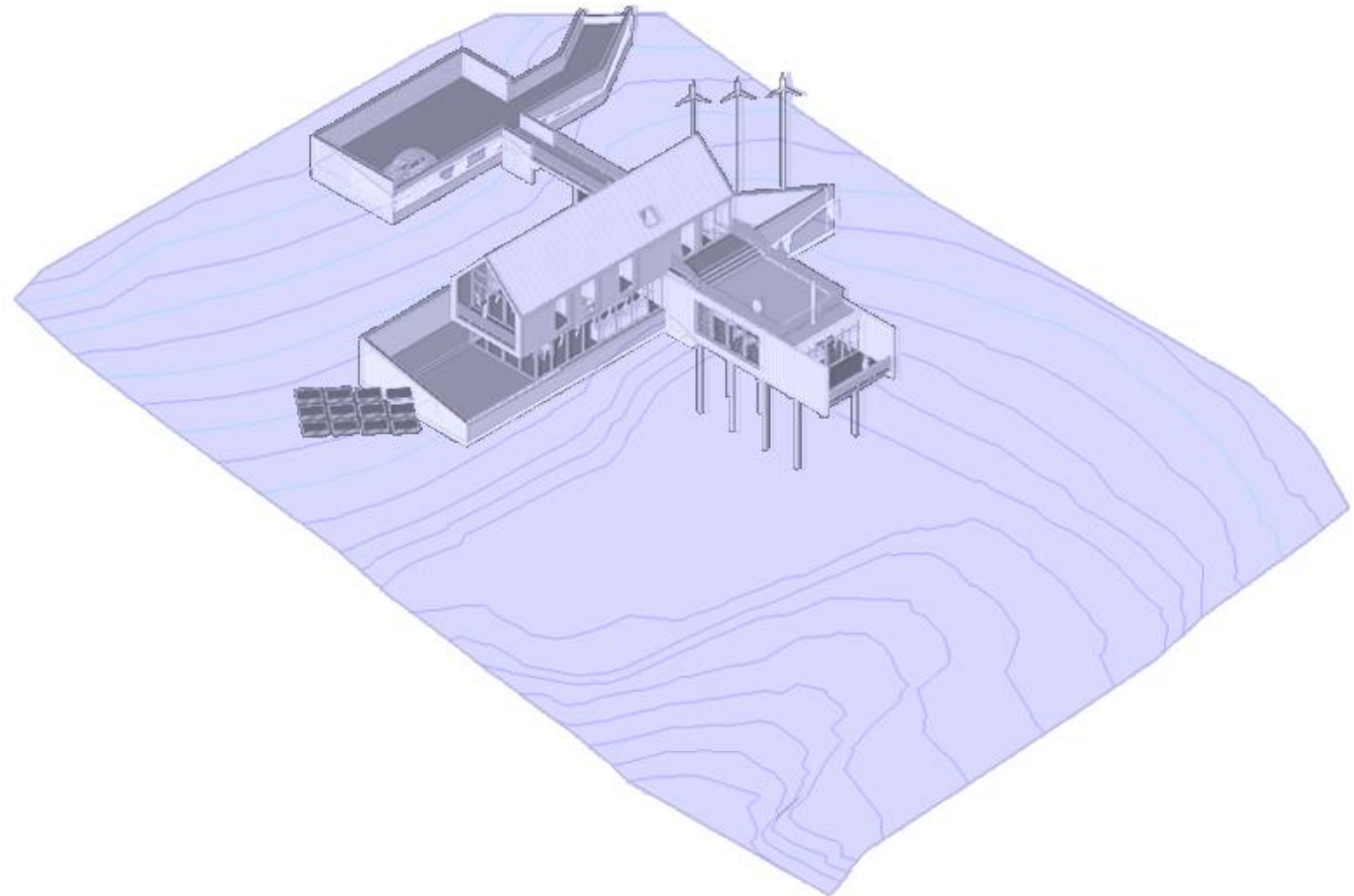
AutoCAD
Align to
DWG Survey



Align to a DWG Survey

In Revit

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Shared Coordinates

Separate Video!

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Fundamentals

Origins and coordinates

Units in DWG/Revit

Survey preparation

Positioning methods

ID Command (AutoCAD)

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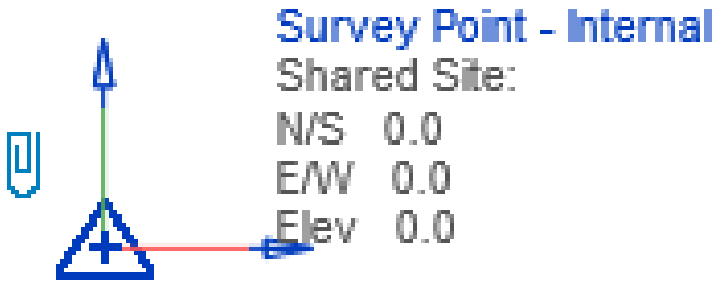
Origins and Coordinates

Origin of **project** coordinates system

Should be kept somewhere relative to the project scope



A known, **surveyed** point

Should be the surveyed marker *or* the origin of the coordinates system (0,0,0 relative to MGA etc.)

Why can’t I see them?!

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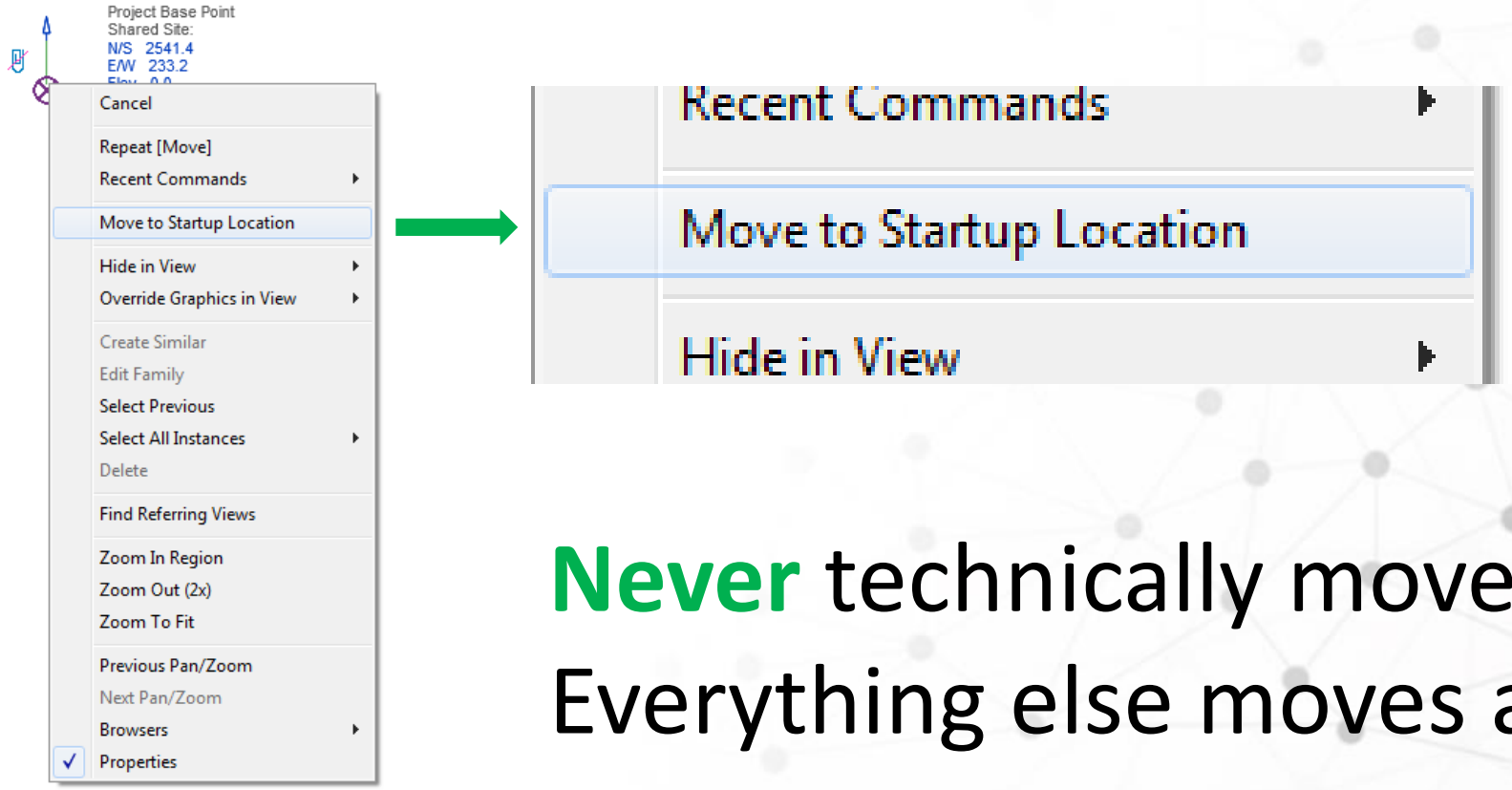
Revit Origin / Startup Location



Never technically moves
Everything else moves around **it**

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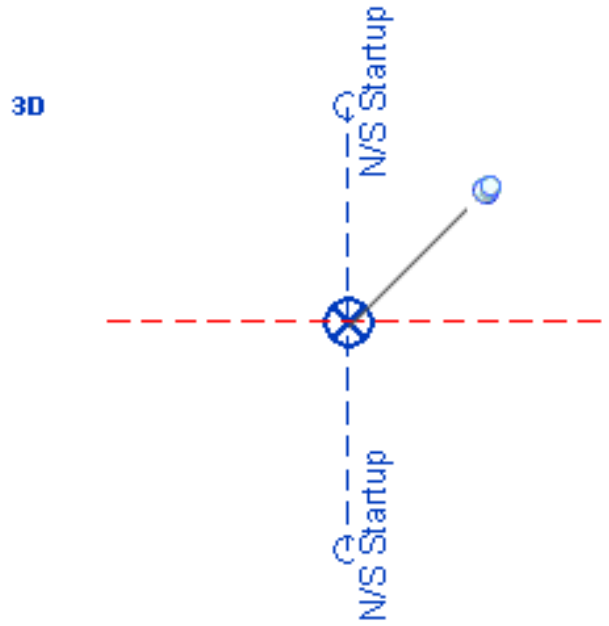
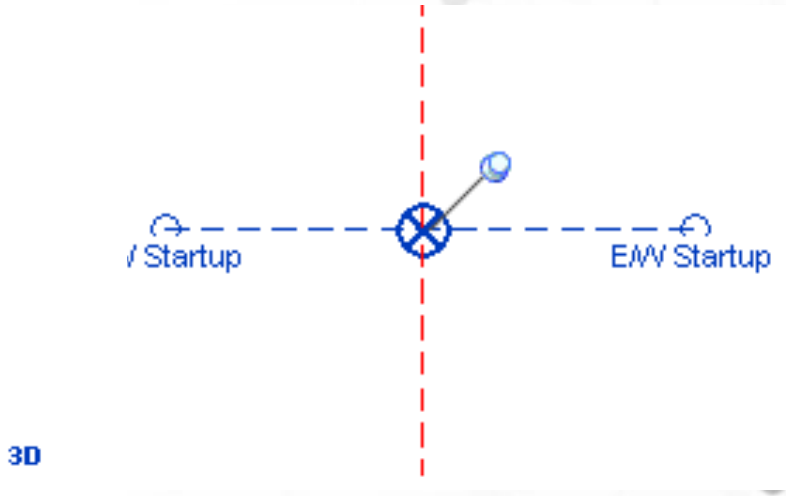
Revit Origin / Startup Location

Mark/track it!!!





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Revit Origin / Startup Location

Important!

It is **Dynamo's** origin

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Project Units in Revit/AutoCAD (UN)

vs.

Drawn/Modelled Units in Revit/AutoCAD (UN)

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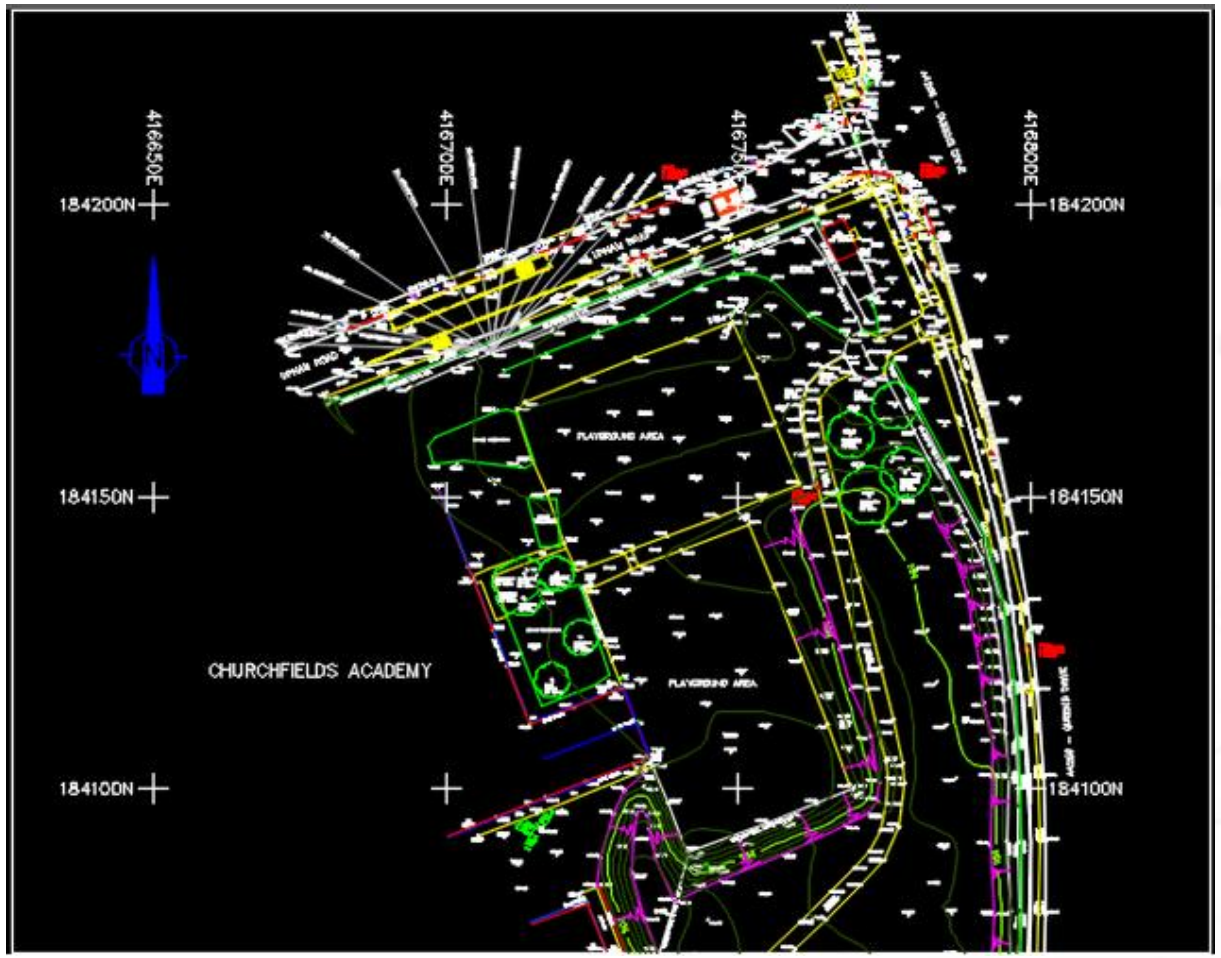
Survey Preparation



Look at the file before you Link it!

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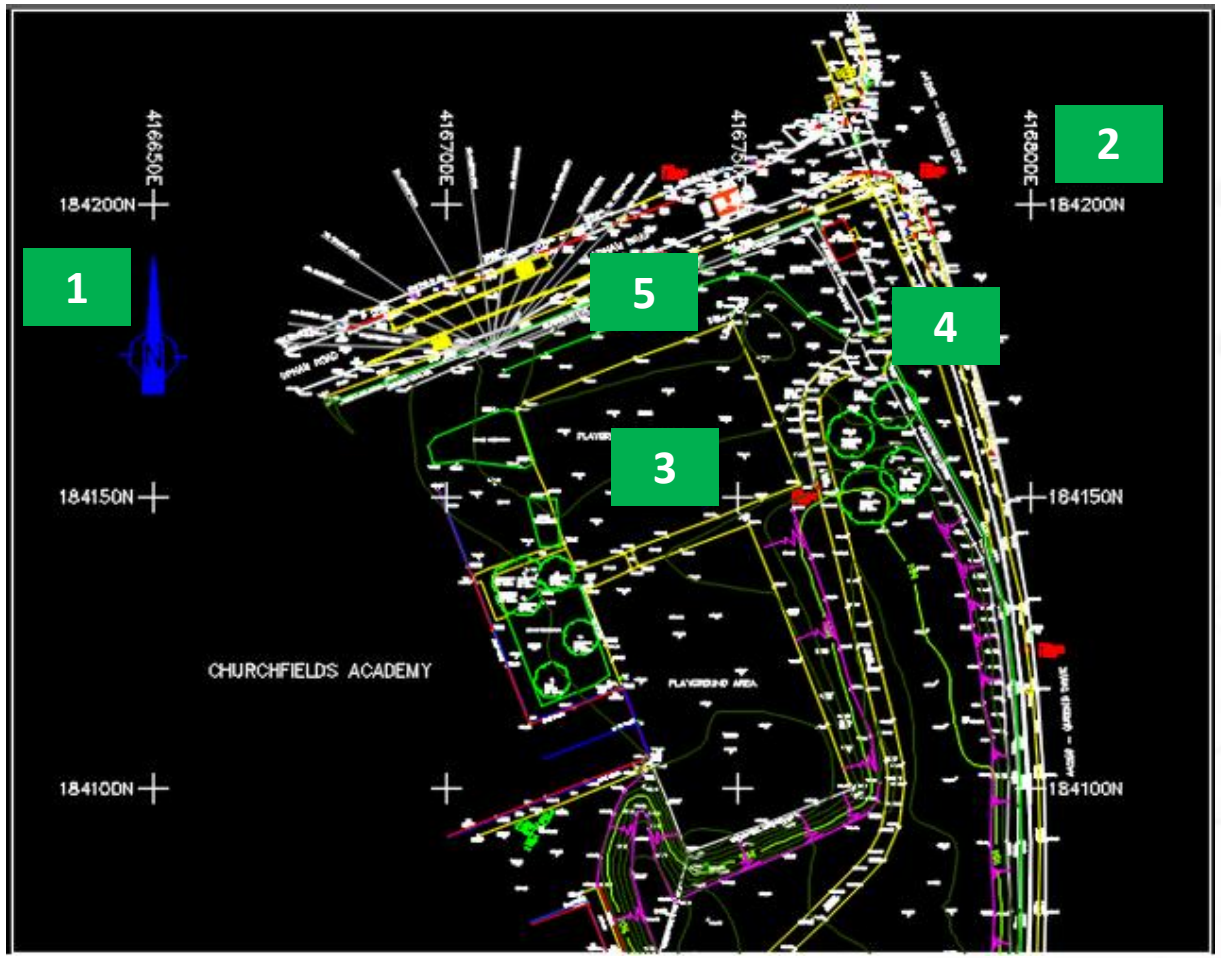
Survey Features



1. North marker
2. N/E survey points
3. Contours
4. Property boundary
5. Clean file of text?
6. Units?

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Example: Simple Survey

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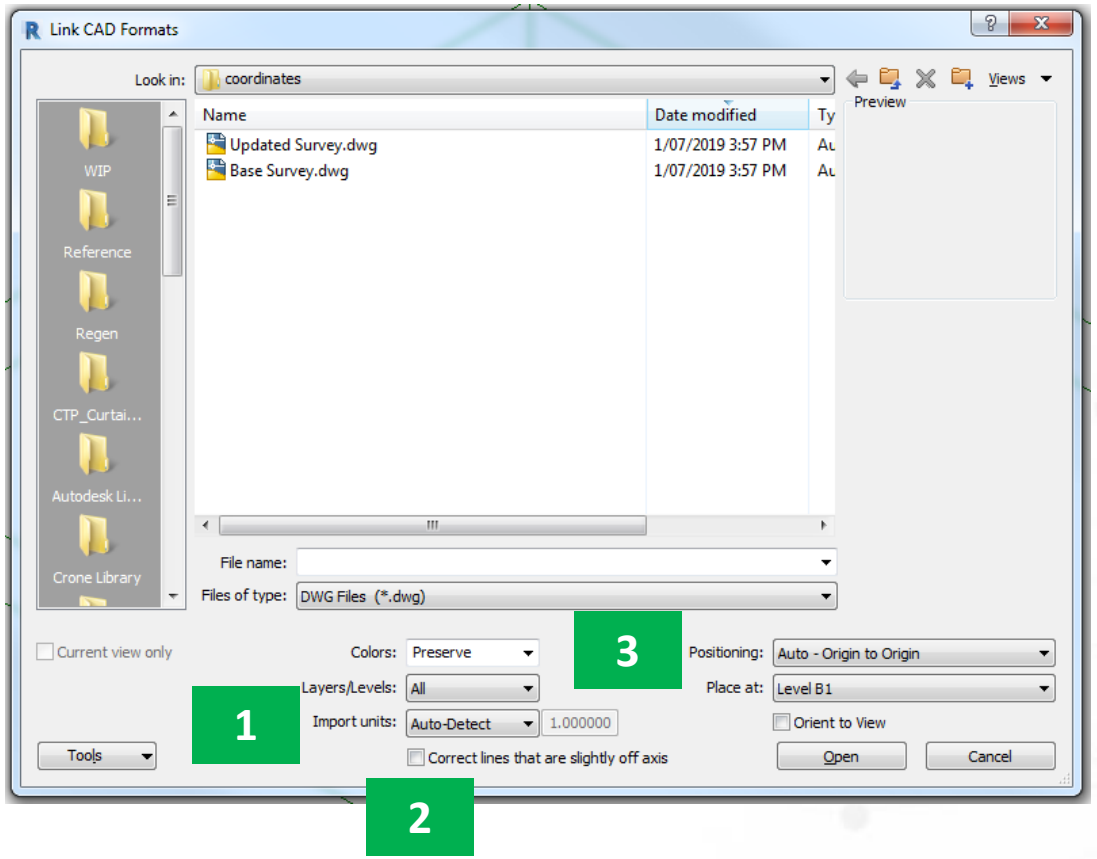
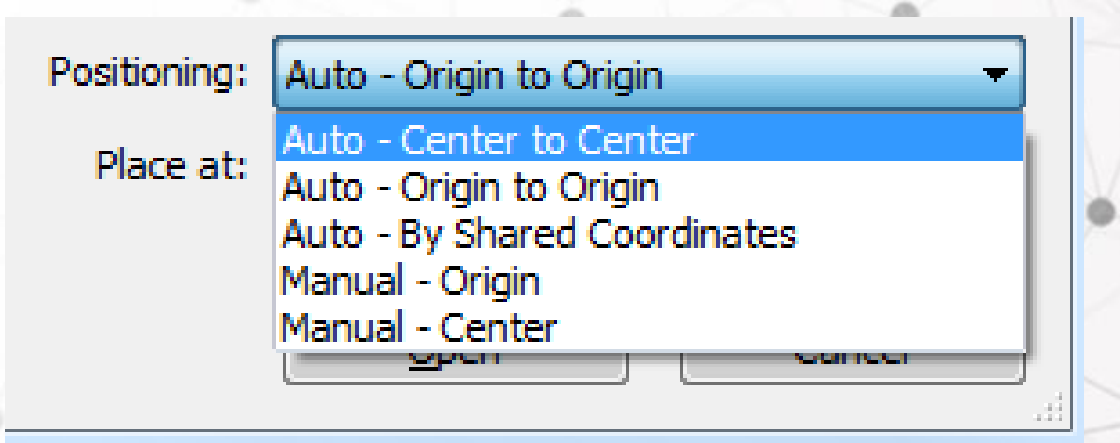
Link Positioning



1. NB Auto-Detect does not always work
2. Usually best ticked off
3. If no aligned, use **Manual - Center**



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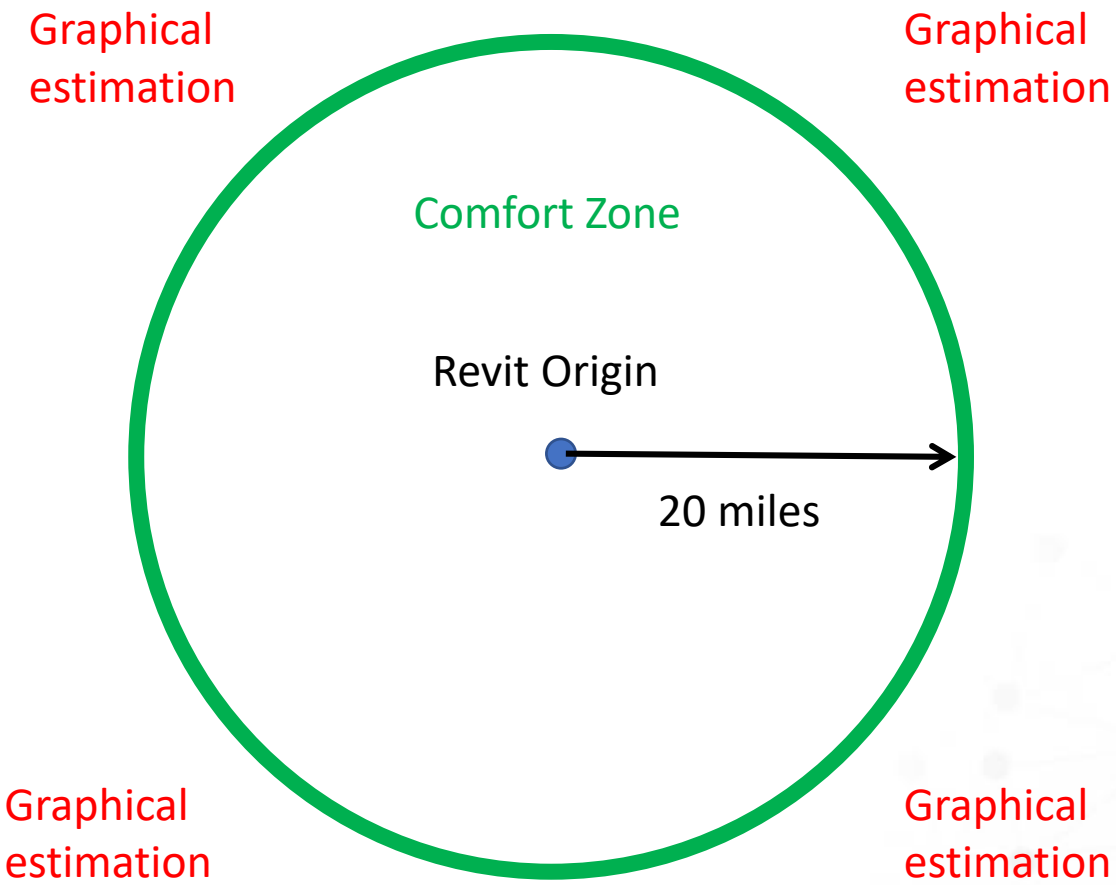
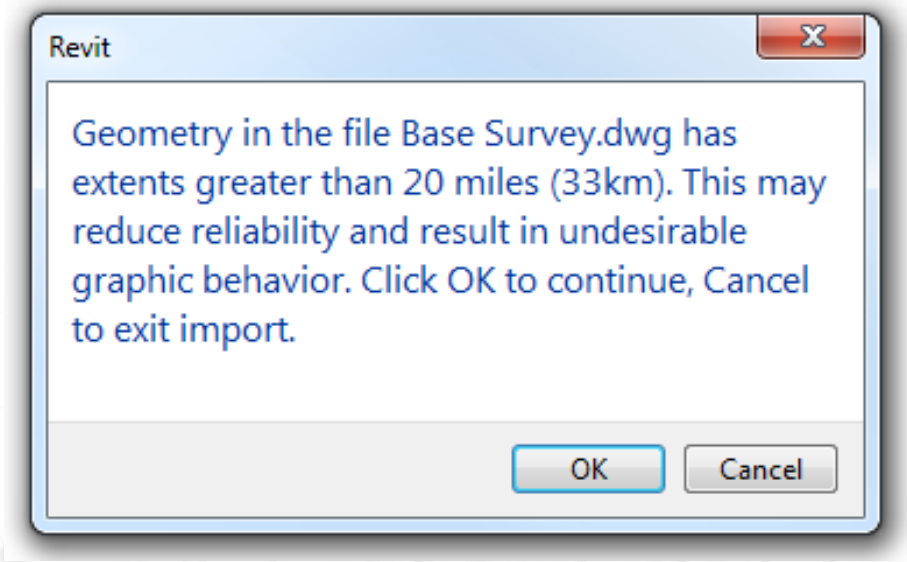
Extents Issue





DWG files of greater extents than this will also revert to **Centre to Centre** without telling you! Even if you choose **Origin to Origin**

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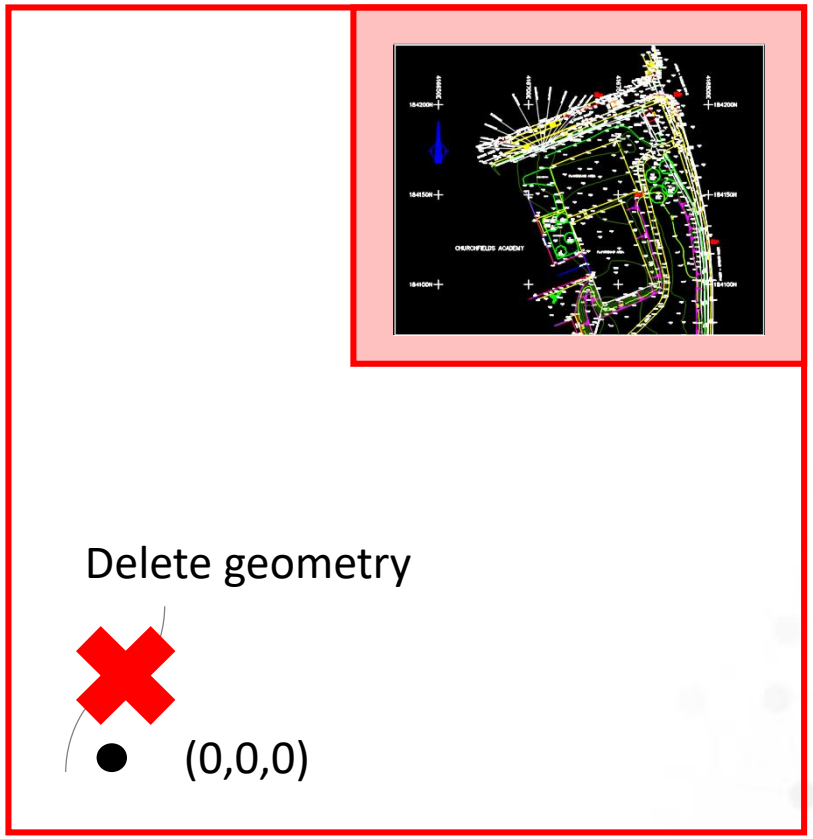
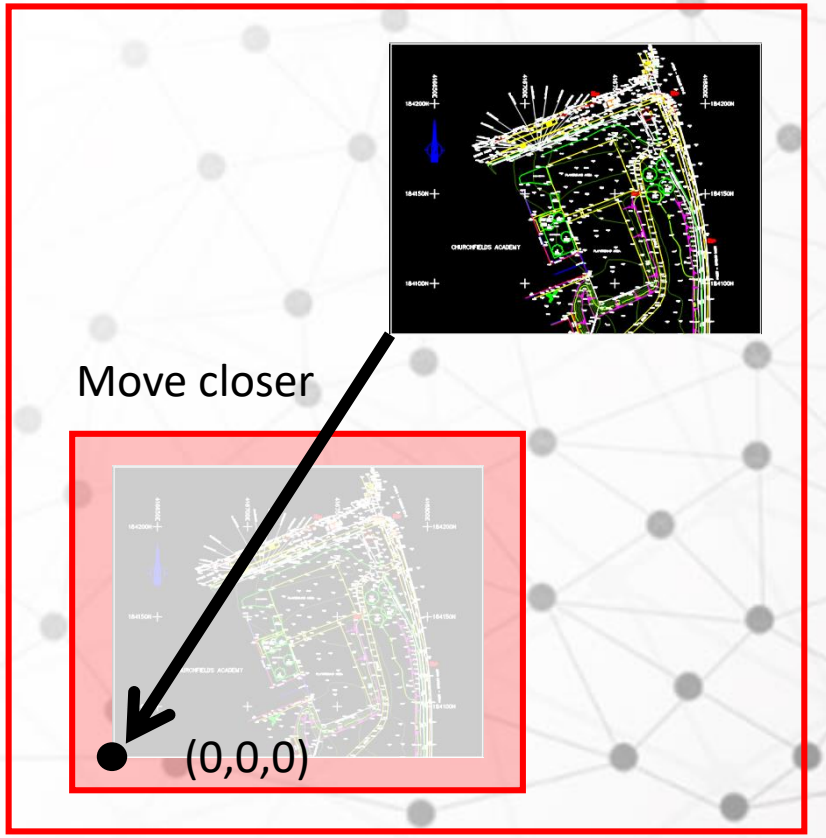
Some Solutions



OR



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Survey Alignment Process

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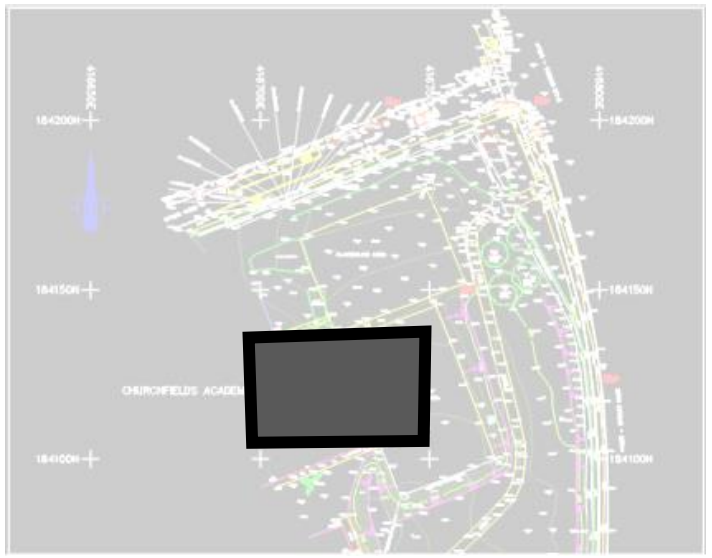
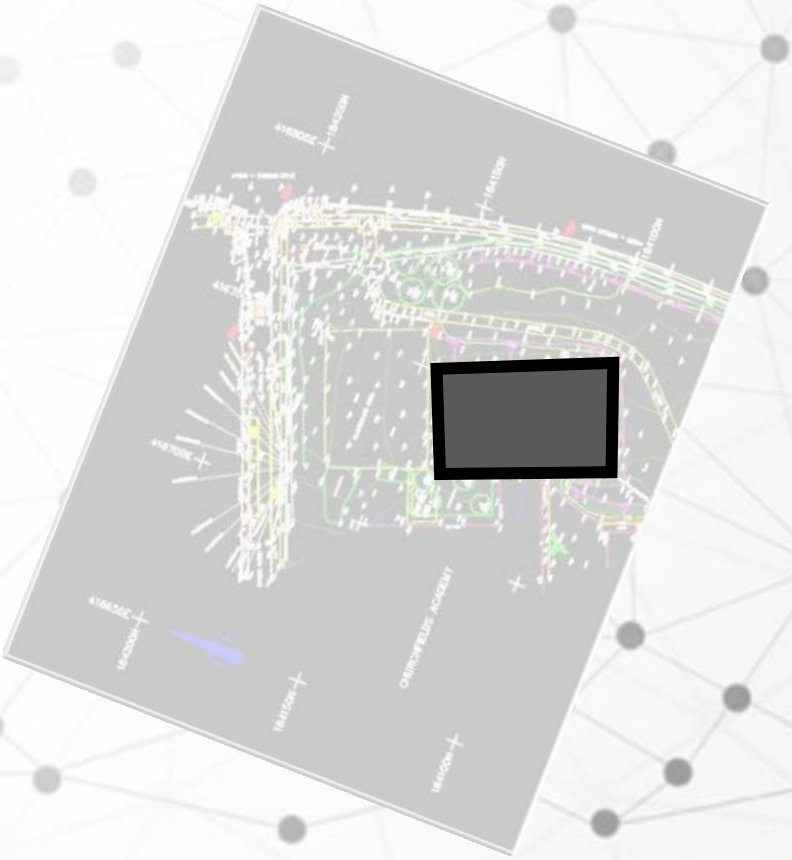
Part 1: Place/Align Survey



Move survey
Rotate survey
Align survey



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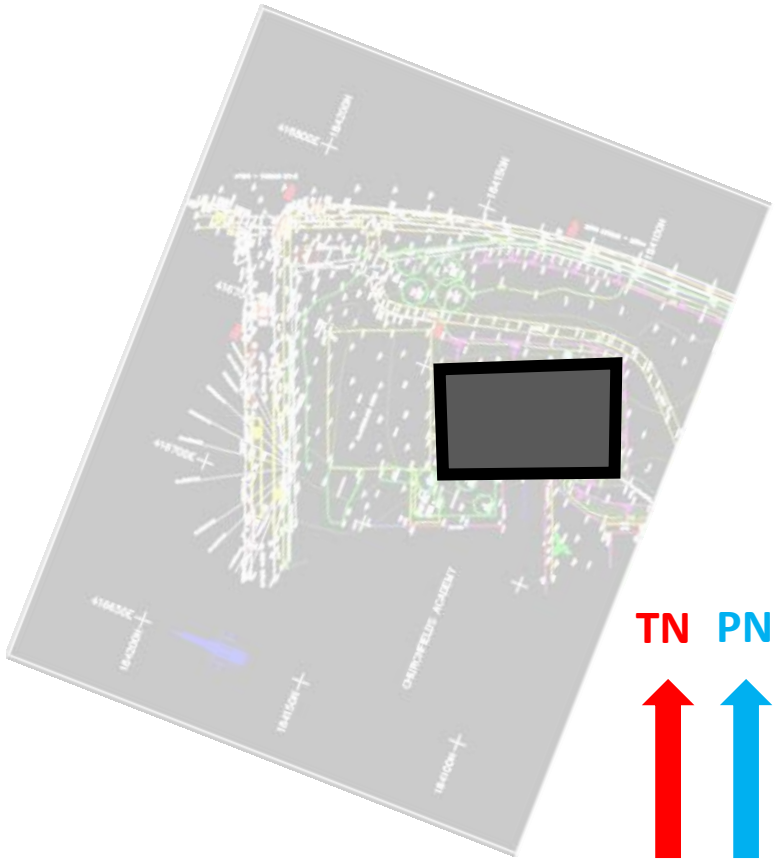
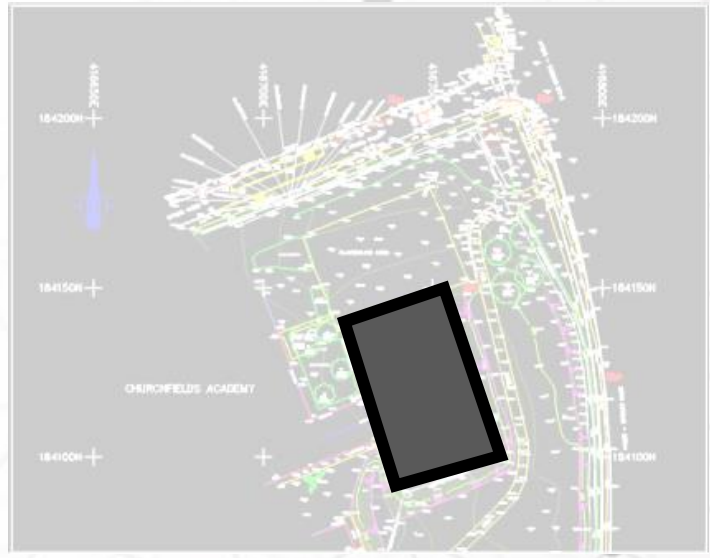
Part 2: Rotate True North



TN PN

Rotate world
Around
Base point



TN

PN

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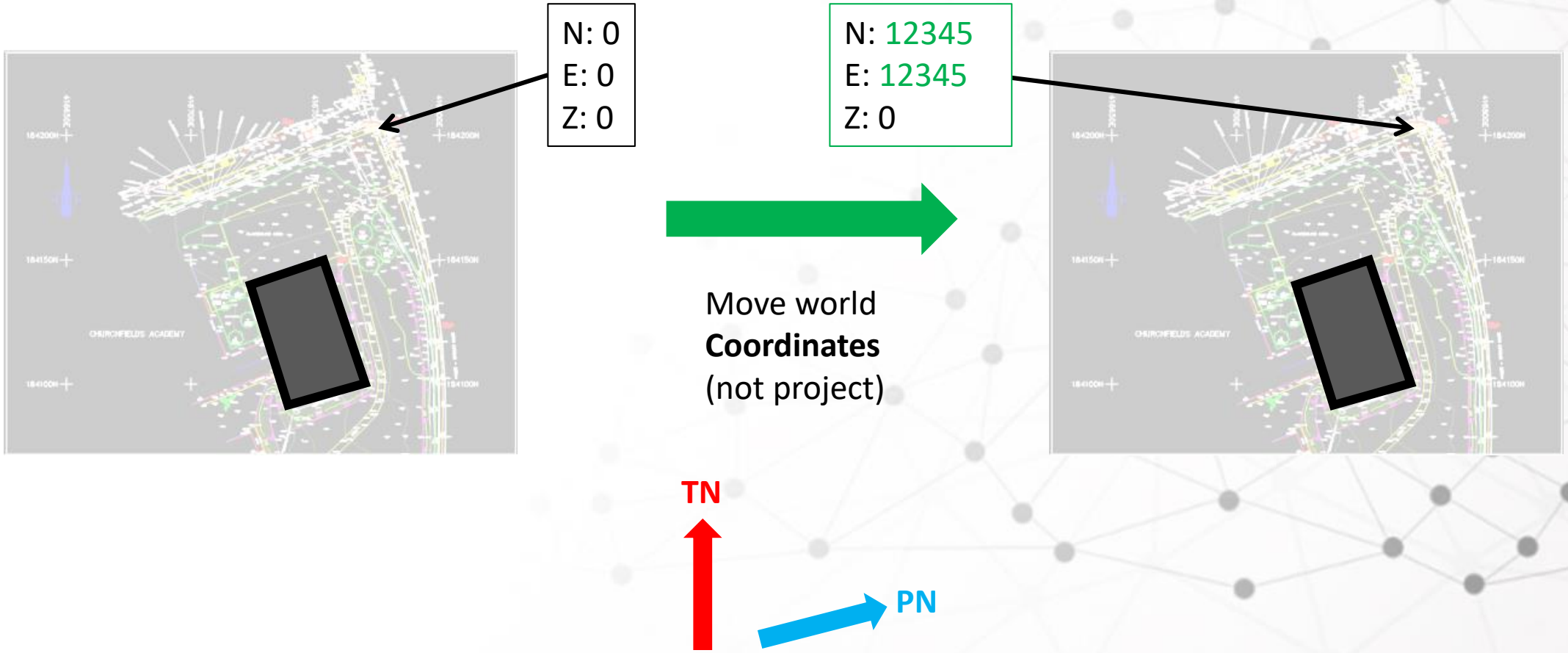
Part 3: Specify Coordinates



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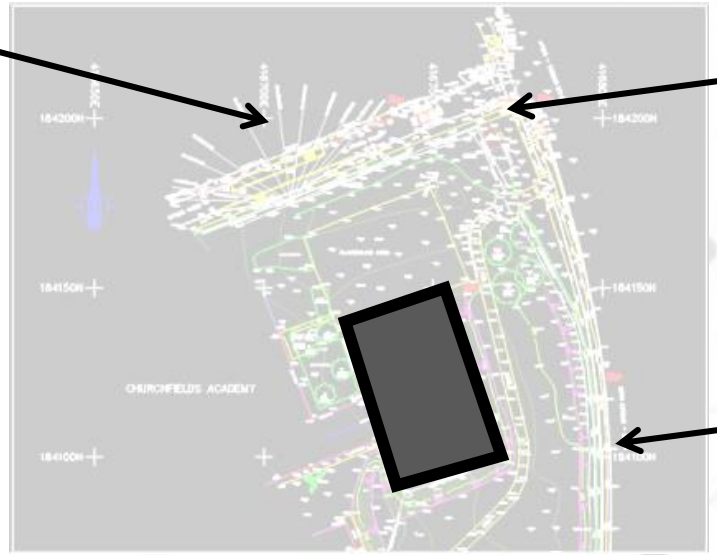
Part 4: Triangulate (Check)

Matches survey?



Matches survey

Matches survey?

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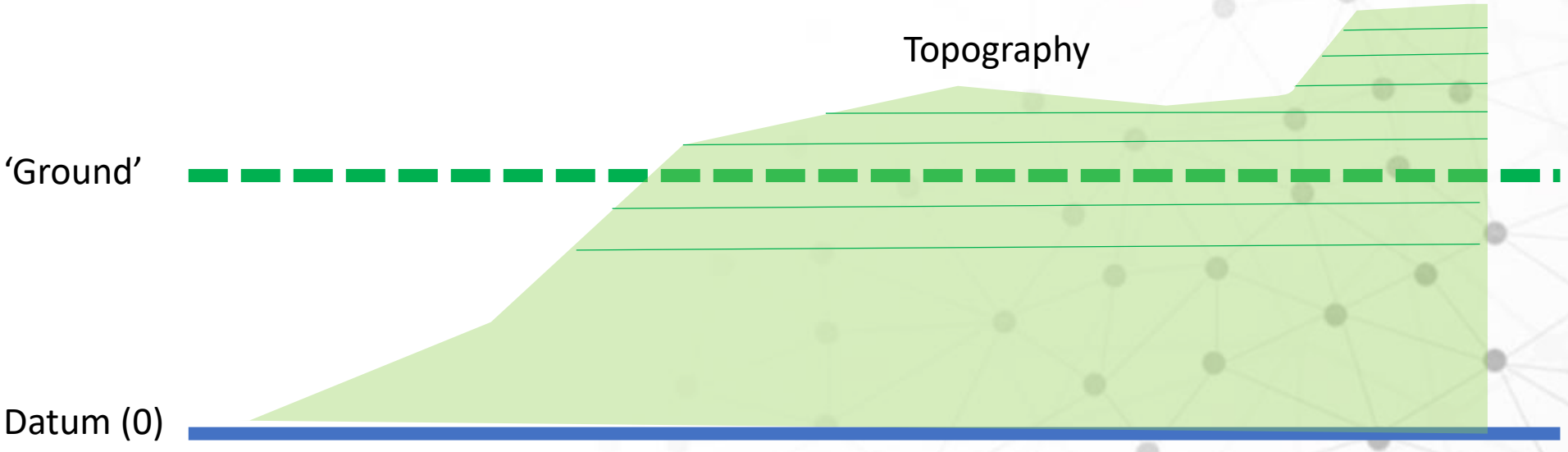
Part 5: Levels/Contours



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Relativity Demonstrated

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NB this is not a Shared Coordinates set-up!

Upcoming Video

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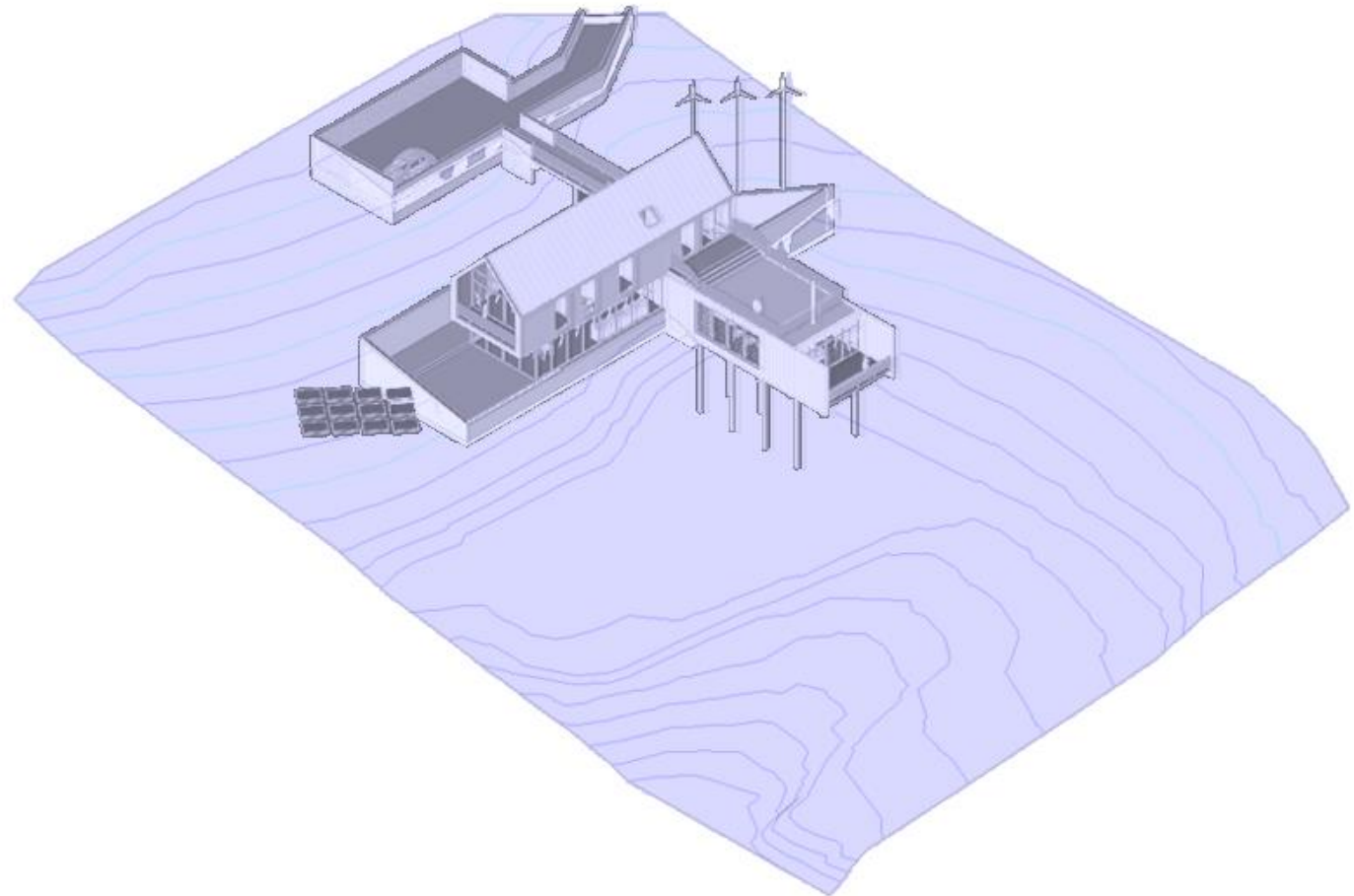
AutoCAD
Align to
DWG Survey