CitA
Construction IT Alliance

# Alliance Contracting works - an Irish case study

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TU Dublin Campus Planning Team

# **Background -** Construction is pulling itself apart

- Contract signing is "Declaration of War between Client and Contractor!"
- Concentration on the contractual PROCESS rather than the construction PRODUCT
- Worldwide movement towards collaboration
  - Partnering, Integrated Project Delivery, Building Partnerships, Alliance Contracting, Etc.
- New drivers – e.g. BIM

# A change is required

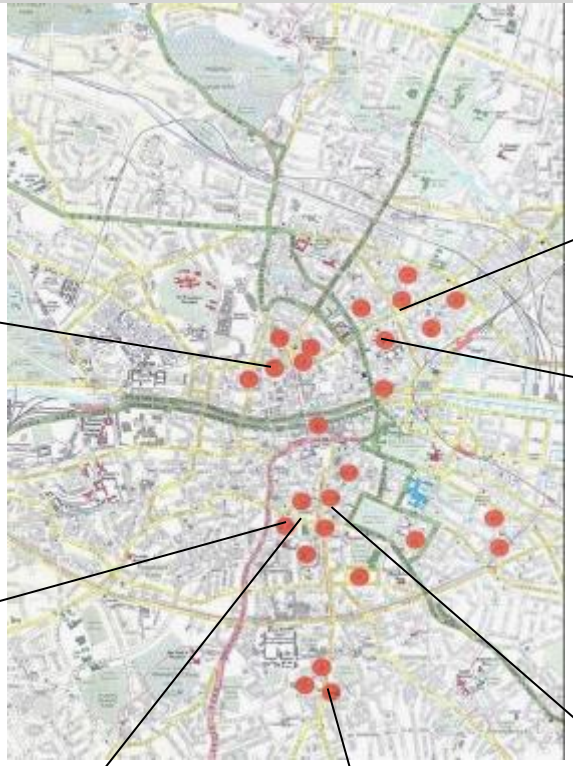
- Collaboration requires everyone to pull together
- Put effort into achieving agreed objectives
- Everybody keeps score
- Everybody gains

# The Case Study

# TU Dublin New City Centre Campus at Grangegorman

## *SIPR Works Package*

# DIT (TU Dublin City Centre) before Grangegorman



# Facts and Figures

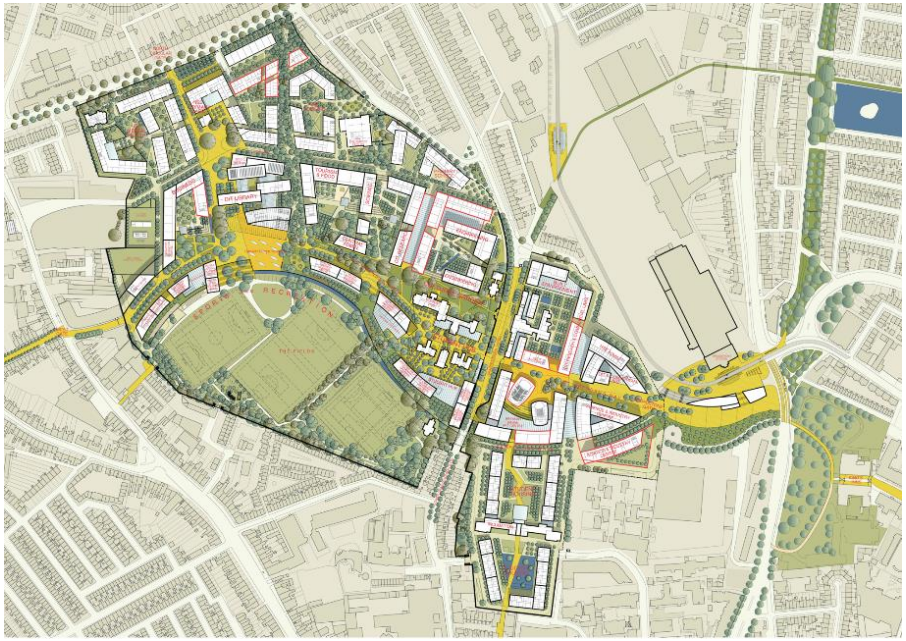
Development Floor Area: 380,000 $m^2$
TU Dublin portion: 270,000 $m^2$
HSE and Dept of Ed & Skills: 110,000 $m^2$

