



LifeMark® 75 Planning Operation

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What Is a LifeMark[®] 75 system?

- The LifeMark[®] 75 system is a complete pavement marking layout location system
- It includes control systems to record where existing markings are located via GPS
- The raw data is processed by LimnTech
- The system is able to layout the new markings following the GPS recorded data

How will you use the LifeMark[®] 75?


- The LifeMark[®] 75 will assist you in managing your “follow the paver” work
- You will proactively plan work
- A full road plan will lead to more efficient scheduling



Dispatch Operation – old way

- Follow the Paver – short working time windows
- Pull Chain – two person minimum – 1 mile/hour
- Show up and wait.....
- Who? - Need skilled person for layout
- How ? - Drawings – missing information
- Why? - Paver finished late





Operation – New Way

- Choose roads to record
- Record roads when it fits your schedule, day or night, rain or shine
- Maintain full book of recorded roads for lots of flexibility
- As pavers pave roads and lanes, choose layout crew – LifeMark[®] 75 or manual crew,
- Perform layout with LifeMark[®] 75 in safety in less time, at 8 to 15 mph
- Stripe Road later with less skilled crew using LifeMark[®] 75



Getting Started in the office

- Create an Administrator Account for the Administration Page
- Create User accounts for the Administration Page
- Create Proposed Path names in the office
- Checking Proposed Road Geography
- Reviewing Recorded Files
- Checking Recording Quality
- Staying Organized
- Archiving Files
- Truck Management
- RTK Managements



Create an Administrator Account for the Administration Page

- Give LimnTech the email address of the person who will be your website administrator
- LimnTech will send an account creation email to that address
- That person will choose a password, and become the site administrator
- LimnTech can fix errors.
- Choose the password carefully



The Administrator

- The Administrator is the user who can do the most:
- Assign Paths to trucks
- Assign RTK to a truck
- View, Edit and archive paths
- Create and edit proposed Paths
- View, Edit Activate and Delete Archived Paths
- View, Create, Edit and Delete users



Create User accounts for the Administration Page

- Your Administrator will create user accounts for your Administration page
- Users can:
 - Assign and RTK to a truck
 - View Active Paths
 - View Proposed Paths
 - View Archived Paths



Create Proposed Path names in the office

- In the office you can pre-load file names to make things easier and more accurate for the field people operating the truck
- Decide on your naming key system
- Examples:
- State-County-City-Road-Direction-Lane line-
- PA-Montgomery-Hatboro-Main St- NB-YCL
-



Checking Proposed Road Geography

- Before you send a crew out to record, review the Road in Google maps or Earth to look for possible issues
- LifeMark-75 depends on cell phone service and GPS/RTK service
- If the location will not have any of the services, recording capability will be compromised.
- Tunnels, valleys, Tree or Building tunnels



Reviewing Recorded Files

- The office or field teams can review recorded files once the field team has synchronized
- This can assist planning to fix errors before the field team leaves the site
- Examples are the wrong road or marking is recorded
- The topography (trees or buildings) suggest recording in the opposite direction might yield better results
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Checking Recording Quality

- Recording quality can vary
- Gaps in the red path line indicate a need to layout by hand
- Check gap lengths and curves
- Can the layout driver drive through the gap?
- If not plan for hand layout crew and time



Staying Organized

- Old completed jobs can have files archived
- Files names can be changed in the office
- The office can add descriptive information into the description – example start at McDonalds
-



Archiving Files

- In the Edit page, click on files to move them to Archive
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Truck Management

- The truck management screen allows for changes to:



RTK Management

LimnTech Administration Screens will allow for work planning in the office

The screenshot displays the LimnTech Administration web interface. At the top, there is a navigation bar with links for 'Truck Management', 'Active Paths', 'Proposed Paths', and 'Archived Paths', along with 'Change Password' and 'Logout' options. Below the navigation bar, the main heading is 'LimnTech Administration'. A summary table provides the following data:

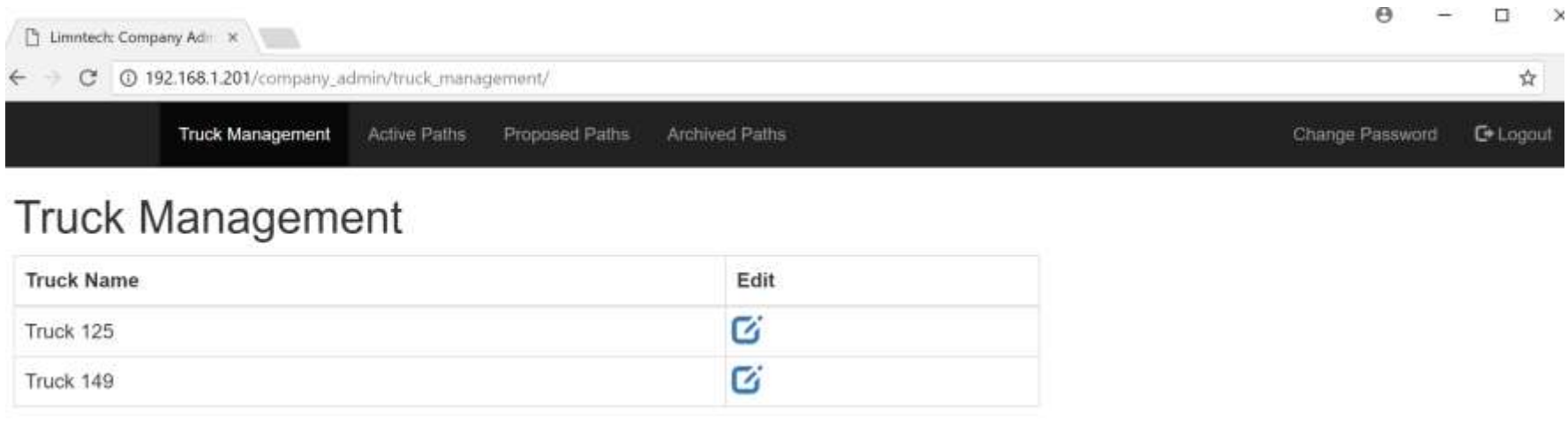
Trucks	2
Active Paths	67
Archived Paths	55
Proposed Paths	3

Below the table, there is a section titled 'Total Path Overlay:' which contains a map of the region around Allentown, PA. The map shows various roads and highways, with several blue lines overlaid on the map, representing recorded paths. The map includes labels for locations such as Northampton, Easton, Allentown, Kutztown, Quakertown, Flemington, Bridgewater, and Princeton.



View completed recorded roads in a Map format

Admin Page is visible on cellphones or tablets that have Internet access in field

