Date: January 04, 2019
Response Miami Beach Planning Department: DRB 18-0323
Project: 1819 4354 Alton Road Residence (South Lot)
4354 Alton Road Miami Beach Florida 33139

1. Application Comments

a. Refer to comments posted by Monique Fons. Any application Comments are to be addressed no later than **12/19/2018**.
Response: Noted.

2. Design / Appropriateness Comments

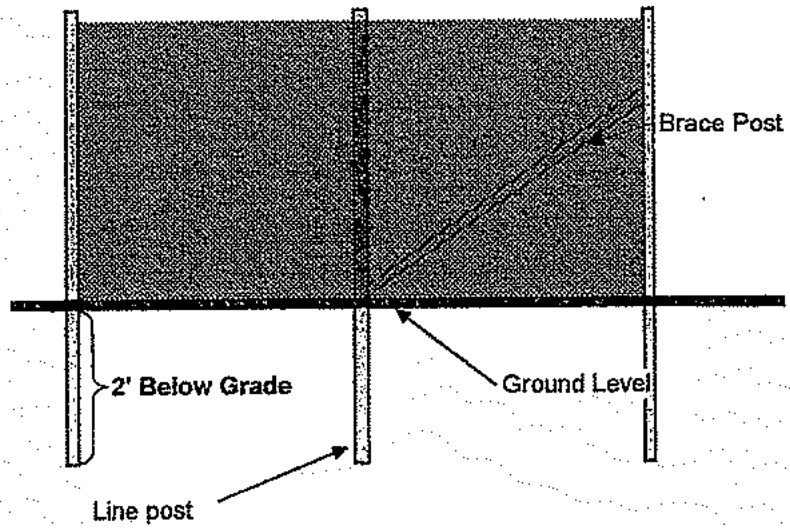
a. Pool Deck dimension from setback is inaccurate – pool deck setback minimum 7'-6".
Response: Please see Sheet A2.01 Level 1 Floor Plan for accurate pool deck setback.
b. A0.11 – Open space at front to be calculated at 20'-0" front yard setback – diagram incorrect. However, Front Yard Area and Required SF appears to account for 20' setback. Graphically incorrect.
Response: Please see for revised Sheet A0.11 Open Space Diagram at 20' from property, which complies at 51%.
c. Portions of covered balcony structure that exceeds 6'-0" count toward unit size
Response: Please see Sheet A2.02 for balcony dimensions not exceeding 6'-0".

3. Zoning / Variance Comments

a. Lot coverage shall be revised to include covered area enclosed on 3 sides at the front entrance. (Reviewed and discussed with Michael Belush). This would require a waiver for the second floor area ratio. Advise if plans would be modified to comply with lot coverage below 25% at the time of the building permit or a waiver will be requested.
Response: Please see Sheet A0.10 for revised Lot Coverage Diagram.
b. Open space in the front yard applies only to the first 20'-0' of the property. Revise diagram.
Response: See Sheet A0.11 for revised Open Space Diagram at 20' from property, which complies at 51%.
c. Unit size diagram and calculations shall be revised to include portions of covered balconies exceeding 6'-0" at the second floor. May reduce balcony slab or reduce the roof above.
Response: Please see Sheet A2.02 for balcony dimensions not exceeding 6'-0", therefore no need to revise unit size.
d. Include in unit size of first floor portion of the covered rear terrace (5" strip)within recessed entry area exceeds 10'-0" from the building. This area shall be added to unit size or modify the project.
Response: Please see Sheet A0.01 AND A0.09 for revised unit size; covered terrace does not exceed 10'.
e. Pool deck shall be setback 7'-6" from the side property line.

Response: Please see Sheet A2.01 for accurate pool deck setback.

NATIONAL CONSTRUCTION RENTALS
6 ' TEMPORARY FENCE with CORNER OR END



MATERIAL SPECIFICATION

Chain Link - 6' High x 2 3/8" diamond x 11.5 gauge KK
Ties - 12ga x 7 Steel, 4 per post
Line Post Spacing - 10'
Line Post - 1 5/8 x 8' Gate post, Wall Thickness .080
Brace Post - 1 5/8 x 8' Gate post, Wall Thickness .095

POST INSTALLATION

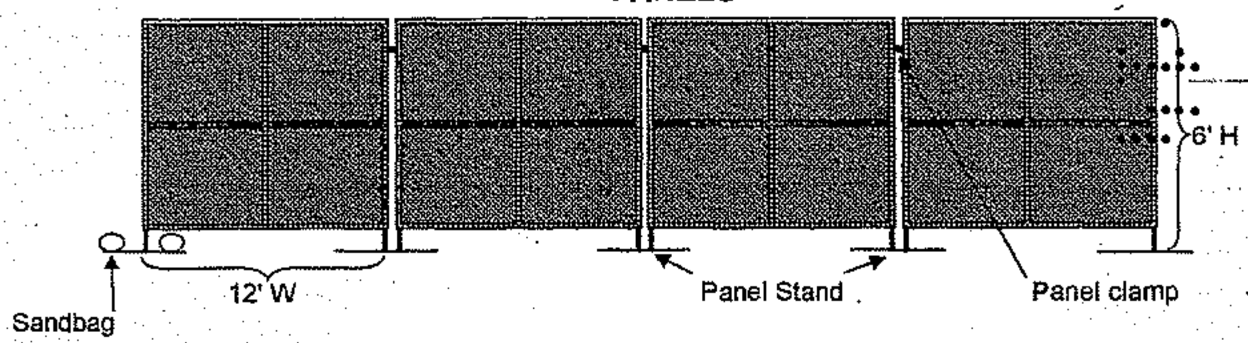
All posts are driven into the ground two feet with a pneumatic post driver

Wayne Terwilliger, P.E.
Florida Environmental Engineering, Inc.
FL. Lic. No. 49160, PCC 05 3988

1/24/2009
Date

NATIONAL CONSTRUCTION RENTALS
TEMPORARY 6' FENCE PANELS

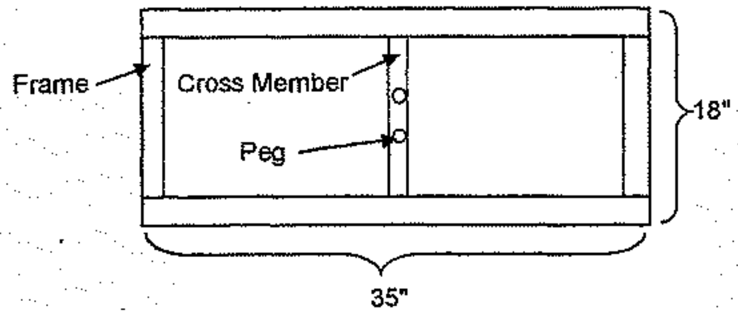
- PANELS -



PANEL DESCRIPTION

Chain Link: 11 1/2 ga x 2 3/8" Mesh Galvanized Chain Link
Frame Work: 1 3/8" diameter .065"wall galvanized tube
Panel Clamp: 1 3/8" x 1 3/8" Heavy duty steel panel clamp

- PANEL STAND -

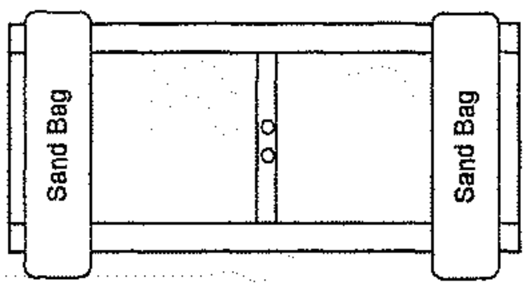


PANEL STAND DESCRIPTION

Frame: 1 3/8" dalmeter .065" wall steel tubing
Cross Member: 5/8" x 17" steel
Pegs: 3/8" x 6" sch40

- SAND BAGS -

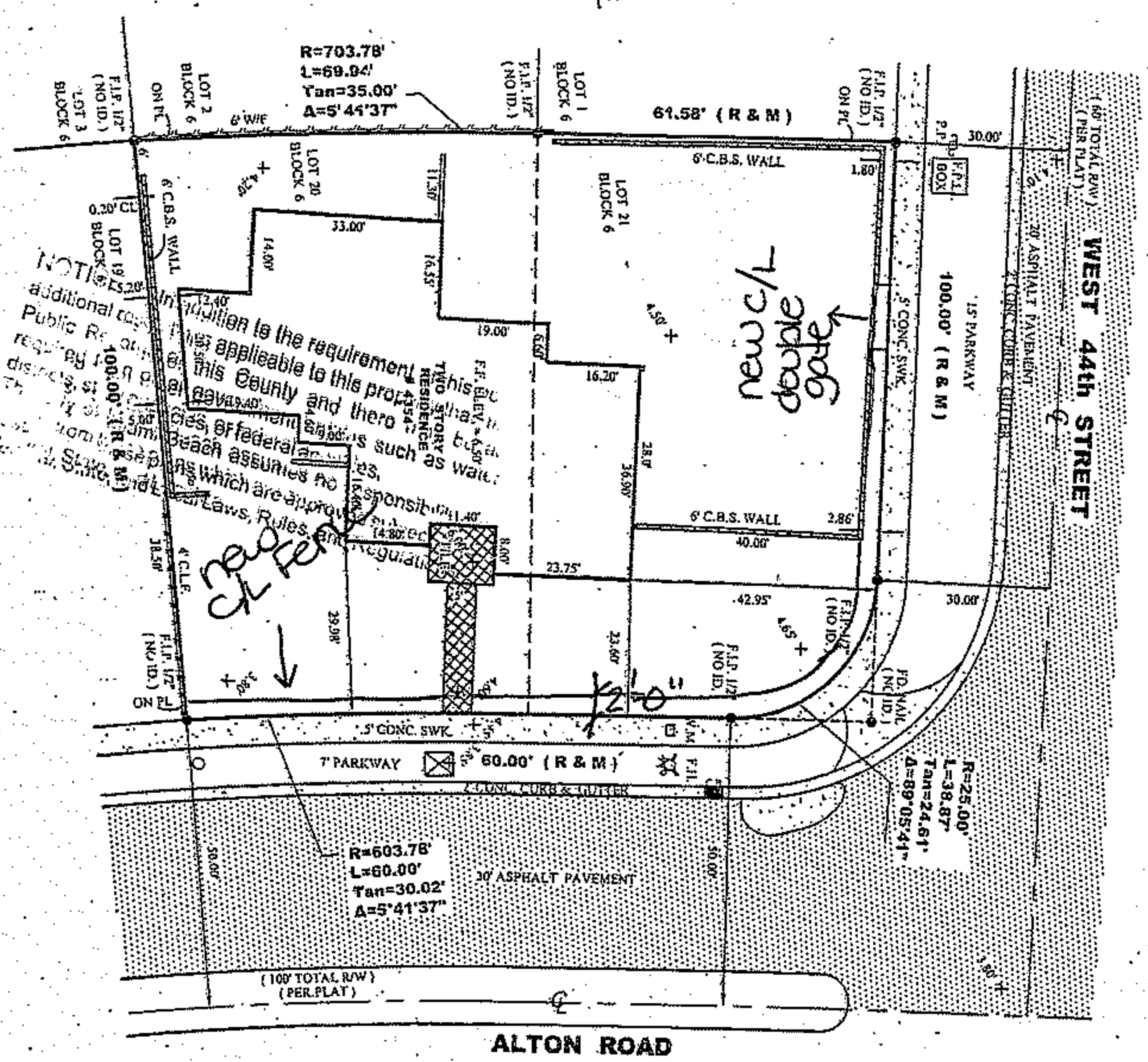
Two 60 lb tubular sand bags placed on each end of the panel stand



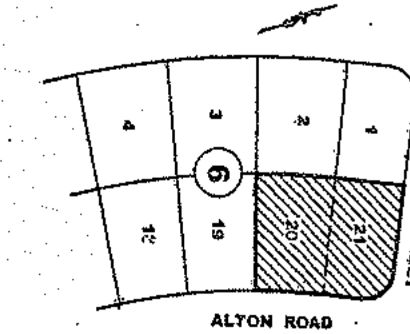
Wayne Terwilliger, P.E.
Florida Environmental Engineering, Inc.

1/24/2009
Date

48 HOURS PRIOR TO EXCAVATING
CONTRACTOR SHALL CALL FOR LOCATION
OF UNDERGROUND UTILITIES
SUNSHINE ONE-CALL 1-800-432-4770
CITY OF MIAMI BEACH 305-673-7080



LOCATION SKETCH
SCALE: NTS



B1401946

PUBLIC WORKS
PLAN REVIEW NOTICE
Phone 305-673-7080 Fax 305-673-7020

THIS PLAN REVIEW CONSTITUTES APPROVAL FOR OBTAINING BUILDING PERMITS ONLY.

All construction and/or use of equipment in the right-of-way and/or easements, requires a separate Public Works Department permit prior to start of construction.

Permit Requirements: Proof of existing sidewalk/swale area conditions (pictures) and/or posting of sidewalk/roadway bonds (Public Works Inspection of the right-of-way will be required prior to final sign-off on the C.C. / C.O., or the release of bonds.)

Approved/Reviewed By: Ad Date 5.13

OFFICE COPY
CITY OF MIAMI BEACH
APPROVED FOR PERMIT BY THE FOLLOWING:

BUILDING:
ZONING: 5/13/14
PLUMBING:
ELECTRICAL:
MECHANICAL:
FIRE PREVENTION:
FLOOD:
PUBLIC WORKS: Ad 5.13.14
STRUCTURAL: AV 5/12/14
ELEVATOR:

PROPERTY ADDRESS: 4354 ALTON RD., MIAMI BEACH, FL. 33140.
CERTIFIED TO: GARY PRINCE; ROSENTHAL ROSENTHAL RASCO KAPLAN, LLC; OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY.

LEGAL DESCRIPTION: LOTS 20 & 21 BLOCK 6
OF NAUTILUS SUBDIVISION
ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 8 AT PAGE 95
OF THE PUBLIC RECORDS MIAMI-DADE COUNTY, FLORIDA

ABBREVIATIONS:
SWK=SIDEWALK, CBS=CONCRETE BLOCK STRUCTURE, CLF=CHAIN LINK FENCE, PL=PROPERTY LINE, DUE=DRAINAGE UTILITY EASEMENT, IP=IRON PIPE, F=FOUND, A/C=AIR CONDITIONER PAD, P/C=PROPERTY CORNER, D/H=DRILLED HOLE, WF=WOODEN FENCE, RES=RESIDENCE, CL-CLEAR, RB=REBAR, UE=UTILITY EASEMENT, CONC=CONCRETE SLAB, R/W=RIGHT OF WAY, DE=DRAINAGE EASEMENT, C/L=CENTER LINE, O=DIAMTER, TYP=TYPICAL, M=MEASURED, R=RECORDED, ENCR=ENCROACHMENT, COMP=COMPUTER, ASH=ASPHALT, N/D=NAIL & DISC, S=SET, FEE=FINISH FLOOR ELEVATION, O/S=OFFSET, P/P=POWER POLE, OHP=OVERHEAD POWERLINE, WM=WATER METER
WOOD FENCE=
MASONRY WALL=
CONCRETE=
MAINTENANCE & DRAINAGE EASEMENT=M & D.E.

ELEVATION BASED ON LOC. # 3234 NE
CBM# D-106 ELV. 3.21' TYPE OF SURVEY: BOUNDARY SURVEY

NOT VALID UNLESS EMBOSSED WITH SURVEYOR'S SEAL

REVISED:

SURVEYOR'S NOTES: 1) OWNERSHIP SUBJECT TO OPINION OF TITLE. 2) NOT VALID WITHOUT THE SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. 3) THE SURVEY DEPICTED HERE IS NOT COVERED BY PROFESSIONAL LIABILITY INSURANCE. 4) LEGAL DESCRIPTION PROVIDED BY CLIENT. 5) UNDERGROUND ENCROACHMENTS NOT LOCATED. 6) ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929. 7) OWNERSHIP OF FENCES ARE UNKNOWN. 8) THERE MAY BE ADDITIONAL RESTRICTIONS NOT SHOWN ON THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. 9) CONTACT THE APPROPRIATE AUTHORITY PRIOR TO ANY DESIGN WORK FOR BUILDING AND ZONING INFORMATION. 10) EXAMINATION OF THE ABSTRACT OF TITLE WILL HAVE TO BE MADE TO DETERMINE RECORDED INSTRUMENTS, IF ANY, AFFECTING THIS PROPERTY.

Additions or deletions to survey maps or reports by other than the signing party or parties is prohibited without written consent of the signing party or parties.

BEARINGS WHEN SHOWN ARE REFERRED TO AN ASSUMED VALUE OF SAID PB 8 PAGE 95

I HEREBY CERTIFY That the survey represented thereon meets the minimum technical requirements adopted by the STATE OF FLORIDA Board of Land Surveyors pursuant to Section 472.027 Florida Statutes.
There are no encroachments, overlaps, easements appearing on the plat or visible easements other than as shown hereon.

ADIS N. NUNEZ
REGISTERED LAND SURVEYOR
STATE OF FLORIDA #5924

SINCE 1987
BLANCO SURVEYORS INC.
Engineers · Land Surveyors · Planners · LB # 0007059
555 NORTH SHORE DRIVE
MIAMI BEACH, FL 33141
(305) 865-1200 Email: blancosurveyorsinc@yahoo.com Fax: (305) 865-7810

FLOOD ZONE: AE	SUFFIX: L	DATE: 9/11/09	BASE: 7'
PANEL: 0309	COMMUNITY #: 120651		
DATE: 8/28/13	SCALE: 1" = 30'	DWN. BY: F. Blanco	JOB No 13-693

B1403916
4354 Alton Rd.
OFFICE Copy

MIAMI-DADE COUNTY

miamidade.gov

Water and Sewer
PO Box 330316 • 3575 S. Lejeune Road
Miami, Florida 33233-0316
T 305-665-7471

ORDINANCE 89-95
COMPLIANCE FORM

ATLAS PAGE: B-11 INV#: FORM #: 201547780 DATE: 2/9/2015

This form acknowledges compliance on the part of the following with the requirements in accordance with Miami-Dade County's Ordinance number 89-95.

Name of Owner: RHIANON PEDRO

Mailing:
Address: 4354 ALTON RD
City, State, Zip: MIAMI BEACH FL 33139-

Property Address: 4354 ALTON RD

Property Legal Description: 22-27 53 42 NAUTILUS SUB PB 8-95 LOTS 20 & 21 BLK 6

Folio Number: 02-3222-011-1430

Proposed usage / No. of Units: SFR PER PLANS

REPLACES: Previous Usage / SFR PER PTXA

Gallons per Day: 0

PREVIOUS FLOW:	320	PREVIOUS SQUARE FOOTAGE:	4,563	☑ NEW CONSTRUCTION
PROPOSED FLOW:	320	PROPOSED SQUARE FOOTAGE:	4,091	☐ INTERIOR RENOVATION

Municipality:

Water Service Area: Miami Beach
Sewer Service Area: Miami Beach

Water Connection Charge: $0.00 Invoice No.:
Sewer Connection Charge: $0.00
Total Connection Charge: $0.00

Comments: Sewer Capacity NO ALLOCATION Letter Dated:1/26/2015 #2015-0113-0920-5267 ORD FEES $60.00

THIS FORM IS VALID ONLY WHEN ACCOMPANIED BY A STAMPED 'PAID' COPY OF INVOICE NO.

Approved By: Robinson
Richard Robinson - New Business Representative

CONTACT NAME: KATE OPPENHEIMER
Delivering Excellence Every Day
Printed On: 2/9/2015 8:30:58 AM
NB: Richard Robinson
PR:
CONTACT PHONE: (786) 253-5704

Approved By: Luis Delgado 2/9/15

MIAMI-DADE COUNTY

Fee Sheet

New Business Office
Miami-Dade Water & Sewer Dept.
P.O. Box 330316
Miami, FL 33233-0316

Invoice Number	N00004259
Customer Number	00005143
Invoice Date	February 9, 2015
Building Process Number (X)	
Estimated Amount Due	**$60.00**

EDWARD HARDYMAN GOMEZ RHIANON M PEDRO
4354 ALTON RD
MIAMI BEACH FL 33139

Note:
ORD FEES FOR A 4091 SF SFR @ 4354 ALTON RD FOLIO #02-3222-011-1430

ER Water
ER Sewer
Agreement ID

Description	JO/Agmt	Qty	UOM	Unit Price	Charge Amt	Interest	Line Total
Ord Ltr Water Only Res		1	EA	30.00	30.00	0.00	30.00
Ord Ltr Sewer Only Res		1	EA	30.00	30.00	0.00	30.00
Total Standard Charges							$60.00

Total Estimated Fees **$60.00**

Note Received money ord # 1000 802600
$60.00
KCampos 4/10/15
Kcp

For your convenience, payment is accepted at any of the offices listed below:

MAIN OFFICE	WEST OFFICE	DOWNTOWN OFFICE
3575 S LE JEUNE RD MIAMI, FLORIDA 33146 786-268-5360 8:00 am – 4:00 pm	PERMITTING & INSPECTION CENTER (PIC) 11805 SW 26TH ST, MIAMI, FLORIDA 33175 786-315-2717 7:30 am – 3:30 pm	OVERTOWN TRANSIT VILLAGE (2ND FLOOR WEST) 701 NW 1ST CT, MIAMI, FLORIDA 33136 786-469-2025 8:00 am – 4:00 pm

Printed by RROBI at OVERTOWN on 2/9/2015. Rates are subject to change. This document is NOT an invoice

MIAMI-DADE COUNTY

miamidade.gov

Water and Sewer
PO Box 330316 • 3575 S. Lejeune Road
Miami, Florida 33233-0316
T 305-665-7471

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~~Richard Robinson - New Business Representative~~

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CONTACT PHONE: (786) 253-5704

Delivering Excellence Every Day

Printed On: 2/9/2015 8:30:58 AM

NB: Richard Robinson

PR:

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MIAMI BEACH FL 33139

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ER Water
ER Sewer
Agreement ID

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KCampos 4/10/15
Kcp

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MIAMIBEACH B1501641

Building Department
1700 Convention Center Drive, 2nd Flr
Miami Beach, Fl 33139

NOTICE TO THE CITY OF MIAMI BEACH BUILDING DEPARTMENT OF EMPLOYMENT AS SPECIAL INSPECTOR UNDER THE FLORIDA BUILDING CODE

I have been retained by: ______________________ to perform special inspector services under the Florida Building Code at the **4354 Alton Road** project on the below listed structures as of **11/23/2015** (date). I am a professional engineer licensed in the State of Florida.

Process Number: Master Permit (IF APPLICABLE): PROCESS No. B1501641

- O Special Inspector for Pilings, FBC 1822.1.20 **(BY SOIL ENGINEER)**
- O Special Inspector for Lightweight Insulating Concrete, FBC 1917.2
- O Special Inspector for Soil Compaction, FBC 1820.3.1 **(BY SOIL ENGINEER)**
- O Special Inspector for Precast Units and Attachments, FBC 1927.12.2 (By P.E. or R.A..)
- **X Special Inspector for Reinforced Masonry, FBC 2122.4 (By P.E or R.A)**
- **X Special inspection for Steel Bolted & Welded Connections, FBC 2218.2 (By P.E. or R.A..)**
- O Special Inspector for Trusses over 35 feet long or 6 feet high, FBC 2319.17.2.4.2 (By P.E. or R. A..)
- **X Special Inspector for Grouting**

NOTE: Only the marked boxes apply.

The following individual's employed by this firm or me are authorized representatives to perform inspections

1. Juan Fernandez-Barquin, P.E.
2. Ricardo Solano
3. Carlos Alvarez
4. Ricardo Valdes

* Special inspectors utilizing authorized representatives shall insure the authorized representative is qualified by education or licensure to perform the duties assigned by the Special Inspector. The qualifications shall include: licensure as a professional engineer or architect; graduation from an engineering education program in civil or structural engineering; graduation from an architectural education program; successful completion of the NCEES Fundamentals Examination; or registration as a building inspector or general contractor.

I will notify the City of Miami Beach Building Department of any changes regarding authorized personnel performing inspection services.

I, understand that all mandatory inspections, as required by the Florida Building Code, shall be requested by the permit holder and approved by the Building Department inspectors. Inspections performed by the Special Inspector hired by the Owner are in addition to the mandatory inspections performed by the Building Department. A Special Inspection Log for each building must be displayed in a convenient location on the site for inspection by the Building Department Inspectors. Further, upon completion of the work under each building permit, I will submit to the Building Department at the time of final inspection the completed Inspection Log form and sealed statement that, to the best of my knowledge, belief and professional judgment those portions outlined above meet the intent of the Florida Building Code and are in subsequent accordance with the approved plans.

Architect/Engineer Signature: ______________________

Architect/Engineer Name Printed: Juan Fernandez-Barquin, P.E.

Address: 2520 N.W. 97th Avenue, Suite 240 Doral, Fl 33172

Phone Number: OFF: 786-336-0881 / CELL: 305-281-1181

Owner/ Agent Signature: ______________________

Owner/ Agent Name Printed: Edward H. Gomez RHIANON M PEDRO

Signed and Sealed
40114 & 0947
License Number
Date: NOV 23 2015

Building Department Accepted by: AV 1/11/16

MIAMIBEACH

Building Department
1700 Convention Center Drive, 2nd Flr
Miami Beach, Fl 33139

NOTICE TO THE CITY OF MIAMI BEACH BUILDING DEPARTMENT OF EMPLOYMENT AS SPECIAL INSPECTOR UNDER THE FLORIDA BUILDING CODE

I have been retained by: 3 Design Inc. to perform special inspector services under the Florida Building Code at the 4354 Alton Road project on the below listed structures as of 10/26/2015 (date). I am a professional engineer licensed in the State of Florida.

Process Number: B1501641 **Master Permit (IF APPLICABLE):** ______

- (X) Special Inspector for Pilings, FBC 1822.1.20
- ( ) Special Inspector for Lightweight Insulating Concrete, FBC 1917.2
- (X) Special Inspector for Soil Compaction, FBC 1820.3.1
- ( ) Special Inspector for Precast Units and Attachments, FBC 1927.12.2 (By P.E. or R.A..)
- ( ) Special Inspector for Reinforced Masonry, FBC 2122.4 (By P.E or R.A)
- ( ) Special inspection for Steel Bolted & Welded Connections, FBC 2218.2 (By P.E. or R.A..)
- ( ) Special Inspector for Trusses over 35 feet long or 6 feet high, FBC 2319.17.2.4.2 (By P.E. or R. A..)
- ( ) Special Inspector for ______

NOTE: Only the marked boxes apply.

The following individual's employed by this firm or me are authorized representatives to perform inspections

1. Wissam Naamani, P.E.
2. ______
3. ______
4. ______

* Special inspectors utilizing authorized representatives shall insure the authorized representative is qualified by education or licensure to perform the duties assigned by the Special Inspector. The qualifications shall include: licensure as a professional engineer or architect; graduation from an engineering education program in civil or structural engineering; graduation from an architectural education program; successful completion of the NCEES Fundamentals Examination; or registration as a building inspector or general contractor.

I will notify the City of Miami Beach Building Department of any changes regarding authorized personnel performing inspection services.

I, understand that all mandatory inspections, as required by the Florida Building Code, shall be requested by the permit holder and approved by the Building Department Inspectors. Inspections performed by the Special Inspector hired by the Owner are in addition to the mandatory inspections performed by the Building Department. A Special Inspection Log for each building must be displayed in a convenient location on the site for inspection by the Building Department Inspectors. Further, upon completion of the work under each building permit, I will submit to the Building Department at the time of final inspection the completed Inspection Log form and sealed statement that, to the best of my knowledge, belief and professional judgment those portions outlined above meet the intent of the Florida Building Code and are in subsequent accordance with the approved plans.

WISSAM SAAD NAAMANI LICENSE No. 35984 STATE OF FLORIDA PROFESSIONAL ENGINEER

Architect/Engineer Signature: Wissam 10-26-15

Architect/Engineer Name Printed: Wissam Naamani, P.E./Dynatech Engineering Corp.

Address: 750 West 84th Street, Hialaeh, FL 33014

Phone Number: (305) 828-7499

Owner/Agent Signature:

Owner/Agent Name Printed: Edward A. Gomez RHIANON M PEDRO

Building Department Accepted By: AV 1/11/16

Wissam 10-26-15

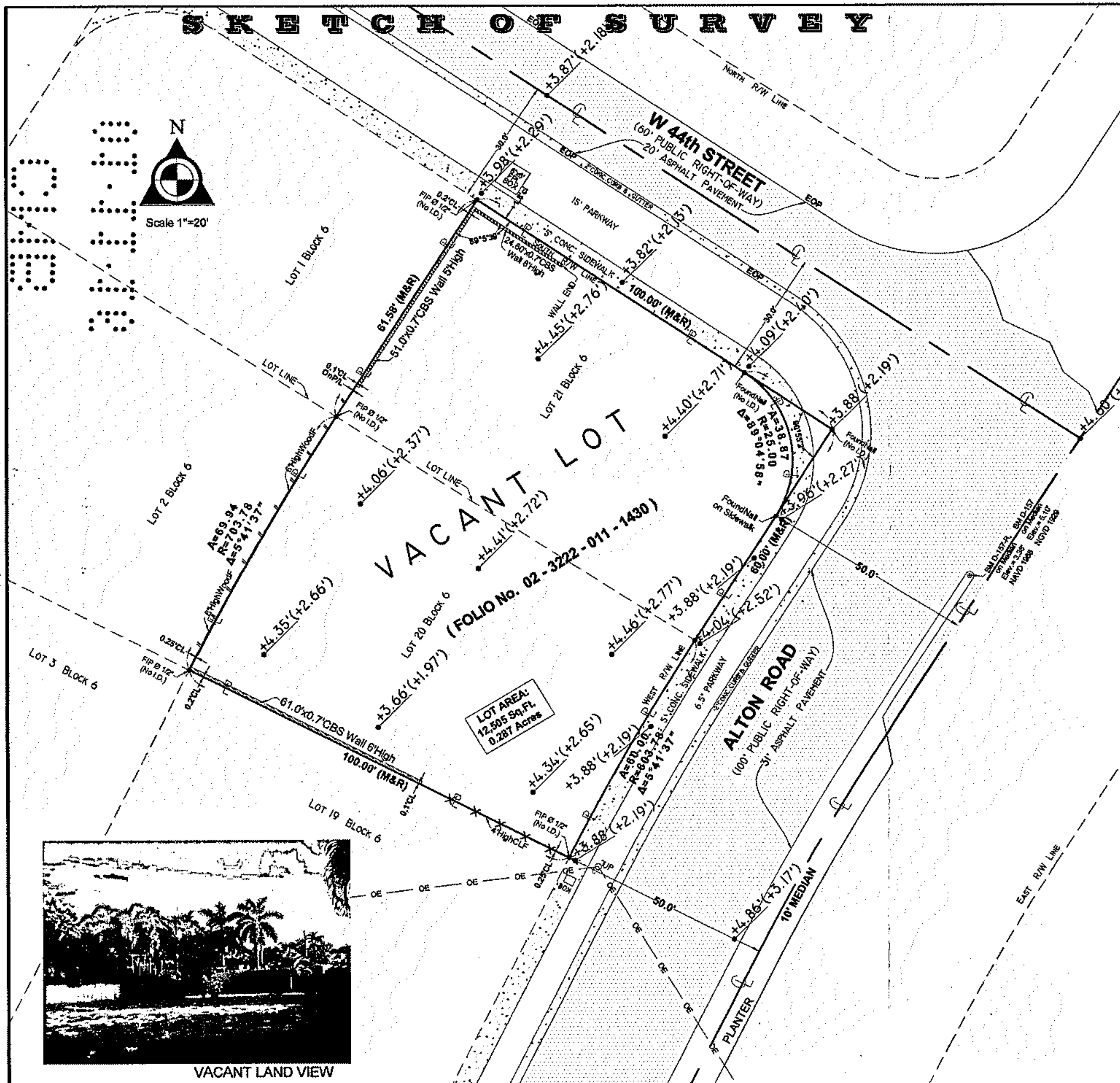
Signed and Sealed

35984

License Number

Date: October 26, 2015

SKETCH OF SURVEY



VACANT LAND VIEW

PROPERTY ADDRESS:
4354 ALTON Road, Miami Beach, Fl. 33140
(FOLIO No. 02 - 3222 - 011 - 1430)

DESCRIPTION
Lot 20 & 21, Block 6 of NAUTILUS SUBDIVISION, according to the Plat thereof as recorded in Plat Book 8, at Page 95, of the Public Records of Miami-Dade County, Florida.

There may be legal restrictions on the subject property that are not shown on the Map of Survey that may be found in the Public Records of Miami-Dade County, or the records of any other public and private entities as their jurisdictions may appear.

The Map of Survey is intended to be displayed at the stated graphic scale in English units of measurement. Attention is brought to the fact that said drawing may be altered in scale by the reproduction process.

This Survey was conducted for the purpose of a BOUNDARY SURVEY only and is not intended to delineate the regulatory jurisdiction of any federal, state, regional or local agency board, commission or other entity.

Legal description was furnished by the client.

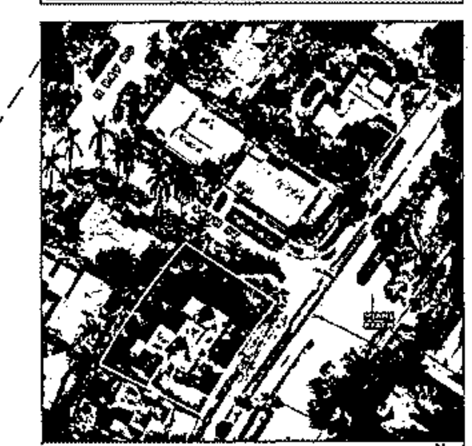
The elevations of well-identified features as depicted on this survey and map were measured to an estimated vertical positional accuracy of 1/10 foot for natural ground surfaces and 1/100 foot for hardscape surfaces, including pavements, curbs and other man-made features as may exist.

Well-identified features as depicted on this survey and map were measured to an estimated horizontal positional accuracy of 1/10 foot unless otherwise shown.

Legal Description subject to any dedications, limitations, restrictions, reservations or recorded easements.
Sketch of Survey cannot be used for construction purposes. Surveyor not responsible for third party alterations.

LIST OF POSSIBLE ENCROACHMENT:
N/A

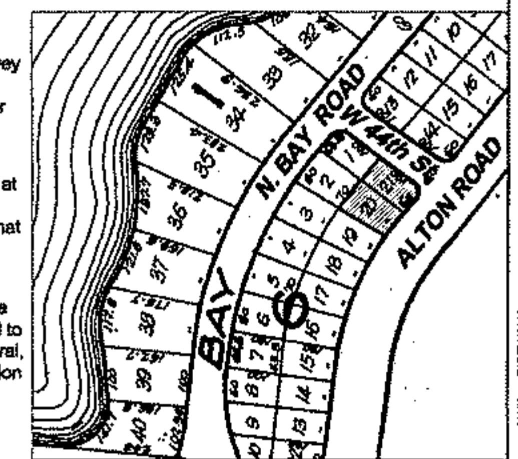
NOTE:
All Elevations refered are NGVD 1929 shown first on the elevation figure line. The converted NAVD 1988 figure are shown between parenthesis, next to the first one.



AERIAL MAP (NOT TO SCALE)

FLOOD ZONE INFORMATION:
Community No. 120651
Panel No. 0309
Suffix: L
FIRM Date: 09-11-2009
Flood Zone: AE + 5.48'

BENCH MARK USED
BM # MDC D-157-R, Elevation = 3.38' at W 44th Street & Alton Road converted to NAVD 1988.



LOCATION MAP (NOT TO SCALE)

If shown elevations are referred to N.G.V.D. of 1929

The surveyor makes no representation as to ownership, possession or occupation of the subject property by any entity or individual.

Subsurface improvements and/or encroachments within, upon, across, abutting or adjacent to the subject property were not located and are not shown.

Not valid without the signature and original raised seal of a Florida Licensed Surveyor and Mapper. Additions and deletions to this Map of Survey by other than the signing party are prohibited without the written consent of the signing party.

This Map of Survey has been prepared for the exclusive use of the entities named herein and the certification does not extend to any unnamed party.

CERTIFY TO:

Edward Hardyman Gomez &
Rhianon Mary Pedro.
Baizli & Associates.
First American Title Ins. Co.

SURVEYOR'S CERTIFICATION:

I hereby certify: That this "BOUNDARY SURVEY" and the Map of Survey resulting there from was performed under my direction and is true and correct to the best of my knowledge and belief and further, that said "BOUNDARY SURVEY" meets the intent of the "Minimum Technical Standards for Land Surveying in the State of Florida", pursuant to Rule 5J17 of the Florida Administrative Code and its implementing Rule, Chapter 472.027 of the Florida Statutes.

12-14-2015

Gary B. Castel, P.L.S.
Registered Surveyor and Mapper No. 4129
State of Florida.

Land Surveyors & Mapper
8567 Coral Way, Miami, FLORIDA 33155
Telephone: 786-290-4184

LEGEND OF SURVEY ABBREVIATIONS

A = ARC LENGTH
A/C = AIR CONDITIONING PAD
Alum.F = ALUMINIUM FENCE
BLDG = BUILDING
B/C = BLOCK CORNER
C.B. = CATCH BASIN
C.B.S. = CONCRETE BLOCK STRUCTURE
CH. = CHORD DISTANCE
CL = CLEAR
CL = CENTER LINE
CLF = CHAIN LINK FENCE
CLP = CONC. LIGHT POLE
CONC. = CONCRETE
Δ = CENTRAL ANGLE
E = ELECTRIC SERVICE BOX
EM = ELECTRIC METER (CAN)
F.D.H. = FOUND DRILL HOLE
F.H. = FIRE HYDRANT
F.I.P. = FOUND IRON PIPE
F.R. = FOUND REBAR
F.N. = FOUND NAIL
G = GAS METER
L.P. = LIGHT POLE
MH = MAN HOLE
(M) = MEASURED
M.L. = MONUMENT LINE
N.G.V.D. = NATIONAL GEODETIC VERTICAL DATUM
N.T.S. = NOT TO SCALE
OE = OVERHEAD ELECTRIC LINES
P.B. = PLAT BOOK
P.C.P. = PERMANENT CONTROL POINT
PG. = PAGE
PRKW. = PARKWAY
P.R.M. = PERMANENT REFERENCE MONUMENT
P.L. = PROPERTY LINE
(R) = RECORDED
R = RADIUS
RAD. = RADIAL
RES. = RESIDENCE
R/W = RIGHT OF WAY
S = SEWER MANHOLE
SEC. = SECTION
S.I.P. = SET IRON PIPE No.
S.L. = SET BACK LINE
STY. = STORY
SWK. = SIDEWALK
T = TELEPHONE SERVICE BOX
TV = TV CABLE SERVICE BOX
U.D.E. = UTILITY & DRAINAGE EASEMENT
U.E. = UTILITY EASEMENT
U.M.E. = UTILITY & MAINTENANCE EASEMENT
U.P. = UTILITY POLE
W = WATER WELL
W/M = WATER METER
MW - GAS MONITORING WELL
MH - STORM DRAIN MANHOLE
UP - WOOD UTILITY POLE
CUP - CONC. UTILITY POLE
CB - CATCH BASIN

Survey is not covered by Professional Liability insurance.

ORIGINAL FIELD DATE: 09-15-2014
REVISIONS:
UP-DATED: 11-17-2015
ADD.NGVD Elev.: 12-14-2015

DRAWN A.V.I.
SHEET No. 1/1

JOB No.:
09-479-14-A

Samabi GROUP INC.
Consulting Engineers

DRAINAGE CALCULATIONS
FOR PROPOSED SINGLE FAMILY RESIDENCE
AT 4354 ALTON ROAD, MIAMI BEACH

PREPARED BY: SAMABI GROUP INC.

PREPARED FOR: 3DESIGN ARCHITECTURE

STANLEY FARDIN, P.E. 8-14-15
P.E. #58023
13335 SW 124TH STREET, SUITE 111
MIAMI, FL 33186
T: 305-454-8212

Project Name:	New Residence for 4354 Alton Road
Project Type:	Single Family
Location:	4354 Alton Road, Miami Beach, FL 33139
Designed By:	Stanley Fardin, PE
Reviewed By:	S. Fardin
Date:	8/3/2015

Samabi GROUP INC.
Consulting Engineers

DRAINAGE AREA

		SQ. FT.	ACRES
Project Area		12,446	0.29
Drainage Area		12,446	0.29
Impervious Area (includes roof top, pool, walkways, driveways)	(A_i)	7,154	0.16
Pervious Area	(A_p)	5,292	0.12
Total Drainage Area	(A_t)	12,446	0.29

VOLUME FOR WATER QUALITY

Exemption provided for Single Mamily Residence

TRENCH DATA

Trench Width	(feet)	W	4.00
Hydraulic Conductivity	cfs/ft²-ft of head	K	1.75E-04
Lowest Grate Elev.	(feet)	GE	4.35
Trench Top Elevation	(feet)	TE	3.35
Trench Bottom Elevation	(feet)	BE	-10.65
Pipe Diameter	(inches)	D	12
Depth to Water Table	(feet)	H_2	2.28
Non-Saturated Trench Depth	(feet)	D_u	1.28
Saturated Trench Depth	(feet)	D_s	12.72
Total Trench Depth	(feet)	H	15.00
Storage In Trench	(ft³/ft)	S	
Trench Exfiltration Rate	(cfs/ft)	E_T	1.09E-02
Cover on Pipe	(feet)		1.00
Top of Pipe Elevation	(feet)	top	2.35
Bottom of Pipe Elevation	(feet)	Pinv	1.35
Percent of Pipe above Water	%		0.28

STORAGE VOLUME PER SFWMD

Mean High Water Table Elevation	(ft-NGVD)		2.07
Flood Criteria Elevation	(ft-NGVD)		8.00
Design Storm Event Frequency	(year)	F	5
Design Storm Duration	(hour)		24
Rainfall Depth for Design Storm	(in)	P	7.50
Compacted Water Storage*	(in)		3.05

(* - interpolated from SFWMD Soil Storage Table)

Potential Maximum Retention	(in)	S	1.30
Accumulated Direct Runoff	(in)	Q	6.14

$Q = (P-0.2S)^2 / (P+0.8S)$

where: P = Rainfall Depth for Design Storm

S = (Pervious Area / Drainage Area) / Compacted Soil Storage

Volume to be Contained On Site	(ft³)	V	6369

V = Total Drainage Area / Accumulate Direct Runoff

	(ac-in)		1.75

TRENCH DESIGN

Total Trench Length for Ds < Du (feet) L_1

$L = V/(K^*(H_2^*W+2H_2Du-Du^2+2H_2\cdot Ds)+(1.39^*10^{\wedge}-4)^*W^*Du)$

Total Trench Length for Ds > Du (feet) L_2

$L = V/(K^*(2H_2Du-Du^2+2H_2\cdot Ds)+(1.39^*10^{\wedge}-4)^*W^*Du)$

since Ds > Du, use L_2 to determine require trench length (L_R)

Trench Length Required	(feet)	L_R	151
Trench Length Proposed	(feet)	L_{Prop}	155.0

NOTES:
1. Shaded cells denote data required
2. For self-contained systems without control structure Top of trench = Weir Elev.

S.F.

Project Name: New Residence for 4354 Alton Road
Project Type: Single Family
Location: 4354 Alton Road, Miami Beach, FL 33139
Designed By: Stanley Fardin, PE
Reviewed By: S. Fardin
Date: 8/3/2015

Samabi GROUP INC.
Consulting Engineers

Storage is in the exfiltration trench, inlets, dry retention and swale areas.

Total area to be drained by the system = 0.29 ac
S (Potential Maximum Retention) = 1.30 in

One Day Rainfall Amount = 7.5-inch (Fig. C-I-3)
The flood routing has been made taking into consideration the stage-storage data tabulated below.

Design Tailwater Elev. (Groundwater) = 2.07 ft - NGVD
Storage in Exfiltration Trench = 6369 ft^3
Storage in Catch Basins = 144 ft^3
Total Storage Below Ground = 6513 ft^3 0.150 ac-ft
Green / Pervious Areas = 0.12 ac
Storage (ac-ft) = (Dry Retention area - A) x (Depth - H)

STAGE (FT)	STORAGE (AC-FT)
4.35	0.150
4.75	0.198
5.00	0.228
5.25	0.259
5.50	0.289
5.75	0.320
6.00	0.350
6.25	0.380
6.50	0.411
6.75	0.441

S.F.

1

S C S   P R O G R A M

PROJECT NAME . . . . : NEW RESIDENCE AT 4354 ALTDN RD
REVIEWER . . . . . . : STANLEY FARDIN, PE
PRDJECT AREA . . . . : .29 ACRES
GROUND STDRAGE . . . : 1.30 INCHES
TERMINATION DISCHARGE : 100.00 CFS
OISTRIBUTIDN TYPE . . : SFWMD
RETURN FREQUENCY . . : 5.00 YEARS
RAINFALL DURATIDN . . : 1-OAY
24-HOUR RAINFALL . . : 7.50 INCHES
REPORTING SEQUENCE . : STANDARDIZED

STAGE (FT)	STORAGE (AF)	OISCHARGE (CFS)
4.35	.15	.00
4.75	.20	.00
5.00	.23	.00
5.25	.26	.00
5.50	.29	.00
5.75	.32	.00
6.00	.35	.00
6.25	.38	.00
6.50	.41	.00
6.75	.44	.00

					- - - - - - - R E S E R V O I R				
TIME (HR)	RAIN FALL (IN)	ACCUM. RUNOFF (IN)	BASIN OISCHGE (CFS)	ACCUM. INFLOW (AF)	VOLUME (AF)	ACCUM. OUTFLOW (AF)	INSTANT DISCHGE (CFS)	AVERAGE DISCHGE (CFS)	STAGE (FT)
.00	.00	.00	.0	.0	.0	.0	.0	.0	4.35
4.00	.34	.00	.0	.0	.0	.0	.0	.0	.00
8.00	1.03	.28	.0	.0	.0	.0	.0	.0	.19
10.00	1.60	.68	.1	.0	.0	.0	.0	.0	.45
11.00	2.02	1.01	.1	.0	.0	.0	.0	.0	.67
11.50	2.39	1.32	.2	.0	.0	.0	.0	.0	.87
11.75	3.52	2.33	1.2	.1	.1	.0	.0	.0	1.28

4 of 5 S.F.

12.00	4.92	3.64	1.5	.1	.1	.0	.0	.0	2.09
12.50	5.47	4.17	.3	.1	.1	.0	.0	.0	2.83
13.00	5.75	4.44	.2	.1	.1	.0	.0	.0	3.06
14.00	6.14	4.81	.1	.1	.1	.0	.0	.0	3.34
16.00	6.60	5.26	.1	.1	.1	.0	.0	.0	3.67
20.00	7.14	5.79	.0	.1	.1	.0	.0	.0	4.04
24.00	7.50	6.14	.0	.1	.1	.0	.0	.0	4.29

1

SUMMARY INFORMATION

MAXIMUM STAGE WAS 4.29 FEET AT 24.00 HOURS
MAXIMUM DISCHARGE WAS .0 CFS AT .00 HOURS

5of5 S.F.

FORM 405-10

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	4354 Alton Road	Builder Name:	3 DESIGN ARCHITECTURE
Street:	4354 Alton Road	Permit Office:	Miami Beach
City, State, Zip:	Miami Beach , FL , 33139-	Permit Number:	
Owner:		Jurisdiction:	232500
Design Location:	FL, Miami Beach		

1. New construction or existing	New (From Plans)		
2. Single family or multiple family	Single-family		
3. Number of units, if multiple family	1		
4. Number of Bedrooms	5		
5. Is this a worst case?	No		
6. Conditioned floor area above grade (ft²)	4353		
Conditioned floor area below grade (ft²)	0		
7. Windows(1198.2 sqft.)	Description		Area
a. U-Factor:	Sgl, U=0.96		1198.20 ft²
SHGC:	SHGC=0.46		
b. U-Factor:	N/A		ft²
SHGC:			
c. U-Factor:	N/A		ft²
SHGC:			
d. U-Factor:	N/A		ft²
SHGC:			
Area Weighted Average Overhang Depth:			6.078 ft.
Area Weighted Average SHGC:			0.460
8. Floor Types (4351.0 sqft.)		Insulation	Area
a. Slab-On-Grade Edge Insulation		R=0.0	2150.00 ft²
b. Floor Over Other Space		R=0.0	2150.00 ft²
c. other (see details)		R=	51.00 ft²

9. Wall Types (4616.2 sqft.)	Insulation	Area
a. Concrete Block - Int Insul, Exterior	R=5.0	4616.20 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²
10. Ceiling Types (2201.0 sqft.)	Insulation	Area
a. Cathedral/Single Assembly (Unvented)	R=0.1	2201.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
11. Ducts	R	ft²
a. Sup: 1st Floor, Ret: 1st Floor, AH: 1st Floor	4.2	200
b. Sup: Second Floor, Ret: Second Floor, AH: Seco	4.2	500
12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	53.1	SEER:15.30
b. Central Unit	61.4	SEER:16.79
c. Central Unit	17.2	SEER:19.20
13. Heating systems	kBtu/hr	Efficiency
a. Electric Strip Heat	26.3	COP:1.00
b. Electric Strip Heat	45.0	COP:1.00
c. Electric Heat Pump	21.6	HSPF:10.00
14. Hot water systems		
a. Natural Gas Tankless		Cap: 1 gallons EF: 0.920
b. Conservation features		
None		
15. Credits		Pstat

Glass/Floor Area: 0.275

Total Proposed Modified Loads: 93.16

Total Standard Reference Loads: 121.47

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: M E G
DATE: 8/17/15

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: ______________________
DATE: ______________________

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: ______________________
DATE: ______________________

- **Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with 403.2.2.1.1.**
- **Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist**

PROJECT

Title:	4354 Alton Road	Bedrooms:	5	Address Type:	Street Address
Building Type:	User	Conditioned Area:	4353	Lot #	
Owner:		Total Stories:	2	Block/SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	3 DESIGN ARCHITECTURE	Rotate Angle:	0	Street:	4354 Alton Road
Permit Office:	Miami Beach	Cross Ventilation:		County:	Miami-Dade
Jurisdiction:	232500	Whole House Fan:		City, State, Zip:	Miami Beach , FL , 33139-
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

√	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
_____	FL, Miami Beach	FL_MIAMI_INTL_AP	1	51	90	70	75	149.5	58	Low

BLOCKS

Number	Name	Area	Volume
1	AHU 1	1558	17605.4
2	AHU 2,3,4	2201	22010
3	AHU 5	594	6712.2

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	1st Floor	1558	17605.4	Yes	1	1	1	Yes	Yes	Yes
2	Second Floor	2201	22010	No	5	4	1	Yes	Yes	Yes
3	Garage1	594	6712.2	No	0	0	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	1st Floor	142.2 ft	0	1558 ft²	----	1	0	0
_____	2	Floor Over Other Space	Second Floor	----	----	592 ft²	0	1	0	0
_____	3	Slab-On-Grade Edge Insulatio	Garage1	72.5 ft	0	592 ft²	----	1	0	0
_____	4	Floor Over Other Space	Second Floor	----	----	1558 ft²	0	1	0	0
_____	5	Raised Floor	Second Floor	----	----	51 ft²	0	1	0	0

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Flat	Concrete	2209 ft²	92 ft²	White	0.96	No	0.9	No	19	4.8

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Unvented	0	2201 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
____	1	Cathedral/Single Assembly (Unvented)	Second Floor	0.1	2201 ft²	0.11	Wood

WALLS

√	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
____	1	SE	Exterior	Concrete Block - Int Insul	Garage1	5	22	0	11	4	249.3 ft²		0	0.75	0
____	2	SE	Exterior	Concrete Block - Int Insul	1st Floor	5	59	4	11	4	672.4 ft²		0	0.75	0
____	3	NE	Exterior	Concrete Block - Int Insul	1st Floor	5	16	2	11	4	183.2 ft²		0	0.75	0
____	4	NW	Exterior	Concrete Block - Int Insul	1st Floor	5	2	10	11	4	32.1 ft²		0	0.75	0
____	5	NE	Exterior	Concrete Block - Int Insul	1st Floor	5	8	11	11	4	101.1 ft²		0	0.75	0
____	6	NW	Exterior	Concrete Block - Int Insul	1st Floor	5	55	0	11	4	623.3 ft²		0	0.75	0
____	7	NW	Exterior	Concrete Block - Int Insul	Garage1	5	23	10	11	4	270.1 ft²		0	0.75	0
____	8	SW	Exterior	Concrete Block - Int Insul	Garage1	5	26	7	11	4	301.3 ft²		0	0.75	0
____	9	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	21	9	10	0	217.5 ft²		0	0.75	0
____	10	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	20	2	10	0	201.7 ft²		0	0.75	0
____	11	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	7	11	10	0	79.2 ft²		0	0.75	0
____	12	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	30	4	10	0	303.3 ft²		0	0.75	0
____	13	NE	Exterior	Concrete Block - Int Insul	Second Floor	5	12	3	10	0	122.5 ft²		0	0.75	0
____	14	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	2	0	10	0	20.0 ft²		0	0.75	0
____	15	NE	Exterior	Concrete Block - Int Insul	Second Floor	5	14	3	10	0	142.5 ft²		0	0.75	0
____	16	NW	Exterior	Concrete Block - Int Insul	Second Floor	5	24	0	10	0	240.0 ft²		0	0.75	0
____	17	NW	Exterior	Concrete Block - Int Insul	Second Floor	5	25	4	10	0	253.3 ft²		0	0.75	0
____	18	NW	Exterior	Concrete Block - Int Insul	Second Floor	5	12	3	10	0	122.5 ft²		0	0.75	0
____	19	NW	Exterior	Concrete Block - Int Insul	Second Floor	5	21	10	10	0	218.3 ft²		0	0.75	0
____	20	SW	Exterior	Concrete Block - Int Insul	Second Floor	5	26	3	10	0	262.5 ft²		0	0.75	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
____	1	NW	Wood	Garage1	Wood	.46	3	2	7	2	22.7 ft²
____	2	SE	Wood	Garage1	Metal	.46	16		8		128 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
____	1	SE	2	Metal	Single (Clear)	Yes	0.96	0.46	135.8 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
____	2	SE	2	Metal	Single (Clear)	Yes	0.96	0.46	300.0 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
____	3	NE	3	Metal	Single (Clear)	Yes	0.96	0.46	35.8 ft²	3 ft 0 in	0 ft 0 in	Drapes/blinds	None
____	4	NE	5	Metal	Single (Clear)	Yes	0.96	0.46	70.8 ft²	6 ft 0 in	0 ft 0 in	Drapes/blinds	None
____	5	NW	6	Metal	Single (Clear)	Yes	0.96	0.46	34.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
____	6	SE	9	Metal	Single (Clear)	Yes	0.96	0.46	103.3 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
____	7	SE	9	Metal	Single (Clear)	Yes	0.96	0.46	33.2 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
____	8	SE	10	Metal	Single (Clear)	Yes	0.96	0.46	118.4 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
____	9	SE	12	Metal	Single (Clear)	Yes	0.96	0.46	260.0 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None

WINDOWS

Orientation shown is the entered, Proposed orientation.

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
______	10	NE	13	Metal	Single (Clear)	Yes	0.96	0.46	31.8 ft²	3 ft 0 in	0 ft 0 in	Drapes/blinds	None
______	11	NW	17	Metal	Single (Clear)	Yes	0.96	0.46	30.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
______	12	NW	19	Metal	Single (Clear)	Yes	0.96	0.46	30.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
______	13	SW	20	Metal	Single (Clear)	Yes	0.96	0.46	15.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	.0005	5709	313.42	589.43	.4247	7.3939

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
______	1	Electric Strip Heat	None	COP: 1	26.3 kBtu/hr	1	sys#1
______	2 A	Electric Strip Heat	None	COP: 1	15 kBtu/hr	2	sys#2
______	2 B	Electric Strip Heat	None	COP: 1	15 kBtu/hr	2	sys#2
______	2 C	Electric Strip Heat	None	COP: 1	15 kBtu/hr	2	sys#2
______	3	Electric Heat Pump	None	COP: 10	21.6 kBtu/hr	3	Ductless

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
______	1	Central Unit	Split	SEER: 15.3	53.1 kBtu/hr	1593 cfm	0.720000	1	sys#1
______	2 A	Central Unit	Split	SEER: 17	22.3 kBtu/hr	800 cfm	0.72	2	sys#2
______	2 B	Central Unit	Split	SEER: 17	22.3 kBtu/hr	800 cfm	0.72	2	sys#2
______	2 C	Central Unit	Split	SEER: 16.25	16.8 kBtu/hr	600 cfm	0.72	2	sys#2
______	3	Central Unit	Split	SEER: 19.2	17.2 kBtu/hr	516 cfm	0.72	3	Ductless

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
______	1	Natural Gas	Tankless	Exterior	0.92	1 gal	40 gal	120 deg	None

SOLAR HOT WATER SYSTEM

√	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
______	None	None			ft²		

DUCTS

√	#	Supply Location	Supply R-Value	Supply Area	Return Location	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
____	1	1st Floor	4.2	200 ft²	1st Floor	50 ft²	Default Leakage	1st Floor	(Default)	(Default)			1	1
____	2	Second Floor	4.2	500 ft²	Second Floor	125 ft²	Default Leakage	Second Flo	(Default)	(Default)			2	2

TEMPERATURES

- Programable Thermostat: Y   Ceiling Fans: N

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ] Jan	[ ] Feb	[ ] Mar	[ ] Apr	[ ] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[ ] Oct	[ ] Nov	[ ] Dec
Heating	[X] Jan	[X] Feb	[X] Mar	[ ] Apr	[ ] May	[ ] Jun	[ ] Jul	[ ] Aug	[ ] Sep	[ ] Oct	[X] Nov	[X] Dec
Venting	[ ] Jan	[ ] Feb	[X] Mar	[X] Apr	[ ] May	[ ] Jun	[ ] Jul	[ ] Aug	[ ] Sep	[X] Oct	[X] Nov	[ ] Dec

Thermostat Schedule: HERS 2006 Reference

Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66

FORM 405-10

Florida Code Compliance Checklist

Florida Department of Business and Professional Regulations
Residential Whole Building Performance Method

ADDRESS: 4354 Alton Road Miami Beach, FL, 33139-	PERMIT #:

MANDATORY REQUIREMENTS SUMMARY - See individual code sections for full details.

COMPONENT	SECTION	SUMMARY OF REQUIREMENT(S)	CHECK
Air leakage	402.4	To be caulked, gasketed, weatherstripped or otherwise sealed. Recessed lighting IC-rated as meeting ASTM E 283. Windows and doors = 0.30 cfm/sq.ft. Testing or visual inspection required. Fireplaces: gasketed doors & outdoor combustion air. Must complete envelope leakage report or visually verify Table 402.4.2.	✓
Thermostat & controls	403.1	At least one thermostat shall be provided for each separate heating and cooling system. Where forced-air furnace is primary system, programmable thermostat is required. Heat pumps with supplemental electric heat must prevent supplemental heat when compressor can meet the load.	✓
Ducts	403.2.2 403.3.3	All ducts, air handlers, filter boxes and building cavities which form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section 503.2.7.2 of this code. Building framing cavities shall not be used as supply ducts.	✓
Water heaters	403.4	Heat trap required for vertical pipe risers. Comply with efficiencies in Table 403.4.3.2. Provide switch or clearly marked circuit breaker (electric) or shutoff (gas). Circulating system pipes insulated to = R-2 + accessible manual OFF switch.	✓
Mechanical ventilation	403.5	Homes designed to operate at positive pressure or with mechanical ventilation systems shall not exceed the minimum ASHRAE 62 level. No make-up air from attics, crawlspaces, garages or outdoors adjacent to pools or spas.	N/A
Swimming Pools & Spas	403.9	Pool pumps and pool pump motors with a total horsepower (HP) of = 1 HP shall have the capability of operating at two or more speeds. Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if 70% of heat from site-recovered energy. Off/timer switch required. Gas heaters minimum thermal efficiency=78% (82% after 4/16/13). Heat pump pool heaters minimum COP= 4.0.	
Cooling/heating equipment	403.6	Sizing calculation performed & attached. Minimum efficiencies per Tables 503.2.3. Equipment efficiency verification required. Special occasion cooling or heating capacity requires separate system or variable capacity system. Electric heat >10kW must be divided into two or more stages.	✓
Ceilings/knee walls	405.2.1	R-19 space permitting.	✓

Building Input Summary Report

PROJECT

Title:	4354 Alton Road	Bedrooms:	5	Address Type:	Street Address
Building Type:	User	Bathrooms:	6	Lot #	
Owner:		Conditioned Area:	4353 sq.ft.	Block/SubDivision:	
# of Units:	1	Total Stories:	2	PlatBook:	
Builder Name:	3 DESIGN ARCHITECTURE	Worst Case:	No	Street:	4354 Alton Road
Permit Office:	Miami Beach	Rotate Angle:	0	County:	Miami-Dade
Jurisdiction:	232500	Cross Ventilation:		City, State, Zip:	Miami Beach , FL , 33139-
Family Type:	Single-family	Whole House Fan:			
New/Existing:	New (From Plans)	Terrain:	Urban		
Year Construct:		Shielding:	Urban		
Comment:					

CLIMATE

Design Location	Tmy Site	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
FL, Miami Beach	FL_MIAMI_INTL_AP	51	90	70	75	149.5	58	Low

UTILITY RATES

Fuel	Unit	Utility Name	Monthly Fixed Cost	$/Unit
Electricity	kWh	Florida Average	0	0.1151
Natural Gas	Therm	Florida Average	0	1.82
Fuel Oil	Gallon	Florida Default	0	1.1
Propane	Gallon	Florida Default	0	1.4

SURROUNDINGS

Ornt	Type	Shade Trees Height	Width	Distance	Exist	Adjacent Buildings Height	Width	Distance
N	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
NE	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
E	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
SE	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
S	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
SW	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
W	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
NW	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft

BLOCKS

Number	Name	Area	Volume
1	AHU 1	1558	17605.4
2	AHU 2,3,4	2201	22010
3	AHU 5	594	6712.2

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
1	1st Floor	1558	17605.4	Yes	1	1	Yes	Yes	Yes
2	Second Floor	2201	22010	No	5	4	Yes	Yes	Yes
3	Garage1	594	6712.2	No	0	0	Yes	Yes	Yes

Building Input Summary Report

FLOORS

#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
1	Slab-On-Grade Edge Insulation	1st Floor	142.2 ft	0	1558 ft²	----	1	0	0
2	Floor Over Other Space	Second Floor			592 ft²	0	1	0	0
3	Slab-On-Grade Edge Insulation	Garage1	72.5 ft	0	592 ft²	----	1	0	0
4	Floor Over Other Space	Second Floor			1558 ft²	0	1	0	0
5	Raised Floor	Second Floor	----	----	51 ft²	0	1	0	0

ROOF

#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
1	Flat	Concrete	2209 ft²	92 ft²	White	0.96	No	0.9	No	19	4.8

ATTIC

#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
1	Full attic	Unvented	0	2201 ft²	N	N

CEILING

#	Ceiling Type	Space	R-Value	Area	Framing Fraction	Truss Type
1	Cathedral/Single Assembly ()	Second Floor	0.1	2201 ft²	0.11	Wood

WALLS

Wall orientation below is as entered. Actual orientation is modified by rotate angle shown in "Project" section above.

#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
1	SE	Exterior	Concrete Block - Int Insul	Garage1	5	22	0	11	4	249.3 ft²		0	0.75	0
2	SE	Exterior	Concrete Block - Int Insul	1st Floor	5	59	4	11	4	672.4 ft²		0	0.75	0
3	NE	Exterior	Concrete Block - Int Insul	1st Floor	5	16	2	11	4	183.2 ft²		0	0.75	0
4	NW	Exterior	Concrete Block - Int Insul	1st Floor	5	2	10	11	4	32.1 ft²		0	0.75	0
5	NE	Exterior	Concrete Block - Int Insul	1st Floor	5	8	11	11	4	101.1 ft²		0	0.75	0
6	NW	Exterior	Concrete Block - Int Insul	1st Floor	5	55	0	11	4	623.3 ft²		0	0.75	0
7	NW	Exterior	Concrete Block - Int Insul	Garage1	5	23	10	11	4	270.1 ft²		0	0.75	0
8	SW	Exterior	Concrete Block - Int Insul	Garage1	5	26	7	11	4	301.3 ft²		0	0.75	0
9	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	21	9	10	0	217.5 ft²		0	0.75	0
10	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	20	2	10	0	201.7 ft²		0	0.75	0
11	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	7	11	10	0	79.2 ft²		0	0.75	0
12	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	30	4	10	0	303.3 ft²		0	0.75	0
13	NE	Exterior	Concrete Block - Int Insul	Second Floor	5	12	3	10	0	122.5 ft²		0	0.75	0
14	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	2	0	10	0	20.0 ft²		0	0.75	0
15	NE	Exterior	Concrete Block - Int Insul	Second Floor	5	14	3	10	0	142.5 ft²		0	0.75	0
16	NW	Exterior	Concrete Block - Int Insul	Second Floor	5	24	0	10	0	240.0 ft²		0	0.75	0
17	NW	Exterior	Concrete Block - Int Insul	Second Floor	5	25	4	10	0	253.3 ft²		0	0.75	0

Building Input Summary Report

WALLS

Wall orientation below is as entered. Actual orientation is modified by rotate angle shown in "Project" section above.

#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
18	NW	Exterior	Concrete Block - Int Insul	Second Floor	5	12	3	10	0	122.5 ft²		0	0.75	0
19	NW	Exterior	Concrete Block - Int Insul	Second Floor	5	21	10	10	0	218.3 ft²		0	0.75	0
20	SW	Exterior	Concrete Block - Int Insul	Second Floor	5	26	3	10	0	262.5 ft²		0	0.75	0

DOORS

#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
1	NW	Wood	Garage1	Wood	.46	3	2	7	2	22.7 ft²
2	SE	Wood	Garage1	Metal	.46	16		8		128 ft²

WINDOWS

#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Storm	Area	Overhang Depth	Overhang Separation	Interior Shade	Screening
1	SE	2	Metal	Single (Clear)	Yes	0.96	0.46	N	135.8 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
2	SE	2	Metal	Single (Clear)	Yes	0.96	0.46	N	300.0 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
3	NE	3	Metal	Single (Clear)	Yes	0.96	0.46	N	35.8 ft²	3 ft 0 in	0 ft 0 in	Drapes/blinds	None
4	NE	5	Metal	Single (Clear)	Yes	0.96	0.46	N	70.8 ft²	6 ft 0 in	0 ft 0 in	Drapes/blinds	None
5	NW	6	Metal	Single (Clear)	Yes	0.96	0.46	N	34.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
6	SE	9	Metal	Single (Clear)	Yes	0.96	0.46	N	103.3 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
7	SE	9	Metal	Single (Clear)	Yes	0.96	0.46	N	33.2 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
8	SE	10	Metal	Single (Clear)	Yes	0.96	0.46	N	118.4 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
9	SE	12	Metal	Single (Clear)	Yes	0.96	0.46	N	260.0 ft²	7 ft 0 in	0 ft 0 in	Drapes/blinds	None
10	NE	13	Metal	Single (Clear)	Yes	0.96	0.46	N	31.8 ft²	3 ft 0 in	0 ft 0 in	Drapes/blinds	None
11	NW	17	Metal	Single (Clear)	Yes	0.96	0.46	N	30.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
12	NW	19	Metal	Single (Clear)	Yes	0.96	0.46	N	30.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
13	SW	20	Metal	Single (Clear)	Yes	0.96	0.46	N	15.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50	Space(s)
1	Wholehouse	Best Guess	.0005	5709	313.42	589.43	.4247	7.3939	All

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
No Added Mass	0 ft²	0 ft	0.3	1st Floor
No Added Mass	0 ft²	0 ft	0.3	Second Floor
No Added Mass	0 ft²	0 ft	0.3	Garage1

Building Input Summary Report

HEATING SYSTEM

#	System Type	Subtype	Efficiency	Capacity	Geothermal HeatPump Entry	Geothermal HeatPump Power	Geothermal HeatPump Volt.	Geothermal HeatPump Curr	Ducts	Block
1	Electric Strip Heat	None	COP:1	26.3 kBtu/hr		0	0	0	sys#1	1
2 A	Electric Strip Heat	None	COP:1	15 kBtu/hr					sys#2	2
2 B	Electric Strip Heat	None	COP:1	15 kBtu/hr					sys#2	2
2 C	Electric Strip Heat	None	COP:1	15 kBtu/hr					sys#2	2
3	Electric Heat Pump	None	HSPF:10	21.6 kBtu/hr		0	0	0	Ductless	3

COOLING SYSTEM

#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Ducts	Block
1	Central Unit	Split	SEER:15.3	53.1 kBtu/hr	1593 cfm	0.720000	sys#1	1
2 A	Central Unit	Split	SEER:17	22.3 kBtu/hr	800 cfm	0.72	sys#2	2
2 B	Central Unit	Split	SEER:17	22.3 kBtu/hr	800 cfm	0.72	sys#2	2
2 C	Central Unit	Split	SEER:16.25	16.8 kBtu/hr	600 cfm	0.72	sys#2	2
3	Central Unit	Split	SEER:19.2	17.2 kBtu/hr	516 cfm	0.72	Ductless	3

HOT WATER SYSTEM

#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Credits
1	Natural Gas	Tankless	Exterior	0.92	1 gal	40 gal	120 deg	None

SOLAR HOT WATER

Collector Type	Collector Tilt	Azimuth	Surface Area	Loss Coef.	Absorp. Prod.	Trans Corr.	Tank Volume	Tank U-Value	Tank Surf Area	Heat Exch Eff	PV Pumped	Pump Energy

DUCTS

DUCT #	Supply Location	Supply R-Value	Supply Area	Return Location	Return Area	Number	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	ON	RLF	HVAC # Heat	HVAC # Cool
1	1st Floor	4.2	200 ft²	1st Floor	50 ft²	1	Default Leakage	1st Floor	(Default)	(Default)			1	1
2	Second Floor	4.2	500 ft²	Second Floor	125 ft²	3	Default Leakage	Second Flo	(Default)	(Default)			2	2

TEMPERATURES

Programable Thermostat: Y   Ceiling Fans: N

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]
Heating	[X]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]
Venting	[ ]	[ ]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[ ]

Thermostat Schedule: HERS 2006 Reference

Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66

Building Input Summary Report

APPLIANCES & LIGHTING

Appliance Schedule: HERS 2006 Reference

Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
Ceiling Fans (Summer)	AM	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.33	0.33	0.33	0.33	0.33
% Released: 100	PM	0.33	0.33	0.33	0.33	0.33	1	0.9	0.9	0.9	0.9	0.9	0.65
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Clothes Washer	AM	0.105	0.081	0.046	0.046	0.081	0.128	0.256	0.57	0.849	1	0.977	0.872
% Released: 60	PM	0.779	0.698	0.605	0.57	0.581	0.57	0.57	0.57	0.57	0.488	0.43	0.198
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Dishwasher	AM	0.139	0.05	0.028	0.024	0.029	0.09	0.169	0.303	0.541	0.594	0.502	0.443
% Released: 60	PM	0.377	0.396	0.335	0.323	0.344	0.448	0.791	1	0.8	0.597	0.383	0.281
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Dryer	AM	0.2	0.1	0.05	0.05	0.05	0.075	0.2	0.375	0.5	0.8	0.95	1
% Released: 10	PM	0.875	0.85	0.8	0.625	0.625	0.6	0.575	0.55	0.625	0.7	0.65	0.375
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Lighting	AM	0.16	0.15	0.16	0.18	0.23	0.45	0.4	0.26	0.19	0.16	0.12	0.11
% Released: 90	PM	0.16	0.17	0.25	0.27	0.34	0.55	0.55	0.88	1	0.86	0.51	0.28
Annual Use: 3937 kWh/Yr			Peak Value: 1286 Watts										
Miscellaneous	AM	0.48	0.47	0.47	0.47	0.47	0.47	0.64	0.71	0.67	0.61	0.55	0.53
% Released: 90	PM	0.52	0.5	0.5	0.5	0.59	0.73	0.79	0.99	1	0.96	0.77	0.55
Annual Use: 7077 kWh/Yr			Peak Value: 1298 Watts										
Pool Pump	AM	0	0	0	0	0	0	0	0	0	1	1	1
% Released: 0	PM	1	1	1	1	0	0	0	0	0	0	0	0
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Range	AM	0.057	0.057	0.057	0.057	0.057	0.114	0.171	0.286	0.343	0.343	0.343	0.4
% Released: 100	PM	0.457	0.343	0.286	0.4	0.571	1	0.857	0.429	0.286	0.229	0.171	0.114
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Refrigeration	AM	0.85	0.78	0.75	0.73	0.73	0.73	0.75	0.75	0.8	0.8	0.8	0.8
% Released: 100	PM	0.88	0.85	0.85	0.83	0.88	0.95	1	0.98	0.95	0.93	0.9	0.85
Annual Use: 775 kWh/Yr			Peak Value: 106 Watts										
Well Pump	AM	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1
% Released: 0	PM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										

REFRIGERATORS

ID	Type	Screen	Location	Quantity	Vol	FrZ. Vol	Make	Model	Schedule	kWhPerYr
1		Default New	1st Floor	1						

CLOTHES WASHERS

ID	Type	Screen	Location	Capacity	Make	Model	Schedule	LoadsPerYr
1	1 Main	Default New	Main	2.847			HERS201	(invalid)

CLOTHES DRYERS

ID	Type	Screen	Location	Capacity	Fuel Type	Make	Model	Schedule	LoadsPerYr
1	Dryers	Default New	Main		Electricity				

Building Input Summary Report

DISHWASHERS									
ID	Type	Screen	Location	Capacity	Vintage	Make	Model	Schedule	kWhPerYr
1	Dishwash	Default New	Main	12	2004 or N			HERS201	372

RANGE OVEN									
ID	Type	Screen	Location	Type	Fueltype	Make	Model	Cooktop	Oven
1	Ranges	Default New	Main	CooktopOven C	Electric			Electric Fl	Not Conv

HARD WIRED LIGHTING										
ID	Type	Screen	Location	Total#	Qualify#	Comp Fl	All Other FL	txtBulbtype	Schedule	Watts per bulb
1	Hard-Wir	Default	Exterior	20	2	0	2	Incandes	HERS201	60
2	Hard-Wir	Default	Garage1	20	2	0	2	Incandes	HERS201	60
3	Hard-Wir	Default	1st Floor	20	2	0	2	Incandes	HERS201	60
4	Hard-Wir	By Count - Qualif	Second F	20	2	0	2	Incandes	HERS201	60

MISC ELECTRICAL LOADS									
ID	Type	Screen	Item	Quantity	Catagory	Operating	Location	Schedule	Off Standby
1	Misc Elec	Simple Default		1		1	Main	HERS201	1

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 77

The lower the EnergyPerformance Index, the more efficient the home.

4354 Alton Road, Miami Beach, FL, 33139-

1. New construction or existing	New (From Plans)		
2. Single family or multiple family	Single-family		
3. Number of units, if multiple family	1		
4. Number of Bedrooms	5		
5. Is this a worst case?	No		
6. Conditioned floor area (ft²)	4353		
7. Windows**	Description		Area
a. U-Factor:	Sgl, U=0.96		1198.20 ft²
SHGC:	SHGC=0.46		
b. U-Factor:	N/A		ft²
SHGC:			
c. U-Factor:	N/A		ft²
SHGC:			
d. U-Factor:	N/A		ft²
SHGC:			
Area Weighted Average Overhang Depth:			6.078 ft.
Area Weighted Average SHGC:			0.460
8. Floor Types		Insulation	Area
a. Slab-On-Grade Edge Insulation		R=0.0	2150.00 ft²
b. Floor Over Other Space		R=0.0	2150.00 ft²
c. other (see details)		R=	51.00 ft²

9. Wall Types	Insulation	Area
a. Concrete Block - Int Insul, Exterior	R=5.0	4616.20 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²
10. Ceiling Types	Insulation	Area
a. Cathedral/Single Assembly (Unvented)	R=0.1	2201.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
11. Ducts	R	ft²
a. Sup: 1st Floor, Ret: 1st Floor, AH: 1st Floor	4.2	200
b. Sup: Second Floor, Ret: Second Floor, AH: Seco	4.2	500
12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	53.1	SEER:15.30
b. Central Unit	61.4	SEER:16.79
c. Central Unit	17.2	SEER:19.20
13. Heating systems	kBtu/hr	Efficiency
a. Electric Strip Heat	26.3	COP:1.00
b. Electric Strip Heat	45.0	COP:1.00
c. Electric Heat Pump	21.6	HSPF:10.00
14. Hot water systems		
a. Natural Gas		Cap: 1 gallons
		EF: 0.92
b. Conservation features		
None		
15. Credits		Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: ______________________ Date: ______________

Address of New Home: ______________________ City/FL Zip: ______________

*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida EnergyGauge Rating. Contact the EnergyGauge Hotline at (321) 638-1492 or see the EnergyGauge web site at energygauge.com for information and a list of certified Raters. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section 303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Project Summary
AHU 1
MEGPE Engineers, Inc

Job: 1410003
Date: August 11, 2015
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4489 N. Michigan Ave, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Notes:

Design Information

Weather: Miami Intl AP, FL, US

Winter Design Conditions

Outside db	52	°F
Inside db	70	°F
Design TD	18	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	56	gr/lb

Heating Summary

Structure	20396	Btuh
Ducts	0	Btuh
Central vent (14 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	20396	Btuh

Sensible Cooling Equipment Load Sizing

Structure	47292	Btuh
Ducts	0	Btuh
Central vent (14 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	45779	Btuh

Infiltration

Method		Simplified
Construction quality		Loose
Fireplaces		0
	Heating	**Cooling**
Area (ft²)	1558	1558
Volume (ft³)	17605	17605
Air changes/hour	0.53	0.27
Equiv. AVF (cfm)	156	81

Latent Cooling Equipment Load Sizing

Structure	5259	Btuh
Ducts	0	Btuh
Central vent (14 cfm)	0	Btuh
Equipment latent load	5259	Btuh
Equipment total load	51038	Btuh
Req. total capacity at 0.70 SHR	5.4	ton

Heating Equipment Summary

Make	n/a	
Trade	n/a	
Model	n/a	
AHRI ref.	n/a	
Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

Cooling Equipment Summary

Make	n/a	
Trade	n/a	
Cond	n/a	
Coil	n/a	
AHRI ref.	n/a	
Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Load Short Form
AHU 1
MEGPE Engineers, Inc

Job: 1410003
Date: August 11, 2015
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-6025 License: 71594

Project Information

For: 4489 N. Michigan Ave, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Design Information

	Htg	Clg
Outside db (°F)	52	92
Inside db (°F)	70	75
Design TD (°F)	18	17
Daily range	-	L
Inside humidity (%)	30	50
Moisture difference (gr/lb)	-13	56

Infiltration

Method	Simplified
Construction quality	Loose
Fireplaces	0

HEATING EQUIPMENT

Make	n/a
Trade	n/a
Model	n/a
AHRI ref.	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

COOLING EQUIPMENT

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref.	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

ROOM NAME	Area (ft^2)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Ground Floor	1558	20396	47292	1993	2152
AHU 1	1558	20396	47292	1993	2152
Other equip loads		0	0		
Equip. @ 0.97 RSM			45779		
Latent cooling			5259		
TOTALS	1558	20396	51038	1993	2152

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4489 N. Michigan Ave, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Notes:

Design Information

Weather: Miami Intl AP, FL, US

Winter Design Conditions

Outside db	52	°F
Inside db	70	°F
Design TD	18	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	56	gr/lb

Heating Summary

Structure	9784	Btuh
Ducts	0	Btuh
Central vent (7 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	9784	Btuh

Infiltration

Method		Simplified
Construction quality		Loose
Fireplaces		0
	Heating	**Cooling**
Area (ft²)	734	734
Volume (ft³)	7340	7340
Air changes/hour	0.66	0.34
Equiv. AVF (cfm)	81	42

Sensible Cooling Equipment Load Sizing

Structure	20636	Btuh
Ducts	0	Btuh
Central vent (7 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	19976	Btuh

Latent Cooling Equipment Load Sizing

Structure	2485	Btuh
Ducts	0	Btuh
Central vent (7 cfm)	0	Btuh
Equipment latent load	2485	Btuh
Equipment total load	22461	Btuh
Req. total capacity at 0.70 SHR	2.4	ton

Heating Equipment Summary

Make	n/a	
Trade	n/a	
Model	n/a	
AHRI ref.	n/a	
Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

Cooling Equipment Summary

Make	n/a	
Trade	n/a	
Cond	n/a	
Coil	n/a	
AHRI ref.	n/a	
Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

wrightsoft

Load Short Form
AHU 2
MEGPE Engineers, Inc

Job: 1410003
Date: August 11, 2015
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4489 N. Michigan Ave, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Design Information

	Htg	Clg
Outside db (°F)	52	92
Inside db (°F)	70	75
Design TD (°F)	18	17
Daily range	-	L
Inside humidity (%)	30	50
Moisture difference (gr/lb)	-13	56

Infiltration	
Method	Simplified
Construction quality	Loose
Fireplaces	0

HEATING EQUIPMENT

Make	n/a
Trade	n/a
Model	n/a
AHRI ref.	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

COOLING EQUIPMENT

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref.	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Master Bedroom	734	9784	20636	956	939
AHU 2	734	9784	20636	956	939
Other equip loads		0	0		
Equip. @ 0.97 RSM			19976		
Latent cooling			2485		
TOTALS	734	9784	22461	956	939

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Project Summary
AHU 3
MEGPE Engineers, Inc

Job: 1410003
Date: August 11, 2015
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4489 N. Michigan Ave, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Notes:

Design Information

Weather: Miami Intl AP, FL, US

Winter Design Conditions

Outside db	52	°F
Inside db	70	°F
Design TD	18	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	56	gr/lb

Heating Summary

Structure	7138	Btuh
Ducts	0	Btuh
Central vent (5 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	7138	Btuh

Infiltration

Method	Simplified
Construction quality	Loose
Fireplaces	0

	Heating	Cooling
Area (ft²)	544	544
Volume (ft³)	5440	5440
Air changes/hour	0.75	0.39
Equiv. AVF (cfm)	68	35

Sensible Cooling Equipment Load Sizing

Structure	15456	Btuh
Ducts	0	Btuh
Central vent (5 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	14961	Btuh

Latent Cooling Equipment Load Sizing

Structure	2234	Btuh
Ducts	0	Btuh
Central vent (5 cfm)	0	Btuh
Equipment latent load	2234	Btuh
Equipment total load	17195	Btuh
Req. total capacity at 0.70 SHR	1.8	ton

Heating Equipment Summary

Make	n/a	
Trade	n/a	
Model	n/a	
AHRI ref.	n/a	
Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

Cooling Equipment Summary

Make	n/a	
Trade	n/a	
Cond	n/a	
Coil	n/a	
AHRI ref.	n/a	
Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

wrightsoft

Load Short Form
AHU 3
MEGPE Engineers, Inc

Job: 1410003
Date: August 11, 2015
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4489 N. Michigan Ave, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Design Information

	Htg	Clg
Outside db (°F)	52	92
Inside db (°F)	70	75
Design TD (°F)	18	17
Daily range	-	L
Inside humidity (%)	30	50
Moisture difference (gr/lb)	-13	56

Infiltration	
Method	Simplified
Construction quality	Loose
Fireplaces	0

HEATING EQUIPMENT

Make n/a
Trade n/a
Model n/a
AHRI ref. n/a

Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

COOLING EQUIPMENT

Make n/a
Trade n/a
Cond n/a
Coil n/a
AHRI ref. n/a

Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bedrooms 2 and 3	544	7138	15456	698	703
AHU 3	544	7138	15456	698	703
Other equip loads		0	0		
Equip. @ 0.97 RSM			14961		
Latent cooling			2234		
TOTALS	544	7138	17195	698	703

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4489 N. Michigan Ave, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Notes:

Design Information

Weather: Miami Intl AP, FL, US

Winter Design Conditions

Outside db	52	°F
Inside db	70	°F
Design TD	18	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	56	gr/lb

Heating Summary

Structure	7021	Btuh
Ducts	0	Btuh
Central vent (8 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	7021	Btuh

Infiltration

Method		Simplified
Construction quality		Loose
Fireplaces		0
	Heating	**Cooling**
Area (ft²)	923	923
Volume (ft³)	9230	9230
Air changes/hour	0.42	0.21
Equiv. AVF (cfm)	64	33

Sensible Cooling Equipment Load Sizing

Structure	20500	Btuh
Ducts	0	Btuh
Central vent (8 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	19844	Btuh

Latent Cooling Equipment Load Sizing

Structure	1956	Btuh
Ducts	0	Btuh
Central vent (8 cfm)	0	Btuh
Equipment latent load	1956	Btuh
Equipment total load	21800	Btuh
Req. total capacity at 0.70 SHR	2.4	ton

Heating Equipment Summary

Make	n/a	
Trade	n/a	
Model	n/a	
AHRI ref.	n/a	
Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

Cooling Equipment Summary

Make	n/a	
Trade	n/a	
Cond	n/a	
Coil	n/a	
AHRI ref.	n/a	
Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

wrightsoft

Load Short Form
AHU 4
MEGPE Engineers, Inc

Job: 1410003
Date: August 11, 2015
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4489 N. Michigan Ave, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Design Information

	Htg	Clg
Outside db (°F)	52	92
Inside db (°F)	70	75
Design TD (°F)	18	17
Daily range	-	L
Inside humidity (%)	30	50
Moisture difference (gr/lb)	-13	56

Infiltration

Method	Simplified
Construction quality	Loose
Fireplaces	0

HEATING EQUIPMENT

Make	n/a
Trade	n/a
Model	n/a
AHRI ref.	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

COOLING EQUIPMENT

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref.	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bed1,Hall,Utiliy	923	7021	20500	686	933
AHU 4	923	7021	20500	686	933
Other equip loads		0	0		
Equip. @ 0.97 RSM			19844		
Latent cooling			1956		
TOTALS	923	7021	21800	686	933

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4489 N. Michigan Ave, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Notes:

Design Information

Weather: Miami Intl AP, FL, US

Winter Design Conditions

Outside db	52	°F
Inside db	70	°F
Design TD	18	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	56	gr/lb

Heating Summary

Structure	6405	Btuh
Ducts	0	Btuh
Central vent (5 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	6405	Btuh

Sensible Cooling Equipment Load Sizing

Structure	14674	Btuh
Ducts	0	Btuh
Central vent (5 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	14205	Btuh

Infiltration

Method	Simplified
Construction quality	Loose
Fireplaces	0

	Heating	Cooling
Area (ft²)	592	592
Volume (ft³)	6690	6690
Air changes/hour	0.71	0.37
Equiv. AVF (cfm)	79	41

Latent Cooling Equipment Load Sizing

Structure	2560	Btuh
Ducts	0	Btuh
Central vent (5 cfm)	0	Btuh
Equipment latent load	2560	Btuh
Equipment total load	16765	Btuh
Req. total capacity at 0.70 SHR	1.7	ton

Heating Equipment Summary

Make	n/a
Trade	n/a
Model	n/a
AHRI ref.	n/a

Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

Cooling Equipment Summary

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref.	n/a

Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4489 N. Michigan Ave, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Design Information

	Htg	Clg
Outside db (°F)	52	92
Inside db (°F)	70	75
Design TD (°F)	18	17
Daily range	-	L
Inside humidity (%)	30	50
Moisture difference (gr/lb)	-13	56

Infiltration

Method	Simplified
Construction quality	Loose
Fireplaces	0

HEATING EQUIPMENT

Make n/a
Trade n/a
Model n/a
AHRI ref. n/a

Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

COOLING EQUIPMENT

Make n/a
Trade n/a
Cond n/a
Coil n/a
AHRI ref. n/a

Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Garage	592	6405	14674	626	668
AHU 5	592	6405	14674	626	668
Other equip loads		0	0		
Equip. @ 0.97 RSM			14205		
Latent cooling			2560		
TOTALS	592	6405	16765	626	668

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

FORM 405-10

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	4354 Alton RD	Builder Name:	3 DESIGN ARCHITECTURE
Street:	4354 Alton Road	Permit Office:	Miami Beach
City, State, Zip:	Miami Beach , FL , 33139-	Permit Number:	
Owner:		Jurisdiction:	232500
Design Location:	FL, Miami Beach		

1. New construction or existing — New (From Plans)
2. Single family or multiple family — Single-family
3. Number of units, if multiple family — 1
4. Number of Bedrooms — 3
5. Is this a worst case? — No
6. Conditioned floor area above grade (ft²) — 4228.20019531

   Conditioned floor area below grade (ft²) — 0

7. Windows(1226.4 sqft.)

	Description	Area
a. U-Factor:	Sgl, U=0.96	1226.40 ft²
SHGC:	SHGC=0.50	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
d. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		7.994 ft.
Area Weighted Average SHGC:		0.500

8. Floor Types (4243.8 sqft.)

	Insulation	Area
a. Floor Over Other Space	R=0.0	2153.10 ft²
b. Slab-On-Grade Edge Insulation	R=0.0	2090.70 ft²
c. N/A	R=	ft²

9. Wall Types (4533.7 sqft.)

	Insulation	Area
a. Concrete Block - Int Insul, Exterior	R=5.0	4533.70 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10. Ceiling Types (2152.3 sqft.)

	Insulation	Area
a. Cathedral/Single Assembly (Unvented)	R=0.1	2152.30 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts

	R	ft²
a. Sup: 1st Floor, Ret: 1st Floor, AH: 1st Floor	4.2	200
b. Sup: 2nd FL Bed 3, Ret: 2nd FL Bed 3, AH: 2nd	4.2	175
c. Sup: Second Floor, Ret: Second Floor, AH: Seco	4.2	200

12. Cooling systems

	kBtu/hr	Efficiency
a. Central Unit	53.1	SEER:15.30
b. Central Unit	16.8	SEER:16.25
2 additional cooling systems		(see details)

13. Heating systems

	kBtu/hr	Efficiency
a. Electric Strip Heat	26.3	COP:1.00
b. Electric Strip Heat	8.2	COP:1.00
2 additional heating systems		(see details)

14. Hot water systems

   a. Natural Gas — Tankless — Cap: 1 gallons, EF: 0.820

   b. Conservation features

   None

15. Credits — Pstat

Glass/Floor Area: 0.290

Total Proposed Modified Loads: 82.81

Total Standard Reference Loads: 111.77

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: MEGPE

DATE: 12/10/14

MIGUEL E GONZALEZ LICENSE No 71594 STATE OF FLORIDA PROFESSIONAL ENGINEER

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: ____________

DATE: ____________

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

GREAT SEAL OF THE STATE OF FLORIDA IN GOD WE TRUST

BUILDING OFFICIAL: ____________

DATE: ____________

- **Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with 403.2.2.1.1.**
- **Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist**
- **Compliance requires an air distribution system test report, by a Florida Class 1 Rater, confirming system leakage to outdoors tested at 25 pascals pressure difference in accordance with 403.2.2.1. is not greater than (45 cfm:Duct#1) (17 cfm:Duct#2) (47 cfm:Duct#3)**

PROJECT

Title:	4354 Alton RD	Bedrooms:	3	Address Type:	Street Address
Building Type:	User	Conditioned Area:	4228	Lot #	
Owner:		Total Stories:	2	Block/SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	3 DESIGN ARCHITECTURE	Rotate Angle:	0	Street:	4354 Alton Road
Permit Office:	Miami Beach	Cross Ventilation:		County:	Miami-Dade
Jurisdiction:	232500	Whole House Fan:		City, State, Zip:	Miami Beach , FL , 33139-
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

√	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
_____	FL, Miami Beach	FL_MIAMI_INTL_AP	1	51	90	70	75	149.5	58	Low

BLOCKS

Number	Name	Area	Volume
1	AHU 1	1494	16583.4
2	AHU 3	582.0999	5646.4
3	AHU 2	1570	15229
4	AHU 4	582.0999	814.9

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	1st Floor	1494	16583.4	Yes	1	1	1	Yes	Yes	Yes
2	Second Floor	1570	15229	No	3	2	1	Yes	Yes	Yes
3	2nd FL Bed 3	582.1	5646.4	No	0	0	1	Yes	Yes	Yes
4	Garage	582.1	814.9	No	0	0	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	1st Floor	143.95 ft	0	1494.8 ft²	----	1	0	0
_____	2	Floor Over Other Space	2nd FL Bed 3	----	----	582.1 ft²	0	1	0	0
_____	3	Floor Over Other Space	Second Floor	----	----	1494.8 ft²	0	1	0	0
_____	4	Slab-On-Grade Edge Insulatio	Garage	71 ft	0	595.9 ft²	----	1	0	0
_____	5	Floor Over Other Space	Second Floor	----	----	76.2 ft²	0	1	0	0

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
____	1	Flat	Concrete	2160 ft²	90 ft²	White	0.96	No	0.9	No	19	4.8

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
____	1	Full attic	Unvented	0	2152.3 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
____	1	Cathedral/Single Assembly (Unvented)	2nd FL Bed 3	0.1	582.1 ft²	0.11	Wood
____	2	Cathedral/Single Assembly (Unvented)	Second Floor	0.1	1570.2 ft²	0.11	Wood

WALLS

√ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
____ 1	NE	Exterior	Concrete Block - Int Insul	1st Floor	5	32	11	11	2	367.6 ft²		0	0.75	0
____ 2	SE	Exterior	Concrete Block - Int Insul	1st Floor	5	52	0	11	2	580.7 ft²		0	0.75	0
____ 3	SW	Exterior	Concrete Block - Int Insul	1st Floor	5	6	11	11	2	77.2 ft²		0	0.75	0
____ 4	NW	Exterior	Concrete Block - Int Insul	1st Floor	5	52	2	11	2	582.5 ft²		0	0.75	0
____ 5	SE	Exterior	Concrete Block - Int Insul	Garage	5	22	9	11	5	259.7 ft²		0	0.75	0
____ 6	SW	Exterior	Concrete Block - Int Insul	Garage	5	27	0	11	5	308.3 ft²		0	0.75	0
____ 7	NW	Exterior	Concrete Block - Int Insul	Garage	5	22	0	11	5	251.2 ft²		0	0.75	0
____ 8	NE	Exterior	Concrete Block - Int Insul	Second Floor	5	33	4	9	8	322.2 ft²		0	0.75	0
____ 9	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	57	0	9	8	551.0 ft²		0	0.75	0
____ 10	SW	Exterior	Concrete Block - Int Insul	Second Floor	5	5	9	9	8	55.6 ft²		0	0.75	0
____ 11	NW	Exterior	Concrete Block - Int Insul	Second Floor	5	55	4	9	2	507.2 ft²		0	0.75	0
____ 12	SE	Exterior	Concrete Block - Int Insul	2nd FL Bed 3	5	22	0	9	8	212.7 ft²		0	0.75	0
____ 13	SW	Exterior	Concrete Block - Int Insul	2nd FL Bed 3	5	26	6	9	8	256.2 ft²		0	0.75	0
____ 14	NW	Exterior	Concrete Block - Int Insul	2nd FL Bed 3	5	22	0	9	2	201.7 ft²		0	0.75	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
____	1	NW	Wood	Garage	Wood	.46	3	3	7	2	23.3 ft²
____	2	SE	Wood	Garage	Wood	.46	16		8		128 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
______	1	NE	1	Metal	Single (Clear)	Yes	0.96	0.5	70.8 ft²	5 ft 6 in	0 ft 0 in	Drapes/blinds	None
______	2	NE	1	Metal	Single (Clear)	Yes	0.96	0.5	33.8 ft²	5 ft 6 in	0 ft 0 in	Drapes/blinds	None
______	3	SE	2	Metal	Single (Clear)	Yes	0.96	0.5	310.0 ft²	10 ft 1 in	0 ft 0 in	Drapes/blinds	None
______	4	SE	2	Metal	Single (Clear)	Yes	0.96	0.5	135.8 ft²	10 ft 1 in	0 ft 0 in	Drapes/blinds	None
______	5	NW	4	Metal	Single (Clear)	Yes	0.96	0.5	16.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
______	6	NE	8	Metal	Single (Clear)	Yes	0.96	0.5	29.8 ft²	5 ft 6 in	0 ft 0 in	Drapes/blinds	None
______	7	SE	9	Metal	Single (Clear)	Yes	0.96	0.5	263.5 ft²	10 ft 1 in	0 ft 0 in	Drapes/blinds	None
______	8	SE	9	Metal	Single (Clear)	Yes	0.96	0.5	115.5 ft²	10 ft 1 in	0 ft 0 in	Drapes/blinds	None
______	9	SW	10	Metal	Single (Clear)	Yes	0.96	0.5	14.2 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
______	10	NW	11	Metal	Single (Clear)	Yes	0.96	0.5	36.7 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
______	11	NW	11	Metal	Single (Clear)	Yes	0.96	0.5	14.2 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
______	12	SE	12	Metal	Single (Clear)	Yes	0.96	0.5	136.0 ft²	5 ft 6 in	0 ft 0 in	Drapes/blinds	None
______	13	SW	13	Metal	Single (Clear)	Yes	0.96	0.5	18.5 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
______	14	NW	14	Metal	Single (Clear)	Yes	0.96	0.5	31.7 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	.0005	5545.3	304.43	572.53	.4247	8.6931

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
______	1	Electric Strip Heat	None	COP: 1	26.3 kBtu/hr	1	sys#1
______	2	Electric Strip Heat	None	COP: 1	8.2 kBtu/hr	2	sys#2
______	3	Electric Strip Heat	None	COP: 1	18.4 kBtu/hr	3	sys#3
______	4	Electric Heat Pump	None	COP: 10	21.6 kBtu/hr	4	Ductless

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
______	1	Central Unit	Split	SEER: 15.3	53.1 kBtu/hr	1593 cfm	0.720000	1	sys#1
______	2	Central Unit	Split	SEER: 16.25	16.8 kBtu/hr	504 cfm	0.699999	2	sys#2
______	3	Central Unit	Split	SEER: 16.25	43.3 kBtu/hr	1299 cfm	0.69	3	sys#3
______	4	Central Unit	Split	SEER: 19.2	17.2 kBtu/hr	516 cfm	0.69	4	sys#0

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
______	1	Natural Gas	Tankless	Exterior	0.82	1 gal	40 gal	120 deg	None

SOLAR HOT WATER SYSTEM

√	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
______	None	None			ft²		

DUCTS

√	#	Supply Location	Supply R-Value	Supply Area	Return Location	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
______	1	1st Floor	4.2	200 ft²	1st Floor	50 ft²	Prop. Leak Free	1st Floor	— cfm	44.8 cfm	0.03	0.60	1	1
______	2	2nd FL Bed 3	4.2	175 ft²	2nd FL Bed 3	25 ft²	Prop. Leak Free	2nd FL Bed	— cfm	17.5 cfm	0.03	0.60	2	2
______	3	Second Floor	4.2	200 ft²	Second Floor	75 ft²	Prop. Leak Free	Second Flo	— cfm	47.1 cfm	0.03	0.60	3	3

TEMPERATURES

Programable Thermostat: Y

Ceiling Fans:

Cooling	[ ] Jan	[ ] Feb	[ ] Mar	[ ] Apr	[ ] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[ ] Oct	[ ] Nov	[ ] Dec
Heating	[X] Jan	[X] Feb	[X] Mar	[ ] Apr	[ ] May	[ ] Jun	[ ] Jul	[ ] Aug	[ ] Sep	[ ] Oct	[X] Nov	[X] Dec
Venting	[ ] Jan	[ ] Feb	[X] Mar	[X] Apr	[ ] May	[ ] Jun	[ ] Jul	[ ] Aug	[ ] Sep	[X] Oct	[X] Nov	[ ] Dec

Thermostat Schedule: HERS 2006 Reference

Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66

FORM 405-10

Florida Code Compliance Checklist

Florida Department of Business and Professional Regulations
Residential Whole Building Performance Method

ADDRESS: 4354 Alton Road Miami Beach, FL, 33139-	PERMIT #:

MANDATORY REQUIREMENTS SUMMARY - See individual code sections for full details.

COMPONENT	SECTION	SUMMARY OF REQUIREMENT(S)	CHECK
Air leakage	402.4	To be caulked, gasketed, weatherstripped or otherwise sealed. Recessed lighting IC-rated as meeting ASTM E 283. Windows and doors = 0.30 cfm/sq.ft. Testing or visual inspection required. Fireplaces: gasketed doors & outdoor combustion air. Must complete envelope leakage report or visually verify Table 402.4.2.	✓
Thermostat & controls	403.1	At least one thermostat shall be provided for each separate heating and cooling system. Where forced-air furnace is primary system, programmable thermostat is required. Heat pumps with supplemental electric heat must prevent supplemental heat when compressor can meet the load.	✓
Ducts	403.2.2 403.3.3	All ducts, air handlers, filter boxes and building cavities which form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section 503.2.7.2 of this code. Building framing cavities shall not be used as supply ducts.	✓
Water heaters	403.4	Heat trap required for vertical pipe risers. Comply with efficiencies in Table 403.4.3.2. Provide switch or clearly marked circuit breaker (electric) or shutoff (gas). Circulating system pipes insulated to = R-2 + accessible manual OFF switch.	✓
Mechanical ventilation	403.5	Homes designed to operate at positive pressure or with mechanical ventilation systems shall not exceed the minimum ASHRAE 62 level. No make-up air from attics, crawlspaces, garages or outdoors adjacent to pools or spas.	N/A
Swimming Pools & Spas	403.9	Pool pumps and pool pump motors with a total horsepower (HP) of = 1 HP shall have the capability of operating at two or more speeds. Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if 70% of heat from site-recovered energy. Off/timer switch required. Gas heaters minimum thermal efficiency=78% (82% after 4/16/13). Heat pump pool heaters minimum COP= 4.0.	
Cooling/heating equipment	403.6	Sizing calculation performed & attached. Minimum efficiencies per Tables 503.2.3. Equipment efficiency verification required. Special occasion cooling or heating capacity requires separate system or variable capacity system. Electric heat >10kW must be divided into two or more stages.	✓
Ceilings/knee walls	405.2.1	R-19 space permitting.	✓

Building Input Summary Report

PROJECT

Title:	4354 Alton RD	Bedrooms:	3	Address Type:	Street Address
Building Type:	User	Bathrooms:	0	Lot #	
Owner:		Conditioned Area:	4228 sq.ft.	Block/SubDivision:	
# of Units:	1	Total Stories:	2	PlatBook:	
Builder Name:	3 DESIGN ARCHITECTURE	Worst Case:	No	Street:	4354 Alton Road
Permit Office:	Miami Beach	Rotate Angle:	0	County:	Miami-Dade
Jurisdiction:	232500	Cross Ventilation:		City, State, Zip:	Miami Beach ,
Family Type:	Single-family	Whole House Fan:			FL , 33139-
New/Existing:	New (From Plans)	Terrain:	Urban		
Year Construct:		Shielding:	Urban		
Comment:					

CLIMATE

Design Location	Tmy Site	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
FL, Miami Beach	FL_MIAMI_INTL_AP	51	90	70	75	149.5	58	Low

UTILITY RATES

Fuel	Unit	Utility Name	Monthly Fixed Cost	$/Unit
Electricity	kWh	Florida Average	0	0.1151
Natural Gas	Therm	Florida Average	0	1.82
Fuel Oil	Gallon	Florida Default	0	1.1
Propane	Gallon	Florida Default	0	1.4

SURROUNDINGS

Ornt	Type	Shade Trees Height	Width	Distance	Exist	Adjacent Buildings Height	Width	Distance
N	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
NE	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
E	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
SE	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
S	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
SW	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
W	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
NW	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft

BLOCKS

Number	Name	Area	Volume
1	AHU 1	1494	16583.4
2	AHU 3	582.0999	5646.4
3	AHU 2	1570	15229
4	AHU 4	582.0999	814.9

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
1	1st Floor	1494	16583.4	Yes	1	1	Yes	Yes	Yes
2	Second Floor	1570	15229	No	3	2	Yes	Yes	Yes
3	2nd FL Bed 3	582.1	5646.4	No	0	0	Yes	Yes	Yes
4	Garage	582.1	814.9	No	0	0	Yes	Yes	Yes

Building Input Summary Report

FLOORS

#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
1	Slab-On-Grade Edge Insulation	1st Floor	143.95 ft	0	1494.8 ft²	----	1	0	0
2	Floor Over Other Space	2nd FL Bed 3			582.1 ft²	0	1	0	0
3	Floor Over Other Space	Second Floor			1494.8 ft²	0	1	0	0
4	Slab-On-Grade Edge Insulation	Garage	71 ft	0	595.9 ft²	----	1	0	0
5	Floor Over Other Space	Second Floor			76.2 ft²	0	1	0	0

ROOF

#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
1	Flat	Concrete	2160 ft²	90 ft²	White	0.96	No	0.9	No	19	4.8

ATTIC

#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
1	Full attic	Unvented	0	2152.3 ft²	N	N

CEILING

#	Ceiling Type	Space	R-Value	Area	Framing Fraction	Truss Type
1	Cathedral/Single Assembly ()	2nd FL Bed 3	0.1	582.1 ft²	0.11	Wood
2	Cathedral/Single Assembly ()	Second Floor	0.1	1570.2 ft²	0.11	Wood

WALLS

Wall orientation below is as entered. Actual orientation is modified by rotate angle shown in "Project" section above.

