BOREPLAN User Guide

APPLICATION VERSION 2.0.4 (EFF 01/25)

BOREPLAN



Ø

INTRODUCTION

This User Guide explains the proper operation of the Vermeer BorePlan application. Study and understand these instructions thoroughly before using this product. Consult your Vermeer dealer if you do not understand the instructions in this User Guide or need additional information.

The instructions, illustrations, and specifications in this User Guide are based on the latest information available at time of publication.

Vermeer BorePlan may have product improvements and features not yet contained in this User Guide. Vermeer Corporation reserves the right to make changes at any time without notice or obligation.

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Safety

The information provided is dependent upon the accuracy and quality of user-supplied data. The information is "as-is" and Vermeer Corporation does not guarantee or warrant the accuracy, reliability, or completeness of this information or its usefulness in achieving any purpose. The accuracy of any information is dependent upon accurate data gathering, data input, and proper use of the software.

You are responsible for using your own judgment when using this information and for following all applicable laws and industry best practices. Vermeer Corporation shall not be liable for any loss, damage, or cost incurred by your reliance on this information.

Note: All latitude and longitude coordinates in this User Guide are obscured for security purposes.



WARNING:

The accuracy of the data obtained by the Vermeer BorePlan application is highly dependent upon accurate data gathering, data input, and proper use of the software. The data is not intended to replace the need for future onsite utility locating, measuring, and verification procedures, which are essential for accurate placement of new underground installations and avoidance of existing utilities.



WARNING:

Always contact your local One-Call system before the start of your digging project. The Vermeer BorePlan application is intended to be used with other utility locating methods, such as the use of the One-Call system and the exposing of existing utilities by potholing.

Locate utilities before drilling. Call 811 (U.S.

only) or 1-888-258-0808 (U.S. or Canada) or local utility companies or national regulating authority.

Before you start any digging project, call the local One-Call system in your area and any utility company that does not subscribe to the One-Call system. For areas not represented by One-Call Systems International, contact the appropriate utility companies or national regulating authority to locate and mark the underground installations. If you do not call, you may have an accident or suffer injuries, cause interruption of services, damage the environment, or experience job delays.

The One-Call representative will notify participating utility companies of your proposed digging activities. Utilities will then mark their underground facilities by using the following international marking codes:

Red	Electric
Green/Brown	Sewer
Yellow	Gas, oil, or petroleum
White	Proposed excavation
Orange	Communication,
	telephone, TV
Pink	Surveying
Blue	Potable water
Light Blue	Generic
Purple	Reclaimed water
Black	Unknown

OSHA 29 CFR 1926.651 requires that the estimated location of underground utilities be determined before beginning the excavation or underground drilling operation. When the actual excavation or bore approaches an estimated utility location, the exact location of the underground installation must be determined by a safe, acceptable, and dependable method. If the utility cannot be precisely located, it must be shut off by the utility company.



WARNING:

Failure to follow any of the preceding safety instructions, or those that follow within this User Guide, could result in death or serious injury. This system is to be used only for those purposes for which it was intended, as explained in this User Guide.

Intended Use

Vermeer BorePlan application is a resource tool intended to assist experienced HDD contractors, engineering consultants, and project owners in pre-bore planning and design. It is intended to incorporate known characteristics and traits of key project components, together with their calculated relationships with the subsurface and bore path to provide the experienced user with a powerful stream of planning information. It is not intended to replace onsite utility locating, measuring, and verification procedures, which are essential for accurate placement of new underground installations and avoidance of existing utilities.

To obtain best results:

- Follow instructions included with Vermeer BorePlan.
- Confirm bore data entered in Vermeer BorePlan application is accurate.
- Upgrades to the Vermeer BorePlan free and paid versions will be available with future application releases. <u>See page 11 for details regarding</u> <u>features by version.</u>

Note: A "\$" symbol will be used throughout this User Guide to indicate all features that are in the paid version only.

FEATURES	FREE VERSION	\$ PAID VERSION
Aerial Report		X
As-Built Line		X
As-Built Report		X
Bore Line	X	X
Bore Setup Report		X
Custom Topography		X
High Accuracy GPS Device Connection	X	X
Job Details Report		X
Job Management	X	X
Left/Right Calculations		X
Measurement Lines	X	X
Notes	X	X
Obstacles	X	X
Profile Report	X	X
Rod By Rod Report	X	X
Save Files to Device	X	X
Settings	X	X
Target Point Report		X
Topography Report		X
Utility Crossing Report		X
Utility Intersection Detection	X	X
Utility Lines	X	X

Getting Started

CREATING AN ACCOUNT

- Open BorePlan app and tap "Create account" (1) on the log in page.
- 2. Browser will open to **one.vermeer.com** to enter information.
- 3. Account verification and next steps are sent to user's email address.
- User will have access to one.vermeer.com. Manually go back to the BorePlan app and tap "Log in" (2) on the log in page.
- 5. Enter account credentials when prompted.



END-USER LICENSE AGREEMENT

ALERT: Before the use of BorePlan is permitted, the user needs to tap "Accept" (1) to indicate the End-User License Agreement (EULA) has been read and approved.

The EULA will be displayed once for new users, or if there are updates to the EULA.

