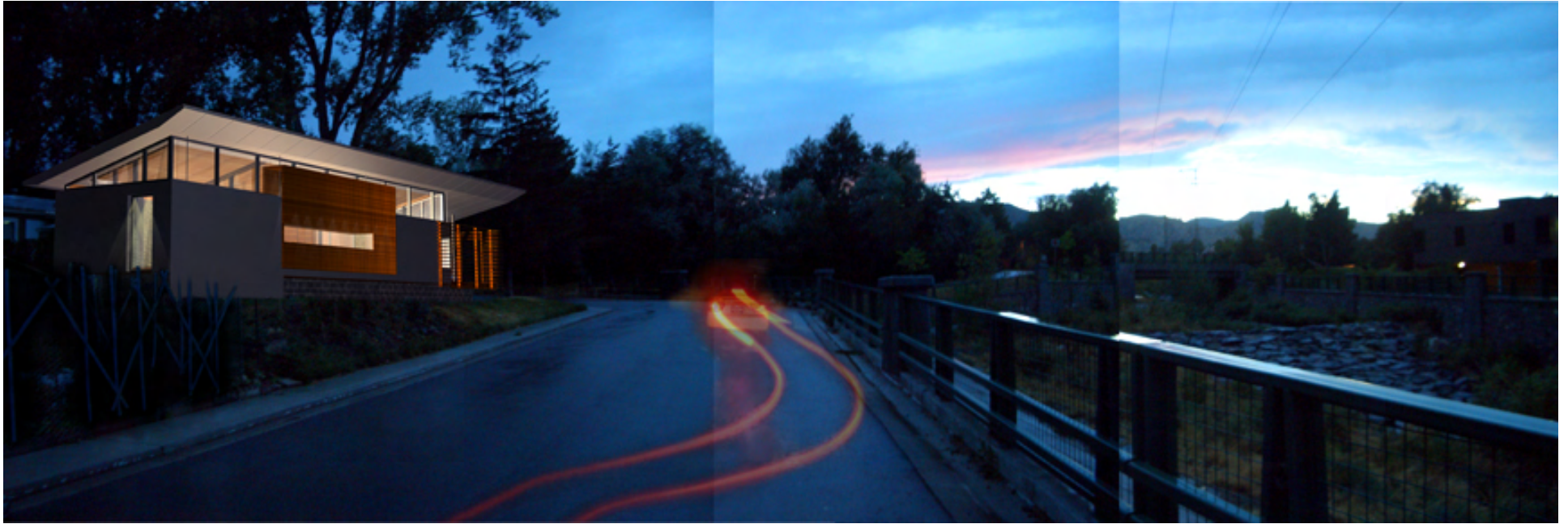


DESIGN OUTREACH

THE DESIGN OUTREACH INITIATIVE FOCUSES ON SMALL, UNREMARKABLE, AND OFTEN FORGOTTEN PLACES ADJACENT TO THE LIVES OF UNDERSERVED PEOPLE. LOCATED IN THE BOUNDARY BETWEEN ARCHITECTURE AND LANDSCAPE THE PROJECTS SEEK TO CREATE EXPERIENTIAL DELIGHT OUT OF SMALL-SCALE DESIGN OPPORTUNITIES. THROUGH THE ADAPTIVE RE-USE AND RECYCLING OF LEFTOVER URBAN SPACES THE RESULTING PROJECTS AUGMENT AND ENHANCE EXISTING BUILDING INFRASTRUCTURES WITH NEW, PRIMARILY OUTDOOR, SPACES THAT PROVIDE PRAGMATIC FUNCTIONS, PROMOTE PLAY, AND EXHIBIT A SOCIAL AND ENVIRONMENTAL CONSCIENCE.



TRAILERWRAP

TRAILERWRAP IS A COLLABORATIVE, DESIGN + BUILD PROJECT ADDRESSING ISSUES OF SUSTAINABLE AND AFFORDABLE DESIGN IN THE CONTEXT OF THE UBIQUITOUS AMERICAN TRAILER PARK. AT THE SCALE OF AN INDIVIDUAL BUILDING THE PROJECT EXPLORES THE POTENTIAL FOR AUGMENTING THIS AFFORDABLE HOUSING TYPOLOGY WITH OUTDOOR LIVING SPACE, IMPROVED, ENERGY EFFICIENT CONSTRUCTION AND HIGH VOLUME, LIGHT-FILLED INTERIORS. AT THE URBAN SCALE THE PROJECT REEXAMINES THE MOBILE HOME PARK AS A MODEL FOR EQUITABLE, HIGH-DENSITY ALTERNATIVES TO SUBURBAN SPRAWL. IN PUSHING THE ENVELOPE OF ADAPTABLE REUSE, THE TRAILERWRAP PROJECT SEEKS TO CREATE HIGH QUALITY, SMALL-SCALE ARCHITECTURE FOR PEOPLE OF MODERATE MEANS. THE COMPLETED PROJECT WILL PROVIDE DIGNIFIED, PERMANENTLY AFFORDABLE, URBAN LIVING FOR A LOW-INCOME HOUSEHOLD.



