Session 2 Building Fire Strategy and Impact on Fire Protection System / RIBA Stages

Introductions

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CIBSE

THE SOCIETY OF PUBLIC HEALTH ENGINEERS

SPECIALISTS IN FIRE SPRINKLERS & DRY RISERS
TRIANGLE
FIRE SYSTEMS

Introba

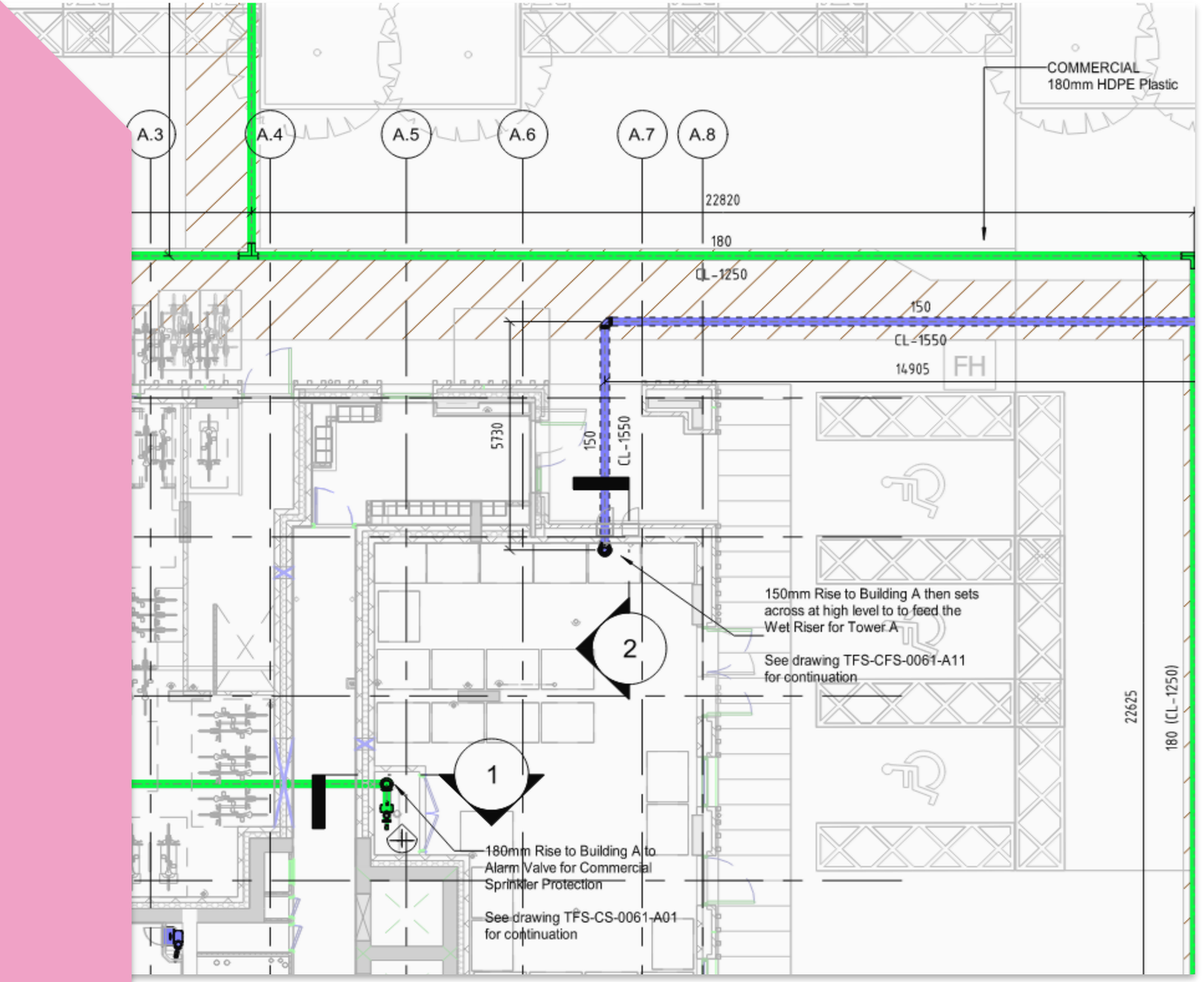
The Importance of Fire Suppression

RIBA Stage 1

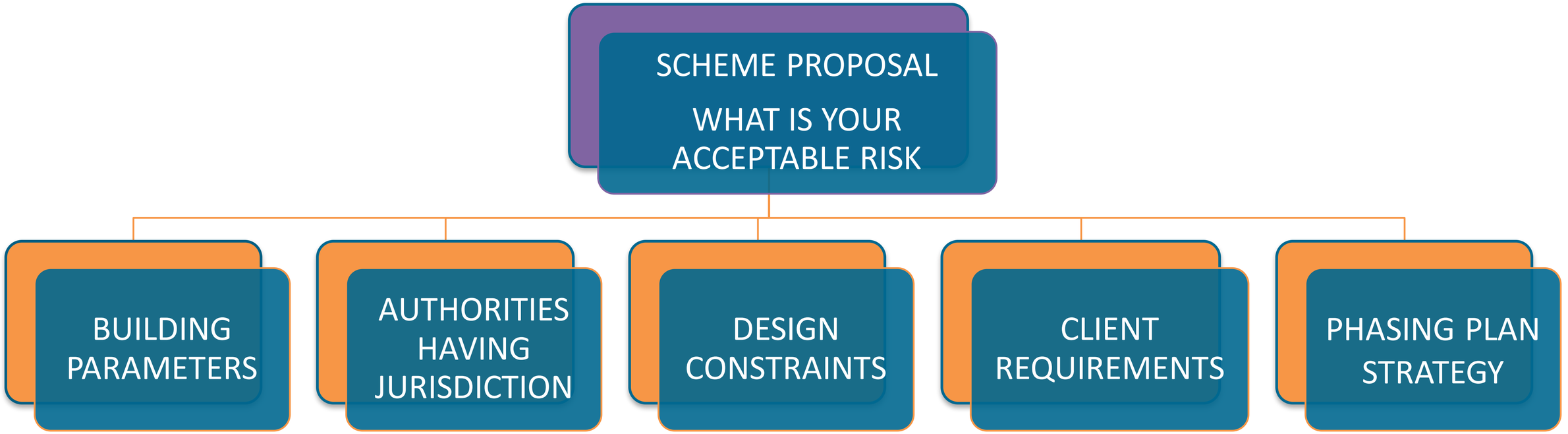
Developing Project Brief & Objectives

1

Preparation and Brief