#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
1	NE	Exterior	Concrete Block - Int Insul	1st Floor	5	32	11	11	2	367.6 ft²		0	0.75	0
2	SE	Exterior	Concrete Block - Int Insul	1st Floor	5	52	0	11	2	580.7 ft²		0	0.75	0
3	SW	Exterior	Concrete Block - Int Insul	1st Floor	5	6	11	11	2	77.2 ft²		0	0.75	0
4	NW	Exterior	Concrete Block - Int Insul	1st Floor	5	52	2	11	2	582.5 ft²		0	0.75	0
5	SE	Exterior	Concrete Block - Int Insul	Garage	5	22	9	11	5	259.7 ft²		0	0.75	0
6	SW	Exterior	Concrete Block - Int Insul	Garage	5	27	0	11	5	308.3 ft²		0	0.75	0
7	NW	Exterior	Concrete Block - Int Insul	Garage	5	22	0	11	5	251.2 ft²		0	0.75	0
8	NE	Exterior	Concrete Block - Int Insul	Second Floor	5	33	4	9	8	322.2 ft²		0	0.75	0
9	SE	Exterior	Concrete Block - Int Insul	Second Floor	5	57	0	9	8	551.0 ft²		0	0.75	0
10	SW	Exterior	Concrete Block - Int Insul	Second Floor	5	5	9	9	8	55.6 ft²		0	0.75	0
11	NW	Exterior	Concrete Block - Int Insul	Second Floor	5	55	4	9	2	507.2 ft²		0	0.75	0
12	SE	Exterior	Concrete Block - Int Insul	2nd FL Bed 3	5	22	0	9	8	212.7 ft²		0	0.75	0
13	SW	Exterior	Concrete Block - Int Insul	2nd FL Bed 3	5	26	6	9	8	256.2 ft²		0	0.75	0
14	NW	Exterior	Concrete Block - Int Insul	2nd FL Bed 3	5	22	0	9	2	201.7 ft²		0	0.75	0

Building Input Summary Report

DOORS

#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
1	NW	Wood	Garage	Wood	.46	3	3	7	2	23.3 ft²
2	SE	Wood	Garage	Wood	.46	16		8		128 ft²

WINDOWS

#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Storm	Area	Overhang Depth	Overhang Separation	Interior Shade	Screening
1	NE	1	Metal	Single (Clear)	Yes	0.96	0.5	N	70.8 ft²	5 ft 6 in	0 ft 0 in	Drapes/blinds	None
2	NE	1	Metal	Single (Clear)	Yes	0.96	0.5	N	33.8 ft²	5 ft 6 in	0 ft 0 in	Drapes/blinds	None
3	SE	2	Metal	Single (Clear)	Yes	0.96	0.5	N	310.0 ft²	10 ft 1 in	0 ft 0 in	Drapes/blinds	None
4	SE	2	Metal	Single (Clear)	Yes	0.96	0.5	N	135.8 ft²	10 ft 1 in	0 ft 0 in	Drapes/blinds	None
5	NW	4	Metal	Single (Clear)	Yes	0.96	0.5	N	16.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
6	NE	8	Metal	Single (Clear)	Yes	0.96	0.5	N	29.8 ft²	5 ft 6 in	0 ft 0 in	Drapes/blinds	None
7	SE	9	Metal	Single (Clear)	Yes	0.96	0.5	N	263.5 ft²	10 ft 1 in	0 ft 0 in	Drapes/blinds	None
8	SE	9	Metal	Single (Clear)	Yes	0.96	0.5	N	115.5 ft²	10 ft 1 in	0 ft 0 in	Drapes/blinds	None
9	SW	10	Metal	Single (Clear)	Yes	0.96	0.5	N	14.2 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
10	NW	11	Metal	Single (Clear)	Yes	0.96	0.5	N	36.7 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
11	NW	11	Metal	Single (Clear)	Yes	0.96	0.5	N	14.2 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
12	SE	12	Metal	Single (Clear)	Yes	0.96	0.5	N	136.0 ft²	5 ft 6 in	0 ft 0 in	Drapes/blinds	None
13	SW	13	Metal	Single (Clear)	Yes	0.96	0.5	N	18.5 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
14	NW	14	Metal	Single (Clear)	Yes	0.96	0.5	N	31.7 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50	Space(s)
1	Wholehouse	Best Guess	.0005	5545.3	304.43	572.53	.4247	8.6931	All

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
No Added Mass	0 ft²	0 ft	0.3	1st Floor
No Added Mass	0 ft²	0 ft	0.3	Second Floor
No Added Mass	0 ft²	0 ft	0.3	2nd FL Bed 3
No Added Mass	0 ft²	0 ft	0.3	Garage

HEATING SYSTEM

#	System Type	Subtype	Efficiency	Capacity	Geothermal HeatPump Entry	Geothermal HeatPump Power	Geothermal HeatPump Volt.	Geothermal HeatPump Curr	Ducts	Block
1	Electric Strip Heat	None	COP:1	26.3 kBtu/hr		0	0	0	sys#1	1
2	Electric Strip Heat	None	COP:1	8.2 kBtu/hr		0	0	0	sys#2	2
3	Electric Strip Heat	None	COP:1	16.4 kBtu/hr		0	0	0	sys#3	3
4	Electric Heat Pump	None	HSPF:10	21.6 kBtu/hr		0	0	0	Ductless	4

Building Input Summary Report

COOLING SYSTEM

#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Ducts	Block
1	Central Unit	Split	SEER:15.3	53.1 kBtu/hr	1593 cfm	0.720000	sys#1	1
2	Central Unit	Split	SEER:16.25	16.8 kBtu/hr	504 cfm	0.699999	sys#2	2
3	Central Unit	Split	SEER:16.25	43.3 kBtu/hr	1299 cfm	0.69	sys#3	3
4	Central Unit	Split	SEER:19.2	17.2 kBtu/hr	516 cfm	0.69	sys#0	4

HOT WATER SYSTEM

#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Credits
1	Natural Gas	Tankless	Exterior	0.82	1 gal	40 gal	120 deg	None

SOLAR HOT WATER

Collector Type	Collector Tilt	Azimuth	Surface Area	Loss Coef.	Absorp. Prod.	Trans Corr.	Tank Volume	Tank U-Value	Tank Surf Area	Heat Exch Eff	PV Pumped	Pump Energy

DUCTS

DUCT #	Supply Location	Supply R-Value	Supply Area	Return Location	Return Area	Number	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
1	1st Floor	4.2	200 ft²	1st Floor	50 ft²	1	Prop. Leak Free	1st Floor	--- cfm	--- cfm	0.03	0.60	1	1
2	2nd FL Bed 3	4.2	175 ft²	2nd FL Bed 3	25 ft²	1	Prop. Leak Free	2nd FL Bed	--- cfm	--- cfm	0.03	0.60	2	2
3	Second Floor	4.2	200 ft²	Second Floor	75 ft²	1	Prop. Leak Free	Second Flo	--- cfm	--- cfm	0.03	0.60	3	3

TEMPERATURES

Programable Thermostat: Y Ceiling Fans: N

Cooling	[ ] Jan	[ ] Feb	[ ] Mar	[ ] Apr	[ ] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[ ] Oct	[ ] Nov	[ ] Dec
Heating	[X] Jan	[X] Feb	[X] Mar	[ ] Apr	[ ] May	[ ] Jun	[ ] Jul	[ ] Aug	[ ] Sep	[ ] Oct	[X] Nov	[X] Dec
Venting	[ ] Jan	[ ] Feb	[X] Mar	[X] Apr	[ ] May	[ ] Jun	[ ] Jul	[ ] Aug	[ ] Sep	[X] Oct	[X] Nov	[ ] Dec

Thermostat Schedule: HERS 2006 Reference

Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66

Building Input Summary Report

APPLIANCES & LIGHTING

Appliance Schedule: HERS 2006 Reference

Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Ceiling Fans (Summer)	AM	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.33	0.33	0.33	0.33	0.33
% Released: 100	PM	0.33	0.33	0.33	0.33	0.33	1	0.9	0.9	0.9	0.9	0.9	0.65
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Clothes Washer	AM	0.105	0.081	0.046	0.046	0.081	0.128	0.256	0.57	0.849	1	0.977	0.872
% Released: 60	PM	0.779	0.698	0.605	0.57	0.581	0.57	0.57	0.57	0.57	0.488	0.43	0.198
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Dishwasher	AM	0.139	0.05	0.028	0.024	0.029	0.09	0.169	0.303	0.541	0.594	0.502	0.443
% Released: 60	PM	0.377	0.396	0.335	0.323	0.344	0.448	0.791	1	0.8	0.597	0.383	0.281
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Dryer	AM	0.2	0.1	0.05	0.05	0.05	0.075	0.2	0.375	0.5	0.8	0.95	1
% Released: 10	PM	0.875	0.85	0.8	0.625	0.625	0.6	0.575	0.55	0.625	0.7	0.05	0.375
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Lighting	AM	0.16	0.15	0.16	0.18	0.23	0.45	0.4	0.26	0.19	0.18	0.12	0.11
% Released: 90	PM	0.16	0.17	0.25	0.27	0.34	0.55	0.55	0.88	1	0.86	0.51	0.28
Annual Use: 3838 kWh/Yr			Peak Value: 1253 Watts										
Miscellaneous	AM	0.48	0.47	0.47	0.47	0.47	0.47	0.64	0.71	0.67	0.61	0.55	0.53
% Released: 90	PM	0.52	0.5	0.5	0.5	0.59	0.73	0.79	0.99	1	0.96	0.77	0.55
Annual Use: 7685 kWh/Yr			Peak Value: 1409 Watts										
Pool Pump	AM	0	0	0	0	0	0	0	0	0	1	1	1
% Released: 0	PM	1	1	1	1	0	0	0	0	0	0	0	0
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Range	AM	0.057	0.057	0.057	0.057	0.057	0.114	0.171	0.286	0.343	0.343	0.343	0.4
% Released: 100	PM	0.457	0.343	0.286	0.4	0.571	1	0.857	0.429	0.286	0.229	0.171	0.114
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										
Refrigeration	AM	0.85	0.78	0.75	0.73	0.73	0.73	0.75	0.75	0.8	0.8	0.8	0.8
% Released: 100	PM	0.88	0.85	0.85	0.83	0.88	0.95	1	0.98	0.95	0.93	0.9	0.85
Annual Use: 775 kWh/Yr			Peak Value: 106 Watts										
Well Pump	AM	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1
% Released: 0	PM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Annual Use: 0 kWh/Yr			Peak Value: 0 Watts										

REFRIGERATORS

ID	Type	Screen	Location	Quantity	Vol	FrZ. Vol	Make	Model	Schedule	kWhPerYr
1		Default New	Main	1						

CLOTHES WASHERS

ID	Type	Screen	Location	Capacity	Make	Model	Schedule	LoadsPerYr
1	1 Main	Default New	Main	2.847			HERS201	(invalid)

CLOTHES DRYERS

ID	Type	Screen	Location	Capacity	Fuel Type	Make	Model	Schedule	LoadsPerYr
1	Dryers	Default New	Main		Electricity				

Building Input Summary Report

DISHWASHERS									
ID	Type	Screen	Location	Capacity	Vintage	Make	Model	Schedule	kWhPerYr
1	Dishwash	Default New	Main	12	2004 or N			HERS201	372

RANGE OVEN									
ID	Type	Screen	Location	Type	Fueltype	Make	Model	Cooktop	Oven
1	Ranges	Default New	Main	CooktopOven C	Electric			Electric Fl	Not Conv

HARD WIRED LIGHTING										
ID	Type	Screen	Location	Total#	Qualify#	Comp Fl	All Other FL	txtBulbtype	Schedule	Watts per bulb
1	Hard-Wir	Default	Main							
2	Hard-Wir	Default	Exterior	20	2	0	2	Incandes	HERS201	60

MISC ELECTRICAL LOADS									
ID	Type	Screen	Item	Quantity	Catagory	Operating	Location	Schedule	Off Standby
1	Misc Elec	Simple Default		1		1	Main	HERS201	1

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 74

The lower the EnergyPerformance Index, the more efficient the home.

4354 Alton Road, Miami Beach, FL, 33139-

1. New construction or existing	New (From Plans)	
2. Single family or multiple family	Single-family	
3. Number of units, if multiple family	1	
4. Number of Bedrooms	3	
5. Is this a worst case?	No	
6. Conditioned floor area (ft²)	4228	

7. Windows**	Description	Area
a. U-Factor:	Sgl, U=0.96	1226.40 ft²
SHGC:	SHGC=0.50	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
d. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		7.994 ft.
Area Weighted Average SHGC:		0.500

8. Floor Types	Insulation	Area
a. Floor Over Other Space	R=0.0	2153.10 ft²
b. Slab-On-Grade Edge Insulation	R=0.0	2090.70 ft²
c. N/A	R=	ft²

9. Wall Types	Insulation	Area
a. Concrete Block - Int Insul, Exterior	R=5.0	4533.70 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10. Ceiling Types	Insulation	Area
a. Cathedral/Single Assembly (Unvented)	R=0.1	2152.30 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts	R	ft²
a. Sup: 1st Floor, Ret: 1st Floor, AH: 1st Floor	4.2	200
b. Sup: 2nd FL Bed 3, Ret: 2nd FL Bed 3, AH: 2nd	4.2	175
c. Sup: Second Floor, Ret: Second Floor, AH: Seco	4.2	200

12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	53.1	SEER:15.30
b. Central Unit	16.8	SEER:16.25
2 additional cooling systems		(see details)

13. Heating systems	kBtu/hr	Efficiency
a. Electric Strip Heat	26.3	COP:1.00
b. Electric Strip Heat	8.2	COP:1.00
2 additional heating systems		(see details)

14. Hot water systems	
a. Natural Gas	Cap: 1 gallons EF: 0.82
b. Conservation features None	

15. Credits	Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: ______________________ Date: ______________

Address of New Home: ______________________ City/FL Zip: ______________

GREAT SEAL OF THE STATE OF FLORIDA
IN GOD WE TRUST

*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida EnergyGauge Rating. Contact the EnergyGauge Hotline at (321) 638-1492 or see the EnergyGauge web site at energygauge.com for information and a list of certified Raters. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section 303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

wrightsoft

Project Summary
AHU 1
MEGPE Engineers, Inc

Job: 14010003
Date: November 25, 2014
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4354 Alton Road, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Notes:

Design Information

Weather: Miami Intl AP, FL, US

Winter Design Conditions

Outside db	52	°F
Inside db	70	°F
Design TD	18	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	56	gr/lb

Heating Summary

Structure	18913	Btuh
Ducts	0	Btuh
Central vent (52 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	18913	Btuh

Sensible Cooling Equipment Load Sizing

Structure	44731	Btuh
Ducts	0	Btuh
Central vent (52 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	43300	Btuh

Infiltration

Method		Simplified
Construction quality		Average
Fireplaces		0
	Heating	**Cooling**
Area (ft²)	1495	1495
Volume (ft³)	16592	16592
Air changes/hour	0.28	0.15
Equiv. AVF (cfm)	78	42

Latent Cooling Equipment Load Sizing

Structure	4789	Btuh
Ducts	0	Btuh
Central vent (52 cfm)	0	Btuh
Equipment latent load	4789	Btuh
Equipment total load	48089	Btuh
Req. total capacity at 0.70 SHR	5.2	ton

Heating Equipment Summary

Make	n/a	
Trade	n/a	
Model	n/a	
AHRI ref	n/a	
Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

Cooling Equipment Summary

Make	n/a	
Trade	n/a	
Cond	n/a	
Coil	n/a	
AHRI ref	n/a	
Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

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Load Short Form
AHU 1

MEGPE Engineers, Inc

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Job: 14010003
Date: November 25, 2014
By: M.G.

Project Information

For: 4354 Alton Road, 3 Design Architecture
4300 Biscayne BLVO, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Design Information

	Htg	Clg
Outside db (°F)	52	92
Inside db (°F)	70	75
Design TD (°F)	18	17
Oaily range	-	L
Inside humidity (%)	30	50
Moisture difference (gr/lb)	-13	56

Infiltration	
Method	Simplified
Construction quality	Average
Fireplaces	0

HEATING EQUIPMENT

Make n/a
Trade n/a
Model n/a
AHRI ref n/a

Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

COOLING EQUIPMENT

Make n/a
Trade n/a
Cond n/a
Coil n/a
AHRI ref n/a

Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Ground Floor	1495	18913	44731	1768	2008
AHU 1	1495	18913	44731	1768	2008
Other equip loads		0	0		
Equip. @ 0.97 RSM			43300		
Latent cooling			4789		
TOTALS	1495	18913	48089	1768	2008

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4354 Alton Road, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Notes:

Design Information

Weather: Miami Intl AP, FL, US

Winter Design Conditions

Outside db	52	°F
Inside db	70	°F
Design TD	18	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	56	gr/lb

Heating Summary

Structure	15490	Btuh
Ducts	0	Btuh
Central vent (55 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	15490	Btuh

Sensible Cooling Equipment Load Sizing

Structure	37070	Btuh
Ducts	0	Btuh
Central vent (55 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	35883	Btuh

Infiltration

Method		Simplified
Construction quality		Average
Fireplaces		0
	Heating	**Cooling**
Area (ft²)	1570	1570
Volume (ft³)	15166	15166
Air changes/hour	0.29	0.15
Equiv. AVF (cfm)	73	39

Latent Cooling Equipment Load Sizing

Structure	4083	Btuh
Ducts	0	Btuh
Central vent (55 cfm)	0	Btuh
Equipment latent load	4083	Btuh
Equipment total load	39966	Btuh
Req. total capacity at 0.70 SHR	4.3	ton

Heating Equipment Summary

Make	n/a	
Trade	n/a	
Model	n/a	
AHRI ref	n/a	
Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

Cooling Equipment Summary

Make	n/a	
Trade	n/a	
Cond	n/a	
Coil	n/a	
AHRI ref	n/a	
Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

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Load Short Form
AHU 2
MEGPE Engineers, Inc

Job: 14010003
Date: November 25, 2014
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4354 Alton Road, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	52	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	18	17	Fireplaces	0
Daily range	-	L		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	-13	56		

HEATING EQUIPMENT

Make	n/a
Trade	n/a
Model	n/a
AHRI ref	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

COOLING EQUIPMENT

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Second Floor	1570	15490	37070	1448	1664
AHU 2	1570	15490	37070	1448	1664
Other equip loads		0	0		
Equip. @ 0.97 RSM			35883		
Latent cooling			4083		
TOTALS	1570	15490	39966	1448	1664

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

wrightsoft

Project Summary
AHU 3
MEGPE Engineers, Inc

Job: 14010003
Date: November 25, 2014
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4354 Alton Road, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Notes:

Design Information

Weather: Miami Intl AP, FL, US

Winter Design Conditions

Outside db	52	°F
Inside db	70	°F
Design TD	18	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	56	gr/lb

Heating Summary

Structure	6443	Btuh
Ducts	0	Btuh
Central vent (20 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	6443	Btuh

Infiltration

Method		Simplified
Construction quality		Average
Fireplaces		0
	Heating	**Cooling**
Area (ft²)	582	582
Volume (ft³)	5645	5645
Air changes/hour	0.36	0.19
Equiv. AVF (cfm)	34	18

Sensible Cooling Equipment Load Sizing

Structure	14579	Btuh
Ducts	0	Btuh
Central vent (20 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	14112	Btuh

Latent Cooling Equipment Load Sizing

Structure	1093	Btuh
Ducts	0	Btuh
Central vent (20 cfm)	0	Btuh
Equipment latent load	1093	Btuh
Equipment total load	15205	Btuh
Req. total capacity at 0.70 SHR	1.7	ton

Heating Equipment Summary

Make	n/a	
Trade	n/a	
Model	n/a	
AHRI ref	n/a	
Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

Cooling Equipment Summary

Make	n/a	
Trade	n/a	
Cond	n/a	
Coil	n/a	
AHRI ref	n/a	
Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Load Short Form
AHU 3
MEGPE Engineers, Inc

Job: 14010003
Date: November 25, 2014
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4354 Alton Road, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Design Information

	Htg	Clg
Outside db (°F)	52	92
Inside db (°F)	70	75
Design TD (°F)	18	17
Daily range	-	L
Inside humidity (%)	30	50
Moisture difference (gr/lb)	-13	56

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

HEATING EQUIPMENT

Make	n/a
Trade	n/a
Model	n/a
AHRI ref	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

COOLING EQUIPMENT

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
2nd FL Bed 3	582	6443	14579	602	654
AHU 3	582	6443	14579	602	654
Other equip loads		0	0		
Equip. @ 0.97 RSM			14112		
Latent cooling			1093		
TOTALS	582	6443	15205	602	654

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

wrightsoft

Project Summary
AH 4
MEGPE Engineers, Inc

Job: 14010003
Date: November 25, 2014
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4354 Alton Road, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Notes:

Design Information

Weather: Miami Intl AP, FL, US

Winter Design Conditions

Outside db	52	°F
Inside db	70	°F
Design TD	18	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	56	gr/lb

Heating Summary

Structure	5820	Btuh
Ducts	0	Btuh
Central vent (21 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	5820	Btuh

Sensible Cooling Equipment Load Sizing

Structure	14726	Btuh
Ducts	0	Btuh
Central vent (21 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	14255	Btuh

Infiltration

Method		Simplified
Construction quality		Average
Fireplaces		0
	Heating	**Cooling**
Area (ft²)	596	596
Volume (ft³)	6794	6794
Air changes/hour	0.19	0.10
Equiv. AVF (cfm)	21	11

Latent Cooling Equipment Load Sizing

Structure	3632	Btuh
Ducts	0	Btuh
Central vent (21 cfm)	0	Btuh
Equipment latent load	3632	Btuh
Equipment total load	17886	Btuh
Req. total capacity at 0.70 SHR	1.7	ton

Heating Equipment Summary

Make	n/a	
Trade	n/a	
Model	n/a	
AHRI ref	n/a	
Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

Cooling Equipment Summary

Make	n/a	
Trade	n/a	
Cond	n/a	
Coil	n/a	
AHRI ref	n/a	
Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

wrightsoft

Load Short Form
AH 4
MEGPE Engineers, Inc

Job: 14010003
Date: November 25, 2014
By: M.G.

13301 SW 132 AVE, Suite 211, Miami, FL 33186 Phone: 786-473-8025 License: 71594

Project Information

For: 4354 Alton Road, 3 Design Architecture
4300 Biscayne BLVD, Suite G-04, Miami, FL 33154
Phone: 305-866-7324 Fax: 305-866-7474

Design Information

	Htg	Clg
Outside db (°F)	52	92
Inside db (°F)	70	75
Design TD (°F)	18	17
Daily range	-	L
Inside humidity (%)	30	50
Moisture difference (gr/lb)	-13	56

Infiltration	
Method	Simplified
Construction quality	Average
Fireplaces	0

HEATING EQUIPMENT

Make	n/a
Trade	n/a
Model	n/a
AHRI ref	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

COOLING EQUIPMENT

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Garage	596	5820	14726	544	661
AH 4	596	5820	14726	544	661
Other equip loads		0	0		
Equip. @ 0.97 RSM			14255		
Latent cooling			3632		
TOTALS	596	5820	17886	544	661

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Guardian® Series

GENERAC®

GUARDIAN® SERIES
Standby Generators
Liquid-Cooled Gas Engine

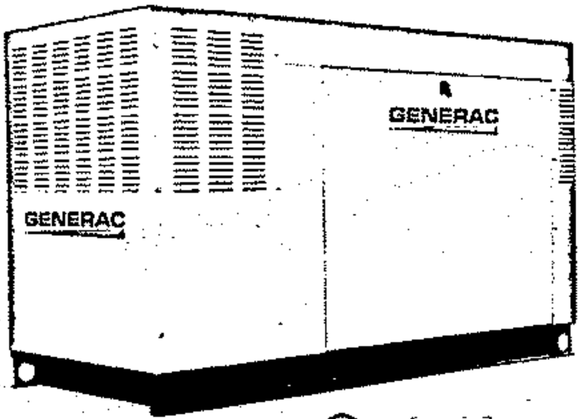
INCLUDES:

- Two Line LCD Tri-Lingual Digital Nexus™ Controller
- Isochronous Electronic Governor
- Sound Attenuated Enclosure
- Closed Coolant Recovery System
- Smart Battery Charger
- UV/Ozone Resistant Hoses
- ±1% Voltage Regulation
- Natural Gas or LP Operation*
- 2 Year Limited Warranty
- UL 2200 Listed

*Note: 25-45 kW units are field convertible between natural gas or LP. 60 kW units are built per fuel requirement and are not convertible.

Standby Power Rating

Model QT025 (Steel - Bisque) - 25 kW 60 Hz
Model QT030 (Steel - Bisque) - 30 kW 60 Hz
Model QT045 (Steel - Bisque) - 45 kW 60 Hz
Model QT060 (Steel - Bisque or Aluminum - Gray) - 60 kW 60 Hz



c UL us LISTED USA QUIET-TEST

Meets EPA Emission Regulations
25, 30 & 45 kW CA/MA emissions compliant
60 kW not for sale in CA/MA

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **TEST CRITERIA:**
  - ✓ **PROTOTYPE TESTED**
  - ✓ **SYSTEM TORSIONAL TESTED**
  - ✓ **NEMA MG1-22 EVALUATION**
  - ✓ **MOTOR STARTING ABILITY**

- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine. Digital voltage regulation at ±1%.

- **SINGLE SOURCE SERVICE RESPONSE** from Generac's extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.

- **GENERAC TRANSFER SWITCHES.** Long life and reliability are synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems and controls for total system compatibility.

GENERAC® ISO 9001:2008

GENERATOR SPECIFICATIONS

Type	Synchronous
Rotor Insulation Class	H
Stator Insulation Class	H
Telephone Interference Factor (TIF)	<50
Alternator Output Leads 1-Phase	4 wire
Alternator Output Leads 3-Phase	6 wire
Bearings	Sealed Ball
Coupling	Flexible Disc
Excitation System	Direct

VOLTAGE REGULATION

Type	Electronic
Sensing	Single Phase
Regulation	± 1%

GOVERNOR SPECIFICATIONS

Type	Electronic
Frequency Regulation	Isochronous
Steady State Regulation	± 0.25%

ELECTRICAL SYSTEM

Battery Charge Alternator	12 Volt 15 Amp-25 & 30 kW 12 Volt 30 Amp-45 & 60 kW
Static Battery Charger	2 Amp
Recommended Battery	Group 26, 525CCA
System Voltage	12 Volts

GENERATOR FEATURES

Revolving field heavy duty generator
Directly connected to the engine
Operating temperature rise 120 °C above a 40 °C ambient
Class H insulation is rated at 150 °C rise at 25 °C ambient
All models fully prototyped tested

ENCLOSURE FEATURES

Steel weather protective enclosure with aluminum roof (all models) or aluminum weather protective enclosure (available on 60 kW only)	Ensures protection against mother nature. Electrostatically applied textured epoxy paint for added durability.
Enclosed critical grade muffler	Quiet, critical grade muffler is mounted inside the unit to prevent injuries.
Small, compact, attractive	Makes for an easy, eye appealing installation.
SAE	Sound attenuated enclosure ensures quiet operation.

ENGINE SPECIFICATIONS: 25 & 30 kW

Make	Generac
Model	In-line
Cylinders	4
Displacement (Liters)	1.5
Bore (in/mm)	3.05/77.4
Stroke (in/mm)	3.13/79.5
Compression Ratio	[illegible]
Intake Air System	Naturally Aspirated
Lifter Type	Hydraulic

ENGINE SPECIFICATIONS: 45 & 60 kW

Make	Generac
Model	In-line
Cylinders	4
Displacement (Liters)	2.4
Bore (in/mm)	3.41/86.5
Stroke (in/mm)	3.94/100
Compression Ratio	9.5:1
Intake Air System	Naturally Aspirated (45 kW) or Turbocharged/Aftercooled (60 kW)
Lifter Type	Hydraulic

ENGINE LUBRICATION SYSTEM

Oil Pump Type	*Gear*
Oil Filter Type	Full flow spin-on cartridge
Crankcase Capacity (qt/l)	4/3.8

ENGINE COOLING SYSTEM

Type	Closed
Water Pump	Belt driven
Fan Speed (rpm)	2484 - 25 & 30 kW 1865 - 45 kW 2100 - 60 kW
Fan Diameter (in/mm)	17.7/449.6 (25 & 30 kW) or 22/558.8 (45 & 60 kW)
Fan Mode	Pusher (25 & 30 kW) or Puller (45 & 60 kW)

FUEL SYSTEM

Fuel Type	Natural gas, propane vapor
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure	5-14" water column/9-26 mm HG

(All ratings in accordance with BS5514, ISO3046, ISO8528, SAE J1349 and DIN6271)

25 • 30 • 45 • 60 kW

operating data

GENERATOR OUTPUT VOLTAGE/kW - 60 Hz

		kW LPG	Amp LPG	kW Nat. Gas	Amp Nat. Gas	CB Size (Both)
QT025	120/240 V, 1Ø, 1.0 pf	25	104	25	104	125
	120/208 V, 3Ø, 0.8 pf	25	87	25	87	100
	120/240 V, 3Ø, 0.8 pf	25	75	25	75	90
QT030	120/240 V, 1Ø, 1.0 pf	30	125	30	125	150
	120/208 V, 3Ø, 0.8 pf	30	104	30	104	125
	120/240 V, 3Ø, 0.8 pf	30	90	30	90	100
QT045	120/240 V, 1Ø, 1.0 pf	45	188	45	188	200
	120/208 V, 3Ø, 0.8 pf	45	156	45	156	175
	120/240 V, 3Ø, 0.8 pf	45	135	45	135	150
	277/480 V, 3Ø, 0.8 pf	45	68	45	68	80
QT060	120/240 V, 1Ø, 1.0 pf	60	250	60	250	300
	120/208 V, 3Ø, 0.8 pf	60	208	60	208	250
	120/240 V, 3Ø, 0.8 pf	60	180	60	180	200
	277/480 V, 3Ø, 0.8 pf	60	90	60	90	100

SURGE CAPACITY IN AMPS

		Voltage Dip @ < .4 pf	
		15%	30%
QT025	120/240 V, 1Ø	86	209
	120/208 V, 3Ø	84	204
	120/240 V, 3Ø	73	177
QT030	120/240 V, 1Ø	109	264
	120/208 V, 3Ø	109	264
	120/240 V, 3Ø	94	229
QT045	120/240 V, 1Ø	61	153
	120/208 V, 3Ø	64	160
	120/240 V, 3Ø	55	139
	277/480 V, 3Ø	29	72
QT050	120/240 V, 1Ø	95	237
	120/208 V, 3Ø	100	251
	120/240 V, 3Ø	87	218
	277/480 V, 3Ø	42	105

ENGINE FUEL CONSUMPTION

		Natural Gas		Propane	
		(ft^3/hr)	(m^3/hr)	(gal/hr)	(l/hr)
QT025	Exercise cycle	60	1.7	0.7	2.5
	25% of rated load	220	6.3	2.9	9.1
	50% of rated load	297	8.4	3.3	12.3
	75% of rated load	362	10.3	4	15
	100% of rated load	430	12.2	4.7	17.8
QT030	Exercise cycle	60	1.7	0.7	2.5
	25% of rated load	240	6.8	2.6	10
	50% of rated load	320	9.1	3.5	13.3
	75% of rated load	400	11.4	4.4	16.6
	100% of rated load	492	14	5.4	20.4
QT045	Exercise cycle	65	1.8	0.7	2.6
	25% of rated load	210	6	2.3	8.6
	50% of rated load	380	10.8	4.2	15.7
	75% of rated load	545	15.5	5.9	22.4
	100% of rated load	730	20.7	8	30.1
QT060	Exercise cycle	123	3.5	1.34	5.1
	25% of rated load	267	7.6	2.7	10.5
	50% of rated load	483	13.7	5	19
	75% of rated load	672	19.1	7	26.5
	100% of rated load	862	24.5	9	33.9

Note: **Fuel pipe must be sized for full load.**

For Btu content, multiply gal/hr x 90950 (LP) or ft^3/hr x 1000 (NG)

For megajoule content, multiply l/hr x 25.35 (LP) or m^3/hr x 37.26 (NG)

Refer to "Emissions Data Sheets" for maximum fuel flow for EPA and SCAQMD permitting purposes.

STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice.

25 • 30 • 45 • 60 kW

operating data

ENGINE COOLING

	25 kW	30 kW	45 kW	60 kW
Air flow (inlet air including alternator and combustion air in cfm/cmm)	2490/70.5	2490/70.5	2725/77.2	3280/92.9
System coolant capacity (gal/liters)	2/7.6	2/7.6	3/11.4	2.5/9.5
Heat rejection to coolant (BTU per hr/MJ per hr)	112,000/118.2	135,000/142.4	193,000/203.6	270,000/284.9
Maximum operation air temperature on radiator (°C/°F)	60/150			
Maximum ambient temperature (°C/°F)	50/140			

COMBUSTION REQUIREMENTS

Flow at rated power (cfm/cmm)	62/1.8	72/2	144/4.1	180/5.1

SOUND EMISSIONS

Sound output in dB(A) at 23 ft (7 m) with generator in exercise mode*	59	59	61	65
Sound output in dB(A) at 23 ft (7 m) with generator operating at normal load*	72	73	73	72

*Sound levels are taken from the front of the generator. Sound levels taken from other sides of the generator may be higher depending on installation parameters.

EXHAUST

Exhaust flow at rated output (cfm/cmm)	203/5.7	237/6.7	420/11.9	494/14
Exhaust temperature at muffler outlet (°C/°F)	*593/1100*	*610/1130*	*593/1100*	*566/1050*

ENGINE PARAMETERS

Rated Synchronous rpm	3600

POWER ADJUSTMENT FOR AMBIENT CONDITIONS

Temperature Deration ....3% for every 10 °C above 25 °C or 1.65% for every 10 °F above 77 °F
Altitude Deration (25, 30 & 45 kW) ....1% for every 100 m above 183 m or 3% for every 1000 ft above 600 ft
Altitude Deration (60 kW) .... 1% for every 100 m above 915 m or 3% for every 1000 ft above 3000 ft

CONTROLLER FEATURES

2-Line Plain Text LCD Display....................Simple user interface for ease of operation.
Mode Switch: Auto ....Automatic Start on Utility failure. 7 day exerciser
Off....................Stops unit. Power is removed. Control and charger still operate.
Manual....................Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Programmable start delay between 10-30 seconds ....Standard
Engine Start Sequence....................Cyclic cranking: 16 sec on, 7 rest (90 sec maximum duration)
Engine Warm-up....................5 sec
Engine Cool-Down....................1 min
Starter Lock-out ....Starter cannot re-engage until 5 sec after engine has stopped.
Smart Battery Charger....................Standard
Automatic Voltage Regulation with Over and Under Voltage Protection....................Standard
Automatic Low Oil Pressure Shutdown ....Standard
Overspeed Shutdown ....Standard, 72 Hz
High Temperature Shutdown....................Standard
Overcrank Protection....................Standard
Safety Fused....................Standard
Failure to Transfer Protection....................Standard
Low Battery Protection....................Standard
50 Event Run Log....................Standard
Future Set Capable Exerciser....................Standard
Incorrect Wiring Protection....................Standard
Internal Fault Protection....................Standard
Common External Fault Capability....................Standard
Governor Failure Protection....................Standard

25 • 30 • 45 • 60 kW

available accessories

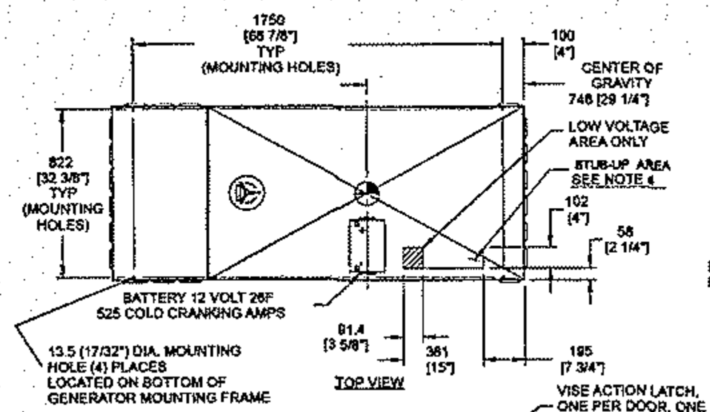
Model #	Product	Description
006175-0 - 25 & 30 kW 005630-0 - 45 & 60 kW	Cold Weather Kit	If the temperature regularly falls below 32 °F (0 °C), install a cold weather kit to maintain optimal battery temperature. Kit consists of battery warmer with thermostat built into the wrap.
006174-0 - 25 & 30 kW 005616-0 - 45 & 60 kW	Extreme Cold Weather Kit	Recommended where the temperature regularly falls below 32 °F (0 °C) for extended periods of time. For liquid cooled units only.
005621-0	Auxiliary Transfer Switch Contact Kit	The auxiliary transter switch contact kit allows the transfer switch to lock out a single large electrical load you may not need. Not compatible with 60 kW models.
005651-0	Base Plug Kit	Add base plugs to the base of the generator to keep out debris.
005703-0 - Bisque 005704-0 - Gray	Paint Kit*	If the generator enclosure is scratched or damaged, it is important to touch-up the paint to protect from future corrosion. The paint kit includes the necessary paint to properly maintain or touch-up a generator enclosure.
006176-0 - 25 & 30 kW 006172-0 - 45 kW 006171-0 - 60 kW	Scheduled Maintenance Kit	The Liquid-Cooled Scheduled Maintenance Kits offer all the hardware necessary to perform complete maintenance on Generac liquid-cooled generators.
005928-0	Wireless Remote	Completely wireless and battery powered, Generac's wireless remote monitor provides you with instant status information without ever leaving the house.
005951-0	Advanced Wireless Remote	Remotely control generator functions with the advanced model's LCD display. In addition to remote testing of the generator, set the exercise cycle and maintenance interval reminders.
006199-0	PMM Starter Kit	The PMM Starter Kit consists of a 24 VAC, field installed transformer that enables the use of the 24 VAC Power Management Modules (PMMs) and one PMM. The standard controller (without starter kit) can control two HVAC loads with no additional hardware. Not compatible with pre-wired switches.
006186-0	Power Management Module (50 Amps)	Power Management Modules are used in conjunction with the Smart Switch to increase its power management capabilities. It gives the Smart Switch additional power management flexibility not found in any other transfer switch. Not compatible with pre-wired switches. Note: PMM Starter Kit required.
006463-1	Mobile Link™	Generac's Mobile Link allows you to check the status of your generator from anywhere that you have access to an Internet connection from a PC or with any smart device. You will even be notified when a change in the generator's status occurs via e-mail or text message. Note: Harness Adapter Kit required.
006478-0	Harness Adapter Kit	The Harness Adapter Kit is required to make liquid-cooled units compatible with Mobile Link™.

* Note: Bisque kits are used in conjunction with steel enclosures. Gray kits are used in conjunction with aluminum enclosures (available on 60 kW units only).

SERVICE ITEM ACCESSIBILITY CHART

SERVICE ITEM	2.4L
OIL FILL CAP	THRU RIGHT DOOR
OIL DIP STICK	THRU RIGHT DOOR
OIL FILTER	THRU LEFT DOOR
OIL DRAIN HOSE	THRU RIGHT DOOR
RADIATOR DRAIN HOSE	THRU LEFT DOOR
AIR CLEANER ELEMENT	THRU LEFT DOOR
SPARK PLUGS	THRU LEFT DOOR
MUFFLER	SEE NOTE 6
FAN BELT	SEE NOTE 6
BATTERY	THRU LEFT DOOR

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS



NOTES:

1) MINIMUM RECOMMENDED CONCRETE PAD SIZE:1155 (45 1/2") WIDE X 2255 (88 7/8") LONG.REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.

2) ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE AND LOCAL CODES FOR MINIMUM DISTANCES FROM OTHER STRUCTURES.

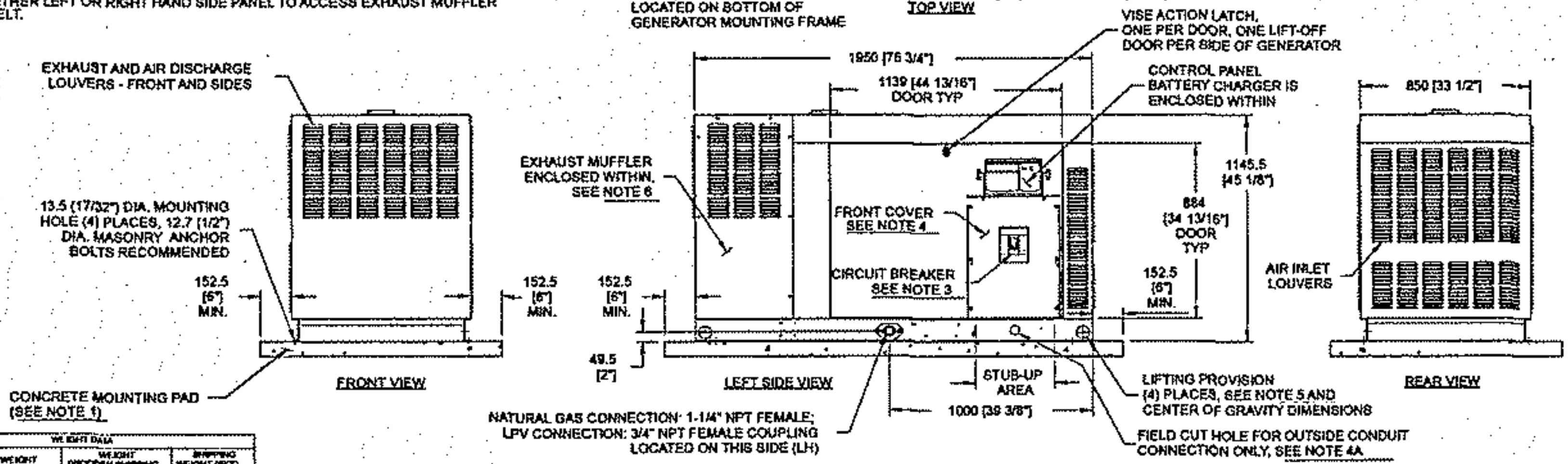
3) CIRCUIT BREAKER INFORMATION: SEE SPECIFICATION SHEET WITHIN OWNERS MANUAL

4) INSIDE STUB-UP AREA FOR AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX.) CONNECTION, AND ACCESS TO TRANSFER SWITCH CONTROL WIRES. REMOVE FRONT COVER FOR ACCESS.

4A) FIELD CUT HOLE IS ONLY REQUIRED FOR MOUNTING OF GENERATOR ON AN EXISTING PAD.

5) REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.

6) REMOVE EITHER LEFT OR RIGHT HAND SIDE PANEL TO ACCESS EXHAUST MUFFLER AND FAN BELT.



WEIGHT DATA			
ENCLOSURE MATERIAL	WEIGHT (GENSET ONLY) KG [LBS]	WEIGHT (WOODEN SHIPPING CRATE/SKID) KG [LBS]	SHIPPING WEIGHT (SKID AND GENSET) KG [LBS]
STEEL	[illegible]	44 [illegible]	[illegible]
ALUMINUM	600 [1324]	44 [illegible]	645 [1422]

MIAMI-DADE COUNTY
BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908
www.miamidade.gov

NOTICE OF ACCEPTANCE (NOA)

F & L Aluminum Parts, Inc.
1720 N.W. 22nd Court, Unit #3
Pompano Beach, Florida 33069

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: **Aluminum Roof Mounted Stand Frame Support for Air Conditioning Units**

APPROVAL DOCUMENT: Drawing No. FNL.11003, titled " Aluminum Stands for Rooftop Equipment, Square Posts ", sheets 1 through 3 of 3, prepared by Nu-Wind Engineering, dated July 15, 2011, signed and sealed by Christian Langley, P.E., on March 07, 2012, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: **None**

LABELING: Each stand frame shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises & renews NOA # 09-0709.04** and consists of this page 1, evidence submitted pages E-1 & E-2 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**

MIAMI-DADE COUNTY APPROVED

Helmy A. Makar
04/12/2012

NOA No. 11-0824.01
Expiration Date: 12/28/2016
Approval Date: 04/12/2012

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #06-0922.03

A. DRAWINGS

1. *Drawing No. 06-501, titled " Air Conditioning Stands ", sheets 1 through 3 of 3, prepared by Thornton Tomasetti, dated September 13, 2006, signed and sealed by John W. Knezevich, P.E.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *Calculation titled " Air Conditioning Stands Calculations ", dated September 15, 2006, sheets 1 through 160 of 160, signed and sealed by J. W. Knezevich, P.E.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

1. *None.*

2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 09-0709.04

A. DRAWINGS

1. *Drawing No. S-1, titled " Air Conditioning Stands Florida ", sheets 1 through 3 of 3, prepared by Milton Cubas, P.E., Inc., dated May 12, 2009, signed and sealed by Milton Cubas, P.E., on December 02, 2009.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *Calculation titled " Air Conditioning Stands ", dated May 13, 2009, sheets 1 through 206 of 206, signed and sealed by Milton Cubas, P.E.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

1. *None.*

Helmy A. Makar, P. E., M.S.
PERA, Product Control Unit Supervisor
NOA No. 11-0824.01
Expiration Date: 12/28/2016
Approval Date: 04/12/2012

F & L Aluminum Parts, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. FNL.11003, titled " Aluminum Stands for Rooftop Equipment, Square Posts ", sheets 1 through 3 of 3, prepared by Nu-Wind Engineering, dated July 15, 2011, signed and sealed by Christian Langley, P.E., on March 07, 2012.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *Calculation titled "Air Conditioning Stands Calculations", dated August 10, 2011, sheets 1 through 50 of 50, prepared by Nu-Wind Engineering, signed and sealed by Christian Langley, P.E.*
2. *Calculation titled " Air Conditioning Stands Calculations ", dated March 07, 2012, sheets 1 through 30 of 30, prepared by Nu-Wind Engineering, signed and sealed by Christian Langley, P.E*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Department of Permitting, Environment, and regulatory Affairs (PERA).*

E. MATERIAL CERTIFICATIONS

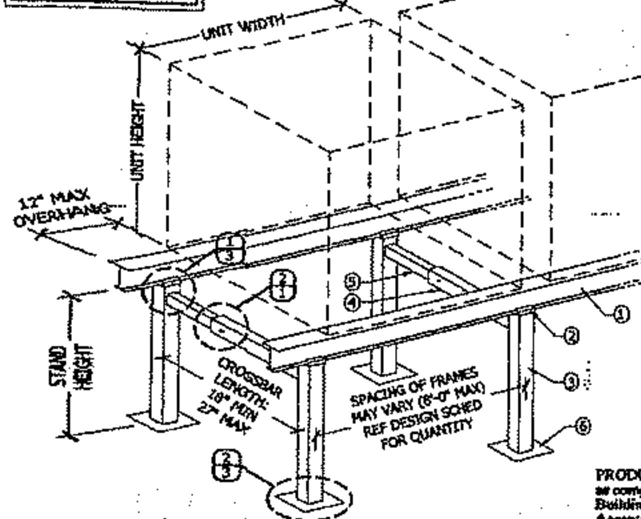
1. *None.*

Helmy A. Makar, P. E., M.S.
PERA, Product Control Unit Supervisor
NOA No. 11-0824.01
Expiration Date: 12/28/2016
Approval Date: 04/12/2012

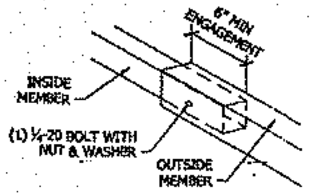
ALUMINUM ROOFTOP EQUIPMENT STAND

WITH SQUARE POSTS & TELESCOPIC CROSSBAR

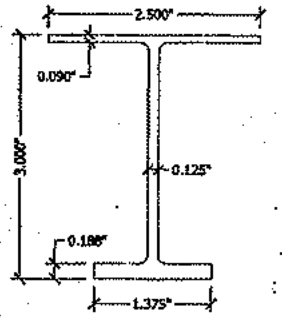
REFER TO DESIGN SCHEDULE FOR ALLOWABLE WIND LOADS AND OTHER DESIGN CRITERIA



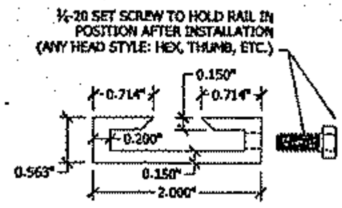
1/1 STAND ASSEMBLY
SCALE: N.T.S. ISOMETRIC VIEW



2/1 TELESCOPIC CROSSBAR COUPLING ATTACHMENT
SCALE: N.T.S. ISOMETRIC VIEW



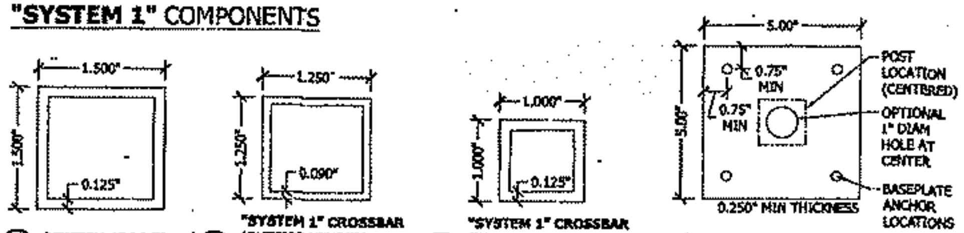
1 I-BEAM RAIL
SCALE: 8" - 1'-0"



2 RAIL CONNECTOR
SCALE: 8" - 1'-0"

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 11-0824.01
Expiration Date 12/28/2016
By
Miami Dade Product Control

"SYSTEM 1" COMPONENTS



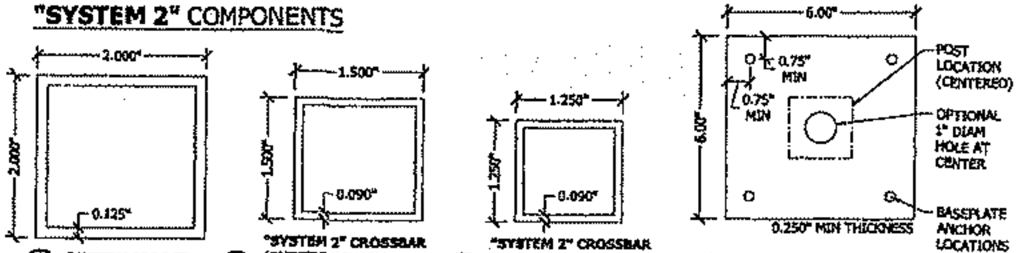
3a "SYSTEM 1" POST
SCALE: 8" - 1'-0"

4a "SYSTEM 1" CROSSBAR (OUTSIDE MEMBER)
SCALE: 8" - 1'-0"

5a "SYSTEM 1" CROSSBAR (INSIDE MEMBER)
SCALE: 8" - 1'-0"

6a "SYSTEM 1" BASEPLATE
SCALE: 3" - 1'-0"

"SYSTEM 2" COMPONENTS



3b "SYSTEM 2" POST
SCALE: 8" - 1'-0"

4b "SYSTEM 2" CROSSBAR (OUTSIDE MEMBER)
SCALE: 8" - 1'-0"

5b "SYSTEM 2" CROSSBAR (INSIDE MEMBER)
SCALE: 8" - 1'-0"

6b "SYSTEM 2" BASEPLATE
SCALE: 3" - 1'-0"

GENERAL NOTES

1. THIS SYSTEM HAS BEEN EVALUATED IN ACCORDANCE WITH THE 2007 FLORIDA BUILDING CODE WITH 2009 SUPPLEMENTS, FOR USE WITHIN & OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

2. THIS SYSTEM HAS BEEN EVALUATED IN ACCORDANCE WITH THE 2010 FLORIDA BUILDING CODE, FOR USE WITHIN & OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

3. THE SYSTEM DEPICTED HEREIN HAS BEEN EVALUATED IN ACCORDANCE WITH THE 2010 FLORIDA BUILDING CODE, FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

4. THIS SYSTEM HAS BEEN EVALUATED WITHOUT A ONE-THIRD INCREASE IN ALLOWABLE STRESS. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.

5. SITE WIND PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A SITE-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE.

6. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE-SPECIFIC DOCUMENTS AND APPLY FOR ONE-TIME MIAMI-DADE NOA FOR USE IN CONJUNCTION WITH THIS APPROVAL.

7. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS.

8. ALL ALUMINUM EXTRUSIONS SHALL BE 6061-T6 ALLOY & TEMPER, UNLESS NOTED OTHERWISE. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS REQUIREMENTS, USING FILLER ALLOYS 4043, 4047, 5183, 5356, OR 5556.

9. STANDS SHALL BE INSTALLED WITH MINIMUM CLEAR HEIGHT AS SPECIFIED IN THE ABOVE-NOTED BUILDING CODE. "*STAND HEIGHT*" AS USED HEREIN IS NOT NECESSARILY EQUIVALENT TO "*STAND CLEAR HEIGHT*" AS SPECIFIED IN THE BLDG CODE.

10. VIBRATION ISOLATOR PADS SHALL BE PROVIDED BY CONTRACTOR BETWEEN UNITS & STAND.

11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT FASTENING AS SHOWN HEREIN WILL NOT VOID THE EQUIPMENT MANUFACTURER'S WARRANTY, ESPECIALLY WHERE UNITS ARE INSTALLED WITH OVERHANG PAST RAIL (SEE TIE-DOWN DETAILS).

12. ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.

13. PLASTIC COMPONENTS USED WITHIN THE HVHZ MUST MEET ALL APPLICABLE FIRE/SMOKE/UV PERFORMANCE REQUIREMENTS AS SET FORTH IN THE ABOVE-NOTED BUILDING CODE.

14. ANY STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED AS PRESCRIBED IN THE ABOVE-NOTED BUILDING CODE.

NU-WIND ENGINEERING
PRODUCT APPROVALS
1200 N FEDERAL HWY, #200
BOCA RATON, FL 33432
www.nu-wind.com
Ofc (954) 333-8655
Fax (954) 719-0797
CHRISTIAN LANGLEY, PE
FL PE #57382

DATE	DESCRIPTION	BY
7/15/11	INITIAL SUBMITTAL	CL

ALUMINUM STANDS FOR ROOFTOP EQUIPMENT (SQUARE POSTS)
MIAMI-DADE NOA

F & L ALUMINUM PARTS, Inc.
1710 NW 22nd CT, UNIT 3
POMPANO BEACH, FL 33064

DRAWING NUMBER: FNL.11003
SHEET 1 OF 3

DESIGN SCHEDULE

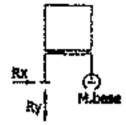
UNIT SIZE (FRONTAL AREA)	STAND HEIGHT	"SYSTEM 1" 1 UNIT 2 FRAMES	"SYSTEM 1" 2 UNITS 3 FRAMES	"SYSTEM 1" UNLIMITED UNITS PER STAND "N" UNITS "N" FRAMES	"SYSTEM 1" 3 UNITS 2 FRAMES	"SYSTEM 1" 4 UNITS 3 FRAMES	"SYSTEM 1" 5 OR MORE UNITS PER STAND "N" UNITS "N-1" FRAMES	"SYSTEM 2" 1 UNIT 2 FRAMES	"SYSTEM 2" 2 UNITS 3 FRAMES	"SYSTEM 2" UNLIMITED UNITS PER STAND "N" UNITS "N" FRAMES	"SYSTEM 2" 3 UNITS 2 FRAMES	"SYSTEM 2" 4 UNITS 3 FRAMES	"SYSTEM 2" 5 OR MORE UNITS PER STAND "N" UNITS "N-1" FRAMES
4.0 sqft	18"	170.1 PSF	127.6 PSF	85.0 PSF	56.7 PSF	63.8 PSF	68.0 PSF	200.0 PSF	200.0 PSF	148.2 PSF	98.8 PSF	111.2 PSF	118.6 PSF
	21"	137.7 PSF	103.3 PSF	68.8 PSF	45.9 PSF	51.6 PSF	55.1 PSF	200.0 PSF	177.1 PSF	118.1 PSF	78.7 PSF	88.6 PSF	94.5 PSF
	24"	115.1 PSF	86.3 PSF	57.6 PSF	38.4 PSF	43.2 PSF	46.1 PSF	194.9 PSF	146.2 PSF	97.4 PSF	65.0 PSF	73.1 PSF	78.0 PSF
6.25 sqft	18"	108.9 PSF	81.6 PSF	54.4 PSF	36.3 PSF	40.8 PSF	43.5 PSF	169.7 PSF	142.3 PSF	94.9 PSF	63.2 PSF	71.1 PSF	75.9 PSF
	21"	88.1 PSF	66.1 PSF	44.1 PSF	29.4 PSF	33.0 PSF	35.2 PSF	151.2 PSF	113.4 PSF	75.6 PSF	50.4 PSF	56.7 PSF	60.5 PSF
	24"	73.7 PSF	55.3 PSF	36.8 PSF	24.6 PSF	27.6 PSF	29.5 PSF	124.7 PSF	93.5 PSF	62.4 PSF	41.6 PSF	46.8 PSF	49.9 PSF
7.5 sqft	18"	90.7 PSF	68.0 PSF	45.4 PSF	30.2 PSF	34.0 PSF	36.3 PSF	117.9 PSF	117.9 PSF	79.1 PSF	52.7 PSF	59.3 PSF	63.2 PSF
	21"	73.4 PSF	55.1 PSF	36.7 PSF	24.5 PSF	27.6 PSF	29.4 PSF	117.9 PSF	94.5 PSF	63.0 PSF	42.0 PSF	47.2 PSF	50.4 PSF
	24"	61.4 PSF	46.1 PSF	30.7 PSF	20.5 PSF	23.0 PSF	24.6 PSF	103.9 PSF	78.0 PSF	52.0 PSF	34.6 PSF	39.0 PSF	41.6 PSF
9.0 sqft	18"	75.6 PSF	56.7 PSF	37.8 PSF	25.2 PSF	28.3 PSF	30.2 PSF	98.2 PSF	98.2 PSF	65.9 PSF	43.9 PSF	49.4 PSF	52.7 PSF
	21"	61.2 PSF	45.9 PSF	30.6 PSF	20.4 PSF	22.9 PSF	24.5 PSF	98.2 PSF	78.7 PSF	52.5 PSF	35.0 PSF	39.4 PSF	42.0 PSF
	24"	61.2 PSF	38.4 PSF	25.6 PSF	17.1 PSF	19.2 PSF	20.5 PSF	86.6 PSF	65.0 PSF	43.3 PSF	28.9 PSF	32.5 PSF	34.6 PSF
12.25 sqft	18"	55.5 PSF	41.7 PSF	27.8 PSF	18.5 PSF	20.8 PSF	22.2 PSF	61.9 PSF	61.9 PSF	48.4 PSF	32.3 PSF	36.3 PSF	38.7 PSF
	21"	45.0 PSF	33.7 PSF	22.5 PSF	15.0 PSF	16.9 PSF	18.0 PSF	61.9 PSF	57.8 PSF	38.6 PSF	25.7 PSF	28.9 PSF	30.8 PSF
	24"	37.6 PSF	28.2 PSF	18.8 PSF	12.5 PSF	14.1 PSF	15.0 PSF	61.9 PSF	47.7 PSF	31.8 PSF	21.2 PSF	23.9 PSF	25.5 PSF
16.0 sqft	18"	41.4 PSF	31.9 PSF	21.3 PSF	14.2 PSF	15.9 PSF	17.0 PSF	41.4 PSF	41.4 PSF	37.1 PSF	24.7 PSF	27.8 PSF	29.6 PSF
	21"	34.4 PSF	25.8 PSF	17.2 PSF	11.5 PSF	12.9 PSF	13.8 PSF	41.4 PSF	41.4 PSF	29.5 PSF	19.7 PSF	22.1 PSF	23.6 PSF
	24"	28.8 PSF	21.6 PSF	14.4 PSF	9.6 PSF	10.8 PSF	11.5 PSF	41.4 PSF	36.5 PSF	24.4 PSF	16.2 PSF	18.3 PSF	19.5 PSF

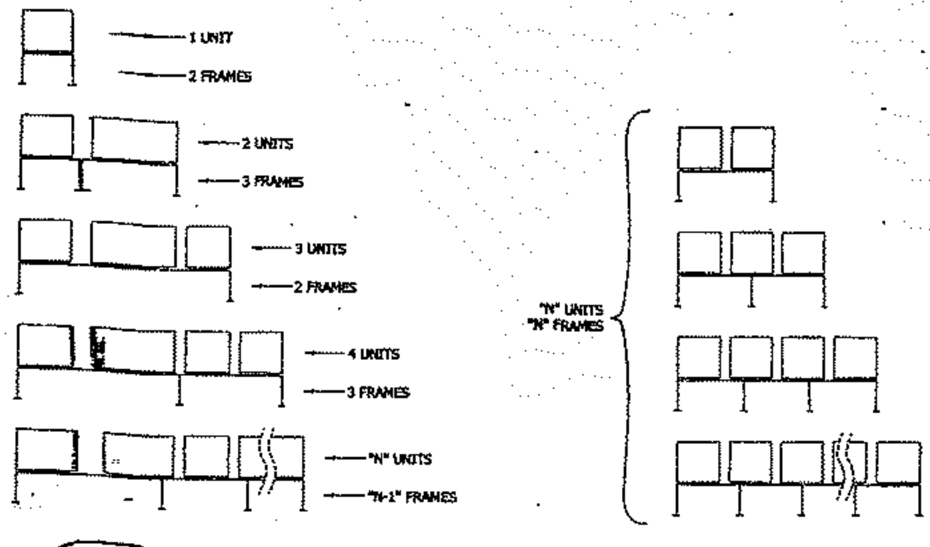
DESIGN SCHEDULE NOTES

1. DESIGN SCHEDULE GIVES MAXIMUM ALLOWABLE WIND LOAD FOR EACH COMBINATION OF UNIT SIZE, STAND HEIGHT, AND UNIT/POST CONFIGURATION.
2. "UNIT SIZE (FRONTAL AREA)" IS AREA OF UNIT FACE PARALLEL TO I-BEAM RAIL (= UNIT HEIGHT x UNIT WIDTH), AS DEPICTED HEREIN. UNIT HEIGHT SHALL NOT EXCEED UNIT WIDTH.
3. FOR STANDS WITH VARYING UNIT SIZES, ENTER DESIGN SCHEDULE USING MAXIMUM SIZE OF ALL UNITS TO BE INSTALLED ON EACH STAND.
4. **"STAND HEIGHT"** IS AS DEPICTED HEREIN.
5. **"UNIT & POST CONFIGURATIONS"** INDICATE NUMBER OF UNITS & NUMBER OF FRAMES PER STAND, AS DEPICTED IN DIAGRAMS. "FRAME" HERE DENOTES ASSEMBLAGE OF 2 POSTS WITH A CROSSBAR.
6. ***"N" UNITS & "N" FRAMES*** INDICATES ANY NUMBER OF UNITS WITH AN EQUAL NUMBER OF FRAMES PER STAND. ***"N" UNITS & "N-1" FRAMES*** INDICATES ANY NUMBER OF UNITS WITH A NUMBER OF FRAMES PER STAND EQUAL TO THE NUMBER OF UNITS MINUS ONE.
7. EACH UNIT SHALL HAVE A MAXIMUM WEIGHT OF 300 LBS.
8. MULTIPLE UNITS MAY BE GROUPED TOGETHER FOR CONSIDERATION AS A SINGLE UNIT (OR VICE VERSA) IN THE DESIGN SCHEDULE.
   a. WHERE MULTIPLE UNITS ARE GROUPED TOGETHER FOR CONSIDERATION IN DESIGN SCHEDULE AS A SINGLE UNIT, THE "UNIT SIZE (FRONTAL AREA)" SHALL BE THE TOTAL OF THE GROUPED UNIT SIZES. ACTUAL UNIT WEIGHT SHALL NOT EXCEED THE MAXIMUM PER-UNIT WEIGHT NOTED ABOVE.
   b. WHERE A SINGLE UNIT IS SPLIT UP FOR CONSIDERATION IN DESIGN SCHEDULE AS MULTIPLE UNITS, THE "UNIT SIZE (FRONTAL AREA)" SHALL BE THE ACTUAL UNIT SIZE DIVIDED BY THE NUMBER OF UNITS CONSIDERED. ACTUAL UNIT WEIGHT SHALL NOT EXCEED THE MAXIMUM PER-UNIT WEIGHT NOTED ABOVE MULTIPLIED BY THE NUMBER OF UNITS CONSIDERED IN DESIGN SCHEDULE.
9. SPACING BETWEEN UNITS MAY VARY (UNLIMITED).
10. REFERENCE ANCHOR SCHEDULE FOR ALLOWABLE ANCHORS AND INSTALLATION CRITERIA.

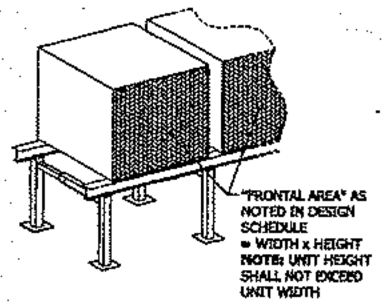
REACTION SCHEDULE

STAND HEIGHT	"SYSTEM 1" REACTION AT BASE Rx	"SYSTEM 1" REACTION AT BASE Ry	"SYSTEM 1" REACTION AT BASE M.base	"SYSTEM 2" REACTION AT BASE Rx	"SYSTEM 2" REACTION AT BASE Ry	"SYSTEM 2" REACTION AT BASE M.base
18"	170 LB	104 LB	2.1 K-IN	236 LB	150 LB	4.0 K-IN
21"	138 LB	104 LB	2.0 K-IN	236 LB	150 LB	3.6 K-IN
24"	115 LB	104 LB	1.8 K-IN	195 LB	150 LB	3.3 K-IN



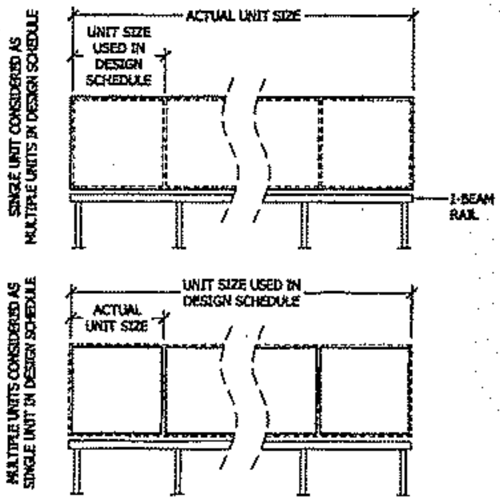


1 UNIT & POST CONFIGURATIONS
SCALE: N.T.S. DIAGRAMS



2 UNIT SIZE (FRONTAL AREA)
SCALE: N.T.S. ISOMETRIC

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No 11-0824.01
Expiration Date 12/22/2016
By
Miami Dade Product Control



3 GROUPING/SPLITTING OF UNITS FOR USE IN DESIGN SCHEDULE
SCALE: N.T.S. FRONT ELEVATION

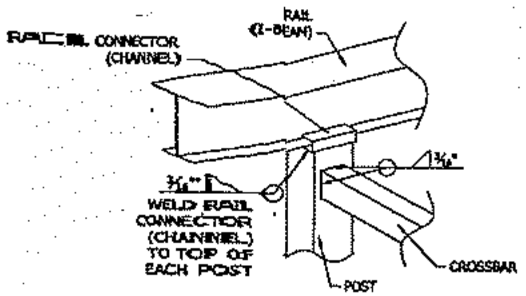
NU-WIND ENGINEERING
PRODUCT APPROVALS
1200 N FEDERAL HWY, #200 BOCA RATON, FL 33432
www.nu-wind.com Ofc (954) 332-8965 Fax (954) 719-3707
CHRISTIAN LANGLEY, PE FL PE #77760

DATE	DESCRIPTION	BY
7/15/11	INITIAL SUBMITTAL	CL

ALUMINUM STANDS FOR ROOFTOP EQUIPMENT (SQUARE POSTS)
MIAMI-DADE NOA

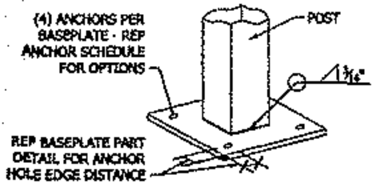
F & L ALUMINUM PARTS, Inc.
1710 NW 22nd CT, UNIT 3
POMPANO BEACH, FL 33064

DRAWING NUMBER: FNL.11003
SHEET 2 OF 3



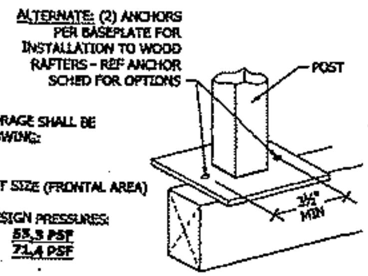
STAND ASSEMBLY:
POST, CROSSBAR, & RAIL CONN

1/3 SCALE: N.T.S. ISOMETRIC



STAND ASSEMBLY:
POST & BASEPLATE

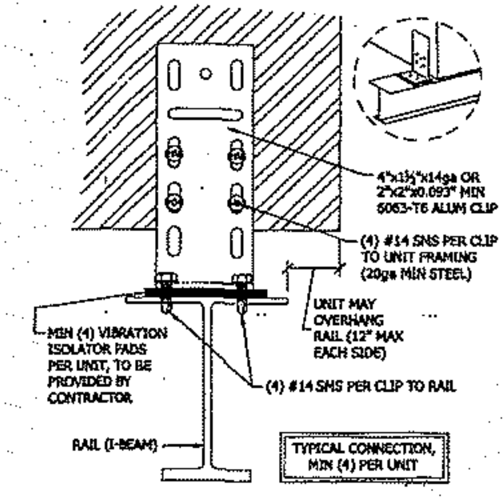
2/3 SCALE: N.T.S. ISOMETRIC



ALT BASEPLATE ANCHORAGE SHALL BE LIMITED TO THE FOLLOWING:
- (2) UNITS MAX
- (3) FRAMES MIN
- 6.25 SQ FT MAX UNIT SIZE (FRONTAL AREA)
- 24" MAX STAND HT
- MAX ALLOWABLE DESIGN PRESSURES:
  - "SYSTEM 1": 53.3 PSF
  - "SYSTEM 2": 71.4 PSF

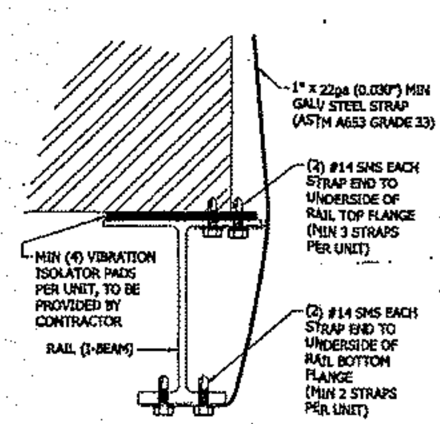
ALTERNATE
BASEPLATE ANCHORAGE

3/3 SCALE: N.T.S. ISOMETRIC



4/3 CLIPPED UNIT CONNECTION

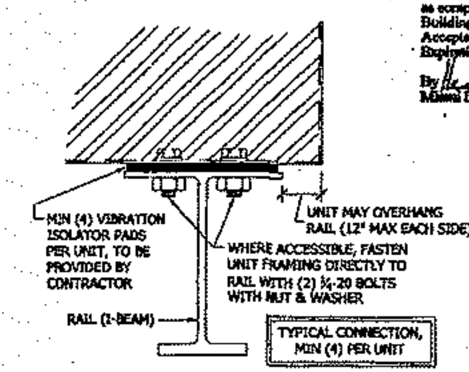
SCALE: 1:2 VERT SECTION



5/3 STRAPPED UNIT CONNECTION

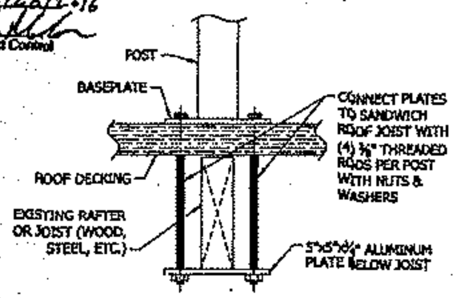
SCALE: 1:2 VERT SECTION

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 11-0824.01
Expiration Date 12/28/2016
By
Miami Dade Product Control



6/3 DIRECT UNIT CONNECTION

SCALE: 6" = 1'-0" VERT SECTION



RAFTER/JOIST
BASEPLATE ANCHORAGE

7/3 SCALE: 2" = 1'-0" VERT SECTION

ANCHOR SCHEDULE:

TO CONCRETE (MIN 3,000 PSI)

A. ⅜" POWERS *WEDGE BOLT*
3" MIN EMBED
4½" MIN EDGE DISTANCE

B. ⅜" HILTI *KWIK BOLT III*
3¼" MIN EMBED
5" MIN EDGE DISTANCE

TO WOOD HOST STRUCTURE

C. ⅜" LAG SCREW
3½" MIN THREAD PENETRATION

TO STEEL (MIN 3/16" THICK)

D. ¼" TEKS SCREWS OR ¼-20 SELF-THREADING METAL SCREWS (SAE GRADE 5)

ANCHOR NOTES:

1. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS, & LOCATED PER BASEPLATE COMPONENT DETAIL(S).
2. ENSURE MINIMUM EMBEDMENT, EDGE DISTANCE, & SPACING FOR ALL ANCHORS ARE IN ACCORDANCE WITH ANCHOR SCHEDULE.
3. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES SHEATHING, UNDERLAYMENT, INSULATION, AND OTHER ROOFING MATERIALS.
4. MINIMUM 3/4" EDGE DISTANCE IS CONSIDERED IN DESIGN FOR ALL ANCHORS TO WOOD HOST STRUCTURE (i.e. ANCHOR SHALL BE LOCATED IN CENTER OF TRUSS/RAFTER WHERE FASTENED TO NARROW FACE OF NOMINAL 2x LUMBER).
5. WOOD HOST STRUCTURE SHALL BE "SOUTHERN PINE" WITH G=0.55 OR GREATER SPECIFIC GRAVITY (≈ DENSITY).
6. WHERE HOST STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD (U.N.O.).
7. SELF-TAPPING OR SELF-THREADING METAL SCREWS SHALL BE INSTALLED WITH FULL THREAD ENGAGEMENT INTO METAL HOST STRUCTURE AND MAY HAVE A FLAT HEAD, PAN HEAD, TRUSS HEAD, OR OTHER HEAD STYLES.
8. ANCHORS THAT INCORPORATE MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE ANY HEAD STYLE, UNLESS INDICATED OTHERWISE BY MFR.

NU-WIND ENGINEERING
PRODUCT APPROVALS
1200 N FEDERAL HWY, #200 BOCA RATON, FL 33432
www.nu-wind.com

CHRISTIAN LANGLAIS, PE
FL PE #57292

DATE	DESCRIPTION	BY
7/15/11	INITIAL SUBMITTAL	CL

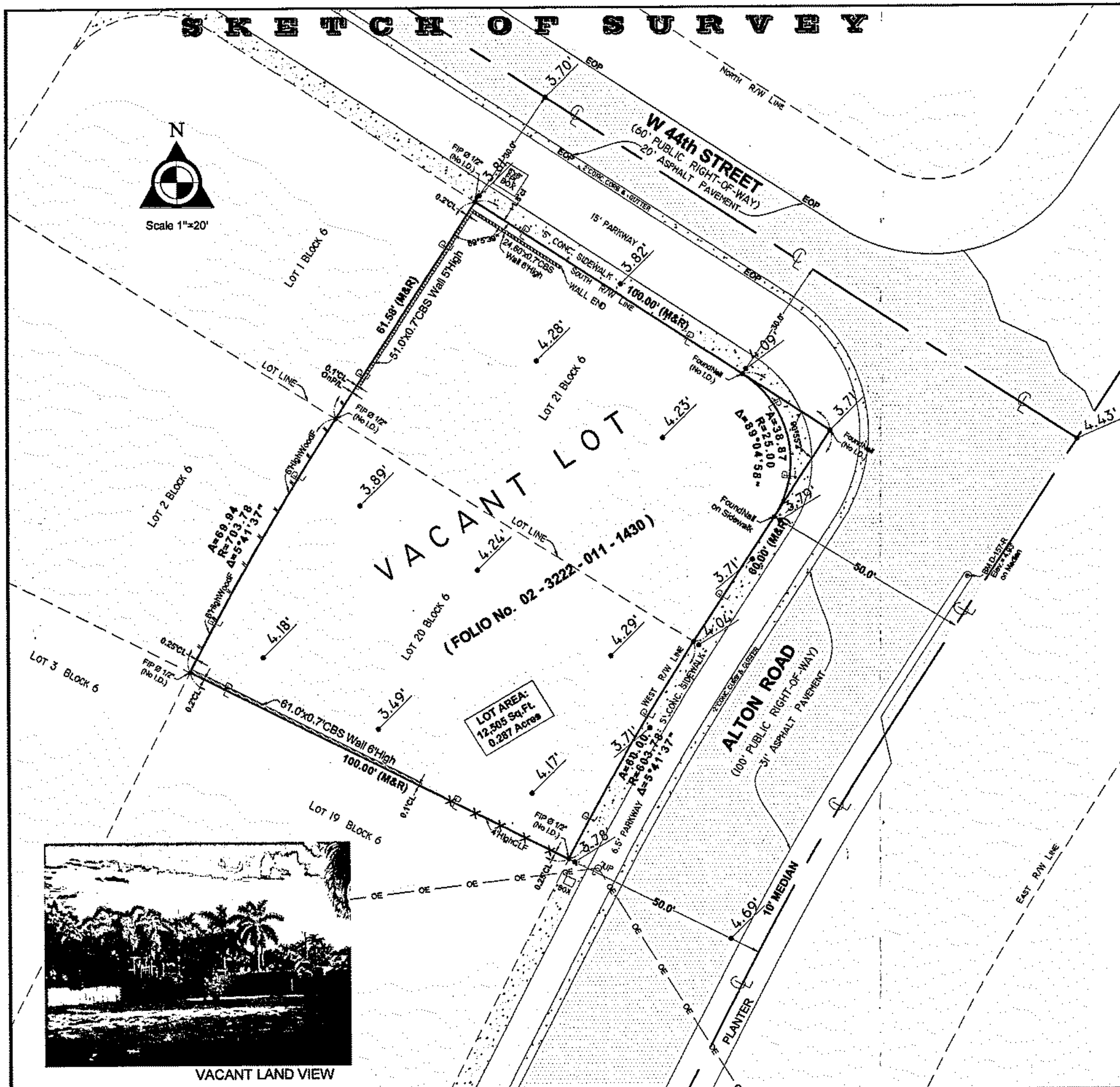
ALUMINUM STANDS FOR ROOFTOP EQUIPMENT (SQUARE POSTS)
MIAMI-DADE NOA

F & L ALUMINUM PARTS, Inc.
1710 NW 22nd CT, UNIT 3
POMPANO BEACH, FL 33064

DRAWING NUMBER: FNL 11003

SHEET 3 OF 3

SKETCH OF SURVEY



PROPERTY ADDRESS:

4364 ALTON Road, Miami Beach, Fl. 33140
(FOLIO No. 02 - 3222 - 011 - 1430)

DESCRIPTION

Lot 20 & 21, Block 6 of NAUTILUS SUBDIVISION, according to the Plat thereof as recorded in Plat Book 8, at Page 95, of the Public Records of Miami-Dade County, Florida.

BENCH MARK USED

BM # D-157-R, Elevation = 4.93' converted to NGVD 1929.

There may be legal restrictions on the subject property that are not shown on the Map of Survey that may be found in the Public Records of Miami-Dade County, or the records of any other public and private entities as their jurisdictions may appear.

The Map of Survey is intended to be displayed at the stated graphic scale in English units of measurement. Attention is brought to the fact that said drawing may be altered in scale by the reproduction process.

This Survey was conducted for the purpose of a BOUNDARY SURVEY only and is not intended to delineate the regulatory jurisdiction of any federal, state, regional or local agency board, commission or other entity.

Legal description was furnished by the client.

The elevations of well-identified features as depicted on this survey and map were measured to an estimated vertical positional accuracy of 1/10 foot for natural ground surfaces and 1/100 foot for hardscape surfaces, including pavements, curbs and other man-made features as may exist.

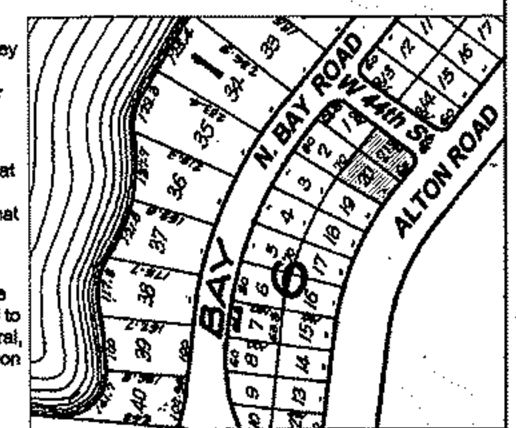
Well-identified features as depicted on this survey and map were measured to an estimated horizontal positional accuracy of 1/10 foot unless otherwise shown.

Legal Description subject to any dedications, limitations, restrictions, reservations or recorded easements.

Sketch of Survey cannot be used for construction purposes. Surveyor not responsible for third party alterations.

LIST OF POSSIBLE ENCROACHMENT:
N/A

NOTE:
ALL ELEVATIONS ARE REFERED TO N.G.V.D 1929



LOCATION MAP (NOT TO SCALE)

If shown elevations are referred to N.G.V.D. of 1929

The surveyor makes no representation as to ownership, possession or occupation of the subject property by any entity or individual.

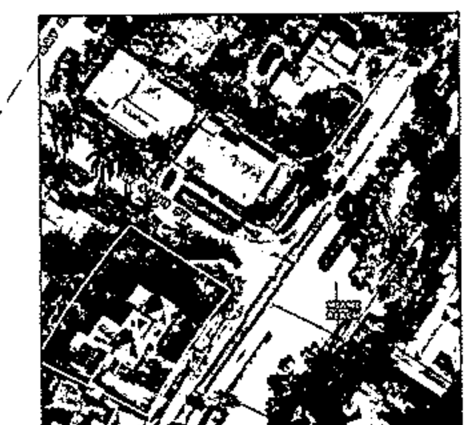
Subsurface improvements and/or encroachments within, upon, across, abutting or adjacent to the subject property were not located and are not shown.

Not valid without the signature and original raised seal of a Florida Licensed Surveyor and Mapper. Additions and deletions to this Map of Survey by other than the signing party are prohibited without the written consent of the signing party.

This Map of Survey has been prepared for the exclusive use of the entities named herein and the certification does not extend to any unnamed party.

CERTIFY TO:

Edward Hardyman Gomez &
Rhianon Mary Pedro.
Balzli & Associates.
First American Title Ins. Co.



AERIAL MAP (NOT TO SCALE)

SURVEYOR'S CERTIFICATION:

I hereby certify: That this "BOUNDARY SURVEY" and the Map of Survey resulting there from was performed under my direction and is true and correct to the best of my knowledge and belief and further, that said "BOUNDARY SURVEY" meets the intent of the "Minimum Technical Standards for Land Surveying in the State of Florida", pursuant to Rule 5J17 of the Florida Administrative Code and its implementing Rule, Chapter 472.027 of the Florida Statutes.

11-17-2015

Gary B. Castel, P.L.S.
Registered Surveyor and Mapper No. 4129
State of Florida.

FLOOD ZONE INFORMATION:
Community No. 120651
Panel No. 0309
Suffix: L
FIRM Date: 09-11-2009
Flood Zone: AE + 7.00'

Land Surveyors & Mapper
8587 Coral Way, Miami, FLORIDA 33155
Telephone: 786-290-4184

LEGEND OF SURVEY ABBREVIATIONS

A = ARC LENGTH
A/C = AIR CONDITIONING PAD
Alum.F = ALUMINUM FENCE
BLDG = BUILDING
B/C = BLOCK CORNER
C.B. = CATCH BASIN
C.B.S. = CONCRETE BLOCK STRUCTURE
CH. = CHORD DISTANCE
CL = CLEAR
C/L = CENTER LINE
C/F = CHAIN LINK FENCE
CLP = CONC. LIGHT POLE
CONC. = CONCRETE
Δ = CENTRAL ANGLE
E = ELECTRIC SERVICE BOX
EM = ELECTRIC METER (CAN)
F.D.H. = FOUND DRILL HOLE
F.H. = FIRE HYDRANT
F.I.P. = FOUND IRON PIPE
F.R. = FOUND REBAR
F.N. = FOUND NAIL
G = GAS METER
L.P. = LIGHT POLE
MH = MAN HOLE
(M) = MEASURED
M/L = MONUMENT LINE
N.G.V.D. = NATIONAL GEODETIC VERTICAL DATUM
N.T.S. = NOT TO SCALE
OE = OVERHEAD ELECTRIC LINES
P.B. = PLAT BOOK
P.C.P. = PERMANENT CONTROL POINT
PG. = PAGE
PRKW. = PARKWAY
P.R.M. = PERMANENT REFERENCE MONUMENT
P/L = PROPERTY LINE
(R) = RECORDED
R = RADIUS
RAD. = RADIAL
RES. = RESIDENCE
R/W = RIGHT OF WAY
S = SEWER MANHOLE
SEC. = SECTION
S.I.P. = SET IRON PIPE NO
S/L = SET BACK LINE
STY. = STORY
SWK. = SIDEWALK
T = TELEPHONE SERVICE BOX
TV = TV CABLE SERVICE BOX
U.D.E. = UTILITY & DRAINAGE EASEMENT
U.E. = UTILITY EASEMENT
U.M.E. = UTILITY & MAINTENANCE EASEMENT
U.P. = UTILITY POLE
W = WATER WELL
W/M = WATER METER
MW - GAS MONITORING WELL
SM - STORM DRAIN MANHOLE
UP - WOOD UTILITY POLE
CUP - CONC. UTILITY POLE
CB - CATCH BASIN

Survey is not covered by Professional Liability Insurance.

ORIGINAL FIELD DATE: 09-15-2014
REVISIONS:
UP-DATED: 11-17-2015

DRAWN: A.V.I.
SHEET No. 1/1

JOB No.:
09-479-14-A

Juan Fernandez-Barquin, P.E.

Structural Engineers 40114
Threshold Inspectors 0947
State Plans Examiner PX 1305
State Building Inspector BN 3318

2520 N.W. 97th Avenue, Suite #240
Doral, Florida 33172
PH: 786-336-0881 Fax: 786-336-0884
Email: jfbeng@bellsouth.net
www.juanfernandezbarquinpe.com

PROJECT: 4354 Alton Rd

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3 DESIGN ARCHITECTURE

4300 BISCAYNE BLVD. #G-04
MIAMI, FL 33137
P. 305-438-9377 / F. 305-438-9379

4354 ALTON ROAD
MIAMI BEACH, FLORIDA 33139

STRUCTURAL CALCULATIONS
11/23/2015

Anchorage for Generator

O:\DOCS\3DESIGN (TONY LEON)\TABLE OF CONTENTS\4354 ALTON ROAD-GENERATOR.DOC

NOV 25 2015

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PROJECT NAME 4354 Alton Rd.

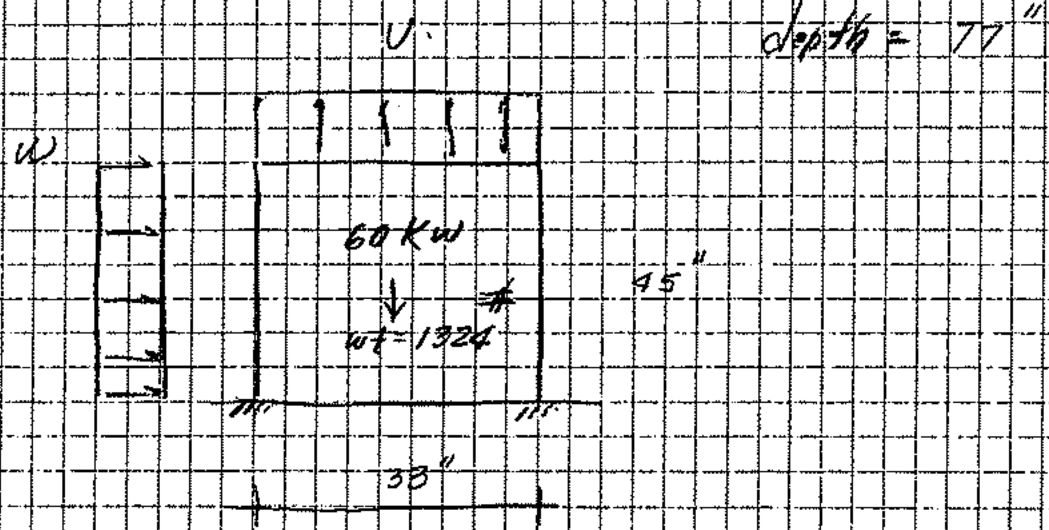
ENGINEER E. DATE 11/23/15. PAGE 1.

Design of Anchorage for generator

wind pressure: ASCE 7-10.

Lateral = 3.1 x 43.616 = 135.2 PSF

UPLIFT = 1.5 x 43.616 = 65.4 PSF



MecaWind Std v2.2.5.7 per ASCE 7-10

Developed by MECA Enterprises, Inc. Copyright www.mecaenterprises.com

```
Date          : 11/23/2015                     Project No.     :1
Company Name :JUAN FERNANDEZ                   Designed By     :E
Address       :2520 NW 97 A                    Description     :WIND PRESSURES
City          :DORAL                           Customer Name   :3DESIGN
State         :FLORIDA                         Proj Location   :4354 ALTON RD MIAMI BEACH
File Location: C:\Users\user\AppData\Roaming\MecaWind\Default.wnd
```

Input Parameters: Other Structures & Building Appurtances MWFRS (Ch 29)

```
     Basic Wind Speed(V)    =  175.00 mph
     Structural Category    =     II        Exposure Category       =      D
     Natural Frequency      =   N/A         Flexible Structure      =     No
     Importance Factor      =    1.00       Kd Directional Factor   = See Below
     Alpha                  =   11.50       Zg                      =  700.00 ft
     At                     =    0.09       Bt                      =    1.07
     Am                     =    0.11       Bm                      =    0.80
     Cc                     =    0.15       l                       =  650.00 ft
     Epsilon                =    0.13       Zmin                    =    7.00 ft
```

Gust Factor Calculations

```
     Gust Factor Category I Rigid Structures - Simplified Method
     Gust1:  For Rigid Structures (Nat. Freq.>1 Hz) use 0.85          =  0.85

     Gust Factor Category II Rigid Structures - Complete Analysis
     Zm:    0.6*Ht                                                     =   9.00 ft
     lzm:   Cc*(33/Zm)^0.167                                           =   0.19
     Lzm:   l*(Zm/33)^Epsilon                                          = 552.56 ft
     Q:     (1/(1+0.63*((B+Ht)/Lzm)^0.63))^0.5                         =   0.93
     Gust2: 0.925*((1+1.7*lzm*3.4*Q)/(1+1.7*3.4*lzm))                  =   0.89

     Gust Factor Summary
     Not a Flexible Structure use the Lessor of Gust1 or Gust2         =   0.85

     Design Wind Pressure - Other Structures
```

Wind On Chimneys, Tanks, Rooftop Equip. & Similar Structures per Figure 29.5-2:

Elev ft	Kz	Kzt	Kd	qz psf	Pres psf
3.00	1.03	1.00	0.90	43.616	37.073

Top El ft	Btm El ft	Width ft	Type	Cf psf	Addl ft	Tot Wid ft	Shear Kip	Moment K-ft
3.00	.00	3.002		1.000	.000	3.000	0.3	0.5

```
 Notes:
   Top El  = Top elevation of element under consideration relative to grade.
   Btm El  = Top elevation of element under consideration relative to grade.
   Width   = Dia of circular cross-section & least horizontal dim of square,
             hexagonal or octagonal cross section.
   Type    = (1)Square-Wind on Face, (2)Square-Wind Along Diagonal, (3)Hexag. or Octag.
             (4)Round-Moderately Smooth, (5)Round-Rough, (6)Round-Very Rough
   Cf      = Shape factor per Figure 6-21 based upon H/D ratio and Type selected.
   Addl    = Additional Area (Piping, Ladders, platforms, etc..), Cf=1.0 is assumed.
   Tot Wid = Total Wind Width: Cf * Width + Addl
   Shear   = Shear @ Btm: Press * Tot Wid + Shear(top)
   Moment  = Mom @ Btm: Mom(Top)+Shear(Top)*(Top El-Btm El)+Shear(Btm)*(Top El-Btm El)/2
```

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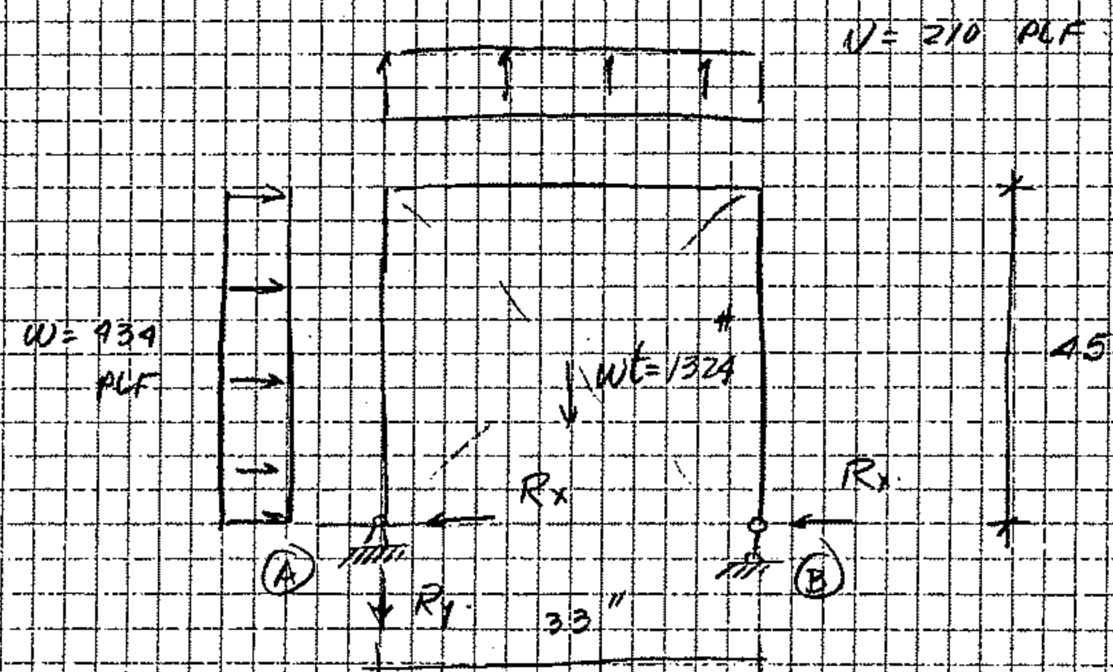
PROJECT NAME 4354 Alton Rd.

ENGINEER E DATE 11/23/15 PAGE 3.

$w = 135.2 \ \frac{lb}{ft^2} \times \frac{77}{12} \ \frac{1}{2} = 434 \ PLF$

$v = 65.4 \ \frac{lb}{ft^2} \times \frac{77}{12} \ \frac{1}{2} = 210 \ PLF$

Determine reactions:



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PROJECT NAME 4354 Alton Rd.
ENGINEER E. DATE 11/23/15 PAGE 4

$\Sigma F_x = 0$

$2R_x = 434 \times \frac{45''}{12}$

$\underbrace{R_x = 814^{\#}}$

$\Sigma M_B = 0$

Agreement for moment

$-R_y\left(\frac{33''}{12}\right) - 1324\left(\frac{33''}{12}\frac{1}{2}\right) + \frac{1}{2} \times 434 \times \left(\frac{45}{12}\right)^2 +$

$+ \frac{1}{2} \times 210 \times \left(\frac{33}{12}\right)^2 = 0$

$-2,75 R_y - 1820,5 + 3051,56 + 794,06 = 0$

$\underbrace{R_y = 737^{\#}}$

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PROJECT NAME 4354 Alton Rd.

ENGINEER E DATE 11/23/15 PAGE 5

Provide: 1/2" Diam Kwik Bolt 3
Hilti System
w/ 4" Embedment

Enter Hilti table

Find Allowable shear & tension

$V_A = 2415^{\#}$ & $T_A = 2440^{\#}$

No reductions

check interaction

$$\frac{R_x}{V_A} + \frac{R_y}{T_A} \leq 1.0$$

$$\frac{814}{2415} + \frac{737}{2440} < 1.0$$

$$0.34 + 0.30 = 0.64 < 1.0$$

SAY OK

6

KWIK Bolt 3 Expansion Anchor 3.3.6

Table 6 - Carbon Steel KWIK Bolt 3 Allowable Loads in Normal-Weight Concrete[1]

Anchor Diameter in. (mm)	Embedment Depth in. (mm)	f'_c = 2000 psi (13.8 MPa)		f'_c = 3000 psi (20.7 MPa)		f'_c = 4000 psi (27.6 MPa)		f'_c = 6000 psi (41.4 MPa)	
		Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)
1/4 (6.4)	1-1/8 (29)	300 (1.3)		365 (1.6)		430 (1.9)		550 (2.4)	
	2 (51)	635 (2.8)	530 (2.4)	715 (3.2)	530 (2.4)	800 (3.6)	530 (2.4)	845 (3.8)	530 (2.4)
	3 (76)	755 (3.4)		795 (3.5)		840 (3.7)			
3/8 (9.5)	1-5/8 (41)	730 (3.2)	1135 (5.0)	910 (4.0)	1275 (5.7)	1095 (4.9)		1090 (4.8)	
	2-1/2 (64)	1260 (5.6)	1315 (5.8)	1555 (6.9)	1315 (5.8)	1850 (8.2)	1315 (5.8)	2060 (9.2)	1315 (5.8)
	3-1/2 (89)	1580 (7.0)		1770 (7.9)		1965 (8.7)		2150 (9.6)	
1/2 (12.7)	2-1/4 (57)	1235 (5.5)	1865 (8.3)	1430 (6.4)	2300 (10.2)	1620 (7.2)	2405 (10.7)	1975 (8.8)	
	3-1/2 (89)	1930 (8.6)	2415 (10.7)	2185 (9.7)	2415 (10.7)	2440 (10.9)	2415 (10.7)	3240 (14.4)	2415 (10.7)
	4-3/4 (121)	2135 (9.5)		2355 (10.5)		2575 (11.5)		3620 (16.1)	
5/8 (15.9)	2-3/4 (70)	1920 (8.5)	2750 (12.2)	2065 (9.2)	3410 (15.2)	2210 (9.8)	3785 (16.8)	2830 (12.6)	
	4 (102)	2660 (11.8)	3910 (17.4)	3020 (13.4)	3910 (17.4)	3385 (15.1)	3910 (17.4)	4770 (21.2)	3910 (17.4)
	5-1/2 (140)	3285 (14.6)		3695 (16.4)		4100 (18.2)		5325 (23.7)	
3/4 (19.1)	3-1/4 (83)	2120 (9.4)	4090 (18.2)	2425 (10.8)	4900 (21.8)	2730 (12.1)	5310 (23.6)	3785 (16.8)	5310 (23.6)
	4-3/4 (121)	3240 (14.4)	5340 (23.8)	4260 (18.9)	5340 (23.8)	5285 (23.5)	5495 (24.4)	6155 (27.4)	6225 (27.7)
	6-1/2 (165)	4535 (20.2)		5860 (26.1)		7185 (32)		7005 (31.2)	
1 (25.4)	4-1/2 (114)	3330 (14.8)	7070 (31.4)	4050 (18.0)	7600 (33.8)	4670 (20.8)	8140 (36.2)	5070 (22.6)	
	6 (152)	4930 (21.9)	9200 (40.9)	6000 (26.7)	9200 (40.9)	7070 (31.4)	9200 (40.9)	8400 (37.4)	9200 (40.9)
	9 (229)	6670 (29.7)		7670 (34.1)		8670 (38.6)		10670 (47.5)	

1 Intermediate load values for other concrete strengths and embedments can be calculated by linear interpolation.

KWIK Bolt 3 Expansion Anchor 3.3.6

Influence of Edge Distance and Anchor Spacing on Anchor Performance

Load Adjustment Factors for 1/4" Diameter Anchors

Adjustment Factor 1/4 in.	Spacing Tension/Shear f_{AN}		Edge Distance Tension f_{RN}		Spacing Shear f_{AV}		Edge Distance Shear ⊥ Toward Edge f_{RV1}	Edge Distance Shear ∥ Toward Edge f_{RV1}	Edge Distance Shear ⊥ Away from Edge f_{RV3}
Embedment Depth, in.	1-1/8	≥ 2	1-1/8	≥ 2	1-1/8	≥ 2	≥ 1-1/8	≥ 1-1/8	≥ 1-1/8
Spacing in. 1-1/8	0.60		0.80		0.90				
1-11/16	0.75		0.93		0.94		0.50	0.60	0.83
1-3/4	0.78		0.95		0.94		0.52	0.61	0.84
2	0.85	0.60	1.00	0.80	0.96	0.90	0.59	0.67	0.86
2-1/4	0.92	0.64		0.83	0.98	0.91	0.67	0.73	0.89
2-1/2	0.99	0.68		0.87	1.00	0.92	0.74	0.79	0.91
3	1.00	0.76		0.93		0.94	0.89	0.91	0.96
3-3/8		0.82		0.98		0.96	1.00	1.00	1.00
3-1/2		0.84		1.00		0.96	1.00	1.00	1.00
4		0.92				0.98			
4-1/2		1.00				1.00			
4-3/4									
5									

Standard Anchor Embedments (in.)

1/4	h_{min}	1-1/8
	h_{nom}	2
	h_{deep}	3
3/8	h_{min}	1-5/8
	h_{nom}	2-1/2
	h_{deep}	3-1/2
1/2	h_{min}	2-1/4
	h_{nom}	3-1/2
	h_{deep}	4-3/4

Note: Tables apply for listed embedment depths. Reduction factors for other embedment depths must be calculated using equations below.

Load Adjustment Factors for 3/8" Diameter Anchors

Adjustment Factor 3/8 in.	Spacing Tension/Shear f_{AN}		Edge Distance Tension f_{RN}		Spacing Shear f_{AV}		Edge Distance Shear ⊥ Toward Edge f_{RV1}	Edge Distance Shear ∥ Toward Edge f_{RV1}	Edge Distance Shear ⊥ Away from Edge f_{RV3}
Embedment Depth, in.	1-5/8	≥ 2-1/2	1-5/8	≥ 2-1/2	1-5/8	≥ 2-1/2	≥ 1-5/8	≥ 1-5/8	≥ 1-5/8
Spacing in. 1-5/8	0.60		0.80		0.90				
2	0.67		0.86		0.92				
2-1/4	0.72		0.90		0.93				
2-1/2	0.77	0.60	0.94	0.80	0.94	0.90	0.51	0.61	0.83
3	0.87	0.66	1.00	0.85	0.97	0.92	0.62	0.69	0.87
3-1/4	0.92	0.70		0.88	0.98	0.92	0.67	0.73	0.89
3-1/2	0.97	0.73		0.91	0.99	0.93	0.72	0.77	0.90
3-3/4	1.00	0.76		0.93	1.00	0.94	0.77	0.82	0.92
4		0.79		0.96		0.95	0.82	0.86	0.94
4-1/2		0.86		1.00		0.96	0.92	0.94	0.97
5		0.92				0.98	1.00	1.00	1.00
5-5/8		1.00				1.00			
5-3/4									

Spacing — Tension

$h_{min} \le h_{act} \le h_{nom}$: $f_{AN} = \dfrac{s/h_{act} + 0.88}{3.13}$

$h_{act} \ge h_{nom}$: $f_{AN} = \dfrac{s/h_{nom} + 0.88}{3.13}$

Edge Distance — Tension

$h_{min} \le h_{act} \le h_{nom}$: $f_{RN} = \dfrac{c/h_{act} + 2}{3.75}$

$h_{act} \ge h_{nom}$: $f_{RN} = \dfrac{c/h_{nom} + 2}{3.75}$

Spacing — Shear

$h_{min} \le h_{act} \le h_{nom}$: $f_{AV} = \dfrac{s/h_{act} + 10.25}{12.5}$

$h_{act} \ge h_{nom}$: $f_{AV} = \dfrac{s/h_{nom} + 10.25}{12.5}$

Load Adjustment Factors for 1/2" Diameter Anchors

Adjustment Factor 1/2 in.	Spacing Tension/Shear f_{AN}		Edge Distance Tension f_{RN}		Spacing Shear f_{AV}		Edge Distance Shear ⊥ Toward Edge f_{RV1}	Edge Distance Shear ∥ Toward Edge f_{RV1}	Edge Distance Shear ⊥ Away from Edge f_{RV3}
Embedment Depth, in.	2-1/4	≥ 3-1/2	2-1/4	≥ 3-1/2	2-1/4	≥ 3-1/2	≥ 2-1/4	≥ 2-1/4	≥ 2-1/4
Spacing in. 2-1/4	0.60		0.80		0.90				
2-1/2	0.64		0.83		0.91				
3	0.71		0.89		0.93				
3-3/8	0.76		0.93		0.94		0.50	0.60	0.83
3-3/4	0.81	0.62	0.98	0.82	0.95	0.91	0.56	0.64	0.85
4-1/4	0.88	0.67	1.00	0.86	0.97	0.92	0.63	0.70	0.87
4-3/4	0.96	0.71		0.90	0.99	0.93	0.70	0.76	0.90
5	1.00	0.74		0.91	1.00	0.93	0.74	0.79	0.91
5-3/4		0.81		0.97		0.95	0.85	0.88	0.95
6		0.83		1.00		0.96	0.89	0.91	0.96
6-1/2		0.87				0.97	0.96	0.97	0.99
7-1/4		0.94				0.99	1.00	1.00	1.00
7-3/4		1.00				1.00			

Edge Distance — Shear

$h_{act} \ge h_{min}$

perpendicular toward edge

$$f_{RV1} = \frac{c}{3h_{min}}$$

parallel to edge

$$f_{RV2} = \frac{c/h_{min} + 0.75}{3.75}$$

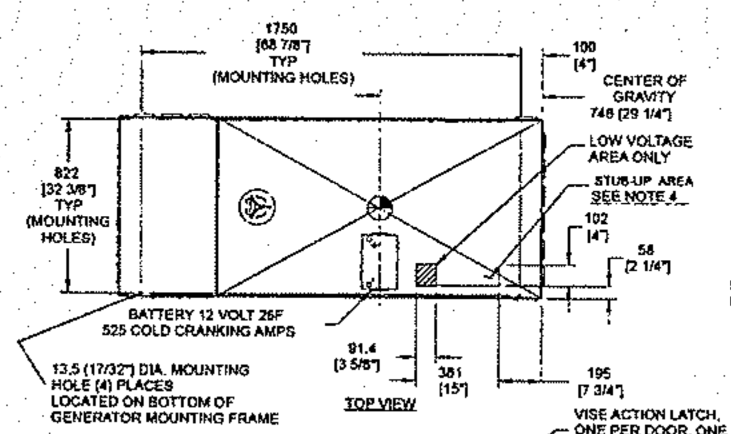
perpendicular away from edge

$$f_{RV3} = \frac{c/h_{min} + 5.82}{8.82}$$

Note: Edge distance and anchor spacing for all lightweight and sand-lightweight concrete are obtained by dividing the normal-weight dimensions by 0.75 and 0.85, respectively.

NOTES:

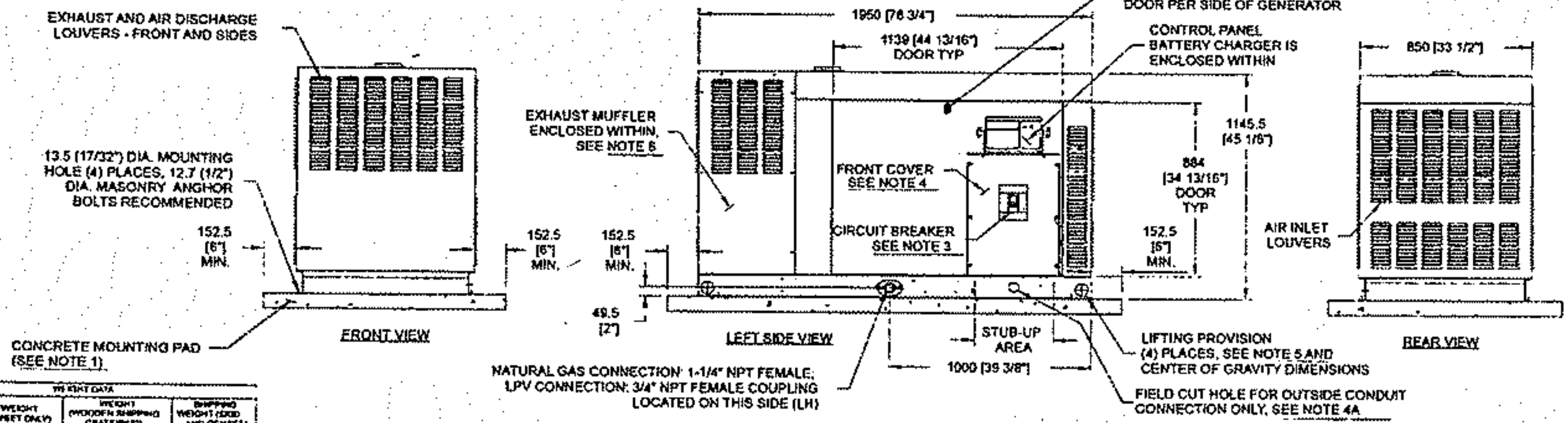
1) MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1155 (45 1/2") WIDE X 2255 (88 7/8") LONG.REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
2) ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE AND LOCAL CODES FOR MINIMUM DISTANCES FROM OTHER STRUCTURES.
3) CIRCUIT BREAKER INFORMATION: SEE SPECIFICATION SHEET WITHIN OWNERS MANUAL
4) INSIDE STUB-UP AREA FOR AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX.) CONNECTION, AND ACCESS TO TRANSFER SWITCH CONTROL WIRES. REMOVE FRONT COVER FOR ACCESS.
4A) FIELD CUT HOLE IS ONLY REQUIRED FOR MOUNTING OF GENERATOR ON AN EXISTING PAD.
5) REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
6) REMOVE EITHER LEFT OR RIGHT HAND SIDE PANEL TO ACCESS EXHAUST MUFFLER AND FAN BELT.



SERVICE ITEM ACCESSIBILITY CHART

SERVICE ITEM	2.4L
OIL FILL CAP	THRU RIGHT DOOR
OIL DIP STICK	THRU RIGHT DOOR
OIL FILTER	THRU LEFT DOOR
OIL DRAIN HOSE	THRU RIGHT DOOR
RADIATOR DRAIN HOSE	THRU LEFT DOOR
AIR CLEANER ELEMENT	THRU LEFT DOOR
SPARK PLUGS	THRU LEFT DOOR
MUFFLER	SEE NOTE 6
FAN BELT	SEE NOTE 6
BATTERY	THRU LEFT DOOR

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS



WEIGHT DATA			
ENCLOSURE MATERIAL	WEIGHT (GEN-SET ONLY) KG [LBS]	WEIGHT (WOODEN SHIPPING CRATE/SKID) KG [LBS]	SHIPPING WEIGHT (SKID AND GEN-SET) KG [LBS]
STEEL	[illegible]	44 [96]	695 [1534]
ALUMINUM	[illegible]	44 [96]	645 [1422]

Juan Fernandez-Barquin, P.E.

Structural Engineers 40114
Threshold Inspectors 0947
State Plans Examiner PX 1305
State Building Inspector BN 3318

2520 N.W. 97th Avenue, Suite #240
Doral, Florida 33172
PH: 786-336-0881 Fax: 786-336-0884
Email: jfbeng@bellsouth.net

www.juanfernandezbarquinpe.com

PROJECT: 4254 Alton Road

Juan Fernandez-Barquin, P.E.

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3 DESIGN ARCHITECTURE

4300 BISCAYNE BLVD. #G-04
MIAMI, FL 33137
P. 305-438-9377 / F. 305-438-9379

4354 ALTON ROAD
MIAMI BEACH, FLORIDA 33139

STRUCTURAL CALCULATIONS
12/15/2015

Expansion Bolt Design

\DOCS\3DESIGN (TONY LEON)\TABLE OF CONTENTS\4354 ALTON ROAD -EXPANSION BOLT.DOC

DEC 15 2015

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PROJECT NAME 4354 Alton Rd.

ENGINEER E DATE 12/15/15 PAGE

☐ Expansion bolt design

Try: 3/4" Diam Kwik bolt 3 Exp. Anchor w/ 6" Embedment

Capacity for shear: V_c

Enter: Hilti table

Find: Allowable shear & reductions: V_{ALL}

$V_{ALL} = 5495 \text{ lbs} \times 0.95 \times 0.51$

$V_{ALL} = 2662 \text{ lbs}$

Four (4) $V_{ALL} = 4 \times 2662 \text{ lbs}$

$V_{ALL} = 10648 \text{ lbs}$

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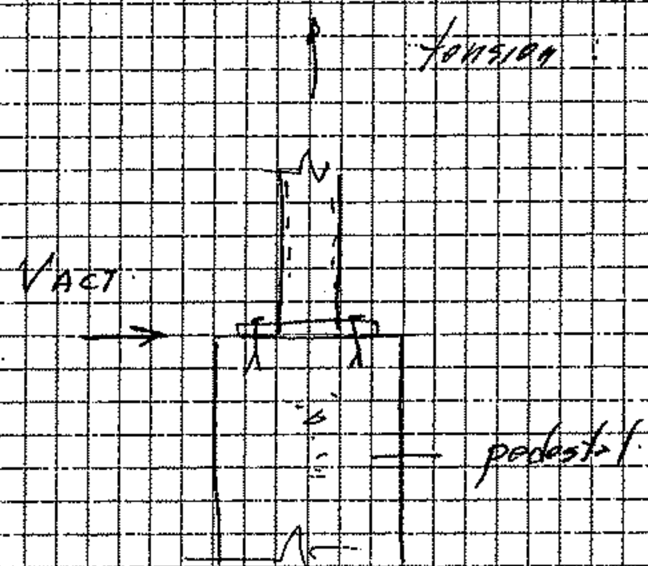
ENGINEER E DATE 12/15/15 PAGE

sketch:



due to wind: V_{ACT}

see attached elevation for tributary Area: At

$$At = \frac{19.3'}{2} \times \left(12' + \frac{12'}{2}\right) = 174\ ft^2$$

$$At = 174\ ft^2$$

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PROJECT NAME 4354 Alton Rd.

ENGINEER E DATE 12/15/15 PAGE

$V_{ACT} = 51.49 \frac{lb}{ft^2} \times 174\ ft^2$

$V_{ACT} = 8959\ lbs < V_{ALL} = 10648\ lbs.$

SAY OK

Note.- wind pressure W = 51.49 PSF

see ASCE 7-10 calculator.

