

## **Right of Way Bureau**

### **Plan Preparation Guidelines for Consultants Preparing ROW Plans**

**Prepared by:**  
**ROW Engineering Section**  
**July 2020**

# Meet the Panel

## Survey Section

- **John Anthony**- State Survey Engineer  
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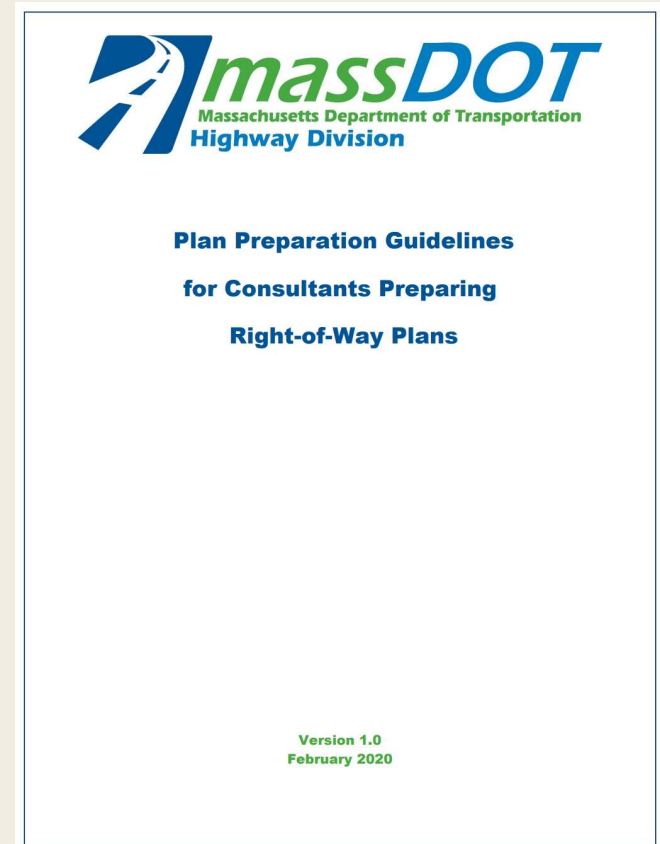
## ROW Bureau

- **John DeLeire** – Director of ROW-  
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- **Mike Chouinard** – State Layout Engineer -  
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- **Jess Leone** – ROW Engineering Administrator -  
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# Objectives

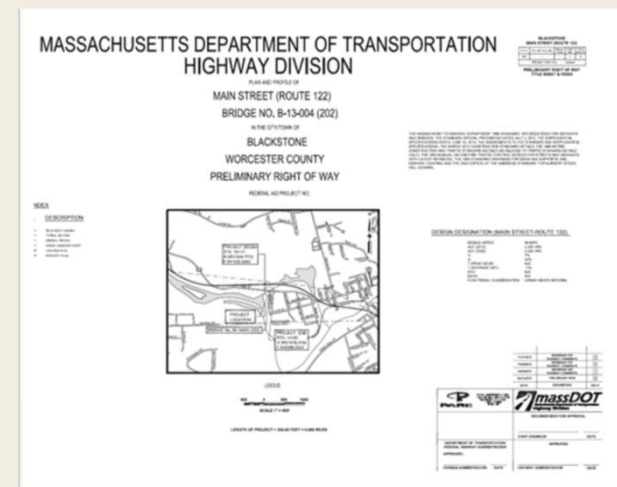
- An improved understanding of the ROW process.
- **Significant reduction in the number of projects that need reaccepted plans.**
- Reduced number of submissions before we get to accepted ROW plans.
- Better quality submissions.
- Present new cosmetic requirements that will help our agents, appraisers and municipality staff (non-engineers) understand the plans.
- Discuss content within the Plan Preparation Guidelines for Consultants preparing ROW Plans and the follow-up survey questionnaire.

Will receive a follow-up link with a PDF document of responses to open ended questions.



# What are the ROW Plans?

- The accepted/approved ROW plans:
  - Provide information to **define the extent of the proposed permanent or temporary takings** required to construct and maintain a highway, roadway or corridor.
  - Must be presented in a way so those who do not have developed plan reading skills can **understand what is proposed adjacent to the existing ROW**.
  - Are a tool used by ROW agents, municipalities, appraisers and legal counsel to explain project impacts to the abutting property owners and used by appraisers to **determine the award** of damages due to the property owners.
  - Have 3 layers of information: survey basemap, proposed design and ROW Information.
  - **Need to match the information on the construction plans, as well as the subsequent recorded Layout/Easement plans.**
- Community Compliance **approves** the ROW plans because on municipal ROW projects, MassDOT does not own the roadway and is only responsible to ensure plans have been reviewed to meet applicable requirements.
- The municipality/LPA should also review each submission.

