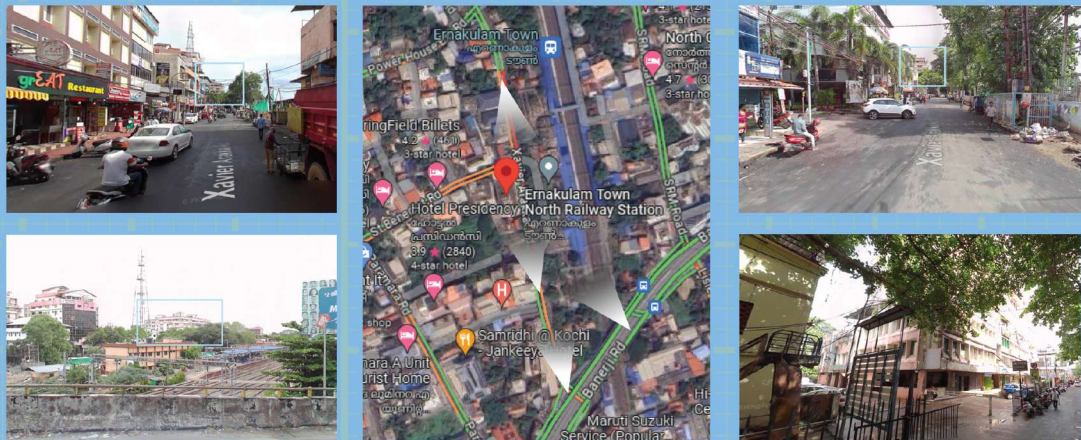


CONCEPT

CONSIDERING THE CONSCIOUS AND SUBCONSCIOUS EMOTIONS OF THE DIFFERENT KINDS OF USERS, THE MATHER SQUARE'S PROPOSED BUILDING HAS BEEN RE-DESIGNED WITH THE FOLLOWING IMPORTANT DESIGN ASPECTS IN MIND.

TO BE A VISUALLY ICONIC BUILDING THAT CAN BE ADMIRER FROM ALL THE PLACES OF THE CITY FROM WHERE IT IS VISIBLE, FAR AND NEAR.



POINTS OF THE CITY FROM WHERE THE BUILDING IS VISIBLE

THE REORGANISED JOURNEYS THE USERS WILL TAKE WITHIN THE BUILDING ENSURE THAT THESE USERS ARE ISOLATED FROM THE URBAN CHAOS, INTO A CALMER AMBIENCE WHERE WORKING ENVIRONMENTS ARE CONSCIOUSLY DESIGNED TO CATER TO POSITIVE EMOTIONS.



THE USER GROUP HAS BEEN IDENTIFIED INTO WORKING PROFESSIONALS AND THEIR CLIENTS. THE USER GROUP BELONGS TO DIFFERENT SOCIO-ECONOMIC CLASSES WHO WILL SPEND DIFFERENT DURATIONS IN THE BUILDING.

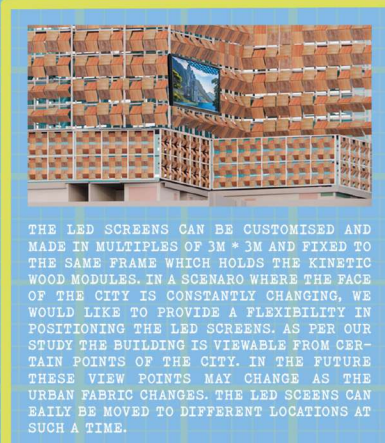
CULTURALLY, KIBERA HAS BEEN A PLACE THAT LIVES WITHIN WOOD AND CLAY AND SURROUNDS ITSELF WITH NATURE. THE PROPOSED BUILDING BRINGS BATHING COLOURS & TEXTURES AND HAS POCKETS OF NATURAL ENVIRONMENTS THAT STRIKE A NOTE OF NOSTALGIA IN THE USER. THE PROPOSAL INCORPORATES EVERYDAY-CULTURE, EXPECTATIONS & PRACTICES OF THE MAIN TARGET USER-GROUPS.

- FOR YOUNGER INDIVIDUALS: SHOPPING, FIRE-SINGING, RESTAURANTS & NIGHT-CLUBS (WITH FLEXIBLE DUAL OPENINGS).
- FOR OLDER INDIVIDUALS: EFFICIENT & COMFORTABLE WORKING ENVIRONMENTS, FOOD-COURTS, & AMENITIES.

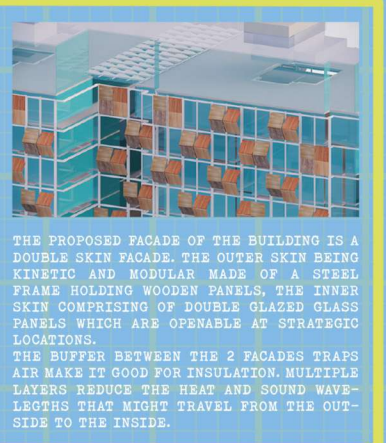
IT GETS A GENTLE REMINDER THAT ALTHOUGH WE EMBRACE THE ADVANT OF TECHNOLOGY AND MOVE FORWARD, THERE ARE CERTAIN IDEOLOGUES FROM THE URBAN CHAOS THAT ARE A POSITIVE INFLUENCE TO CARRY FORWARD.

FACADE AND ICONICITY

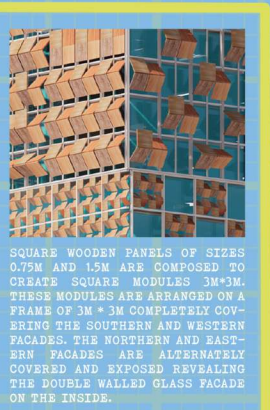
THE MATHER SQUARE SHOULD BE SEEN AS A TRULY SUSTAINABLE AND ICONIC BUILDING WHICH SUCCESSFULLY IMPLEMENTS NEW AGE TECHNOLOGIES WHILE KEEPING A GOOD HOLD ON THE TRADITIONAL VALUES OF THE INDIAN CULTURE.



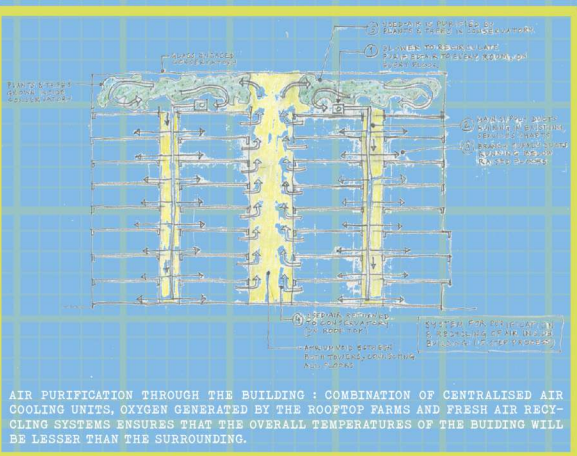
THE LED SCREENS CAN BE CUSTOMIZED AND MADE IN MULTIPLES OF 3M x 3M AND FIXED TO THE SAME FRAME WHICH HOLDS THE KINETIC WOOD MODULES. IN A SCENARIO WHERE THE FACE OF THE CITY IS CONSTANTLY CHANGING, WE WOULD LIKE TO PROVIDE A FLEXIBILITY IN POSITIONING THE LED SCREENS. AS PER OUR STUDY THE BUILDING IS VISIBLE FROM CERTAIN POINTS OF THE CITY. IN THE FUTURE THESE VIEW POINTS MAY CHANGE AS THE URBAN PATTERN CHANGES. THE LED SCREENS CAN EASILY BE MOVED TO DIFFERENT LOCATIONS AT SUCH A TIME.



THE PROPOSED FACADE OF THE BUILDING IS A DOUBLE SKIN FACADE. THE OUTER SKIN BEING KINETIC AND MODULAR MADE OF A STEEL FRAME AND KINETIC WOODEN PANELS. THE INNER SKIN COMPRISING OF DOUBLE GLAZED GLASS PANELS WHICH ARE OPERABLE AT STRATEGIC LOCATIONS. THE GAPS BETWEEN THE 2 FACADES TRAPS AIR MAKES IT GOOD FOR INSULATION. MULTIPLE LAYERS REDUCE THE HEAT AND SOUND WAVES THAT MAKE TRAVEL FROM THE OUTSIDE TO THE INSIDE.



DOUBLE SKIN FACADES OF 3M x 3M AND 1.5M x 1.5M ARE COMPOSED TO CHARGE WOODEN MODULES. THESE MODULES ARE ASSEMBLED ON A FRAME. IN A CONCEPT COVERING THE SOUTHERN AND WESTERN FACADES. AND ACCORDINGLY COVERED AND EXPOSED REVEALING THE DOUBLE WALLING GLASS PANELS ON THE INSIDE.



AIR PURIFICATION THROUGH THE BUILDING : COMBINATION OF CENTRALIZED AIR FLOWING WITH CROSS VENTILATION AT THE ROOFTOP. FANS AND PANS ARE ALSO GLIDING SYSTEMS ENSURES THAT THE OVERALL TEMPERATURES OF THE BUILDING WILL BE LOWER THAN THE SURROUNDINGS.

SUSTAINABILITY

LOW ENERGY CONSUMPTION : THE PROPOSED FACADE IS DYNAMIC AND KINETIC. IT WILL FUNCTION AS A MODERN DAY CLIMATE CONTROL ORGAN. PERMITTING APPROPRIATE AMOUNTS OF DIRECT SUNLIGHT TO ILLUMINATE THE INTERIOR SPACES OF THE BUILDING AT ANY GIVEN TIME OF THE DAY THROUGH THE DIFFERENT SEASONS.



GLASS GREENHOUSE : A GLASS ENCLOSURE OVER THE TERRACES IS PROPOSED SO THAT THE SPACE CAN BE UTILIZED BY HYDROPONIC AND ORGANIC FARMERS IN THE CITY. THIS INITIATIVE IS TAKING OVER A HUGE MARKET AND THE DEMAND FOR LABORS HERE WHERE CONSUMERS CAN BE TRAPPED AS SLOWLY INCREASING. HAVING UV LIGHTING DURING NIGHT-TIME - IT WILL BE SOBERANLY VISIBLE DURING BOTH DAY & NIGHT.



EXPOSED PANELS MADE FROM ENGINEERED LOCALLY AVAILABLE INDIAN OF PADUK, TEAK, KUMARPUTUS AND SILVEROAK. THESE WOODS ARE EASILY AVAILABLE IN THE LOCAL REGION. KIBERA WE ALSO HAVE THE OPTION OF 3D PRINTING THE PANELS. THE SIZE OF EACH PANEL IS A SMALLER SIZE (0.6M x 0.6M) WHICH CAN BE BUILT IN 3D PRINTING. THE COST OF THIS SHOULD BE A GOOD EXAMPLE FOR THE FUTURE BUILDINGS TO FOLLOW.

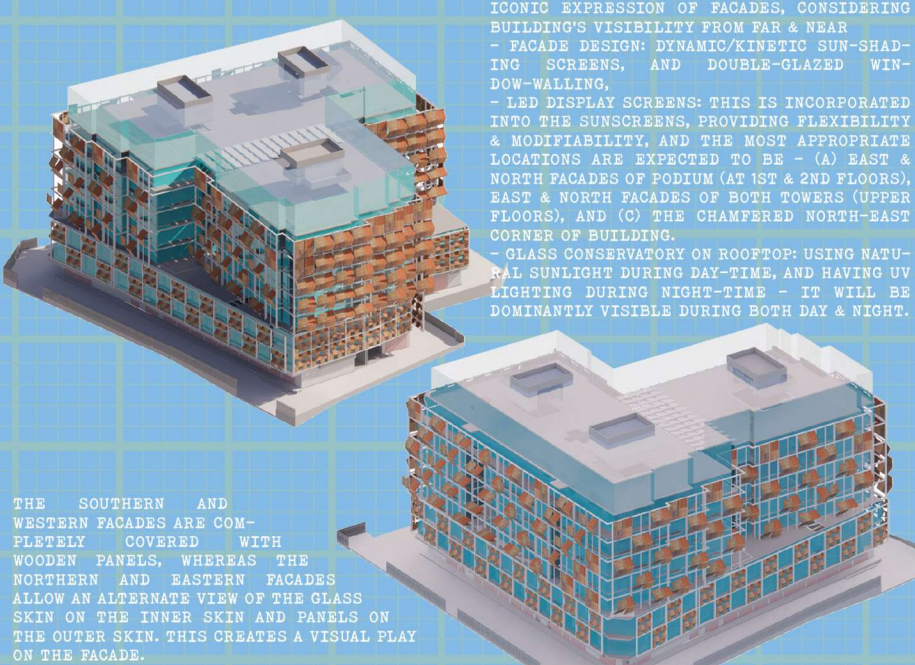
KEY SUSTAINABILITY ASPECTS OF THIS DESIGN PROPOSAL

1. INNOVATIVE WAY TO UTILIZE TEMPERATURE DIFFERENTIALS PREVALENT IN THE SPACE UNDER THE BUILDING. AS A RESOURCE FOR ELECTRIC POWER GENERATION:
 - (A) RENEWABLE ENERGY SOURCE.
 - (B) ECONOMICAL & EFFICIENT SMALL-SCALE PROCESS, WHICH INVOLVES NEAR-ZERO PRODUCTION OF GREENHOUSE GASES.
 - (C) CONSTANT BACK-LOG SUPPLY OF 5471 BATTERIES.
 - (D) AVAILABILITY OF GREEN ENERGY CREDITS.
2. EFFECTIVE USE OF A ROOF-TOP CONSERVATORY FOR SUPPLYING PURIFIED & COOLED AIR TO THE BUILDING:
 - (A) THE CONSERVATORY WILL BE DENSELY POPULATED WITH APPROPRIATE PLANTS & TREES, SELECTED UNDER GUIDANCE OF A PROFESSIONAL HORTICULTURIST.
 - (B) THE PROCESS OF PHOTOSYNTHESIS WILL NATURALLY OXYGENATE, DETOXIFY & EXTRACT HEAT FROM THE AIR INSIDE THE CONSERVATORY.
 - (C) THIS PROPOSAL INVOLVES A REPETITIVE 5-STEP PROCESS (REFER SCHEMATIC DIAGRAM), FROM (I) PURITING PURIFIED-AIR TO EVERY OFFICE/RESTAURANT (THROUGH THE-DUCTS RUNNING IN EXISTING SERVICE CHASES), TO (V) DRAWING WARM USED-AIR BACK INTO THE CONSERVATORY FOR THE NEXT ROUND OF PURIFICATION (THROUGH THE ATRIUM VOID), AND
 - (D) AVAILABILITY OF GREEN ENERGY RATINGS.
3. APPLICATION OF A PATENTED ECO-FRIENDLY HYBRID SYSTEM FOR AIR-CONDITIONING:
 - (A) CENTRAL UNITS PLACED ON ROOFTOPS OF ALL 3 TOWERS FOR SUPPLYING CHILLED WATER TO COOLING FAN-COIL UNITS (FCUs) INSTALLED IN EVERY OFFICE/RESTAURANT.
 - (B) THESE FLOORS OR CHILLING MOUNTED FCUS SUPPLY COOLED AIR TO THE PLENUM FORMED IN THE VOID BELOW RAISED-FLOORS, INSTALLED THROUGHOUT THE BUILDING.
 - (C) IN THIS PLENUM, THE CHILLED AIR WILL BE BLENDED WITH PURIFIED AIR CONTAINED AIR SUPPLIED FROM ROOF-TOP CONSERVATORY (REFER ITEM-2 ABOVE).
 - (D) SUPPLY-AIR GRILLS WILL BE LOCATED IN THE SURFACE OF THESE FLOORS AND THEREFORE, WILL DELIVER COOLED & BLENDED AIR AT A HEIGHT MOST SUITABLE FOR HUMANS OCCUPYING THESE OFFICE/RESTAURANTS.
 - (E) THE CONTINUOUS UPWARD MOVEMENT OF USED WARM AIR WILL MINIMIZE SPREAD OF AIR-BORNE INFECTIOUS - ESPECIALLY SUITABLE FOR BEST PRACTICE IN THE CURRENT COVID-19 ERA, AND
 - (F) AVAILABILITY OF GREEN ENERGY CREDITS.
4. ORGANIC KITCHEN WASTE TREATMENT:
 - (A) MICROBIAL/BARTHWORM COMPOSTING SYSTEM POSITIONED IN LANDSCAPED AREAS (IN PLOT), &
 - (B) COMPOSTED OUTPUT WILL BE UTILISED IN ROOFTOP CONSERVATORY.

PROPOSED PROGRAMME

THE BUILDING PROGRAMME HAS BEEN DESIGNED KEEPING IN MIND THE PRESENT AND FUTURE NEEDS OF THE URBAN CITY. FLEXIBILITY IN THE FLOOR PLAN WHERE AREAS CAN BE EASILY CHANGED FOR RENTING OUT THE SPACE PROVIDES THE MATHER GROUP WITH AN OPPORTUNITY TO GENERATE REVENUES FROM VARIOUS KINDS OF INDUSTRIES.

1. THE TERRACES OF ALL THE WINGS ARE PROPOSED AS GREENHOUSES WHERE FUTURISTIC FARMING ACTIVITIES LIKE VERTICAL FARMING, HYDROPONICS, AQUAPONICS AND ROOFTOP GARDENS CAN BE DONE.
2. RENTAL SPACES FOR COMMERCIAL PURPOSES ARE PROPOSED WITH DIFFERENT AREAS WITH SMALL SPACES IN THE RANGE OF 80-120 SQ.M., MEDIUM SIZED SPACES IN THE RANGE FOR 300 SQ.M. TO 400 SQ.M. AND A LARGE COMMERCIAL SPACE WHERE THE ENTIRE FLOOR PLAN CAN BE OCCUPIED BY ONE COMPANY.
3. CO-WORKING SPACES ARE GAINING IMPORTANCE ACROSS THE COUNTRY. AN URBAN SET UP LIKE KOCHI IS SURE TO TAKE ADVANTAGE OF SUCH SPACES. LARGE SPACED OFFICES THAT OCCUPY THE FLOOR PLATE ARE THE BEST TO CATER TO SUCH FLEET DEMANDS.
4. THE VOID BETWEEN THE EASTERN AND WESTERN WING IS ENCLOSED BY THE FACADE TO MAKE INTO AN ATRIUM. THIS ATRIUM PLAYS A HUGE ROLE IN CONNECTING THE WINGS. IT ALSO PLAYS A ROLE IN REGULATING THE INTERNAL TEMPERATURES OF THE ENTIRE ECOSYSTEM OF THE BUILDING.
5. BRIDGES CONNECT THE EASTERN AND WESTERN WINGS THROUGH THE ATRIUM WHICH WILL BE USED AS TRANSITIONAL SPACES BY THE EMPLOYEES OF THE OFFICES. THESE BRIDGES ARE DESIGNED TO PLAY AN IMPORTANT ROLE IN CATERING TO STABILIZE THE EMOTIONS OF THE PASSENGERS-AS THEY MOVE SOLITARILY THROUGH THE VOID.
6. RESTAURANTS ARE RECOMMENDED TO BE PLACED AT THE PODIUM LEVELS WHERE THEY CAN HAVE THE FLEXIBILITY OF OPENING UP TO THE DIFFERENT VIEWS OF THE CITY, AND CHOOSE BETWEEN INDOOR AND OUTDOOR SEATING. WITH YOUNGER GENERATIONS TAKING OVER THE CITY, THE NIGHT LIFE OF THE CITY IS SURE TO DEVELOP. SOME OF THE RESTAURANTS HAVE AN OPTION OF MULTIPLE KITCHENS AND DINING AREAS IN THEIR INTERIORS TO ALLOW DIFFERENT COMPANIES TO OPERATE DURING THE DAY AND NIGHT HOURS. AS IN THE SAME SPACE CAN BE A FINE DINE DURING THE DAY WHEN ONE KITCHEN IS OPEN, AND A DANCE FLOOR AT NIGHT FOR A LOUNGE WITH ANOTHER KITCHEN AND BAR. THIS KIND OF SHARED SPACES CAN HELP THE GROUP INCREASE THEIR REVENUE GENERATED FROM THE SAME SPACE.
7. THE PODIUM ROOFTOP ALLOWS DIFFERENT VIEWS ALL AROUND THE CITY AS SMALL POCKETS ARE DEDICATED TO OPEN FOOD COURTS. THE PROGRAMME ENSURES THAT THE HOSPITALITY INDUSTRY CAN CATER TO ALL THE SOCIO-ECONOMIC CLASSES OF THE CITY SO THAT THE BUILDING CAN BE EXPERIENCED AND APPRECIATED BY ALL.



ICONIC EXPRESSION OF FACADES, CONSIDERING BUILDING'S VISIBILITY FROM FAR & NEAR

- FACADE DESIGN: DYNAMIC/KINETIC SUN-SHADING SCREENS, AND DOUBLE-GLAZED WINDOW-WALLING.
- LED DISPLAY SCREENS: THIS IS INCORPORATED INTO THE SUNSCREENS, PROVIDING FLEXIBILITY & ADAPTABILITY, AND THE MOST APPROPRIATE LOCATIONS ARE FIXED TO BE - (A) EAST & NORTH FACADES OF PODIUM (AT 1ST & 2ND FLOORS), EAST & NORTH FACADES OF BOTH TOWERS (UPPER FLOORS), AND (C) THE CHAMFERED NORTH-EAST CORNER OF BUILDING.
- GLASS CONSERVATORY ON ROOFTOP: USING NATURAL SUNLIGHT DURING DAY-TIME, AND HAVING UV LIGHTING DURING NIGHT-TIME - IT WILL BE DOMINANTLY VISIBLE DURING BOTH DAY & NIGHT.

THE SOUTHERN AND WESTERN FACADES ARE COMPLETELY COVERED WITH WOODEN PANELS. WHEREAS THE NORTHERN AND EASTERN FACADES ALLOW AN ALTERNATE VIEW OF THE GLASS SKIN ON THE INNER SKIN AND PANELS ON THE OUTER SKIN. THIS CREATES A VISUAL PLAY ON THE FACADE.

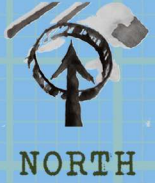
GROUND FLOOR

THE GROUND FLOOR IS OPENED UP TO ALLOW A FREE CIRCULATION SPACE AROUND THE COMPLEX ALONG WITH GOOD VENTILATION FOR THE UNITS. LARGE, WIDE ENTRANCES TO THE NORTH AND SOUTH OF THE BUILDING ALLOW THE USER TO FEEL CONFIDENT AS THEY ARE WELCOMED INTO THE SPACE.

CERTAIN SHOPS OPEN TOWARDS THE STREETS WHEREAS SOME OF THEM OPEN ON THE INSIDE PROVIDING THE RETAILERS A CHOICE OF PRIVATE AND EXPOSURE DEPENDING UPON THE SERVICES THEY ARE PROVIDING.

A COMPROMISE HAS TO BE MADE BETWEEN VEHICULAR PARKING AND LANDSCAPING. IF THE QUANTUM OF PARKING IS TO BE MAXIMISED, 43 4-WHEELERS AND 69 2-WHEELERS CAN BE ACCOMMODATED ON THE PLOT. THE COMPROMISED SOLUTION HOLDS 32 4-WHEELERS AND 60 2-WHEELERS AND 2 WHOLE SIDES OF THE BOUNDARY DEDICATED TO PLANTS THAT CAN HELP REDUCE THE CARBON FOOTPRINT OF THE BUILDING. THE PARKING LOT ALSO HAS LARGE TREES WHICH ARE STRATEGICALLY PLANTED ENSURING THAT THE CIRCULATION SPACE DOES NOT GET INTERRUPTED.

OUR OBJECTIVE WILL BE TO INTERSPERSE PATCHES OF LANDSCAPING WITH PATCHES OF PARKING, ALONG THE EDGES OF THE PLOT, AND UNDER THE BACK CORNER OF THE PODIUM GROUND FLOOR.



PODIUM LEVEL

THE PODIUM LEVEL IS MEANT TO BE EXPERIENCED BY ALL USER GROUPS. THIS LEVEL PROVIDES SPACE FOR TOP NOTCH RESTAURANTS, LOUNGES AND BARS FOR AN ACTIVE DAY & NIGHT LIFE AND FOOD COURTS. IT FORMS A BRIDGE BETWEEN THE TOWERS AND THE GROUND.

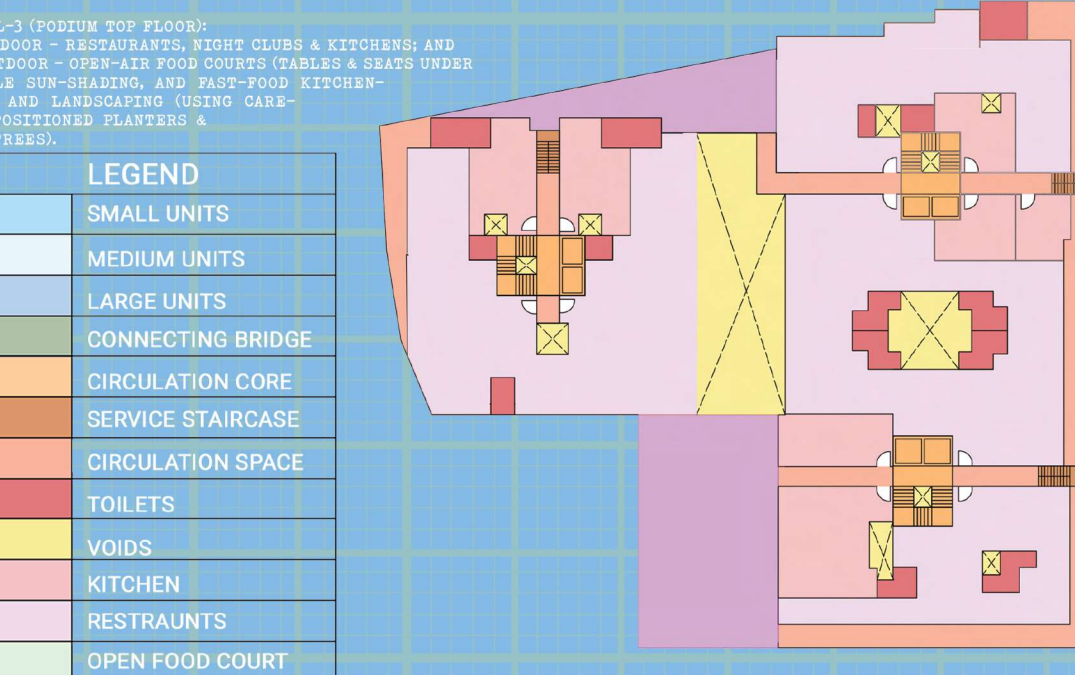
UNIQUE ELEMENT : ONE RESTAURANT SPACE HAS 2 KITCHEN PROVISIONS WITH THE INTENT THAT 2 DIFFERENT OWNERS CAN OCCUPY AND UTILISE THE SAME AREA AT DIFFERENT TIME PERIODS. THEY WILL BE SHARING ONLY THE FURNITURE AND AREA OF THE ROOM, THE REST OF THE UTILITIES ARE PRIVATE.

OPEN SPACE FOR FOOD COURTS AND CIRCULATION SPACE AROUND THE PODIUM ALLOWS THE USERS TO FREELY ROAM THE FLOOR PROVIDING EQUAL BUSINESS OPPORTUNITY TO ALL RESTAURANT OWNERS.

THERE ARE SPILL OUT SPACES PROVIDED TOWARDS THE OUTER FRONT OF THE BUILDING WHICH IN SOME PLACES CAN ALSO CATER TO OUTDOOR SEATING OF THE RESTAURANTS. THE OWNERS MAY CHOOSE TO CONVERT IT TO WAITING LOUNGES INCASE THEY FACE HEAVY FOOTFALL, PROVIDING ELEVATED PLATFORMS AS SELFIE SPOTS AND CITSCAPE VIEWPOINTS.

THE RE-PURPOSED AND UPSCALED PODIUM MAINTAINS THE 3 LEVELS :

- ON LVL-02 USING THE AXIS FORMED BY THE PROPOSED CONCOURSE & ATRIUM, TO PROVIDE ACCESS TO RE-ARRANGED & RE-SIZED SHOPS/OFFICES.
- ON LVL-1 & LVL-2 EACH LIFT/STAIR LOBBY WILL PROVIDE DIRECT ACCESS TO RE-ARRANGED & RE-SIZED OFFICES SURROUNDING THEM RESPECTIVELY (VARIOUS SIZES ARE POSSIBLE)
- INCLUSION OF PROPOSED SHUTTLES LIFT/STAIRS FROM GROUND-FLOOR DIRECTLY TO PODIUM TOP FLOOR (LVL-3).
- ON LVL-3 (PODIUM TOP FLOOR) :
 - INDOOR - RESTAURANTS, NIGHT CLUBS & KITCHENS; AND
 - OUTDOOR - OPEN-AIR FOOD COURTS (TABLES & SEATS UNDER PERMEABLE SUN-SHADING AND FAST-FOOD KITCHEN-BETTES), AND LANDSCAPING (USING CARB FULLY POSITIONED PLANTERS & SMALL TREES).



- LEGEND
- SMALL UNITS
 - MEDIUM UNITS
 - LARGE UNITS
 - CONNECTING BRIDGE
 - CIRCULATION CORE
 - SERVICE STAIRCASE
 - CIRCULATION SPACE
 - TOILETS
 - VOIDS
 - KITCHEN
 - RESTAURANTS
 - OPEN FOOD COURT

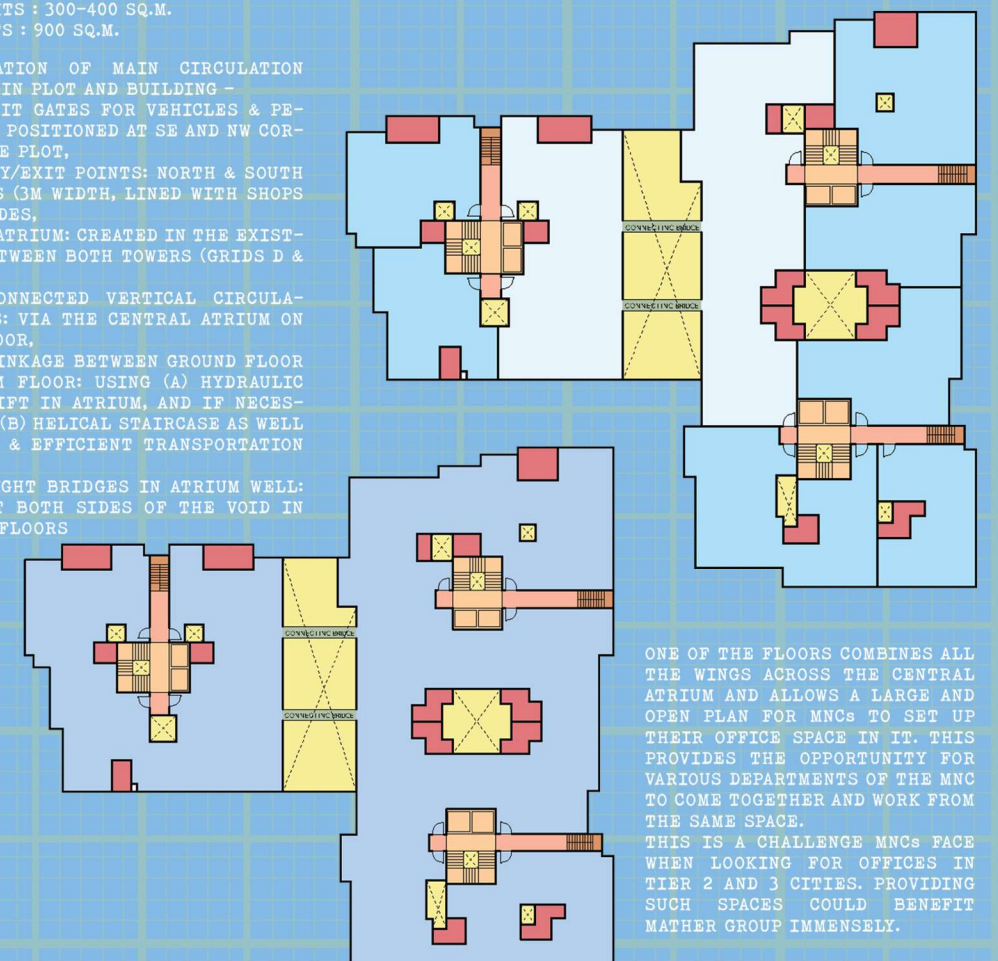
TYPICAL FLOORS

THE TYPICAL FLOOR PLAN ALLOWS FLEXIBILITY OF FORMING OFFICE SPACES FOR 3 DIFFERENT SIZES. THE AREAS HAVE BEEN CALCULATED UNDERSTANDING THE PRESENT DAY DEMANDS FOR COMMERCIAL SPACES MARKED UP BY 10%.

SMALL UNITS : 80-150 SQ.M.
MEDIUM UNITS : 300-400 SQ.M.
LARGE UNITS : 900 SQ.M.

REORGANISATION OF MAIN CIRCULATION LINES WITHIN PLOT AND BUILDING -

- ENTRY/EXIT GATES FOR VEHICLES & PEDESTRIANS POSITIONED AT SE AND NW CORNERS OF THE PLOT.
- NEW ENTRY/EXIT POINTS: NORTH & SOUTH CONCOURSES 3M WIDTH, LINED WITH POOLS ON BOTH SIDES.
- CENTRAL ATRIUM: CREATED IN THE EXISTING GAP BETWEEN BOTH TOWERS (GRIDS 4 & 5).
- INTER-CONNECTED VERTICAL CIRCULATION CORES: VIA THE CENTRAL ATRIUM ON GROUND-FLOOR.
- DIRECT LINKAGE BETWEEN GROUND FLOOR AND PODIUM FLOOR: USING (A) HYDRAULIC SHUTTLE LIFT IN ATRIUM, AND IF NECESSARY, THEN (B) HELICAL STAIRCASES AS WELL - FOR FAST & EFFICIENT TRANSPORTATION OF PEOPLE.
- LIGHTWEIGHT BRIDGES IN ATRIUM WALLS: TO CONNECT BOTH SIDES OF THE VOID IN THE UPPER FLOORS.



ONE OF THE FLOORS COMBINES ALL THE WINGS ACROSS THE CENTRAL ATRIUM AND ALLOWS A LARGE AND OPEN PLAN FOR MNCs TO SET UP THEIR OFFICE SPACE IN IT. THIS PROVIDES THE OPPORTUNITY FOR VARIOUS DEPARTMENTS OF THE MNC TO COME TOGETHER AND WORK FROM THE SAME SPACE.

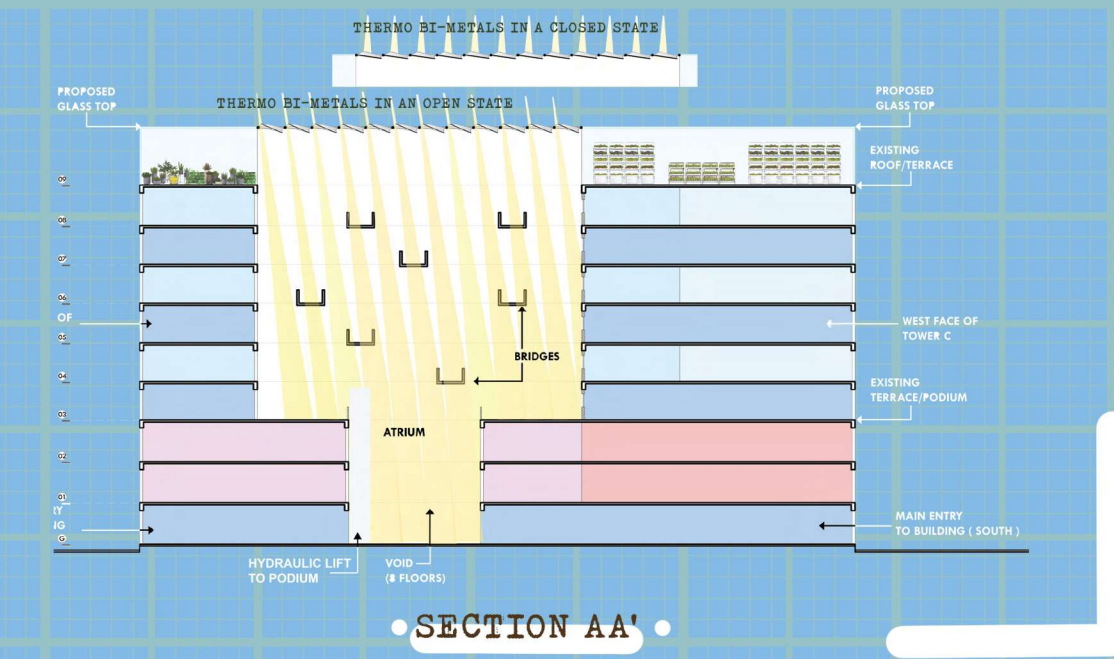
THIS IS A CHALLENGE MNCs FACE WHEN LOOKING FOR OFFICES IN TIER 2 AND 3 CITIES. PROVIDING SUCH SPACES COULD BENEFIT MATHER GROUP IMMENSELY.

THERMO BI-METAL ROOF FOR ATRIUM



THIS SECTION BEING CUT THROUGH THE ATRIUM DEMONSTRATES THE USE OF BI-METALS AND ITS USE IN CHILLING THE SPACE FROM GROUND SUNLIGHT WILL ALLOWING NATURAL AIR TO BE CIRCULATED THROUGH THE VOID. THE COOLED AIR FROM THE GREENHOUSES DESCENDS TO THE FLOOR WHILE THE HOT AIR RISES AND ESCAPES THROUGH THE GAPS OF THE ATRIUM ROOF.

DEPENDENT UPON THE TIME OF THE DAY, THE THERMO BI-METALS COLLAPSE AND EXPAND CONTROLLING THE AMOUNT OF LIGHT AND HEAT THAT ENTERS THE VOID.



SECTION AA'