CAMBOURNE WEST CONSENTED PHASE I

CVC IMAGE

MCA secured Outline planning permission for Cambourne West in January 2017. Their masterplan will ultimately see Cambourne expand by 60% and house 8000 new residents. Three new neighbourhoods totalling 2,350 new dwellings are due to be built on land to the west of Cambourne. This will envelope and re-contextualise Cambourne Village College (CVC).

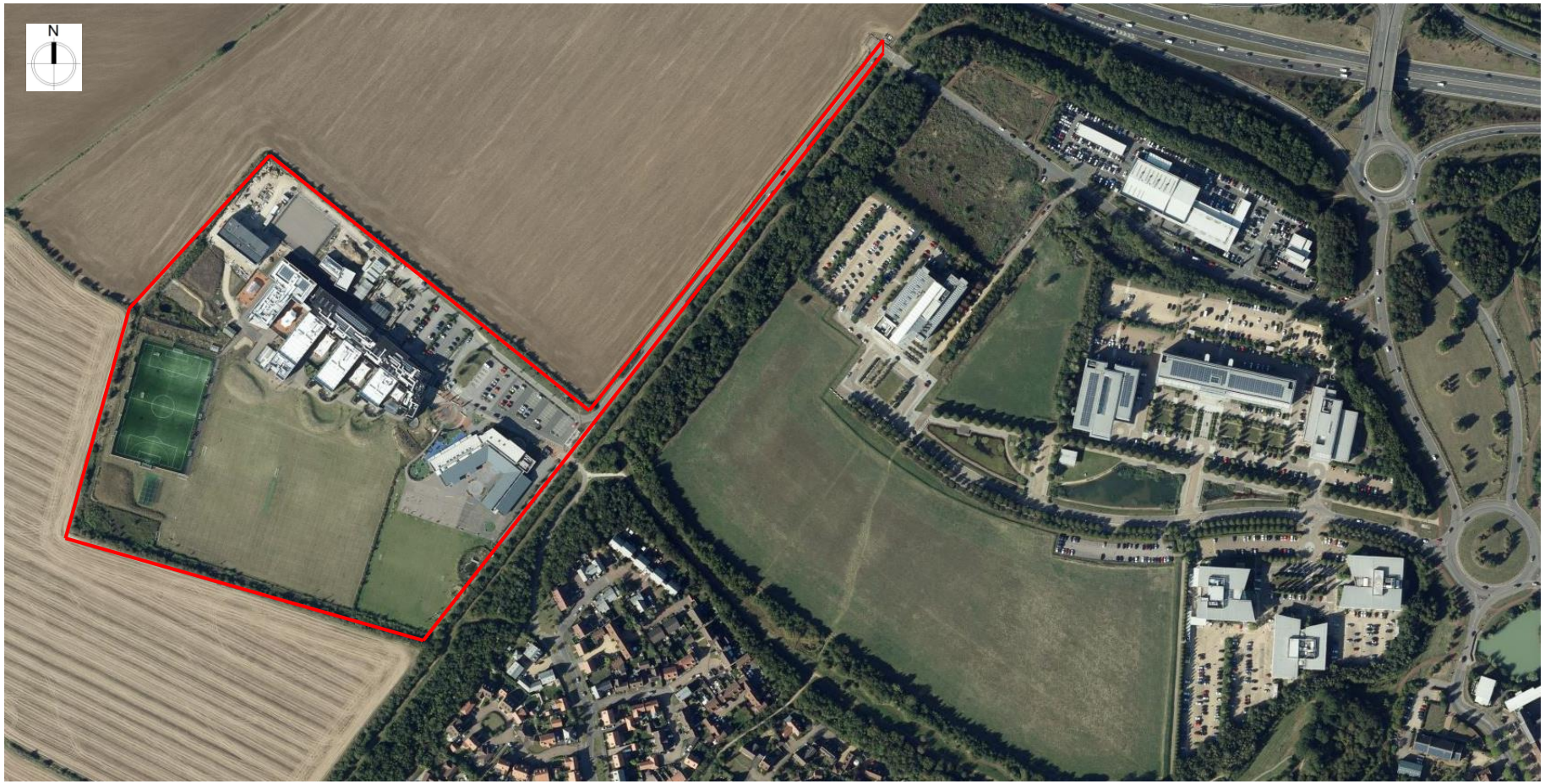
The vast majority of the associated demand for educational provision is to be met through developer contribution: accordingly, land to the north of the existing college has been set aside for education use.

It is worth noting that the developer masterplan originally envisaged the provision of a new independent secondary school on this land. This was challenged from an educational delivery perspective and the benefits of a single campus solution were accepted at the pre-application meeting of 17th August 2018.

The West Cambourne design code was then amended to allow expansion of the existing college.

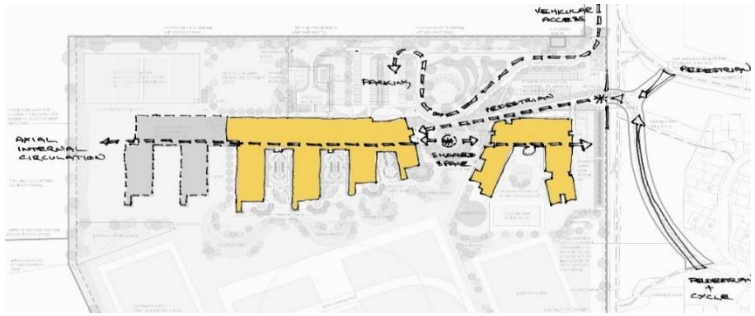
The playing field land offered by the developer is to the north of the existing school: this distances the existing school from MCA's Phase I housing and in particular, their key urban square.

A long 'boulevard' connection is proposed by MCA. This runs from their new square but unloads pupils into the existing northern car park..

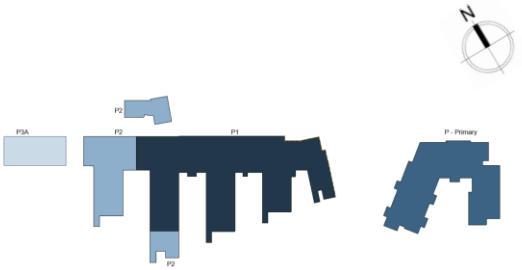


CVC is a Secondary School catering for pupils between the age of 11 – 16 operated by Cam Academy Trust. The CVC School site is situated on the western edge of Cambourne. It is surrounded on three sides by open farmland.
The existing Secondary School is approached from Sheepfold Lane and is visible from the A428.

Master-plan prepared for Phase I public exhibition on June 29th 2011.



Internal circulation spine common to all phases. Original diagram prepared 2011.



