Legend: OmniClass# OmniClassTitle...
Project notes. (references) {IBC / IRC reference}.

General Requirements... All work must meet the requirements all locally adopted codes and ordinances including the Building Code (22-01 00 10) and the Accessibility Code (22-01 00 20), as well as all requirements, drawings, details, specifications and references in these construction documents.

50 10 Building Code... All work must meet the requirements of the 2017 edition of the Florida Building Code – Residential, and adopted Florida Building Code Family.

All work must meet the requirements of the 2009 version of ANSI 119.1

The Contractor is fully responsible for the construction and its conformance with all General Requirements (22-01 00 00) in order to be eligible for payment by the Owner. The Owner, under separate contract, may enlist the services of the Architect as a consultant to assess and confirm in writing the compliance of the work with the General Requirements (22-01 00 00). Otherwise, the Architect's liability is waived except for non-conformance of the design with applicable codes and ordinances. The presence of a representative of the Architect or Owner on the job site does not constitute approval of the work.

22-013113 Project Coordination...

Contact Sustainable Architecture, PLLC, wbswain@icloud.com, 662/801-2701, with any questions regarding these documents or discrepancies between the design and actual conditions.

22-013113 10 <u>Dimensioning...</u>

The data given in the design documents is for design purposes only and not guaranteed to a level of accuracy suitable for construction; the Contractor shall obtain exact locations, measurements, levels, etc. at the site, and shall adapt his work to the actual site conditions – and shall preserve the integrity of the design. Do not scale drawings. All notes and noted dimensions take precedence over scaled values, visual representations, or assumed information shown. Dimensioning guidelines are as follows: -vertical dimensions are measured from finished floor elevation "FFE" – i.e. top of slab or subfloor prior to installation of the finished floor – doors not dimensioned are to be placed as shown: either 10cm[4"] from the face of stud to the frame at adjacent corners, centered along the wall length, or to match existing conditions, -windows not elevated shall be placed vertically to have same head height as doors, exterior doors taking precedence – coordinate with the Exterior Window & Door Schedule, -stairs are dimensioned to face of nosing for riser, tread and handrail elevation dimensions, with handrails at 36"h. and guardrails at 42"h.

22-01 31 19 13 Pre-Construction Meetings...
The Owner, Architect and Contractor shall have an on-site pre-construction meeting to review the contract documents and to confirm Owner, Architect and Contractor responsibilities, and schedule and fee requirements. The Owner fails to have the meeting at Owner's risk.

22-013119 23 Progress Meetings...
The Contractor shall adhere to the construction progress schedule (22-01 32 16), and shall notify the Architect or Owner at each construction milestone (22-013216) so progress meetings can occur to inspect the work, authorize payment and approve construction to proceed. Architect's assessments are only recommendations; the Architect is not a Mediator.

22-013216 Construction Progress Schedule...

The construction progress schedule shall be negotiated between the Owner, Architect and Contractor, during the pre-construction meeting. It shall be coordinated with any draw schedule in place. The construction milestones are as follows: 1) just prior to each concrete pour, 2) at completion of exterior wall and roof framing, 3) at completion of fenestration and Weather-Resistive Barrier (36-11 21 00 07) but before finishes, 3) at completion of interior framing, 5) at completion of plumbing, mechanical, electrical and fire protection but before finishes, 6) at completion of millwork and casework installation, 7) at completion of finishes and plumbing, mechanical, electrical top-out, 8) at preliminary closeout review (22-017713), and 9) at Final Closeout Review (22-017716).

22-017116

Acceptance of Conditions, Substitution...

Substitutions are permitted but must be reviewed by the Architect. The Architect shall review

any proposed changes for violations of the General Requirements. If the Contractor, Owner or their Agents explicitly alter the work so that it does not conform with these Documents without the Architect's written approval, (e.g. alter the design, substitute a material or system, revise a construction detail or method of attachment from what is shown) such action will relieve the Architect of any liability regarding possible subsequent failure, property damage or personal liability.

Within 1 week after the preliminary closeout review progress meeting, the Architect will issue a Completion and Correction List (22-01 78 13), and establish a date for the Final Closeout Review (22-01 77 16).

22-017716 Final Closeout Review.. At the final closeout review, the Architect will inspect against the Completion and Correction List (22-01 78 13), and if all items are handled satisfactorily a substantial-completion certificate will be issued. Closeout preparation items include but are not limited to the following procedures: 1) Remove all construction debris, scraps, material, and equipment from site. 2) All glass shall be free of all manufacturer's tags, shall be cleaned on both sides, and shall be scratch free. 3) All millwork, doors, wall materials, painted surfaces, fixtures & fittings, mechanical grilles, ductwork, etc. are to be wiped down and free of dirt or other foreign matter. 4) All ductwork shall be power brush cleaned, vacuumed, and sanitized before owner takes possession. 5) All hard and soft floor surfaces are to be cleaned per manufacturer's specifications. 6) All areas used for storage, and all travel routes to and from the Project are to be returned to their original condition at the completion of Work. Any items not required in the construction documents will be handled under separate contract between the Owner and Contractor, and the Owner-Architect contract will be considered closed.

213 <u>Completion and Correction List...</u>
A completion and correction list ("punch list") will list all notable items that are officially deemed a discrepancy between the project requirements and the work. All items must be resolved for the final closeout review to commence.

22-0178 23

Operation and Maintenance Data...

At the final closeout review (22-01 77 13), the Contractor shall provide a file to the Owner containing manufacturer specifications, operation and maintenance instructions, and warranties for all products and systems installed by the Contractor.



## 22-01 General Requirements

All documents below are hereby incorporated into the Construction Documents. 21 00 Product Literature
21 00 01 Specificator's Guide for Trus Joist Beams, Headers and Columns...
Weyerhaeuser (https://www.weyerhaeuser.com/woodproducts/document-library/ Professional Practice Guides and Standards Details for Conventional Wood Construction

American Forest & Paper Association (https://www.cochise.az.gov/sites/default/files/ community\_development/BSDRef%20AFPA%20-%20Conventional%20Wood%20Frame%20Construction%20Details.pdf)

36-11 29 13 05 National Gypsum Construction Guide...
National Gypsum Co. (https://www.scribd.com/document/208722419/NGCConstGuide-pdf)
36-11 29 13 06 Architectural Woodwork Standards... Architectural Woodworking Institute (https://woodworkinstitute.com/wp-content/uploads/ 2018/04/2ndEdAWS\_SmBkMrkd\_141001.pdf)

Roof Plan

36-11 General References

O7 Sitework consists of site preparation (20-07 10), site improvements (20-07 20), liquid and gas site utilities (21-07 30) and electrical site improvements (21-07 40).

Site preparation consists of site clearing (21-07 10 10) and site earthwork (21-07 10 70).

o7 10 10 Site <u>Clearing...</u> Site clearing consists of earth stripping and stockpiling (21-07 10 10 50). 21-07 10 10 50 <u>Earth Stripping and Stockpiling...</u>

Minimize the area of earth stripping to within and around the building pad perimeter and minimal area necessary for access. Remove only those trees smaller than 2' diameter or in proposed

parking areas. Protect existing landscaping. o7 10 70 Site Earthwork...

Site earthwork consists of grading (21-07 10 70 10), excavation and fill (21-07 10 70 10), and

erosion and sedimentation controls (21-07 10 70 10). 07 10 70 10 <u>Grading...</u> Grade the site as indicated in the civil plan to accommodate the storm drainage system (21-07 30

21-07 10 70 20 Excavation and Fill (building pad)...

The building pad consists of 1m[3'] of engineered fill as specified over virgin earth after all organic material is removed, moistened and compacted to 95% of maximum Proctor density to achieve a minimum load bearing value of 1500psi for residential loading. If such values are not achieved, a soils report is required. In the absence of a soils report, all Architect liability for foundation issues or failures is usually for the minimum and specific the soil ding and. The building and the buil is waived. Excavate the minimum area necessary to establish the building pad. The building pad shall be 30cm[1'] above existing grade at the high side, feathered with a 1:4 slope all around; the FFE will be set at 15cm[6"] above top of building pad. Adjacent concrete patios, driveways, walks will meet the

slab at 10cm[4"] below finished floor elevation: slope grade accordingly at 1:50 for site concrete and 1:8 down to existing grade beyond. Provide Owner-selected gravel inside the eave drip line ensuring a minimum of 6" clearance to finish floor elevation, maintaining positive slope away from the building. 21-07 10 70 35 <u>Erosion and Sedimentation Controls...</u>
Provide silt fencing and ground cover throughout construction as needed to keep inlets to off-site drainage clear.

