



Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Australia 6-10 April

Modelling 3D Legal Boundaries for Urban Infrastructure in a BIM Environment: Case Studies in Queensland, Australia

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PLATINUM SPONSORS



Background

- Cadastre 2034 - a digital representation of the real world that is survey accurate, 3D and dynamic.
- Building Information Models (BIM) help visualise and examine projects in 3D in all stages of its lifecycle.
- Queensland – Building Format & Volumetric Format plans.
- Building Format plans investigated previously.
- Volumetric Format plans in BIM using Autodesk Revit.





WORKING WEEK 2025

AND

Locate25
THE NATIONAL GEOSPATIAL CONFERENCE



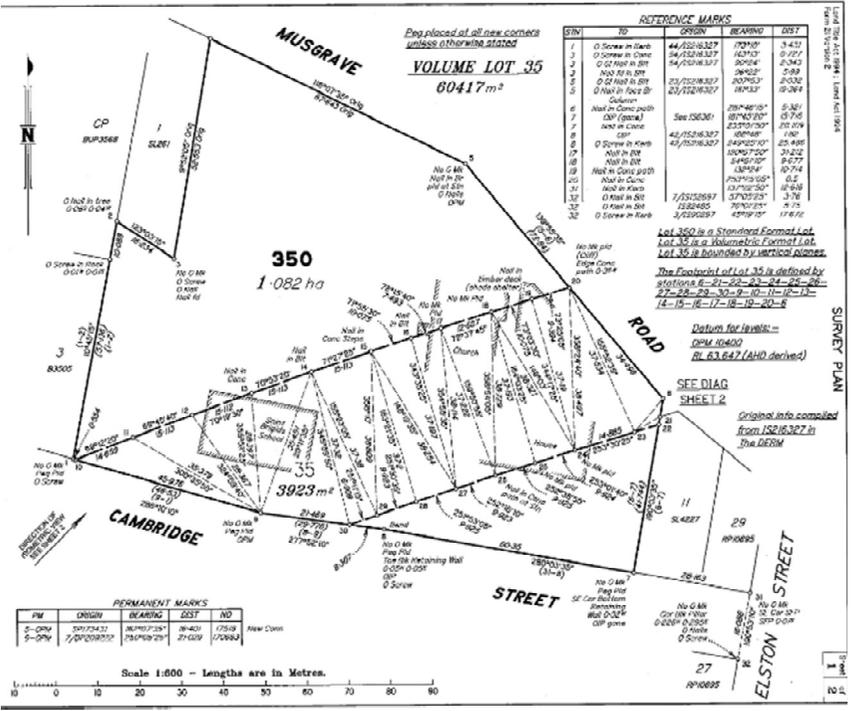
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Geospatial Council of Australia

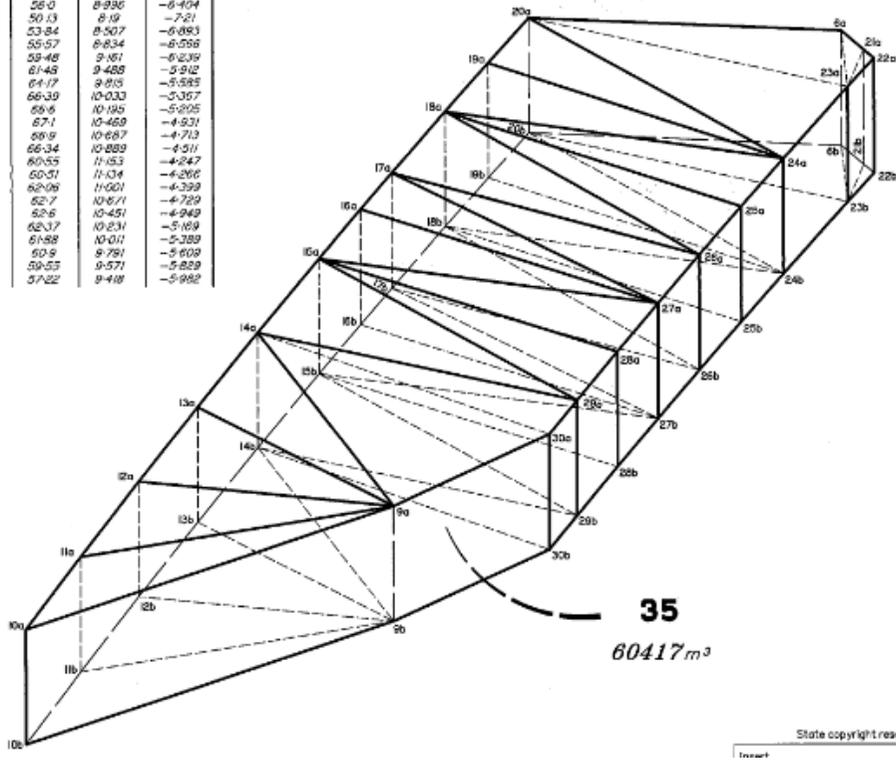
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2D Plans



