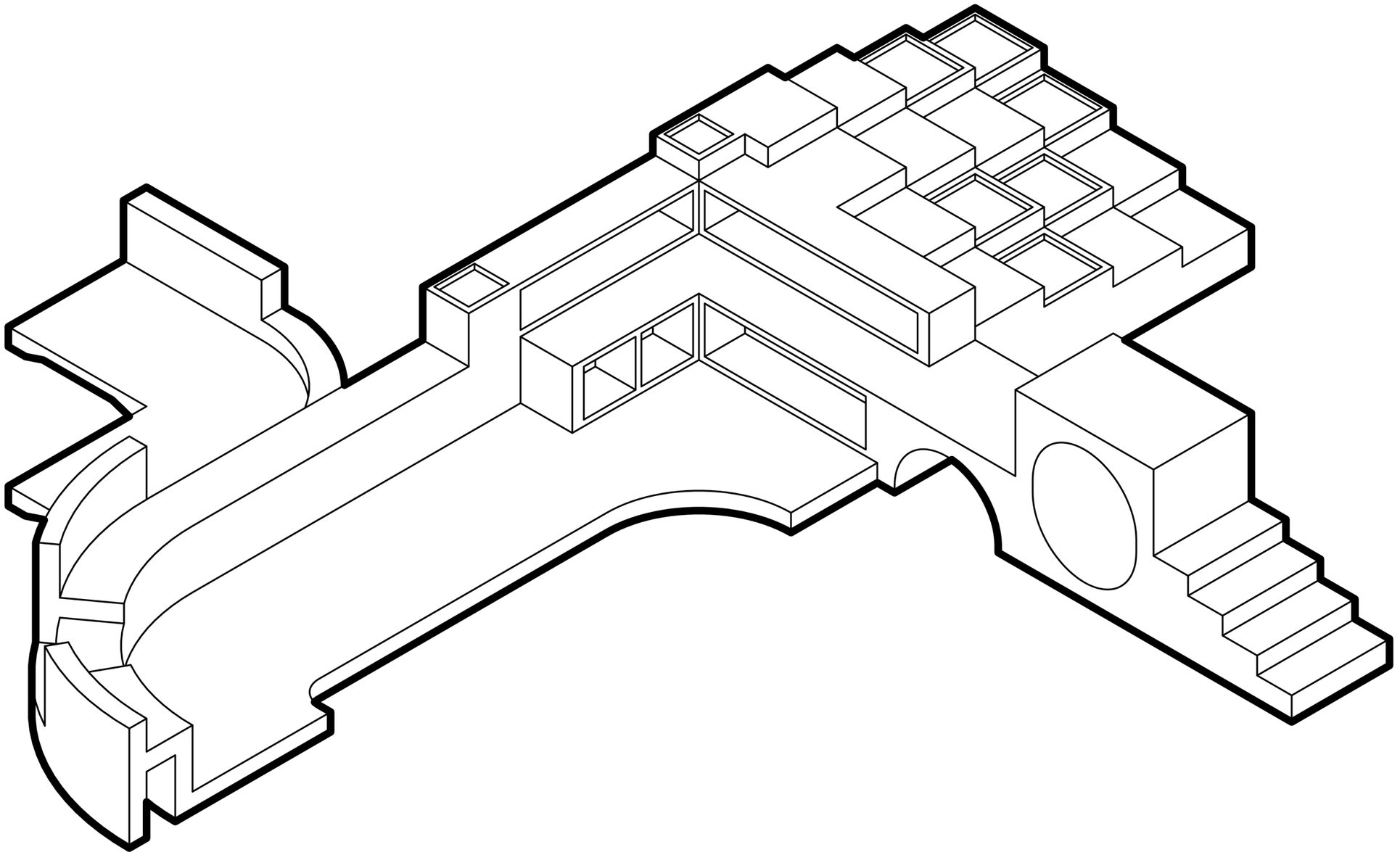
MANUAL 02

THE DETAILS



A21-27 Shreeraj Narwade

HI AGAIN!

THIS MANUAL DOCUMENTS THE TECHNICAL REALIZATION OF THE MODULAR SYSTEM, OUTLINING THE PROCESSES REQUIRED TO BRING EACH ELEMENT FROM FABRICATION TO INSTALLATION.

WHILE THE 'KIT' EXPLORES SPATIAL BEHAVIOR AND AGGREGATION, THIS DOCUMENT FOCUSES ON EXECUTION, FROM PREPARING THE SITE TO ASSEMBLING AND CONNECTING THE MODULES.

RATHER THAN VIEWING EACH ELEMENT AS AN ISOLATED OBJECT, THE SYSTEM IS UNDERSTOOD HERE AS A SEQUENCE OF OPERATIONS, WHERE GROUND CONDITIONS, PLACEMENT LOGIC, AND CONNECTIONS COLLECTIVELY DEFINE PERFORMANCE.