O7 20 <u>Site Improvements...</u>
Site improvements consist of landscaping (21-07 20 80). 21-07 20

o7 20 80 Landscaping...
Prior to landscaping, all construction debris shall be disposed of off-site. Excavation soil shall be retained and redistributed neatly prior to landscaping. Bait-based termite prevention systems shall be provided in the gravel zone (21-07 10 70 20). Outside that zone, landscaping must be coordinated with the owner to provide complete ground-cover and associated irrigation (21-07 10 30 10 50).

207 30 Liquid and Gas Site Utilities...

The Contractor is responsible for the natural gas connection.

7 30 10 Water Utilities...
The Contractor is responsible for the domestic water connection. 21-07 30 10 50 <u>Site Irrigation Water Distribution (or xeriscaping)...</u>

The site irrigation is system to be designed under separate contract upon request by the Owner. Rainwater harvesting is recommended. Upon approval of the Code Official, Rainwater harvesting in encouraged as a source for lawn irrigation, and Xeriscaping (36-11 43 00 01) is recommended as an alternative to an irrigation system.

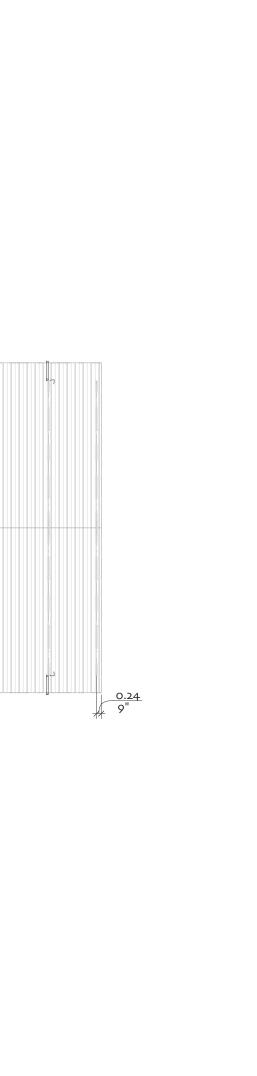
21-07 30 20 20 Sanitary Sewerage Piping...

The Contractor is responsible for the sanitary sewerage piping and all site connections (21-04 20

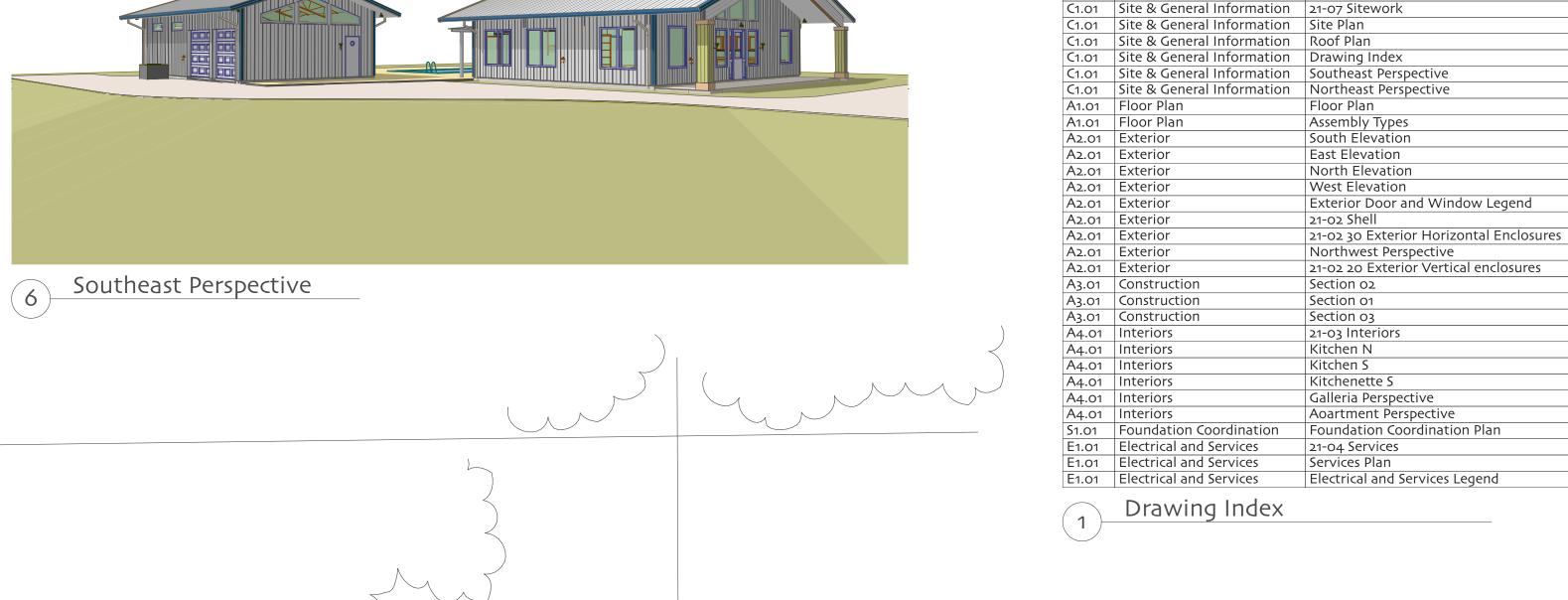
07 30 30 Storm Drainage System...
Use gutters and downspouts at all eaves and route underground into existing off-site stormwater 21-07 30 30 drainage system.

21-07 30 30 30 Culverts . Swales, French Drains...
Provide swales and French drains as required to ensure positive drainage from all areas to off-site

