

**GENERAL NOTES**

1. THE CONTRACTOR AND ALL SUB CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE AND SHALL NOTIFY THE OWNER OF ANY DISCREPANCY THE CONTRACTOR AND SUBCONTRACTORS SHALL VERIFY DRAWINGS AND DIMENSIONS SHOWN ON THE STRUCTURAL WITH RELATED REQUIREMENTS ON THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND CIVIL DRAWINGS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WITHIN 10 DAYS RECEIPT OF DRAWINGS.
2. FLOOR AND WALL OPENINGS, SLEEVES, VARIATION IN STRUCTURAL SLAB ELEVATIONS, DEPRESSED AREA SAND ALL OTHER ARCHITECTURAL, MECHANICAL, ELECTRICAL AND CIVIL REQUIREMENTS MUST BE COORDINATED BEFORE CONTRACTOR PROCEEDS.
3. IN ALL CASES WHERE A CONFLICT MAY OCCUR SUCH AS BETWEEN ITEMS COVERED BY SPECIFICATIONS AND NOTES ON THE DRAWINGS, OR BETWEEN GENERAL NOTES AND SPECIFIC DETAILS THE OWNER SHALL BE NOTIFY AND HE WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS.
4. DETAILS NOTED AS TYPICAL SHALL APPLY IN ALL CASES UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE.
5. WHERE NO SPECIFIC DETAIL IS SHOWN THE FRAMING OR CONSTRUCTION SHALL BE IDENTICAL SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION ON THIS PROJECT.
6. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF 6TH EDITION FLORIDA BUILDING CODE.
7. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON STRUCTURAL DRAWINGS.
8. THE PRECISE DIMENSIONS AND LOCATIONS OF DOORS AND WINDOWS OPENINGS SHALL BE DETERMINED FROM ARCHITECTURAL PLANS AND DETAILS COORDINATED WITH OWNERS SELECTIONS AND MANUFACTURERS SPECS OTHER WALL AND FLOOR OPENINGS SHALL BE ALSO REQUIRED BY MECHANICAL, ELECTRICAL OR SIMILAR REQUIREMENTS SHALL BE VERIFIED FROM SHOP DRAWINGS, EQUIPMENT DATA, DIMENSIONS, ETC., AS REQUIRED.

**STRUCTURAL NOTES.-**

**FOUNDATIONS.-**  
THE FOUNDATIONS ARE DESIGNED FOR ALLOWABLE SOIL BEARING PRESSURE OF 2000 POUNDS PER SQUARE FOOT FILL MATERIAL UP TO FINISH GRADE SHALL BE PLACED WITH MAXIMUM LIFTS OF 12 INCHES. SUBGRADE AND EACH LIFT OF MATERIAL SHALL BE COMPACTED TO 95 PROCTOR DENSITY DETERMINED IN ACCORDANCE WITH ASTM D-1557.

**CONCRETE.-**  
CONCRETE SHALL ACHIEVE A STRENGTH AT 28 DAYS OF 3000 PSI FOR FOOTINGS SLABS ON GRADE, AND GROUTED MASONRY CELLS. TIE BEAMS AND C.I.P. SLABS SHALL BE 10-3000 PSI. CONCRETE SHALL BE A MIX DESIGNED BY A RECOGNIZED TESTING LABORATORY AND SHALL BE PLACED, CURED AND TESTED ACCORDING TO ACI AND ASTM STANDARDS AND SPECIFICATIONS.

**FORMWORK AND SHORING.-**  
STRUCTURAL CONCRETE SHALL NOT BE STRIPPED UNTIL IT HAS REACHED AT LEAST TWO-THIRDS OF THE 28 DAY DESIGN STRENGTH. ERECTION AND REMOVAL OF ALL FORMWORK SHORES AND RESHORES SHALL MEET THE REQUIREMENTS OF THE ACI STANDARDS AND SPECIFICATIONS.

**REINFORCING STEEL.-**  
TO BE ASTM GRADE 60 DEFORMED BARS FREE FROM OIL AND RUST STEEL SHALL BE BENT AND PLACED ACCORDING TO THE ACI STANDARDS AND SPECIFICATIONS. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. #5 BARS SHALL BE LAPPED 2'-0" U.I.C.

**WELDED WIRE FABRIC (WWF).-**  
TO CONFORM TO ASTM A-185 FREE FROM OIL AND RUST AND SHALL BE PLACED ACCORDING TO THE ACI STANDARDS AND SPECIFICATIONS. MINIMUM LAP SHALL BE ONE FOOT.

**MISC STEEL.-**  
ALL NEW STEEL TO BE ASTM A-36 STRUCTURAL STEEL, 36 KSI MIN CONNECTIONS PER MIN. CONNECTIONS PER AISC STANDARDS DETAILS. BOLTS TO BE ASTM A307, WELDED TO BE PER AWS SPEC.

**MASONRY WALLS.-**  
8" FULL MASONRY UNITS SHALL MEET ASTM C-90 FOR LOAD BEARING TYPE MASONRY. MORTAR SHALL BE TYPE "M" OR "S" AND MEET C-270. GROUT SHALL BE 3000 PSI FEA GRAVEL CONCRETE AND MEET ASTM C-476. PROVIDE HOOKED DOVELS IN FOOTINGS FOR ALL VERTICAL REINFORCING ABOVE LAP SPLICES TO BE A MINIMUM 2'-1". EXTEND VERTICAL REINFORCING INTO HIGHEST CONCRETE BEAM ABOVE. MASONRY BLOCK CELLS AT WALL ENDS, CORNERS, INTERSECTIONS AND ADJACENT TO OPENINGS SHALL BE GROUT FILLED WITH ONE #5 VERTICAL REINFORCING BAR. TIE BEAMS SHALL BE POURED AFTER THE MASONRY BLOCK WALLS BELOW ARE IN PLACE CONFINEMENT CONCRETE IN THE TIE BEAMS TO AREA REQUIRED. DO NOT USE SOLID METAL OR FELT CAVITY CAPS. MASONRY WALLS BELOW THE SOIL LINE SHALL HAVE GALVANIZED 9 GAUGE TRUSS TYPE HORIZONTAL JOINT REINFORCEMENT AT EACH COURSING AND WALLS ABOVE THE SOIL LINE SHALL HAVE THE HORIZONTAL JOINT REINFORCING SPACED AT 16" ON CENTER.

**PENETRATIONS.-**  
NO PENETRATIONS OR OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS OR WITHOUT PREVIOUS APPROVAL OF THE ENGINEER

**WOOD.-**  
WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PROTECTED OR PRESSURE TREATED IN ACCORDANCE WITH AITC-109

**APPLICABLE CODES**

6TH EDITION (2017) FLORIDA BUILDING CODES  
6TH EDITION (2017) FLORIDA BUILDING CODE: RESIDENTIAL  
2014 NFPA-70 NATIONAL ELECTRICAL CODE

**PROJECT INFORMATION**

ALLOWED	PROVIDED
• OCCUPANCY/CLASSIFICATION	RESIDENTIAL R-3
• TYPE OF CONSTRUCTION:	TYPE V (B) - UNSPRINKLERED.
• BUILDING AREA:	TOTAL UNDER ROOF: 1,665 SF.
• HEIGHT OF BUILDING:	13'-3" MEAN HEIGHT OF ROOF
• BUILDING HEIGHT IN STORIES:	1 STORY PROVIDED
• FLOOD ZONE:	---
• DESIGN CRITERIA -	160 MPH
BASIC WIND SPEED:	1.0
WIND IMPORTANCE FACTOR (I <sub>w</sub> ):	LOW-RISE BUILDING, ENCLOSED
BUILDING CATEGORY:	C
EXPOSURE CATEGORY:	

# SINGLE FAMILY RESIDENCE

# "CARTAYA"

# RESIDENCE

## 16 AVE SE NAPLES, FL NAPLES, FL



**INDEX TO DRAWINGS**

**ARCHITECTURAL**

- A-1 COVER SHEET
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- A-4 FOUNDATION SLAB
- A-5 ROOF PLAN
- A-6 DETAILS

**ELECTRICAL**

- E-1 ELECTRICAL PLAN SCHEDULES, NOTES & DETAILS.



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<p>THE OWNER OR CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR THE CONSTRUCTION OF THE PROJECT AND SHALL FOLLOW THE LOCAL BUILDING CODES AND REGULATIONS, ORDINANCES, AND DEPARTMENTS IN THE CONSTRUCTION DOCUMENTS PART TO COMMENCEMENT OF CONSTRUCTION.</p> <p>WE ARE PREPARED FOR THE STATE EXAMINER OF FLORIDA AND PROFESSIONAL ENGINEERS AND ARCHITECTS TO REVIEW AND SEAL IN THE SPACE PROVIDED.</p> <p>THESE CONSTRUCTION DOCUMENTS, INCLUDING ALL ATTACHED SCHEDULES, SPECIFICATIONS, AND NOTES, SHALL BE USED IN FULL ACCORDANCE WITH THE INTENT OF THE DESIGNER AND SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.</p>	<p>PROJ. NAME: <b>SINGLE FAMILY RESIDENCE CARTAYA RESIDENCE</b> 16 AVE SE NAPLES, FL</p> <p>DESCRIPTION: <b>COVER SHEET</b></p> <p>DATE: <b>MARCH 16, 2018</b></p>
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**CRONIN ENGINEERING, INC.**  
CERTIFICATE OF AUTHORIZATION NUMBER: 6597  
6627 WILLOW PARK DRIVE  
PHONE: 563-2157 FAX: 563-9820

DEREK P. CRONIN  
FLORIDA PE # 65382





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FOR MORE INFORMATION ABOUT DUPONT FLASHING SYSTEMS, PLEASE VISIT US AT [www.construction.tyvek.com](http://www.construction.tyvek.com) OR CALL 1-800-44-TYVEK.

**SINGLE FAMILY RESIDENCE**  
**CARTAYA RESIDENCE**  
 16 AVE SE NAPLES, FL

PROJ. NAME: **SINGLE FAMILY RESIDENCE**  
 AUTHORIZATION NUMBER: 6597  
 DATE: **MARCH 16, 2018**

**CRONIN ENGINEERING, INC.**  
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 FLORIDA PE # 65382

DESIGNER: **DEREK P. CRONIN**  
 FLORIDA PE # 65382

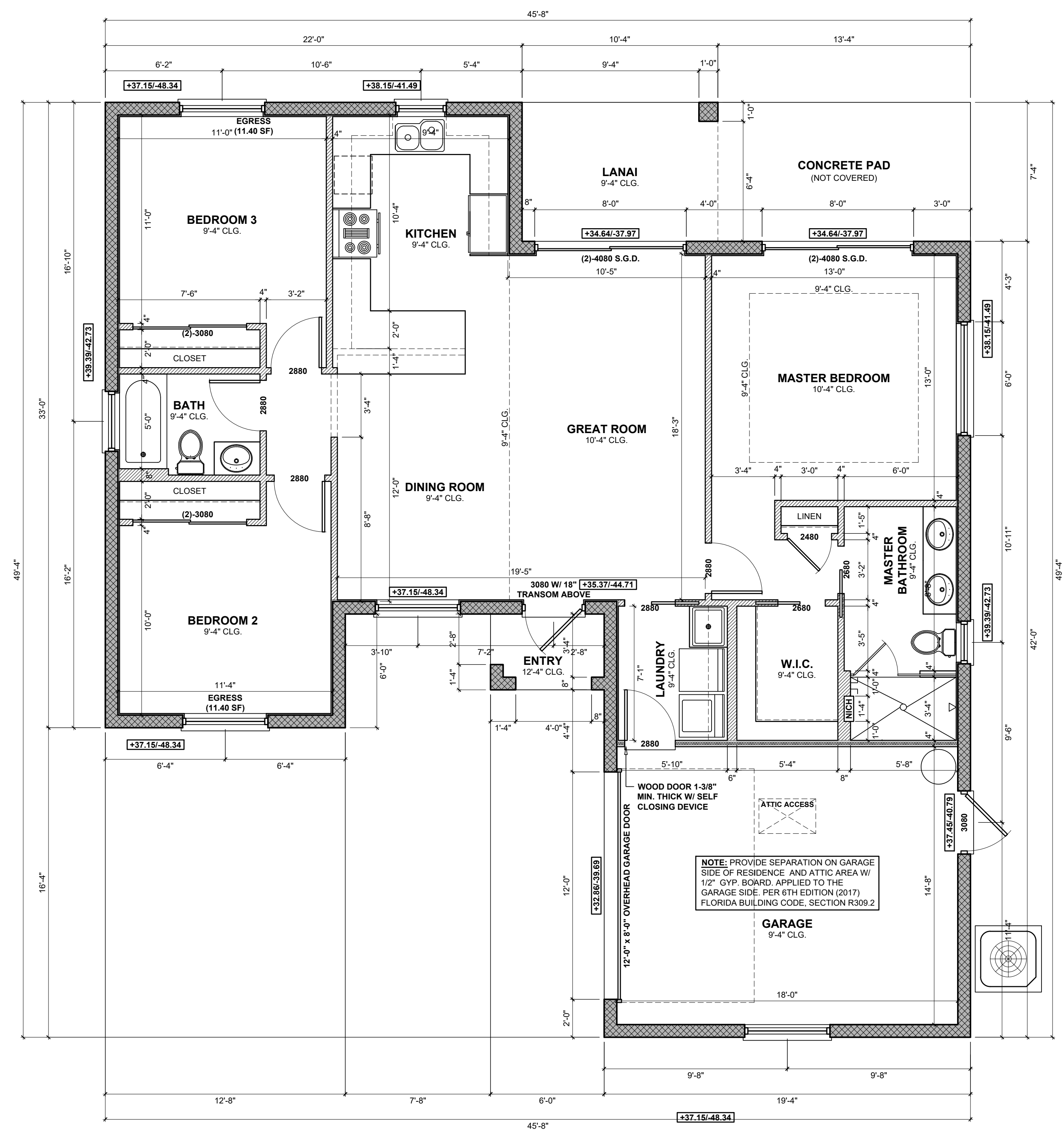
8" PRECAST U-LINTELS STANDARD LENGTHS		
OVERALL LENGTH	TOP STEEL	BOTTOM STEEL
3'-0" (36")	2-7/32" wire	2-#3 rebar
3'-4" (40")	2-7/32" wire	2-#3 rebar
3'-8" (44")	2-7/32" wire	2-#3 rebar
4'-0" (48")	2-7/32" wire	2-#3 rebar
4'-6" (54")	2-7/32" wire	2-#3 rebar
4'-8" (56")	2-7/32" wire	2-#3 rebar
5'-0" (60")	2-7/32" wire	2-#3 rebar
5'-4" (64")	2-7/32" wire	2-#3 rebar
6'-0" (72")	2-7/32" wire	2-#4 rebar
6'-8" (78")	2-7/32" wire	2-#4 rebar
6'-8" (80")	2-7/32" wire	2-#4 rebar
7'-4" (88")	2-7/32" wire	2-#4 rebar
7'-6" (90")	2-7/32" wire	2-#4 rebar
8'-0" (96")	2-#3 rebar	2-#4 rebar
8'-8" (104")	2-#3 rebar	2-#4 rebar
9'-4" (112")	2-#3 rebar	2-#4 rebar
10'-0" (120")	2-#3 rebar	2-#4 rebar
10'-4" (124")	2-#3 rebar	2-#4 rebar
10'-8" (128")	2-#3 rebar	2-#5 rebar
11'-4" (136")	2-#3 rebar	2-#5 rebar
12'-0" (144")	2-#3 rebar	2-#5 rebar
13'-4" (160")	2-#3 rebar	2-#5 rebar
14'-0" (168")	2-#3 rebar	2-#5 rebar

