

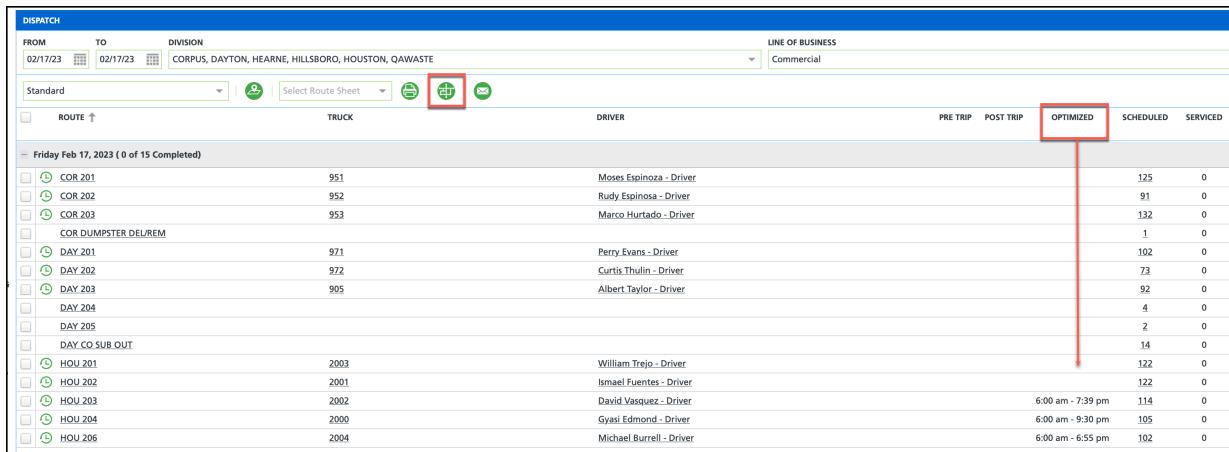
Route Optimization Setup

Last Modified on 01/12/2026 12:02 pm PST

The following article details how to use Route Optimization in Dispatch. Route optimization is an added feature in Navusoft that balances and reorganizes stops among routes to enhance operational efficiency.



IMPORTANT - Submit a Ticket Request to Navusoft for Route Optimization setup review, assistance and licensing.



DISPATCH		ROUTE ↑	TRUCK	DRIVER	PRE TRIP	POST TRIP	OPTIMIZED	SCHEDULED	SERVICED
FROM	TO	DIVISION	02/17/23	02/17/23	CORPUS, DAYTON, HEARNE, HILLSBORO, HOUSTON, QAWASTE	LINE OF BUSINESS	Commercial		
Friday Feb 17, 2023 (0 of 15 Completed)									
<input type="checkbox"/>	COR 201	951	Moses Espinoza - Driver				125	0	
<input type="checkbox"/>	COR 202	952	Rudy Espinoza - Driver				91	0	
<input type="checkbox"/>	COR 203	953	Marco Hurtado - Driver				132	0	
<input type="checkbox"/>	COR DUMPSTER DEL/REM						1	0	
<input type="checkbox"/>	DAY 201	971	Perry Evans - Driver				102	0	
<input type="checkbox"/>	DAY 202	972	Curtis Thulin - Driver				73	0	
<input type="checkbox"/>	DAY 203	905	Albert Taylor - Driver				92	0	
<input type="checkbox"/>	DAY 204						4	0	
<input type="checkbox"/>	DAY 205						2	0	
<input type="checkbox"/>	DAY CO SUB OUT						14	0	
<input type="checkbox"/>	HOU 201	2003	William Trejo - Driver				122	0	
<input type="checkbox"/>	HOU 202	2001	Ismael Fuentes - Driver				122	0	
<input type="checkbox"/>	HOU 203	2002	David Vasquez - Driver			6:00 am - 7:39 pm	114	0	
<input type="checkbox"/>	HOU 204	2000	Gyasi Edmond - Driver			6:00 am - 9:30 pm	105	0	
<input type="checkbox"/>	HOU 206	2004	Michael Burrell - Driver			6:00 am - 6:55 pm	102	0	

Permissions

The following permissions are required for route optimization setup:

Permission ID	Permission Name
5	View Account
6	View Site
24	Setup / Operations
87	Route Management

Setup: Facility

Pathway: [Setup](#) > [Operations](#) > [Facility](#)

When adding a facility, the address MUST BE geocoded to ensure route optimization uses the closest facility to the truck at the point on the route the truck is expected to be full. When entering an address, the system will begin to recommend addresses that match the current entry. Continue with the address entry until the correct address is populated in the results and select it from the list. Upon selection, any remaining address fields will be auto-populated and the disposal location geocoded.