Previous Phases

Organisational description:

- School(s) arranged linearly east / west along a circulation spine
- North facing Large Volume Spaces as 'buffer' to semi-public areas of the site
- Teaching wings located south of the circulation spine .
- Playing fields occupy the southern portion of the site.
- Semi-public car parking located to the north
- Building(s) forming the majority of the secure line
- The original Phase I base build masterplan anticipated subsequent future expansion through use of a simple plan concept. A substantial east west circulation spine allowed for westward expansion and the theoretically endless addition of Secondary School teaching wings

Existing Buildings: Constraints

- Expansion of the school buildings northward is impractical: it would involve penetration of the large double volume 'buffer' spaces to the north of the current circulation spine.
- Expansion of the school buildings northward is not educationally viable as this would involve splitting teaching departments and an unworkable elongation of travel distances from existing southerly located teaching departments.
- The reality of educational operation requires new buildings to be closely connected to existing. Student and teacher journey times preclude satellite buildings to the periphery of the site.
- The envelopment of the existing college to the west would make public the rear of the existing campus.
- The existing circulation spine has reached its maximum workable length. This means that the expansion strategy which had guided previous phases has to be re-thought.
- Existing teaching wings have also reached their maximum workable length.


CAMBOURNE VILLAGE COLLEGE

Proposed Layout

Create a closely connected campus through careful location of new independent buildings.

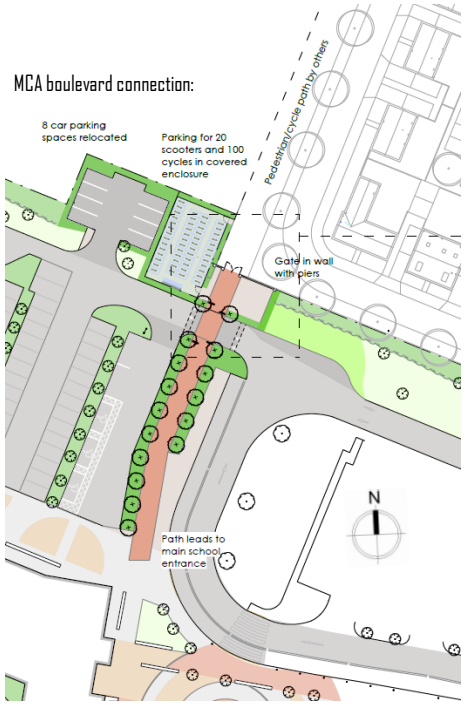
New independent teaching blocks located immediately south of the existing to allow expansion or relocation of the existing teaching departments.

Introduce a significant new external circulation route to complement the existing internal circulation spine. The 'Street' is proposed to connect east and west and link existing and proposed teaching blocks.

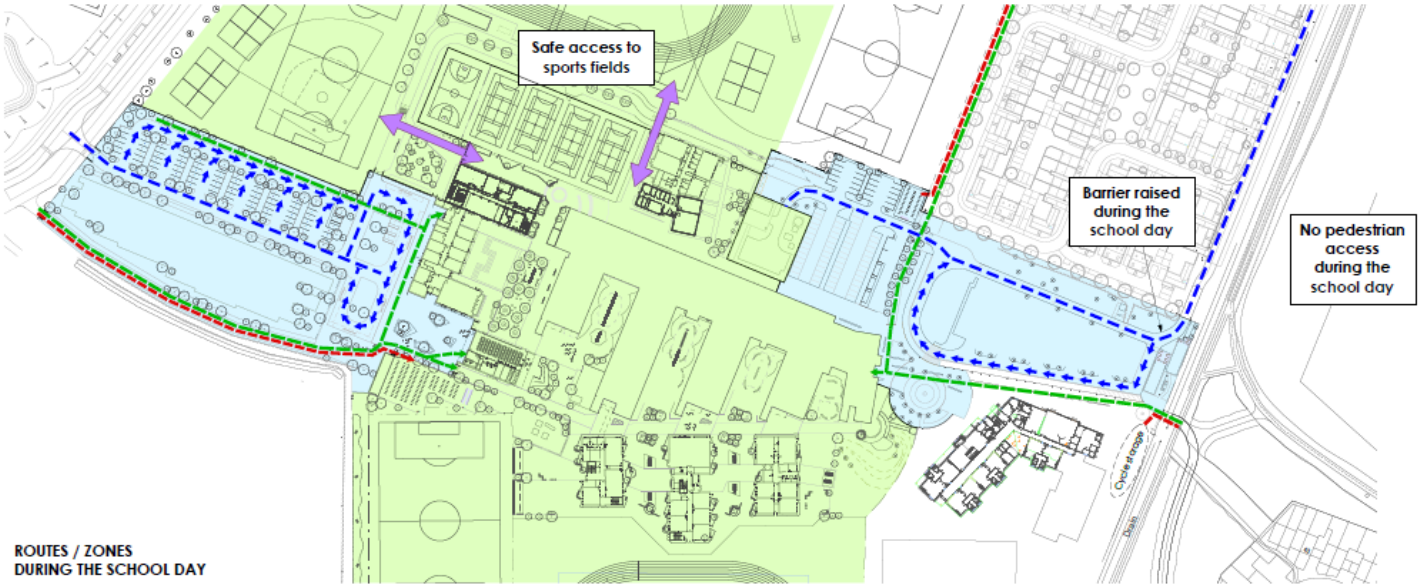
Create a supplementary western entrance to serve the 29% of pupils arriving from that direction.

Create a new western campus frontage utilising the Post 16 college and to a lesser extent the Secondary School Dining hall building.

MCA boulevard connection:



CVC: PEDESTRIAN AND VEHICLE MOVEMENT FOR DIFFERENT PERIODS DURING THE DAY



Analysis of MCA's Masterplan: Projected Pupil journeys by direction:

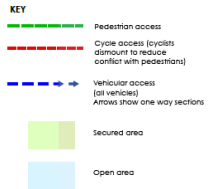
- From the existing dwellings to the East: Secondary School Pupil numbers from the existing dwellings to the East will remain broadly the same. This will represent 64% of pupils (currently 100%) once the school is at capacity. Applying a similar percentage for Post 16 pupils would represent an overall increase in pupil numbers from the East of circa 224 Post 16 pupils.
- From the proposed new dwellings to the North: 7%
- From the proposed new dwellings to the West: 29% (14% by car)

