GENERAL NOTES AND SPECIFICATIONS

WOOD

1. WOOD FRAMING GENERAL:

- PROVIDE DOUBLE JOISTS UNDER AND PARALLEL TO ALL BEARINGS PARTITIONS.
- ALL BOLT HOLES SHALL DE DRILLED 1/32" TO 1/16" OVERSIZED.
- 2x12 JOISTS SHALL BE BLOCKED AT THE SUPPORTS AND AT 8 FEET o.c. (AND RAFTERS GREATER THAN 10" DEPTHS AT THE SUPPORTS AND AT 10 FEET O.C.) WITH SOLID 2x BLOCKING 2" SHALLOWER THAN JOISTS OR APPROVED METAL CROSS BRIDGING.
- WOOD FRAMING MEMBERS: SOUTHERN PINE N°2 UNLESS OTHERWISE MARKED ON THE PLANS.
- RAFTER TIES SPACED AT 4 FEET (MAX.) ON CENTER ARE REQUIRED IMMEDIATELY ABOVE CEILING JOISTS WHICH ARE NOT PARALLEL TO THE RAFTERS.

NAILING SCHEDULE TABLE

JOIST TO SILL OR GIRDER, TOENAIL	3–8d
BRIDGING TO JOIST, TOENAIL EACH END	2–8d
1"x6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2–8d
WIDER THAN 1"x6" SUBFLOOR TO EACH JOIST, FACE NAIL	3–8d
2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2–16d
SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL	16d @16" o.c.
SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANELS	3–16d per 16"
TOP PLATE TO STUD, END NAIL	2–16d
STUD TO SOLE PLATE	4–8d, TOENAIL OR 2–16d, END NAIL
DOUBLE STUDS FACE NAIL	16d @24"o.c.
DOUBLED TOP PLATES, TYPICAL FACE NAIL	16d @16"o.c.
DOUBLE TOP PLATES, LAP SPLICE	8–16d
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	3–8d
RIM JOIST TO TOP PLATE, TOENAIL	8d @6" o.c.
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2–16d
CONTINUOUS HEADER, TWO PIECES	16d @ o.c. along each edge
CEILING JOISTS TO PLATE, TOENAIL	3–8d
CONTINUOUS HEADER TO STUD, TOENAIL	4–8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3–16d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3–16d
RAFTER TO PLATE, TOENAIL	3–8d
1"x BRACE TO EACH STUD AND PLATE, FACE NAIL	2–8d
1"x8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	2–8d
WIDER THAN 1"x8" SHEATHINGS TO EACH BEARING, FACE NAIL	3–8d
BUILT IT–UP CORNER STUDS	16d @24" o.c.
BUILT–UP GIRDER & BEAMS 20d @32" o.c. AT TOP & BOTTOM &STAGGERED	2–20d @ ENDS
2"x PLANKS	2–16d@ EACH BEARING

WOOD SHEAR AND DIAPHRAGMS:

- COMMON NAILS SHALL BE USED FOR ALL DIAPHRAGMS AND SHEAR WALL NAILING.
- ROOF SHEATHING: 1/2" THICK PLYWOOD CDX WITH INDEX 32/16. 8d NAILS @ 6" o.c. AT PANELS EDGES, AND 8d NAILS @ 12" o.c. AT PANEL FIELD. ALLOW 1/8" SPACING AT PANEL EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER.
- FLOOR SHEATHING: 3/4" THICK PLYWOOD CDX WITH INDEX 32/16.USE 10d COMMON NAILS AT 6" o.c. AND @ PANEL EDGES AND 10"o.c. IN THE FIELD. ALLOW 1/8" SPACING AT PANEL EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER.
- PLYWOOD DIAPHRAGMS: PRODUCT STANDARD PS 1–95, SOUTHERN PINE. WATERPROOFING: STUCCO OVER PLYWOOD SHEAR WALL WILL BE WATERPROOFED WITH A MINIMUM OF TWO 15# (GRADE D) UNDERLAYMENTS.
- ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANELS EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.7.