Table 6 - Carbon Steel KWIK Bolt 3 Allowable Loads in Normal-Weight Concrete[1]

Anchor Diameter in. (mm)	Embedment Depth in. (mm)	f'_c = 2000 psi (13.8 MPa)		f'_c = 3000 psi (20.7 MPa)		f'_c = 4000 psi (27.6 MPa)		f'_c = 6000 psi (41.4 MPa)	
		Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)
1/4 (6.4)	1-1/8 (29)	300 (1.3)		365 (1.6)		430 (1.9)		550 (2.4)	
	2 (51)	635 (2.8)	530 (2.4)	715 (3.2)	530 (2.4)	800 (3.6)	530 (2.4)	845 (3.8)	530 (2.4)
	3 (76)	755 (3.4)		795 (3.5)		840 (3.7)			
3/8 (9.5)	1-5/8 (41)	730 (3.2)	1135 (5.0)	910 (4.0)	1275 (5.7)	1095 (4.9)		1090 (4.8)	
	2-1/2 (64)	1260 (5.6)	1315 (5.8)	1555 (6.9)	1315 (5.8)	1850 (8.2)	1315 (5.8)	2050 (9.2)	1315 (5.8)
	3-1/2 (89)	1580 (7.0)		1770 (7.9)		1965 (8.7)		2150 (9.6)	
1/2 (12.7)	2-1/4 (57)	1235 (5.5)	1865 (8.3)	1430 (6.4)	2300 (10.2)	1620 (7.2)	2405 (10.7)	1975 (8.8)	
	3-1/2 (89)	1930 (8.6)	2415 (10.7)	2185 (9.7)	2415 (10.7)	2440 (10.9)	2415 (10.7)	3240 (14.4)	2415 (10.7)
	4-3/4 (121)	2135 (9.5)		2355 (10.5)		2575 (11.5)		3620 (16.1)	
5/8 (15.9)	2-3/4 (70)	1920 (8.5)	2750 (12.2)	2065 (9.2)	3410 (15.2)	2210 (9.8)	3785 (16.8)	2830 (12.6)	
	4 (102)	2660 (11.8)	3910 (17.4)	3020 (13.4)	3910 (17.4)	3385 (15.1)	3910 (17.4)	4770 (21.2)	3910 (17.4)
	5-1/2 (140)	3285 (14.6)		3695 (16.4)		4100 (18.2)		5325 (23.7)	
3/4 (19.1)	3-1/4 (83)	2120 (9.4)	4090 (18.2)	2425 (10.8)	4900 (21.8)	2730 (12.1)	5310 (23.6)	3785 (16.8)	5310 (23.6)
	4-3/4 (121)	3240 (14.4)	5340 (23.8)	4260 (18.9)	5340 (23.8)	5285 (23.5)	5495 (24.4)	6155 (27.4)	6225 (27.7)
	6-1/2 (165)	4535 (20.2)		5860 (26.1)		7185 (32)		7005 (31.2)	
1 (25.4)	4-1/2 (114)	3330 (14.8)	7070 (31.4)	4050 (18.0)	7600 (33.8)	4670 (20.8)	8140 (36.2)	5070 (22.6)	
	6 (152)	4930 (21.9)	9200 (40.9)	6000 (26.7)	9200 (40.9)	7070 (31.4)	9200 (40.9)	8400 (37.4)	9200 (40.9)
	9 (229)	6670 (29.7)		7670 (34.1)		8670 (38.6)		10670 (47.5)	

1 Intermediate load values for other concrete strengths and embedments can be calculated by linear interpolation.

3.3.6 KWIK Bolt 3 Expansion Anchor

Influence of Edge Distance and Anchor Spacing on Anchor Performance

Load Adjustment Factors for 5/8" Diameter Anchors

Adjustment Factor 5/8 in.	Spacing Tension/Shear f_{AN}		Edge Distance Tension f_{RN}		Spacing Shear f_{AV}		Edge Distance Shear ⊥ Toward Edge f_{RV1}	∥ Toward Edge f_{RV2}	⊥ Away from Edge f_{RV3}
Embedment Depth, in.	2-3/4	≥ 4	2-3/4	≥ 4	2-3/4	≥ 4	≥ 2-3/4	≥ 2-3/4	≥ 2-3/4
Spacing in. 2-3/4	0.60		0.80		0.90				
3-1/2	0.69		0.87		0.92				
4	0.75	0.60	0.92	0.80	0.94	0.90			
4-1/4	0.77	0.62	0.95	0.82	0.94	0.91	0.52	0.61	0.84
4-3/4	0.83	0.66	1.00	0.85	0.96	0.92	0.58	0.66	0.86
5-1/2	0.92	0.72		0.90	0.98	0.93	0.67	0.73	0.89
6	0.98	0.76		0.93	0.99	0.94	0.73	0.78	0.91
6-1/4	1.00	0.78		0.95	1.00	0.95	0.76	0.81	0.92
7		0.84		1.00		0.96	0.85	0.88	0.95
7-1/2		0.88				0.97	0.91	0.93	0.97
7-3/4		0.90				0.98	0.94	0.95	0.98
8-1/2		0.96				0.99	1.00	1.00	1.00
9		1.00							

Load Adjustment Factors for 3/4" Diameter Anchors

Adjustment Factor 3/4 in.	Spacing Tension/Shear f_{AN}		Edge Distance Tension f_{RN}		Spacing Shear f_{AV}		Edge Distance Shear ⊥ Toward Edge f_{RV1}	∥ Toward Edge f_{RV2}	⊥ Away from Edge f_{RV3}
Embedment Depth, in.	3-1/4	≥ 4-3/4	3-1/4	≥ 4-3/4	3-1/4	≥ 4-3/4	≥ 3-1/4	≥ 3-1/4	≥ 3-1/4
Spacing in. 3-3/8	0.61		0.81		0.90				
4	0.67		0.86		0.92				
5	0.77	0.62	0.94	0.81	0.94	0.90	0.51	0.61	0.83
5-3/4	0.85	0.67	1.00	0.86	0.96	0.92	0.59	0.67	0.86
6-1/4	0.90	0.70		0.88	0.97	0.93	0.64	0.71	0.88
6-1/2	0.92	0.72		0.90	0.98	0.93	0.67	0.73	0.89
7	0.97	0.75		0.93	0.99	0.94	0.72	0.77	0.90
7-1/2	1.00	0.79		0.95	1.00	0.95	0.77	0.82	0.92
8-1/4		0.84		1.00		0.96	0.85	0.88	0.95
9		0.89				0.97	0.92	0.94	0.97
9-3/4		0.94				0.98	1.00	1.00	1.00
10-1/4		0.97				0.99			
10-3/4		1.00				1.00			

Load Adjustment Factors for 1" Diameter Anchors

Adjustment Factor 1 in.	Spacing Tension/Shear f_{AN}		Edge Distance Tension f_{RN}		Spacing Shear f_{AV}		Edge Distance Shear ⊥ Toward Edge f_{RV1}	∥ Toward Edge f_{RV2}	⊥ Away from Edge f_{RV3}
Embedment Depth, in.	4-1/2	≥ 6	4-1/2	≥ 6	4-1/2	≥ 6	≥ 4-1/2	≥ 4-1/2	≥ 4-1/2
Spacing in. 4-1/2	0.60		0.80		0.90				
6	0.71	0.60	0.89	0.80	0.93	0.90			
7	0.78	0.65	0.95	0.84	0.94	0.91	0.52	0.61	0.84
8	0.85	0.71	1.00	0.89	0.96	0.93	0.59	0.67	0.86
9	0.92	0.76		0.93	0.98	0.94	0.67	0.73	0.89
9-3/4	0.97	0.80		0.97	0.99	0.95	0.72	0.78	0.91
10-1/4	1.00	0.83		0.99	1.00	0.96	0.76	0.81	0.92
11-1/4		0.88		1.00		0.97	0.83	0.87	0.94
11-5/8		0.90				0.98	0.86	0.89	0.95
12-1/2		0.95				0.99	0.93	0.94	0.97
13		0.97				0.99	0.96	0.97	0.99
13-1/2		1.00				1.00	1.00	1.00	1.00
14-3/4									

Standard Anchor Embedments (in.)

5/8	h_{min}	2-3/4
	h_{nom}	4
	h_{deep}	5-1/2
3/4	h_{min}	3-1/4
	h_{nom}	4-3/4
	h_{deep}	6-1/2[1]
1	h_{min}	4-1/2
	h_{nom}	6
	h_{deep}	9

1. Embedment depth shown reflects embedment for carbon steel anchor, deep embedment depth for stainless steel anchor is 8 inch.

Note: Tables apply for listed embedment depths. Reduction factors for other embedment depths must be calculated using equations below.

Spacing — Tension

$h_{min} \le h_{act} \le h_{nom}$: $f_{AN} = \dfrac{s/h_{act} + 0.88}{3.13}$ $\quad$ $h_{act} \ge h_{nom}$: $f_{AN} = \dfrac{s/h_{nom} + 0.88}{3.13}$

Edge Distance — Tension

$h_{min} \le h_{act} \le h_{nom}$: $f_{RN} = \dfrac{c/h_{act} + 2}{3.75}$ $\quad$ $h_{act} \ge h_{nom}$: $f_{RN} = \dfrac{c/h_{nom} + 2}{3.75}$

Spacing — Shear

$h_{min} \le h_{act} \le h_{nom}$: $f_{AV} = \dfrac{s/h_{act} + 10.25}{12.5}$ $\quad$ $h_{act} \ge h_{nom}$: $f_{AV} = \dfrac{s/h_{nom} + 10.25}{12.5}$

Edge Distance — Shear

$h_{act} \ge h_{min}$

perpendicular toward edge

$$f_{RV1} = \frac{c}{3h_{min}}$$

parallel to edge

$$f_{RV2} = \frac{c/h_{min} + 0.75}{3.75}$$

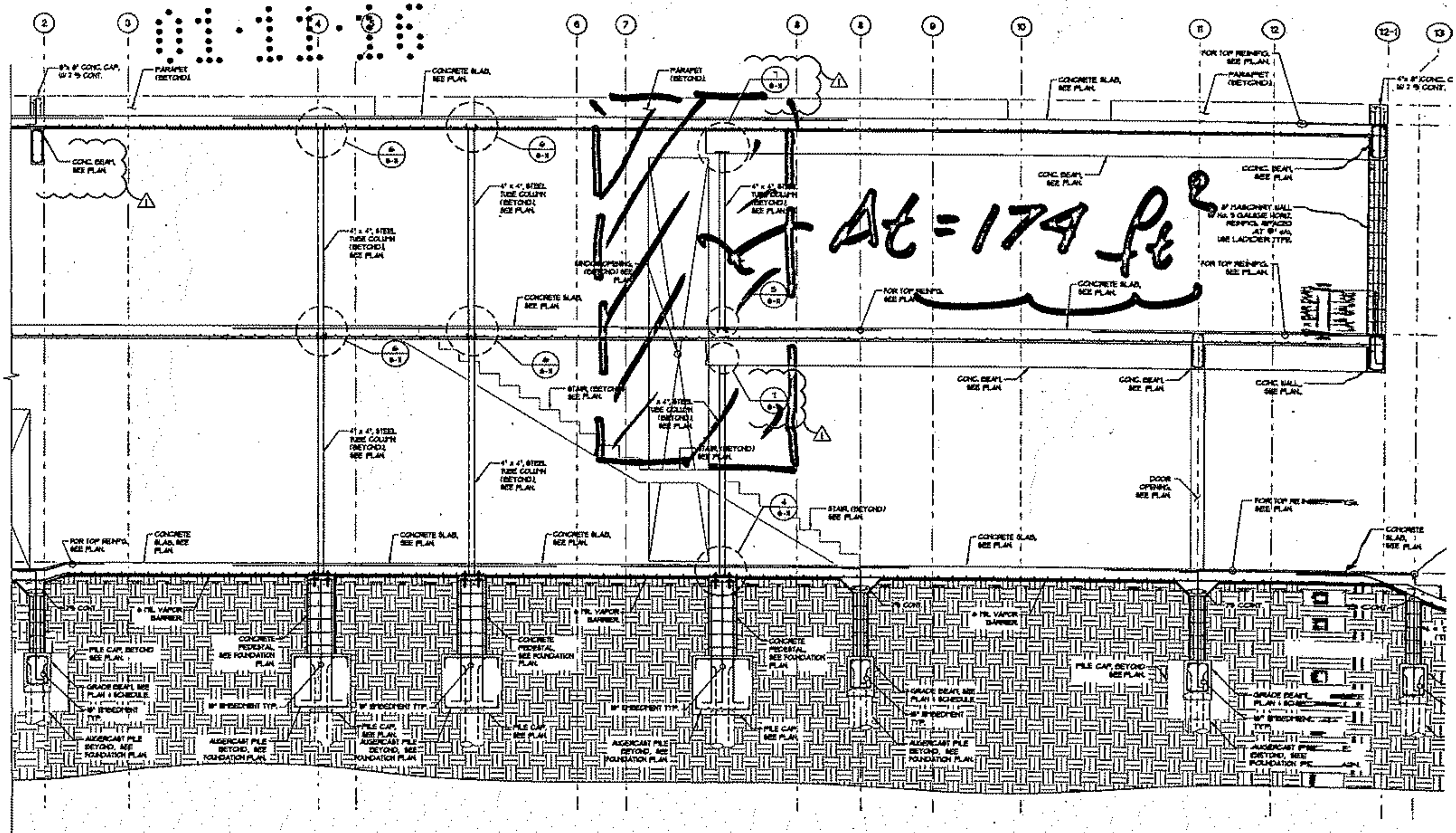
perpendicular away from edge

$$f_{RV3} = \frac{c/h_{min} + 5.82}{8.82}$$

Note: Edge distance and anchor spacing for all lightweight and sand-lightweight concrete are obtained by dividing the normal-weight dimensions by 0.75 and 0.85, respectively.

CMB

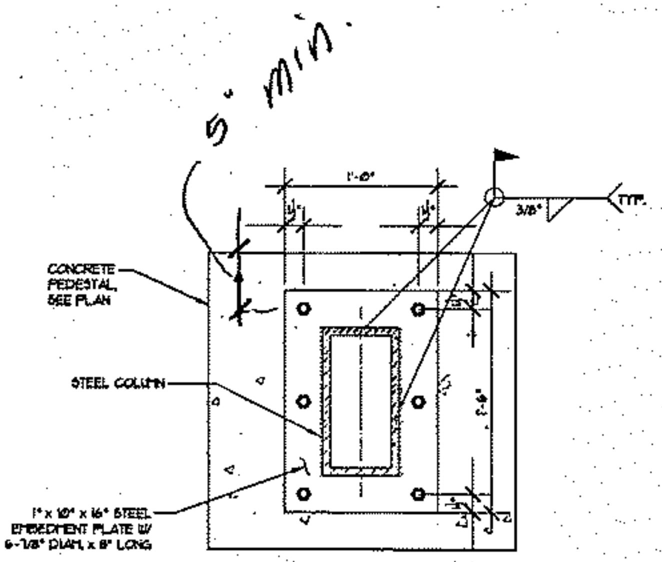
01.11.16

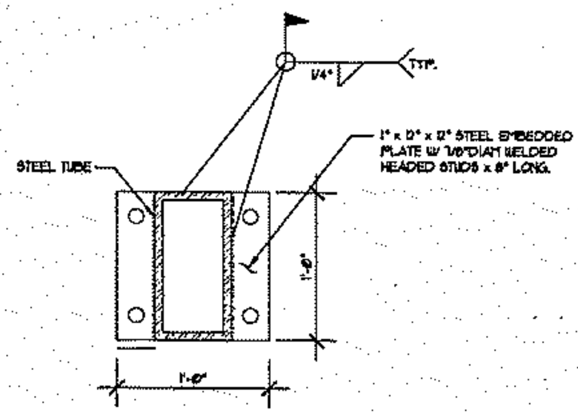


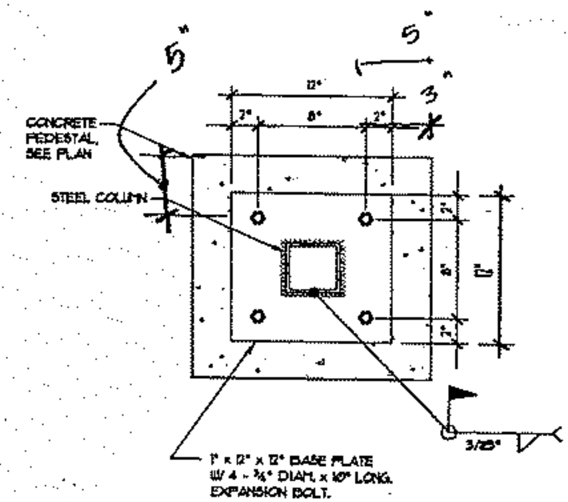
BUILDING SECTION 1/S-5

SCALE: 3/8"=1'-0"

CMB
01·11·16







STEEL COLUMN ST-1 (1/S-11)
GROUND FLOOR
BASE PLATE
SCALE: 1/2"=1'-0"

STEEL COLUMN ST-2 (3/S-11)
SECOND FLOOR
BASE PLATE
SCALE: 1/2"=1'-0"

STEEL COLUMN ST-3 (4/S-11)
GROUND FLOOR
BASE PLATE
SCALE: 1/2"=1'-0"

B15016

NEW RESIDENCE
4354 ALTON RD.
MIAMI BEACH, FL 33139

NOTICE: In addition to the requirement of this permit, there may be additional restrictions applicable to this property that may be found in the Public Records of this County and there may be additional permits required from other government entities such as water management's districts, state agencies, or federal agencies.
The City of Miami Beach assumes no responsibility for accuracy of or results from these plans which are approved subject to compliance with all Federal, State, and Local Laws, Rules, and Regulations.

Derm Number: 2015-0113-0920-5267
Contact Name: MS KATE OPPENHEIMER
Contact Phone: (786) 253-5704
Folio: 02-3222-011-1430
Project Name: RHIANON NEW CONSTRUCTION
Date Received: 01/13/2015
Reviewer Name:

PUBLIC WORKS
THIS PLAN REVIEW CONSTITUTES APPROVAL FOR OBTAINING BUILDING PERMITS ONLY.
All construction and/or use of equipment in the right-of-way and/or easements requires a separate Public Works Department permit prior to start of construction.
Date: 1/11/16

NOTICE: In addition to the requirement of this permit, there may be additional restrictions applicable to this property that may be found in the Public Records of this County and there may be additional permits required from other government entities such as water management's districts, state agencies, or federal agencies.
The City of Miami Beach assumes no responsibility for accuracy of or results from these plans which are approved subject to compliance with all Federal, State, and Local Laws, Rules, and Regulations.

DERM
PLAN REVIEW
FINAL
APPROVAL
DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT
CORE REVIEWER (PRINT): MARIA TUR
SIGNATURE: DATE: 08-25-15

Miami Beach Building Department	
NOTICE – A separate permit is required for the indicated items:	
Awnings	
Doors/Windows	✓
Docks/Piers/Seawalls	✓
Elevators	
Generators	✓
Kitchen hoods	✓
Roofing/Waterproofing	✓
Shutters/Flood Panels	
Pools/Spas/Water Features	✓

OFFICE COPY
CITY OF MIAMI BEACH
APPROVED FOR PERMIT BY THE FOLLOWING:
BUILDING: 1-11-16
ZONING: 1/22/16
PLUMBING: 12/7/15
ELECTRICAL: 10/9/15
MECHANICAL: 12/3/15
FIRE PREVENTION:
FLOOD: 1/13/16
PUBLIC WORKS: 1/11/16
STRUCTURAL: 1/11/16
ELEVATOR:

ROAD FIRE SCHOOL
IMPACT FEE NOT REQUIRED
B20150/641
SEP 01 2015
MIAMI-DADE COUNTY
APPROVED
New SFR 7,850 SF
Replacing A SFR 7,850 SF

PROJECT TEAM

Architect
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MEGPE ENGINEERS, INC.
13301 SW 132ND AVE
MIAMI, FLORIDA 33186
Off: 786-473-8025

DRAWING LIST

A ARCHITECTURAL
S STRUCTURAL
M MECHANICAL
E ELECTRICAL
P PLUMBING
L LANDSCAPING
IRR IRRIGATION

WASD NEW CUSTOMER DIVISION
Reviewed by Richard Robinson
Initial: ICC Date 4/10/15
VERIFICATION FOR: Not Required
ORD. LETTER: Required 20154780
OTHER

3 DESIGN ARCHITECTURE
4300 Biscayne Blvd. #G-04
P: 305.438.9377 | F: 305.438.9379

NEW RESIDENCE FOR:
4354 ALTON RD
MIAMI BEACH, FL 33139

A-0.0
COVER SHEET
CONSTRUCTION DOCUMENT SET 12-10-14

NEW RESIDENCE

AT:

4354 ALTON ROAD
MIAMI BEACH, FLORIDA 33139

PROJECT TEAM

Architect

ANTHONY LEON
3DESIGN, INC.
4300 BISCAYNE BOULEVARD, G-04
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33137
Off: 305-438-9377
Fax: 305-438-9379
E-mail: 3dtony@bellsouth.net

Structural Engineer

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JUAN FERNANDEZ-BARQUIN, P.E.
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Fax: 786-336-0884
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MEP/FP Engineer

MIGUEL E. GONZALEZ, P.E.
MEGPE ENGINEERS, INC.
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MIAMI, FLORIDA
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E-mail: miguelg@megpeengineers.com

Civil Engineer

STANLEY FARDIN
SAMABI GROUP INC.
CONSULTING ENGINEERS
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MIAMI, FLORIDA
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E-mail: samabi@bellsouth.net

Landscape Architect

HERBERT L. MARTIN
H.L. MARTIN, Landscape Architect, PA
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33155
Off: 305-790-4372
E-mail: hlmartinufiu@bellsouth.net

DRAWING LIST

A	ARCHITECTURAL
S	STRUCTURAL
M	MECHANICAL
E	ELECTRICAL
P	PLUMBING
C	CIVIL
L	LANDSCAPING
IRR	IRRIGATION

DRAWN BY:

REVISIONS:

1 8-14-15

AA0003569
ANTHONY LEON
0016752

3DESIGN ARCHITECTURE
4300 Biscayne Blvd. #G-04, Miami, FL 33137
P: 305.438.9377 | F: 305.438.9379

AUG 2 4 2015

SEAL

NEW RESIDENCE
AT:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

THESE PLANS ARE FOR BUILDING DEPARTMENT REVIEW ONLY. THEY ARE NOT TO BE CONSTRUED AS CONSTRUCTION DOCUMENTS UNTIL ALL BUILDING DEPARTMENT APPROVALS ARE OBTAINED.

A.0.0

COVER SHEET

CFN: 20150457035 BOOK 29698 PAGE 4108
DATE:07/16/2015 09:16:19 AM
HARVEY RUVIN, CLERK OF COURT, MIA-DADE CTY

DESIGN REVIEW BOARD
City of Miami Beach, Florida

MEETING DATE: July 07, 2015

FILE NO: 23153

PROPERTY: **4354 Alton Road**

APPLICANT: Rhianon M. Pedro

LEGAL: Lot 20 & 21, Block 6 of Nautilus Subdivision, according to Plat thereof as recorded In Plat Book 8, Page 95 of the Public Records of Miami-Dade County, Florida.

IN RE: The Application for Design Review Approval for the construction of a new two-story single family home on e vecent lot.

ORDER

The City of Miami Beach Design Review Board makes the following FINDINGS OF FACT, based upon the evidence, information, testimony end materiale presented at the public hearing end which are part of the record for this metter:

I. **Design Review**

A. The Board has jurisdiction pursuant to Section 118-252(a) of the Miemi Beach Code. The property is not located within e designated local historic district end is not a individuelly designated historic site.

B. Based on the plane and documents submitted with the application, testimony end information provided by the applicant, and the reasons set forth in the Planning Department Staff Report, the project as submitted is Inconsistent with Design Review Criteria 2, 4, 5, 9, 10 and 11 in Section 118-251 of the Miami Beach Code.

C. The project would be consletent with the criteria and requirements of section 118-251 if the following conditions are met:

PAGE 1

1. Revised elevation, site plan and floor plan drawings for the proposed new home at 4354 Alton Road shall be submitted to and approved by staff; at a minimum, such drawings shall incorporate the following:

a. The final design details of all exterior surfece materials and finishes shell be submitted, in a manner to ba reviewed end approved by staff consietent with the Design Review Criteria and/or the directions from tha Board.

b. A copy of all pages of the recorded Final Order shall be scenned into the plans submitted for building permit, end shell be located immediately after the front cover page of the permit plans.

c. Prior to the issuance of a Certificete of Occupancy, the project Architect shell verify, in writing, thet the subject project has been constructed in accordance with the plans approved by the Plenning Department for Building Permit.

2. A revised landscape plan, and corresponding site plan, shall be submitted to and approvad by steff. The species type, quantity, dimensions, specing, location and overall height of all plant meterial shell be clearly delineated and subject to the review and epproval of staff. At a minimum, such plan shall incorporate the following:

a. The amount of paving facing 44th Street shall be reduced to comply with the maximum permitted width of 44" for walkways and a drive and parking area on site for one vehiole parallel to 44th Street and comply with the minimum landscape requirement, in a manner to be reviewed and approved by the Design Review Board. The applicant shall remove the paving area proposed west of the entrance drive.

b. A segregated direct pedestrian eccess to the site from the street(s) and sidewalk shell be provided to the main entrance, in a manner to be reviewed and approved by the Design Review Board.

c. Street trees shall ba required within the swale at the front of the property if not in conflict with existing utilities, in a manner to be reviewed and approved by the Public Works Department.

d. Any existing plent material within the public right-of-way may be required to be removed, at the discretion the Public Works Department.

e. A fully automatic irrigation system with 100% coverage and an automatic rain sensor in order to render the system inoperative in the event of rain. Right-of-way areas shall also be incorporated es part of the irrigation system.

f. The utilization of root barriers and/or Silva Cells, as applicable, shall be clearly delineated on the revised landscape plan.

g. The applicant shall verify, prior to the issuance of a Building Permit, the exect location of all beckflow preventors and all other related devices and fixtures. The location of backflow preventore, siamese pipes or other related devices

PAGE 2

and fixtures, if eny, and how they era screened with landscape material from the right-of-way, shall be clearly indicated on the site and landscape plans and shall be subject to the review and approval of staff.

h. The applicant shall verify, prior to the issuance of a Building Permit, the exact location of all applicable FPL transformers or vault rooms. The location of any exterior transformers, and how they are screened with landscape material from the right-of-way, shall be clearly indicated on the site and landscape plans and ehall be subject to the review and approval of staff.

i. Prior to the issuence of a Certificete of Occupancy, the Landscape Architect or the project architect shall verify, in writing, that the project is consistent with the site and landscepe plans approved by the Planning Department for Building Permit.

In accordance with Section 118-262, the applicant, or the city manager on behalf of the city administration, or an affected pereon, Miami Design Preservation League or Dade Heritage Trust may seek review of any order of the Design Review Board by the city commission, except that orders granting or denying a request for rehearing shell not be reviewed by the commission.

II. **Variance(s)**

A. All variance(s) have been formelly removed as part of this application.

III. **General Terms and Conditions applying to both 'I. *Design Review Approval* end 'II. *Variances'* noted above.**

A. During construction of the new home, the Applicant will maintain gravel at the front of the construction site within the first 15' of the required front yard to mitigete disturbance of soil and mud by related personal vehicles exiting and entering the site, and with an 8' high fence with a wind resistant green mesh meterial along the front property line. All construction materials, including dumpstere and porteble toilets, shell be located behind the construction fence and not visible from the right-of-way. All construction vehicles shell either park on the private property or at alternata overflow parking sites with a shuttle service to and from the property. The Applicant shall ensure that the contractor(s) observe good construction practices and prevent construction materials and debris from impecting the right-of-way.

B. A Construction Parking and Traffic Menagement Plan (CPTMP) shall be approved by the Parking Director pursuant to Chapter 106, Article II, Division 3 of the City Code, prior to the issuance of a Building Permit.

C. Where one or more percels ere unified for e single development, the property owner ehall execute and record an unity of title or a covenant in lieu of unity of title, ae may be applicable, in a form acceptable to the City Attorney.

D. The final building plane shall meet all other requirements of the Land Development Regulations of the City Code.

PAGE 3

E. The Final Order shall be recorded in the Public Records of Miemi-Dade County, prior to the issuance of e Building Permit.

F. Satisfaction of all conditions is required for the Planning Department to give its approval on a Certificate of Occupancy; a Temporary Certificate of Occupancy or Partial Certificate of Occupency may also be conditionally granted Planning Departmental approval.

G. The Final Order is not severable, and if any provision or condition hereof is held void or unconstitutionel in a final decision by a court of competent jurisdiction, the order shall be returned to the Board for reconsideration as to whether the order meets the criteria for approval absent the stricken provision or condition, and/or it is appropriate to modify the remaining conditions or impose new conditions.

H. The conditions of approval herein ere binding on the applicant, the property's owners, operators, and all successors in interest end assigns.

I. Nothing in this order authorizes a violation of the City Code or other applicable law, nor allows a relaxation of any requirement or standard set forth in the City Code.

IT IS HEREBY ORDERED, based upon the foregoing findings of fact, the evidence, information, testimony and materials presented at the public hearing, which are pert of the record for this matter, and the staff report and analysis, which are adopted herein, including the staff recommendations, which were amended and adopted by the Board, that the **application is** GRANTED for the above-referenced project subject to those certain conditions specified in Paragreph I, II,III of the Findings of Fact, to which the epplicant hes agreed.

PROVIDED, the applicant shall build substantially in accordance with the plane, entitled "New residence for: 4354 Alton Rd", as prepared by **3Design Architecture** deted, signed and sealed May 19, 2015, and as epproved by the Design Review Board, as determined by staff.

When requesting a building permit, the plans submitted to the Building Department for permit shall be consistent with the plans approved by the Board, modified in accordance with the conditions set forth in this Order. No building permit may be issued unless and until all conditions of approval that must be satisfied prior to permit issuance, as set forth in this Order, have been met.

The issuence of the approval does not relieve the applicant from obtaining ell other required Municipal, County and/or State reviews and permits, including final zoning approval. If adequate handicapped eccess is not provided on the Board-approved plans, this approval does not mean that such handicepped access is not required. When requesting a building permit, the plens submitted to the Building Department for permit shall be consistant with the plans approved by the Board, modified in accordence with the conditions set forth in this Order.

If the Full Building Permit for the project is not issued within eighteen (18) months of the meeting date at which the original approval was granted, the application will expire and become null and void, unless the applicant makes an application to the Board for an extension of time, in accordance with the requirements and procedures of Chapter 118 of the City Code; the granting of any such extension of time shall be at the discretion of the Board. If the Full Building Permit for the project should expire for any reason (including but not limited to construction not

PAGE 4

commencing and continuing, with required inspections, in accordance with the applicable Building Code), the application will expire and become null and void.

In accordance with Chapter 118 of the City Code, the violation of any conditions and safeguards that are a part of this Order shall be deemed a violation of the land development regulations of the City Code. Failure to comply with this Order shall subject the application to Chapter 118 of the City Code, for revocation or modification of the application.

Dated this 13th day of July, 2015.

DESIGN REVIEW BOARD
THE CITY OF MIAMI BEACH, FLORIDA

BY: ______________________
DEBORAH J. TACKETT
DESIGN AND PRESERVATION MANAGER
FOR THE CHAIR

STATE OF FLORIDA)
)SS
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this 13th day of July 2015 by Deborah J. Tackett, Design and Preservation Manager, Planning Department, City of Miami Beach, Florida, a Florida Municipal Corporation, on behalf of the Corporation. He is personally known to me.

STEVEN GREENE
NOTARY PUBLIC, STATE OF FLORIDA

NOTARY PUBLIC
Miami-Dade County, Florida
My commission expires: 07/24/17

Approved As To Form:
City Attorney's Office: ______________ (7/13/2015)

Filed with the Clerk of the Design Review Board on ______________ (7-13-15)

F:\PLAN\$DRB\DRB15\07-07-2015\JUL Final Orders\DRB 23153 4354 Alton Rd.JUL15.fo.docx

PAGE 5

DRAWN BY:

REVISIONS:

1 11-01-15

AA0003569
ANTHONY LEON
001675

3DESIGN
ARCHITECTURE
4300 Biscayne Blvd. #G-04, Miami, FL 33137
P: 305.438.9377 | F: 305.438.9379

NOV 20 2015

SEAL

NEW RESIDENCE
AT:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

THESE PLANS ARE FOR BUILDING DEPARTMENT REVIEW ONLY. THEY ARE NOT TO BE CONSTRUED AS CONSTRUCTION DOCUMENTS UNTIL ALL BUILDING DEPARTMENT APPROVALS ARE OBTAINED.

A.0.1
RECORDED ORDER

GENERAL NOTES

1. THESE DOCUMENTS, AS INSTRUMENTS OF SERVICE, ARE THE PROPERTY OF 3DESIGN, Inc. AND MAY NOT BE USED OR REPRODUCED IN ANY MANNER WITHOUT EXPRESSED WRITTEN CONSENT.
2. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE GENERAL CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS REQUIRED TO COMPLETE ALL BUILDING SYSTEMS AND PROVIDE ALL NECESSARY APPURTENANCES FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER WITH QUALITY CRAFTMANSHIP WITHOUT INCREASING THE CONTRACT SUM OR CONTRACT COMPLETION DATE.
3. ALL WORK DESCRIBED BY THSE DOCUMENTS MUST BE PERFORMED BY CONSTRUCTION PROFESSIONALS LICENCED & INSURED IN THE STATE OF FLORIDA (F.B.C. REQUIRED). ALL WORK SHALL BE PERFORMED IN ACCORDANCE W/ THE NATIONAL ELECTRIC CODE AND F.B.C.
4. THE GENERAL CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE PRIOR TO COMMENCING THE WORK. IF THERE ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO COMMENCING THE WORK FOR CLEAR INSTRUCTION.
5. DO NOT SCALE THE DRAWINGS. REFER TO FIGURED DIMENSIONS.
6. THE CONTRACTOR IS TO ACQUIRE ALL REQUIRED PERMITS FOR THE DEMOLITION, CONSTRUCTION, FINISHING, AND OCCUPANCY OF THE PROJECT. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE F.B.C., LATEST EDITION.
7. ALL WORK DONE UNDER THE SUPERVISION OF THE GENERAL CONTRACTOR SHALL BE IN A NEAT AND WORKMAN-LIKE MANNER IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL GOVERNING AGENCIES HAVING JURISDICTION.
8. THE GENERAL CONTRACTOR IS TO PROVIDE, LOCATE AND BUILD INTO THE WORK ALL SUPPLEMENTARY MATERIALS (INSERTS, ANCHORS, ANGLES, PLATES, OPENINGS, SLEEVES, HANGERS, SLAB DEPRESSIONS, PITCHES, ETC.) AS REQUIRED TO PROPERLY INSTALL, SUPPORT, BRACE, AND SHORE ALL BUILDING COMPONENTS WITHIN THE SCOPE OF THE PROJECT.
9. THE GENERAL CONTRACTOR SHALL REPAIR ALL DAMAGES TO THE EXISTING BUILDING DURING CONSTRUCTION RESULTING FROM SUCH LACK OF CARE AND DUE DILIGENCE AND MAY NOT CLAIM MONETARY DAMAGES OR TIME DELAYS AGAINST THE CONTRACT SUM OR CONTRACTCOMPLETION DATE.
10. THE GENERAL CONTRACTOR SHALL COORDINATE AND SCHEDULE THE WORK OF ALL TRADES TO INSURE THAT THE PROJECT IS COMPLETED BY THE CONTRACT COMPLETION DATE.
11. PRIOR TO COMMENCING WORK, THE GENERAL CONTRACTOR SHALL SITE VERIFY THE LOCATION OF ALL EQUIPMENT TO BE REMOVED/RELOCATED. REMOVALS SHALL BE COORDINATED WITH THE OWNER. IF SO DIRECTED, THE G.C. MAY INCLUDE ANY ADDITIONAL COSTS TO THE BID.
12. THE GENERAL CONTRACTOR SHALL PROVIDE AN ONSITE DUMPSTER IN A LOCATION COORDINATED WITH THE OWNER FOR THE DISPOSAL OF REMOVED MATERIAL/CONSTRUCTION DEBRIS. THE DUMPSTER SHALL BE EMPTIED AT APPROPRIATE INTERVALS TO PREVENT OVERFLOW AND UNSIGHTLY CONDITIONS.
13. IT IS THE INTENT OF 3DESIGN, Inc. THAT THIS WORK BE IN CONFORMANCE WITH ALL REQUIREMENTS OF THE BUILDING AUTHORITIES HAVING JURISDICTION OVER THIS TYPE OF CONSTRUCTION AND OCCUPANCY. THE G.C. SHALL NOTIFY THE ARCHITECT/ENGINEERS OF RECORD IMMEDIATELY IF ANY DISCREPANCIES ARE ENCOUNTERED BETWEEN THE DRAWINGS AND THESE REQUIREMENTS. ANY DISCREPANCIES WILL BE RESOLVED BY ARCHITECT / ENGINEER OF RECORD PRIOR TO PROCEEDING WITH THE WORK.
14. THE GENERAL CONTRACTOR SHALL PROVIDE THE ARCHITECT WITH RED-LINE AS-BUILT DRAWINGS FOR ALL FIELD CHANGES/ADDITIONS TO THE WORK INCLUDED IN THE WORK.
15. THE GENERAL CONTRACTOR SHALL PROVIDE AN ITEMIZED COST BREAKDOWN OF ALL ITEMS AND PHASES OF CONSTRUCTION AT THE TIME OF BIDDING.
16. 3DESIGN, Inc. IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCES, PROCEDURES, PRECAUTIONS, OR PROGRAMS RELATED TO THIS PROJECT'S CONSTRUCTION.
17. ALL WORK IS TO BE PLUM, LINE, SQUARE, AND ADEQUATELY SUPPORTED. FILL ALL VOIDS BETWEEN COMPONENTS. ALL ITEMS THAT DO NOT MEET 3DESIGN, Inc. SATISFACTION AS TO GOOD TRADE PRACTICES AND QUALITY CRAFTMANSHIP WILL BE REDONE AT THE G.C.'S EXPENSE.
18. THE GENERAL CONTRACTOR IS TO MAINTAIN A SAFE SITE, CLEAR OF DEBRIS AT ALL TIMES.
19. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE TO GUARANTEE THEIR WORK FOR A MINIMUM PERIOD OF ONE YEAR IN WRITING SUBMITTED WITH THE BID.
20. ALL DETAILS AND SECTIONS SHOWN ON THESE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUTED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE IN THE WORK EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN. IT IS THE G.C.'S RESPONSIBILITY TO FORSEE ADDITIONAL CONDITIONS PRIOR TO COMMENCING THE WORK AND NOTIFY THE ARCHITECT IMMEDIATELY.
21. ALL ASSEMBLIES REFERRED TO AS FIRE-RATED SHALL BE A MINIMUM OF ONE HOUR UNLESS OTHERWISE INDICATED. ALL PENETRATIONS THROUGH ANY RATED ASSEMBLY SHALL BE PROVIDED W/ APPROVED PENETRATION RATED DEVICES.
22. THE GENERAL CONTRACTOR SHALL PROVIDE CUSTOM AND MULTI-COLOR PAINT SELECTIONS FOR OWNER'S APPROVAL.
23. ALL HARDWARE, LIGHTING & BATHROOM FIXTURES AND MISC. SPECIFICATIONS NOT SPECIFICALLY CALLED OUT ON THE DRAWINGS SHALL BE PROVIDED BY THE OWNER.
24. THE GENERAL CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR TRUSSES, STORM SHUTTERS, REINFORCING STEEL, WINDOWS, DOORS, CAST CONCRETE, ORNAMENTAL IRON, STEEL CONNECTORS, ORNAMENTAL WOOD, ETC. TO THE ARCHITECT FOR REVIEW PRIOR TO COMMENCING THE WORK.
25. THE GENERAL CONTRACTOR SHALL PROVIDE A TELEPHONE AND TELEPHONE LINE AT THE JOB SITE. THE G.C. IS RESPONSIBLE FOR IT'S USE.

DECAY & TERMITE PROTECTION NOTES

1.) TERMITE PROTECTION. TERMITE PROTECTION SHALL BE PROVIDED BY REGISTERED TERMITICIDES OR OTHER APPROVED METHODS OF TERMITE PROTECTION LABELED FOR USE AS A PREVENTATIVE TREATMENT TO NEW CONSTRUCTION.

2.) IF SOIL TREATMENT IS USED FOR SUBTERRANEAN TERMITE PREVENTION, THE INITIAL CHEMICAL SOIL TREATMENT INSIDE THE FOUNDATION PERIMETER SHALL BE DONE AFTER ALL EXCAVATION, BACKFILLING AND COMPACTION IS COMPLETE.

3.) IF SOIL TREATMENT IS USED FOR SUBTERRANEAN TERMITE PREVENTION, SOIL AREA DISTURBED AFTER INITIAL CHEMICAL SOIL TREATMENT SHALL BE RETREATED WITH A CHEMICAL SOIL TREATMENT, INCLUDING SPACES BOXED OR FORMED.

4.) IF SOIL TREATMENT IS USED FOR SUBTERRANEAN TERMITE PREVENTION, SPACE IN CONCRETE FLOORS BOXED OUT OR FORMED FOR THE SUBSEQUENT INSTALLATION OF PLUMBING TRAPS, DRAINS OR ANY OTHER PURPOSE SHALL BE CREATED BY USING PLASTIC OR METAL PERMANENTLY PLACED FORMS OF SUFFICIENT DEPTH TO ELIMINATE ANY PLANNED SOIL DISTURBANCE AFTER INITIAL CHEMICAL SOIL TREATMENT.

5.) IF SOIL TREATMENT IS USED FOR SUBTERRANEAN TERMITE PREVENTION, CHEMICALLY TREATED SOIL SHALL BE PROTECTED WITH A MINIMUM 6 MIL VAPOR RETARDER TO PROTECT AGAINST RAINFALL DILUTION. IF RAINFALL OCCURS BEFORE VAPOR RETARDER PLACEMENT, RETREATMENT IS REQUIRED. ANY WORK, INCLUDING PLACE- MENT OF REINFORCING STEEL, DONE AFTER CHEMICAL TREATMENT UNTIL THE CONCRETE FLOOR IS POURED, SHALL BE DONE IN SUCH MANNER AS TO AVOID PENETRATING OR DISTUBING TREATED SOIL.

6.) IF SOIL TREATMENT IS USED FOR SUBTERRANEAN TERMITE PREVENTION, CONCRETE OVERPOUR OR MORTAR ACCUMULATED ALONG THE EXTERIOR FOUNDATION PERIMETER SHALL BE REMOVED PRIOR TO EXTERIOR CHEMICAL SOIL TREATMENT, TO ENHANCE VERTICAL PENETRATION OF THE CHEMICALS.

7.) IF SOIL TREATMENT IS USED FOR SUBTERRANEAN TERMITE PREVENTION, CHEMICAL SOIL TREATMENTS SHALL ALSO BE APPLIED UNDER ALL EXTERIOR CONCRETE OR GRADE WITHIN 1 FOOT (305 MM) OF THE PRIMARY STRUCTURE SIDEWALLS. ALSO, A VERTICAL CHEMICAL BARRIER SHALL BE APPLIED PROMPTLY AFTER CONSTRUCTION IS COMPLETED, INCLUDING INITIAL LANDSCAPING AND IRRIGATION/SPRINKLER INSTALLATION. ANY SOIL DISTURBED AFTER THE CHEMICAL VERTICAL BARRIER IS APPLIED SHALL BE PROMPTLY RETREATED.

8.) TERMITE PROTECTION. ALL BUILDINGS SHALL HAVE PRECONSTRUCTION TREATMENT PROTECTION AGAINST SUBTERRANEAN TERMITES. THE RULES AND LAWS AS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES SHALL BE DEEMED AS APPROVED WITH RESPECT TO PRE-CONSTRUCTION SOIL TREATMENT FOR PROTECTION AGAINST SUBTERRANEAN TERMITES. A CERTIFICATE OF COMPLIANCE SHALL BE ISSUED TO THE BUILDING DEPARTMENT BY THE LICENSED PEST CONTROL COMPANY THAT CONTAINS THE FOLLOWING STATEMENT:
"THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. TREATMENT IS IN ACCORDANCE WITH RULES AND LAWS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES."

9.) PENETRATION. PROTECTIVE SLEEVES AROUND METALLIC PIPING PENETRATING CONCRETE SLAB-ON-GRADE FLOORS SHALL NOT BE OF CELLULOSE-CONTAINING MATERIALS AND SHALL RECEIVE APPLICATION OF A TERMITICIDE IN ANNULAR SPACE BETWEEN SLEEVE AND PIPE.

10.) WHERE WOOD JOISTS, OR THE BOTTOM OF A WOOD STRUCTURAL FLOOR WITHOUT JOISTS, ARE CLOSER THAN 18", OR BELOW THE BFE (+8.0' NGVD), OR WOOD GIRDERS ARE CLOSER THAN 12" TO THE EXPOSED GROUND IN CRAWL SPACES OR UNEXCAVATED AREAS LOCATED WITHIN THE PERIMETER OF THE BUILDING FOUNDATION, THE FLOOR CONSTRUCTION (INCLUDING POSTS, GIRDERS, JOISTS, & SUBFLOOR) SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD.

BURGLARY/SECURITY NOTES

1. ALL LOCKS ON EXTERIOR DOORS AND DOORS CONNECTING GARAGE AREAS SHALL BE CAPABLE OF RESISTING A FORCE OF 300 POUNDS APPLIED IN ANY MOVABLE DIRECTION AND IN ACCORDANCE WITH RESISTANCE STANDARDS SET FORTH IN 3601.2 (F.B.C.)

2. ALL SINGLE EXTERIOR SWING DOORS SHALL HAVE A LOCK TO BE KEY OPERATED FROM EXTERIOR WITH A MINIMUM OF 6000 POSSIBLE KEY CHANGES OR LOCKING AUXILIARY SINGLE DEAD BOLT (MIN. 1 INCH THROW) WITH HARDENED BOLT INSERTS.

3. THE ACTIVE LEAF OF PAIRS OF EXTERIOR SWING DOORS SHALL HAVE SAME LOCKS AS REQUIRED FOR SINGLE EXTERIOR SWING DOORS. THE INACTIVE LEAF OF THESE PAIRS OF DOORS SHALL HAVE MULTIPLE POINT LOCKS WITH 5/8 INCH MINIMUM THROW BOLTS WITH INSERTS.

4. SLIDING GLASS DOORS SHALL BE PROVIDED WITH SLIDING DOOR DEAD BOLTS OR A BOLT OR PIN NOT REMOVABLE OR OPERABLE FROM EXTERIOR, AT THE JAMB, HEAD, SILL OR AT MEETING MULLIONS. THESE DOORS SHALL BE REINFORCED IN THE STRIKE AND LOCK AREA TO MAINTAIN BOLT STRENGTH EFFECTIVENESS, IF NECESSARY, AND SUCH DOORS SHALL HAVE NO SCREWS REMOVABLE FROM OUTSIDE WHICH WOULD FACILITATE READY ENTRY FROM OUTSIDE.

5. JAMBS SHALL BE PROVIDED WITH APPROVED REINFORCED STRIKES INSTALLED WITH SCREWS AT LEAST 3" IN LENGHT AND PENETRATING SUB-BUCKS AT LEAST 1"

6. HINGES ON EXTERIOR OUT SWINGING DOORS SHALL HAVE NON-REMOVABLE PINS.

7. JAMBS OF ALL EXTERIOR OFFSET TYPE IN-SWING(ING) DOORS BE RABBETED, OR OF SIMILAR FABRICATION, TO PREVENT DEFEATING THE PURPOSE OF THE STRIKE AND THE INTEGRITY OF LOCKS AND LATCHES.

8. SINGLE, SWINGING, EXTERIOR DOORS, IF WOOD SHALL BE SOLID CORE OF NOT LESS THAN 1 3/8 INCHES THICK.

9. GLASS AND EXTERIOR DOORS SHALL COMPLY WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE'S STANDARD 297.1

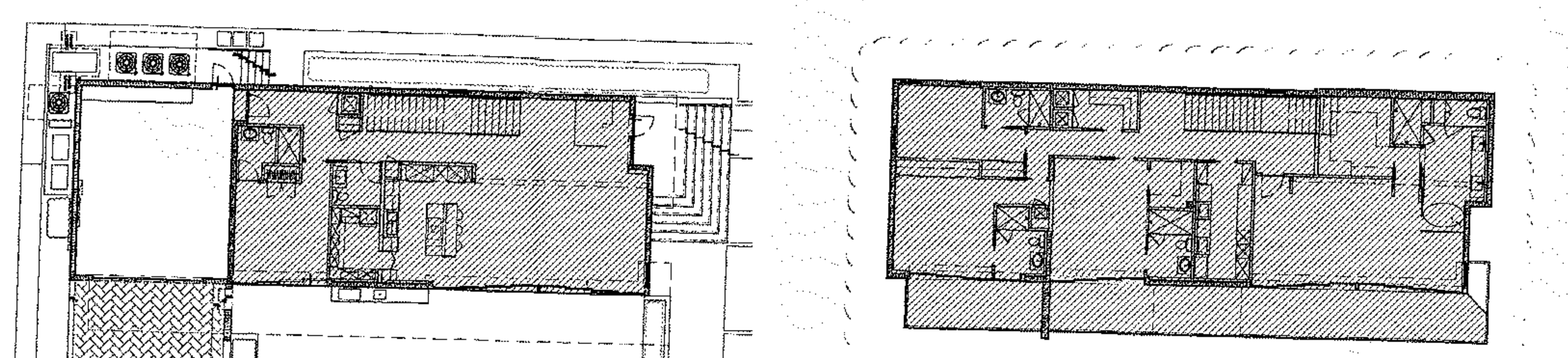
10. VISION PANELS IN EXTERIOR DOORS OTHER THAN GLAZING WITHIN 40 INCHES OF INSIDE LOCKING ACTIVATING DEVICE OF LOOSE AND SWINGING DOORS SHALL COMPLY WITH AMERICAN NATIONAL STANDARDS INSTITUTE STANDARD 297.1.

11. SLIDING GLASS DOORS AND WINDOWS SHALL BE INSTALLED AND CONSTRUCTED SO THAT NO PANEL CAN BE LIFTED FROM THE TRACKS WHEN IN THE LOCKED POSITION AND SO AS TO COMPLY WITH THE ARCHITECTURAL ALUMINUM MFGS. ASSOC. STANDARDS FOR FORCED ENTRY RESISTANCE, AAMA 1303.3.

12. LOCKS IN EXTERIOR WINDOWS SHALL CUMPLY WITH SECTION 3104 (F.B.C.)

13. FRONT MAIN ENTRANCE DOORS SHALL BE PROVIDED WITH A DOOR SCOPE OR VISION PANELS.

UNIT AREA DIAGRAMS:

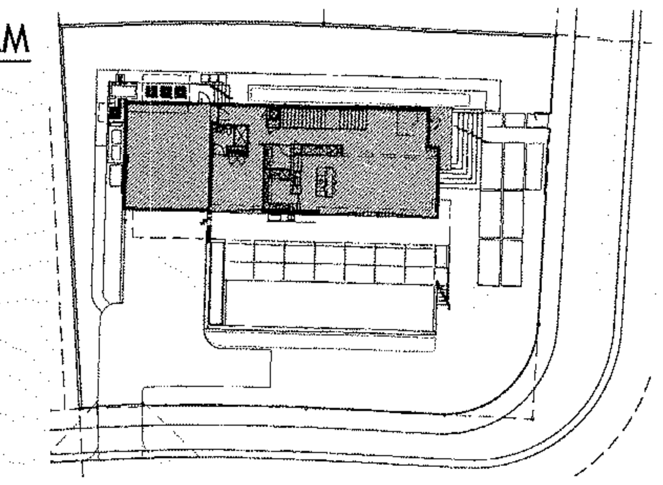


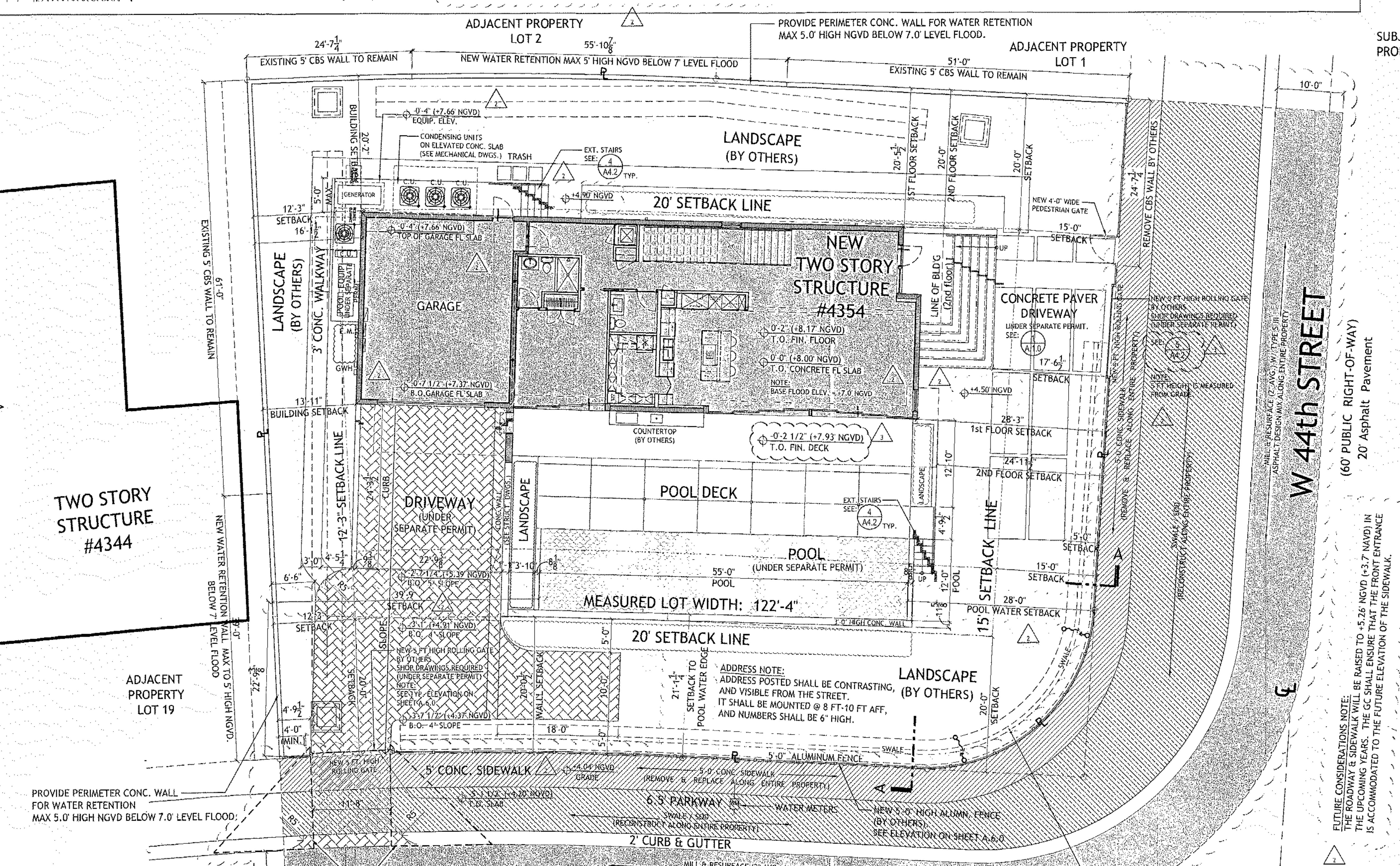
FIRST FLOOR: 1,684 S.F. SECOND FLOOR: 3,006 S.F.

LOT COVERAGE DIAGRAM

LOT AREA:
12,446 S.F.

LOT COVERAGE:
2,422 S.F. (19.4%)





PROVIDE PERIMETER CONC. WALL FOR WATER RETENTION MAX 5.0' HIGH NGVD BELOW 7.0' LEVEL FLOOD.

FLOOD MANAGEMENT INFO.	
CRAWL SPACE FLOOR ELEVATION:	N/A
LOWEST GRADE ADJ. TO BUILDING:	+4.50'
HIGHEST GRADE ADJ. TO BUILDING:	+4.90'
LOWEST ELEV. OF EQUIPMENT:	+7.66'
CRAWL SPACE FLOOD AREA:	N/A
• REQ'D. NET OPENINGS AREA:	N/A
• PROVIDED NET OPENINGS AREA:	N/A

2' CURB & GUTTER

MILL & RESURFACE (2" AVG.) W/ TYPE S-III ASPHALT DESIGN MIX ALONG ENTIRE PROPERTY

SAFE SIGHT TRIANGLES SEE: RS16 A7.0 TYP.

ALTON ROAD

(100' PUBLIC RIGHT-OF-WAY)
31' Asphalt Pavement

PERIMETER SWALE FOR RUNOFF WATER & RAIN WATER TO BE MAINTAINED WITHIN SITE (SEE CIVIL DWGS.)

R.O.W. EXISTING CONDITONS NOTE:
TO CONFIRM THE CONDITION OF THE EXISTING 6" SANITARY SEWER LATERAL FROM THE PROPERTY LINE TO THE SANITARY SEWER MAIN, THE GC SHALL PERFORM A VIDEO INSPECTION & PROVIDE TWO (2) DIGITAL COPIES TO THE CITY OF MIAMI BEACH PUBLIC WORKS DEPT. FOR REVIEW BY THE ENGINEERING & OPERATION CREWS.

SITE PLAN
SCALE: 3/32" = 1'-0

CLASSIFICATION OF STRUCTURE FOR FLOOD-RESISTANT DESIGN & CONSTRUCTION IS II.

NOTE:
THE POOL, FENCES, & GATES ARE UNDER SEPARATE PERMIT.

(+4.86' NGVD)

10' MEDIAN PLANTER

PUBLIC WORKS NOTES:

EROSION AND SEDIMENTATION CONTROL

1. THE INLET PROTECTION DEVICE OF THE PUBLIC STORM DRAIN SHALL BE CONSTRUCTED TO FACILITATE THE CLEANOUT AND DISPOSAL OF TRAPPED SEDIMENT AND TO MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES.
2. THE INLET PROTECTION DEVICES SHALL BE CONSTRUCTED SO THAT ANY RESULTANT PONDING OR STORMWATER WILL NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.
3. THE DRAINAGE AREA SHALL BE NO GREATER THAN 1 ACRE
4. PROVIDE SILT FENCE AROUND EXCAVATION

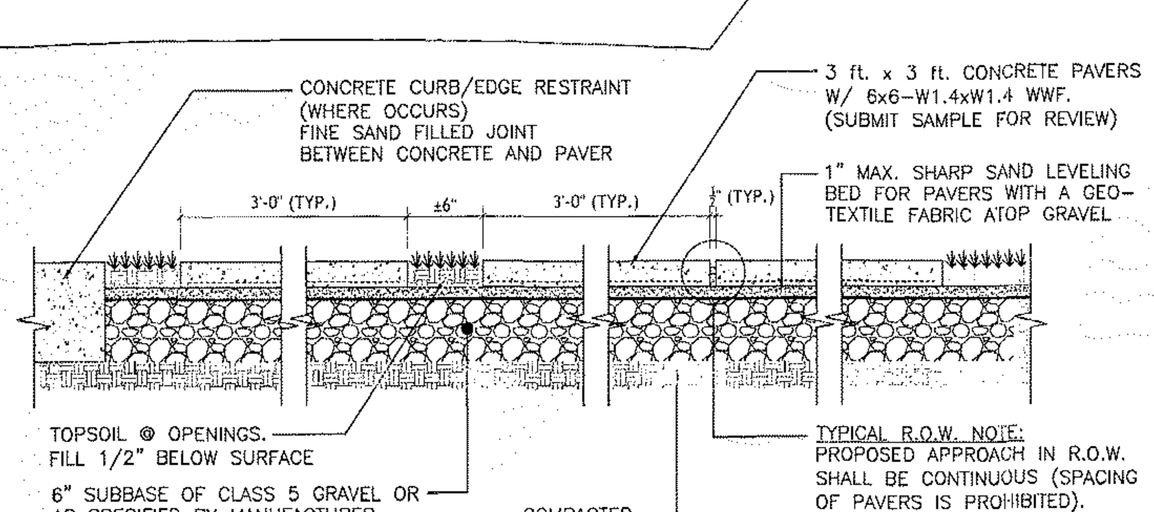
SEE SHEET A.1.2 FOR STORMWATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION

DEMOLITION AND DUST CONTROL

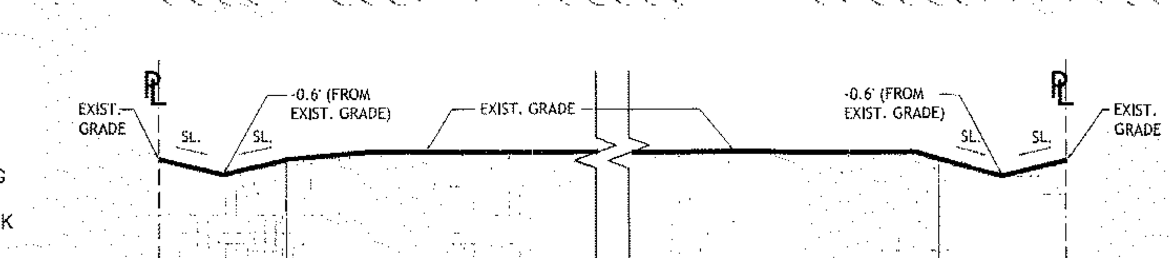
1. DUST CONTROL DURING DEMOLITION IS TO BE PROVIDED EITHER THROUGH
   A. STRUCTURAL CONTAINMENT OR
   B. WET DUST SUPPRESSION

WORK IN RIGHT-OF-WAY

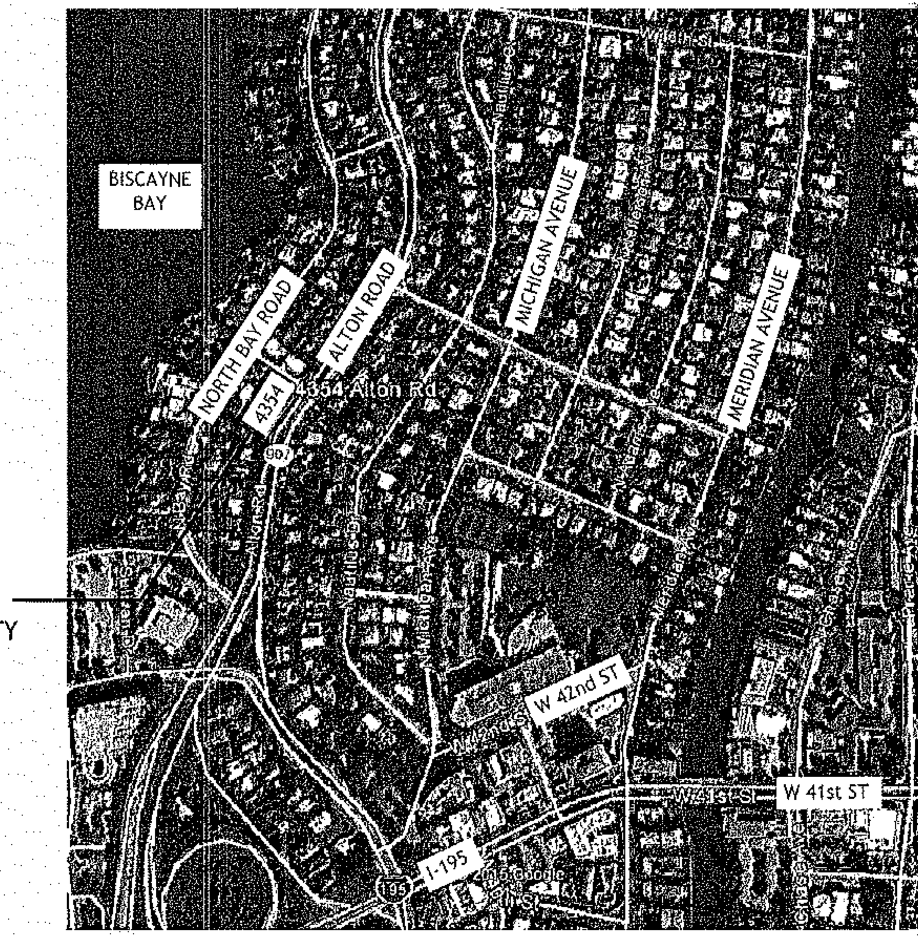
A CITY OF MIAMI BEACH RIGHT-OF-WAY CONSTRUCTION PERMIT IS REQUIRED PRIOR TO STARTING ANY DEMOLITION, &/OR CONSTRUCTION ACTIVITY, &/OR USE OF EQUIPMENT INSIDE THE RIGHT-OF-WAY. ANY WORK &/OR IMPROVEMENT WITHIN THE RIGHT-OF-WAY, OR THE 5 FT. EASEMENT, INCLUDING LANDSCAPE & IRRIGATION, REQUIRES A SEPARATE CITY OF MIAMI BEACH PUBLIC WORKS RIGHT-OF-WAY CONSTRUCTION PERMIT. SUBMITTAL OF LANDSCAPE WITHIN THE RIGHT-OF-WAY MUST BE REVIEWED AND APPROVED BY PARKS & REC. GREEN SPACE PRIOR TO A PUBLIC WORKS PERMIT. CONCRETE DECORATIVE REQUIRES A CITY OF MIAMI BEACH RIGHT-OF-WAY PERMIT FOR CONCRETE DECORATIVE DRIVEWAY CONNECTIONS PER PUBLIC WORKS MANUAL, PART 1, SECTION 2.A.4.



1 / A.1.0 **TYP. CONCRETE PAVER DETAIL**
SCALE: 1" = 1'-0



TYPICAL SITE SECTION 'A-A'
SCALE: N.T.S.



SUBJECT PROPERTY

AERIAL VIEW/LOCATION MAP
SCALE: N.T.S

CODE SUMMARY:

APPLICABLE CODES:
Florida Building Code - 2014
Florida Building Code Residential - 2014
City of Miami Beach Zoning Code
Florida Fire Prevention Code - 5th Edition

FOLIO No:
02-3222-011-1430

LEGAL DESCRIPTION:

LOT 20 & 21 BLOCK 6 OF NAUTILUS SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 8, AT PAGE 95, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.

ZONING DATA:

ZONING DESIGNATION:......................RS-4
TYPE OF OCCUPANCY:........................SINGLE FAMILY RESIDENCE
FLOOD ZONE:...................................."AE"
BASE FLOOD:...................................+7.0' NGVD

SCOPE OF WORK:
NEW RESIDENCE

SETBACKS:

	ALLOWED:	PROVIDED:
FRONT 1st FLOOR	20'-0"	50'-7"
FRONT 2nd FLOOR	30'-0"	50'-7"
REAR	20'-0"	20'-0"
INTERIOR SIDE	12'-3" (*10% lot width)	13'-11"
SIDE(FACING STREET)	15'-0"	28'-3"
SUM OF THE SIDES	30'-7" (*25% lot width)	40'-2"
POOL (SIDE YARD)	5'-0" (Min.)	39'-9"
POOL (SIDE FACING STREET)	5'-0" (Min.)	28'-0"

*LOT WIDTH @ 20' FRONT SETBACK...........122'-4"

BUILDING HEIGHT:

	ALLOWED:	PROVIDED:
# OF STORIES	2	2
BUILDING HEIGHT FROM MIN. BASE OF FLOOD @ +7.0' N.G.V.D. TO HIGHEST POINT OF SLOPED ROOF	24'-0"	23'-11"

AREAS:

	ALLOWED:	PROVIDED:
LOT AREA		12,505 SF
LOT COVERAGE	(30%) 3,751.5 SF	(19.4%) 2,422 SF
FIRST FLOOR UNIT AREA		1,684 SF
SECOND FLOOR UNIT AREA		3,006 SF
TOTAL UNIT SIZE	(50%) 6,252.5 SF	(37.5%) 4,690 SF
GROSS UNIT SIZE (1st & 2nd Floors w/ garage)		5,342 SF

SITE PLAN NOTES:

- ALL RAINWATER TO BE CONTAINED WITHIN THE SITE. NO RUNOFF ALLOWED ONTO ADJACENT PROPERTIES. A SWALE 4" DEEP X 4' WIDE SLOPING AWAY FROM PROPERTY LINE AND ADJACENT PROPERTY TO BE PROVIDED AT PERIMETER OF PROPERTY. EXCEPT AT RETAINING WALL IN REAR.
- ALL LANDSCAPING BY OTHERS.
- ALL METAL FENCES, GATES TO BE UNDER SEPARATE PERMIT.
- ALL MISSING, BROKEN, CRACKED OR UPLIFTED SIDEWALK SHALL BE RECONSTRUCTED.
- NO TREES TO BE REMOVED ON THIS SITE.
- ALL ELECTRICAL, MECHANICAL AND PLUMBING EQUIPMENT MUST BE AT OR ABOVE BASE FLOOD ELEVATION (B.F.E.), +7.0' NGVD.

DRAWN BY:

REVISIONS:
3 12-18-15
2 11-01-15
1 8-14-15

AA0003569
ANTHONY LEON
0016752

3DESIGN ARCHITECTURE
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P: 305.438.9377 | F: 305.438.9379

JAN 11 2016

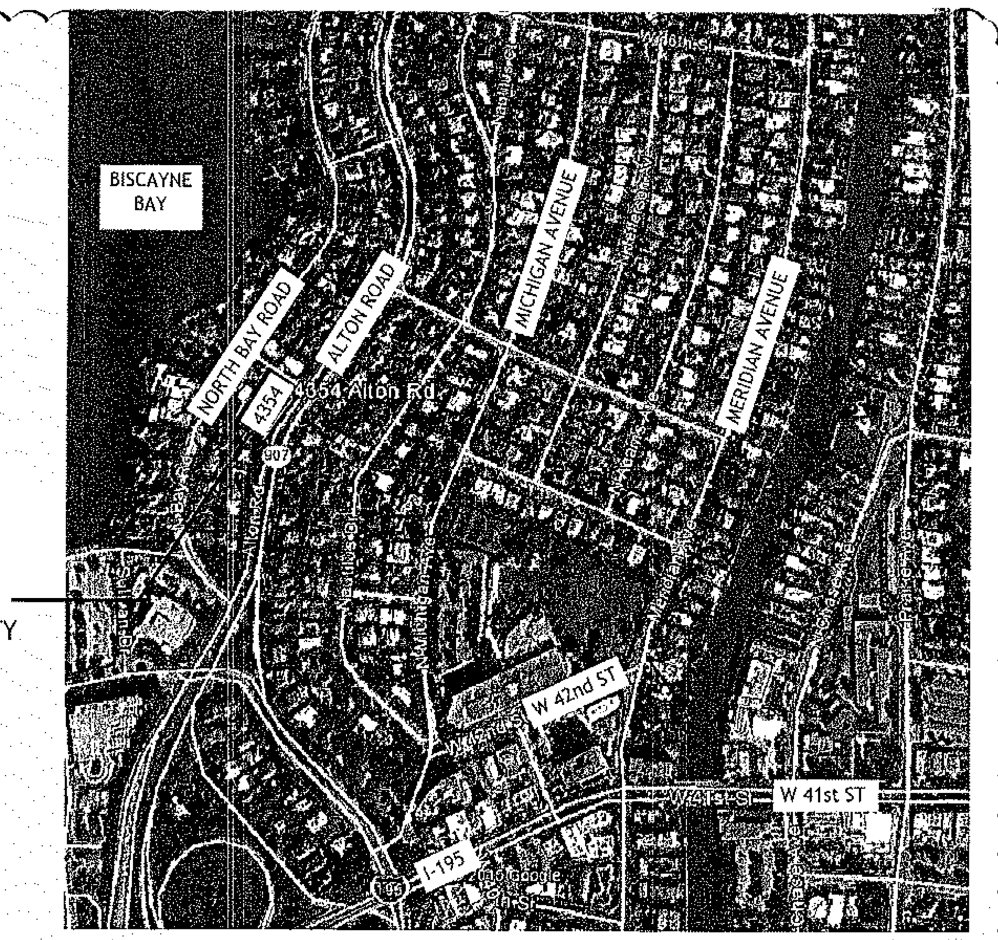
SEAL

NEW RESIDENCE
AT:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

A.1.0

SITE PLAN

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



AERIAL VIEW/LOCATION MAP
SCALE: N.T.S

FRONT YARD

	ALLOWED	PROVIDED
AREA OF FRONT YARD 2,295 S.F.		
AREA - IMPERVIOUS	1,491.75 S.F. (65% Max.)	671.77 S.F. (29.3%)
AREA - PERVIOUS	803.25 S.F. (35% Min.)	1,621.58 S.F. (70.7%)

INTERIOR SIDE YARD

	ALLOWED	PROVIDED
AREA OF REAR YARD 1,225 S.F.		
AREA - IMPERVIOUS	N/A	435.34 S.F. (35%)
AREA - PERVIOUS	N/A	789.50 S.F. (65%)

STREET SIDE YARD

	ALLOWED	PROVIDED
AREA OF STREET SIDE YARD 1,377 S.F.		
AREA - IMPERVIOUS	895 S.F. (65% Max.)	421.23 S.F. (31%)
AREA - PERVIOUS	482 S.F. (35% Min.)	955.66 S.F. (69%)

REAR YARD

	ALLOWED	PROVIDED
AREA OF FRONT YARD 2,607 S.F.		
AREA - IMPERVIOUS	782 S.F. (30% Max.)	505.68 S.F. (19.4%)
AREA - PERVIOUS	1,825 S.F. (70% Min.)	2,101.5 S.F. (80.6%)

SITE PLAN NOTES:

- ALL RAINWATER TO BE CONTAINED WITHIN THE SITE. NO RUNOFF ALLOWED ONTO ADJACENT PROPERTIES. A SWALE 4" DEEP X 4' WIDE SLOPING AWAY FROM PROPERTY LINE AND ADJACENT PROPERTY TO BE PROVIDED AT PERIMETER OF PROPERTY. EXCEPT AT RETAINING WALL IN REAR.
- ALL LANDSCAPING BY OTHERS.
- ALL METAL FENCES, GATES TO BE UNDER SEPARATE PERMIT.
- ALL MISSING, BROKEN, CRACKED OR UPLIFTED SIDEWALK SHALL BE RECONSTRUCTED.
- NO TREES TO BE REMOVED ON THIS SITE.
- ALL ELECTRICAL, MECHANICAL AND PLUMBING EQUIPMENT MUST BE AT OR ABOVE BASE FLOOD ELEVATION (B.F.E.), +7.0' NGVD.

1

DRAWN BY:

REVISIONS:

1 8-14-15

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SEAL
AUG 2 4 2015

NEW RESIDENCE
AT:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

THESE PLANS ARE FOR BUILDING DEPARTMENT REVIEW ONLY. THEY ARE NOT TO BE CONSTRUED AS CONSTRUCTION DOCUMENTS UNTIL ALL BUILDING DEPARTMENT APPROVALS ARE OBTAINED.

A.1.1
PERVIOUS & IMPERVIOUS AREAS

STORMWATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABLIZED.
3. ADDITIONAL PROTECTION – ON-SITE PROTECTION MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNFORSEEN CONDITIONS OR ACCIDENTS.
4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
5. WIRE MESH SHALL BE LAID OVER THE TOP DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH ½-INCH OPENING SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
6. FDOT NO.1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON DETAIL. THE DEPTH OF STONE SHALL BE AT LEASE 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEASE 13 INCHES ON ALL SIDES.
7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
8. BALE SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
9. BALES SHALL BE PLACED LENGTHWISE IN SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER
10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED AROUND THE INLET AND WIDTH OF A BALE TO A MINIMUM DEPTH OF FOUR INCHES. AFTER THE BALES ARE STACKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
11. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
12. LOOSE STRAW SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
13. HAYBALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEASE DAILY DURING PROLONGED RAINFALL.
14. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
16. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER
17. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE HAYBALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFROM TO THE EXISTING GRADE, PREPARED AND SEEDED.
18. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEASE DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
19. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY
20. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
21. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
22. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND APPLICABLE WATER MANAGEMENT DISTRICT PERMIT(S) FOR THIS PROJECT.
23. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL – A GUIDE TO SOUND LAND AND WATER MANAGAEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (FDER), CHAPTER 6.
24. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION.
25. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
26. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
27. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
28. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE APPLICABLE WATER MANAGEMENT DISTRICT.
29. ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, HAYBALES AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD
30. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND BE REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED
31. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT CONTROL MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
32. ALL EXCAVATIONS AND EARTHWORK SHALL BE DONE IN A MANNER TO MINIMIZE WATER TURBIDITY AND POLLUTION. DISCHARGE SHALL BE CONTROLLED AND REROUTED THROUGH HAY FILTERS, SILTATION BARRIERS AND SUMPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION, CORRECTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION IN ACCORDANCE WITH CHAPTER 62-302, FLORIDA ADMINISTRATIVE CODE
33. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ANY SEDIMENT THAT LEAVES THE SITE AND CHANGES ANY DOWNSTREAM CONDITIONS BY RAISING CHANNEL BOTTOMS AND/OR CLOGGING OUTFALL CULVERTS
34. THE CONTRACTOR SHALL PAY FOR ANY WATER QUALITY CONTROL VIOLATIONS FROM ANY AGENCY THAT RESULTS IN FINES BEING ASSESSED TO THE OWNER BECAUSE OF THE CONTRACTOR'S FAILURE TO ELIMINATE TURBID RUNOFF FROM LEAVING THE SITE AND RAISING BACKGROUND LEVELS ABOVE EXISTING BACKGROUND LEVEL.
35. A MINIMUM OF ONE OF THE EROSION CONTROL MEASURE OPTIONS SHOWN FOR ALL DROP INLETS WILL BE USED BY THE CONTRACTOR
36. FLOATING TURBIDITY BARRIERS WILL BE PLACED AT ALL OUTFALL LOCATIONS. IF SEAGRASSES ARE PRESENT BARRIERS WILL NOT BE PLACED OVER THEM. THE FLOATING TURBIDITY BARRIERS SHALL BE INSTALLED IN A MANNER TO PREVENT MANATEE ENTANGLEMENT.
37. SILT FENCES OR HAYBALES WILL BE USED ALONG BOTH SIDES OF LIMITS OF CONSTRUCTION TO MINIMIZE OFFSITE SILTATION MIGRATION.

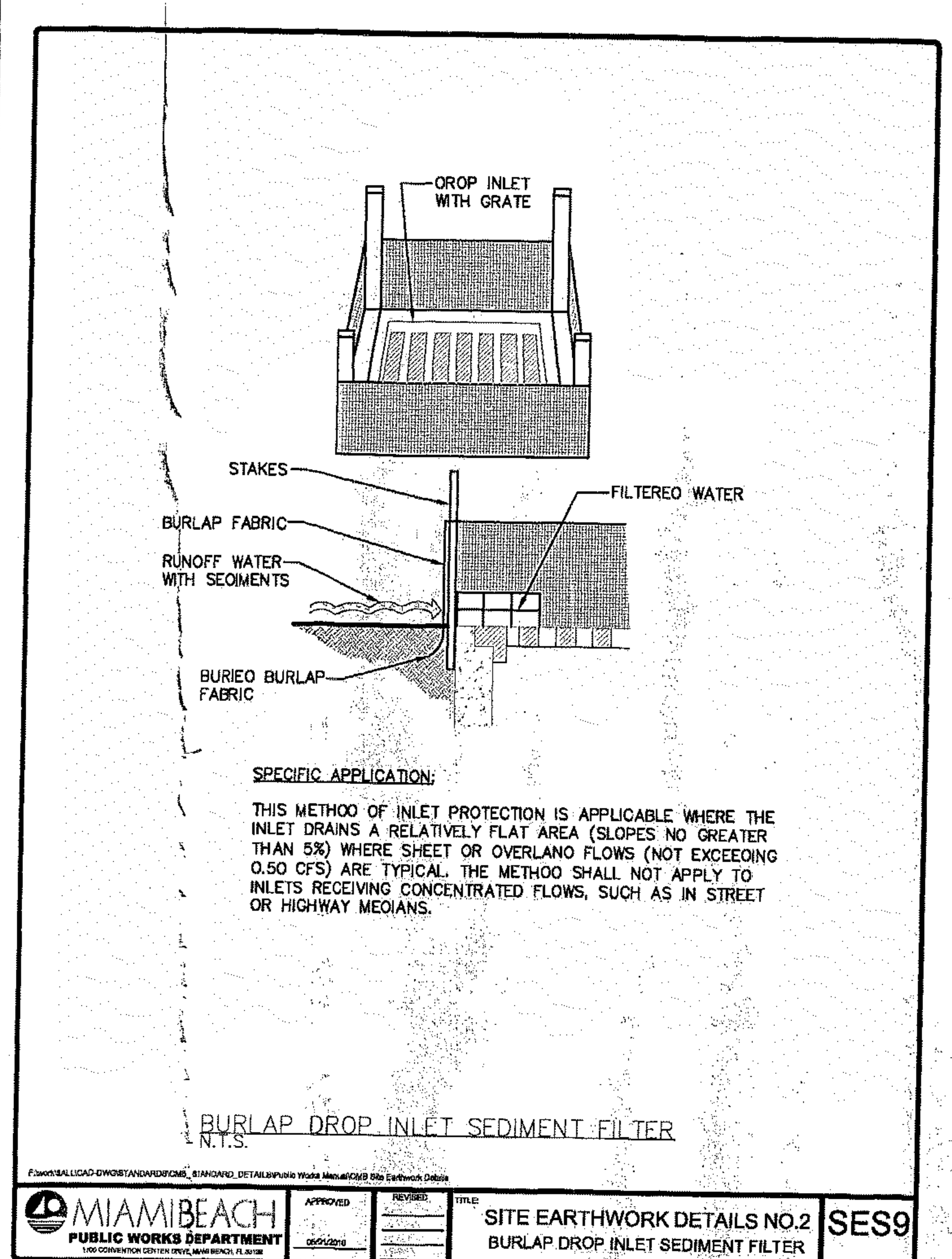
EROSION AND SEDIMENT CONTROL NOTES
N.T.S.

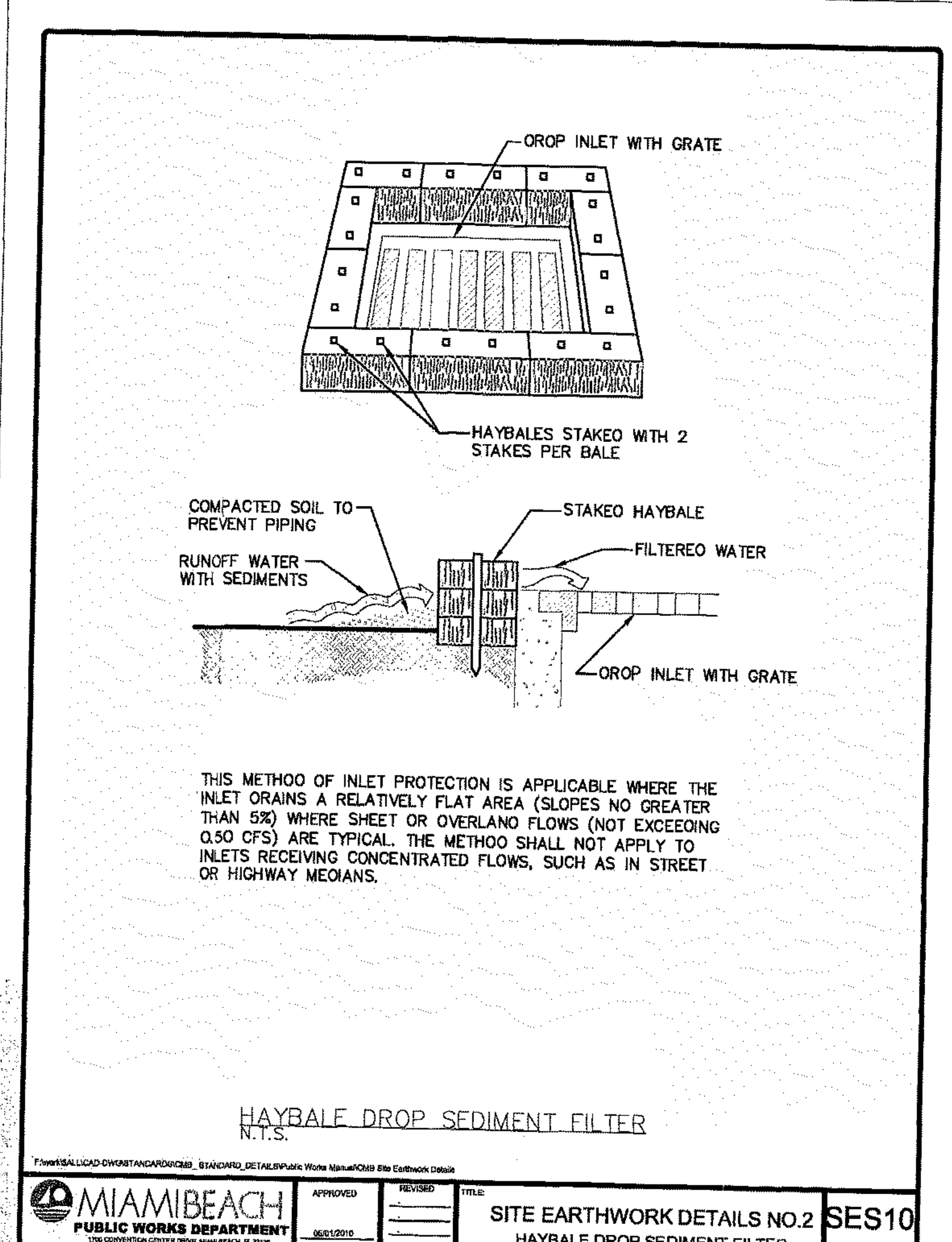
EROSION AND SEDIMENT CONTROL GENERAL NOTE:

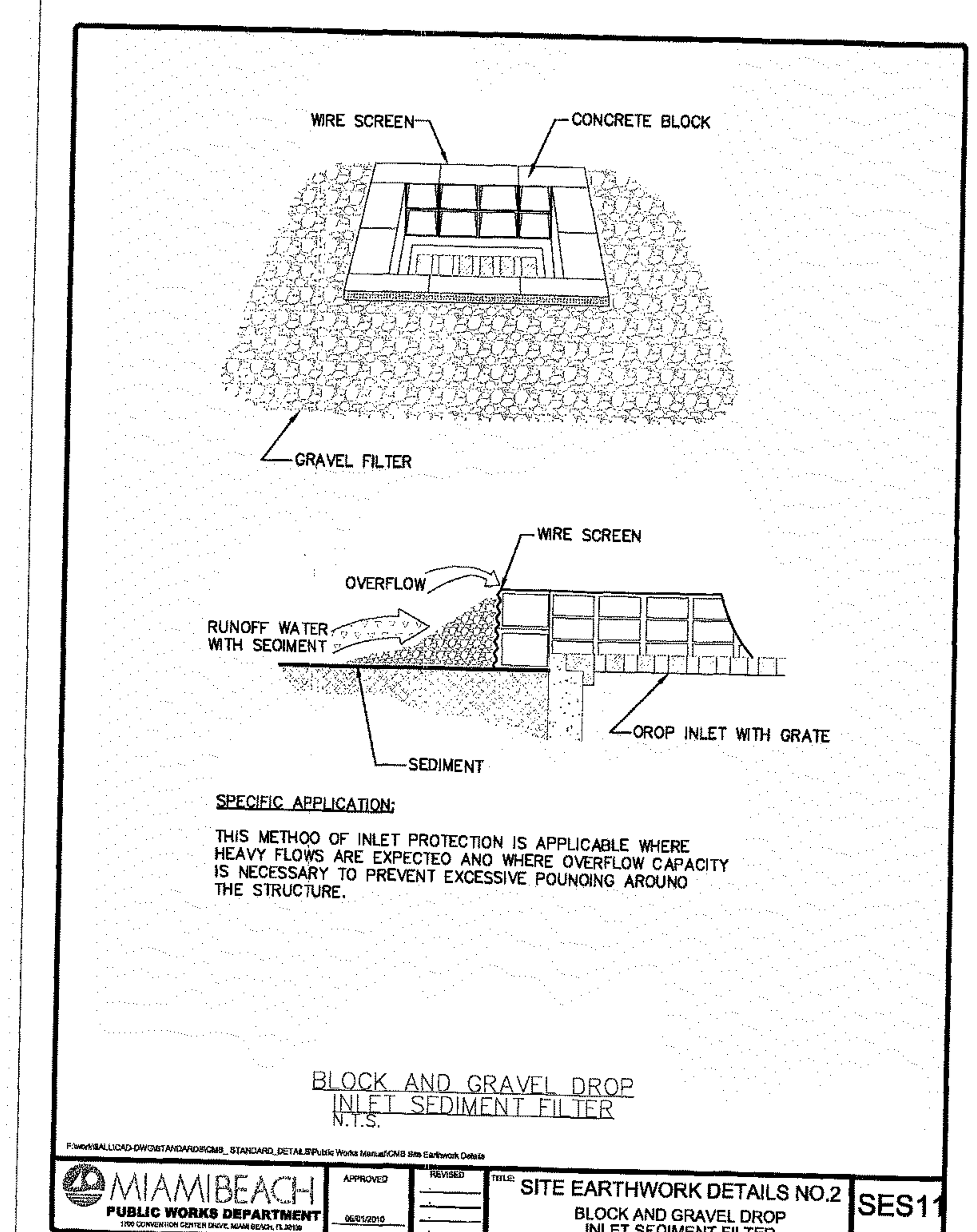
THE FOLLOWING DETAILS AND SPECIFICATIONS ARE BEST MANAGEMENT PRACTICES (BMPs) FOR EROSION AND SEDIMENT CONTROL FOR CONSTRUCTION ACTIVITY. THE FDOT MANUAL AND FLORIDA'S EROSION AND SEDIMENT CONTROL MANUAL MAY BE UTILIZED TO MEET EROSION AND SETTLEMENT CONTROL REQUIREMENTS. THESE DETAILS, SPECIFICATIONS, AND STANDARDS ARE PRESENTED OR REFERENCED HERE ONLY AS A SUGGESTED APPROACH DEVELOPED FOR USE BY THE OWNER, THE DESIGN PROFESSIONAL, AND/OR THE CONTRACTOR IN THE SELECTION, THE DESIGN, AND THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION TECHNIQUES TO COMPLY WITH THE NPDES STORM WATER REGULATIONS ESTABLISHED BY THE FDEP FOR CONSTRUCTION ACTIVITY.

IT IS THE RESPONSIBILITY OF THE DESIGN PROFESSIONAL TO PREPARE A STORMWATER POLLUTION PREVENTION PLAN THAT INCLUDES SITE-SPECIFIC BMPs. IT IS THE RESPONSIBILTY OF THE CONTRACTOR TO PREPARE AN EROSION AND SEDIMENT CONTROL PLAN AND TO IMPLEMENT BMPs PURSUANT TO THAT PLAN. IF SITE CONDITIONS WARRANT ADDITIONAL BMPs, THE CONTRACTOR SHALL IMPLEMENT THOSE BMPs ACCORDINGLY.

EROSION AND SEDIMENT CONTROL GENERAL NOTE
N.T.S.







DRAWN BY:

REVISIONS:

2 11-01-15

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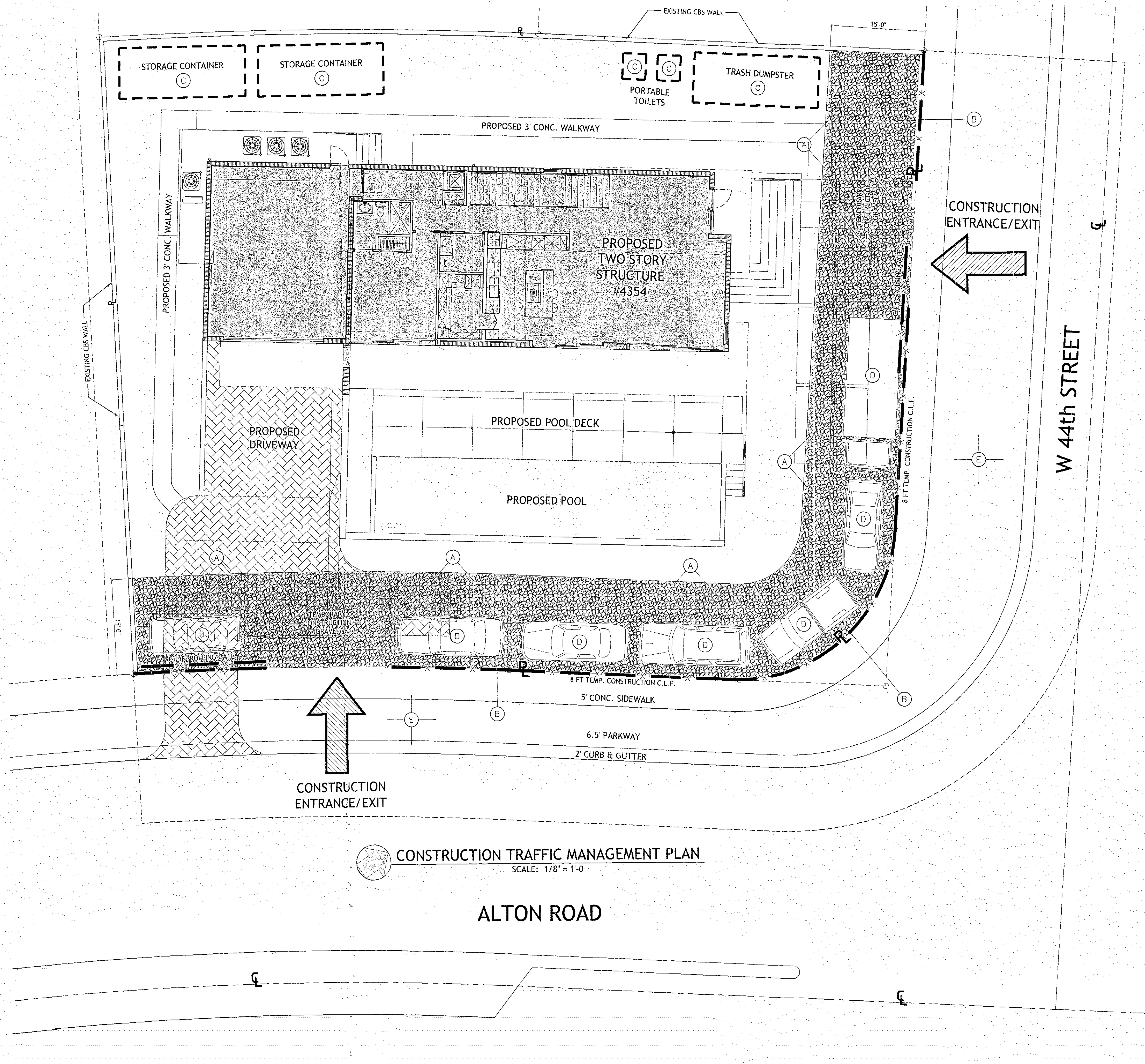
NOV 20 2015

SEAL

NEW RESIDENCE
AT:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

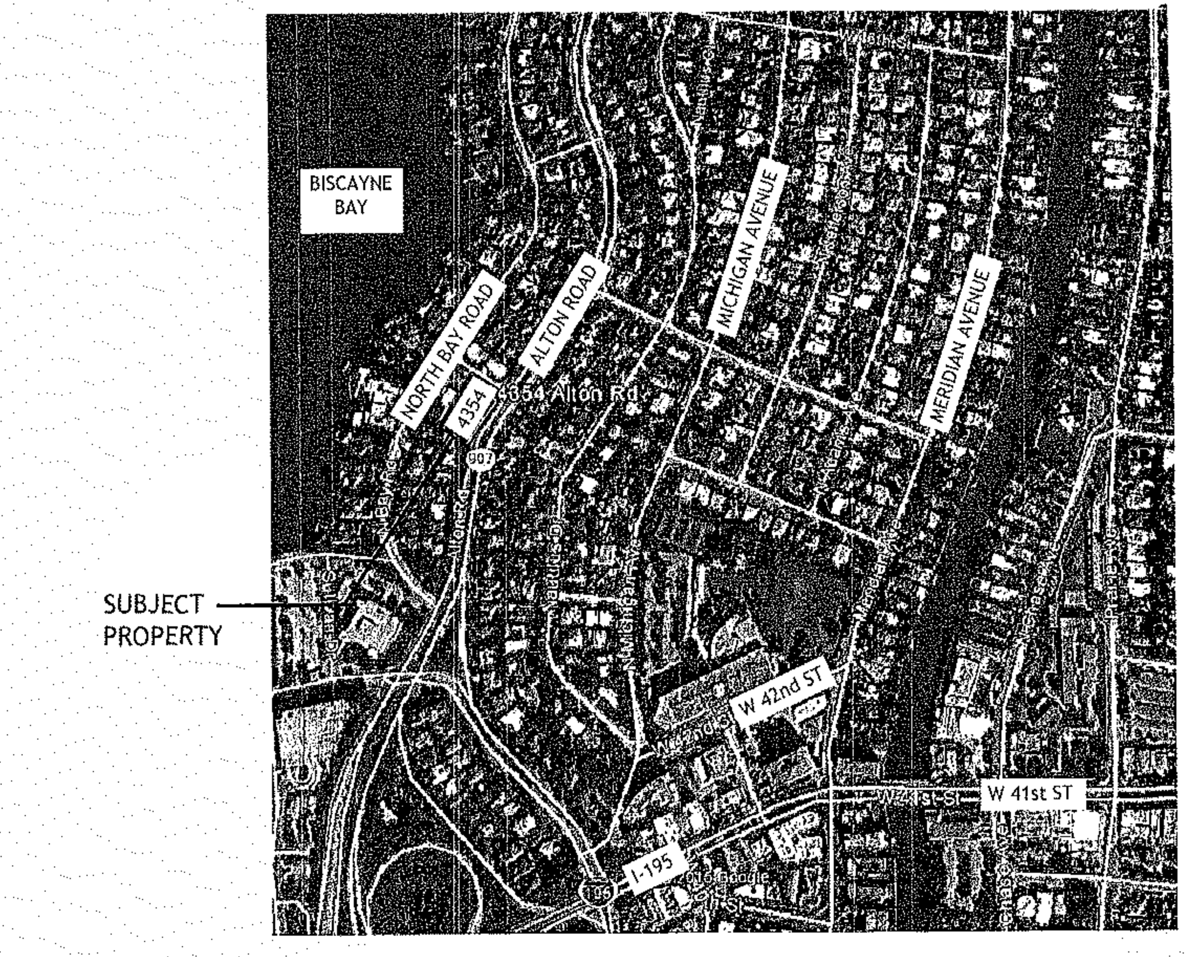
THESE PLANS ARE FOR BUILDING DEPARTMENT REVIEW ONLY. THEY ARE NOT TO BE CONSTRUED AS CONSTRUCTION DOCUMENTS UNTIL ALL BUILDING DEPARTMENT APPROVALS ARE OBTAINED.

A.1.2
PUBLIC WORKS DETAILS & NOTES



CONSTRUCTION TRAFFIC MANAGEMENT PLAN

SCALE: 1/8" = 1'-0



AERIAL VIEW/LOCATION MAP

SCALE: N.T.S

GENERAL CONDITIONS LEGEND:

(A) MAINTAIN GRAVEL AT THE FRONT OF THE CONSTRUCTION SITE WITHIN THE FIRST 15 FT OF THE REQUIRED FRONT YARD TO MITIGATE DISTURBANCE OF SOIL & MUD BY RELATED PERSONNEL VEHICLES EXITING & ENTERING THE SITE.

(B) PROVIDE AN 8 FT HIGH FENCE WITH A WIND RESISTANT GREEN MESH MATERIAL ALONG THE FRONT PROPERTY LINE.

(C) KEEP ALL CONSTRUCTION MATERIALS (INCLUDING DUMPSTERS & PORTABLE TOILETS) LOCATED BEHIND THE CONSTRUCTION FENCE AND NOT VISIBLE FROM THE R.O.W.

(D) PARK ALL CONSTRUCTION VEHICLES ON THE PROPERTY (OR AT AN ALTERNATE OVERFLOW PARKING SITE).

(E) OBSERVE GOOD CONSTRUCTION PRACTICES AND PREVENT CONSTRUCTION MATERIALS & DEBRIS FROM IMPACTING THE R.O.W.

NOTE:
SUBMIT THIS "CONSTRUCTION TRAFFIC MANAGEMENT PLAN" TO CMB PARKING DIRECTOR FOR APPROVAL PRIOR TO ISSUE OF PERMIT.

DRAWN BY:

REVISIONS:

3 12-16-15

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JAN 05 2016

NEW RESIDENCE AT: 4354 ALTON ROAD MIAMI BEACH, FL 33139

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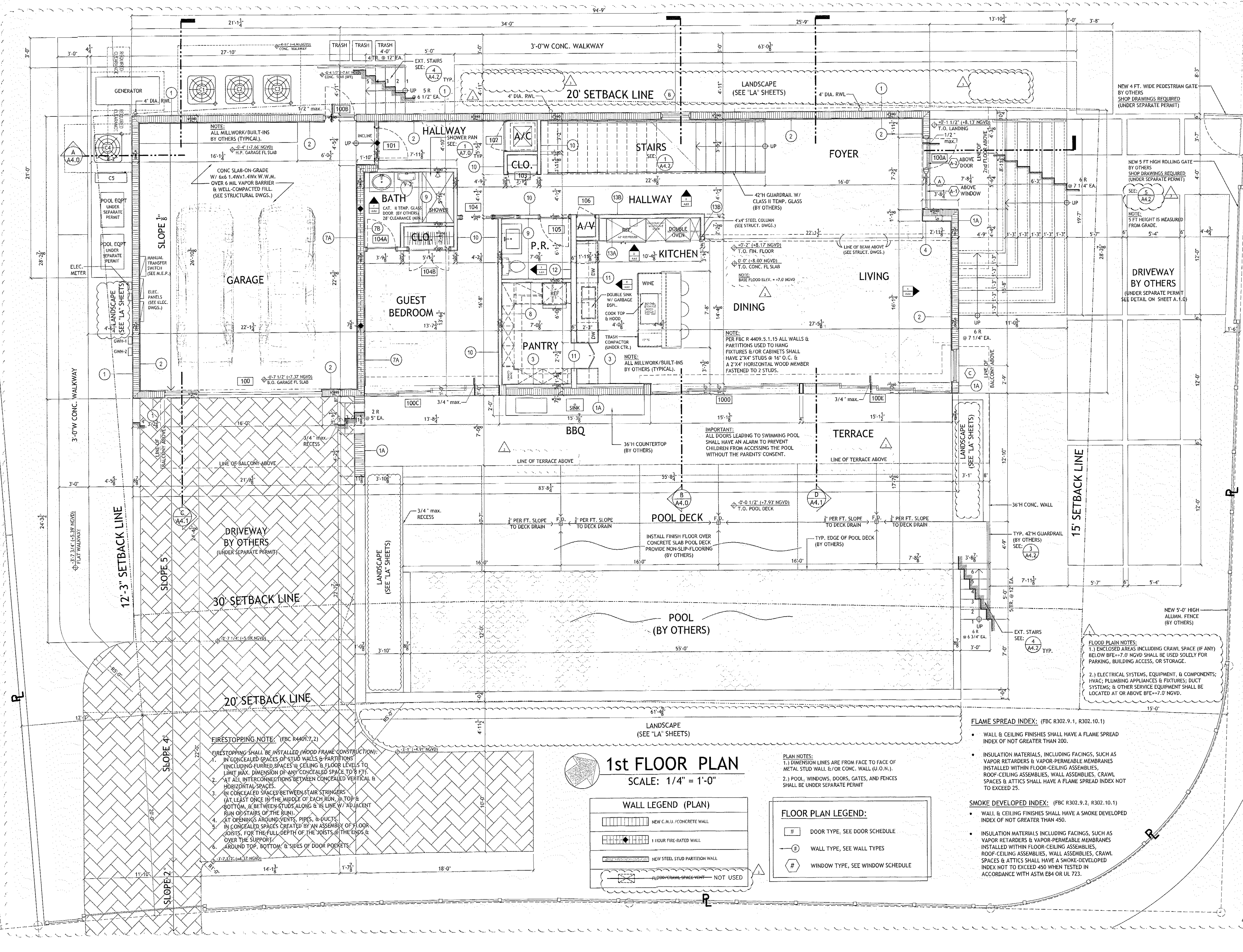
A.1.3

CONSTRUCTION TRAFFIC MANAGEMENT PLAN



FLOOD PLAIN NOTES:
1.) ENCLOSED AREAS INCLUDING CRAWL SPACE (IF ANY) BELOW BFE=+7.0' NGVD SHALL BE USED SOLELY FOR PARKING, BUILDING ACCESS, OR STORAGE.

2.) ELECTRICAL SYSTEMS, EQUIPMENT, & COMPONENTS; HVAC; PLUMBING APPLIANCES & FIXTURES; DUCT SYSTEMS; & OTHER SERVICE EQUIPMENT SHALL BE LOCATED AT OR ABOVE BFE=+7.0' NGVD.

FIRESTOPPING NOTE: (FBC R4409.7.2)

FIRESTOPPING SHALL BE INSTALLED (WOOD FRAME CONSTRUCTION):
1. IN CONCEALED SPACES OF STUD WALLS & PARTITIONS (INCLUDING FURRED SPACES @ CEILING & FLOOR LEVELS TO LIMIT MAX. DIMENSION OF ANY CONCEALED SPACE TO 8 FT).
2. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL & HORIZONTAL SPACES.
3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS (AT LEAST ONCE IN THE MIDDLE OF EACH RUN, @ TOP & BOTTOM, & BETWEEN STUDS ALONG & IN LINE W/ ADJACENT RUN OF STAIRS OF THE RUN).
4. AT OPENINGS AROUND VENTS, PIPES, & DUCTS.
5. IN CONCEALED SPACES CREATED BY AN ASSEMBLY OF FLOOR JOISTS, FOR THE FULL DEPTH OF THE JOISTS @ THE ENDS & OVER THE SUPPORT.
6. AROUND TOP, BOTTOM, & SIDES OF DOOR POCKETS.

1st FLOOR PLAN

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

PLAN NOTES:
1.) DIMENSION LINES ARE FROM FACE TO FACE OF METAL STUD WALL &/OR CONC. WALL (U.O.N.).

2.) POOL, WINDOWS, DOORS, GATES, AND FENCES SHALL BE UNDER SEPARATE PERMIT

WALL LEGEND (PLAN)

- NEW C.M.U./CONCRETE WALL
- 1 HOUR FIRE-RATED WALL
- NEW STEEL STUD PARTITION WALL
- ~~FLOOD/CRAWL SPACE VENT~~ NOT USED

FLOOR PLAN LEGEND:

- # DOOR TYPE, SEE DOOR SCHEDULE
- # WALL TYPE, SEE WALL TYPES
- # WINDOW TYPE, SEE WINDOW SCHEDULE

FLAME SPREAD INDEX: (FBC R302.9.1, R302.10.1)

- WALL & CEILING FINISHES SHALL HAVE A FLAME SPREAD INDEX OF NOT GREATER THAN 200.
- INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS & VAPOR-PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES & ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25.

SMOKE DEVELOPED INDEX: (FBC R302.9.2, R302.10.1)

- WALL & CEILING FINISHES SHALL HAVE A SMOKE DEVELOPED INDEX OF NOT GREATER THAN 450.
- INSULATION MATERIALS INCLUDING FACINGS, SUCH AS VAPOR RETARDERS & VAPOR-PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES & ATTICS SHALL HAVE A SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723.

DRAWN BY:

REVISIONS:
3 12-18-15
2 11-01-15
1 8-14-15

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JAN 11 2016

SEAL

NEW RESIDENCE
AT:
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MIAMI BEACH, FL 33139

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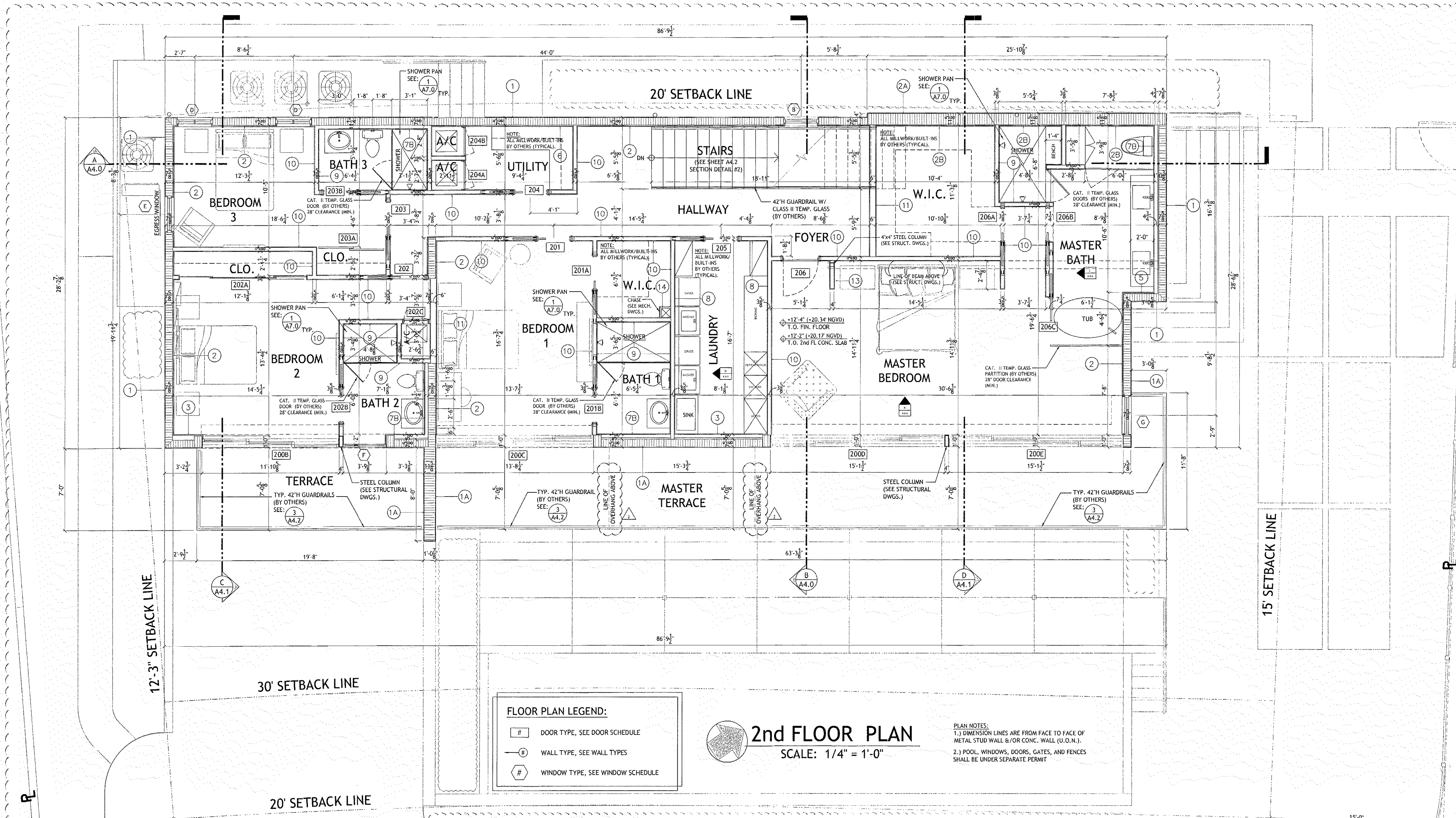
A.2.1

1st FLOOR PLAN



FLOOR PLAN LEGEND:

#	DOOR TYPE, SEE DOOR SCHEDULE
(#)	WALL TYPE, SEE WALL TYPES
⟨#⟩	WINDOW TYPE, SEE WINDOW SCHEDULE

2nd FLOOR PLAN

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

PLAN NOTES:
1.) DIMENSION LINES ARE FROM FACE TO FACE OF METAL STUD WALL &/OR CONC. WALL (U.O.N.).
2.) POOL, WINDOWS, DOORS, GATES, AND FENCES SHALL BE UNDER SEPARATE PERMIT

FIRESTOPPING NOTE: (FBC R4409.7.2)

FIRESTOPPING SHALL BE INSTALLED (WOOD FRAME CONSTRUCTION):

1. IN CONCEALED SPACES OF STUD WALLS & PARTITIONS (INCLUDING FURRED SPACES @ CEILING & FLOOR LEVELS TO LIMIT MAX. DIMENSION OF ANY CONCEALED SPACE TO 8 FT).
2. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL & HORIZONTAL SPACES.
3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS (AT LEAST ONCE IN THE MIDDLE OF EACH RUN, @ TOP & BOTTOM, & BETWEEN STUDS ALONG & IN LINE W/ ADJACENT RUN OF STAIRS OF THE RUN).
4. AT OPENINGS AROUND VENTS, PIPES, & DUCTS.
5. IN CONCEALED SPACES CREATED BY AN ASSEMBLY OF FLOOR JOISTS, FOR THE FULL DEPTH OF THE JOISTS @ THE ENDS & OVER THE SUPPORT.
6. AROUND TOP, BOTTOM, & SIDES OF DOOR POCKETS.

