

# Identifying and Mapping Municipal Registered Easement Locations

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# Agenda

- Project partners
- Project requirements
- Process overview
  - Easement identification – matching requirements
  - Anomaly report creation and document images
- Easement mapping data model and sample
- Questions and discussion

## Project Partners - Region of Peel

- The Regional Municipality of Peel is the second largest municipality in Ontario
- Incorporated in 1974 on the principle that certain services are more efficiently managed over a larger geographical area
- The last 30 years has seen rapid population growth and commercial development, creating a dynamic blend of urban, industrial and residential areas
- Subscriber of the Ontario Parcel Mapping since 1998
- Receives monthly updates of the Mapping and property ownership records through the GeoServer Data Delivery Service

## Project Partners - Region of Peel

- Easement records are managed in several systems for differing use by various Departments
- Water and Wastewater Divisions and Real Estate and Corporate Asset Management Sections require easement data related to linear water and wastewater infrastructure
- Peel identified the requirement to enhance, manage and maintain these records in a spatial environment as part of their asset management improvement goals to:
  - *Enhance asset inventory & improve cost estimates for future replacements*
  - *Improve risk assessments on linear infrastructure*
  - *Identify where easements are deficient & provide a basis to plan corrections*
  - *Provide Operations and Maintenance field staff with additional data*

## Project Partners - Teranet

- Mandated to automate property records under the Land Registry and Title Systems, and map every parcel of land in Ontario
- Helped build Ontario's Electronic Land Registration System, which it manages on behalf of the Province of Ontario
- The Electronic Land Registration System consists of the following databases:
  - Ownership Mapping,
  - Title Index, and
  - Document Images
- The system enables customers to conduct electronic transactions related to real property
- Subsets of these data elements are available for delivery to organizations to support GIS applications/workflow

## Project Requirements - Registered Easement Mapping

- Identify the location of existing Registered easements in favour of the Region of Peel by utilizing:
  - The Easement Report provided from Land Registry data, and
  - Easement Inventory Report provided by the Region
- Create reports containing the easement document particulars and corresponding property attributes
- Deliver .pdf images of the Registered Easement Documents
- Map the easement location and extents
- Deliver the easement mapping and associated details via the GeoServer

# Process Overview - Registered Easement Search - Peel Data

- The Region of Peel provided:
  1. A subset of their historically maintained easement inventory information. The key fields were:
    - Instrument Number
    - Registration Date
    - Party from/to

Peel_Source_Data : Table						
File Name	Subfile Name	Instrument No	REGDATE	From/To	Legal Desc	
Easements - 1956	Easements - Caledon	ALB17278	03-22-1956	Village of Bolton	Lot/Block 8, Conc. 7, Lot , Plan	
Easements - 1957	12" WATERMAIN	101380VS	01-11-1957	TORONTO TOWNSHI	Lot 32, Conc. 1 SDS	
Easements - 1957	27" SEWER	101548	01-22-1957	TORONTO TOWNSHIP	Lot A & B, Plan 470	
Easements - 1957	18" SEWER 8" WATER	102820	04-10-1957	TORONTO TOWNSHIP	Lot D,E,F,G,H,I,314,315, Plan 566	
Easements - 1957	15" SEWER	107445	11-15-1957	TORONTO TOWNSHIP	Lot A.B, Plan 470, Lot 11, Conc. 7 S.D.	
Easements - 1957	15" SEWER	107445	11-15-1957	TORONTO TOWNSHIP	Lot A B, Plan 470, Lot 11, Conc. 7 S.D.	
Easements - 1957	15" SEWER	107498	11-18-1957	TORONTO TOWNSHIP	Lot A B, Plan 470, Lot 11, Conc. 7 SD	
▶ Easements - 1957	10" WATERMAIN	107623	11-22-1957	PUBLIC UTILITIES COMMISSION OF TOR TWP	Lot 178, Plan 587, Lot 32, Conc. 2 SDS	
Easements - 1957	10" WATERMAIN	107623	11-22-1957	PUBLIC UTILITIES COMMISSION OF TOR TWP	Lot 179, Plan 587, Lot 32, Conc. 2 SDS	
Easements - 1957	12' SEWER	5828	12-24-1957	VILLAGE OF STREETSVILLE	Lot A, Plan 567, Lot 5, Conc. 4 WHS	
Easements - 1957	Easements - Caledon	3648BOL	06-18-1957	Village of Bolton	Lot/Block , Conc. , Lot F BLK1, Plan BOL-7	
Easements - 1957	Easements - Caledon	3648BOL	06-18-1957	Village of Bolton	Lot/Block , Conc. , Lot 2 BLK1, Plan BOL-7	
Easements - 1957	Easements - Caledon	3648BOL	06-18-1957	Village of Bolton	Lot/Block , Conc. , Lot 3 BLK1, Plan BOL-7	
Easements - 1957	Easements - Caledon	3648BOL	06-18-1957	Village of Bolton	Lot/Block , Conc. , Lot 4 BLK1, Plan BOL-7	
Easements - 1958	27" SEWER	112935	19-Aug-58	TORONTO TOWNSHIP	Lot B, Plan 470, Lot 11, Conc. 7 S.D.	
Easements - 1958	15" SEWER	6321	9-Sep-58	Graham Bell Limited to Village of Streetsville	Part of the East Half of Lot 4, Concession 5, \	
Easements - 1958	24" SEWER	6322	9-Sep-58	Dominion Sash Limited to Village of Streetsville	Part of the East Half of Lot 3, Concession 5, \	
Easements - 1958	15" SEWER	6347	29-Sep-58	Dolphin Development Company Ltd. To Village of	Part of Lots 101, 95,94, 93, 92, 91, 81 and 80	