Rebar: ASTM A615 Grade 60  
 Wire: ASTM A510  
 Concrete Strength: 3500 psi  
 Average Self Weight: 33 pcf  
 Finish: Grey Block

WINDOW SCHEDULE			
WINDOW MARK	WINDOW SIZE	TYPE	REMARK
(H34)	26-1/2" x 50-5/8"	SINGLE HUNG	SHUTTER PROTECTION
(23)	37" x 38-3/8"	SINGLE HUNG	SHUTTER PROTECTION
(24)	37" x 50-5/8"	SINGLE HUNG	SHUTTER PROTECTION
(35)	53-1/8" x 63"	SINGLE HUNG	SHUTTER PROTECTION
(602)	72" x 24"	FIXED WINDOW	SHUTTER PROTECTION

NOTE: GARAGE DOOR & ENTRY DOOR TO BE IMPACT RESISTANT. REST OF DOORS & WINDOWS TO BE PROTECTED WITH SHUTTERS.  
 NOTE: USE "DuPont FlexWrap NF" SELF ADHERED FLASHING (OR SIMILAR) AROUND WINDOWS AND DOORS PER MANUFACTURER RECOMMENDATIONS. SELF-ADHERED MEMBRANE USED AS FLASHING SHALL COMPLY WITH ANIA 711. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH.

BUILDING SQUARE FOOTAGE	
TABULATION	
TOTAL A/C LIVING AREA	1,270 SQ FT
GARAGE	296 SQ FT
ENTRY	24 SQ FT
LANAI	75 SQ FT
TOTAL NON-A/C	395 SQ FT
<b>TOTAL UNDER ROOF</b>	<b>1,665 SQ FT</b>



**FLOOR PLAN**  
 SCALE: 1/4"=1'-0"

### DuPont Flashing Systems

PHYSICAL PROPERTIES DATA SHEET

PROPERTIES	DUPONT™ FLEXWRAP™ NF	DUPONT™ FLEXWRAP™ RW	DUPONT™ FLASHING TAPE
Face Sheet	Micro-creep, polyethylene laminate (white)	Elasticated polyethylene laminate (white)	Polycarbonate film
Adhesive*	Butyl Rubber (black)	Butyl Rubber (black)	Butyl Rubber (black)
Thickness	64 mil (1,620 micron)	70 mil (1,775 micron)	20 mil (507 micron)
Release Liner	1 piece, heavy-duty siliconized paper for 6-inch width product; 2 piece, heavy-duty siliconized paper for 8-inch width product; 6- or 9-inch width x 75 feet length	Custom-designed, multi-piece, heavy-duty siliconized paper	1 piece heavy-duty siliconized paper
Dimensions	6- or 9-inch width x 75 feet length	9-inch width x 6-inch length custom folded piece	4, 6, or 9-inch width x 100 feet length
Applications	Round top or custom shaped windows, 3-D all protection, wall interruptions: i.e. dryer vents, house sills. Suitable for use on substrates where fasteners cannot be applied.	Corner pieces for sill and head of recessed windows. Available in single-panel or double-stud versions.	Jambes and heads of rectangular windows and doors.

PROPERTIES	DUPONT™ STRAIGHTFLASH™	DUPONT™ STRAIGHTFLASH™ VF
Face Sheet	Spunbonded polyethylene laminate (white)	Spunbonded polyethylene laminate (white)
Adhesive*	Butyl rubber (black)	Transposed dual sided adhesive for continuous integration; Butyl rubber (black)
Thickness	30 mil (760 micron)	30 mil (760 micron)
Release Liner	2 piece, heavy-duty siliconized, scored release paper	2 piece, heavy-duty siliconized, scored release paper
Dimensions	4-inch width x 150 feet length 9-inch width x 125 feet length	6-inch width x 125 feet length
Applications	Jambes and heads of rectangular windows.	Black mold, non-integral flanged and non-flanged rectangular windows and doors.

**Performance Testing**

INSTALLED SYSTEM WATER INTRUSION TESTING (fitted with no exterior cladding)  
 ASTM E-331  
 ASTM E-331 after thermal aqth (0-180°F)  
 WATER VAPOR PERMEABILITY (ASTM E-96)  
 APPLICATION TEMPERATURE  
 UV RESISTANCE  
 DUPONT FLASHING SYSTEMS PRODUCTS MEET THE ANIA 711-07 MATERIAL STANDARD AT THE HIGHEST CLASSIFICATION LEVELS.

Class A (no primer)  
 Level 3 Thermal Exposure 80°C/176°F for 7 days

For more information about DuPont Flashing Systems, please visit us at [www.construction.tyvek.com](http://www.construction.tyvek.com) or call 1-800-44-TYVEK.

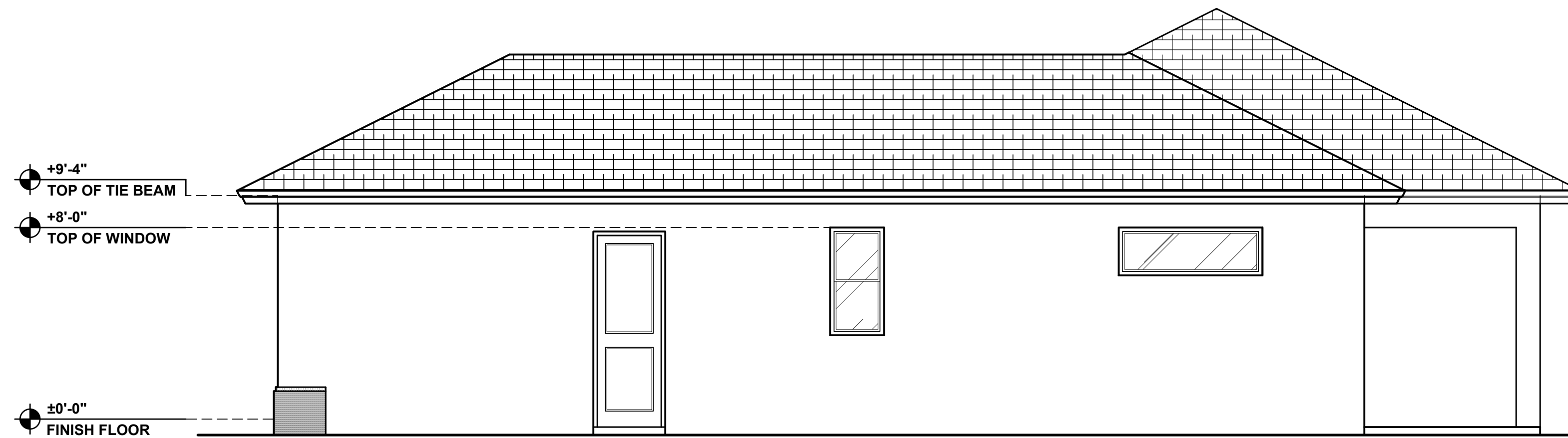
**DuPont Flashing Systems**  
 The miracles of science™

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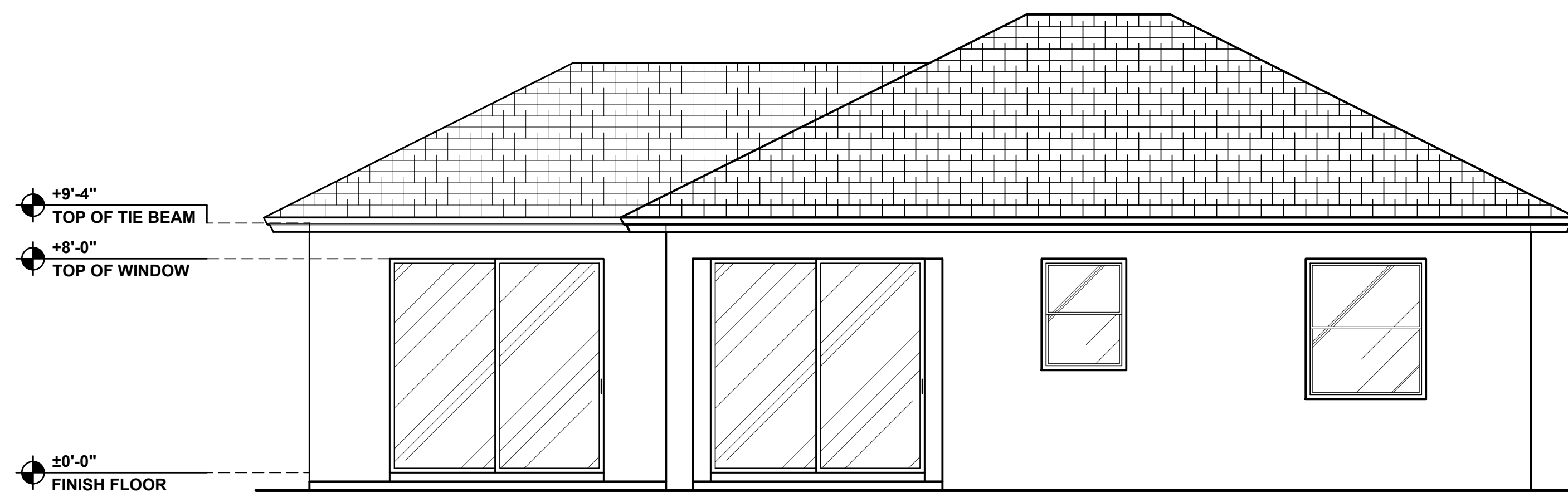
**FRONT ELEVATION**

SCALE: 1/4"=1'-0"



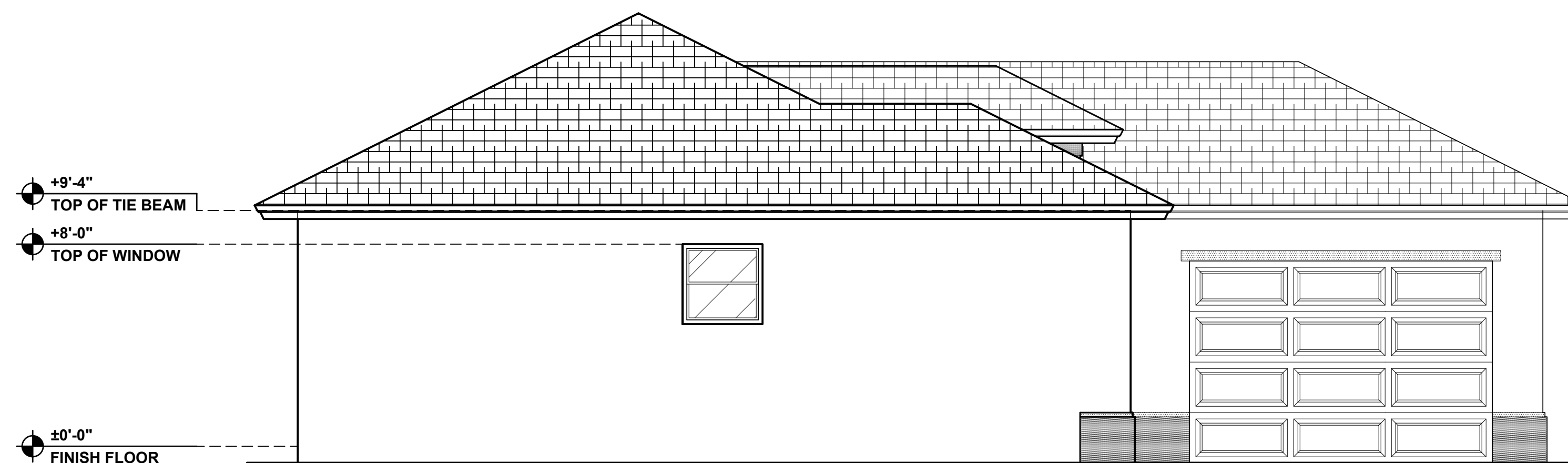
**RIGHT SIDE ELEVATION**

SCALE: 1/4"=1'-0"