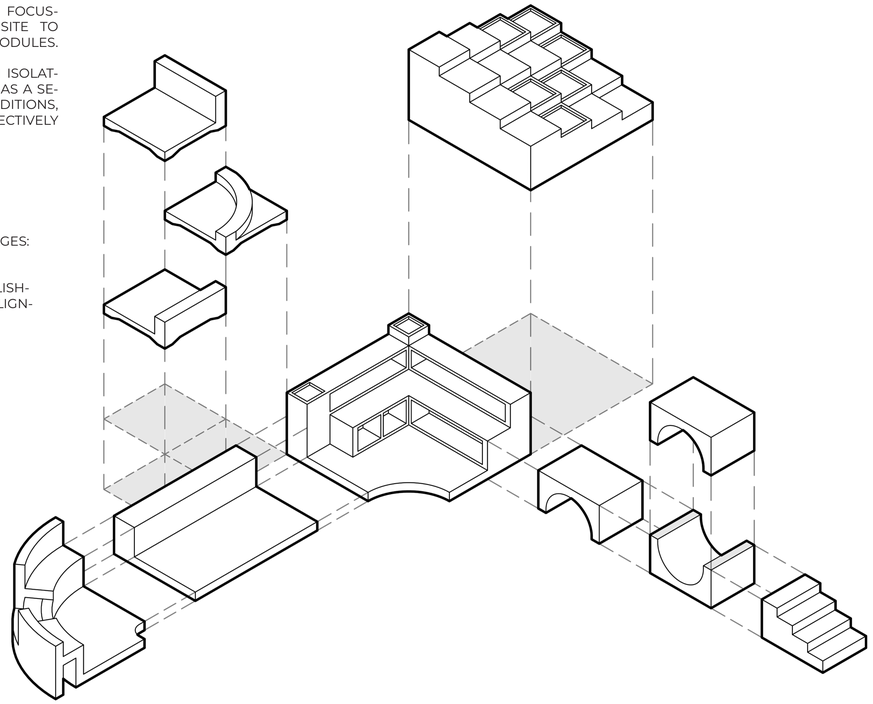
SCOPE OF THE MANUAL

THE MANUAL IS STRUCTURED ACROSS THREE STAGES:

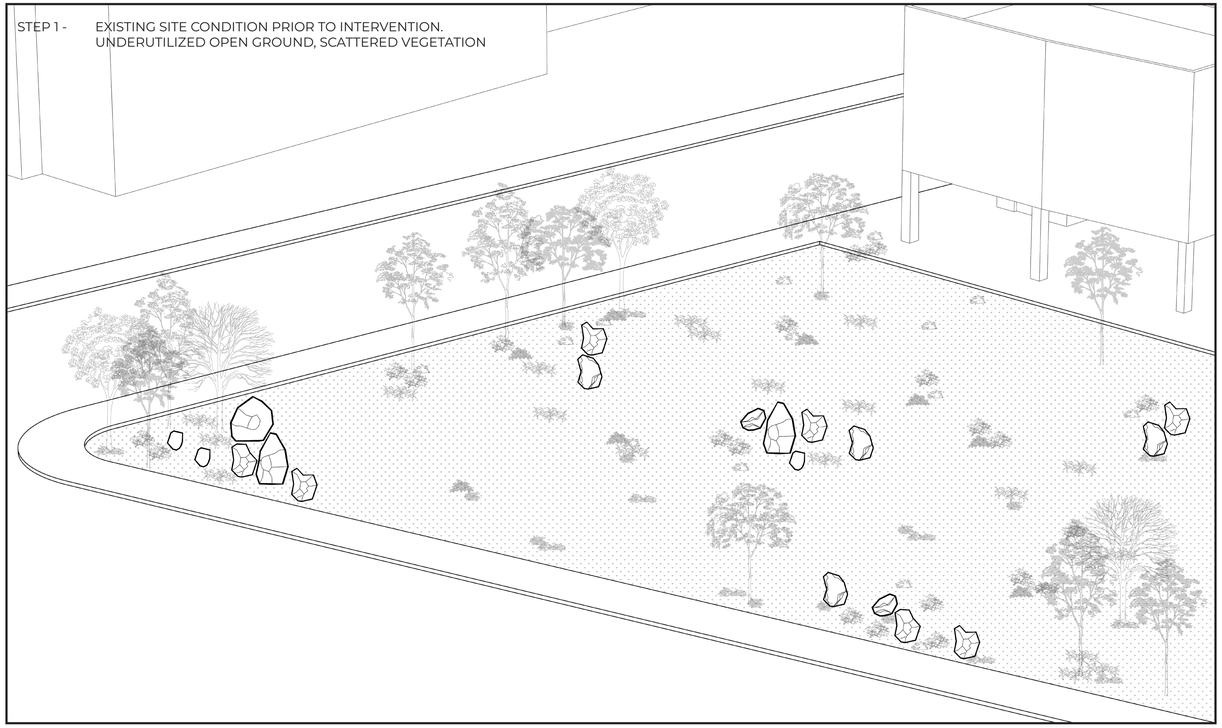
1. SITE PREPARATION
GROUND CLEARING, LEVELING, AND GRID ESTABLISHMENT TO ENSURE ACCURATE PLACEMENT AND ALIGNMENT.

2. MODULE ASSEMBLY
CONSTRUCTION LOGIC & MODULE DETAILS

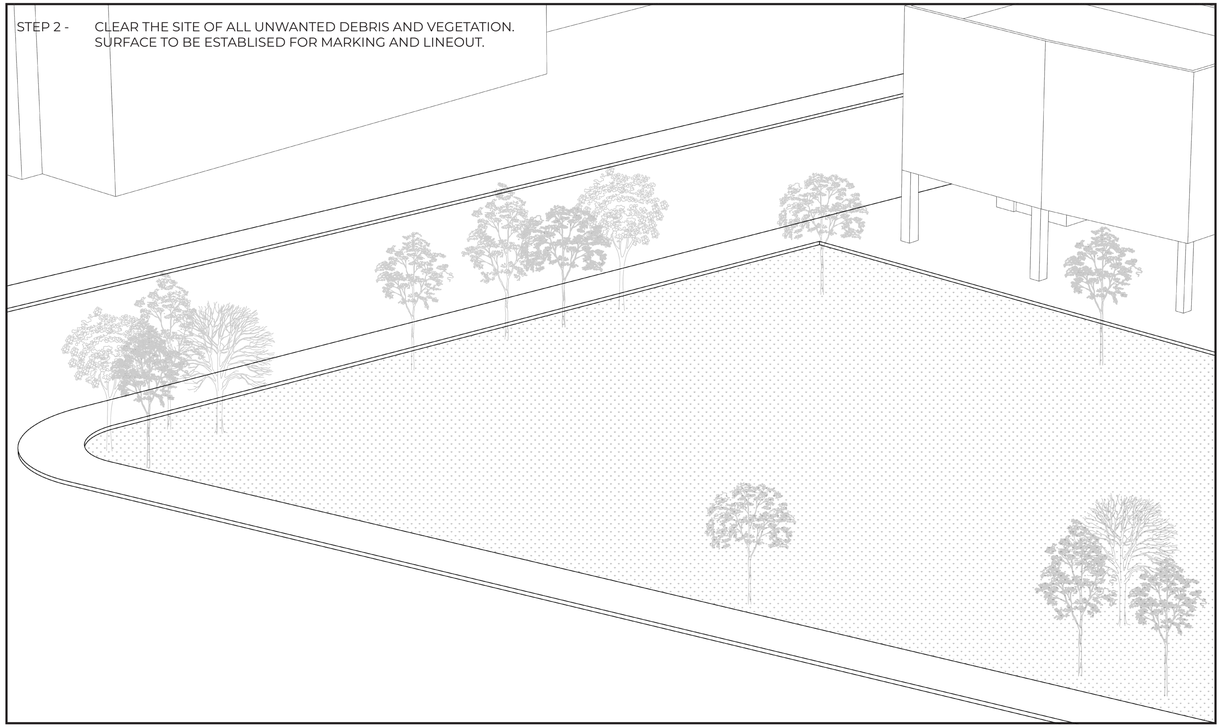
3. ASSEMBLY AND INTERFACE
ON SITE ASSEMBLY LOGIC