CONTEXT



WEST ELEVATION



VIEW FROM BIKE PATH

COMMUNITY PARTNERSHIPS

TRAILERWRAP IS A COLLABORATION BETWEEN THISTLE COMMUNITY HOUSING, THE MAPLETON HOME OWNER'S ASSOCIATION, TRADESMEN FROM THE DEPARTMENT OF FACILITIES MANAGEMENT AT THE UNIVERSITY, THE CHILDREN, YOUTH AND ENVIRONMENTS CENTER, AND AN INTERDISCIPLINARY TEAM OF FACULTY AND STUDENTS FROM THE COLLEGE OF ARCHITECTURE & PLANNING. THISTLE COMMUNITY HOUSING, A BOULDER COLORADO NON-PROFIT, PURCHASED THE MAPLETON MOBILE HOME PARK IN 2002 TO ENSURE THE LONG-TERM VIABILITY OF PERMANENTLY AFFORDABLE HOUSING IN ONE OF AMERICA'S MOST EXPENSIVE COMMUNITIES, WHERE THE AVERAGE HOME PRICE IS JUST UNDER \$500,000. WHILE THISTLE OWNS THE LAND, INDIVIDUAL HOUSEHOLDS OWN THE 132 TRAILERS AND LEASE THEIR LOT AT SUBSIDIZED RATES. IN ORDER TO LIVE IN THE PARK RESIDENTS MUST MEET LIMITS ON INCOME AND ASSETS SET AT 30% OF THE AREA MEDIAN INCOME. THE ELECTED MAPLETON HOME OWNER'S ASSOCIATION (MHA) GOVERNS AND MAINTAINS THE PARK ON A DAY-TO-DAY BASIS WHILE WORKING WITH THISTLE ON LONG-TERM PLANNING.



TYPOLGY OF DESPAIR

OFTEN OVERLOOKED OR LOOKED DOWN UPON, THE MOBILE HOME CONSTITUTES AN IMPORTANT BUT UNDER-APPRECIATED HOUSING TYPOLOGY THAT SERVES WIDE RANGE OF CITIZENS. SINCE THE MID-1900'S MOBILE HOMES AND MANUFACTURED HOUSING HAVE BEEN MASS PRODUCED IN AN ATTEMPT TO PROVIDE A SOLUTION TO LOW COST HOUSING; HOWEVER, IN DOING SO, SEVERAL IMPORTANT FACTORS THAT MAKE A HOUSE A HOME HAVE BEEN OVERLOOKED. UNIMAGINATIVE AESTHETIC AND SPATIAL DESIGN COMBINED WITH INEFFICIENT ENERGY STRATEGIES AND POOR CONSTRUCTION TECHNIQUES DEFINE THE MAJOR SHORTCOMINGS COMMON IN THE INDUSTRY. SUCH CONDITIONS MAKE THESE HOMES DIFFICULT TO MAINTAIN LEADING TO EXTREME CONDITIONS OF DISREPAIR AND OFTEN ABANDONMENT. IN RESPONSE TO COMMON MISCONCEPTIONS RELATED TO TRAILERS AND THE CLICHÉD STEREOTYPES ASSOCIATED WITH THE PEOPLE WHO LIVE IN THEM, THE TRAILERWRAP PROJECT SET OUT TO PROVIDE SIMPLE AND AFFORDABLE SOLUTIONS TO IMPROVE BOTH THE SPATIAL QUALITY AND ENERGY EFFICIENCY TYPICALLY FOUND IN CONVENTIONAL MANUFACTURED HOUSING. A TANGIBLE OUTCOME IS A COMPLETED HOUSING UNIT, MEETING LOCAL BUILDING CODES AND STANDARDS, THAT WILL BE MADE AVAILABLE TO A LOW-INCOME HOUSEHOLD.



