# DE DESIGN PREFABRIK A.Ş.





### **ABOUT US**

Turnkey basis services are provided for PREFABRICATED STEEL STRUCTURES, including preparation of all structural and architectural designs and engineering calculations to be analysed and prepared by our technical personnel via computer with heating and landscaping to include infrastructure where required. Steel construction villas (American houses), Office Containers, Security Cabinets (Guard houses, Mini offices), Living containers (Package houses), Dormitory and dining hall containers, Warehouse Containers, Buffet Containers, WC-shower containers, Commercial Prefabricated Buildings, Offices, Social Facilities, Dining Halls and Dormitories, Security Cabinets, Warehouses, WC-Bath Units, Steel Structures, Modular carrier sheet panel system structures, Prismatic Structures (Wide span Steel construction Industrial structures), Cylindrical Structures, Emergency settlement shelters etc.

## Quality Policy;

Our quality policy is to ensure the customer satisfaction through such organizations that are able to make use of existing resources in a more efficient manner with the right project management, reaching to highest level in quality and efficiency by cost and product control, to ensure customer satisfaction by paying attention to quality at every stage of the project.

### Purpose;

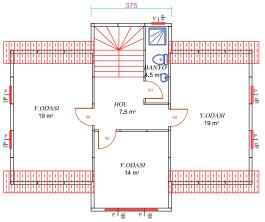
We are constantly looking for being better and more accurate by evaluating all our field of activities and service units.

With our young dynamic staff, we try to provide the best products through our suppliers who deliver us in the cheapest and fastest way.