TRAVERSES ETC

STN	GROUND LEVEL	a	b
6	60.66	11.185	-4.825T
9	58.0	8.936	-6.404
10	50.13	8.19	-7.21
11	53.84	8.507	-6.883
12	50.57	8.634	-6.598
13	59.48	9.151	-6.239
14	61.48	9.488	-5.912
15	64.17	9.813	-5.585
16	66.39	10.033	-5.357
17	68.6	10.195	-5.205
18	67.1	10.469	-4.931
19	68.19	10.687	-4.718
20	66.34	10.889	-4.511
21	60.55	11.153	-4.247
22	60.51	11.34	-4.266
23	62.06	11.601	-4.399
24	62.7	10.871	-4.729
25	62.6	10.451	-4.949
26	62.37	10.231	-5.169
27	61.88	10.011	-5.389
28	60.9	9.791	-5.609
29	59.53	9.571	-5.829
30	57.22	9.419	-5.982



Project Aim

- Model cadastral boundaries in Volumetric Format plans in BIM
- International 3D Geospatial Standard

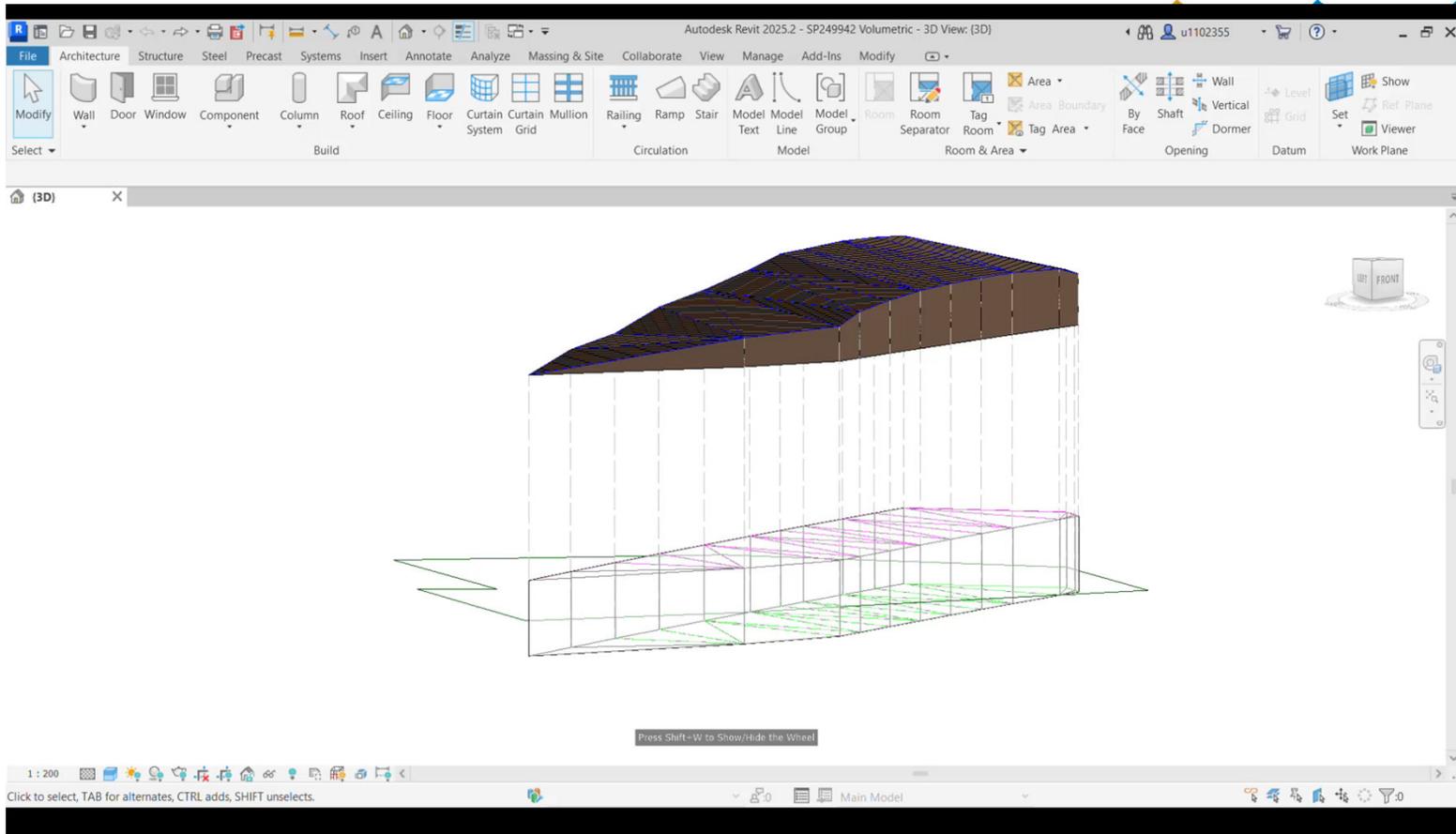


Methods

- Volumetric plans selected – above ground and below ground
- Listech NEO – Surveying Software
- AutoCad Revit
 - Topo-solid
 - In-place mass
 - Attributes
 - Mapping
- Solibri Model Viewer
- Listech NEO

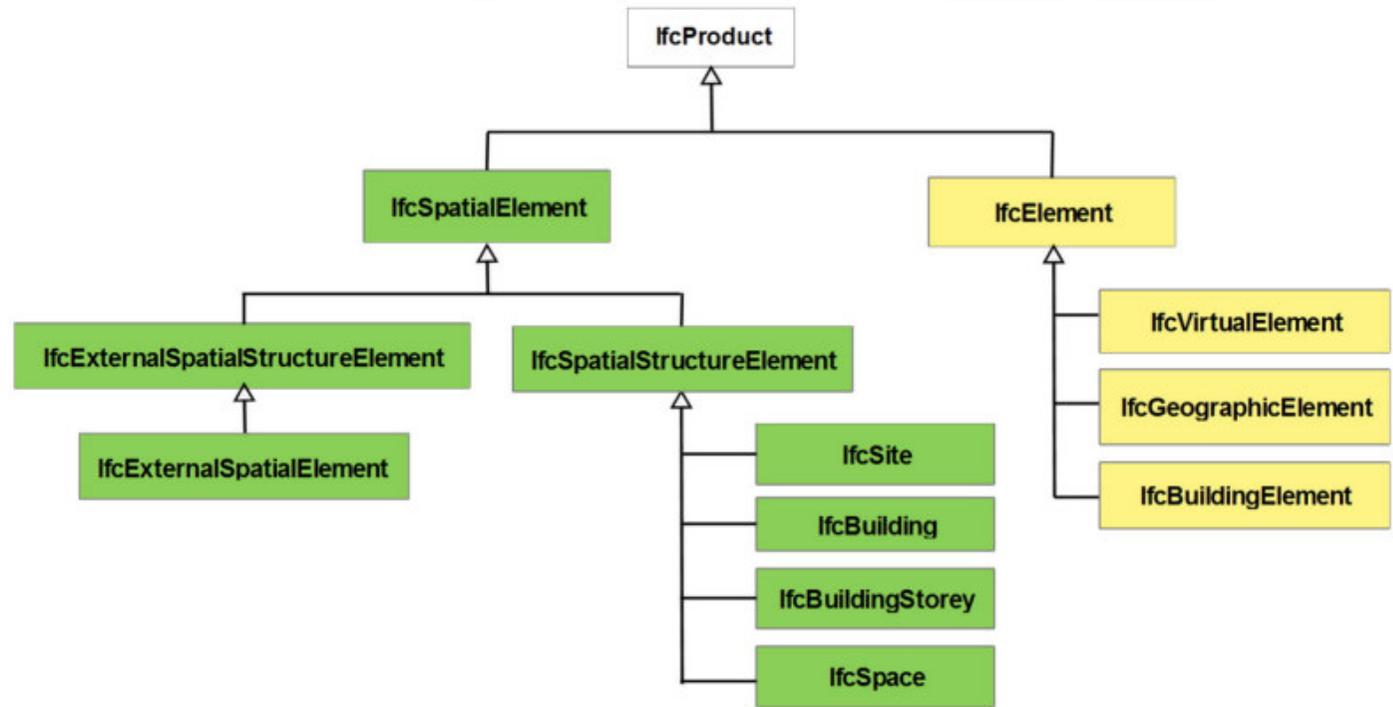


Results – Revit Model



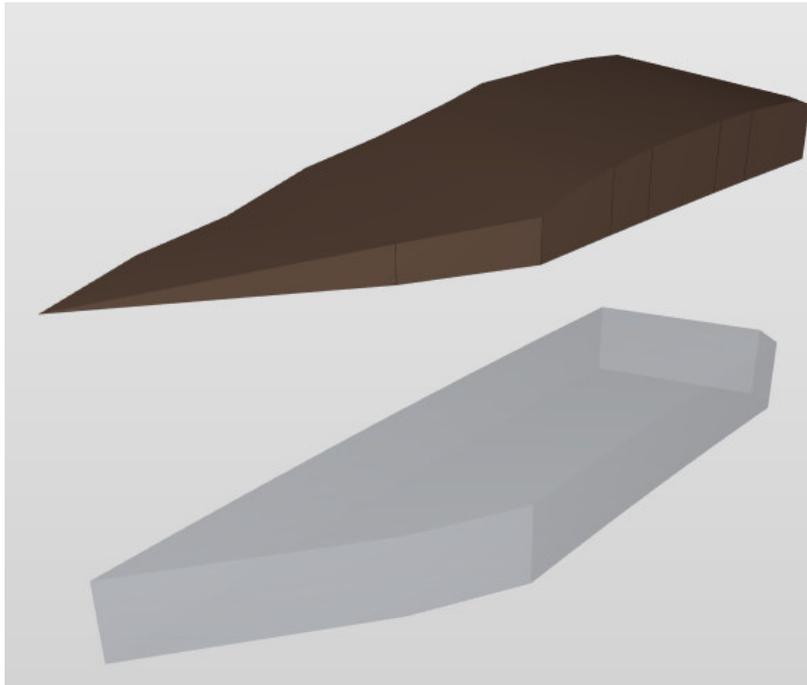
Results – International Standards

- Industry Foundation Classes (IFC)
- IfcSpace



Results – Interoperability

- Solibri Model Viewer
- Listech NEO



Discussion

- Survey observations in BIM
- Digital Twins/Parcel Fabric
- Digital Lodgement



 City of Moreton Bay ✕

3D model submission - City of Moreton Bay

[Visit >](#)

The below information provides technical guidance for 3D model submission so that the development application assessment can be incorporated into Council's 3D ...



The most relevant SDGs related to the presentation and theme of this session

1st relevant SDG

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



2nd relevant SDG

11 SUSTAINABLE CITIES AND COMMUNITIES



3rd relevant SDG

8 DECENT WORK AND ECONOMIC GROWTH



SUSTAINABLE DEVELOPMENT GOALS

International Federation of Surveyors supports the Sustainable Development Goals