NORTHEAST ELEVATION



NORTHWEST ELEVATION

RE-FAB VS PREFAB

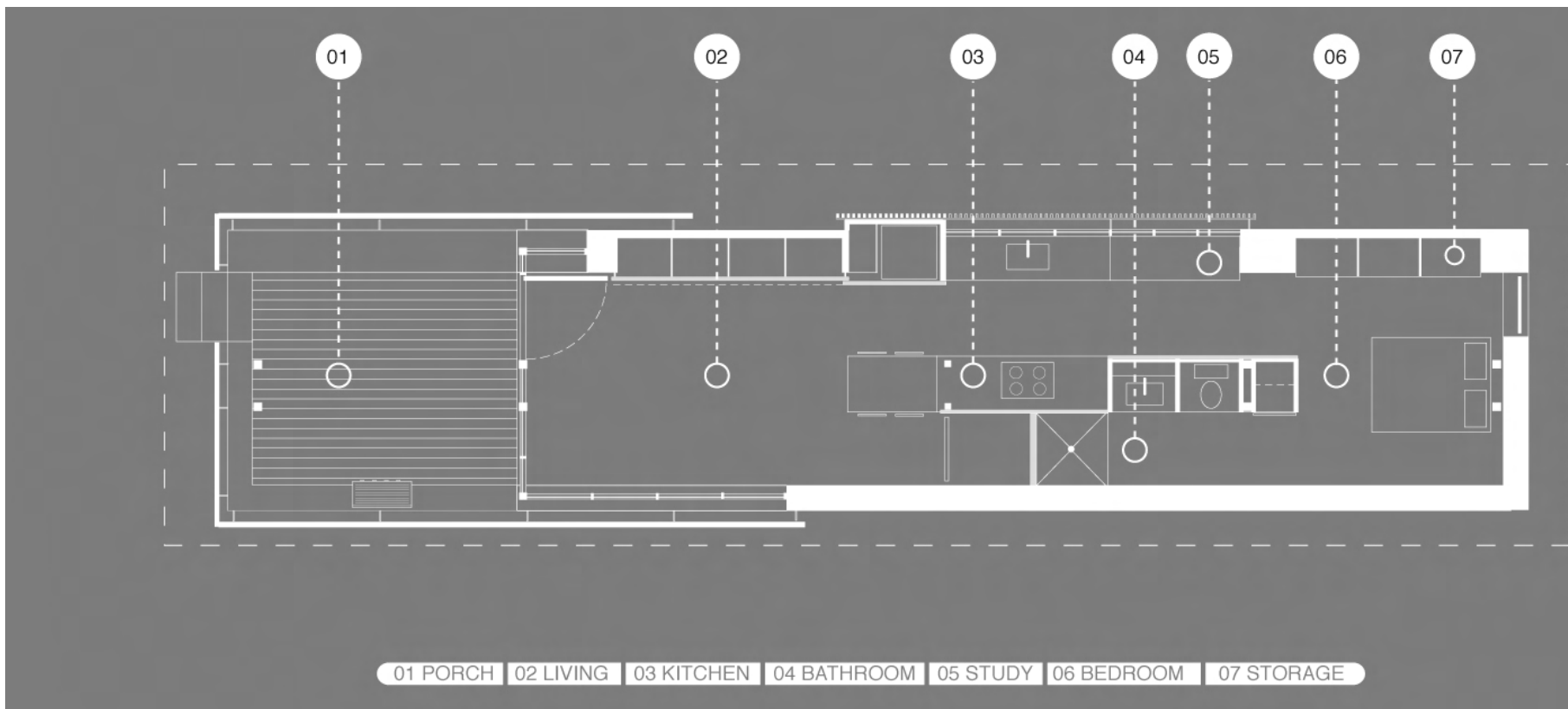


BEFORE

DIVERTED ON ITS WAY TO THE LANDFILL A DERELICT, CRAMPED, 10'-4" X 47'-0", TWO BEDROOM DONOR TRAILER WAS DONATED TO THE PROJECT AND TRANSFORMED INTO AN OPEN, EXPANSIVE EXAMPLE OF SMALL-SCALE ARCHITECTURE. CONCEIVED AS A SINGLE, LOFT-LIKE VOLUME ORIENTED TOWARD A NEW OUTDOOR LIVING ROOM, THE PROJECT PRIVILEGES EXPERIENTIAL CONDITIONS THAT AFFECT THE IMMEDIATE SCALE OF HUMAN OCCUPATION. THE RE-FABRICATED TRAILER MEASURES 12'-4" X 47'-0", BUT IT FEELS MUCH LARGER AND MORE GRACIOUS. THE HIGH CEILING OF THE INTERIOR EXTENDS OUT TO DEFINE AND INCORPORATE A NEW, OUTDOOR SPACE THAT COMBINES ASPECTS OF A FRONT PORCH AND A PATIO. PROGRAMMATICALLY, THIS EXTENSION TAKES ADVANTAGE OF THE TEMPERATE LOCAL CLIMATE AND THE ADJACENT GOOSE CREEK WILDLIFE CORRIDOR AS IT EXPANDS THE VISUAL AND FUNCTIONAL LIMITS OF INTERIOR DOMESTIC SPACE IN THE HOUSE.