CODE:01 154m<sup>2</sup>





74m2 DUPLEX HOUSE UPPER FLOOR PLAN

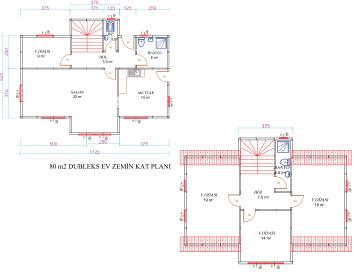
### **DUPLEX STEEL STRUCTURES**









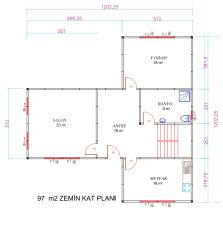


74 m2 DUBLEKS EV ÜST KAT PLANI







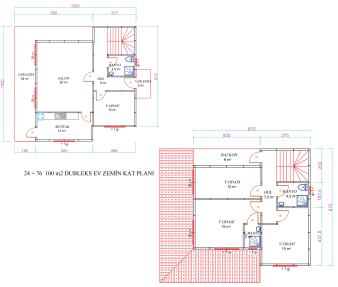




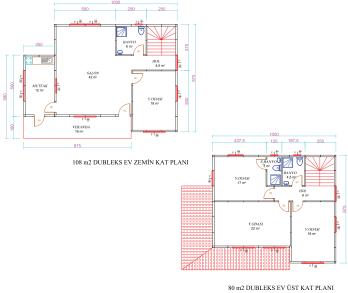
71 m2 1. KAT PLANI

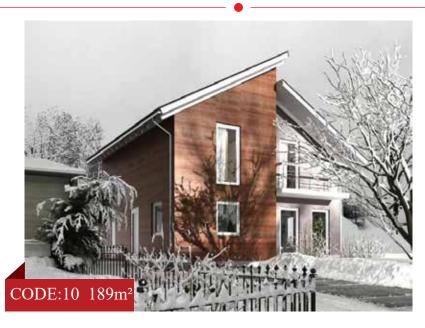
70 m2 DUBLEKS EV ÜST KAT PLANI

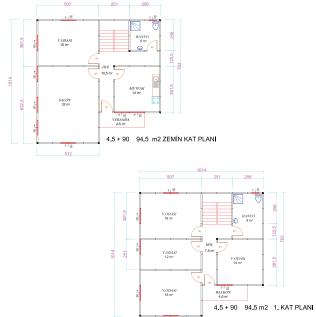






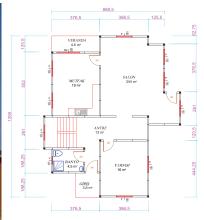


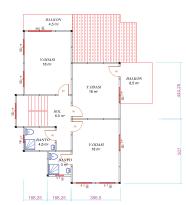




## **DUPLEX STEEL STRUCTURES**







8 + 98 106 m2 ZEMİN KAT PLANI

13 + 78 91 m2 1. KAT PLANI









### **DUPLEX STEEL STRUCTURES**







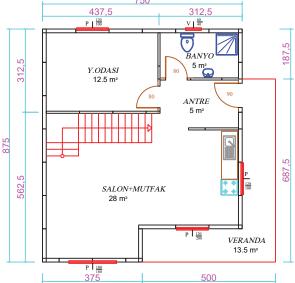


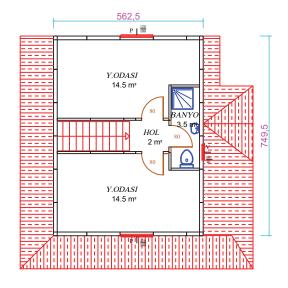












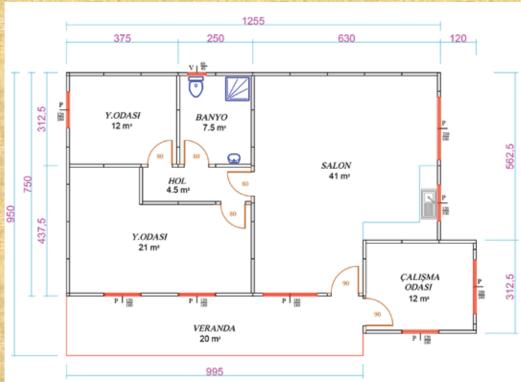
74 m2 DUBLEKS EV ZEMÍN KAT PLANI

42 m2 DUBLEKS EV ÜST KAT PLANI

116 m2 ÇELİK KONSTRÜKSİYON DUBLEKS EV PLANI

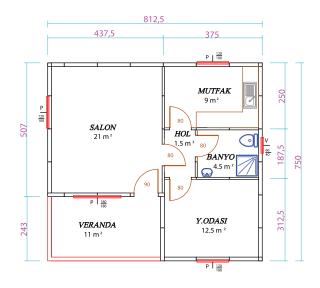




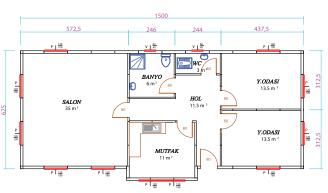


# 121 m2 One floor Steel Structures

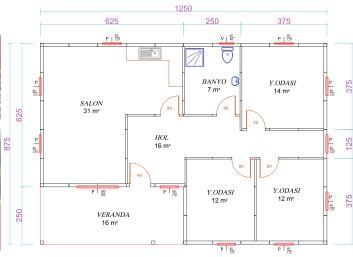




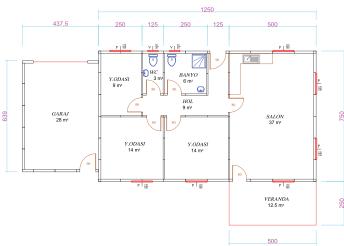