4 21-07 Sitework



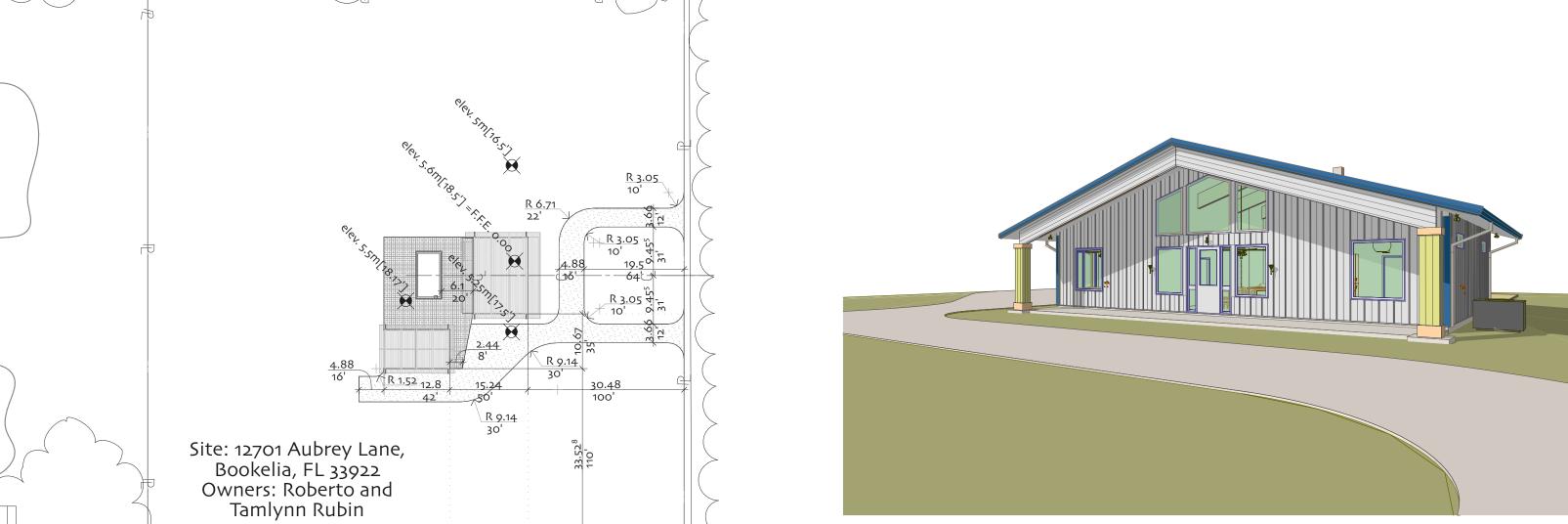




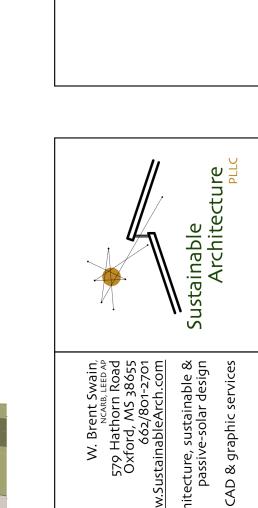
Sheet Name

C1.01 Site & General Information 22-01 General Requirements

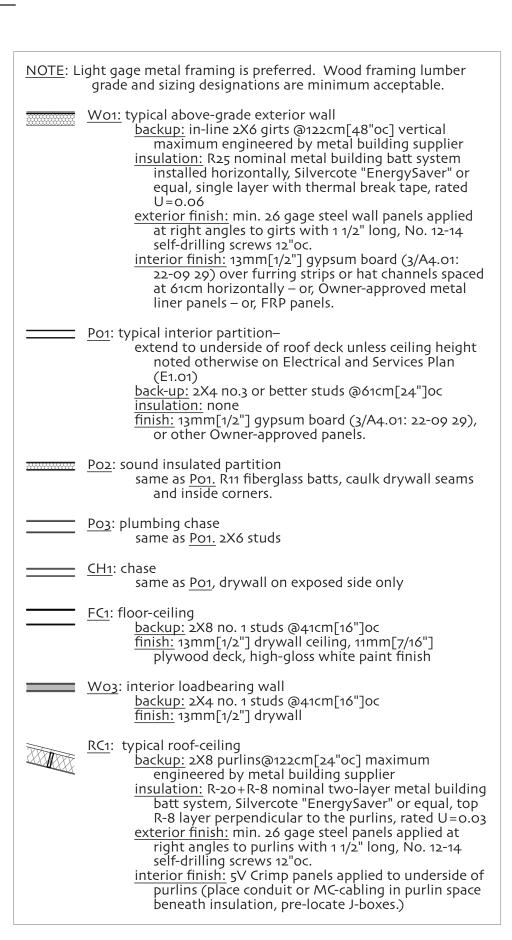
C1.01 Site & General Information 36-11 General References



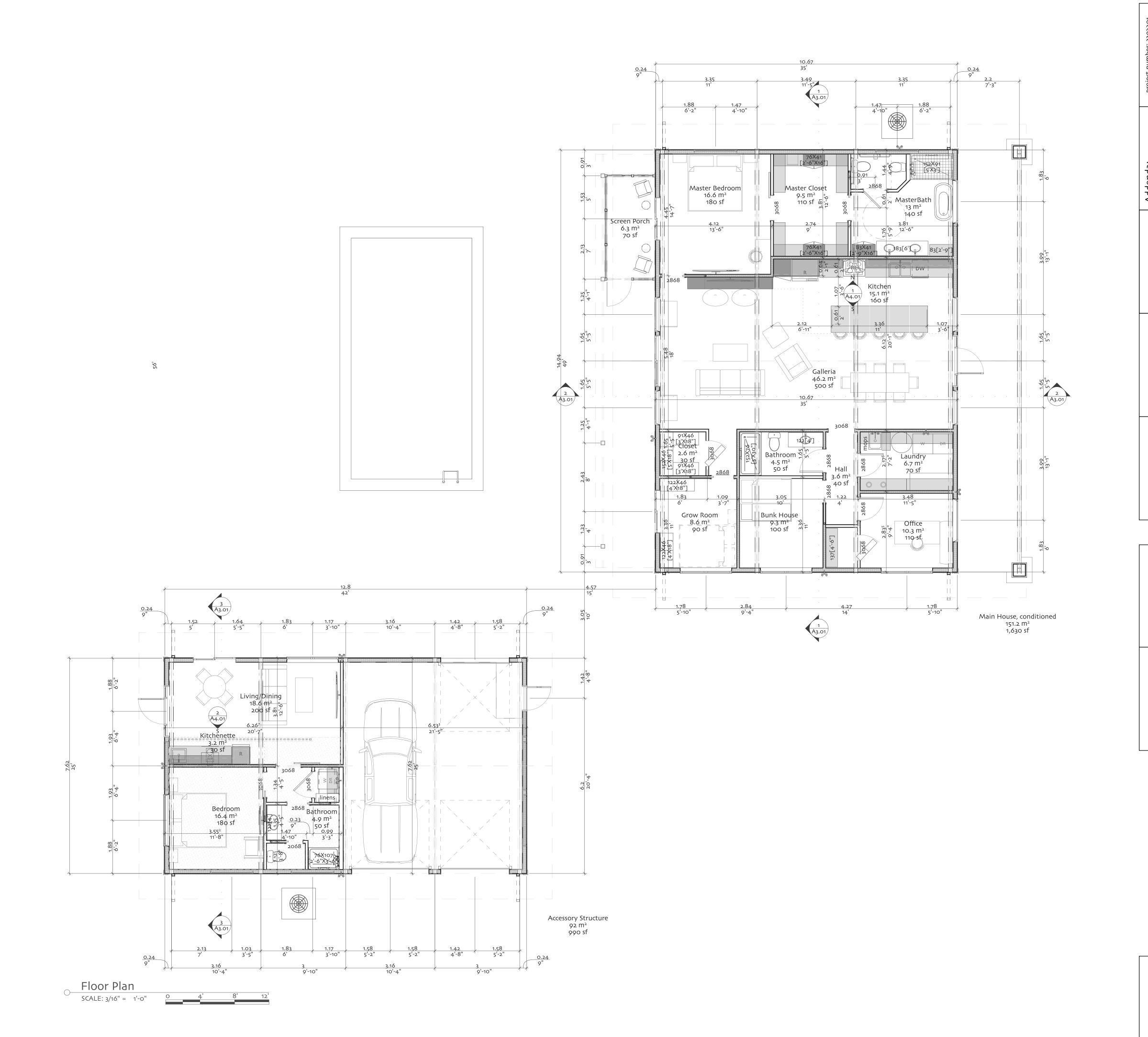




General mation Site & Inforr



Assembly Type



ecture PLLC PLLC 8/16/20

del Sol
Ibrey Lane

, FL 33922

Floor Plan

21-02 Shell...
Shell consists of Superstructure (21-02 10, 13/A3.01) Exterior Vertical Enclosures (21-02 20, 2/A2.01) and Exterior Horizontal Enclosures (21-02 30, 3/A2.01), with global requirements listed below for Decay Prevention (22-06 o5 33 73), Termite Protection (22-31 31 16 16), Fastening (22-05 o5 23), Firestopping (22-07 84 00) and Thermal Insulation (22-04 21 00) and Weather-Resistive Barrier WRB (22-07 25 00).

7 84 Firestopping...
Firestopping to prohibit draft openings between horizontal and vertical assemblies shall be provided at all concealed spaces of stud walls and partitions and furred spaces. The fireblocking shall occur at the ceiling and floor levels, every 10 feet horizontally, at all interconnections between vertical and horizontal spaces (e.g. soffits), concealed spaces, at openings around penetrations (ducts, pipes, etc.), and at chimneys and fireplaces per {R1003.19}. Fireblocking may consist of 2X construction or double-1X construction with offset lap joints, 23/32" wood structural panels installed with battens of the same, 3/4" particleboard with battens of the same, 1/2 gypsum board, or 1/4" cement-based

Thermal Insulation...

Thermal Insulation shall be Silvercote EnergySaver or equal, R25 in the walls (1-layer), and R30 minimum in the roof-ceiling (2-layer). Provide thermal break tape between the girts and wall panels.



22 20 <u>Exterior Vertical Enclosures...</u> Exterior Vertical Enclosures consist of Exterior Walls (21-02 20 10), Exterior Wall Interior Skin (21-02 20 10 30), and Exterior Windows and Doors (21-02 20 20).