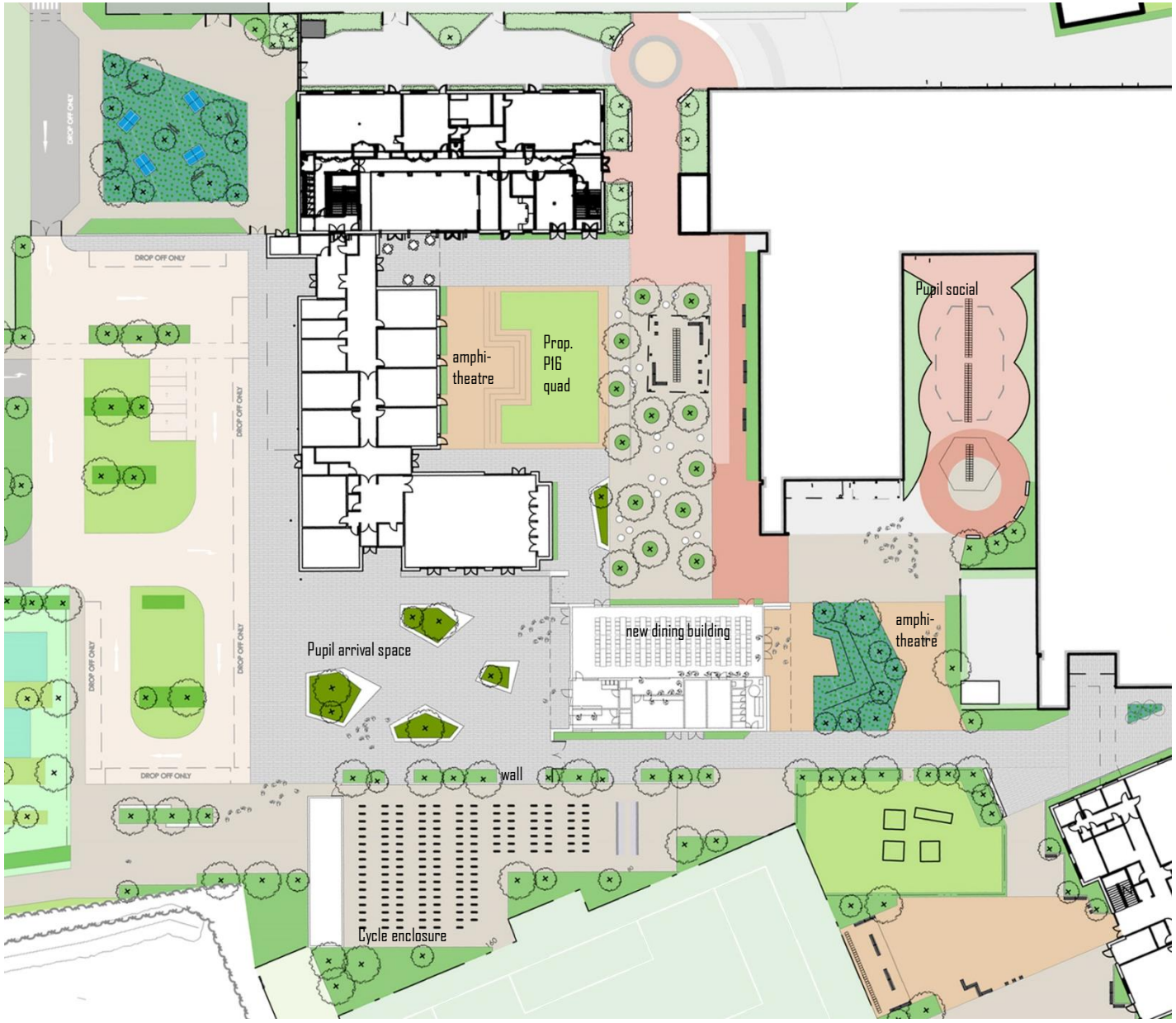
Proposed Movement and Access

Create a supplementary western entrance to serve the 29% of pupils arriving from that direction.

Drop off congestion is intended to be alleviated by a vehicular through route in operation only at peak times.

The MCA's generated northern cross over is addressed through the introduction of a wide pedestrian priority route that continues the developer boulevard into the CVC campus.





Proposed Open Space and Landscape

A new secondary school pupil arrival square is proposed to draw Secondary School pupils into the campus from the west.

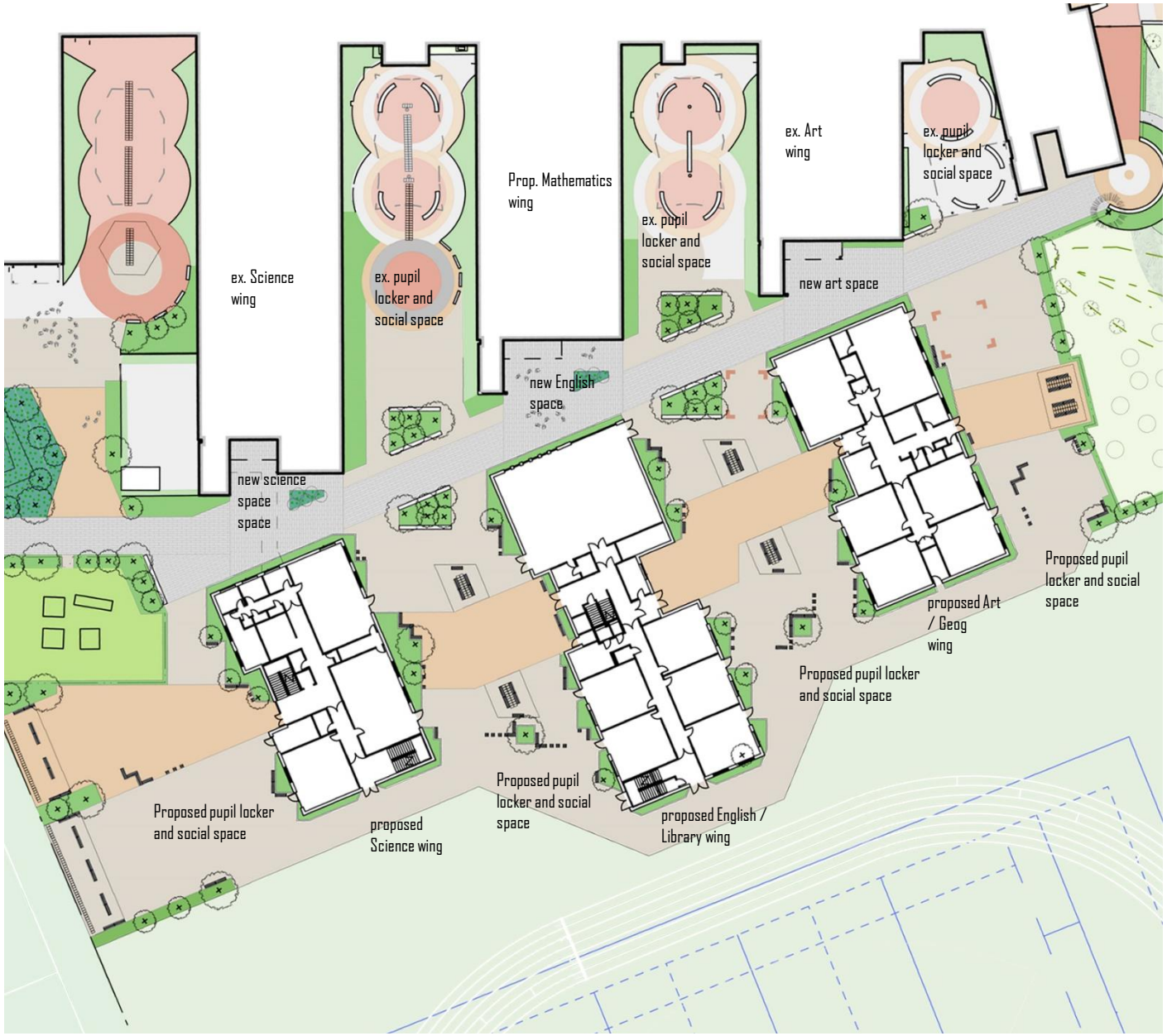
The square is fronted by the new secondary School Dining Block and the south façade of the proposed Post 16 building.

Space is held by a formal wall to the cycle shelters on the southern side of the square.

The proposed Post 16 quad is intended for socialising, casual study and pupil lockers.