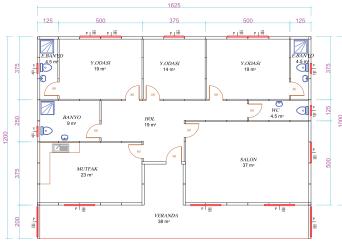










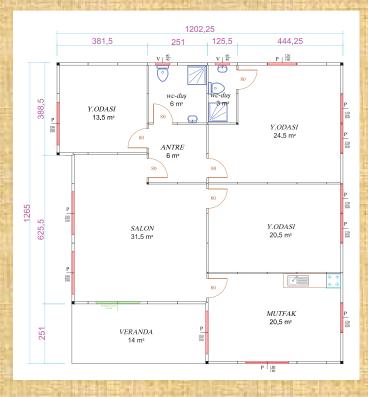




147 m² Light Steel Structure



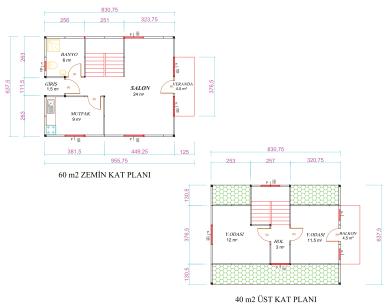




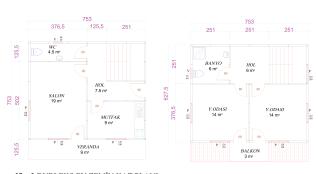


### **AMERICAN DUPLEX STRUCTURES**



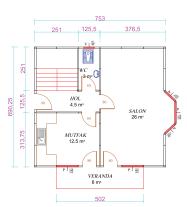




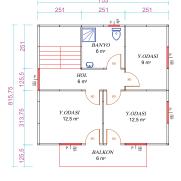


57 m2 DUBLEKS EV ZEMİN KAT PLANI 50 m2 DUBLEKS EV ÜST KAT PLANI





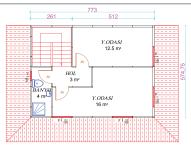
6 + 53 59 m2 DUBLEKS EV ZEMÍN KAT PLANI



6 + 53 59 m2 DUBLEKS EV ÜST KAT PLANI

### **AMERICAN DUPLEX STRUCTURES**



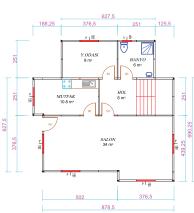


45 m2 ÜST KAT PLANI

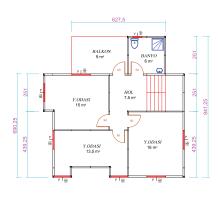


80 m2 ZEMİN KAT PLANI





75 m2 DUBLEKS EV ZEMÍN KAT PLANI

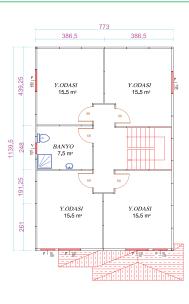


77 m2 DUBLEKS EV ÜST KAT PLANI





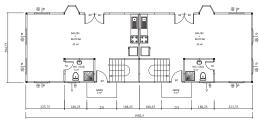
96 m2 ZEMİN KAT PLANI



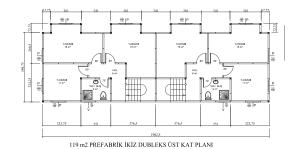
 $88~\mathrm{m}2~\mathrm{\ddot{U}ST}~\mathrm{KAT}~\mathrm{PLANI}$ 

### **AMERICAN DUPLEX STRUCTURES**





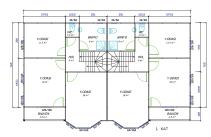
118 m² PREFABRÎK ÎKÎZ DUBLEKS ZEMÎN KAT PLANI



