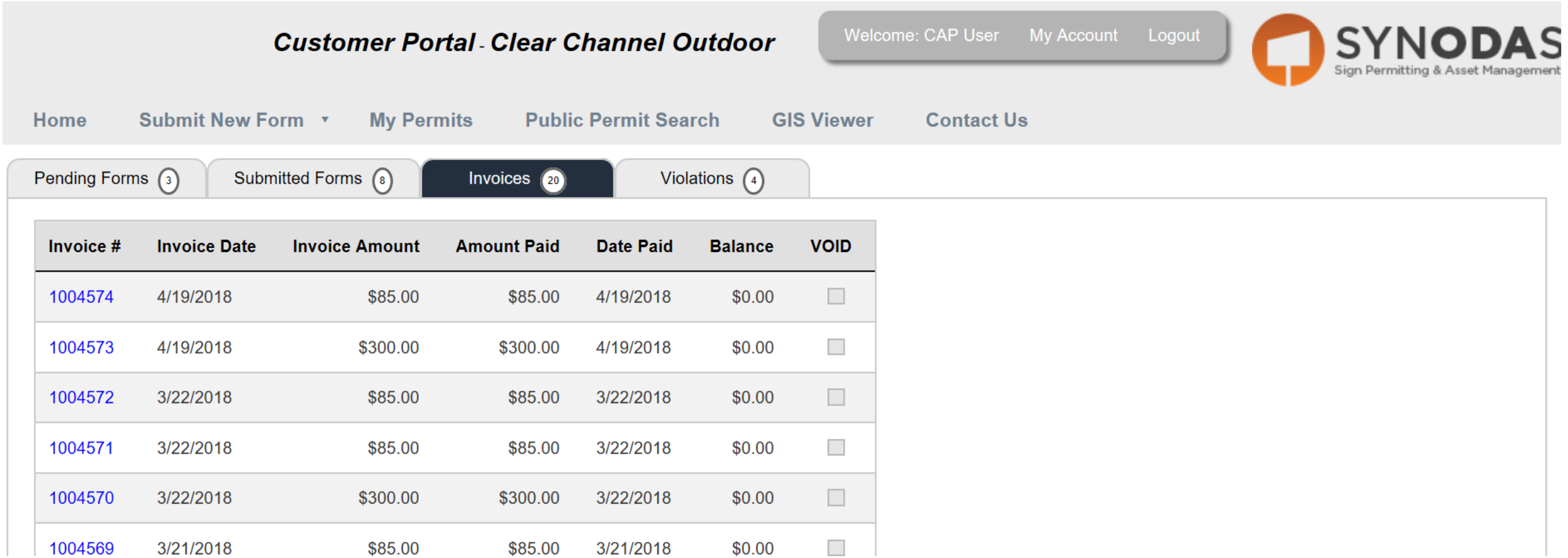

Invoice #	Invoice Date	Invoice Amount	Amount Paid	Date Paid	Balance	VOID
1004574	4/19/2018	$85.00	$85.00	4/19/2018	$0.00	☐
1004573	4/19/2018	$300.00	$300.00	4/19/2018	$0.00	☐
1004572	3/22/2018	$85.00	$85.00	3/22/2018	$0.00	☐
1004571	3/22/2018	$85.00	$85.00	3/22/2018	$0.00	☐
1004570	3/22/2018	$300.00	$300.00	3/22/2018	$0.00	☐
1004569	3/21/2018	$85.00	$85.00	3/21/2018	$0.00	☐