WALL LEGEND (PLAN)

	NEW C.M.U./CONCRETE WALL
	1 HOUR FIRE-RATED WALL
	NEW STEEL STUD PARTITION WALL
	FLOOD/CRAWL SPACE VENT

MISCELLANEOUS NOTES:

- ALL WOOD ELEMENTS IN CONTACT W/ CONCRETE OR MASONRY TO BE PRESSURE TREATED.
- SHOWER / TUB ENCLOSURES / DOORS, SHALL BE CATEGORY II SAFETY GLASS.
- ALL INTERIOR AREAS TO HAVE A 6" WOOD BASEBOARD EXCEPT ALL BATHROOM AREAS TO HAVE A 4" CERAMIC COVE BASE TILE.
- WALL HUNG CABINETS TO BE ANCHORED TO HORIZONTAL MEMBER (20 GA MIN.) SECURELY FASTENED TO MIN (2) 20 GA STUDS, TYPICAL.
- SMOOTH SURFACE, NON-ABSORBENT, SLIP RESISTANT, CERAMIC TILED FLOOR AND WALLS (70" HIGH MIN.) @ NEW SHOWERS & TUBS (TYPICAL).
- COORDINATE FLOOR FINISHES WITH OWNER.
- LIGHT SWITCHES, ELECTRICAL OUTLETS, THERMOSTATS AND OTHER ENVIRONMENTAL CONTROLS MUST BE WITHIN 15" MIN. AND 48" MAX. HIGH. A.F.F.
- ALL NEW CONSTRUCTION MATERIALS BELOW BASE FLOOD ELEVATION (+7.0') SHALL BE FLOOD-DAMAGE-RESISTANT MATERIAL. ALL WOOD USED BELOW THE B.F.E. SHALL BE PRESERVATIVE-TREATED OR NATURALLY DECAY-RESISTANT.
- ALL ELECTRICAL, MECHANICAL, AND PLUMBING EQUIPMENT MUST BE AT OR ABOVE BASE FLOOD ELEVATION (B.F.E.) +7.0'.
- ALL ENCLOSED AREAS, INCLUDING CRAWL SPACE, THAT ARE BELOW B.F.E. SHALL ONLY BE USED FOR PARKING, BUILDING ACCESS, OR STORAGE.
- PAINT ALL NEW INTERIOR WALLS AND TEXTURE ALL NEW CEILINGS.
- COORDINATE PAINT COLORS WITH OWNER. EXTERIOR PAINT SHALL BE UNDER SEPARATE PERMIT.
- ALL NEW EXTERIOR DOORS & WINDOWS SHALL BE UNDER SEPARATE PERMIT.
- CLASSIFICATION OF STRUCTURE FOR FLOOD-RESISTANT DESIGN AND CONSTRUCTION IS II.
- THRESHOLDS AT ALL DOORS SHALL NOT EXCEED 1/2" MAXIMUM & BE LEVEL @ EA. SIDE OF DOOR. SEE DETAIL 2/A.7.0.
- SEE INTERIOR DESIGNER DRAWINGS FOR ALL INTERIOR FINISHES, FIXTURES, MILLWORK, HARDWARE, APPLIANCES, ETC. (U.N.O.)

FLAME SPREAD INDEX: (FBC R302.9.1, R302.10.1)

- WALL & CEILING FINISHES SHALL HAVE A FLAME SPREAD INDEX OF NOT GREATER THAN 200.
- INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS & VAPOR-PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES & ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25.

SMOKE DEVELOPED INDEX: (FBC R302.9.2, R302.10.1)

- WALL & CEILING FINISHES SHALL HAVE A SMOKE DEVELOPED INDEX OF NOT GREATER THAN 450.
- INSULATION MATERIALS INCLUDING FACINGS, SUCH AS VAPOR RETARDERS & VAPOR-PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES & ATTICS SHALL HAVE A SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723.

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REVISIONS:
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A.2.2

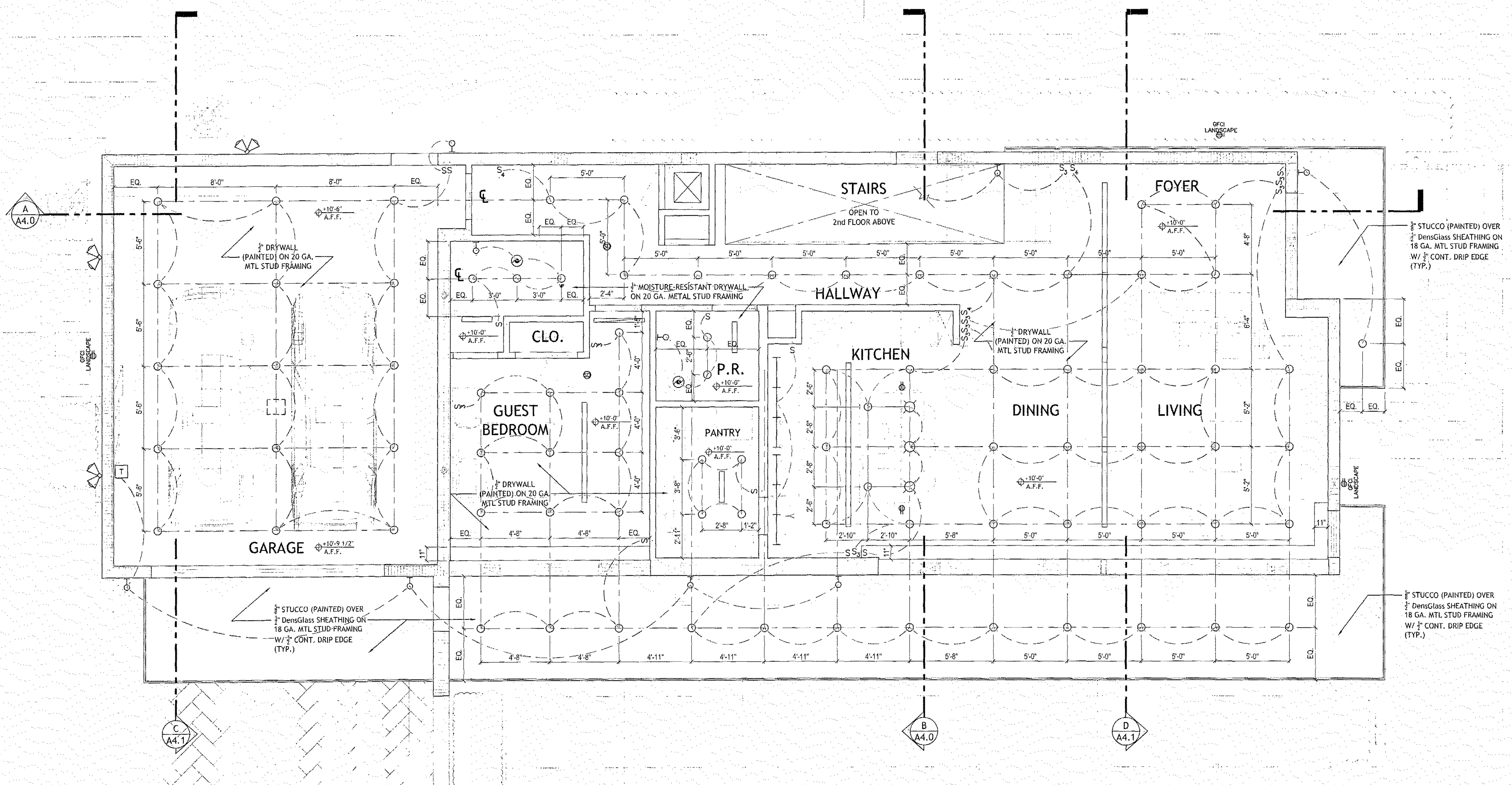
2nd FLOOR PLAN

REFLECTED CEILING NOTES:

1. ALL WORK TO BE NEW U.O.N.
2. REFER TO REFLECTED CEILING PLAN FOR CEILING HEIGHTS. VERIFY THIS DIMENSION WITH THE PERIMETER WINDOW HEAD CONDITION AND REVIEW WITH THE ARCHITECT/DESIGNER PRIOR TO START OF CONSTRUCTION.
3. ALL DIMENSIONS OF FIXTURES, DEVICES, ETC. ARE TO CENTERLINE OF FIXTURE, U.O.N. WHERE ITEMS ARE IN LINE, CENTERLINE OF ITEMS OR GROUP OF ITEMS TO ALIGN, U.O.N.
4. ALL MEP-FP DEVICE LOCATIONS NOT SHOWN ON DRAWINGS, OR IN CONFLICT WITH MEP-FP DRAWINGS, ARE TO BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.
5. CONTRACTOR TO COORDINATE LOCATIONS OF ALL CEILING ELEMENTS AND PROVIDE COMPLETE COORDINATION DRAWINGS FOR THE ARCHITECT, INTERIOR DESIGNER AND ENGINEER'S REVIEW FOR APPROVAL.
6. REFER AND COORDINATE WITH I.D. DRAWINGS FOR FINISHES.
7. ALL SMOKE DETECTORS SHOWN ARE NEW, AND SHALL BE 120v BATTERY INTERCONNECTED, 36" MIN. AWAY FROM ANY A/C SUPPLY REGISTER. TYPICAL.
8. COORDINATE LOCATIONS OF CEILING ACCESS PANELS WITH LOCATIONS OF A/C UNITS ABOVE CEILING.

REFLECTED CEILING PLAN LEGEND:

WALL SCONCE (SEE ELEC. DWGS.)
RECESSED LIGHT FIXTURE (SEE ELEC. DWGS.)
PENDANT-MTD. LIGHT FIXTURE (SEE ELEC. DWGS.)
WALL WASHER LIGHT FIXTURE (SEE ELEC. DWGS.)
SECURITY LIGHT ON MOTION SENSOR (SEE ELEC. DWGS.)
CEILING A/C ACCESS
SD SMOKE DETECTOR
EXHAUST FAN (SEE MECH. DWGS.)
R/A CEILING GRILLE (SEE MECH. DWGS.)
SUPPLY CEILING DIFFUSER (SEE MECH. DWGS.)
SIDEWALL R/A GRILLE (SEE MECH. DWGS.)
SIDEWALL SUPPLY DIFFUSER (SEE MECH. DWGS.)
LINEAR DIFFUSER (SEE MECH. DWGS.)
T TIMER
J JUNCTION BOX
VP VAPOR PROOF
GARAGE DOOR OPENER
0'-0" ELEVATION MARK
CEILING FAN W/ LIGHT



1st FLOOR REFLECTED CEILING PLAN

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

NOTE:
ALL NEW CEILINGS/SOFFITS SHALL BE CONSTRUCTED OF ½" G.W.B. (PAINTED) ON 20 GA 1-⅝" MTL STUDS @ 16" O.C. (MIN.) W/ DIAGONAL BRACING @ EACH VERTICAL SUPPORT (WHERE POSSIBLE). TYPICAL.

DRAWN BY:

REVISIONS:

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NEW RESIDENCE AT: 4354 ALTON ROAD MIAMI BEACH, FL 33139

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A.2.3

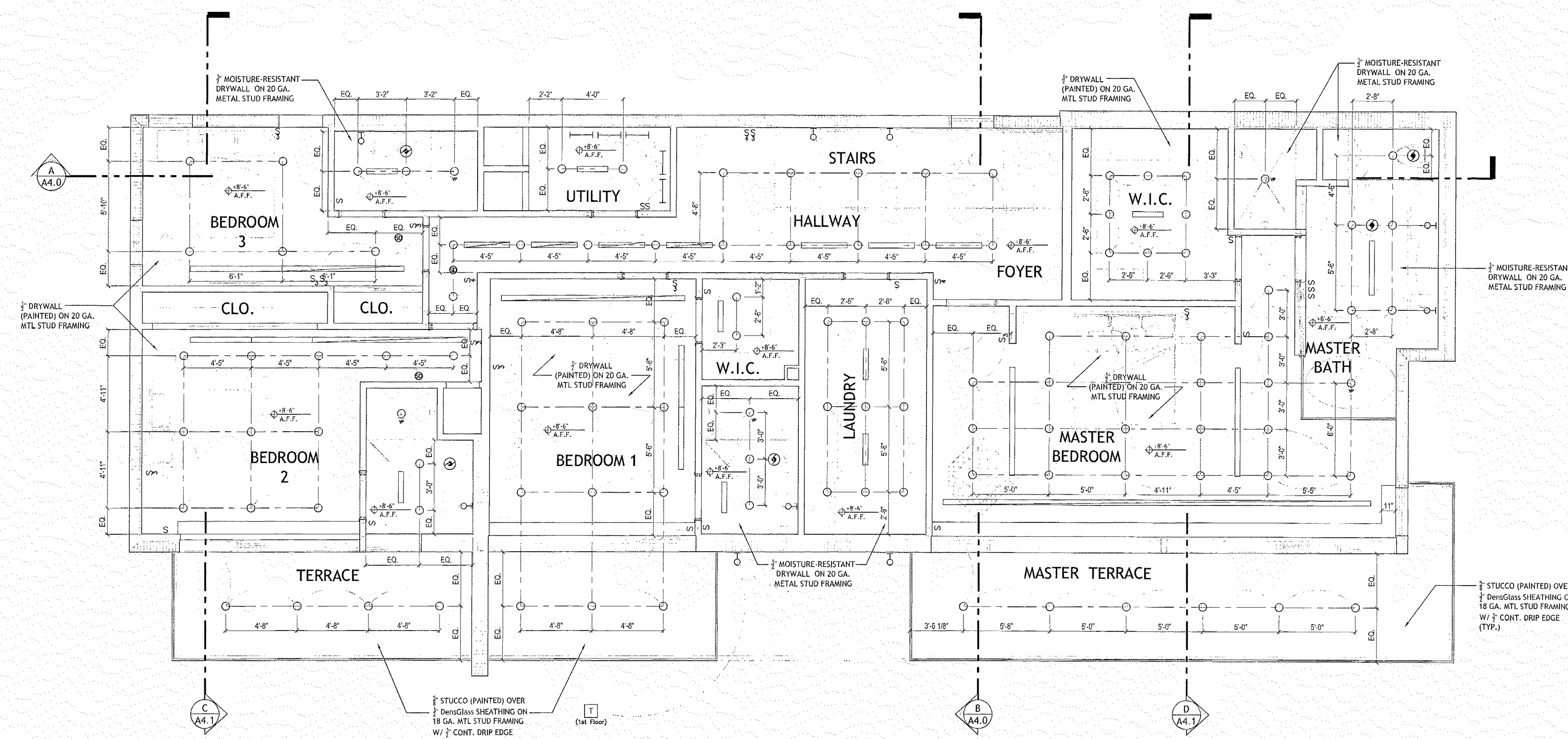
1st FLOOR REFLECTED CEILING PLAN

REFLECTED CEILING NOTES:

1. ALL WORK TO BE NEW U.O.N.
2. REFER TO REFLECTED CEILING PLAN FOR CEILING HEIGHTS. VERIFY THIS DIMENSION WITH THE PERIMETER WINDOW HEAD CONDITION AND REVIEW WITH THE ARCHITECT/DESIGNER PRIOR TO START OF CONSTRUCTION.
3. ALL DIMENSIONS OF FIXTURES, DEVICES, ETC. ARE TO CENTERLINE OF FIXTURE, U.O.N. WHERE ITEMS ARE IN LINE, CENTERLINE OF ITEMS OR GROUP OF ITEMS TO ALIGN, U.O.N.
4. ALL MEP-FP DEVICE LOCATIONS NOT SHOWN ON DRAWINGS, OR IN CONFLICT WITH MEP-FP DRAWINGS, ARE TO BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.
5. CONTRACTOR TO COORDINATE LOCATIONS OF ALL CEILING ELEMENTS AND PROVIDE COMPLETE COORDINATION DRAWINGS FOR THE ARCHITECT, INTERIOR DESIGNER AND ENGINEER'S REVIEW FOR APPROVAL.
6. REFER AND COORDINATE WITH I.D. DRAWINGS FOR FINISHES.
7. ALL SMOKE DETECTORS SHOWN ARE NEW, AND SHALL BE 120v BATTERY INTERCONNECTED, 36" MIN. AWAY FROM ANY A/C SUPPLY REGISTER. TYPICAL.
8. COORDINATE LOCATIONS OF CEILING ACCESS PANELS WITH LOCATIONS OF A/C UNITS ABOVE CEILING.

REFLECTED CEILING PLAN LEGEND:

- WALL SCONCE (SEE ELEC. DWGS.)
- RECESSED LIGHT FIXTURE (SEE ELEC. DWGS.)
- PENDANT-MTD. LIGHT FIXTURE (SEE ELEC. DWGS.)
- WALL WASHER LIGHT FIXTURE (SEE ELEC. DWGS.)
- SECURITY LIGHT ON MOTION SENSOR (SEE ELEC. DWGS.)
- CEILING A/C ACCESS
- SD SMOKE DETECTOR
- EXHAUST FAN (SEE MECH. DWGS.)
- R/A CEILING GRILLE (SEE MECH. DWGS.)
- SUPPLY CEILING DIFFUSER (SEE MECH. DWGS.)
- SIDEWALL R/A GRILLE (SEE MECH. DWGS.)
- SIDEWALL SUPPLY DIFFUSER (SEE MECH. DWGS.)
- LINEAR DIFFUSER (SEE MECH. DWGS.)
- T TIMER
- J JUNCTION BOX
- VP VAPOR PROOF
- GARAGE DOOR OPENER
- 0'-0" ELEVATION MARK
- CEILING FAN W/ LIGHT



2nd FLOOR REFLECTED CEILING PLAN

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

NOTE:
ALL NEW CEILINGS/SOFFITS SHALL BE CONSTRUCTED OF 5/8" G.W.B. (PAINTED) ON 20 GA 1-5/8" MTL STUDS @ 16" O.C. (MIN.) W/ DIAGONAL BRACING @ EACH VERTICAL SUPPORT (WHERE POSSIBLE). TYPICAL.

DRAWN BY:

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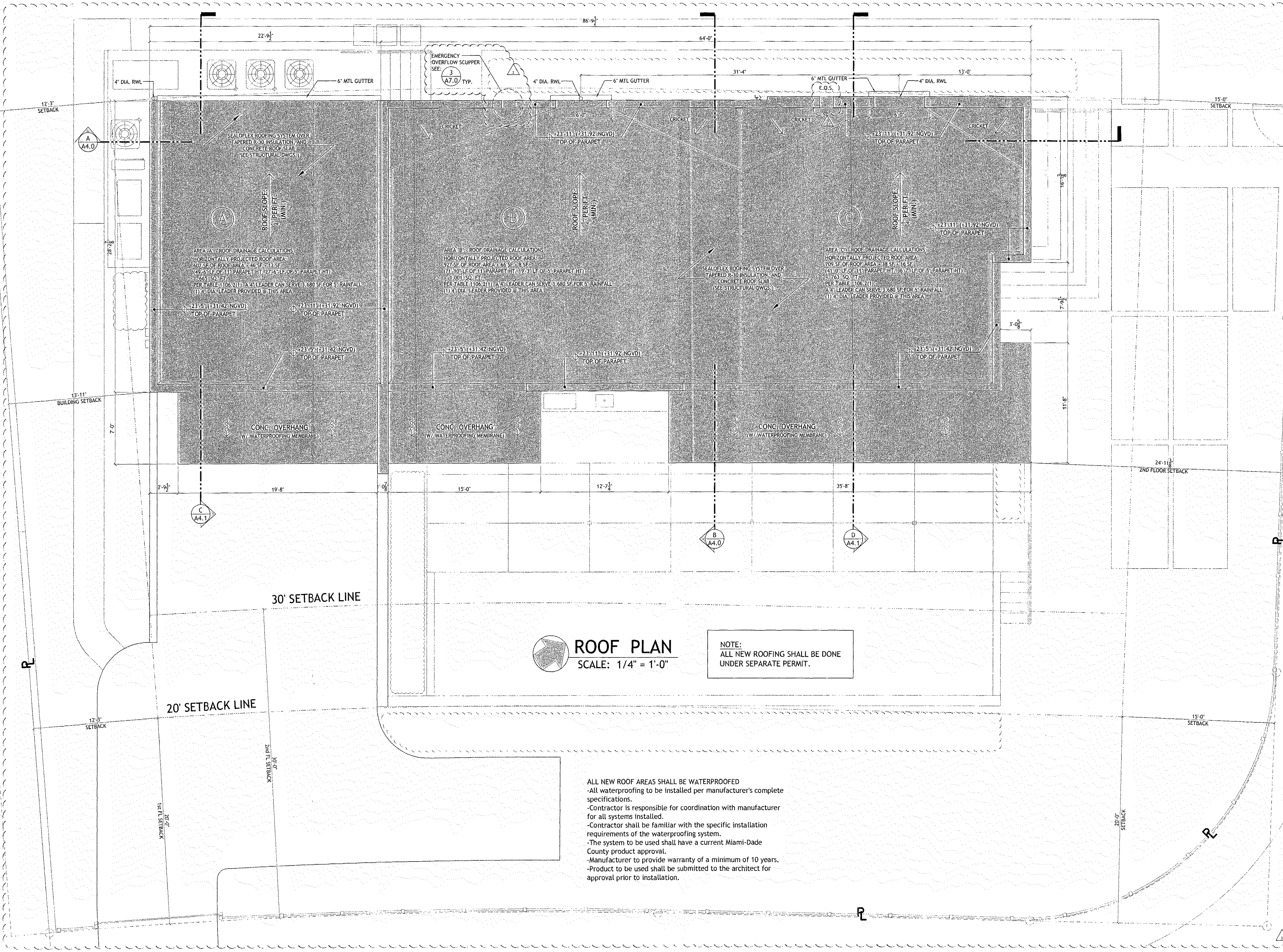
A.2.4

2nd FLOOR REFLECTED CEILING PLAN



ROOF PLAN

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

NOTE:
ALL NEW ROOFING SHALL BE DONE UNDER SEPARATE PERMIT.

ALL NEW ROOF AREAS SHALL BE WATERPROOFED
- All waterproofing to be installed per manufacturer's complete specifications.
- Contractor is responsible for coordination with manufacturer for all systems installed.
- Contractor shall be familiar with the specific installation requirements of the waterproofing system.
- The system to be used shall have a current Miami-Dade County product approval.
- Manufacturer to provide warranty of a minimum of 10 years.
- Product to be used shall be submitted to the architect for approval prior to installation.

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REVISIONS:

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1 8-14-15

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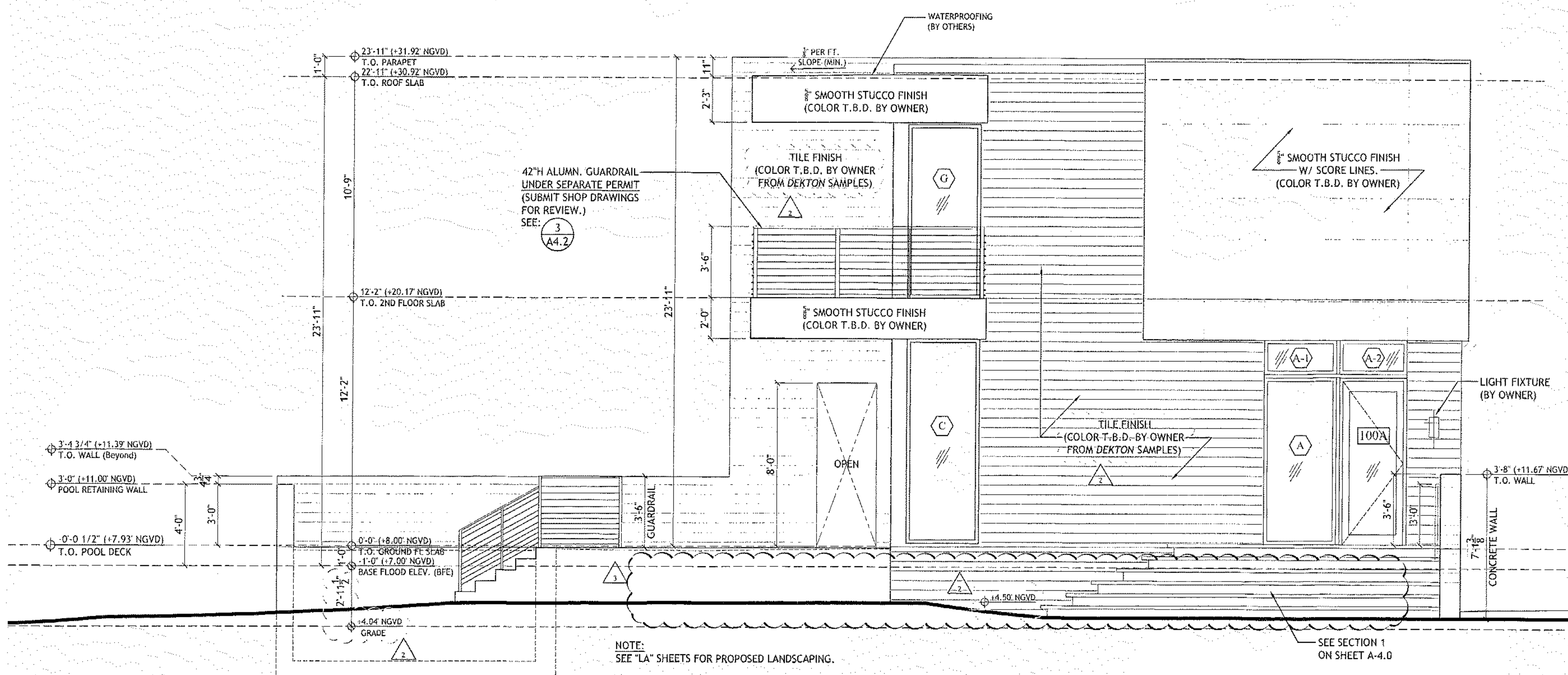
A.2.5

ROOF PLAN



NORTH EAST ELEVATION

SCALE: 1/4" = 1'-0

FLOOD VENT CALCULATIONS:

1 SQ. IN. OF FLOOD VENT PER EACH S.F. OF AREA TO VENT

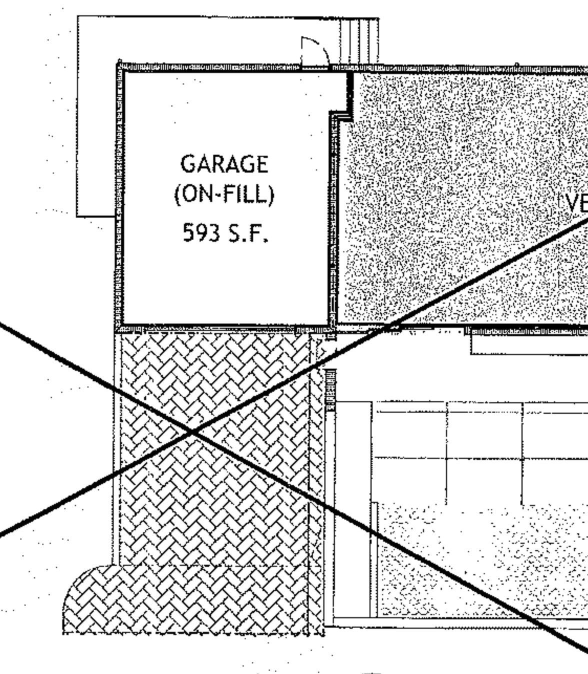
FLOOR AREA 1------------------------------1,530 SQ. FT.
FLOOR AREA 2------------------------------242 SQ. FT.

ACTUAL VENT OPENING:
VENT (DENMARK STONE ART "DECO") 8"X16" = 128 SQ. IN.
VENT (FREE AIR) AREA = 90 SQ.IN.

VENTED AREA 1
17 VENTS X 90 SQ. IN. = 1,530 SQ. IN.
1,530.00 SQ. IN.--------------REQUIRED
1,530.00 SQ. IN.--------------PROVIDED

VENTED AREA 2
4 VENTS X 90 SQ. IN. = 360 SQ. IN.
242.00 SQ. IN.--------------REQUIRED
360.00 SQ. IN.--------------PROVIDED

FLOOD VENT NOTES:
1.) ALL BUILDING MATERIALS BELOW +7.0' NGVD SHALL BE OF FLOOD-PROOF MATERIALS. ALL FLOOD VENTS MUST BE 12" (MAX.) ABOVE GRADE.
2.) OPENINGS SHALL NOT BE LESS THAN 3" IN ANY DIRECTION IN THE PLANE OF THE WALL.
3.) OPENING COVERS SHALL ALLOW THE AUTOMATIC FLOW OF FLOOD WATERS INTO & OUT OF THE ENCLOSED AREA.
4.) VENTILATION OPENINGS SHALL BE COVERED W/ CORROSION-RESISTANT WIRE MESH W/ OPENINGS NOT GREATER THAN 1/8".



FLOOD VENT AREA PLAN
SCALE: N.T.S.

NOT USED

ELEVATION NOTES:

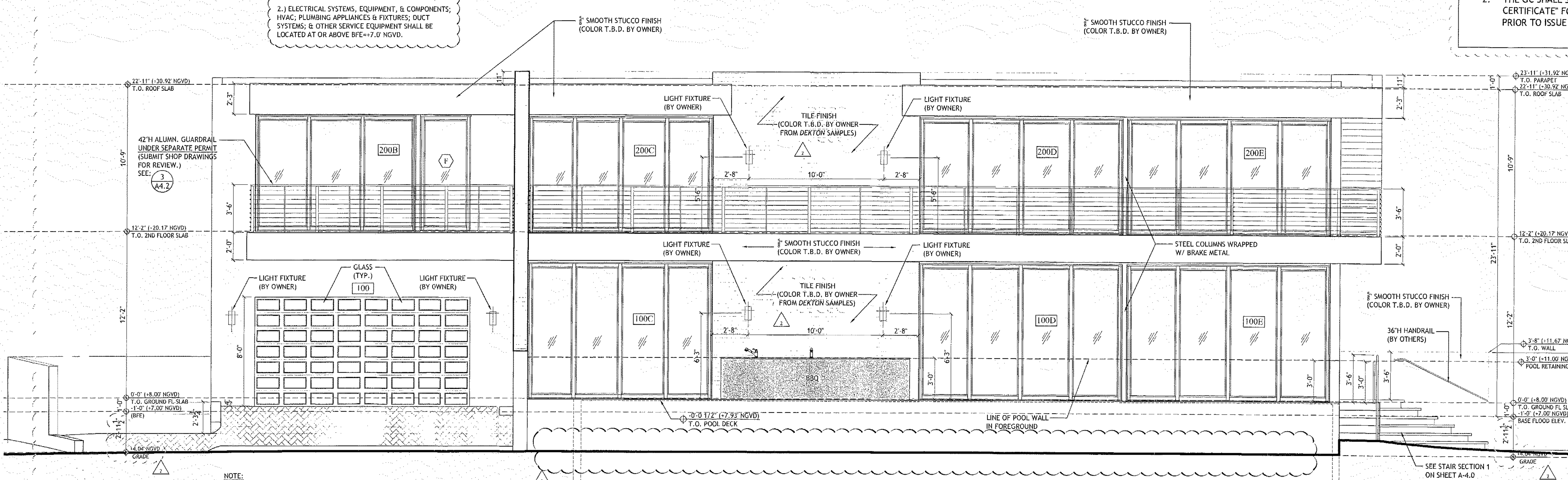
- PAINT BY OTHERS.
- DOORS & WINDOWS UNDER SEPARATE PERMIT. (SEE WINDOW & DOOR SCHEDULES)
- ALL GUARD/HANDRAILS BY OTHERS, UNDER SEPARATE PERMIT. SUBMIT SHOP DRAWINGS TO ARCHITECT FOR APPROVAL.
- 5/8" STUCCO FINISH (PAINTED), TYPICAL.

ELEVATION CERTIFICATE NOTE:

1. UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION, THE GC SHALL SUBMIT AN "ELEVATION CERTIFICATE" PER FBC 2010, *BUILDING* - SECTION 110.3.
2. THE GC SHALL SUBMIT A FINAL "ELEVATION CERTIFICATE" FOR FINISHED CONSTRUCTION PRIOR TO ISSUE OF ANY C.O., T.C.O., OR P.C.O.

FLOOD PLAIN NOTES:
1.) ENCLOSED AREAS INCLUDING CRAWL SPACE (IF ANY) BELOW BFE=+7.0' NGVD SHALL BE USED SOLELY FOR PARKING, BUILDING ACCESS, OR STORAGE.
2.) ELECTRICAL SYSTEMS, EQUIPMENT, & COMPONENTS; HVAC; PLUMBING APPLIANCES & FIXTURES; DUCT SYSTEMS; & OTHER SERVICE EQUIPMENT SHALL BE LOCATED AT OR ABOVE BFE=+7.0' NGVD.

NOTE:
FOR WINDOW & DOOR PRESSURES, SEE STRUCTURAL DRAWINGS.



SOUTH EAST ELEVATION

SCALE: 1/4" = 1'-0

DRAWN BY:

REVISIONS:
3 12-18-15
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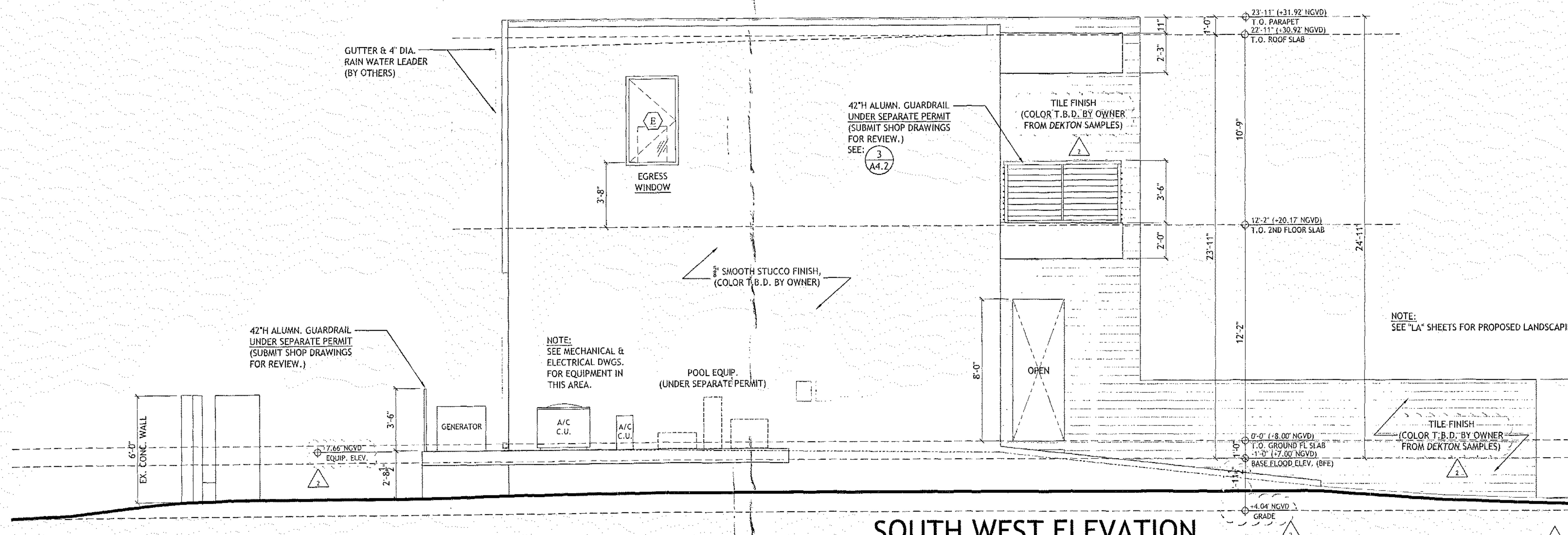
NEW RESIDENCE AT: 4354 ALTON ROAD MIAMI BEACH, FL 33139

A.3.1

ELEVATIONS



SOUTH WEST ELEVATION

SCALE: 1/4" = 1'-0

ELEVATION NOTES:

- PAINT BY OTHERS.
- DOORS & WINDOWS UNDER SEPARATE PERMIT. (SEE WINDOW & DOOR SCHEDULES)
- ALL GUARD/HANDRAILS BY OTHERS, UNDER SEPARATE PERMIT. SUBMIT SHOP DRAWINGS TO ARCHITECT FOR APPROVAL.
- 5/8" STUCCO FINISH (PAINTED), TYPICAL.

FLOOD PLAIN NOTES:

1.) ENCLOSED AREAS INCLUDING CRAWL SPACE (IF ANY) BELOW BFE=+7.0' NGVD SHALL BE USED SOLELY FOR PARKING, BUILDING ACCESS, OR STORAGE.

2.) ELECTRICAL SYSTEMS, EQUIPMENT, & COMPONENTS; HVAC; PLUMBING APPLIANCES & FIXTURES; DUCT SYSTEMS; & OTHER SERVICE EQUIPMENT SHALL BE LOCATED AT OR ABOVE BFE=+7.0' NGVD.

NOTE:

FOR WINDOW & DOOR PRESSURES, SEE STRUCTURAL DRAWINGS.

ELEVATION CERTIFICATE NOTE:

1. UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION, THE GC SHALL SUBMIT AN "ELEVATION CERTIFICATE" PER FBC 2010, *BUILDING* - SECTION 110.3.
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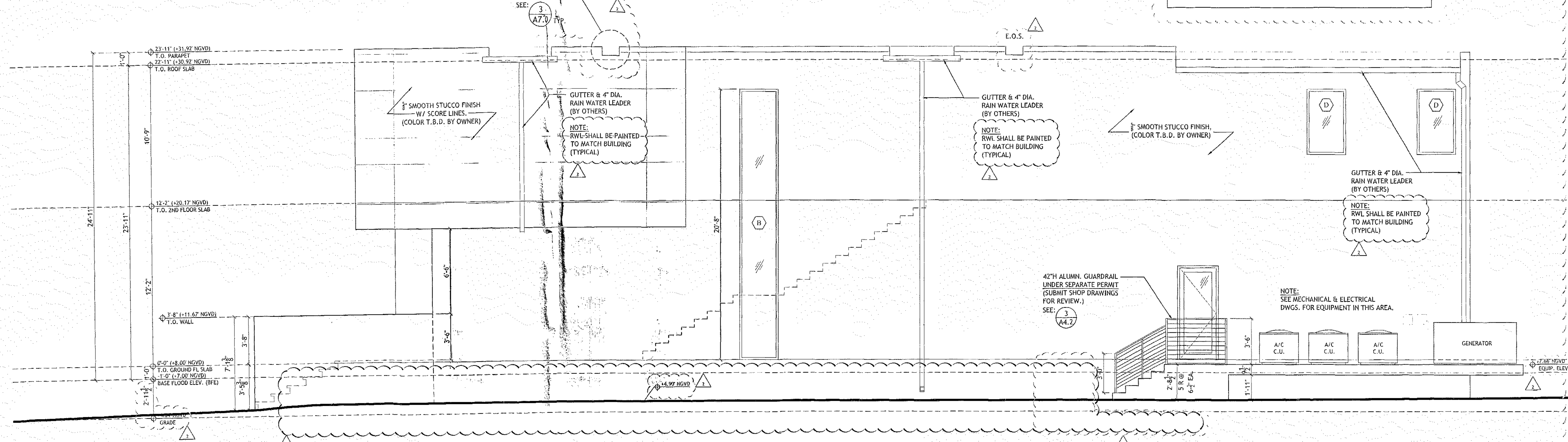

NORTH WEST ELEVATION

SCALE: 1/4" = 1'-0

DRAWN BY:

REVISIONS:

1. 8-14-15
2. 11-01-15
3. 12-18-15

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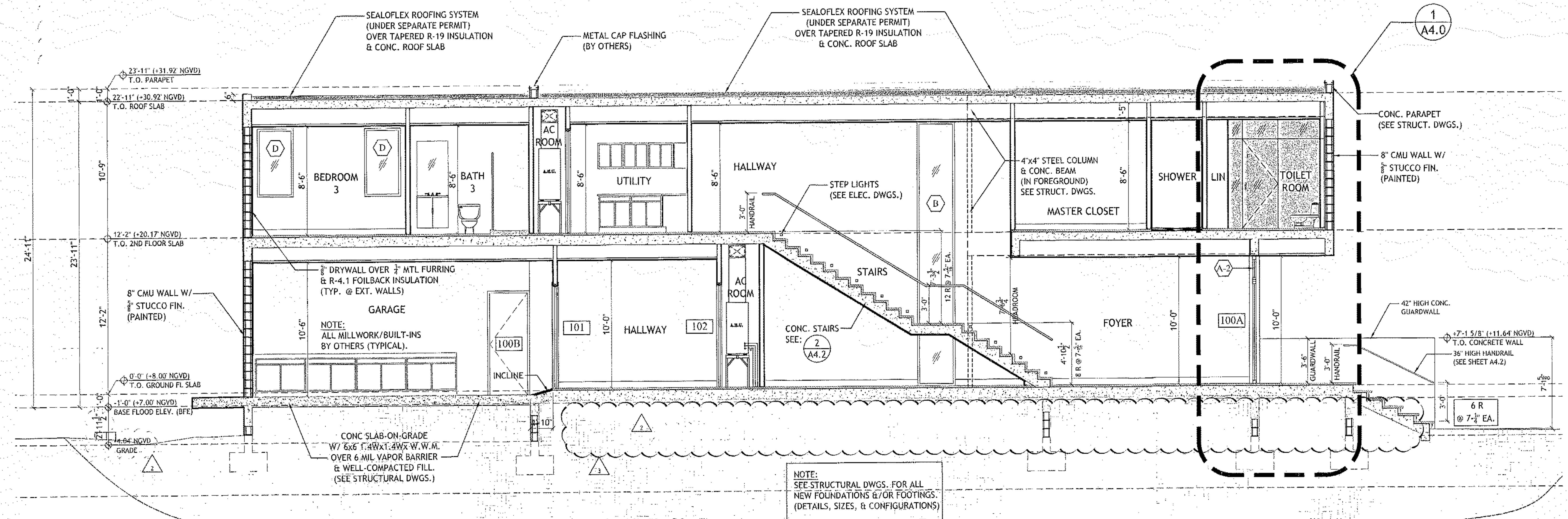
A.3.2

ELEVATIONS



NOTE:
ALL ELECTRICAL EQUIPMENT (PANELS, METERS, ETC.) SHALL BE LOCATED @ THE B.F.E. + 1'-0" (MIN.).

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

ELEVATION CERTIFICATE NOTE:

1. UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION, THE GC SHALL SUBMIT AN "ELEVATION CERTIFICATE" PER FBC 2010, *BUILDING* - SECTION 110.3.
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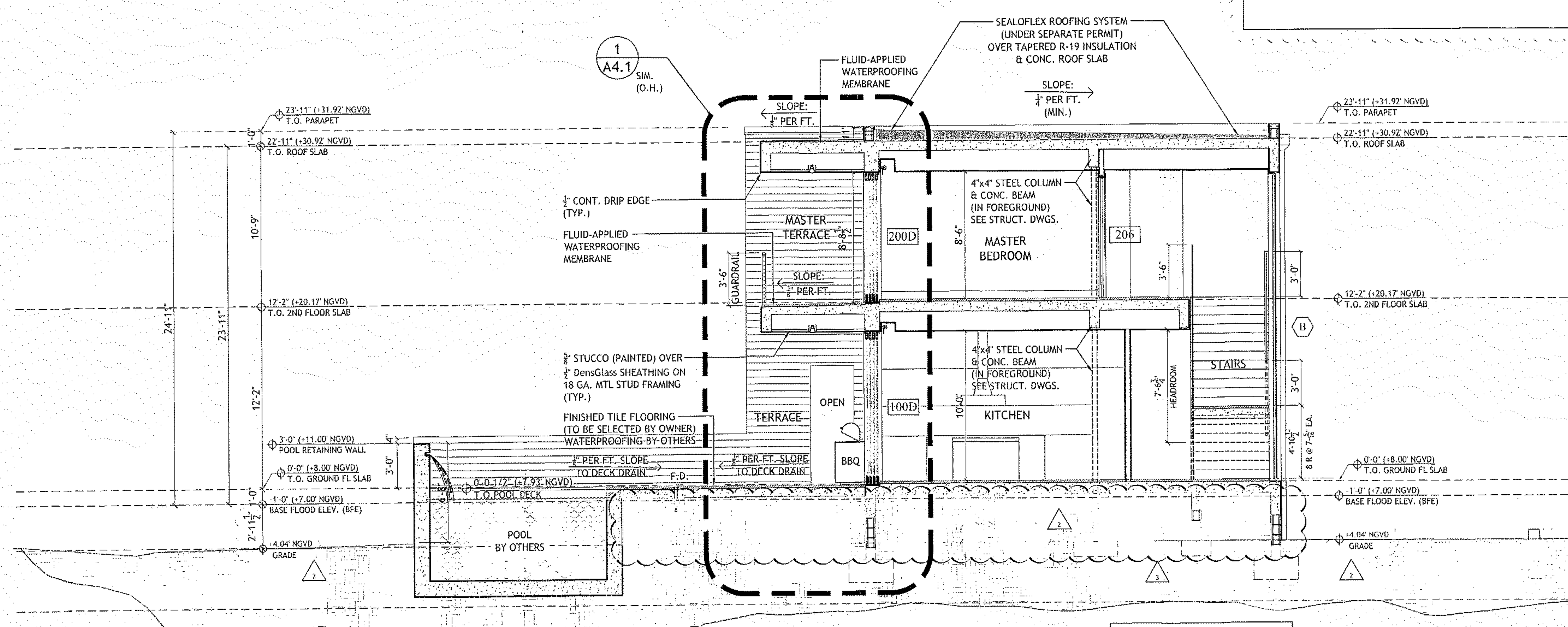
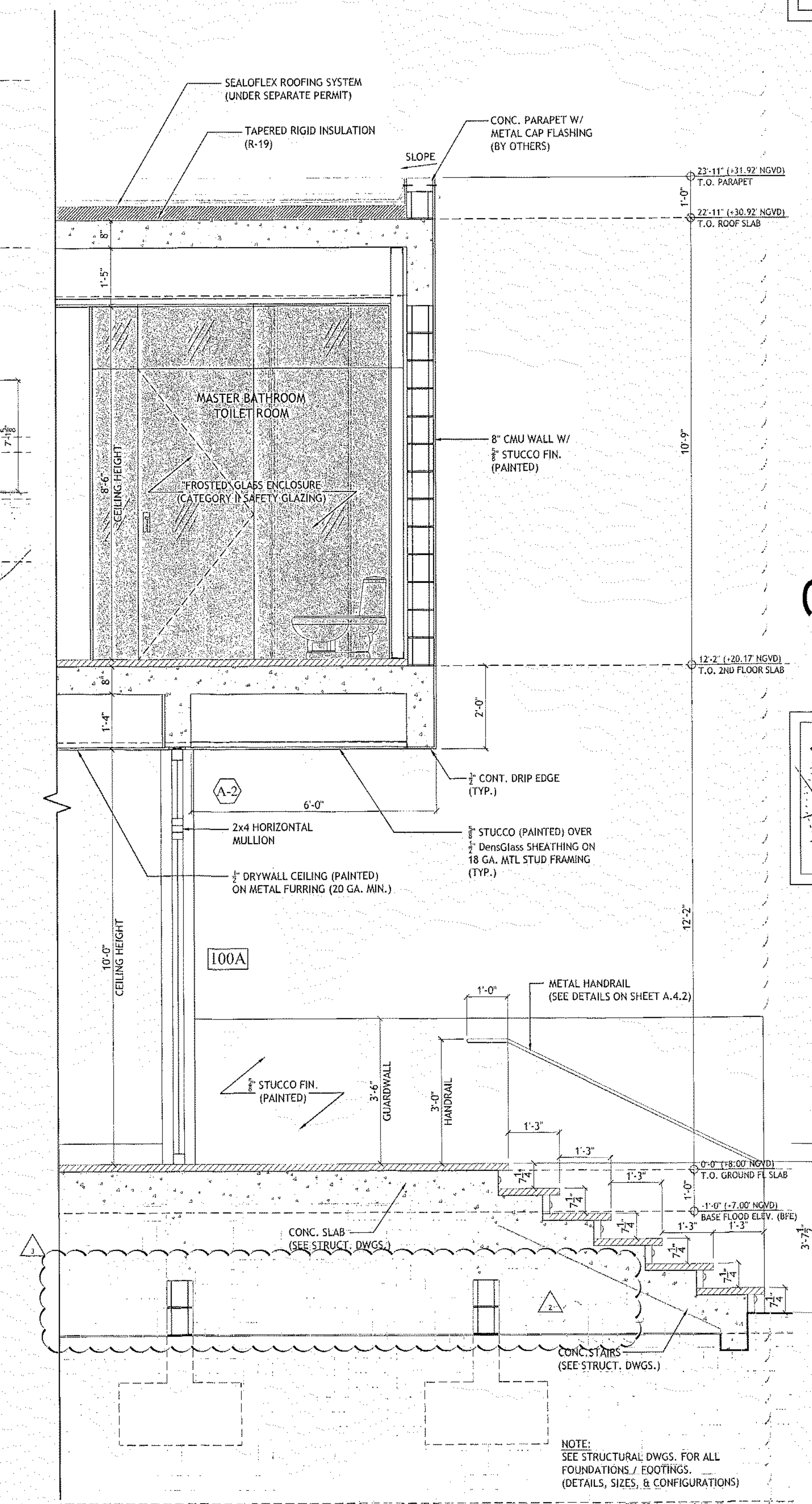


NOTE:
SEE STRUCTURAL DWGS. FOR ALL NEW FOUNDATIONS &/OR FOOTINGS. (DETAILS, SIZES, & CONFIGURATIONS)

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



1 A4.0 WALL SECTION
SCALE: 1/2" = 1'-0"

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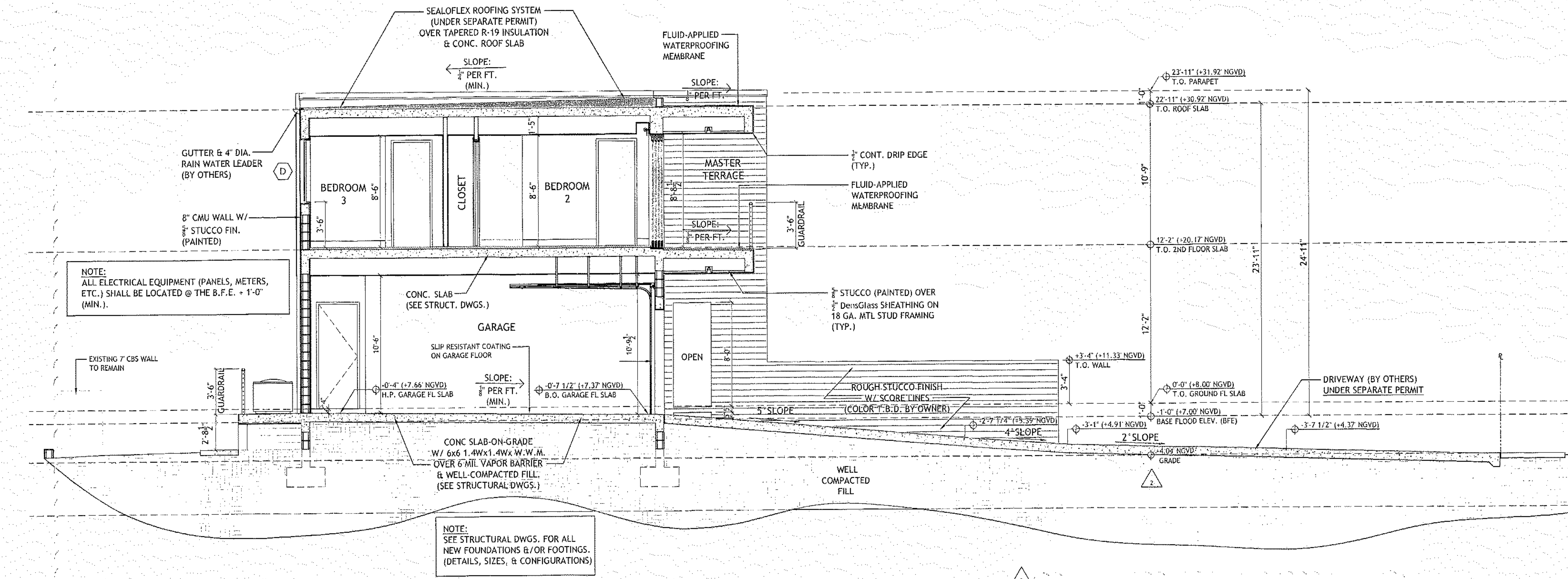
4354 ALTON ROAD
MIAMI BEACH, FL 33139

THESE PLANS ARE FOR BUILDING DEPARTMENT REVIEW ONLY. THEY ARE NOT TO BE CONSTRUED AS CONSTRUCTION DOCUMENTS UNTIL ALL BUILDING DEPARTMENT APPROVALS ARE OBTAINED.

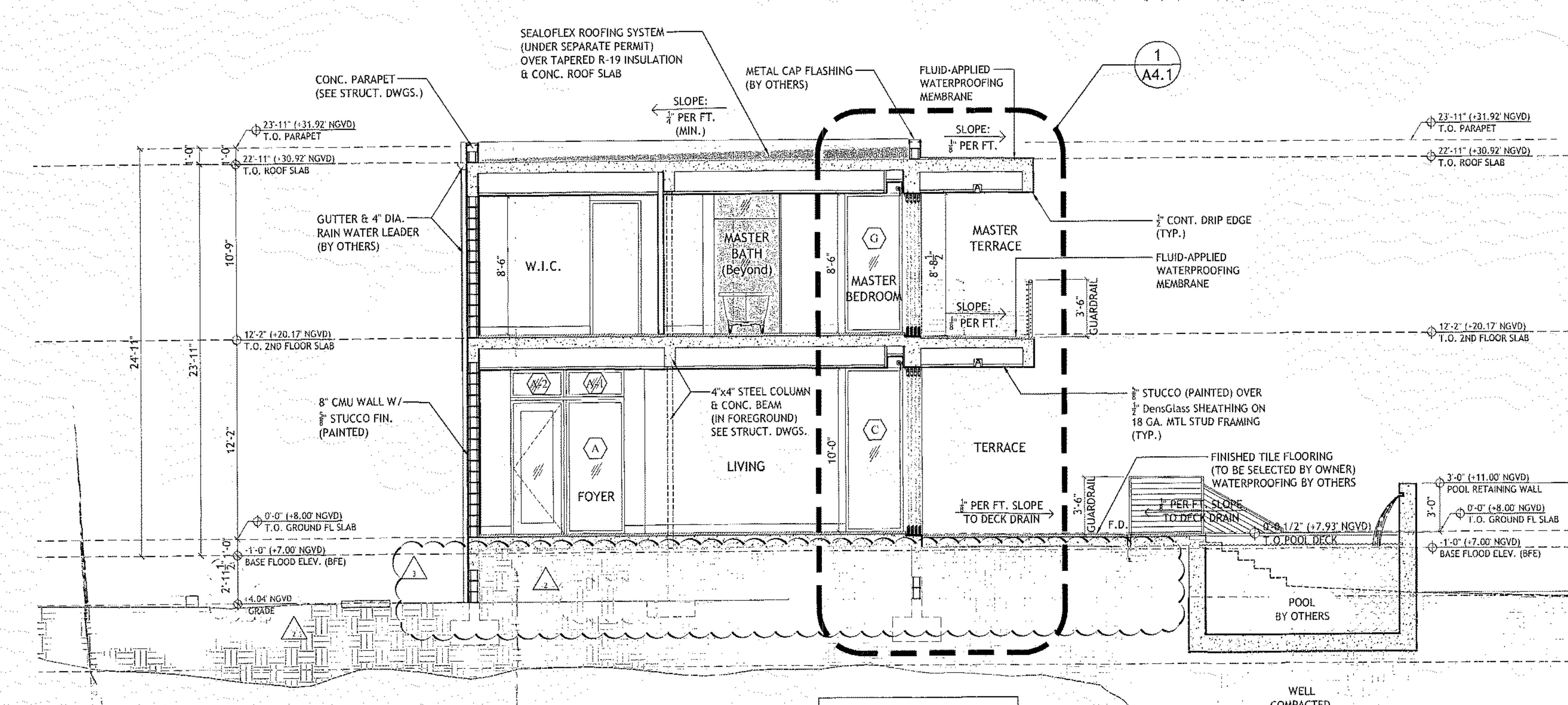
A.4.0
SECTIONS



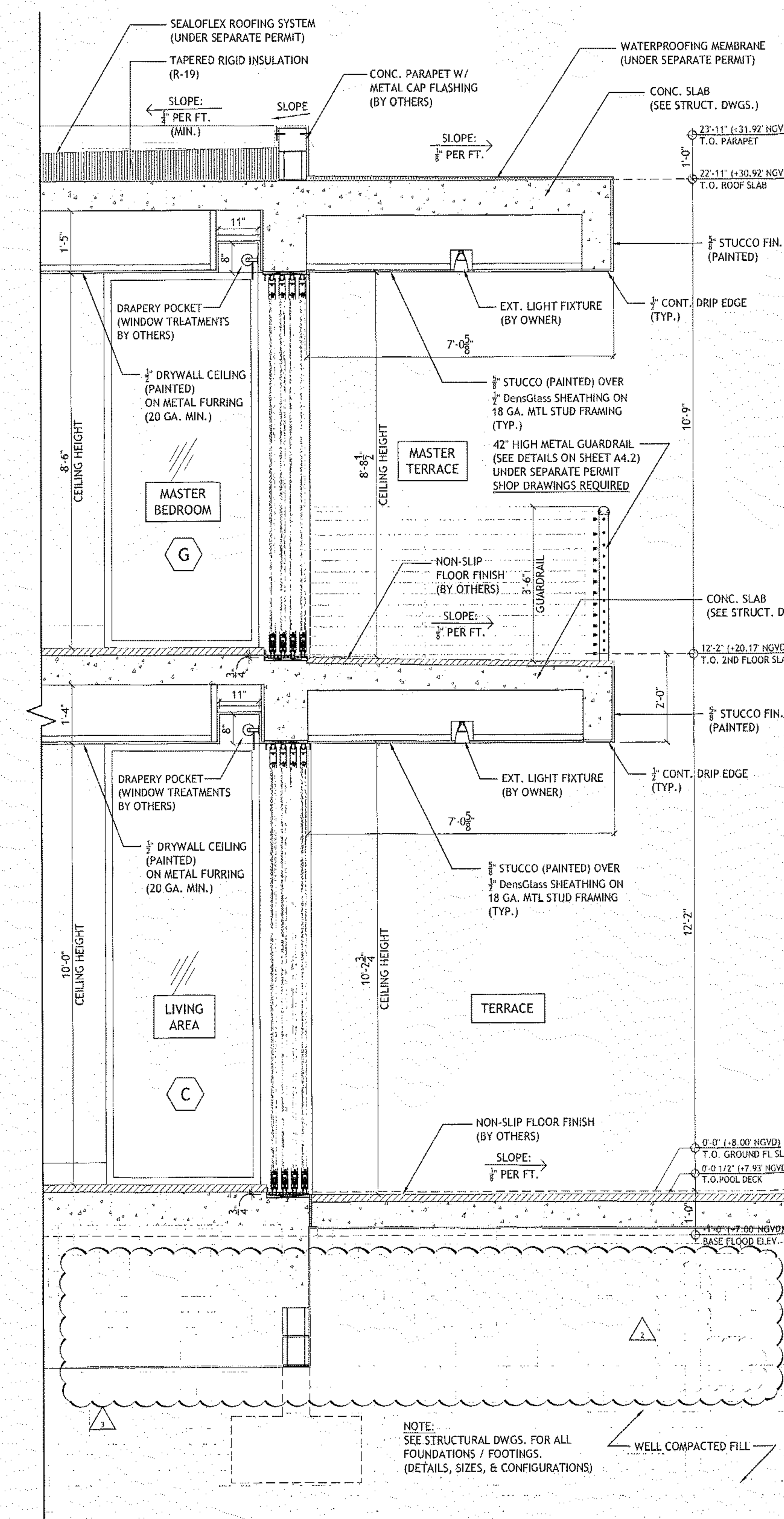
SECTION C
SCALE: 3/16" = 1'-0

ELEVATION CERTIFICATE NOTE:

1. UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION, THE GC SHALL SUBMIT AN "ELEVATION CERTIFICATE" PER FBC 2010, *BUILDING* - SECTION 110.3.
2. THE GC SHALL SUBMIT A FINAL "ELEVATION CERTIFICATE" FOR FINISHED CONSTRUCTION PRIOR TO ISSUE OF ANY C.O., T.C.O., OR P.C.O.



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



1/A4.1 WALL SECTION
SCALE: 1/2" = 1'-0"

DRAWN BY:

REVISIONS:
12-18-15
11-01-15
8-14-15

AA0003569
ANTHONY LEON
001672

3 DESIGN ARCHITECTURE
4300 Biscayne Blvd. #G-04, Miami, FL 33137
P: 305.438.9377 | F: 305.438.9379

JAN 05 2016

NEW RESIDENCE AT: 4354 ALTON ROAD MIAMI BEACH, FL 33139

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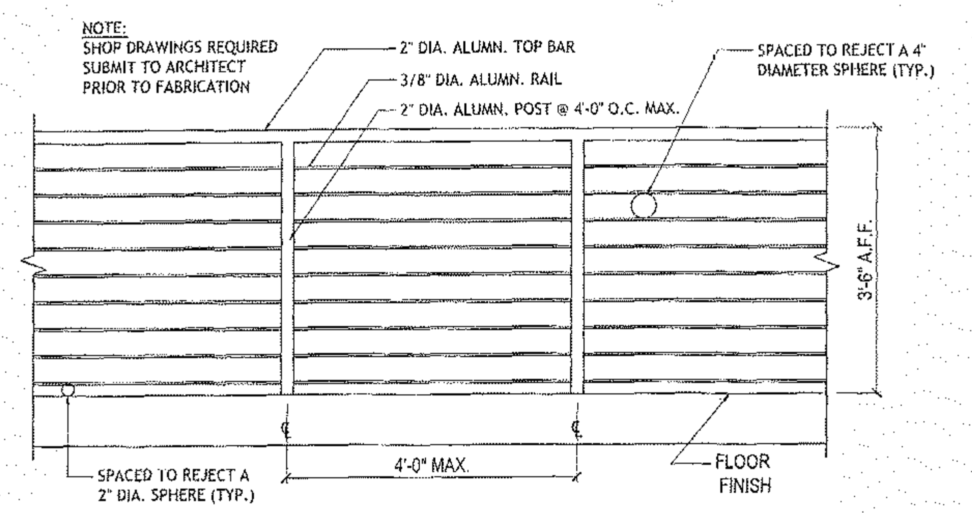
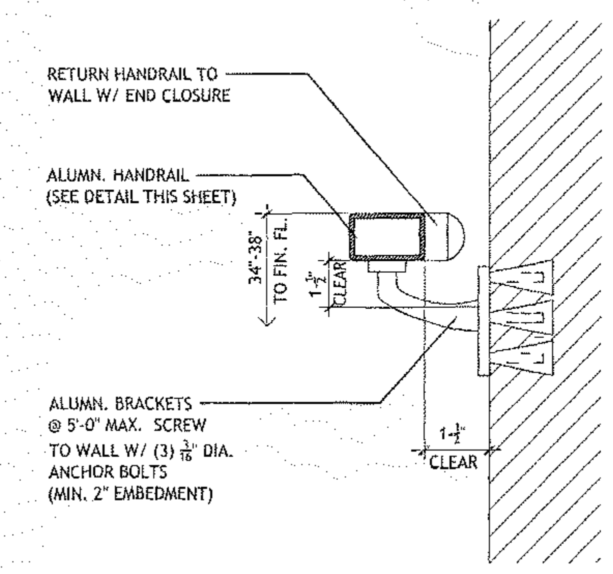
A.4.1

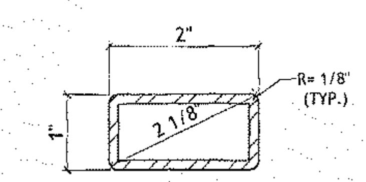
SECTIONS



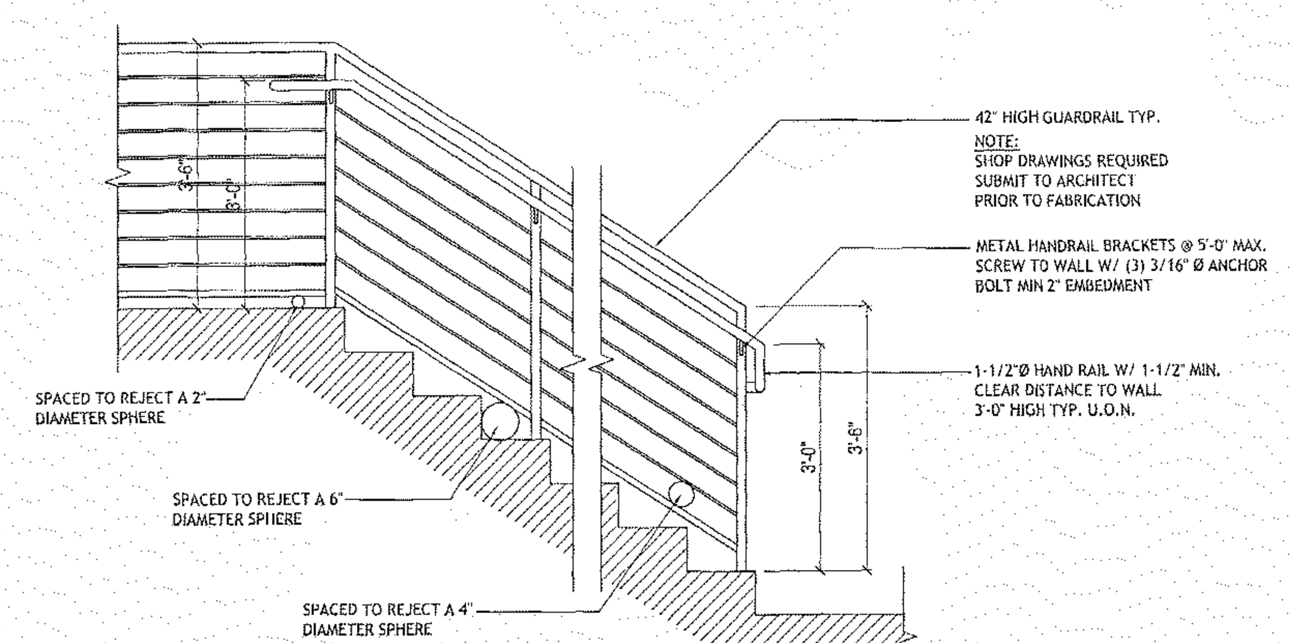
3 A4.2 TYP. GUARDRAIL ELEVATION DETAIL
SCALE: 1/2" = 1'-0"



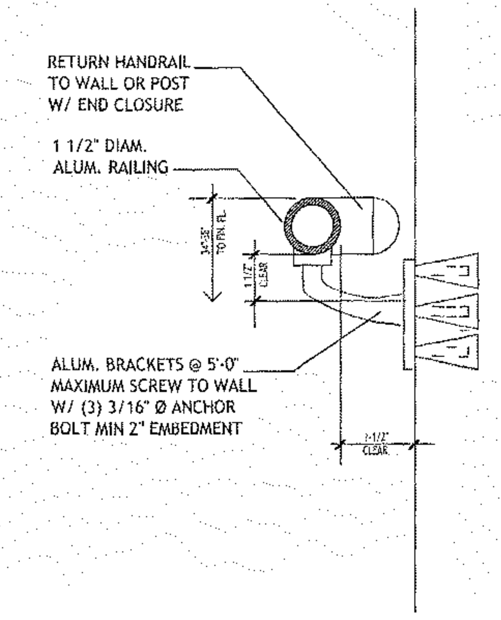
TYP. EXT. HANDRAIL DETAIL
SCALE: N.T.S.



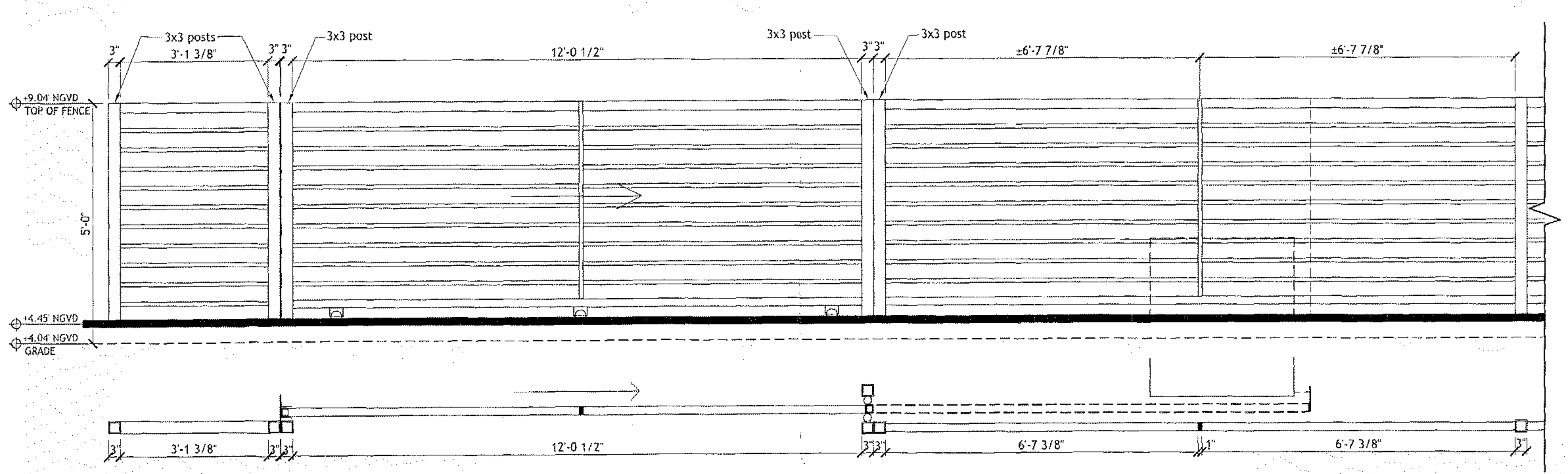
TYPICAL ALUMN. HANDRAIL PROFILE DETAIL (EXT. ONLY)
SCALE: 6" = 1'-0"



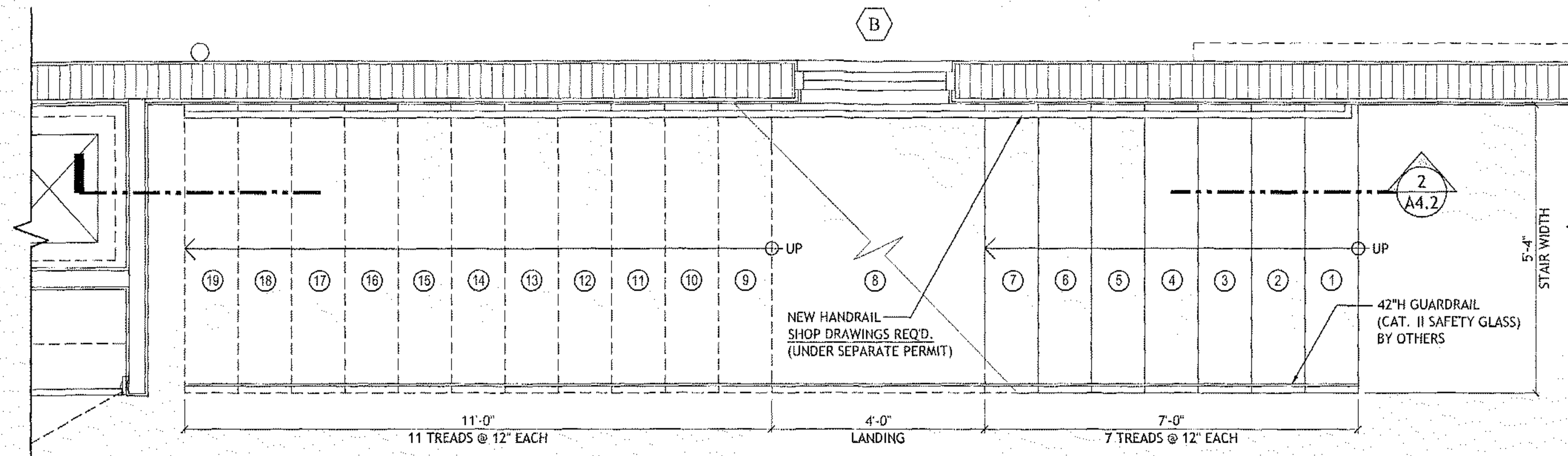
4 A4.2 TYP. EXTERIOR STAIR SECTION
SCALE: 1/2" = 1'-0"



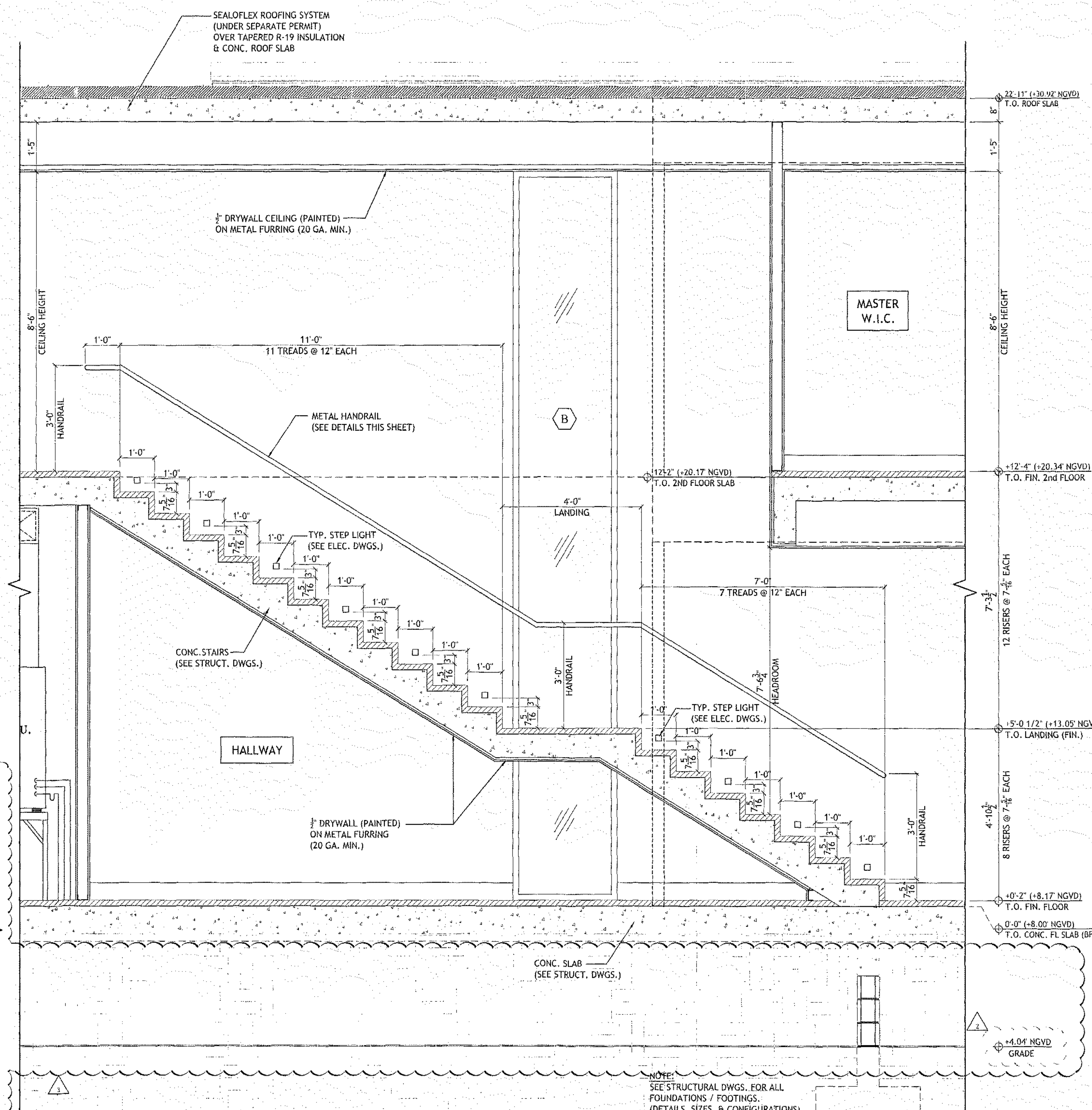
TYP. INTERIOR HANDRAIL DETAIL
SCALE: N.T.S.



5 A4.2 TYP. EXT. GATE & FENCE (FLOOR PLAN & ELEVATION)
SCALE: 1/2" = 1'-0"
NOTE: GATE & FENCE UNDER SEPARATE PERMIT



1 A4.2 STAIR PLAN
SCALE: 1/2" = 1'-0"



2 A4.2 STAIR SECTION
SCALE: 1/2" = 1'-0"

DRAWN BY:

REVISIONS:
3 12-18-15
2 11-01-15
1 8-14-15

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3 DESIGN ARCHITECTURE
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JAN 05 2016

NEW RESIDENCE
AT:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

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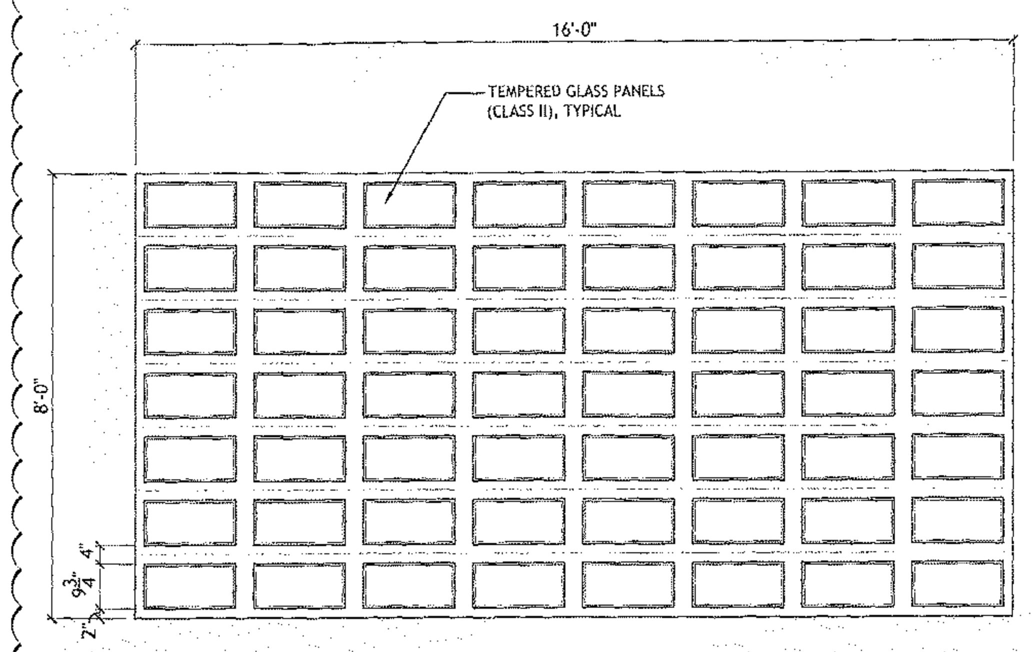
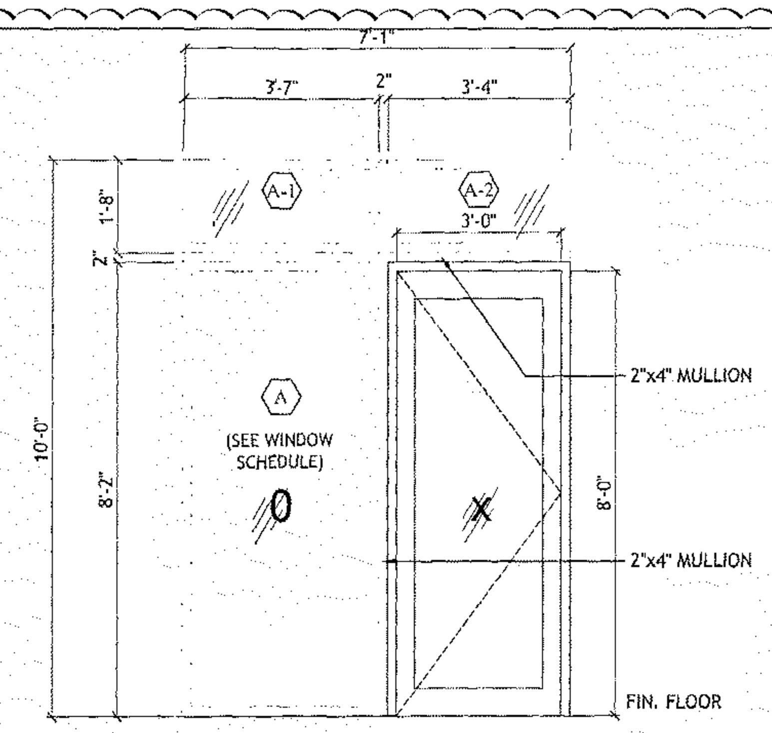
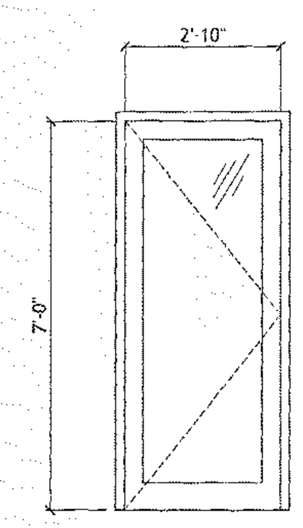
A.4.2
STAIR SECTIONS & DETAILS



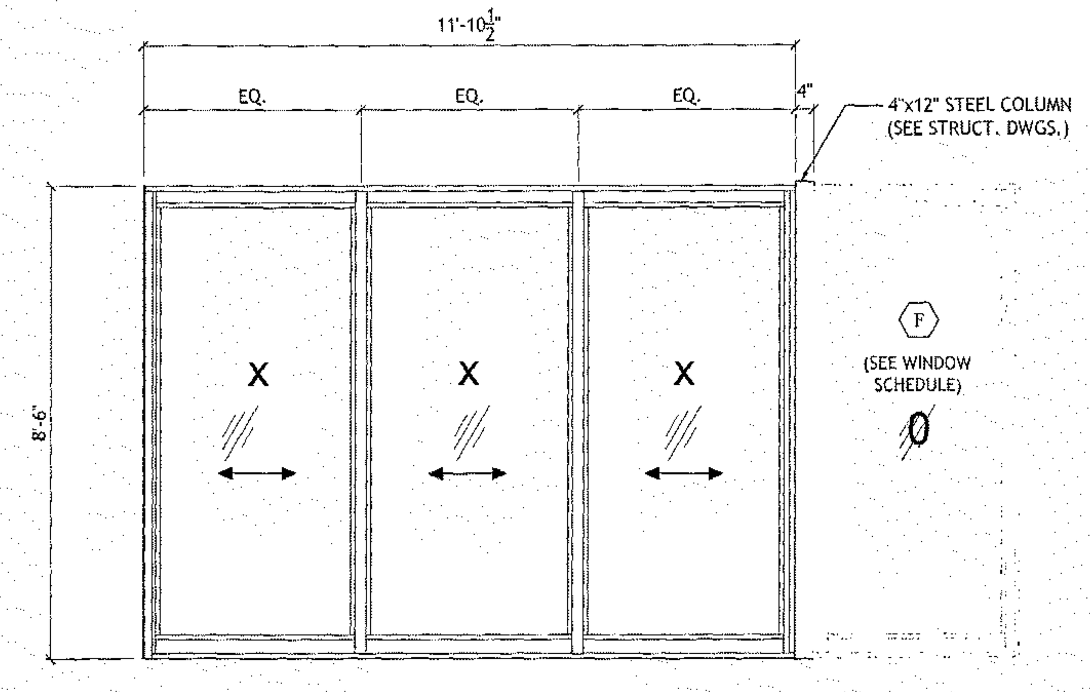
DOOR 100
SCALE: 3/8" = 1'-0



DOOR 100A
SCALE: 3/8" = 1'-0



DOOR 100B
SCALE: 3/8" = 1'-0



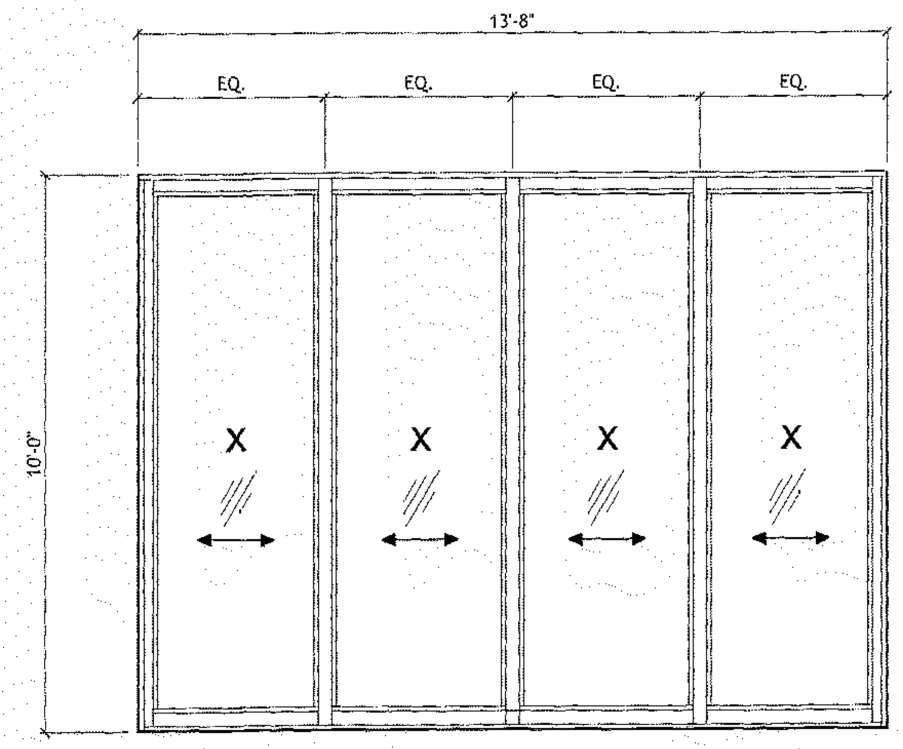
DOOR 200B
SCALE: 3/8" = 1'-0

* FOR REFERENCE ONLY *

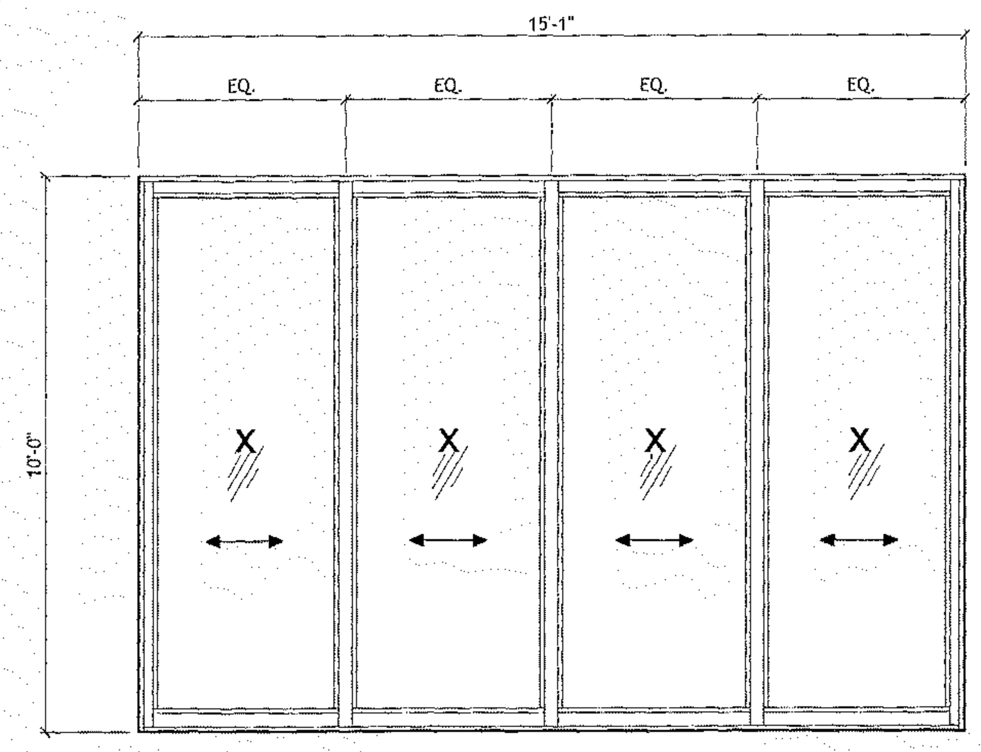
ALL EXTERIOR DOORS UNDER SEPARATE PERMIT

NOTES:

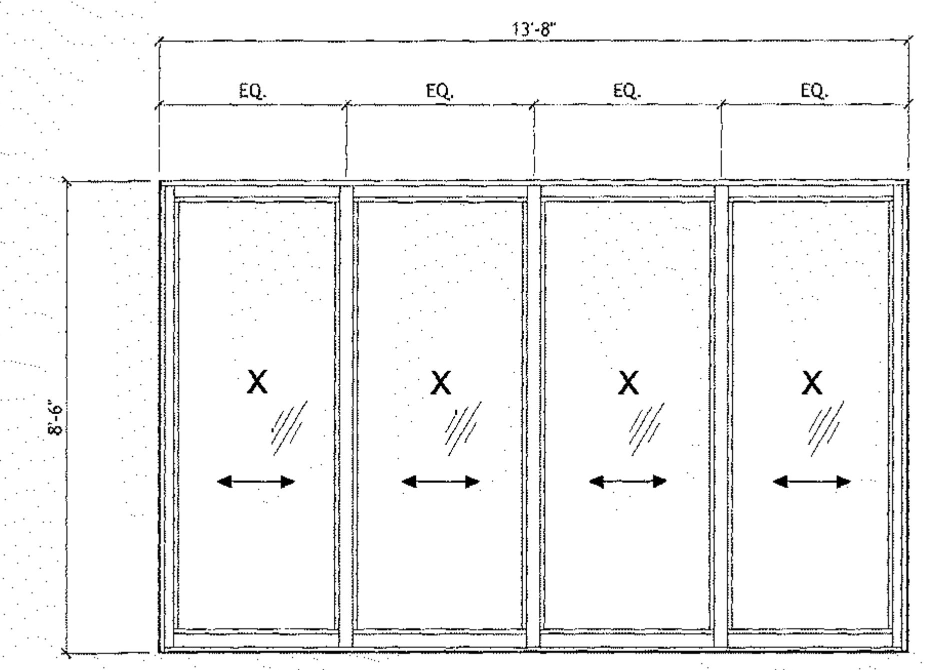
1. SEE SHEET S-__ ON STRUCTURAL DRAWINGS FOR DOOR WIND PRESSURES.
2. ALL GLASS TO HAVE A MAX U-VALUE OF 1.1 AND A SHGC OF .65
3. ALL EXTERIOR DOORS TO HAVE A MIAMI-DADE COUNTY PRODUCT APPROVAL.



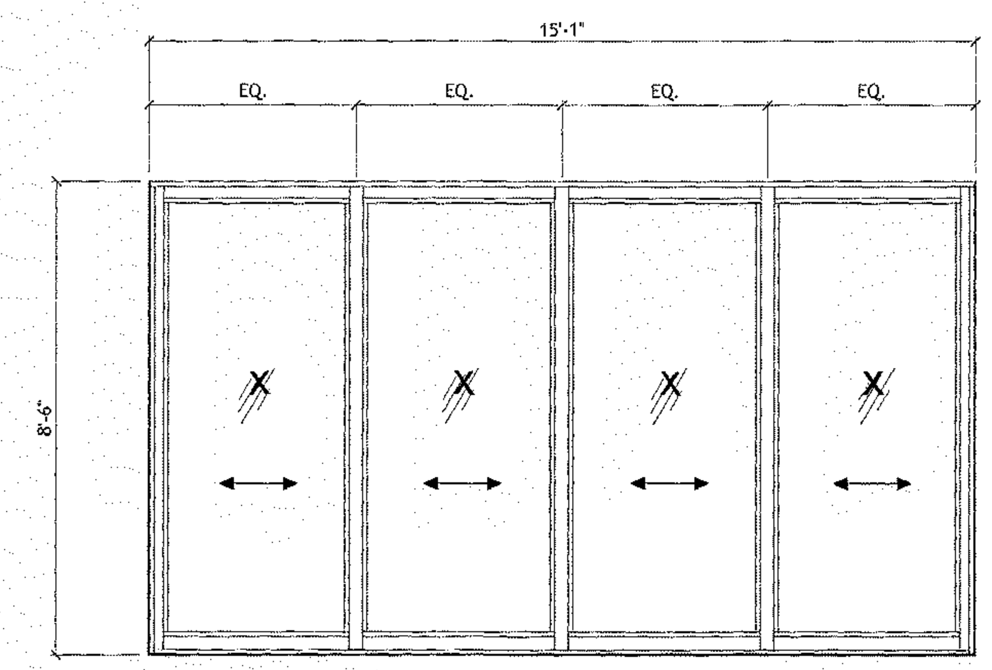
DOOR 100C
SCALE: 3/8" = 1'-0



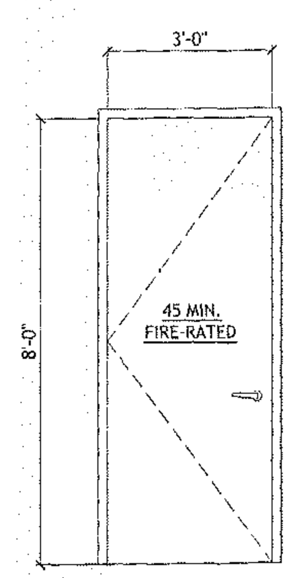
DOOR 100D, 100E
SCALE: 3/8" = 1'-0



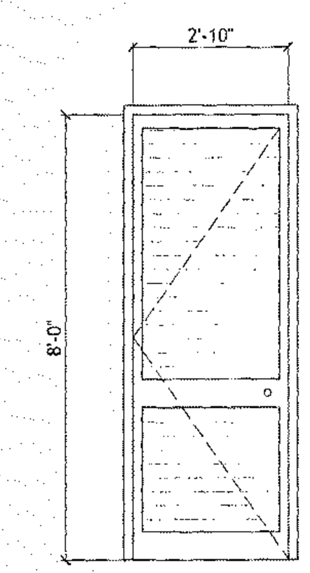
DOOR 200C
SCALE: 3/8" = 1'-0



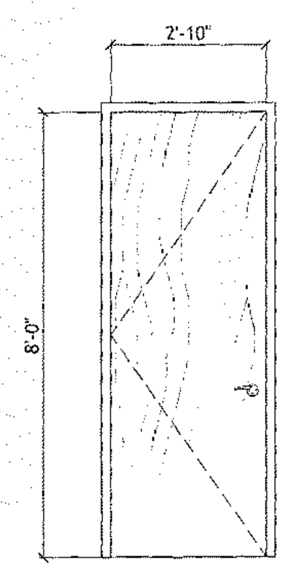
DOOR 200D, 200E
SCALE: 3/8" = 1'-0



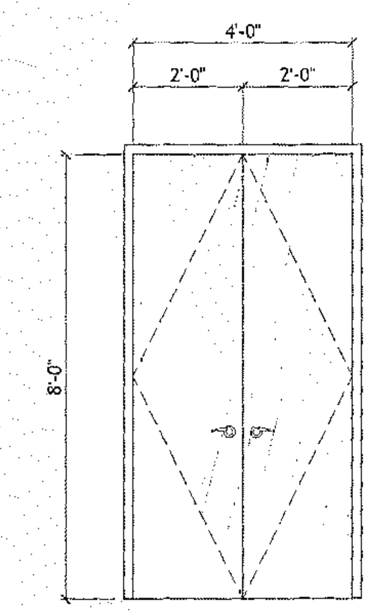
DOOR 101
SCALE: 3/8" = 1'-0"



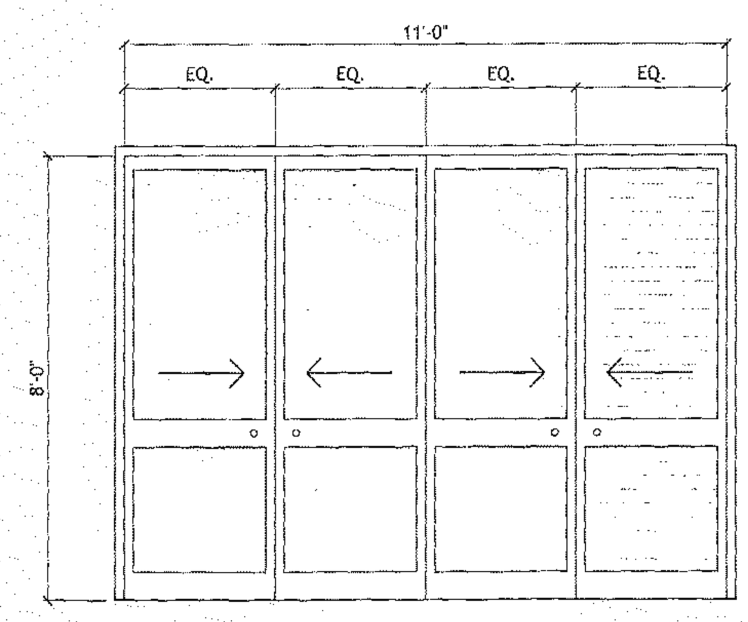
DOOR 102
SCALE: 3/8" = 1'-0"
NON-COMBUSTIBLE



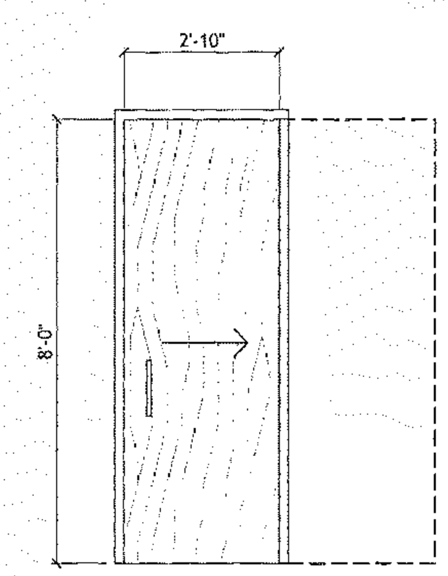
DOOR 103, 104A, 105, 206
SCALE: 3/8" = 1'-0"



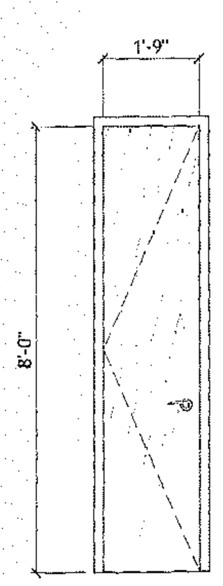
DOOR 104B
SCALE: 3/8" = 1'-0"



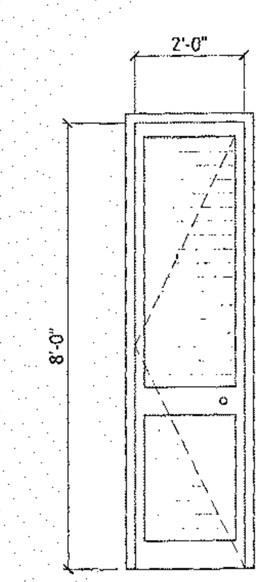
DOOR 202A
SCALE: 3/8" = 1'-0"



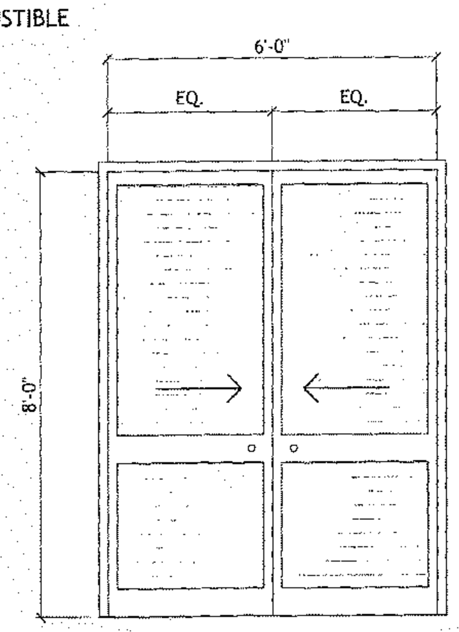
DOOR 104, 201, 201A, 201B, 202, 202B, 203, 203B, 205, 206A, 206B
SCALE: 3/8" = 1'-0"



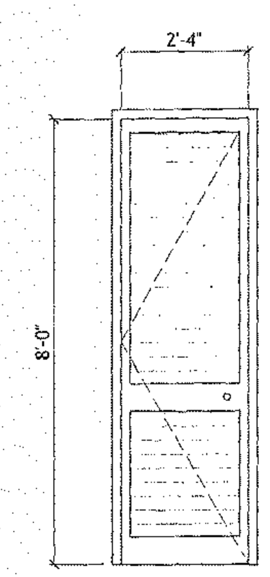
DOOR 106
SCALE: 3/8" = 1'-0"



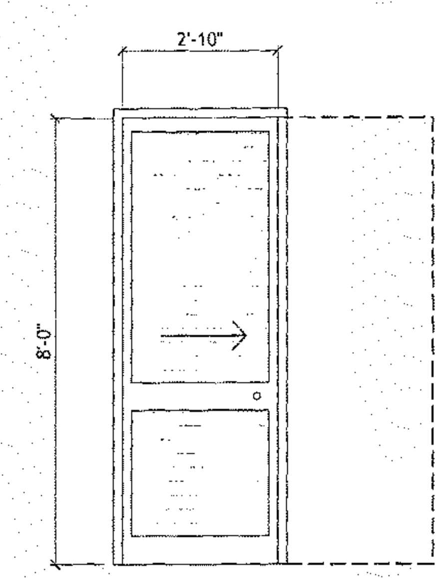
DOOR 202C
SCALE: 3/8" = 1'-0"
NON-COMBUSTIBLE



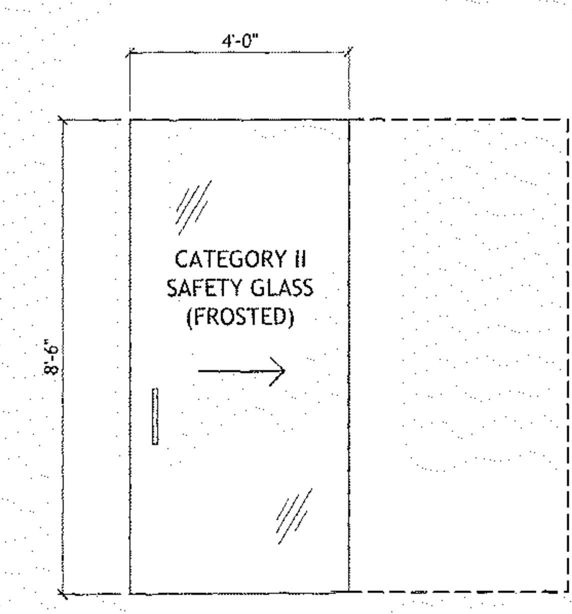
DOOR 203A
SCALE: 3/8" = 1'-0"



DOOR 204A, 204B
SCALE: 3/8" = 1'-0"
NON-COMBUSTIBLE



DOOR 204
SCALE: 3/8" = 1'-0"



DOOR 206C
SCALE: 3/8" = 1'-0"

SYMBOL LEGEND:

O = FIXED PANEL
X = OPERABLE PANEL

DOOR TYPE LEGEND:

SW-H	SWING (HINGE)
SW-P	SWING (PIVOT)
BF	BI-FOLD
PD	POCKET
SL	SLIDING
OH	OVERHEAD
GAR	GARAGE

DOOR SCHEDULE - (See Sheet A.5.1 for all Jamb Details)

		#	SIZE (W x H)	MATERIALS	HARDWARE	TYPE	N.O.A. #	NOTES
1st FLOOR	EXTERIOR	100	16'-0" X 8'-0"	STEEL	T.B.D.	GAR	15-0225.15	EXTERIOR - HIGH IMPACT RESISTANT
		100A	3'-0" X 8'-0"	ALUMN./GLASS	T.B.D.	SW-H	12-0628.04	EXTERIOR - HIGH IMPACT RESISTANT
		100B	2'-10" X 7'-0"	ALUMN./GLASS	T.B.D.	SW-H	12-0628.04	EXTERIOR - HIGH IMPACT RESISTANT
		100C	(4) 3'-5" X 10'-0"	ALUMN./GLASS	T.B.D.	SL	12-0130.13	EXTERIOR - HIGH IMPACT RESISTANT
		100D	(4) 3'-9 1/4" X 10'-0"	ALUMN./GLASS	T.B.D.	SL	12-0130.13	EXTERIOR - HIGH IMPACT RESISTANT
		100E	(4) 3'-9 1/4" X 10'-0"	ALUMN./GLASS	T.B.D.	SL	12-0130.13	EXTERIOR - HIGH IMPACT RESISTANT
	INTERIOR	101	3'-0" X 8'-0"	HOLLOW METAL	T.B.D.	SW-H		INT., 45-MIN. FIRE-RATED, SELF-CLOSING & SELF-LATCHING
		102	2'-10" X 8'-0"	METAL	T.B.D.	SW-H		INT., SWING DOOR, LOUVERED, NON-COMBUSTIBLE
		103	2'-10" X 8'-0"	WOOD	T.B.D.	SW-H		INTERIOR, FLUSH, SWING DOOR
		104	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR W/ PRIVACY LOCKSET
		104A	2'-10" X 8'-0"	WOOD	T.B.D.	SW-H		INTERIOR, FLUSH, SWING DOOR W/ PRIVACY LOCKSET
		104B	(2) 2'-0" X 8'-0"	WOOD	T.B.D.	SW-H		INTERIOR, FLUSH, DOUBLE SWING DOOR
		105	2'-10" X 8'-0"	WOOD	T.B.D.	SW-H		INTERIOR, FLUSH, SWING DOOR W/ PRIVACY LOCKSET
		106	1'-9" X 8'-0"	WOOD	T.B.D.	SW-H		INTERIOR, FLUSH, SWING DOOR
2nd FLOOR	EXTERIOR	200	NOT USED					
		200A	NOT USED					
		200B	(2) 3'-0" X 7'-0"	ALUMN./GLASS	T.B.D.	SL	12-0130.13	EXTERIOR - HIGH IMPACT RESISTANT
		200C	(4) 3'-5" X 8'-6"	ALUMN./GLASS	T.B.D.	SL	12-0130.13	EXTERIOR - HIGH IMPACT RESISTANT
		200D	(4) 3'-9 1/4" X 8'-6"	ALUMN./GLASS	T.B.D.	SL	12-0130.13	EXTERIOR - HIGH IMPACT RESISTANT
		200E	(4) 3'-9 1/4" X 8'-6"	ALUMN./GLASS	T.B.D.	SL	12-0130.13	EXTERIOR - HIGH IMPACT RESISTANT
	INTERIOR	201	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR W/ PRIVACY LOCKSET
		201A	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR
		201B	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR W/ PRIVACY LOCKSET
		202	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR W/ PRIVACY LOCKSET
		202A	(4) 2'-9" X 8'-0"	WOOD	T.B.D.	SL		INTERIOR, 4-PANEL SLIDING DOOR, LOUVERED
		202B	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR W/ PRIVACY LOCKSET
		202C	2'-0" X 8'-0"	METAL	T.B.D.	SW-H		INT., SWING DOOR, LOUVERED, NON-COMBUSTIBLE
		203	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR W/ PRIVACY LOCKSET
		203A	(2) 3'-0" X 8'-0"	WOOD	T.B.D.	SL		INTERIOR, 2-PANEL SLIDING DOOR, LOUVERED
		203B	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR W/ PRIVACY LOCKSET
		204	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR, LOUVERED
		204A	2'-4" X 8'-0"	METAL	T.B.D.	SW-H		INT., SWING DOOR, LOUVERED, NON-COMBUSTIBLE
		204B	2'-4" X 8'-0"	METAL	T.B.D.	SW-H		INT., SWING DOOR, LOUVERED, NON-COMBUSTIBLE
		205	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR
		206	2'-10" X 8'-0"	WOOD	T.B.D.	SW-H		INTERIOR, FLUSH, SWING DOOR W/ PRIVACY LOCKSET
		206A	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR
		206B	2'-10" X 8'-0"	WOOD	T.B.D.	PD		INTERIOR, POCKET DOOR W/ PRIVACY LOCKSET
		206C	4'-0" X 8'-6"	TEMP. GLASS	T.B.D.	PD		INT., FULL-HEIGHT TEMP. GLASS POCKET DOOR

DOOR NOTES:

-HARDWARE & FINISH TO BE COORDINATED W/ MILLWORK PROVIDER (U.N.O.).
-DOOR OPERATION VARIES LEFT OR RIGHT. (SEE PLANS)
-ALL ALUMINUM FINISHES T.B.D. , (U.N.O.). SUBMIT SAMPLE TO ARCHITECT.
-ALL FIRE-RATED DOORS SHALL BE EQUIPPED WITH SELF-CLOSING AND SELF-LATCHING DEVICES AND COMPLY W/ NFPA 80.
-GENERAL CONTRACTOR TO SUBMIT HARDWARE PACKAGE TO OWNER AND ARCHITECT FOR REVIEW & APPROVAL.
-PROVIDE CATEGORY II SAFETY GLASS AT GLASS PANELS ADJACENT TO DOORS.
-CONTRACTOR TO FIELD VERIFY ALL OPENINGS AND DIMENSIONS AND SUBMIT SHOP DWGS FOR ARCHITECTS APPROVAL PRIOR TO DOOR FABRICATION.
-CONTRACTOR TO COORDINATE DOOR TYPES & SIZES W/ INT. DESIGNER DWGS.