End-User License Agreement

MASTER SOFTWARE LICENSE AND TERMS OF USE VERMEER PRODUCTIVITY TOOLS

This Master Software License and Terms of Use (the "Agreement" contains the terms and conditions that govern use of the Vermeer Productivity Tools, including the following particular software programs (the "Software"):

- Vermeer Fleet and related modules
- Vermeer Projects and related modules
- Vermeer BoreAid
- Vermeer BoreAssist
- Vermeer BorePlan

By clicking the "Accept" button below or by activating, accessing, or otherwise using the Software, you either individually or as an authorized representative of the purchasing entity, agree to be legally bound by the terms and conditions set forth in this Agreement, the Privacy Policy, Legal Notices, and any other agreements incorporated by reference, including any warranty disclaimers, limitations or liability, and termination provisions contained herein as they pertain to your activation, access, and use of the Software.

This Agreement, the Privacy Policy, Legal Notices, and any Program Addendum may be amended by Vermeer at any time in its sole discretion by delivering notice of any material change to Customer by email, regular mail, and/or notification on the Software' website. Such amendments shall be effective thirty (30) days after



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ALERT: Before the use of BorePlan is permitted, the user needs to tap "Accept" **(2)** to indicate the Notice of Personal Information Processing (NPIP) has been read and approved.

The NPIP will be displayed once for new users or if there are updates to the NPIP.

Notice of Personal Information Processing

Vermeer Corporation collects personal information on its applications. To learn more, review Vermeer's notice of personal information processing and Privacy Policy. By clicking 'Accept', you indicate you consent to Vermeer's use of information collection.

Notice of Personal Information Processing for Vermeer BorePlan

When you create an account for and use this software application, Vermeer Corporation processes certain information, including your first and last name, e-mail address, and geolocation. Vermeer processes this information for the purposes set forth in Section 4 of the Master Software License and Terms of Use for Vermeer Productivity Tools and in the associated Program Addendum (together, the "Terms"). These include, by way of example and not limitation, providing you the services incorporated in the application, supporting and maintaining the application, and contacting you regarding the application. Vermeer may also process this information for the purposes described in the Vermeer Corporation Data Privacy Policy. Vermeer stores your information for as long as necessary to fulfill those purposes and may disclose your information to one or more of its subsidiaries, affiliates or business partners as necessary to fulfill those purposes.

In processing your information for the purposes described in the Terms, Vermeer relies on its legitimate interests in providing the services incorporated in the software application and in maintaining and improving those services, as well as on the necessity of fulfilling its contractual obligations to you. Where



DISCLAIMER

ALERT: Before the use of BorePlan is permitted, the user needs to tap "Accept" **(3)** to indicate the Disclaimer has been read and approved.

This Disclaimer will be displayed each time the user enters the application.

Disclaimer

Before being permitted to use BorePlan, you must read and agree with the disclaimer statement below.

The information provided by this software is dependent upon the accuracy and quality of user-provided data.

The information is provided "as-is" and Vermeer Corporation does not guarantee or warrant the accuracy, reliability, or completeness of this information or its usefulness in achieving any purpose.

The accuracy of any information is dependent upon accurate data gathering, data input, and proper use of the software.

You are responsible for using your own judgment when using this information and for following all applicable laws and industry best practices.

Accept

Vermeer Corporation shall not be held liable for any loss, damage, or cost incurred by your reliance on this information.

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Landing Page

START A JOB

To start a new job, tap "Start A Job" **(1)** to enter "Aerial" view.



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MANAGE EXISTING JOBS

Opening an Existing Job

- 1. To open a list of existing Bore Plans, tap "Manage Existing Jobs" (1).
- 2. Tap the title of a job (2) to display the "Aerial" view of the job.





Deleting an Existing Job

- 1. Tap "Manage Existing Jobs" (1).
- 2. Find the job to delete (2), swipe left on the job name and tap the trash can icon (3).
- 3. When the message, "Are you sure you want to delete (job name)?" appears, tap "Cancel" to keep the job or "Accept" **(4)** to delete the job.







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Copy an Existing Job

Note: Images may appear differently per device and OS.

- 1. Tap "Manage Existing Jobs" (1).
- 2. Find the job to copy (2), swipe left on the job name, and tap the copy icon (3).
- 3. When the message, "Duplicate (job name)?" appears, enter in a new job name, tap "Cancel" to exit out of the copy or "OK" **(4)** to make a file copy.

BOREPLAN	
Start A Job Manage Existing Jobs	
	← Manage Existing Jobs
← Manage Existing Jobs	06-24-2024 2:38 PM
06-24-2024 2:38 PM (2)	
← Manage Existing Jobs	Duplicate 06-24-2024 2:38 PM Name of new job:
PM 0 1	Vermeer jobsite Cancel OK

GPS DEVICES

NOTE: If desired, a third-party high accuracy GPS device can be linked to the Boreplan app. If a high accuracy GPS device is not used, standard mobile device GPS location will be used.

Basic instructions for connecting the high accuracy device to the mobile device are listed below. For further clarification on setting up the high accuracy GPS device and external apps, consult with your Vermeer dealer.

Third-Party App Setup:

- 1. On the mobile device, turn on Bluetooth through device settings.
- 2. Turn the high accuracy GPS device on.
- 3. On the mobile device, open the third-party GPS companion app (same manufacturer as the high accuracy GPS device) and connect the high accuracy GPS device according to the manufacturer's instructions.
- 4. On the mobile device, find the list of available Bluetooth devices and choose the high accuracy GPS device to pair with.

Connect to BorePlan:

- 1. Tap "GPS Devices" (1).
- 2. Tap "Select Device" (2) dropdown to display the device list.
- 3. Tap the name of the device (3).
- 4. Tap "Connect to GPS Device" **(4)** when the button changes to green.
- 5. To disconnect the high accuracy GPS Device, tap the "Disconnect from GPS Device" button **(5)**.