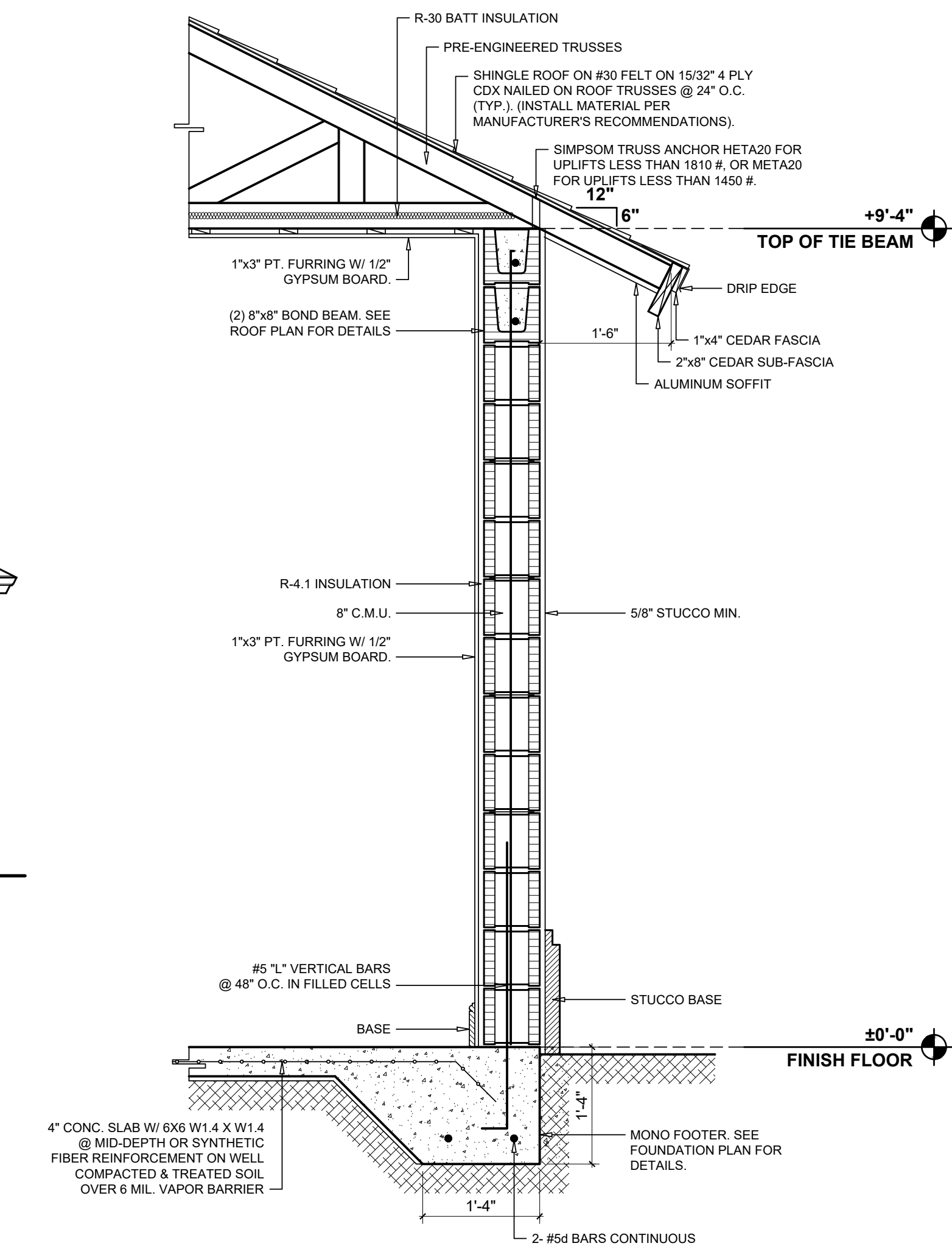
**REAR ELEVATION**

SCALE: 1/4"=1'-0"



**LEFT SIDE ELEVATION**

SCALE: 1/4"=1'-0"



**WALL SECTION TYP.**

SCALE: 3/4"=1'-0"

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PROJ. NAME:	SINGLE FAMILY RESIDENCE CARTAYA RESIDENCE 16 AVE SE NAPLES, FL
DESCRIPTION:	ELEVATIONS
DATE:	MARCH 16, 2018

**CRONIN ENGINEERING, INC.**  
 CERTIFICATE OF AUTHORIZATION NUMBER: 6597  
 6627 WILLOW PARK DRIVE  
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 FLORIDA PE # 63382

SHEET No:



**MASONRY WALL REINFORCEMENT NOTES**

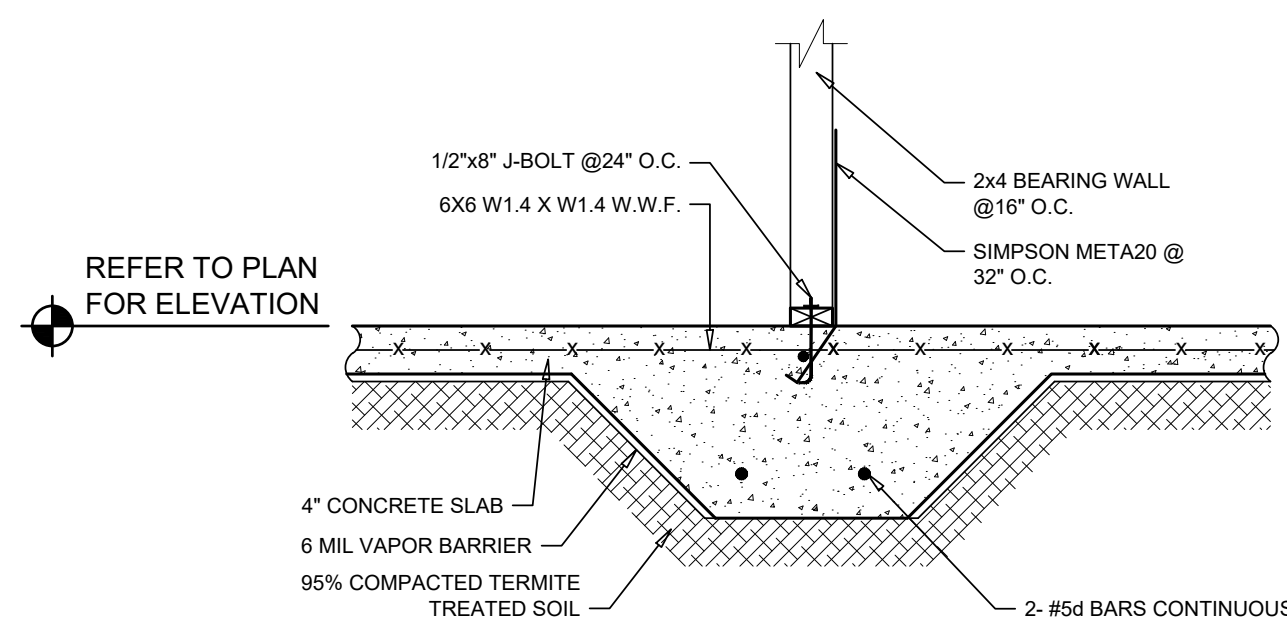
- WALL REINFORCEMENT SHALL BE DOWELED FROM FOUNDATION AND BE CONTINUOUS THROUGH SOLID GROUTED CELLS AND BE HOOKED OVER TOP REINFORCEMENT OF UPPER BEAMS. MINIMUM LAP SPLICE SHALL BE 48 BAR DIAMETERS. FOR HORIZONTAL WALL REINFORCEMENT, @ EVERY OTHER COURSE.
- WALL REINFORCEMENT IS AS FOLLOWS: #5 @ 48" O.C. PROVIDE 1 #5 AT ALL WALL INTERSECTIONS, CORNERS, & EACH SIDE OF OPENINGS AND 2 #5 EACH SIDE OF OPENINGS LARGER THAN 6'-0".
- WALL SEGMENTS BELOW AND ABOVE THE OPENINGS SHALL BE REINFORCED SAME AS WALL.
- MASONRY GROUT = 2000 PSI.
- MASONRY WALL COMPRESSIVE STRENGTH OF fm=1500 PSI.
- MORTAR TYPE M OR S WITH 1900 PSI COMPRESSIVE STRENGTH.

**FOUNDATION/GROUND FLOOR NOTES**

- FLOOR SLAB IS 4" CONC. SLAB-ON-GRADE (fc=3000 psi) WITH 6 X 6 W1.4 X W1.4 W.W.F. @ MID-DEPTH (NOT SHOWN) ON WELL COMPACTED & TREATED SOIL OVER 6 MIL. VAPOR BARRIER. REFER TO DETAIL. SOIL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR PER ASTM D 1557 IN LIFTS NOT TO EXCEED 12".
- FOUNDATIONS ARE DESIGNED FOR 2000 PSF. GENERAL CONTRACTOR SHALL VERIFY THE VALIDITY OF THIS ASSUMPTION.
- CENTER OF LOAD SHALL COINCIDE WITH CENTER OF FOOTING U.N.O.
- ALL CONCRETE TO HAVE A MINIMUM 3000 PSI COMPRESSIVE STRENGTH WITH THE WATER/CEMENT RATIO OF 0.5 MAXIMUM.
- INDICATES ADDITIONAL #5 IN CMU WALLS.
- ALL REINFORCEMENT SHALL BE GRADE 60.

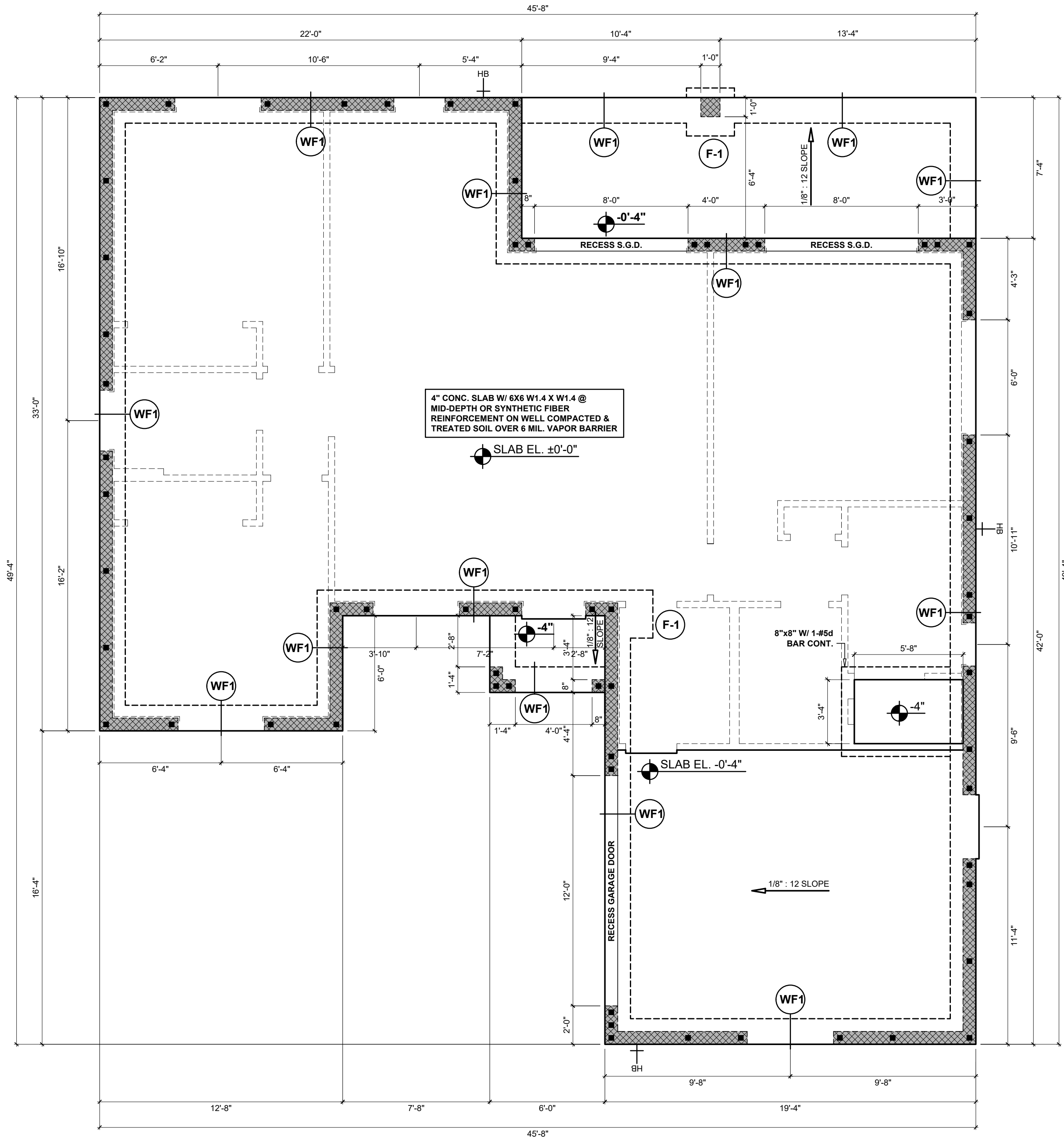
**FOOTING SCHEDULE**

MARK	SIZE	REINFORCEMENT	REMARKS
(WF1)	1'-4" x 1'-4" x CONT. MONO FOOTER	2- #5d BARS CONTINUOUS	
(F-1)	2'-6" x 2'-6" x 1'-4"	CONCRETE PAD W/ #5d BARS @ 6" O.C. EACH WAY, 3" OFF OF BOTTOM OF FOUNDATION	



**FOOTING DETAIL @ BEARING WALL**

SCALE: 3/4"=1'-0"



**FOUNDATION PLAN**

SCALE: 1/4"=1'-0"



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PROJ. NAME: SINGLE FAMILY RESIDENCE  
 CARTAYA RESIDENCE  
 16 AVE SE NAPLES, FL

**FOUNDATION PLAN**

DATE: MARCH 16, 2018

**CRONIN ENGINEERING, INC.**  
 AUTHORIZATION NUMBER: 8597  
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 TAMPA, FL 33621  
 PHONE: 598-2157 FAX: 598-9820

DEREK P. CRONIN  
 FLORIDA PE # 55382



COMPONENT AND CLADDING DESIGN PRESSURES		
Vult = 160 MPH ULTIMATE DESIGN WIND SPEED COMPONENT AND CLADDING (BASED ON Vult) EXPOSURE C ULTIMATE DESIGN PRESSURES (LRFD) PSF		
ROOF ZONE	AREA	APPLIED DESIGN PRESSURE
ZONE 1	10 SF	+39.9 / -64.5 PSF
	20 SF	+33.9 / -62.9 PSF
	50 SF	+29.5 / -60.6 PSF
	100 SF	+26.2 / -58.9 PSF
ZONE 2	10 SF	+37.1 / -108.2 PSF
	20 SF	+33.9 / -96.6 PSF
	50 SF	+29.5 / -83.6 PSF
	100 SF	+26.2 / -75.5 PSF
ZONE 3	10 SF	+37.1 / -162.8 PSF
	20 SF	+33.9 / -142.0 PSF
	50 SF	+29.5 / -128.9 PSF
WALL ZONE	AREA	APPLIED DESIGN PRESSURE
	10 SF	+64.5 / -70.0 PSF
	20 SF	+61.6 / -67.1 PSF
ZONE 4	50 SF	+57.7 / -63.1 PSF
	100 SF	+54.9 / -60.3 PSF
	101 + SF	+48.0 / -53.5 PSF
	10 SF	+64.5 / -86.4 PSF
ZONE 5	20 SF	+61.6 / -80.5 PSF
	50 SF	+57.7 / -72.8 PSF
	100 SF	+54.9 / -67.1 PSF
101 + SF	+48.0 / -53.5 PSF	