DRAWN BY:

REVISIONS:

1 8-14-15

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AUG 2 4 2015
SEAL

NEW RESIDENCE
AT:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

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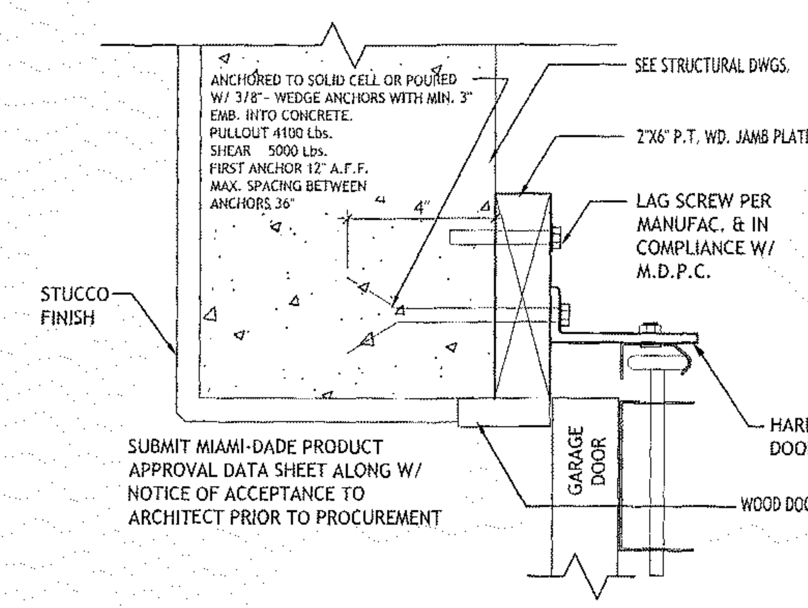
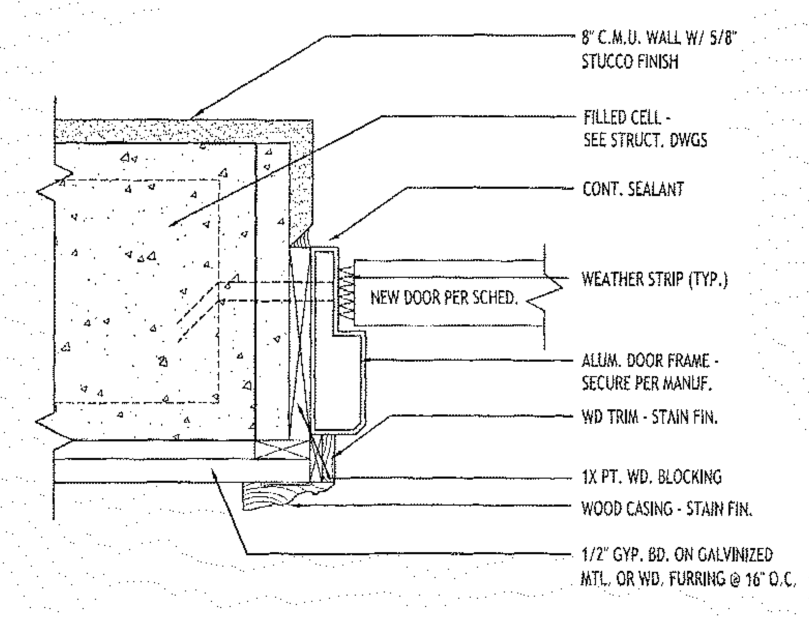
A.5.0
DOOR SCHEDULE



GARAGE DOOR JAMB DETAIL

SCALE: 3" = 1'-0"

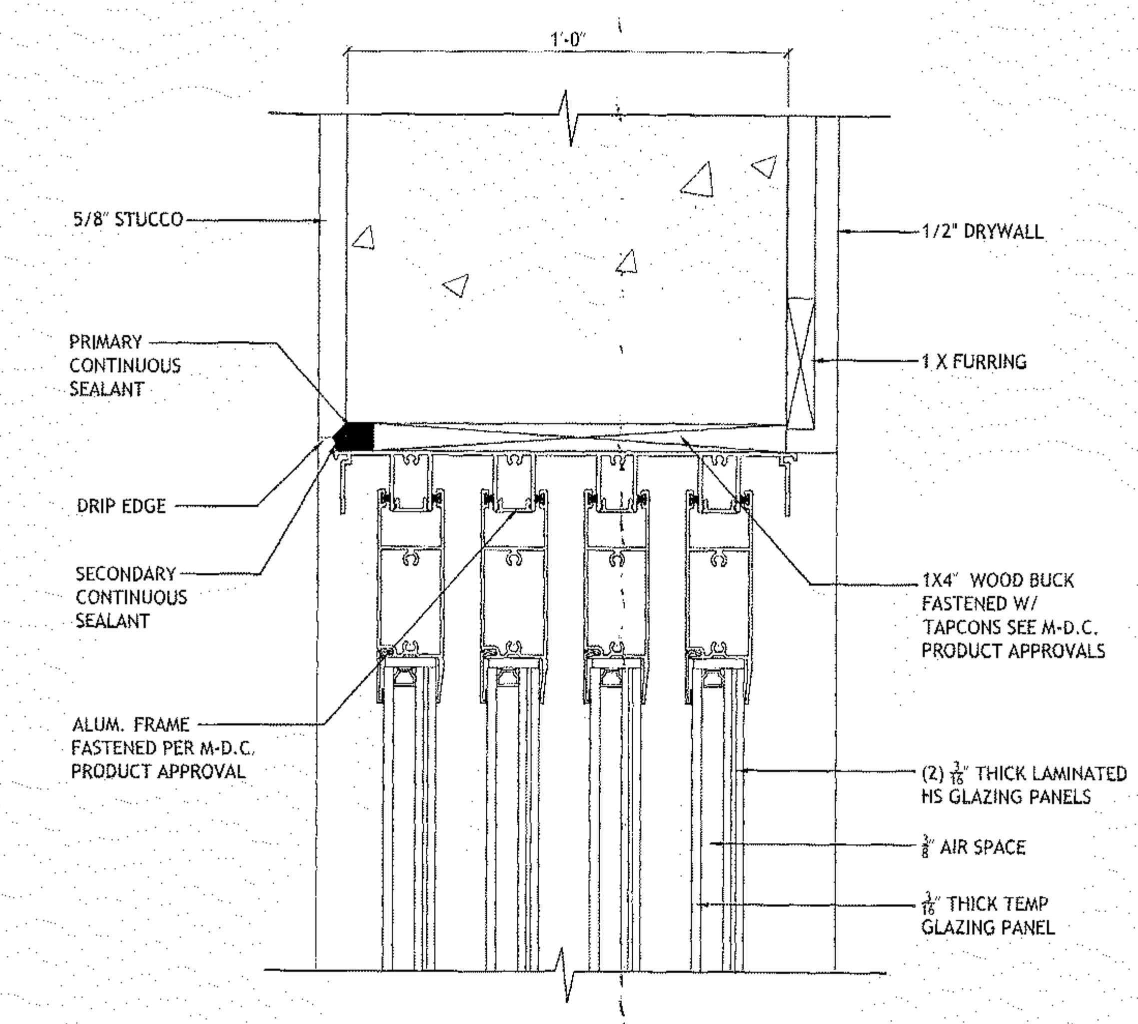


EXTERIOR SWING DOOR JAMB DETAIL

SCALE: 3" = 1'-0"

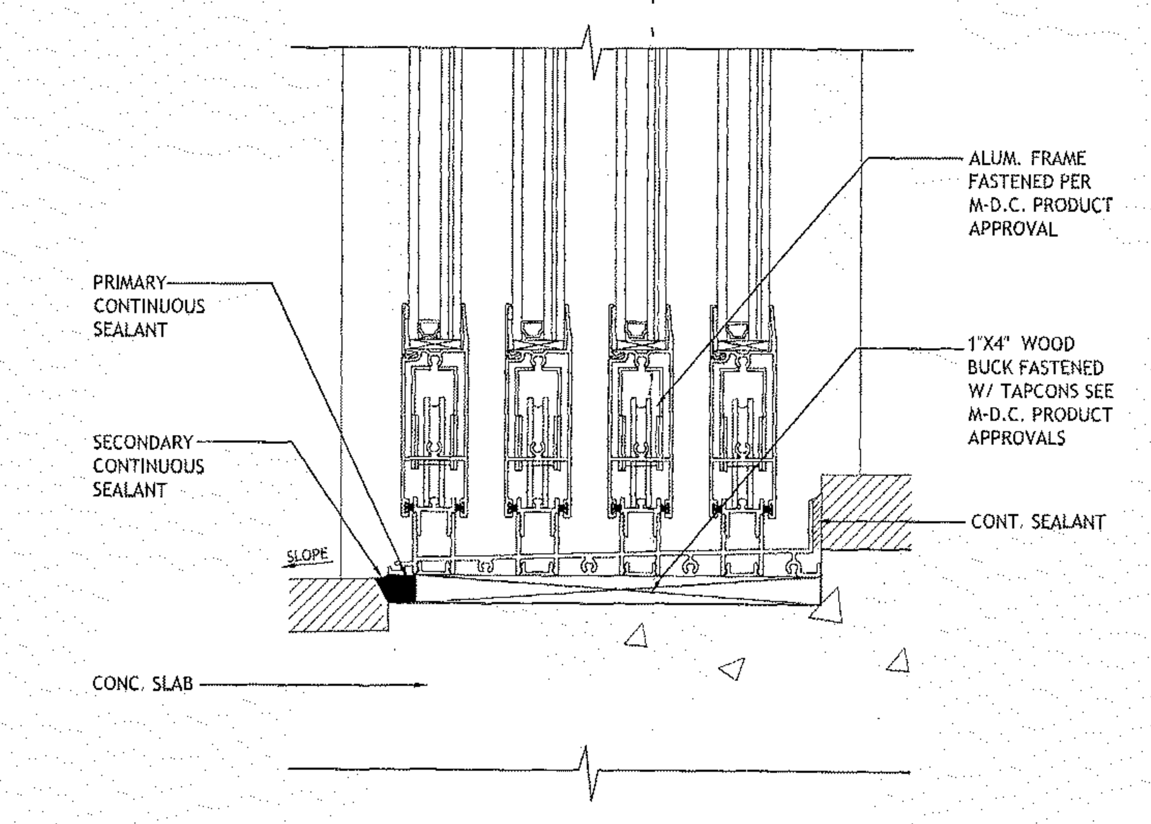
EXTERIOR DOOR JAMB DETAILS

SCALE: 3" = 1'-0"



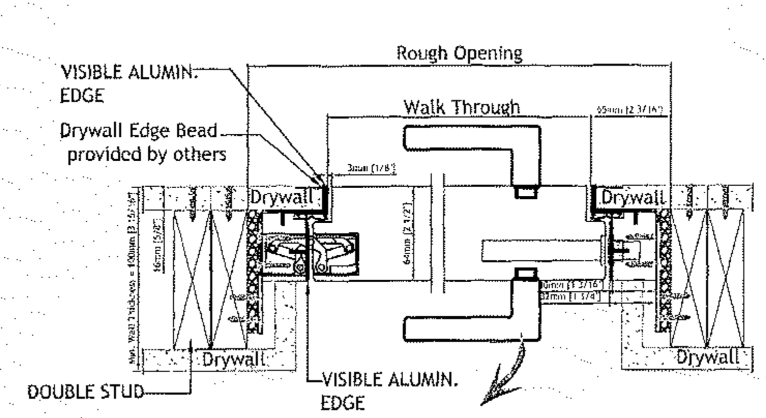
TYP. SLIDING DOOR HEAD

SCALE: 3" = 1'-0"

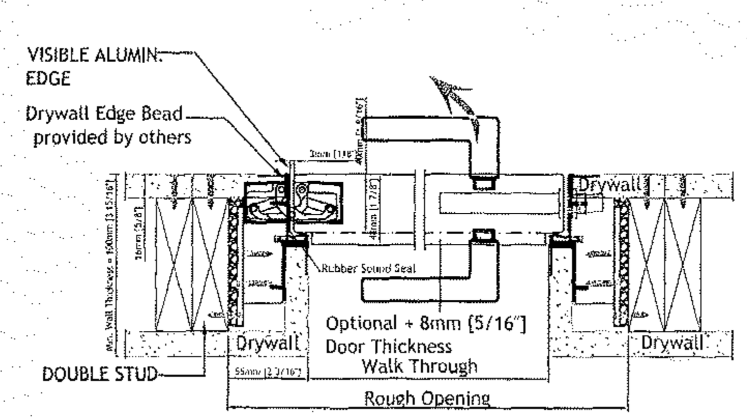


TYP. SLIDING DOOR SILL

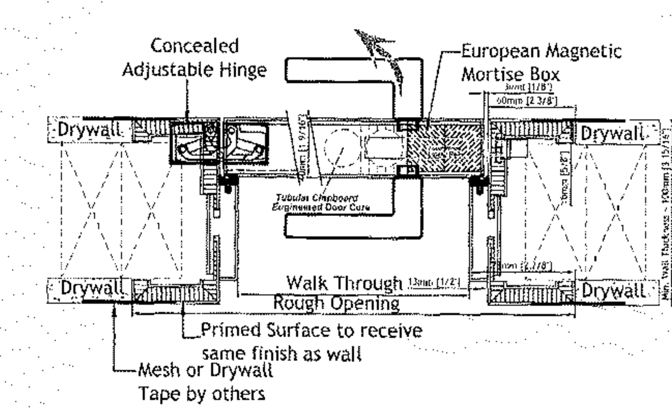
SCALE: 3" = 1'-0"



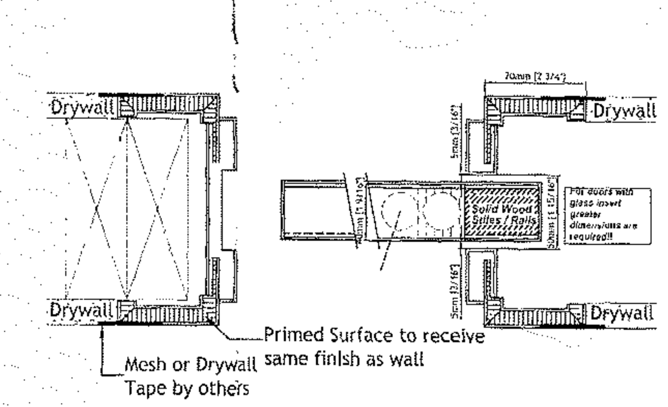
FLUSH WITH THE WALL (IN-SWING)



FLUSH WITH THE WALL (OUT-SWING)



ULTRA-FLUSH CONCEALED CASING



ULTRA-FLUSH POCKET DOOR

INTERIOR DOOR JAMB DETAILS

SCALE: 3" = 1'-0"

DRAWN BY:

REVISIONS:

8-14-15

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0016752

3DESIGN ARCHITECTURE
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AUG 24 2015

SEAL

NEW RESIDENCE
AT:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

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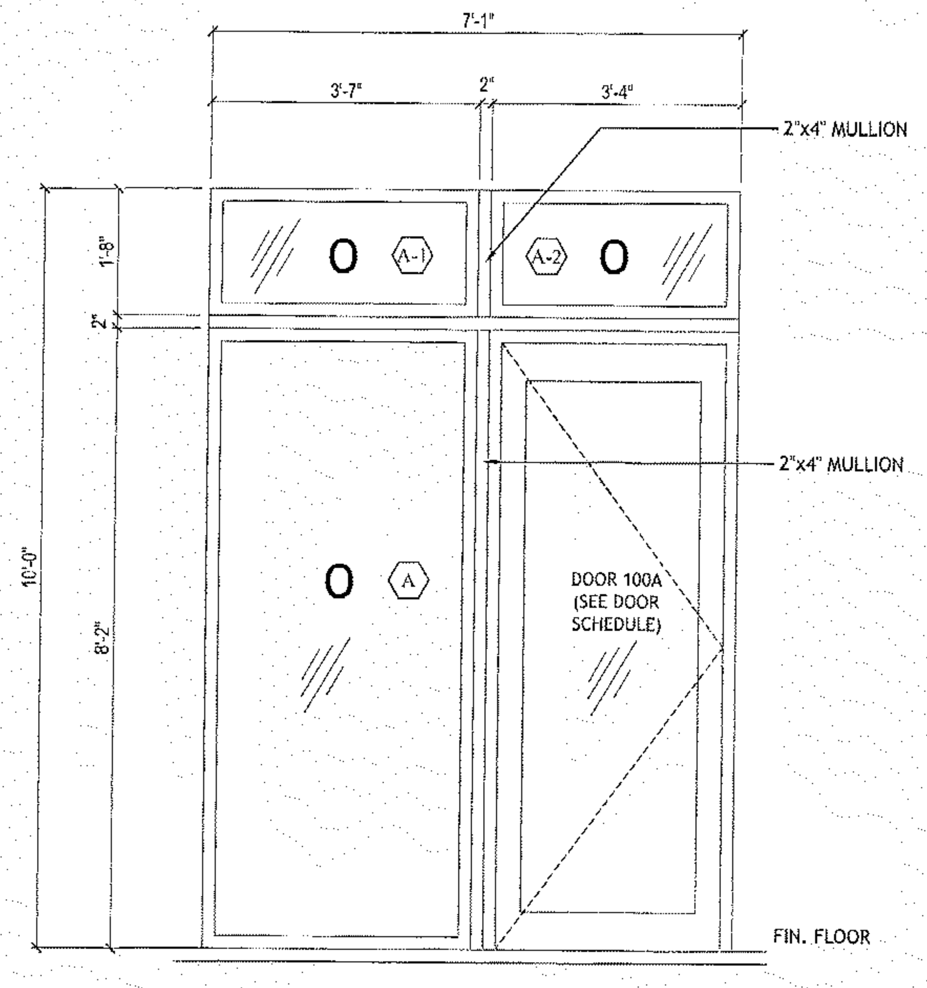
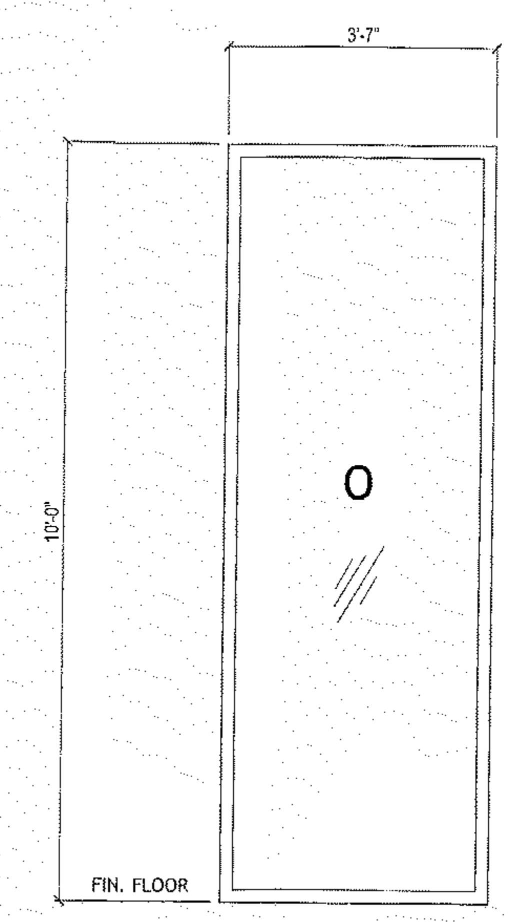
A.5.1

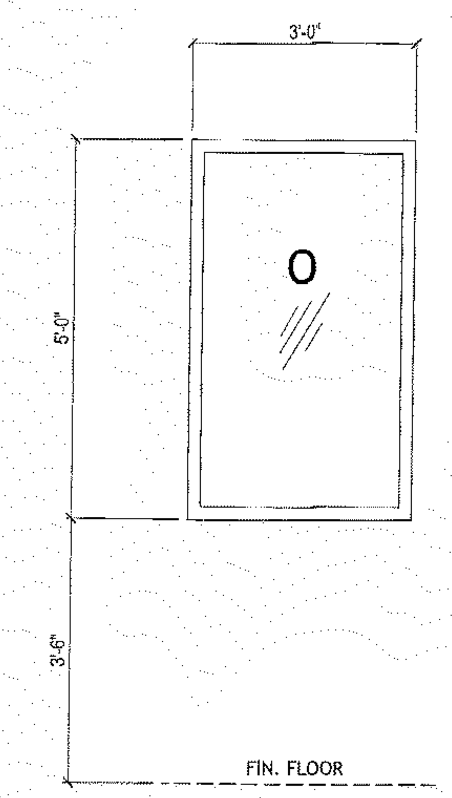
DOOR JAMB DETAILS



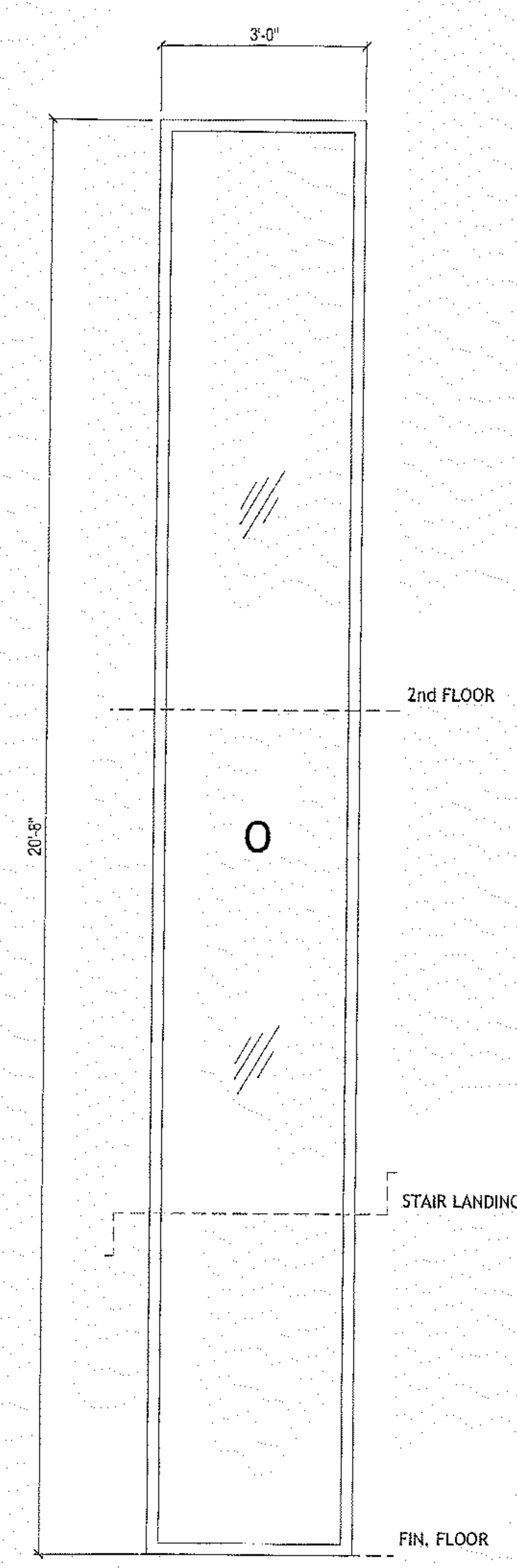
WINDOWS A, A-1, A-2
SCALE: 1/2" = 1'-0"



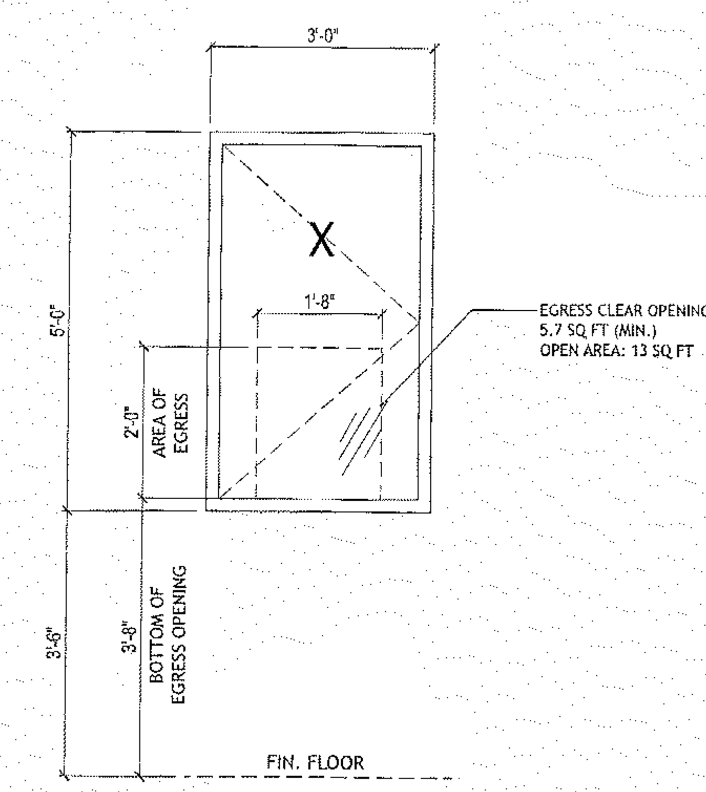
WINDOW C
SCALE: 1/2" = 1'-0"



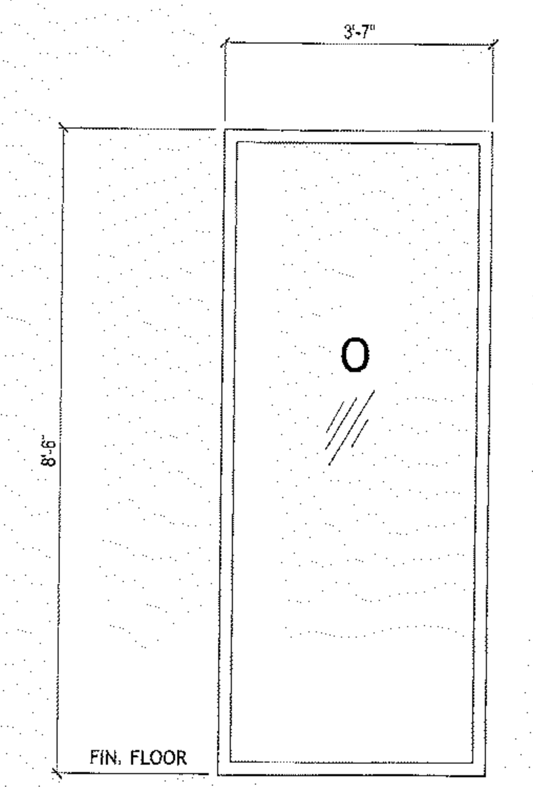
WINDOW D
SCALE: 1/2" = 1'-0"



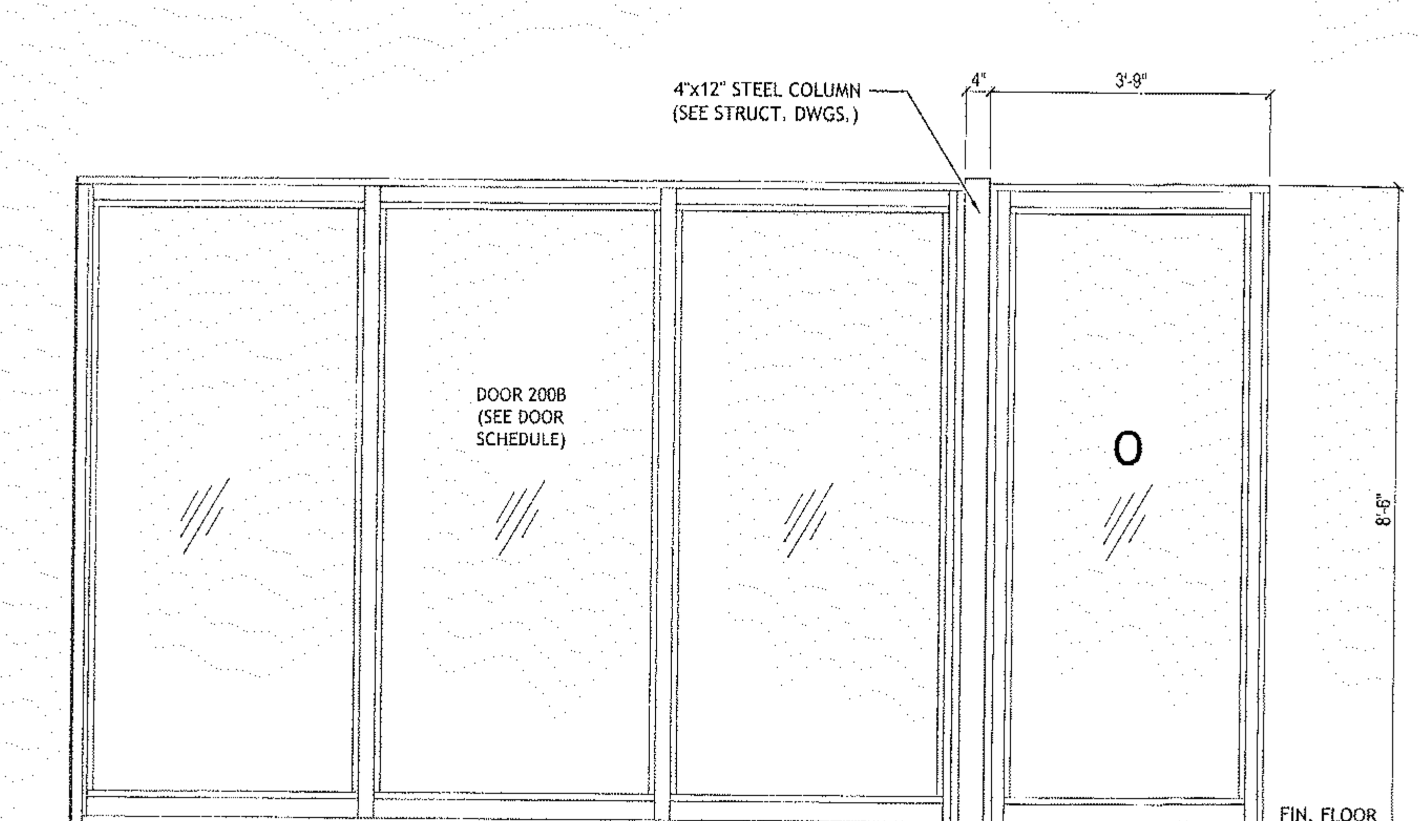
WINDOW B
SCALE: 1/2" = 1'-0"



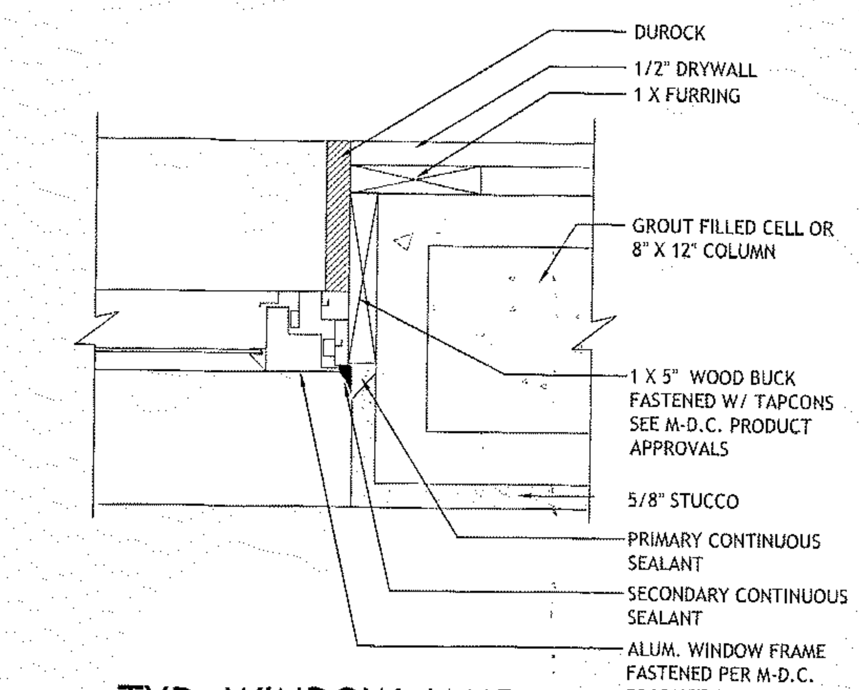
WINDOW E
SCALE: 1/2" = 1'-0"



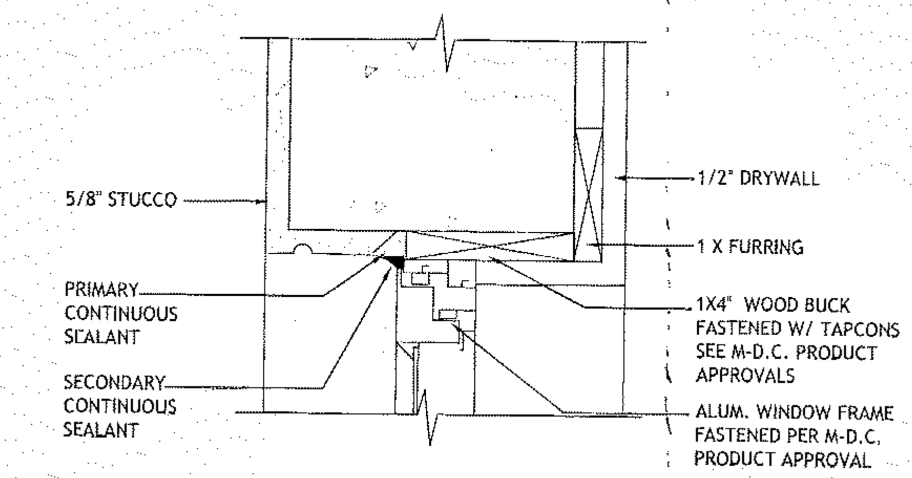
WINDOW G
SCALE: 1/2" = 1'-0"



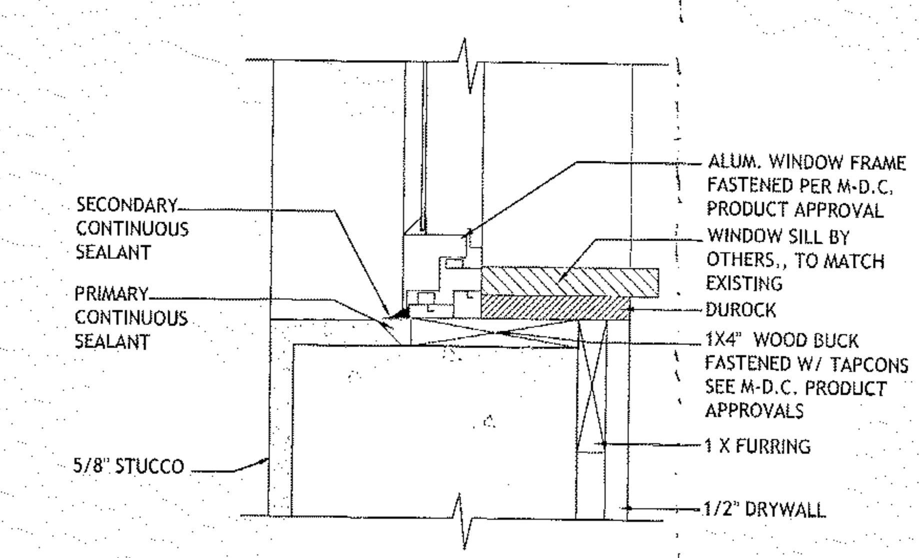
WINDOW F
SCALE: 1/2" = 1'-0"



TYP. WINDOW JAMB
SCALE: 3" = 1'-0"



TYP. WINDOW HEAD
SCALE: 3" = 1'-0"



TYP. WINDOW SILL
SCALE: 3" = 1'-0"

WINDOW SCHEDULE:

#	SIZE: W x H	QTY.	MATERIALS	TYPE	GLASS	N.O.A. #	NOTES	MULLION(S) QTY. - SIZE - TYPE	MULLION(S) N.O.A. #
A	3'-7" X 8'-2"	1	ALUM/GLASS	FIXED	IMPACT GLASS	14-0916.12		(1) 2x4 VERTICAL	14-1014.05
A-1	3'-7" X 1'-8"	1	ALUM/GLASS	FIXED	IMPACT GLASS	14-0916.12	ABOVE ENTRANCE DOOR	(1) 2x4 HORIZONTAL	14-1014.05
A-2	3'-4" X 1'-8"	1	ALUM/GLASS	FIXED	IMPACT GLASS	14-0916.12	ABOVE ENTRANCE DOOR	(1) 2x4 VERTICAL	14-1014.05
B	3'-0" X 20'-8"	1	ALUM/GLASS	FIXED	IMPACT GLASS	14-0916.12			
C	3'-7" X 10'-0"	1	ALUM/GLASS	FIXED	IMPACT GLASS	14-0916.12			
D	3'-0" X 5'-0"	2	ALUM/GLASS	FIXED	IMPACT GLASS	14-0916.12			
E	3'-0" X 5'-0"	1	ALUM/GLASS	CASEMENT	IMPACT GLASS	14-0305.03	EGRESS WINDOW		
F	3'-9" X 8'-6"	1	ALUM/GLASS	FIXED	IMPACT GLASS	14-0916.12			
G	3'-7" X 8'-6"	1	ALUM/GLASS	FIXED	IMPACT GLASS	14-0916.12			

SYMBOL LEGEND:
O = FIXED PANEL
X = OPERABLE PANEL

NOTES:
- WINDOWS TO HAVE LOW E IMPACT GLASS
- ALL ALUMINUM FINISHES TO BE DETERMINED BY OWNER
- PROVIDE CATEGORY II SAFETY GLASS AT GLASS PANELS ADJACENT TO DOORS
- ALL GLASS TO HAVE A MAX U-VALUE OF 0.96 AND A SHGC OF 0.60
- WINDOW OPERATION VARIES LEFT OR RIGHT. SEE PLANS FOR CONFIGURATIONS.

CONTRACTOR SHALL FIELD VERIFY ALL OPENINGS & DIMENSIONS, AND SUBMIT SHOP DRAWINGS FOR ARCHITECTS APPROVAL PRIOR TO WINDOW FABRICATION.

* FOR REFERENCE ONLY *

ALL EXTERIOR WINDOWS UNDER SEPARATE PERMIT

DRAWN BY:
REVISIONS:
1 8-14-15

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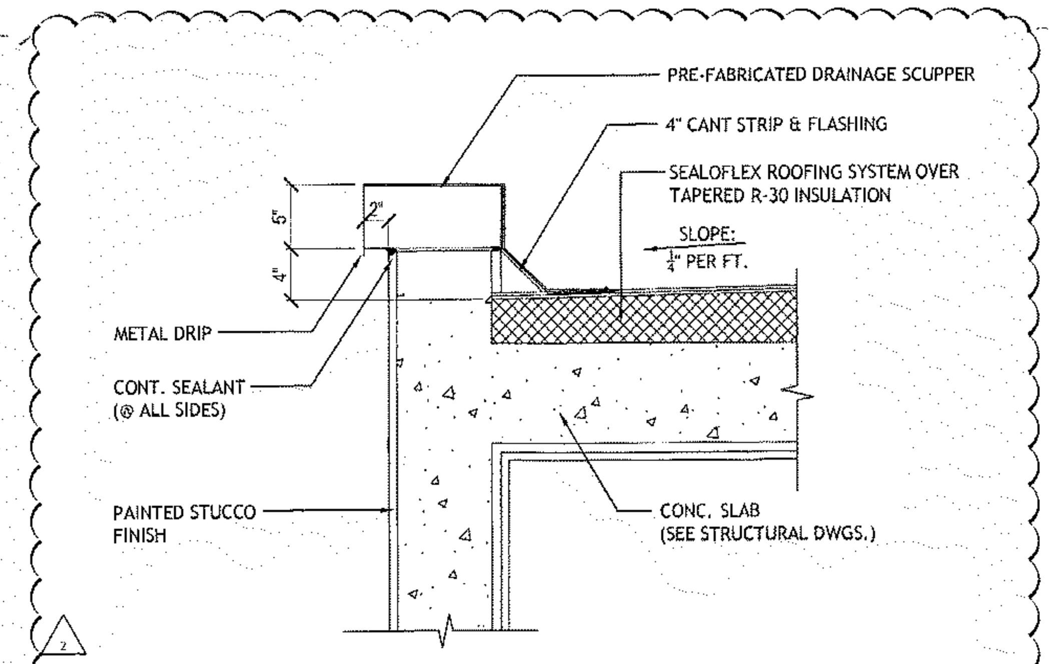
AUG 24 2015
SEAL

NEW RESIDENCE AT: 4354 ALTON ROAD MIAMI BEACH, FL 33139

A.6.0
WINDOW SCHEDULE



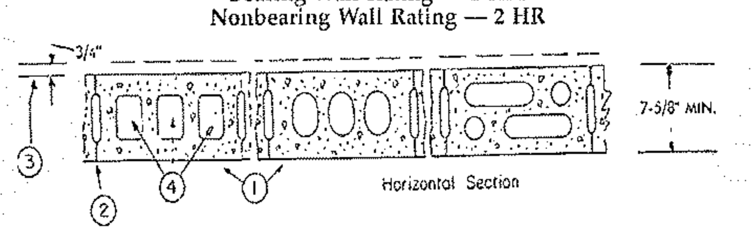
TYP. EMERGENCY OVERFLOW DETAIL

3 / A7.0

SCALE: 1" = 1'-0

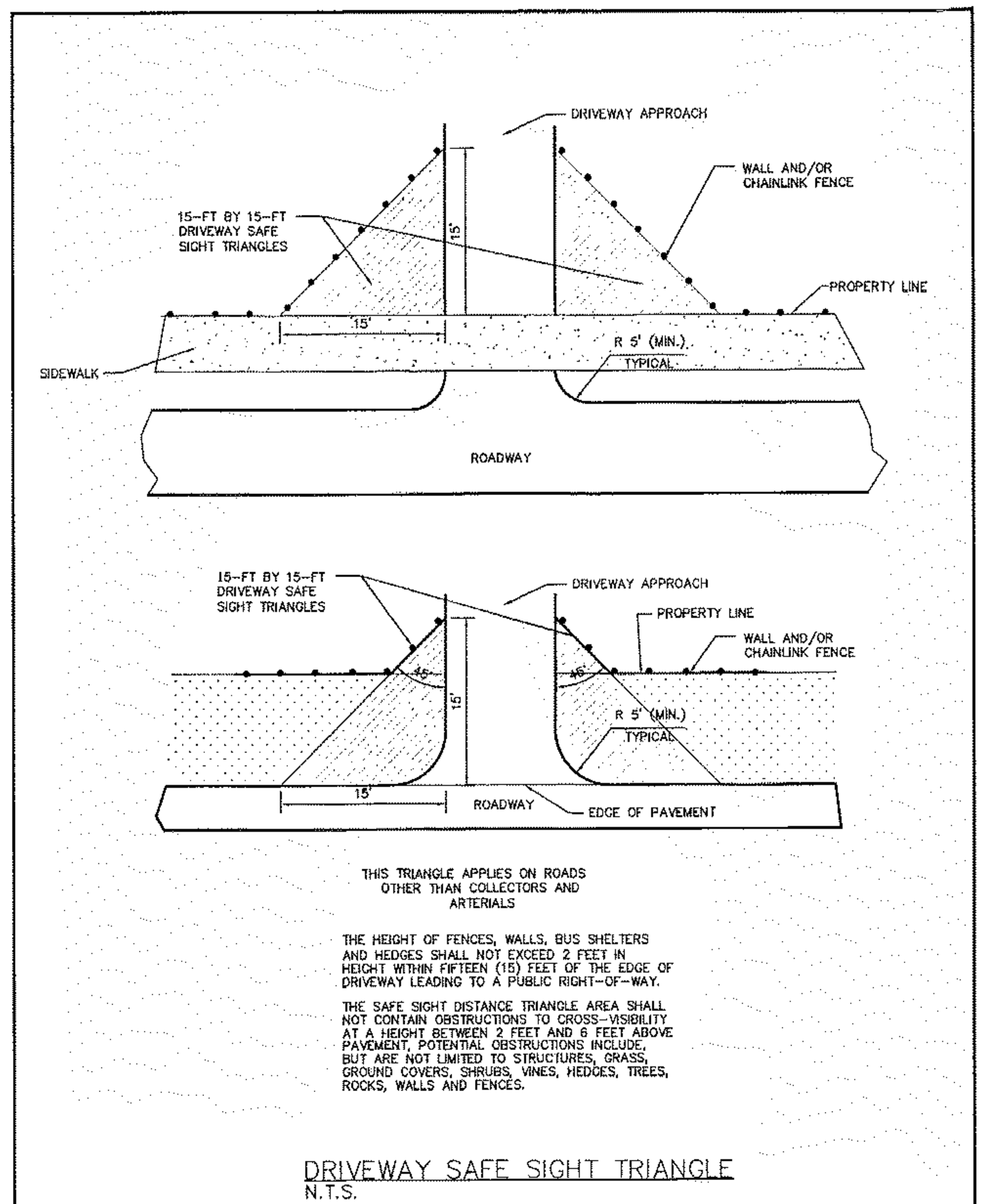
Design No. U905

Bearing Wall Rating — 2 HR.
Nonbearing Wall Rating — 2 HR



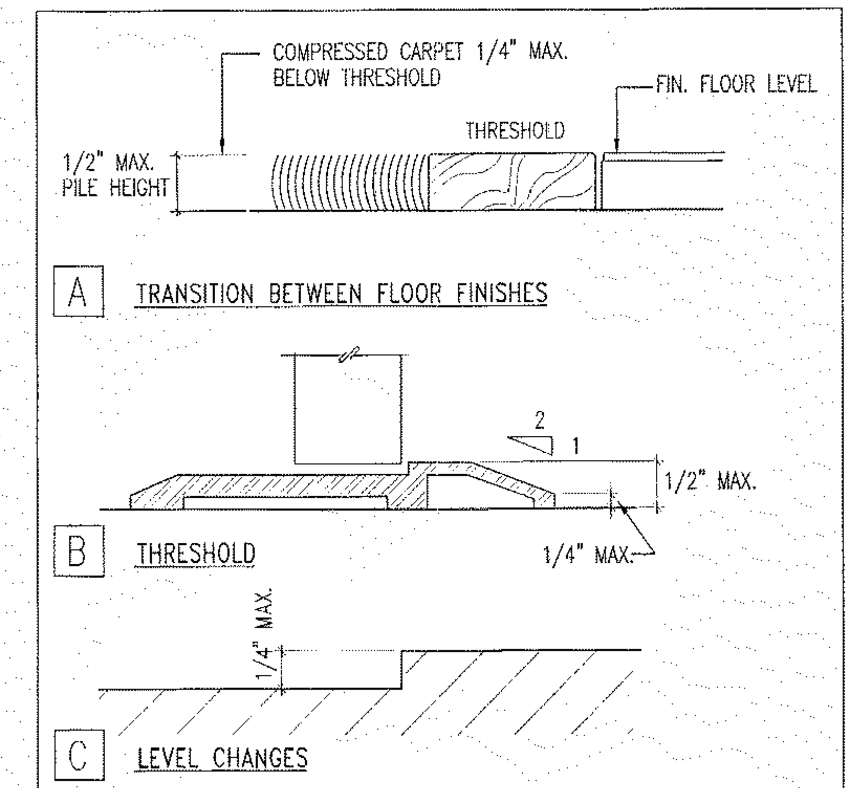
1. **Concrete Blocks*** — Various designs. Classification D-2 (2 hr). See **Concrete Blocks** category for list of eligible manufacturers.
2. **Mortar** — Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
3. **Portland Cement Stucco or Gypsum Plaster** — Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).
4. **Loose Masonry Fill** — If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.
5. **Foamed Plastic*** — (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).
   THE DOW CHEMICAL CO —Type Thermax

*Bearing the UL Classification Mark



DRIVEWAY SAFE SIGHT TRIANGLE
N.T.S.

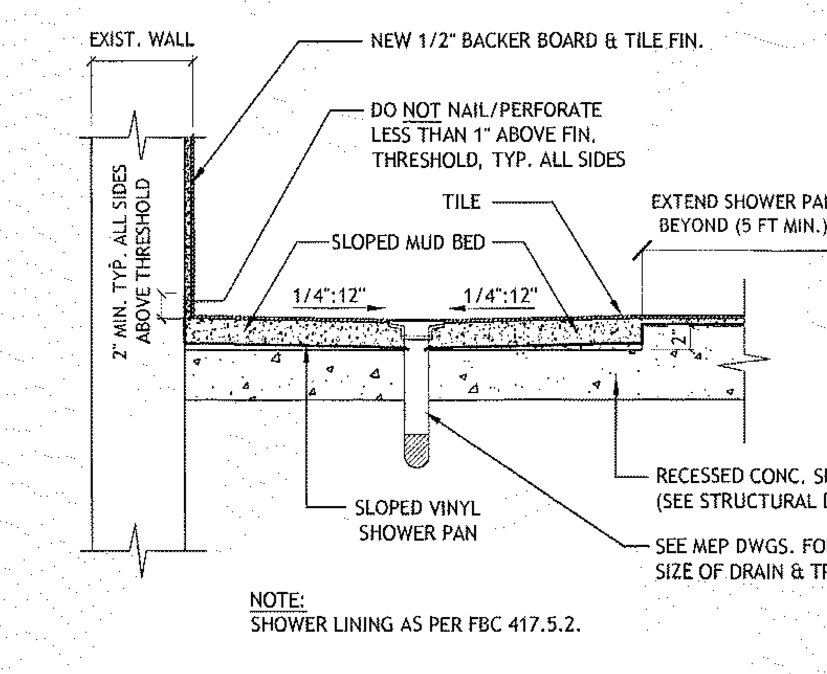
MIAMIBEACH PUBLIC WORKS DEPARTMENT | ROADWAY DETAILS NO.2 DRIVEWAY SAFE SIGHT TRIANGLE | RS16



NOTES:

1. 1/2" MAXIMUM TOTAL HEIGHT WITH 1/4" MAXIMUM VERTICAL CHANGE AT EDGE.
2. 1 : 2 SLOPED BEVEL REQUIRED IF LEVEL CHANGE IS OVER 1/4" VERITCAL LEVEL CHANGE.
3. 1/4" MAXIMUM VERTICAL LEVEL CHANGE.

THRESHOLD / LEVEL CHANGES — SCALE: NONE — 2 / A7.0



NOTE:
SHOWER LINING AS PER FBC 417.5.2.

TYP. SHOWER PAN DETAIL

1 / A7.0

SCALE: 1" = 1'-0"

TYPICAL PARTITION NOTES:

-PROVIDE A HORIZONTAL MEMBER (20 GA MIN.) SECURELY FASTENED TO MIN. (2) 20 GA STUDS BEHIND ANY/ALL CABINETS, WALL HUNG ACCESSORIES, & PLUMBING FIXTURES.

-REFER TO I.D. DRAWINGS FOR WALL FINISHES AND PAINT COLORS.

-COORDINATE W/ I.D. DRAWINGS FOR BASEBOARD LOCATIONS, HEIGHTS, & TYPE.

-PROVIDE PLYWOOD BACKING @ ALL BATHROOM ACCESSORIES, WALL HUNG TV, BUILT IN FURNITURE, HEAVY ARTWORK, WALL HUNG MIRRORS, ETC. G.C. TO COORDINATE W/ OWNER.

-FIRE BLOCKING SHALL BE PROVIDED IN WALLS EVERY 8'-0", AT INTERCONNECTIONS, BETWEEN STAIR STRINGERS, AT OPENINGS, AT CHIMNEYS, AT FLOOR JOISTS, AND AROUND DOOR POCKETS.

-PROVIDE 5/8" GREENBOARD IN BATHROOMS AND KITCHEN.

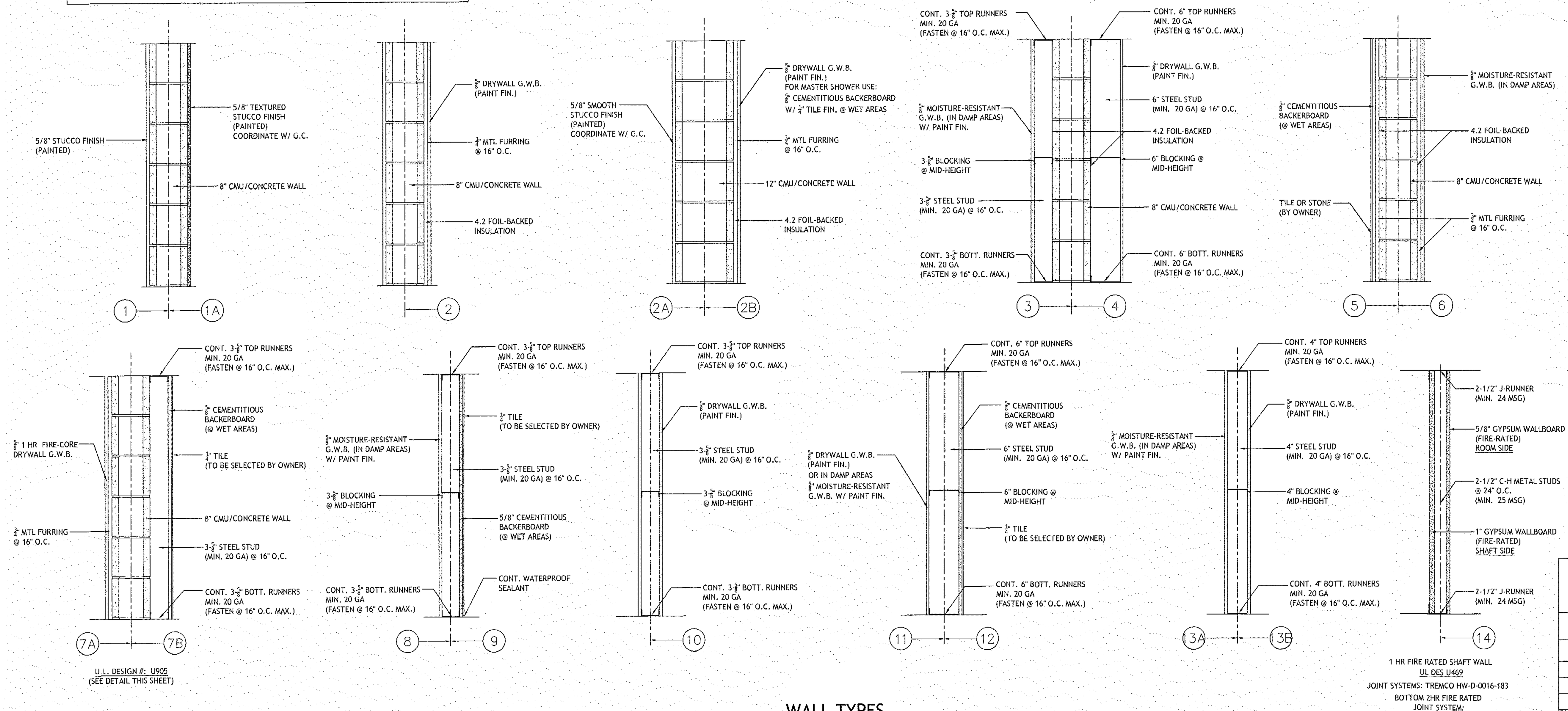
-PROVIDE 5/8" CEMENTITIOUS BACKERBOARD IN SHOWERS & TUBS.

-PROVIDE SOUND ATTENUATION BATT INSULATION @ PARTITIONS (WHERE INDICATED).

-REFER TO OWNER AND/OR I.D. DRAWINGS FOR WALL FINISHES AND PAINT COLORS.

-SEE FLOOR PLANS FOR WALL TYPE DESIGNATIONS.

-SEE REFLECTED CEILING PLANS FOR CEILING TYPES & HEIGHTS.



WALL TYPES

SCALE: 1" = 1'-0"

FLAME SPREAD INDEX: (FBC R302.9.1, R302.10.1)

- WALL & CEILING FINISHES SHALL HAVE A FLAME SPREAD INDEX OF NOT GREATER THAN 200.
- INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS & VAPOR-PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES & ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25.

SMOKE DEVELOPED INDEX: (FBC R302.9.2, R302.10.1)

- WALL & CEILING FINISHES SHALL HAVE A SMOKE DEVELOPED INDEX OF NOT GREATER THAN 450.
- INSULATION MATERIALS INCLUDING FACINGS, SUCH AS VAPOR RETARDERS & VAPOR-PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES & ATTICS SHALL HAVE A SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723.

R-VALUE CHART

Table R402.1.1, FBC Energy conservation

CLIMATE ZONE: 1

COMPONENT	R-VALUE REQ'D. (MIN.)	R-VALUE PROVIDED
CEILING	R-30	R-30
EXTERIOR WALL	R-4	R-4.2

DRAWN BY:

REVISIONS:

1 11-01-15
2 8-14-15

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NOV 2 0 2015

SEAL

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MIAMI BEACH, FL 33139

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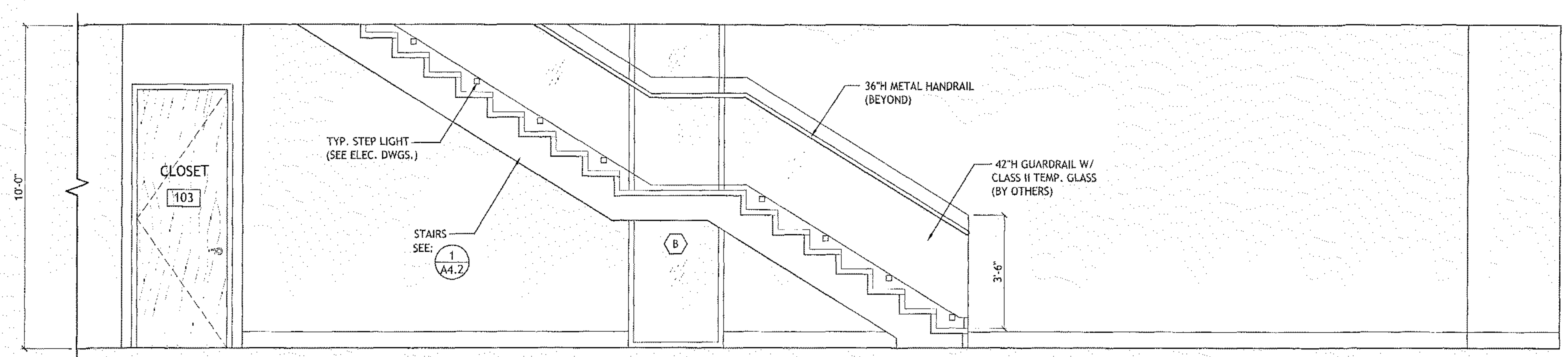
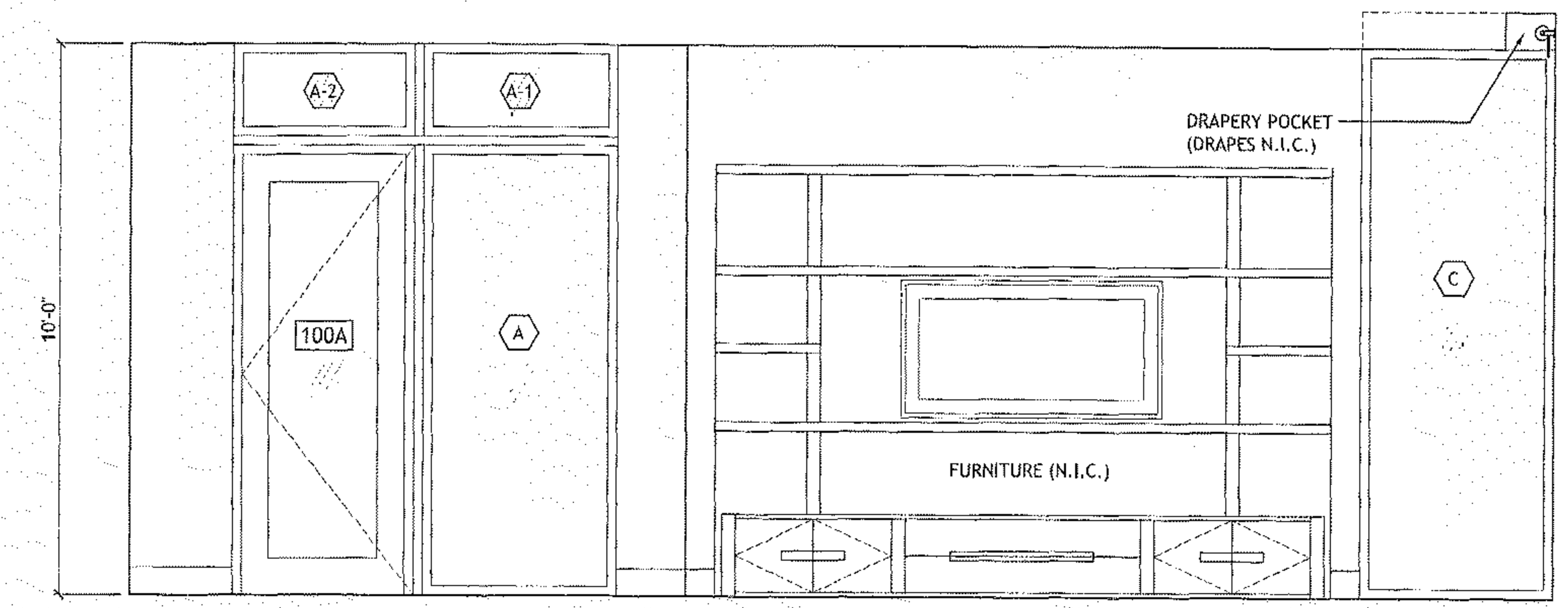
A.7.0

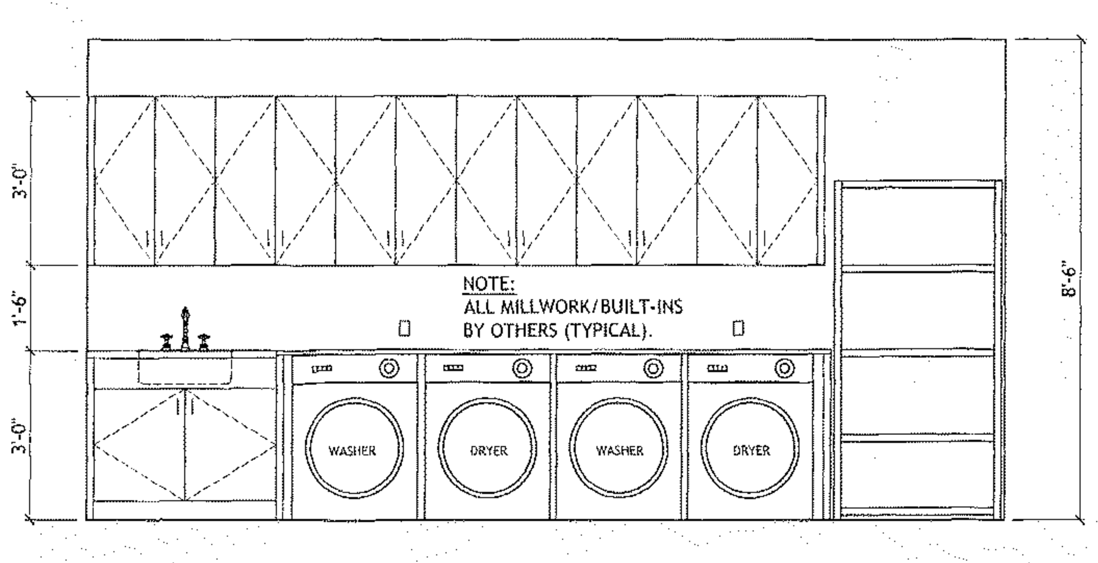
WALL TYPES & DETAILS



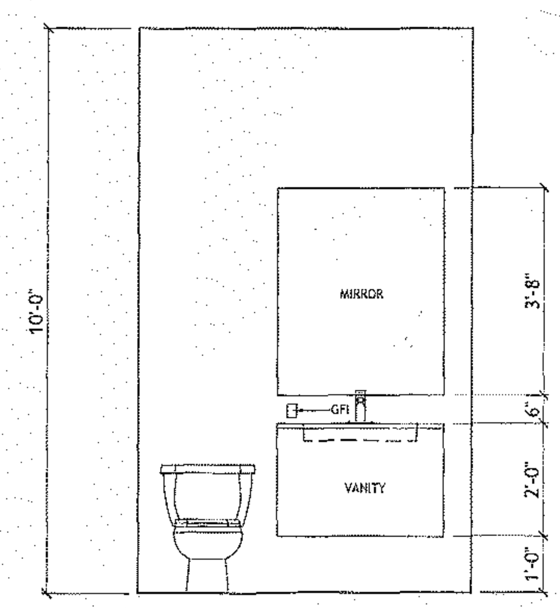
B A8.0 INTERIOR ELEV. - HALLWAY
SCALE: 3/8" = 1'-0"



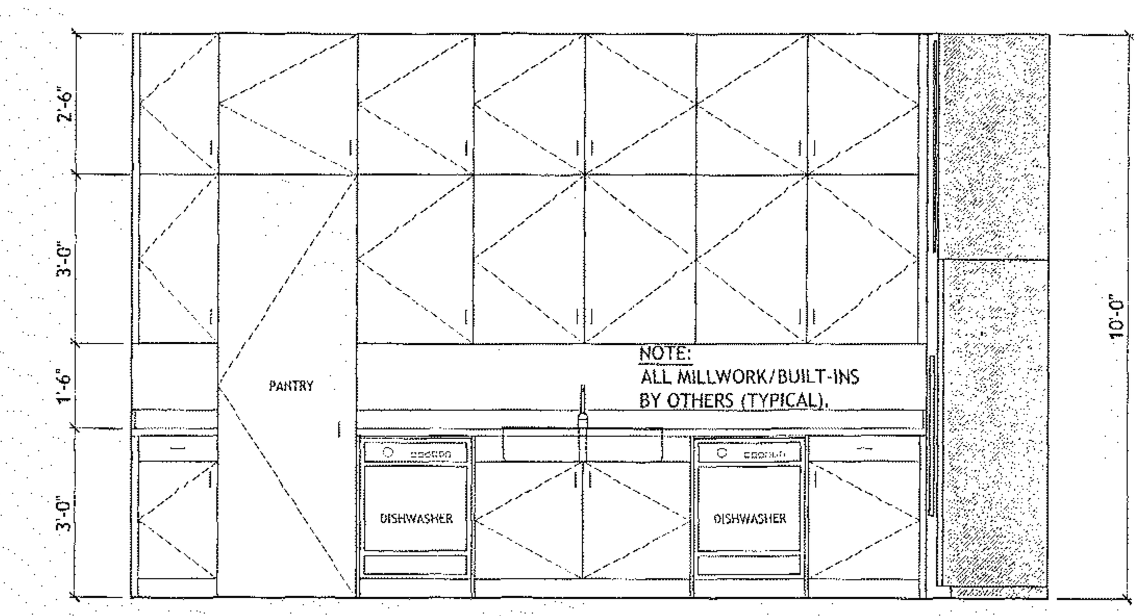
A A8.0 INTERIOR ELEV. - LIVING AREA
SCALE: 3/8" = 1'-0"



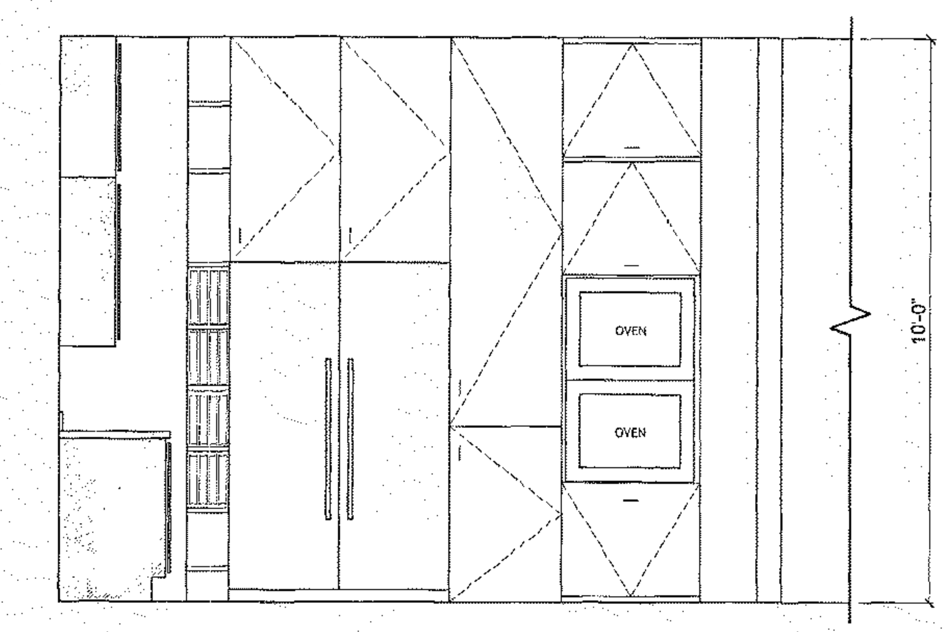
G A8.0 INTERIOR ELEV. - LAUNDRY
SCALE: 3/8" = 1'-0"



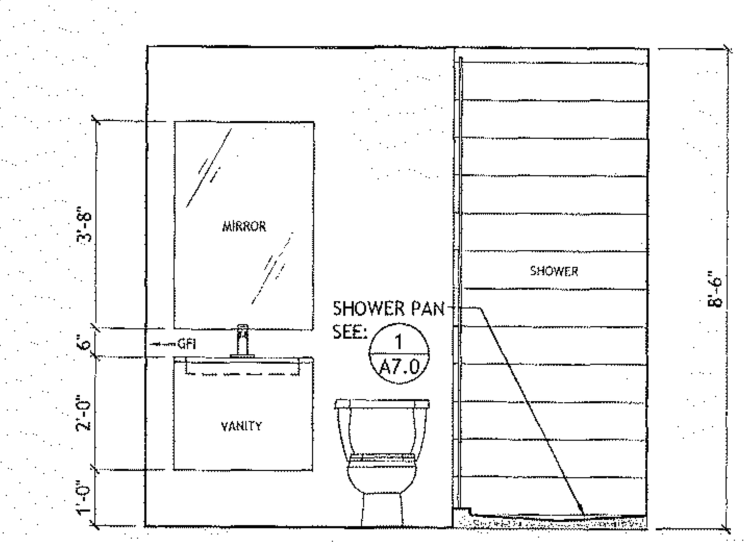
F A8.0 INT. ELEV. - POWDER ROOM
SCALE: 3/8" = 1'-0"



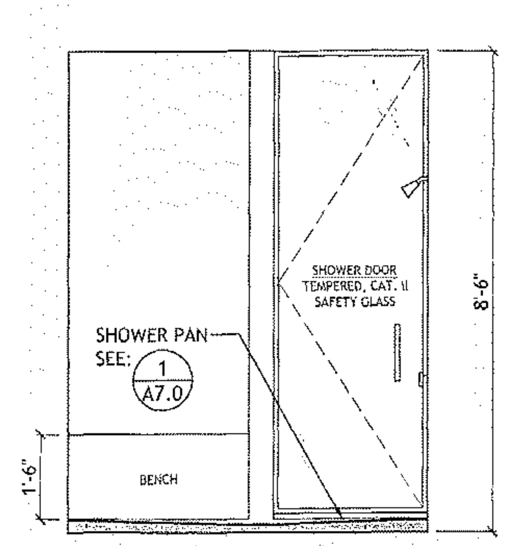
E A8.0 INTERIOR ELEV. - KITCHEN
SCALE: 3/8" = 1'-0"



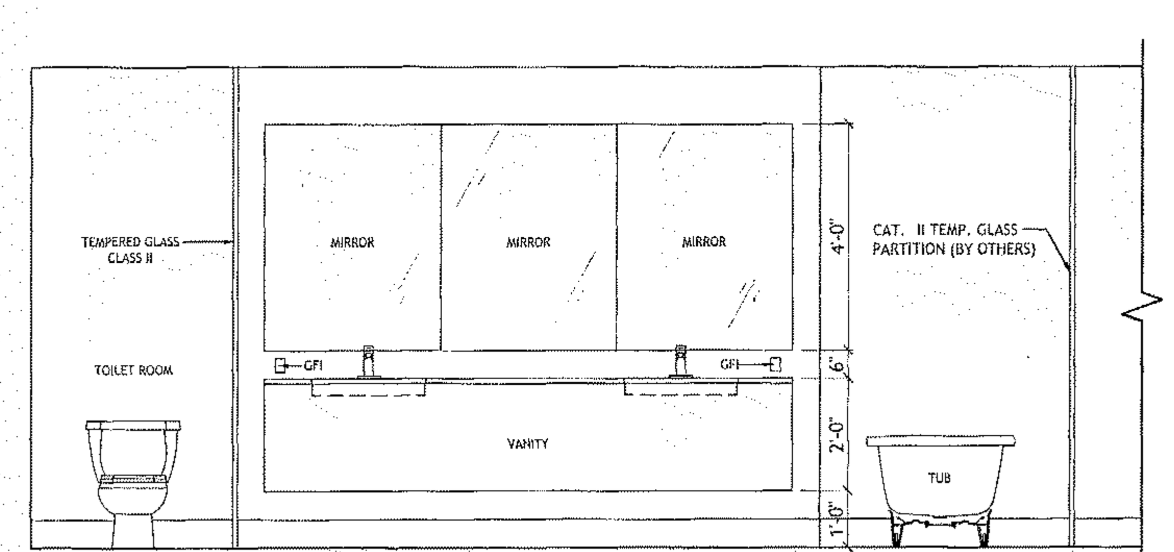
D A8.0 INTERIOR ELEV. - KITCHEN
SCALE: 3/8" = 1'-0"



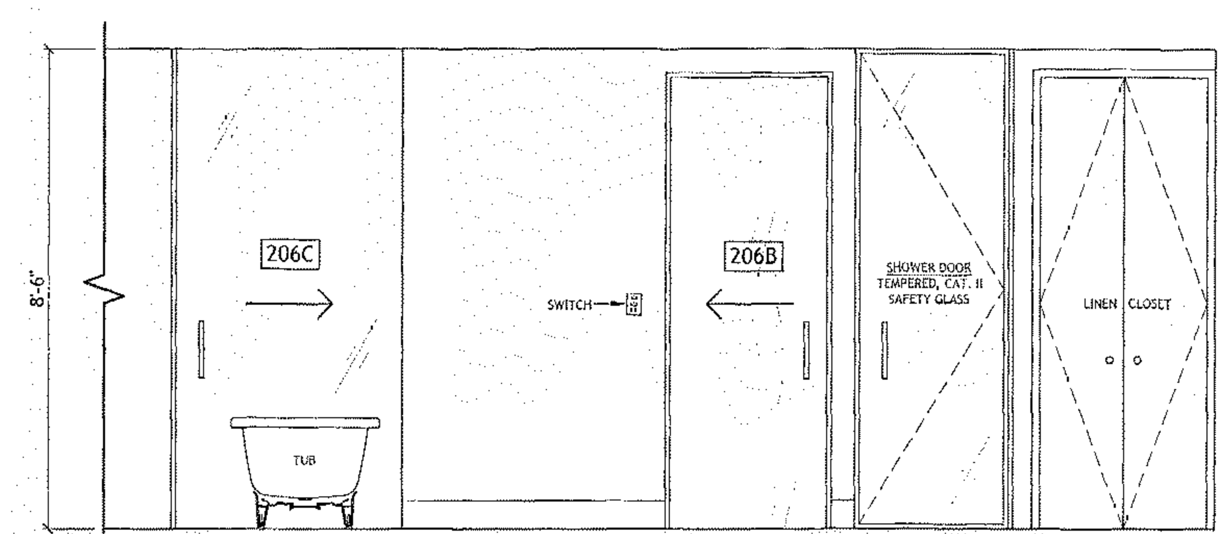
C A8.0 INTERIOR ELEV. - GUEST BATH
SCALE: 3/8" = 1'-0"



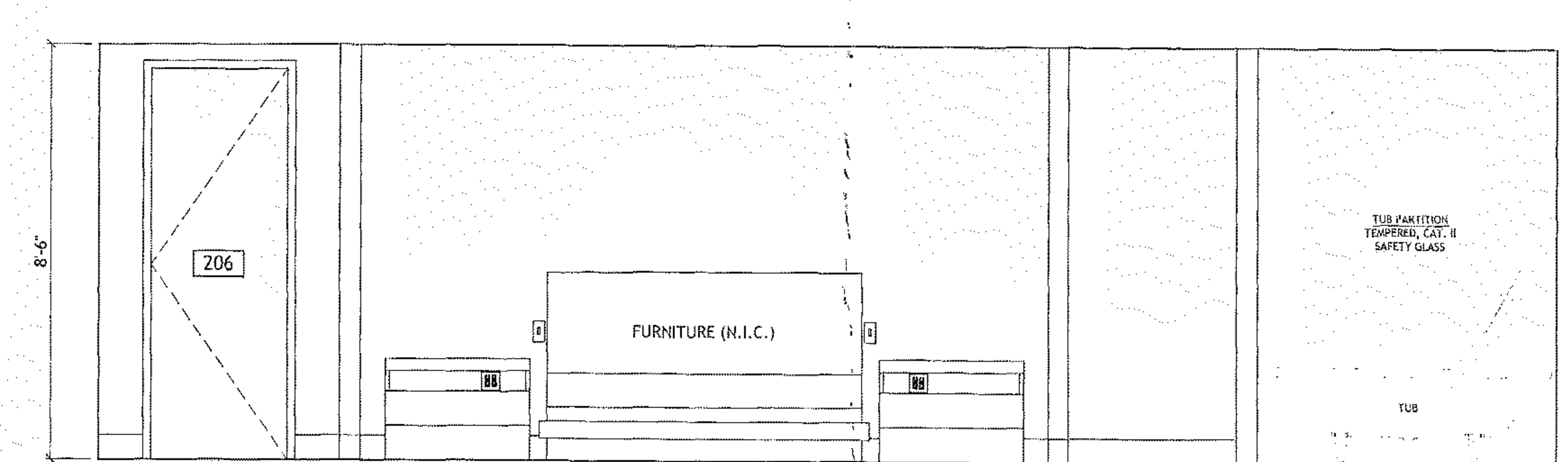
K A8.0 INT. ELEV. - SHOWER
SCALE: 3/8" = 1'-0"



J A8.0 INTERIOR ELEV. - MASTER BATHROOM
SCALE: 3/8" = 1'-0"



I A8.0 INTERIOR ELEV. - MASTER BATHROOM
SCALE: 3/8" = 1'-0"



H A8.0 INTERIOR ELEV. - MASTER BEDROOM
SCALE: 3/8" = 1'-0"

DRAWN BY:
REVISIONS:
1 8-14-15

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AT:
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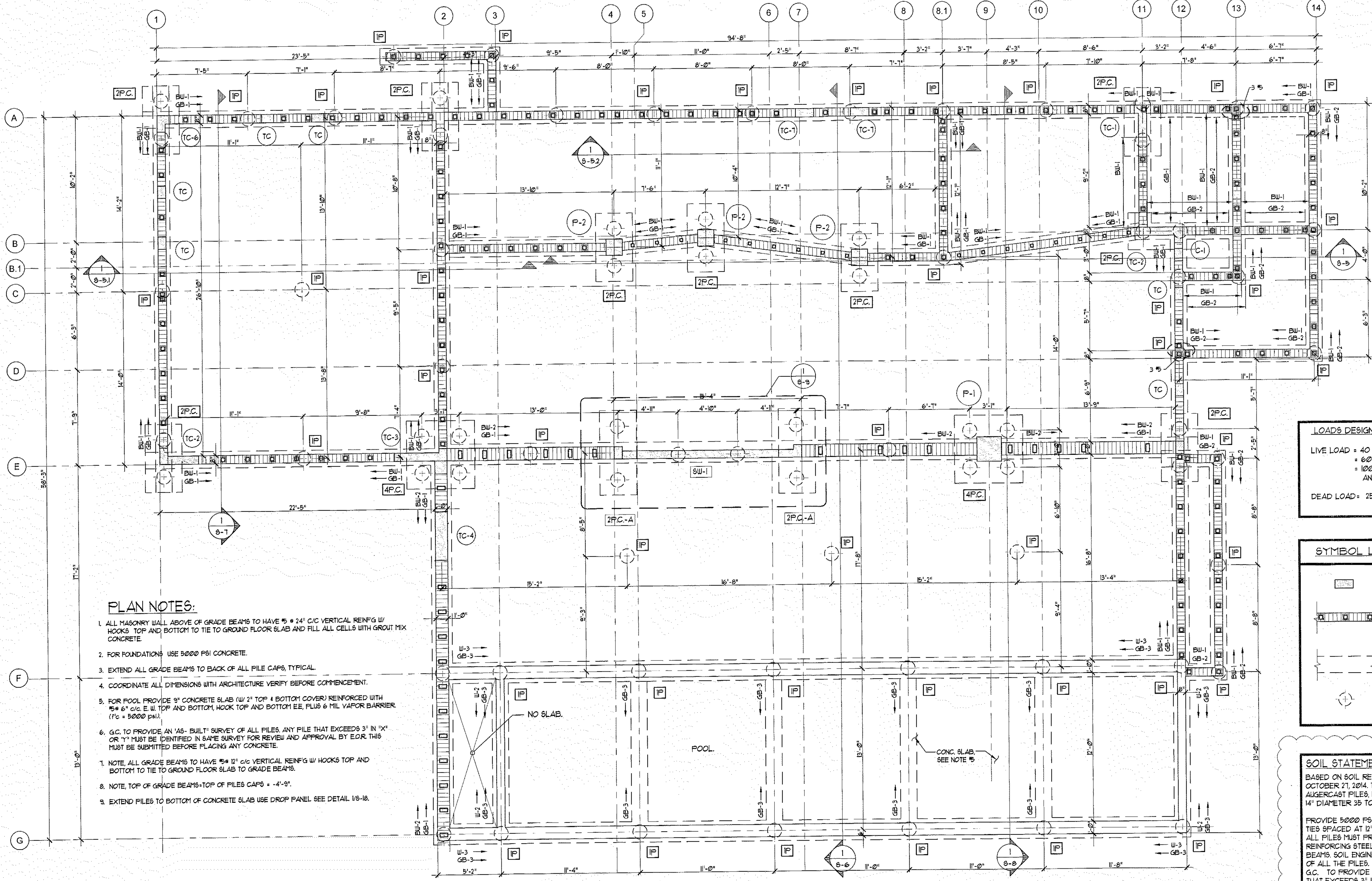
A.8.0
INTERIOR ELEVATIONS



PLAN NOTES:

1. ALL MASONRY WALL ABOVE OF GRADE BEAMS TO HAVE #5 @ 24" C/C VERTICAL REINF'G W/ HOOKS TOP AND BOTTOM TO TIE TO GROUND FLOOR SLAB AND FILL ALL CELLS WITH GROUT MIX CONCRETE.
2. FOR FOUNDATIONS USE 5000 PSI CONCRETE.
3. EXTEND ALL GRADE BEAMS TO BACK OF ALL PILE CAPS, TYPICAL.
4. COORDINATE ALL DIMENSIONS WITH ARCHITECTURE VERIFY BEFORE COMMENCEMENT.
5. FOR POOL PROVIDE 9" CONCRETE SLAB (W/ 2" TOP & BOTTOM COVER) REINFORCED WITH #5@ 6" c/c. E. W. TOP AND BOTTOM, HOOK TOP AND BOTTOM E.E, PLUS 6 MIL VAPOR BARRIER. (f'c = 5000 psi).
6. G.C. TO PROVIDE AN 'AS- BUILT" SURVEY OF ALL PILES. ANY PILE THAT EXCEEDS 3" IN "X" OR 'Y" MUST BE IDENTIFIED IN SAME SURVEY FOR REVIEW AND APPROVAL BY E.O.R. THIS MUST BE SUBMITTED BEFORE PLACING ANY CONCRETE.
7. NOTE, ALL GRADE BEAMS TO HAVE #5@ 12" c/c VERTICAL REINF'G W/ HOOKS TOP AND BOTTOM TO TIE TO GROUND FLOOR SLAB TO GRADE BEAMS.
8. NOTE, TOP OF GRADE BEAMS=TOP OF PILES CAPS = -4'-9".
9. EXTEND PILES TO BOTTOM OF CONCRETE SLAB USE DROP PANEL SEE DETAIL 1/S-18.

FOUNDATION FRAMING PLAN

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

LOADS DESIGN:

LIVE LOAD = 40 PSF (RESIDENCE)
= 60 PSF (BALCONY)
= 100 PSF (TERRACE AND STAIRS)

DEAD LOAD = 25 PSF

SYMBOL LEGEND:

CONCRETE COLUMN

CMU WALL

GRADE BEAM

AUGERCAST PILE

SOIL STATEMENT:

BASED ON SOIL REPORT BY DYNATECH ENGINEERS CORP DATED OCTOBER 27, 2014. THE FOUNDATIONS HAVE BEEN DESIGNED WITH AUGERCAST PILES, MINIMUM PILE LENGTH 32'-0".
14" DIAMETER 35 TONS IN COMPRESSION, AND 15 TONS IN TENSION.

PROVIDE 5000 PSI GROUT WITH 6 # 7 FULL LENGTH REINFORCING # 3 TIES SPACED AT 12" FULL LENGTH OF PILES.
ALL PILES MUST PROVIDE A MINIMUM 18" LENGTH OF EXPOSED PILE REINFORCING STEEL TO BE EMBEDDED IN THE PILE CAPS OR GRADE BEAMS. SOIL ENGINEER TO WITNESS AND CERTIFY THE INSTALLATION OF ALL THE PILES.
G.C. TO PROVIDE AN 'AS- BUILT" SURVEY OF ALL PILES. ANY PILE THAT EXCEEDS 3" IN "X" OR 'Y" MUST BE IDENTIED IN SAME SURVEY FOR RELIEW BY E.O.R. THIS MUST BE SUBMITTED BEFORE PLACING ANY CONCRETE.

1

REVISIONS:

1 11-24-2015 : BLDG. DEPT. COMMENTS.

2 12-15-2015 : BLDG. DEPT. COMMENTS.

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DEC 15 2015

JUAN FERNANDEZ-BARQUIN, P.E.
40114

NEW RESIDENCE
FOR:
4354 ALTON RD.
MIAMI BEACH, FL 33139

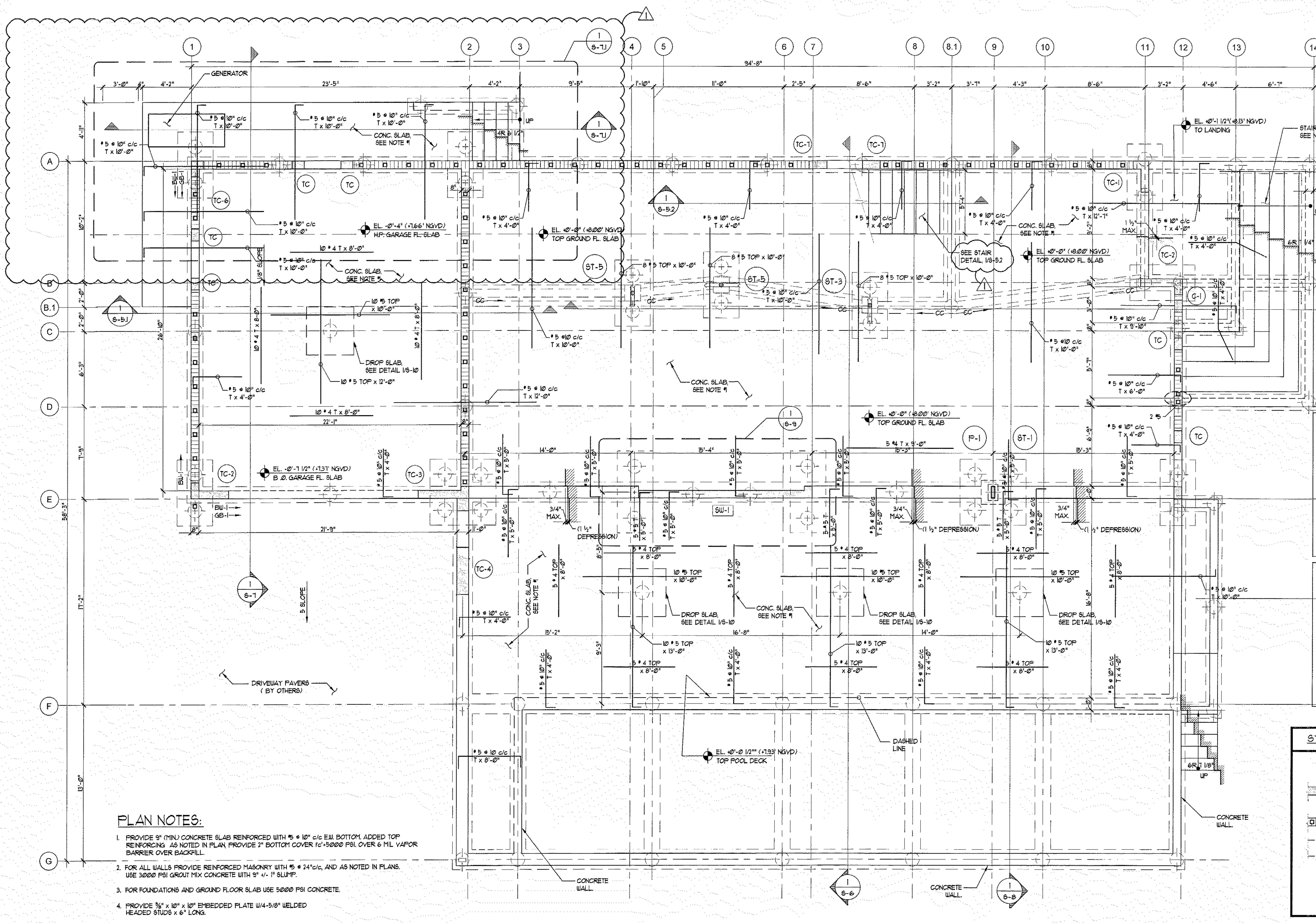
DATE: 10-20-2014

JUAN FERNANDEZ-BARQUIN, P.E.
STRUCTURAL ENGINEER P.E. # 40114
THRESHOLD INSPECTOR # 0947
2520 N.W. 97th AVENUE, SUITE #240
DORAL, FLORIDA 33172
PHONE: 786-336-0881, FAX: 786-336-0884
E-MAIL: jfbeng@bellsouth.n
www.juanfernandezbarquinpe.com

O:\3Design Inc\(TONY LEON)\4354 ALTON RD\STRUCTURE\S-1Foundation Floor Plan.dwg

S-1

FOUNDATION FRAMING PLAN



GROUND FLOOR FRAMING PLAN

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

PLAN NOTES:

1. PROVIDE 9" (MIN.) CONCRETE SLAB REINFORCED WITH #5 @ 10" c/c E.W. BOTTOM. ADDED TOP REINFORCING AS NOTED IN PLAN, PROVIDE 2" BOTTOM COVER fc'=5000 PSI. OVER 6 MIL VAPOR BARRIER OVER BACKFILL.
2. FOR ALL WALLS PROVIDE REINFORCED MASONRY WITH #5 @ 24"c/c, AND AS NOTED IN PLANS. USE 3000 PSI GROUT MIX CONCRETE WITH 9" +/- 1" SLUMP.
3. FOR FOUNDATIONS AND GROUND FLOOR SLAB USE 5000 PSI CONCRETE.
4. PROVIDE 5/8" x 10" x 10" EMBEDDED PLATE W/4-5/8" WELDED HEADED STUDS x 6" LONG.
5. PROVIDE 3/4" DEPRESSION AT ALL EXTERIOR MASONRY WALLS.
6. WHERE NOTED IN PLAN, DROP SLAB SOFFIT 2", PROVIDE SAME BOTTOM MAT.
7. PROVIDE 9" (MIN.) CONCRETE SLAB REINFORCED WITH #5 @ 10" c/c E.W. TOP AND BOTTOM. ADDED TOP REINFORCING AS NOTED IN PLAN, PROVIDE 2" BOTTOM COVER fc'=5000 PSI. OVER 6 MIL VAPOR BARRIER OVER BACKFILL.
8. FOR ALL WALLS PROVIDE REINFORCED MASONRY WITH #5 @ 24"c/c, AND AS NOTED IN PLANS. USE 3000 PSI GROUT MIX CONCRETE WITH 9" +/- 1" SLUMP.
9. FOR FOUNDATIONS AND GROUND FLOOR SLAB USE 5000 PSI CONCRETE.

SYMBOL LEGEND:

CONCRETE COLUMN

CONCRETE WALL

NEW MASONRY WALL

GRADE BEAM

AUGERCAST PILE

STEEL COLUMN

LOADS DESIGN:

LIVE LOAD = 40 PSF (RESIDENCE)
= 60 PSF (BALCONY)
= 100 PSF (TERRACE AND STAIRS)

DEAD LOAD = 25 PSF

REVISIONS:
1 5-24-2015 - BLDG. DEPT. COMMENTS
2 9-8-2015 - BLDG. DEPT. COMMENTS

AA0003569
ANTHONY LEON
0016752

3 DESIGN ARCHITECTURE
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P: 305.438.9377 | F: 305.438.9379

DEC 1 5 2015
JUAN FERNANDEZ-BARQUIN, P.E. # 40114

NEW RESIDENCE
FOR:
4354 ALTON RD.
MIAMI BEACH, FL 33139

DATE: 10-20-2014

JUAN FERNANDEZ-BARQUIN, P.E.
STRUCTURAL ENGINEER P.E. # 40114
THRESHOLD INSPECTOR # 0947
2520 N.W. 97th AVENUE, SUITE #240
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PHONE: 786-336-0881, FAX: 786-336-0884
E-MAIL: jfbeng@bellsouth.n
www.juanfernandezbarquinpe.com

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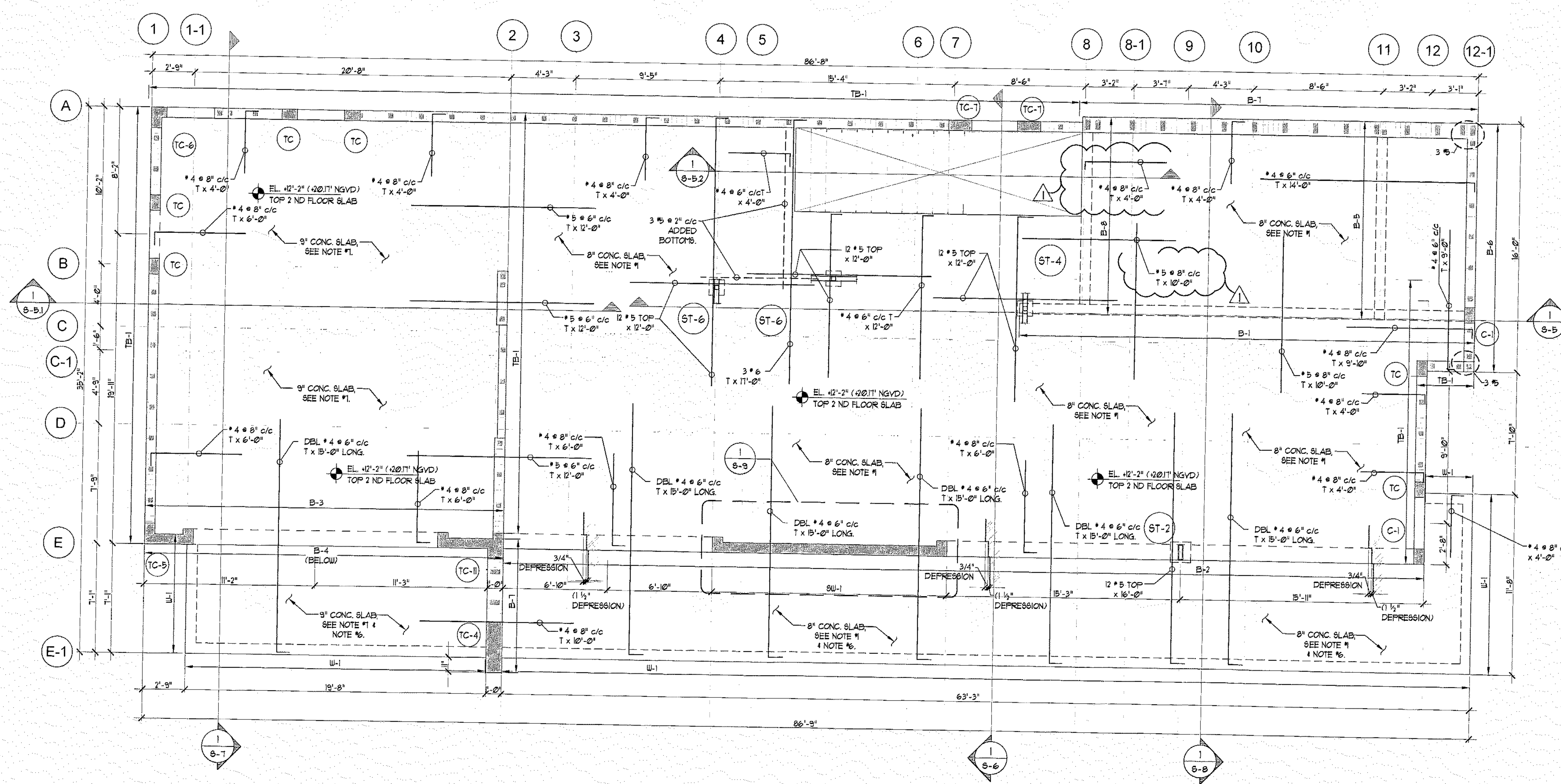
S-2

GROUND FLOOR FRAMING PLAN

O:\3Design Inc.(TONY LEON)\4354 ALTON RD\STRUCTURE\S-2 GroundGHGHFloor BCVBBCBPlan.DWG



SECOND FLOOR FRAMING PLAN

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

PLAN NOTES:

1. PROVIDE 8" MINIMUM CONCRETE SLAB REINFORCED WITH #4 @ 8" c/c E.W. BOTTOM, ADDED TOP REINFORCING ARE NOTED IN PLAN (fc' = 5000 psi).
2. PROVIDE 3/4" DEPRESSION AT ALL EXTERIOR PERIMETER FOR WALLS.
3. ALL EXTERIOR MASONRY TO BE REINFORCED WITH #5 @24" c/c. UNLESS OTHER WISE NOTED. FILL CELLS WITH 3000 PSI. GROUT MIX CONCRETE W/ 9" SLUMP (+/- 1")
4. PROVIDE 8" TO 6" CONCRETE SLAB W/ #4 @ 8" c/c E. W. BOTTOM ADDED TOP REINFORCING ARE NOTED IN PLAN. (FC' = 5000 PSI).
5. G.C. TO COORDINATE WITH ARCHITECTURE ALL DIMENSIONS.
6. DROP SLAB SOFFIT 2", SEE SECTIONS.
7. PROVIDE 9" MINIMUM CONCRETE SLAB REINFORCED WITH #5 @ 6" C/C E.W. BOTTOM, ADDED TOP REINFORCING ARE NOTED IN PLAN (FC' = 5000 PSI).

SYMBOL LEGEND:

CONCRETE COLUMN

CONCRETE WALL

NEW MASONRY WALL

STEEL COLUMN

LOADS DESIGN:

LIVE LOAD = 40 PSF (RESIDENCE)
= 60 PSF (BALCONY)
= 100 PSF (TERRACE AND STAIRS)

DEAD LOAD = 25 PSF

1 11-24-2015 BLDG. DEPT. COMMENTS

DRAWN BY:

REVISIONS:

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AA0003569
ANTHONY LEON

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MIAMI BEACH, FL 33139

DATE: 10-20-2014

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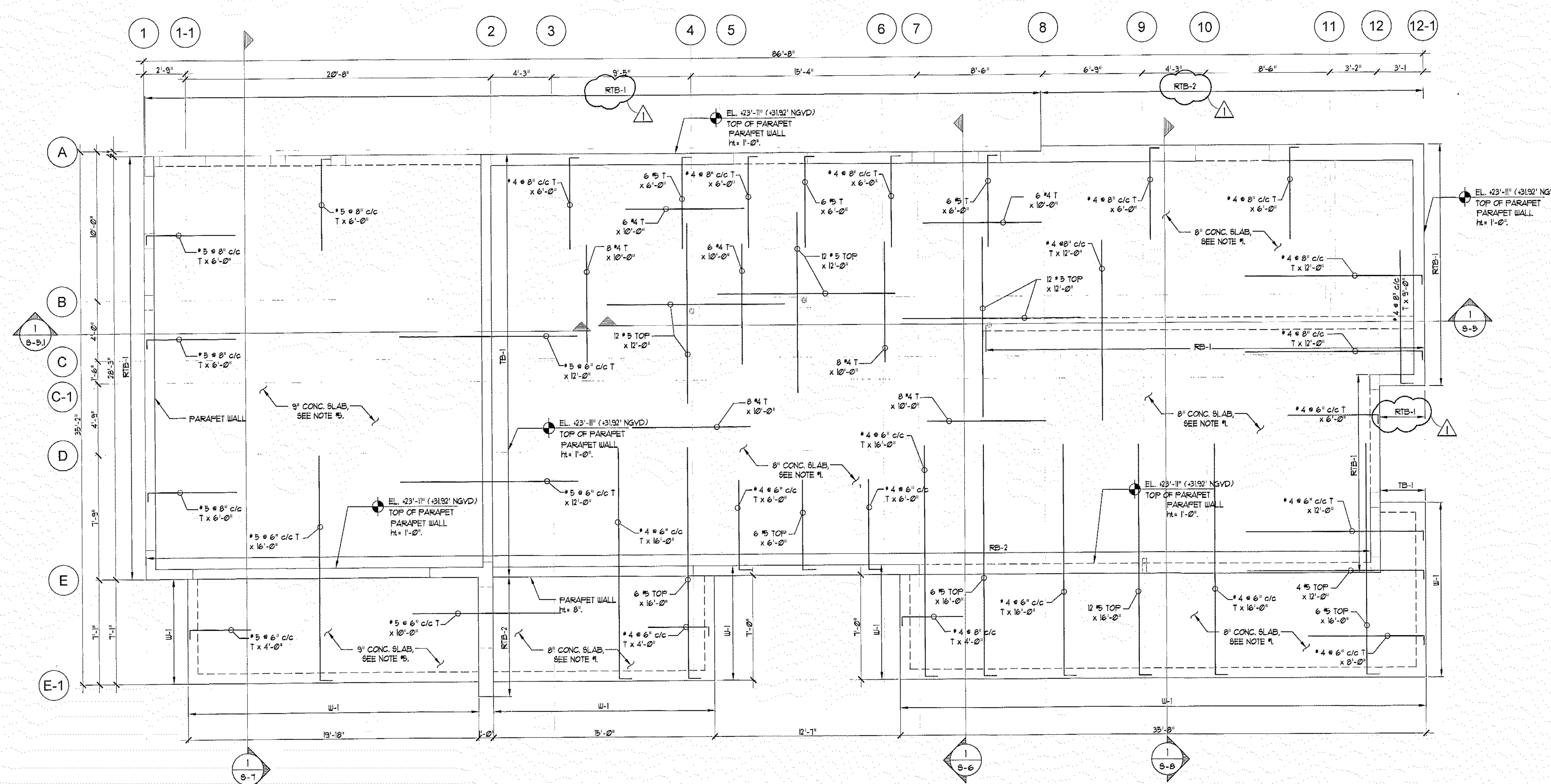
O:\3Design Inc.(TONY LEON)\4354 ALTON RD\STRUCTURE\S-3 Second Floor Framing.dwg

S-3

SECOND FLOOR FRAMING PLAN



ROOF FRAMING PLAN

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

ROOF PLAN NOTES:

1. PROVIDE 8" MINIMUM CONCRETE SLAB REINFORCED WITH #4 @ 8" c/c E.W. BOTTOM, ADDED TOP REINFORCING ARE NOTED IN PLAN (fc' = 5000 psi).
2. FOR ALL PARAPET WALLS PROVIDE REINFORCED MASONRY WITH #5@ 24"c/c. USE 3000 PSI GROUT MIX CONCRETE WITH 9" +/- 1" SLUMP. USE 2#5 EACH END AT PARAPET.
3. VERIFY AND COORDINATE ALL DIMENSIONS WITH ARCHITECTURE BEFORE COMMENCEMENT.
4. W-1 = CONCRETE WALL BELOW SEE SCHEDULE.
5. PROVIDE 9" MINIMUM CONCRETE SLAB REINFORCED WITH #5 @ 6" C/C E.W. BOTTOM, ADDED TOP REINFORCING ARE NOTED IN PLAN (FC' = 5000 PSI).

LOADS DESIGN:

LIVE LOAD = 30 PSF

DEAD LOAD = 30 PSF

1 11-24-2015 BLDG. DEPT. COMMENTS

DRAWN BY:

REVISIONS:

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DATE: 10-20-2014

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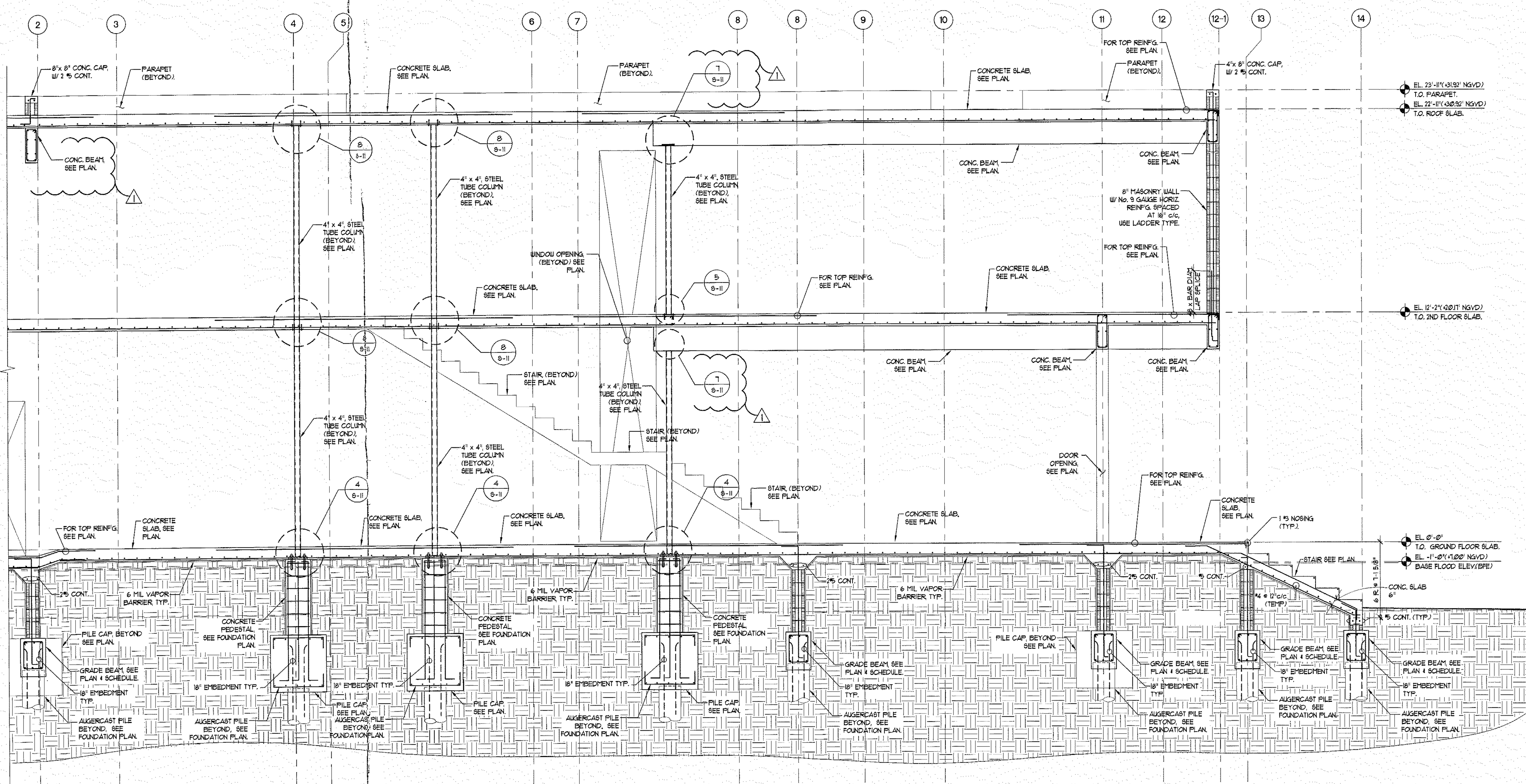
S-4

ROOF FRAMING PLAN

O:\3Design Inc.(TONY LEON)\4354 ALTON RD\STRUCTURE\S-4 ROOF PLAN ok.dwg



BUILDING SECTION (1 / S-5)

SCALE: 3/8"=1'-0"

REVISIONS:

1 11-24-2015 : BLDG. DEPT. COMMENTS.

2 12-15-2015 : BLDG. DEPT. COMMENTS.

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DEC 15 2015

NEW RESIDENCE
FOR:
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MIAMI BEACH, FL 33139

DATE: 10-20-2014

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C:\3Design Inc\(TONY LEON)\4354 ALTON RD\STRUCTURE\S-5 SECTION.dwg

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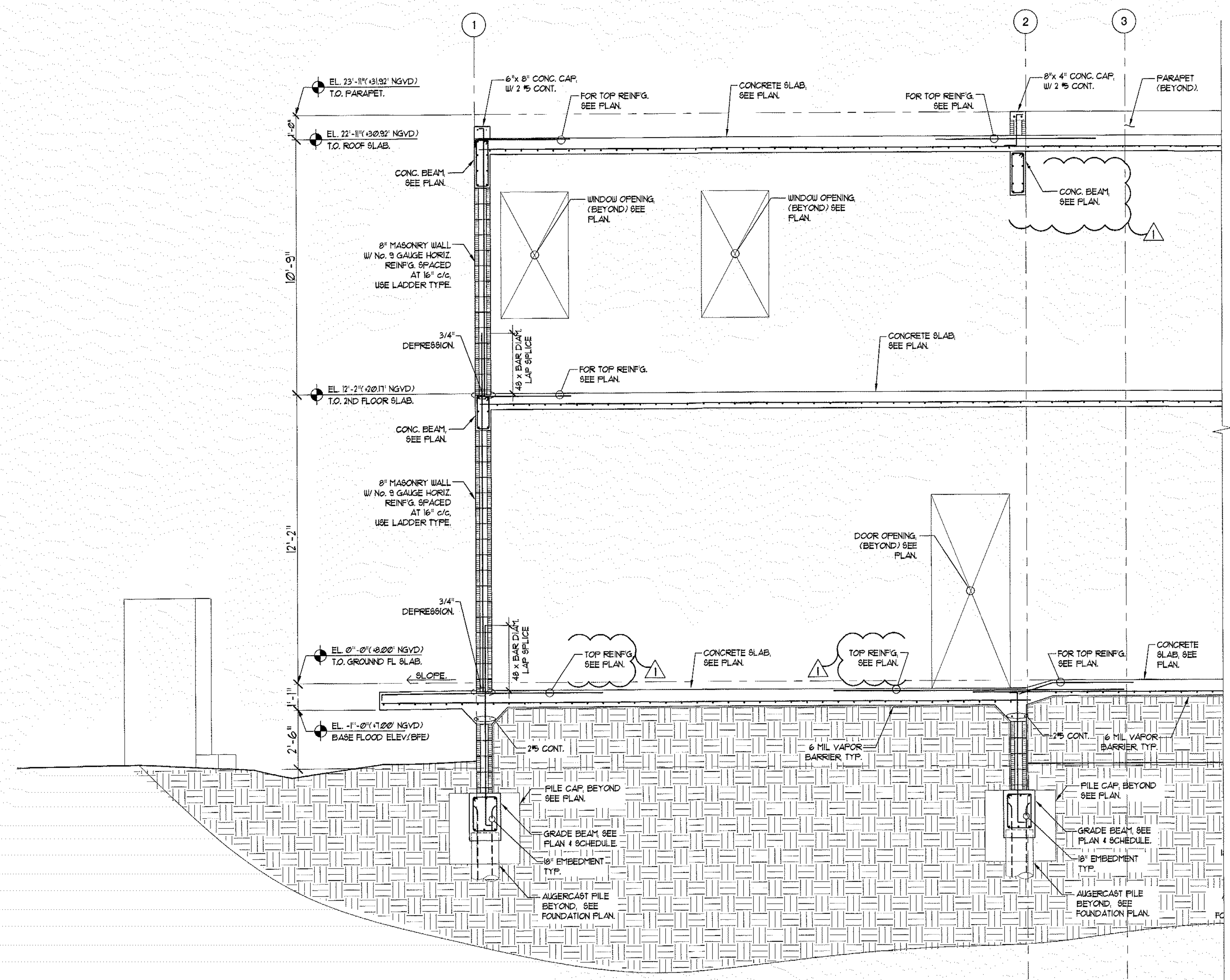
S-5

BUILDING SECTION



BUILDING SECTION

SCALE: 3/8"=1'-0"

1
S-5.1

REVISIONS:
1 11-24-2015 : BLDG. DEPT. COMMENTS.
2 12-15-2015 : BLDG. DEPT. COMMENTS.

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MIAMI BEACH, FL 33139

DATE: 10-20-2014

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S-5.1
BUILDING SECTION

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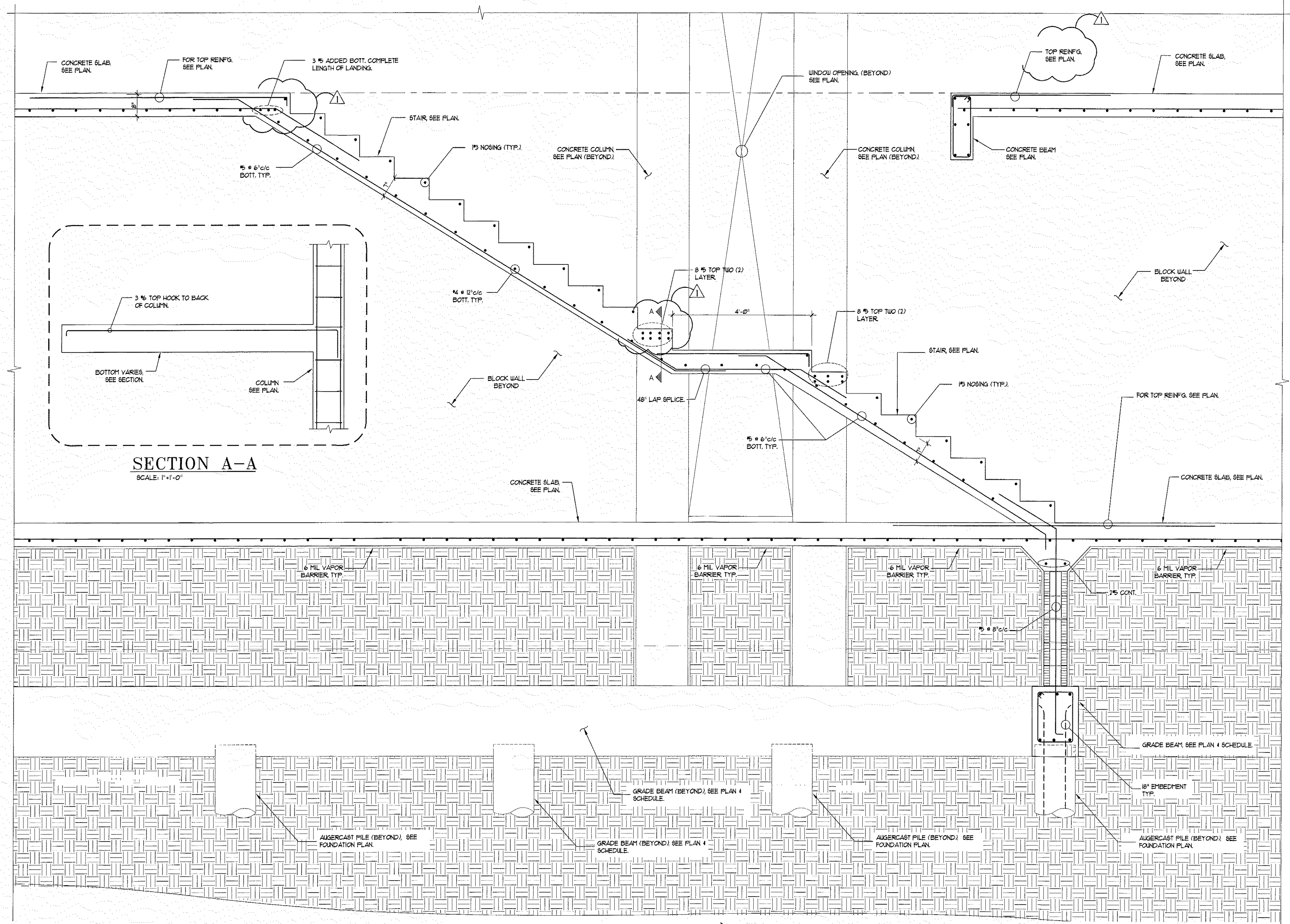

CONCRETE STAIR SECTION 1 S-5.2
SCALE: 3/4"=1'-0"

REVISIONS:
1 1-24-2015 : BLDG. DEPT. COMMENTS.
2 11-5-2015 : BLDG. DEPT. COMMENTS.

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MIAMI BEACH, FL 33139

DATE: 10-20-2014

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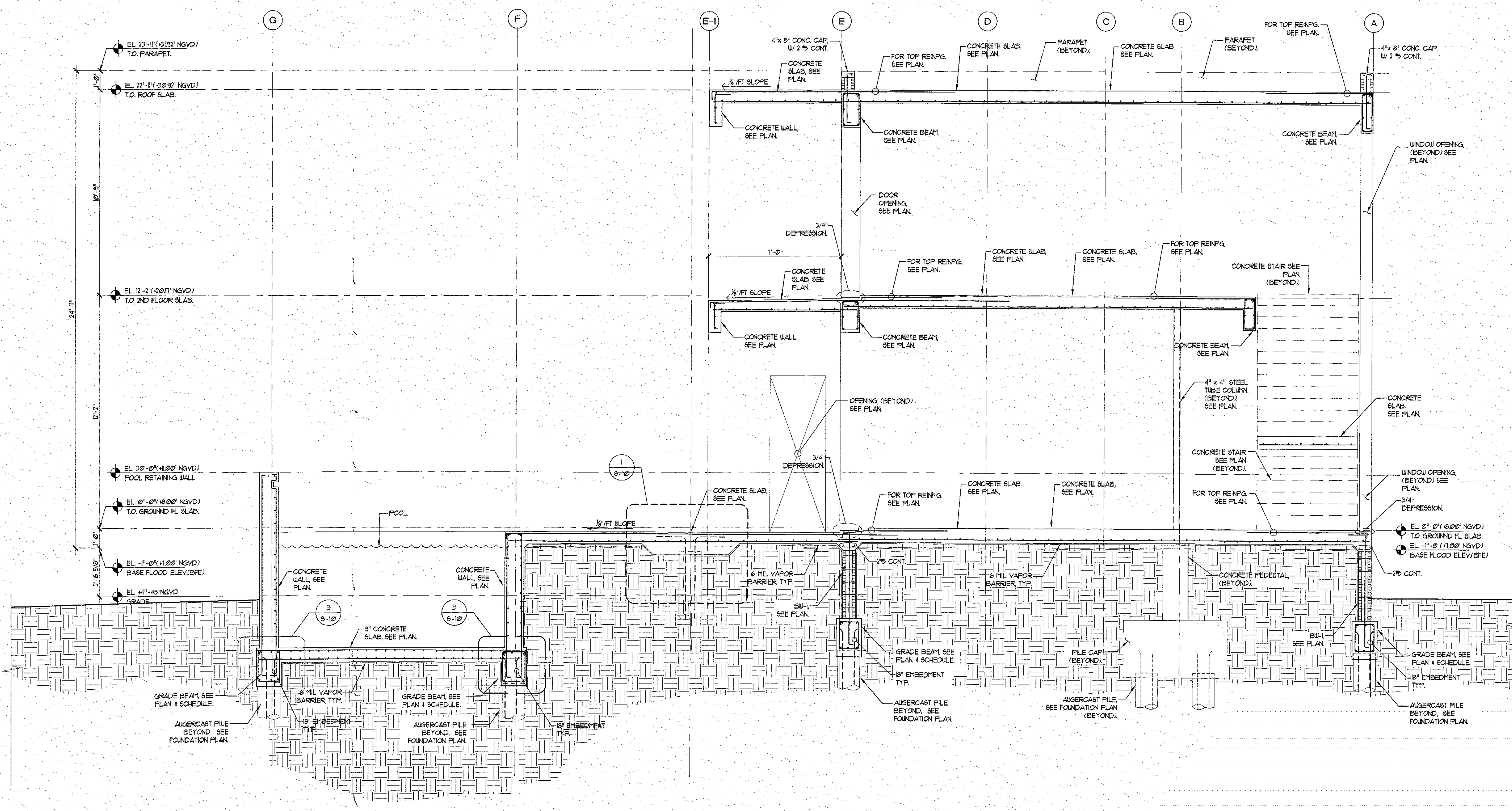
S-5.2
BUILDING SECTION

O:\3Design Inc\TONY LEON\4354 ALTON RD\STRUCTURE\S-5.2 SECTION STAIR.dwg



BUILDING SECTION

SCALE:3/8"=1'-0"

1 / S-6

REVISIONS:

1 5-24-2015 / BLDG. DEPT. COMMENTS.

2 9-15-2015 / BLDG. DEPT. COMMENTS.

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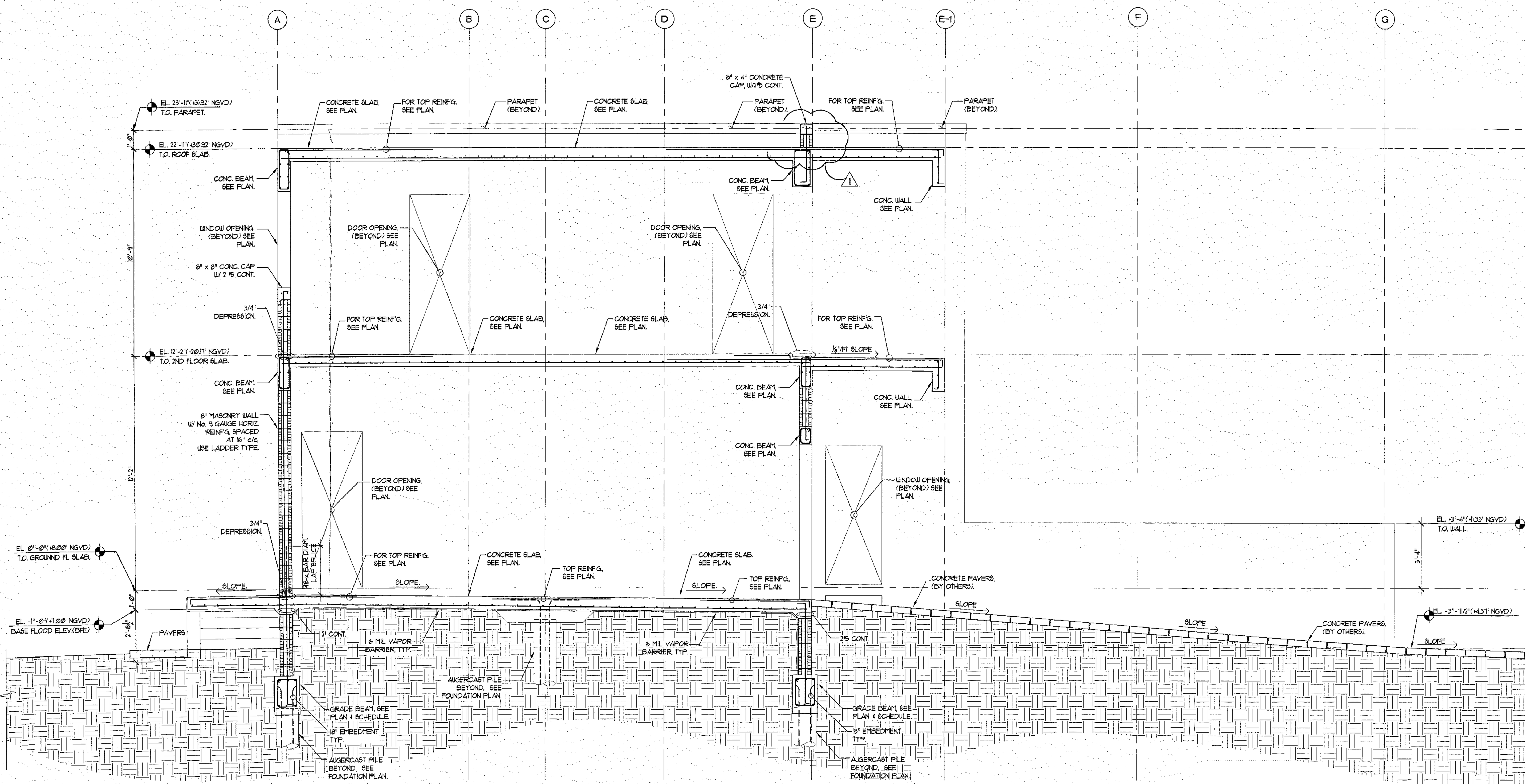
S-6
BUILDING SECTION

O:\3Design Inc\(TONY LEON)\4354 ALTON RD\STRUCTURE\S-6 ULTI SECTION.dwg



BUILDING SECTION 1 S-7

SCALE: 3/8"=1'-0"

REVISIONS:

1 11-24-2015 BLDG. DEPT. COMMENTS.

2 12-8-2015 BLDG. DEPT. COMMENTS.

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MIAMI BEACH, FL 33139

DATE: 10-20-2014

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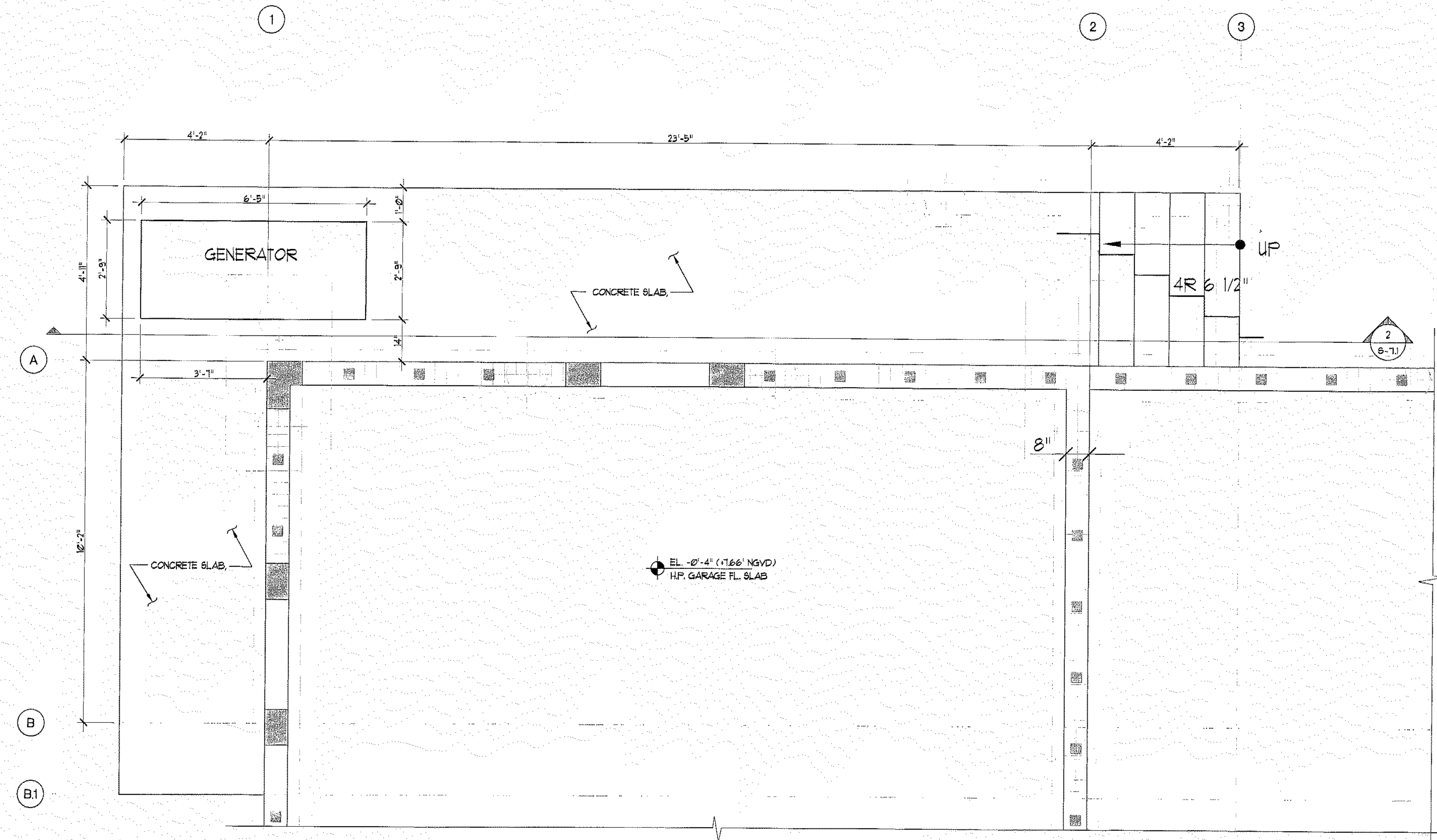
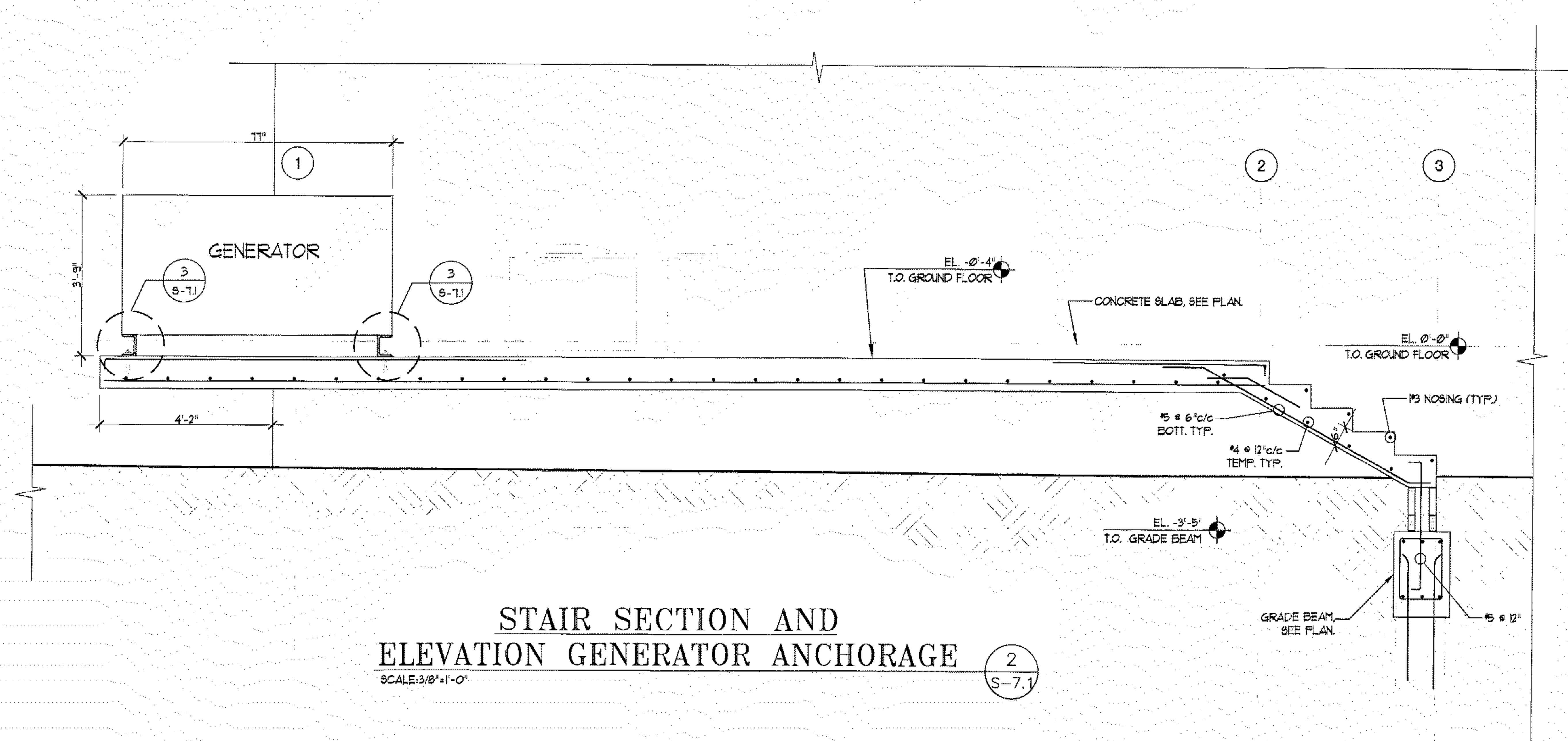
S-7

BUILDING SECTION

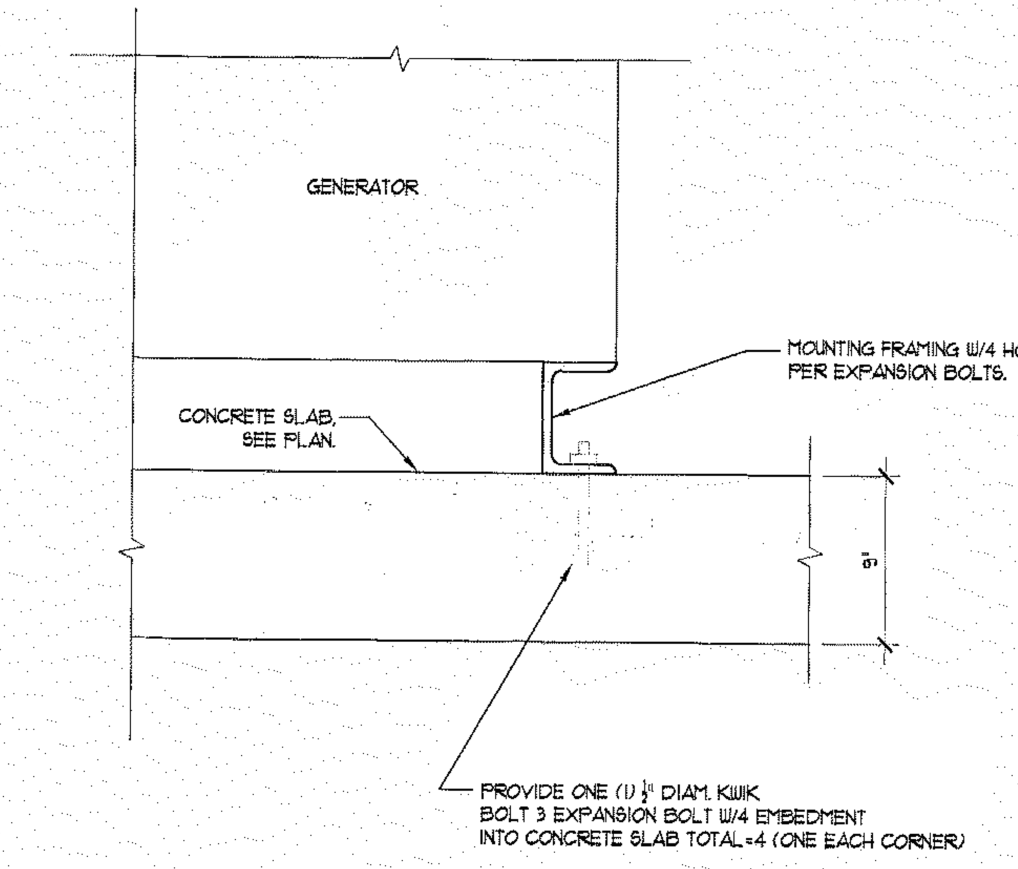
C:\3Design Inc\(TONY LEON)\4354 ALTON RD\STRUCTURE\S-7 SECTION.dwg



PLAN VIEW GENERATOR
SCALE:3/8"=1'-0"
1 S-7



STAIR SECTION AND
ELEVATION GENERATOR ANCHORAGE
SCALE:3/8"=1'-0"
2 S-7.1



CONNECTION DETAIL
SCALE:3/8"=1'-0"
3 S-7

11-24-2015 BLDG. DEPT. COMMENTS (NEW SHEET)

DRAWN BY:
REVISIONS:

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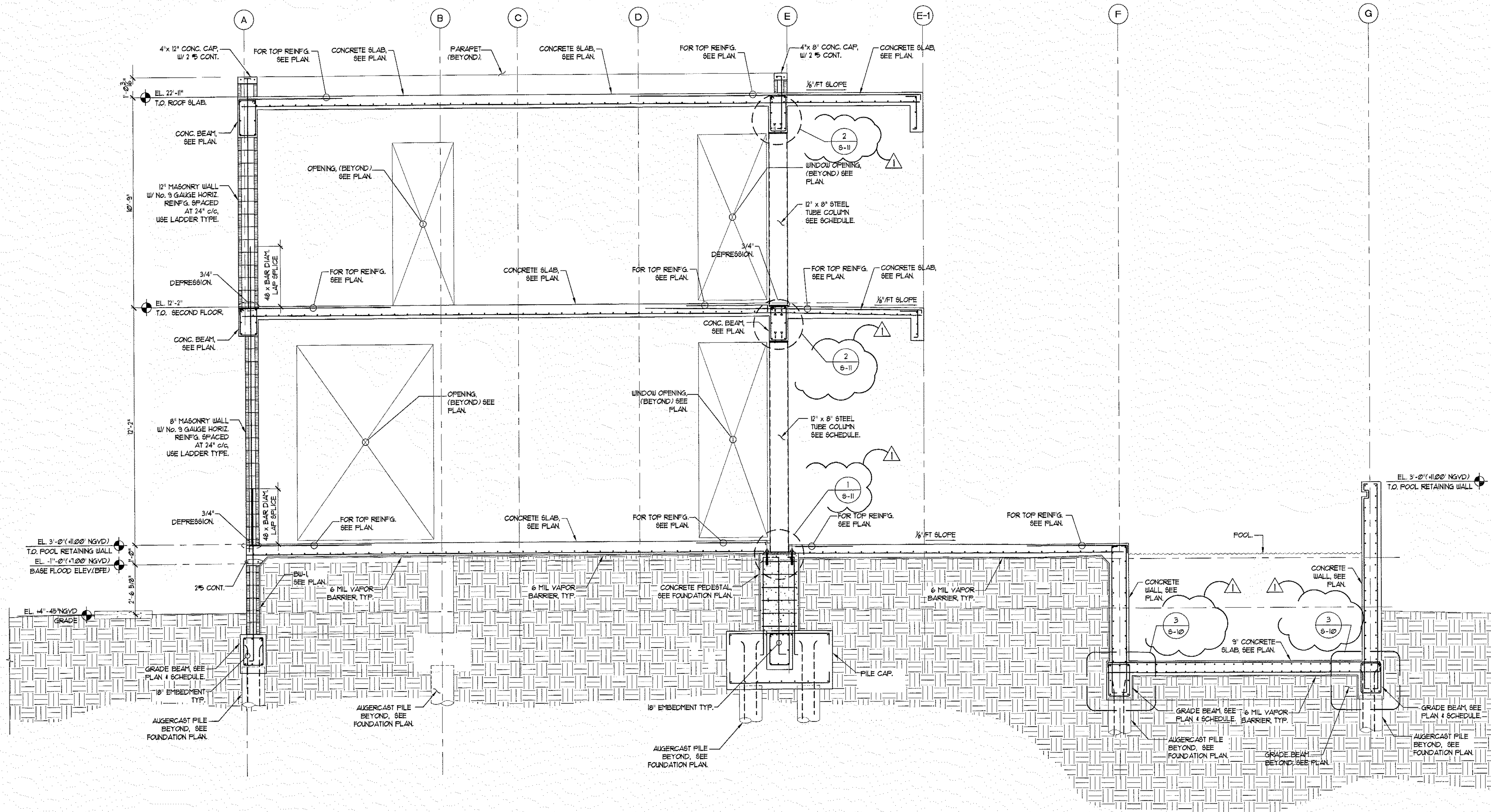
S-7.1
DETAILS

O:\3Design Inc.(TONY LEON)\4354 ALTON RD\STRUCTURE\S-7.1 SECTION.dwg



BUILDING SECTION 1 S-8

SCALE: 3/8"=1'-0"

REVISIONS:

1 11-24-2015 : BLDG. DEPT. COMMENTS.

2 12-15-2015 : BLDG. DEPT. COMMENTS.

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MIAMI BEACH, FL 33139

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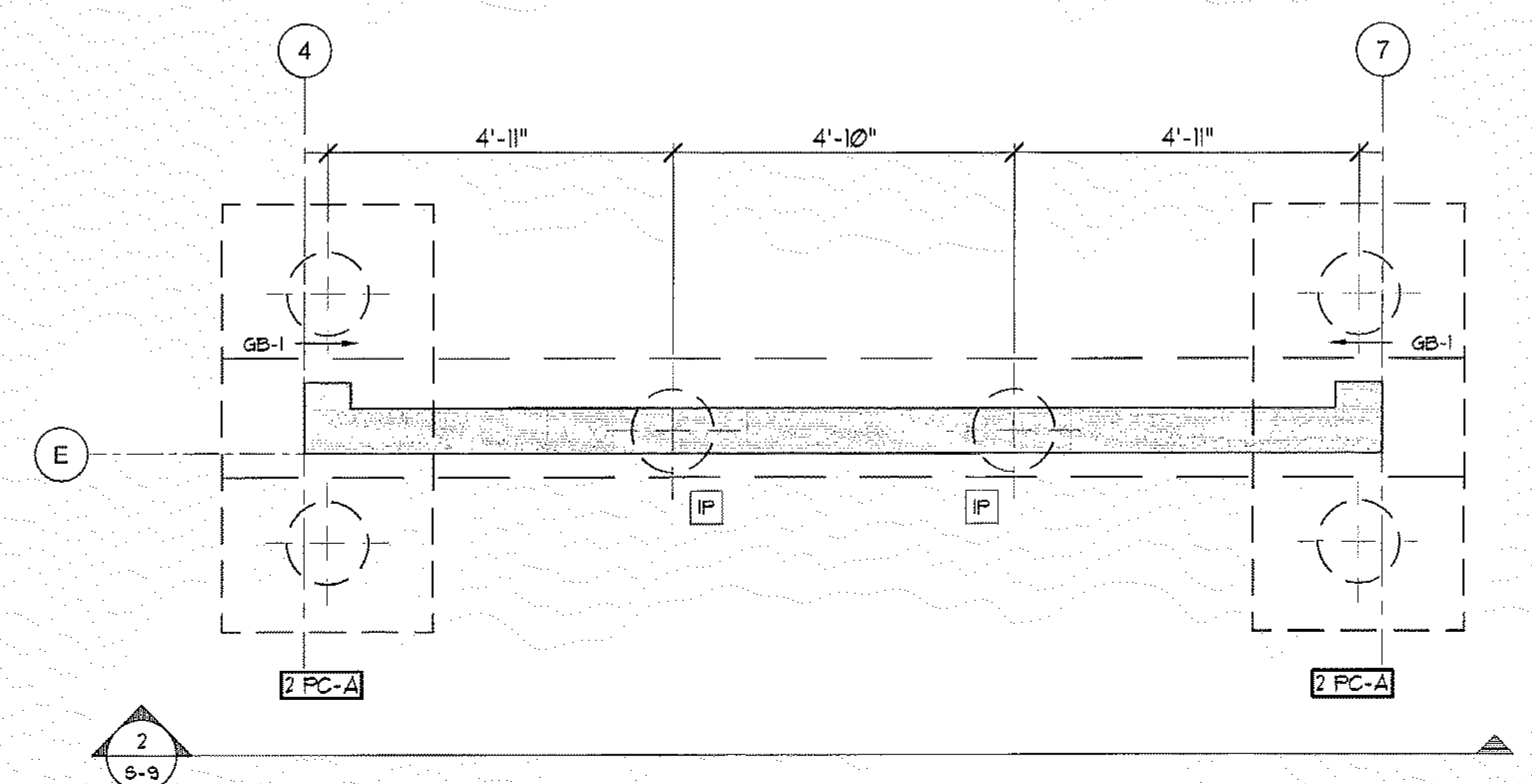
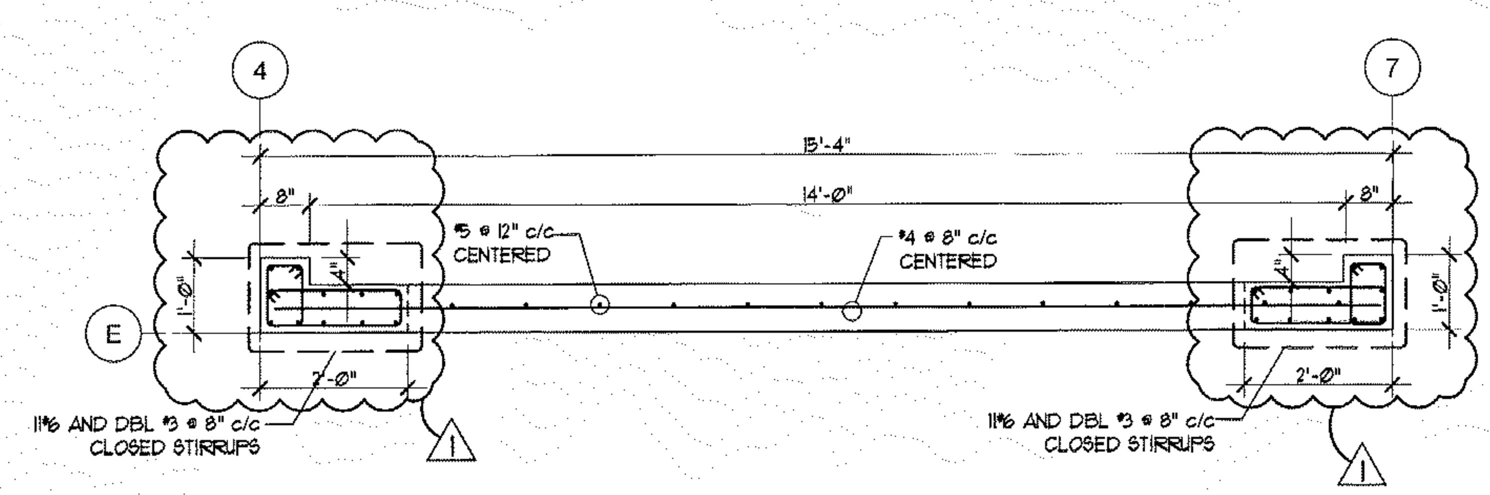
S-8
BUILDING SECTION.



SHEAR WALL #1 (1/S-9)
SCALE: ½"=1'-0"

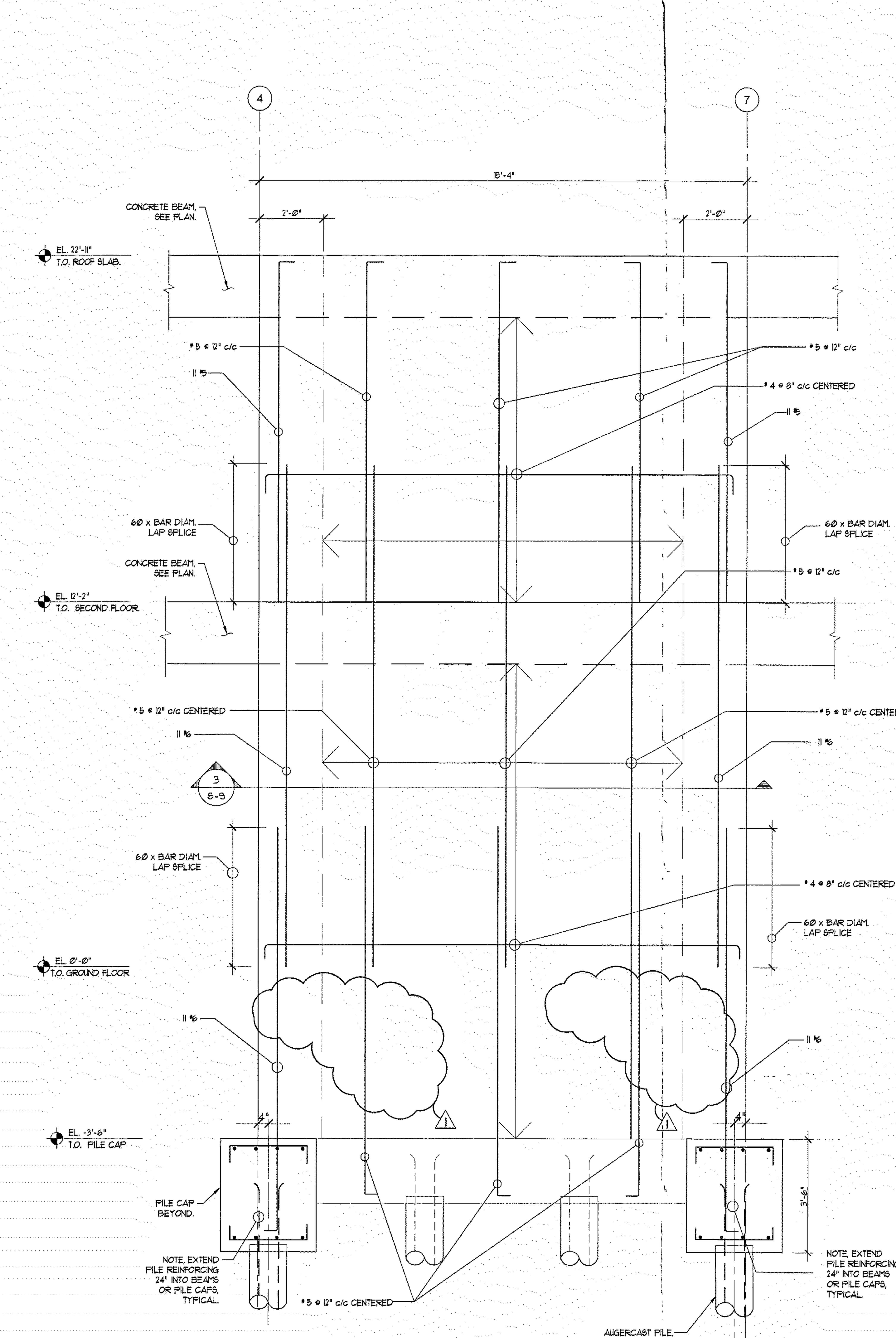


SHEAR WALL #1 BAR PLACEMENT DIAGRAM
FOUNDATION OF THE SECOND FLOOR (3/S-9)

SHEAR WALL VERTICAL REINFORCING SPLICING				
BAR SIZE \ f'c	4,000 P.S.I.	5,000 P.S.I.	6,000 P.S.I.	REMARKS
#4	24"	21"	19"	BASED ON 50% SPLICING
#5	24"	21"	19"	BASED ON 50% SPLICING
#6	24"	21"	19"	BASED ON 50% SPLICING
#7	32"	29"	26"	BASED ON 50% SPLICING
#8	42"	38"	35"	BASED ON 50% SPLICING
#9	53"	48"	44"	BASED ON 50% SPLICING
#10	68"	61"	55"	BASED ON 50% SPLICING
#11	83"	74"	68"	BASED ON 50% SPLICING

SHEAR WALL NOTES:

1. FOR CONCRETE STRENGTHS SEE SHEARWALL ELEVATIONS.
2. FOR HORIZONTAL WALL REINFORCING, SEE SHEARWALL ELEVATIONS.
3. FOR VERTICAL WALL REINFORCING, SEE SHEARWALL ELEVATIONS.
4. SEE TABLE FOR SHEARWALL VERTICAL STEEL SPLICE LENGTHS.
5. NOTE, AS THE MAIN VERTICAL REINFORCING IS REDUCED, THE INTERMEDIATE VERTICAL
6. REINFORCING MUST BE INCREASED. USE #5 @ 12"c/c VERT. EA. FACE AS INTERMEDIATE REINF'G TYPICAL.



ELEVATION DETAIL
SHEAR WALL #1 (2/S-9)
SCALE: ½"=1'-0"

REVISIONS:
1 11-24-2015 : BLDG. DEPT. COMMENTS.
2 12-15-2015 : BLDG. DEPT. COMMENTS.

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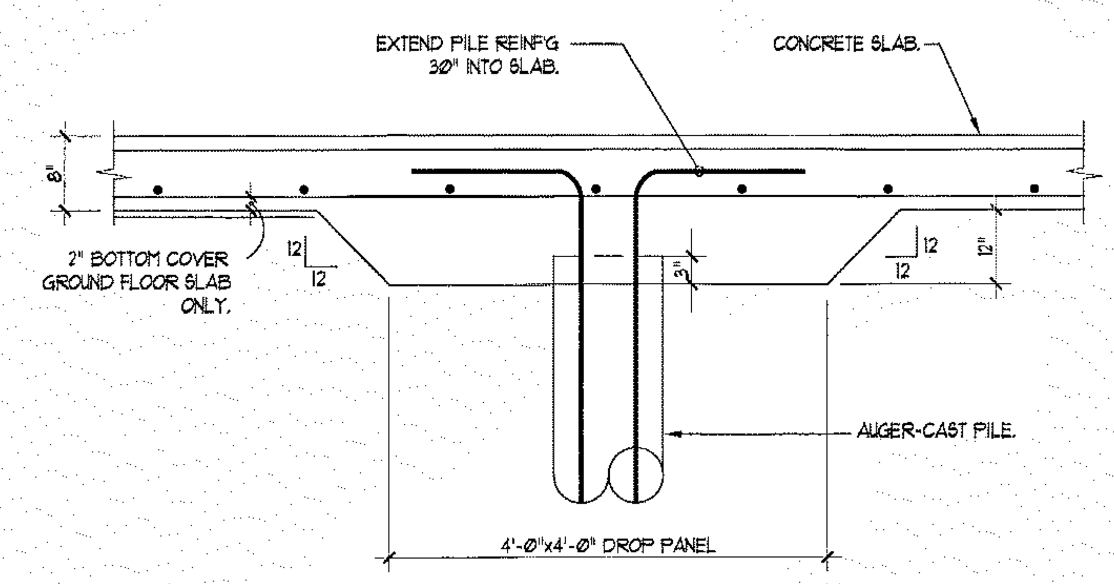
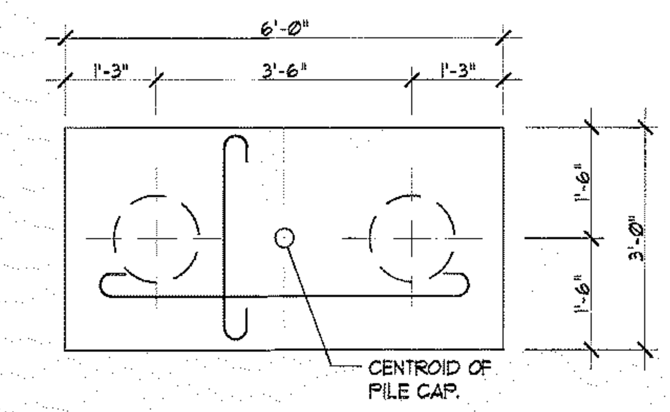
S-9
SHEAR WALL #1. FOUNDATION & BARS DIAGRAM.

PILE CAPS



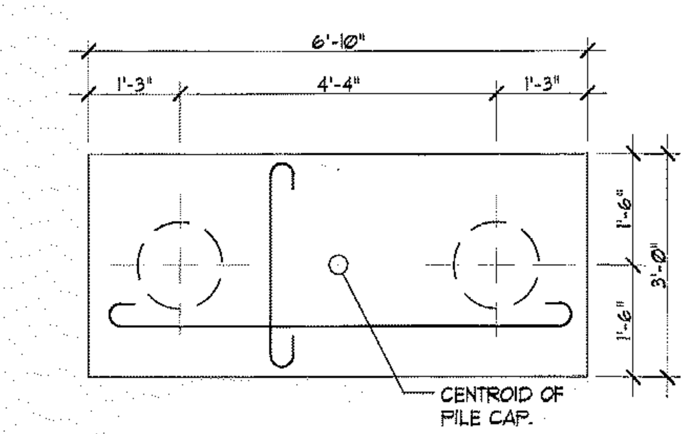
GROUND FLOOR
DROP PANEL DETAIL 1 S-10
SCALE: 3/4" = 1'-0"



2P.C. (14"ø 35 TONS)

T = 42"
7 #5 SHORT WAY TOP & BOTTOM
7 #8 LONG WAY TOP & BOTTOM
180° HOOK EA. END. EA. WAY.
(USE 5000 PSI CONCRETE)

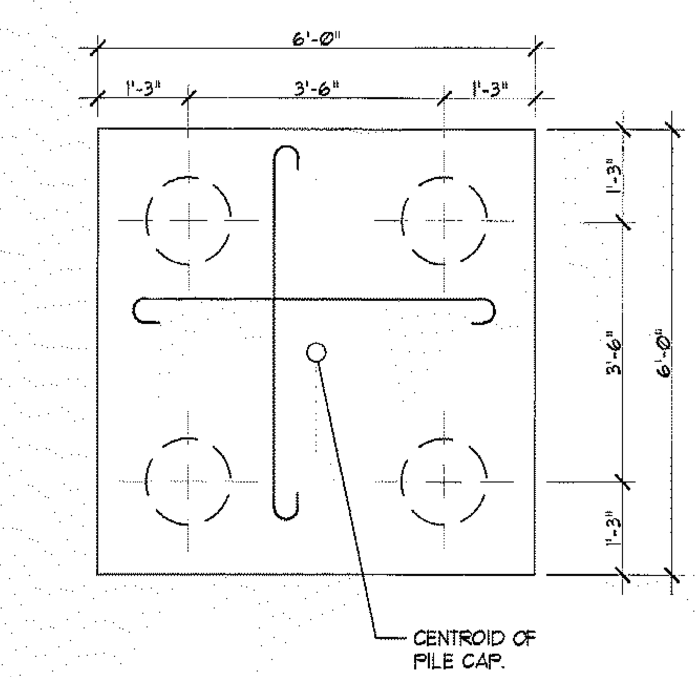
NOTES: -CENTER OF PILE CAP TO BE LOCATED AT CENTROID OF COLUMN, U.O.N.



2P.C.A (14"ø 35 TONS)

T = 42"
8 #5 SHORT WAY TOP & BOTTOM
7 #8 LONG WAY TOP & BOTTOM
180° HOOK EA. END. EA. WAY.
(USE 5000 PSI CONCRETE)

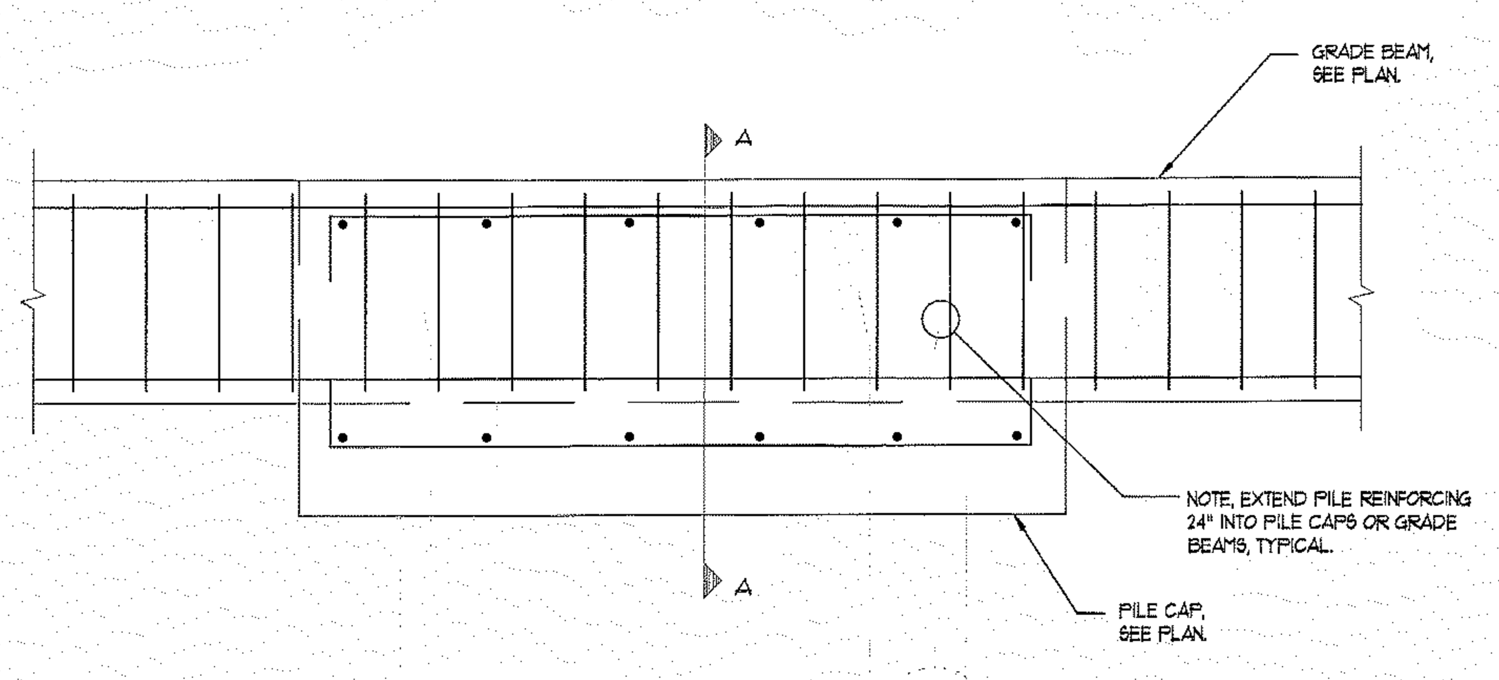
NOTES: -CENTER OF PILE CAP TO BE LOCATED AT CENTROID OF COLUMN, U.O.N.



4P.C. (14"ø 35 TONS)

T=42"
#5 @ 8"c/c EACH WAY TOP & BOTTOM
180° HOOK EA. END. EA. WAY. (USE 5000 PSI CONCRETE)

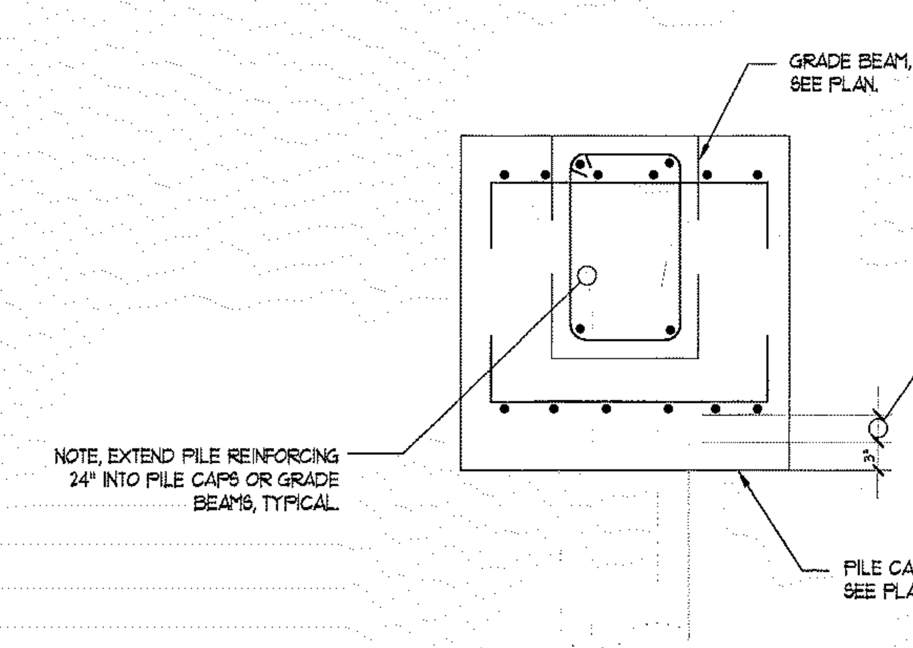
NOTES: -CENTER OF PILE CAP TO BE LOCATED AT CENTROID OF COLUMN, U.O.N.



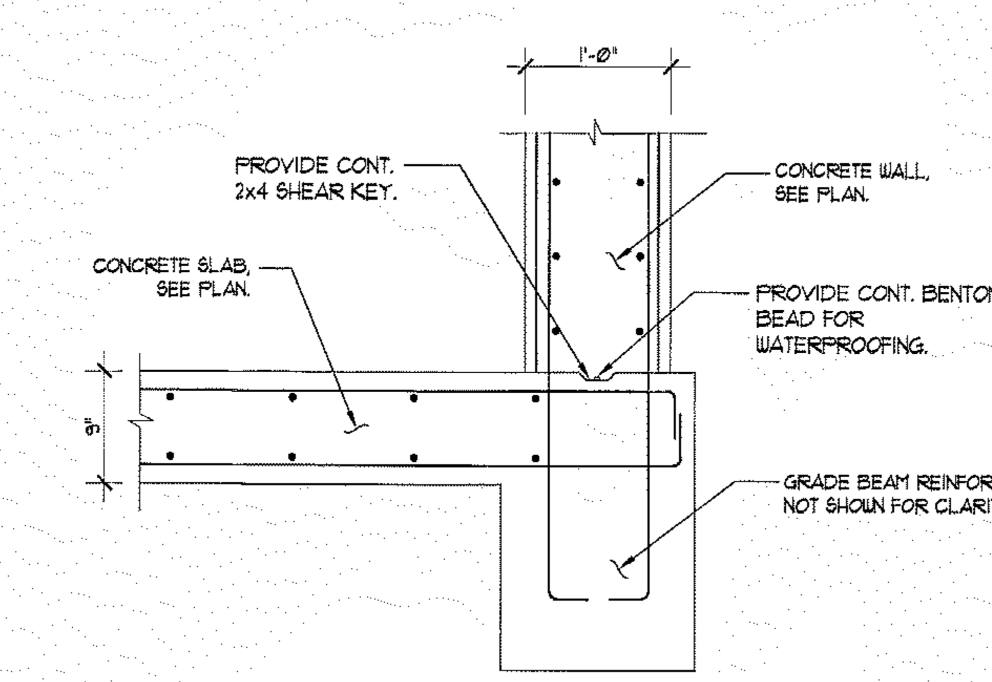
TYPICAL PILE CAP/GRADE BEAM DETAIL 2 S-10
SCALE: 3/4"=1'-0"

NOTES

1. ALL GRADE BEAMS MUST RUN CONT. THRU ALL PILES CAPS AS SHOWN.
2. ALL GRADE BEAMS MUST RUN CONT. THRU TO BACK OF PILE CAPS IF GRADE BEAM TERMINATES AT PILE CAP.



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



CONCRETE POOL
WATERPROOFING DETAIL 3 S-10
SCALE 1" = 1'-0"

1 11-24-2015 BLDG. DEPT. COMMENTS

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REVISIONS:

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FOR:
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MIAMI BEACH, FL 33139

DATE: 10-20-2014

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S-10
PILE CAPS DETAILS.

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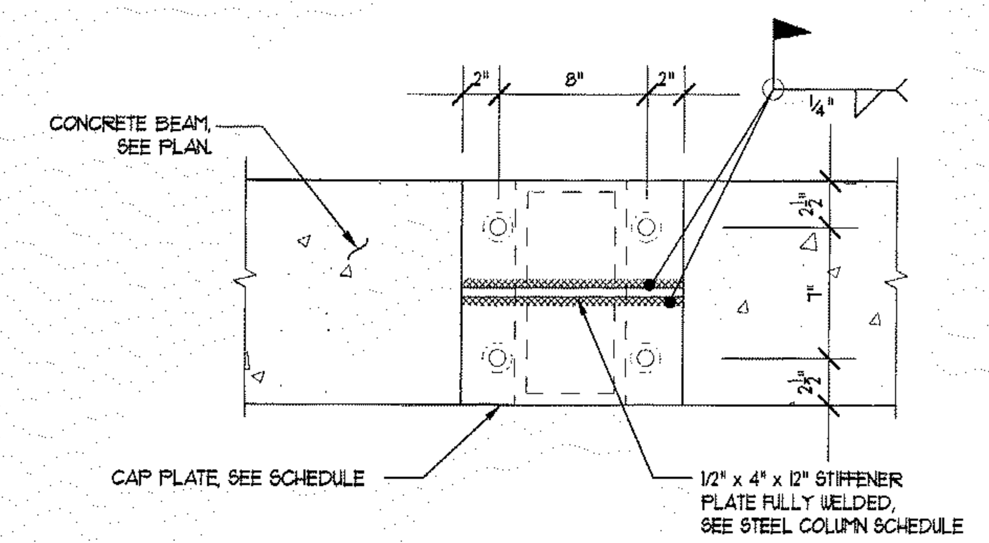
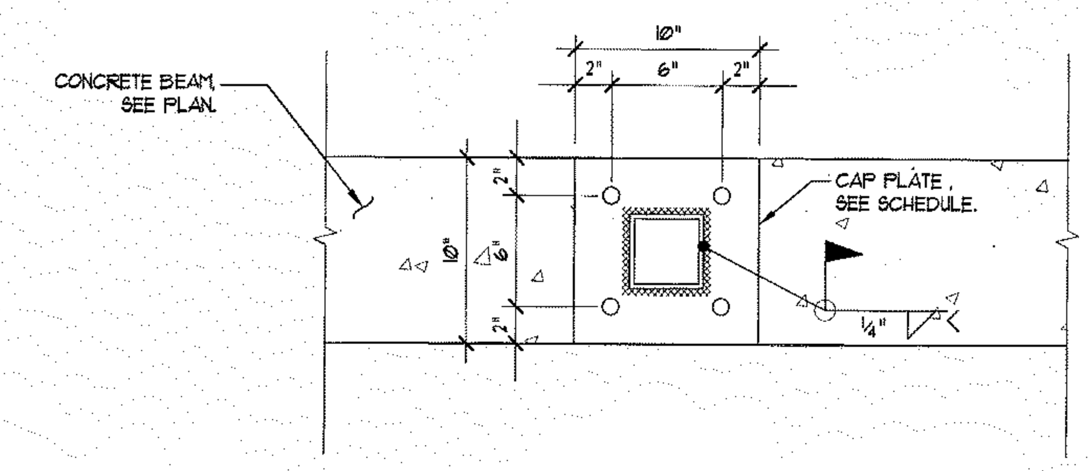


STEEL COLUMN ST-1, ST-2 GROUND & SECOND FLOOR CAP PLATE

2 / S-11

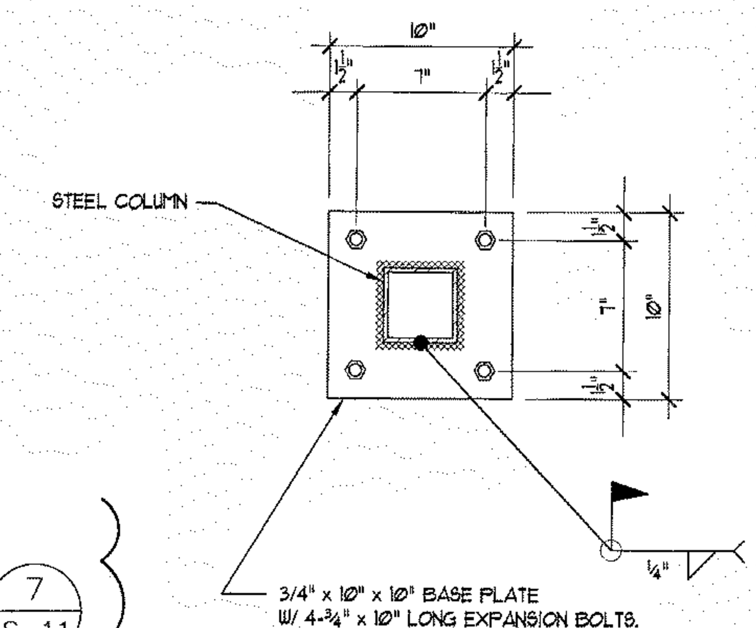
SCALE: 1 1/2"=1'-0"



STEEL COLUMN ST-3, ST-4 GROUND & SECOND FLOOR CAP PLATE

7 / S-11

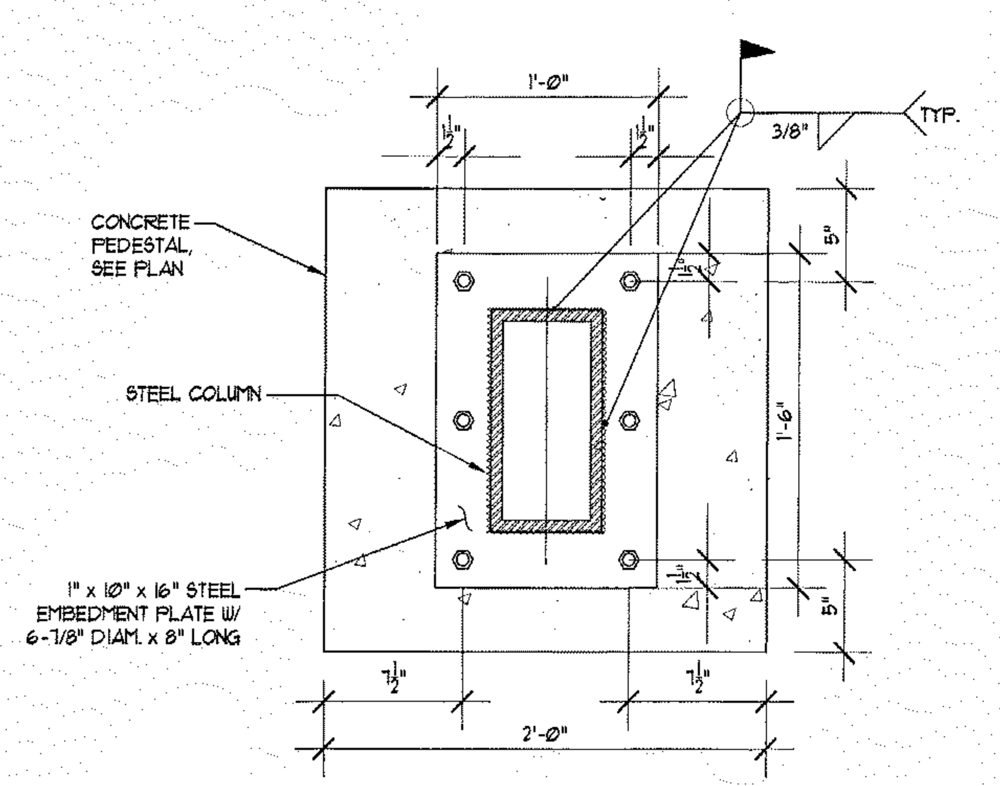
SCALE: 1 1/2"=1'-0"



STEEL COLUMN ST-4 SECOND FLOOR BASE PLATE

5 / S-11

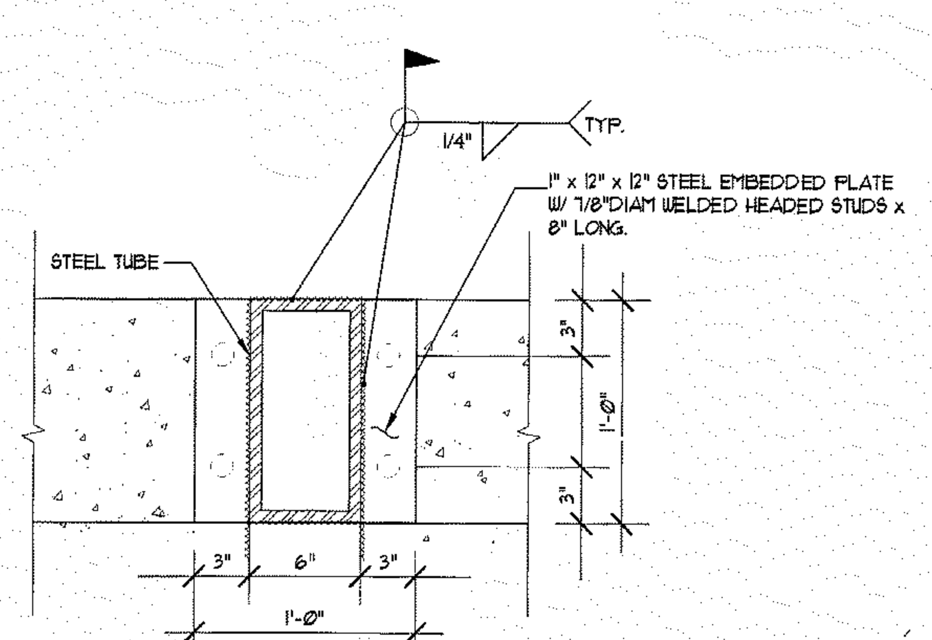
SCALE: 1 1/2"=1'-0"



STEEL COLUMN ST-1 GROUND FLOOR BASE PLATE

1 / S-11

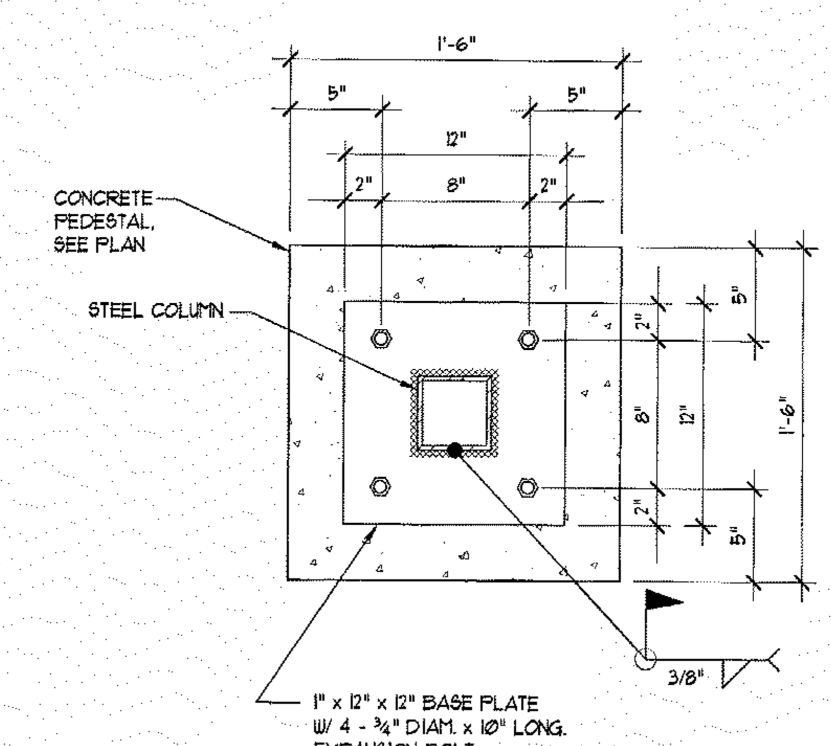
SCALE: 1 1/2"=1'-0"



STEEL COLUMN ST-2 SECOND FLOOR BASE PLATE

3 / S-11

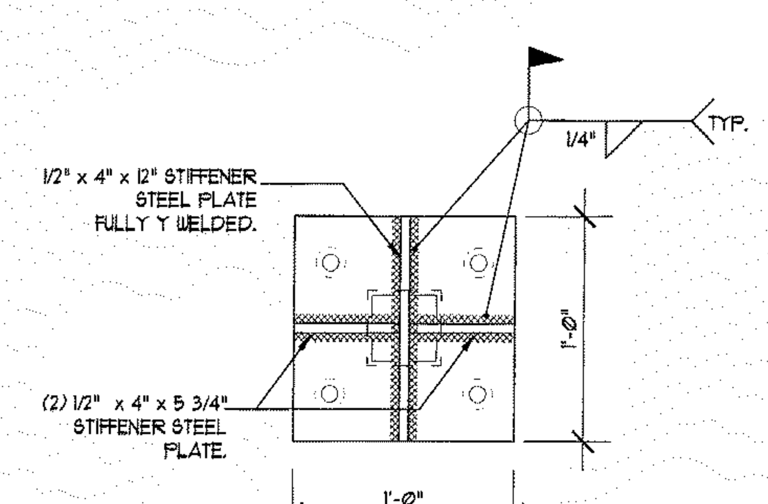
SCALE: 1 1/2"=1'-0"



STEEL COLUMN ST-3 & ST-5 GROUND FLOOR BASE PLATE

4 / S-11

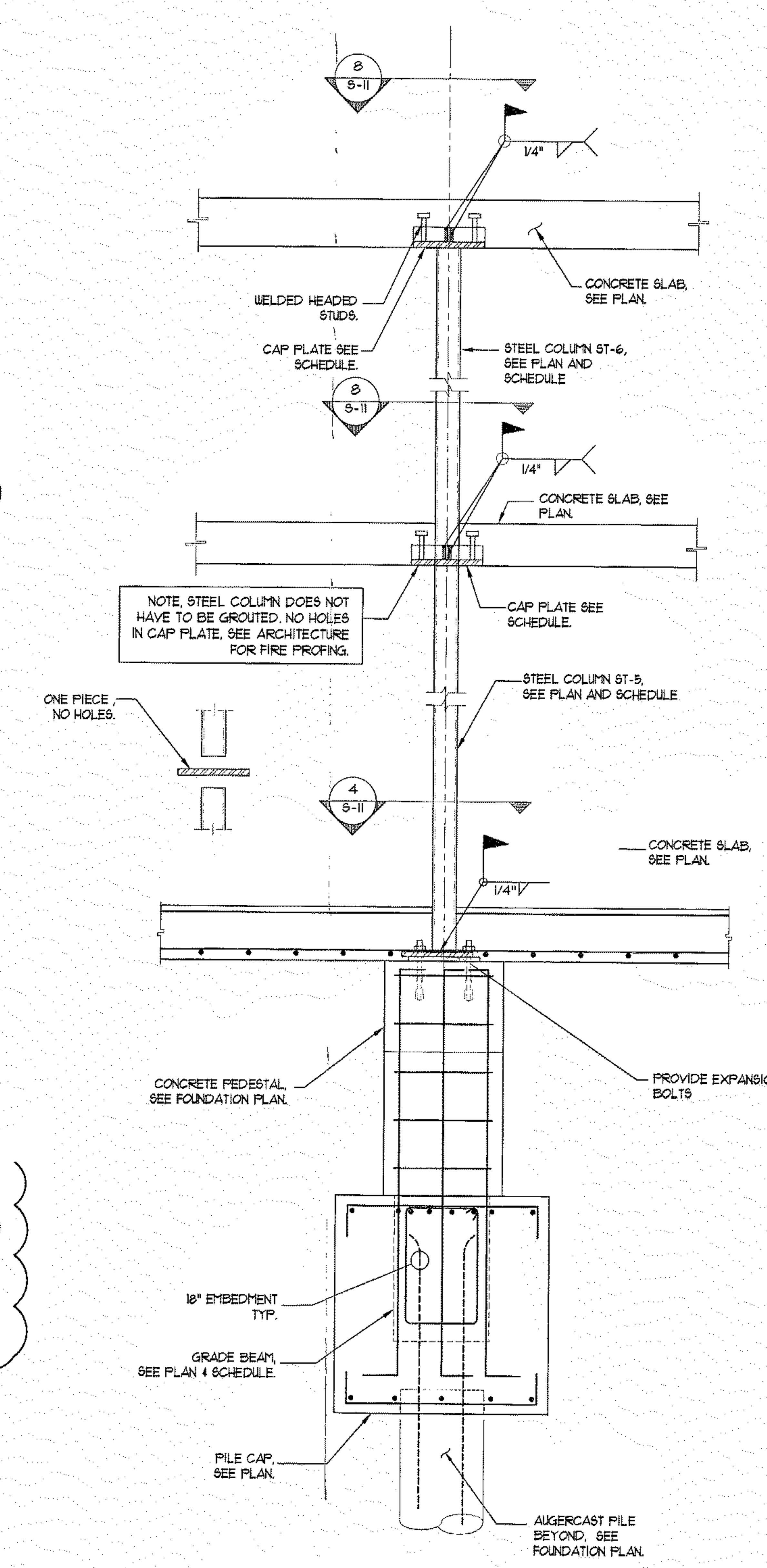
SCALE: 1 1/2"=1'-0"



SECTION DETAIL

8 / S-11

SCALE: 1 1/2"= 1'-0"



ST-5 & ST-6 STEEL COLUMN DETAIL

6 / S-11

SCALE: N.T.S.

REVISIONS:
1 3-24-2015 : BLDG. DEPT. COMMENTS.
2 12-15-2015 : BLDG. DEPT. COMMENTS.

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S-11
DETAILS

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STEEL COLUMN SCHEDULE

MARK	STEEL COLUMN SIZE	BASE PLATE	CAP PLATE	REMARKS
ST-1	12" x 6" x ½" STEEL TUBE	1" x 12" x 18" STEEL PLATE W/ 6- 7/8" DIAM. WELDED HEADED STUDS x 8" LONG.	1" x 12" x 12" STEEL PLATE W/ 4- ¾" DIAM. WELDED HEADED STUDS x 8" LONG. USE ½" x 4" x 12" STIFFENER PLATE FULLY WELDED ALL AROUND.	SEE DETAIL 1/S-11 & 2/S-11.
ST-2	12" x 6" x ½" STEEL TUBE	1" x 12" x 12" STEEL PLATE W/ 4- 7/8" DIAM. WELDED HEADED STUDS x 8" LONG.	1" x 12" x 12" STEEL PLATE W/ 4- ¾" DIAM. WELDED HEADED STUDS x 8" LONG. USE ½" x 4" x 12" STIFFENER PLATE FULLY WELDED ALL AROUND.	SEE DETAIL 2/S-11.
ST-3	4" x 4" x ½" STEEL TUBE	1" x 12" x 12" STEEL PLATE W/ 4- ¾" DIAM. x 10" LONG EXPANSION BOLTS.	1" x 10" x 10" STEEL PLATE W/ 4- ¾" DIAM. WELDED HEADED STUD x 8' LONGS.	
ST-4	4" x 4" x 3/8" STEEL TUBE	3/4" x 10" x 10" STEEL PLATE W/ 4- 3/4" DIAM. x 10" LONG. EXPANSION BOLTS.	3/4" x 10" x 10" STEEL PLATE W/ 4- ¾" DIAM. WELDED HEADED STUDS x 8" LONG.	
ST-5	4" x 4" x 1/2" STEEL TUBE	3/4" x 12" x 12" STEEL PLATE W/ 4- ¾" DIAM. x 10" LONG. EXPANSION BOLTS.	3/4" x 12" x 12" STEEL CAP PLATE W/ 4- ¾" DIAM. x 6" LONG. WELDED HEADED STUDS.	ADD 1/2" x 4" x 12" STIFFENER, PLATES & TWO (2)-1/2" x 4" x 5 3/4". SEE DETAIL 8/S-11 AT CAP PLATE.
ST-6	4" x 4" x 1/2" STEEL TUBE	STEEL TUBE WELDED TO CAP PLATE OF STEEL TUBE BELOW.	3/4" x 12" x 12" STEEL CAP PLATE W/ 4- ¾" DIAM. x 6" LONG. WELDED HEADED STUDS.	ADD 1/2" x 4" x 12" STIFFENER, PLATES & TWO (2)-1/2" x 4" x 5 3/4". SEE DETAIL 8/S-11 AT CAP PLATE.

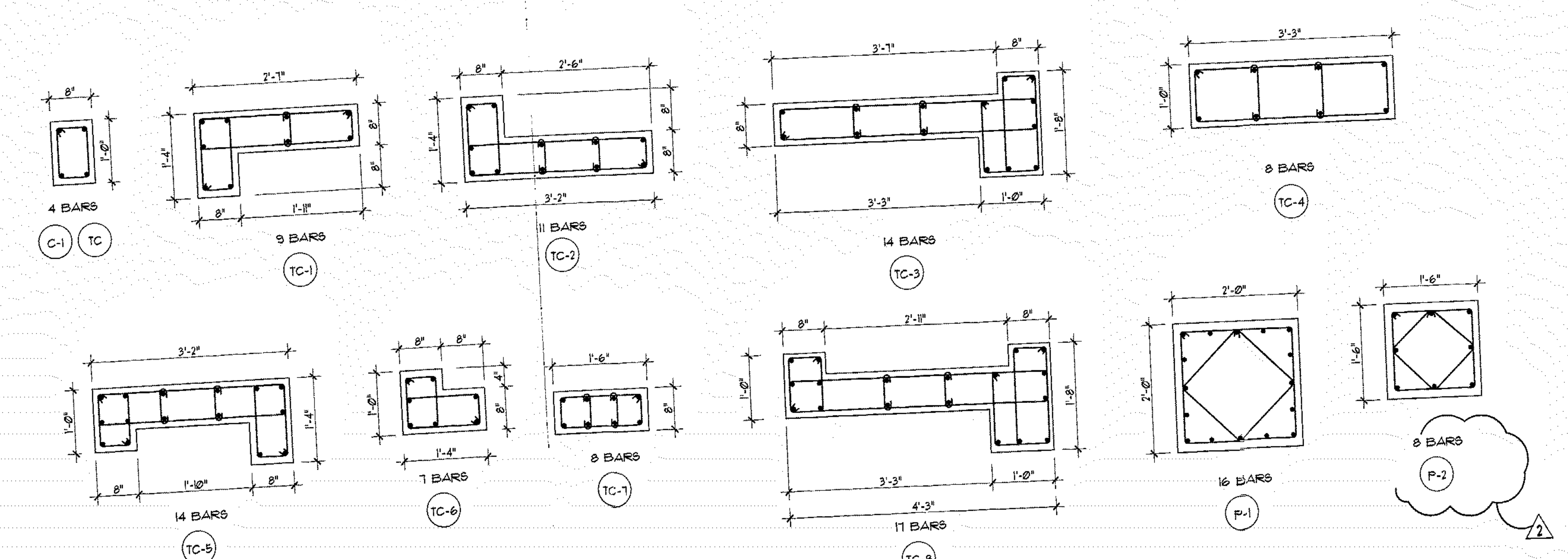
1 2

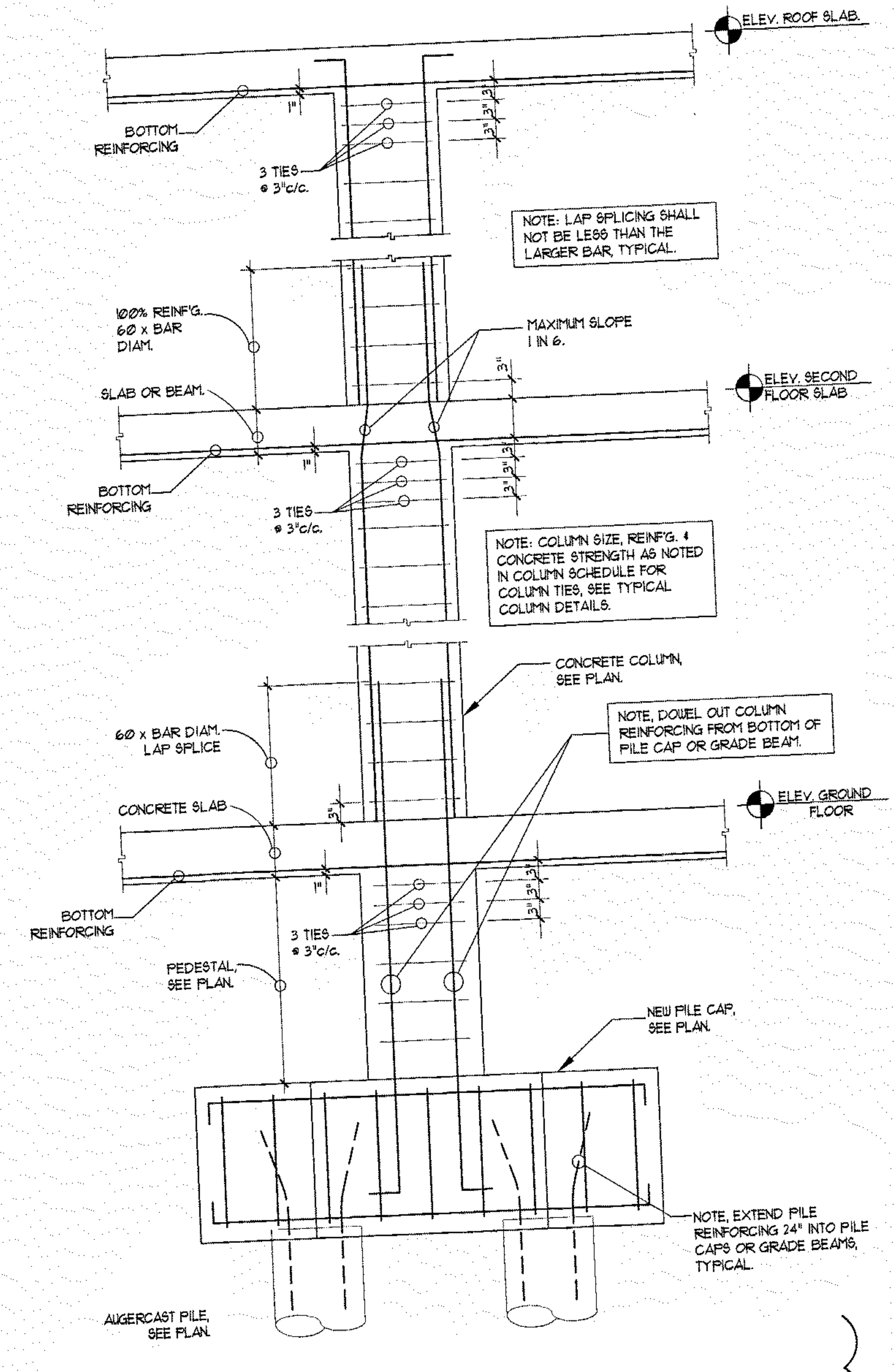
COLUMN SCHEDULE

MARK	SIZE	REINFORCEMENT VERTICAL	REINFORCEMENT TIES	REMARKS
C-1	8" x 12"	4 #8	#3 @ 8" c/c	
TC	8" x 12"	4 #5	#3 @ 8" c/c	
TC-1	8" x 16" x 31"	9 #7	#3 @ 8" c/c & #3 HP @ 8" c/c.	
TC-2	8" x 16" x 38"	11 #6	DBL #3 @ 8" c/c & #3 HP @8" c/c.	
TC-3	*	14 #6	TPL #3 @ 8" c/c & #3 HP @8" c/c.	* SEE COLUMN CONFIGURATION.
TC-4	12" x 39"	8 #8	#3 @ 12" c/c	
TC-5	*	14 #7	TPL #3 @ 8" c/c & #3 HP @8" c/c.	* SEE COLUMN CONFIGURATION.
TC-6	8" x 12"x 16"	7 #6	DBL #3 @ 8" c/c	
TC-7	8" x 18"	8 #7	#3 @ 8" c/c & #3 HP @ 8" c/c.	
TC-8	*	17 #6	* #3 @ 8" c/c & #3 HP @8" c/c.	* SEE COLUMN CONFIGURATION.
* P-1	24" x 24"	16 #7	DBL #4 @ 8" c/c	* PEDESTAL
* P-2	18" x 18"	8 #7	DBL #3 @ 8" c/c	* PEDESTAL

2

COLUMN CONFIGURATIONS



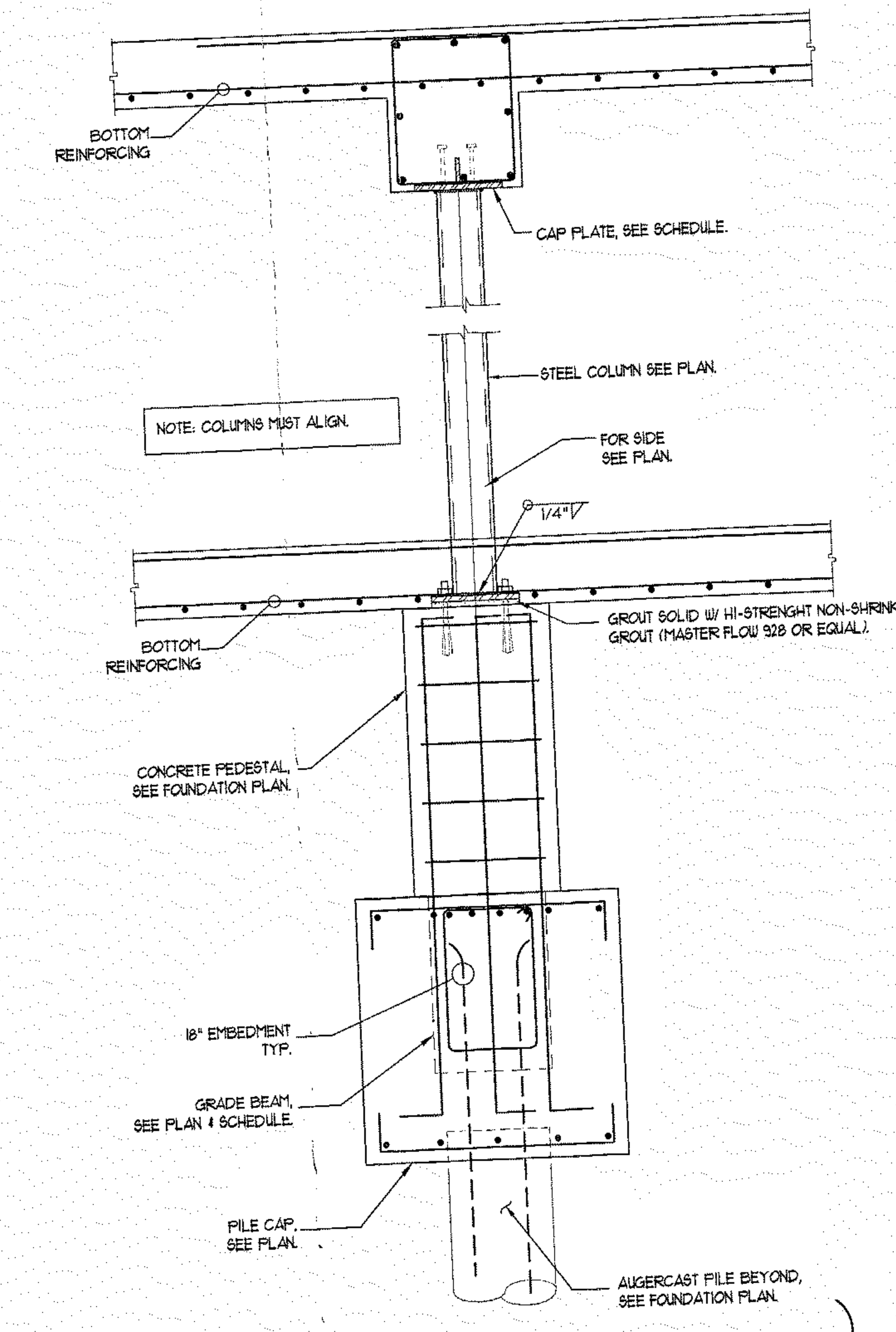


TYPICAL CONCRETE COLUMN TO PILE CAP DETAIL 1/S-12

SCALE: N.T.S.

NOTE:
SIMILAR FOR GRADE BEAM.
SEE ACI, 7.8.1, 7.8.1.3, 7.10.5.2 & 7.10.5.4

2



TYPICAL STEEL COLUMN DETAIL 2/S-12

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

2

WALL SCHEDULE

MARK	THICK	VERT. REINF.	HORZ. REINF.	REMARKS
BW-1	8" MASONRY	#5 @ 24" c/c	No.9 GAUGE @ 16" c/c	
BW-2	12" MASONRY	#5 @ 24" c/c	No.9 GAUGE @ 16" c/c	
W-1	8" CONCRETE	#5 @ 12" c/c CENTERED	#4 @ 8" c/c CENTERED	PROVIDE #5 HOOKED BARS EE.
W-2	8" CONCRETE	#4 @ 5" c/c EF OUTER FACE	#4 @ 8" c/c EF INNER FACE	AT POOL.
W-3	12" CONCRETE	#5 @ 6" c/c EF OUTER FACE	#4 @ 8" c/c EF INNER FACE	AT POOL.

REVISIONS:
1 11-24-2015 : BLDG. DEPT. COMMENTS.
2 12-15-2015 : BLDG. DEPT. COMMENTS.

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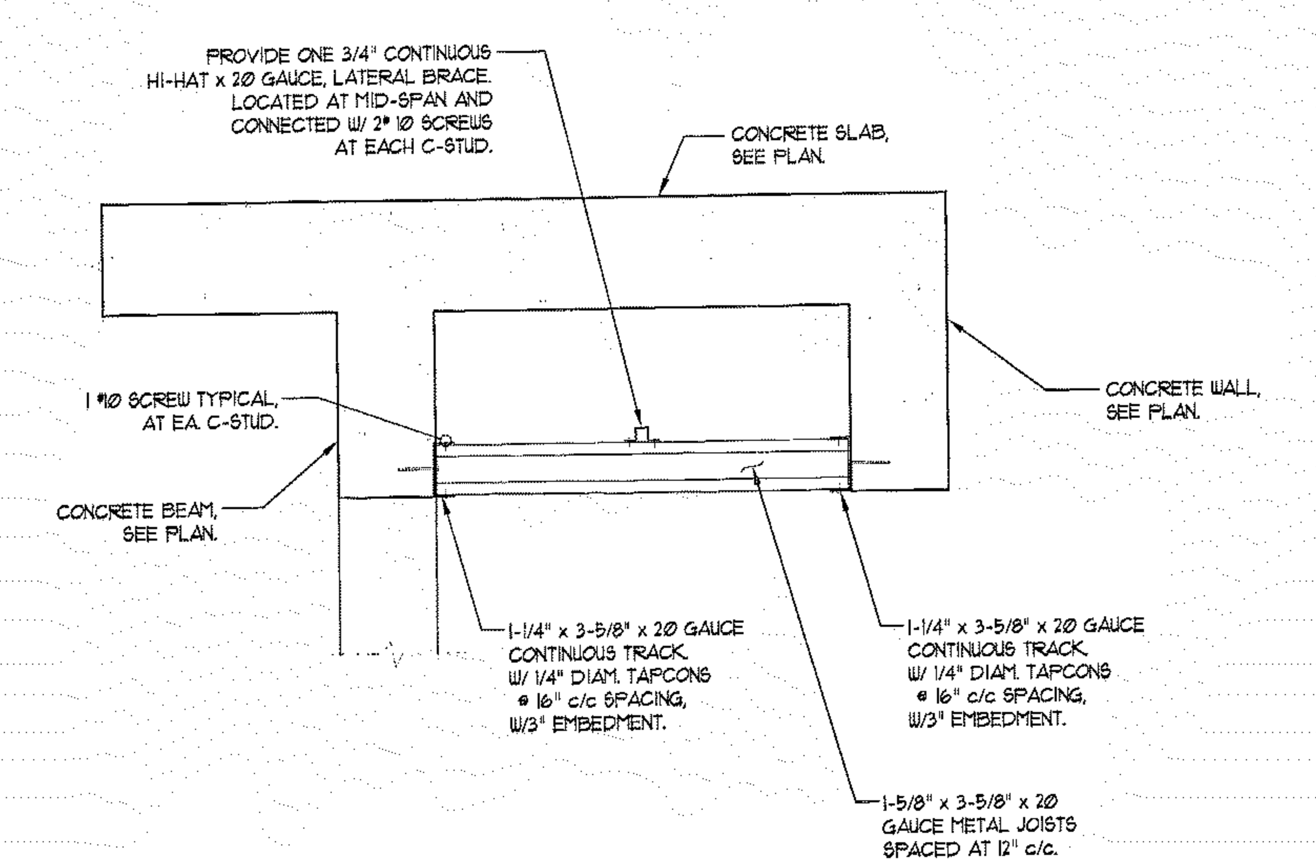
S-12
COLUMN SCHEDULES & DETAILS

BEAM SCHEDULE

MARK	TOP OF BEAM ELEV	SIZE (IN.)	REINFORCING B	REINFORCING T	REINFORCING C	REINFORCING E	REINFORCING INTERM.	STIRRUPS No.	STIRRUPS SPACING	REMARKS
B-1	+ 12'-2"	10" x 22"	* 4 #8	* 4 #8			1 #5 EF	#3	@ 8" c/c	* TWO LAYERS
B-2	+ 12'-2"	12" x 22"	3 #8	3 #8			1 #5 EF	#3	@ 8" c/c	
B-3	+ 12'-2"	8" x 20"	* 4 #8	2 #8			1 #5 EF	#3	@ 6" c/c	* TWO LAYERS
B-4	*	8" x 12"	2 #5	2 #5			-	#3	8 #3 @ 4"c/c EE. #3 @ 12" c/c BALANCE.	* B.O.B= T.O. OPENING
B-5	+ 12'-2"	8" x 22"	2 #7	2 #7			1 #5 EF	#3	@ 6" c/c	
B-6	+ 12'-2"	8" x 22"	2 #6	2 #6			1 #5 EF	#3	@ 8" c/c	
B-7	+ 12'-2"	12" x 22"	3 #6	* 6 #7			1 #5 EF	#3	@ 6" c/c	* TWO LAYERS
B-8	+ 12'-2"	8" x 22"	2 #7	2 #6			1 #5 EF	#3	@ 8" c/c	
RB-1	+ 22'-11"	10" x 22"	* 4 #8	* 4 #8			1 #5 EF	#3	@ 8" c/c	* TWO LAYERS
RB-2	+ 22'-11"	12" x 24"	3 #7	3 #7			1 #5 EF	#3	@ 8" c/c	
TB-1	+ 12'-2"	8" x 22"	* 2 #7	* 2 #6			1 #5 EF	#3	@ 12" c/c	
RTB-1	+ 22'-11"	8" x 24"	2 #6	2 #6			1 #5 EF	#3	@ 10" c/c	
RTB-2	+ 22'-11"	12" x 24"	3 #6	3 #5			1 #5 EF	#3	@ 10" c/c	
GB-1	- 3'-6" 1	16" x 24"	3 #8	3 #8			1 #5 EF	#3	@ 8" c/c	
GB-2	- 3'-6"	16" x 24"	4 #7	4 #7			1 #5 EF	#3	@ 8" c/c	
GB-3	* VARIES	16" x 24"	3 #7	3 #7			1 #5 EF	#3	@ 8" c/c	* COORD. W/ ARCHITECTURE
CC	* VARIES	8" x 8"	2 #5							* BOTTOM CONTINUOUS

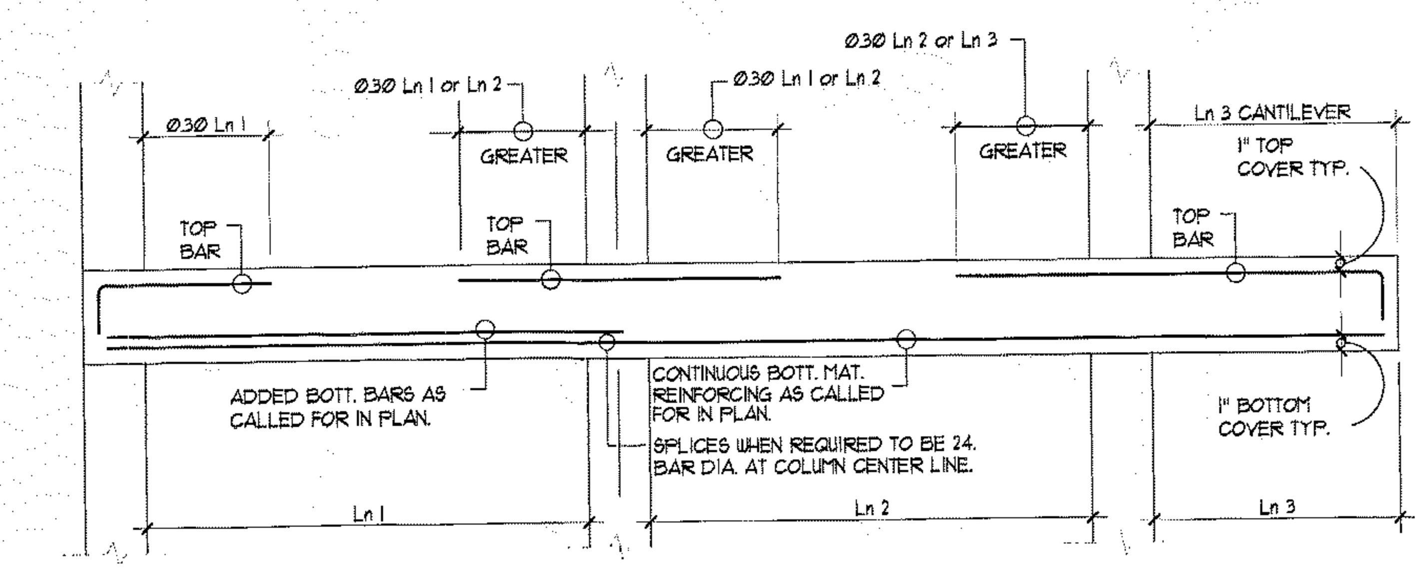
* ALL BEAMS AT CORNERS AND INTERSECTIONS PROVIDE 2#5 - 30"x30" CORNER BARS.

1



EXTERIOR CEILING DETAIL 1/S-13

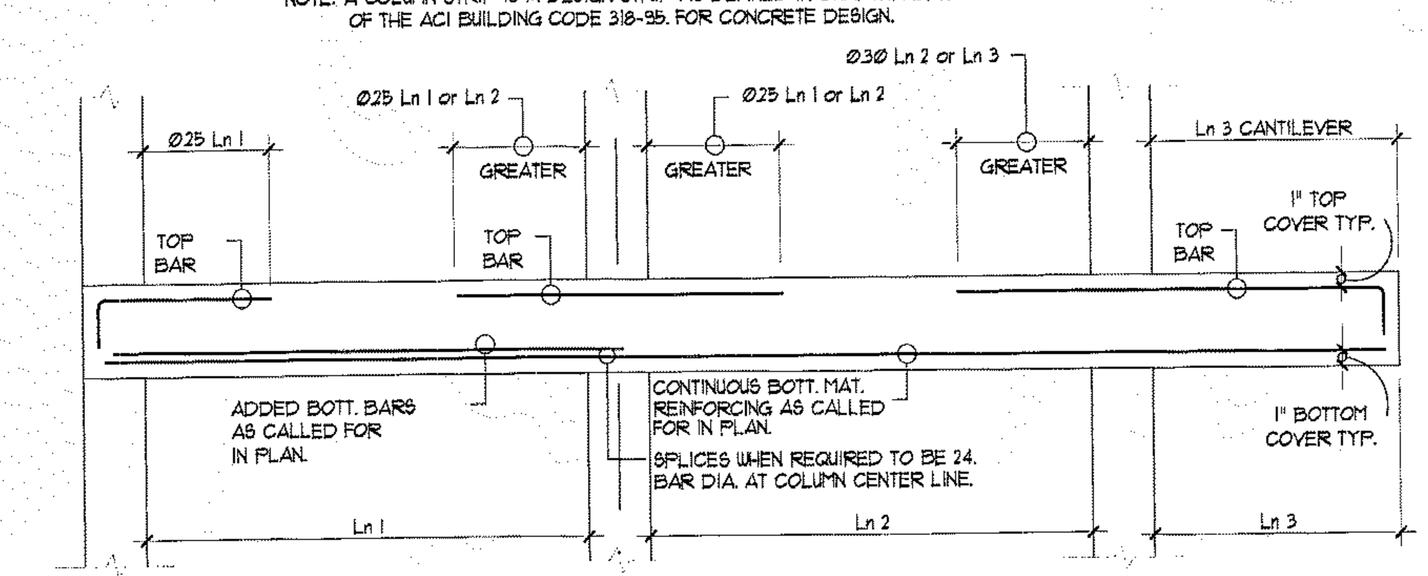
SCALE: 1"=1'-0"



TYPICAL COLUMN STRIP-BAR PLACING DIAGRAM FLAT PLATE

SCALE: N.T.S.

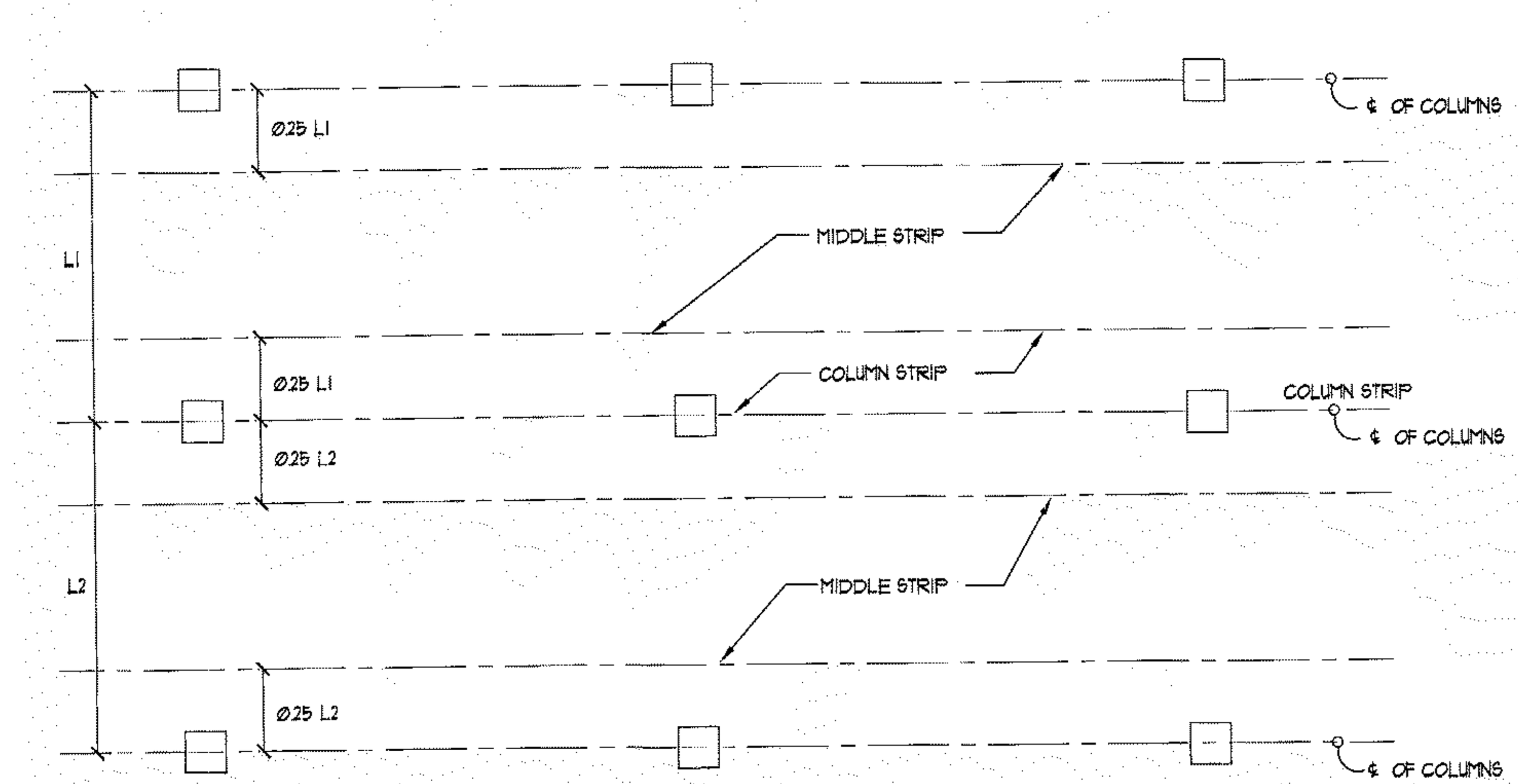
NOTE: A COLUMN STRIP IS A DESIGN STRIP AS DEFINED IN CHAPTER 13, SECTION 13.2.1 OF THE ACI BUILDING CODE 318-95. FOR CONCRETE DESIGN.



TYPICAL MIDDLE STRIP-BAR PLACING DIAGRAM FLAT PLATE

SCALE: N.T.S.

NOTE: A MIDDLE STRIP IS A DESIGN STRIP AS DEFINED IN CHAPTER 13, SECTION 13.2.2 OF THE ACI BUILDING CODE 318-95. FOR CONCRETE DESIGN.



FLAT PLATE BAR PLACING PLAN DIAGRAM

1 11-24-2015 BLDG. DEPT. COMMENTS

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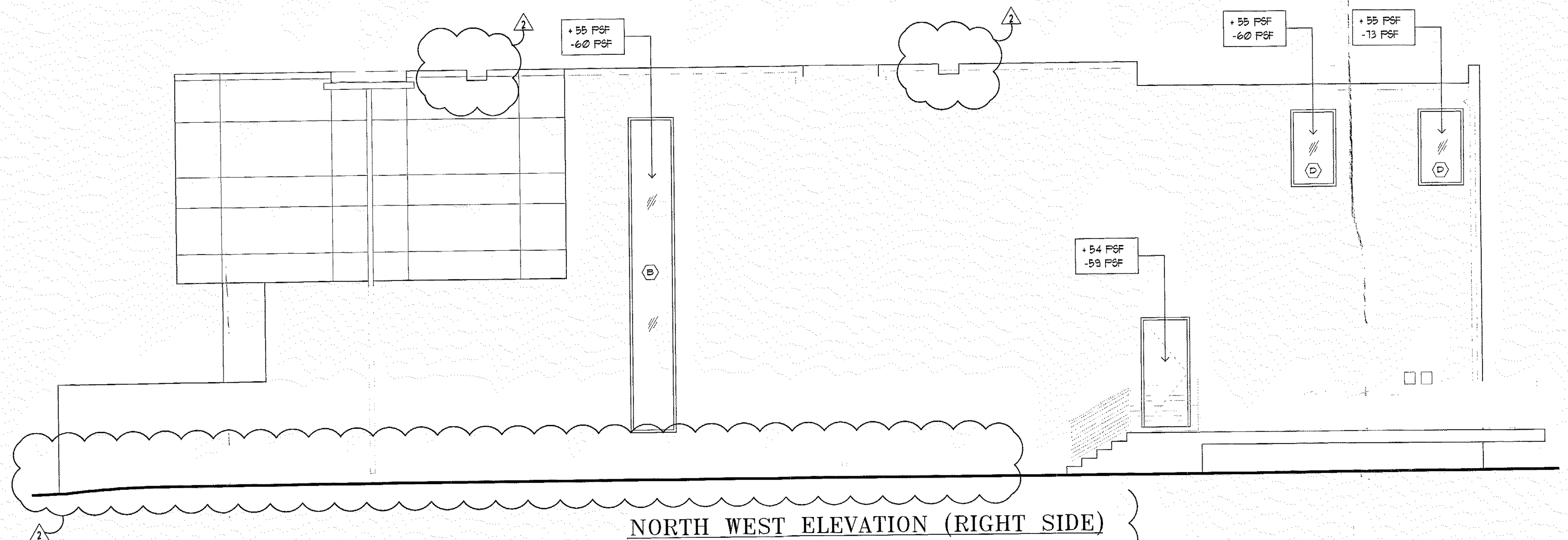
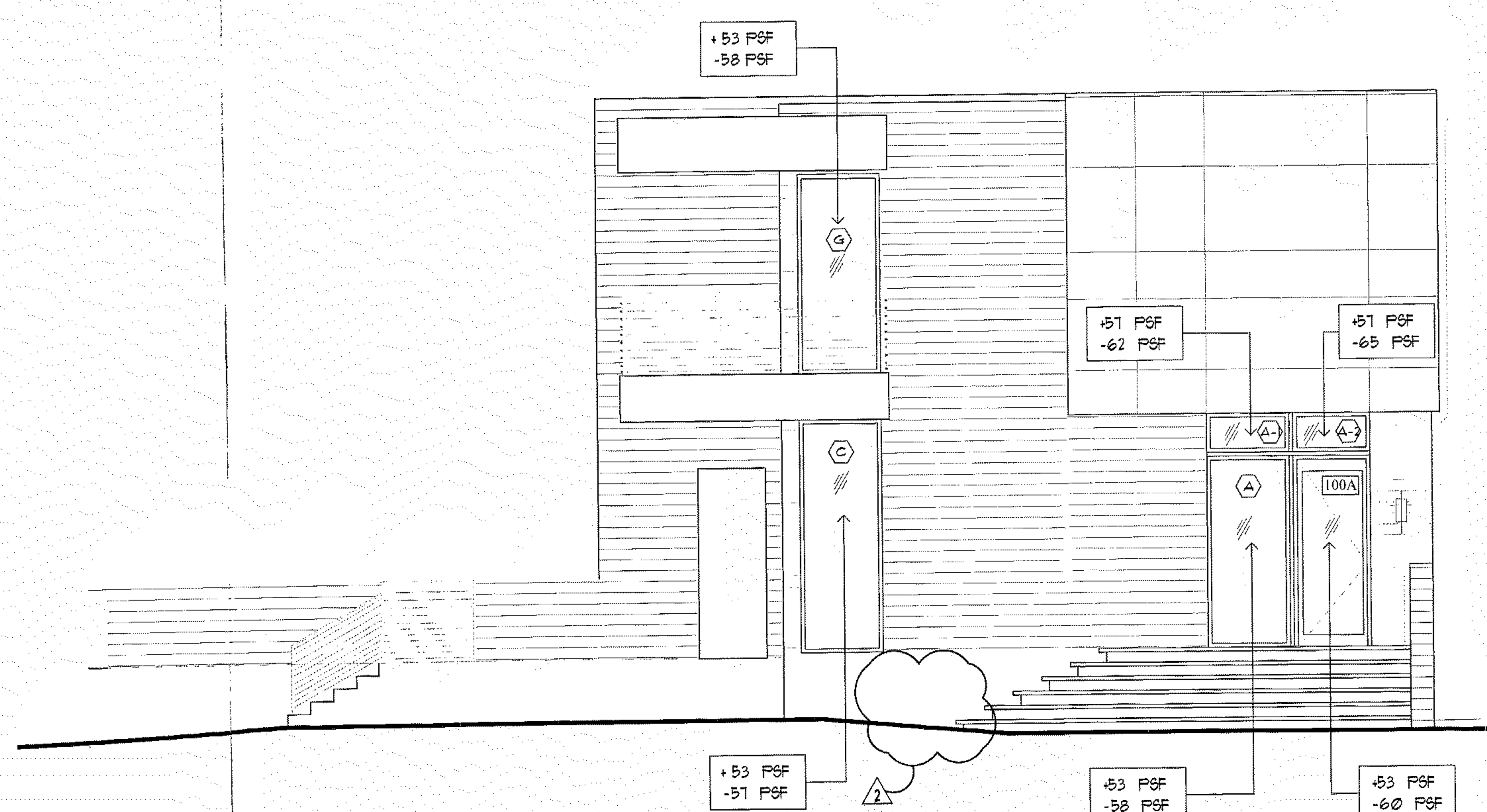
S-13

BEAM SCHEDULE, DETAIL & FLAT PLATE DIAGRAM



NORTH WEST ELEVATION (RIGHT SIDE)
SCALE: 3/16" = 1'-0"



NORTH EAST ELEVATION (FRONT SIDE)
SCALE: 3/16" = 1'-0"

WIND DESIGN BASED ON ASCE 7-10

WIND PRESSURES

ASD DESIGN FACTOR = 0.6

REVISIONS:
2 12-5-2015 : BLDG. DEPT. COMMENTS.

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S-14
WIND PRESSURES

GENERAL STRUCTURAL NOTES:

1. FOUNDATION ALLOWABLE SOIL BEARING PRESSURE:

   BASED ON SOIL REPORT BY DYNATECH ENGINEERS CORP DATED OCTOBER 27, 2014.
   THE FOUNDATIONS HAVE BEEN DESIGNED WITH AUGERCAST PILES, MINIMUM PILE LENGTH 32'-0".
   14" DIAMETER 35 TONS IN COMPRESSION, AND 15 TONS IN TENSION. PROVIDE 5000 PSI GROUT WITH 6 # 7 FULL LENGTH REINFORCING # 3 TIES SPACED AT 12" FULL LENGTH OF PILES.
   ALL PILES MUST PROVIDE A MINIMUM 18" LENGTH OF EXPOSED PILE REINFORCING STEEL TO BE EMBEDDED IN THE PILE CAPS OR GRADE BEAMS.
   SOIL ENGINEER TO WITNESS AND CERTIFY THE INSTALLATION OF ALL THE PILES.
   G.C. TO PROVIDE AN 'AS- BUILT" SURVEY OF ALL PILES. ANY PILE THAT EXCEEDS 3" IN "X" OR 'Y" MUST BE IDENTIED IN SAME SURVEY FOR RELIEW BY E.O.R. THIS MUST BE SUBMITTED BEFORE PLACING ANY CONCRETE.

2. CONCRETE:

   ALL CONCRETE TO ATTAIN A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 5,000 PSI IN 28 DAYS. AGGREGATES TO BE CLEAN AND WELL GRADED, MAXIMUM SIZE 3/4". CONCRETE SLUMP: 4" MIN. TO 6" MAX. VERTICAL CONCRETE DROP NOT TO EXCEED 8'.
   FOR REINFORCED MASONRY USE 3000 PSI GROUT MIX CONCRETE WITH 9" +/- 1" SLUMP.
   PROVIDE CURING COMPOUND TO ALL CONCRETE SURFACES WITHIN 24 HOURS OF PLACING OF THE CONCRETE. CONCRETE SLABS ARE TO BE SPRAYED WITH CURING COMPOUND THE SAME DAY. COLUMNS AND BEAMS MAY BE SPRAYED THE NEXT DAY. SUBMIT FOR APPROVAL.

3. CONCRETE COVER:

TO BE AS FOLLOWS:	BOTTOM	TOP	SIDES
PILE CAPS	3"	2"	3"
WALLS	-	-	1.5"
COLUMNS	-	-	1.5"
BEAMS	1.5"	1.5"	1.5"
SLABS	1"	1"	1"

4. REINFORCING STEEL:

   TO BE NEW HIGH STRENGTH BILLET STEEL DEFORMED AS PER ASTM A-305, AND CONFORMING TO ASTM A-615± GRADE 60.
   LAP CONTINUOUS TOP AND BOTTOM BARS 48-BAR DIAMETERS, AT MID-SPAN FOR TOP, AND AT SUPPORTS FOR BOTTOM.
   PROVIDE "L" BARS 30" X 30" FOR TOP AND BOTTOM BARS, AT ALL CORNERS OF ALL TIE BEAMS.
   HOOK DISCONTINUOUS ENDS OF ALL TOP BARS FOR STRUCTURAL BEAMS (NON TIE-BEAMS). REINFORCING STEEL TO BE DETAILED AND FABRICATED IN ACCORDANCE WITH "MANUAL OF STANDARD PRACTICE OF DETAILING REINFORCING CONCRETE STRUCTURES", AND THE ACI BUILDING CODE 318, LATEST EDITION. SUBMIT SHOP DRAWINGS FOR APPROVAL.

5. MASONRY:

   A. ALL CONCRETE BLOCK TO BE GRADE N-2, CONFORMING TO ASTM C-90, WITH A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 1,900 PSI, AND A PRISM STRENGTH OF 1,500 PSI (MINIMUM). MORTAR SHALL BE TYPE M, WITH A MINIMUM STRENGTH OF 2,500 PSI (USE PORTLAND TYPE CEMENT).

   B. MASONRY WALLS SHALL BE REINFORCED HORIZONTALLY WITH 9 GAUGE DEFORMED GALVANIZED STEEL, SPACED AT 16" C/C VERTICAL. EXTEND HORIZONTAL REINFORCING 4" INTO ADJACENT COLUMNS. PROVIDE TRUSS TYPE FOR NON-REINFORCED MASONRY AND LADDER TYPE FOR REINFORCED MASONRY.

   C. FOR VERTICAL REINFORCEMENT, SEE SCHEDULE AND LAP 48 BAR DIAMETERS MINIMUM. PROVIDE FULL BED OF MORTAR FOR REINFORCED MASONRY.
   FOR GROUT USE 3,000 PSI GROUT MIX CONCRETE WITH 9" +/- 1" SLUMP.

   D. PROVIDE CLEANOUTS WHEN GROUTING BLOCK CELLS, AND CLEAN OUT BLOCK CELLS OF ALL MORTAR DROPPINGS.
   MAXIMUM VERTICAL DROP FOR GROUTING IS 4'-0".

6. PREFABRICATED METAL STAIRS/LADDERS AND RAILINGS:

   CONTRACTOR TO PROVIDE FOR ALL PRE-FABRICATED METAL STAIRS AND METAL LADDERS, AND RAILINGS, SIGNED AND SEALED SHOP DRAWINGS, BY FLORIDA REGISTERED PROFESSIONAL ENGINEER, FOR APPROVAL BEFORE FABRICATION. CONNECTIONS OF THESE STAIRS AND LADDERS ALSO TO BE INCLUDED IN THE SHOP DRAWINGS.
   FOR RAILINGS, CONNECTIONS OF POSTS TO THE SLAB OR FLOOR ALSO TO BE INCLUDED IN THE SHOP DRAWINGS.

7. EXPANSION BOLTS:

   ALL EXPANSION BOLTS, NOTED IN PLANS, ARE TO BE HILTI TYPE EXPANSION BOLTS, OR EQUAL. FOR SUBSTITUTION, SUBMIT TO STRUCTURAL ENGINEER FOR REVIEW AND HIS APPROVAL.

8. WIND DESIGN CRITERIA:

   ALL STRUCTURAL ELEMENTS, EXPOSED TO WIND, HAVE BEEN DESIGNED PER THE GUIDELINES OF THE ASCE 7-10 BUILDING CODE.
   FOR WIND UPLIFT ON THE ROOFS, USE ASCE 7-10 COMPONENTS AND CLADDING.

   V = 175 MPH
   I = 1.0
   Gcpi = 0.18 (+/-)
   EXP. 'D'

9. STRUCTURAL STEEL:

   STEEL TUBES AND PIPES TO BE FY = 46 KSI MINIMUM. SUBMIT SHOP DRAWINGS FOR APPROVAL BEFORE FABRICATION. ALL STRUCTURAL STEEL TO BE PAINTED WITH TWO COATS OF RUST-INHIBITIVE TYPE PAINT. ALL OTHER STEEL SHALL CONFORM TO ASTM A-36. DETAILED, FABRICATED AND ERECTED IN ACCORDANCE AISC SPECIFICATIONS, LATEST EDITION. STEEL COLUMN Fy=50 KSF.

10. WELDING:

   ALL WELDING TO BE DONE BY COUNTY CERTIFIED WELDERS HOLDING CURRENT WELDING CERTIFICATES, AND MUST PRESENT SAME AT JOB SITE AT ALL TIMES.
   ALL WELDING PER PLANS AND PER GUIDELINES OF THE AMERICAN WELDING SOCIETY.

11. SHOP DRAWINGS:

   NO SHOP DRAWING SHALL BE SUBMITTED FOR ARCHITECT/ENGINEER'S REVIEW UNTIL AFTER THEY HAVE BEEN REVIEWED AND NOTED FOR CONSTRUCTION METHOD, DIMENSIONING, AND OTHER TRADE REQUIREMENTS BY THE CONTRACTOR, AND STAMPED WITH THE CONTRACTOR'S APPROVAL SEAL. ENGINEER ASSUMES NO RESPONSIBILITY FOR DIMENSIONS, QUANTITIES, ERRORS OR OMISSIONS, AS A RESULT OF CHECKING AND REVIEWING ANY SHOP DRAWINGS. ANY ERRORS OR OMISSIONS MUST BE MADE GOOD BY CONTRACTOR, IRRESPECTIVE OF RECEIPT, CHECKING OR REVIEW OF DRAWINGS BY ENGINEER, AND EVEN THOUGH WORK IS DONE IN ACCORDANCE WITH SUCH SHOP DRAWINGS.

12. PRE-FABRICATED FIXED AND SLIDING DOOR GLASS SYSTEMS:

   CONTRACTOR TO PROVIDE SIGNED AND SEALED SHOP DRAWINGS, AND SIGNED AND SEALED CALCULATIONS, BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER, FOR THE FOLLOWING ITEMS:

   1. THE COMPLETE GLASS ASSEMBLY AND COMPONENTS INCLUDING: GLASS, CONNECTIONS, AND FRAMES. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.

   2. ALL FIXED AND SLIDING GLASS DOOR SYSTEMS/ASSEMBLIES INCLUDING: GLASS, CONNECTIONS, AND FRAMES. NOTE, ALL UNITSMANENT TO HAVE COUNTY PRODUCT APPROVALS.

13. DEWATERING:

   MUST EVACUATE ALL WATER FROM WITHIN FORMWORK BEFORETEST PLACEMENT OF ANY CONCRETE.
   AFTER DEWATERING AND BEFORE PLACING CONCRETE, MUST RINSE THE REINFORCING STEEL CLEAN OF ALL DELETERIOUS MATERIAL IF PREVIOUSLY LEFT SUBMERGED.

14. DETAILS AND SECTIONS:

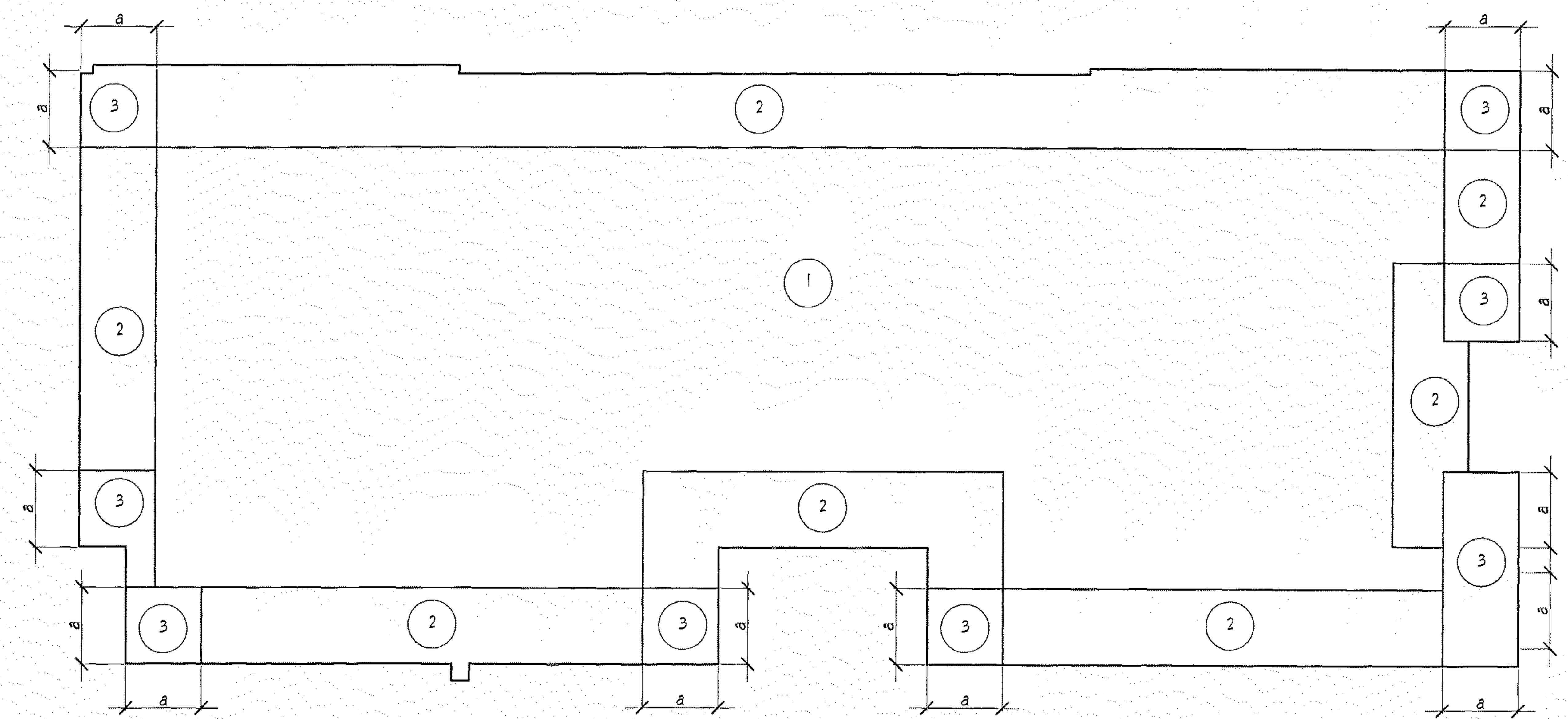
   ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL, AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, UNLESS A DIFFERENT DETAIL, OR SECTION, IS SHOWN.

15. GENERAL:

   THE CONTRACTOR SHALL USE THE STRUCTURAL DRAWINGS TOGETHER WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS TO LOCATE DEPRESSED SLABS, SLOPES, DRAINS, OUTLETS, RECESSES, OPENINGS, REGLETS, BOLT SETTINGS, SLEEVES, DIMENSIONS, ETC.. POTENTIAL CONFLICTS SHALL BE TRANSMITTED TO THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH THE WORK. CONTRACTOR TO PROVIDE ADEQUATE TIME FOR RESPONSE FROM ARCHITECT/ENGINEER.

16. GROUTING WITH HIGH STRENGTH NON-SHRINK GROUT:

   USE OF A HIGH STRENGTH NON-SHRINK GROUT TO BE USED AS INDICATED IN THESE DOCUMENTS, OR AS REQUIRED FOR STRUCTURAL REPAIRS OR PATCHING. USE MASTERFLOW OR SIKA, OR EQUAL (SUBMIT TO ENGINEER FOR SUBSTITUTION). GROUT TO BE MIXED AS PER RECOMMENDATIONS OF MANUFACTURER. AREAS TO GROUTED MUST BE THOROUGHLY CLEANED OF ALL DEBRIS AND DELETERIOUS MATERIALS. GROUT THICKNESS TO BE AS SHOWN IN DOCUMENTS, HOWEVER THICKNESS NOT TO EXCEED RECOMMENDATIONS OF MANUFACTURER. IF REQUIRED, PROVIDE SEVERAL LAYERS, AS REQUIRED, IN ORDER TO ATTAIN REQUIRED TOTAL THICKNESS.



ROOF MEMBRANE WIND UPLIFT PRESSURES

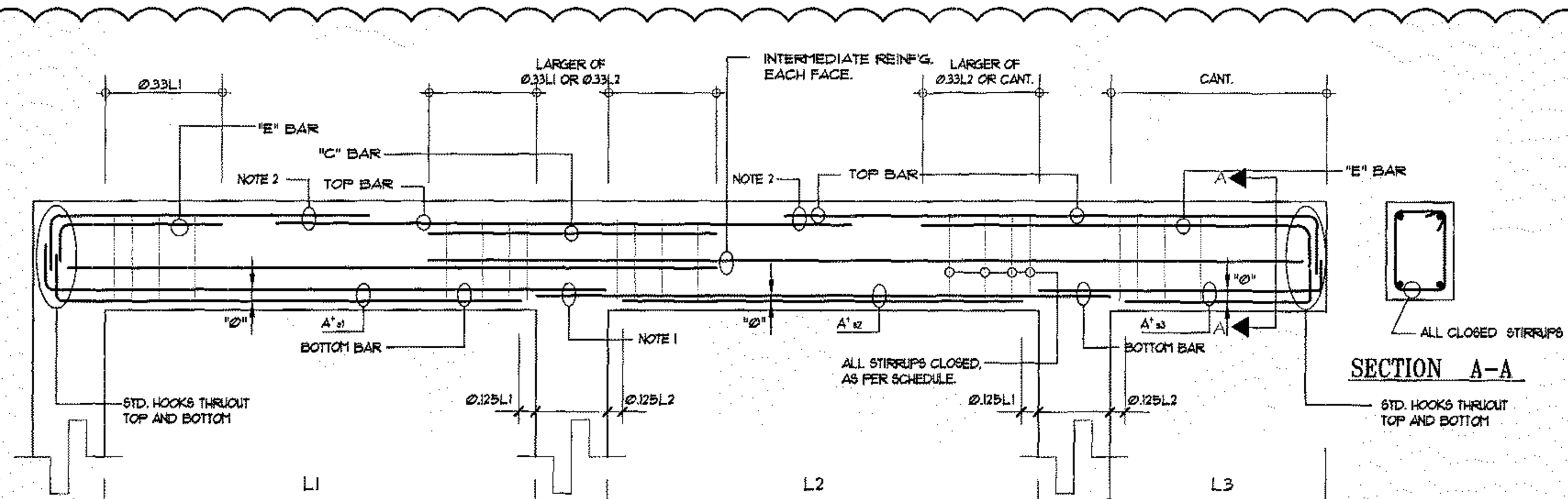
SCALE: 3/16"=1'-0"

ZONE	MEMBRANE NET WIND UPLIFT PRESSURES
1	- 62 PSF
2	- 104 PSF
3	- 156 PSF

NOTE:

1.-DO NOT REDUCE WIND UPLIFT PRESSURE BY DEAD LOAD

a = 3.65



TYPICAL BEAM DIAGRAM

NOTES:

1. LARGER OF ¼ (A' s1) OR ¼ (A' s2) BUT NOT LESS THAN TWO BARS CONTINUOUS OR SPLICED WITH CLASS "B" SPLICES OR MECHANICAL OR WELDED SPLICE (ACI 7.13.2.2 AND ACI 7.13.2.3)

2. ALL TOP BARS SPLICED WITH CLASS "B" SPLICES OR MECHANICAL OR WELDED SPLICES, AT MID-SPAN.

"E" BARS ARE TOP BARS AT NON-CONTINUOUS ENDS, LEFT OR RIGHT.
"C" BARS ARE TOP BARS OVER RIGHT INTERIOR SUPPORTS.
TOP BARS CALLED FOR AS CONTINUOUS, WHEN SPLICED, SHALL BE SPLICED IN THE MIDDLE THIRD OF THE SPAN.
SEE NOTE 2 ABOVE.

REVISIONS:

2 12-15-2015 : BLDG. DEPT. COMMENTS.

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NEW RESIDENCE
FOR:
4354 ALTON RD.
MIAMI BEACH, FL 33139

DATE: 10-20-2014

JUAN FERNANDEZ-BARQUIN, P.E.
STRUCTURAL ENGINEER P.E. # 40114
THRESHOLD INSPECTOR # 0947
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O:\3Design Inc.(TONY LEON)\4354 ALTON RD\STRUCTURE\S-16 MEMBRANE WIND UPLIFT.dwg

S-16

GENERAL NOTES & ROOF MEMBRANE WIND UPLIFT PRESSURES

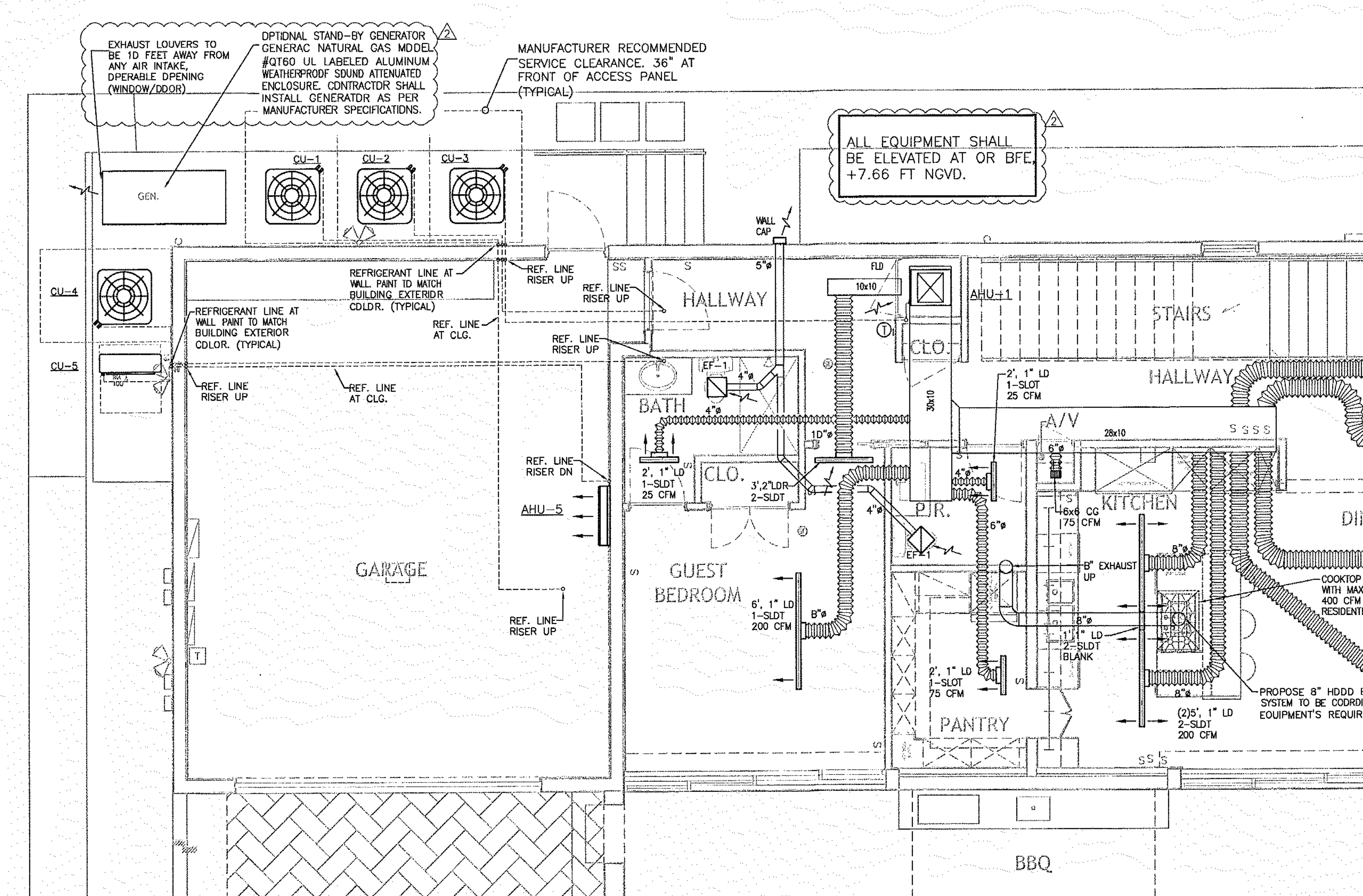
H.V.A.C. LEGEND

CD CEILING DIFFUSER
CFM CUBIC FEET PER MINUTE
CLG CEILING
DB DRY BULB
DG DOOR GRILLE
DN DOWN
EF EXHAUST FAN
FLD FULL LOUVER DOOR
HP HORSEPOWER
KW KILOWATTS
IN INCHES
NTS NOT TO SCALE
P.D PRESSURE DROP
R/A RETURN AIR
S.P. STATIC PRESSURE
UC UNDERCUT
WB WET BULB

THERMOSTAT WITH SUBBASE AND ASSOCIATED AHU #
REFRIGERANT PIPING - SEE SPLIT SYSTEM SCHEDULE FOR SIZES
RETURN AIR
1" UNDERCUT DOOR
DUCT SECTION - SUPPLY
DUCT SECTION - RETURN
DUCT SECTION - EXHAUST
DUCT TRANSITION @ 30° MAX.
FLEXIBLE DUCT, CLASS I, R=4.2 (R-6 IF REQUIRED)
24x12 DUCT R=4.2 (R-6 IN ATTIC SPACES) 1ST FIGURE, SIDE SHOWN. 2ND FIGURE, SIDE NOT SHOWN.
24x12 STANDARD BRANCH FOR SUPPLY, RETURN, EXHAUST, AND OUTSIDE DUCTS (NO SPLITTER OR EXTRACTOR) W/BALANCING DAMPER
ELBOW WITH "AIRFOIL" TURNING VANES
SUPPLY CEILING GRILLE
RETURN AIR GRILLE
SUPPLY WALL DIFFUSER
SUPPLY CEILING DIFFUSER
RETURN WALL AIR DIFFUSER
RETURN CEILING AIR DIFFUSER

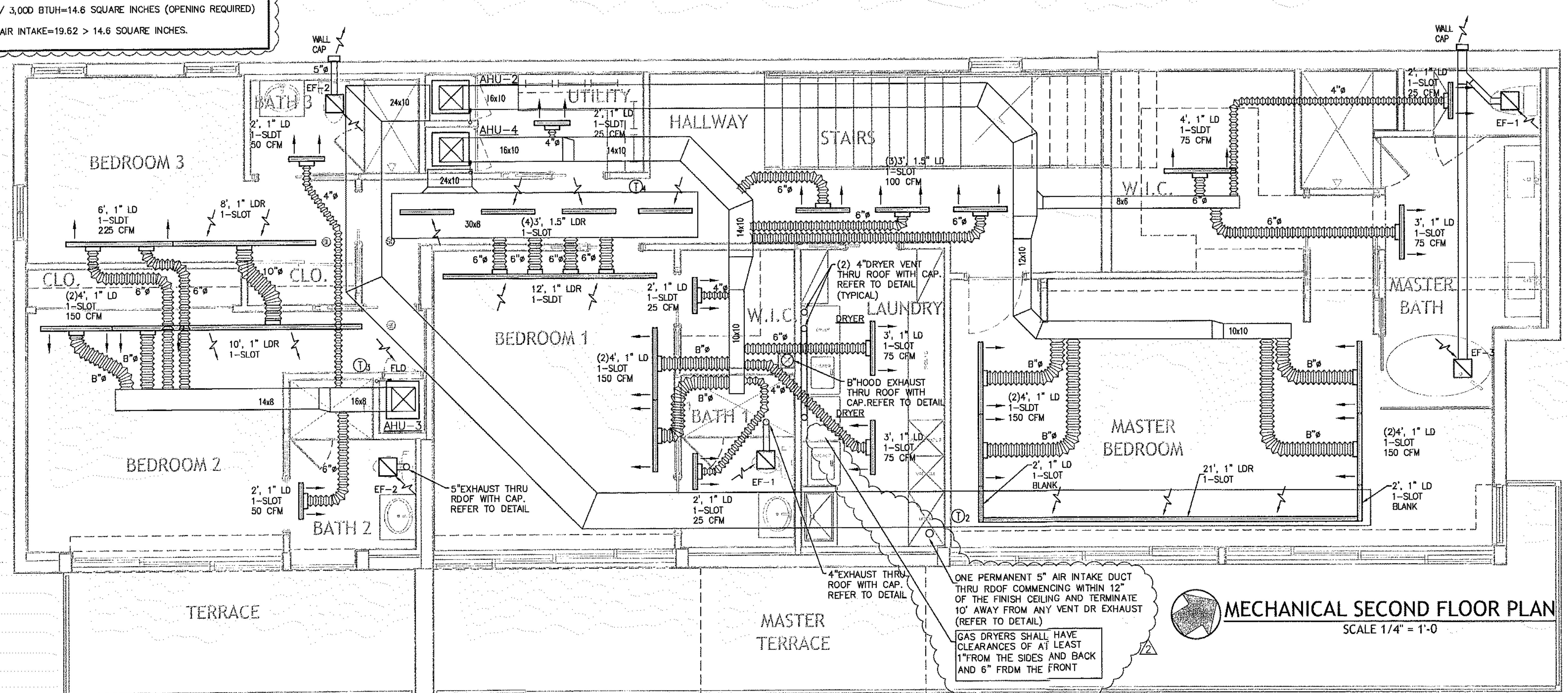
DRYERS GAS COMBUSTION AIR CALCULATIONS

ONE PERMANENT OPENING METHOD:
-EQUIPMENT GAS CONSUMPTION: GAS DRYERS (2) 22,000 BTUH.
-TOTAL: 44,000 BTUH / 3,000 BTUH=14.6 SQUARE INCHES (OPENING REQUIRED)
-PROVIDED 5"ø DUCT AIR INTAKE=19.62 > 14.6 SQUARE INCHES.



MECHANICAL FIRST FLOOR PLAN

SCALE 1/4" = 1'-0



MECHANICAL SECOND FLOOR PLAN

SCALE 1/4" = 1'-0

HVAC DESIGN REQUIRES:	YES	NO
DUCT SMOKE DETECTOR		●
FIRE DAMPER(S)		●
SMOKE DAMPER(S)		●
FIRE RATED ENCLOSURE		●
FIRE RATED ROOF/FLOOR CEILING ASSEMBLY		●
FIRE STOPPING		●
SMOKE CONTROL		●

GENERAL CONSTRUCTION NOTES:

1. ALL BEDROOMS DOORS ARE TO BE 1" UNDERCUT ABOVE FINISHED FLOOR OR CARPET.
2. MECHANICAL CONTRACTOR SHALL COORDINATE FINAL LOCATION OF ALL AIR DIFFUSERS SO AS TO MAINTAIN A MIN OF 3'-0" FROM ANY SMOKE DETECTOR.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL DROPPED CEILING.
4. COORDINATE FINISH OF ALL GRILLES W/ARCHITEC.
5. COORDINATE DUCTWORK FOR CLEARANCE AROUND ELECTRICAL PANEL.
6. ALL DIFFUSER SHOWN OVER DOOR OPENINGS ARE TO BE CENTERED OVER OPENINGS. ALL OTHERS DIFFUSERS SHOULD BE CENTERED IN ROOM, SOFFIT OR WALL PANEL. VERIFY W/ ARCHITECT BEFORE INSTALLATION.
7. AREA ABOVE ELEC. PANEL IS DEDICATED SPACE. NO DUCTS OR PIPES SHALL CROSS THIS AREA.
8. THERMOSTATS SHALL BE INSTALLED AT 48 INCHES ABOVE FINISHED FLOOR. ALL THERMOSTATS TO BE PROGRAMMABLE DIGITAL TYPE.
9. ALL WASHER/DRYER CLOSETS OR ROOMS SHALL HAVE FULL LOUVERED DOORS OR 12x12 DOOR GRILLE.
10. PROVIDE A 4" MINIMUM SPACE AROUND AIR HANDLING UNIT TO ASSURE ADEQUATE ACCESS FOR CONSTRUCTION, SEALING, INSPECTION AND MAINTENANCE. (FBC-2010, MECHANICAL VOL. SECTIONS 306.1, 306.2)
11. DRYER TRANSITION/CONNECTION DUCT (PROVIDED W/APPLIANCE) SHALL BE UL LISTED 2158A AND IN COMPLIANCE WITH FBC-M 2010 504.6.3.

DRAWN BY:
REVISIONS:
1 08/10/15 OWNER CHANGES
2 11/13/15 BDC

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12/3/15

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MIGUEL E. GONZALEZ LICENSE No. 72541 STATE OF FLORIDA PROFESSIONAL ENGINEER

1 08/10/15

THESE PLANS ARE FOR BUILDING DEPARTMENT REVIEW ONLY. THEY ARE NOT TO BE CONSTRUED AS CONSTRUCTION DOCUMENTS UNTIL ALL BUILDING DEPARTMENT APPROVALS ARE OBTAINED.

M-1
1 OF 3

NOT VALID FOR CONSTRUCTION UNLESS SIGNED AND SEALED IN THIS BLOCK
CONSTRUCTION DOCUMENTS SET. 12.10.2014

GENERAL H.V.A.C. NOTES

1. GENERAL

1.1. ALL WORK TO BE PERFORMED UNDER THESE DOCUMENTS SHALL CONFORM WITH THE FLORIOA BUILDING COOE 2010 EDITION, AND ALL OTHER APPLICABLE STATE AND LOCAL REGULATIONS ANO ORDINANCES.
1.2. ALL WORK SHALL BE PERFORMED BY A LICENSED AND INSURED MECHANICAL CONTRACTOR, IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE AFTER COMPLETION OF WORK.
1.3. MECHANICAL CONTRACTOR SHALL FURNISH WRITTEN GUARANTEE THAT THE INSTALLED SYSTEM SHALL BE FREE OF MATERIALS AND WORKMANSHIP DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE BY THE OWNER.
1.4. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING HIS OWN PERMIT AND PAYING ALL PERMIT AND INSPECTION FEES.
1.5. SUBMIT SHOP DRAWINGS FOR ACCEPTANCE BY THE ARCHITECT AND/OR ENGINEER BEFORE PROCEEDING WITH PURCHASE OR INSTALLATION OF THE EOUIPMENT AND MATERIALS
1.6. THE CONTRACTOR SHALL PROVIDE A SET OF PRINTS CLEARLY MARKED TO SHOW AS-8UILT CONDITIONS AT THE COMPLETION OF CONSTRUCTION.
1.7. INTERRUPTION OF EXISTING FACILITIES AND/OR SERVICES SHALL 8E KEPT TO A MINIMUM. THE CONTRACTOR SHALL FURNISH ALL MATERIALS REQUIRED WHENEVER TEMPORARY CONNECTIONS ARE NECESSARY TO MAINTAIN CONTINUITY OF SERVICES. COORDINATE ALL INTERRUPTIONS WITH OWNER.
1.B. PRECAUTIONS SHALL 8E TAKEN TO PREVENT CONTAMINATION OF OWNER EQUIPMENT, FURNITURE AND CARPETING WITHIN THIS BUILDING. COVER AND WRAP EQUIPMENT, FURNITURE AND CARPETING AS NECESSARY. DUST AND DEBRIS SHALL BE STRICTLY CONTROLLED. CLOSE COORDINATION WITH OWNER WILL BE REQUIRED. DURING CONSTRUCTION CONTRACTOR SHALL FOLLOW THE "SMACNA" 1995 "INDOOR AIR QUALITY GUIDELINES FOR OCCUPIED BUILDINGS UNDER CONSTRUCTION".
1.9. ALL BUILDING CONSTRUCTION AFFECTED BY THE REMOVAL, RELOCATION OR INSTALLATION OF ANY PIECE OF EQUIPMENT SHALL BE REPAIRED ANO FINISHED AS REQUIREO TO MATCH EXISTING CONDITIONS, OR AS DIRECTED BY THE ARCHITECTURAL DRAWINGS AND/ OR SPECIFICATIONS.
1.10. IF ANY CONFLICT IS ENCOUNTERED WITHIN THE DESIGN DOCUMENTS, REGARDLESS OF TRADE OR RESPONSIBILITY, THE GREATER SCOPE OF WORK SHALL PREVAIL, AND ARCHITECT AND/OR ENGINEER SHALL BE ADVISED.

2. FIELD VERIFICATION

2.1. ALL WORK SHALL BE FIELD VERIFIED BEFORE INSTALLATION AND COORDINATED WITH ALL OTHER TRADES.
2.2. WHERE INTERFERENCES OCCUR AND DEPARTURES FROM INDICATED DESIGN WILL BE REQUIRED TO DETERMINE CHANGES ON LOCATIONS, SIZES AND ELEVATIONS OF PIPINC, DUCTWORK, ETC. THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR THE CHANGE ACCOMPANIED 8Y A DETAILED ORAWING FOR APPROVAL FROM ARCHITECT/ ENGINEER PRIOR TO PROCEEDING WITH ANY CHANGE OR DEPARTURES FROM EXISTING CONTRACT.
2.3. COORDINATE LOCATION OF DUCTWORK WITH OTHER TRADES, PARTICULARLY WHERE DUCTS RUN THROUGH STRUCTURAL ELEMENTS. PROVIOE ALL NECESSARY SLEEVES BEFORE CONCRETE IS POURED.
2.4. CONTRACTOR SHALL VERIFY EXISTING DUCTWORK SIZES WHICH CONNECT TO NEW DUCTWORK BEFORE FABRICATION AND INSTALLATION.
2.5. CONTRACTOR SHALL VERIFY EXISTING PIPING SIZES WHICH CONNECT TO NEW PIPING 8EFORE FABRICATION AND INSTALLATION.
2.6. BEFORE CUTTING OR MAKING OPENINGS IN ANY 8UILOING COMPONENT, CONTRACTOR SHALL VERIFY USING ANY REQUIRED MEANS THAT ITS LOAD BEARING CAPABILITY IS NOT COMPROMISED IN ANY MATTER.

3. NOT USED.

4. NEW EQUIPMENT

4.1. ALL MECHANICAL EQUIPMENT LOCATED ON THE EXTERIOR OF THE BUILDING SHALL BE CONSTRUCTED AND INSTALLED TO WITHSTAND HURRICANE FORCE WINDS FROM ANY OIRECTION.
4.2. MECHANICAL EQUIPMENT SHALL BE SUPPORTEO PER MANUFACTURER RECOMMENDATIONS ANO AS REQUIRED FOR APPLICA8LE CODES AND STANDARDS, USING SOUND INDUSTRY STANDARD PRACTICES. STRUCTURAL ENGINEER DESIGN AND RECOMMENDATIONS SHALL BE FOLLOW. SUBMIT SHOP DRAWINGS OF ALL SUPPORTING STRUCTURES THAT CLEARLY INDICATE SIZES, MATERIAL, DESIGN AND PRODUCT APPROVAL NUMBERS.
4.3. VIBRATION ISOLATORS SHALL BE PROVIDED FOR ALL MECHANICAL EQUIPMENT WITH MOVING AND/OR ROTARY PARTS. SU8MIT SHOP ORAWINGS SHOWING, BUT NOT LIMITED, ISOLATION PERFORMANCE AND ALLOWABLE SUPPORTING LOADS.
4.4. PROVIDE FOR ALL OUTDOOR MOUNTED EQUIPMENT SURFACE AND COIL PROTECTION AGAINST CORROSION DUE TO PROXIMITY TO MARINE AND/OR CORROSIVE ENVIRONMENT.
4.5. CONTROL WIRINC SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. THE CONTRACTOR SHALL FURNISH ALL MOTORS, STARTERS AND RELAYS, ETC., TO CONFORM A FULLY OPERATING SYSTEM. COORDINATE WITH THE ELECTRICAL DIVISION ALL WORK RELATED TO THE MECHANICAL SYSTEMS.
4.6. INSULATE REFRIGERANT SUCTION PIPING WITH 1/2" MINIMUM FIRE RESISTANT FOAM, PLASTIC OR CLOSED CELL POLYETHYLENE PRE-MOLOEO PIPE INSULATION WITH THERMAL RESISTIVITY OF AT LEAST R-4 AND EXTERNAL SURFACE PERMEANCE NOT EXCEEOING 0.05 PERM, ALSO IT SHALL CONFORM WITH ASTM E 84 FLAME SPREAD AND SMOKE OEVELOPMENT INDEX 25/50.
4.7. CONDENSATE DRAIN PIPING INSTALLED ON NON-AIR CONDITIONED SPACES SHALL BE PROPERLY INSULATEO.
4.8. REFRIGERANT PIPING SHALL 8E SEAMLESS COPPER TYPE "L" HARD OR SOFT ORAWN ACR COPPER TU8ING WITH WROUGHT COPPER SOLOER JOINT FITTINGS. SOLDER SHALL BE EQUAL TO HARRIS"S "STAY-SILV 15", 15% SILVER 8RAZING ALLOY.
4.9. OPERATING AND MAINTENANCE MANUAL SHALL 8E PROVIDED TO THE BUILDING OWNER BY THE MECHANICAL CONTRACTOR. THE MANUAL SHALL INCLUDE, AT LEAST, THE FOLLOWING:
-EQUIPMENT CAPACITY (INPUT AND OUTPUT) AND REQUIRED MAINTENANCE ACTIONS.
-EQUIPMENT OPERATION ANO MAINTENANCE MANUALS.
-HVAC SYSTEM CONTROL MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS. DESIRED OR FIELD-OETERMINED SETPOINTS SHALL 8E PERMANENTLY RECORDED ON CONTROL DRAWINGS, AT CONTROL DEVICES OR, FOR DIGITAL CONTROL SYSTEMS, IN PROGRAMMING COMMENTS.
-A COMPLETE WRITTEN NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE.
MANUALS SHALL BE SUBMITTEO TO THE ENGINEER FOR ACCEPTANCE.
4.10. EQUIPMENT OATA SHOWN IN THE EQUIPMENT SCHEDULES IS BASED ON MANUFACTURER'S ACTUAL CATALOG. VERIFY THIS INFORMATION WITH MANUFACTURERS PRIOR TO PURCHASING OR INSTALLING ANY EOUIPMENT. MANUFACTURER'S NAMES SHALL BE INTERPRETED AS ESTABLISHMENT OF REQUIRED TYPE CLASS AND QUALITY. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT ENGINEER.
4.11. PROVIDE ALL NECESSARY INSTRUCTIONS TO THE OWNER IN THE OPERATION OF THE MECHANICAL SYSTEM.
4.12. SEE EQUIPMENT SCHEDULES ON DRAWINGS FOR INFORMATION ON ALL SPECIFIED EQUIPMENT FOR THIS JOB.

5. DUCTWORK

5.7. PROVIDE ALL NECESSARY ACCESS PANELS TO CONTROL VALVES, DAMPERS, SENSORS, ANO ANY OTHER DEVICES NON-ACCESSIBLE OTHERWISE.
5.8. ALL SIZES SHOWN FOR LINED AND UNLINED DUCTS ARE CLEAR INSIDE DUCT DIMENSIONS.
5.9. CONDITIONED AIR DUCTWORK, SHALL 8E CLASS "ONE" FIBER GLASS DUCT BOARD IN ACCORDANCE WITH SMACNA'S FIBROUS DUCT STANDARDS. INSULATION SHALL HAVE THE REQUIRED DENSITY ANO THICKNESS TO PROVIOE A MINIMUM INSULATION VALUE OF R-6.
5.10. PROVIOE VOLUME DAMPERS, TURNING VANES, ETC., IN OUCTWORK FOR PROPER AIR FLOW ANO 8ALANCE. PROVIDE MULTIPLE VANE EXTRACTORS OR SPLITTERS WITH CONTROL RODS AT ALL OUTLETS CONNECTED CLOSER THAN TWO DUCT DIAMETERS TO MAIN SUPPLY DUCT AND WHERE SHOWN.
5.11. VENTILATION AND EXHAUST AIR DUCTWORK SHALL BE OF SHEET METAL CONSTRUCTION PER SMACNA'S STANDARDS.
5.12. EXHAUST VENTS SHALL BE LOCATED 10' MINIMUM DISTANCE FROM ANY OUTSIDE AIR INTAKE.
5.13. SEE SCHEDULES ON PLANS FOR AIR DISTRIBUTION DEVICES SPECIFICATIONS.

6. TEST AND BALANCING

6.1. BALANCE ALL SYSTEMS TO PROVIDE FLOW QUANTITIES AND CAPACITIES AS INDICATED ON DRAWINGS, INCLUDING EXISITNG SYSTEMS AND V.A.V. SYSTEMS.
6.2. PERFORM A COMPLETE OPERATING AND BALANCING TEST OF THE FINISHED SYSTEM. PROVIDE WRITTEN REPORT OF THE RESULT OF THIS TEST STATING THE ACCEPTABILITY OF THE SYSTEM AND COMPLIANCE WITH THE DESIGN DOCUMENTS. TEST AND BALANCE AGENCY SHALL BE AN INDEPENDENT, AABC OR NEBB CERTIFIED AGENCY, AND SHALL BE RETAINED BY THE OWNER. CONTRACTOR SHALL COORDINATE WITH OWNER AND TESTING AND COMMISSIONING AGENCY ALL WORK FOR FINAL CERTIFICATION OF THE HVAC SYSTEM.
6.3. IT IS THE RESPONSIBILITY OF THE TEST AND BALANCING TO RESET AND BALANCE ALL COMPONENTS OF THE AIR CONOITIONING UNITS SYSTEM SERVING THE TENANT, AND ALL OTHER BUILDING SYSTEMS SUPPORTING THE ABOVE MENTIONED DEVICES.

SPLIT A/C EQUIPMENT SCHEDULE-1 △1

AIR HANDLING UNIT	UNIT DESIGNATION		AHU-1	AHU-2,4	AHU-3
	AREA SERVED		SEE PLAN	SEE PLAN	SEE PLAN
	UNIT MANUFACTURER		YORK	YORK	YORK
	MODEL NUMBER		AHV60D	AHV48D	AHE18B
	NOMINAL TONS		5.0	2.0	1.5
	SYSTEM SEER		15.3	16.25	16.25
	TOTAL AIR SUPPLY	CFM	2,000	1,600	600
	OUTSIDE AIR	CFM	--	--	--
	RETURN AIR	CFM	2,000	1,600	600
	EXTERNAL STATIC PRESSURE	IN.W.G.	0.5	0.5	0.3
	FAN SIZE	HP	3/4	1/3	1/3
	FAN MOTOR FLA	AMP	4.9	2.8	2.8
	ENTERING AIR TEMPERATURE	(DB/WB)° F	75 / 63	75 / 63	75 / 63
	LEAVING AIR TEMPERATURE	(D8/WB)° F	55/55	55/55	55/55
	TOTAL COOLING COIL CAPACITY	MBH	53.1	43.3	16.8
	TOTAL SENSIBLE HEAT	M8H	35.2	29.8	12.1
	TOTAL HEATING CAPACITY	M8H	26.3	16.4	8.2
	ELECTRIC HEATER SIZE (240 V)	Kw	7.7	4.8	2.4
	MCA / MOCP	AMP	46.2/50	28.5/30	16/20
	ELECTRICAL CHARACTERISTICS	V/PH/Hz	240/1/60	240/1/60	240/1/60
	DIMENSIONS (HxWxD)	in.	57/24.5/21.5	57/24.5/21.5	46/21.5/17..5
	WEIGHT	lbs.	157	154	115
AIR COOLED CONDENSING UNIT	UNIT OESIGNATION		CU-1	CU-2,4	CU-3
	UNIT MANUFACTURER		YORK	YORK	YORK
	MODEL NUMBER		CZH06011	CZH04811	YCJF18S4
	LOCATION		ROOF	GROUND	ROOF
	AMBIENT TEMPERATURE	° F	95	95	95
	REFRIGERANT	R	R-410A	R-410A	R-410A
	MIN. REFR. LINES SIZES (LIQ/GAS)	in.	3/8 / 7/8	3/8 / 7/8	3/8 / 3/4
	COMPRESSOR MOTOR FLA	AMP	25.6	10.3	9.0
	FAN MOTOR SIZE	HP	1/3	1/3	1/8
	FAN MOTOR FLA	AMP	2.8	2.8	0.8
	MCA / MOCP	AMP	34.8/60	15.6/25	12/20
	ELECTRICAL CHARACTERISTICS	V/PH/Hz	240/1/60	240/1/60	240/1/60
	DIMENSIONS (HxWxD)	in.	40/42/34	40/42/34	2B/29/29
	WEIGHT	lbs.	330	310	125

SPLIT A/C EQUIPMENT NOTES AND ACCESORIES:

1. SIZE REFRIGERATION PIPING AS PER MANUFACTURER RECOMMENDATIONS. OVERSIZE LINES AS REQUIRED TO COMPENSATE FOR LINE LOSS WITH MINIMUM CAPACITY REDUCTION. SUBMIT SHOP DRAWINGS.
2. AIR HANDLING UNIT SHALL CONTAIN SOLID STATE INTERLOCK BOARD WITH BUILT IN FUSE AND TIME DELAY RELAY.
3. PROVIDE 5 YEAR WARRANTY ON ALL REFRIGERATION COMPONENTS.
4. PROVIDE ALL RELAYS, TRANSFORMERS, ETC. AS REQUIRED FOR COMPLETE OPERATING SYSTEM.
5. PROVIDE A 1 INCH THICK, THROWAWAY TYPE FILTER WITH A 30% MINIMUM EFFICIENCY. UNIT CONSTRUCTION AND INSTALLATION SHALL GUARANTEE AN EASY ACCESS TO FILTER SECTION FOR PROPER FILTER INSPECTION AND REPLACEMENT.
6. UNIT INSULATION ANO UNIT AOHESIVE SHALL COMPLY WITH NFPA 90A REOUIREMENTS FOR FLAME SPREAD AND SMOKE GENERATION. INSULATION SHALL CONTAIN AN EPA REGISTERED IMMOBILIZED ANTI-MICROBIAL AGENT TO EFFECTIVELY RESIST THE GROWTH OF BACTERIA AND FUNGI IN ACCORDANCE WITH ASTM STANDARDS G21 AND G22.
7. FAN MOTOR SHALL BE HIGH EFFICIENCY TYPE.
8. FAN AND MOTORS SHALL BE PROVIDED WITH CIRCUIT PROTECTION.
9. CONDENSATE DRAIN PANS SHALL BE INSULATED AND SLOPED TO OUTLET. PANS SHALL HAVE STAINLESS STEEL LINERS.
10. SUPPORT UNIT HIGH ENOUGH TO ACCOMMODATE CONDENSATE DRAIN TRAPS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
11. THE FAN DRIVE SHALL BE SELECTED FOR 125% OF THE MOTOR RATED HORSEPOWER.
12. CONTRACTOR SHALL GUARANTEE ADECUATE CLEARANCE ALL AROUND THE UNIT FOR MAINTENANCE ACCESS.
13. CONDENSING UNIT SHALL BE INSTALLED TO WITHSTAND WIND PRESSURE FROM ANY DIRECTION AS PER THE "HVHZ" REQUIREMENTS OF THE F.B.C.
14. PROVIDE SINGLE STAGE FOR AHU-3 AND 2 STAGES FOR AHU-1,2 PROGRAMABLE, DIGITAL THERMOSTAT AS RECOMMENDED BY UNITS MANUFACTURER AND SHALL BE CAPABLE OF PROVIOING AFTER HOURS SET BACK FOR ENERGY EFFICIENCY PURPOSES.
15. PROVIDE APPROVED ELECTRONIC WATER LEVEL OETECTOR. DETECTOR SHALL SHUT DOWN THE UNIT UPON DETECTION OF CONOENSATE HIGH LEVEL.
16. CORROSION PROTECTION COATING FOR ALL EXTERIOR CONDENSER COILS AND EQUIPMENT CABINETS.

SPLIT A/C SYSTEM SCHEDULE-2 △1

AIR HAND. UNIT	UNIT NUMBER		AHU-5
	MANUFACTURER		MITSUBISHI
	MODEL NUMBER		MSZ-GE18NA
	NOMINAL TONS		1.5
	TQTAL C.F.M.		600
	C.F.M. OA		--
	ENT. AIR TEMP. °F (DB/WB)		75/63
	BLOWER MOTOR FLA		1.0 AMP
	VOLTAGE		24 V
	UNIT WEIGHT (LBS.)		22
	MATCHING COND. UNIT		CU-5 △1
	AUX. ELECTRIC STRIP HEATER (INSIDE OF UNIT)	KW	-
		BTUH	-
		STAGE	-
		VOLTAGE	
COND. UNIT	UNIT NUMBER		CU-5 △1
	MANUFACTURER		MITSUBISHI
	MODEL NUMBER		MUY-GE18NA
	NOMINAL TONS		1.5
	No. OF COMPRESSORS		1
	R.L.A. EACH		10.0
	No. OF CONDENSER FANS		1
	F.L.A. EACH		0.93
	VOLTAGE		240-1-60
	MCA/MOCP		14/20
	WEIGHT (LBS.)		119
SYSTEM	SENSIBLE COOLING CAPACITY (MBH)		13.6
	TOTAL COOLING CAPACITY (MBH)		17.2
	S.E.E.R./E.E.R.		19.2/--
	TOTAL HEATING CAPACITY (MBH)		21.6
	C.O.P./H.S.P.F.		--/10.0
	LIQUIO LINE (IN.)		1/4
	SUCTION LINE (IN.)		1/2
	AREA SERVED		GARAGE

ACCESSORIES:
1. SINGLE STAGE HEAT/COOL DIGITAL PROGRAMMABLE THERMOSTAT.
2. REF. LINES SIZE AND REFRIGERANT CHARGE AS PER MANUFACTURER'S RECOMMENDATIQNS.
3. NOT USED.
4. INSULATE SUCTION LINES WITH 3/4" SLIP ON ARMAFLEX APPROVED FOR OUTDOOR USE; PAINTED WHITE WHERE EXPOSED WITH U.V. RESISTANT PAINT. USE ONLY 90' LONG RADIUS FITTINGS.
5. MANUFACTURER/PROVIDER SHALL VERIFY LISTED CAPACITIES AND SEER.
6. USE ONLY 90' LONG RAOIUS FITTING IN CONDENSATE LINES.
7. PROVIDE 3/4" RUBBER ISOLATOR PADS FOR COND. UNITS (MASON INDUSTRIES SUPER-W PADS OR EQUAL) (SEE DETAIL).
B. CLEAR WEATHER PROOF I.D. ON ALL CU'S INDICATING WHICH UNIT IT SERVES.
9. FACTORY PROVIDED DRAIN PAN MICRO-FLOAT SWITCH IN PRIMARY PAN.
10. CORROSION PROTECTION COATING FOR ALL EXTERIOR CONDENSER CQILS AND EQUIPMENT CABINETS.

FAN SCHEDULE

UNIT NUMBER		EF-1	EF-2	EF-3
AREA SERVED		8ATHROOMS	8ATHROOMS	8ATHROOMS
LOCATION		CEILING	CEILING	CEILING
DUTY	SUPPLY / EXHAUST	EXHAUST	EXHAUST	EXHAUST
FAN TYPE		CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
DRIVE	BELT / DIRECT	DIRECT	DIRECT	DIRECT
FAN SPEED	RPM	---	---	---
AIR QUANTITY	CFM	50	64	98
TOTAL STATIC PRESSURE	"H_2O	0.2	0.2	0.2
OPENING REQUIRED	IN	---	---	---
FAN MOTOR	AMP.	0.5	0.4	0.6
ELECTRICAL CHARACT.	V/Ø/Hz	120/1/60	120/1/60	120/1/60
MANUFACTURER		COOK	COOK	COOK
MODEL NUMBER		GC-122	GC-124	GC-144
WEIGHT	lbs.	15	15	15
REMARKS		① ②	① ②	① ②

NOTES:
① PROVIDE SOLID STATE SPEED CONTROL
② PROVIOE BACKDRAFT DAMPER.

AIR DISTRIBUTION SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NUMBER	MATERIAL	REMARKS
CC	CEILINC CRILLE	TITUS (OR EQUIVALENT)	300F SERIES	ALUMINUM	W/ O.B.D.
LD/LD1	FLOWBAR DIFFUSER	TITUS (OR EQUIVALENT)	FT SERIES	ALUMINUM	PATTERN CONTROLLER, INLET DAMPER AND INSULATED PLENUM
LDR	FLOWBAR RETURN	TITUS (OR EQUIVALENT)	FT SERIES	ALUMINUM	

CENERAL AND HVAC CONTRACTOR TO COORDINATE FINISH AND COLOR OF ALL AIR DISTRIBUTION PRODUCTS PRIOR TO ORDERING.

DRAWN BY:

REVISIONS:
△1 08/10/15
OWNER CHANGES

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M-2
2 OF 3

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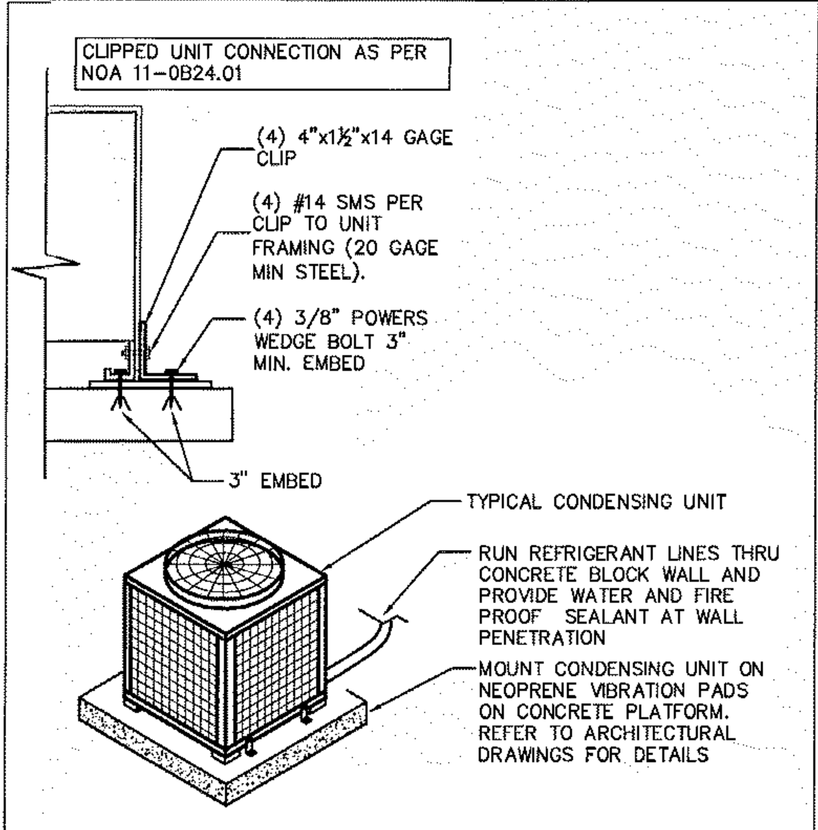
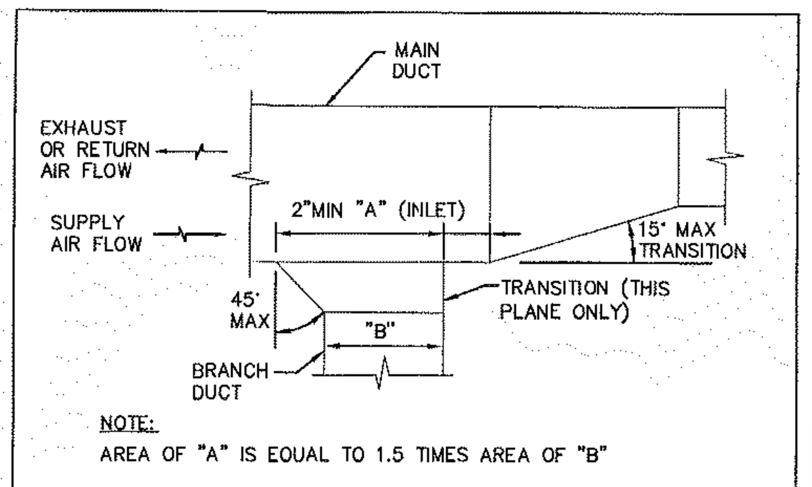
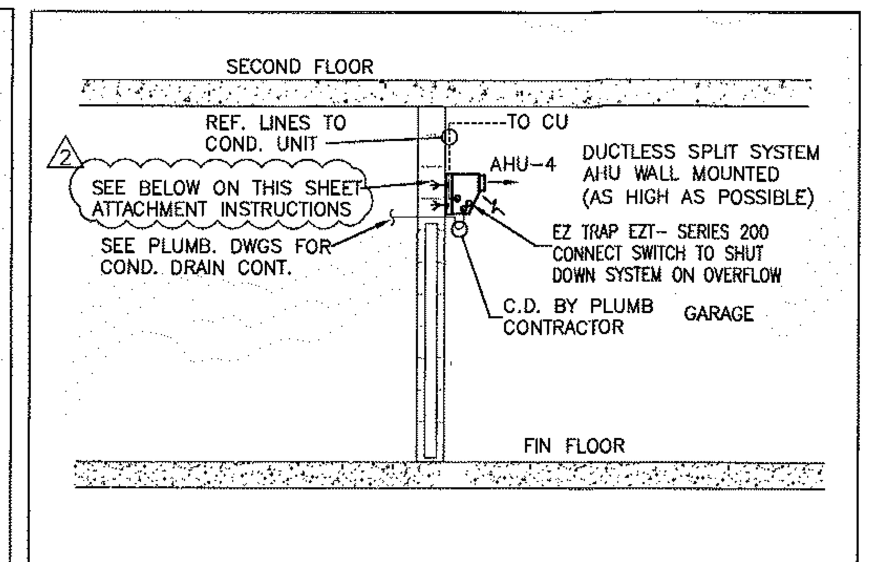


CONDENSING UNIT SUPPORT DETAIL
N.T.S.

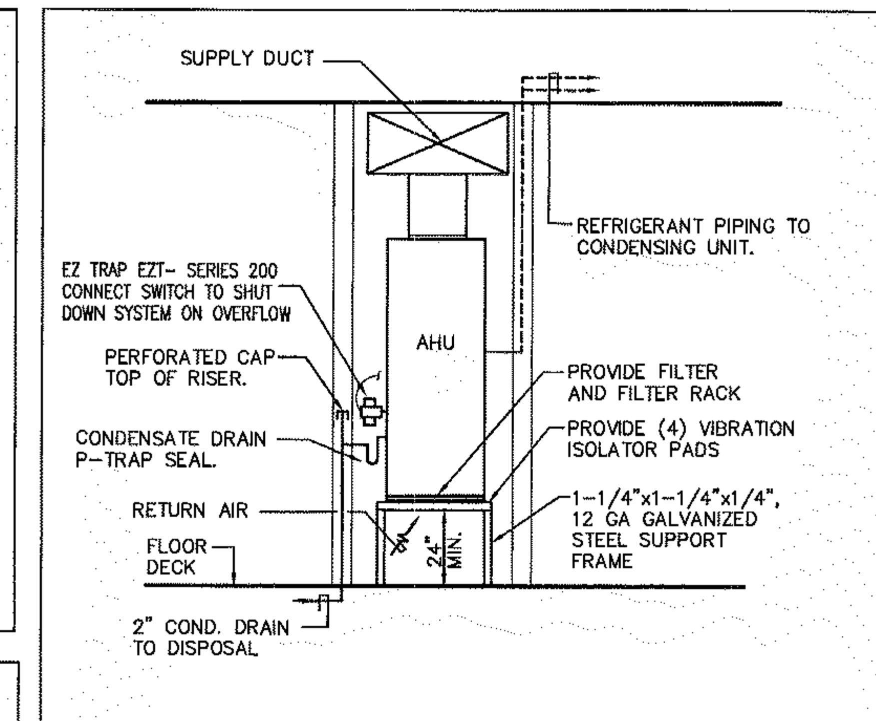


NOTE:
AREA OF "A" IS EQUAL TO 1.5 TIMES AREA OF "B"

TYPICAL DUCT CONNECTION DETAIL
N.T.S.

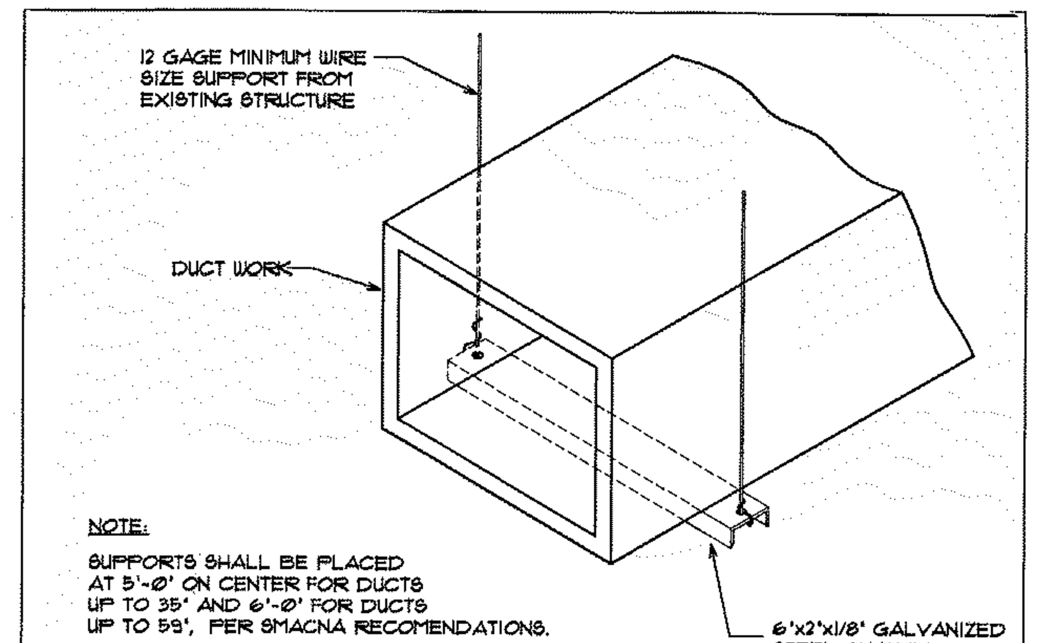


DUCTLESS SPLIT SYSTEM INSTALLATION DETAIL
NTS



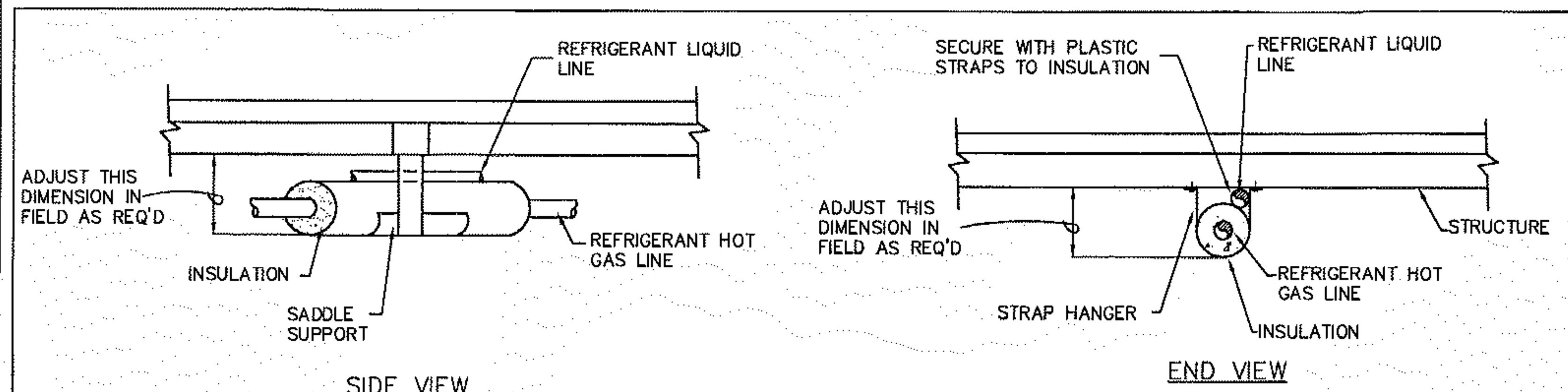
NOTES:
1 PROVIDE 36" SERVICE CLEARANCE FOR ALL ACCESS PANELS.
2 PROVIDE ADECUATE ACCESS TO FILTER SECTION.
3 CONTRACTOR SHALL GUARANTEE 4" CLEARANCE ON ALL SIDES.

AIR HANDLING UNIT INSTALLATION DETAIL
N.T.S.
(TYPICAL AHU-1,2,3,4)



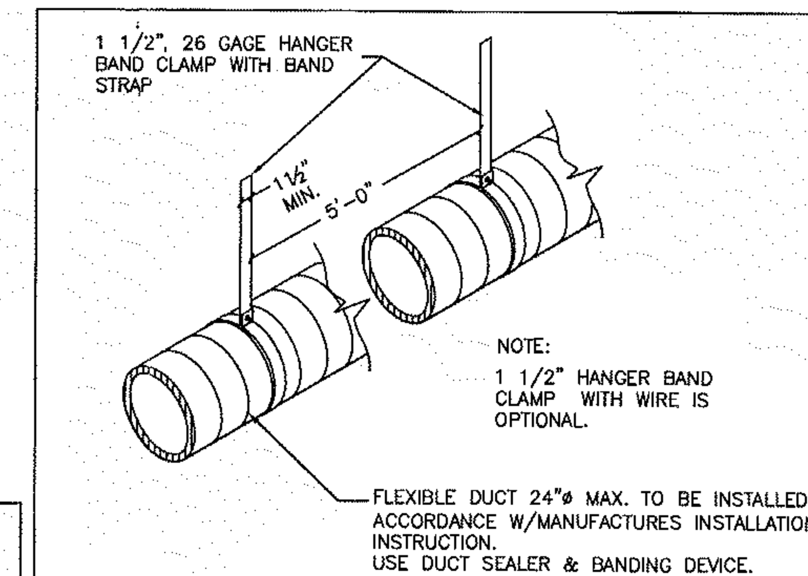
NOTE:
SUPPORTS SHALL BE PLACED AT 5'-0" ON CENTER FOR DUCTS UP TO 35" AND 6'-0" FOR DUCTS UP TO 55", PER SMACNA RECOMENDATIONS.

FIBER GLASS DUCT HANGING DETAIL
N.T.S.



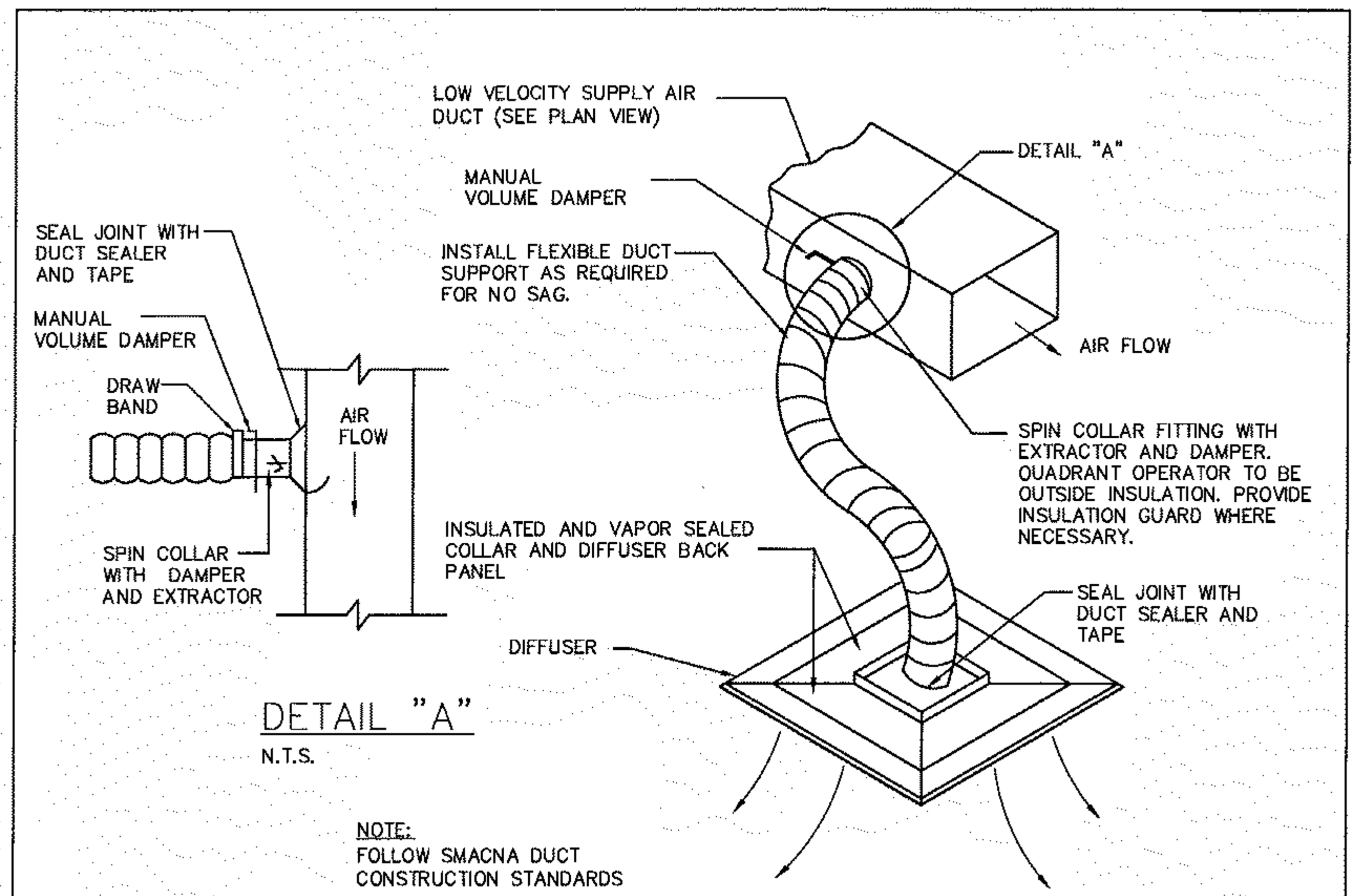
NOTES:
1- PROVIDE DIELECTRIC ISOLATION BETWEEN DISSIMILAR METALS
2- PROVIDE SADDLE PROTECTION AT EACH SUPPORT

TYPICAL REFRIGERANT PIPING HANGER DETAIL
N.T.S.



NOTE:
1 1/2" HANGER BAND CLAMP WITH WIRE IS OPTIONAL.

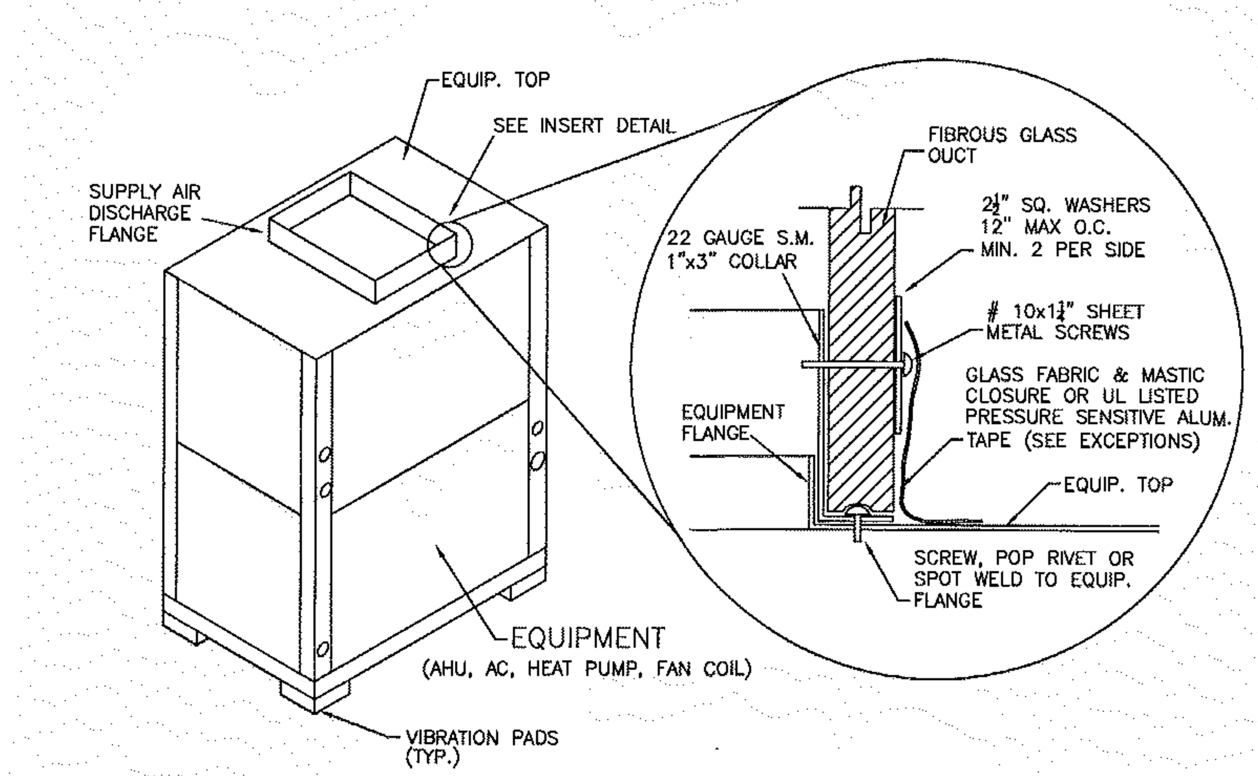
FLEXIBLE DUCT SUPPORT
N.T.S.



NOTE:
FOLLOW SMACNA DUCT CONSTRUCTION STANDARDS

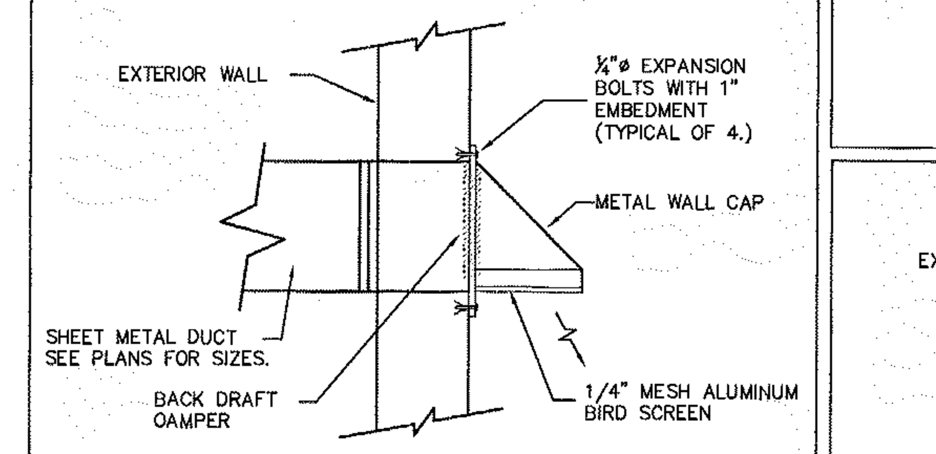
FLEXIBLE DUCT CONNECTION DETAIL
N.T.S.

MECHANICALLY ATTACH AND SEAL THE SUPPLY PLENUM TO THE AHU FLANGE AS PER SMACNA AND FBC 603.1.1

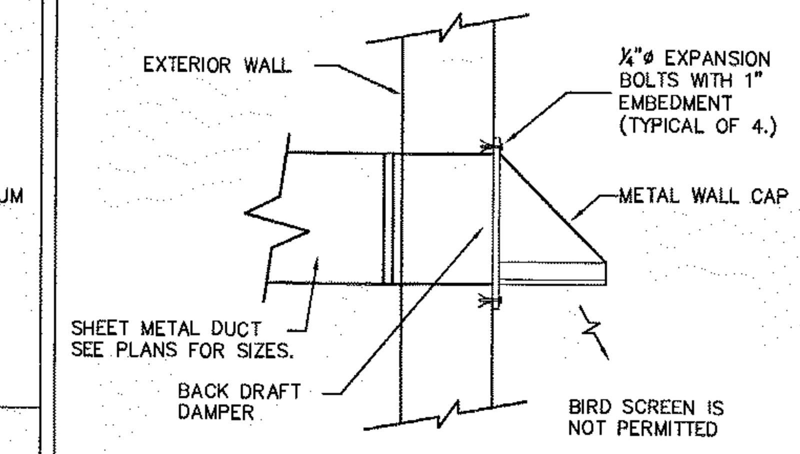


PLENUM ATTACHMENT TO AHU
N.T.S.

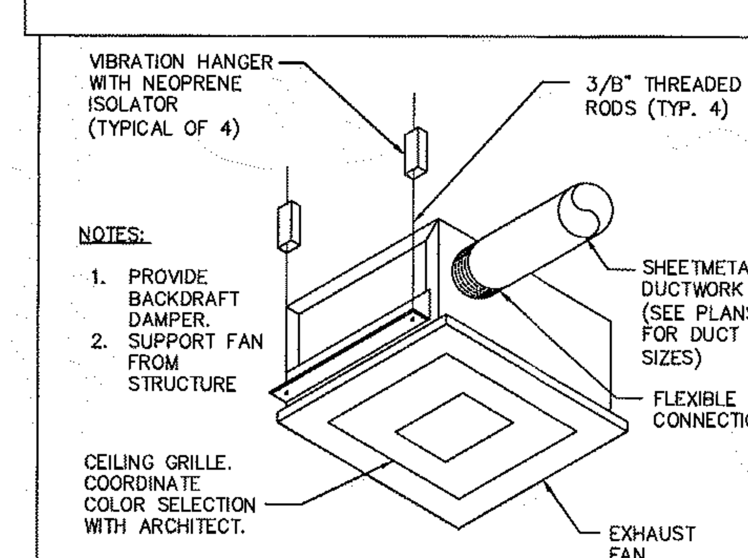
AS PER SMACNA FIBROUS GLASS DUCT CONSTRUCTION STANDARDS. - PAGE 2.14 (FIG 2-25)



EXHAUST WALL CAP DETAIL
N.T.S.

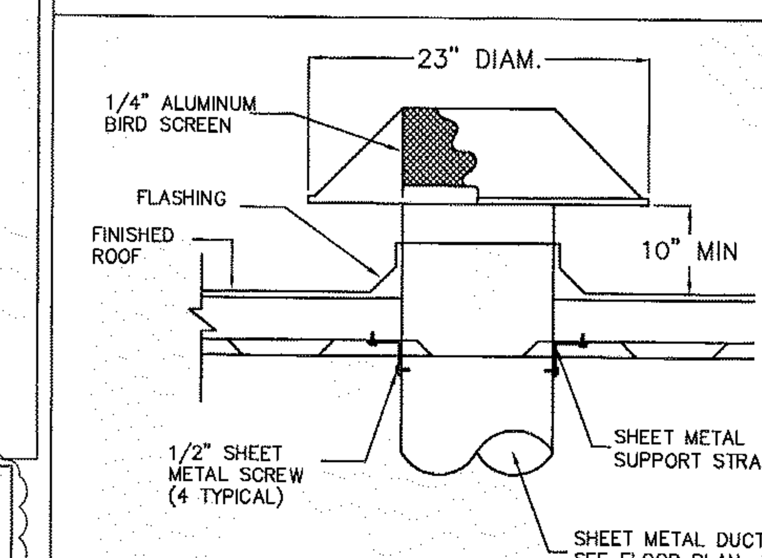


DRYER EXHAUST WALL CAP DETAIL
N.T.S.



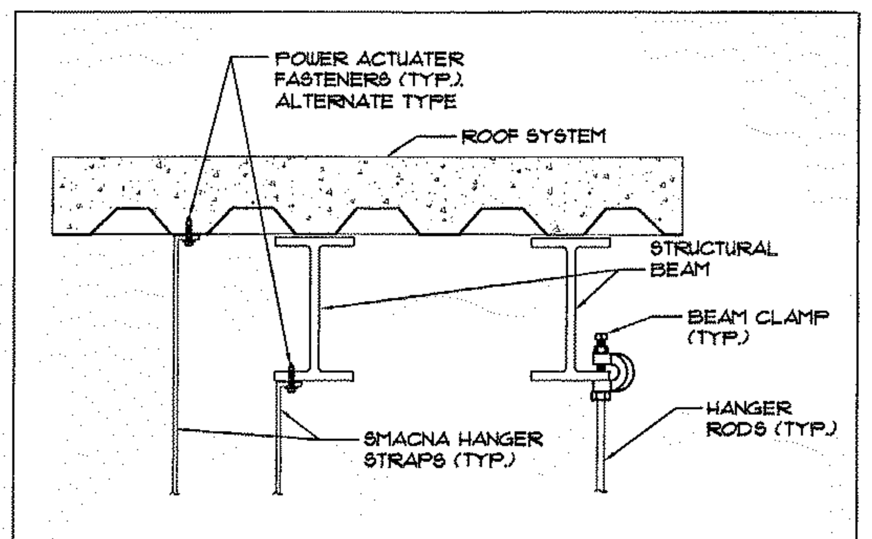
NOTES:
1. PROVIDE BACKDRAFT DAMPER.
2. SUPPORT FAN FROM STRUCTURE

CEILING EXHAUST FAN DETAIL
N.T.S.



NOTES:
1. SECURE ASSEMBLY AS REQUIRED TO WITHSTAND, HURRICANE FORCE WINDS AS PER F.B.C.
2. FOLLOW SMACNA CONSTRUCTION GUIDELINES.

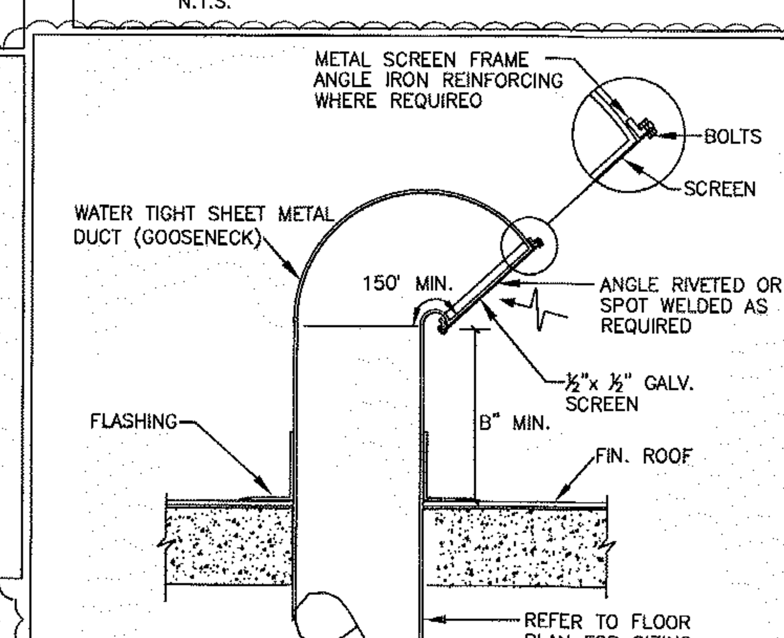
ROOF CAP INSTALLATION DETAIL
N.T.S.



STRUCTURAL ATTACHMENT DETAILS
N.T.S.

AHU-5 MANUFACTURER WALL ATTACHMENT INSTRUCTIONS:

1. ATTACHING THE INSTALLATION PLATE:
•FIND A STUD IN THE WALL TO ATTACH INSTALLATION PLATE (1) HORIZONTALLY ON THE WALL WITH SCREWS (2).
•TO PREVENT INSTALLATION PLATE (1) FROM VIBRATING, BE SURE TO INSTALL THE ATTACHMENT SCREWS IN THE HOLES INDICATED IN THE ILLUSTRATION. FOR ADDED SUPPORT, ADDITIONAL SCREWS MAY ALSO BE INSTALLED IN OTHER HOLES.
•WHEN THE INDOOR UNIT IS TO BE ATTACHED TO A CONCRETE WALL USING RECESSED BOLTS, SECURE INSTALLATION PLATE (1) USING 7/16 IN. X 13/16 IN. ·7/16 IN. X 1 IN. (11 MM ×20 MM ·11 MM×26 MM) OVAL HOLE (17-3/4 IN. [450 MM] PITCH).
•IF THE RECESSED BOLT IS TOO LONG, CHANGE IT FOR A SHORTER ONE (FIELD-SUPPLIED).
2. DRILLING:
1) DETERMINE WHERE THE HOLES WILL BE LOCATED ON THE WALL.
2) DRILL A Ø 3 IN. (75 MM) HOLE. THE OUTDOOR SIDE SHOULD BE 6/32 TO 9/32 IN. (5 TO 7 MM) LOWER THAN THE INDOOR SIDE.
3) INSERT WALL HOLE SLEEVE (C).



DRYER GOOSENECK DETAIL (OUTSIDE AIR INTAKE)
NTS

DRAWN BY:
REVISIONS:
2 11/13/15 BDC

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12/3/15

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3 OF 3

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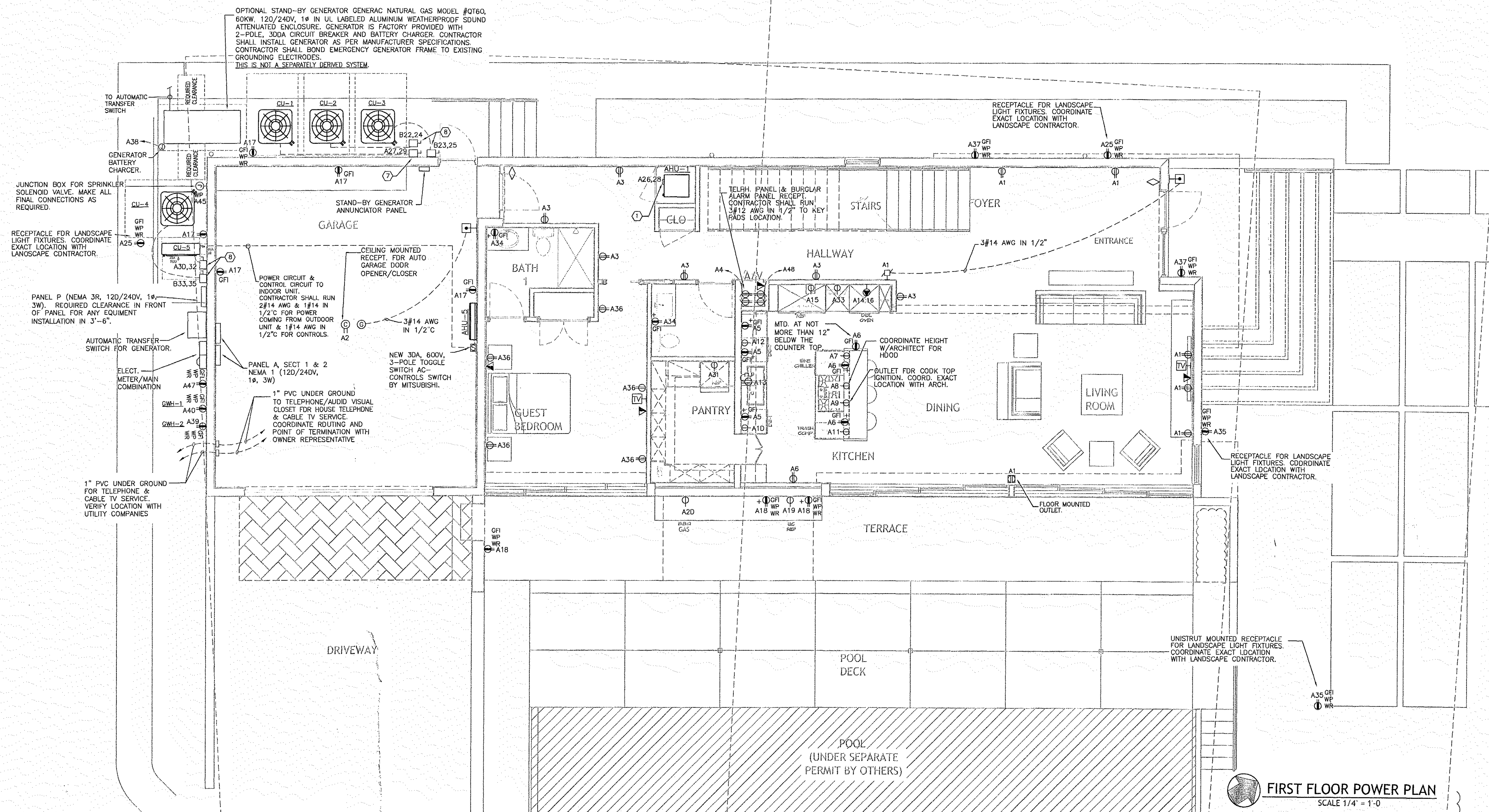

FIRST FLOOR POWER PLAN

SCALE 1/4" = 1'-0

LEGEND:

- TOGGLE SWITCH
- 3 WAY TOGGLE SWITCH
- TIMER SWITCH
- WALL MOUNTED JUNCTION BOX
- ELECTRICAL PANEL
- 120V, CEILING MOUNTED DUPLEX RECEPTACLE (TAMPER RESISTANT)
- TIME CLOCK
- TELEPHONE OUTLET DATA OUTLET
- PUSH BUTTON
- DISCONNECT SWITCH
- CEILING MOUNTED JUNCTION BOX
- RECESSED MOUNTED DOWNLIGHT
- 240V, 30A RECEPTACLE
- FPL METER
- 120V, DUPLEX OUTLET
- 120V, ABOVE COUNTER DUPLEX OUTLET
- 120V, GROUND FAULT, DUPLEX RECEPTACLE ABOVE COUNTER TOP
- WEATHERPROOF WALL MOUNTED LIGHT FIXTURE. COORDINATE MODEL NUMBER WITH ARCHITECT/OWNER.
- BELL
- TV OUTLET
- WALL MOUNTED LIGHT FIXTURE W/WIRE GUARD
- BATHROOM EXHAUST FAN
- 120V, GROUND FAULT, DUPLEX RECEPTACLE
- 120V, SINGLE RECEPTACLE
- FLOOR MOUNTED RECEPTACLE
- WP WEATHER PROOF
- WEATHERPROOF WALL MOUNTED LIGHT FIXTURE. COORDINATE MODEL NUMBER WITH ARCHITECT/OWNER.
- BURGLAR ALARM KEYPAD
- G JUNCTION BOX FOR GARAGE DOOR OPENER
- CM 120V, SMOKE ALARM / CARBON MONOXIDE DETECTOR COMBO WITH BATTERY BACK UP INTERCONNECT WITHIN THE HOUSE FOR SIMULTANEOUS OPERATION.
- JUNCTION BOX WITH 2P, TOGGLE SWITCH
- SD 120V, SMOKE ALARM DETECTOR COMBO WITH BATTERY BACK UP INTERCONNECT WITHIN THE HOUSE FOR SIMULTANEOUS OPERATION.

NEW WORK NOTES:

1 FACTORY PROVIDED CIRCUIT BREAKER MOUNTED ON AHU.

2.) ALL CONDUITS IN FINISHED AREAS SHALL BE CONCEALED.

3.) CONTRACTOR SHALL PRDVIDE/INSTALL PULL STRING IN EMPTY CDNDUITS FOR TELEPHDNE/DATA OUTLETS.

4.) ALL 15A & 2DA, 120V RECEPTACLES OUTLETS MUST BE LISTED TAMPER RESISTANT PER NEC 2DD8 (4D6.11).

5.) CONTRACTDR SHALL COORDINATE WITH ARCHITECT EXACT LDCATION FOR ALL ABOVE COUNTER TOP RECEPTACLES IN KITCHEN AND ALL RECEPTACLES IN BATHROOMS.

6.) ALL RECEPTACLES SHALL BE DECORA WHITE - COVER PLATES TO BE SCREWLESS TYPE.

7 NEW SQUARE-D WALL MOUNTED NEMA 3R, SINGLE PHASE, 60A NON-FUSIBLE, 240V RATED DISCONNECT SWITCH FOR CONDENSING UNIT. INSTALLATION SHALL BE DONE AS PER MANUFACTURER RECOMMENDATION. DISCONNECT SWITCH SHALL HAVE 3'-6" CLEARANCE IN FRDNT.

8 NEW SQUARE-D WALL MOUNTED NEMA 3R, SINGLE PHASE, 3DA NON-FUSIBLE, 24DV RATED DISCONNECT SWITCH FOR CONDENSING UNIT. INSTALLATION SHALL BE DONE AS PER MANUFACTURER RECOMMENDATION. DISCONNECT SWITCH SHALL HAVE 3'-6" CLEARANCE IN FRONT.

9.) CONTRACTOR SHALL RUN 3#14 AWG CONTROLS WIRES FRDM GENERATOR CONTROL PANEL TO CENERATOR ANNUNCIATOR PANEL LOCATED INSIDE GARAGE.

10.) GENERATDR CONTRDL PANEL & CIRCUIT BREAKER LDCATIDN SHALL HAVE 4'-D" CLEARANCE IN THE FRONT. FIELD COORDINATE EXACT LOCATION FOR STUB-UP AREA FDR GENERATDR FEEDERS.

11.) ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLEO ABOVE BASE FLOOD ELEVATION.

12.) ALL EXTERIOR ELECTRICAL INSTALLATIONS SHALL COMPLY WITH NEC 11D.11, 110.20 AND 350.12(12).

DRAWN BY:

REVISIONS:

1 08/10/15 DWNER CHANGES.

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E-1

1 OF 4

10/9/15

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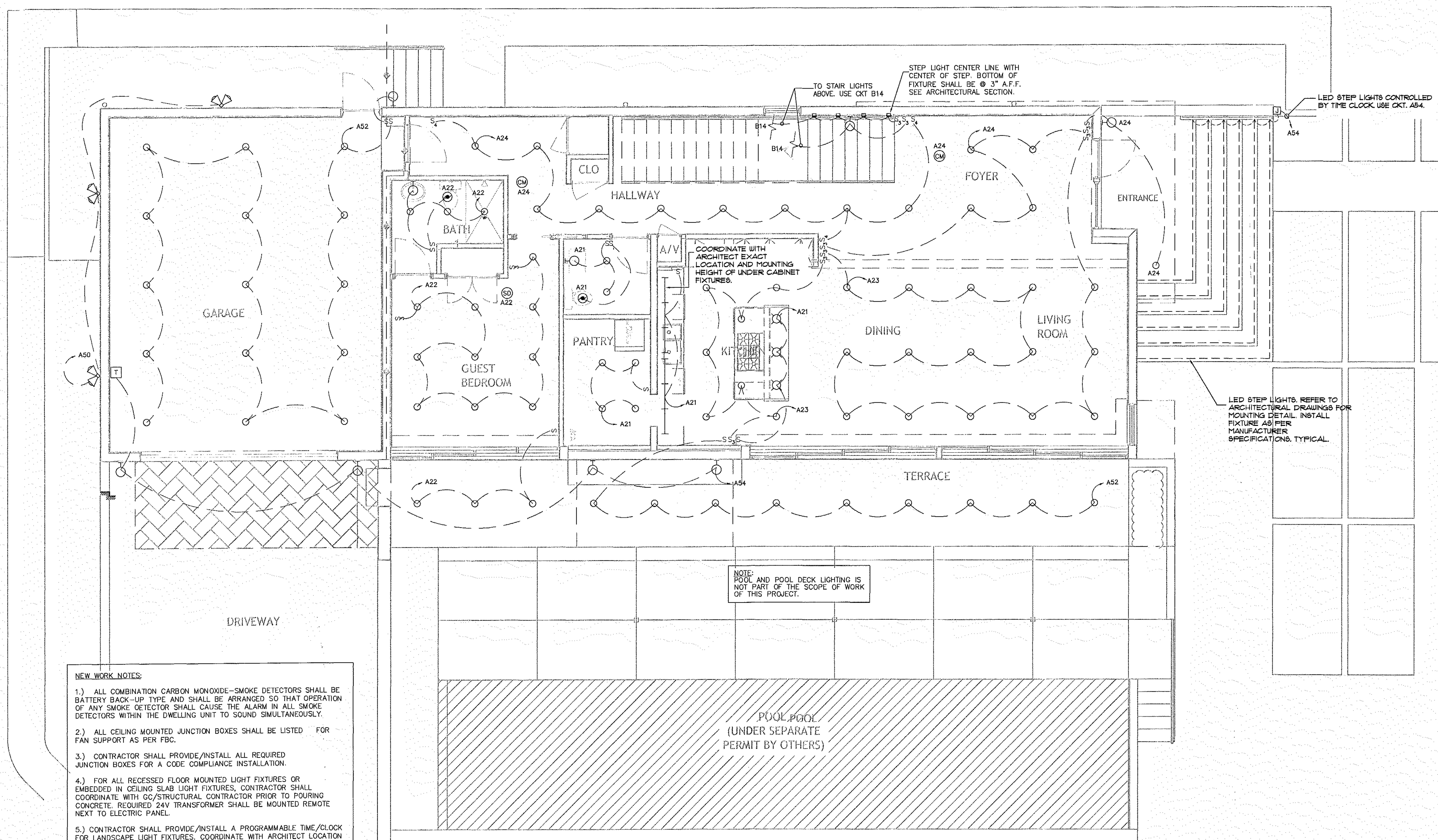

NEW WORK NOTES:

1.) ALL COMBINATION CARBON MONOXIDE–SMOKE DETECTORS SHALL BE BATTERY BACK-UP TYPE AND SHALL BE ARRANGED SO THAT OPERATION OF ANY SMOKE DETECTOR SHALL CAUSE THE ALARM IN ALL SMOKE DETECTORS WITHIN THE DWELLING UNIT TO SOUND SIMULTANEOUSLY.

2.) ALL CEILING MOUNTED JUNCTION BOXES SHALL BE LISTED FOR FAN SUPPORT AS PER FBC.

3.) CONTRACTOR SHALL PROVIDE/INSTALL ALL REQUIRED JUNCTION BOXES FOR A CODE COMPLIANCE INSTALLATION.

4.) FOR ALL RECESSED FLOOR MOUNTED LIGHT FIXTURES OR EMBEDDED IN CEILING SLAB LIGHT FIXTURES, CONTRACTOR SHALL COORDINATE WITH GC/STRUCTURAL CONTRACTOR PRIOR TO POURING CONCRETE. REQUIRED 24V TRANSFORMER SHALL BE MOUNTED REMOTE NEXT TO ELECTRIC PANEL.

5.) CONTRACTOR SHALL PROVIDE/INSTALL A PROGRAMMABLE TIME/CLOCK FOR LANDSCAPE LIGHT FIXTURES. COORDINATE WITH ARCHITECT LOCATION FOR OUTLET JUNCTION BOX OUTSIDE.

6.) SMOKE ALARMS INSTALLED WITHIN 20' (HORIZONTAL PAD) OF A COOKING APPLIANCE SHALL BE PHOTOELECTRIC TYPE.

7.) SEE SYMBOL LEGEND IN SHEET E–1.0.

8.) FOR ALL RECESSED CEILING MOUNTED LOW VOLTAGE LIGHT FIXTURES, CONTRACTOR SHALL COORDINATE WITH GC EXACT LOCATION OF REQUIRED 24V TRANSFORMER. TRANSFORMER SHALL BE MOUNTED REMOTE NEXT TO ELECTRIC PANEL WHEN POSSIBLE OR WHEN RUNS OF WIRES EXCEED THE MANUFACTURER RECOMMENDATION CONTRACTOR SHALL INSTALL 24V TRANSFORMER INSIDE CLOSETS OR ABOVE CEILING (PROVIDING ACCESS PANEL AS REQUIRED).

9.) ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL FIXTURES AS PER MANUFACTURER SPECIFICATIONS.

CONCRETE NOTE:

ALL FIXTURES & WIRING TO BE EMBEDDED IN CONCRETE SLABS MUST BE COORDINATED w/STRUCTURAL PRIOR TO CONSTRUCTION – ALL LIGHT FIXTURES SHALL BE APPROVED BY ARCHITECT/OWNER PRIOR TO PURCHASING.

SWITCH NOTE:

ALL SWITCHES SHALL BE DIMMER TYPE WITH TOP CONTROL SLIDE & BOTTOM ON/OFF BUTTON. COLOR TO BE DECORA WHITE / PLATE TO BE SCREWLESS TYPE

LIGHTING FIRST FLOOR PLAN

SCALE 1/4" = 1'-0

DRAWN BY:

REVISIONS:

1 08/10/15 OWNER CHANGES.

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Date: 10/15

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CONSTRUCTION DOCUMENTS SET. 12.10.2014

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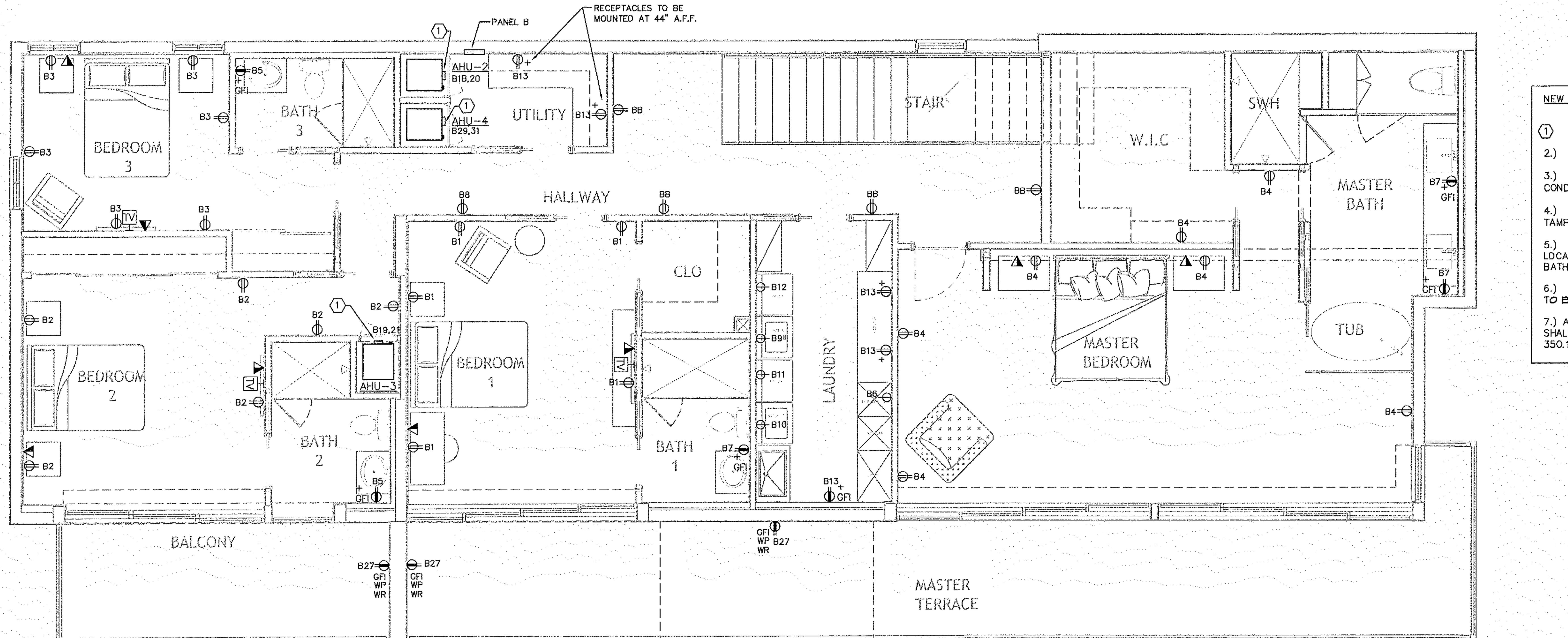
DRAWN BY:
REVISIONS:
1 08/10/15 OWNER CHANGES.



SECOND FLOOR POWER PLAN

SCALE 1/4" = 1'-0

NEW WORK NDTES:

1. FACTORY PROVIDED CIRCUIT BREAKER MOUNTED ON AHU.

2.) ALL CONDUITS IN FINISHED AREAS SHALL BE CONCEALED.

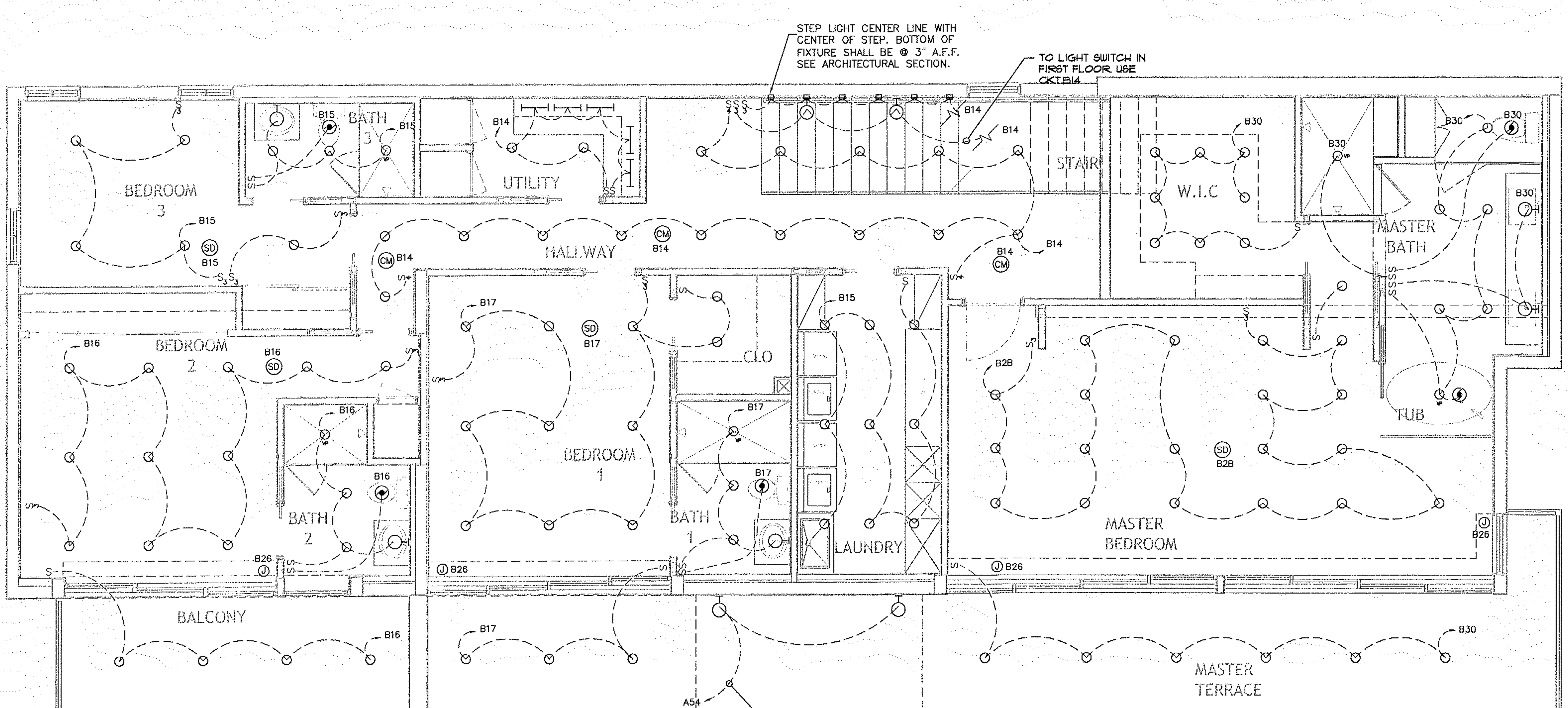
3.) CONTRACTOR SHALL PROVIDE/INSTALL PULL STRING IN EMPTY CONDUITS FOR TELEPHONE/DATA OUTLETS.

4.) ALL 15A & 20A, 120V RECEPTACLES OUTLETS MUST BE LISTED TAMPER RESISTANT PER NEC 200B (406.11).

5.) CDNTRACTDR SHALL CODRDINATE WITH ARCHITECT EXACT LDCATION FDR ALL ABOVE COUNTER TOP RECEPTACLES IN BATHROOMS.

6.) ALL RECEPTACLES SHALL BE DECORA WHITE - COVER PLATES TO BE SCREWLESS TYPE.

7.) ALL EXTERIOR ELECTRICAL INSTALLATIONS SHALL COMPLY WITH NEC 110.11, 110.20 AND 350.12(12).