# Process Overview - Registered Easement Search - Peel Data

2. A list of existing and historical “municipal names” that the Region or their predecessors may have utilized in the easement registration process

Peel_Corporate_Names : Table	
	Name
	The Regional Municipality of Peel
	The Corporation of the Township of Chinguacousy
	The Corporation of the Township of Toronto
	The Corporation of the Township of Toronto Gore
	The Corporation of the Township of Albion
	The Corporation of the Township of Caledon
	The Police Village of Alton
▶	The Police Village of Caledon
	The Police Village of Inglewood
	The Police Village of Palgrave
	The Corporation of the Village of Bolton
	The Corporation of the Village of Caledon East
	The Corporation of the Town of Mississauga
	The Corporation of the Town of Brampton
	The Corporation of the Village of Port Credit
	The Corporation of the Town of Port Credit
	The Corporation of the Village of Streetsville
	The Corporation of the Town of Streetsville

## Process Overview - Registered Easement Search - Teranet Data

- Utilizing the data in the Land Registry System, Teranet extracted the attributes for all active registered documents that can be used to transfer easement rights
- The document types include:
  - T = Transfer (Grant)
  - TESMT = Transfer (Easement)
  - NO = Notice
  - AG = Agreement
  - NOAG = Notice of Agreement
  - TRW = Transfer (Right of Way)
  - AGRW = Agreement (Right of Way)
- Associated property attributes such as PIN, registration date, legal description, party to and party from are included in the Report

## Process Overview - “Easement Reconciliation Report”

- Utilizing key data fields (common to both Peel and Teranet datasets) and string matching, this Report provides a list of all matching easement records

04\_Easement Reconciliation Report : Table

PEEL_Instrument No	PIN	TERANET_INSTRUMENT_NUM	INSTRUMENT_TYPE	REGISTRATION	REGISTRATION	PARTY_TO_1
LT1128562	131200014	LT1128562	TESMT	06/05/1990	L	MISSISSAUGA HYDRO-ELECTRIC
LT1125846	131200018	LT1125846	TESMT	05/28/1990	L	THE REGIONAL MUNICIPALITY OF
LT1125846	131200019	LT1125846	TESMT	05/28/1990	L	THE REGIONAL MUNICIPALITY OF
LT1125846	131200020	LT1125846	TESMT	05/28/1990	L	THE REGIONAL MUNICIPALITY OF
LT1050489	131200022	LT1050489	TESMT	09/14/1989	L	THE CORPORATION OF THE CITY
LT1050489	131200023	LT1050489	TESMT	09/14/1989	L	THE CORPORATION OF THE CITY