Exterior Walls... 21-02 20 10 Exterior Walls are engineered 26ga panels on engineered metal building frame. Shop drawings

21-02 20 10 30 Exterior Wall Interior Skin...

Exterior wall interior skin consists of painted 1/2" gypsum board (22-09 29 00, 2/E1.01) attached to the girts. Where wall tile is scheduled, concrete backer board (Wonderboard or equal) is required. Use water-resistant gypsum at all locations within 3 feet of toilets or sinks {T.R702.3.5}. Fasteners shall be as specified in {T.R702.3.5}: drywall nails at 8"oc, or as specified in {R702.3.6}: screws at 16"oc.

21-02 20 20 Exterior Windows and Doors...

Exterior windows are PGT aluminum windows (36-11 21 00 04) or equal, double-pane. Glass types are to be high-SHGC<=.5, U<=0.4 at south-facing and Garage windows, and low-SHGC<=0.25, U< = 0.25, low-e at all other locations. Interior finish shall be drywall return at all jambs and heads, with interior wood stools, or jamb extensions and wood trim at Owner's approval. Exterior Doors are steel out-swing entrance doors, and PGT aluminum patio doors or equal installed per manufacturer's instructions.



21-02 30 Exterior Horizontal Enclosures...

Exterior horizontal enclosures consist of roofing (21-02 30 10), Roof Decks, Slabs and Sheathing (2-02 10), Ceilings (21-02 30 80 10), and Exterior Soffits (21-02 30 80 20). 21-02 30 10 Roofing...

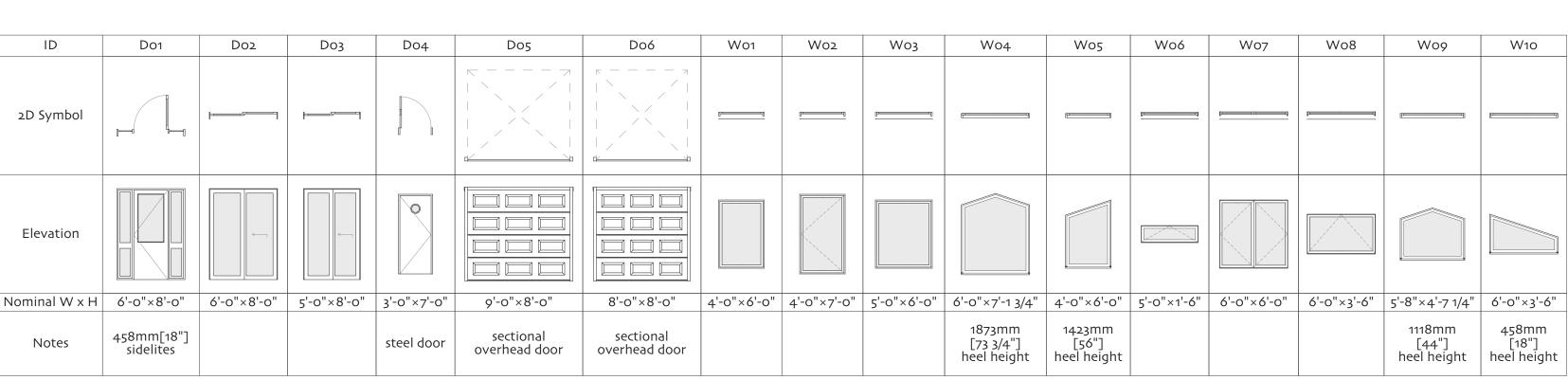
Roofing shall be "PBR panel" 26ga minimum or equal with finish carrying a 30-year warranty

(36-11 21 00 06). 21-02 30 20 70 <u>Rainwater Management...</u>
Provide gutters and downspouts, sized per Table 6 of "Moisture Resistant Homes (36-11 29 13 04) at all eave conditions. Route underground to off-site drainage. 21-02 30 20 70

21-02 30 80 10 <u>Ceilings.</u> Interior roof-ceiling skin consists of painted 1/2" gypsum board (22-09 29 00, 2/E1.01) attached to the purlins. 21-02 30 80 20 Exterior Soffits...

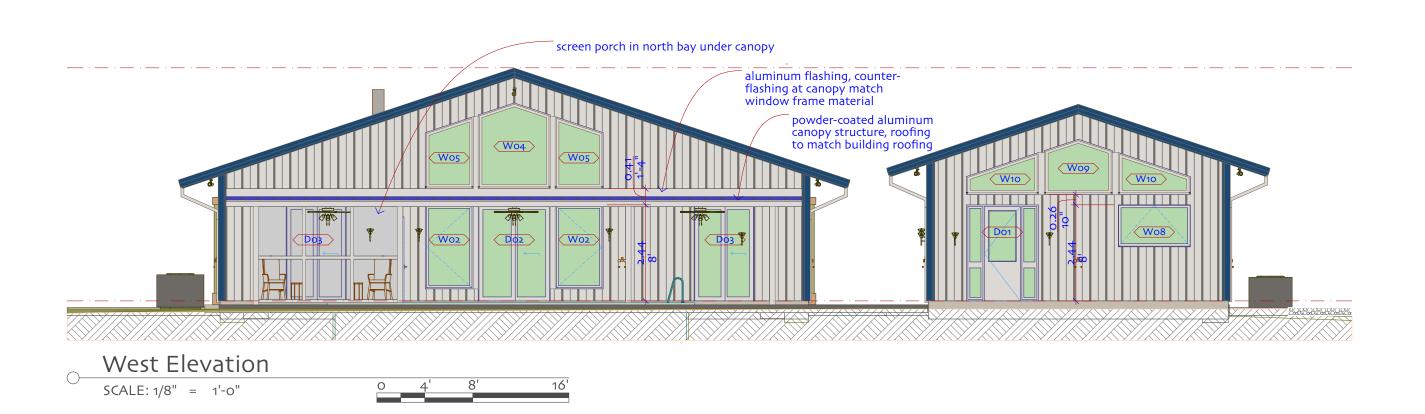
Exterior soffits shall be 5V Crimp metal panels attached perpendicular to the purlins.

21-02 30 Exterior Horizontal Enclosures

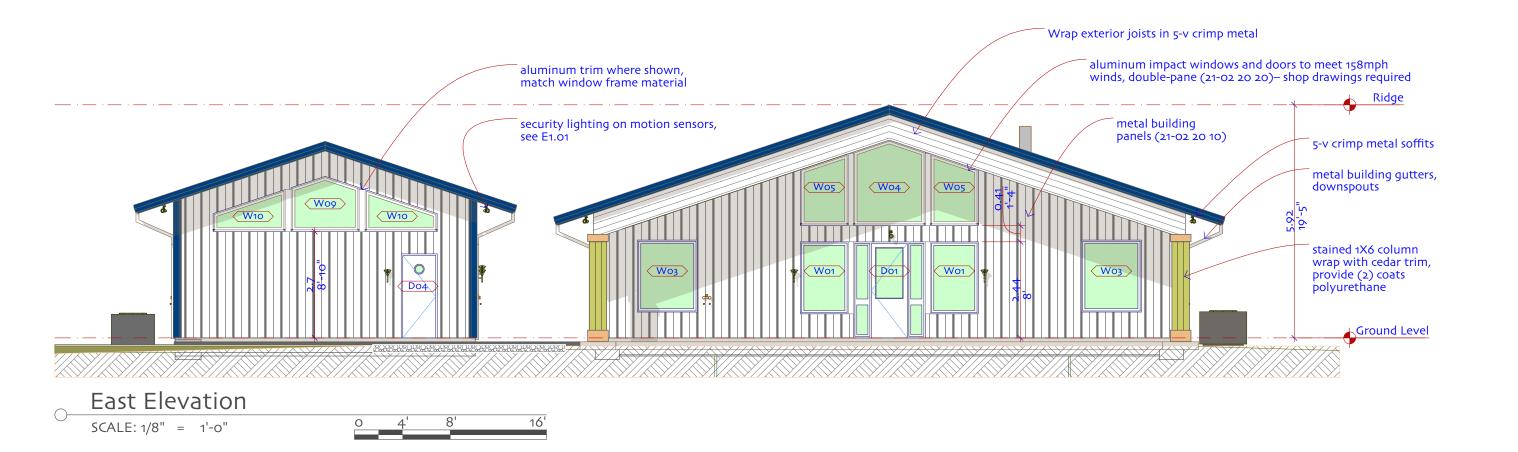


Exterior Door and Window Legend





SCALE: 1/8" = 1'-0"





