

7 + 7



1 MULTI-FAMILY HOUSING PROJECT

2 DWELLINGS

7 + 7 UNITS

3 UNIT TYPES

(heated spaces + buffer zone Sq.Ft.)

- A : 697 + 357 Sq.Ft.

- B : 1025 + 525 Sq.Ft.

- C : 1722 + 882 Sq.Ft.

A = 4 units (2+2)

B = 6 units (3+3)

C = 4 units (2+2)

14 HOUSING UNITS

Marfa, Texas, a town of 2 000 souls, is located in the Chihuahuan desert. Home town of the minimal artist Donald Judd, Marfa has, gradually since the 70s, reached an international recognition in the contemporary art world. The city hosts each year, an increasing amount of artists and art lovers. This attractiveness might compromise on the long term, the offer for full-time residents housing.

How can multi-family housing improve the offer for permanent housing in this context ?

Our proposal is both specific and generic:

Specific, because it meets Marfa's climate requirements, in a sustainable way by using local adapted materials and geothermal space organization. Flexibility and space generosity are also given to the variety of Marfa's inhabitant's needs, such as artistic, local crafts, or domestic activities.

(rammed earth wall / north-south traversing units / no structural walls / generous thermal buffering zone)

Generic, because it is more a system than a rooted to the spot answer. The repetitive economic structure allows flexibility, adaptability and fast construction. It has the potential for easy transformation and reconversion of the building. As the size and the amount of units is only based on the lot size, it could be adapted to other Marfa's area or investor's possibilities.

Joining the context of Marfa, specific and generic meets in the design of our proposal, that has definitely to do with minimal art and the expression of Donald Judd's architectural aesthetic. The industrial façade is yellow in order to emphasize in an artificial way the color tone of the surrounding landscape.

The construction is a mix of industrial prefab elements and vernacular crafted elements. It has the efficiency of an economic structure and the sensuality of a building directly connected to its surrounding and location. The total number of different elements is reduced to the minimum.

An ambiguity between the massive elements and the light structure is created, as the light elements are bearing the roof and the heavy ones have no structural purpose.

the non-heated buffering space between the outside and the day area on the south edge of each unit. It is an extension of the house. It is a winter garden during cold months and a loggia during summer and mid-season. It has no given function. It is as tall as the living providing large appropriable areas. It is economic and therefore gives residents the opportunity to invent their own use of this space. It can be used as a studio, an exhibition area for sculptures, garage, a car can be parked, relaxing area with dining table, sofa, barbecue, ping pong, snooker, are just be left empty.

DESIGN MARFA – MULTI-FAMILY HOUSING – COST ESTIMATION

DM0069

		UNITY	QTY	P/U \$	TOTAL \$
<u>FOUNDATION WORKS</u>	BLOCK	u	76	\$30	\$2 280
	ISOLATED SOLE	u	76	\$40	\$3 040
	GROUND BEAM	ft	3234	\$4	\$12 936
<u>STRUCTURE</u>	GROUND FLOOR	sq.ft	27008	\$2,0	\$54 016
	PILARS	u	94	\$180	\$16 920
	PREFAB CONCRETE BEAMS	u	88	\$550	\$48 400
	PREFAB ROOF SLAB	u	330	\$360	\$118 800
	GROUND INSULATION	sq.ft	15826	\$0,8	\$12 661
	FLOOR FINISHING	sq.ft	27008	\$3,4	\$91 827
	<u>WORK</u>	RAMMED EARTH WALL	u	16	\$5 800
PERIPHERICAL DRAIN		ft	1100	\$14	\$15 400
<u>TECHNICAL BUILD.</u>	BOILER / GARBAGE	u	1	\$9 500	\$9 500
<u>DOORS / WINDOWS</u>	WINDOW ELEMENT	u	368	\$240	\$88 320
	PILAR INSULATION	u	36	\$30	\$1 080
<u>IRONWORK</u>	SOUTH SHADERS	u	184	\$160	\$29 440
<u>FACADE</u>	PVC CURTAIN	ft	382	\$5	\$1 910
<u>ROOF</u>	ROOF INSULATION	sq.ft	17138	\$4,0	\$68 552
	ROOF SEALING	sq.ft	27008	\$2,6	\$70 221
	ROOF PROTECTION (GREEN)	sq.ft	17138	\$3,5	\$59 983
<u>PARTITION WALL</u>	PARTITION WALL	ft	980	\$30	\$29 400
<u>INSIDE DOORS</u>	SLIDING DOORS	u	74	\$300	\$22 200
<u>EQUIPMENT</u>	WC	u	14	\$400	\$5 600
	SINK	u	14	\$400	\$5 600
	SHOWER	u	10	\$600	\$6 000
	TUB	u	4	\$700	\$2 800
	KITCHEN FURNITURE TYPE 1	u	4	\$6 000	\$24 000
	KITCHEN FURNITURE TYPE 2	u	6	\$8 000	\$48 000
	KITCHEN FURNITURE TYPE 3	u	4	\$10 000	\$40 000
<u>COOLING / HEATING</u>	SOLAR PANNELS	u	10	\$2 800	\$28 000
	BOILER	u	2	\$8 000	\$16 000
	HEATING FLOOR	sq.ft	15826	\$4,3	\$68 052
	VENTILATION	u	14	\$1 200	\$16 800
	FIREPLACE	u	14	\$3 500	\$49 000
<u>ELECTRICITY</u>	MAIN CONNECTION	u	1	\$10 500	\$10 500
	DWELLING CONNECTION	u	14	\$8 500	\$119 000
	EQUIPMENT	u	14	\$1 200	\$16 800
<u>PLUMBING</u>	MAIN CONNECTION	u	1	\$7 000	\$7 000
	MAIN SEWAGE DISPOSAL	u	1	\$7 000	\$7 000
	GREY WATER SYSTEM	u	1	\$3 000	\$3 000
	INDIVIDUAL CONNECTION	u	14	\$3 000	\$42 000
	INDIVIDUAL SEWAGE DISP	u	14	\$3 000	\$42 000
<u>LANDSCAPE / OUTDOOR</u>	GROUND (CAR & PED)	sq.ft	6900	\$0,5	\$3 450
	GROUND (RING)	sq.ft	28000	\$0,1	\$2 800
	GROUND (COURTYARD)	sq.ft	14547	\$0,1	\$1 455
	SOLAR OUTDOOR LIGHTS	u	30	\$30	\$900
OPTIONS :	GREENHOUSE	u	1	\$30 000	\$30 000
	BASKETBALL COURT FLOOR	sq.ft	1400	\$3,0	\$4 200
	BASKETBALL COURT EQUIP	u	1	\$1 000	\$1 000
	PLAYGROUND FLOOR	sq.ft	700	\$4,0	\$2 800
	PLAYGROUND EQUIPMENT	u	1	\$10 000	\$10 000
TOTAL (14 units – 15 826 sq.ft.)					\$1 415 442
TOTAL OPTIONS					\$48 000
GRAND TOTAL					\$1 463 442

PRICE PER UNITY	SQ.FT.	QTY	TOT	SUP/TOT	TOTAL	PRICE
<u>TYPE 1</u>	697	4	2788	0,044	0,176	\$62 338
<u>TYPE 2</u>	1025	6	6150	0,065	0,389	\$91 674
<u>TYPE 3</u>	1722	4	6888	0,109	0,435	\$154 012
<u>TOTAL</u>		14	15826		1,000	\$94/sq ft