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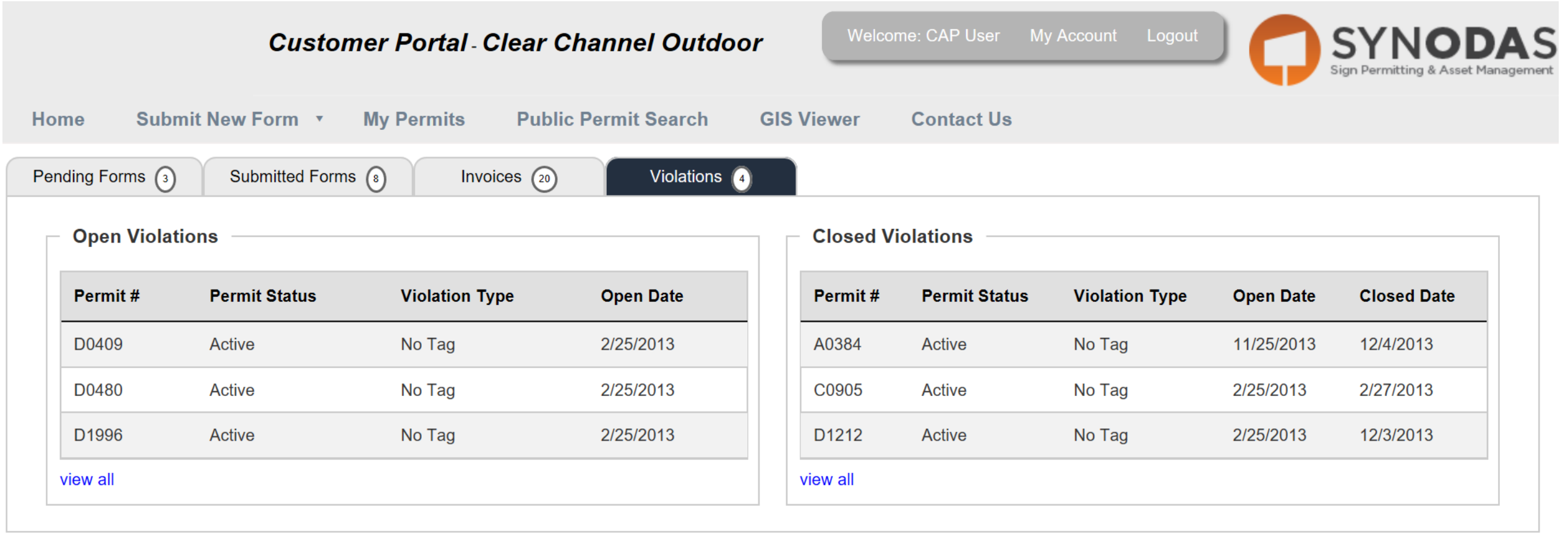
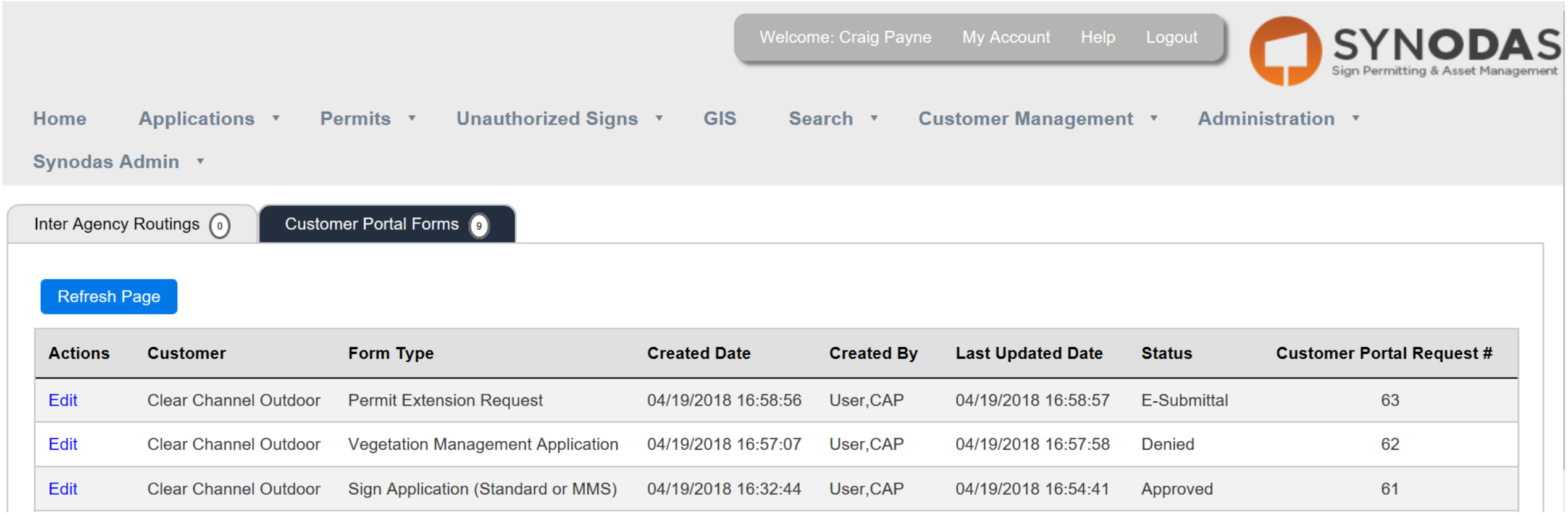