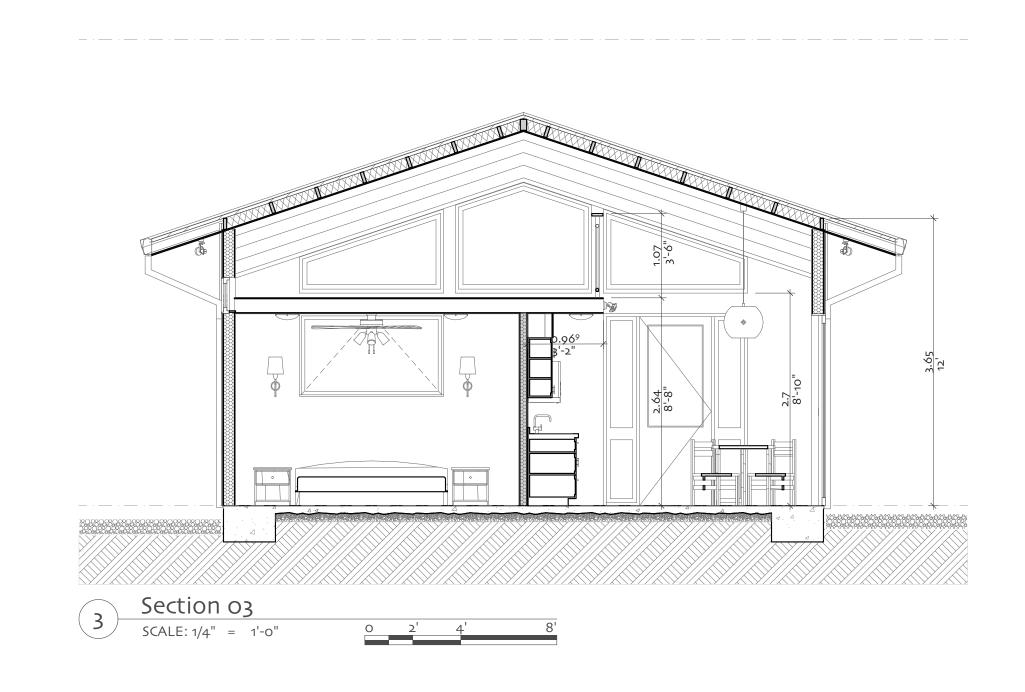


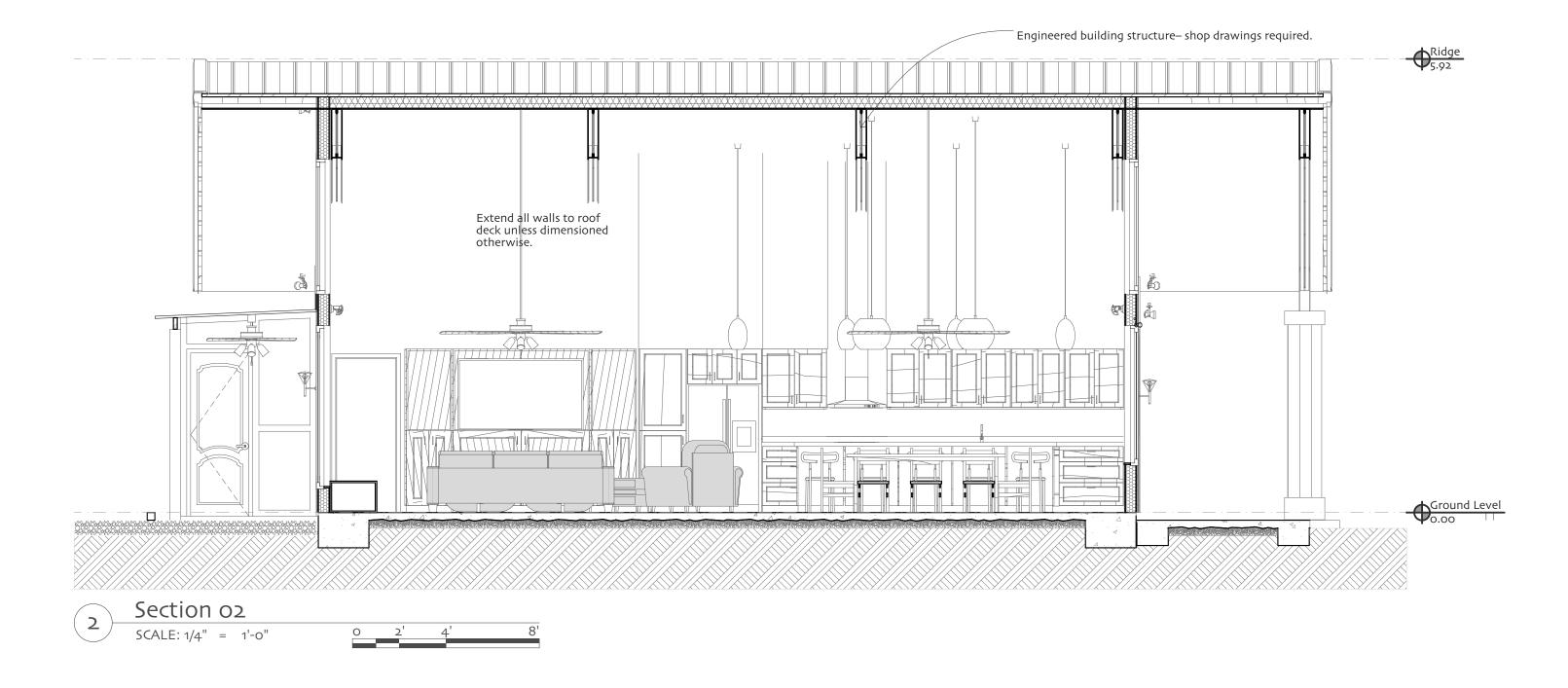


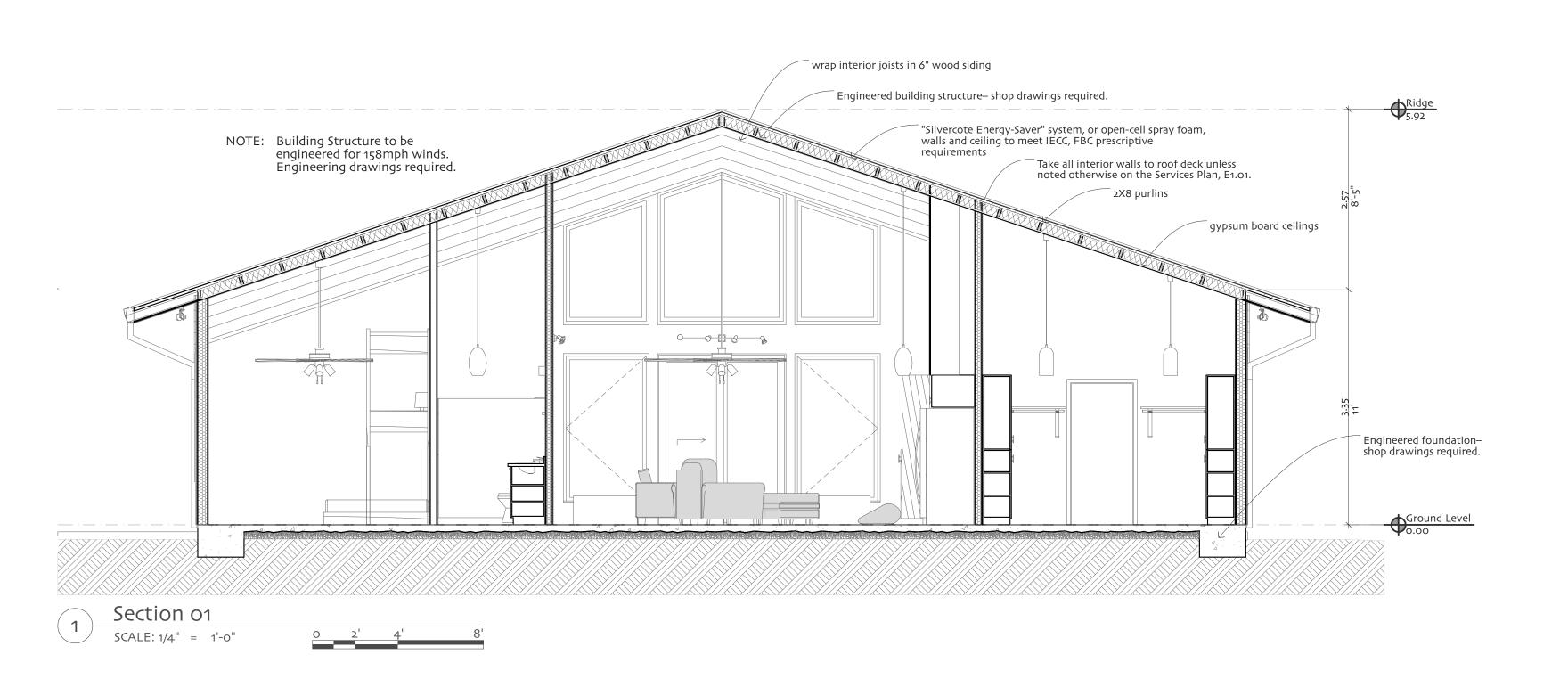
Casa del S 12701 Aubrey Bookelia, FL

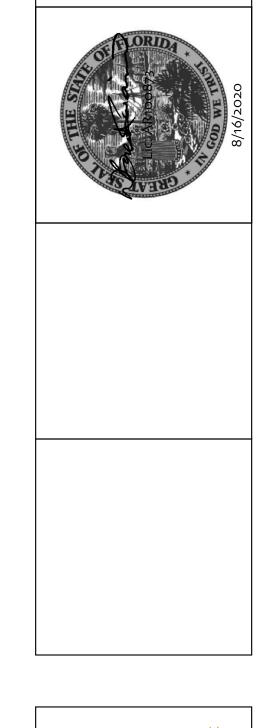
Sustainable Architecture

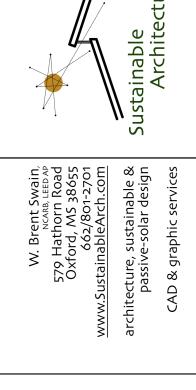
Exterior











Construction

A3.01

Interiors consist of Interior Partitions (21-03 10 10), Interior Doors (21-03 10 30), Tile Flooring (21-03 20 30 20), Painting (22-09 91), Interior finish carpentry (22-06 20 23), Millwork (22-06 22), and Toilet Accessories (22-10 28 13).

Interior Partitions shall meet all requirements of Gypsum Board Assemblies (22-09 29) and Rough Carpentry (22-06 10). See Assembly Types, 1/A1.01 for lumber grade.

Install interior doors with maximum 3mm[1/8"] clearance at top and sides, and 6mm[1/4"] clearance at bottom. Doors shall have an allowable warp tolerance of 6mm[1/4"]. All four corners are to be square and the hypotenuse measurements must be within 3mm[1/8"] of each other. Shim to ensure frames are plum and level.

21-03 20 30 20 Tile Flooring...
Size, color and texture of all tile is to be as selected by Owner. Static coefficient of friction for all tile shall be minimum 0.6 and 0.8 for sloped surfaces wet. Ceramic tile areas to receive painted wood base; porcelain tile to receive porcelain tile cove base. Concrete beneath subfloor is to be clean and dust free, cured, flat and level. Verify plumbing and other services are located properly before performing work. Use organic adhesive Type I in all areas exposed to prolonged moisture. Use tile manufacturerrecommended mortar bed materials, mortar bond coat materials, grout, sealant, cleavage membrane, waterproofing membranes and backer board as required. Install tile to manufacturer recommended tolerances. For floors, install per TCA Handbook method F111 with cleavage membrane lapped 5cm[2"] in all directions; mortar bed thickness is 3cm to 5 cm[11/4" to 2"]; standard grout. At tiled shower stall receptors install per method B415, mortar bed floor; and W244, thin set over cementitious backer unit walls. At bathtub surrounds install per method B412, over cementitious backer units waterproofing membrane. Thoroughly clean all surfaces after installation; remove wayward grout. Provide an additional 10% of each product type to Owner.

-09 91 Painting...
Interior paint shall be latex based, zero VOC paint. A primer and one finished coat is required (unless pre-primed). Luon doors require two primer coats. Finish shall be semi-gloss for all walls; gloss for all paint grade trim, posts and post wraps, exposed beams or beam wraps, millwork and doors; flat for ceilings. Stain grade posts or beams, 6-panel wood doors and millwork shall receive 2 coats of semi-transparent stain, alkyd or oil resin base. Provide 2 extra gallons of each paint and color.