WOOD CONSTRUCTION

1. STRUCTURAL LUMBER SHALL BE GRADE–MARKED SOUTHERN PINE

RAFTERS	2 TO 4 WIDE UP TO 6 DEEP	No. 2
	2 TO 4 WIDE, 8" OR LARGER	No. 2
JOISTS	2 TO 4 WIDE, 6 AND DEEPER	No. 2
BEAMS, PURLINS	OVER 4 WIDE	No. 1
SUB–PURLINS	2 TO 4 WIDE, 4 DEEP	No. 1
LEDGERS		No. 2
STUDS	2x4 OR 3x4	No. 2
STUDS	2x6	No. 2
POSTS		No. 2
SILLS, PLATES AND BLOCKING		No. 2

2. SILLS OR PLATES BEARING ON CONCRETE OR MASONRY WHICH IS WITHIN 48" OF EARTH SHALL BE PRESSURE TREATED, OR EQUAL, WOOD SILL PLATES SHALL BE BOLTED TO THE FOUNDATION WITH 5/8" DIAMETER x 10" BOLTS 4'–0" o.c. 12" MIN. FROM ENDS, OR 2 BOLTS MIN. PER PIECE. WHERE DIFFERENT SIZES AND/OR SPACING ARE REQUIRED, THEY SHALL GOVERN. INSTALL WITH 3"x3"x1/4" (OR 2"x2"x3/16") PLATE WASHER AT EACH ANCHOR BOLT.
3. PARALLAM BEAMS MUST BE FABRICATED IN A LOCAL COUNTY LICENSED SHOP.
4. JOISTS SHALL BE BLOCKED AT SUPPORTS AND BRIDGED OR BLOCKED AT INTERVALS OF 8 FT WHERE JOISTS ARE 2x12 OR DEEPER.
5. JOISTS UNDER NON–BEARING PARTITIONS SHALL BE DOUBLED, EXCEPT AS NOTED.
6. LAGBOLTS (& SCREWS) SHALL BE PRE–DRILLED TO SHANK DIAMETER AND FULL DEPTH AND SCREWED (NOT DRIVEN) INTO PLACE.
7. CUT WASHERS SHALL BE PLACED UNDER HEADS AND NUTS OF ALL BOLTS AND UNDER HEADS OF LAGBOLTS. ONE CUT WASHER SHALL BE USED FOR BOLTS CONNECTING WOOD LEDGERS TO CONCRETE OR MASONRY WALLS.
8. ALL HARDWARE USED FOR WOOD CONNECTION SHALL BE SIMPSON STRONG–TIE PRODUCTS. INSTALL PER MANUFACTURERS RECOMMENDATIONS. ALTERNATE PRODUCTS WILL ONLY BE PERMITTED IF WRITTEN APPROVAL AND ACCEPTANCE IS OBTAINED BY ENGINEER.
9. ALL LUMBER SHALL HAVE A MOISTURE CONTENT NOT TO EXCEED 19% AT THE TIME OF FABRICATION OR CONSTRUCTION.
10. PROVIDE LEAD HOLE 40%–70% OF THREADED SHANK DIA. AND FULL DIA. FOR SMOOTH SHANK PORTION.
11. PLACE 2" FIREBLOCKING IN STUD WALLS AT CEILING AND FLOOR LEVELS, AT EACH 10" HEIGHT OF STUDS, AND BETWEEN STAIR STRINGERS AT SUPPORTS.
12. ALL DIAPHRAGMS AND SHEAR NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.

PARAMETERS DESIGN FBC 2023

WIND DESIGN

1. BASIC WIND SPEED (3–SECOND GUST), MILES PER HOUR = 146 mph
   IMPORTANCE FACTOR, I=1.0 AND OCCUPANCY CATEGORY = II
2. WIND EXPOSURE CATEGORY: C (CASE 1)
3. THE APPLICABLE INTERNAL PRESSURE COEFFICIENT =0.18

CONCRETE NOTES

CONCRETE FOUNDATION, FLOOR SLABS,

ALL CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM STRENGTHS AT 28 DAYS:
FOOTINGS AND SLAB–ON–GRADE = 2500 PSI

- BAR SPLICES IN CONCRETE SHALL BE LAP 40 BAR DIAMETERS MINIMUM, AND MAY BE WIRED TOGETHER, UNLESS OTHERWISE NOTED ON PLANS.