- In some cases, prefixes and suffixes were missing or incorrect. By removing these and providing a secondary match on the Registration Date, the remaining records are matched

Easement\_Reconciliation\_partial\_string\_match : Table

PEEL_INSTRUMENT_NO	TERANET_INSTRUMENT_NO	PEEL_REGDATE	TERANET_REG_DATE
ALB17278	AL17278	03-22-1956	03/22/1956
3648BOL	BO3648	06-18-1957	06/18/1957
BOL3774	BO3774	7-Feb-58	02/07/1958
BOL4339	BO4339	2-Jul-59	07/02/1959
BOL4340	BO4340	2-Jul-59	07/02/1959
35554	BR35554	4-Nov-58	11/04/1958
35659	BR35659	1-Dec-58	12/01/1958

- Deliver the easement mapping and associated details via the GeoServer

# Process Overview - “Anomaly Report A”

- This report provides the Registered Easement Information for records where the “municipal name” matches the “party to” name in a registered easement type document
- “Core” strings with wildcards are utilized. Thus, the *Village of “Streetsville”* from the source file was correctly matched to the *Town of “Streetsville”*
- Manual quality control is required on core string match.

Peel_Corporate_Names : Table	
	Name
	The Regional Municipality of Peel
	The Corporation of the Township of Chinuacousy
	The Corporation of the Township of Toronto
	The Corporation of the Township of Toronto Gore
	The Corporation of the Township of Albion
	The Corporation of the Township of Caledon
	The Police Village of Alton
▶	The Police Village of Caledon
	The Police Village of Inglewood
	The Police Village of Palgrave
	The Corporation of the Village of Bolton
	The Corporation of the Village of Caledon East
	The Corporation of the Town of Mississauga
	The Corporation of the Town of Brampton
	The Corporation of the Village of Port Credit
	The Corporation of the Town of Port Credit
	The Corporation of the Village of Streetsville
	The Corporation of the Town of Streetsville

05_Easement_Anomaly_Report_A : Table						
	PIN	INSTRUMENT_1	INSTRUMENT_2	REGISTRATION	PARTY_TO_1	PARTY_TO_2
	141100065	LT93628	NOAG	09/30/1976	THE CORPORATION OF THE CITY OF BRAMPTON	THE REGIONAL MUNICIPALITY OF PEEL
	133570445	LT198513	NOAG	11/23/1978	THE CORPORATION OF THE CITY OF MISSISSAUGA	THE REGIONAL MUNICIPALITY OF PEEL
	133591330	TT146245	AG	06/15/1962	THE CORPORATION OF THE TOWNSHIP OF TORONTO	
	131230032	VS177130	AG	07/19/1971	THE CORPORATION OF THE TOWN OF STREETSVILLE	THE PUBLIC UTILITIES COMMISSION OF THE TC
	131230032	VS177130	AG	07/19/1971	THE CORPORATION OF THE TOWN OF STREETSVILLE	THE PUBLIC UTILITIES COMMISSION OF THE TC

## Process Overview - “Anomaly Report B”

- Based on the Easement Inventory Report provided by Peel, this report returned the list of documents that were not found in the Land Registry records.
- These records require further investigation to determine why they are unmatched. (e.g. A typo in the Instrument Number, expired easement, etc.)
- Despite being unable to match these directly via the Reconciliation Report, the majority of these have been found via the Corporate Names matching process.