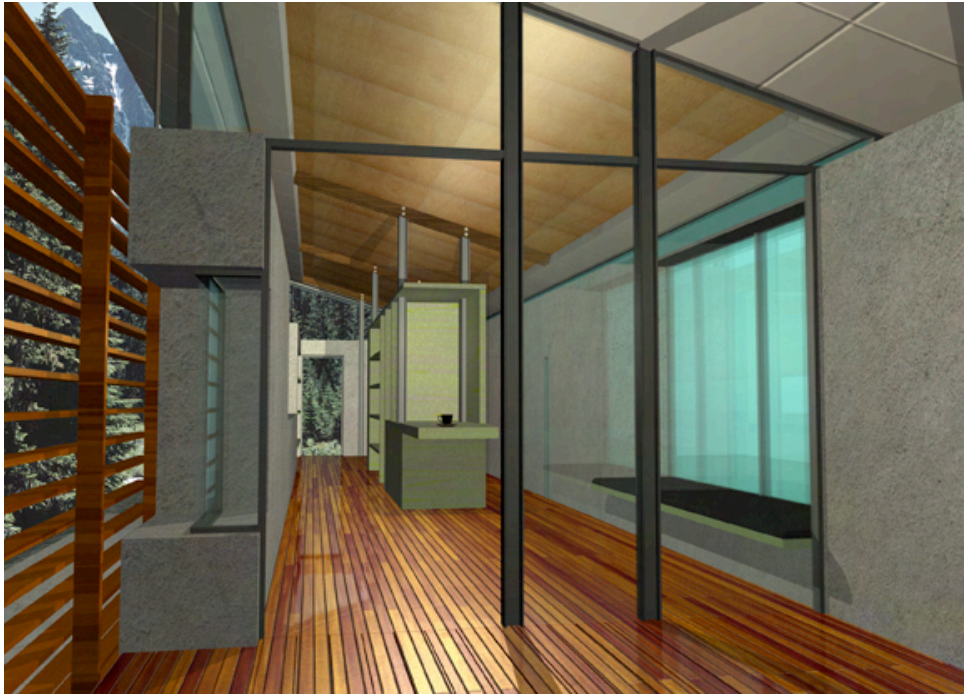


AFTER: NORTHWEST ELEVATION

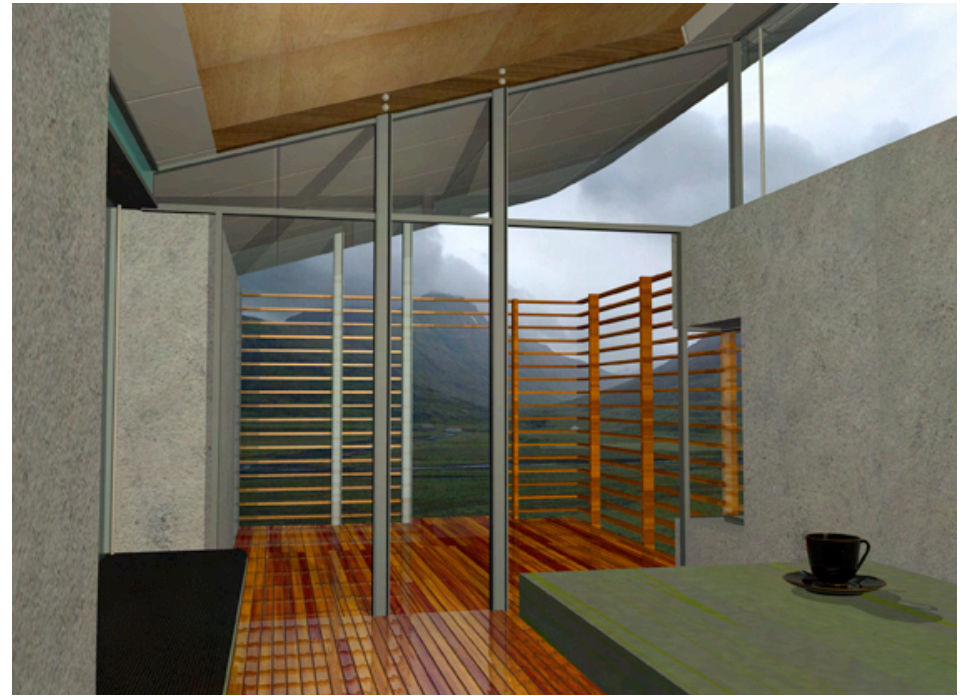


DESIGN PROPOSAL

THE PROJECT INCORPORATES A SITE STRATEGY THAT LINKS INDOOR AND OUTDOOR SPACE THROUGH PLACEMENT AND CIRCULATION. THE RESULTING INTERWOVEN SPATIAL SENSIBILITY MIXES THE LINEAR CHARACTER OF THE TRAILER WITH A PROCESSIONAL SEQUENCE MORE COMMON IN A TRADITIONAL HOUSE WITH A LARGE YARD AND SPACIOUS FRONT PORCH. THIS UNOBSTRUCTED PATH CELEBRATES THE RELATIONSHIP BETWEEN THE INTERIOR AND EXTERIOR WHILE A SERIES OF THRESHOLDS MARK TRANSITIONS AND MODULATE THE FORMAL PROCESSION FROM THE MORE PUBLIC SPACES ON THE FRONT, WEST SIDE OF THE HOUSE TO THE RELATIVELY PRIVATE SPACE OF THE REAR, EAST SIDE.



OUTDOOR ROOM TO EAST



DINING ROOM LOOKING WEST THROUGH LIVING ROOM AND OUTDOOR ROOM

INTERIOR TRANSFORMATION



BEFORE

THE NEW INTERIOR ORGANIZATION COMPRESSES FUNCTIONAL UTILITY INTO A DENSE, MULTIFUNCTIONAL ZONE THAT DISSOLVES THE BOUNDARIES TYPICALLY ASSOCIATED WITH SPECIFIC, PARTITIONED ROOMS. THE LARGE, FREESTANDING STRUCTURE LOCATED IN THE CENTER OF THE INTERIOR VOLUME DEFINES THE FOUR