FACILITY SETUP

SETUP > OPERATIONS > FACILITY

ID	NAME	ABBREV	DIVISION	TYPE	ACTIVE	ADDRESS LINE 1	CITY	STATE	POSTAL CODE	SCALE UOM	WEIGHT UOM	VOLUME UOM	OWNERSHIP	SIGNATURE BY	SIGN	ICON
1001	CITY OF ALICE LF	ALL	ALL	Landfill	Active	1										
1002	CEFE LF	CE														
1003	GULLEY HURST LF	GU														
1004	RSG-MAT & RECYCLING MA	MA														
1005	WM-BAYTOWN LF	WM														
1006	WM-ATASCOCITA LF	WM														
1007	RSG-EL CENTRO LF	EL														
1008	WM-SECURITY LF	WM														
1009	WCA-RALSTON ROAD...	W														
1010	CITY OF KINGSVILLE LF	KI														
1011	WCN-HARDY ROAD TS	W														
1012	CHAMBERS COUNTY LF	CH														
1013	DOLPHIN RECYCLING	DO														
1014	RSG-McCARTY ROAD LF	MO														

Business Hours Division

+

TYPE

UPDATE FACILITY

Basic Settings Label Scale Settings

NAME	RSG-EL CENTRO LF	ACTIVE	Active
ABBREVIATION	ELCNT	ENABLE INBOUND ORDER	No
TYPE	Landfill	ENABLE OUTBOUND ORDER	No
OWNERSHIP		DEFAULT SCALE UOM	ton
DIVISION	CORPUS	WEIGHT UOM	ton
ADDRESS LINE 1	69	VOLUME UOM	cubic yard
ADDRESS LINE 2		DEFAULT TRANSPORTATION METHOD	Truck
CITY	Robstown	DEFAULT SCALE TICKET FORMAT	
STATE	TX	ONLINE ICON	Select Icon... BROWSE...
POSTAL CODE	78380	SIGNATURE	Select Signature BROWSE...
PHONE	USA (361) 698-5000	MANIFEST SIGNATURE NAME	
CONTACT NAME		Automatic Transfer Work Order	
EPA ID		SITE ID	
STATE ID		SITE NAME	
GEOFENCE RADIUS (METERS)	100	SERVICE CODE	
AVERAGE DURATION (MINS)	0	EVENT TYPE	

Field Setup

Field	Description
Address Fields	Select the Geocoded address that displays when entering the address for the facility.

Setup: Truck

Pathway: Setup > Operations > Truck

Truck Setup helps route optimization determine where on the route to place a disposal trip based on where the truck is calculated to be full.

TRUCK SETUP

SETUP > OPERATIONS > TRUCK

Search

NAME: 1401, DIVISION: HOUSTON, LINE OF BUSINESS: Medical W..., TRUCK TYPE: Diesel, VOLUME CAPACITY: 0 yd³, WEIGHT CAPACITY: 0 tons, TARE WEIGHT: 7,100 lbs, INSPECTION TYPE: DVIR, CAMERA SYSTEM: None, ONBOARD SCALE: None, LAST ODOMETER: 13,753 km 04/03/2024, STATUS: Active

NAME: 151, DIVISION: GNV388, LINE OF BUSINESS: Residential, TRUCK TYPE: Other, VOLUME CAPACITY: 0 yd³, WEIGHT CAPACITY: 7,100 lbs, TARE WEIGHT: 7,100 lbs, INSPECTION TYPE: DVIR, CAMERA SYSTEM: None, ONBOARD SCALE: None, LAST ODOMETER: 99 km 04/19/2024, STATUS: Active

NAME: 160, DIVISION: MYH64, LINE OF BUSINESS: Residential, TRUCK TYPE: TEST, FUEL TYPE: Other, VEHICLE INSPECTION TYPE: DVIR, LICENSE PLATE: H675A, VIN: H675A, SPEED UOM: mi/h, ODOMETER UOM: mi, Onboard Scale: 5 km 04/24/2023, Camera System: 5 km 04/24/2023, Maintenance Plan: 3,964 km 04/24/2024, Attributes: 3,650 km 04/19/2024, Last Odometer: 7,407 km 04/19/2024, Status: Active