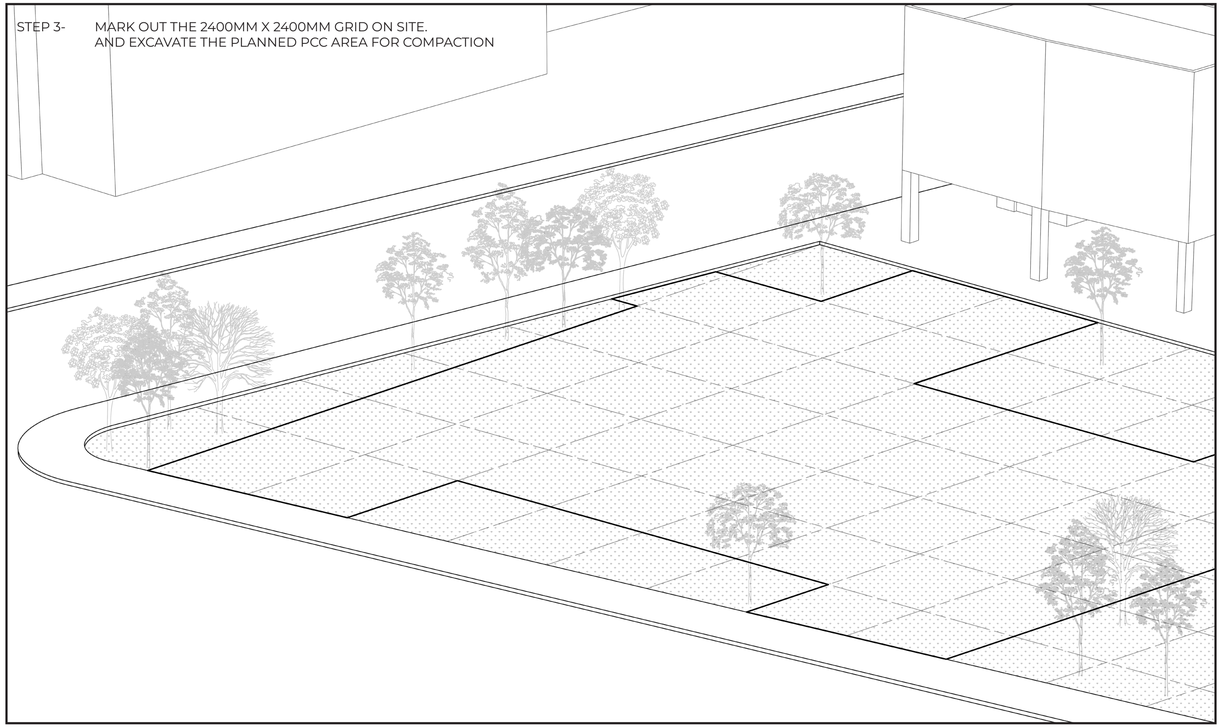
1. HOW TO PREPARE THE SITE



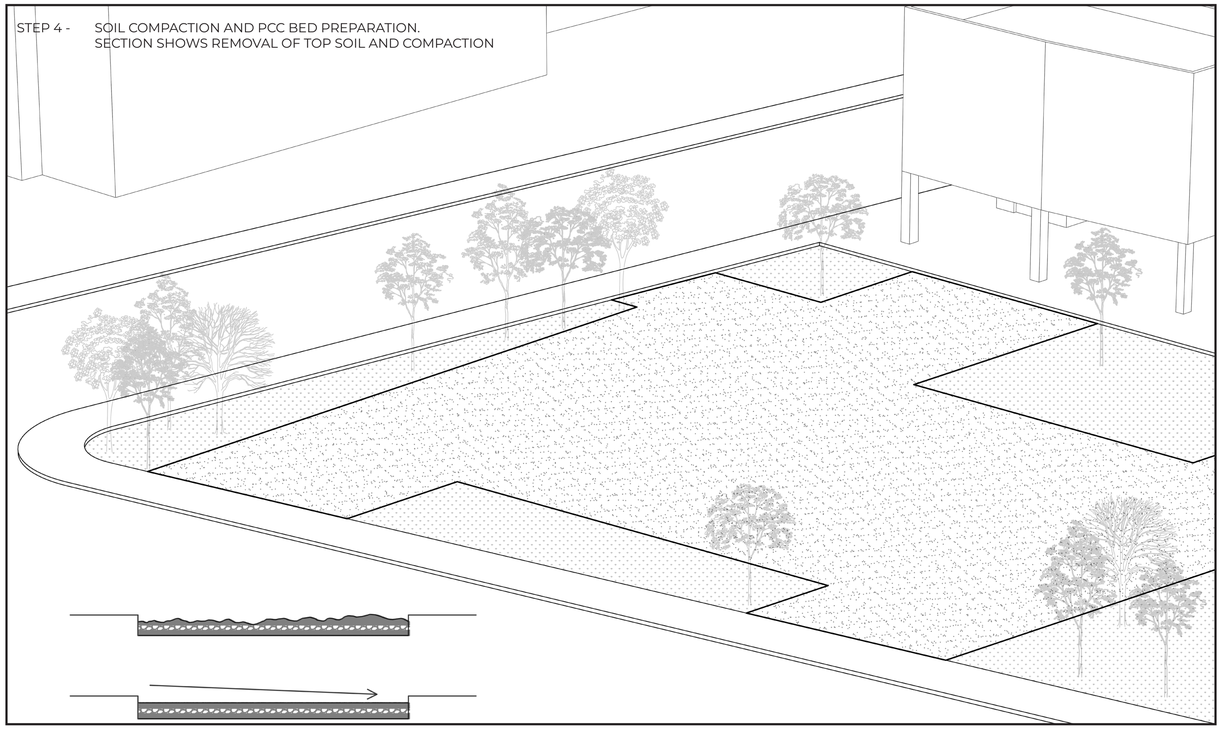
STEP 2 - CLEAR THE SITE OF ALL UNWANTED DEBRIS AND VEGETATION.
SURFACE TO BE ESTABLISED FOR MARKING AND LINEOUT.