CODE:24 280m<sup>2</sup>



(72+72) 144 m² PREFABRİK ZEMİN KAT PLANI

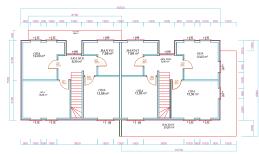


(68+68) 136 m² PREFABRİK 1. KAT PLAN





 $162\ m^2\ HAFİF\ \zeta ELİK\ KONSTRÜKSİYON\ İKİZ\ DUBLEKS\ ZEMİN\ KAT\ PLANI$ 



 $35.5 + 136.5\ 172\ m^2\ HAFİF ÇELİK KONSTRÜKSİYON İKİZ DUBLEKS ÜST KAT PLANI$ 







136 m²

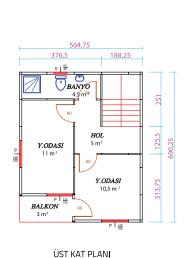




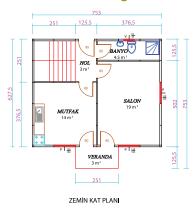


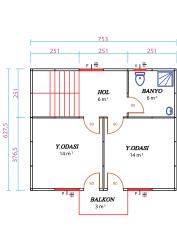






CODE:27 100m<sup>2</sup>





ÜST KAT PLAN

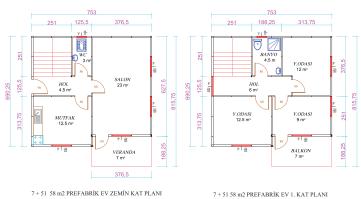




51 + 6 57 m2 ZEMİN KAT PLANI

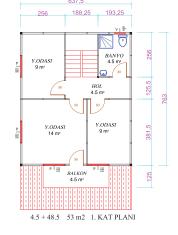




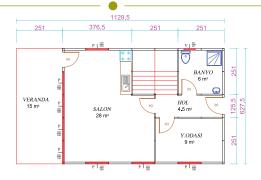


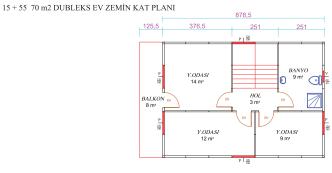




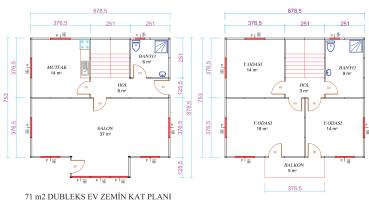


CODE:31 133m<sup>2</sup>









71 m2 DUBLEKS EV ÜST KAT PLANI





70 m² PREFABRİK BİNA 1.KAT PLANI

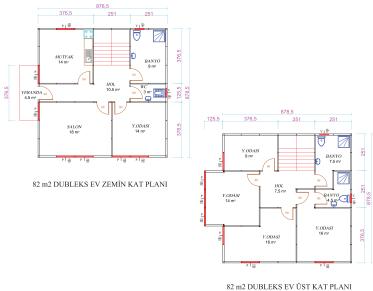




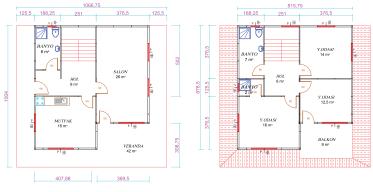
 $18 \pm 62~80~\text{m}$ 2 PREFABRİK EV ZEMİN KAT PLANI

14 + 59 73 m2 PREFABRİK EV 1. KAT PLANI





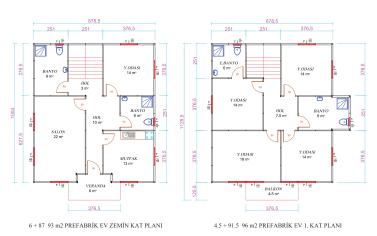




74 m2 DUBLEKS EV ÜST KAT PLANI

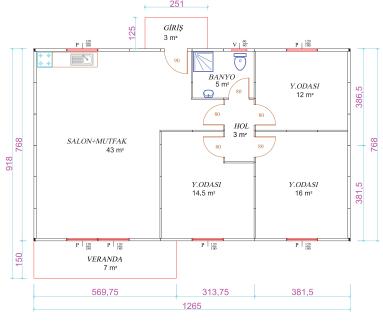
42 + 65 107 m2 DUBLEKS EV ZEMÍN KAT PLANI







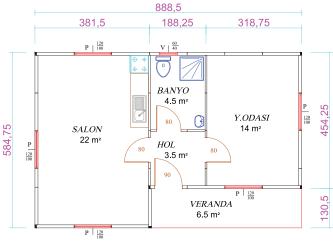




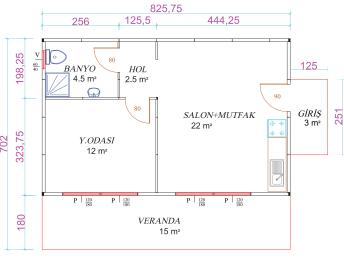




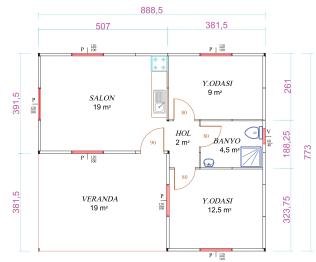




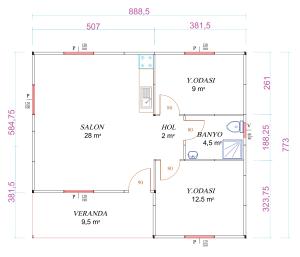




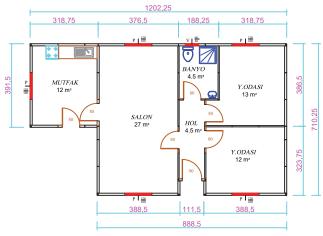




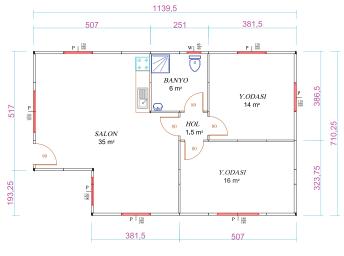






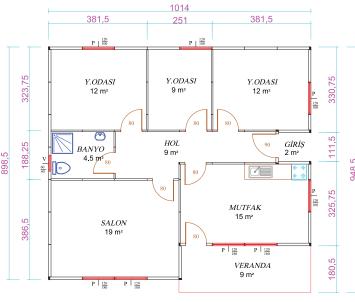






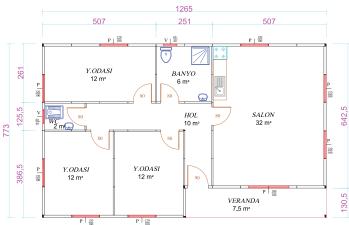
### **AMERICAN SINGLE FLOOR STRUCTURES**