NAME: 2000, DIVISION: XYZ123, LINE OF BUSINESS: Commercial, TRUCK TYPE: TEST, FUEL TYPE: Other, VEHICLE INSPECTION TYPE: DVIR, LICENSE PLATE: H675A, VIN: H675A, SPEED UOM: mi/h, ODOMETER UOM: mi, Onboard Scale: 66,667 mi 04/22/2024, Camera System: 6,560 km 04/22/2024, Maintenance Plan: 1,100 km 04/22/2024, Attributes: 1,100 km 04/22/2024, Last Odometer: 66,667 mi 04/22/2024, Status: Active

NAME: 2001, DIVISION: HOUSTON, LINE OF BUSINESS: Commercial, TRUCK TYPE: TEST, FUEL TYPE: Other, VEHICLE INSPECTION TYPE: DVIR, LICENSE PLATE: H675A, VIN: H675A, SPEED UOM: mi/h, ODOMETER UOM: mi, Onboard Scale: 5 km 04/24/2023, Camera System: 5 km 04/24/2023, Maintenance Plan: 3,964 km 04/24/2024, Attributes: 3,650 km 04/19/2024, Last Odometer: 7,407 km 04/19/2024, Status: Active

NAME: 2002, DIVISION: HOUSTON, LINE OF BUSINESS: Commercial, TRUCK TYPE: TEST, FUEL TYPE: Other, VEHICLE INSPECTION TYPE: DVIR, LICENSE PLATE: H675A, VIN: H675A, SPEED UOM: mi/h, ODOMETER UOM: mi, Onboard Scale: 5 km 04/24/2023, Camera System: 5 km 04/24/2023, Maintenance Plan: 3,964 km 04/24/2024, Attributes: 3,650 km 04/19/2024, Last Odometer: 7,407 km 04/19/2024, Status: Active

NAME: 2003, DIVISION: HOUSTON, LINE OF BUSINESS: Internal, TRUCK TYPE: TEST, FUEL TYPE: Other, VEHICLE INSPECTION TYPE: DVIR, LICENSE PLATE: H675A, VIN: H675A, SPEED UOM: mi/h, ODOMETER UOM: mi, Onboard Scale: 66,667 mi 04/22/2024, Camera System: 6,560 km 04/22/2024, Maintenance Plan: 1,100 km 04/22/2024, Attributes: 1,100 km 04/22/2024, Last Odometer: 66,667 mi 04/22/2024, Status: Active

NAME: 2004, DIVISION: HOUSTON, LINE OF BUSINESS: Internal, TRUCK TYPE: TEST, FUEL TYPE: Other, VEHICLE INSPECTION TYPE: DVIR, LICENSE PLATE: H675A, VIN: H675A, SPEED UOM: mi/h, ODOMETER UOM: mi, Onboard Scale: 5 km 04/24/2023, Camera System: 5 km 04/24/2023, Maintenance Plan: 3,964 km 04/24/2024, Attributes: 3,650 km 04/19/2024, Last Odometer: 7,407 km 04/19/2024, Status: Active

NAME: 2005, DIVISION: HOUSTON, LINE OF BUSINESS: Internal, TRUCK TYPE: TEST, FUEL TYPE: Other, VEHICLE INSPECTION TYPE: DVIR, LICENSE PLATE: H675A, VIN: H675A, SPEED UOM: mi/h, ODOMETER UOM: mi, Onboard Scale: 66,667 mi 04/22/2024, Camera System: 6,560 km 04/22/2024, Maintenance Plan: 1,100 km 04/22/2024, Attributes: 1,100 km 04/22/2024, Last Odometer: 66,667 mi 04/22/2024, Status: Active

NAME: 2006, DIVISION: HOUSTON, LINE OF BUSINESS: Internal, TRUCK TYPE: TEST, FUEL TYPE: Other, VEHICLE INSPECTION TYPE: DVIR, LICENSE PLATE: H675A, VIN: H675A, SPEED UOM: mi/h, ODOMETER UOM: mi, Onboard Scale: 5 km 04/24/2023, Camera System: 5 km 04/24/2023, Maintenance Plan: 3,964 km 04/24/2024, Attributes: 3,650 km 04/19/2024, Last Odometer: 7,407 km 04/19/2024, Status: Active

EDIT TRUCK

NAME: 2001, DIVISION: HOUSTON, LINE OF BUSINESS: Commercial, TRUCK TYPE: TEST, FUEL TYPE: Other, VEHICLE INSPECTION TYPE: DVIR, LICENSE PLATE: H675A, VIN: H675A, SPEED UOM: mi/h, ODOMETER UOM: mi, Onboard Scale: 5 km 04/24/2023, Camera System: 5 km 04/24/2023, Maintenance Plan: 3,964 km 04/24/2024, Attributes: 3,650 km 04/19/2024, Last Odometer: 7,407 km 04/19/2024, Status: Active