Dundrum Shopping Centre: c 80,000 $m^2$

Final on-campus population: 25,000

Population of Wexford town: 20,000

# Grangegorman – the big picture



- 380,000m$^2$ of floor space overall
- 140,000m$^2$ is academic space for TU Dublin
- Remainder
  - student residences,
  - sports facilities,
  - industry innovation park,
  - community and residential health facilities,
  - primary school
  - other associated structures to support the servicing of the campus.
- Timeframe
  - Completion planned for mid 2020s (dependent on availability of finance)
- Estimated overall cost
  - c. €1.5 billion

Annamoe Rd
Annamoe Parade
Rathdown Rd
Grangegorman Upper
Monck Pl
The Back Page
Royal Canal Bank
O'Connell Ave
Geraldine St
ouse Realty
R101
Primrose Ave
Tesco Prussia Street
Auburn St
R805
Fontenoy St
R135
Playing Field
Dublin Institute of Technology DIT
R108
Dominick Street Upper
R806
Shea's Ct
Grangegorman Lower
R108
Halliday Rd
Malachi Rd
Sigurd Rd
Ostman Pl
Harold Rd
Murtagh Rd
Oxmantown Rd
R805
Kinwan St
Ivar St
A SLICE of Cake Cafe
Henrietta St
Morning Star Ave
DIT
Mount Temple Rd
Olaf Rd
Sitric Rd
Viking Rd
Ard Righ
L. Mulligan Grocer
Arbour Pl
Arbour Hill
R804
R108
Coleraine St
Henrietta Pl
R805
R804
N1