KEY

- Retained Soft Landscape/Trees
- Retained Playing Field
- Retained Synthetic Turf Pitch
- Retained MUGAs
- Retained Surfacing - Vehicular
- Retained Surfacing - Pedestrian
- Proposed Soft Landscape/Trees
- Proposed MUGA
- Proposed Surfacing - Vehicular
- Proposed Surfacing - Pedestrian
- Proposed Surfacing - Bound rubber



Proposed Open Space and Landscape

New External Pupil social spaces complement the existing provision. They are located between teaching blocks and allocated by school year group.

KEY

- Retained Soft Landscape/Trees
- Retained Playing Field
- Retained Synthetic Turf Pitch
- Retained MUGAs
- Retained Surfacing - Vehicular
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- Proposed Soft Landscape/Trees
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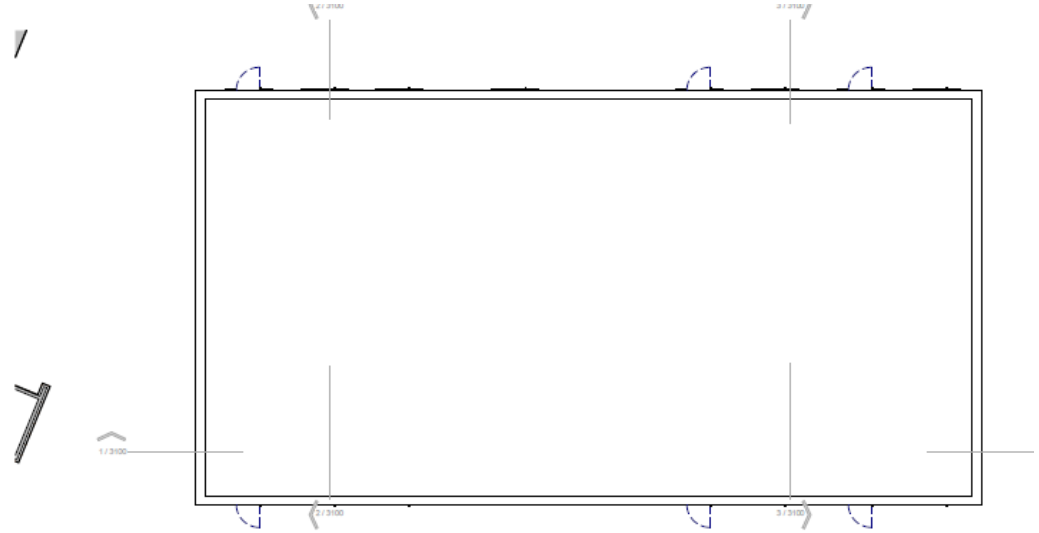
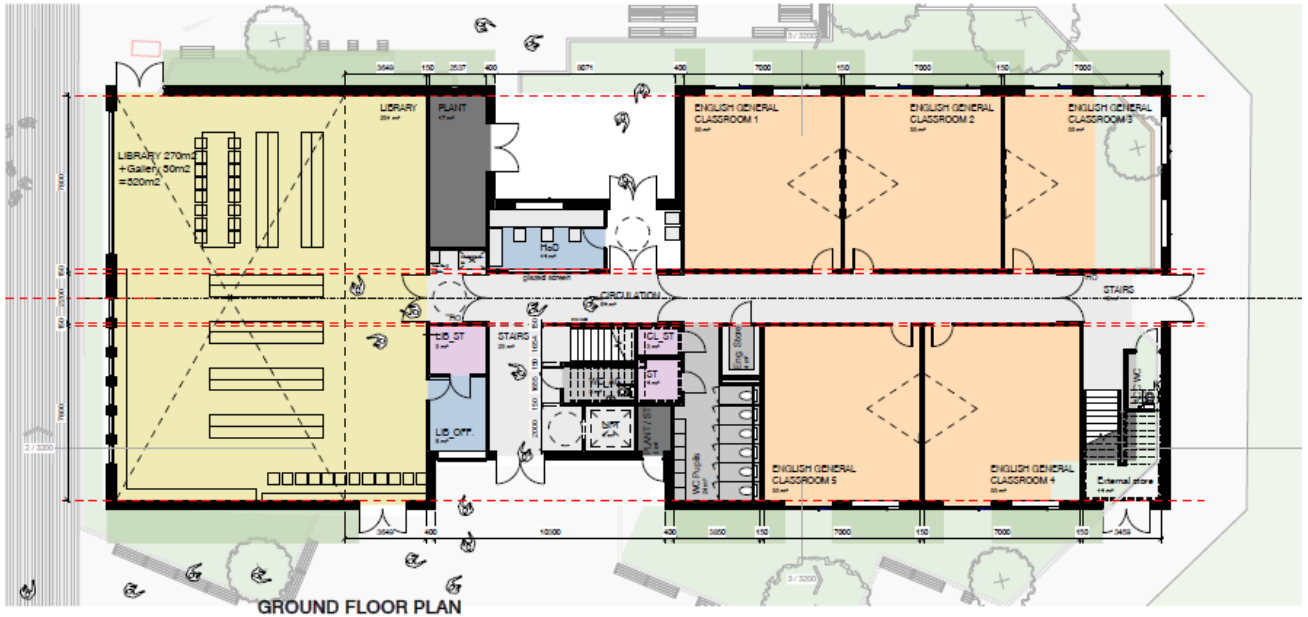