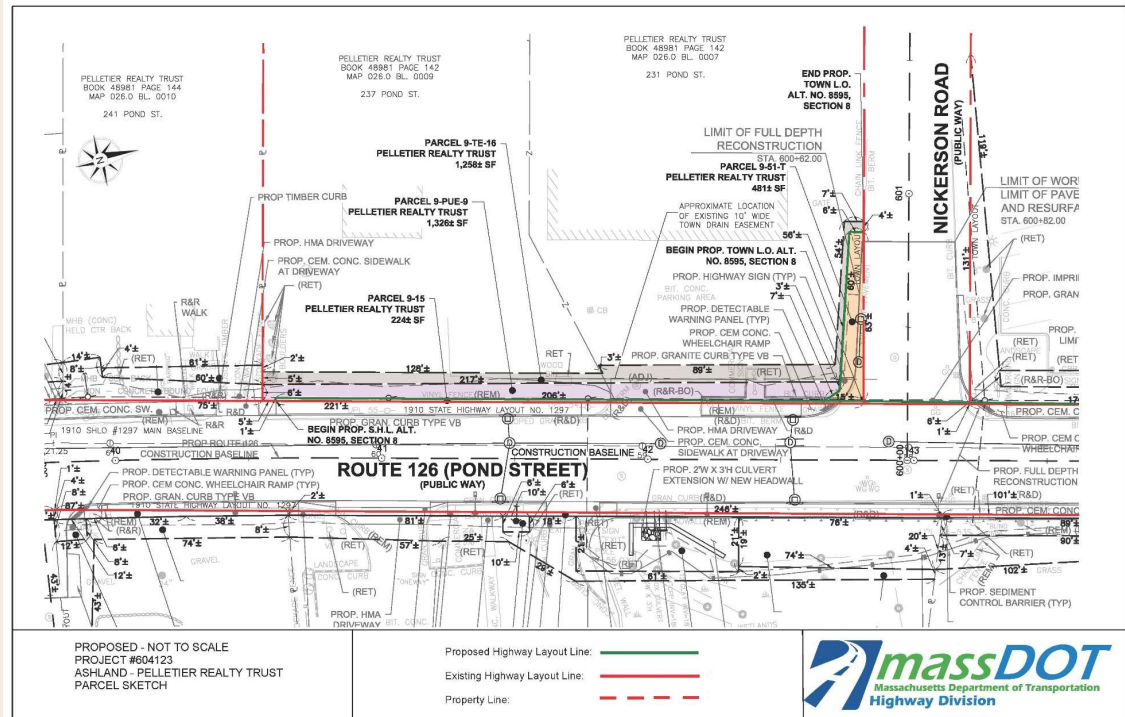


# Parcel Sketches – State ROW Only



- Immediately before plans are accepted, the ROW Engineering Section will create a **sketch** for **each property owner** affected by a permanent or temporary easement.
- The sketch is a tool used by ROW agents, appraisers, legal council and relocation staff.
- Often the sketch is the **only item presented to the property owner**.

Color	Type of Parcel
	Fee (State)
	Fee (City/Town)
	Drainage/Water Main
	Permanent Easement (E, GR, W, etc)
	Permanent Easement (City/Town)
	Temporary Easement
	Temporary Wetland Replication
	Uneconomic Remnant
	Existing Layout Line / Property Line
	Proposed Layout Line



## Right of Way Bureau

The acquisition of right-of-way is vital to the development of many projects and can often be the **critical path** to getting a project advertised on time.

- The ROW Bureau is authorized to acquire land interests for state transportation purposes in accordance with **State and Federal Laws**.
- The acquisition process begins after ROW plans are accepted/approved.
- **It is critical that the design adjacent to the existing ROW is locked down at the time plans are accepted/approved.**
- To ensure the earliest possible commencement of the acquisition process, the ROW plans should be accepted at the **75% design stage**.
- This allows time to complete the acquisition process, **in coordination with MassDOT's advertisement date**.



The acquisition process takes 9 months, at minimum, after the plans are accepted/approved.



# State and Federal Laws

- **Eminent Domain** – The right of a government or its agent to take private property for public use, with paid compensation.
- **M.G.L Chapter 79** is the State Law that governs eminent domain takings.
  - The law authorizes the state to acquire property by eminent domain and prescribe the steps necessary to implement such takings.
- **Title 23 of the Code of Federal Regulations** authorizes the State to acquire rights-of-way of such nature and extent as are adequate for the construction, operation and maintenance of a project.
- **Title 49 of the Code of Federal Regulations, Part 24** is the **Uniform Act**, which ensures that property owners are treated fairly and consistently.
  - **Federal Highway Administration monitors our work for compliance with the Uniform Act**



## Land Restrictions

- The State and municipality **cannot acquire federal** land by eminent domain.
- If federal land is needed for temporary or permanent use, MassDOT or the municipality **must be granted by agreement with the agency in possession**
- For government owned land, provide not only the book and page but also the entity that controls the property.
- Examples of Federal government-owned land includes (but not limited too): Veteran Affairs (VA) Hospitals, Military Bases – Department of Defense, National Park Land, Federal Government Office Properties, and the US Post Office.





## Land Restrictions

- State government owned land **cannot be acquired by eminent domain**. The process is subject to legislation with the entity that controls the property which can vary in time and complexity.
- Examples of State government-owned land include (but not limited too): Department of Conservation and Recreation (DCR), Department of Fish and Wildlife, State Police, Department of Corrections, DCAMM, and State Universities, etc.
- When a **railroad property** falls within the work limits of a proposed project, all acquisitions are by **agreement** in the form of a lease, land damage agreement or grant.
- **Protected land includes:** Article 97, Agricultural Preservation Restrictions, Conservation Restrictions and Public Schools.



The consultant shall make a diligent effort to determine if a property has restrictions that may affect the ROW process and make every effort possible to avoid work on land with restrictions.