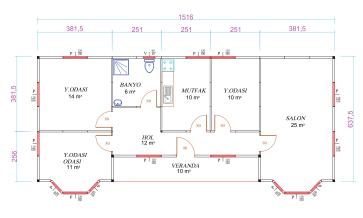






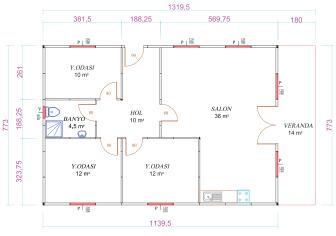




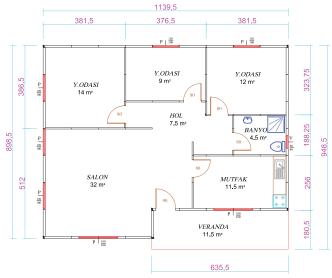


CODE:46 101m<sup>2</sup>









#### **AMERICAN SINGLE FLOOR STRUCTURES**

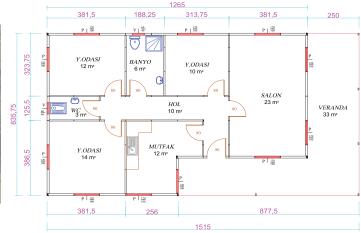




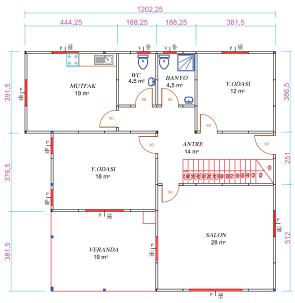
1264 381,5 251 381,5 250 BANYO 6 m² 0 449,25 Y.ODASI 16 m² SALON+ MUTFAK 20 m² HOL 7.5 m² P 120 180 386,5 Y.ODASI 14 m² VERANDA 37.5 m<sup>2</sup>