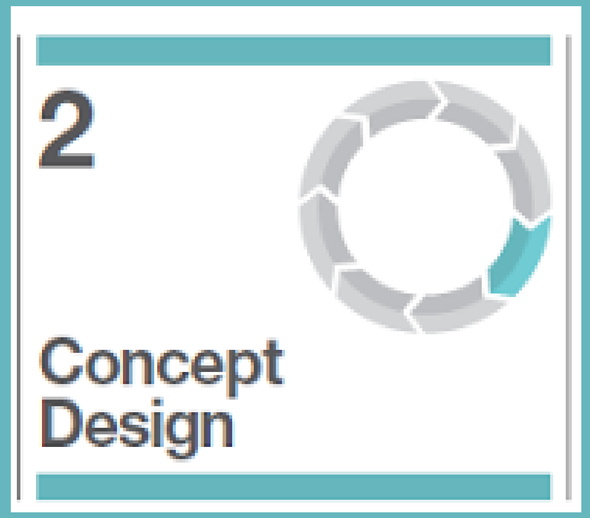


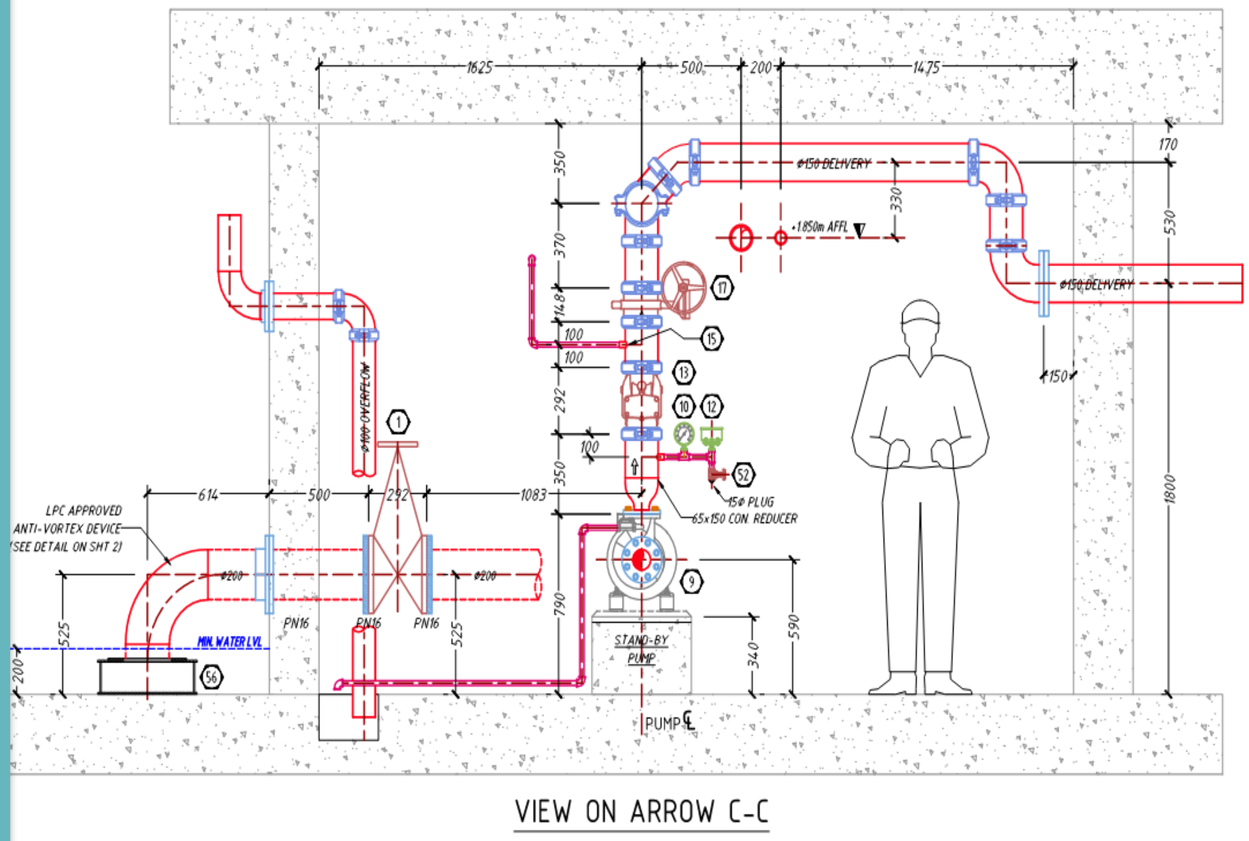
RIBA Stage 1 – Strategic Ambition



RIBA Stage 2

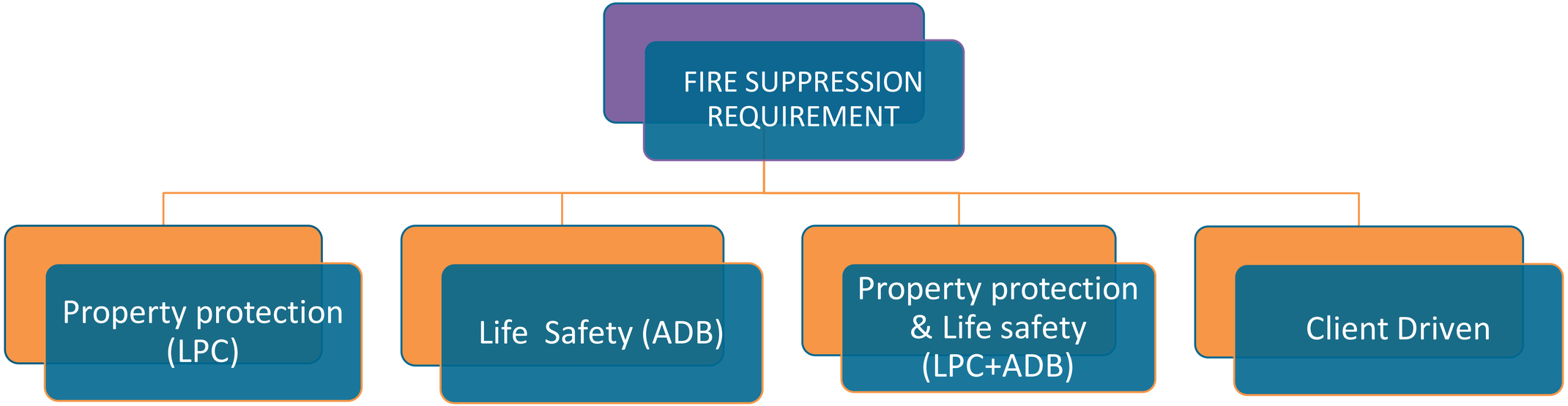
Preparing Project Design Considerations with potential space planning





RIBA Stage 2 - System Specification Analysis - Input

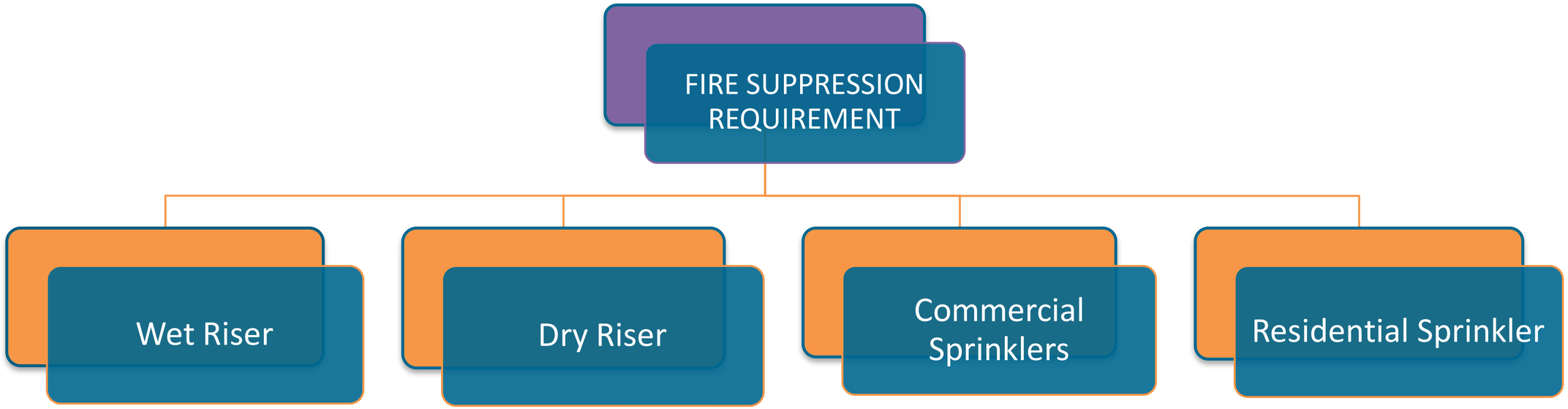
Understanding and establishing the requirement for sprinklers and the effects this can have, including the risk if not identified early enough through a project.