# State ROW Acquisition Process

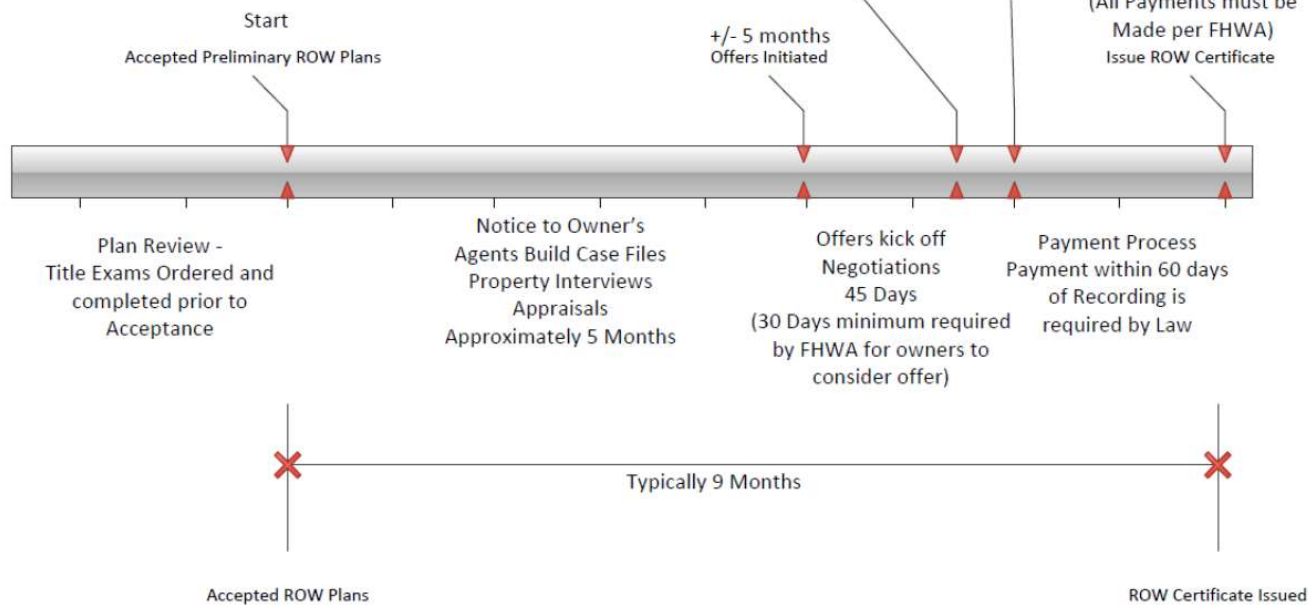


- **Conveyancing Section** determines legal ownership and lienholders. They ensure the parcel of land on ROW plans matches record deed. They also complete the Layout Schedule to determine if legal ownership has changed.
- **Projects Section** meets with property owners to explain impacts to their property.
- **Relocation Section** meets with any property owner whose non-encroaching personal property will be impacted by construction is entitled to relocation benefits as mandated by 49 CFR Part 24 and MGL 79A. The relocation benefits include the cost to relocate personal property from a proposed right of way.
- **Appraisals Section** use the square footage and dispositions shown on the ROW plans to determine just compensation for easements being acquired.
- **Layouts Section** performs a calculation check for the review of State Highway Layout and Easement plans to **ensure information on the accepted ROW plans are accurate** and match the information on the proposed Layout Plan. The Layout/Easement Plan and Instrument is recorded at the registry of deeds.
- **Negotiations Section** sends offers, manages property owners' requests and follows up with post acquisition inquires from the property owners.
- **Finance Section** process payment to each property owner.

# State ROW Acquisition Timeline



## MassDOT Right of Way Typical Acquisition Timeline



- MassDOT ROW **cannot send offers or negotiate with property owners** until National Environmental Policy Act (NEPA) is cleared by the Environmental Section.
- Once appraisals are complete, **the acquisition process is on hold** if NEPA has not been cleared.

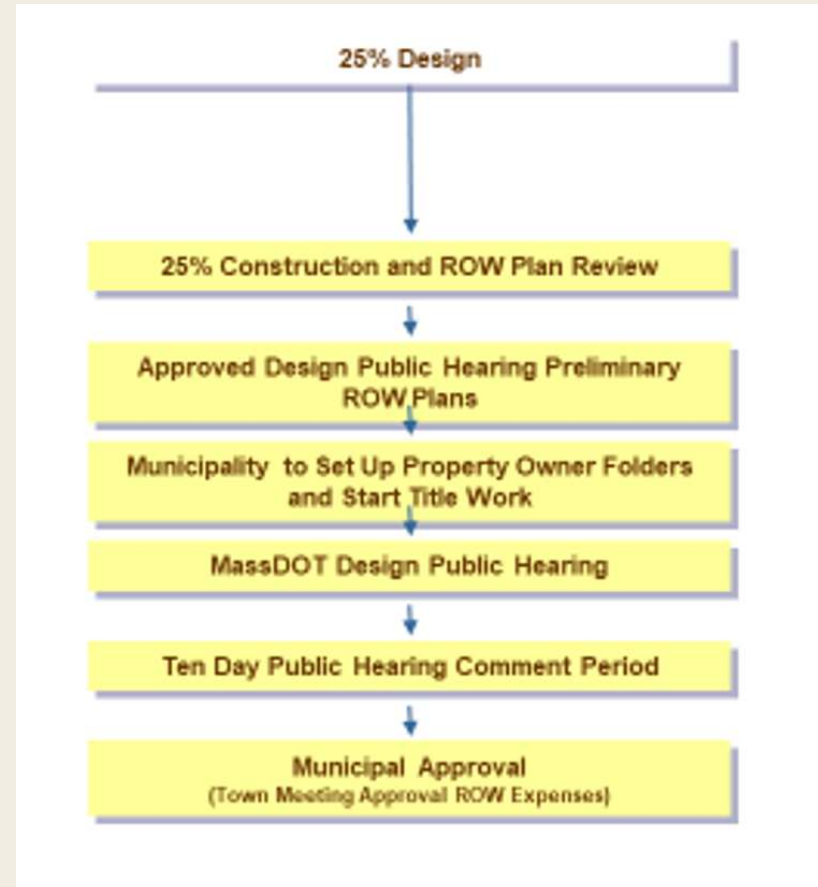
# Muni ROW Acquisition Process

- **The Community Compliance Section**
  - Works with municipalities and other Local Public Agencies on their federally aided/MassDOT administered projects by providing a Community Compliance Officer that works with the municipal officials every step of the way.
  - Provide a Municipal Training Program that provides a detailed overview of the process
  - Ensure that municipalities follow all federal and state regulations in the ROW acquisitions process.
- **A project cannot be advertised for construction bids until the ROW Bureau issues a ROW certificate**