### 06\_Easement\_Anomaly\_Report\_B : Table

File Name	Subfile Name	Instrument No	REGDATE	From/To	Legal Desc
Easements - 1956	42" SANITARY	BY-LAW 481	10-26-1956	TOWN OF BRAMPTON	Lot 60, Plan 307 1 WHS
Easements - 1956	42" SANITARY	BY-LAW 481	10-26-1956	TOWN OF BRAMPTON	Lot 61, Plan 307 1 WHS
Easements - 1957	12" WATERMA	101380VS	01-11-1957	TORONTO TOWNSHI	Lot 32, Conc. 1 SDS
Easements - 1957	27" SEWER	101548	01-22-1957	TORONTO TOWNSHIP	Lot A & B, Plan 470
Easements - 1959	18" SANITARY	BY-LAW 542	6-Feb-59	TOWN OF BRAMPTON	Lot A, Plan G-23, Lot 6, Conc. 1 WHS
Easements - 1959	42" SANITARY	120246	22-Jun-59	O.W.R.C.	Lot 13, Conc. 3 EHS
Easements - 1959	10" SANITARY	9802	16-Jul-59	TOWN OF MISSISSAUGA	Lot D, Plan 604
Easements - 1959	10"SEWER	BY-LAW 551	21-Aug-59	TORONTO TOWNSHIP	Lot 17, Plan TOR-12
Easements - 1959	10" SANITARY	123548	7-Oct-59	TOWNSHIP OF TORONTO	Lot 32, Conc. 2 SDS

# Process Overview - Registered Instrument Images

- Images of the Registered Easement documents are provided
- Registered document Images can be linked to the Report(s) and GIS mapping.
- Full images of the registered documents enable users to examine the particulars of each easement

## 04\_Easement Reconciliation Report : Table

PEEL_Instrument No	PIN	TERANET_INSTRUMENT_NUM	INSTRUMENT_TYPE
LT1128562	131200014	LT1128562	TESMT
LT1125846	131200018	LT1125846	TESMT
LT1125846	131200019	LT1125846	TESMT
LT1125846	131200020	LT1125846	TESMT
LT1050489	131200022	LT1050489	TESMT
LT1050489	131200023	LT1050489	TESMT

Province of Ontario  
**Transfer/Deed of Land**  
 Form 1 — Land Registration Reform Act, 1984  
 21T-85039

(1) Registry  Land Titles  (2) Page 1 of 10 pages

(3) Property identifier(s) Block Property Additional: See Schedule

(4) Consideration Two----- Dollars \$2.00

(5) Description This is a: Property Division  Property Consolidation   
 Part of Parcel R111 - 1, Section 43M-856, City of Mississauga, Regional Municipality of Peel, and being composed of Part of Block 110, according to Plan 43M-856, designated as Parts 123, 124, and 125, on Plan 43R-16234.

(6) This Document Contains (a)  New Easement (b) Schedule for: Description  Additional Parties  Other

(7) Interest/Estate Transferred **EASEMENT**

(8) Transferor(s) The transferor hereby transfers the land to the transferee...

**AUTHORIZED BY BY-LAW 87-89**

Name(s) **THE REGIONAL MUNICIPALITY OF PEEL** Date of Signature Y M D  
 Signature(s) R. Kent Gillespie, Solicitor 1990 03 16  
 Deborah E. Trouten, Clerk 1990 03 19