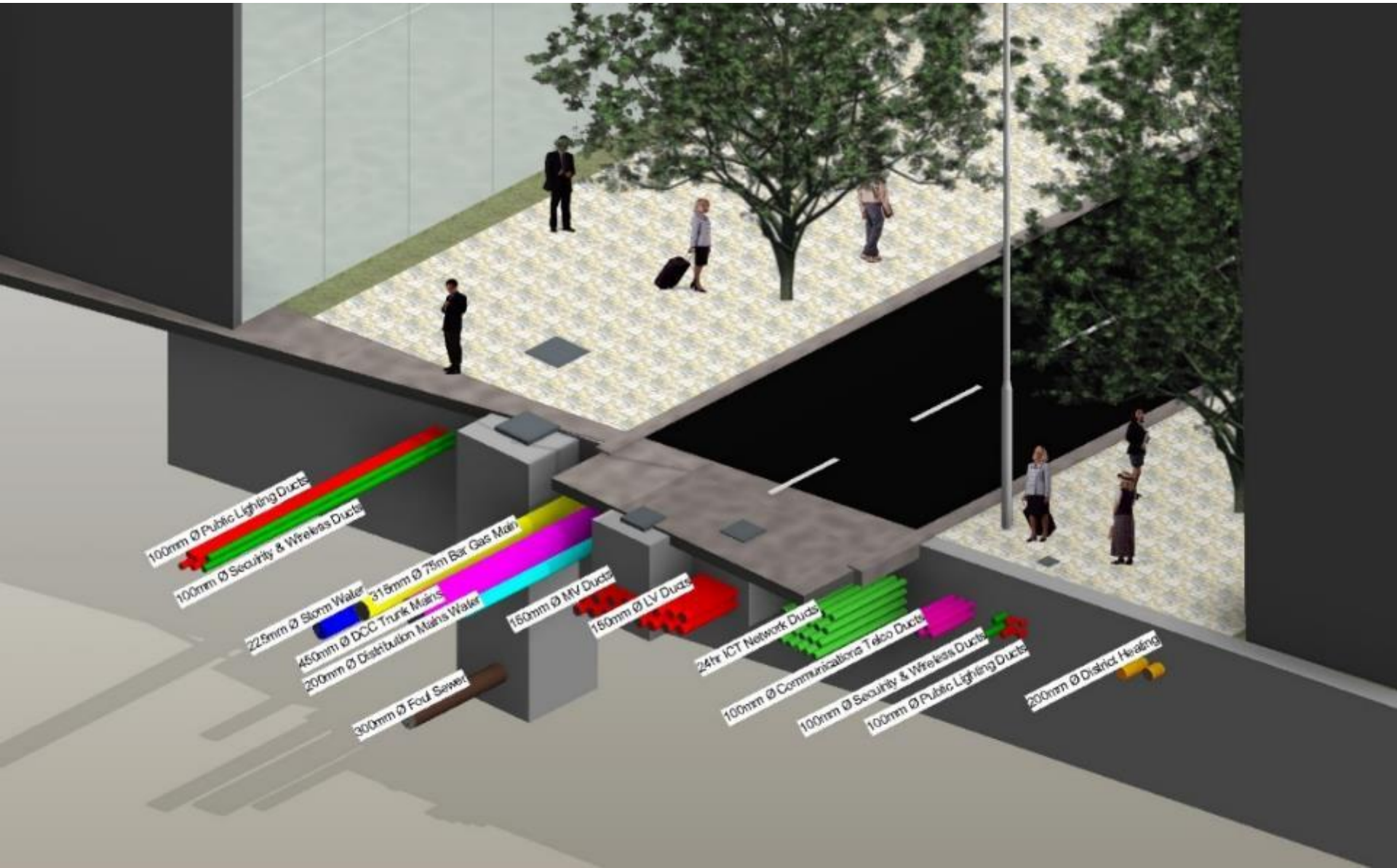
# SIPR Works Package Details

| | |
|---|---|
| Type of project: | Civil Engineering |
| Start-completion: | Nov 2013 – Aug 2014 |
| Budget/cost (approx.): | €26M (Gross) |
| Form of Contract: | GCCC Public Works Contract |