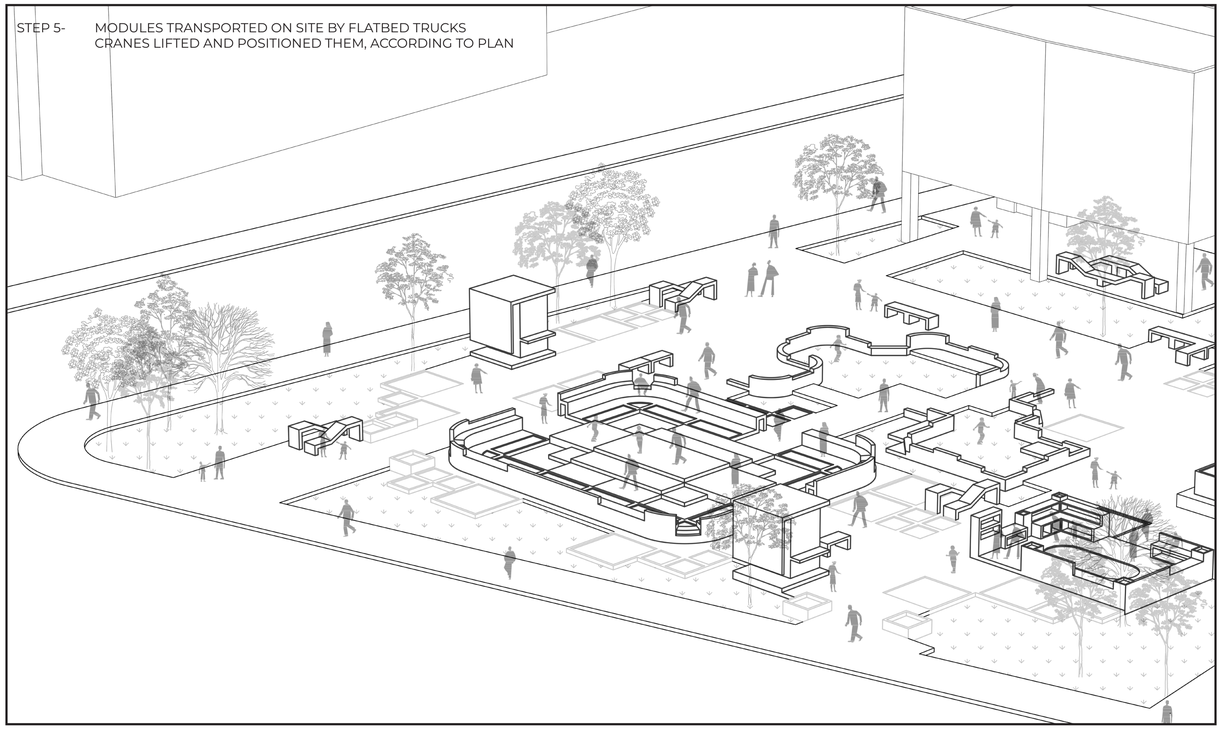
STEP 3- MARK OUT THE 2400MM X 2400MM GRID ON SITE.
AND EXCAVATE THE PLANNED PCC AREA FOR COMPACTION



STEP 4 - SOIL COMPACTION AND PCC BED PREPARATION.
SECTION SHOWS REMOVAL OF TOP SOIL AND COMPACTION



STEP 5- MODULES TRANSPORTED ON SITE BY FLATBED TRUCKS
CRANES LIFTED AND POSITIONED THEM, ACCORDING TO PLAN



2. HOW ARE THE PARTS MADE

1. MOULD FABRICATION
- STEEL / FRP(FIBER REINFORCED PLASTIC) MOULDS
  → REUSABLE FOR MULTIPLE MODULES

2. REINFORCEMENT CAGE
- 8MM FE500 BARS @ 200MM C/C
- MESH GRID INSIDE SHELL

3. VOID FORMERS
- EPS(EXPANDED POLYSTYRENE) BLOCKS / PLASTIC INSERTS INSIDE MOULD
  → CREATES HOLLOW CORE

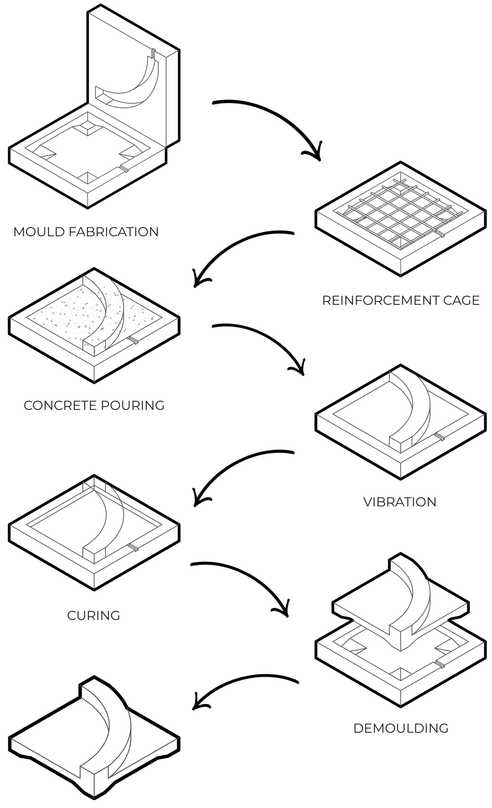
4. CONCRETE POURING
- M30 CONCRETE POURED INTO MOULD

5. VIBRATION
- REMOVES AIR BUBBLES

6. CURING
- 7–14 DAYS (OR STEAM CURING)
  → OFF SITE FABRICATION ENSURES QUALITY CONTROL, REDUCES ON SITE CONSTRUCTION TIME AND ALLOWS PHASED INSTALLATION FOR A MORE INCREMENTAL URBANISM APPROACH

7. DEMOULDING + FINISHING
- SMOOTH SURFACE
- DECIDED FINISH APPLIED

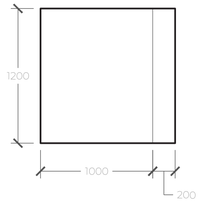
TRANSPORTATION IS THROUGH FLATBED TRUCKS AND PLACEMENT/INSTALLATION IS THROUGH CRANES OR BOOM TRUCKS.



TO BALANCE

1.1

PLAN



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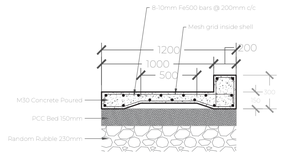

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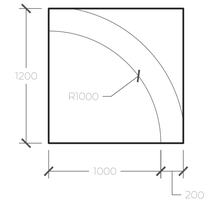

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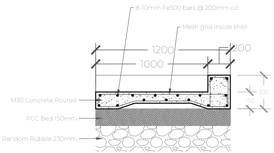
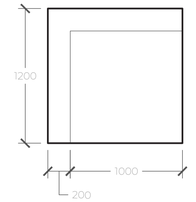


1.3

PLAN



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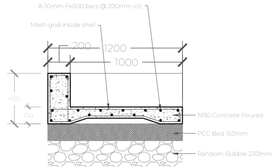
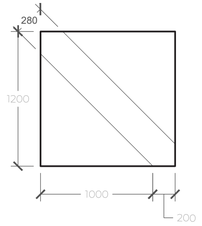


TO BALANCE

1.4

PLAN



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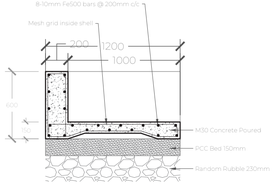

TO PERFORM

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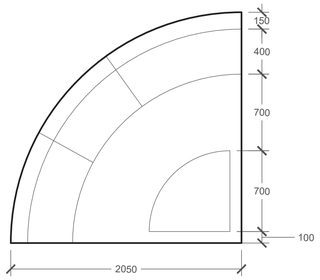

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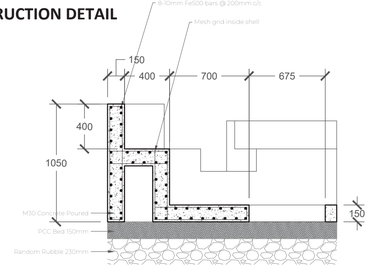

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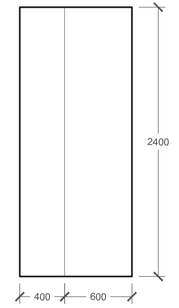

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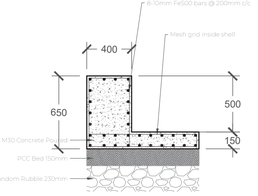

TO PERFORM

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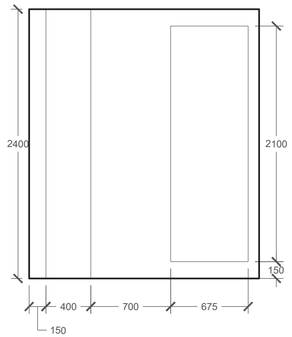

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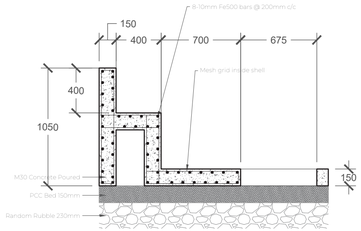

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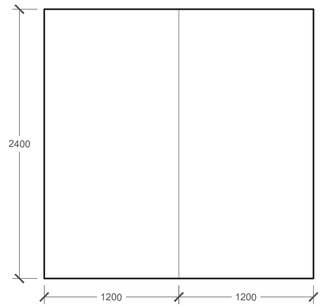

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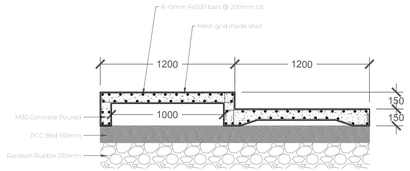

TO PERFORM

2.5

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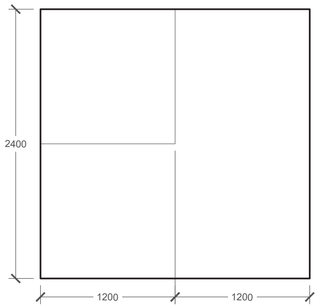

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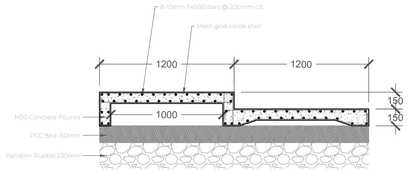