(9) Spouse(s) of Transferor(s) I hereby consent to this transaction

## Easement Mapping - Data Models

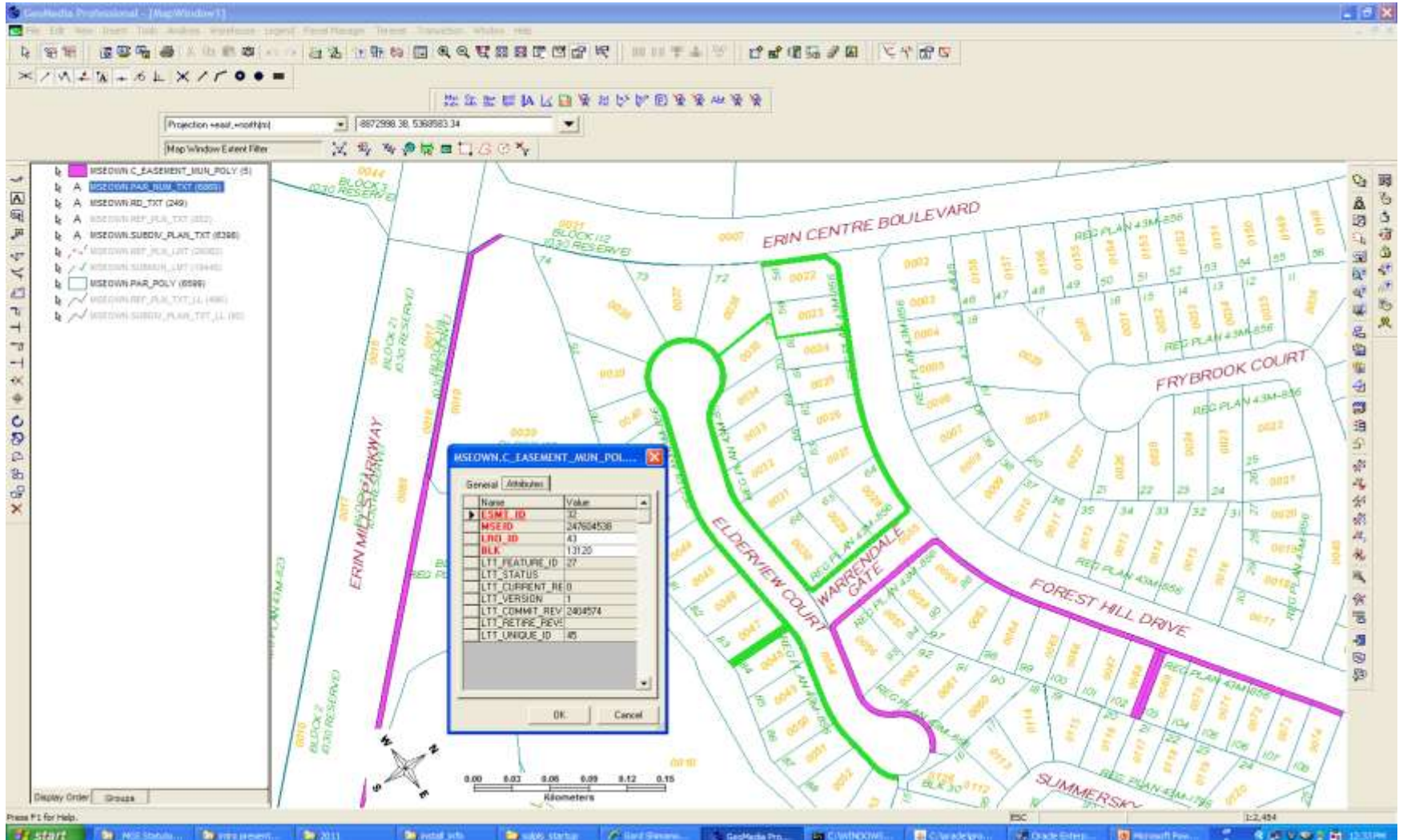
- Extents of each easement are mapped and the location is coordinated with the existing ownership parcel fabric
- Three easement features are created with the following attributes:

Feature Name	Type	Description	Attributes
Municipal Easement Identifier	Text	A text feature defining the subject Instrument number	LRO number POLARIS Block number Text String (Instrument Number)
Municipal Easement Boundary	Line / polyline / arc	This feature delineates an extent of a subject easement	LRO POLARIS Block number
Municipal Easement Polygon	Polygon	A feature illustrating the extents of a subject easement	LRO number POLARIS Block number Instrument Number Plan Number if applicable