COMPONENT AND CLADDING DESIGN PRESSURES		
Vasd = 124 MPH NOMINAL DESIGN WIND SPEED (Vult = 160 MPH) COMPONENT AND CLADDING (BASED ON Vasd) EXPOSURE C DOORS & WINDOWS INCLUDED PRESSURES CALCULATED USING (Vult x 0.6) WHICH IS EQUIVALENT TO Vasd ALLOWABLE STRESS DESIGN PRESSURE (ASD) PSF		
AREA OPENING	INTERIOR ZONE	END ZONE
0 - 10 SF	+38.8 / -42.0 PSF	+38.8 / -51.8 PSF
11 - 20 SF	+37.0 / -40.2 PSF	+37.0 / -48.3 PSF
21 - 50 SF	+34.6 / -37.8 PSF	+34.6 / -43.7 PSF
51 - 100 SF	+32.9 / -36.3 PSF	+32.9 / -40.2 PSF
101 + SF	+28.8 / -32.1 PSF	+28.8 / -32.1 PSF

Vasd = 124 MPH NOMINAL DESIGN WIND SPEED  
COMPONENT AND CLADDING (BASED ON Vasd) EXPOSURE C  
GARAGE DOORS DESIGN PRESSURE  
ALLOWABLE STRESS DESIGN PRESSURE (ASD) PSF

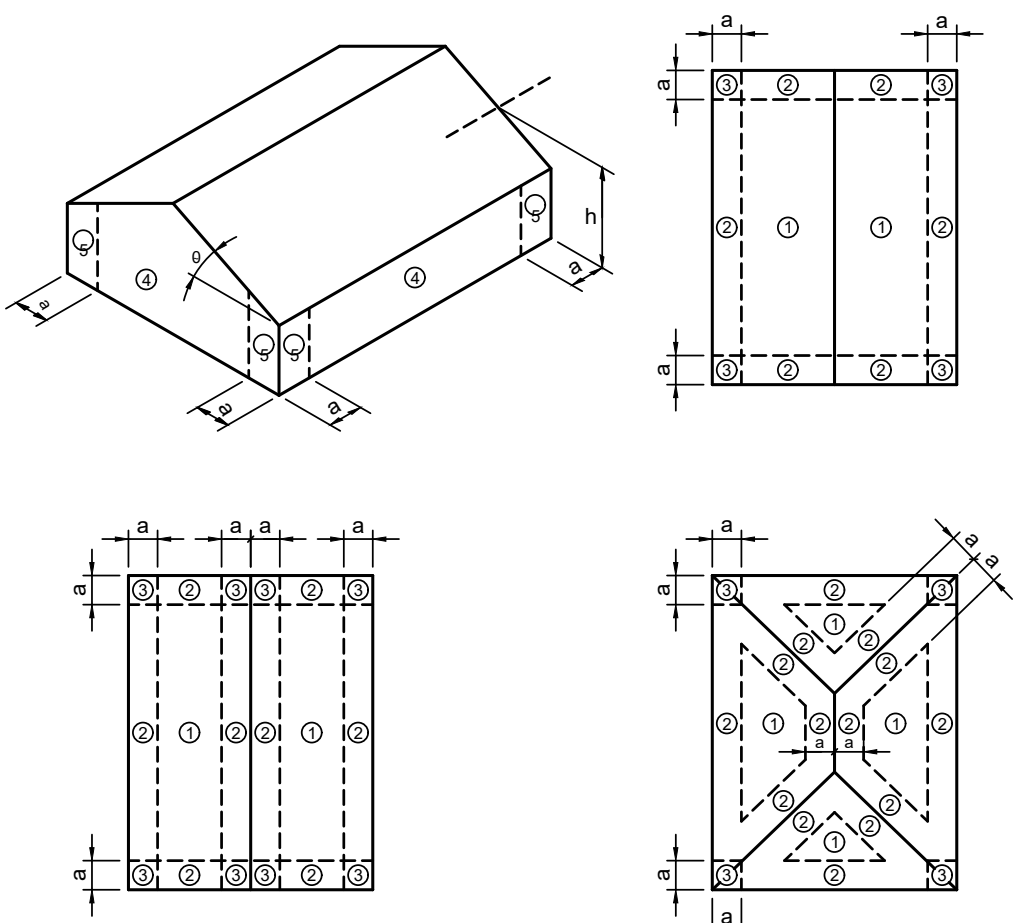
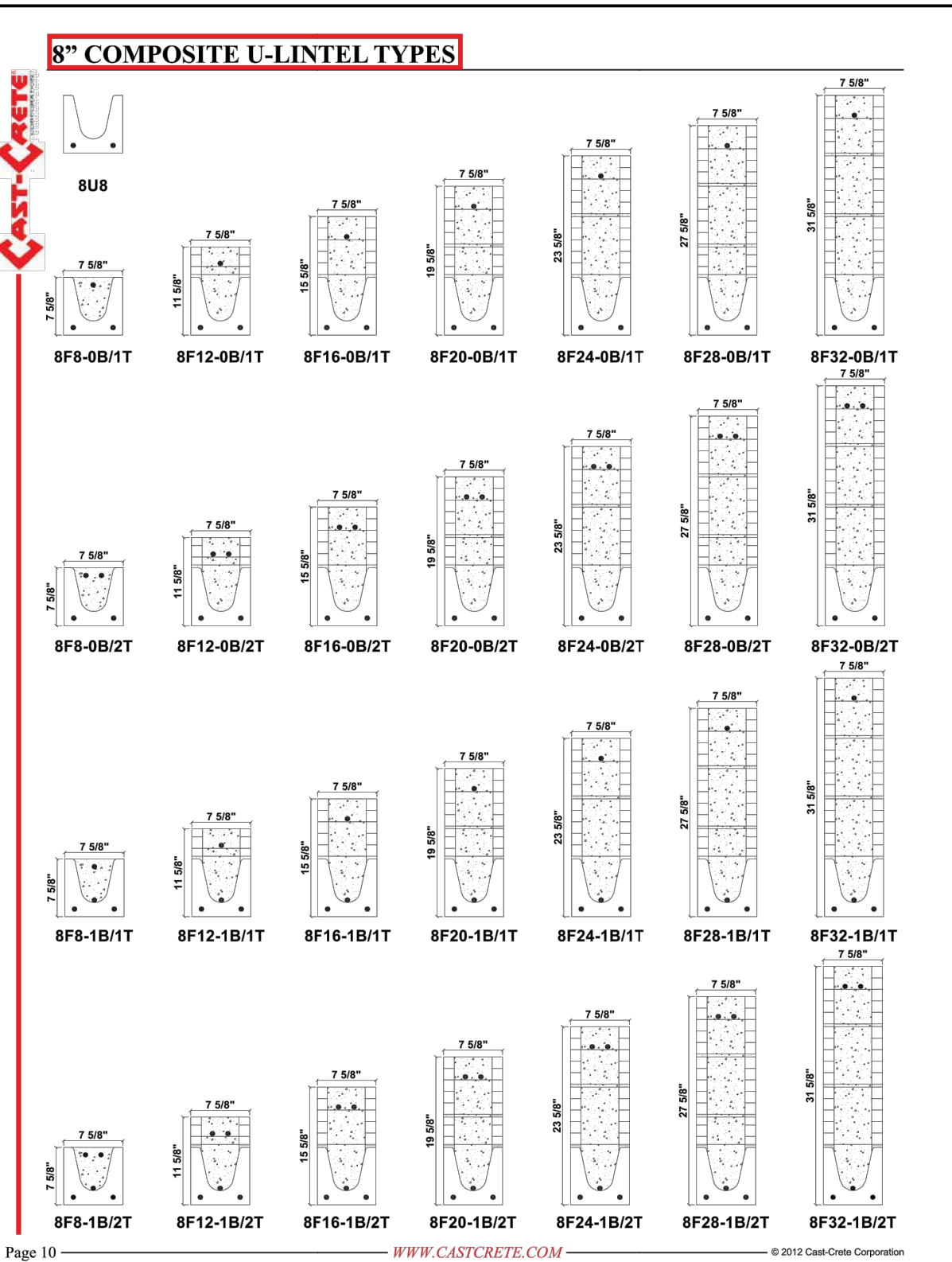
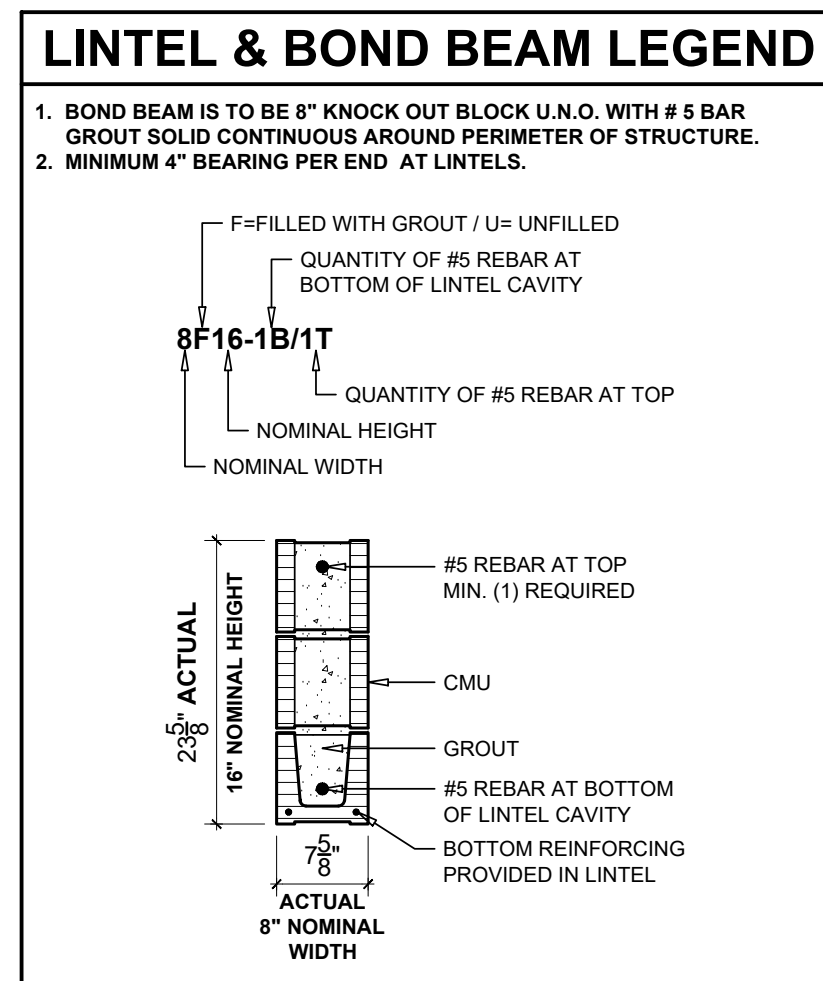
AREA OPENING	INTERIOR ZONE	END ZONE
0 - 110 SF	+41.6 / -46.5 PSF	
111 + SF	+38.8 / -43.4 PSF	

**NOTE:** ALL DOORS & WINDOWS ARE TO BE PROTECTED WITH A APPROVED IMPACT RESISTANT GLASS OR SHUTTERS.

**WIND LOAD REQUIREMENTS**

- THE STRUCTURAL SYSTEMS FOR THE DRAWINGS PRESENTED WERE DESIGNED PER THE LOADING PRESENTED IN THE FLORIDA BUILDING CODE 5TH EDITION. THE DESIGN WIND SPEED IS (Vult = 170 MPH.) AND (Vasd = 132 MPH).
- IMPORTANCE FACTOR  $w = 1.0$  OF THE FLORIDA BUILDING CODE 5TH EDITION.
- EXPOSURE CATEGORY C.
- INTERNAL PRESSURE COEFFICIENT (ASCE 7-10)  $+0.18 / -0.18$

ENCLOSED BUILDING OPENINGS ARE PROTECTED FROM FLYING DEBRIS WITH IMPACT GLASS AND/OR SHUTTERS.



**COMPONENT AND CLADDING LOADING  
DIAGRAM FIGURE 1**

### BEARING LEGEND

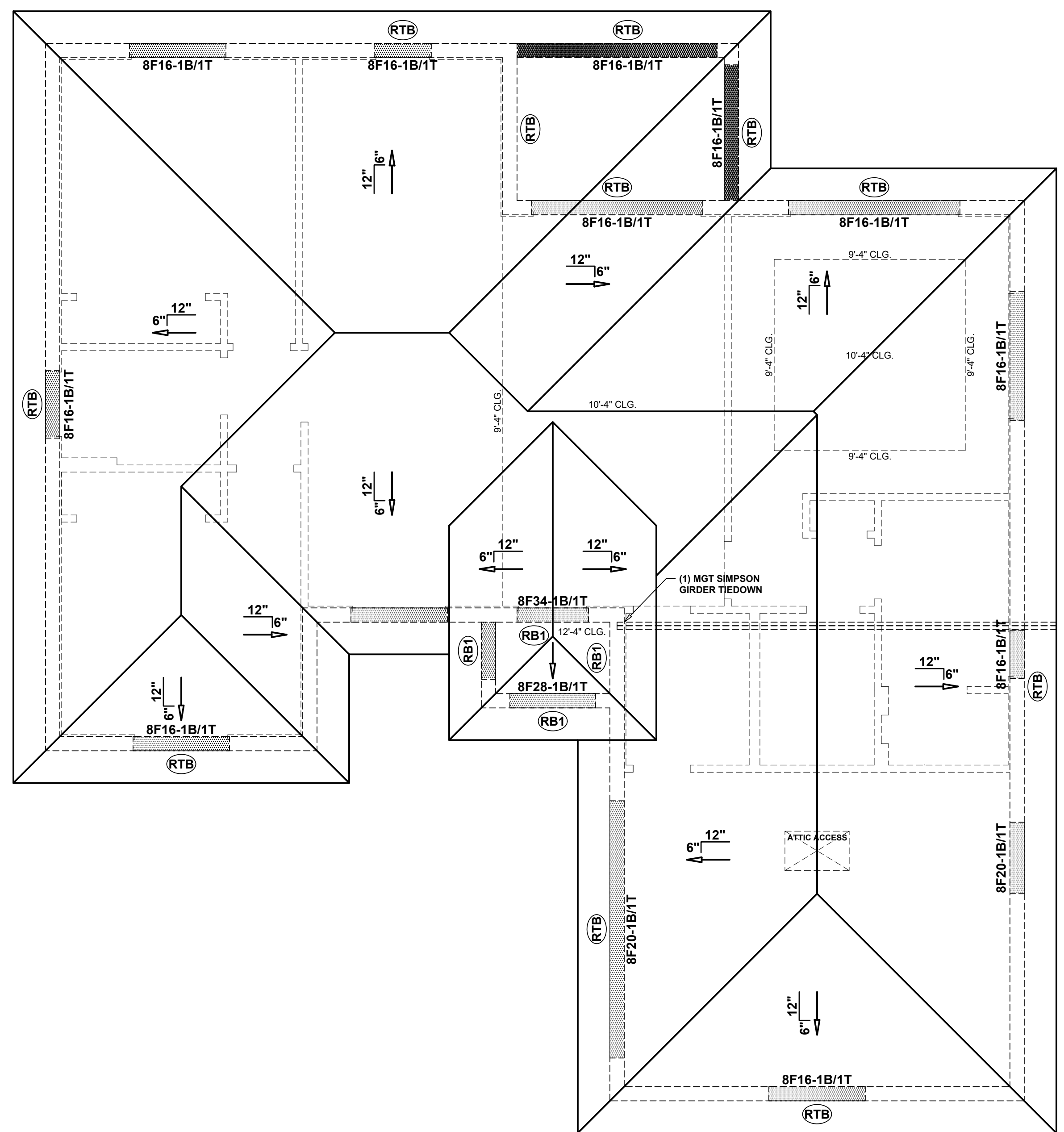
DESCRIPTION	ELEVATION	SYMBOL
TOP OF BEARING	9'-4"	
TOP OF ENTRY BEARING	12'-4"	