millwork shall receive 2 coats of semi-transparent stain, alkyd or oil resin base. Provide 2 extra gallons of each paint and color.

22-09 29 Gypsum Board Assemblies...

Gypsum Board shall be regular 13mm[1/2"], except board shall be moisture resistant extending 61cm[2'] in all directions from all wet areas, and type-X beneath habitable rooms and in the garage ceiling. Ceiling gypsum board shall be hung perpendicular to the underside of the floor framing, which is spaced a maximum of 61cm[2']oc. Fastener spacing for ceilings shall be 17cm[7"oc] for nails or 30cm[12"]oc for screws, and for walls shall be 20cm[8"]oc for nails or 61cm[24"]oc for screws. Material Standard for Gypsum Board Finish is ASTM C1396. Fasteners shall be 13ga 34mm[1 3/8"] nails with a 7.5mm[19/64"] head, or 31mm[1 1/4"] X 3mm[0.098"] diameter annular-ringed nails, or 5d 41mm[1 5/8"] X 2mm[0.086"] diameter cooler nail with a 6mm[15/64"] head, or 41mm[1 5/8"] X 2mm[0.086] diameter gypsum board nails with a 7mm[9/32"] head. Finish standard is C840 and G840. There shall be not Joint treatment shall be 3 coat system with paper or fiberglass tape complying with ASTM C474 and C840. There shall be not more than 2mm[1/16"] difference in true plane at joints between adjacent boards before finishing and not more than 3mm per 2.5m[1/8":10'] deviation from true plane, plumb, level and proper relation to adjacent surfaces in finished work. After finishing, joints shall not be visible. Install boards vertically. Do not allow butt-to-butt joints or joints that do not fall over framing members. Repair surface defects (36-11 29 13 05, pages 101 through 105).

Interior ceilings are to be constructed according to Gypsum Board Assemblies (22-09 29). Lumber is to be stamped with American Softwood Lumber Standard and inspection agency stamps DOC PS 20. Product standard for plywood: DOC PS 1, APA PRP-108. All carpentry to be level and plumb, all door and window installations shimmed to level and plumb. Lumber shall be FSC certified. Fastening requirements are per {T.R602.10(1)}. Provide blocking for Toilet Accessories (22-10 28 13) and Millwork (22-06 22).

-06 20 23 Interior Finish Carpentry...
Interior finish carpentry including wood base, door casing, window stool and aprons, crown moulding at the top of millwork, and crown moulding at the top of all wall partitions where there is no ceiling is to meet AWI standards, custom grade (36-11 29 13 o6). After drywall is hung but prior to trim carpentry work, discuss finish carpentry options (e.g. crown moulding, chair rail, custom sills, window seats, etc.) with Owner; an allowance in the original project budget is recommended.

22-06 22 Millwork...