Truck Management

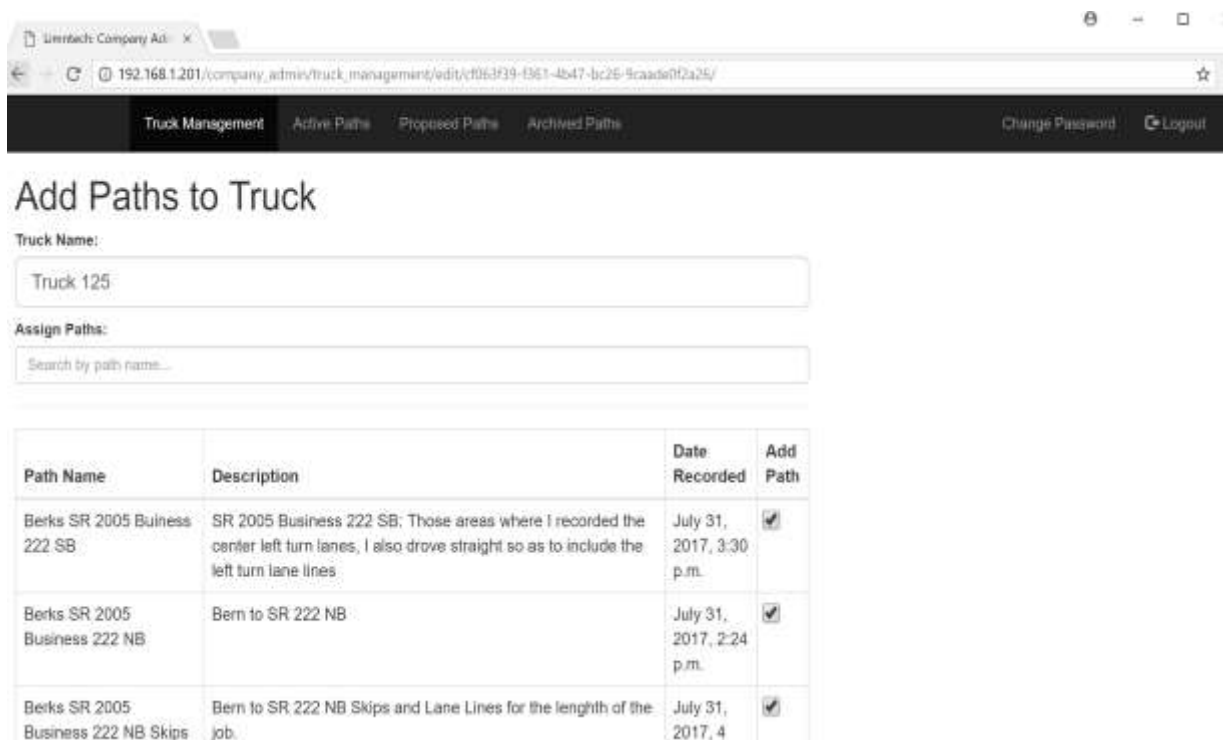


Truck Management

Truck Name	Edit
Truck 125	
Truck 149	

Manage multiple trucks from the office

Loading Recorded Roads onto each truck

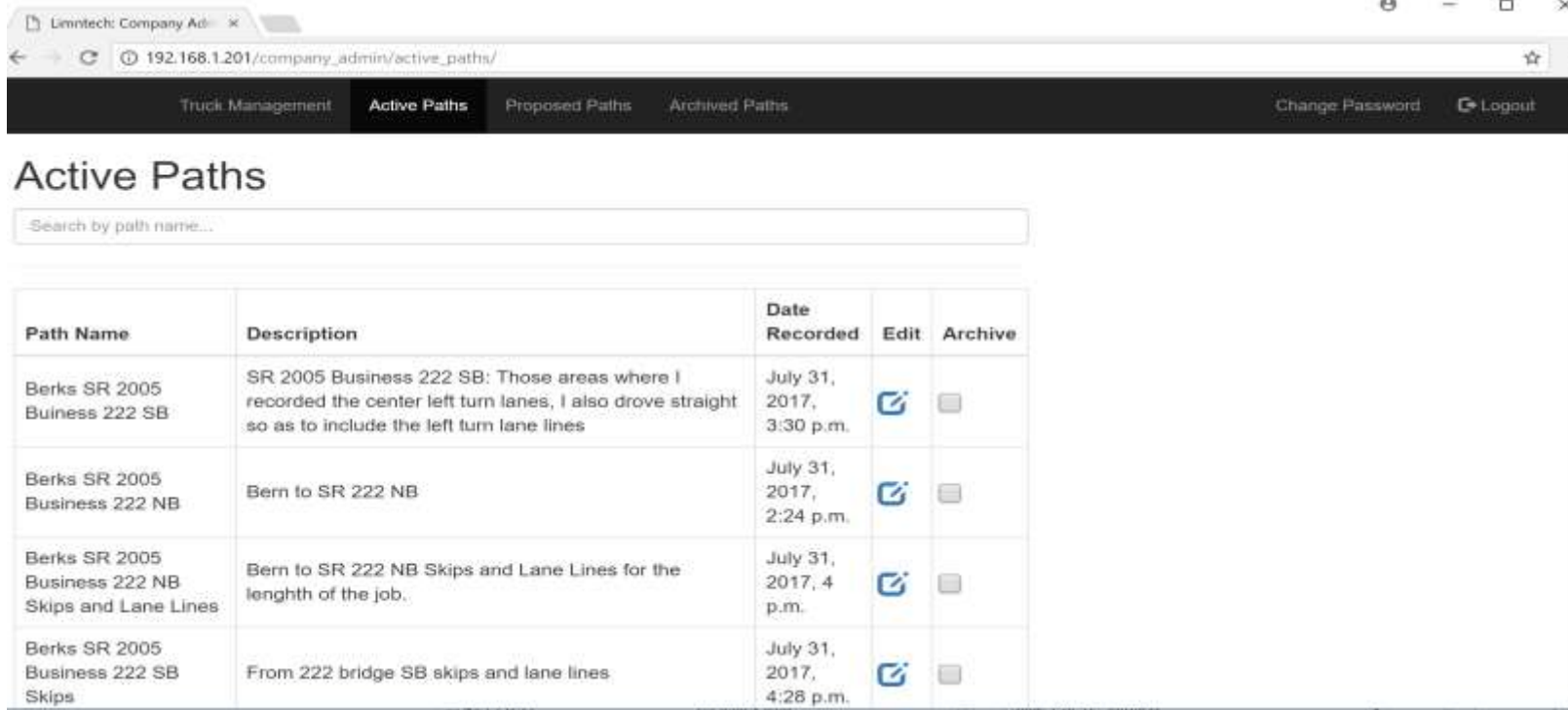






The screenshot shows a web browser window with the URL `192.168.1.201/company_admin/truck_management/edit/cf063f39-6361-4b47-bc26-9caad0f2a25/`. The page title is "Add Paths to Truck". The "Truck Name" field contains "Truck 125". The "Assign Paths" section has a search input field with the placeholder "Search by path name...". Below this is a table of recorded paths.

Path Name	Description	Date Recorded	Add Path
Berks SR 2005 Business 222 SB	SR 2005 Business 222 SB: Those areas where I recorded the center left turn lanes, I also drove straight so as to include the left turn lane lines	July 31, 2017, 3:30 p.m.	<input checked="" type="checkbox"/>
Berks SR 2005 Business 222 NB	Bern to SR 222 NB	July 31, 2017, 2:24 p.m.	<input checked="" type="checkbox"/>
Berks SR 2005 Business 222 NB Skips	Bern to SR 222 NB Skips and Lane Lines for the length of the job.	July 31, 2017, 4	<input checked="" type="checkbox"/>