RIBA Stage 2 - System Specification Analysis - Input

- Employers requirements
- Preliminary Fire strategy report
- Building Information – Architectural,
- Standards, specifications and codes of practice
- Scheme suppression proposed plant strategy

RIBA Stage 2 - System Specification Analysis - Output



RIBA Stage 2 - System Specification Analysis - Output

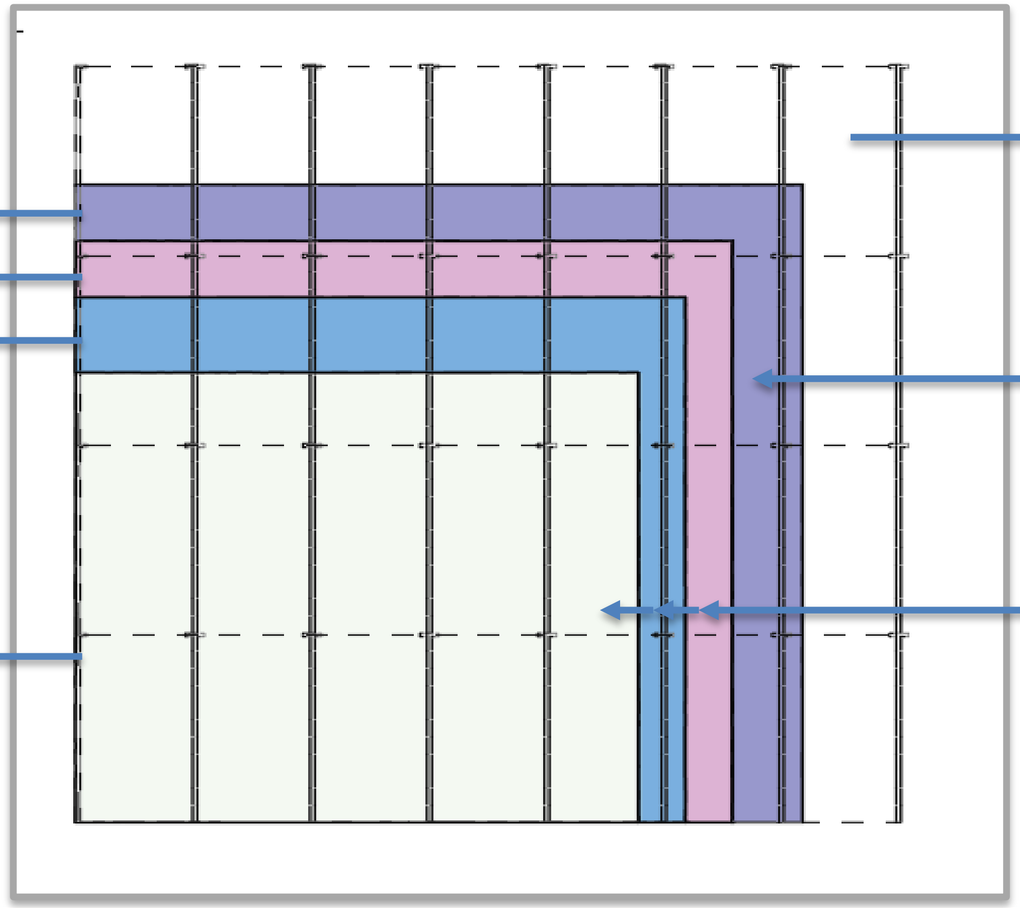
AMAO 260m^2
HHP3 Wet System

AMAO 216m^2
OH3 Wet System

AMAO 180m^2
OH2 Dry System

AMAO 144m^2
OH2 Wet System

AMAO = Assumed Maximum Area of Operation



Parking Spaces

12.5mm Density

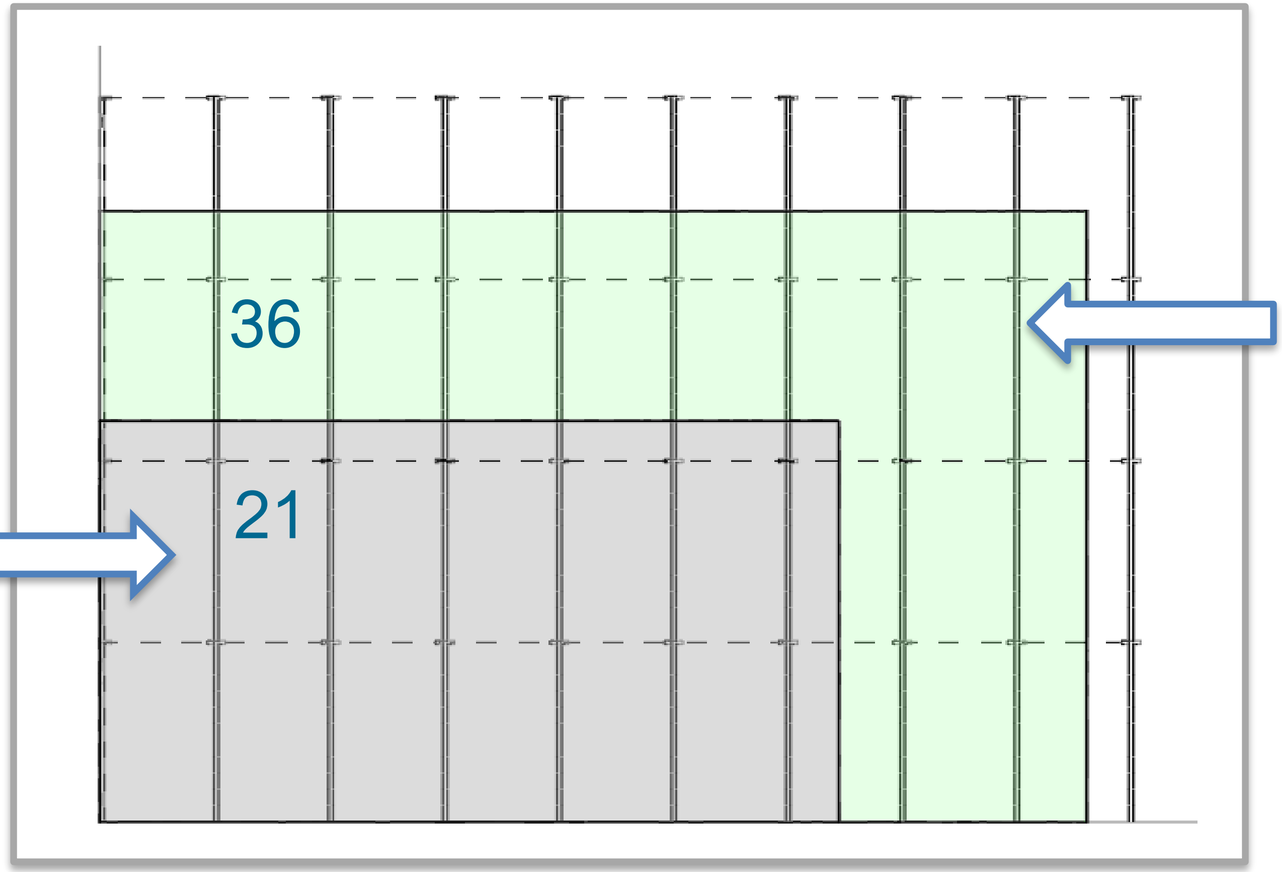
5mm Density

CONFIRMED

RIBA Stage 2 - System Specification Analysis - Output

OH3 Minimum Plantroom Size
135m^3 Effective Capacity Tank
180m^3 Nominal Capacity
Twin Electric Pumps
OH2 Dry/OH3 Wet System Supply

Typical Electrical Loadings
Full Load Current 27A
Starting Current 79A
Locked Rotor Current 238A
Total Load 317A