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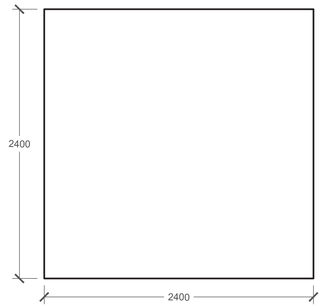

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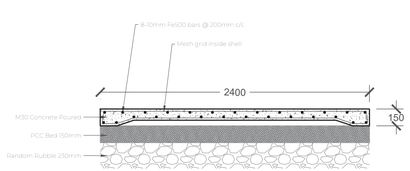

TO SIT

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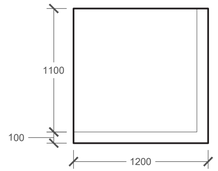

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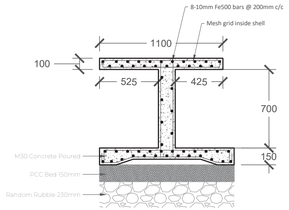

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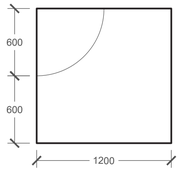

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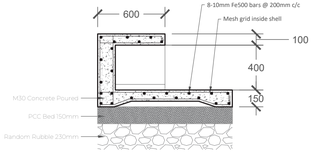

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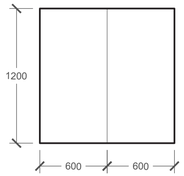

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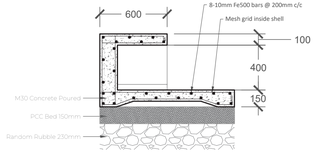

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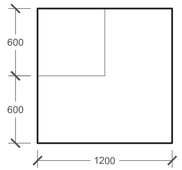

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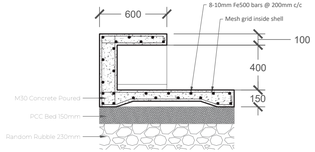

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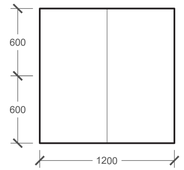

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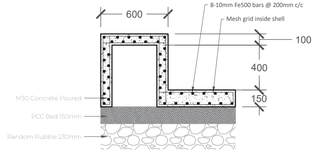

3.6

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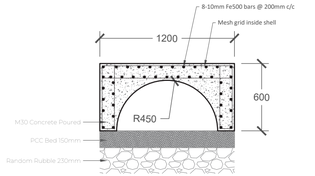

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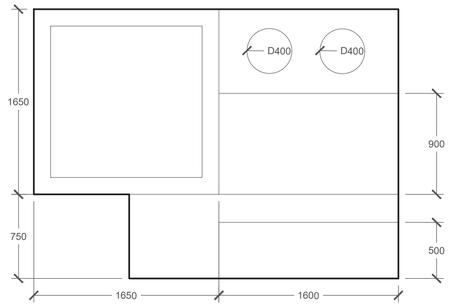

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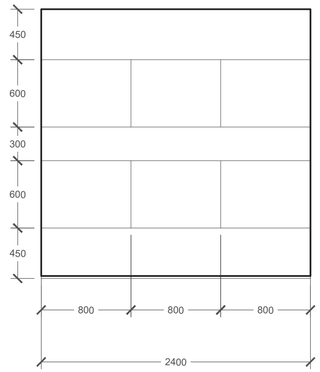

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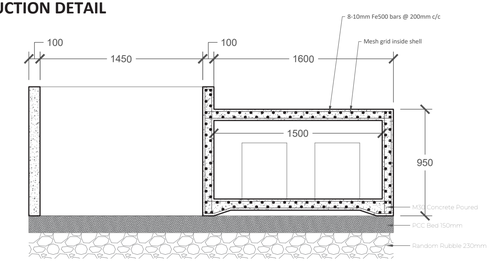

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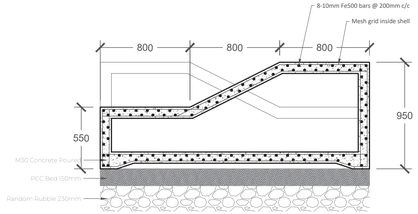

TO READ

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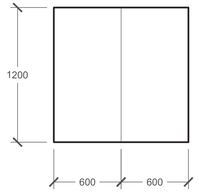

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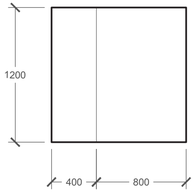

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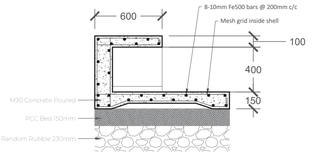

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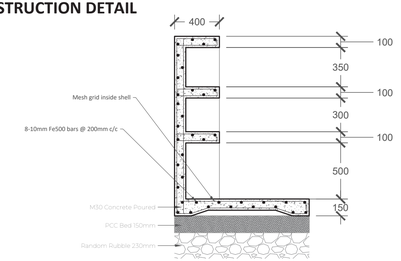

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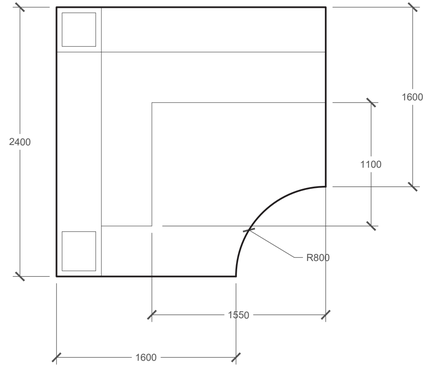
PLAN



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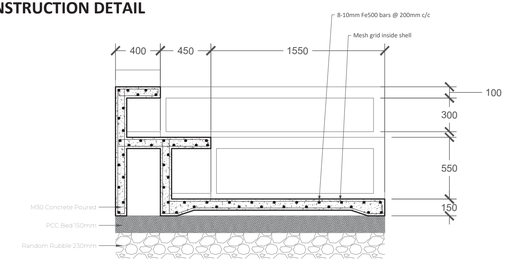