# Easement Mapping - Sample

- The extent of the easement is mapped spatially



# Easement Mapping - Sample

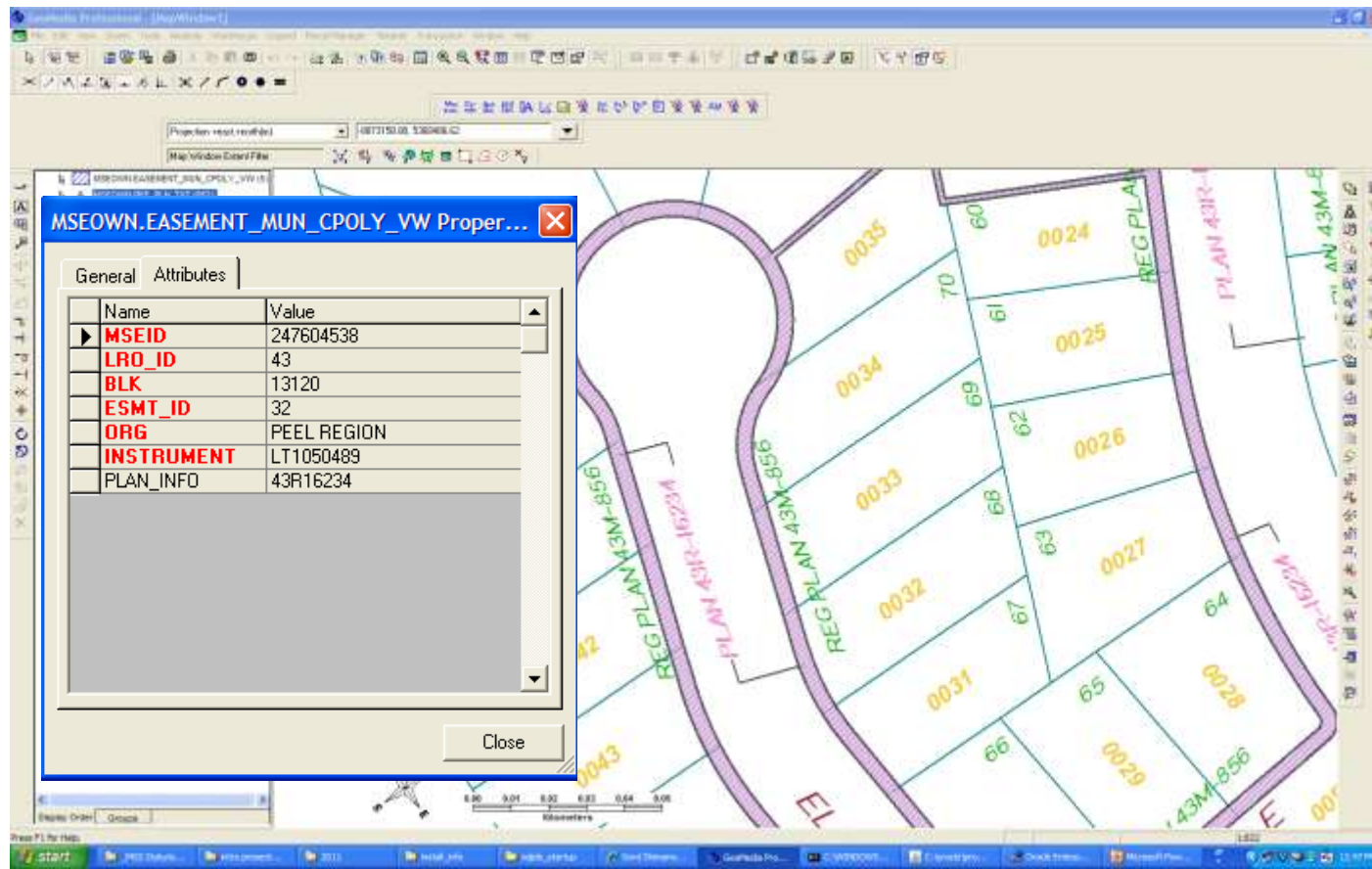
- The appropriate attribution is assigned to the easement feature including:
  - ORG = Organization (Region of Peel)
  - Instrument Number of the Easement, and
  - Plan Information (if applicable)

The screenshot shows a software interface for managing easement data. A dialog box titled 'Easement Maintenance' is open, displaying a table of selected attributes. The table has three columns: ORG, INSTRUMENT, and PLAN\_INFO. One record is selected and highlighted in yellow, with a red border around it. The record details are: ORG: PEEL REGION, INSTRUMENT: LT1050489, and PLAN\_INFO: 43R16234. Below the table, there are sections for 'Attributes Copy' (Copy From, Copy To) and 'Attributes Operation' (ORG: PEEL REGION, Instrument, Plan Info) with buttons for Insert, Update, and Close. The background shows a map with various streets and easement boundaries.

ORG	INSTRUMENT	PLAN_INFO
PEEL REGION	LT1050489	43R16234

## Easement Mapping - Sample

- The data model allows for overlapping easements and other unique situations
- Deliveries are provided incrementally through the project lifecycle



## Questions and Discussion

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