# Muni ROW Acquisition Process

- **The 25% design phase**
  - Reaffirm or identify municipal liaison.
  - Begin municipal authorization process.
  - Identify ROW associated costs.
  - Identify property owners.
  - ROW plans required at 25% design submittal.





# Muni ROW Acquisition Process

- **The 75% to 100% design phase**
  - Municipality is responsible for all appraisal, damages and litigation costs.



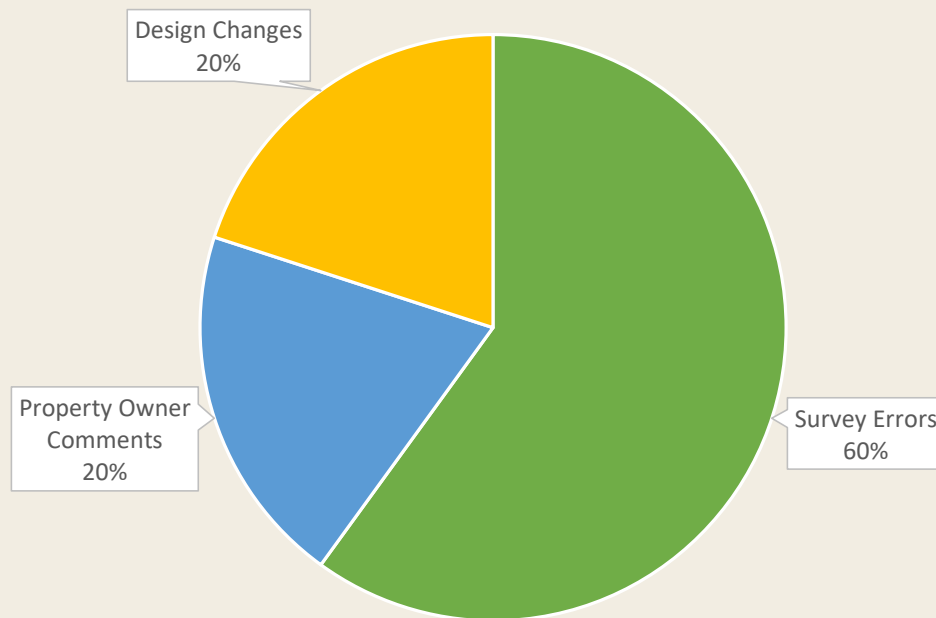
## Recent Failures

- There have been many recent projects that had incorrect and inaccurate information on the accepted/approved ROW Plans that caused delays in the acquisition process, including:
  - **Incorrect existing layout** information
    - Information not recreated correctly in CAD from record plans.
    - Establishment of existing location lines placed incorrectly along entire corridor of a project.
  - **Incorrect placement of property lines.**
    - GIS data and information from the assessors' map used to establish property lines on ROW plans.
  - A municipality contracted the original surveyor for a project to prepare the survey baseplan. **The surveyor was not prequalified by MassDOT.**
  - Combo State/Municipal project with different and **conflicting information** between all sets of plans.
  - **Differences in information** between accepted/approved ROW plan and Layout plans.
    - **Numerous parcel area differences between the accepted/approved ROW plan and proposed Layout Plan**
    - CAD file sharing issues between consultants
  - **Conflicting information** between the accepted ROW plans and the Construction Plans.



# Recent Failures

- In FY20 we have reaccepted ROW plans for 56% of the projects while the acquisition process was underway.



- 60% of the reaccepted plans were because the **survey baseplan** was incorrect. The existing layout lines were established incorrectly, or property lines were placed incorrectly.
- 20% of the reaccepted plans were based from **design changes**.
- 20% of the reaccepted plans were to **accommodate property owners' requests**.

# Recent Failures

What happens when we reaccept ROW Plans?

- Reaccepting the ROW Plans **creates havoc within** the ROW Bureau and the **project schedule**.
  - The Engineering Section will need to review the plans again and recreate sketches.
  - The Projects Section will need to meet with the property owners again.
  - The Appraisals Section will need to recalculate the compensation.
  - The Layouts Section will have to redo their calc check and review.



If the ROW Plans need to be reaccepted, expect severe delays in the acquisition process. The project schedule will be delayed, and the AD date will not be met, **jeopardizing the federal fiscal funding**. We have encountered delays of up to 12 months when the information on the survey baseplan was inaccurate.

# Proposed Solutions

- MassDOT recommends **surveyors prequalified in category S3 participate in the development and preparation of the ROW Plans**. This will ensure the survey information on the survey baseplan is brought up to date. The geometry and parcel configurations can also be seamlessly utilized in the preparation of the Layout/Easement plans. The PLS from the survey company needs to **accept the previous survey work under the provision in 250CMR Section 5.03(4)**.
- Often difference in calculations are discovered upon the creation or review of the proposed Layout Plans which delays the acquisition process.
- Information provided to the property owners by the ROW agents and appraisers, early in the acquisition process, needs to match the proposed Layout/Easement Plans and instruments to be recorded.
- The calculations and geometry on the ROW Plans must be **developed precisely at the acceptance stage, to ensure the seamless transition in the eventual development of the Layout/Easement documents**.
- This is controlled by:
  - Code of Massachusetts Regulations Title 250
  - MassDOT Contract Standard Provisions – Division I
  - MassDOT Contract Standard Provisions – Division II
  - MassDOT Survey Manual





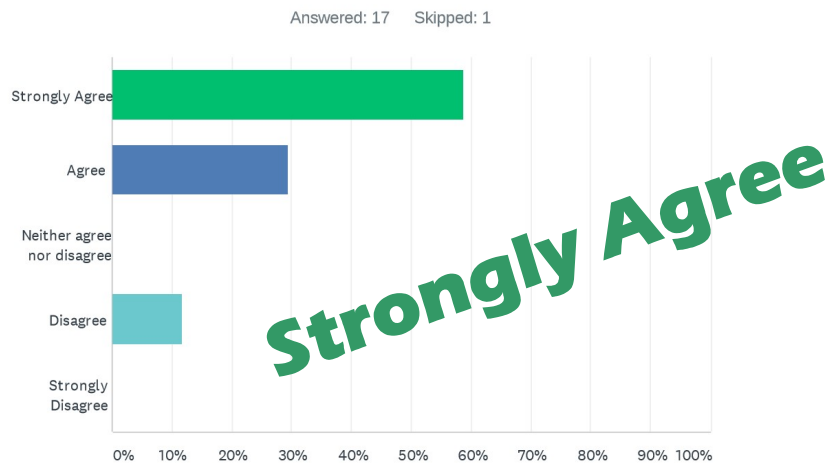
# Proposed Solutions

- Responsibilities of the PLS participating in the preparation of the ROW plans should include:
  - Confirmation that the survey baseplan is complete and accurate before the consultant begins the proposed design.
  - **Ensure that the geometry and parcel configurations on the accepted ROW plans can be seamlessly utilized in the preparation of the Layout/Easement plans.**
  - Update the property owner information and existing conditions throughout the design process, especially before the 25% and 75% submission.
  - Confirm land restrictions are properly identified on the ROW plans.
  - Review the **title package** when it becomes available from State ROW or the municipality to ensure:
    - Abutter property **frontages** are within an acceptable tolerance per the deed and record plan.
    - Parcels shown on the location plan have the **proper geometry** per the deed and record plan.
    - All **existing easements** are properly shown.
    - **Property owner information** is shown correctly on the parcel summary sheet, location plan and property plan.



# PLS to accurately establish existing layout lines

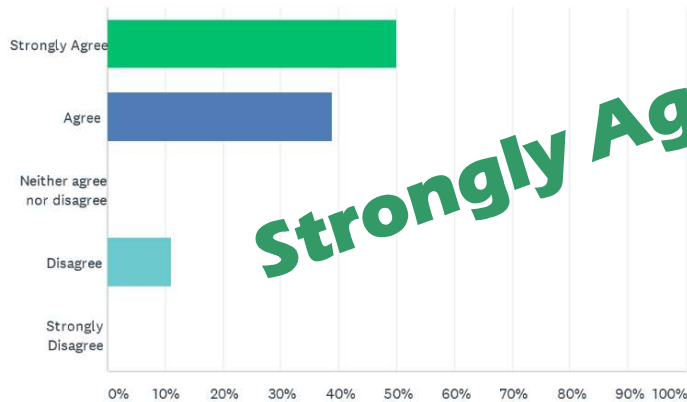
Q23 It is the responsibility of a Professional Land Surveyor (only) to accurately establish the existing layout location lines on the Right of Way plans based on a field survey in which an adequate amount of highway bounds were recovered.



- **State Highway or roadway layout lines** represent the boundary between the Department's interest in the highway and the abutting properties.
- The sidelines are **required** to be established by a **Massachusetts PLS**.
- The establishment is determined during the preparation of the survey baseplan.

Q15 It is important that consultants preparing Right of Way plans ensure that abutters property frontages calculated on Right of Way plans should match or be within an acceptable tolerance of the frontage reported in the record deed description.

Answered: 18 Skipped: 0

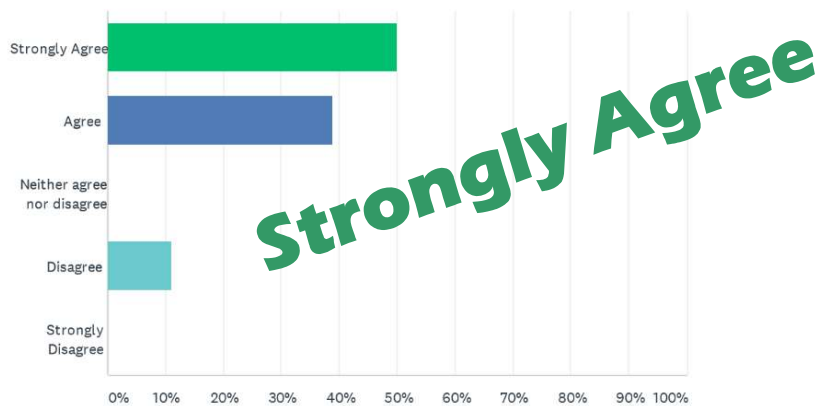


- Property lines of abutters to State Highway and other roadways are required to be **established on the plans by compiling information from the best available source.**
- The best available sources include the deed for the property, record plans of the property, subdivisions plans, land court plans, etc.
- By utilizing this process there is **an expected degree of accuracy** on the placement of the property lines. Even though they are approximate, the accuracy of the property lines should be **within an acceptable tolerance.**

# Frontages

Q15 It is important that consultants preparing Right of Way plans ensure that abutters property frontages calculated on Right of Way plans should match or be within an acceptable tolerance of the frontage reported in the record deed description.

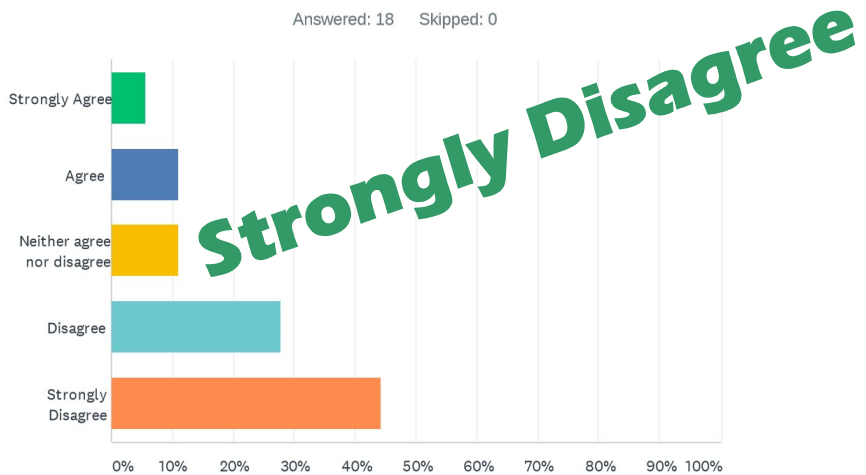
Answered: 18 Skipped: 0



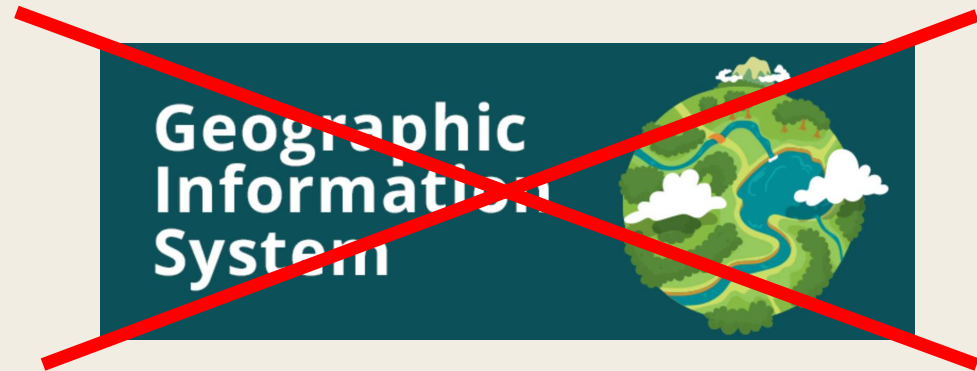
- When the property lines of abutters to public ways are shown incorrectly on the ROW plans, the **project is on hold** until the plans can be adjusted and correctly show the property lines and proposed easement areas.
- The discovery of the improper placement of the property lines is usually found during the title examination, the creation of the layout plans, or in the review of layout plans. **This comes at a critical stage in the project and puts the AD date in jeopardy.**

Q24 It is acceptable to utilize GIS Property line data to establish abutters property lines on Right of Way plans.

Answered: 18 Skipped: 0

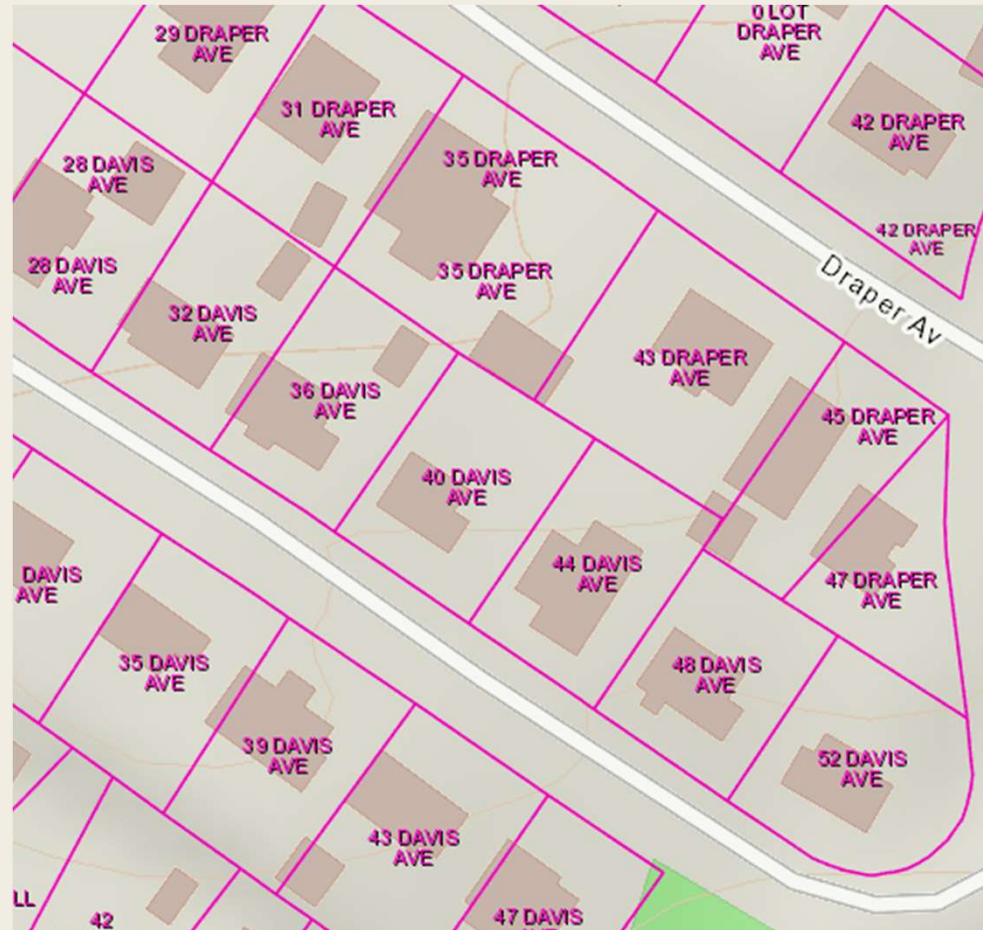


- GIS/assessors' maps are not an acceptable source to place property lines on the plans. GIS data and assessor's map information are not drawn with the accuracy required for acquiring the needed rights for transportation projects.



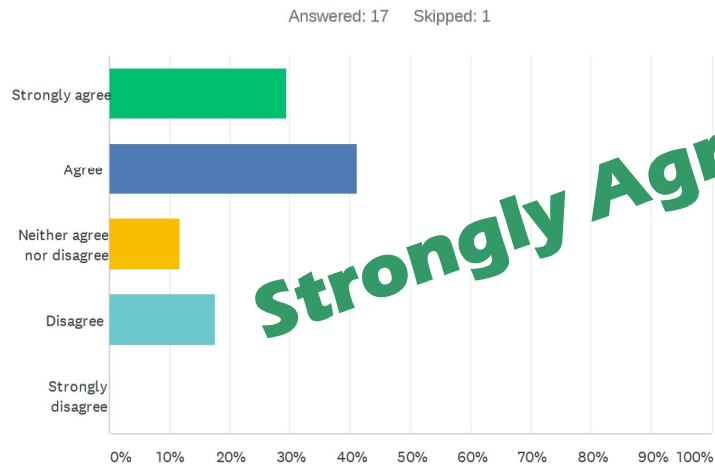


- MassGIS Screen Grab



# Updating the baseplan

Q21 It is critically important that the surveyor confirms that the abutters property owner information is current throughout the review process to ensure that the property owner shown on the Right of Way plans is accurate.



- **The baseplan must remain current throughout the design process including keeping property owner information and existing conditions accurate.**
- This is a critical task that will result in greater accuracy and efficiency through the acquisition process.
- The surveyor participating in the preparation of the ROW plans should:
  - Check and update the **property owner information** shown on the ROW plans throughout the design process, specifically before the 25% and 75% submission.
  - Confirm the **existing conditions** are accurately shown on the ROW plans throughout the design process, specifically before the 25% and 75% submission.

# Dispositions

- Correctly showing and communicating the dispositions for all personal property items is one of the most **important components of the ROW plans**.
- All **privately owned items**, within a proposed easement area requires a disposition.
- The disposition must be represented **accurately** on both the **construction and ROW plans** to ensure all parties (property owners, agents, appraisers, legal counsel, project managers, district personnel and the contractor) understand which features are **compensable**, which are to be retained and which are to be removed.



**OR**



# Dispositions

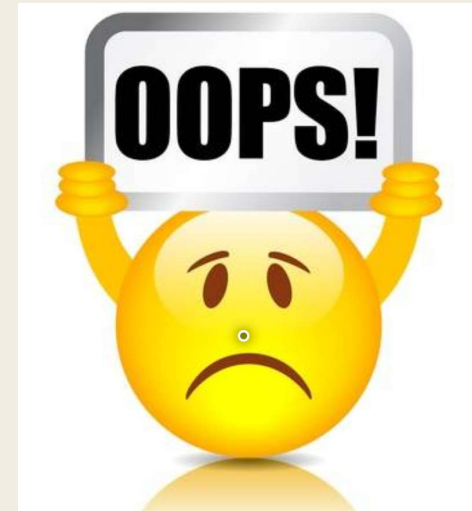
- We received several concerns that the dispositions on the highway plans do not match the dispositions on the ROW plans.
- **ROW did not update the dispositions with these newly issued guidelines.** This has always been our standard, but this may be the first time we are acknowledging there is a difference between ROW Plans and Highway Plans.
- Throughout our review process we often have many comments about incorrect dispositions that need to be updated on the ROW plans. We believe there are some designers who were not aware that we had our own disposition guidelines that differed from the Highway plans.
  - Unfortunately, we are not able to have consistent dispositions.
    - To ROW, **REM** means the property owner will be compensated.
    - **REM** is not an acceptable disposition on the Highway plans because the contractor needs to know what to do with the item once it is removed.
    - If the ROW plans show a disposition that is **REM**, the Highway plans will show either **R&S** or **R&D**.
    - To ROW, **R&S** and **R&D** means the item is trespassing and the property owner will not be compensated.