ADDITIONAL NOTES

- CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LOCAL COUNTY INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SEC. 1709.1.
- IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATION REPORT MAY BE REQUIRED.
- PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS.
- FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE–TREATED WOOD.
- FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LOCAL COUNTY FOR STRUCTURAL STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
- SHOP WELDS MUST BE PERFORMED IN A LOCAL COUNTY LICENSED FABRICATOR'S SHOP.
- LOCAL COUNTY LICENSED FABRICATOR IS REQUIRED FOR STRUCTURAL STEEL.
- PROVIDE LEAD HOLE 40%–70% OF THREADED SHANK DIA. AND FULL DIA. FOR SMOOTH SHANK PORTION.
- A COPY OF THE LOCAL STATE RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.
- HOLD–DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD–DOWNS SHALL BE FINGER TIGHT AND ½ WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS IN ACCORDANCE WITH TABLE 2305.5 OF LOCAL STATE BUILDING CODE.
- ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.7.
- ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.
- ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED.
- HOLD–DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.

OWNER

PROJECT DESCRIPTION

PROPOSED CEILING ADDITION AT 175 116TH AVE, TREASURE ISLAND FL 33706

CONTACT

TWA ENGINEERING & CONSULTING, PLLC
41 Centimeters Dr, Mauldin, SC 29662, USA
E-Mail: toufic.awad@twaengineers.com
Phone:7867778727

STRUCTURAL ENGINEER

TWA ENGINEERING & CONSULTING, PLLC
41 Centimeters Dr, Mauldin, SC 29662, USA

CODE DATA

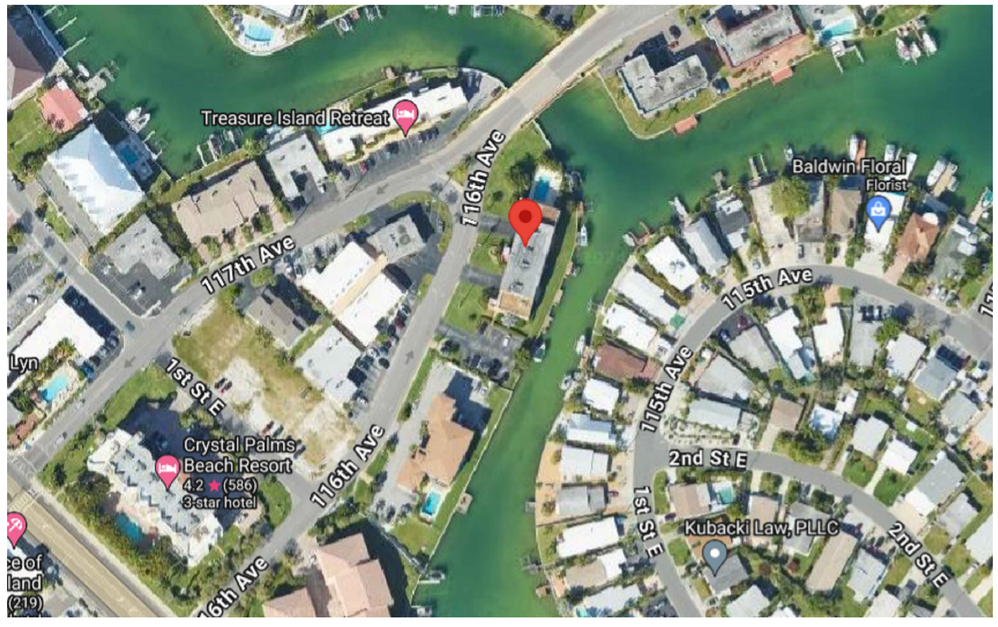
PROJECT NAME:	PROPOSED CEILING ADDITION
PROPERTY ADDRESS:	175 116TH AVE, TREASURE ISLAND FL UNIT#203 33706
CITY:	TREASURE ISLAND
ZIP CODE:	33706

LOCAL JURISDICTION:

CODE UTILIZED: 2018 INTERNATIONAL RESIDENCE CODE
2023 FLORIDA BUILDING CODE
NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION 2018 (NDS)

SHEET INDEX	
S-1.0	COVER SHEET & GENERAL NOTES
S-2.0	STRUCTURAL PLAN

REVISION LOG		
REV NO	DESCRIPTION	DATE



SITE MAP

TWA ENGINEERING & CONSULTING, PLLC
41 Centimeters Dr,
Mauldin SC 29662

CEILING ADDITION
175 116th Ave, Treasure Island, Florida, 33706

STAMP

TOUFIC AWAD LICENSE No. 98545 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by toufic awad
Date: 2024.02.17 00:48:23 -05'00'

PROJECT #:

DRAWN BY:

Project Issue Date

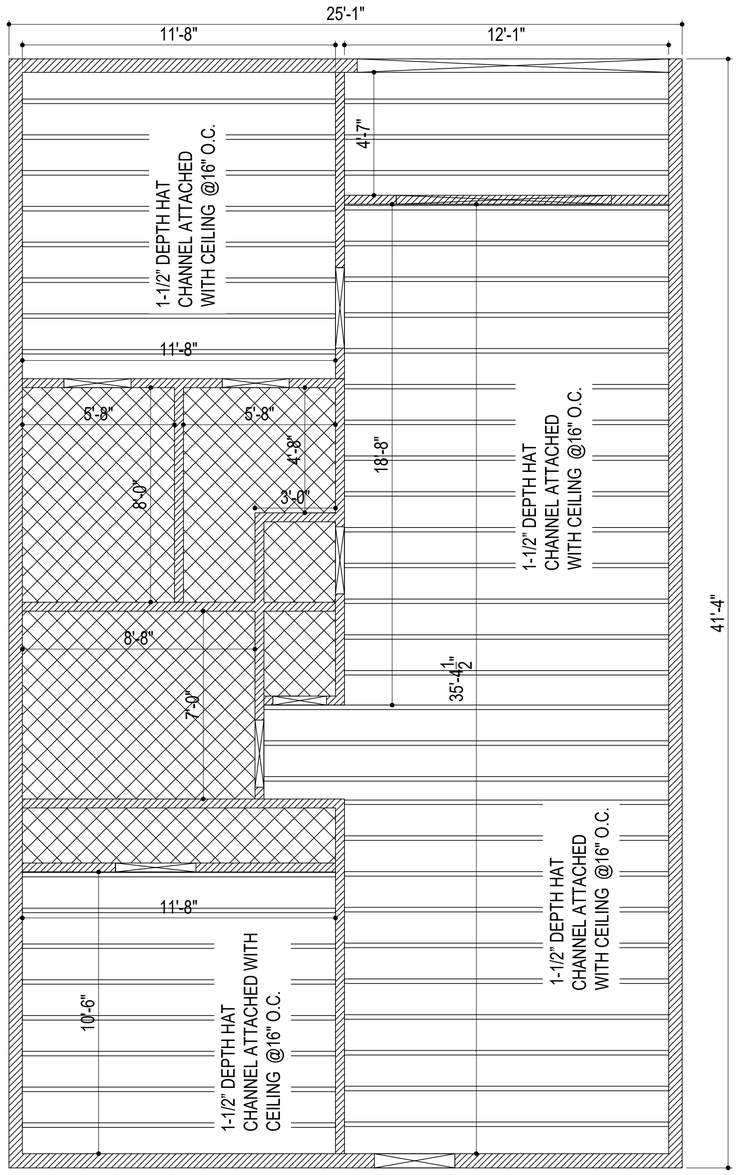
Revision Schedule		
Number	Description	Date
00	SUBMISSION	02/14

