

**General Notes:**

- All helix foundations and pier caps shall be as manufactured by Magna Piering Inc. or equivalent.
- Slope ground surface to drain away on all sides. In areas where sidewalks or paving do not immediately adjoin the structure, this slope should have a minimum grade of 10% for at least 10 feet.
- Exterior slabs shall be isolated from the rest of the structure.
- Helix foundation installation should be observed by a representative from Secure Foundations and Structures, Inc. (SFS) 472-6255 or other geotechnical engineer to verify installation torques and minimum depth.
- All framing lumber shall be Hem-Fir No. 2 or better. F<sub>b</sub>=2050 psi, F<sub>v</sub>=75 psi, F<sub>c</sub>=405 psi, E=1,300,000 psi.
- TJI Joists shall be by True Joist MacMillan or equivalent.
- Timberstrand beams and headers shall be by True Joist MacMillan or equivalent.
- Sheath all exterior walls with minimum 1/8" thick shear panels conforming to UBC grade structural I. Nail panels with 8d nails at 4' o.c. at all edges and 12" o.c. at intermediate members.
- All connections shall be Simpson Strong-Tie or equivalent.
- All construction shall be in conformance with the latest edition of the Uniform Building Code.
- Structural design is based on the following loads and general design criteria.  
Live Loads: Roof=30psf, Floor=40psf  
Wind Speeds: 100 mph wind, Exposure B (Seismic Zone 1)
- Provide cross-ventilation under floor system. Total of all vent openings shall exceed 0.3 of open area.
- Provide minimum 3/4" thick plywood tongue and groove floor sheathing attached with 8d nails spaced at 6" o.c. along beams, joists, and intermediate framing members.
- All interior and exterior walls to be framed with 2x4 studs at 16" o.c. Exterior walls shall have double top plates. Use minimum (2) studs built-up and nailed with 16d nails at 24" o.c. at each exterior wall corner. Studs are to be Hem-Fir Larch Stud Grade and better.  
F<sub>b</sub>=2050psi, F<sub>v</sub>=75psi, F<sub>c</sub>=405psi, E=1,300,000 psi.
- All Timberstrand beams shown can be replaced with equivalent size Microlams, 15E.
- Use Optimized Timberstrand for all drop beams with 12" from ground surface.
- Contractor to verify all measurements prior to construction.

Approved by Howard A. Perko, P.E.