### ROOF TRUSSES NOTES

- ROOF TRUSSES SHALL BE DESIGNED BY TRUSS MANUFACTURER. SHOP DRAWINGS SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR REVIEW PRIOR TO PRODUCTION.
- TRUSS MANUFACTURER SHALL PROVIDE UPLIFT & REACTION VALUES FOR INDIVIDUAL TRUSSES. REFER TO THE TRUSS DRAWING FOR LAYOUT.
- ROOF SHEATHING SHALL CONSIST OF 15/32" MIN. PLYWD. 4-PLY CDX LAID PERPENDICULAR TO TRUSSES NAILED @ 4" O.C. ALONG BOUNDARY EDGES, 4" O.C. ALONG EDGES AND 6" O.C. INTERMEDIATE W/ 10d COMMONS.
- BRACE TRUSSES PER T.P.I. H.1.B-91, AS REVISED
- THE TRUSS LAYOUT BY RAYMOND BUILDING SUPPLY. (JOB: 17121390 DATE: 12.04.2017). HAS BEEN COORDINATED WITH THE FOUNDATION AND ROOF PLAN.
- PROVIDE SIMPSON HETA20 W/16 10d X 1 1/2" FOR UPLIFTS UP TO 1890 LBS.
- ALL CHANGES TO THE TRUSS LAYOUT SHALL BE APPROVED BY THE ENGINEER.
- IMPROPERLY LOCATED OR MISSING TRUSS TIE DOWNS USE SIMPSON HTSM20 TWIST STRAPS AT EACH LOCATION AS REQUIRED.

### ROOF NOTES

- THIS BUILDING/STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH 6TH EDITION (2017) FLORIDA BUILDING CODE AND SECTION 1609 FOR DESIGN PRESSURES GENERATED BY A DESIGN WIND VELOCITY OF 160 MPH.
- THE SEPARATION OF THE GARAGE AND ITS ATTIC AREA SHALL BE NOT LESS THAN 1/2 INCH GYPSUM BOARD APPLIED TO THE GARAGE SIDE. GARAGES BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOVE BY NOT LESS THAN 5/8 INCH TYPE "X" GYPSUM BOARD OR EQUIVALENT WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY. THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/2-INCH GYPSUM BOARD OR EQUIVALENT PER FBC R309.1, R309.2.
- PROVIDE GYPSUM BOARD 1/2" MIN FOR 16" O.C. FRAMING AND FROM 1/2" TO 5/8" FOR 24" O.C. FRAMING OR 1/2" SAG-RESISTANT GYPSUM CEILING BOARD PER FBC R702.5.
- LANAI & ENTRY CEILINGS SHALL HAVE A 1/2" CD EXTERIOR PLYWOOD LAID PERPENDICULAR TO TRUSS BOTTOM CHORDS AND NAILED W/ 10d NAILS @ 6" O.C.



### BEAM SCHEDULE

MARK	ELEVATION	SIZE	BOTTOM	TOP	INTERMEDIATE	SPACING #3 TIES
RTB	9'-4"	(2)- 8" x 8" BOND BEAM W/ 1- #5d CONT. EACH				
RB1	12'-4"	(2)- 8" x 8" BOND BEAM W/ 1- #5d CONT. EACH				

**CRONIN ENGINEERING, INC.**  
AUTHORIZATION NUMBER: 8597  
6627 WILLOW PARK DRIVE  
PHONE: 563-2157 FAX: 563-593-9820  
FLORIDA PE # 63382

**ROOF PLAN**

PROJ. NAME: **SINGLE FAMILY RESIDENCE  
CARTAYA RESIDENCE**  
16 AVE SE NAPLES, FL

DATE: **MARCH 16, 2018**

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DESIGNER: DEREK P. CRONIN  
FLORIDA PE # 63382



## STRUCTURAL NOTES

### DESIGN CRITERIA:

THE MAIN WIND-ORCE RESISTANCE SYSTEM AND COMPONENTS AND CLADDING HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 6TH EDITION (2017) TO WITHSTAND WIND PRESSURES GENERATED BY A MINIMUM BASIC WIND SPEED OF 160 M.P.H.

### FOUNDATION:

THE FOUNDATION HAS BEEN DESIGNED FOR A SAFE LOAD BEARING CAPACITY OF 2000 PSF. THE CONTRACTOR SHALL VERIFY SOIL BEARING PRESSURES.

### CONCRETE:

ALL CONCRETE WORK SHALL CONFORM TO SPECIFICATIONS FOR ALL STRUCTURAL CONCRETE FOR BUILDINGS (A.C.I.-301). CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS.

### CONCRETE CLEAR COVER:

FOUNDATIONS: 3"  
BEAMS: 1.50" TO STIRRUP  
SLABS NOT EXPOSED TO THE WEATHER: 0.75"  
SLABS EXPOSED TO THE WEATHER: 1.50"

### REINFORCING STEEL:

ALL REINFORCING STEEL BARS SHALL CONFORM TO ASTM 615 SPECIFICATIONS AND SUPPLEMENTARY REQUIREMENTS #1 FOR DEFORMED BILLET STEEL WITH 60,000 PSI MINIMUM YIELD STRENGTH. PROVIDE DOWELS IN FOUNDATIONS TO MATCH REINFORCING ABOVE.

### PRE-ENGINEERED WOOD ROOF TRUSSES:

PRE-ENGINEERED WOOD ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING LOADS:

L.L. TOP CHORD 20 PSF  
D.L. TOP CHORD 20 PSF  
D.L. BOTTOM CHORD 10 PSF

TRUSS MANUFACTURER SHALL SUBMIT SIGNED AND SEALED PLAN VIEW SHOP DRAWINGS W/ ENGINEERED PROFILES AND CALCULATIONS SHOWING ALL REQUIRED TIE DOWNING TO GENERAL CONSTRUCTION. ALL ROOF TRUSSES SHALL BE DESIGNED FOR A MIN. BASIC WIND SPEED OF 160 M.P.H PER THE FLORIDA BUILDING CODE, 6TH EDITION (2017).

### MASONRY:

SHALL CONFORM TO ASTM C-90. UNITS SHALL BE ERECTED IN INTERLOCKED RUNNING BOND PATTERN. MORTAR SHALL BE TYPE "N" OR "S" AND MEET ASTM C-270. PROVIDE GAUGE 9 HORIZONTAL JOINT REINFORCEMENT EVERY OTHER COURSE.  $f_m = 1500$  PSI. GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI & CONFORM TO ASTM C-476.

### SOLID SAWN LUMBER:

TOP AND BOTTOM PLATES, SAWN LUMBER, BEAMS, HEADERS, SOLID AND BUILT UP POSTS SHALL BE #2 SOUTHERN YELLOW PINE WITH THE FOLLOWING MINIMUM PROPERTIES:

$F_b = 1200$  PSI  
 $F_v = 90$  PSI  
 $E = 1.5 \times 10^6$  PSI

### LAMINATED VENEER LUMBER:

L.V.L. & P.S.L. INDICATES LAMINATED LUMBER AS MANUFACTURED BY "TRUSS JOIST McILLAN" CORPORATION. ALL DESIGN DATA FOR THIS MATERIAL DIVISION SHALL BE AS SPECIFIED BY THE MANUFACTURER. ALL ATTACHMENTS, FILLERS ETC. AND INSTALLATION PROCEDURES SHALL IN STRICT ACCORDANCE W/ THE MANUFACTURERS SPECS.

### LINTELS:

DOOR OR WINDOW OPENINGS IN MASONRY WALLS SHALL HAVE CONCRETE LINTELS. WHERE THE HEAD OF THE OPENING IS WITHIN 16" OF THE TIE BEAM, OR SLAB, LINTELS SHALL BE POURED INTEGRAL WITH THE TIE BEAMS, OR SLAB. ADD 2# BUCKING BARS OR EVERY 3' DROP OF THE TIE BEAM. WHERE PRECAST LINTELS ARE USED, THEY SHALL BEAR MINIMUM OF 8" ON THE SUPPORT AND HAVE THE FOLLOWING SIZE AND REINFORCEMENT:

- SPANS UP TO 6'-0" USE 8" X 8" PRECAST U LINTELS
- SPANS UP TO 12'-0" USE 8" X 8" PRE-STRESSED U LINTELS
- REINFORCE AS SHOWN

### ROOF SHEATHING:

WOOD STRUCTURAL ROOF SHEATHING DIAPHRAGM SHALL BE 15/32" THICK (A.P.A. RATED) C. D. EXTERIOR INSTALLED PERPENDICULAR TO SUPPORTS AND SECURED W/ 10d NAILS AT 4" O.C. ALL PANEL EDGES AND AT 6" O.C. ALONG ALL INTERMEDIATE SUPPORTS - (4) PLY MATERIAL TO BE USED - SPAN RATING SHALL BE 32/16.

### WALL SHEATHING:

WALL SHEATHING DIAPHRAGM SHALL BE 15/32" TH. (A.P.A. RATED) C. D. EXT. INSTALLED PERPENDICULAR TO SUPPORTS AND SECURED W/ 8d NAILS AT 6" O.C. ALL PANEL EDGES - PROVIDE 2" X 4" BLK. BETWEEN STUDS W/ 3-1/2" FACE SET VERTICAL AT ALL PANEL EDGES - ALL INTERMEDIATE SUPPORTS SHALL BE NAILED W/ 8d NAILS AT 12" O.C. - SPAN RATING SHALL BE 32/16.

### METAL FASTENERS / CONNECTORS:

ALL HANGERS, CLIPS, STRAPS, TO BE MANUFACTURED BY "SIMPSON STRONG TIE" (UNLESS NOTED OTHERWISE) - REFER TO PLAN & TIE DOWN SCHEDULE. FOR ALL SPECIFIED FASTENER NUMBERS - CONSULT MFGS. CATALOG #C "WOOD CONSTRUCTION CONNECTORS" AND "HIGH WIND-RESISTANT CONST. CONNECTORS" CATALOG #C-HW - INSTALL ALL STRAPS PER MFGS. SPECIFICATIONS WITH DISTANCE OF STRAP BEING EQUAL FROM POINT OF CONN. ALL STRAPS SHALL BE 2-MAX.

BELOW CONNECTION (1E) BEAM TO POST INTERFACE) ALL CONNECTORS SHALL HAVE ALL NAIL HOLES FILLED WITH APPROPRIATE SIZE NAILS PER SIMPSON'S SPECS.

ALL FLAT STRAPS OR TWIST STRAPS SHALL BE APPLIED WITH EQUAL LENGTHS OF STRAP TO HEADER OR BEAM AND COLUMN, ETC., WHERE (2) STRAPS ARE INDICATED, APPLY ONE (1) AT EACH SIDE OF CONNECTION, FILL ALL HOLES WITH SPECIFIED NAIL COUNT.

### GENERAL:

CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCING WITH CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY FIELD CONDITION WHICH MAY NOT BE IN ACCORDANCE WITH DESIGN CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE JOB SITE CONSTRUCTION SAFETY. FOR FINISHED FLOOR ELEVATIONS, SLOPES, STEPS AND RECESSES, REFER TO ARCHITECTURAL PLANS. FOR SIZE AND LOCATION OF MECHANICAL SLEEVES AND OPENINGS, REFER TO MECHANICAL AND ARCHITECTURAL PLANS.

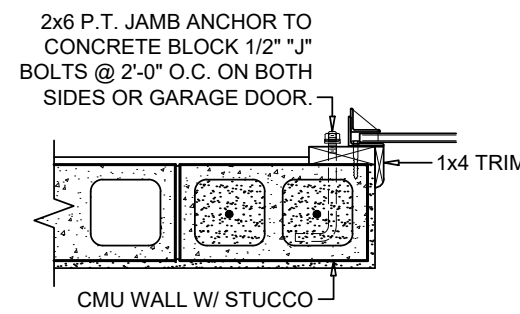
### FORM WORK AND SHORING:

SHORES AND RE-SHORES SHALL MEET THE REQUIREMENTS AS SET FORTH IN THE CURRENT A.C.I. 347 AND A.C.I. 301 LATEST EDITIONS. FORM WORK AND SHORING SHALL BE DESIGNED BY A FLORIDA REGISTERED ENGINEER.

### SLABS ON FILL:

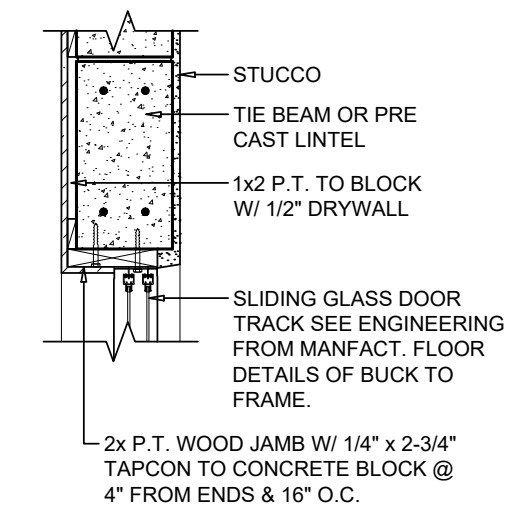
EXTERIOR SLABS ON FILL SHALL BE 4" THICK, UNLESS OTHERWISE NOTED ON PLANS. REINFORCED WITH 6 X 6 W/ 14 X W/ 14 W.W.M. FILL MATERIAL UNDER SLAB SHALL BE CLEAN SAND AND/OR ROCK AND SHALL BE COMPACTED TO 95% (MIN.) OF ASTM D 1557 IN LIFTS NOT TO EXCEED 12" IN DEPTH. SLAB ON FILL SHALL BE POURED AGAINST APPROVED VAPOR BARRIER.