> P 120 180



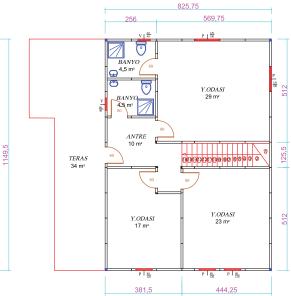






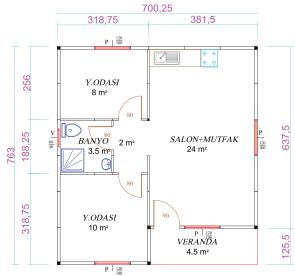
129 m2 PREFABRİK EV ZEMİN KAT PLANI



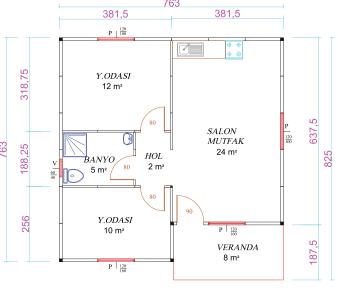


129 m2 PREFABRİK EV ÜST KAT PLANI

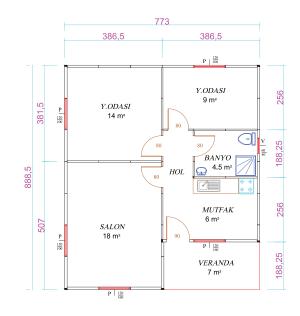






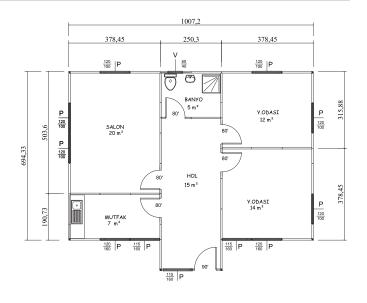






### STANDARD SINGLE FLOOR STRUCTURES







1139,5

444,25

251

444,25

P | 100

BANYO

4.5 m²

80

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

F | 100

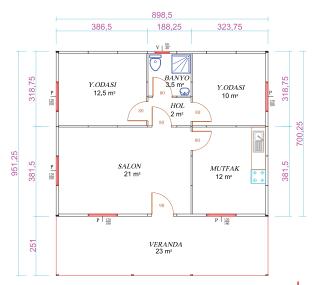
F | 100

F | 100

F | 100

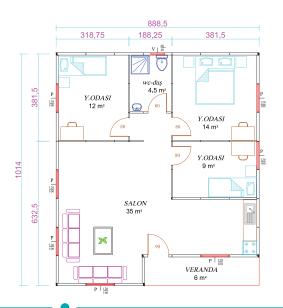
CODE:55 79m<sup>2</sup>



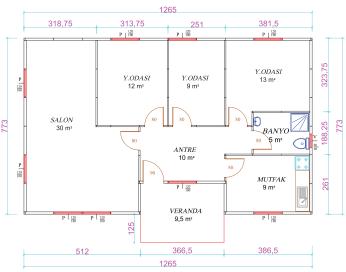




CODE:57 90m<sup>2</sup>

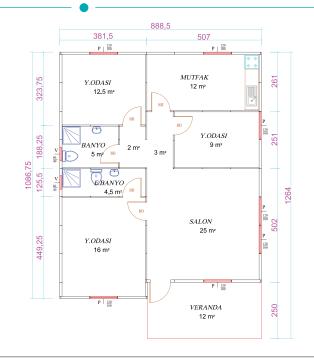






CODE:58 102m<sup>2</sup>







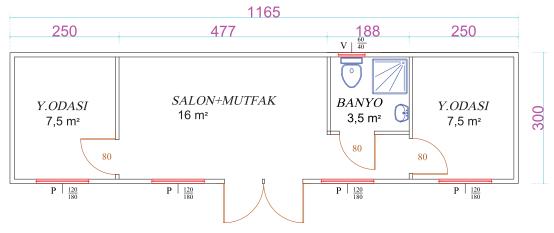










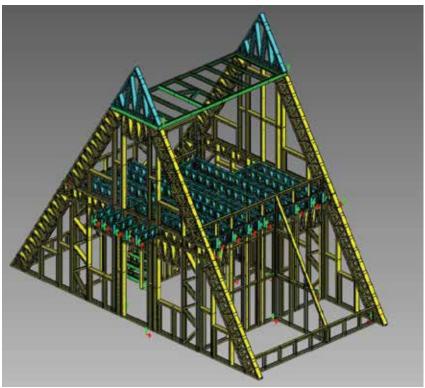


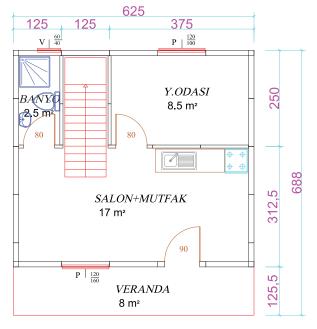
35m² MONOBLOK KONUT PLANI

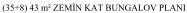


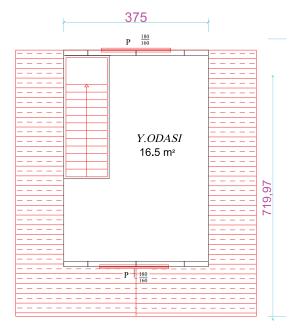












21 m<sup>2</sup> 1.KAT BUNGALOV PLANI

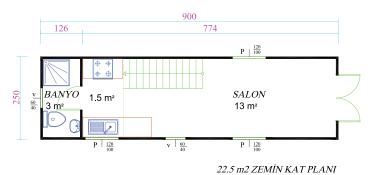


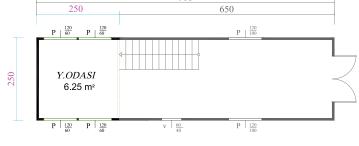












6.25 m2 ASMA KAT PLANI











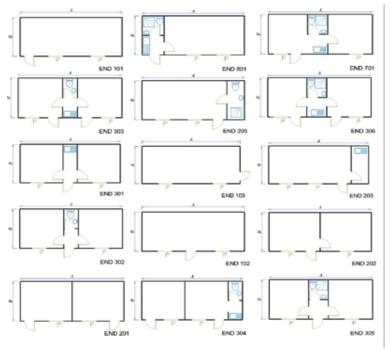


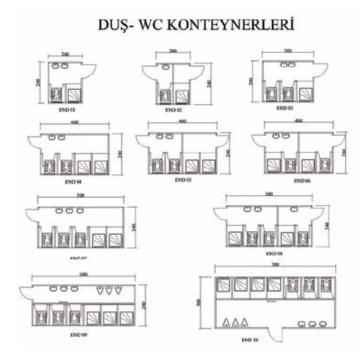


























#### TO BE BORN BY THE BUYER:

Ground concrete, screed works,

Floor coverings,

Kitchen cabinets and bathroom with shower-cabin and tub.

Heating and cooling system,

Shipping and transportation and accommodation requirements of the elements shall be met by the BUYER.