Capacity: VOLUME CAPACITY: 28.00, UOM: cubic yard, COMPACTATION RATIO: 4.00, WEIGHT CAPACITY: 54,900.00, UOM: pound, TARE WEIGHT: 0.00, UOM: pound

MARK INACTIVE

Field Setup

Field	Description
Volume Capacity	Indicates how much waste the truck can hold before needing to be emptied. This helps route optimization plan the placement of a disposal trip on the route. ⚠ To prevent optimization from failing, the Volume Capacity entered here must match the equipment's Capacity Planning Volume in Equipment Type Setup.
Compaction Ratio	Numeric value that represents the ratio of how much one load of waste is reduced by because of a compactor. Example: If the Compaction Ratio to Volume Capacity is 4, it would mean that for every 4 truckloads of loose waste taken to the landfill, the same quantity of compacted waste would only require 1 trip.
UOM	The Unit of Measure to measure the waste and calculate capacity.

Setup: Equipment Type

Pathway: Setup > Services > Equipment Type

To improve route optimization accuracy, the Service Seconds Per Unit field in Equipment Type setup is important for charge code based equipment (i.e. Medical Waste Containers) estimated service duration. Fields here help specifically in calculating stop duration based on average charge code collected quantities.

EQUIPMENT TYPE SETUP

+ LOB All

ID	NAME	ABBREV.	LOB
10YD-FL	10 Yard FL	10FL	Commercial
10YDRO	10 Yard Roll Off		
15YD	15 Yard Roll Off		
18GAL-REC	18 Gallon Recycle		
18GLB	18 Gal Box		
18GLS	18 Gal Sharp		
200GLC	200 Gal Cart		
20YD	20 Yard Roll Off		
20YD-CP	20 Yard Compactor		
25YD	25 Yard Roll Off		
25YD-CP	25 Yard Compactor		
2QTS	2 Quart Sharps		
2YD	2 Yard FL		
2YD-RL	2 Yard RL		
2YD-VIP	2 Yard FL VIP		
30GLB	30 Gal Box		
30YD	30 Yard Roll Off		
30YD-CP	30 Yard Compactor		
32YD-CP	32 Yard Compactor		
35YD-CP	35 Yard Compactor		
3YD	3 Yard FL		
3YD-RL	3 Yard RL		
3YD-VIP	3 Yard VIP		

ADD EQUIPMENT TYPE

? **X**

EQUIPMENT ID	
NAME	
ABBREVIATION	
LOB	
VOLUME	0.00
VOLUME UOM	
CAPACITY PLANNING VOLUME	
CAPACITY PLANNING VOLUME UOM	
EQUIPMENT CLASS	
DISPLAY ON SCAN MANIFEST	No
MAX WEIGHT	
TARE WEIGHT	
TARE WEIGHT UOM	
IS SERIALIZED	No
EXTERNAL ID	
SERVICE SECONDS PER UNIT	
ENABLE AS GROUP LABEL	No
SAVE	

Field Setup

Field	Description
Service Seconds Per Unit	Enter the average amount of time (in seconds) it takes to collect one unit of equipment.
Capacity Planning Volume	Indicates how much loose waste the equipment can hold before needing to be emptied. This helps route optimization plan the placement of a disposal trip on the route. ⚠ To prevent optimization from failing, the Capacity Planning Volume entered here must match the truck's Volume Capacity in Truck Setup.
Capacity Planning Volume UOM	The Unit of Measure used to measure capacity volume.