Agency CAP Access

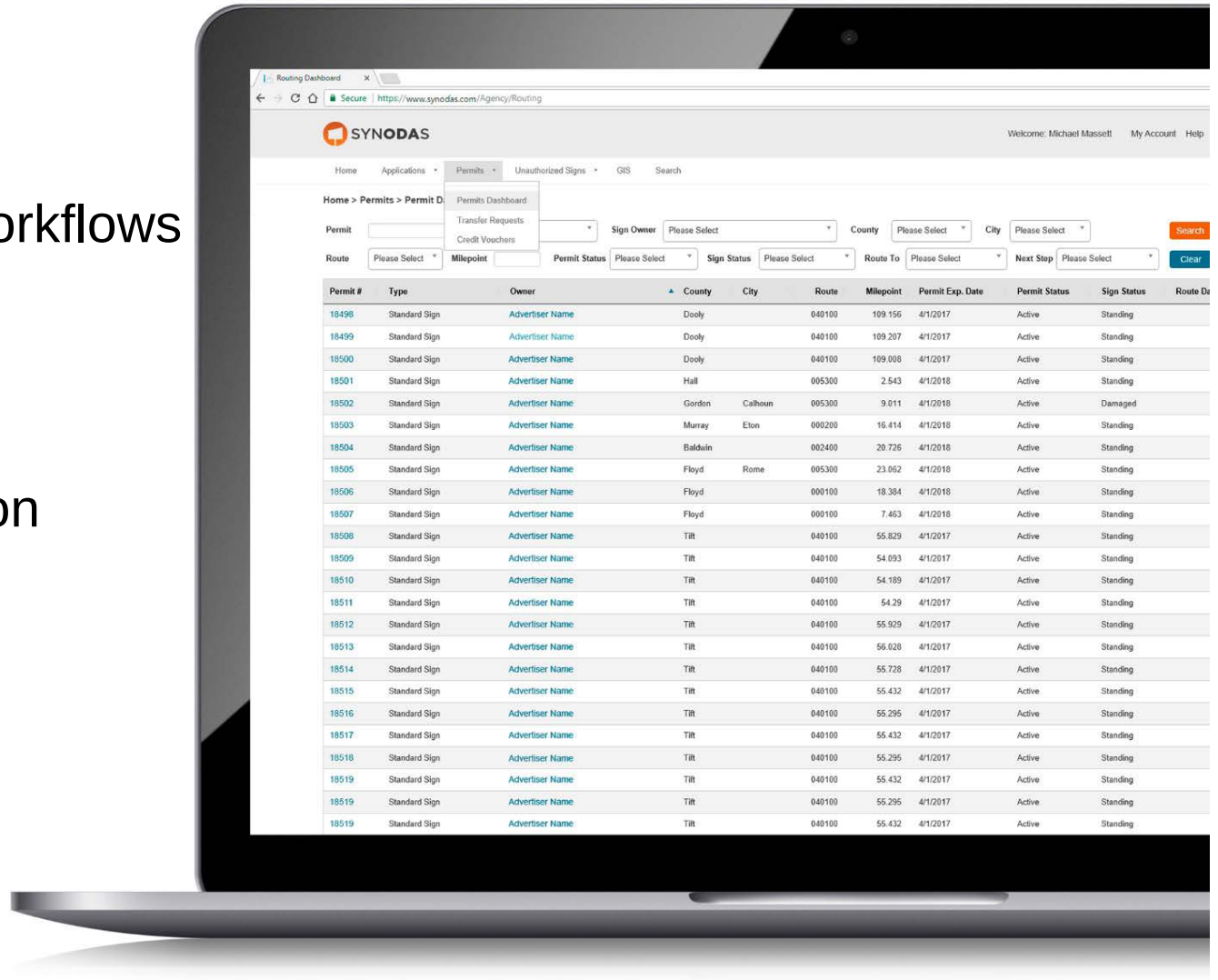
- Inter Agency Routing
  - Review
  - Field Check
  - Approval
- Customer Portal Forms
- Provide Customer with feedback
- Update Status
- E-mail notifications



Actions	Customer	Form Type	Created Date	Created By	Last Updated Date	Status	Customer Portal Request #
Edit	Clear Channel Outdoor	Permit Extension Request	04/19/2018 16:58:56	User,CAP	04/19/2018 16:58:57	E-Submittal	63
Edit	Clear Channel Outdoor	Vegetation Management Application	04/19/2018 16:57:07	User,CAP	04/19/2018 16:57:58	Denied	62
Edit	Clear Channel Outdoor	Sign Application (Standard or MMS)	04/19/2018 16:32:44	User,CAP	04/19/2018 16:54:41	Approved	61

Benefits

- Central Data Repository
- GIS-based asset registry
- Streamlines business processes & workflows
- Reduces/eliminates paperwork
- Expedites the application process
- Improves Customer/Agency Interaction
- Supports Litigation



Open Discussion

Need more information?

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e: tanya.camacho@cardno.com

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