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EXAMPLE PREPARED BY:  
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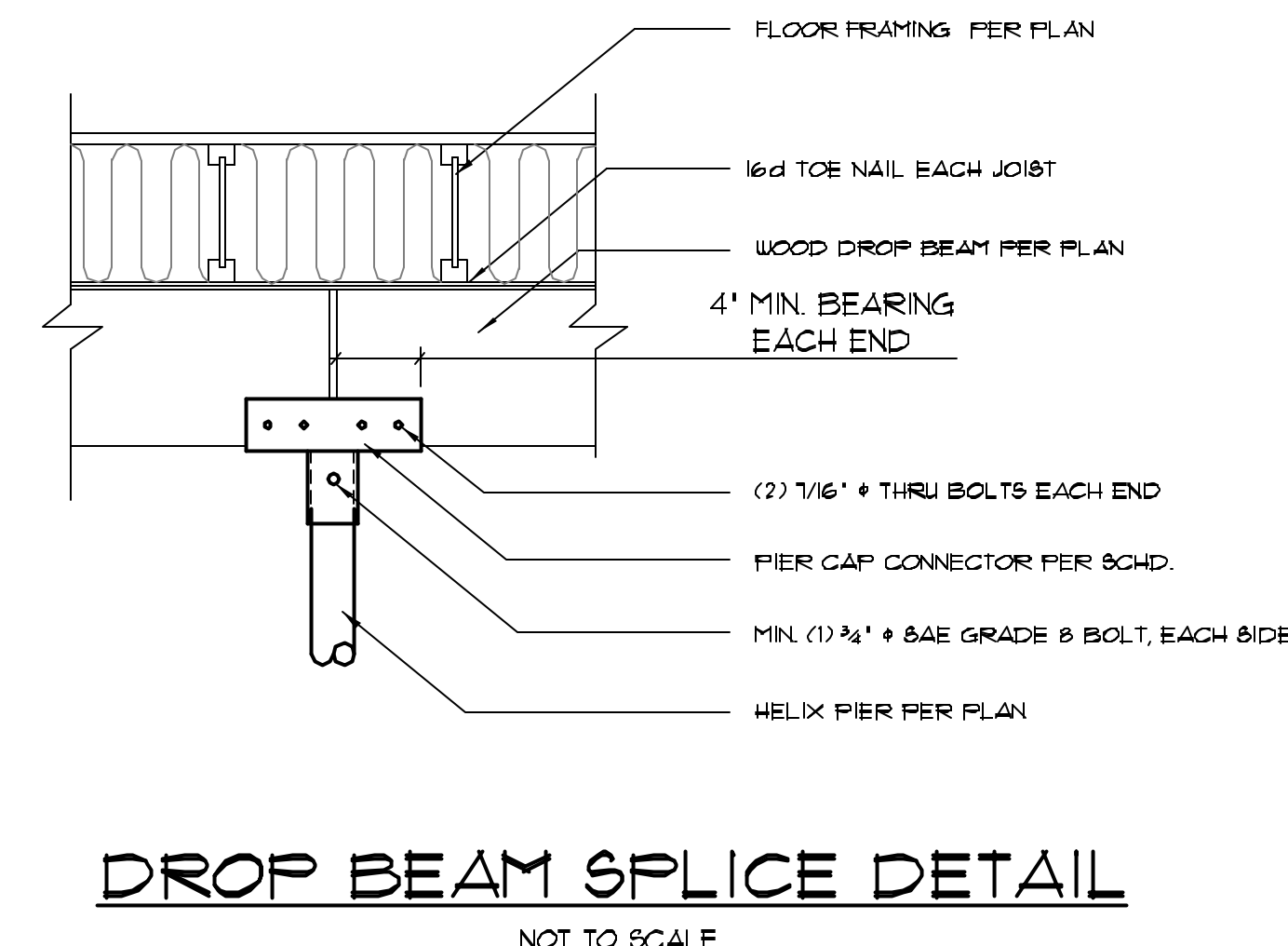
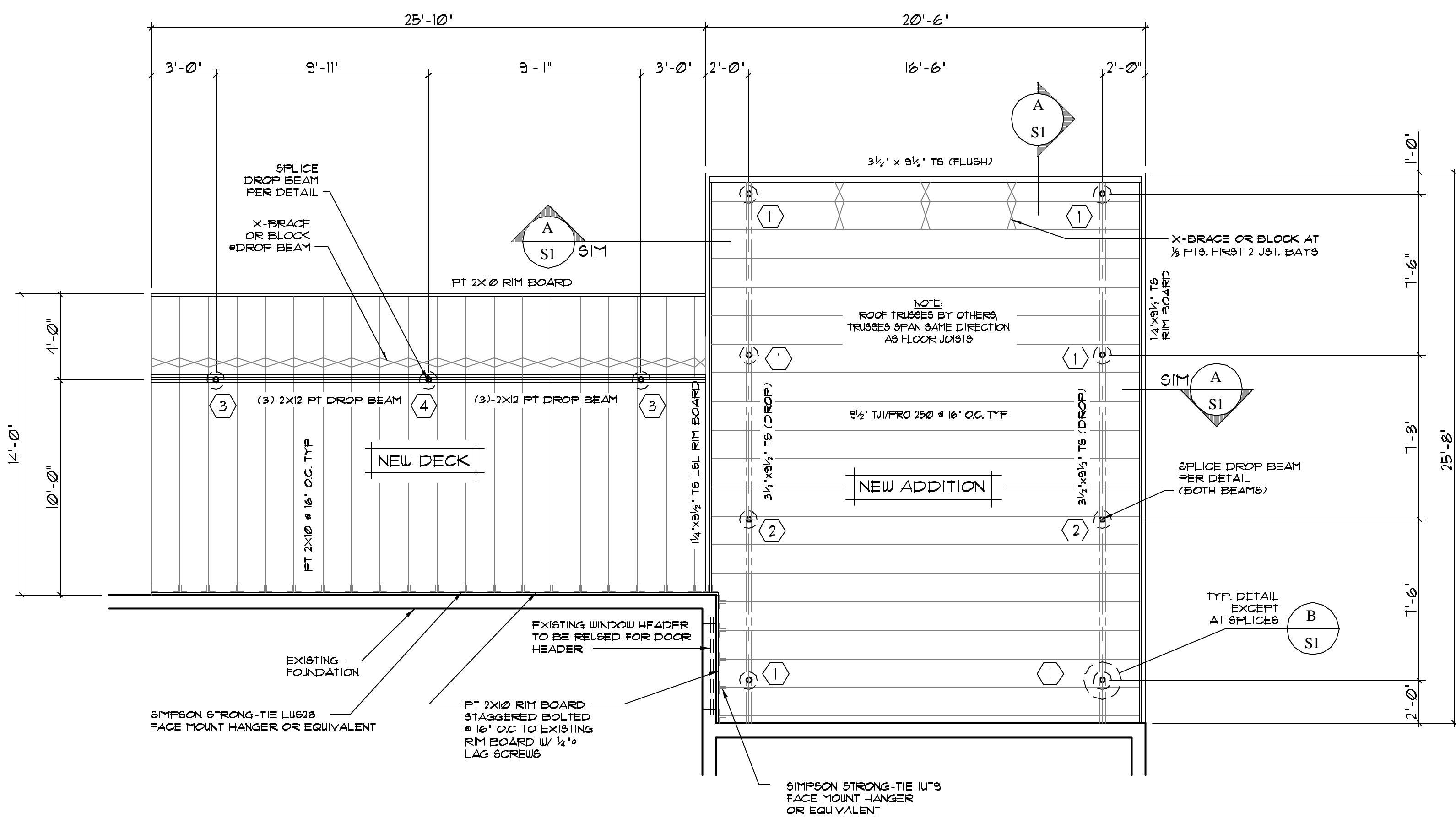
PROF. PLANET W/LET. STUDY  
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RESIDENTIAL ADDITION