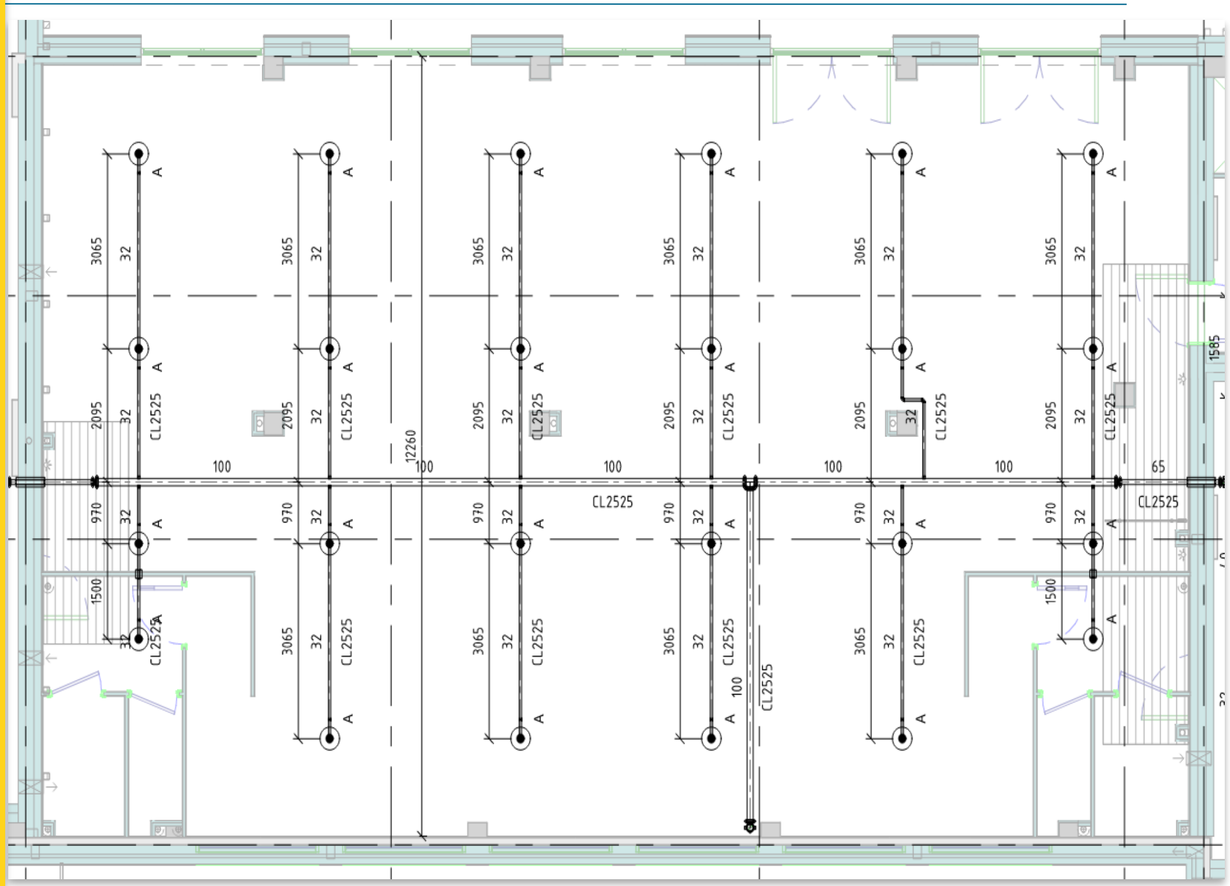
HHP3 Minimum Plantroom Size
380m^3 Effective Capacity Tank
440m3 Nominal Capacity
Twin Electric Pumps
HHP3 Wet System Supply

Typical Electrical Loadings
Full Load Current 152A
Starting Current 380A
Locked Rotor Current 1140A
Total Load 1520A

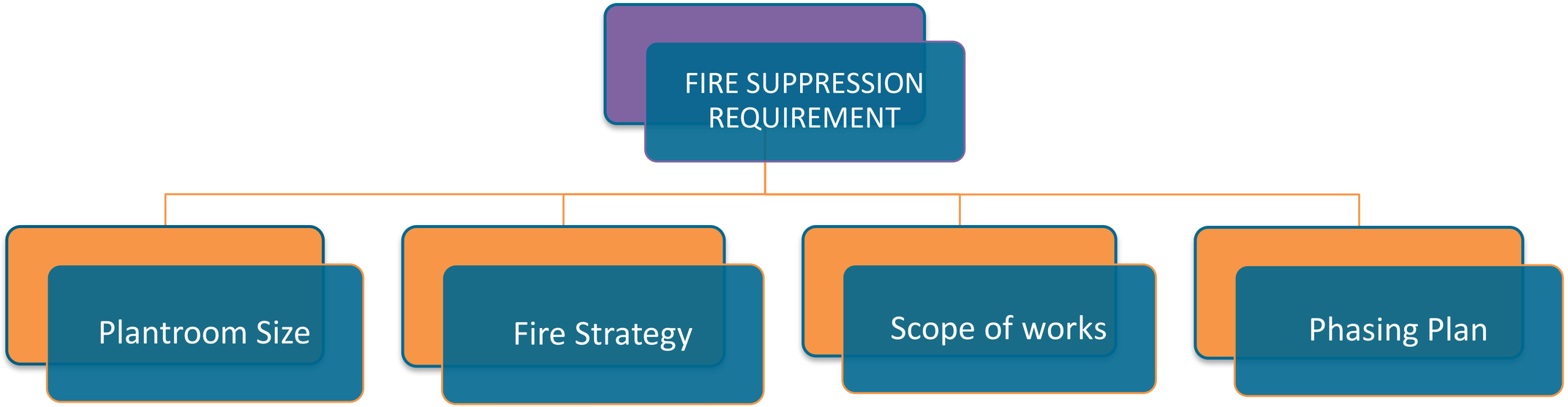
CONFIRMED

RIBA Stage 3

Developing the Project's Space Planning & basic infrastructure requirements



RIBA Stage 3 - System Specification Analysis - Input



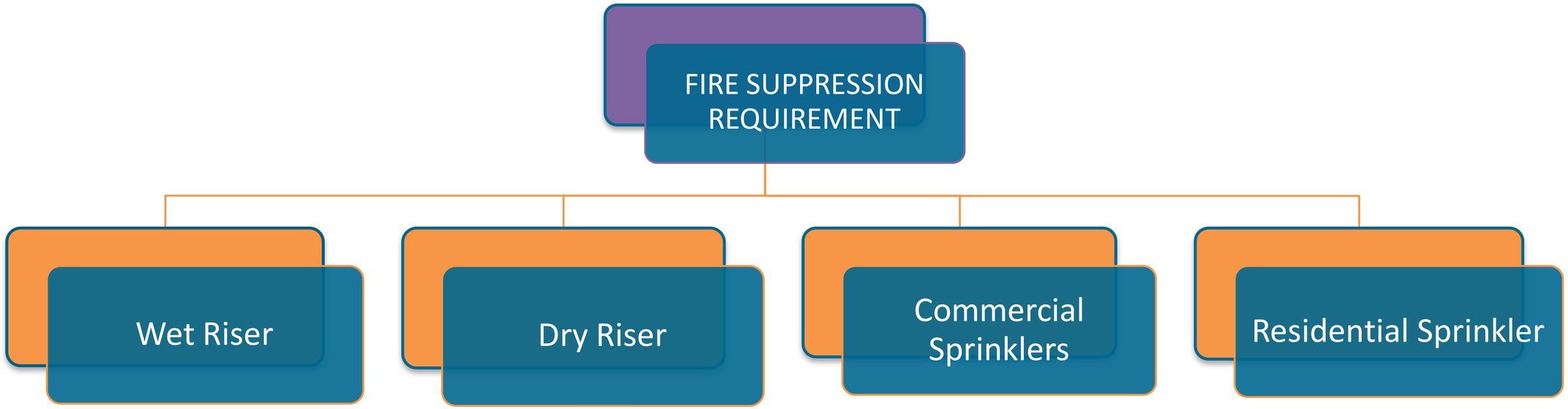
CONFIRMED

RIBA Stage 3 - System Specification Analysis - Input

- Confirmed Plantroom Sizes
- Confirmed Fire Strategy
- Confirmed Scope of works
- Confirmed hazard reviews
- Confirmed building information
- Confirmed Phasing plan