VAT (1% up to 150 m<sup>2</sup> VAT rate and 18% above 150.)

#### TO BE BORN BY OUR COMPANY

Electrical installation and plumbing

Sink and toilet of bathroom

Interior and exterior doors - windows

Interior and exterior paint of the building shall be born by our company.

#### 1) OVERALL DESCRIPTION OF THE SYSTEM

**SYSTEM DESCRIPTION:** As to the project data, which are designed architecturally according to the region and project, static calculations;

(DIN EN 10326) Standard;

S320GD+Z; +AZ (Erdemir Quality NO: 1332)

Yielding Point: 3200 kg/cm² (320 N/mm²)

Tensile Strength: 3900 kg/cm² (390 N/mm²)

S350GD+Z; +AZ (Erdemir Quality Number: 1335)

Yield Limit: 3500 kg/cm² (350 N/mm²)

Tensile Strength: Steel material with 4200 kg/cm<sup>2</sup> (420 N/mm<sup>2</sup>) is used.

Seismic and static calculations according to the location of the building, will be made with Sap2000, CFS, STA4CAD, HAYESCAD or similar computer programs according to the load values determined in the projects and standards. Project costs are NOT included in the price.

#### PREFABRICATED BUILDING SYSTEM DIFFERENCES:

- The wall thickness shall be 10 cm and the inner surface shall be 6 cm.
- Heat bridges shall be provided with H material to the joints at the outer wall panels.
- Roof cover detailed in climatic zones, standard
- PVC streams will be used in the roof streams and descents.
- Steel exterior doors and American panel interior doors.

**AESTHETIC:** Will be painted aesthetically.

#### 2) TECHNICAL DATA

Snow Load:  $80 \text{ kg/m}^2$ , TS 498 102 km/h ( $50 \text{ Kg/m}^2$ ) TS 498 Effective ground acceleration coefficient: A0 = 0.40 (1st grade earthquake zone) Building coefficient of importance (I = 1) Earthquake Calculations: Movable Load Participation Coefficient (n = 0.3) I = 1/1.2.1.4.1.5 N = 0.3/0.6 according to the purpose and type of building.

#### 3) COMPLIANCE STANDARDS

#### STEEL AND CONSTRUCTION

**TS 11372:** Light Weight Steel Structures-Composed of Cold Formed Steel Members-Design Rules

**TS 648:** Building Code for Steel Structures

**TS 6793:** Housing and Residential use and loads in public buildings

**TS 498:** Design Loads for Buildings to Consider in Dimensioning Building Elements

**TS ENV 1993-1-2:** (Eurocode 3) Design of steel structures – Parts 1–2: General Rules – Structural fire design

TS 4561: Rules for Plastic Design of Steel Structures

**TS-ENV 1090-1:** Steel Structure applications – Part 1 General Rules and rules for buildings

**TS-ENV 1090-3:** Steel Structure applications – Part 3 Additional Rules for steel with high flow resistance.

**TS ENV 1998-1:** Eurocode 8: Design of structures for earthquake resistance - Part 1: General rules, Seismic action and rules for buildings

**TS EN 10326:** Continuously hot-dip coated strip and sheet of structural steels - Technical delivery conditions

**TS EN 10327:** Continuously hot-dip coated strip and sheet of low carbon steels for cold forming – Technical delivery conditions

**TS EN 10162:** Cold rolled steel sections - Technical delivery conditions - Dimensional and cross-sectional tolerances

TS 7046: Bases for Design of Structures

**TS 6793:** Use and Settlement Loads in Houses and Public Buildings

#### **INSULATION VALUES:**

TS 825: Thermal Insulation Values in Buildings

**TS 901-1 EN 13162:** Thermal Insulation Materials–Used in Buildings –Factory Made Mineral Wool Products–Properties **TS EN 12086:** Thermal Insulation Materials–Determination of Water Vapor Permeability Properties for Buildings

**TS 7316 EN 13163:** Thermal Insulation Products-For Buildings – Manufactured in Fabrication-Expanded GLASS WOOL material for buildings will be used.