BOREPLAN





SETTINGS

Tap "Settings" **(A)** on the landing page.

Settings Options

- 1. "Units"
- 2. "Tooling and Product"
- 3. "Logout"



ettings	÷
	General
	Units
Product that will apply to Bore Setup.	Tooling a Set defau
	Account
	Account

Units

- 1. Tap "Units" **(1)** to change to preferred unit preferences.
- 2. Tap "Save" (2) to save preferences and return to the "Settings" page, or tap the back arrow
 (3) to return to the previous menu without saving chages.

÷	Settings	
Gener	al	
Units	1	
Toolin Set de	g and Product faults that will apply to Bore Setup.	
Accou	int	
Logou	t	

(3	Units	2 Save
Uni	t Preferences	
Angle	e	
$oldsymbol{O}$	Percent	
\bigcirc	Degrees	
Dista	ince	
$oldsymbol{O}$	Standard/Imperial (US)	
0	Metric (Global)	

Tooling and Product

- 1. Tap "Tooling and Product" (1) to access "Tooling Specifications" (2).
- Tap "Save" (3) to save preferences and return to the "Settings" page, or tap the back arrow (4) to return to the previous menu without saving changes.

Note:

- All required fields will turn red if attempting to save without an input or invalid value.
- Selecting a specific rod type, drill bit, and/or reamer will auto populate the fields associated with those items.

÷	Settings
Gener	al
Units	
Toolin Set de	g and Product
Accou	int
Logou	t

\leftarrow Tooling an	d Product 3 ^{Save}	
Tooling Specifications 2		
Select One		
Rod type		
Select One		
Rod bend radius (ft)	Rod diameter (in)	
First rod length (ft)	Rod length (ft)	
Drill bit		
Select One		

Tooling and Product Specifications

Note: Tapping "Tooling and Product" provides the option to set preferences relating to the Bore Line. Once these values are set, these values will be used as the default in all future Bore Lines the user creates. The options are:

- Machine: Drop-down list of all Vermeer Horizontal Directional Drills.
- Rod Type: Drop-down list of all rods associating to the selected drill.
- Rod Bend Radius: The limit allowed for the rod to bend. BorePlan does not allow Bore Lines to be created with a rod bent over this limit.
- Rod Diameter: Diameter of the rod selected.
- First Rod Length: Length of the first rod entering the ground; this is defaulted to 70% of the rod length.
- Rod Length: Length of the rod selected.
- Drill Bit: Drop-down list of all drill bits available to the user via the Vermeer Bore Store.
- Drill Bit Diameter: Diameter of the drill bit selected in the drill bit field.
- Reamer: Drop-down list of all reamers available to the user via the Vermeer Bore Store.
- Product Type: Drop-down list of all product types.
- Product Diameter: Diameter of the product being installed.
- Product Thickness: Thickness of the product being installed.
- Product Bend Radius Limit: The limit allowed for the product being installed to bend.

Logout

Tap "Logout" **(1)** to logout of BorePlan and return to the log in Page.

÷	Settings	
Gener	ral	
Units		
Toolin Set de	ng and Product efaults that will apply to Bore Setup.	
Αссοι	unt	
Logou	ut 1	

Views

There are two main views available: "Aerial" view **(A)** and "Profile" view **(B)**. Bore plans need to be created in "Aerial" view

AERIAL VIEW Data Indicator

This indicator will switch between a mobile icon **(1)** and satellite icon **(2)**. A mobile icon will display when using phone location only. A satellite icon will display when connected to a high accuracy GPS device. Tapping the icon will provide location data **(3)**. Tap the icon again to hide the location data.

Color Variations – Data Indicator Green:

Less than 15 cm accuracy Yellow: 15 to 60 cm accuracy Red: Greater than 60 cm accuracy







Aerial View Map Functions

Tap "+" (A) to open the map functions.

Map Functions:

- 1. "Bore Line": This refers to the map of the planned bore path. Bore plan reports can be created and used to direct the drill onsite.
- "As-Built": This is a record of the actual bore path, as documented by the user. This will often differ from an original bore line and will have its own line.
- 3. "Utility": This can be used to indicate different utility types within the ground.
- 4. "Note": This allows text notes to be added anywhere on the map. Notes are limited to 50 characters.





- 5. "Obstacle": This allow a 3-point shape to be added to the map to indicate an obstacle to the bore path. Obstacles can be above ground, below ground or a mixture of both.
- 6. "Measurement": This will measure distances on the map. Measurement unit of preferences will be shown based on the preferences chosen in the Units Settings page. The level of accuracy depends on the imagery provided from ESRI.

BORE LINES

Adding New Bore Line

- 1. Tap "Bore Line" (1).
- 2. Tap on the map to mark the start of the line **(2)**.
- 3. Tap on the map again to mark the end of the line **(3)**.
- 4. Tap "Create" (4) to show the "Bore Setup" (6) page or tap "Delete" (5) to remove the bore line.
- 5. On the "Bore Setup" (6) page, enter in bore line details and tap "Save" (7) to go back to "Aerial" view with the created bore line (9) or click the back arrow (8) to cancel out of bore line generation.

Note: Bore line creation can start with entry or exit. If entry and/or exit are already placed, tapping entry or exit again will allow the user to change the placement.