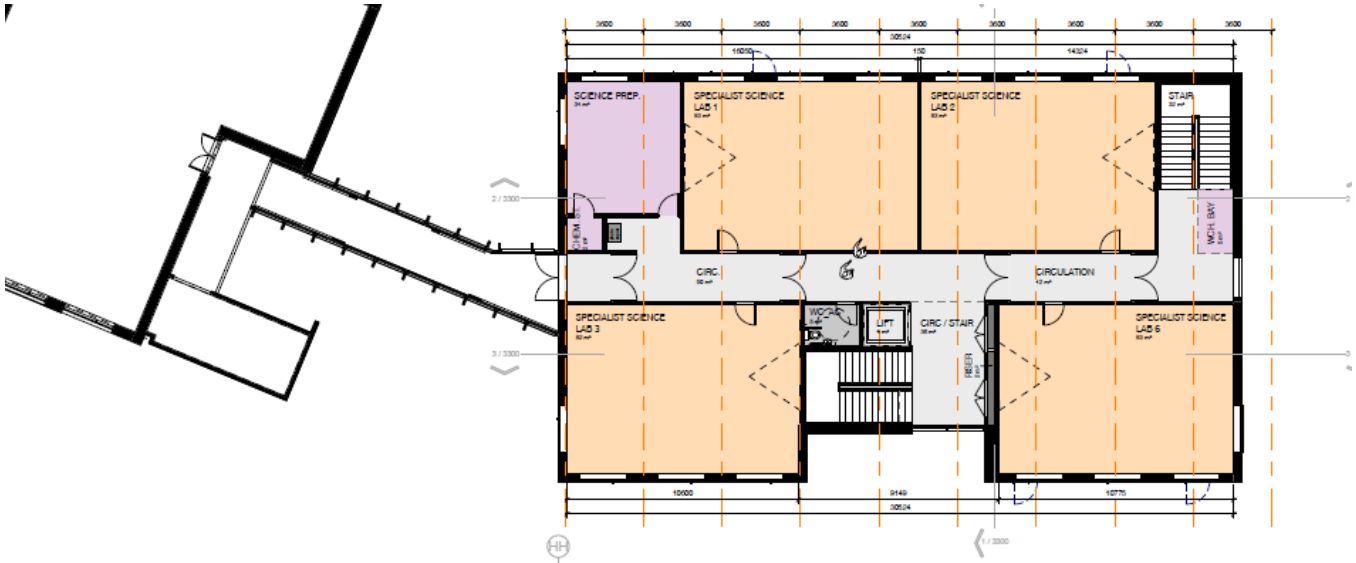
ROOF PLAN

GROUND FLOOR PLAN

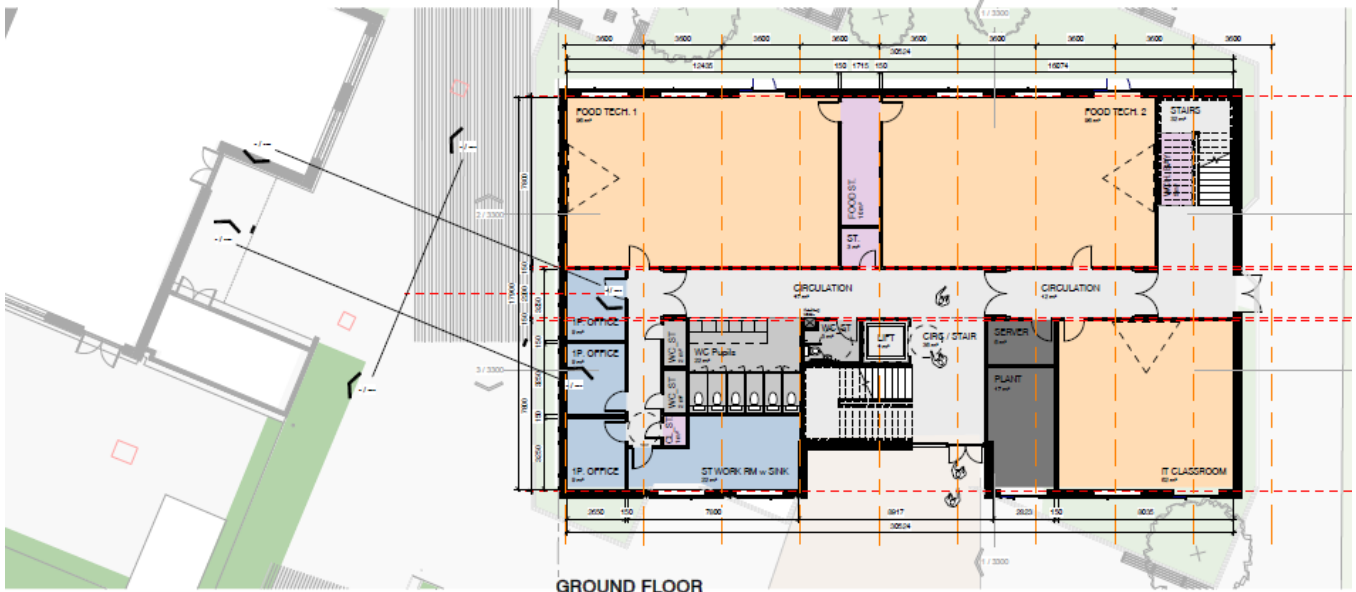
FIRST FLOOR PLAN



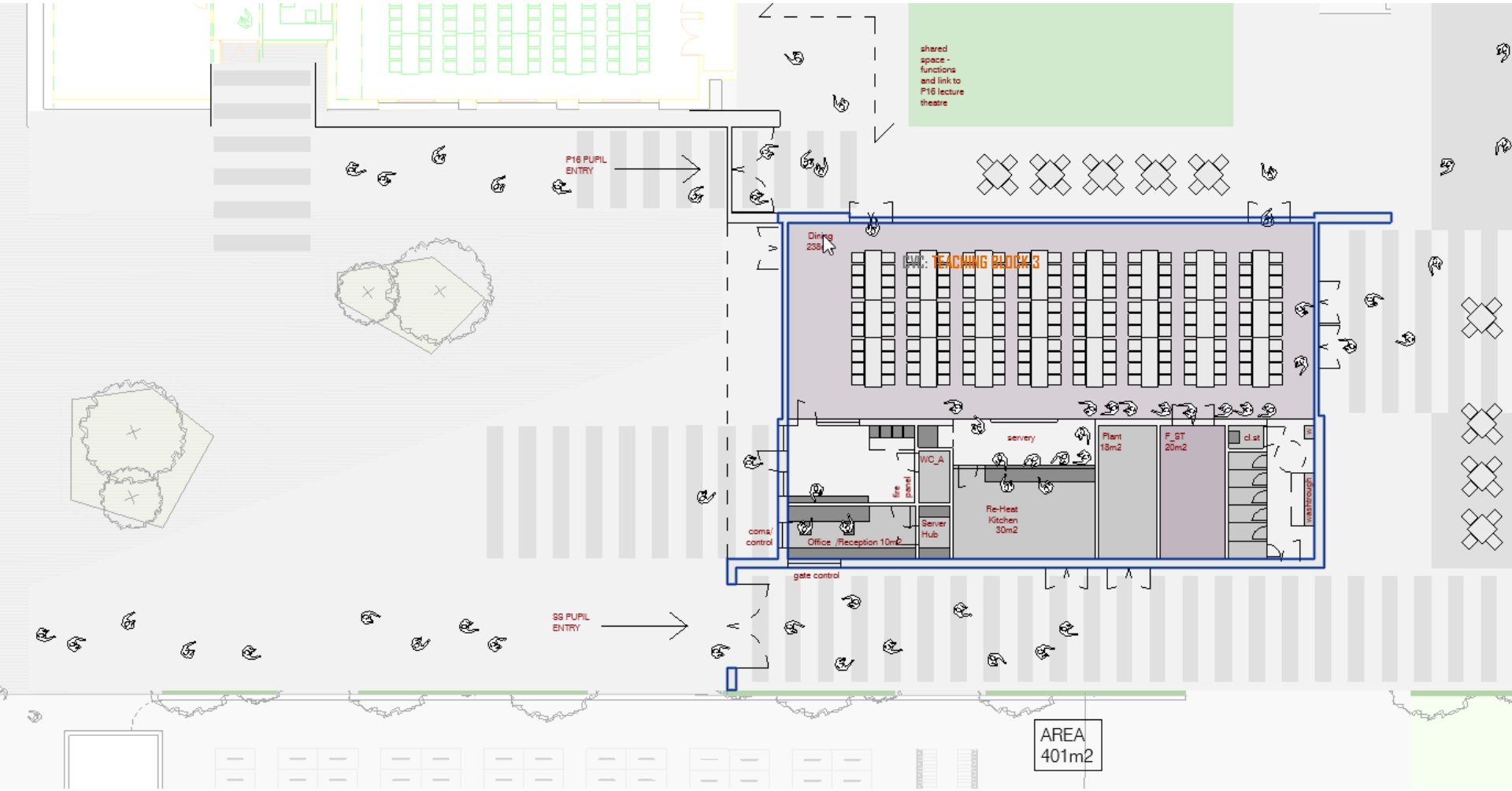
GROUND FLOOR PLAN

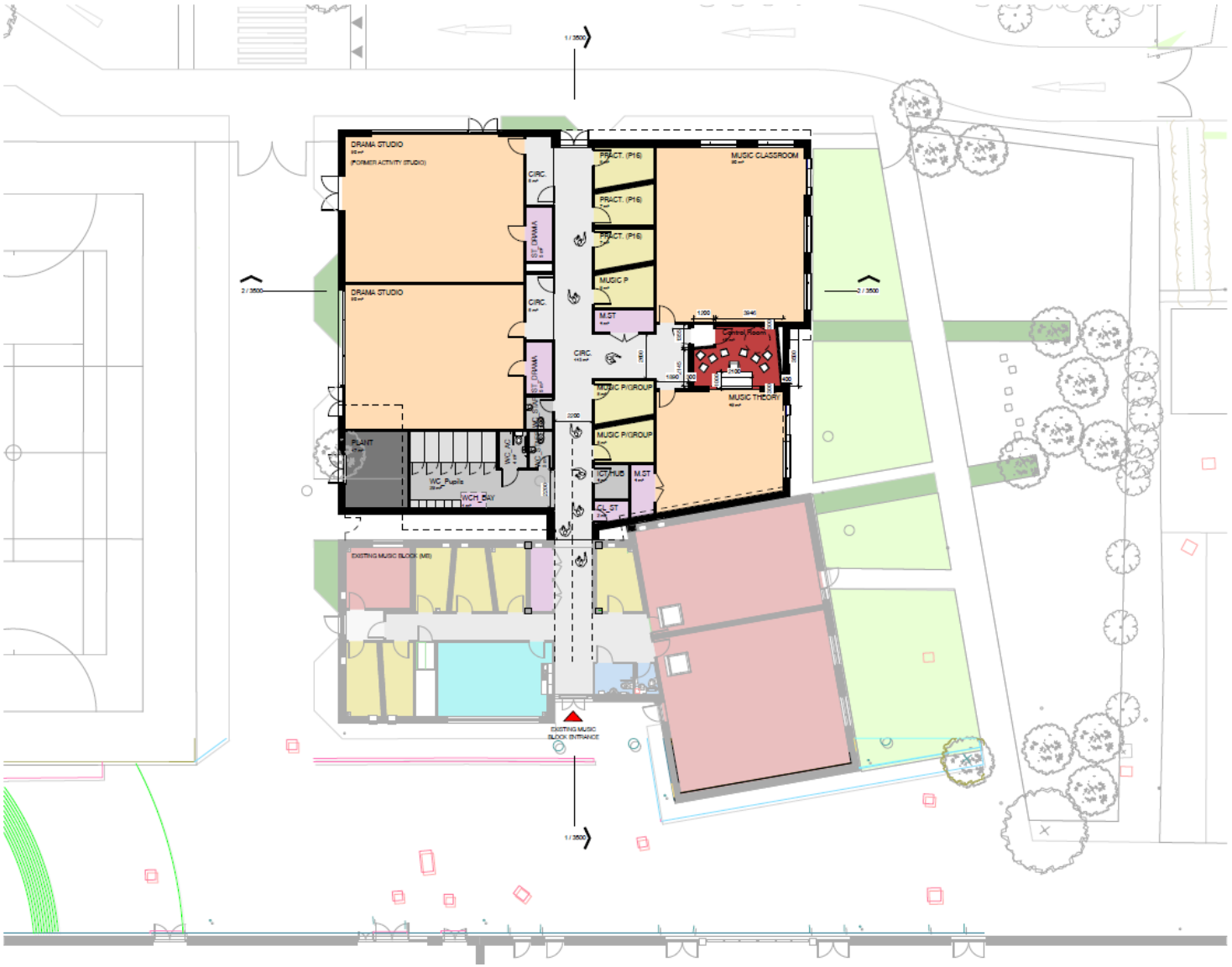


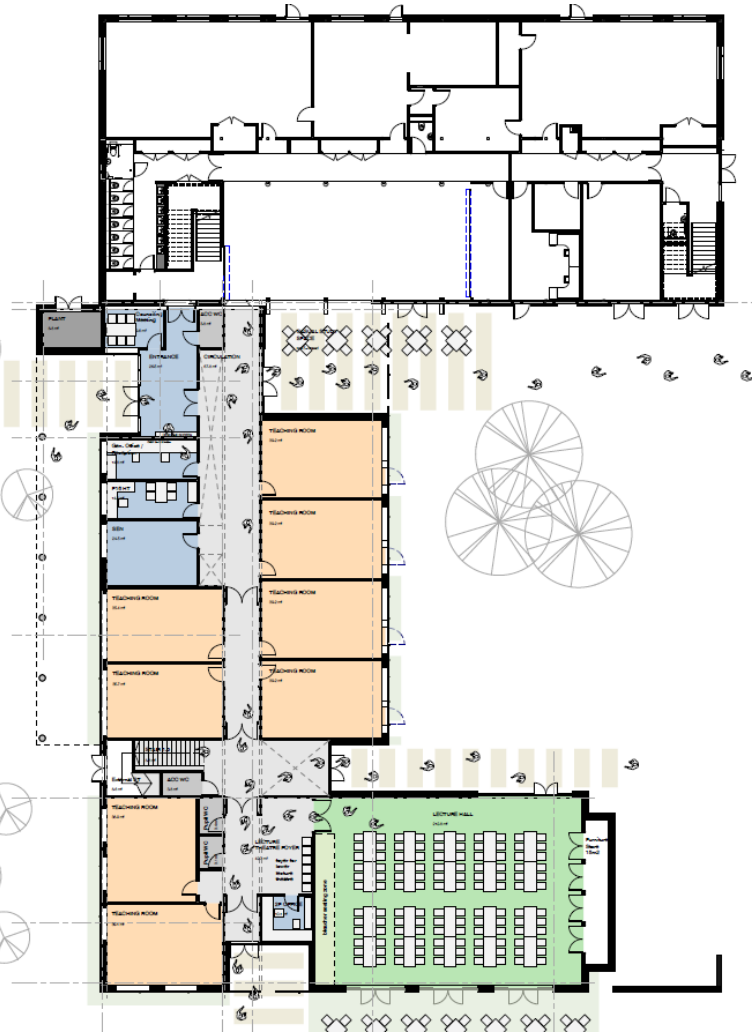
FIRST FLOOR



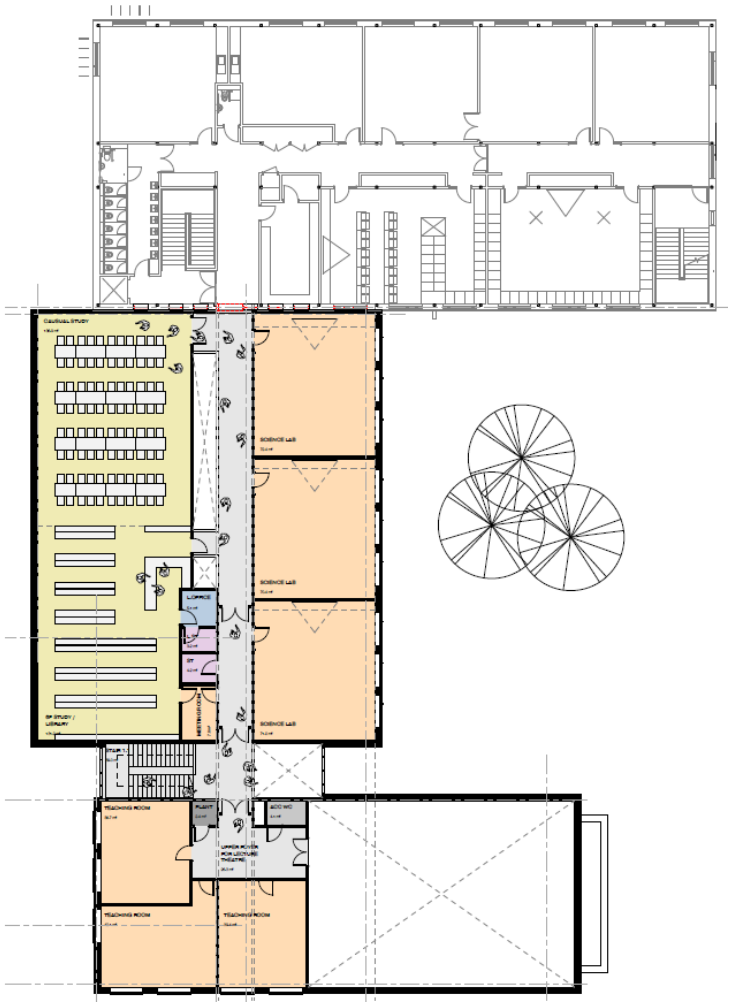
GROUND FLOOR


shared space - functions and link to P16 lecture theatre
P16 PUPIL ENTRY
Dining 239
CVC: TEACHING BLOCK 3
servery
Plant 18m2
F_ST 20m2
cl.st
WC_A
fire panel
Re-Heat Kitchen 30m2
Server Hub
coms/ control
Office /Reception 10m2
gate control
hatchthrough
SS PUPIL ENTRY
AREA 401m2

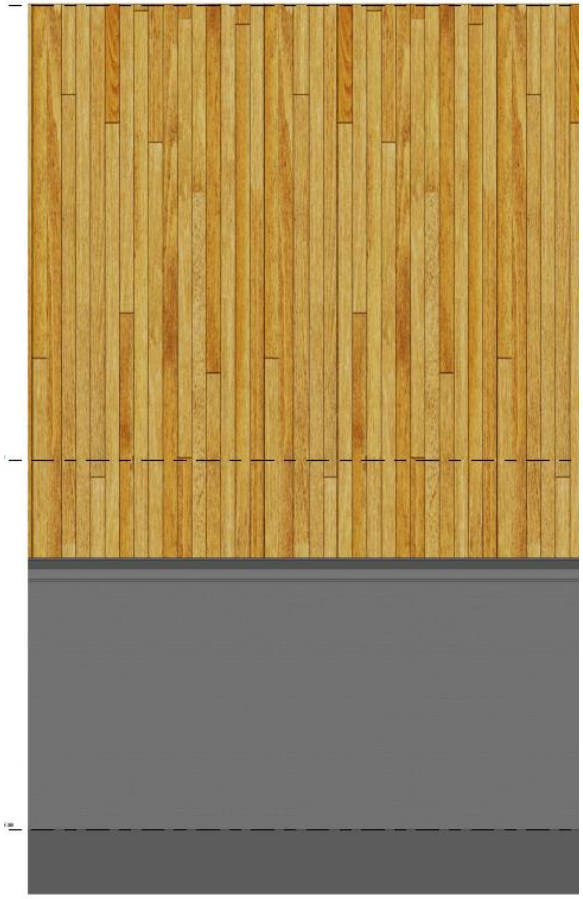

DRAMA STUDIO
(FORMER ACTIVITY STUDIO)
DRAMA STUDIO
CIRC.
PRACT. (P16)
PRACT. (P16)
PRACT. (P16)
MUSIC CLASSROOM
MUSIC P
M.ST
CIRC.
Control Room
MUSIC THEORY
MUSIC P/GROUP
MUSIC P/GROUP
PLANT
WC_Pupils
WCH_Bay
I.C.T.HUB
M.ST
CL.ST
EXISTING MUSIC BLOCK (MB)
EXISTING MUSIC BLOCK ENTRANCE
1 / 3500
2 / 3500
2 / 3500
1 / 3500



PROPOSED GROUND FLOOR

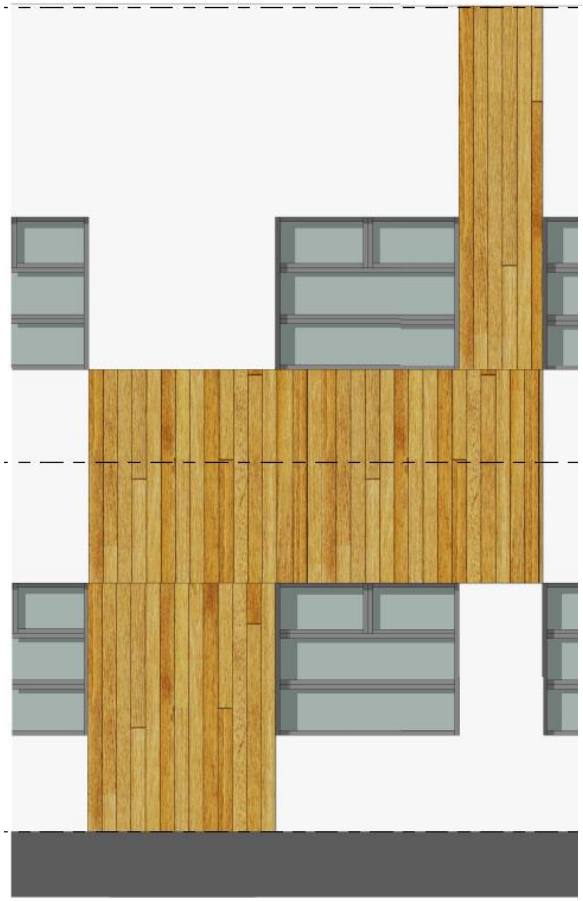


PROPOSED FIRST FLOOR



EXISTING SCHOOL END ELEVATION

Ex. Public facades - typical



EXISTING SCHOOL ELEVATION

Ex. Pupil courtyard - typical

PROPOSED TEACHING BLOCK ELEVATION

Proposed Elevations and Materials

Buildings will be stratified vertically to match the existing elevational approach. Brick is preferred for robustness, connotations of quality and long term durability.