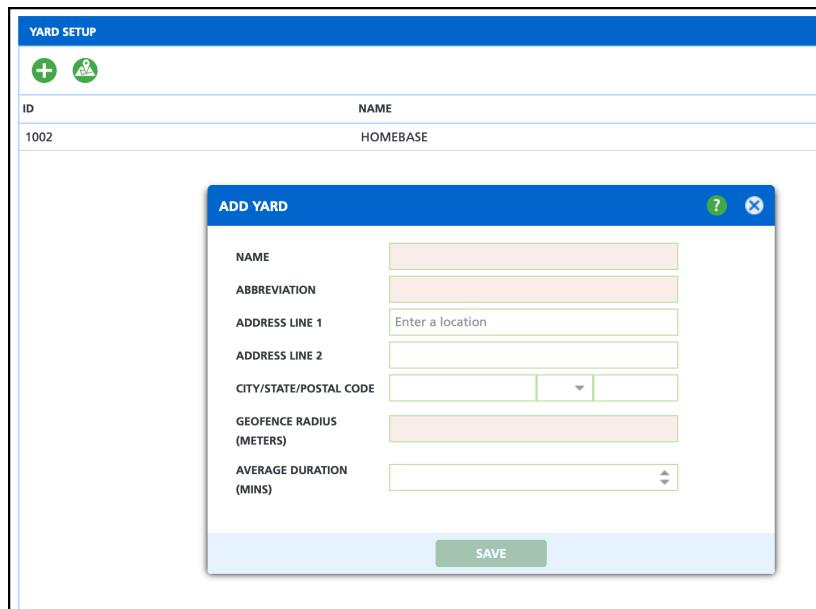
Setup: Yard

Pathway: [Setup > Operations > Yard](#)

Yards are used by Route Optimization to sequence stops based on the truck's start and end locations when the **Route Start Yard** and **Route End Yard** are defined as the Start Location and End Location during optimization.

After a yard is created, it will populate as a selection option in the 'Start Yard' and 'End Yard' drop down fields

located in the Route Setup screen.



The screenshot shows the 'YARD SETUP' screen with a table listing a single yard: 'ID' 1002 and 'NAME' HOMEBASE. A modal dialog box titled 'ADD YARD' is open, containing fields for 'NAME', 'ABBREVIATION', 'ADDRESS LINE 1' (with placeholder 'Enter a location'), 'ADDRESS LINE 2', 'CITY/STATE/POSTAL CODE', 'GEOFENCE RADIUS (METERS)', and 'AVERAGE DURATION (MINS)'. A 'SAVE' button is at the bottom of the dialog.

Field Setup

Field	Description
Name	Identifies the Name of the Yard.
Abbreviation	Displays the abbreviated name of the yard.
Address Information	Enter the address of where the yard is located. This is required for geocoding, route optimization and affects the Geofence Radius.
Geofence Radius	Creates a virtual perimeter around the yard to more accurately track a trucks arrival and departure. Enter (in meters) the radius that should be used.
Average Duration (MINS)	Enter the average amount of time a truck will spend at a yard for disposal/yard time. This is used in optimization calculations if disposal trips are tracked.

Setup: Route

Pathway: Setup > Operations > Route

In most cases, trucks begin and end each day at a yard. Yards are used in Route Optimization to sequence stops based on the truck's start location and end location for a route. Assign a daily default Start Yard and End Yard for a route using the days of the week tabs.

Yards previously created in *Yard Setup* populate the list of options for the Start Yard and End Yard fields.

ROUTE SETUP SETUP > OPERATIONS > ROUTE

NAME	DIVISION	LOB	DEFAULT TRUCK	DEFAULT DRIVER	DEFAULT HELPER 1	DEFAULT DISPOSALLOCATION	DEFAULT TRANSPORTER	SUPERVISOR	ACTIVE
ALVARO	CORPUS	Roll Off	Alvaro	Dave Pike				Samantha Trevino	Yes
COR 101	CORPUS	Residential	324	Pedro Hernandez				Samantha Trevino	Yes
COR 102	CORPUS	Residential						Samantha Trevino	Yes
COR 102	CORPUS	Residential						Samantha Trevino	Yes
COR 201	CORPUS	Com						Samantha Trevino	Yes
COR 202	CORPUS	Com						Samantha Trevino	Yes
COR 203	CORPUS	Com						Samantha Trevino	Yes
COR 203R	CORPUS	Com						Samantha Trevino	Yes
COR 204	CORPUS	Com						Samantha Trevino	Yes
COR 205	CORPUS	Com						Samantha Trevino	Yes
COR 301	CORPUS	Com						Samantha Trevino	Yes
COR 302	CORPUS	Roll O						Samantha Trevino	Yes
COR 303	CORPUS	Roll O						Samantha Trevino	Yes
COR 304	CORPUS	Roll O						Samantha Trevino	Yes
COR 305	CORPUS	Roll O						Samantha Trevino	Yes
COR 306	CORPUS	Roll O						Samantha Trevino	Yes
COR 307	CORPUS	Roll O						Samantha Trevino	Yes
COR 308	CORPUS	Roll O						Samantha Trevino	Yes
COR 401	CORPUS	Resid						Samantha Trevino	Yes

ADD ROUTE

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
MAP AREA	START YARD	END YARD	START TIME	MAXIMUM HOURS		

SAVE

Field Setup

This section applies to the Monday-Sunday tab set displayed on the Add Route popup editor.