SHEET NAME

COVER SHEET & GENERAL NOTES

SHEET NUMBER

S-1.0

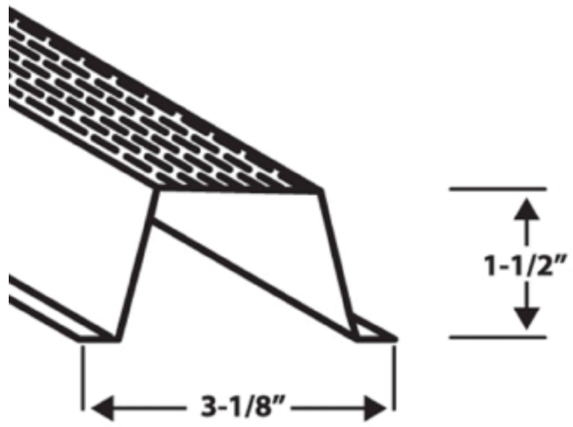


1 S02 PROPOSED FOUNDATION PLAN

Scale: 1/4" - 1'-0"

LEGEND

- DROP CEILING
- HEADER BELOW
- EXISTING TIMBER STUD WALL

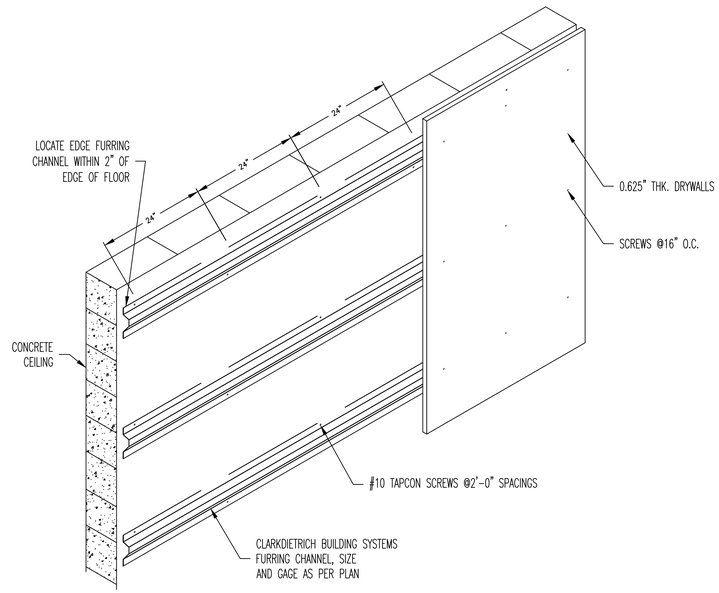


2 S02 HAT CHANNEL (150 F 125 - 18)

Scale: 1/4" - 1'-0"

GENERAL NOTES :-

1. CONTRACTOR SHALL ENSURE THE STABILITY OF THE EXISTING BUILDING DURING THE CONSTRUCTION.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. CONTRACTOR ASSUMES RESPONSIBILITY FOR ANY MISSING OR INCORRECT DIMENSIONS NOT BROUGHT TO THE DESIGNERS ATTENTION.
3. CONTRACTOR SHALL INSPECT ALL EXISTING VS. PROPOSED CONDITIONS PRIOR TO AND DURING CONSTRUCTION AND NOTIFY DESIGNER OF ANY DISCREPANCIES AND / OR CHANGES THAT MAY BE ENCOUNTERED.
4. VERIFY IN FIELD ALL LOCATIONS AND CONDITIONS IN THE STRUCTURE SHOWN ON THE DRAWINGS AND/OR AFFECTING THE INSTALLATION OF NEW WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE FABRICATION OF DEPENDENT WORK.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE SHORING AND BRACING TO SAFELY SUPPORT THE BUILDING DURING CONSTRUCTION ANY APPROVAL BY THE ENGINEER WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY, FOR SHORING AND/OR BRACING.



3 S02 HAT CHANNEL CONNECTION DETAILS

Scale: 1/4" - 1'-0"

TWA ENGINEERING & CONSULTING, PLLC
41 Centimeters Dr,
Mauldin SC 29662

CEILING ADDITION

175 116th Ave, Treasure Island, Florida, 33706

STAMP

TOUFIC AWAD LICENSE No. 96345 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by toufic awad
Date: 2024.02.17 00:48:39 -05'00'

PROJECT #:

DRAWN BY:

Project Issue Date

Revision Schedule

Number	Description	Date
00	SUBMISSION	02/14

SHEET NAME

STRUCTURAL PLANS

SHEET NUMBER

S-2.0