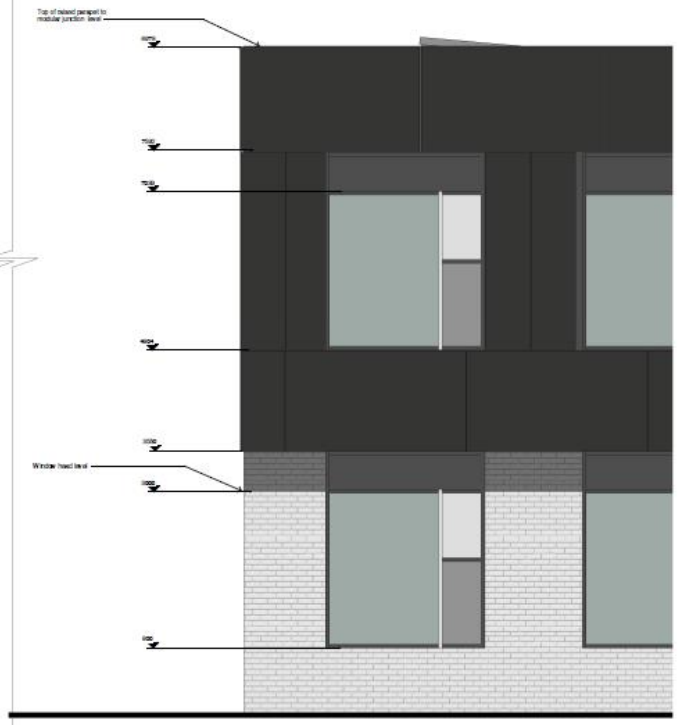
The secondary school buildings will utilise light and dark brick. Light or white brick is intended to pick up on the existing render employed on the existing teaching wings.

CVC: EXISTING / FUTURE P16 BUILDING – COMPARATIVE ELEVATIONS AND MATERIALS


Timber Cladding


Brick

Existing CVC Secondary School – Elevation Detail



Existing CVC Western Teaching Block and Proposed P16 Building – Elevation Detail

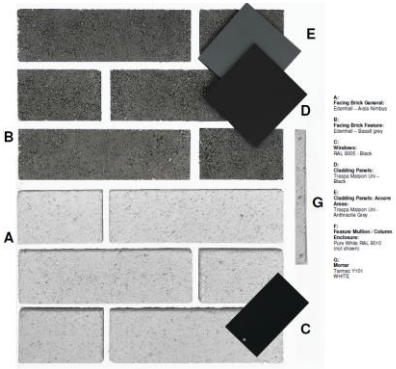

Trespa Cladding - Black/Charcoal

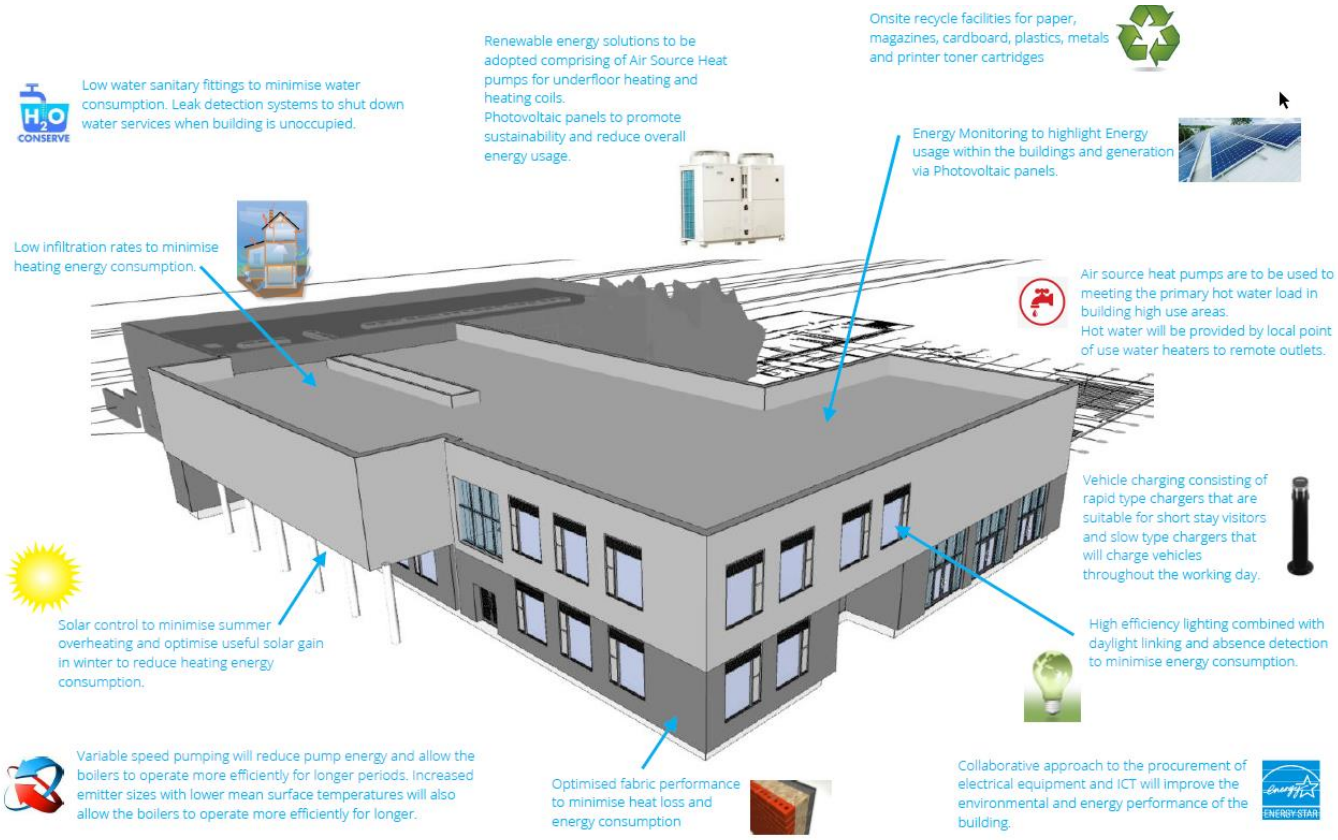

Brick - Grey


Brick - White

CVC: EXISTING TEACHING BLOCK EXISTING 3D VIEW FROM WEST

The Post 16 building is required to have an independent identity appropriate for a new college. The existing brick base course will be continued and the upper level clad in rainscreen. The intention is to evolve the CVC vernacular to achieve a distinct appearance that still sits comfortably with the campus behind it.





Off-site Modular Construction reduces construction waste and resource efficiency whilst improving the overall speed of construction.

Energy saving design and construction techniques:

- Building Information Management and modelling
- Environmental modelling of the design to optimize internal comfort
- Efficient building orientation and form to benefit from the micro climate
- Efficient building envelope design to reduce heat loss

Swales:
Vegetated drainage channels or troughs with a shallow gradient to reduce flows provide storage, conveyance of surface water, infiltration and settlement of pollutants

- Attenuate run-off.
- Provide areas to store water in natural contours, allowing water to soak (infiltrate) into the ground
- Allow water to be transpired through vegetation (evapotranspiration)

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