FIBER REINFORCED CONCRETE SLABS SHALL CONTAIN SYNTHETIC FIBER REINFORCEMENT. FIBER LENGTH SHALL BE 1/2" TO 2". DOSAGE AMOUNTS SHOULD BE FROM 0.75 TO 1.5 LBS PER CUBIC YARD IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SYNTHETIC FIBERS SHALL COMPLY WITH ASTM C1116.



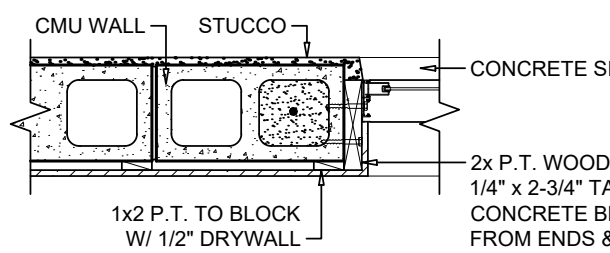
### GARAGE DOOR JAMB DETAIL

SCALE: N.T.S.



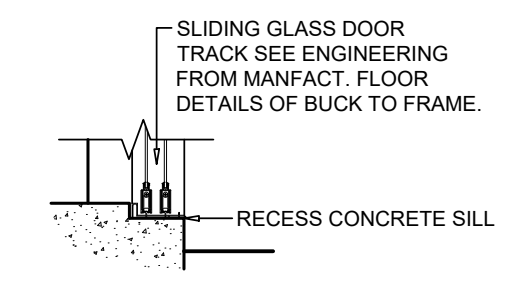
### SLIDING GLASS DOOR HEAD DETAIL

SCALE: N.T.S.



### SLIDING GLASS DOOR JAMB DETAIL

SCALE: N.T.S.



### SLIDING GLASS DOOR SILL DETAIL

SCALE: N.T.S.

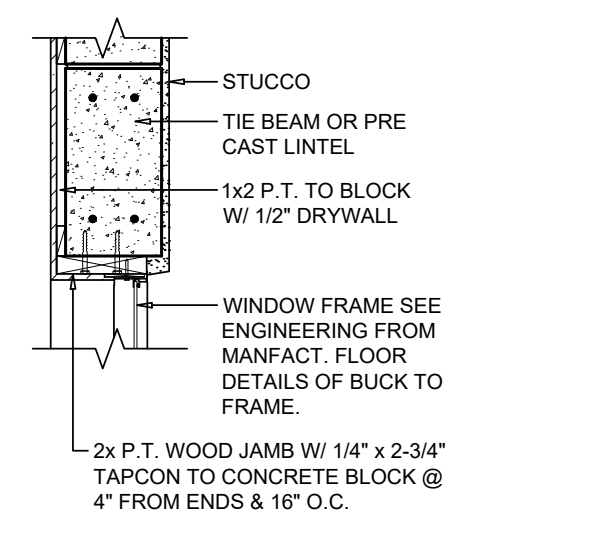
### ALTERNATE WINDOW / DOOR JAM ATTACHMENT

WINDOW JAMS SHALL CONSIST OF 1X3 (MIN.) PRESSURE TREATED ATTACHED TO MASONRY WITH 3/16" X 2 1/2" TAPCONS AT 4" FROM EA. END AND 16" O.C. FOR OPENINGS UP TO 6'-0". PROVIDE 3/16" X 2 1/2" TAPCONS AT 12" O.C. FOR OPENINGS GREATER THAN 6'-0" TO 5'-0" HIGH. ANCHORS SHALL NOT BE IN THE BEVELED AREA.

SLIDING DOORS OR WINDOWS UP TO 8'-0" HIGH REQUIRING BUCKING WIDER THAN 4" UP TO 8" SHALL BE ATTACHED TO THE MASONRY WALL WITH (2) ROWS OF 3/16" X 2 1/2" AT 16" O.C. FOR 1X BUCKS AND 1 1/4" X 3 1/2" AT 16" O.C. FOR 2X BUCKS.

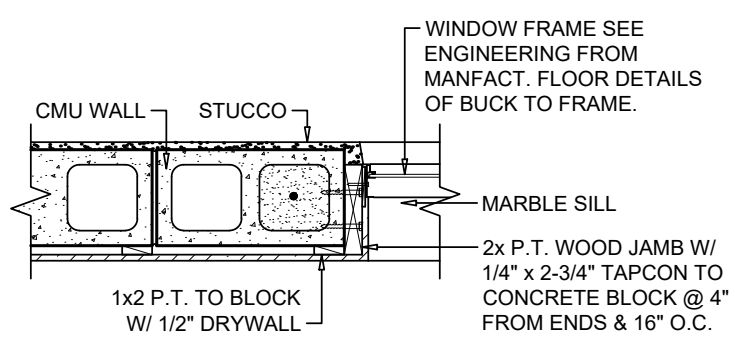
WINDOW ATTACHMENT SHALL BE PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE ATTACHED DIRECTLY TO THE MASONRY WALL THROUGH THE BUCKING IF USING 1" THICK BUCKSTRIPS.

MASONRY CELLS ON EACH SIDE OF THE OPENING SHALL BE FILLED SOLID WITH #5 REBAR EACH CELL IN ACCORDANCE WITH THE MASONRY NOTES.



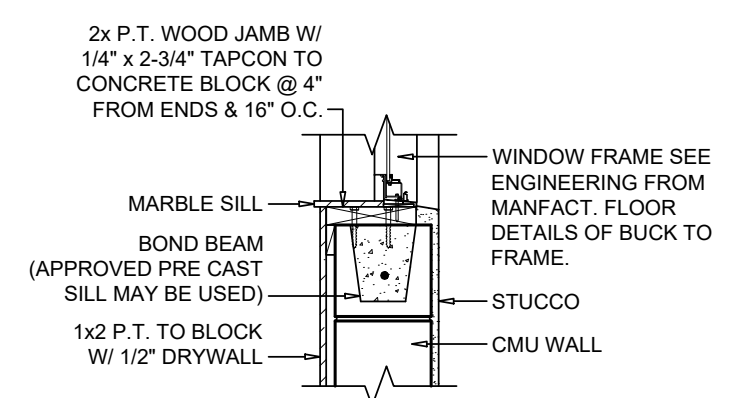
### WINDOW HEAD DETAIL

SCALE: N.T.S.



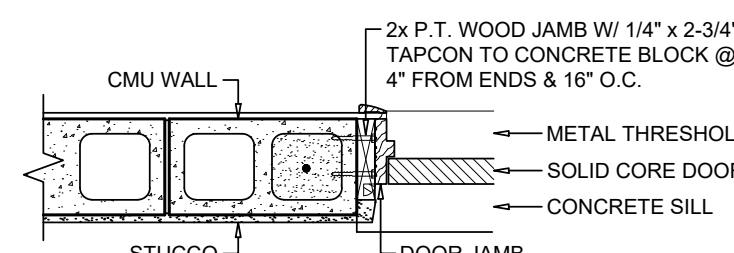
### WINDOW JAMB DETAIL

SCALE: N.T.S.



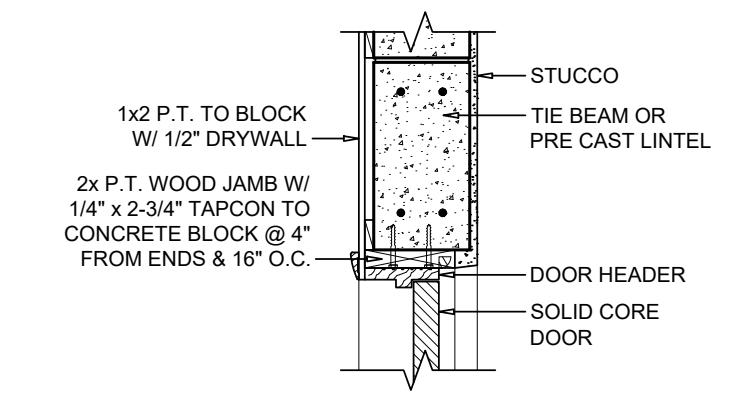
### WINDOW SILL DETAIL

SCALE: N.T.S.



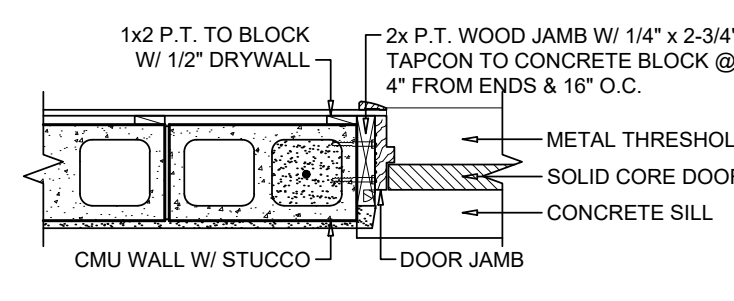
### DOOR JAMB TO BLOCK DETAIL

SCALE: N.T.S.



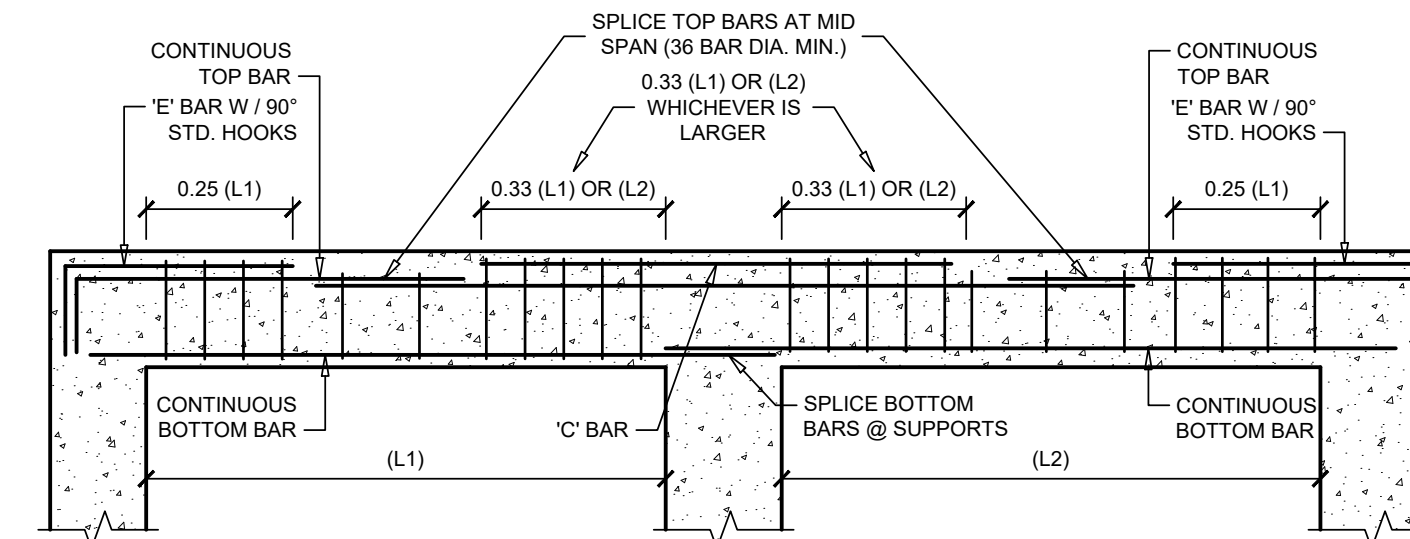
### DOOR HEAD DETAIL

SCALE: N.T.S.



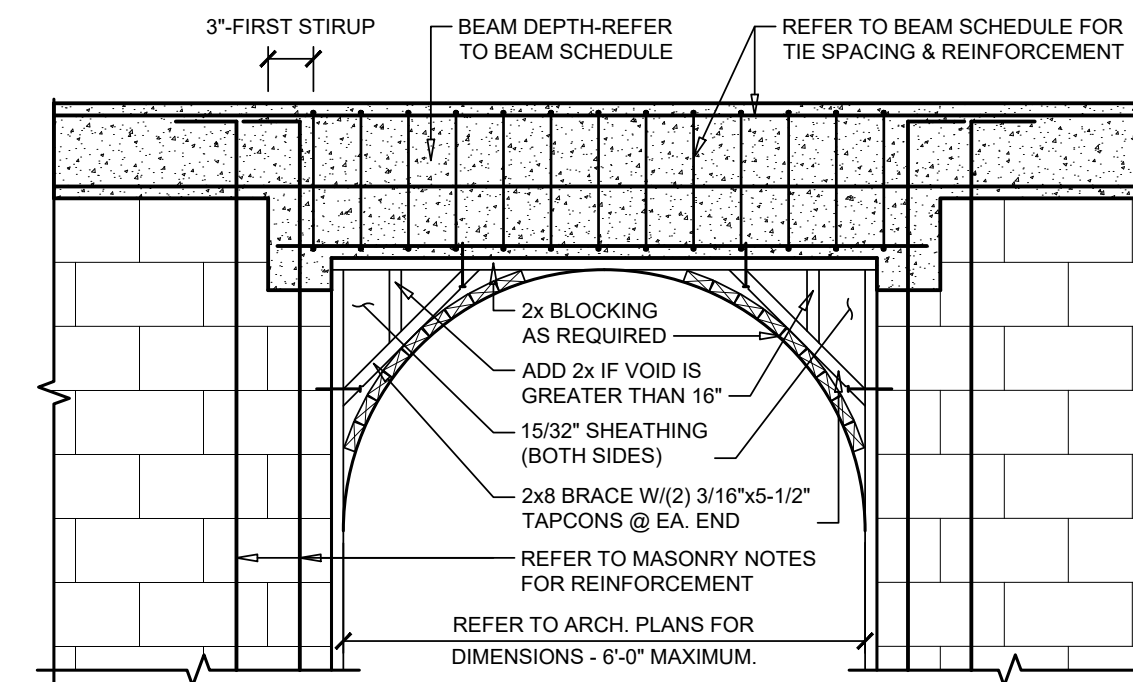
### DOOR JAMB TO BLOCK DETAIL

SCALE: N.T.S.