Manage what the field team sees on the truck display to keep it simple for them

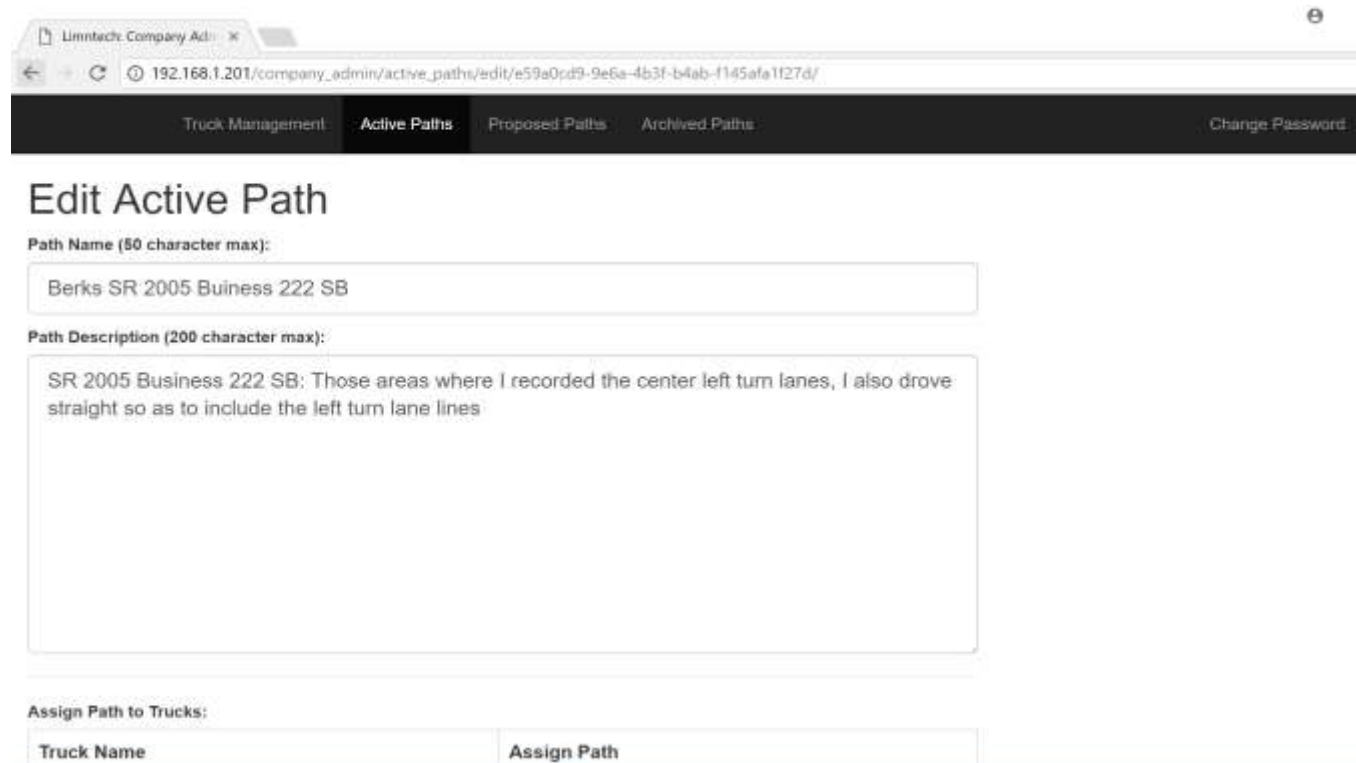
List of Recorded Roads and paths



Path Name	Description	Date Recorded	Edit	Archive
Berks SR 2005 Business 222 SB	SR 2005 Business 222 SB: Those areas where I recorded the center left turn lanes, I also drove straight so as to include the left turn lane lines	July 31, 2017, 3:30 p.m.		<input type="checkbox"/>
Berks SR 2005 Business 222 NB	Bern to SR 222 NB	July 31, 2017, 2:24 p.m.		<input type="checkbox"/>
Berks SR 2005 Business 222 NB Skips and Lane Lines	Bern to SR 222 NB Skips and Lane Lines for the length of the job.	July 31, 2017, 4 p.m.		<input type="checkbox"/>
Berks SR 2005 Business 222 SB Skips	From 222 bridge SB skips and lane lines	July 31, 2017, 4:28 p.m.		<input type="checkbox"/>

Office Personnel can view the lists of completed recordings after truck synchronizes

Editing the name of a recorded road is possible by the office



The screenshot shows a web browser window with the URL `192.168.1.201/company_admin/active_paths/edit/e59a0cd9-9e6a-4b3f-b4ab-f145afa1f27d/`. The page has a dark navigation bar with tabs for "Truck Management", "Active Paths", "Proposed Paths", and "Archived Paths", and a "Change Password" link. The main content area is titled "Edit Active Path" and contains the following form fields:

- Path Name (50 character max):** A text input field containing "Berks SR 2005 Buiness 222 SB".
- Path Description (200 character max):** A text area containing "SR 2005 Business 222 SB; Those areas where I recorded the center left turn lanes, I also drove straight so as to include the left turn lane lines".
- Assign Path to Trucks:** A table with two columns: "Truck Name" and "Assign Path".

Truck Name	Assign Path
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Editing in the office allows for simple error corrections. Seeing the map recorded makes it accurate.

Choosing the truck to assign road to

The screenshot shows a web browser window with the URL `192.168.1.201/company_admin/active_paths/edit/e59a0cd9-9e6a-4b3f-b4ab-f145afa1f27d/`. The navigation menu includes `Truck Management`, `Active Paths` (selected), `Proposed Paths`, `Archived Paths`, and `Change Password`. The main heading is `Edit Active Path`. Below it, there are two input fields: `Path Name (50 character max):` containing `Berks SR 2005 Buiness 222 SB` and `Path Description (200 character max):` containing `SR 2005 Business 222 SB: Those areas where I recorded the center left turn lanes, I also drove straight so as to include the left turn lane lines`. At the bottom, there is a section `Assign Path to Trucks:` with a table header.

Truck Name	Assign Path
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Choosing the truck

Assign Path to Trucks:

Truck Name	Assign Path
Truck 125	<input checked="" type="checkbox"/>
Truck 149	<input checked="" type="checkbox"/>

Select All

Deselect All

Save

Path Overlay:





Viewing Recorded Map Files

This allows management to view roads recorded and layout requirements to plan properly.

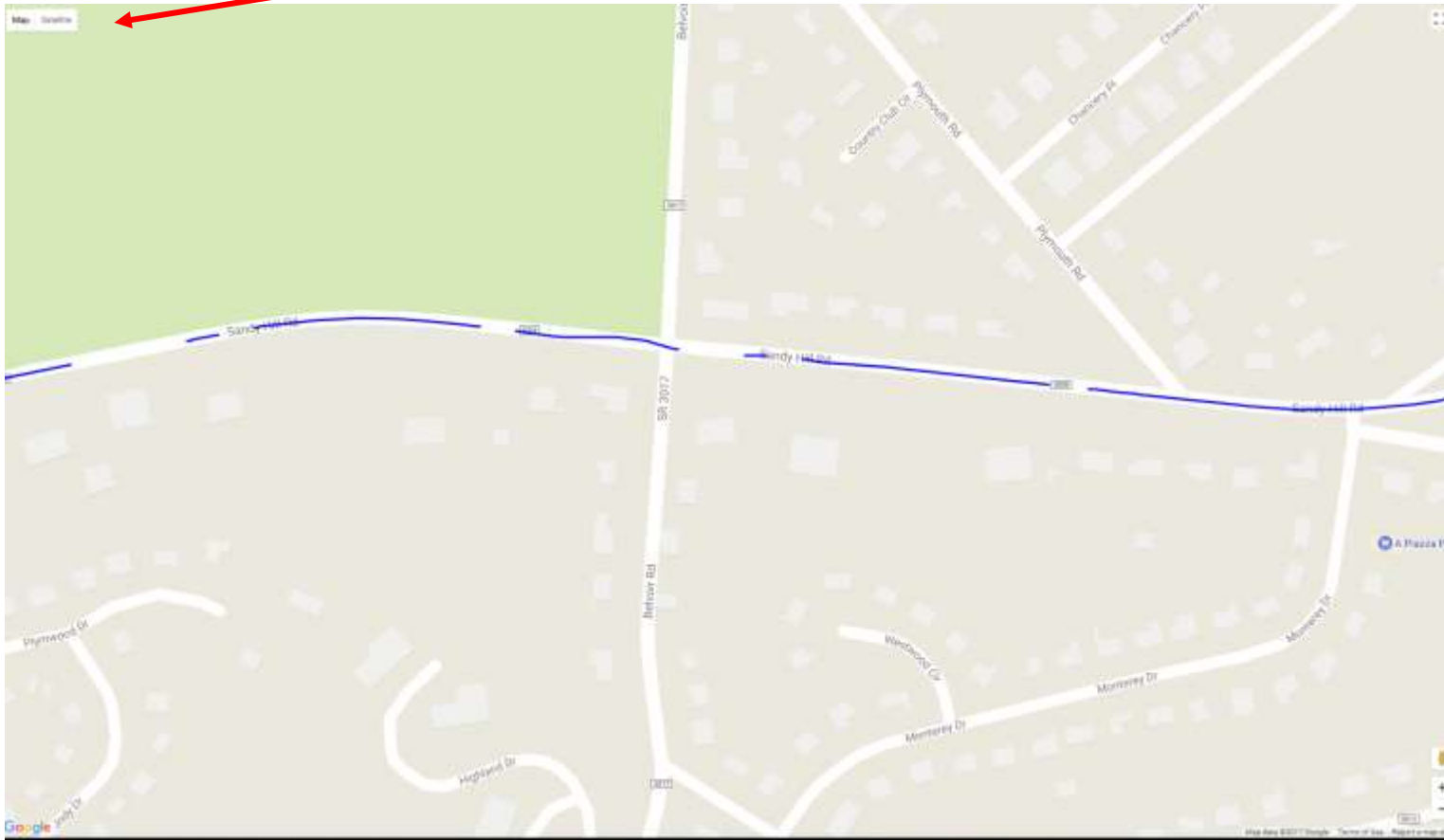
Poorly or incorrectly recorded roads can be viewed in the office.

If a hand layout crew is needed, you can know in advance.

Viewing Recorded Map Files

Default View

To switch from Map View to Google Satellite, click on the box in the upper left hand corner



This Brings Up The Angle Satellite View In Google



[Click Here To Toggle Top View](#)

Google Satellite Top View Looks Closer To Actual Path

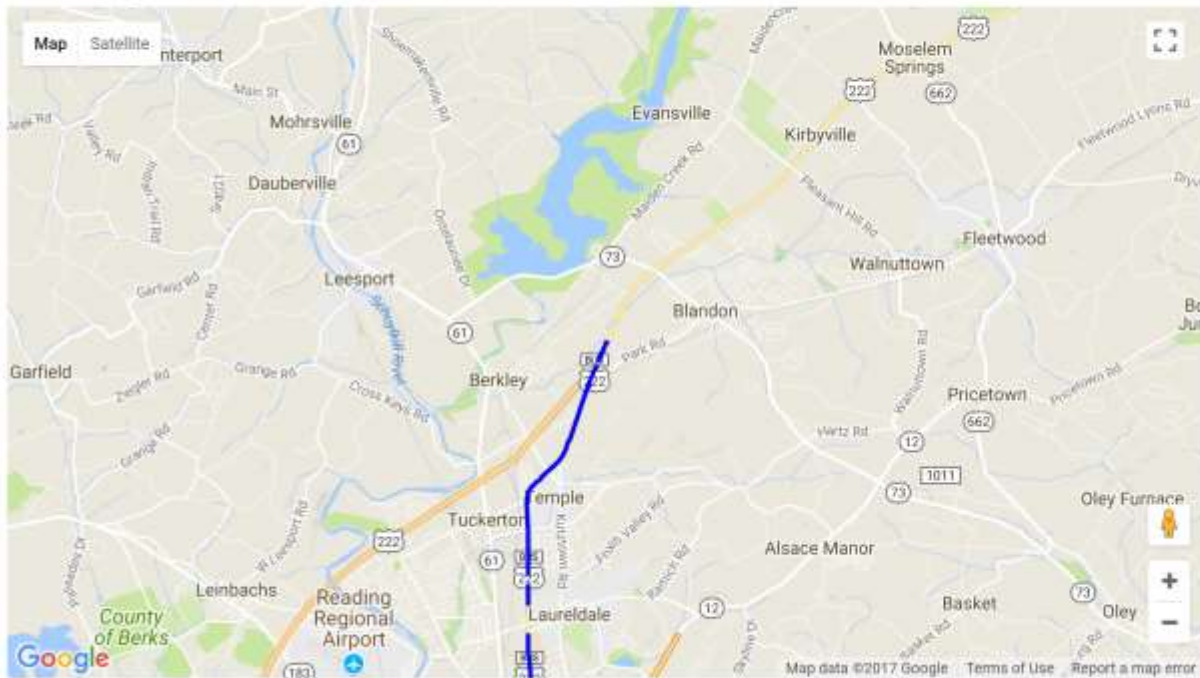
- Note how the Turn Lane appears more correct in top view than in Angle View



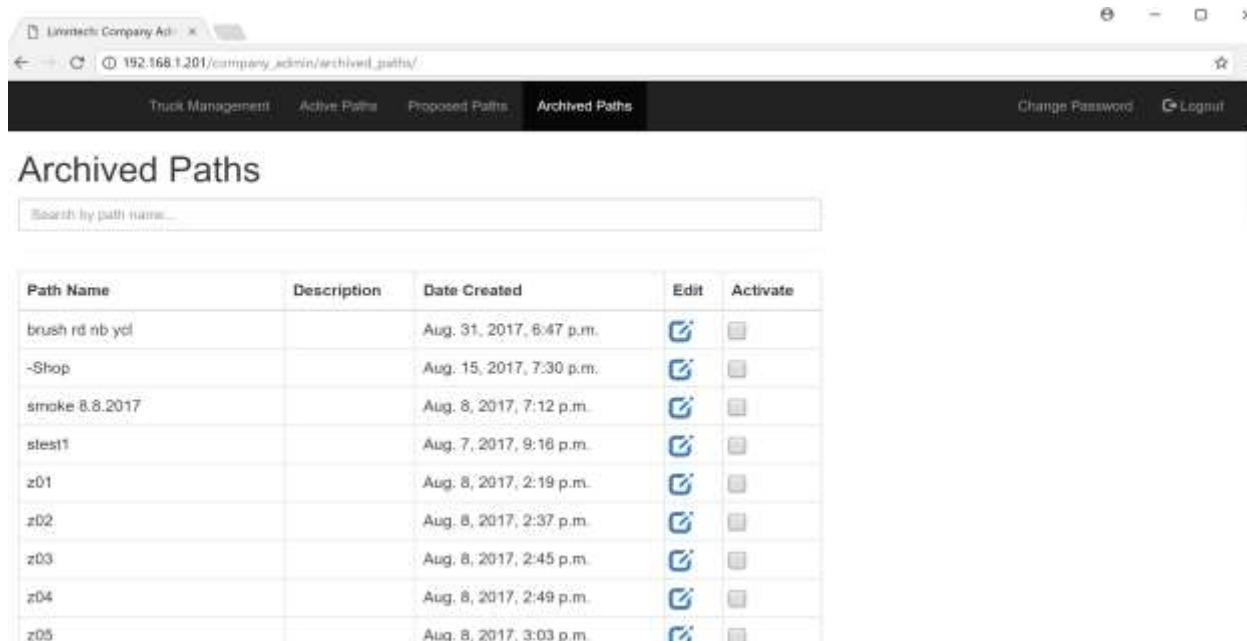
The Road Chosen – Map overlay

Select All Deselect All Save










Path Overlay:



Old Paths To Keep But Not On Trucks



The screenshot shows a web browser window with the URL `192.168.1.201/company_admin/archived_paths/`. The page has a navigation bar with tabs for 'Truck Management', 'Active Paths', 'Proposed Paths', and 'Archived Paths'. The 'Archived Paths' tab is selected. Below the navigation bar is a search bar labeled 'Search by path name...'. The main content area displays a table of archived paths.

Path Name	Description	Date Created	Edit	Activate
brush rd nb ycl		Aug. 31, 2017, 6:47 p.m.		<input type="checkbox"/>
-Shop		Aug. 15, 2017, 7:30 p.m.		<input type="checkbox"/>
smoke 8.8.2017		Aug. 8, 2017, 7:12 p.m.		<input type="checkbox"/>
stest1		Aug. 7, 2017, 9:16 p.m.		<input type="checkbox"/>
z01		Aug. 8, 2017, 2:19 p.m.		<input type="checkbox"/>
z02		Aug. 8, 2017, 2:37 p.m.		<input type="checkbox"/>
z03		Aug. 8, 2017, 2:45 p.m.		<input type="checkbox"/>
z04		Aug. 8, 2017, 2:49 p.m.		<input type="checkbox"/>
z05		Aug. 8, 2017, 3:03 p.m.		<input type="checkbox"/>

After a road is restriped or a project completed, the recorded paths can be archived to be used later.