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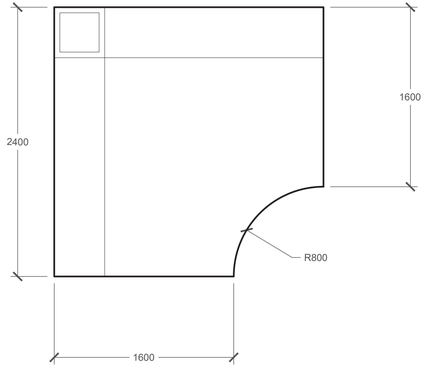

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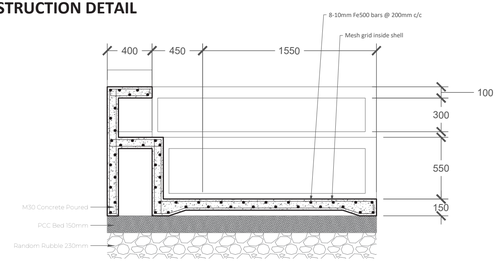
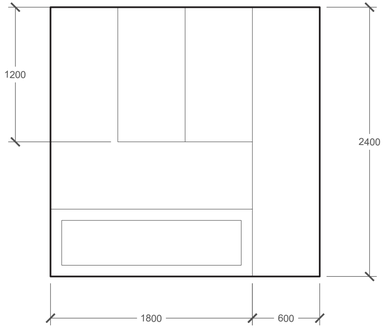


TO PLAY

5.1
PLAN



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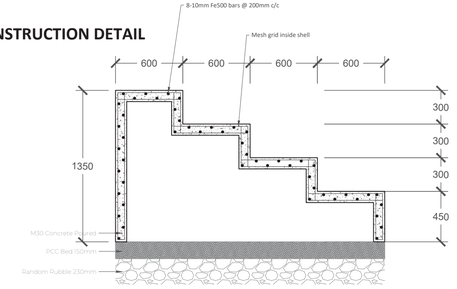
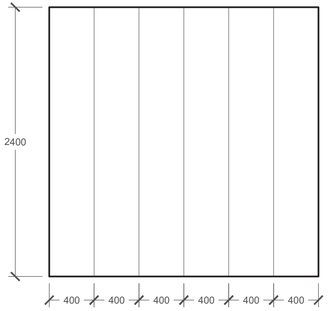
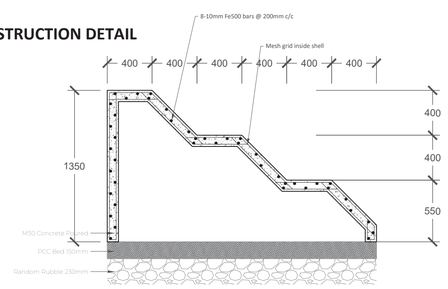


5.2
PLAN



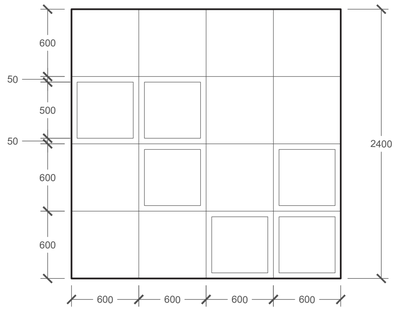
CONSTRUCTION DETAIL



TO PLAY

5.3

PLAN



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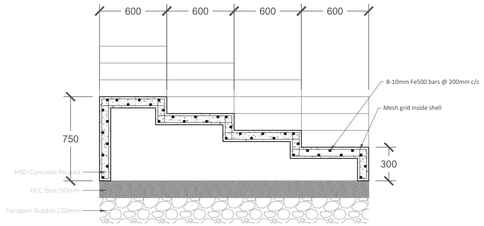
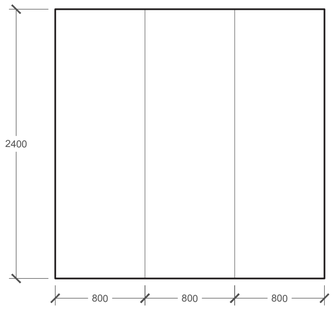


5.4

PLAN



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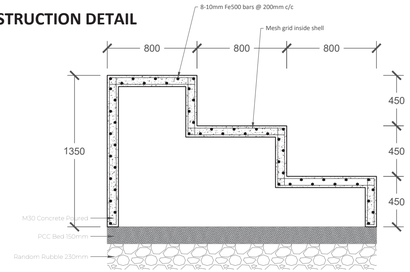
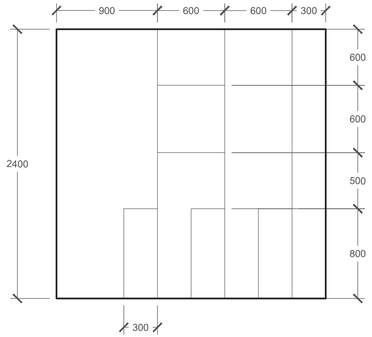


TO PLAY

5.5

PLAN



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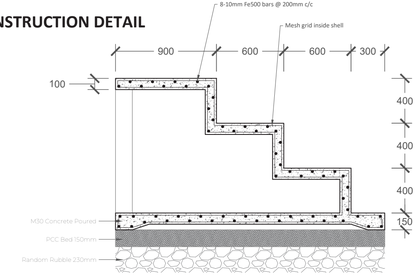
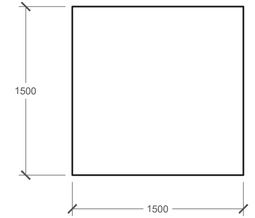