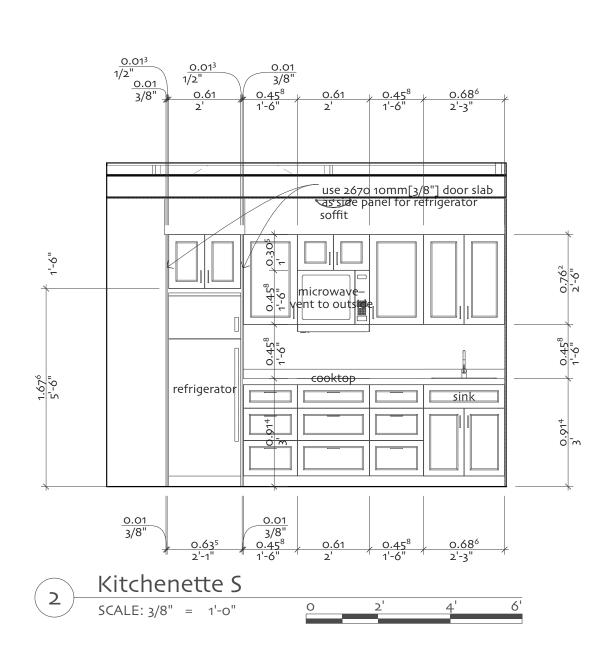
Millwork consists of site-fabricated, site-built Owner-selected fixed furnishings. Millwork is to be AWI custom grade (36-11 29 13 06). Universal design standards are recommended. Unless requested by Owner, all fixed furnishings, "built-ins," including kitchen cabinetry and bath vanities are to be Casework.

21-05 10 20 30 Casework...
Casework consists of fully finished shop-built fixed furnishings installed and trimmed out by the Contractor. Casework is to be AWI custom grade (36-11 29 13 06). Universal design standards are recommended. 22-10 28 13 Toilet Accessories...

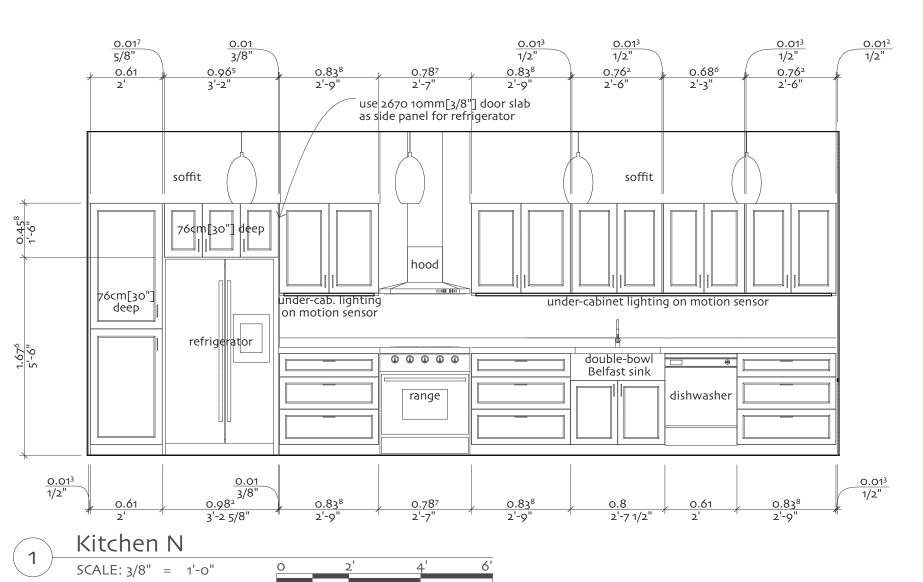
Toilet Accessories including at a minimum towel bars and hooks, toilet paper dispensers, bathroom mirrors, and optional wall-mounted soap dispensers and soap dishes are as selected by the Owner and installed by the Contractor. Provide blocking for future grab bars at all toilets and in all showers. Universal design standards are recommended.

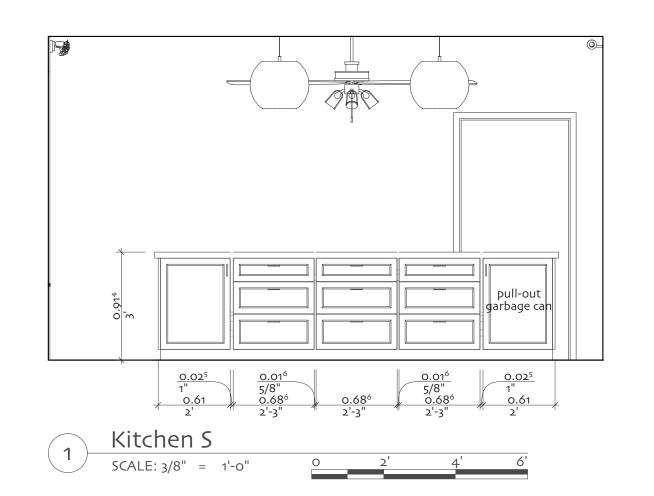


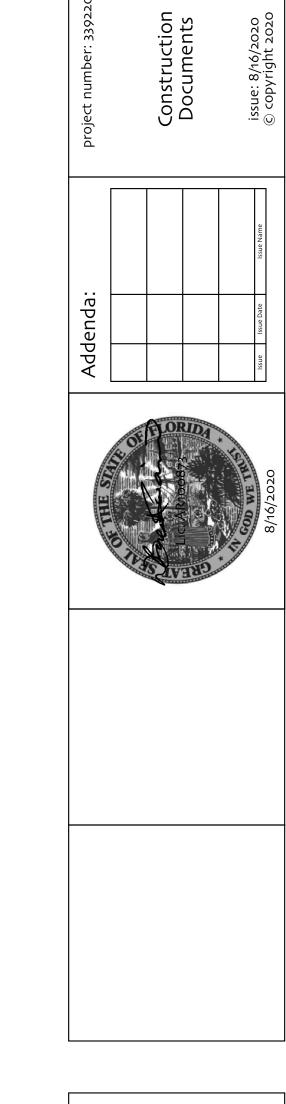


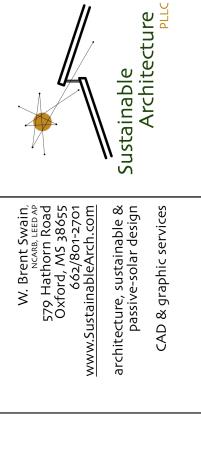






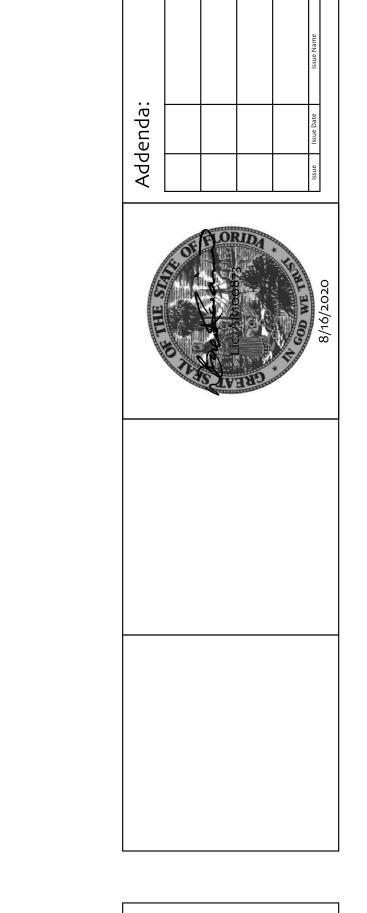


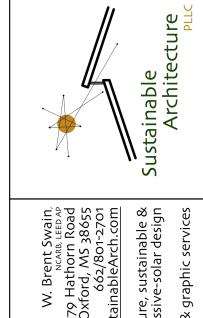




Casa del Sol 12701 Aubrey La Bookelia, FL 339

Interiors

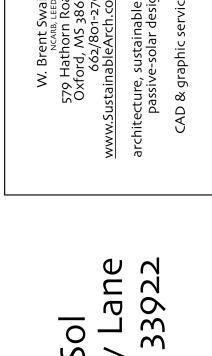


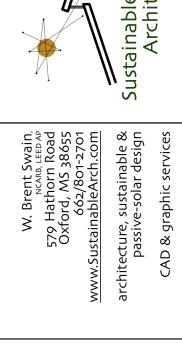


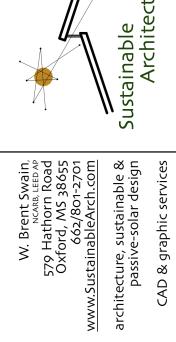
Casa del Sol 12701 Aubrey La Bookelia, FL 339