Editing a Bore Line

- 1. Tap the bore line **(1)** on "Aerial" view.
- 2. Tap "Edit" **(2)** to bring up the "Bore Setup" page **(3)**.
- 3. Make changes to the "Bore Setup" page and tap "Save" **(4)** to go back to "Aerial" view with the saved changes.

÷	Bore Se		Save
Gen	eral	\bigcirc	4
Bore r	name		
Test			
Distan	ice before first	turn (ft)	
0			
Minim	um ground cov	ver (ft)	
0]
Entry	/		
Angle	(%)	Depth (ft)	
23.41	43	0	
Latitu	de	Longitude	
XXXX	XXXXXX	*****	
Exit			
Angle	(%)	Depth (ft)	
Auto	Calc	0]
Latitu	de	Longitude	



Deleting Bore Line

- 1. Tap the bore line **(1)** on "Aerial" view.
- 2. Tap "Delete" **(2)** to remove the bore line.



Topography

- 1. Tap an existing bore line **(1)** on "Aerial" view.
- 2. Tap "Topography" **(2)** to display "Topography Details" **(3)**.
- 3. Change topography type to "ESRI Defined" (4) or "Flat" (5), and tap "Save" (6).

Note: Changing topography will affect "Profile" view.





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CUSTOM TOPOGRAPHY \$ Adding Custom Topography

- 1. Tap "Custom Topography" (1).
- Tap on the map to mark a custom topography point (A), which opens "Custom Topography Details" (2).
- 3. Keep the Esri elevation provided or change it to the desired value and tap "Save" (3).

Note: Custom topography points must be less than two meters from the bore line to be applied

\frown		(g	• /
Centerline Distance (ft))	(J	ソ
N/A			
Elevation (ft)			
952.2334			
L/R (ft)			
N/A			
Longitude			
-93.2454362			
Latitude			
41.2158682			
Horizontal accuracy (ft)			
N/A			
Vertical accuracy (ft)			
N/A			
Distance Along Bore (ft)			
N/A			
Comment			





Editing Custom Topography

- 1. Tap custom topography point on the map **(A)**.
- 2. Tap "Edit" **(1)** to open "Custom Topography Details" **(2)**.
- 3. Enter or edit information and tap "Save" (3).

Deleting Custom Topography

- 1. Tap Custom Topography point on the map **(A)**.
- 2. Tap "Delete" (4).



← Custom Topography Details	Save
Centerline Distance (ft)	(3)
N/A	\smile
Elevation (ft)	
952.2334	
L/R (ft)	
N/A	
Longitude	
-93.2454362	
Latitude	
41.2158682	
Horizontal accuracy (ft)	
N/A	
Vertical accuracy (ft)	
N/A	
Distance Along Bore (ft)	
N/A	
Comment	

AS-BUILT \$

Adding New As-Built

- 1. Tap "As-Built" (1).
- 2. Tap on the map to mark an asbuilt point.
- 3. Enter information for "As-Built Point Details" and tap "Save" (2).
- 4. To create a line follow Steps 5 8.
- 5. Tap "+" (A) to open the map functions again.
- 6. Tap "As-Built" (1).
- Tap on the map to mark another as-built point. Note: Points cannot be on top of one another.
- 8. Enter information for "As-Built Point Details" and tap "Save" (2) to create a line (3).





÷	As-Built	Point Details	Save
Coord	inate		(2)
•xxx	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	00000	
Elevat	ion (ft)		
N/A			
Locat	ion accuracy (ft)		
N/A			
Elevat	ion accuracy (ft)	0	
N/A			
Depth	(ft)	(in)	
0		0	
Orient	ation		
To To	p		



Editing As-Built

- 1. Tap as-built point on the map (A).
- 2. Tap "Edit" (1).
- 3. Enter information for "As-Built Point Details" and tap "Save" **(2)**.



Deleting As-Built

- 1. Tap as-built point on the map (A).
- 2. Tap "Delete" (3).

÷	As-Built Point Details	Save
Coord	inate	\bigcirc
	000000000000000000000000000000000000000	
Elevat	ion (ft)	
N/A		
Locati	on accuracy (ft)	
N/A		
Elevat	ion accuracy (ft)	

UTILITIES

ALERT: <u>Refer to page 9 for Utility</u> <u>Color Definitions and Utility Safety</u>

<u>Protocols</u> before beginning excavation or underground drilling operations.

Adding New Utilities

- 1. Tap "Utility" **(1)**.
- 2. Tap on the map to mark the start of the utility line **(2)**.
- 3. Tap on the map again to mark the end of the utility line **(3)**.
- 4. Tap "Create" (4) to display "Utility Details" (6) page or tap "Cancel" (5) to remove the utility.
- 5. Enter information for "Utility Details" and tap "Save" (7) to go back to "Aerial" view with the created utility (9) or click the back arrow (8) to cancel out of utility generation.









Editing Utility

- 1. Tap the drawn utility line **(1)** on "Aerial" view.
- 2. Tap "Edit" **(2)** to bring up the "Utility Details" **(3)** page.
- 3. Enter information for "Utility Details" and tap "Save" **(4)** to go back to "Aerial" view with the saved changes.

← Utility Details	Save
Utility type	4
Electric	
Utility name	
Electric	
Utility clearance radius (ft)	
1.5	
Diameter (in)	



Deleting Utility

- 1. Tap the drawn utility line **(1)** on "Aerial" view.
- 2. Tap "Delete" **(2)** to remove the utility.