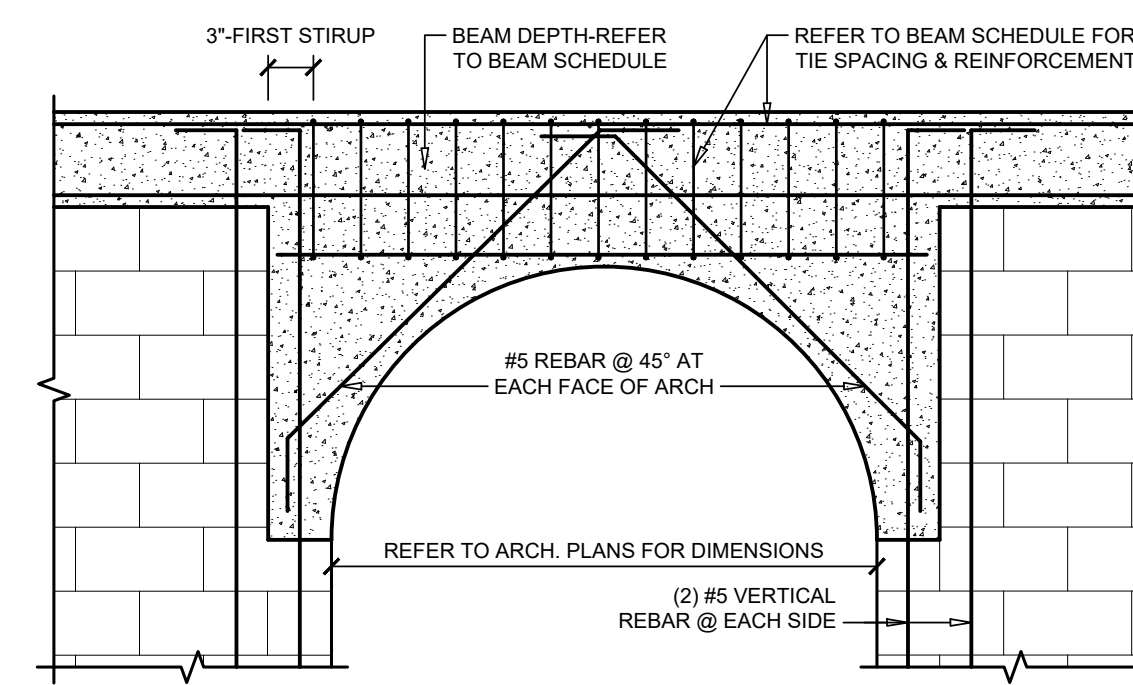
### BEAM BAR DIAGRAM

SCALE: N.T.S.



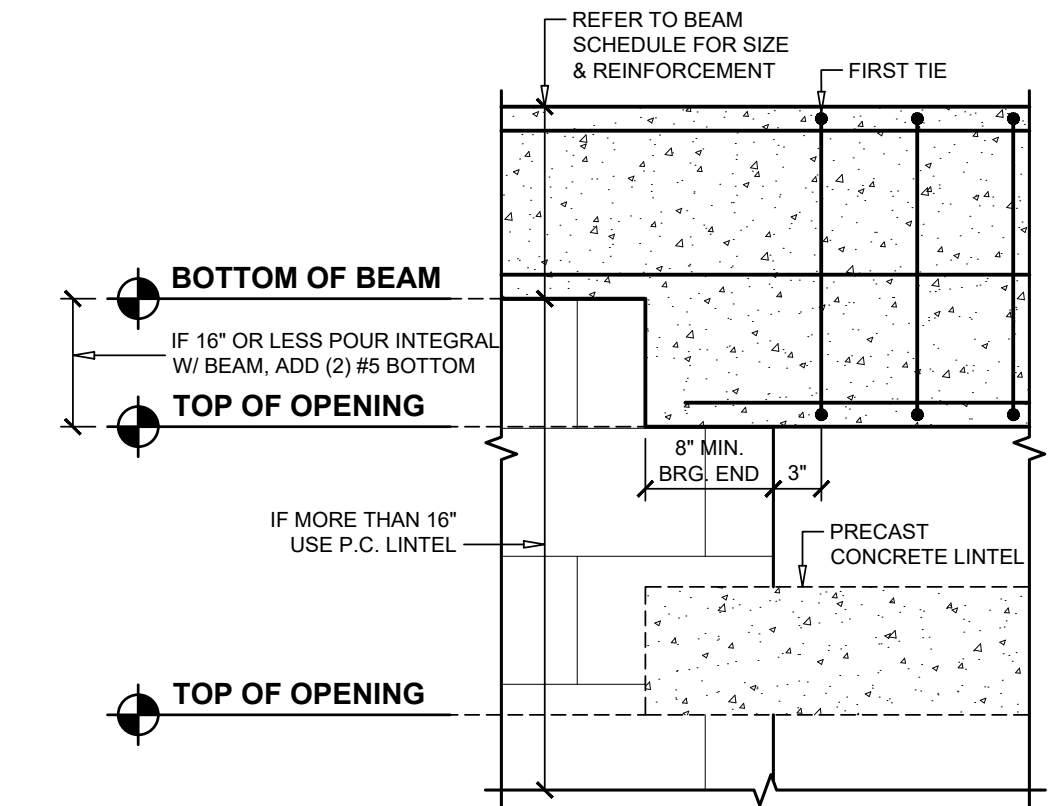
### TYPICAL WOOD FRAME ARCH DETAIL

SCALE: N.T.S.



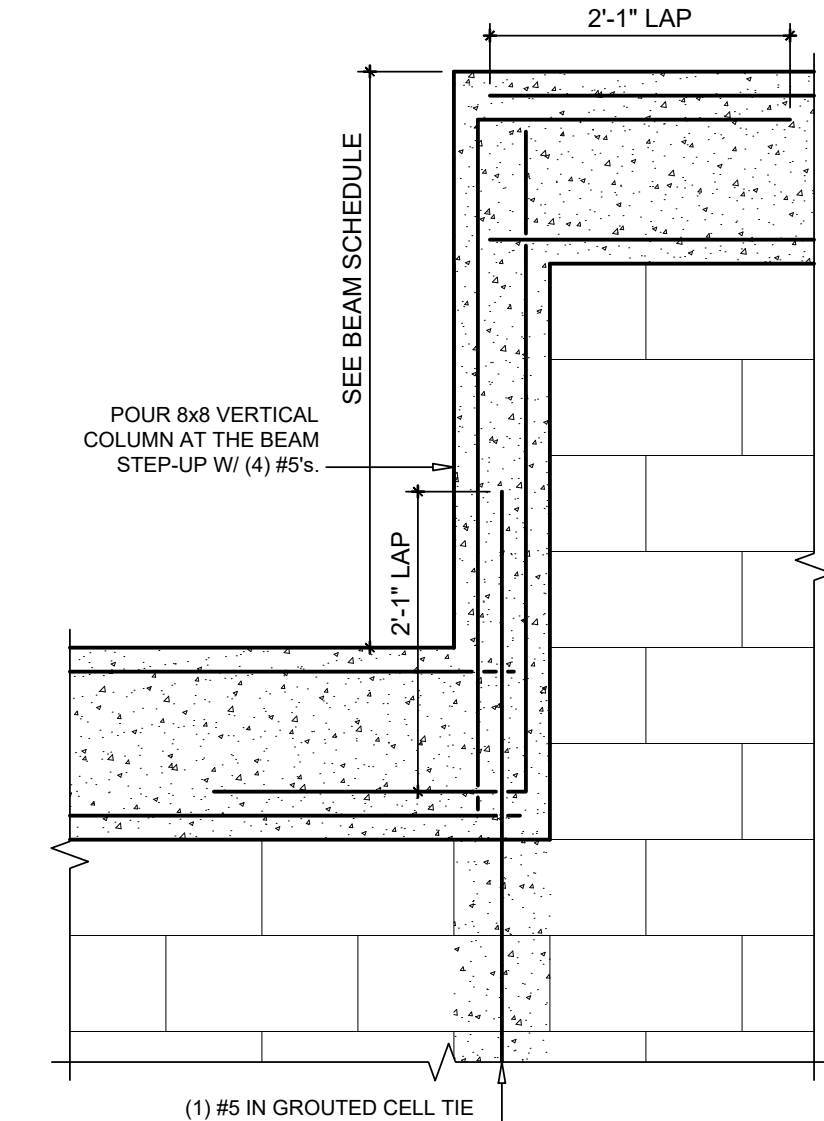
### TYPICAL ARCH DETAIL

SCALE: N.T.S.



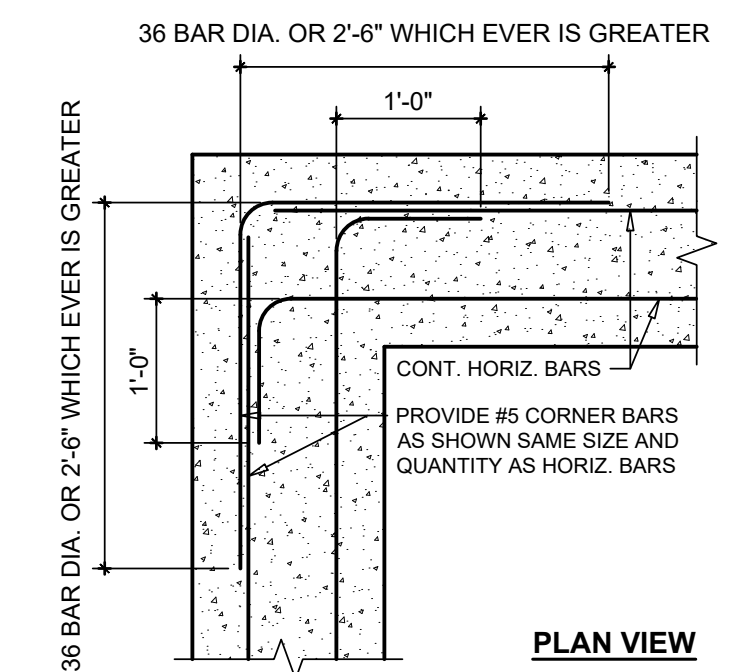
### TYPICAL BEAM / LINTEL OVER OPENING

SCALE: N.T.S.



### STEP-UP TIE BEAM DETAIL

SCALE: 3/4"=1'-0"



### DETAIL FOR FOOTINGS, TIE BEAMS, AND WALLS (TYP.)

SCALE: 3/4"=1'-0"

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DATE: MARCH 16, 2018

PROJ. NAME: SINGLE FAMILY RESIDENCE  
CARTAYA RESIDENCE  
16 AVE SE NAPLES, FL

PROJ. NO.:

DATE: MARCH 16, 2018

CRONIN ENGINEERING, INC.  
CERTIFICATE OF AUTHORIZATION NUMBER: 6597

6627 WILLOW PARK DRIVE  
NAPLES, FL 34109  
PHONE: 583-2157 FAX: 583-9820

DEREK P. CRONIN  
FLORIDA PE # 55382

SHEET No:

A-6

CRONIN ENGINEERING, INC.  
COMMERCIAL & RESIDENTIAL DESIGN  
6627 WILLOW PARK DRIVE  
NAPLES, FL 34109  
PHONE: 583-2157 FAX: 583-9820



**ELECTRICAL SYMBOL LEGEND**

SYMBOL	DESCRIPTION
⊞	SWITCH SINGLE POLE
⊞ <sub>3</sub>	3 WAY SWITCH
⊞ <sub>4</sub>	4 WAY SWITCH
⊞	INCANDESCENT LIGHT DIMMER AND SWITCH
⊞	MOTION DETECTOR SENSOR
⊞	RECESSED RESTROOM EXHAUST FAN
⊞	WALL MOUNT LIGHTING FIXTURE
⊞	SURFACE MOUNTED WALL SCONCE LIGHT
⊞	CEILING MOUNT LIGHTING FIXTURE
⊞	HANGING CEILING LIGHTING FIXTURE
⊞	RECESSED LIGHTING FIXTURE
⊞	VAPOR PROOF RECESSED LIGHTING FIXTURE
⊞	EXTERIOR FLOOD LIGHT FIXTURE
⊞	FLUORESCENT LIGHTING STRIP FIXTURE
⊞	FLUORESCENT WRAP AROUND LIGHTING FIXTURE
⊞	2x2 PARABOLIC RECESSED LIGHTING FIXTURE
⊞	2x2x4 ACRYLIC RECESSED LIGHTING FIXTURE
⊞	2x4 PARABOLIC RECESSED LIGHTING FIXTURE
⊞	2x4 ACRYLIC RECESSED LIGHTING FIXTURE
⊞	CEILING FAN
⊞	CEILING FAN WITH LIGHT KIT
⊞	EXIT LIGHTING FIXTURE
⊞	EMERGENCY LIGHTING FIXTURE
⊞	EXIT & EMERGENCY COMBINATION LIGHTING FIXTURE
⊞	EXIT LIGHTING FIXTURE DIRECTIONAL CHEVRONS
⊞	CEILING MOUNTED SMOKE DETECTOR
⊞	ELECTRICAL PANEL SURFACE MOUNT
⊞	DUPLEX RECEPTACLE 125V 20A
⊞	1/2 SWITCHED DUPLEX RECEPTACLE 125V 15A (RESIDENTIAL)
⊞	DUPLEX RECEPTACLE 125V 20A GROUND FAULT CIRCUIT INTERRUPT & WATERPROOF COVER
⊞	DUPLEX RECEPTACLE 125V 20A GROUND FAULT CIRCUIT INTERRUPT
⊞	DUPLEX FLOOR RECEPTACLE 125V 20A
⊞	DUPLEX CEILING MOUNTED RECEPTACLE 125V 20A
⊞	208/240 VOLT RECEPTACLE 4WIRE
⊞	CEILING MOUNTED JUNCTION / OUTLET BOX
⊞	TELEPHONE OUTLET
⊞	DATA OUTLET
⊞	TELEVISION OUTLET
⊞	DOOR BELL
⊞	MOTOR
⊞	MOTOR DISCONNECT SWITCH
⊞	ELECTRICAL METER