5.6

PLAN



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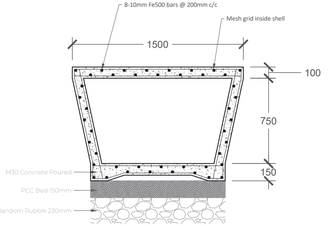
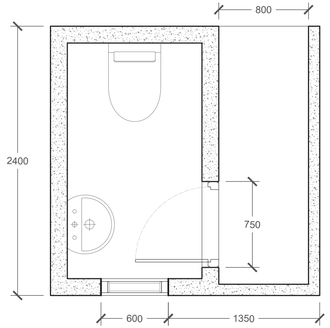


TO REFRESH

6.1

PLAN



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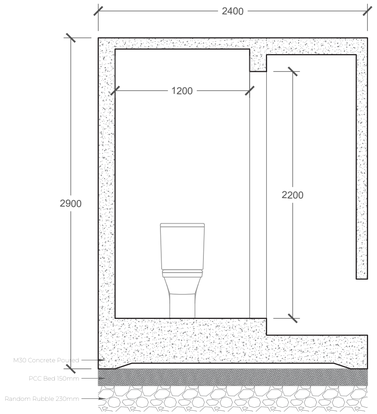


3. HOW ARE THE PARTS ASSEMBLED

1. MATERIAL ARRIVAL
MODULES DELIVERED VIA FLATBED TRUCKS.

2. PLACEMENT
MODULES LIFTED AND POSITIONED USING CRANES.

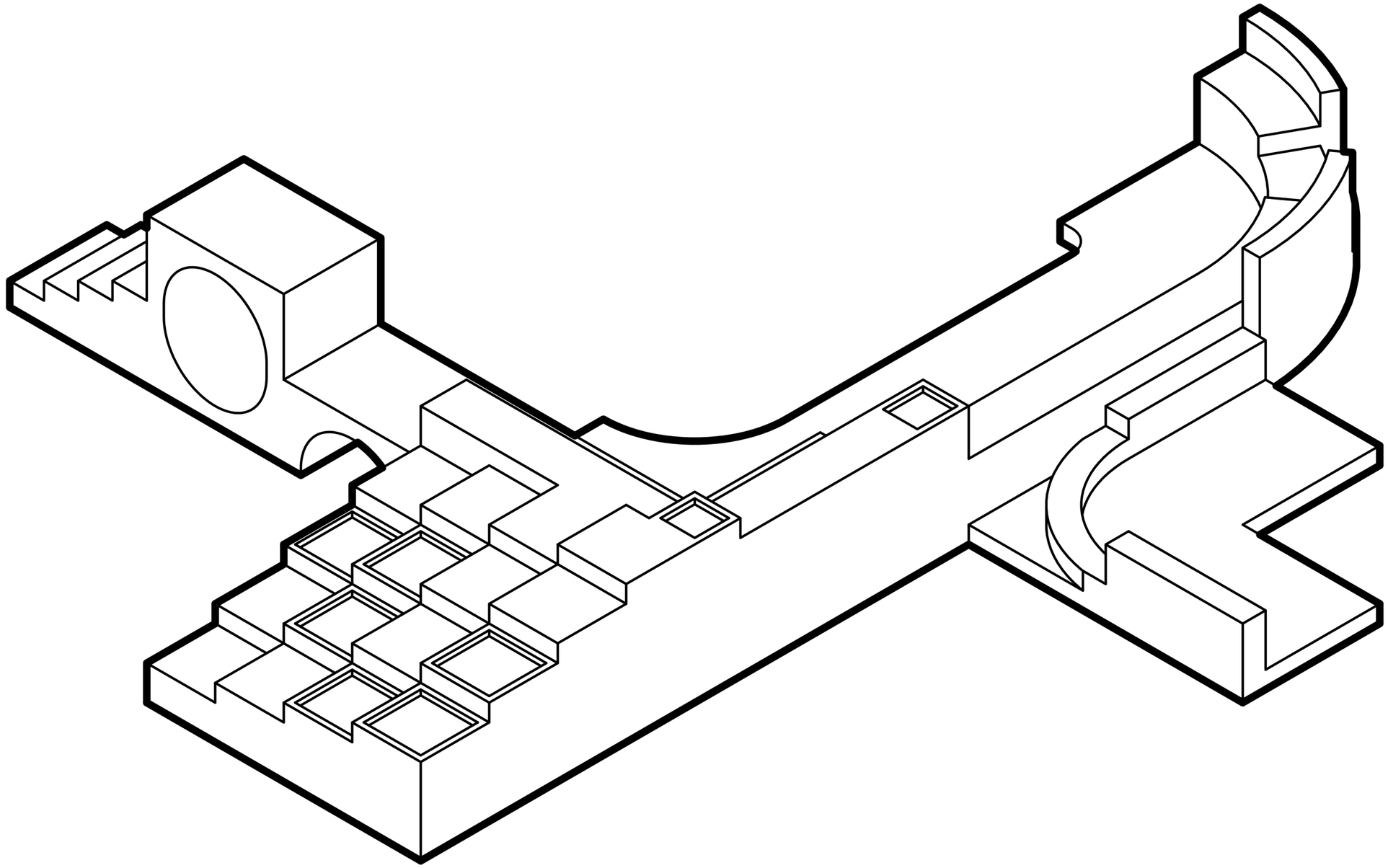
3. ALIGNMENT
UNITS ADJUSTED TO MAINTAIN LEVEL AND LAYOUT ACCURACY.

4. JOINT GAP PROVISION
A UNIFORM GAP IS MAINTAINED BETWEEN MODULES.

5. SAND FILLING
GAPS ARE FILLED WITH SAND TO ACT AS A FLEXIBLE EXPANSION JOINT.

6. FINAL CHECK
ALIGNMENT, STABILITY, AND FINISH ARE VERIFIED.

AND THERE YOU HAVE IT, YOUR KIT IS IN PLACE. STEP IN, MAKE IT YOURS, AND ENJOY THE SPACE YOU'VE CREATED!



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School of Environment and Architecture
2025-26