NOTE

Placing New Note

- 1. Tap "Note" (1) and tap on "Aerial" view to place the note (2).
- 2. Enter in text and tap "OK" (3) to save changes or tap "Cancel" (4) to remove the note.



9

3

ок

Powered by Esri

Rod By Rod

2224

Note

Obstacle

100ft



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Edit Existing Note

- 1. Tap the "Note" (1) you want to edit and tap "Edit" (2).
- Enter in the changes and tap
 "OK" (3) to save changes, or tap
 "Cancel" (4) to undo changes.





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Delete Existing Note

- 1. Tap the "Note" **(1)** you want to remove.
- 2. Tap "Delete" (2).



OBSTACLE

Placing New Obstacle

- 1. In "Aerial" view, tap "Obstacle" **(1)** then tap in three locations to create an obstacle with three points.
- Tap "Create" (2) to display "Obstacle Details" (4) or tap "Cancel" (3) to remove the obstacle.
- 3. Enter information for "Obstacle Details," then tap "Save" **(5)** to go back to "Aerial" view with new obstacle.

Obstacle Details

- "Height:" This indicates the vertical dimension of the obstacle. Obstacles may be above ground, below ground, or a mixture of both.
- "Depth:" This indicates the bottom of the obstacle, relative to ground level.
- "Color:" Drop-down list of available colors to display the obstacle.
- "Comments:" Text box to include any additional information needed about the current obstacle. Comments are limited to 500 characters.





← Obstacle	Details	Save
Height (ft)	•	
0		
Depth (ft)		
0		
Color		
Blue		
Comment		
Triangle obstacle		

Editing Existing Obstacle

- 1. Tap obstacle (1) on "Aerial" view to edit.
- Tap "Edit" (2), make changes in "Obstacle Details," and tap "Save" (3) to go back to "Aerial" view with new changes.

	Save
Height (ft)	J
0	
Depth (ft)	
0	
Color	
Blue	
Comment	
Triangle obstacle	



Deleting Existing Obstacle

- Tap obstacle that needs removed
 (1) on "Aerial" view.
- 2. Tap "Delete" (2) to remove obstacle.



MEASUREMENT

Placing New Measurement

- 1. Tap "Measurement" (1).
- 2. Tap on "Aerial" view to mark the start (2) of the measurement line.
- 3. Tap on "Aerial" view to mark the end **(3)** of the measurement line.
- 4. A measurement line **(4)** will be generated.





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Delete Existing Measurement

- 1. Tap measurement line **(1)** to remove.
- 2. Tap "Delete" (2).



PROFILE VIEW

- Draw a bore line using "Aerial" view or open an existing job that has a bore line.
- 2. Tap "Profile" **(1)** for "Profile" view.



Profile View Functions

Tap the "+" **(A)** to open "Profile" view functions.

- 1. "Target": This indicates a desired intermediate point on a Bore Line.
- "Note": This allows text notes to be added anywhere on the "Profile" view. Notes are limited to 50 characters.





TARGET

Placing New Target Point

Tap "Target" **(1)** and tap on the "Profile" view graph to place the target point **(2)**.





Edit Existing Target Point

- 1. Tap the target point (1) you want to edit and tap "Edit" (2).
- 2. Enter in the changes for the target point and tap "Save" **(3)** to return to "Profile" view with the new changes.

 Target Details 	2 Santa (ft)
Taiyet Details	J Save
Centerline distance (ft)	
182.8917	3
Depth (ft)	
1.8071	
Left(-)/Right(+) (ft)	4
0	
Pitch (%)	
Auto Calc	Aeria



Delete Existing Target Point

- 1. Tap the target point **(1)** you want to remove.
- 2. Tap "Delete" (2).



NOTE

Placing New Note

- 1. Tap "Note" **(1)** and tap on the "Profile" view graph to place the note **(4)**.
- Enter in text and tap "OK" (2) to save changes, or tap "Cancel" (3) to remove the note.





Edit Existing Note

- 1. Tap the note you want to edit (1) and tap "Edit" (2).
- Enter in the changes and tap "OK" (3) to save changes, or tap "Cancel" (4) to undo changes.





Delete Existing Note

Tap the note (1) you want to remove, and tap "Delete" (2).



EDITING WITHIN PROFILE VIEW Editing As-Built

- 1. Tap as-built point on the map (A).
- 2. Tap "Edit" (1).
- 3. Enter information for "As-Built Point Details" (2) and tap "Save" (3).

Deleting As-Built

- 1. Tap as-built point on the map (A).
- 2. Tap "Delete" (4).



$\leftarrow As-Built Point Details$	Save
Coordinate	\bigcirc
Elevation (ft)	
N/A	
Location accuracy (ft)	
N/A	
Elevation accuracy (ft)	

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Editing Utility

- 1. Tap utility point on the graph (A).
- 2. Tap "Edit" (1).
- 3. Enter information for "Utility Details" and tap "Save" (2).

Deleting Utility

- 1. Tap utility point on the graph (A).
- 2. Tap "Delete" (3).

The size of the vertical utility line in "Profile" view is determined by the utility diameter and utility clearance radius. The utility diameter is displayed as solid vertical line **(4)**. The utility clearance radius is displayed as a dashed line **(5)**.







Intersections

When a bore line intersects a utility clearance radius or utility diameter, the area where the utility crosses the bore line will be highlighted in the "Profile" view. It is depicted as orange ovals (A) on the bore line. In order to avoid intersections, redirect the bore path using target points in the "Profile" view, or edit the bore path in "Aerial" view.



Menu

MENU

Tap the menu icon **(1)** to open the menu.

Job Details

- 1. Tap "Job details" (2).
- 2. Enter in details of the job and tap "Save" (3).



[e	Job details 2
⊞	Generate report
ľ	Save
6	Save and exit
)	Exit without saving

÷	Job Details	(3) Save
Job	Information	\bigcirc
Job titl	e	
Job de (0/500	scription)	

Generate Report Note:

- A bore line or as-built must be added to the job before reports can be generated.
- Report generation creates all available reports.
- 1. Tap "Generate report" (1).
- 2. Choose how to send or open the report on the device when prompted. This step will appear differently per device.

Note: Report generation creates a landscape view of the following reports:

- Cover Page
- Job Details \$
- Bore Setup \$
- Aerial \$
- Profile
- Utility Crossings \$
- Topography Points \$
- Target Points \$
- Rod By Rod
- As-Built \$



Cover Page

(1) This report contains the Vermeer and BorePlan logo along with the report disclaimer.

Job Details

(2) This report contains all job information from the "Job details" page. It includes the following information: Job Description, Job Reference #, Job Stage, Projected Start Date, Projected End Date, Actual Start Date, Actual End Date, Customer/Company Name, Contact Name, Phone Number, Email, Type of Work, Address, Nearest Cross Street, City, State, Country, Zip, and Comments.



	· · · · ·	- /				
ob stage:	tage: Projected start date:		Projected end date:		t date:	Actual end date: 8/3/2024
anstruction	7/31/2024	8/5/2024		7/31/2024		
e: Contact n	Contact name:		Phone number:		Email	
Bob Mile	¢	123-456-7890		bob@treespecialists.com		
Address:			Nearest cross sheet.			
123 Oak Stree	123 Oak Street			Maple Street		
City:	State		Country:		Zq:	
Pata	lowa	USA		1234		
	ob stage: Construction ve: Contact n Rob Mills Address E20 Clok Stree City: Palta	ob stage: Projected start date: construction [7312024] re: Contact name: ficio tutter Address: 123 Gak Street City: State Palls [oois] oois]	oot stage: Projected start date: Projected me construction 7/31/2024 (8/5/2024) et: Contact name: Proine numbe [licit Miller (23-456-784) Address: [123-056 Street [123-056 Street [230-056 Street] [230-056 Stree	ook stage: Projected start date: Projected end date: construction [7/31/2024 [61/2024] e: Contact name: [10/6 Miller [7/31/2024] File Miller [7/31/2024] Address: [7/31/2024] Address: Neerest [7/31/2024] City: State: Course [7/31/2024] Palla [0/32] Course [7/31/2024]	ob stage: Projected start date Projected end date: Actual star construction [7/31/2024] [6/5/2024] [7/31/2024] er: Contact name: [Filos Duringer] [2/3-2056/780] filo: [2/3-2056/780] [2/3-2056/780] Address: Nearest cross street [Maple Street] City: State! County: Pala [ovis State!	Ob stage: Projected start date Projected end date: Actual start date: Construction 7/31/2024 Bit/3224 7/31/2024 er: Contact same: Bit/3224 Projected start date: Projected start date: Bit/Discover Projected start date: Projected s

Bore Setup

(3) This report contains all bore line information from the bore setup page. It includes the following information: Bore Name, Machine Name, Distance Before First Turn, Minimum Ground Cover, Rod Type, Entry Angle, Entry Depth, Entry Latitude, Entry Longitude, Exit Angle, Exit Depth, Exit Latitude, Exit Longitude, Rod Type, Rod Bend Radius, Rod Diameter, First Rod Length, Rod Length, Drill Bit, Dill Bit Diameter, Reamer, Reamer Diameter, Product, Product Diameter, **Product Thickness and Product** Bend Radius Limit.

Aerial

(4) This report contains an image of the "Aerial" view. This image will be centered on the bore line.

Profile

(5) This report contains an image

Bore Setup - Test Job - Wednesday, July 31, 2024 2:17PM fachine name Rod type Minimum ground cover (D1.315" X L6" X U1.8 stry depth (m) Rod bend radius (m) lod diameter (om 17.465 3.340 lod length (m) inst rod length (m) 1.2800 1.8286 hill bit Drill bit diameter (or is depth (m) Quickst Fluted with Eye D4.5 FC-1.625" (4.1 cm) Hex Pin RC-Pull E Reamer diameter (cm) Product Fibergla hoduct diameter (cm) aduct thickness (cm Product bend radius limit (m) 3 BOREPLAN





of the "Profile" view. This image can contain a light blue as-built line, black and red bore line, a green topography line, utilities (utility type color) and obstacles (color that was chosen in "Obstacle Details").

Utility Crossings

(6) This report contains a table to show every utility that the user has added which affects the bore plan. It includes the following information: Utility Type, Utility Name, Latitude, Longitude, Elevation, Depth, Diameter, and Separation.



If a bore line intersects a utility clearance radius or utility diameter, the "Utility Crossings" report highlights the rows yellow **(A)**. A utility clearance radius intersection will display "Interference" in black type under the "Separation" column. A utility diameter intersection will display "Intersection" **(B)** in red type under the "Separation" column.

Utility Cros	Utility Crossings - Intersect - Monday, August 5, 2024 1:54PM								
Utility type	Utility name	Latitude	Longitude	Elevation (ft)	Depth (in)	Diameter (in)	Separation (in)		
Electric	Electric	- <mark>XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX</mark>		823.0596	19.685	0	1.2499 (Interference)		
Gas	Gas	20000000000		.2.9608	19.685	0	17. (In B)nce)		
Water	Water	xxxxxxxxxxx	xxxxxxxxxxxx	822.85	6.5	0	Intersection		

Topography Points

(7) This report contains a table with topography information on the bore line. It includes the following information:
(Order of Points), Centerline Distance, Distance Along Bore, L/R, Latitude, Longitude, and Elevation.

*	Centerline Distance (m)	Distance Along Bore (#)	L/R (#)	Latitude	Longitude	Elevation (m)
0	0	0	0	1		250.8552
1	1.256	1.2802	0			250.8552
2	3.074	3.109	0			250.0552
3	4,9023	4.9378	0			350.8552
4	6.7311	6.7666	0			250.8552
5	8.5598	8.5954	0			250.7545
6	10,3886	10.4242	0			250.7649
7	12.2173	12.253	0			250.7645
8	14.046	14.0818	0			250,7649
9	15.8748	15.9106	0			250.7545
10	17.7835	17.7394	0			250.7649
11	19.5323	19.5682	0			250.7549
12	21.361	21.397	0			250.7517
10	23.1898	23.2258	0			250.7517
14	25.0185	25.0546	0			250.8384
15	26.8473	26.8834	0	-		250.8384
16	28.675	28.7122	0	1		250.8384
17	30.5048	30.541	0			250.6384
18	32.3335	32.3698	0			250.6384
19	34.1623	34.1986	0			250.6384

Target Points

(8) This report contains a table with all target points on the bore line. It includes the following information: # (Order of Points), Centerline Distance, L/R, Depth, Latitude, and Longitude.

Rod By Rod

(9) This report contains a table for each rod on the bore line. It includes the following information: Rod, Centerline Distance, L/R, String Length, Elevation, Depth, Pitch, Azimuth, and Bend Radius.

If a bore line intersects a utility clearance radius or utility diameter, the "Rod by Rod" report highlights the intersecting rods yellow **(A)**. If a bore line intersects a utility diameter, the text "Rod collides with utility" is displayed in yellow **(B)** above the table.

	Centerline Distance (m)	L/R (m)	Depth (m)	Latitude	Longitude
1	0	0	0		
5	30.779	-0.2228 L	0.1879		
3	59.0675	0	0		
			B)		

Rod	Centerline Distance (m)	L/R (n)	String Length (m)	Elevation (m)	Depth (m)	Pitch (*)	Azimuth (°)	Bend Radius (n)
0	0	0	0	250.8552	0	13.178	-0.4148	17.465
1	1.256	-0.0091 L	1.2802	250.6093	0.2459	8.9783	-0.4148	17.465
2	3.074	-0.0223 L	3,109	250.4189	0.4363	2.9788	-0.4148	17.465
3	4.9023	-0.0355 L	4.9378	250.3971	0.4581	-0.1184	-0.4148	17.465
4	6.7311	-0.0487 L	6.7566	250.4009	0.4543	-0.1184	-0.4148	
5	8.5598	-0.062 L	8.5954	250.4047	0.3662	-0.1184	-0.4148	
6	10.3886	-0.0752 L	10.4242	250.4085	0.3564	-0.1184	-0.4148	
7	12.2173	-0.0884 L	12.253	250.4122	0.3527	-0.1184	-0.4148	
8	14.046	-0.1017 L	14.0818	250.416	0.3489	-0.1184	-0.4148	
9	15.8748	-0.1149 L	15,9106	250.4198	0.3451	-0.1184	-0.4148	0
10	17.7035	-0.1282 L	17.7394	250.4235	0.3415	+0.1184	-0.4148	
11	19.5223	-0.1414 L	19.5682	250.4273	0.3376	+0.1184	-0.4148	
12	21.361	-0.1546 L	21.397	250.4311	0.3206	-0.1184	-0.4148	-
13	23.1898	-0.1679 L	23.2258	250.4349	0.3168	-0.1184	-0.4148	
14	25.0185	-0.1811 L	25.0546	250.4387	0.3958	-0.1184	-0.4148	
15	26.8475	-0.1944 L	26.8834	250.4425	0.396	-0.1184	-0.4148	
16	28.676	-0.2076 L	28.7122	250.4462	0.3922	-0.1184	-0.4148	
17	30.5048	+0.2268 L	30.541	250.45	0.1884	-0.1184	-0.4148	
18	32.3335	-0.2125 L	32.3658	250.4539	0.1846	-0.1207	0.4554	17.465
19	34.1623	-0.1979 L	34,1986	250 000	0.1807	-0.1207	0.4554	
20	35,991	-0.1834 L	36.0274	7 - 7	0.1769	-0.1207	0.4554	

Rod	Centerline istance ft)	L/R (ft)	String Length (ft)	Elevation (ft)	Depth (ft)	Pitch (°)	Azimuth (°)	Bend Radius (ft)
	-	0	0	823.1173	0	13.178	0	57.3
1	4.1208	0	4.2	822.3104	0.8068	8.9783	0	57.3
2	10.0855	0	10.2	821.6858	1.4315	2.9788	0	57.3
3	16.084	0	16.2	821.6307	2.0851	-0.4581	0	57.3
4	22.0838	0	22.2	821.6786	2.0372	-0.4581	0	
5	28.0836	0	28.2	821.7266	1.333	-0.4581	0	
6	34.0835	0	34.2	821.7746	1.2851	-0.4581	0	
7	40.0833	0	40.2	821.8225	1.2371	-0.4581	0	
8	46.0831	0	46.2	821.8705	1.1891	-0.4581	0	
9	52.0829	0	52.2	821.9185	1.1412	-0.4581	0	
10	58.0827	0	58.2	821.9664	1.0932	-0.4581	0	
11	64.0825	0	64.2	822.0144	1.4918	-0.4581	0	
12	70.0823	0	70.2	822.0624	1.4438	-0.4581	0	
13	76.0821	0	76.2	822.1103	1.3958	-0.4581	0	
14	82.0819	0	82.2	822.1583	1.3479	-0.4581	0	
15	88.0817	0	88.2	822.2063	0.6437	-0.4581	0	
16	94.0815		4.2	822.2543	0.5958	-0.4581	0	
17	100.0813		0.2	822.3022	0.5478	-0.4581	0	
18	106.0811	0	106.2	822.3502	0.4998	-0.4581	0	
19	112.081	0	112.2	822.3982	0.9341	-0.4581	0	

As-Built

(10) This report contains a table with as-built information. It includes the following information:
(Order of Points), Latitude, Longitude, Elevation, Location Accuracy, Elevation Accuracy, Depth, Orientation.
If a high accuracy device was not connected when the as-built points were created, location accuracy and elevation accuracy will display as N/A.

	Latitude	Longitude	Elevation (m)	Location Accuracy (m)	Elevation Accuracy (m)	Depth (m)	Orientation
1	0000	MAAAA	N/A	N/A	N/A	0	Το Τορ
2	XXXXX	XXXXX	N/A	N/A	N/A	0	So Tep
			(1	0			

SAVING WORKFLOW

Note:

- Saving only saves files to your physical device.
- All saved files can be managed through the "Manage Existing Jobs" menu.
- It is recommended to save often!

Save

Note: This will save the file, and user will stay within the current view. 1. Tap "Save" **(1)**.

Save and Exit

Note: This will save the file and return to the landing page.

1. Tap "Save and Exit" **(2)**.

Exit Without Saving

Note: This will not save the file and return to landing page.

1. Tap "Exit without Saving" (3).



Rod By Rod Plan

ROD BY ROD TABLE

Tap "Rod By Rod" **(1)** to view the rod by rod table **(2)**, which displays a line for each rod on the selected bore line. The table includes information for: Rod number, Entry Point, Starter rod, Centerline Distance, L/R, String Length, Elevation, Depth, Pitch, Azimuth, and Bend Radius.

If the bore line intersects a utility line, a rod by rod report shows intersecting rods with a yellow background **(3)**.

0	0	0
1	4.1208	0
2	10.0855	0
3	16.084	0
4	22.0838	0
5	28.0836	0
6	34.0835	0
7	40.0833	0

Rod	Centerline Distance (ft)	L/R (ft)	String Length (ft)
Entry point	0	0	0
Starter rod	6.9	0	7
1	16.8	0	17
2	26.8	0	27
3	36.8	0	37
4	46.8	0	47
5	56.8	0	57
6	66.8) 0	67
7	76.8	0	77
8	86.8	0	87
9	96.8	0	97
10	106.8	0	107
11	116.8	0	117
12	126.8	0	127
13	136.8	0	137
14	146.8	0	147
	Aerial Pro	ofile	Rod By Rod

Vermeer BorePlan

Located at the bottom of the log in and landing pages is a "**Help**" link to Vermeer Corporation.

- 1. Local Vermeer Dealer
 - Link to your local Vermeer Dealer.
- 2. AppSupport@Vermeer.com
 - Link to send an email to Application Support Services.
- 3. End-User License Agreement
 - Link to the End User License Agreement.
- 4. Online User Guide
 - Link to the Online User Guide, instructions on application use.
- 5. Privacy Policy
 - Link to the Vermeer Privacy Policy.
- 6. Notice of Personal Information Processing
 - Link to Notice of Personal Information Processing
- 7. Disclaimer
 - Link to Disclaimer
- 8. Delete Account
 - Link to the Vermeer contact.
- 9. Tap the left pointing arrow in the top left corner to return to the program landing page.

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 Please contact your local Vermeer® dealer for support.
 Email us at AppSupport@vermeer.com
 End-User License Agreement
 Online Manual
 Privacy Policy
 Notice of Personal Information Processing
 Disclaimer

To delete your account, <u>contact us</u>.

Revision History

REVISION	DATE	PAGE(S)	DESCRIPTION
01_00	09/19	All	First Edition User's Guide Released.
			Applies to software version 1.0
01_01	03/20	Section 30:	Added first time users info including
		5-11; Section	access to app, create an account,
		40: 1-7; Section	email account, establishing password.
		50: 4-14	Added accessing the app for existing
			users, updated the EULA. Updated the
			landing page screen, BorePlan options,
			added bore specifics, tooling specifics,
			enter product specifics. Added existing
			bore plans. Added utility - profile view,
			topography - profile view, aerial view.
ug2_01	04/24	All	New design for entire book. Section
			contents were streamlined to be an
			online-only help guide.
ug2_02	09/24	All	App Version: 2.0.4; Edits/additions to
			entire book.
ug2_03	01/25	11, 17, 26, 32-	Added: custom topography. Updated:
		33, 66	features table, job deletion, color
			variation tolerances, rod-by-rod table.

Vermeer Corporation

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BOREPLAN User Guide

APPLICATION VERSION 2.0.4 (EFF 01/25)