EQUAL TO: **SQ. "D" Q0142M200** VOLTAGE: **120/240V, 1Ø, 3W**

TYPE: **LOADCENTER** PANEL "A" MAINS: **200A**

MOUNTING: **FLUSH** TYPE MAINS: **MB**

CIR. NO.	IDENTIFICATION	"A" VA	"B" VA	TRIP AMPS	POLE	WIRE COND.	COND.	WIRE COND.	POLE	TRIP AMPS	"A" VA	"B" VA	IDENTIFICATION	CIR. NO.
1	* AHU-1	-	-	60	2	6	1"	3/4"	8	2	50	-	RANGE	2
3	* AHU-1	-	-	60	-	6	-	-	8	-	50	-	RANGE	4
5	* CU-1 (2.5 TON)	-	-	50	2	8	3/4"	1/2"	10	2	30	-	DRYER	6
7	* CU-1	-	-	50	-	8	-	-	10	-	30	-	DRYER	8
9	REFRIGERATOR	-	-	20	1	12	1/2"	1/2"	12	1	20	-	WASHER	10
11	DISPOSAL	-	-	20	1	12	1/2"	1/2"	12	1	20	-	LAUNDRY	12
13	KITCHEN RECEPTACLES	-	-	20	1	12	1/2"	1/2"	12	1	20	-	DISHWASHER	14
15	KITCHEN RECEPTACLES	-	-	20	1	12	1/2"	1/2"	12	1	20	-	GARAGE	16
17	MICROWAVE	-	-	20	1	12	1/2"	1/2"	12	1	20	-	BATHROOM 1 & 2 RCPT.	18
19	** BEDROOM 2	-	-	15	1	14	1/2"	1/2"	10	2	30	-	WATER HEATER	20
21	** BEDROOM 3	-	-	15	1	14	1/2"	1/2"	10	-	30	-	WATER HEATER	22
23	MASTER BATH RECEPTACLES	-	-	20	1	12	1/2"	1/2"	14	1	15	-	** MASTER BEDROOM	24
25	GREAT ROOM	-	-	15	1	14	1/2"	1/2"	12	1	20	-	LANAI RECEPTACLES	26
27	** MASTER BEDROOM	-	-	15	1	14	1/2"	1/2"	14	1	15	-	GENERAL LIGHTING	28
29	GENERAL LIGHTING	-	-	15	1	14	1/2"	1/2"	14	1	15	-	GENERAL LIGHTING	30
31	GENERAL LIGHTING	-	-	15	1	14	1/2"	1/2"	14	1	15	-	GENERAL LIGHTING	32
33														34
35														36
37														38
39														40
41														42
<b>SUB-TOTAL KVA/Ø</b>												<b>SUB-TOTAL KVA/Ø</b>		

\* VERIFY SIZE OF O.C.P. DEVICE W/ MANUFACTURER, MECHANICAL DRAWINGS AND FIELD VERIFICATION.  
 \*\* INDICATES ARC. FAULT BREAKER.  
 \*\*\* VIA TIME SWITCH.

**Residential Standard Calculation** Version 7.28 9/25/1997

STEP 1 Article 220.42 & 220.52

1270	General Lighting load	3,810 VA
2	Small Appliance	3,000 VA
1	Laundry circuit	1,500 VA
Gen.Lgt., Sm App & Laun. Load		8,310 VA
	@ 100% =	3,000 VA
	@ 35% =	1,859 VA
	@ 25% =	VA

General Lighting Demand Load **4,859 VA**

STEP 2 Article 220.50 & 220.51

2.5 ton	4,400 VA	AHU 1	SHW	5,800 VA
A/C #2	VA	AHU 2	Select	VA
A/C #3	VA	AHU 3	Select	VA
A/C #4	VA	AHU 4	Select	VA
A/C #5	VA	AHU 5	Select	VA

Total Heat Load **5,800 VA**  
 Total CU Load **4,400 VA**  
 Greater of Heat @ 100% vs A/C @ 100% **5,800 VA**

STEP 3 Article 220.53

4,500 VA	1	Water Heater	4,500 VA
1,400 VA	1	Refrigerator	1,400 VA
600 VA	1	Freezer	VA
1,030 VA	1	Dishwasher	1,030 VA
690 VA	1	Disposal	690 VA
790 VA	1	Trash Compactor	VA
1,630 VA	1	Microwave	1,630 VA
340 VA	0	Mini Refrigerator	VA
400 VA	0	Range hood	VA
540 VA	0	Wine Cooler	VA
1,500 VA	0	Ironing Center	VA
		Jacuzzi Tub	VA
		Sprinkler Pump	VA
		Well Pump	VA
		Fountain Pump	VA
		Elevator	VA
		Pool Equip. Panel	VA 100% Demand
		U.C. Ice Maker	VA No Demand

Appliance Demand Load **6,938 VA**  
 Dryer Demand Load **5,000 VA**  
 Range Demand Load **8,000 VA**  
 Service Demand **30,596 VA**  
 Demand Load **127 A**  
 Neutral Demand **73 A**  
 See Service Riser

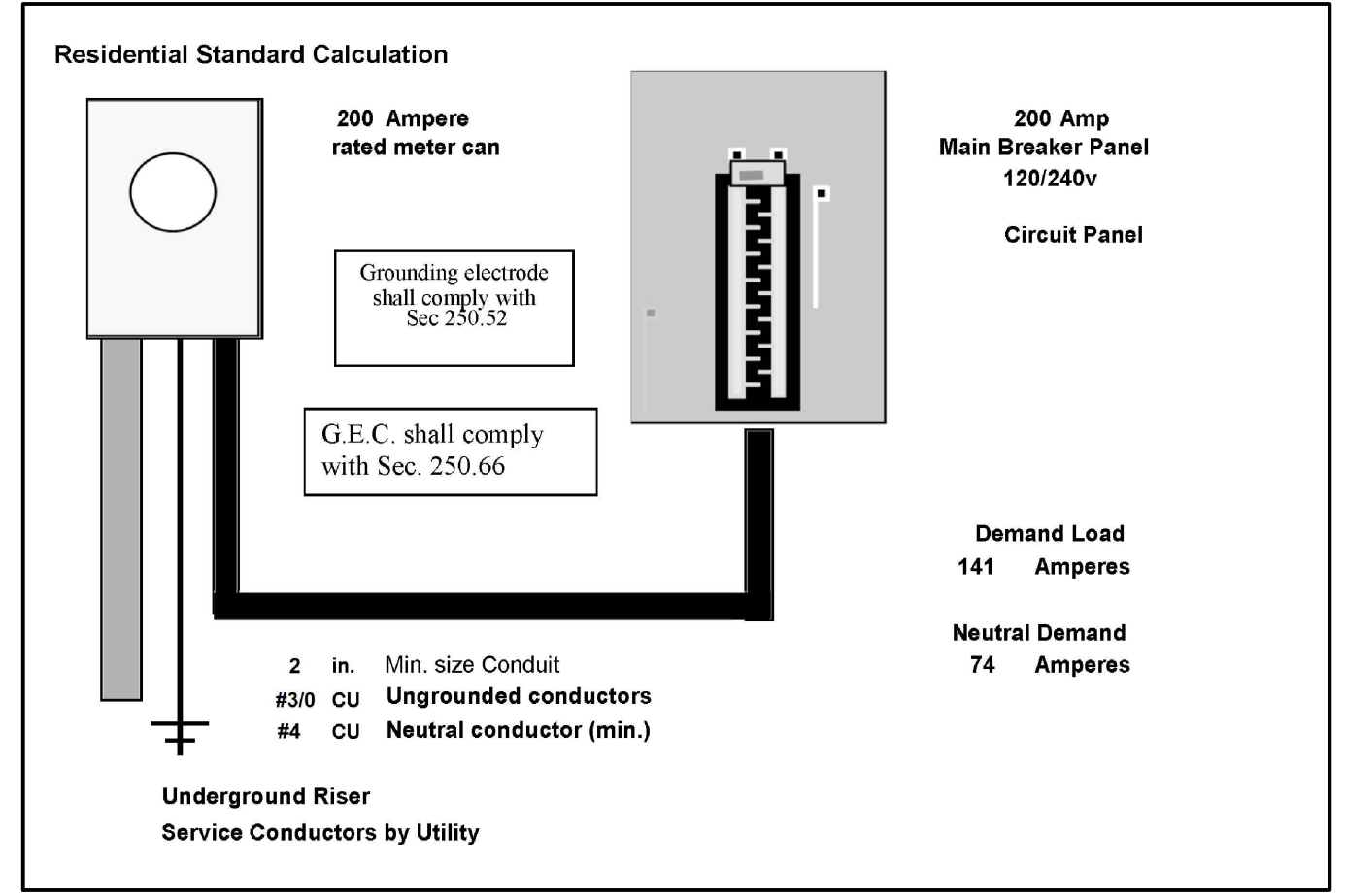
STEP 4 Article 220.54  
 Electric Clothes Dryers **5,000 VA**

STEP 5 Article 220.55  
 Electric Ranges **11,600 W** Col C demand **8,000 W**

Number of appliances **2**  
 Cooktop Col B demand  
 Cooktop Col B demand  
 Oven(s) Col B demand  
 Oven(s) Col B demand  
 Number of appliances **0** Demand Factor **0%**  
 Cooktop & Oven Demand Load **W**

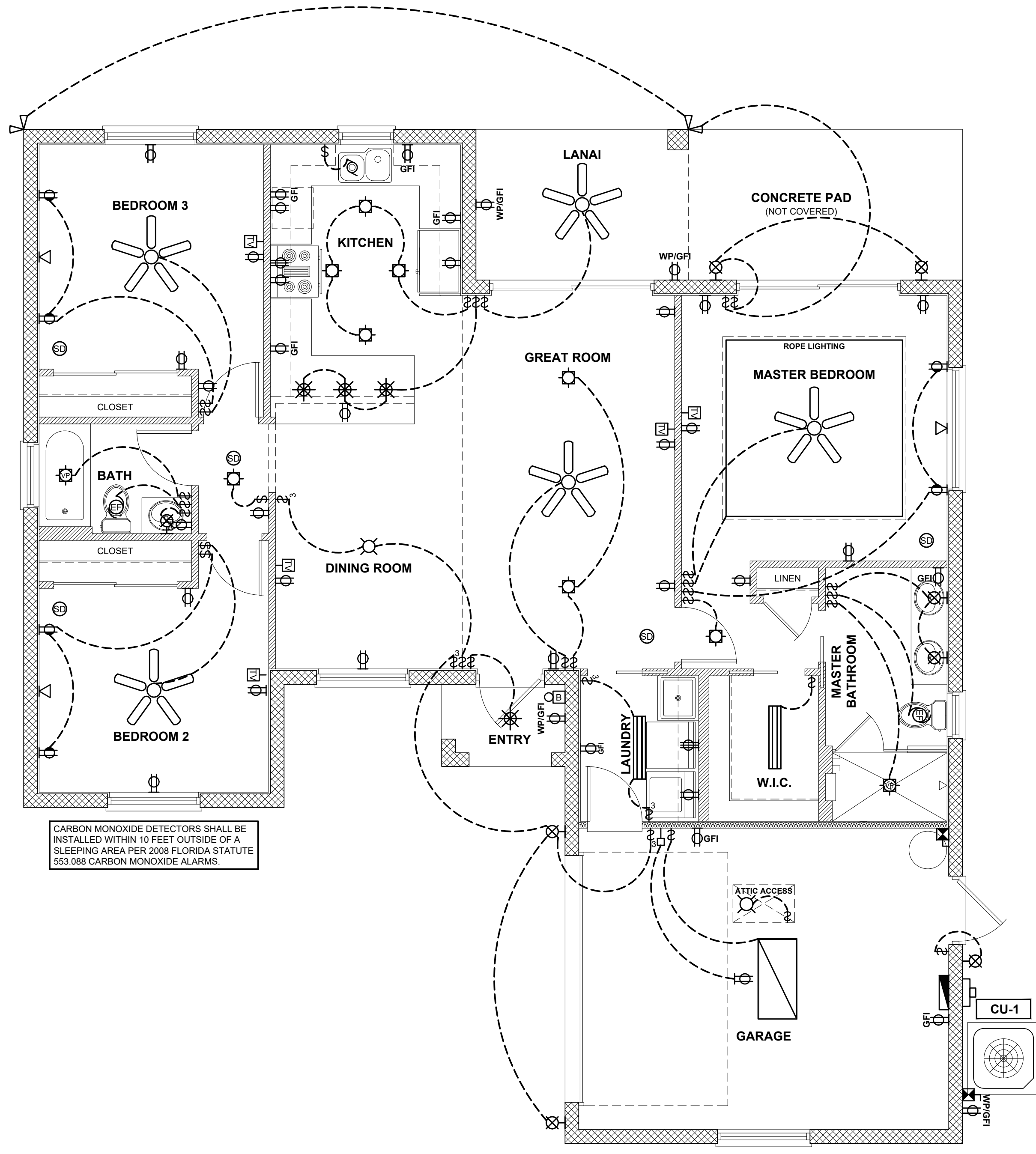
Total Appliance Load **9,250 VA**  
 4 or more demand @ 75% plus 100% demand loads **6,938 VA**

ARCHITECTURAL EDGE, INC.  
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 417/2017 14.35



**ELECTRICAL NOTES**

- IT IS THE INTENT OF THE DESIGNER THAT THE ELECTRICAL SUBCONTRACTOR IS TO BID AND INSTALL ALL ELECTRICAL ITEMS AS REQUIRED PER APPLICABLE ELECTRICAL BUILDING CODES.
- ALL EXTERIOR OUTLETS AND OUTLETS IN KITCHEN, BATHROOMS AND UTILITY TO BE ON GFI CIRCUITS.
  - VERIFY POWER HOOK UP LOCATION AND TYPE OF SERVICE (UNDERGROUND OR OVERHEAD) WITH RESPECT TO SUBDIVISION REQUIREMENTS.
  - ALL SMOKE DETECTORS ARE TO BE HARD WIRED AND INTERCONNECTED WITH BATTERY BACKUP.
  - ALL FIXTURES SHALL BE APPROVED BY THE OWNER PRIOR TO PURCHASE AND INSTALLATION.
  - ALL 120V, SINGLE PHASE, 15 AND 20 AMP BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN ALL LIVING AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT



**ELECTRICAL PLAN**

SCALE: 1/4"=1'-0"

REV.	DESCRIPTION

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THE OWNER OR CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE CONSTRUCTION OF THE PROJECT AND SHALL FOLLOW THE LOCAL BUILDING CODES AND ALL APPLICABLE ELECTRICAL BUILDING CODES AND REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL BUILDING DEPARTMENT AND ALL OTHER AGENCIES INVOLVED IN THE CONSTRUCTION OF THE PROJECT.

CRONIN ENGINEERING, INC.  
 SINGLE FAMILY RESIDENCE  
 CARTAYA RESIDENCE  
 16 AVE SE NAPLES, FL

DESCRIPTION:  
**ELECTRICAL PLAN**

DATE:  
 MARCH 16, 2018

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