MAIN SPACES OF THE INTERIOR: LIVING ROOM/DINING ROOM, KITCHEN/OFFICE, BEDROOM, AND BATHROOM. THE MONO-PITCHED ROOF SLOPES TO THE SOUTH ALLOWING FOR INDIRECT LIGHTING THROUGH THE EXPANSE OF CLERESTORY WINDOWS ON THE NORTH ELEVATION. THE ROOF SLOPE ALSO PROVIDES ADVANTAGEOUS SOLAR ORIENTATION FOR A FUTURE, SOLAR HOT-WATER HEATING SYSTEM OR PHOTOVOLTAIC ARRAY.



ALTERNATIVE URBANISM

BEYOND THE INDIVIDUAL HOUSING UNIT, LAND USE PATTERNS ESTABLISHED IN THE FAMILIAR TRAILER PARK PROVIDE A UNIQUELY AMERICAN URBAN PLANNING MODEL COMBINING RELATIVELY HIGH DENSITY WITH INDIVIDUAL LAND OWNERSHIP. AS SUCH, THE URBAN MOBILE HOME PARK CONSTITUTES A RARE OPPORTUNITY FOR PEOPLE OF MINIMAL OR MODEST INCOME TO LIVE IN THE CENTER OF TOWN, CLOSE TO JOBS, RETAIL, AND ENTERTAINMENT. IN TERMS OF BOTH SCALE AND COST, THE TRAILER PARK FILLS AN UNDERSERVED NICHE IN SPECTRUM OF CONTEMPORARY HOUSING OPTIONS. SLOTTED BETWEEN THE TYPICAL SUBURBAN ¼ ACRE LOT AND THE MULTI-UNIT CONDOMINIUM/APARTMENT COMPLEX, THE STANDARD 25FTX75FT MOBILE HOME LOT OFFERS A SINGLE-FAMILY OPTION, COMPLETE WITH IT'S OWN PLOT OF LAND, AT AN AFFORDABLE PRICE.



WIND TIE-DOWNS

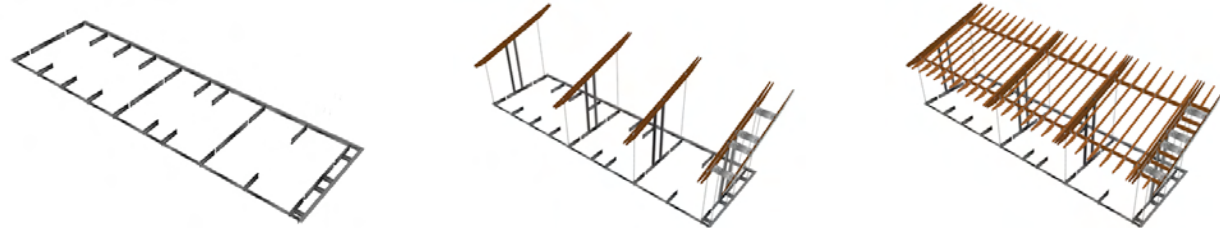


ORIGINAL CHASSIS



REINFORCED CHASSIS AND FRAME

CODE COMPLIANCE

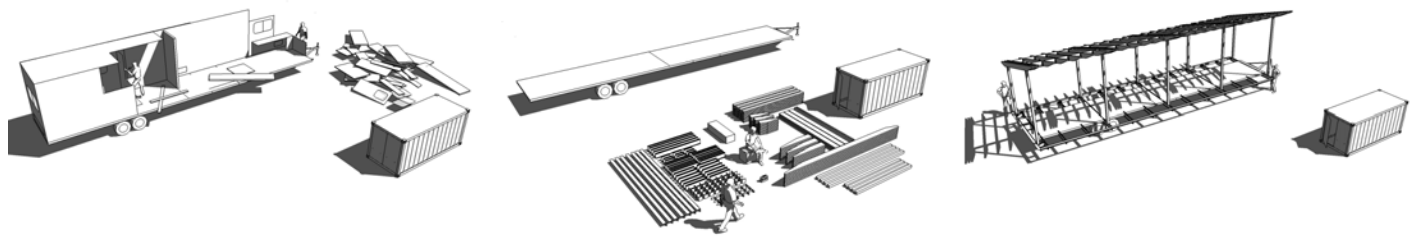


This project required creative thinking. According to the City Code a "Mobile Home" is defined as, "a transportable, single-family dwelling unit, suitable for year-round occupancy that contains the same water supply, waste disposal, and electrical conveniences as immobile housing, that has no foundation other than wheels, tie-downs, or removable jacks for conveyance on highways, and that may be transported to a site, but the term does not include "travel trailers, campers, camper buses, motor homes, or modular homes designed to be placed on a foundation." This project conforms to the code governing mobile homes because it doesn't require traditional foundations and the unit retains a functioning chassis. It has piers that serve as wind tie-downs, but those tie-downs are permissible because they do not emerge above the ground plane and they can be disconnected from the chassis. Also, per code, the unit must remain mobile... it must be able to go down the road. The student team invested the extra effort, time and expense to make this happen through extensive engineering. It would be fun to see more innovative things like this happen in the city.

John, City of Boulder Building Dept. Official



CONSTRUCTION PROCESS

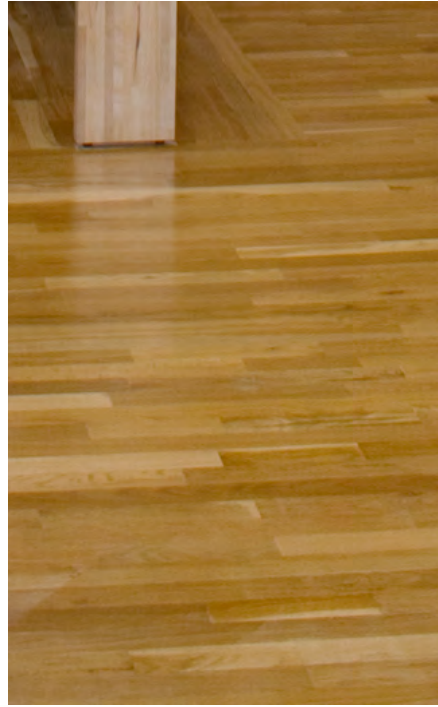




DESIGN-BUILD



OVER THE COURSE OF 24 MONTHS A GROUP OF OVER 60 UNDERGRADUATE AND GRADUATE ARCHITECTURE STUDENTS AND FOUR PROFESSORS UNDERTOOK ALL ASPECTS RELATED TO THE DESIGN, PLANNING, FUNDING, COORDINATION, MATERIAL SPECIFICATION, AND RE-CONSTRUCTION OF THIS MOBILE HOME. THE STUDENTS WERE IMMersed IN THE COMPLEXITIES OF A SMALL, BUT COMPLEX PROJECT. THE PARTICIPATING STUDENTS WORKED FROM THE INITIAL, CONCEPTUAL STAGE THROUGH CONSTRUCTION DOCUMENTS AND FINALLY TO THE FULL-SCALE CONSTRUCTION. ALONG THE WAY THEY DEVELOPED RELATIONSHIPS WITH MENTORS IN THE BUILDING INDUSTRY AND DEVELOPED NEW SKILLS BY WORKING WITH CRAFTSMEN IN THE ELECTRICAL, PLUMBING, AND METAL WORKING TRADES. EVERY ASPECT OF THE PROJECT WAS DESIGNED AND ACTUALLY BUILT BY THE STUDENTS. THIS INCLUDES ALL FOUNDATION WORK, WELDING, FRAMING, STUCCO, FINISH WORK, AND SHEET METAL. WORKING IN THE FIELD, MEETING WITH THE CITY'S BUILDING AND ZONING OFFICIALS, INTERACTING WITH THE TRADES, AND LEARNING TO CONFRONT/OVERCOME LOGISTICAL HURDLES IN REAL TIME, STUDENTS ENCOUNTERED BOTH THE AGONY AND ECSTASY OF MAKING ARCHITECTURE AT FULL-SCALE. THIS UNIQUE EDUCATIONAL OPPORTUNITY EXPOSED STUDENTS TO THE ACT OF CONSTRUCTION AS A FUNDAMENTAL COMPONENT OF CRITICAL DESIGN PRACTICE AND CIVIC ENGAGEMENT.



RE-CLAIM + RE-USE

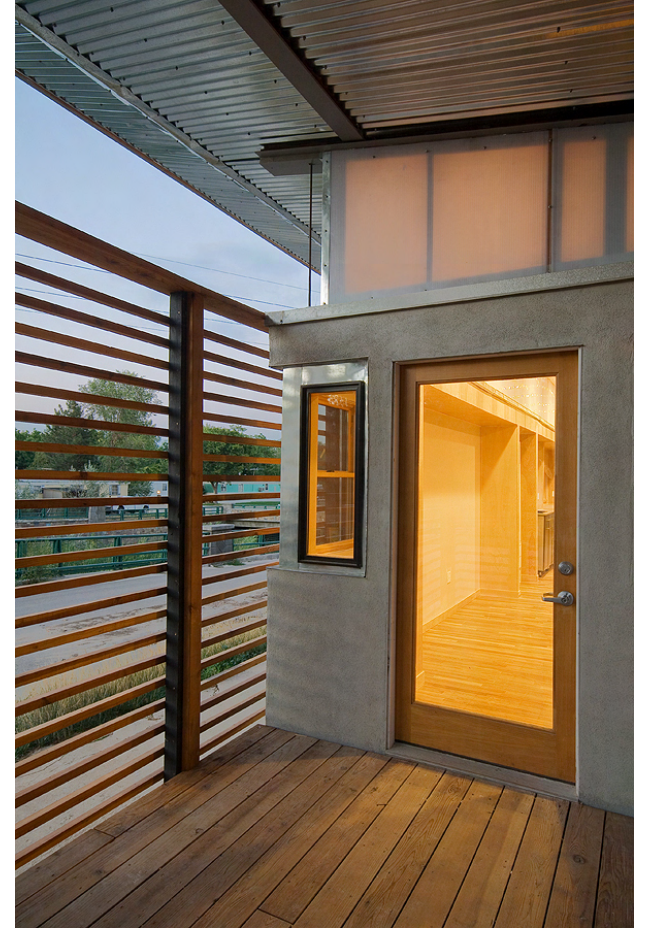
FOLLOWING THE ADAPTIVE REUSE PRINCIPLES AT WORK IN THE OVERALL PROJECT, THE INTERIOR WAS DESIGNED TO UTILIZE LEFTOVER MATERIALS. INTERIOR PARTITIONS WERE FRAMED WITH SALVAGED SOLID CORE DOORS AND CLAD WITH SCRAP VENEER PLYWOOD DONATED BY A LOCAL CABINET SHOP. SIMILARLY, THE REDWOOD SLATS AND DECK USED IN THE OUTDOOR ROOM WERE RECLAIMED FROM OLD DECK MATERIAL AND CULLED WOOD FROM LOCAL LUMBER YARDS. REMNANTS OF "UTILITY" GRADE OAK FLOORING WERE PURCHASED AT SCRAP PRICES, TRIMMED TO AVOID THE MOST OFFENSIVE KNOTS AND BLEMISHES, AND INSTALLED FOR LESS THAN \$1.00 PER SQUARE FOOT.



WEST ENTRY TO OUTDOOR ROOM



LIVING ROOM LOOKING WEST TO THE FRONT DOOR



OUTDOOR ROOM LOOKING NORTHEAST



OUTDOOR ROOM LOOKING TO THE FRONT DOOR



OUTDOOR ROOM LOOKING WEST



OUTDOOR ROOM LOOKING SOUTH



VIEW FROM LIVING ROOM LOOKING EAST



KITCHEN LOOKING EAST TO THE BEDROOM



DINING TABLE LOOKING NORTH TO THE KITCHEN



BEDROOM LOOKING SOUTHWEST



KITCHEN WINDOW WITH VIEW TO THE MOUNTAINS

FUNDING PARTNERSHIP

THE PROJECT RECEIVED SIGNIFICANT FINANCIAL SUPPORT FROM A WIDE VARIETY OF COMMUNITY AND UNIVERSITY SOURCES. A 1965 MOBILE HOME WAS DONATED BY ITS PREVIOUS OWNER AND THISTLE PLEDGED \$20,000 TOWARD THE CONSTRUCTION. FOUR GRANTS SUPPORTING BOTH THE CONSTRUCTION AND PROJECT EVALUATION HAVE BEEN RECEIVED FROM THE OUTREACH COMMITTEE, SERVICE LEARNING COMMITTEE, THE OFFICE OF DIVERSITY + EXCELLENCE, AND THE INSTITUTE FOR ETHICAL AND CIVIC ENGAGEMENT AT THE UNIVERSITY. THESE FUNDS, ALONG WITH SUPPORT FROM THE DEAN OF THE COLLEGE OF ARCHITECTURE & PLANNING TOTALED APPROXIMATELY \$36,000 FOR CONSTRUCTION MATERIALS. IN AUGUST 2008 THE HOME WAS SOLD.



BEDROOM LOOKING NORTHWEST



CLERESTORY GLAZING PROVIDES DAYLIGHTING



BATHROOM LOOKING NORTHEAST

OUTREACH PEDAGOGY

ENGAGING ARCHITECTURE AS AN INTEGRATED ENDEAVOR PROVIDES THE BASIS FOR A WIDE RANGE OF EXPLORATIONS INTO TECTONIC MATERIALITY, FORMAL GYMNASTICS, SPATIAL LANDSCAPES, SUSTAINABLE TECHNOLOGIES, AND COMMUNITY OUTREACH. THE PEDAGOGY OFFERS A UNIQUE OPPORTUNITY FOR STUDENTS INTERESTED IN A COMPREHENSIVE, PROJECT-BASED APPROACH TO ARCHITECTURAL EDUCATION. THE GOAL IS TO AUGMENT TRADITIONAL DESIGN EDUCATION WITH A CURRICULUM BASED ON COLLABORATIVE, FIRSTHAND, FULL-SCALE, TACTILE IMMERSION IN A SPECIFIC, CULTURAL ENVIRONMENT. THE PROGRAM UTILIZES A CROSS-DISCIPLINARY, RESEARCH/DESIGN/BUILD MODEL DESIGNED TO TEACH CIVIC RESPONSIBILITY THROUGH CULTURALLY SPECIFIC, ENVIRONMENTALLY RESPONSIBLE, AND SOCIALLY EMPOWERING LESSONS THAT ENGAGE UNDERSERVED COMMUNITIES. IN ADDITION TO CONSTRUCTION KNOWLEDGE, THIS COURSEWORK IS DESIGNED TO INCREASE STUDENTS' AWARENESS OF UNMET, BASIC NEEDS AMONG THE CLIENTS THEY SERVE AND STRENGTHEN THEIR SENSE OF SOCIAL RESPONSIBILITY AND DEEPEN THEIR MOTIVATION FOR FURTHER CIVIC ENGAGEMENT IN THEIR FUTURE PROFESSIONAL DEVELOPMENT.



NORTHEAST ELEVATION