EXAMPLE 3

DESIGNER	WRR/HAP	DATE	S1
PROJECT			
DATE	7-8-03		S1
SCALE	AS SHOWN		



**TYPICAL HEADER SCHEDULE**

- DOOR/WINDOW OPENING: 2 FEET OR LESS  
(2) - 2 x 8 w/ 1-2x TRIMMER
- DOOR/WINDOW OPENING: 2 FEET TO 4 FEET  
(2) - 2 x 10 w/ 1-2x TRIMMER
- DOOR/WINDOW OPENING: 4 FEET TO 6 FEET  
(2) - 2 x 12 w/ 2-2x TRIMMER

NOTE: See the plan for larger openings. For all headers supporting Girder Truss or other point loads contact the engineer if specific size not shown on plan.

**HELIX FOUNDATION SCHEDULE**

SYMBOL	QUANTITY	DESIGN CAPACITY	MIN. LENGTH*	PIER CAP CONNECTION	NOTES
1	6	12 KIPS	8' (FT)	MP1920 4x4 OR MP1915 WOOD BEAM CAP	MIN. 0.250 WALL HELIX SHAFT (STD. DUTY)
2	2	12 KIPS	8' (FT)	MP1915 WOOD BEAM CAP	MIN. 0.250 WALL HELIX SHAFT (STD. DUTY)
3	2	6 KIPS	4' (FT)	MP1920 4x4 OR MP1915 WOOD BEAM CAP	MIN. 0.125 WALL HELIX SHAFT (LGT. DUTY)
4	1	6 KIPS	4' (FT)	MP1915 WOOD BEAM CAP	MIN. 0.125 WALL HELIX SHAFT (LGT. DUTY)

\* MIN. DISTANCE BETWEEN GROUND SURFACE AND UPPERMOST HELICAL BEARING PLATE