**TS EN 13500:** Thermal Insulation Materials-Used in Buildings – Mineral Wool Based External Composite Heat Insulation Systems (ETICS) -Features

#### FIRE RESISTANCE STANDARD:

**TS EN ISO 11925-2:** Response to Fire Tests - Flammability of Building Materials Directly Exposed to Fire - Part 2: Single Flame Welding Test

#### **FASTENERS AND ASSEMBLY ELEMENTS:**

**TS EN 20898:** Mechanical Properties of Fasteners-Part 1: Bolts, Screws and Studs

**TS 3611 EN 20898-2** Mechanical properties of fasteners-Part 2: Nuts with specified proof load values-Coarse thread

#### **ELECTRIC INSTALLATIONS REGULATION:**

Electrical Internal Installation Regulation dated June 16, 2004 and number 25494

#### **GENERAL REGULATIONS:**

O. G. 26.07.2002/24822 Regulation on Fire Protection of

ABYYHY 2007 Regulation on the Structures to be Constructed in Disaster Areas

#### 4) DECORATIVE - EXTERIOR WALL DETAIL

Outside Wall Thickness: 10 cm Exterior Coating: Will be painted.

Heat and Sound Insulation Material: 84 mm -16 kg\m3 EPS

FOAM material will be used.

(Fire Resistance: in accordance with DIN 4102, "B1" grade, of

"difficult flammability" feature)

Panel Joining System: Specially designed and detailed Galvanized joining elements are provided without welding. Exterior Wall Interior Coating: 8 mm thick cemented chipboard

Exterior Wall Interior Coating Paint: Interior Wall Paint **Exterior Wall Exterior Coating Paint:** Will be plastic painted. Exterior Facade Accessories: Corner reinforcement in wall corner joints, system 'h' will be applied in panel combinations

Window Accessories: Spindle lock system and window handle material will be used.

#### 5) INTERIOR WALL DETAIL (Press Panel)

**Inner Wall Thickness:** 6 cm.

Interior Wall Coating: 8 mm thick cemented chipboard Heat and Sound Insulation Material: 44mm-16 kg\m3 EPS FOAM material will be used.

(Fire Resistance: in accordance with DIN 4102, "B1" grade, of "difficult flammability" feature)

Panel Joining System: Specially designed and detailed galvanized joining elements has been provided without welding.

Interior Wall Inner coating: 8 mm thick cemented chipboard Interior Wall Interior Coating Paint: Plastic Paint

#### 6) ROOF DETAIL

Roof coating: Trapezoidal sheet shall be used on galvanized special twisted metal purlins.

Rafter: Galvanized special twisted metal rafter.

Roof Carrier System: It consists of galvanized sheet profiles specially designed. Joints are made with bolts and screws without welding.

Canopy Coating: Galvanized painted sheet

#### 8) WINDOWS

Window: 120 \ 100 cm. PVC WINDOW Transom-window: 60/40cm size PVC joinery

#### 9) WINDOWS

Window: 4+9+4mm double glass

#### **10) PAINT**

Exterior: Plastic Paint **Interior:** Plastic paint Ceiling: Ceiling paint

#### 11) ELECTRICAL INSTALLATION

Cable: 250 V

Sockets, Buttons: To comply with TSE or CE standards Power Socket Cables: NYM and NYA 3x2,5 mm2 (TSE) Lighting Cables: NYM and NYA 2x1.5 mm2 (TSE) Lighting Fixtures: Globe in normal places

Wet places: Round Globe

Over the External Door: Outdoors globe

Fuse Boxes: TSE

Electricity Panels/Telephone Installation shall be performed

by the Employer.

Main Line Connection shall be performed by the Employer. Residual Current Relay: Residual Current Relay in Each

Building

#### 12) SANITARY INSTALLATION (SURFACE MOUNTED)

Pipes (Fresh water): PPRC pipe (to comply with TSE or CE standards)

Pipes (sewage water): PVC pipe (to comply with TSE or CE standards)

Sanitary Ware and Fixtures: Sinks: 40x50cm Full pedestal

**Sink faucet:** Mix taps. (To comply with TSE or CE standards)

Toilet bowl: Ceramic reservoir **Shower tray:** 80 x 80 Shower tray

Shower mixer: Mix bath mixer (to comply with TSE or CE

standards)

Kitchen plumbing: Hot and cold-water plumbing shall be

installed.

Mainline connection: The main lines and connection of sewage and fresh water shall be carried out by the employer.

OSMANLI BULVARI VOLUME PLAZA D:10 PENDİK-İSTANBUL

#### 7) DOORS

**EXTERNAL DOORS:** 

Size: min. 90 x 2000 mm FURNITURE STEEL DOOR

**INTERNAL DOORS:** Size: min. 80 x2000 mm

Door: White American (roundabout) Panel door

Address : Telephone:

+90 532 428 1923 www.dedizayn.com.tr

Web info@dedizayn.com.tr E-mail: