

APADAM

LSF TECHNOLOGY

Construction Company

Introduction

Apadana Construction Company commenced operations in 2010, engaging in construction projects across Iran (Mazandaran, Gilan, Azerbaijan, and Tehran provinces). The company aims to advance the development of residential, commercial, industrial, and governmental buildings. With a team of expert designers and engineers, Apadana possesses significant potential to execute large-scale projects domestically and internationally. This technical capability, combined with the founders' risk-taking approach and commitment to localizing industry-specific technologies, positions Apadana as a pioneer in entering new markets and expanding services. Currently, the company focuses on modern *Light Steel Frame (LSF)* structures and operates its own galvanized *LSF profile* production facility, ensuring end-to-end quality control from manufacturing to execution.

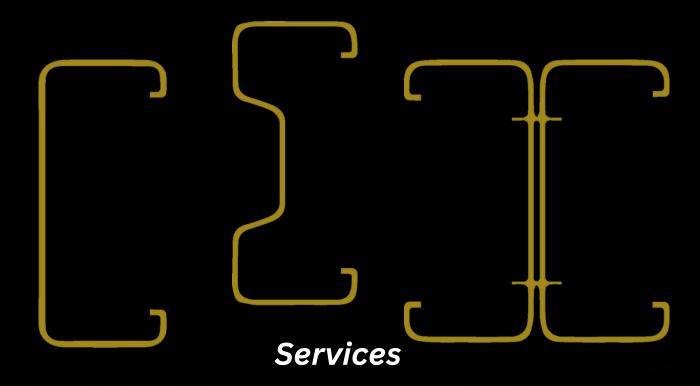


Company Objectives

Apadana maintains a long-term vision for modern construction, offering production, design, and construction services through a highly skilled team. Key objectives include:

- Implementing LSF structures to reduce building weight and enhance quality.
- Reducing project timelines to drive economic efficiency.
- Leveraging 15+ years of engineering expertise and global architectural innovations to advance the industry.





- Production of *LSF Structures* Light Steel Frames using premium, standardized materials.
- Engineering Design & Calculations *LSF-based structural design* compliant with global standards (New Zealand methodology).
- *LSF Project* Execution Managed by experienced technical teams.
- Construction of:
- ✓ Custom villas
- ✓ Recreational/residential towns
- ✓ Industrial buildings
- ✓ Governmental facilities



Apadana's Competitive Advantages

- European machinery for *LSF production* with standard materials.
- Cutting-edge design aligned with global methodologies.
- Professional installation teams.
- Significant reduction in installation time, accelerating overall project completion.
- Fast-track construction execution.
- Earthquake-resistant, energy-optimized buildings.



Benefits of LSF Construction

- Lightweight Steel Frame (LSF) refers to galvanized (hot-dip) cold -formed steel frames, offering:
- 30% lower construction costs due to lightweight structures.
- Applicable for buildings up to 5 floors.
- High thermal insulation (60% energy savings).
- Resistance to fire, earthquakes, and moisture.
- Demountable/re-assembled structures (with lightweight cladding).
- Easy maintenance of structures/MEP systems.



Benefits of LSF Construction

- 80-120 year lifespan.
- Architectural space optimization.
- Rapid installation (50% faster project completion).
- Simplified electrical/mechanical system implementation.
- Design flexibility for facades (with compliant calculations).
- Eco-friendly, sustainable construction.
- Global certifications + local technical approvals.
- Near-zero structural defects.
- High-safety load calculations (wind, snow, dead loads) using FrameCAD Detailer, FrameCAD Structure, and SAP2000.



Our Workflow Process

1. Initial Consultation & Contract Execution

- Preliminary project discussion, conceptual proposal, and clientapproved agreements
- Formal contract finalization

2. Unrestricted Architectural Design

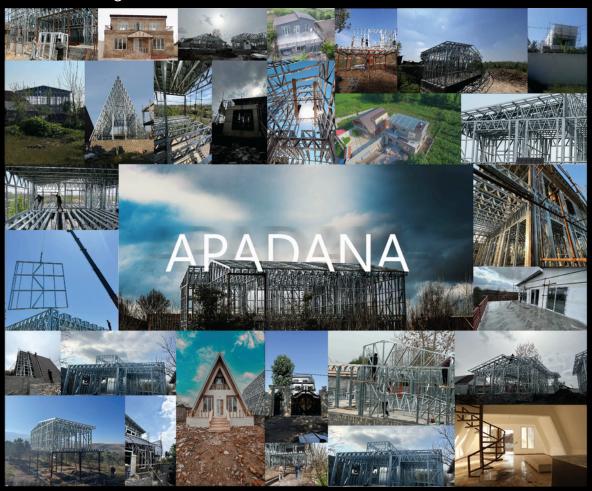
- Creative architectural development with zero constraints
- Final design subject to client approval

3. Regulatory Compliance & Permitting

- Securing all required construction permits
- Preparation of permit documentation:
- Architectural blueprints
- Structural engineering schematics
- Mechanical systems plans

4. 3D Visualization & Client Review

- Immersive **3D** modeling for structural, façade, and interior design verification
- Enhanced construction understanding through virtual walkthroughs



Our Workflow Process

5. Precision Structural Engineering

- FrameCAD-engineered structures (latest software version)
- Micrometer-level design accuracy (**±0.01**mm)
- Full compliance with:
- International building codes (IBC)
- Local regulatory standards
- Performance advantages:
- 60% lighter than traditional steel frames
- 120-year structural service life
- Superior seismic/wind resistance

6. Advanced Manufacturing

- Production on original FrameCAD machinery (±0.3mm tolerance)
- Material specifications:
- Hot-dip galvanized steel (180-200 µm zinc coating)
- Sourced from premier mills (ASTM A653/A653M compliant)

7. Quality Integration

- Triad excellence guarantee:
- Precision engineering
- Premium galvanized substrates
- Robotic manufacturing
- Result: Optimal structural integrity with lifelong corrosion resistance

8. Turnkey Project Delivery

- Certified civil engineering installation
- Accelerated construction cycle (50% faster than conventional methods)
- Ready-to-occupy building handover



Core Competencies of Apadana Construction Company

✓ Monthly production capacity: **12** tons of **9** cm-wide profiles and 20 tons of **15** cm-wide profiles, equivalent to over **24,000** square meters of building construction per month

✓ Proven Design Legacy: **15+** years of structural and architectural design expertise across **3,200+** buildings.



Core Competencies of Apadana Construction Company

✓ End-to-End Project Delivery: Successful execution of **350+** turnkey construction projects from inception to completion.

✓ Integrated Specialist Teams: Deployment of seasoned professionals throughout all project phases:

- Design- Structural & MEP installation
- Construction