Field	Description
NOTE: Setup is specific to the day of the week selected from the tab sets above.	
Map Area	
Start Yard	Select a default Start Yard the truck will leave from at the start of the selected day.
End Yard	Select a default End Yard the truck will return to at the end of the selected day.
Start Time	Set a default Start Time for the route for the selected day.
Maximum Hours	Indicates the maximum amount of hours a route is allowed to run for that day. Used in optimization calculations if a value is entered.

Setup: Line of Business

Pathway: Setup > Services > Line Of Business

The Mobile/Optimization/Online Order tab for a Line of Business allows configuration setup for optimization type based on the Route Smart license setup.

Field Setup

Field	Description
Route Optimization Type	Standard - optimization is processed through the Dispatch screen. Roll Off - optimization is processed through Active Dispatch, dependent on license setup. Geared towards active dispatching.
Route Optimization Overrides	Overrides the default settings configured at Route Smart and indicates how the route will be serviced (right/left side of street, etc.) Leave blank and route optimization will use your Route Smart's unique account settings.

Setup: Work Type

Pathway: Setup > Operations > Work Type

To improve route optimization accuracy, the 'Order Baseline Seconds' and 'Default Seconds Per Unit' fields in Work Type setup are important for Route Optimization calculations for service-based estimated service duration.

The screenshot shows the 'Work Type Setup' screen in a software application. The main table lists various work types with columns for ID, Name, LOB, Action Category, Inventory Move Type, Manifest Notification Template, Order Baseline Seconds, Default Seconds Per Unit, Create One Service Record Per Quantity, Enable Disposal Entry, Enable Driver Entered Label Photo Prompt, Productivity Units, and Enable Driver To Set In Progress. A specific row for 'FL_MISSED' is selected and shown in a detailed edit dialog. The dialog has tabs for 'Details', 'NavuNav Settings', and 'Add/Remove Default Charge Code'. The 'Details' tab is active, showing fields for ID (FL_MISSED), Name (FL Missed Pick Up), Self-Service Label, Line of Business (Commercial), Inventory Move Type (None), Action Category, Manifest Notification Template, Create One Service Record Per Quantity (No), Enable Disposal Entry (No), Enable Consolidation Batch Link (No), Productivity Units (1.00), and Destruction Date Tracking (Disabled). A red box highlights the 'Route Optimization' section, which includes 'Order Baseline Seconds' (0) and 'Default Seconds Per Unit' (0). A 'SAVE' button is at the bottom of the dialog.

Field Setup

Field	Description
Order Baseline Seconds	Enter the average amount of time (in seconds) to service the location of the specific work type.
Default Seconds Per Unit	Enter the average amount of time (in seconds) it takes to service one unit of the work type. This multiplies against the scheduled service quantity on the work order for route optimization to more accurately calculate service duration.

Setup: Site Details (Customer Service)

Pathway: Accounts > Customer Service Screen

For sites that are expected to require longer servicing times, enter the estimated time in the the Additional Service Minutes field of Edit Site. When Route Optimization is run, minutes added here are included in calculations.



Additional Service Minutes is useful for gated communities, security checkpoints, locked enclosures and etc.

The screenshot shows the Navusoft - Demo software interface. At the top, a header bar displays the ID 41898001 and the title Navusoft - Demo. Below this, a table provides detailed information about a site, including its address, division, and various settings. A modal window titled 'Edit Site' is open, allowing for modification of site details. The 'Basic Settings' tab is selected. Key fields include Name (Navusoft - Demo), Division (CORPUS), Address Line 1 (Post Oak Blvd), and City/State/Postal Code (Houston, TX 77057). A red box highlights the 'ADDITIONAL SERVICE MINUTES' field, which is currently empty. Another red box highlights the 'BUSINESS HOURS / SERVICE WINDOW' section, which also contains an empty field. A 'SAVE' button is located at the bottom of the modal. In the background, a list of sites is visible, showing entries like '1298 test' and '1299 test'.

Field Setup

The following field setup is optional and only required if a site is known to have a longer servicing time.

Field	Description
Additional Service Minutes	Enter the additional amount of time to be expected to service the site.
Business Hours/Service Window	Times entered here are hard limits and help determine best placement on the route.

Related Articles:

[Route Optimization -Route Optimization in Dispatch.](#)

[Renumber / Sequence Stops - Route Optimization in Route Management](#)

