

Newsletter

Dear customers,

Sivan Design listens to its customers, and in 2013 important improvements were made, such as:

General

- Supporting AutoCAD 2014 version
- Add or reduce dH to break Lines
- New scales in Global Scale Definitions menu
- New scales in Coordinates Frame menu
- New text style for reports located on drawing

Roads

- Increasing the amount of absorbing roads layers in 'Get Side Roads' module
- Automatic Junctions Design
- Save multiple segments definitions to TXT file in Super Elevation Module
- Improvement in Visibility menu for Braking Distance Test
- Design Lots between roads
- New tools in Horizontal Alignment Tools menu

Reservoirs

- Locate Capacity reports on drawing

Pipelines

- Display wall thick of pipelines in the sections drawings

Please continue reading and learn more about all **CivilCAD 2014** improvements and new features. We will always be happy to get your feedback.

Sincerely,
Shlomi Sivan, CEO

The new CivilCAD 2014 V1.0 is available for download from Sivan Design website:

<http://www.sivandesign.com/downloads>

In the installation process it is strongly advised to follow the installation instructions and go through the entire 'Setup completion wizard' steps to fit the software to personal working methods.

This document presents the software's major improvements and new features. The changes are serially listed, and divided into the following subjects:

- GENERAL
- ROADS
- RESERVOIRS
- PIPELINES

Note: Some paragraphs have been included under a certain subject ("ROADS" for example) can be useful for other users of the software (Surveyors for example). It is advised to go through the entire paragraphs included in the document; either if they are not directly refers to your specific field of interest.

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GENERAL

1. Supporting AutoCAD 2014 Version

CivilCAD 2014 supports AutoCAD 2014 32/64 bit and earlier versions of AutoCAD.
Sivan Design will support every new version of AutoCAD in the future.

2. Add or reduce dH to break Lines

CivilCAD enables adding or reducing dH to break lines.

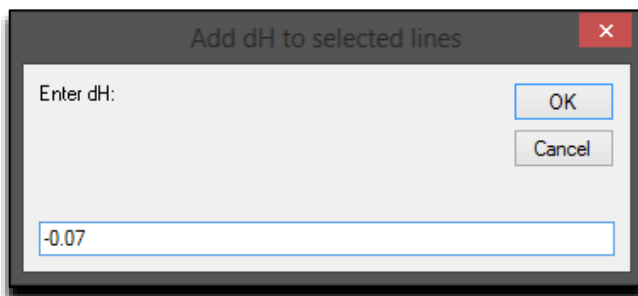
To use this feature:


- From CivilCAD main menu, go to 'Topography→Lines' or 'Design→Lines'.
- Mark the desired break lines from the lines list and click the 'Add dH to selected lines'



button'.

- In the opened window, enter dH (in meters). Positive value will add dH and negative value will reduce dH. For example:



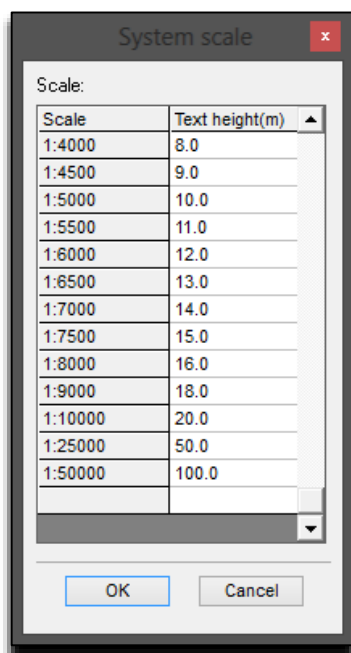
- Click the 'OK' button.
- Click the 'Refresh'  button to update the drawing.
- From CivilCAD main menu, go to 'Topography→Contours' or 'Design→Contours' and rebuild the surface 3D model (contours).

3. *New scales in Global Scale Definitions menu*

We added new scales in 'Global Scale' definitions menu:

1:25,000; 1:50,000. To define a Scale:

- From CivilCAD main menu, go to: 'File→Configurations'. 'Configurations' menu will open.
- Click the 'Drawing Environment' Tab and then click the 'Global Scale' button.
- Select the desired scale from the list.



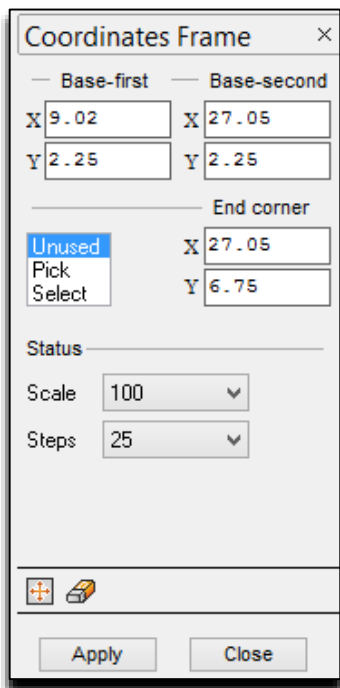
- Click the 'OK' button to save the definitions.

4. *New scales in Coordinates Frame menu*

We added new scales in 'Coordinates Frame' menu:

1:25,000; 1:50,000. To define a Scale:

- From CivilCAD main menu, go to: 'General→Coordinates Frame'. 'Coordinates Frame' menu will open on the right side of the screen.



- Select the 'Pick' option and create a coordinates frame on drawing by clicking on the screen in the following order: Bottom Left Corner→Bottom Right Corner→Upper Right Corner.
- Click the 'Scale' button and select the desired scale.
- Click the 'Apply' button to create the coordinates frame on drawing.

5. *New text style for reports located on drawing*

In order to avoid conflicts with AutoCAD 'Standard' style, we created a new text style for reports which are located on drawing: CIVILCADMAIN.


General Earthworks - Computed grid = 10.00 X 10.00

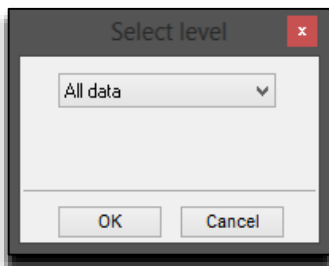
I No	ICut vol.	IFill vol.	I	ICut vol.	IFill vol.
11	14.93	10.00	111	171.35	10.00
12	141.09	10.00	112	169.13	10.00
13	160.57	10.00	113	169.26	10.00
14	158.95	10.00	114	168.98	10.00
15	128.45	10.00	115	161.62	10.00
16	14.57	10.00	116	134.02	10.00
17	10.72	10.00	117	16.37	10.00
18	133.90	10.00	118	18.21	10.00
19	159.88	10.00	119	153.81	10.00
110	171.15	10.00	120	172.69	10.00
1374.21		10.00	1515.44		10.00
I No	ICut vol.	IFill vol.	I	ICut vol.	IFill vol.
121	170.03	10.00	131	162.04	10.00
122	169.69	10.00	132	175.94	10.00
123	168.56	10.00	133	175.91	10.00
124	167.74	10.00	134	170.52	10.00
125	169.45	10.00	135	168.64	10.00
126	172.07	10.00	136	166.37	10.00
127	174.15	10.00	137	163.33	10.00

ROADS

6. *Increasing the amount of absorbing roads layers in 'Get Side Roads' module*

We have increased the amount of absorbing roads layers in 'Get Side Roads' module from 30 roads to 50 roads. To use this feature:

- From CivilCAD main menu, go to: 'Roads→Cross Sections'.
- Click the 'Get Side Roads'  button. 'Select Level' window will open.



- Click the 'OK' button.
- Click the 'Apply' button to update the section's drawing.

Note: In order to display other roads in a specific road's cross sections, you will need to checkmark the 'Triangles' option in the 'Create Layout' window.

To use this feature:

- From CivilCAD main menu, go to: 'Roads→Horizontal Alignment'.
- Click the 'Apply' button. 'Create Layout' window will open.
- Checkmark the 'Triangles' option and click the 'OK' button.

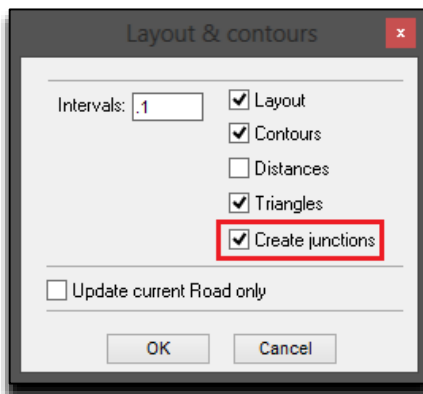
7. Automatic Junctions Design

We added a new module for designing junctions and display the junctions in the road's horizontal alignment and cross sections, including traffic islands.

Note: At this stage, CivilCAD creates the junctions automatically. The user cannot define the junctions elements prior to the junctions creation.

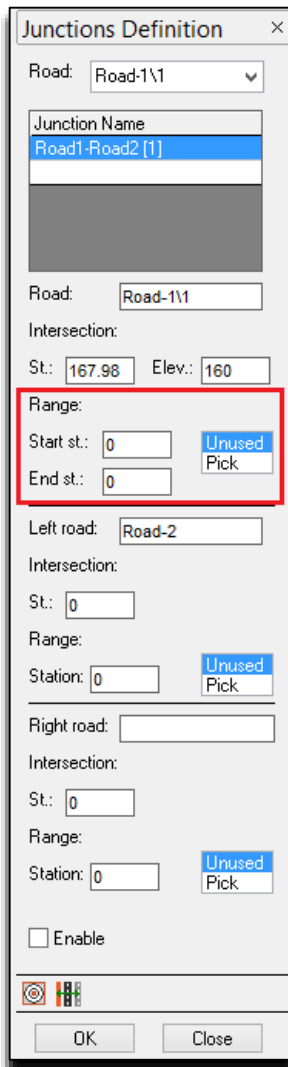
To use this feature (after full roads design):

- From CivilCAD main menu, go to 'Roads→Vertical Alignment'. 'Vertical Alignment' menu will open on the right side of the screen.
- From the Roads List, select the road which will be the main road.
- Define the centerlines elevation at the intersection point and click the 'Apply' button.
- In the opened window, click the 'Update All' button.
- From CivilCAD main menu, go to: 'Roads→Horizontal Alignment'.
- Click the 'Apply' button. 'Create Layout' window will open.
- Checkmark the 'Create Junctions' option and click the 'OK' button.



Note: CivilCAD will automatically create the junctions and update the roads layout, including the roads contours and cross sections.

- From CivilCAD main menu, go to: 'Junctions→Junctions Definition'. 'Junctions Definition' window will open on the right side of the screen.



The screenshot shows the 'Junctions Definition' dialog box. The 'Range' section for the main road is highlighted with a red box. It contains the following fields and buttons:

- Start st.: 0 (with 'Unused Pick' button)
- End st.: 0 (with 'Unused Pick' button)


Note: It is possible to change the Start Station & End Station of the junction:

- Under 'Range', define the Start Station in 'Start St.' cell and the End Station in 'End St.' cell or click the 'Pick' button and mark the Start & End stations on the centerline of the road which was defined as Main Road.
- Click the 'OK' button.
- From CivilCAD main menu, go to: 'Roads→Horizontal Alignment'.
- Click the 'Apply' button and then click the 'OK' button.

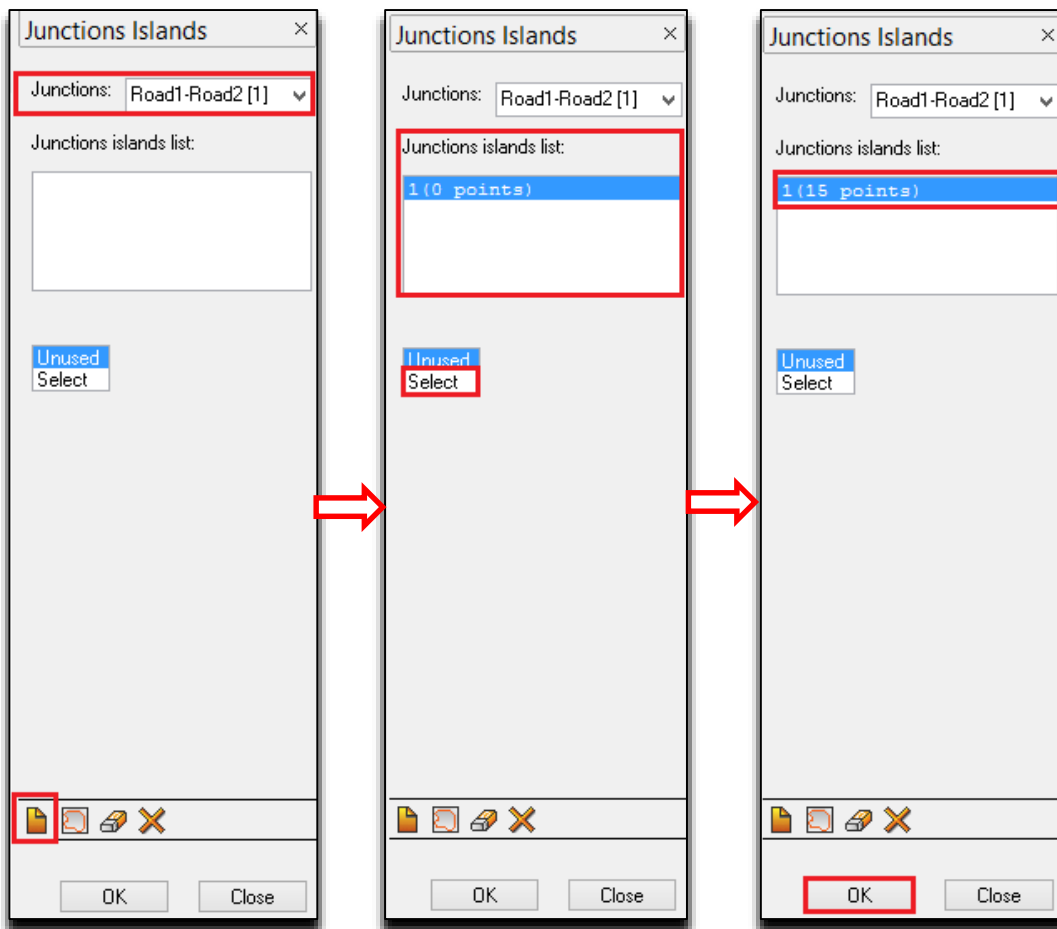
In order to define Traffic Islands:

- From CivilCAD main menu, go to: 'Junctions→Junctions Islands'. 'Junctions Islands' menu will open on the right side of the screen.

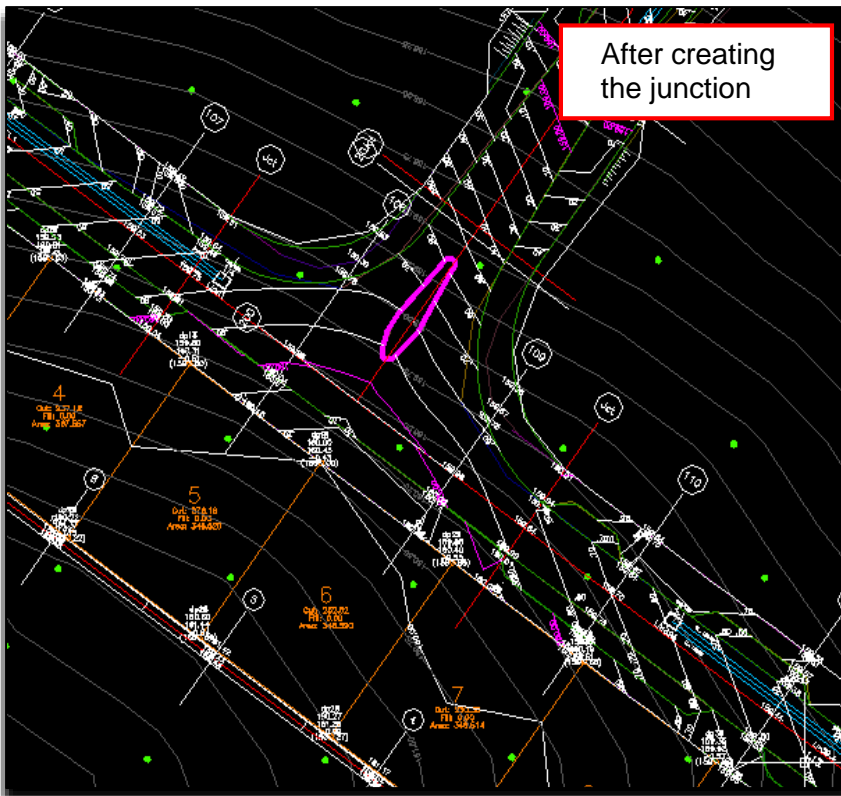
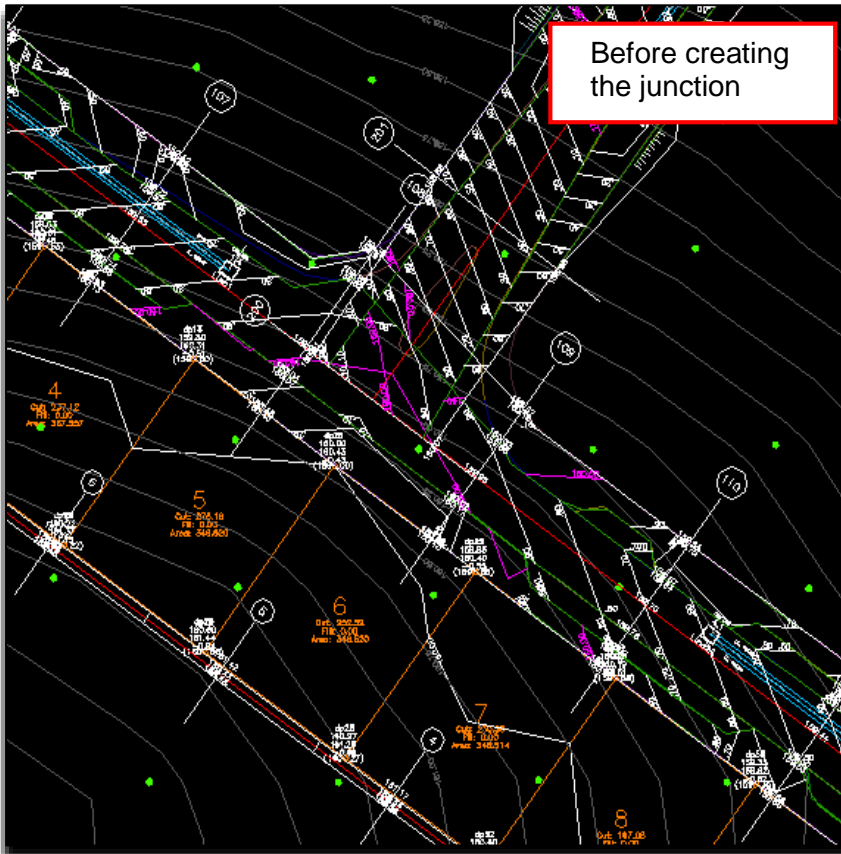
Note: CivilCAD will automatically identify the roads which creates the junction.

- Click the 'New Island'  button. CivilCAD will add a traffic island to the 'Junctions Islands List'.
- Click the 'Select' button and select the traffic island from the drawing (the traffic island must be a Polyline).

Note: CivilCAD will automatically identify the number of points which creates the Polyline.



- Click the 'OK' button to save the definitions.
- From CivilCAD main menu, go to: 'Roads→Horizontal Alignment'.
- Click the 'Apply' button and then click the 'OK' button.



8. Save multiple segments definitions to TXT file in Super Elevation Module

We have improved the 'Super Elevations' module, and now it is possible to define slope for several segments and save all segments definitions to a single TXT file instead of a TXT file for each segment.



9. Improvement in Visibility menu for Braking Distance Test

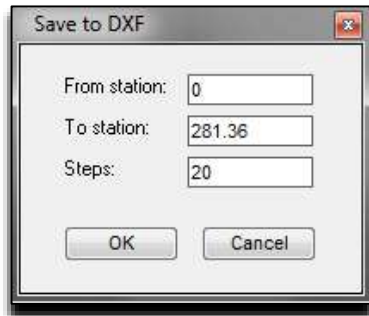
We have improved the 'Visibility' module and added an option for Braking Distance Test.

To use this feature:

- From CivilCAD main menu, go to 'Roads→Visibility'. 'Visibility' menu will open on the right side of the screen.

Name	Station
101	20
102	40
103	60
104	80
105	100
106	120
107	140

- In order to produce a report, from CivilCAD main menu, go to: 'Roads→Visibility' and click the 'Report'  button.
- In order to send the scenes to DXF file, in 'Roads→Visibility' menu, click the 'DXF'  button.
- Define the desired Start & End Stations or use the default definitions.
- Define the steps between sections and click the 'OK' button.



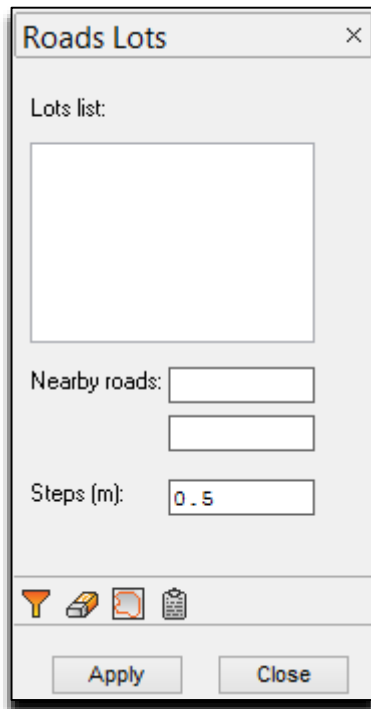
- Save the DXF file which was created.


10. Design Lots between roads

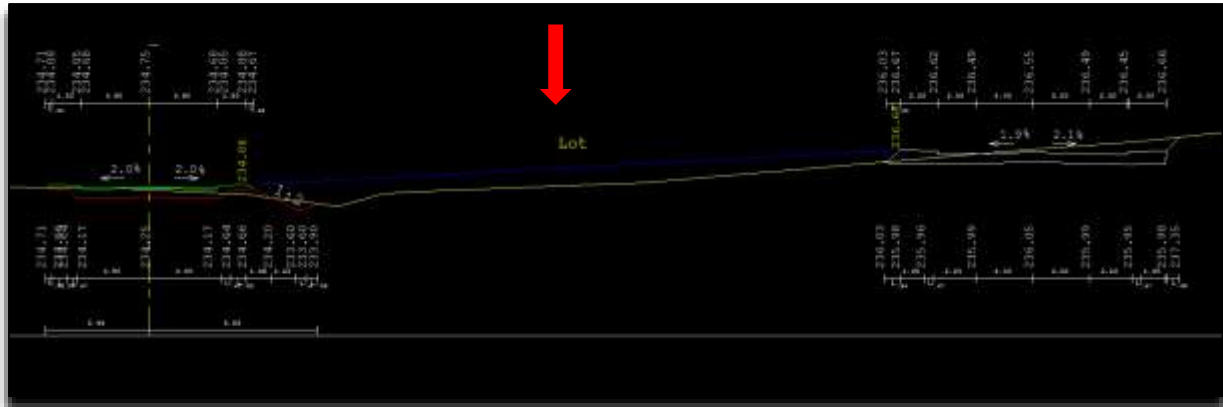
CivilCAD enables designing lots between roads, with inverted slopes, in order to avoid duplication of earthworks volumes between the roads and the lots.

To use this feature:

- From CivilCAD main menu, go to 'Roads→Roads Lots'. 'Roads Lots' menu will open on the right side of the screen.



- Click the 'Filter Roads Lots from Drawing'  button'. 'Roads Lots' menu will change to 'Filtering' menu.
- Click the 'Select' button, mark the desired lot in the drawing and hit the 'ENTER' button.
- Click the 'Apply' button. A message window will appear with the number of lots which were found by CivilCAD.
- Click the 'OK' button. 'Filtering' menu will change back to 'Roads Lots' menu, with a list of the lots.
- In case of lots with rounded corners, define the radius division to segments (meters) in 'Steps (m)' cell.
- Click the 'Apply' button.
- From CivilCAD main menu, go to: 'Roads→Horizontal Alignment'.
- Click the 'Apply' button and then click the 'OK' button. CivilCAD will build the lots between the roads.
- From CivilCAD main menu, go to: 'Roads→Cross Sections'. CivilCAD will display the lots in the cross sections.



11. New tools in Horizontal Alignment Tools menu

We added two new tools for creating road's centerline out of segments in the horizontal alignment.



Line_Arc Fit Clotho – Click the button, select the line from the drawing, then select the arc from the drawing. CivilCAD will create a clothoids between the line and the arc.





Connect Arc – Click the button, select the first arc from the drawing, then select the second arc from the drawing. CivilCAD will create two segments of arcs in a row.

RESERVOIRS

12. *Locate Capacity reports on drawing*

We added a new option for locating Capacity Report of a reservoir on drawing.

To use this feature (after full reservoir design):

- From CivilCAD main menu, go to: 'General→Reservoirs'. 'Reservoirs' menu will open on the right side of the screen.
- Click the 'Compute Capacity'  button. CivilCAD will calculate the capacity volumes and display the capacity report on screen.
- Close the report and click the 'Locate Report on Drawing'  button.
- Click on the screen at the desired location for the report to be displayed.
- In AutoCAD Command Line, type 's' (for Set) and hit the 'ENTER' button. The report will be displayed on drawing.

PIPELINES

13. *Display wall thick of pipelines in the sections drawings*

In case that a wall thick was defined in Drainage / Sewage pipeline's section, CivilCAD will display it as two lines (both top and bottom) in the section's drawing.