CONFIRMED

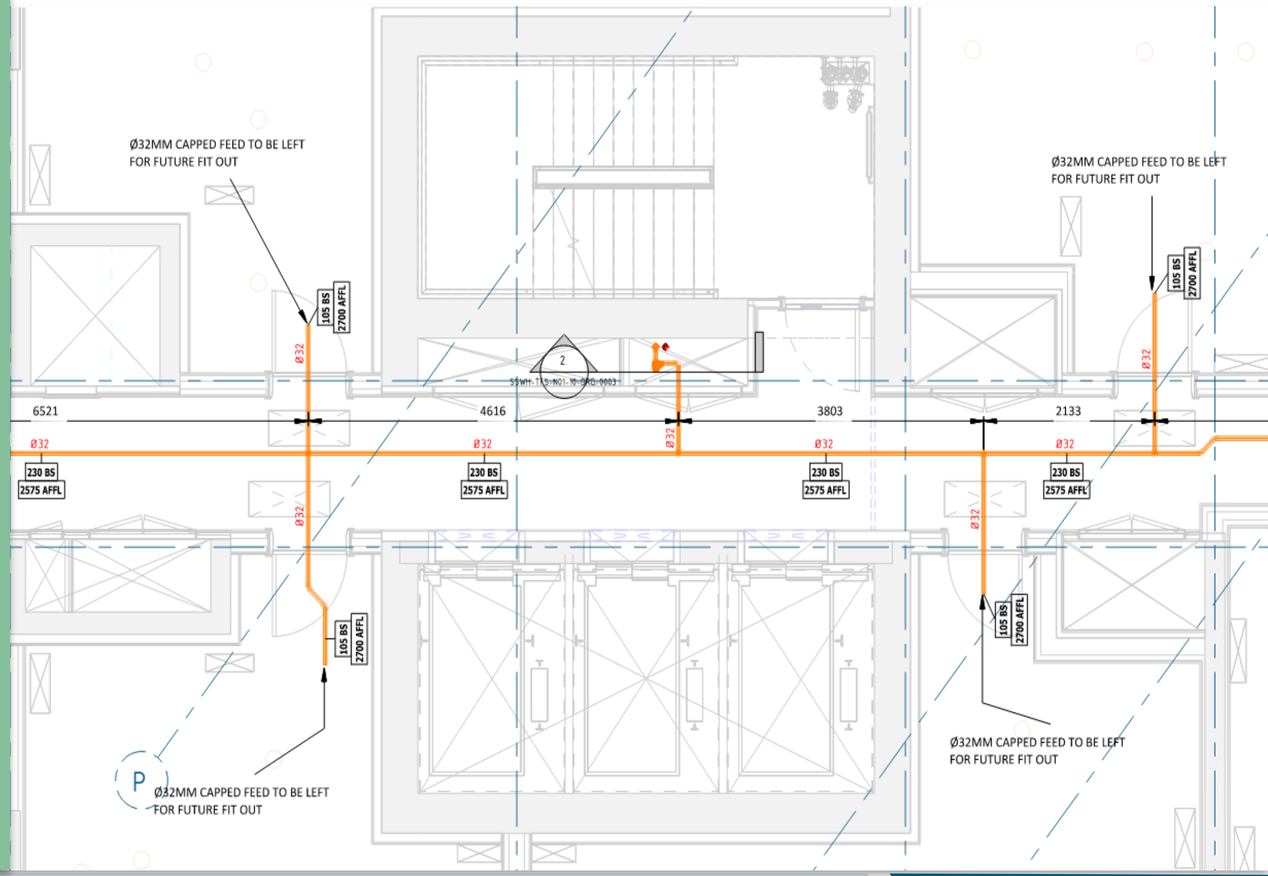
RIBA Stage 3 - System Specification Analysis - Output



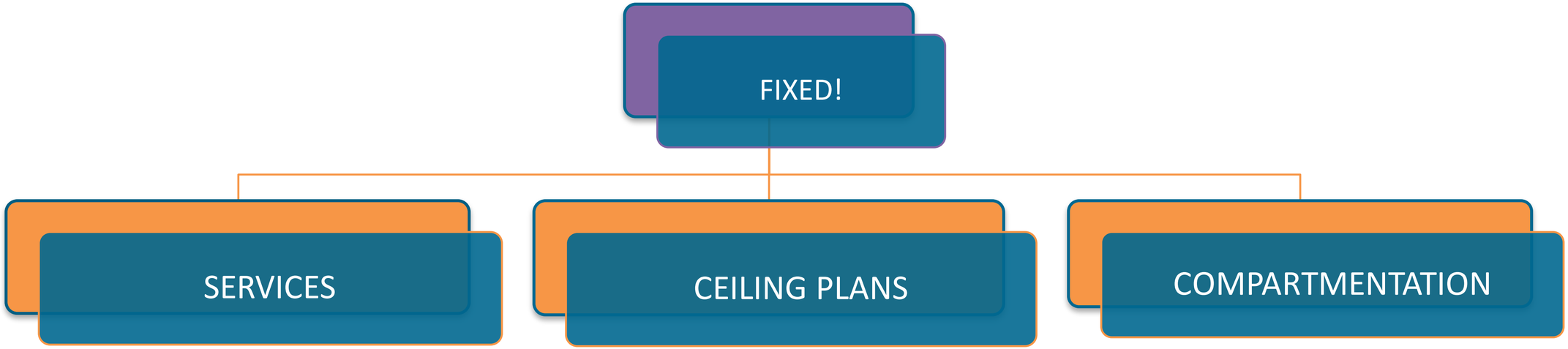
CONFIRMED

RIBA Stage 4

Developing the Design to Tender and Construction level of detail including calculations

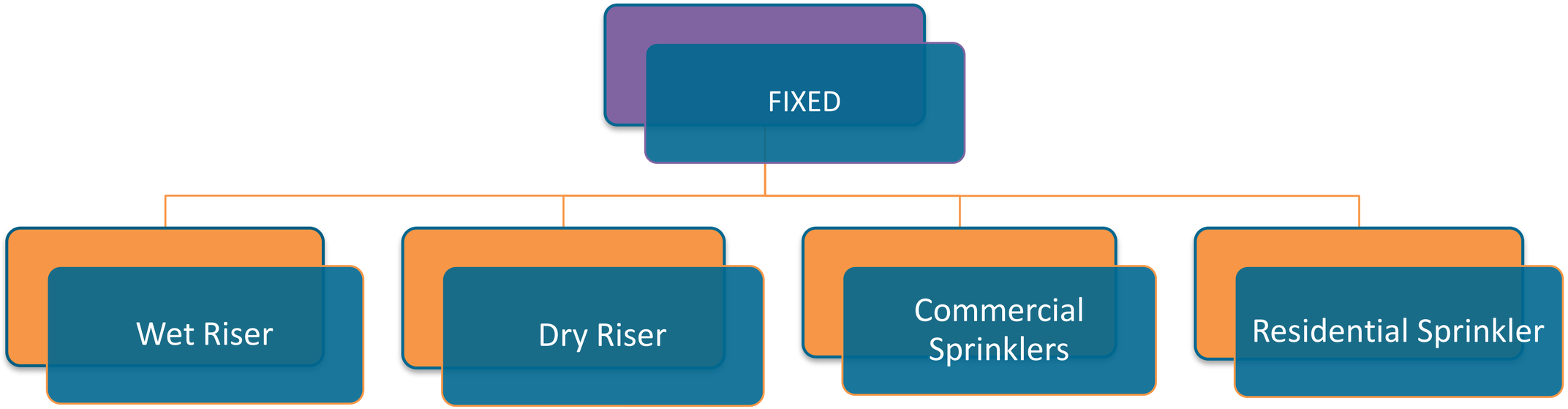


RIBA Stage 4 - Input



If not fixed at Stage 4
Technical detailed design CANNOT Proceed

RIBA Stage 4 - Output



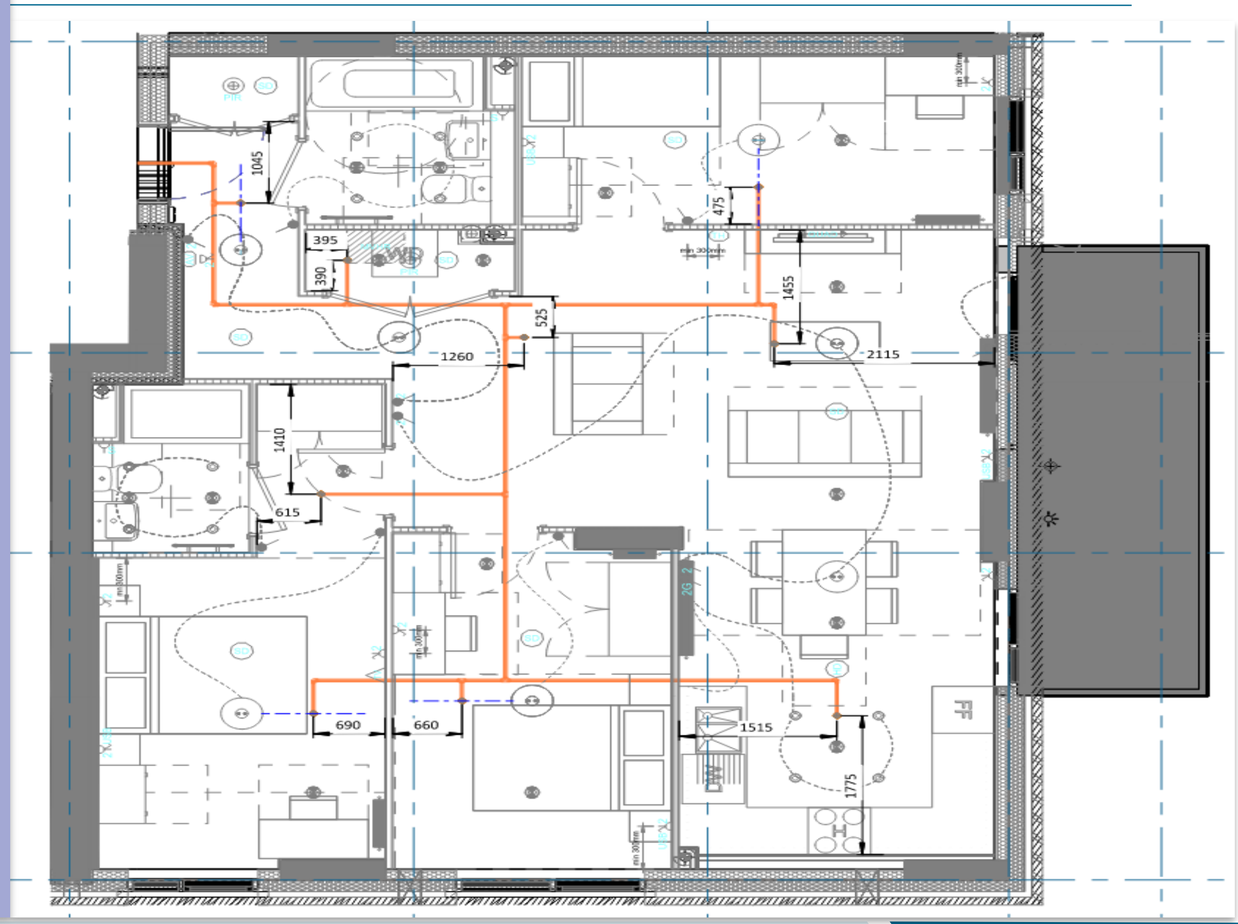
Full design to applicable standard including Head & Pipework Layouts for final co-ordination & approval.

RIBA Stage 5

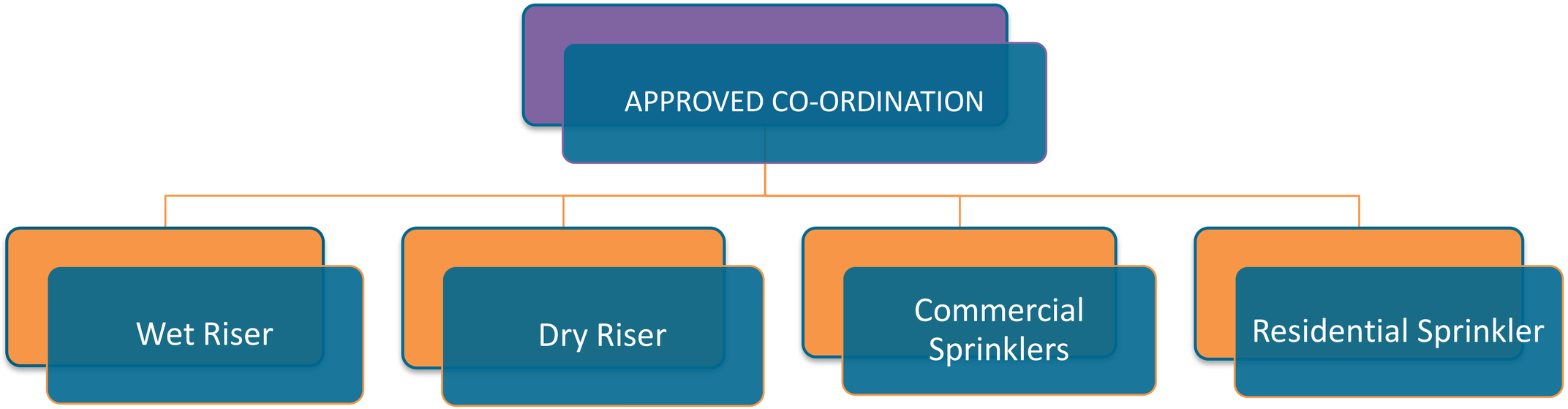
Installing the Project

5

Construction

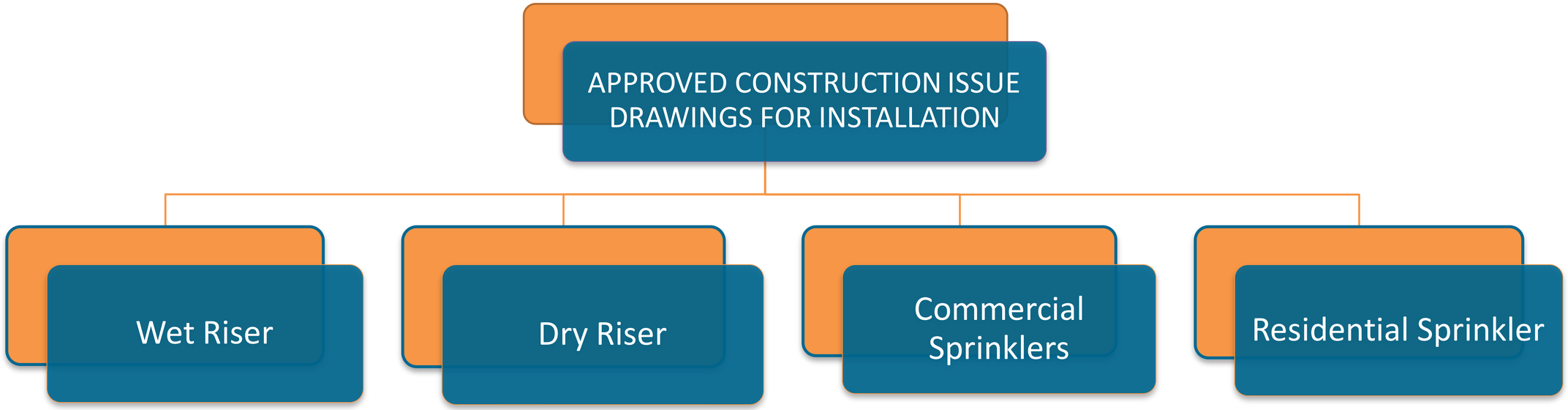


RIBA Stage 5 - Input

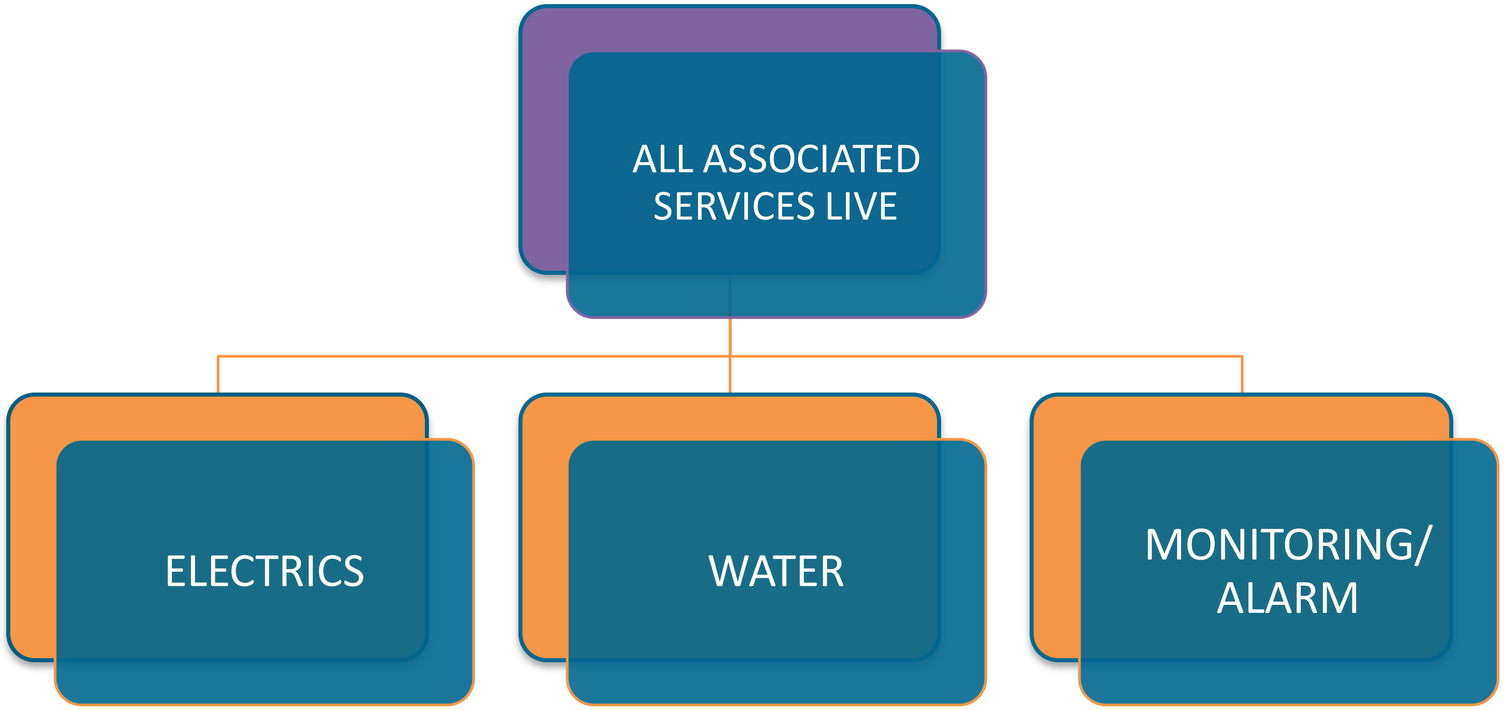


Full design to applicable standard including Head & Pipework Layouts for final co-ordination & approval.

RIBA Stage 5 - Output

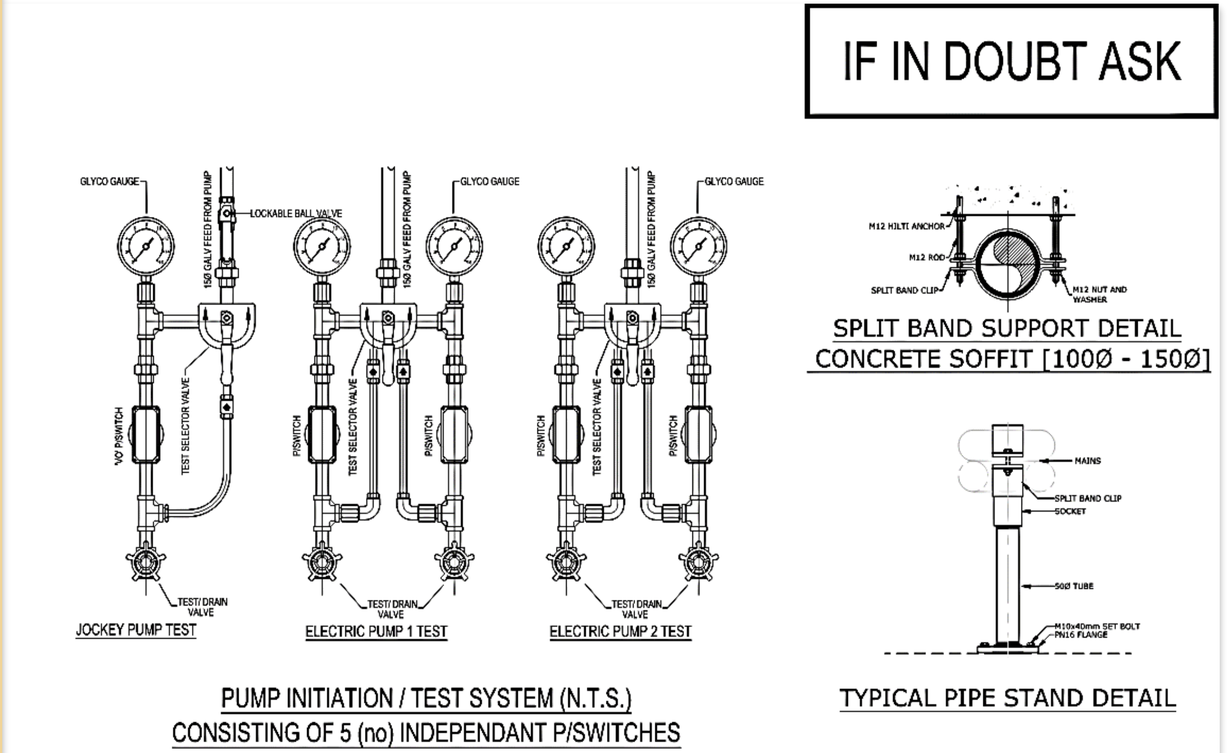


RIBA Stage 6 - Input

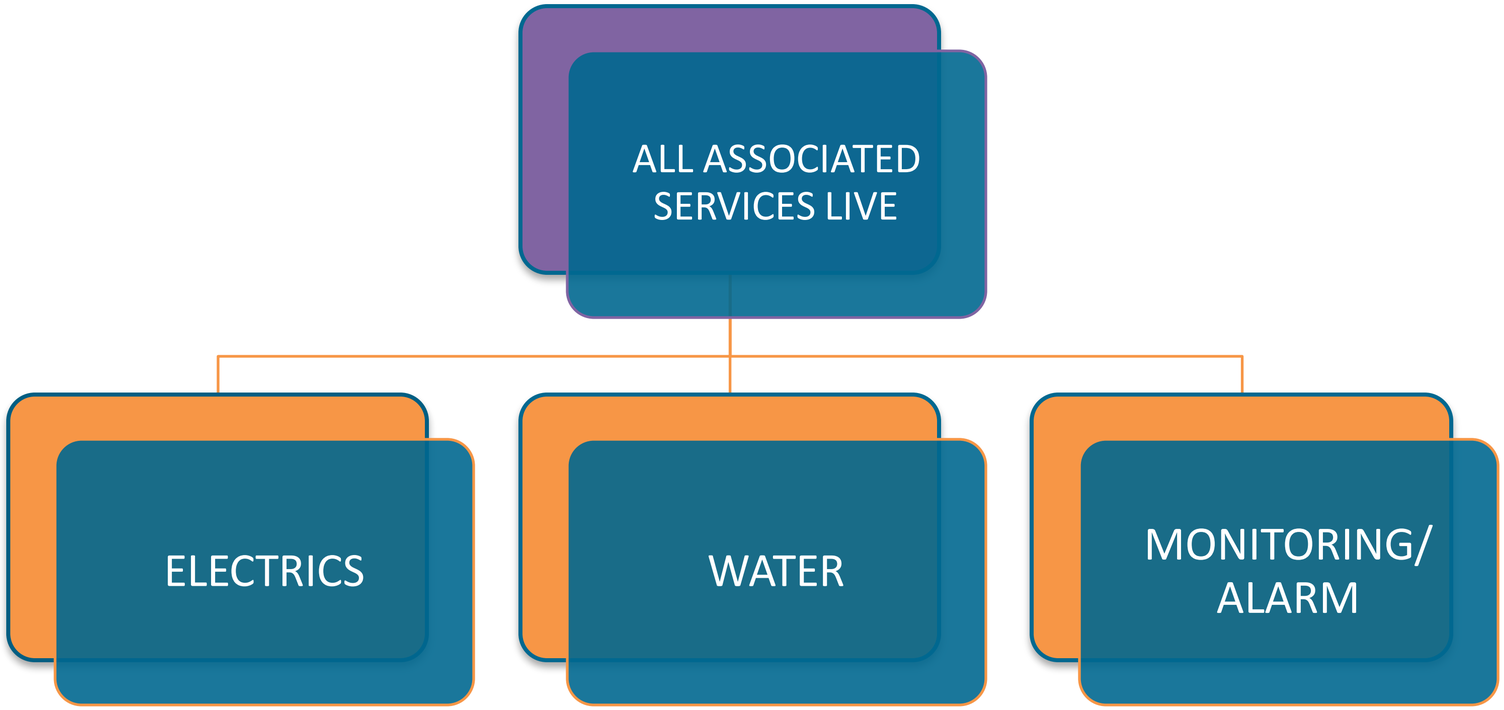


RIBA Stage 6

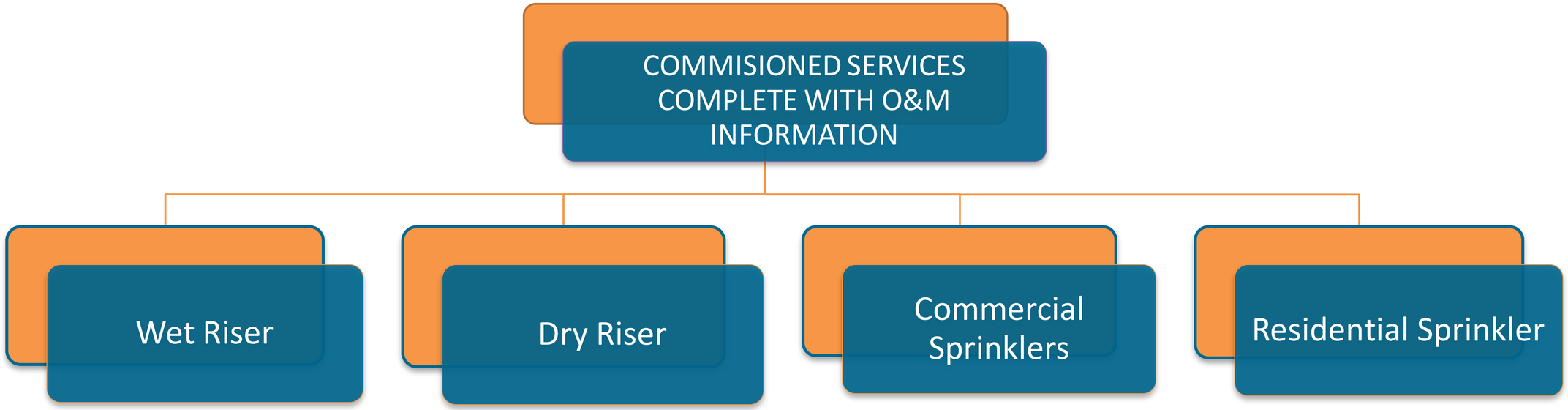
Commissioning, Testing, Training & Maintenance Package



RIBA Stage 6 - Input

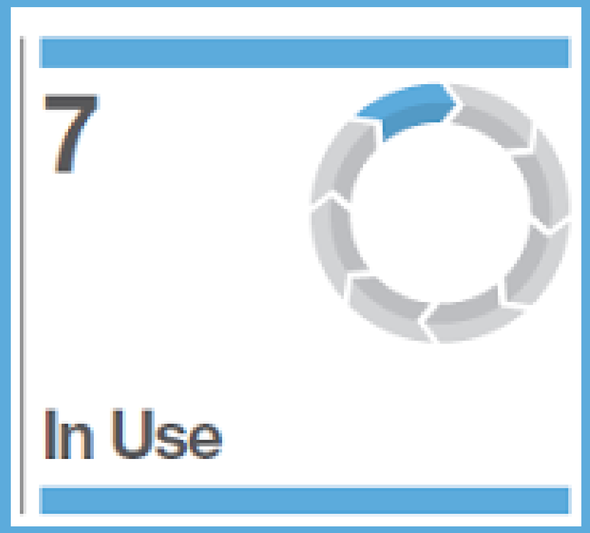


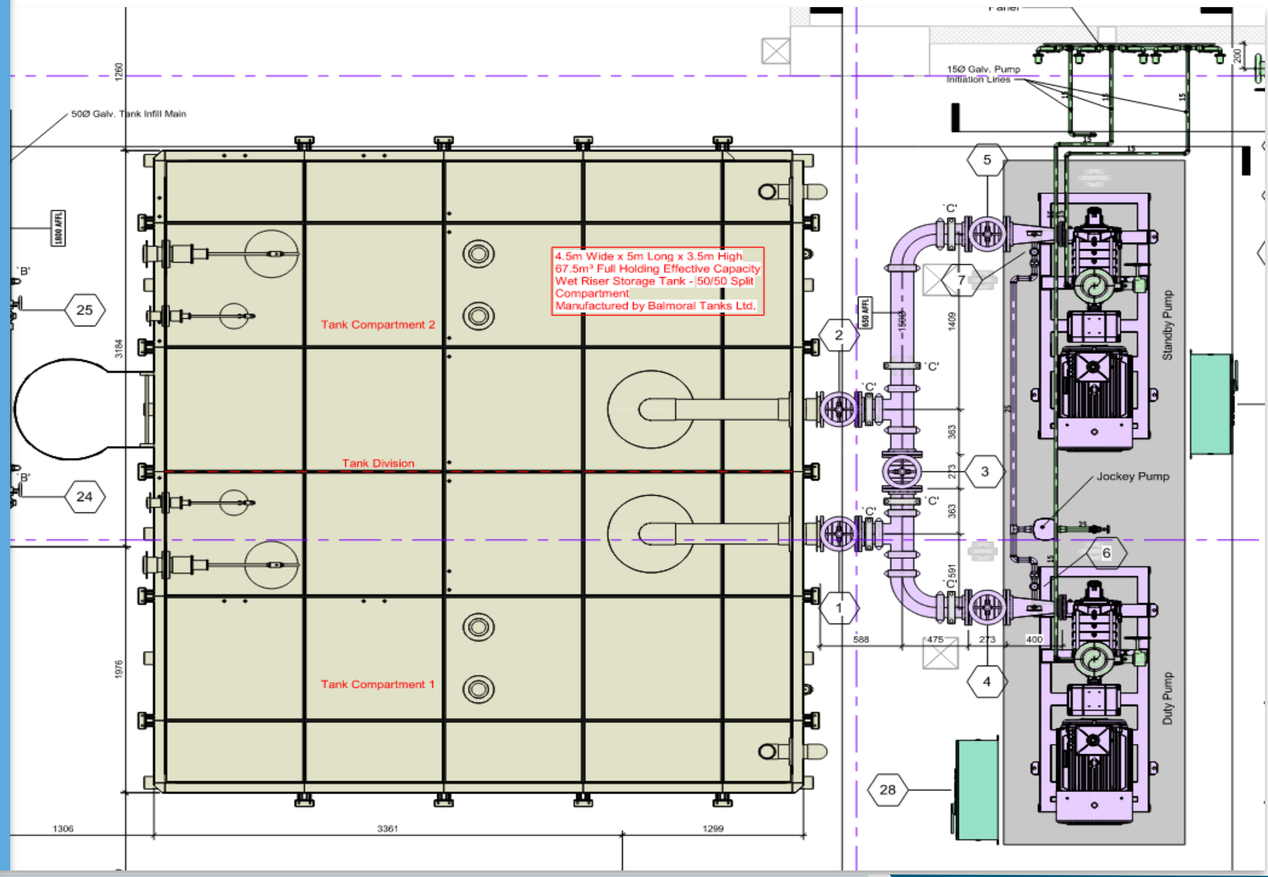
RIBA Stage 6 - Output



RIBA Stage 7

Continuing System Maintenance & Legal Obligations After Handover





RIBA Stage 7

FIRE SUPRESSION SYSTEMS TO BE SERVICED AND MAINTAINED INLINE WITH MANUFACTURERS REQUIREMENTS & RELEVENT STANDARDS

POTENTIAL RISKS

UNDER SIZED WATER SUPPLY INFRASTRUCTURE – TANK SIZE, PUMP SIZE

UN MAINTAINED SYSTEMS – VOID CERTFIFICATION

LEGAL NON-COMPLIANCE

FAILURE TO OBTAIN BUILDING SIGN OFF

LIQUIDATED AND ASCERTAINED DAMAGES

WASTE WATER IMPLICATIONS 450,000 Ltrs

Thank you

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