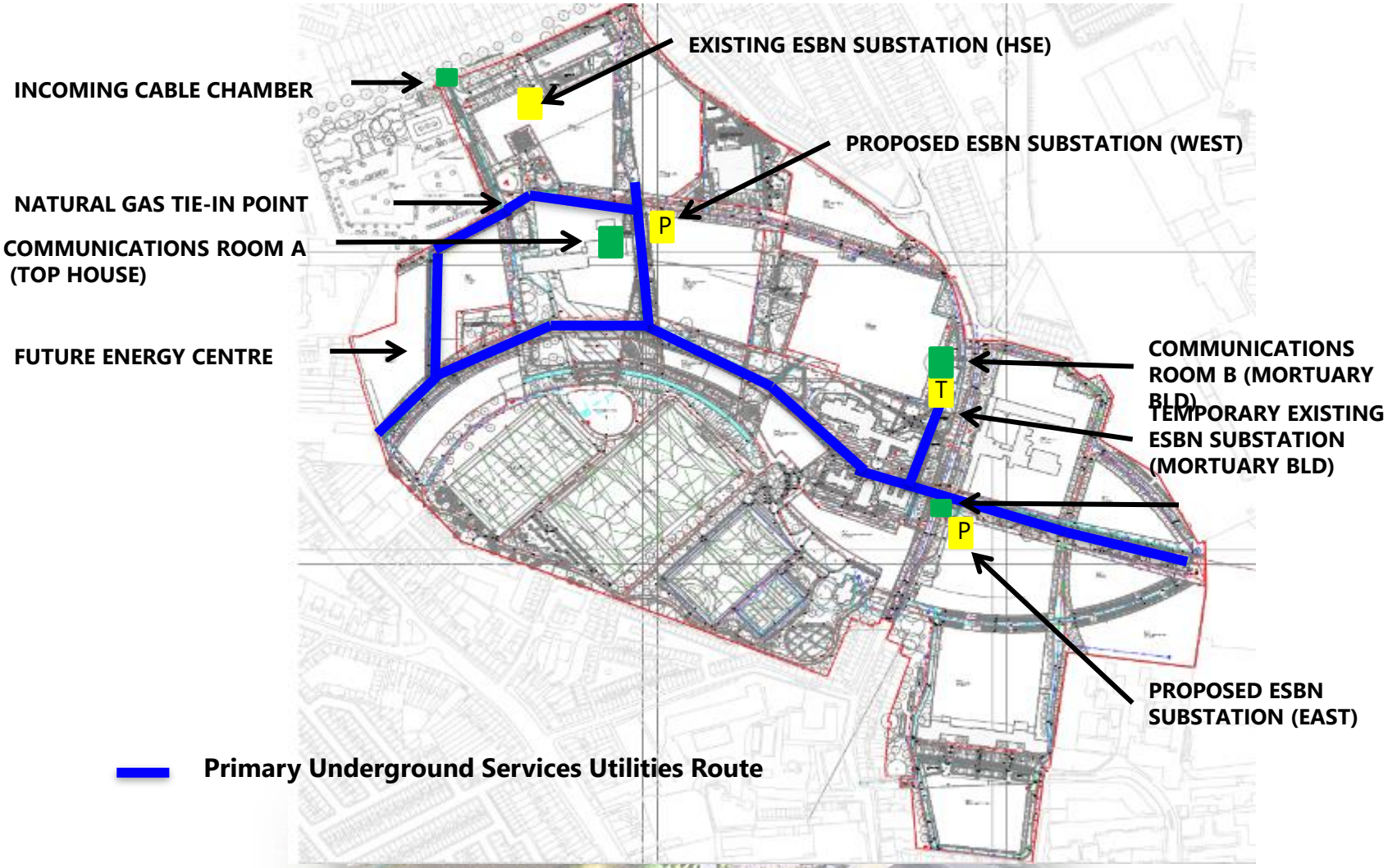
Other characteristic data:

- 125,000m$^3$ of material to be excavated and removed off site.
- 140km of ducting and utility services runs
- New utility services – water, gas, electricity, telecoms, etc.
- 1000 Concrete Chambers to be constructed.
- 800m of 600mm diameter Storm Sewer to be constructed through Inner Dublin streets.
- 9000m$^2$ of Brick/Natural Stone paving.
- 2,500m$^3$ attenuation tank constructed under the all-weather playing pitches

# Services Infrastructure



# Energy Distribution



# Main project participant organisations

| | |
|---|---|
| CPM, CM: | GDA |
| Designers & Architects: | Moore Ruble Yudell |
| Local Design Lead/Employer's Rep: | O'Connor Sutton Cronin |
| Local Architect: | DMOD |
| Local Landscape Architect: | Mitchell & Associates |
| Contractors: | Roadbridge |
| End Users: | TU Dublin, HSE, DoES |

Grangegorman Development Agency
Gníomhaireacht Forbartha Ghráinseach Ghormáin

OCSC
O'CONNOR | SUTTON | CRONIN
Multidisciplinary Consulting Engineers

ROADBRIDGE
CIVIL ENGINEERING & BUILDING CONTRACTORS

moore ruble yudell
architects & planners

DMOD
ARCHITECTS

MITCHELL + ASSOCIATES

# Setting the Scene

- Initial meeting organised by GDA CEO Michael Hand
- All participants in management and supervision of project in attendance
- Public commitment to project goals and to collaboration
- All decision-makers based on site
- Key project objectives were publically agreed
- Gain sharing system and processes agreed
- Problem solving system agreed