# Dispositions

	ROW PLANS				HIGHWAY PLANS			
	Yes		No		Yes		No	
	No	Yes	No	Yes	No	Yes	No	Yes
Bench	RET <sup>1</sup>	R&S	RET	REM	RET <sup>1</sup>	R&S	RET	R&S
Bollard	RET <sup>1</sup>	R&S	RET	REM	RET <sup>1</sup>	R&S	RET	R&S
Boulder (Decorative)	RET <sup>1</sup>	R&S	RET	REM	RET <sup>1</sup>	R&S	RET	R&S
Bush	RET <sup>1</sup>	R&D	RET	REM	RET <sup>1</sup>	R&D	RET	R&D
Fence or Guardrail	RET <sup>1</sup>	R&S	RET	REM or R&R <sup>3</sup>	RET <sup>1</sup>	R&S	RET	R&S or R&R <sup>3</sup>
Flag Pole	RET <sup>1</sup>	R&S	RET	R&R (BO)	RET <sup>1</sup>	R&S	RET	R&S
Irrigation System	RET <sup>1</sup>	R&S	RET	REM	RET <sup>1</sup>	R&S	RET	R&S
Light Pole	RET <sup>1</sup>	R&S	RET	R&R (BO)	RET <sup>1</sup>	R&S	RET	R&S
Landscape Area	RET <sup>1</sup>	R&D	RET	REM	RET <sup>1</sup>	R&D	RET	R&D
Mailbox	RET	R&R <sup>2</sup>	RET	R&R <sup>2</sup>	RET	R&R <sup>2</sup>	RET	R&R <sup>2</sup>
Planter	RET <sup>1</sup>	R&D	RET	REM	RET <sup>1</sup>	R&D	RET	R&D
Septic System	RET <sup>1</sup>	R&S	RET	REM	RET <sup>1</sup>	R&S	RET	R&D
Sign (Private)	RET <sup>1</sup>	R&S	RET	R&R (BO)	RET <sup>1</sup>	R&S	RET	R&R (BO)
Sign (Highway)	RET <sup>1</sup>	R&S	RET	REM or R&R <sup>4</sup>	RET <sup>1</sup>	R&S	RET	R&S or R&R <sup>4</sup>
Steps	RET <sup>1</sup>	R&S	RET	REM	RET <sup>1</sup>	R&S	RET	R&S
Tree (Decorative)	RET <sup>1</sup>	R&D	RET	REM	RET <sup>1</sup>	R&D	RET	R&D
Walkway	RET	R&S	RET	REM or R&R <sup>5</sup>	RET	R&S	RET	R&S or R&R <sup>5</sup>
Wall	RET <sup>1</sup>	R&S	RET	REM	RET <sup>1</sup>	R&S	RET	R&S
RET <sup>1</sup>	Permit is required from District to allow continued trespass (State) and license is required from municipality (Muni)							
R&R <sup>2</sup>	Mailboxes shall always be R&R due to USPS requirements							
R&R <sup>3</sup>	R&R if fence or guardrail is required for public safety or site security							
R&R <sup>4</sup>	R&R only if sign is in good condition and still applicable							
R&R <sup>5</sup>	R&R if there is MassDOT Standard Item (brick, flagstone, etc.)							

- There is one discrepancy on Appendix A.2 – Dispositions we would like to point out. A flagpole and light pole should be R&R(BO) on the highway plans if the item is impacted and not trespassing.

Should be R&R(BO)





# New Cosmetic Requirements



All updates from the guidelines must be incorporated into projects set to advertise in FY22 and beyond.

- **Title Sheet.** See new notes below:

## BASE MAP NOTES

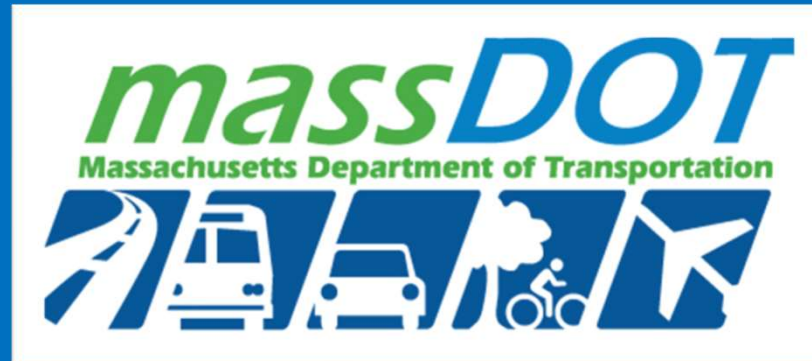
1. THE SURVEY BASE PLAN WAS PREPARED BY XYZ COMPANY IN MONTH, YEAR AND SUPPLEMENTED BY XYZ COMPANY IN MONTH, YEAR.
2. THE MOST RECENT SITE VISIT WAS COMPLETED IN MONTH, YEAR TO VERIFY THAT THE EXISTING CONDITIONS SHOWN ON THE PLAN ARE THE CURRENT CONDITIONS IN THE FIELD.
3. THE LAYOUT AND PROPERTY LINES SHOWN ON THE PLAN WERE COMPILED FROM \_\_\_\_\_ CERTIFIED BY \_\_\_\_\_, A PLS IN DIRECT CHARGE AND SUPERVISION OF THE SURVEY BASEMAP.
4. THE OWNERS HAVE BEEN CHECKED AND UPDATED AS OF MONTH, YEAR.

- **Legend, Abbreviations and Project Description** (New Sheet)
- **Updated Parcel Summary Sheet**
  - New Columns including: Frontage on ROW Plan, Property Address, Land Restrictions from Deed.
  - The remarks column will be filled out for all parcels (both temporary and permanent).

- **Dispositions** will be on their own layer in AutoCAD and will plot darker, making it easier for the ROW team to identify.
- **CAD Standard Updates:** Parcel Area's will be linked to a closed polyline that traces the entire parcel.
  - Visually there will not be any changes to the ROW plans but hopefully it eliminates discrepancy is when calculating parcel areas.

Depending on size and plan status, some of the new cosmetic requirements will be incorporated into FY21 projects but will be handled on a case by case basis.





## **Right of Way Bureau Questions?**

**Thank you!**