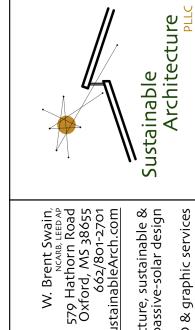
Foundation Coordination 51

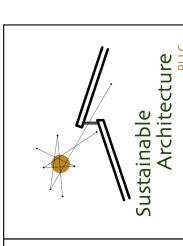


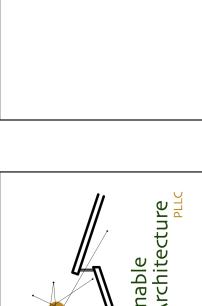


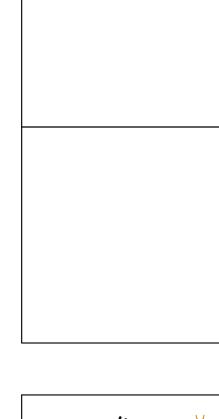










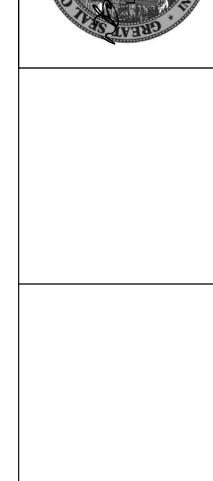


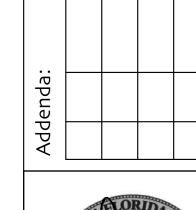
laundry box

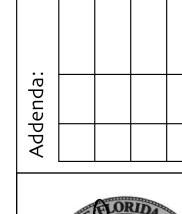
Elevate Dryer on 46cm[18"] platform

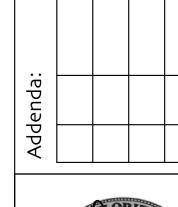
→ ′ O DHW

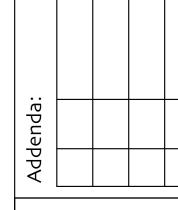
power to each





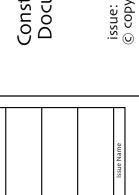


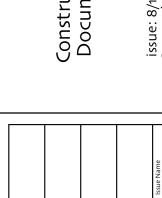




|        | 0 - |  |  |  |
|--------|-----|--|--|--|
| •      |     |  |  |  |
| כ<br>כ |     |  |  |  |

|  | Constructi |  |
|--|------------|--|
|  |            |  |





|  | Constructi | Documen | 7,70 |  |
|--|------------|---------|------|--|
|  |            |         |      |  |

| 21-04 05                | Electrical  |
|-------------------------|---|
| Electrical serv         | vice consists of Electrical Service and Distribution (21-04 05 20). Provide |
| service to Fire Prote   | ction system (21-04 40 30) and air-conditioning system (22-23 81 26 13).    |
| 21-04 05 30 10          |   |
| Provide brand           | h wiring to meet all General Requirements (21-01).                          |
| 21-04 20                | Plumbing  |
| Plumbing ser            | vice consists of installation of plumbing fixtures and all necessary supply |
| vent piping needed t    | for water closets (22-22 41 13 13), showers and tubs (22-22 41 23), and sin |
| 41 16 13).              |   |
| 22-22 41 13 13          | Residential Water Closets   |
| Provide Own             | er-selected "water-sense" labeled water closets.                            |
| 22-22 41 23             | Residential Showers and Tubs  |
| D., a., .; J. a. O., ., |   |

ide electrical

ply, soil and sinks (22-22

Provide Owner-selected showers and tubs and construct Owner-selected surrounds per

manufacturer's instructions. Locate all controls to be ADA compliant and provide grab-bar blocking.

manufacturer's instructions. Locate all controls to be ADA compliant and provide grab-bar blocking.

22-22 41 16 19 Residential Sinks...
Install Owner-selected lavatories and sinks per manufacturer's instructions.

21-04 30 Heating, Ventilating and Air-Conditioning...

33-41 76 02 HVAC Contracting: Heating, Ventilating and Air-Conditioning Contracting...

Provide minimum 19-SEER heat pump systems to meet all General Requirements and according to manufacturer's instructions. HVAC contractor shall test and balance existing system to meet all

General Requirements.

21-04 40 30 Fire Protection Specialties...

Provide fire alarms powered by the branch wiring system with back-up batteries installed in all sleeping rooms and in areas near the entrance to sleeping rooms. Provide an ABC rated general use residential fire extinguisher in the kitchens.

22-22 34 30 Residential Gas Domestic Water Heater...

Install hybrid, or whole-house gas-fired on-demand, or point-of-use electric on-demand systems per Plumbing Contractor's recommendations and to meet all manufacturer's instructions. {G2448}

2 21-04 Services

exhaust fan, ducted to exterior

single-pole switch

3-way switch

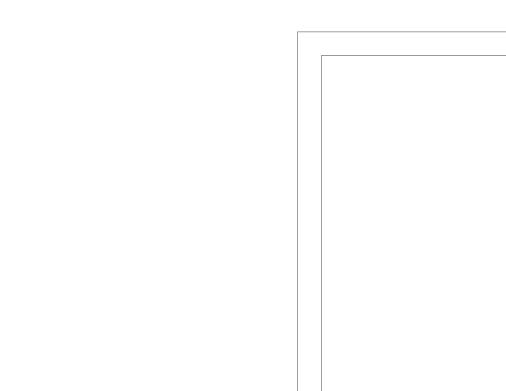
ceiling ventilator with LED light kit @244cm[8']a.f.f.

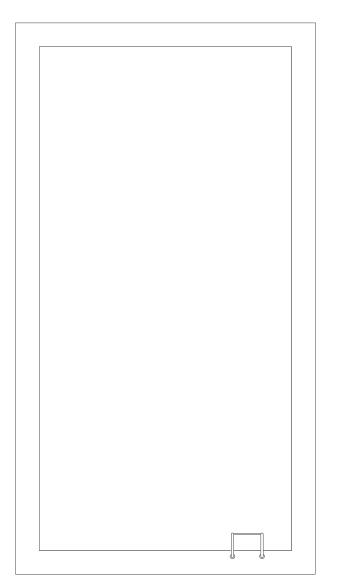
LED bath bar, width of counter @213cm[7']a.f.f., or strip lighting under wall cabinet edge

pendant LED light fixture @244cm[8']a.f.f. suspended LED 1X8 fixture

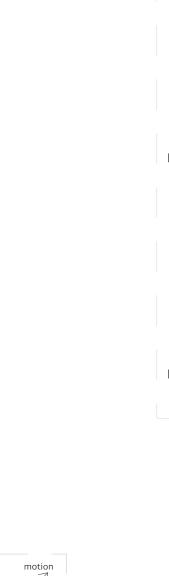
@244cm[8']a.f.f.

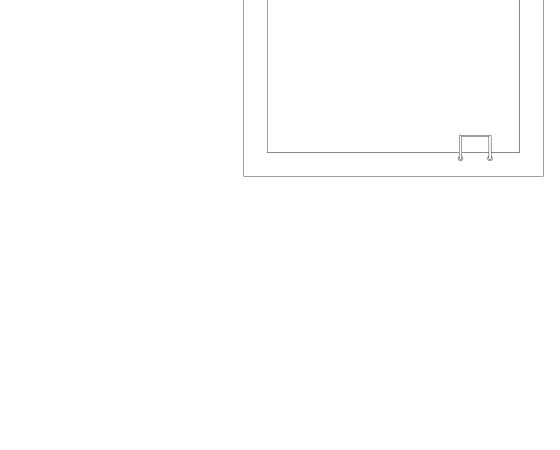












Services Plan

SCALE: 3/16" = 1'-0"

Electrical and Services Legend

**⊕** gfi  $\bigoplus$  ded. receptacle on dedicated circuit  $\bigoplus$ wp waterproof receptacle floor receptacle

ground-fault circuit interrupt receptacle

- quadplex receptacle, 46cm[18"]a.f.f. or height indicated

- 21-04 00 Services...
  Services consist of Electrical (21-04 05), Plumbing (21-04 20), HVAC (21-04 30), Fire Protection Specialties (21-04 40 30), and Facility Natural Gas Piping (22-23 11 23).

  21-04 05 Electrical...