Grangegorman Site before SIPR Project

Grangegorman Site on Completion of SIPR Project

# The Changing Campus

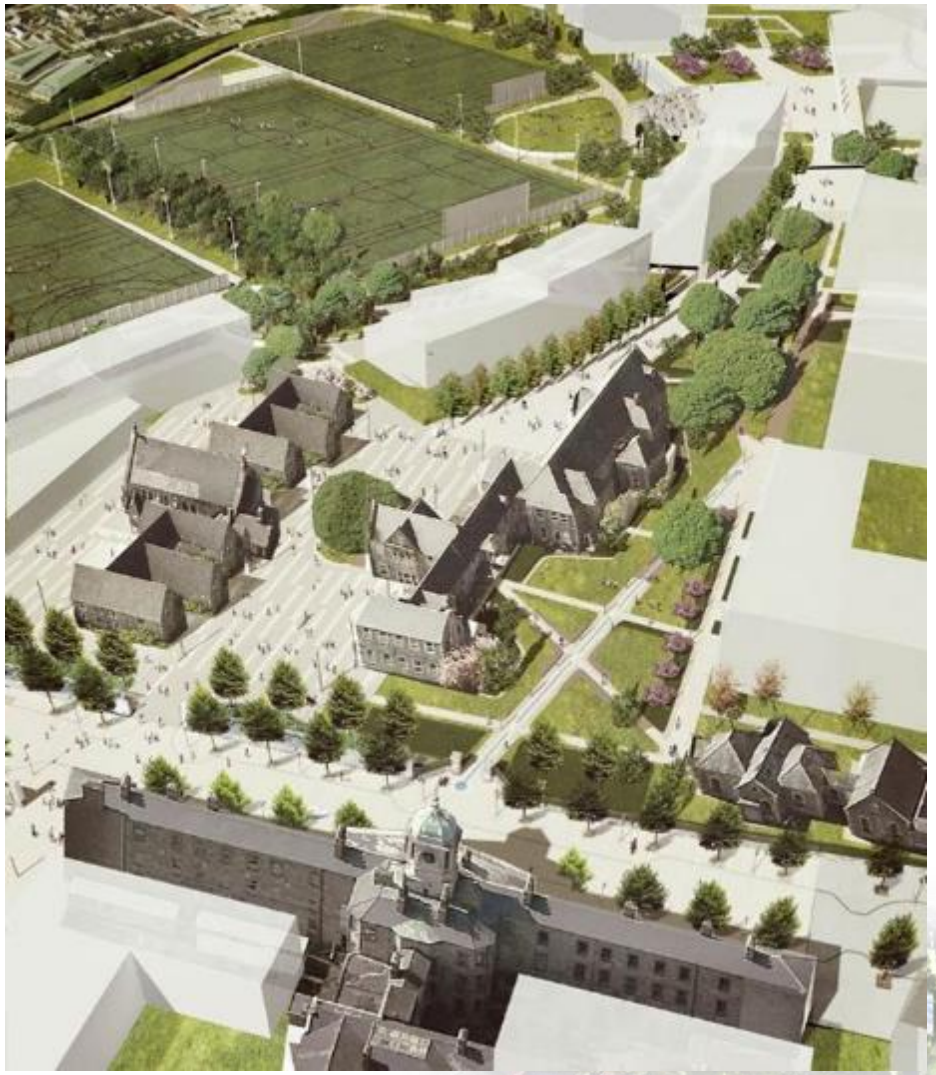
*Nov 2013*

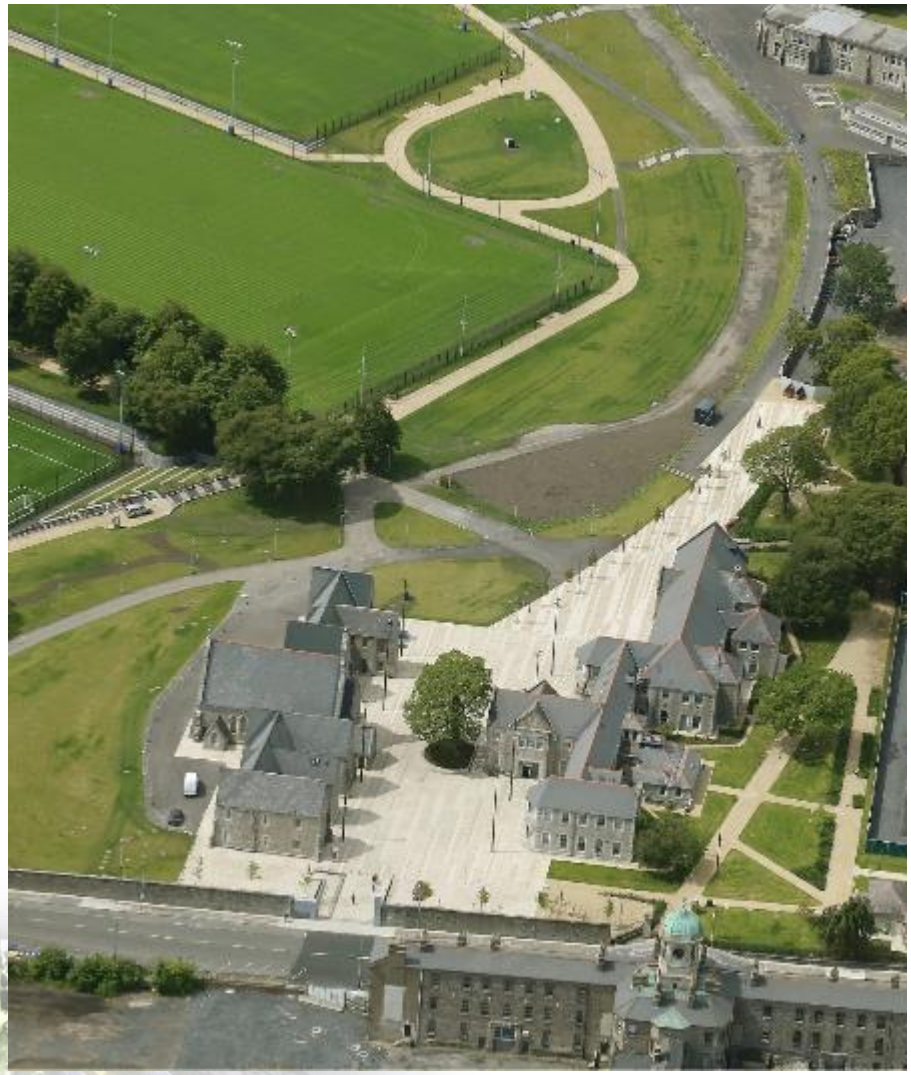
*Nov 2014*

# 2 weeks from Completion

# Opening Day

# Vision vs Reality





# Outcome

- Achieved “power-on” target date
- Achieved opening to 1000 students on Sept 1 2014
- Achieved planned quality within project budget
- Contractor achieved financial targets
- Everyone emerged with enhanced professional reputations

# Problems

- When initial target of September 2014 was met, the focus changed
- Closing out the non-Sept 2014 aspects of contract were problematic
- Parties reverted to non-collaborative stance and agreement of final account was difficult for everyone

# Lessons learned

- Select the right people.
- Culture of the partner organisations is crucial.
- Everyone buys into the project goals
- Build Trust
- Use agreed problem solving mechanisms
- Pull together – don’t pull apart!
- There is a need for a contract that will keep collaboration going until completion (FAC-1?)

# Conclusion

Collaboration is achievable
- but it requires a formal structure to fully succeed

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https://tudublin.ie/explore/our-campuses/campus-development/grangegorman/