SECOND FLOOR LIGHTING PLAN

SCALE 1/4" = 1'-0

NEW WORK NOTES:

1.) ALL COMBINATION CARBON MONOXIDE-SMOKE DETECTORS SHALL BE BATTERY BACK-UP TYPE AND SHALL BE ARRANGED SD THAT OPERATION OF ANY SMOKE DETECTOR SHALL CAUSE THE ALARM IN ALL SMOKE DETECTORS WITHIN THE DWELLING UNIT TO SOUND SIMULTANEOUSLY.

2.) ALL CEILING MOUNTED JUNCTION BDXES SHALL BE LISTED FOR FAN SUPPORT AS PER FBC.

3.) CONTRACTOR SHALL PROVIDE/INSTALL ALL REQUIRED JUNCTION BOXES FOR A CODE CDMPLIANCE INSTALLATION.

4.) FOR ALL RECESSED FLOOR MDUNTED LIGHT FIXTURES OR EMBEDDED IN CEILING SLAB LIGHT FIXTURES, CONTRACTOR SHALL COORDINATE WITH GC/STRUCTURAL CONTRACTOR PRIOR TO POURING CDNCRETE. REQUIRED 24V TRANSFORMER SHALL BE MOUNTED REMOTE NEXT TO ELECTRIC PANEL.

5.) ELECTRICAL CONTRACTOR SHALL BE RESPDNSIBLE FDR INSTALLING ALL FIXTURES AS PER MANUFACTURER SPECIFICATIONS.

6.) SMOKE ALARMS INSTALLED WITHIN 20' (HORIZONTAL PAD) OF A COOKING APPLIANCE SHALL BE PHOTOELECTRIC TYPE.

7.) SEE SYMBOL LEGEND IN SHEET E-1.O.

8.) FOR ALL RECESSED CEILING MOUNTED LOW VOLTAGE LIGHT FIXTURES, CONTRACTOR SHALL CDDRDINATE WITH GC EXACT LOCATION OF REQUIRED 24V TRANSFORMER. TRANSFORMER SHALL BE MOUNTED REMOTE NEXT TO ELECTRIC PANEL WHEN PDSSIBLE OR WHEN RUNS OF WIRES EXCEED THE MANUFACTURER RECDMMENDATION CONTRACTOR SHALL INSTALL 24V TRANSFORMER INSIDE CLDSETS OR ABOVE CEILING (PROVIDING ACCESS PANEL AS REQUIRED).
RER SPECIFICATIDNS.

CONCRETE NOTE:

ALL FIXTURES & WIRING TO BE EMBEDDED IN CDNCRETE SLABS MUST BE CDORDINATED w/STRUCTURAL PRIOR TO CONSTRUCTION – ALL LIGHT FIXTURES SHALL BE APPRDVED BY ARCHITECT/DWNER PRIOR TO PURCHASING.

SWITCH NOTE:

ALL SWITCHES SHALL BE DIMMER TYPE WITH TOP CDNTROL SLIDE & BOTTDM ON/OFF BUTTON. CDLDR TO BE DECDRA WHITE / PLATE TD BE SCREWLESS TYPE

1

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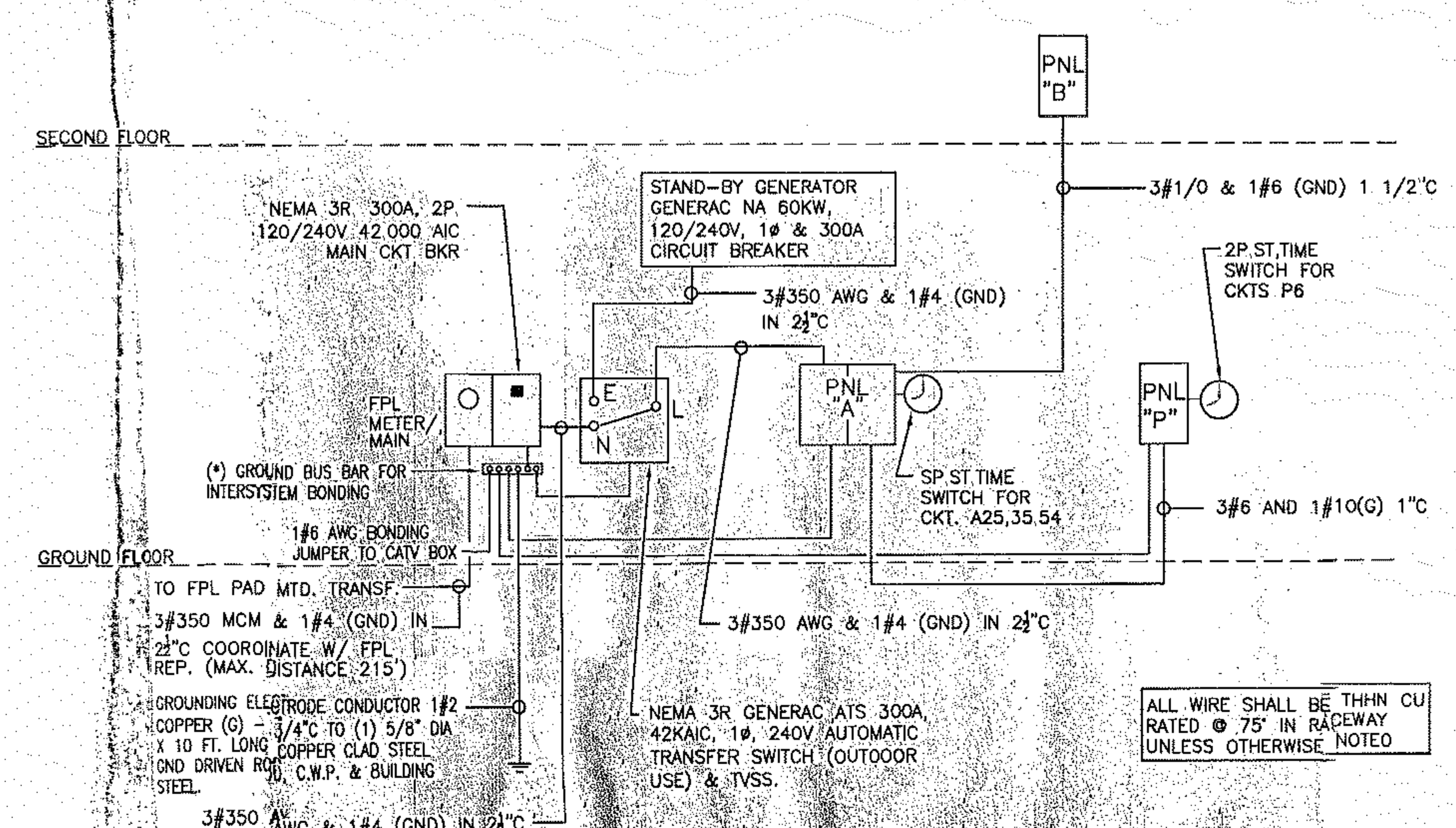
GENERAL ELECTRICAL NOTES

1. ALL WORK SHALL CONFORM WITH ALL LOCAL, STATE, FEDERAL ORDINANCES AND BUILDING CODES GOVERNINC THE INSTALLATION OF THE ELECTRICAL SYSTEM. IF WORK AS LAID OUT, INDICATED DR SPECIFIED IS CONTRARY TO OR CONFLICTS WITH LOCAL ORDINANCES, BUILDING CDDES AND RECULATIONS, THE CONTRACTOR SHALL REPORT IN WRITING TO THE ARCHITECT/ENGINEER BEFORE SUBMITTINC A BID. THE ARCHITECT/ENGINEER WILL THEN ISSUE INSTRUCTIONS AS HOW TO PROCEED.
2. THE DRAWINC ARE TO BE CONSIDERED DIAGRAMMATIC, NOT NECESSARILY SHDWING IN DETAIL OR TO SCALE ALL OF THE MINDR ITEMS. UNLESS SPECIFIC DIMENSIONS ARE SHOWN, THE STRUCTURAL, ARCHITECTURAL AND SITE CONDITIONS SHALL GOVERN THE EXACT LDCATIONS. CONTRACTOR SHALL FOLLOW ORAWINGS IN LAYING OUT WDRK, CHECK DRAWINGS OF ALL TRADES TD VERIFY SPACES IN WHICH WORK WILL BE INSTALLED AND MAINTAIN MAXIMUM HEAD ROOM, OR SPACE CDNDITIONS AT ALL PDINTS. WHERE HEAD ROOM, OR SPACE CDNDITIDNS APPEAR INADEQUATE, ARCHITECT/ENGINEER SHALL BE NOTIFIED BEFORE PROCEEDING WITH INSTALLATIDN. THIS CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE FIELD MODIFICATION IN LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF VARIOUS TRADES OR FOR PROPER EXECUTION OF THE WORK.
3. EXAMINE ALL DRAWINGS CAREFULLY PRIOR TO SUBMITTING A BID. CONTRACTOR WILL BE REQUIRED TO FURNISH, INSTALL AND/OR CONNECT WITH APPROPRIATE SERVICES ALL ELECTRICAL ITEMS SHOWN ON ANY OF THE ARCHITECTURAL, PLUMBING, AIR CONDITIDNING, SPRINKLER, DRAWINGS WITHOUT ADOITIONAL EXPENSE TO THE OWNER. IF DISCREPANCIES, CONFLICTS, INTERFERENCES OR OMISSIONS DCCUR BETWEEN DRAWINGS, NOTIFY IN WRITING THE ARCHITECT/ENGINEER IN AMPLE TIME TO PERMIT REVISIONS BEFORE THE BIDS ARE SUBMITTED.
4. VERIFY SERVICE CHARACTERISTICS, LOCATION AND CONNECTION WITH TELEPHONE AND ELECTRIC UTILITY COMPANIES PERFORM ALL WORK RELATED TO SERVICE IN STRICT ACCDRDANCE WITH UTILITY Co. STANDAROS AND REQUIREMENTS.
5. INSTALL MATERIALS AND EQUIPMENT IN A NEAT AND FIRST CLASS WORKMANLIKE MANNER. THE OWNER RESERVES THE RIGHT TO DIRECT REMOVAL AND REPLACEMENT OF ITEM WHICH, IN HIS OPINION, DO NOT PRESENT A NEAT AND WORKMANLIKE APPEARANCE. REMOVAL AND REPLACEMENT IS TO BE DONE IMMEDIATELY WHEN DIRECTED BY THE OWNER IN WRITING, AT THE SOLE EXPENSE OF CONTRACTOR.
6. START OF WORK BY CONTRACTOR SHALL BE CONSIDERED AS ACCEPTANCE BY HIM OF ALL CLAIMS OR QUESTIONS AS TO SUITABILITY OF THE WORK OF OTHER TRADES OR OTHER CONTRACTORS TO RECEIVE HIS WORK. THIS CONTRACTOR SHALL REMOVE ANO REPLACE, AT HIS EXPENSE, ALL ELECTRICAL WORK WHICH MAY HAVE TO BE REMOVED BECAUSE OF INTERFERENCE WITH OTHER TRADES.
7. THIS CONTRACTDR SHALL OBTAIN AND PAY ALL INSURANCE, FEES, PERMITS ASSOCIATION DUES, ROYALTIES, AND TAXES OF WHATEVER NATURE SHALL APPLY TO THIS WDRK. HE SHALL ALSD PAY ALL INSPECTION FEES AS MAY BE REQUIRED BY LAW OR ORDINANCE AND SHALL KEEP THE OWNER HARMLESS FROM ANY DAMAGE AND EXPENSE ARISING FROM ANY VIOLATION OF THE LAWS, RULES OR ORDINANCES.
8. ALL WIRE COPPER, IN RACEWAY. ROMEX CABLE IS ALLOWED. IF APPROVED BY OWNER.
9. WIRE UP COMPLETE ALL THE A/C EQUIPMENT AND CONTROLS AS DIRECTED BY A/C CONTRACTOR. CONTROL WIRING SHALL BE SEPARATE RACEWAY FROM POWER WIRING.
10. PROVIOE RACEWAYS AND PREWIRE TELEPHONE SYSTEM COMPLFTELY.
11. PROVIDE RACEWAYS AND PREWIRE CABLE TV SYSTEM. BEFORE INSTALLATIDN , COORDINATE SIZE OF ALL RACEWAYS WITH CABLE TV CO. FIELD REPRESENTATIVE.
12. PROVIDE MEANS "FURNISH AND INSTALL".
13. COORDINATE WORK WITH WORK OF OTHER TRADES TO AVDID ALL CONFLICTS.
14. DO A COMPLETE JOB, EVERYTHING CONNECTED, REAOY FOR USE.
15. PROVIDE TEMPORARY WIRING SYSTEM FOR USE OF ALL TRADES, ADEQUATE FOR ENTIRE NEEDS OF THIS PROJECTS.
16. CONNECT ALL MDTORS, STARTERS, CONTROLS, DISC. SWITCHES, CKT. BKR. ETC., WHETHER FURNISHED UNDER THIS CONTRACT BY THE CENERAL CONTRACTOR. OTHER SUBCONTRACTDRS, OR THE OWNER.
17. PROVIOE PULL WIRES WHEN EMPTY CONDUITS ARE SHDWN ON THE PLANS.
18. INSTALL ALL LIGHT FIXTURES .
19. PROVIDE EMPTY PVC RACEWAYS (SERVICE ENTRANCE) FOR TELEPHONE Co. & CABLE TV Co. AS PER THEIR REQUIREMENTS AND DIRECTIDNS.
20. PRDVIDE ALL WIRING DEVICES.
21. IDENTIFY CLEARLY ON A TYPE WRITTEN FORM ALL CIRCUITS AND EQUIPMENT TO CORRESPOND WITH THE PLANS AND PANELS SCHEDULE AND ATTACH INSIDE THE PERTAINING PANEL.
22. RACEWAYS: ALL UNDERGROUND RACEWAYS TO BE PVC, INSIDE CONCRETE SLAB EMT WITH APPROVED SET SCREW FITTING, OR PVC, INSIDE PARTITIONS EMT OR ENT.
23. SHOP DRAWINGS: THIS CONTRACTOR SHALL FURNISH THE ENGINEER WITH SHDP DRAWINGS OF EQUIPMENT PRIOR TO PURCHASE FOR APPROVAL.
24. TESTING: THE CONTRACTOR SHALL TEST ALL WORK AND EQUIPMENT AS DIRECTED BY THE ARCHITECT AND BY AUTHORITIES HAVING JURISDICTION, FURNISHING ALL EQUIPMENT AND NECESSARY PERSONNEL AND ELECTRIC POWER. THE ENTIRE INSTALLATION SHALL BE TESTED FOR SHDRTS, GROUNDS AND OPEN CIRCUITS, AND ALL DEFECTS SHALL BE OEMONSTRATED TO BE IN PROPER WDRKING AND OPERATINC CDNDITION TO THE COMPLETE SATISFACTION DF THE ENGINEER.
25. GUARANTEES: ALL EQUIPMENT AND MATERIALS SHALL BE GUARANTEED FOR ONE YEAR AFTER THE DATE OF ACCEPTANCE BY OWNER.
26. AT COMPLETIDN OF JOB THE ELECTRICAL CONTRACTOR SHALL GIVE THE OWNER AN AS-BUILT SET OF REPRODUCIBLE SEPIAS SHOWING THE EXACT ELECTRICAL INSTALLATION.
27. BEFORE BIDDING THE JOB THE ELECTRICAL CONTRACTDR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONOITIONS.
28. ALL CONDUCTORS SHALL BE THW OR THWN COPPER. ALL EXPOSED CONDUITS SHALL BE RUN AS NEAT AS POSSIBLE.
29. ALL RECEPTACLES SHALL BE INSTALLED AT 12" A.F.F. UNLESS OTHERWISE NOTED.
30. ALL ELECTRICAL EQUIPMENT MUST BE U.L. APPROVED.
31. WALL MOUNTED SMOKE DETECTORS AND HORNS SHALL BE MOUNTED 6" FROM CEILING, 12" HORIZONTALLY FROM DOOR FRAMES AND 36" FROM ANY HVAC VENT OR FAN BLADE TIP. THEY SHALL BE INTERLOCKEO WITH BATTERY BACK-UP AND HAROWIRED TO A NON-SWITCHABLE LIGHTING CIRCUIT.
32. MINIMUM 50% OF LAMPS SHALL BE HIGH EFFICIENCY FBC E404. (TYP).
33. ALL ELECTRICAL EOUIPMENT SHALL BE INSTALLED ABOVE BASE FLOOD ELEVATION.
34. ALL EXTERIOR ELECTRICAL INSTALLATIONS SHALL COMPLY WITH NEC 110.11, 110.20 ANO 350.12(12).

TWO SECTIONAL PANEL FEED-THRU LUGS (42 & 30 CIRCUITS)

PNL	AMPS	VOLTAGE	CKTS	WIRE	PHASE	MAIN	MOUNT	MANUFACTURER	TYPE
A	400	120/240	72	3	1	LUGS	FLUSH	SIEMENS /EO.	NEMA 1 TYPE P1 - 42KAIC

	CKT No.	WIRE	CONO INCH	CKT BKR POLE	CKT BKR AMPS	SERVING	CKT No.	WIRE	COND INCH	CKT BKR POLE	CKT BKR AMPS	SERVING	
	1	3#12	1/2	1	20	LIVINC/DIN. REC.	2	3#12	1/2	1	20	GARAGE DOOR OP.	
	3	3#12	1/2	1	20	RECEPT. 1ST FL.	4	3#12	1/2	1	20	TEL/ALARM RECEPT.	
	5	3#12	1/2	1	20	SMALL APPLIANCES	6	3#12	1/2	1	20	SMALL APPLIANCES	
	7	3#12	1/2	1	15	WINE COOLER	8	3#12	1/2	1	20	KITCHEN HOOD	
(9)	9	3#12	1/2	1	20	COOK TOP IGNITION	10	3#12	1/2	1	20	DISHWASHER-1	
	11	3#12	1/2	1	20	TRASH COMPACTOR	12	3#12	1/2	1	20	OISHWASHER-2	
	13	3#12	1/2	1	20	GARBAGE DISPOSAL	14 / 16	3#12	1/2	2	40	DOUBLE OVEN	
	15	3#12	1/2	1	15	REFRIG./FREEZER							
	17	3#12	1/2	1	20	GARAGE/EXT. REC	18	3#12	1/2	1	2D	RECEPT. TERRACE	
	19	3#12	1/2	1	15	TERRACE REFRIG.	20	3#12	1/2	1	20	B.B.Q. IGNITION	(9)
	21	3#12	1/2	1	20	1ST .FL LIGHTS	22	3#12	1/2	1	20	1ST .FL LIGHTS	
	23	3#12	1/2	1	20	1ST .FL LIGHTS	24	3#12	1/2	1	20	1ST .FL LIGHTS	
(7)	25	3#12	1/2	1	20	LANSCAPE LIGHTS	26 / 28	2#6 1#10G	3/4	2	50	AHU-1	(8)*
(8)*	27 / 29	2#6 1#10G	3/4	2	60	CU-1	30 / 32	3#12	1/2	2	20	CU-5	(8)*
	31	3#12	1/2	1	15	PANTRY REFRIG.							
	33	3#12	1/2	1	20	MICROWAVE	34	3#12	1/2	1	20	1ST. FL BATH REC.	
	35	3#12	1/2	1	20	LANDSCAPE LIGHTS	36	3#12	1/2	1	20	1ST. FL BED REC.	
	37	3#12	1/2	1	20	EXTERIOR REC.	38	3#12	1/2	1	20	GEN. BATT. CHARGER	
(9)	39	3#12	1/2	1	20	GAS WATER HTR-2	40	3#12	1/2	1	20	CAS WATER HTR-1	(9)
	41 / 43	3#6 1#10G	1	2	60	PANEL "P"	42 / 44	3#1/0 1#6G	1 1/2	2	150	PANEL "B"	
	45	3#12	1/2	1	20	SOLENOID VALVE	46	3#12	1/2	1	2D	MOTORIZED SHADES	
	47	3#12	1/2	1	20	HW RECIRC. PUMP	48	3#12	1/2	1	20	A/V RECEPT.	
	49	3#12	1/2	1	20	SPARE	50	3#12	1/2	1	20	EXTERIOR LIGHTS	
	51	3#12	1/2	1	20	SPARE	52	3#12	1/2	1	20	GARAG/TERR. LIGHTS	
	53	–	–	–	–	SPACE	54	3#12	1/2	1	20	EXTERIOR LIGHTS	
	55	–	–	–	–	SPACE	56			1	20	SPARE	
	57	–	–	–	–	SPACE	58	–	–	1	20	SPARE	
	59	–	–	–	–	SPACE	60	–	–	–	–	SPACE	
	61	–	–	–	–	SPACE	62	–	–	–	–	SPACE	
	63	–	–	–	–	SPACE	64	–	–	–	–	SPACE	
	65	–	–	–	–	SPACE	66	–	–	–	–	SPACE	
	67	–	–	–	–	SPACE	68	–	–	–	–	SPACE	
	69	–	–	–	–	SPACE	70	–	–	–	–	SPACE	
	71	–	–	–	–	SPACE	72	–	–	–	–	SPACE	



ELECTRICAL RISER DIAGRAM
N.T.S.

NEC TABLE 220 PART III FOR PNL A

	KW
1,565.2 SQ FT @ 3 WATTS/SO FT	4.7
TWO 20 AMPS SMALL APPL. CKT. @ 1500W EACH	3.D
REFRIGERATOR x2	3.4
DBL. OVEN	7.6
DISHWASHER x2	2.4
GARBAGE OISPOSAL	0.7
BBO FRIOGE	1.2
U.C. WINE COOLER	1.B
BBO IGNITION	0.5
SPRINKLER SOLENOIO	0.6
COOKTOP IGNITER	0.5
WATER HEATER IGNITER	1.0
TRASH COMPACTOR	0.7
MICROWAVE	1.7
GARAGE DOOR	0.5
EXTERIOR LIGHTS	1.2
KITCHEN HOOD	0.7
LANDSCAPE LIGHTS	1.0
MOTORIZED SHADES	0.6
PANEL P	B.6
TOTAL WITHOUT DEMAND	42.4
FIRST 10.0 KW @ 100%	10.0
NEXT 32.4 KW @ 40%	12.96
* AHU's+STRIP HTRS 1 (7.7KW+1.18KW) @ 100%	B.BB
* AHU 4 (3.36KW) @ 100%	3.36
PANEL B	20.6
TOTAL DEMAND	55.B

TOTAL DEMAND 55.B KW / 240V = 232.5 AMPS

FEEDER: THWN CU 3#350 & 1#4 (GND) 2 1/2"C

* HEATING LOAD LARGER THAN COOLING LOAD & NON-CONCURRENT.

GENERATOR CALCULATION:

OPTIONAL STAND-BY GENERATOR IS DESIGN TO SUPPLY PANEL A TOTAL DEMAND.

TOTAL DEMAND 55.B KW / 240V = 232.5 AMPS

FUTURE OPTIONAL STANO-BY GENERATOR GENERAC OTO6D 60KW, 120/240V, 1ø

PNL	AMPS	VOLTAGE	CKTS	WIRE	PHASE	MAIN	MOUNT	MANUFACTURER	TYPE
B	200	120/240	40	3	1	LUGS	FLUSH	SIEMENS /EO.	NEMA 1 LOAD CENTER 42KAIC

	CKT No.	WIRE	COND INCH	CKT BKR POLE	CKT BKR AMPS	SERVING	CKT No.	WIRE	COND INCH	CKT BKR POLE	CKT BKR AMPS	SERVING	
	1	3#12	1/2	1	20	BED-1 REC.	2	3#12	1/2	1	20	BEO-2 REC.	
	3	3#12	1/2	1	20	BEO-3 REC.	4	3#12	1/2	1	20	M.B. REC.	
	5	3#12	1/2	1	20	BATH REC.	6	3#12	1/2	1	15	2ND FL. REFRIG.	
	7	3#12	1/2	1	20	BATH REC.	8	3#12	1/2	1	20	HALLWAY REC.	
	9	3#12	1/2	1	20	WASHER-1	10	3#12	1/2	1	20	WASHER-2	
(9)	11	3#12	1/2	1	15	ORYER-1 IGNITION	12	3#12	1/2	1	15	DRYER-2 IGNITION	(9)
	13	3#12	1/2	1	20	LAUNDRY REC.	14	3#12	1/2	1	20	HALLWAY LIGHTS 2ND FL.	
	15	3#12	1/2	1	20	BED-3 LIGHTS	16	3#12	1/2	1	20	BED-2 LICHTS 2ND FL.	
	17	3#12	1/2	1	20	BED-1 LIGHTS	18 / 20	2#10 1#10G	3/4	2	30	AHU-2	(8)*
(8)*	19 / 21	2#12 1#12G	1/2	2	20	AHU-3	22 / 24	2#10 1#10G	3/4	2	25	CU-2	(8)*
(8)*	23 / 25	2#12 1#12G	1/2	2	20	CU-3	26	3#12	1/2	1	20	MOTORIZED SHAOES	
	27	3#12	1/2	1	20	TERRACE REC.	28	3#12	1/2	1	20	MASTER BED LIGHTS	
(8)*	29 / 31	2#10 1#10G	3/4	2	30	AHU-4	30	3#12	1/2	1	20	MASTER BATH LIGHTS	
							32	–	–	1	20	SPARE	
(8)*	33 / 35	2#10 1#10G	3/4	2	25	CU-4	34	–	–	1	20	SPARE	
							36	–	–	–	–	SPACE	
	37	–	–	–	–	SPACE	38	–	–	–	–	SPACE	
	39	–	–	–	–	SPACE	40	–	–	–	–	SPACE	

	PNL	AMPS	VOLTAGE	CKTS	WIRE	PHASE	MAIN	MOUNT	MANUFACTURER	TYPE
**	P	100	120/240	18	3	1	LUGS	FLUSH	SIEMENS /EQ.	NEMA 3R LOAD CENTER 42KAIC

	CKT No.	WIRE	COND INCH	CKT BKR POLE	CKT BKR AMPS	SERVING	CKT No.	WIRE	CONO INCH	CKT BKR POLE	CKT BKR AMPS	SERVING	
	1 / 3			2 GFCI	20	FUTURE POOL RECIRC. PUMP	2			1	20	LANDSCAPING	
							4			1	20	FUTURE POOL LIGHT	*
*	5 / 7			2	20	FUTURE AIR BLOWER	6			1	20	FUTURE POOL DECK LIGHTS	* +
							8			1	20	FUTURE HEATER IGNITER	
	9			1	20	SPARE	10			1	20	SPARE	
	11	–	–	–	–	SPACE	12			1	20	SPARE	
	13	–	–	–	–	SPACE	14	–	–	–	–	SPACE	
	15	–	–	–	–	SPACE	16	–	–	–	–	SPACE	
	17	–	–	–	–	SPACE	18	–	–	–	–	SPACE	

* BEFORE INSTALLATION THE ELECTRICAL CONTRACTOR SHALL VERIFY THE SIZE OF THE CIRCUIT BREAKERS WITH THE MANUFACTURER'S REQUIREMENTS

+ THRU A NEMA 3R, 4P, ST TIME CLOCK

FEEDER CALCULATION FOR PNL P

	KW
++ POOL RECIRC. PUMP	4.0
++ LIGHTING/RECEP.	1.2
POOL HEATER IGNITER	0.5
++ AIR BLOWER	2.9
	B.6

FUTURE CONNECTED LOAD B.6 KW / 240V = 36 AMPS

FEEDER: THHN CU 3#6 ANO 1#10 GROUNO 1"C

NOTE:
++ POOL EQUIPMENT INSTALLATION IS NOT PART OF THE SCOPE OF WORK OF THIS PROJECT. PROVISIONS FOR FUTURE POOL EOUIPMENT, DECK & POOL LIGHTING WERE CONSIDERED AS FUTURE LOAD IN PANEL "P". CONTRACTOR SHALL PROVIDE/INSTALL CIRCUIT BREAKERS AS PER PANEL SCHEDULE AND LABEL THEM AS SPARE BREAKERS. NO WIRING WILL BE PROVIDED FOR THE FUTURE LOAD SHOWN.

NEC TABLE 220 PART III FOR PNL B

	KW
2,242 SO FT @ 3 WATTS/SO FT	6.7
REFRIGERATOR	1.5
DRYER x2	2.2
WASHER x2	3.0
SHAOE SYST.	0.6
TOTAL WITHOUT DEMAND	14.0
FIRST 10.0 KW @ 100%	10.0
NEXT 4.0 KW @ 40%	1.6
* AHU's+STRIP HTRS 2,3,4 (4.8KW+0.672KW)X2 + (2.4KW+0.672KW) @ 100%	13.97
TOTAL OEMAND	25.6

TOTAL DEMAND 25.6 KW / 240V = 106.7 AMPS

FEEDER: THWN CU 3#1/0 & 1#6 (GND) 1 1/2"C

* HEATING LOAD LARGER THAN COOLING LOAD & NON-CONCURRENT.

PANEL SCHEDULES NOTES:
1. A DEDICATED NEUTRAL CONDUCTOR MUST BE PROVIDED FOR ALL 120V BRANCH CIRCUITS.
2. ELECTRICAL PANEL CLEARANCE TO COMPLY WITH 110.26.
3. ALL RECEPTACLE LOCATEO IN KITCHEN MUST BE SUPPLIEO BY SMALL APPLIANCE CIRCUITS NEC 210.52 (B)1
4. PER NEC 406.11, ALL 125-VOLT, 15- ANO 20-AMPERE RECEPTACLES INSTALLED IN DWELLING UNIT ROOMS OR AREAS, AS IDENTIFIED IN THIS CODE ARTICLE, SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
5. BEFORE INSTALLATION THE ELECTRICAL CONTRACTOR SHALL VERIFY THE SIZE OF THE CIRCUIT BREAKERS WITH THE MANUFACTURER'S REQUIREMENTS
6. FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, OENS, BEOROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT AS PER NEC 210.12(B)

(7) CIRCUIT CONTROLLEO THRU TIME-CLOCK.

(8) CIRCUIT BREAKER SHALL BE HACR TYPE.

(9) CIRCUIT EQUIPMENT GROUNOING CONOUCTOR SHALL BE BONOEO TO GAS PIPING SERVING THIS PARTICULAR APPLIANCE TO COMPLY WITH NEC 250.104(B).

* ELECTRICAL CONTRACTOR SHALL VERIFY BEFORE INSTALLATION THE SIZE OF CIRCUIT BREAKER AND FEEDER WITH MANUFACTURER'S REOUIREMENTS. HEATING LOAD LARGER THAN COOLING LOAD & NON-CONCURRENT.

1

RISER NOTES:

1.) CONTRACTOR SHALL BOND NEUTRAL BAR AND EQUIPMENT GROUNOING TERMINAL BAR IN THE SERVICE ENTRANCE MAIN CIRCUIT BREAKER. FEEDER WITH EQUIPMENT GROUNDING CONDUCTOR SHALL BE RUN ALL DISTRIBUTION PANELS.

(*) CONTRACTOR SHALL PROVIDE 1#6AWG BONDING JUMPER BETWEEN THE GROUNO BUS BAR ANO ALL NEW PANELBOAROS PRESENT IN THE ELECTRICAL SYSTEM, INCLUDING THE CATV SYSTEM BOX TO COMPLY WITH NEC 2008 250.94.

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Date

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E-4
4 OF 4
10/9/15

DRAWN BY:

REVISIONS:
1 08/10/15 OWNER CHANGES.

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NEW RESIDENCE FOR:
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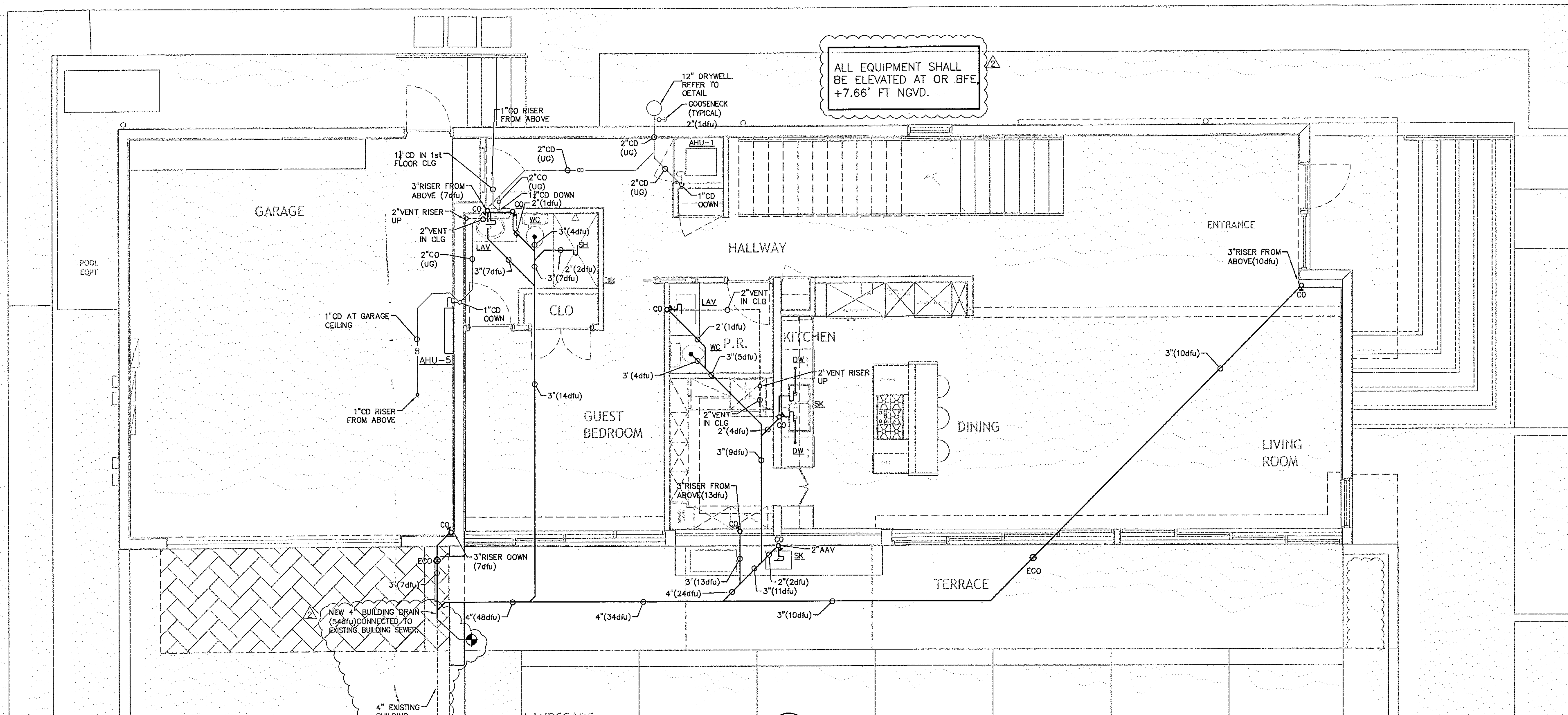
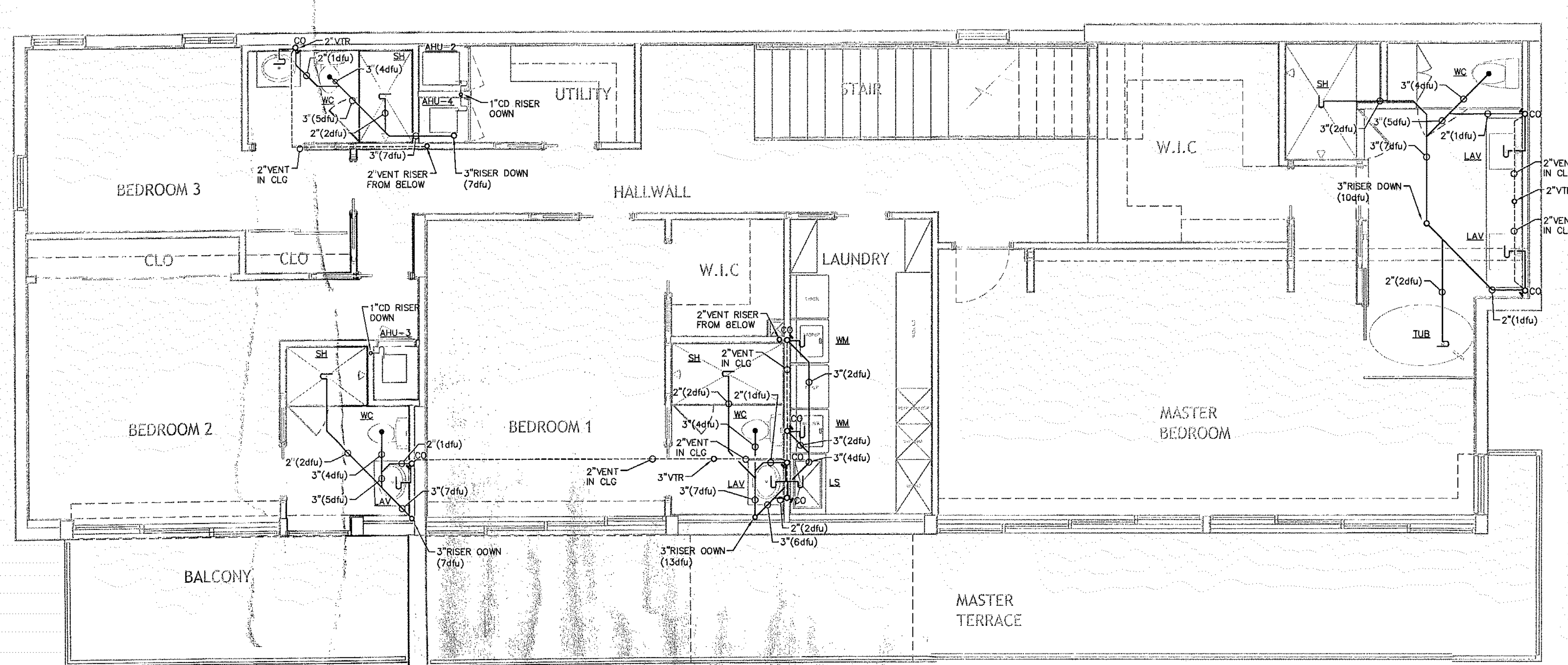
SEAL



SANITARY FIRST FLOOR PLAN
SCALE 1/4" = 1'-0



SANITARY SECOND FLOOR PLAN
SCALE 1/4" = 1'-0"

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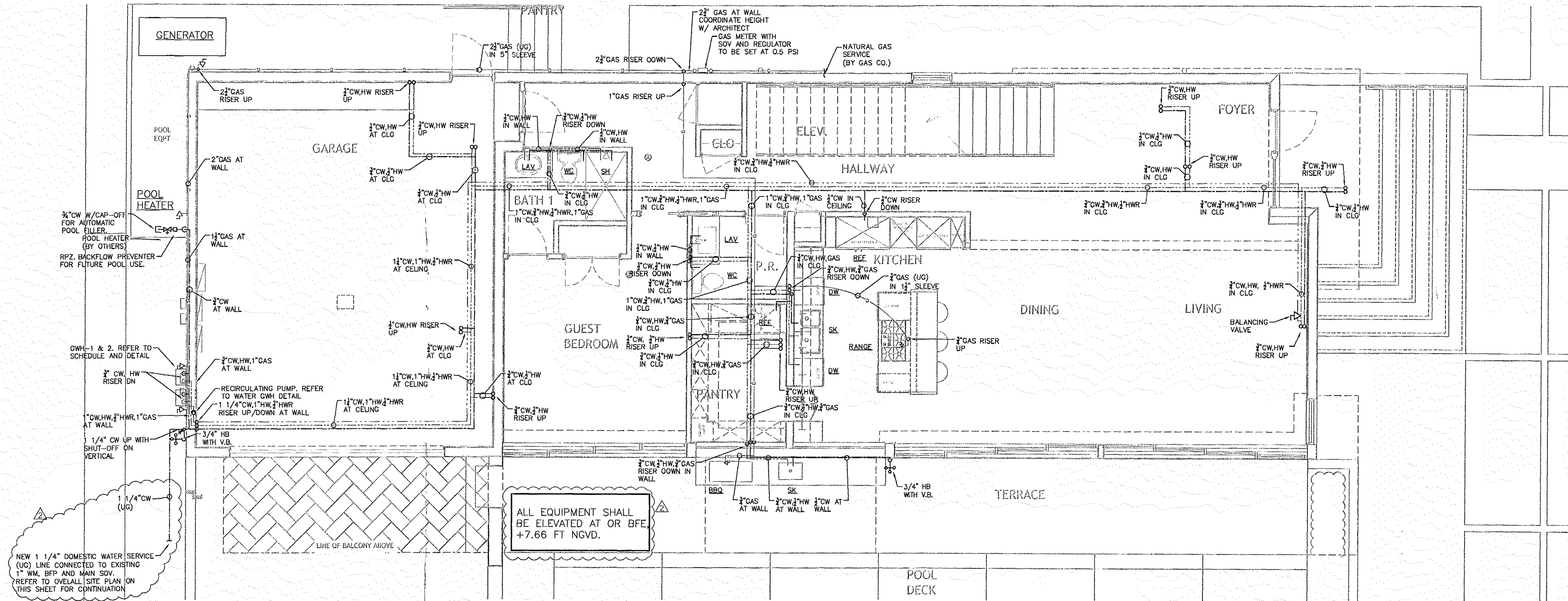
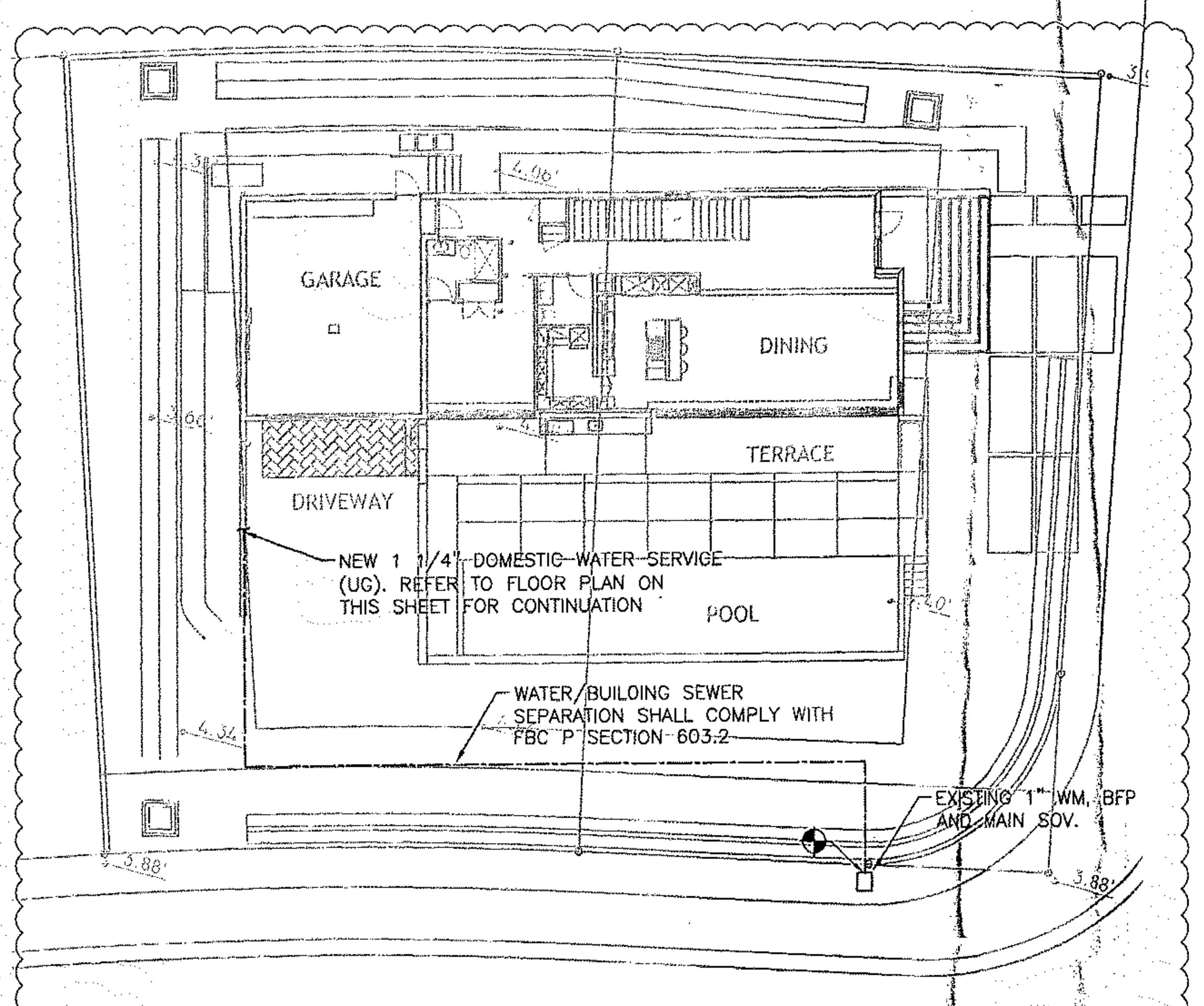
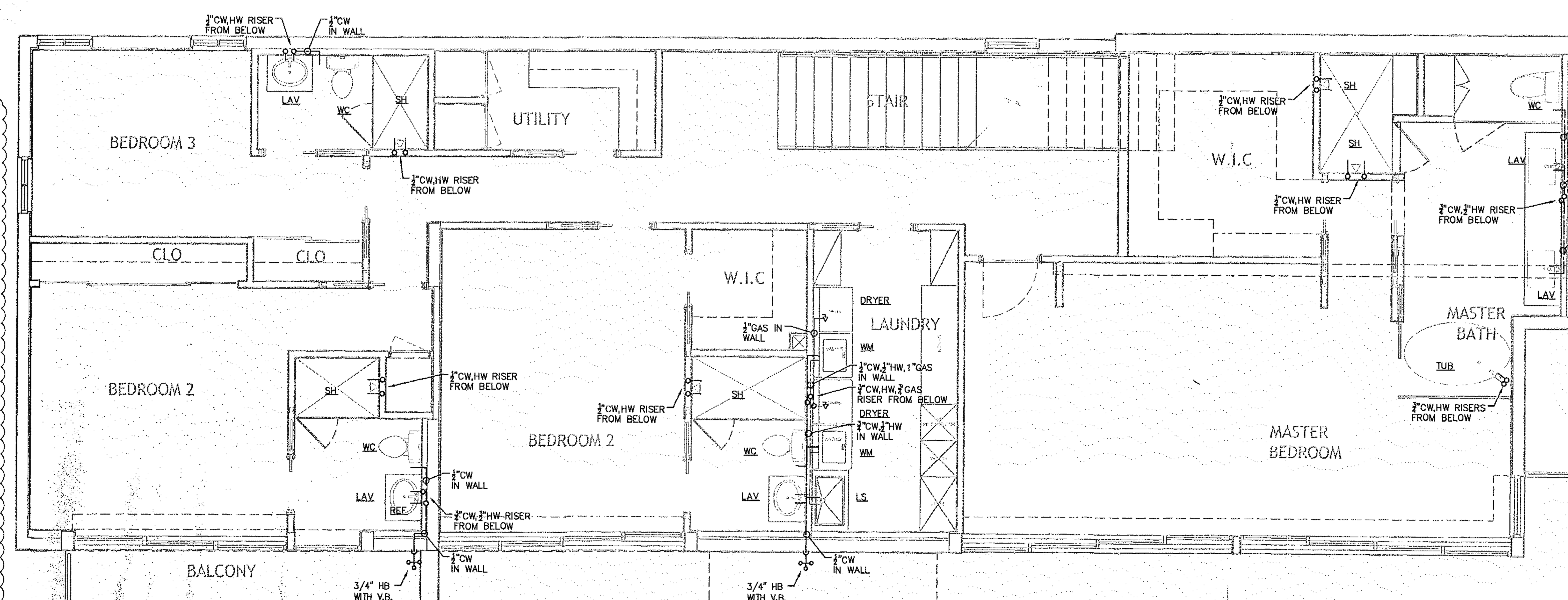


DOMESTIC WATER & GAS FIRST FLOOR PLAN
SCALE 1/4" = 1'-0



DOMESTIC WATER OVERALL SITE PLAN
SCALE N.T.S



DOMESTIC WATER & GAS SECOND FLOOR PLAN
SCALE 1/4" = 1'-0

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PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	SOIL/ WASTE (IN.)	VENT (IN.)	COLD WATER (IN.)	HOT WATER (IN.)	MANUFACTURER MODEL No.	DESCRIPTION
WC	TANK TYPE FLOOR MOUNTED	3	2	1/2	--	BY OWNER	-12" ROUGH-IN, AN ELONGATED BOWL AT COMFORT HEIGHT, WATER SEVER OF 1.28 GPF.
LAV	LAVATORY	1 1/2	2	1/2	1/2	BY OWNER	-PROVIDE AERATOR OF 1.5 GPM, AND HOT LIMIT SAFETY STOP.
SH	SHOWER	2	2	1/2	1/2	BY OWNER	-PROVIDE AERATOR OF 1.5 GPM. -PROVIDE ANTI SCALD THERMOSTATIC VALVE
TUB	TUB	1 1/2	2	1/2	1/2	BY OWNER	-PROVIDE AERATOR OF 1.5 GPM. -PROVIDE ANTI SCALD THERMOSTATIC VALVE
SK	SINK	1 1/2	2	1/2	1/2	BY OWNER	-PROVIDE AERATOR OF 1.5 GPM.
REF	REFRIGERATOR	--	--	1/2	--	BY OWNER	-PROVIDE FILTER AND BACKFLOW DEVICE IN LINE.
WM	WASHER MACHINE	2	2	1/2	1/2	BY OWNER	-IT SHALL BE PROTECTED AGAINST BACKFLOW BY AN AIR GAP INSTALLED INTEGRALLY WITHIN THE MACHINE CONFORMING TO ASSE 1007 OR WITH THE INSTALLATION OF A BACKFLOW PREVENTER EQUAL TO WATTS BOOMQT CONFORMING TO ASSE 1020, CSA B64.1.2.
DW	DISHWASHER	1 INDIRECT	2	--	1/2	BY OWNER	-IT SHALL CONFORM TO ASSE 1006 OR PROVIDE A BACKFLOW PREVETER EQUAL TO WATTS 2BBA CONFORMING TO ASSE 1001, CSA B64.1.1. AND INDIRECT WASTE W/AN AIR BREAK.
IM	ICE MAKER	--	--	1/2	--	BY OWNER	-PROVIDE BACKFLOW PREVENTER EQUAL TO WATTS 008PCQT CONFORMING TO ASSE 1056 -PROVIDE INDIRECT WASTE IF REQUIRED.
HB	HOSE BIBB	--	--	1/2	--	"WATTS" SERIE MHB-RC	-PROVIDE VACCUM BREAKER

NOTES:

1. PLUMBING FIXTURES SHALL COMPLY WITH REQUIREMENTS OF F.P.C. CHAPTER 4, TABLES 604.5, 709.1, AND MIAMI DADE COUNTY ORDINANCE 08-14.
2. WALL HUNG FIXTURES SHALL BE SUPPORTED AS PER FBC 2517.5.1.1.
3. PLUMBING FIXTURES, FAUCETS AND FIXTURE FITTINGS SHALL COMPLY WITH REQUIREMENTS OF F.B.C. P2701.1

GAS SYSTEM CALCULATIONS

DESCRIPTION	GAS MBH	QUANTITY	TOTAL GAS MBH
RANGE	45 MBH	1	45.00
GWH-1,2	199.9 MBH	2	399.80
GENERATOR	926 MBH	1	926.00
POOL HEATER	400 MBH	1	400.00
BBQ GRILL	61 MBH	1	61.00
GAS DRYERS	22 MBH	2	44.00
		TOTAL GAS DEMAND:	1,875.80

NOTES:

1 CALCULUS FROM PRESSURE REGULATOR TO GWH WAS BASED ON THE LONGEST LENGTH METHOO AND SCHEDULE 40 PIPING MATERIAL, THEREFORE FBC FG TABLE 402.4[2] WAS USED, AS PER FLORIDA GAS CODE CONSIDERING PRESSURE DROP 0.5 INCH WC, 0.6 GAS SPECIFIC GRAVITY, 0.5 PSI GAS PRESSURE, TOTAL CAPACITY OF 1,875.80 MBTUH AND MAXIMUM LENGTH OF 68 FT.

GAS PIPING SYSTEM INSTALLATION NOTES:

G2415.1 (404.1) INSTALLATION OF MATERIALS. ALL MATERIALS USED SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE STANDARDS UNDER WHICH THE MATERIALS ARE ACCEPTED AND APPROVED. IN THE ABSENCE OF SUCH INSTALLATION PROCEDURES, THE MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED. WHERE THE REQUIREMENTS OF REFERENCEO STANDARDS OR MANUFACTURER'S INSTRUCTIONS DO NOT CONFORM TO MINIMUM PROVISIONS OF THIS CODE, THE PROVISIONS OF THIS COOE SHALL APPLY.

G2415.2 (404.2) CSST. CSST PIPING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF THEIR APPROVAL, THE CONDITIONS OF LISTING. THE MANUFACTURER'S INSTRUCTIONS AND THIS CODE.

G2415.3 (404.3) PROHIBITED LOCATIONS. PIPING SHALL NOT BE INSTALLED IN OR THROUGH A DUCTED SUPPLY, RETURN OR EXHAUST, OR A CLOTHES CHUTE, CHIMNEY OR GAS VENT, DUMBWAITER OR ELEVATOR SHAFT. PIPING INSTALLED DOWNSTREAM OF THE POINT OF DELIVERY SHALL NOT EXTEND THROUGH ANY TOWNHOUSE UNIT OTHER THAN THE UNIT SERVED BY SUCH PIPING.

G2415.4 (404.4) PIPING IN SOLID PARTITIONS AND WALLS. CONCEALED PIPING SHALL NOT BE LOCATED IN SOLID PARTITIONS AND SOLID WALLS, UNLESS INSTALLED IN A CHASE OR CASING.

G2415.5 (404.5) PIPING IN CONCEALED LOCATIONS. PORTIONS OF A PIPING SYSTEM INSTALLED IN CONCEALED LOCATIONS SHALL NOT HAVE UNIONS, TUBING FITTINGS, RIGHT AND LEFT COUPLINGS, BUSHINGS, COMPRESSION COUPLINGS, AND SWING JOINTS MADE BY COMBINATIONS OF FITTINGS.
EXCEPTIONS:
1. TUBING JOINED BY BRAZING.
2. FITTINGS LISTEO FOR USE IN CONCEALED LOCATIONS.

G2415.6 (404.6) UNDERGROUND PENETRATIONS PROHIBITED. GAS PIPING SHALL NOT PENETRATE BUILDING FOUNDATION WALLS AT ANY POINT BELOW GRADE. GAS PIPING SHALL ENTER AND EXIT A BUILDING AT A POINT ABOVE GRADE AND THE ANNULAR SPACE BETWEEN THE PIPE AND THE WALL SHALL BE SEALED.

G2415.7 (404.7) PROTECTION AGAINST PHYSICAL DAMAGE. IN CONCEALED LOCATIONS, WHERE PIPING OTHER THAN BLACK OR GALVANIZED STEEL IS INSTALLED THROUGH HOLES OR NOTCHES IN WOOD STUDS, JOISTS, RAFTERS OR SIMILAR MEMBERS LESS THAN 11/2 INCHES FROM THE NEAREST EDGE OF THE MEMBER, THE PIPE SHALL BE PROTECTED BY SHIELD PLATES. PROTECTIVE STEEL SHIELD PLATES HAVING A MINIMUM THICKNESS OF 0.0575-INCH (NO.16 GAGE) SHALL COVER THE AREA OF THE PIPE WHERE THE MEMBER IS NOTCHED OR BORED AND SHALL EXTEND A MINIMUM OF 4 INCHES ABOVE SOLE PLATES, BELOW TOP PLATES AND TO EACH SIDE OF A STUD, JOIST OR RAFTER.

G2415.B (404.B) PIPING IN SOLID FLOORS. PIPING IN SOLID FLOORS SHALL BE LAID IN CHANNELS IN THE FLOOR AND COVERED IN A MANNER THAT WILL ALLOW ACCESS TO THE PIPING WITH A MINIMUM AMOUNT OF DAMAGE TO THE BUILDING. WHERE SUCH PIPING IS SUBJECT TO EXPOSURE TO EXCESSIVE MOISTURE OR CORROSIVE SUBSTANCES, THE PIPING SHALL BE PROTECTED IN AN APPROVED MANNER. AS AN ALTERNATIVE TO INSTALLATION IN CHANNELS, THE PIPING SHALL BE INSTALLED IN A CONDUIT OF SCHEDULE 40 STEEL, WROUGHT IRON, PVC OR ABS PIPE IN ACCORDANCE WITH SECTION G2415.6.1 OR G2415.6.2.

G2415.B.1 (404.B.1) CONDUIT WITH ONE END TERMINATING OUTDOORS. THE CONDUIT SHALL EXTEND INTO AN OCCUPIABLE PORTION OF THE BUILDING AND, AT THE POINT WHERE THE CONOUIT TERMINATES IN THE BUILDING, THE SPACE BETWEEN THE CONDUIT AND THE GAS PIPING SHALL BE SEALED TO PREVENT THE POSSIBLE ENTRANCE OF ANY GAS LEAKAGE. THE CONDUIT SHALL EXTEND NOT LESS THAN 2 INCHES BEYOND THE POINT WHERE THE PIPE EMERGES FROM THE FLOOR. IF THE END SEALING IS CAPABLE OF WITHSTANDING THE FULL PRESSURE OF THE GAS PIPE, THE CONDUIT SHALL BE DESIGNED FOR THE SAME PRESSURE AS THE PIPE. SUCH CONDUIT SHALL EXTEND NOT LESS THAN 4 INCHES OUTSIDE OF THE BUILDING, SHALL BE VENTED ABOVE GRADE TO THE OUTDOORS AND SHALL BE INSTALLED TO PREVENT THE ENTRANCE OF WATER AND INSECTS.

G2415.B.2 (404.8.2) CONDUIT WITH BOTH ENDS TERMINATING INDOORS. WHERE THE CONDUIT ORIGINATES AND TERMINATES WITHIN THE SAME BUILDING, THE CONDUIT SHALL ORIGINATE AND TERMINATE IN AN ACCESSIBLE PORTION OF THE BUILDING AND SHALL NOT BE SEALED. THE CONDUIT SHALL EXTEND NOT LESS THAN 2 INCHES BEYOND THE POINT WHERE THE PIPE EMERGES FROM THE FLOOR.

G2415.9 (404.9) ABOVE-GROUND PIPING OUTDOORS. ALL PIPING INSTALLED OUTDOORS SHALL BE ELEVATED NOT LESS THAN 31/2 INCHES (152 MM) ABOVE GROUNO AND WHERE INSTALLED ACROSS ROOF SURFACES, SHALL BE ELEVATED NOT LESS THAN 31/2 INCHES ABOVE THE ROOF SURFACE. PIPING INSTALLED ABOVE GROUND, OUTDOORS, AND INSTALLED ACROSS THE SURFACE OF ROOFS SHALL BE SECURELY SUPPORTED AND LOCATED WHERE IT WILL BE PROTECTED FROM PHYSICAL DAMAGE. WHERE PASSING THROUGH AN OUTSIDE WALL, THE PIPING SHALL ALSO BE PROTECTED AGAINST CORROSION BY COATING OR WRAPPING WITH AN INERT MATERIAL. WHERE PIPING IS UNCASED IN A PROTECTIVE PIPE SLEEVE, THE ANNULAR SPACE BETWEEN THE PIPING AND THE SLEEVE SHALL BE SEALED.

G2415.10 (404.10) ISOLATION. METALLIC PIPING AND METALLIC TUBING THAT CONVEYS FUEL GAS FROM AN LP-GAS STORAGE CONTAINER SHALL BE PROVIDED WITH AN APPROVED DIELECTRIC FITTING TO ELECTRICALLY ISOLATE THE UNDERGROUND PORTION OF THE PIPE OR TUBE FROM THE ABOVE GROUND PORTION THAT ENTERS A BUILDING. SUCH DIELECTRIC FITTING SHALL BE INSTALLED ABOVEGROUND OUTDOORS.

G2415.11 (404.11) PROTECTION AGAINST CORROSION. METALLIC PIPE OR TUBING EXPOSED TO CORROSIVE ACTION, SUCH AS SOIL CONDITION OR MOISTURE, SHALL BE PROTECTED IN AN APPROVED MANNER. ZINC COATINGS (GALVANIZING) SHALL NOT BE DEEMED ADEQUATE PROTECTION FOR GAS PIPING UNDERGROUND. WHERE DISSIMILAR METALS ARE JOINED UNDERGROUND, AN INSULATING COUPLING OR FITTING SHALL BE USED. PIPING SHALL NOT BE LAID IN CONTACT WITH CINDERS.

G2415.11.1 (404.11.1) PROHIBITED USE. UNCOATEO THREADEO OR SOCKET WELOED JOINTS SHALL NOT BE USED IN PIPING IN CONTACT WITH SOIL OR WHERE INTERNAL OR EXTERNAL CREVICE CORROSION IS KNOWN TO OCCUR.

G2415.11.2 (404.11.2) PROTECTIVE COATINGS AND WRAPPING. PIPE PROTECTIVE COATINGS AND WRAPPINGS SHALL BE APPROVED FOR THE APPLICATION AND SHALL BE FACTORY APPLIED.
EXCEPTION: WHERE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, FIELD APPLICATION OF COATINGS AND WRAPPINGS SHALL BE PERMITTED FOR PIPE NIPPLES, FITTINGS AND LOCATIONS WHERE THE FACTORY COATING OR WRAPPING HAS BEEN DAMAGED OR NECESSARILY REMOVED AT JOINTS.

G2415.12 (404.12) MINIMUM BURIAL DEPTH. UNDERGROUND PIPING SYSTEMS SHALL BE INSTALLED A MINIMUM DEPTH OF 12 INCHES BELOW GRADE, EXCEPT AS PROVIDED FOR IN SECTION G2415.12.1.

G2415.12.1 (404.12.1) INDIVIDUAL OUTSIDE APPLIANCES. INDIVIDUAL LINES TO OUTSIDE LIGHTS, GRILLS OR OTHER APPLIANCES SHALL BE INSTALLED A MINIMUM OF 8 INCHES BELOW FINISHED GRADE, PROVIDED THAT SUCH INSTALLATION IS APPROVED AND IS INSTALLED IN LOCATIONS NOT SUSCEPTIBLE TO PHYSICAL DAMAGE.

G2415.13 (404.13) TRENCHES. THE TRENCH SHALL BE GRADED SO THAT THE PIPE HAS A FIRM, SUBSTANTIALLY CONTINUOUS BEARING ON THE BOTTOM OF THE TRENCH.

G2415.14 (404.14) PIPING UNDERGROUND BENEATH BUILDINGS. PIPING INSTALLED UNDERGROUND BENEATH BUILDINGS IS PROHIBITED EXCEPT WHERE THE PIPING IS ENCASED IN A CONDUIT OF WROUGHT IRON, PLASTIC PIPE, STEEL PIPE OR OTHER APPROVED CONDUIT MATERIAL DESIGNED TO WITHSTAND THE SUPERIMPOSED LOADS. THE CONDUIT SHALL BE PROTECTED FROM CORROSION IN ACCORDANCE WITH SECTION G2415.9 AND SHALL BE INSTALLED IN ACCORDANCE WITH SECTION G2415.12.1 OR G2415.12.2.

G2415.14.1 (404.14.1) CONDUIT WITH ONE END TERMINATING OUTDOORS. THE CONDUIT SHALL EXTEND INTO AN OCCUPIABLE PORTION OF THE BUILDING AND, AT THE POINT WHERE THE CONDUIT TERMINATES IN THE BUILDING, THE SPACE BETWEEN THE CONDUIT AND THE GAS PIPING SHALL BE SEALED TO PREVENT THE POSSIBLE ENTRANCE OF ANY GAS LEAKAGE. THE CONDUIT SHALL EXTEND NOT LESS THAN 2 INCHES (51 MM) BEYOND THE POINT WHERE THE PIPE EMERGES FROM THE FLOOR. WHERE THE END SEALING IS CAPABLE OF WITHSTANDING THE FULL PRESSURE OF THE GAS PIPE, THE CONOUIT SHALL BE DESIGNED FOR THE SAME PRESSURE AS THE PIPE. SUCH CONDUIT SHALL EXTEND NOT LESS THAN 4 INCHES OUTSIDE THE BUILDING, SHALL BE VENTED ABOVE GRADE TO THE OUTDOORS AND SHALL BE INSTALLED SO AS TO PREVENT THE ENTRANCE OF WATER AND INSECTS.

G2415.14.2 (404.14.2) CONDUIT WITH BOTH ENDS TERMINATING INDOORS. WHERE THE CONDUIT ORIGINATES AND TERMINATES WITHIN THE SAME BUILDING, THE CONDUIT SHALL ORIGINATE AND TERMINATE IN AN ACCESSIBLE PORTION OF THE BUILDING AND SHALL NOT BE SEALEO. THE CONDUIT SHALL EXTEND NOT LESS THAN 2 INCHES BEYOND THE POINT WHERE THE PIPE EMERGES FROM THE FLOOR.

G2415.15 (404.15) OUTLET CLOSURES. GAS OUTLETS THAT OO NOT CONNECT TO APPLIANCES SHALL BE CAPPEO GAS TIGHT.
EXCEPTION: LISTEO AND LABELED FLUSH-MOUNTEO-TYPE QUICK-OISCONNECT DEVICES ANO LISTEO AND LABELED GAS CONVENIENCE OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

G2415.16 (404.16) LOCATION OF OUTLETS. THE UNTHREAOEO PORTION OF PIPING OUTLETS SHALL EXTENO NOT LESS THAN 1 INCH (25 MM) THROUGH FINISHEO CEILINGS AND WALLS ANO WHERE EXTENOING THROUGH FLOORS, OUTDOOR PATIOS ANO SLABS, SHALL NOT BE LESS THAN 2 INCHES (51 MM) ABOVE THEM. THE OUTLET FITTING OR PIPING SHALL BE SECURELY SUPPORTEO. OUTLETS SHALL NOT BE PLACEO BEHINO DOORS. OUTLETS SHALL BE LOCATEO IN THE ROOM OR SPACE WHERE THE APPLIANCE IS INSTALLEO.
EXCEPTION: LISTEO AND LABELED FLUSH-MOUNTEO-TYPE QUICK-DISCONNECT OEVICES AND LISTED ANO LABELED GAS CONVENIENCE OUTLETS SHALL BE INSTALLEO IN ACCOROANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

G2415.17 (404.17) PLASTIC PIPE. THE INSTALLATION OF PLASTIC PIPE SHALL COMPLY WITH SECTIONS G2415.17.1 THROUGH G2415.17.3.

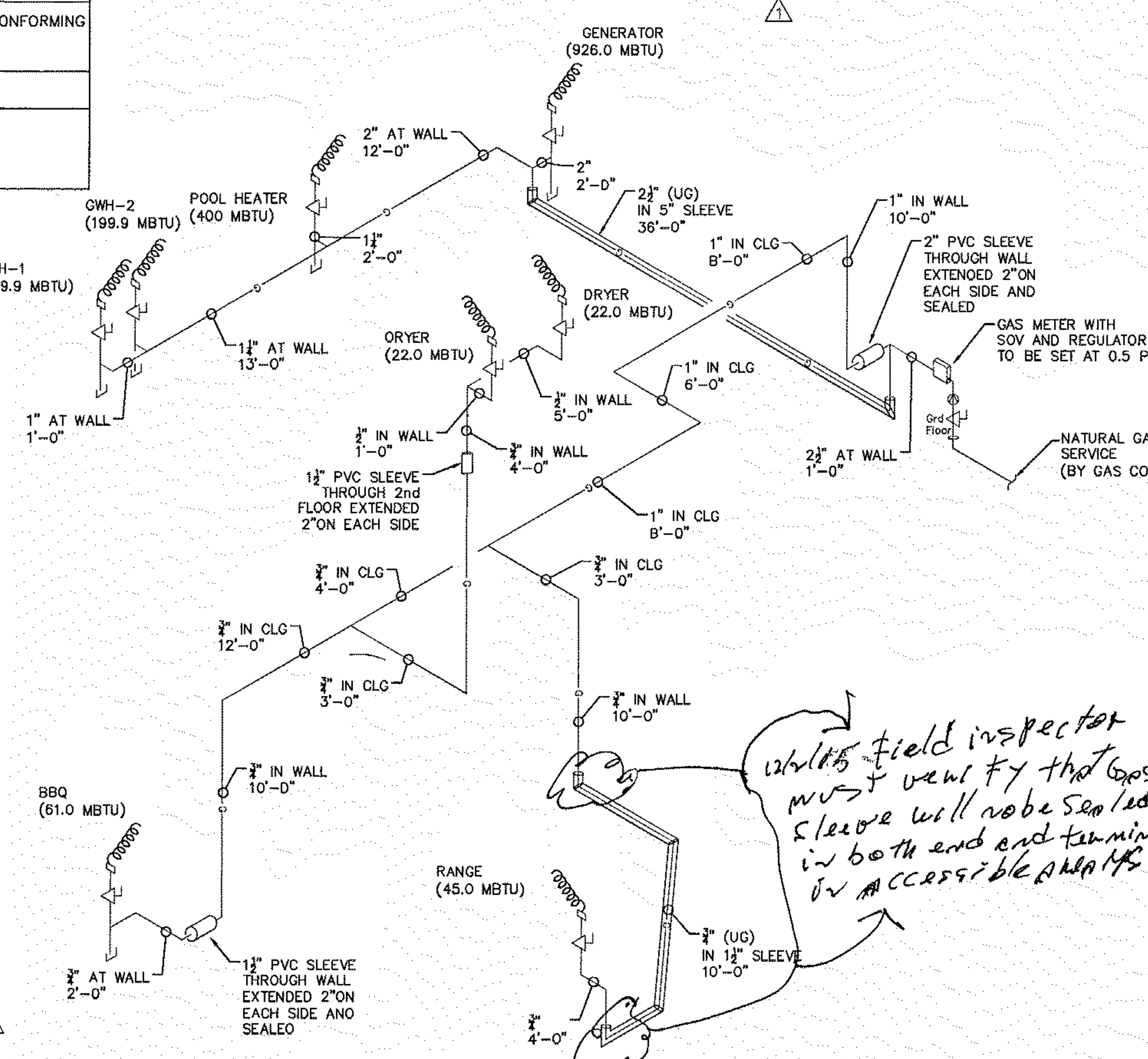
G2415.17.1 (404.17.1) LIMITATIONS. PLASTIC PIPE SHALL BE INSTALLEO OUTDOORS UNOERGROUND ONLY. PLASTIC PIPE SHALL NOT BE USED WITHIN OR UNOER ANY BUILDING OR SLAB OR BE OPERATED AT PRESSURES GREATER THAN 100 PSIG (689 KPA) FOR NATURAL GAS OR 30 PSIG (207 KPA) FOR LP-GAS.
EXCEPTIONS:
1. PLASTIC PIPE SHALL BE PERMITTEO TO TERMINATE ABOVE GROUND OUTSIOE OF BUILDINGS WHERE INSTALLED INPREMANUFACTURED ANODELESS RISERS OR SERVICE HEAD ADAPTER RISERS THAT ARE INSTALLEO IN ACCOROANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. PLASTIC PIPE SHALL BE PERMITTEO TO TERMINATE WITH A WALL HEAD AOAPTER WITHIN BUILDINGS WHERE THE PLASTIC PIPE IS INSERTEO IN A PIPING MATERIAL FOR FUEL GAS USE IN BUILDINGS.
3. PLASTIC PIPE SHALL BE PERMITTEO UNDER OUTDOOR PATIO, WALKWAY ANO DRIVEWAY SLABS PROVIDEO THAT THE BURIAL DEPTH COMPLIES WITH SECTION G2415.10.

G2415.17.2 (404.17.2) CONNECTIONS. CONNECTIONS OUTDOORS AND UNDERGROUND BETWEEN METALLIC ANO PLASTIC PIPING SHALL BE MAOE ONLY WITH TRANSITION FITTINGS CONFORMING TO ASTM D 2513 CATEGORY I OR ASTM F 1973.

G2415.17.3 (404.17.3) TRACER. A YELLOW INSULATEO COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLEO AOJACENT TO UNOERGROUND NONMETALLIC PIPING. ACCESS SHALL BE PROVIOEO TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE ABOVE GROUNO AT EACH ENO OF THE NONMETALLIC PIPING.
THE TRACER WIRE SIZE SHALL NOT BE LESS THAN 18 AWG ANO THE INSULATION TYPE SHALL BE SUITABLE FOR OIRECT BURIAL.

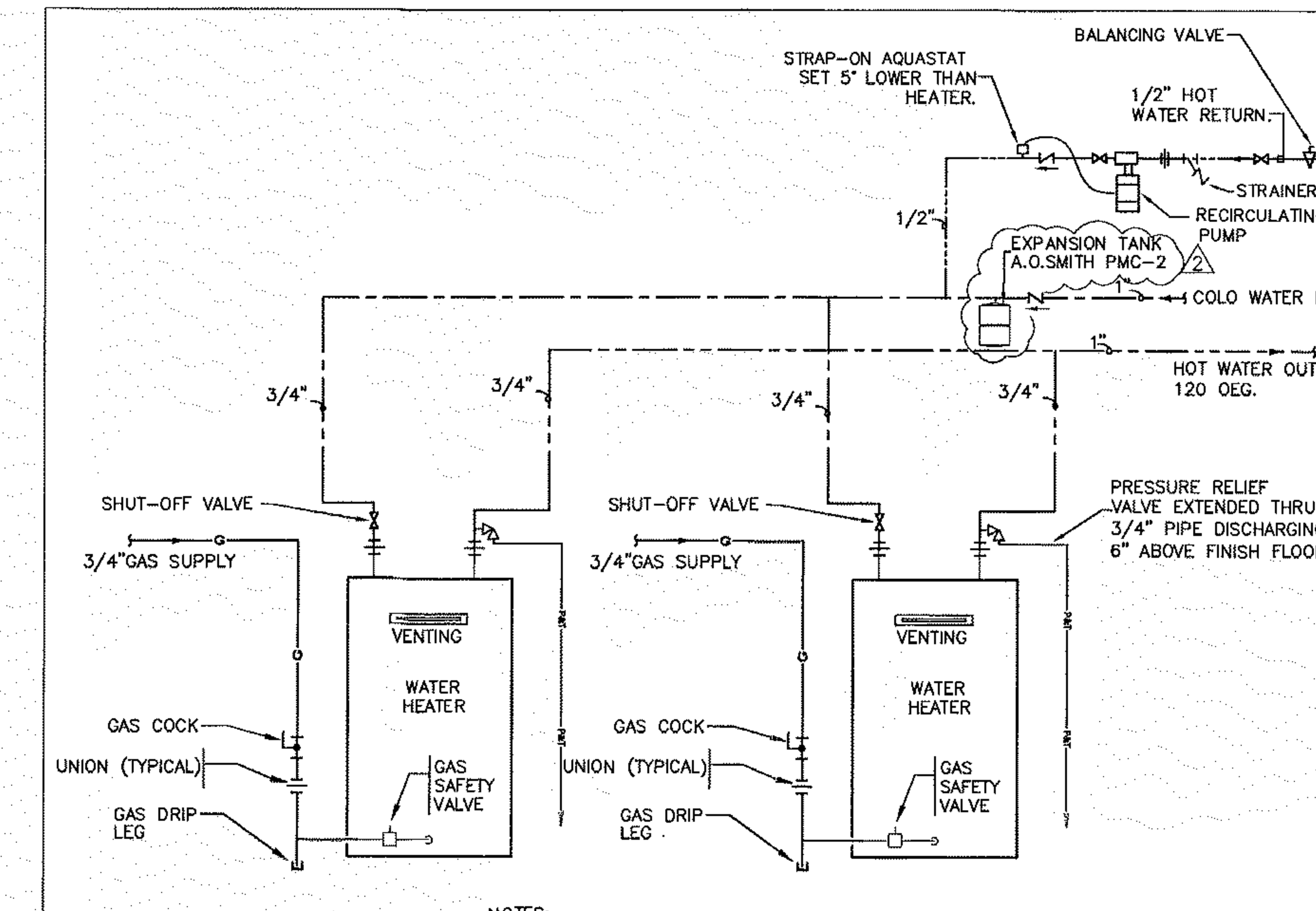
G2415.18 (404.18) PROHIBITED DEVICES. A DEVICE SHALL NOT BE PLACEO INSIDE THE PIPING OR FITTINGS THAT WILL REOUCE THE CROSS SECTIONAL AREA OR OTHERWISE OBSTRUCT THE FREE FLOW OF GAS.
EXCEPTIONS:
1. APPROVED GAS FILTERS.
2. AN APPROVED FITTING OR OEVICE WHERE THE GAS PIPING SYSTEM HAS BEEN SIZEO TO ACCOMMODATE THE PRESSURE OROP OF THE FITTING OR OEVICE.

G2415.19 (404.19) TESTINC OF PIPING. BEFORE ANY SYSTEM OF PIPING IS PUT IN SERVICE OR CONCEALEO, IT SHALL BE TESTEO TO ENSURE THAT IT IS GAS TIGHT. TESTING, INSPECTION ANO PURGING OF PIPING SYSTEMS SHALL COMPLY WITH SECTION G2417.



GAS RISER DIAGRAM

N.T.S.



NOTES:

1_ WATER HEATER SHALL BE INSTALLEO IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2_ CONTRACTOR SHALL BE RESPONSIBLE FOR EXPANSION TANK INSTALLATION & FINAL SET.
3_ PIPING ARRANGEMENT SHOWN IS SCHEMATIC ADJUST TO SUIT FIELD CONDITIONS. REFER TO FLOOR PLANS FOR PIPE SIZES. SET WATER HEATERS AT 110 DEGREES.
4- RECIRCULATING PUMP WITH INTEGRAL CHECK VALVE, EQUAL TO TACO MOOEL No. 006-B, 1/40 HP, 120V/1PH/60Hz. CONTRACTOR SHALL COORDINATE WITH OWNER THE HOURS AND DAYS WHERE HOT WATER IS NOT REQUIRED TO TURN THE SYSTEM OFF/ON BY THE TIMER/TEMPERATURE CONTROL(AQUASTAT).

INSTANTANEOUS GAS WATER HEATER

N.T.S.

GAS WATER HEATER SCHEDULE

MARK	GAS BTUH	GAS TYPE	EFFICIENCY	STORAGE TANK	VENT SIZE	MANUFACTURER AND MODEL
GWH-1,2	199,900	NATURAL GAS	92%	N/A	N/A	NORITZ, NRC1111-OD

PLUMBING LEGEND:

	EXISTING PIPING	CO	WALL CLEAN OUT
	DOMESTIC COLD WATER (CW)	FU	FIXTURE UNITS
	DOMESTIC HOT WATER (HWS)	FD	FLOOR DRAIN
	HOT WATER RETURN(HWR)	FS	FLOOR SINK
	PLUMBING VENT PIPING	CW	COLD WATER
	SANITARY PIPING	HW	HOT WATER
	STORM DRAINAGE PIPING	WM	WATER METER
GW	GREASE WASTE PIPING	RD	ROOF DRAIN
CD	CONDENSATE DRAIN (CD)	SO	STORM ORAIN
	INDIRECT DRAIN (ID)	RWL	RAIN WATER LEAOER
G	NATURAL GAS OR PROPANE PIPING	SF	SQUARE FEET
	ELBOW UP & ELBOW DOWN IN PIPING	AD	AREA DRAIN
	TEE UP & TEE DOWN IN PIPING	ESD	EMERGENCY STORM DRAIN
	SHUT-OFF VALVE (BALL)	ERD	EMERGENCY ROOF DRAIN
	FULL-OPEN VALVE (GATE)	ERWL	EMERGENCY RAIN WATER LEADER
	CHECK VALVE	A.F.F.	ABOVE FINISHED FLOOR
	STRAINER	UG	UNDERGROUNO
	BALANCING VALVE	SAN	SANITARY PIPING
	GAS COCK	SOV	SHUT-OFF VALVE
	PRESSURE GAUGE	ECO	TWO WAY EXTERIOR CLEANOUT
	UNION	VTR	VENT THRU ROOF
	DIRECTION OF FLOW	INV:	PIPING INVERT
	HORIZONTAL PIPING CLEANOUT AT CEILING SPACE	FCO	FLOOR CLEANOUT
	WALL CLEANOUT (WCO)	A.A.V	AIR ADMITTANCE VALVE
	P-TRAP ABOVE FLOOR	EX.	EXISTING
	P-TRAP BELOW FLOOR	VTR	VENT THRU ROOF
T	TRAP PRIMER		WATER HAMMER ARRESTOR
	ROOF DRAIN/AREA DRAIN		
	POINT OF CONNECTION		

DRAWN BY:

REVISIONS:
1 08/10/15 OWNER CHANGES
2 11/13/15 BDC

AA0003569

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MIGUEL E. GONZALEZ LICENSE No. 71... STATE OF FLORIDA PROFESSIONAL ENGINEER
Date 2015

PL MGS 12/2/15

THESE PLANS ARE FOR BUILDING DEPARTMENT REVIEW ONLY. THEY ARE NOT TO BE CONSTRUED AS CONSTRUCTION DOCUMENTS UNTIL ALL BUILDING DEPARTMENT APPROVALS ARE OBTAINED.

P-3

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NOT VALID FOR CONSTRUCTION UNLESS SIGNED AND SEALED IN THIS BLOCK
CONSTRUCTION DOCUMENTS SET. 12.10.2014

GENERAL PLUMBING NOTES

1. ALL WORK SHALL BE DONE IN ACCOROANCE WITH THE FLORIDA BUILDING CODE 2010 EDITION, ANO ALL APPLICABLE LOCAL ORDINANCES.
2. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE AFTER COMPLETION OF WORK.
3. PLUMBING CONTRACTOR SHALL FURNISH WRITTEN GUARANTEE THAT ALL PLUMBING WORK SHALL BE FREE OF DEFECTS OF MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
4. DURING THE BIDDING PROCESS CONTRACTOR SHALL VISIT THE SITE AND THOROUCHLY FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS. LOCATION OF EXISTING POINTS OF CONNECTIONS SHALL BE FIELD VERIFIED BEFORE SUBMITTING BID. REQUEST ANY REQUIREO CLARIFICATION AND NOTIFY ARCHITECT AND/OR ENGINEER OF DISCREPANCIES BETWEEN FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS BEFORE COMMENCING WORK.
5. COORDINATE NEW PLUMBING WORK WITH LIGHTING, ELECTRICAL, DUCTWORK, STRUCTURAL FRAMING AND CEILING SYSTEMS.
6. CONTRACTOR SHALL COORDINATE LOCATION AND SIZE OF ALL PENETRATIONS THROUGH WALLS, CEILINGS, FLOORS AND ROOFS WITH OTHER TRADES AND REPORT ANY DISCREPANCIES TO ARCHITECT/ENGINEER. NO STRUCTURAL MEMBER SHALL BE CUT OR MODIFIED WITHOUT WRITTEN AUTHORIZATION.
7. DRAWING ARE DIAGRAMMATIC. DO NOT SCALE DRAWINGS FOR EXACT LOCATION OF FIXTURES AND PIPING.
8. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL PERMITS, TAXES, INSPECTIONS ANO TEST FEES.
9. ALL MATERIALS TO BE PROVIDED UNDER THIS CONTRACT SHALL MEET ALL THE REQUIREMENTS OF THE F.P.C, AND ALL OTHER LOCAL STANDARDS AND REGULATIONS. MATERIALS SHALL BE NEW, FREE OF DEFECTS AND OF AN AMERICAN MANUFACTURER, INDELIBLY MARKED WITH MANUFACTURER NAME, WEIGHT AND/OR CLASS. MANUFACTURER NAMES SHALL BE INTERPRETED AS ESTABLISHMENT OF REQUIRED TYPE, CLASS AND QUALITY. MATERIAL SHALL BE PROVIDED AS FOLLOWS:

   A. ALL WASTE, VENT, AND STORM PIPING BELOW CRAOE SHALL BE ONE OF THE FOLLOWING TYPES (AS PER TABLE-702.2, F.P.C.) :

   A.1 SERVICE WEIGHT CAST IRON, SOIL PIPE. PIPING AND FITTINGS SHALL CONFORM TO THE REOUIREMENTS OF CISPI STANDARD 301, ASTM A-888 OR ASTM A-74, LATEST ISSUE. CAST IRON PIPE AND FITTINC SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE.
   A.3 SCHEOULE 40 ABS OR (DWV) PVC PIPING INSTALLED IN ACCOROANCE WITH ASTM O 2321. EXCEPTIONS:
   1. FOR BUILDINGS EXCEEDING 3-STORIES IN HEIGHT, UNDERGROUND DRAINAGE PIPING SHALL BE SERVICE WEIGHT CAST IRON AS PER SECTION A.1. FOAM CORE PIPING SHALL NOT BE USED.
   2. DO NOT USE IT WHEN 140 F OR ABOVE WASTE TEMPERATURE IS EXPECTED.

   B. ALL WASTE, VENT, AND STORM PIPING ABOVE CRADE SHALL BE ONE OF THE FOLLOWING TYPES (AS PER TABLE-702.1, F.P.C.):

   B.1 SERVICE WEIGHT CAST IRON SOIL PIPE. PIPINC AND FITTINGS SHALL CONFORM WITH THE REQUIREMENTS OF CISPI STANDARD 301, ASTM A-BB8 OR ASTM A-74.
   B.2 BELL AND SPICOT, 'NO HUB' SERVICE WEIGHT CAST IRON, OR WROUGHT IRON, WITH SEALING SLEEVES AND STAINLESS STEEL COUPLING JOINTS, CLAMPS AND BOLTS. PIPING AND FITTINGS SHALL CONFORM WITH THE REQUIREMENTS OF CISPI STANDARD 301, ASTM A-88B OR ASTM A-74, LATEST ISSUE.
   B.3 SCHEDULE 40 ABS OR (DWV) PVC PIPING. COMBUSTIBLE OR FOAM CORE PIPING SHALL NOT BE LOCATED IN RETURN AIR PLENUM ANO DO NOT USE IT WHEN 140 F OR ABOVE WASTE TEMPERATURE IS EXPECTED.

   C. SANITARY PIPE FITTINGS:

   C.1 JOINTS FOR HUBLESS PIPE ANO FITTING SHALL CONFORM WITH THE F.P.C. AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND LOCAL CODE REQUIREMENTS. HUBLESS COUPLINGS SHALL CONFORM TO CISPI 301. JOINTS FOR HUB AND SPIGOT PIPE SHALL BE INSTALLED WITH COMPRESSION GASKETS CONFORMING TO THE REQUIREMENTS OF ASTM STANDARO C-564 AND C-1563 OR SHALL BE INSTALLED WITH LEAD AND OAKUM.

   D. DOMESTIC WATER PIPING AND FITTINGS SHALL CONFORM WITH TABLES 605.3 THRU B05.5. OF THE F.P.C. AND SHALL MEET THE FOLLOWING TERMS:
   D.1 WHEN COPPER IS USED TYPE 'L' SHALL BE ABOVE GROUND AND TYPE 'K' BELOW GROUND CONFORMING WITH ASME B-BB, AND ASTM B-16, LEAD - FREE SOLDER.
   D.2 DOMESTIC WATER PIPING SHALL NO BE INSTALLED BELOW SLAB, UNLESS INDICATED OTHERWISE ON THESE DRAWINGS.
   O.3 PROVIDE WATER HAMMER ARRESTOR WHERE QUICK-CLOSING VALVE ARE UTILIZEO. THEY SHALL CONFORM TO ASSE 1010 AND BE INSTALLED AS PER MANUFACTURER'S SPECIFICATION.
   D.4 INSULATE ALL HOT WATER PIPING WITH 1" RIGID FIBERCLASS OR 1/2" THICK FLEXIBLE FOAM INSULATION (ARMAFLEX). FLEXIBLE FOAM INSULATION SHALL NOT BE SPLIT, AND SHALL BE TAPED AT BUTT JOINTS.

   E. WALL CLEANOUTS.

   E.1 JOSAM SERIES 5B750 WITH ACCESS COVER OR EQUAL.
   E.2 PROVIDE CHROME PLATED BRASS ESCUTCHEONS WITH LOCKING SCREWS WHERE PIPE PASS THROUGH FINISHED WALLS.
   E.3 A CLEANOUT SHALL BE PROVIDED AT THE BASE OF EACH SOIL AND WASTE STACK.

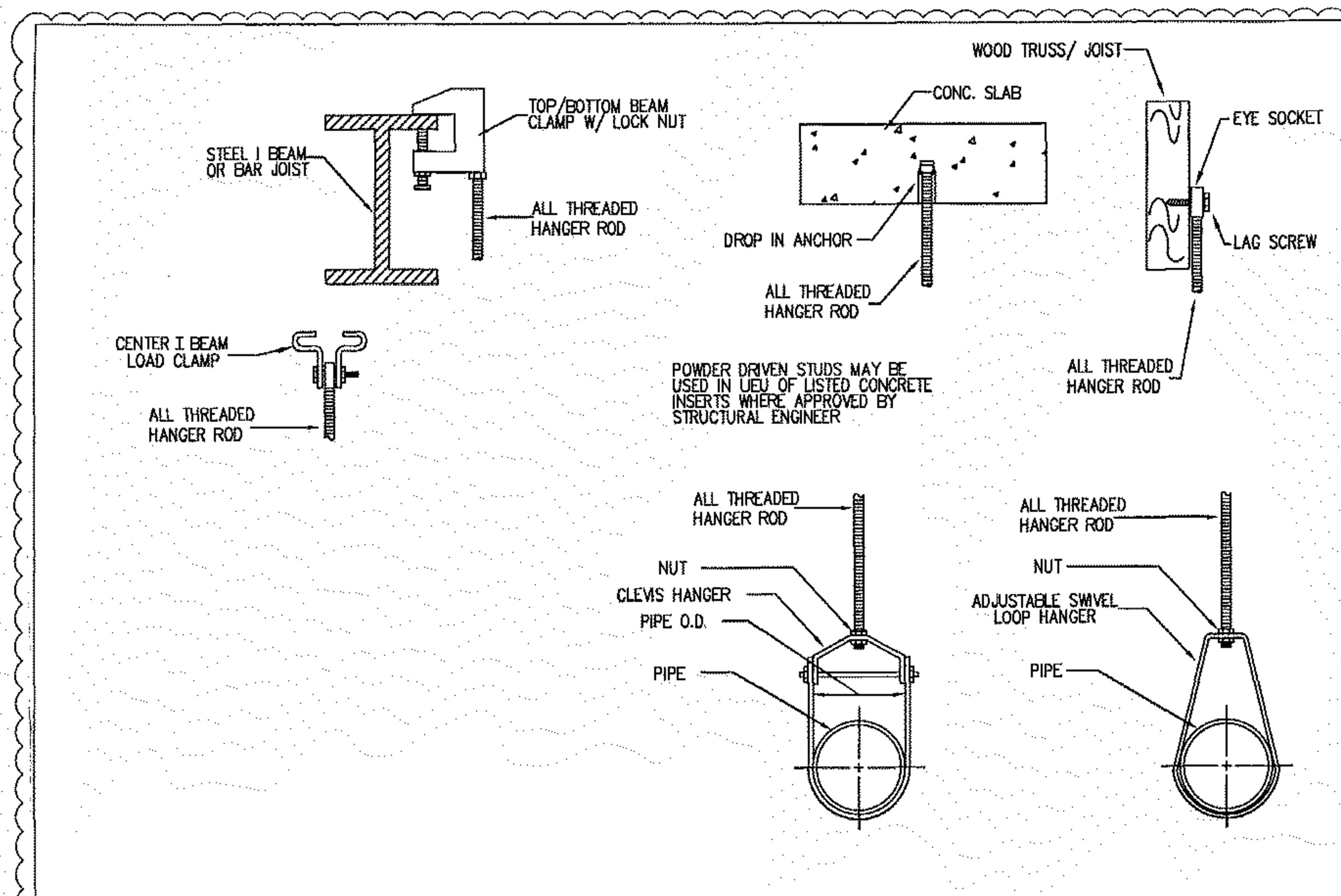
   F. VALVES.
   F.1 LOCATION OF FULL-OPEN VALVES. AS PER FPC 606.1
   F.2 LOCATION OF SHUTOFF VALVES. AS PER FPC 606.2
   F.3 OUARTER TURN BALL VALVES, RATED FOR 125 PSI. MANUFACTURED BY NIBCO, SCOTT, STOCKHAM OR EQUAL.

   G. PLUMBING FIXTURES.
   G.1 SEE PLUMBING FIXTURE SCHEDULE FOR FIXTURE SPECIFICATIONS.
   G.2 PLUMBING FIXTURES SHALL COMPLY WITH WATER CONSERVATION REGULATION FS.553.14.
   G.3 EXPOSED HOT WATER PIPING SERVING PLUMBING FIXTURES SHALL BE PROPERLY INSULATED.

10. PERFORM THE FOLLOWING TEST:

   A. NEW DOMESTIC WATER PIPING SHALL BE HYDROSTATICALLY TESTED AT 100 PSIG FOR A PERIOD OF NO LESS THAN ONE HOUR.
   B. WASTE AND VENT PIPING SHALL BE FILLED WITH WATER TO A 10 FOOT HEAD AND ALLOWED TO STAND UNTIL THE WATER LEVEL REMAINS CONSTANT.
   C. CORRECT ALL DEFECTS DISCLOSED BY ABOVE TESTING.
   D. STERILIZE ALL NEW DOMESTIC WATER PIPING WITH A MIXTURE OF TWO POUNDS OF CHLORINATED LIME TO EACH 1000 GALLONS OF WATER (50 PPM OF AVAILABLE CHLORINE). RETAIN MIXTURE IN PIPE FOR A PERIOD OF 24 HOURS. FLUSH THOROUGHLY WITH POTABLE WATER BEFORE PLACING SYSTEM IN SERVICE.
11. SANITARY, GREASE & STORM PIPING 2 1/2" ANO SMALLER SHALL BE SLOPED AT 1/4" PER FOOT MINIMUM. PIPES LARGER THAN 2 1/2" SHALL BE SLOPED AT 1/B" PER FOOT MINIMUM FALL.
12. INSULATE ALL AIR CONOITIONING ANO REFRIGERATION CONDENSATE DRAIN WITH 3/4"INCOAFLEX PIPE INSULATION OR EQUAL. FINISHED, WHERE EXPOSED, WITH 2 COATS OF WHITE LATEX PAINT AS PER MANUFACTURER'S INSTRUCTION.
13. PIPING PENETRATION AT ROOFS, CEILINGS, FLOORS AND WALLS SHALL BE SEALED AIR AND WATER TIGHT. WHERE PENETRATING FIRE RATED CONSTRUCTION, FIRE SAFE TO PROVIDE PROTECTION MATCHING REOUIRED FIRE RESISTANCE RATING.
14. ALL HORIZONTAL VENT PIPING SHALL SLOPE TO DRAW TO STACKS. NO POCKETS OR LOW POINTS SHALL BE CREATED IN THE VENT LINES WHICH MAY PREVENT VENTING IF FILLED WITH CONDENSATION.
15. CEILING ACCESS PANELS SHALL BE PROVIDED FOR VALVES INSTALLED ABOVE OTHERWISE NON-ACCESSIBLE CEILINGS.
16. NO EQUIPMENT OR MATERIALS SHALL BE PURCHASED OR INSTALLED PRIOR TO FINAL APPROVAL OF SHOP DRAWINGS.
17. THE CONTRACTOR SHALL PROVIDE A SET OF PRINTS CLEARLY MARKED TO SHOW AS-BUILT CONDITIONS AT THE COMPLETION OF CONSTRUCTION.
18. FURNISH AND INSTALL DIELECTRIC COUPLINGS AT ALL CONNECTIONS BETWEEN DISSIMILAR METALS.
19. ALL PIPES CROSSING THRU CORROSIVE MATERIAL TO BE WRAPPED WITH A 120# ROOFING PAPER.
20. PROTECTION OF PIPES AND PLUMBING SYSTEM COMPONENTS:

   A. PIPING PROTECTION SHALL COMPLY WITH SECTIONS: 305.1 CORROSION, 305.2 BREAKAGE, 305.3 STRESS & STRAIN, 305.4 SLEEVES, 305.5 PIPES THROUGH OR UNDER FOOTINGS OR FOUNDATION WALL, 305.6 FREEZING, 305.7 WATERPROOFING OF OPENING, 305.8 PROTECTION AGAINST PHYSICAL DAMAGE & 305.9 PROTECTION OF COMPONENTS OF PLUMBING OF THE FLORIDA PLUMBING CODE, 2010.
21. ACCESS & VENTILATION SHALL BE PROVIOED TO ALL AIR ADMITTANCE VALVES.

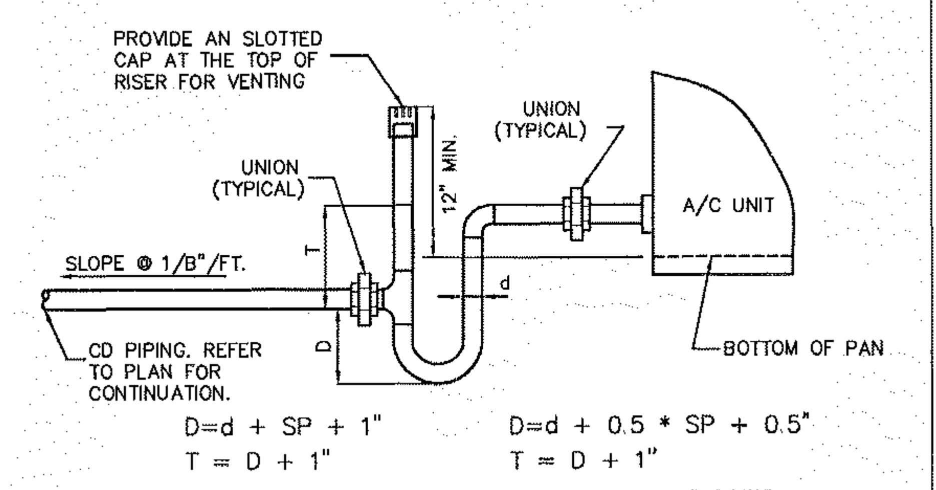


HANGER SPACING		
PIPING MATERIAL	MAXIMUM HORIZONTAL SPACING feet	MAXIMUM VERTICAL SPACING feet
CAST IRON PIPE	5.0	15
COPPER OR COPPER-ALLOY PIPE	12	10
COPPER OR COPPER-ALLOY TUBING, 1 1/4" DIAMETER AND SMALLER	6	10
COPPER OR COPPER-ALLOY TUBING, 1 1/2" DIAMETER AND SMALLER	10	10
PVC PIPE	4.0	10
REFER TO FBC P TABLE 308.5 OR FBC R TABLE P2605 FOR DIFFERENT APPROVED PIPING MATERIALS.		

NOTES:
1. CEILING PIPES SHALL BE INSTALLEO USING GRIPPLE HANG FAST SUSPENSION SYSTEM BY GRIPPLE, INC.
2. HANGER SHALL BE INSTALLEO AND SIZED AS PER MANUFACTURER'S INTRUCTIONS COMPLYING WITH FBC HANGER SPACING TABLES.
3. ALL HANGER RODS, HANGERS, FASTENERS, ETC. SHALL BE PROVIDED WITH FACTORY APPLIED HOT DIPPED GALVANIZING
4. ALL HANGERS SHALL BE LISTED FOR THEIR INTENDED SERVICE.

PIPE HANGERS DETAIL

N.T.S.



D=d + SP + 1"
T = D + 1"

BLOW-THRU TRAPPING SIZING

D=d + 0.5 * SP + 0.5"
T = D + 1"

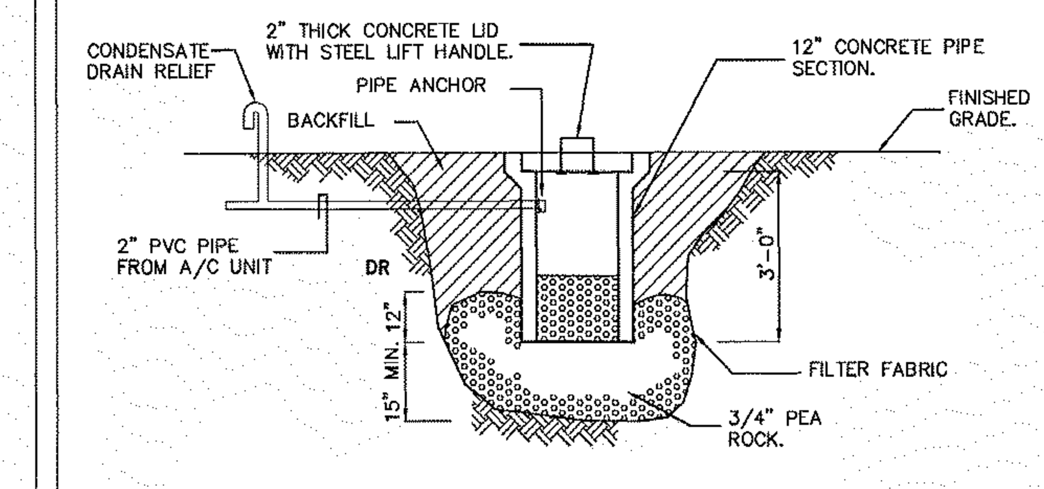
DRAW-THRU TRAPPING SIZING

LEGEND:
D - TRAP SEAL DEPTH (IN)
T - TOTAL TRAP DEPTH (IN)
SP - CASING STATIC PRESSURE (IN of WG)
d - PIPE DIAMETER (IN)

NOTES:
1. MINIMUM CONDENSATE DRAIN PIPE DIAMETER SHALL BE EQUAL TO UNIT DRAIN CONNECTION & MATERIAL AS PER FBC PLUMBING SECTION 314.2.2. COMBUSTIBLE PIPING SHALL NOT BE USED IN RETURN AIR PLENUM. SEE PLAN FOR PIPE SIZES.
2. ALL DIMENSION SHOWN ARE THE MINIMUM REQUIRED. CONTRACTOR SHALL VERIFY MANUFACTURER RECOMMENDATIONS AND IMPLEMENT THE SIZES THAT RESULT IN A DEEPER SEALED TRAP.
3. AUXILIARY AND SECONDARY DRAIN SYSTEMS SHALL COMPLY WITH F.M.C. SECTION 307.2.3. AN APPROVED WATER LEVEL DETECTOR OR FLOAT SWITCH TO SHUT DOWN THE UNIT MAY BE INSTALLED AS PER F.M.C. 307.2.3.
4. PRIMARY DRAIN WITHIN UNCONDITIONED AREAS SHALL BE INSULATED.

CONDENSATE TRAP DETAIL

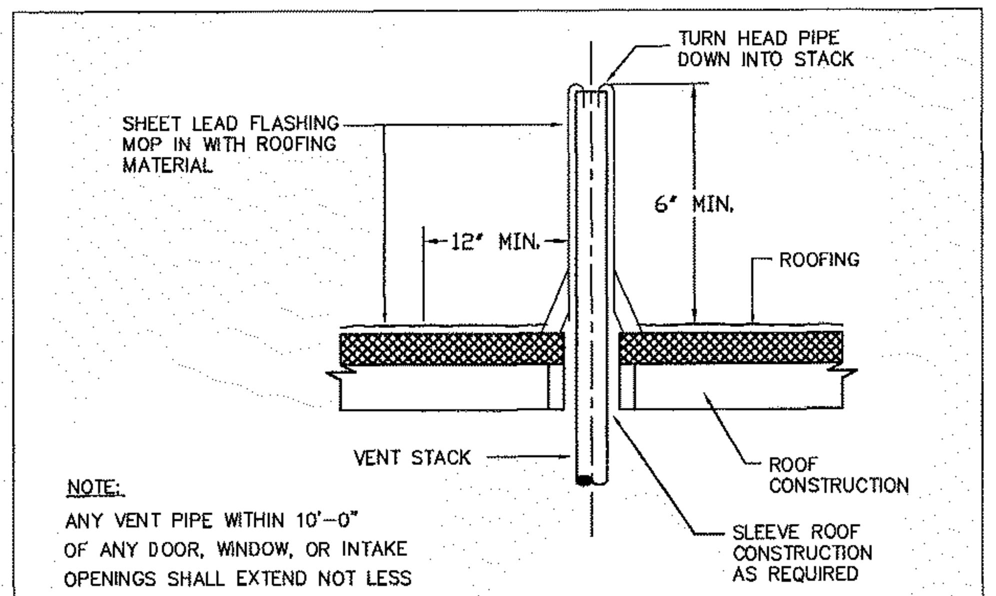
N.T.S



NOTE:
1- DRYWELL DRAIN REQUIRED TO BE 12" MINIMUM FROM WALL.

CONDENSATE DRYWELL DETAIL

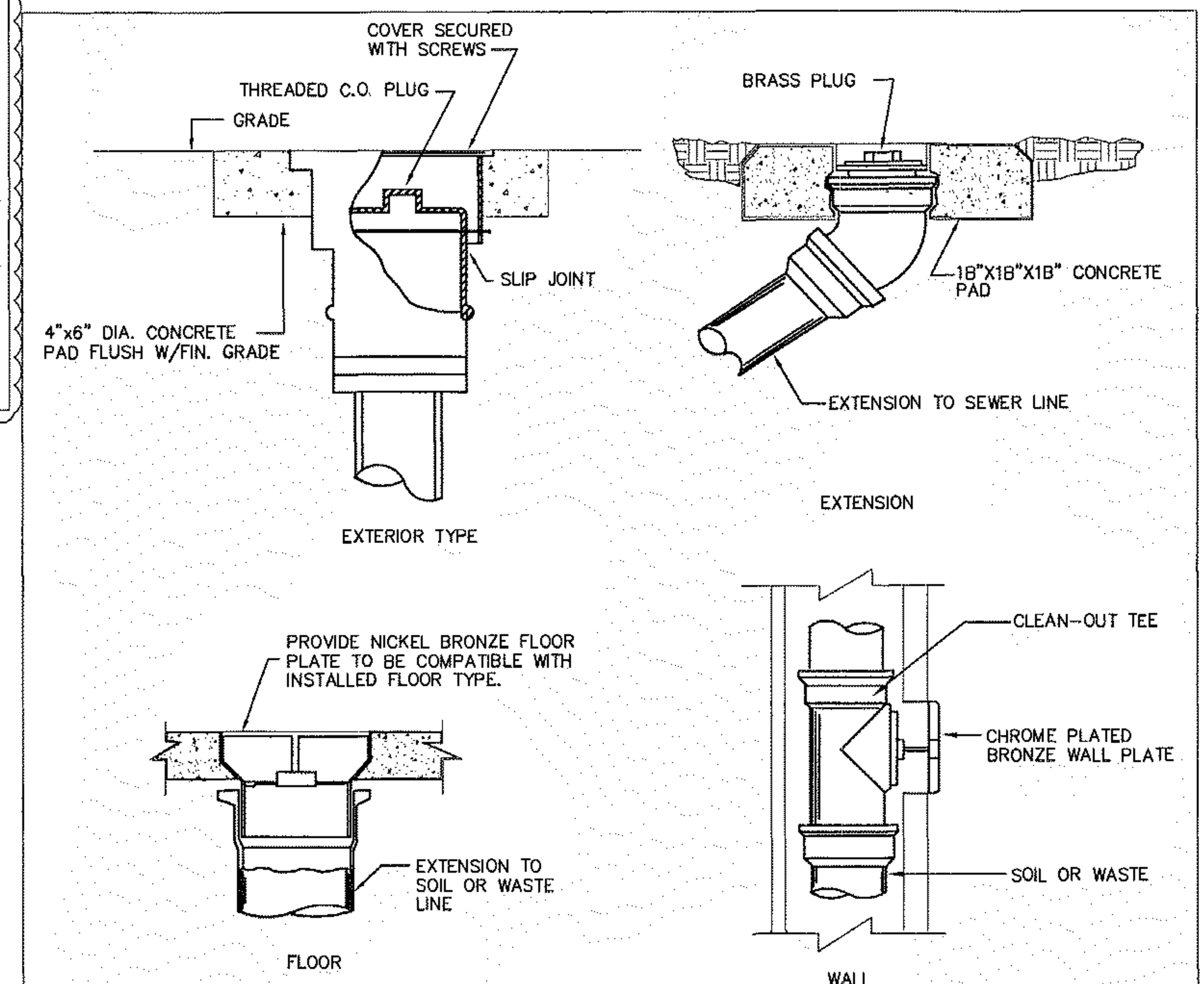
N.T.S.



NOTE:
ANY VENT PIPE WITHIN 10'-0" OF ANY DOOR, WINDOW, OR INTAKE OPENINGS SHALL EXTEND NOT LESS THAN 3'-0" ABOVE SUCH

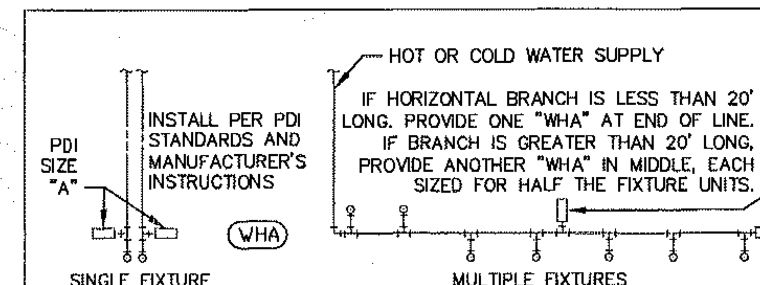
VENT THRU ROOF DETAIL

N.T.S.



TYPICAL CLEANOUT DETAILS

N.T.S.



PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	154-330

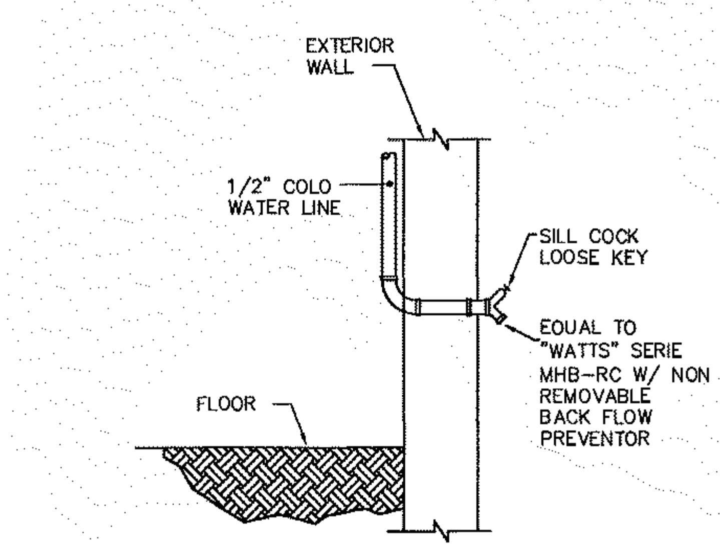
FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	10	--
TANK WATER CLOSET	5	--
URINAL	5	--
LAVATORY/SINK	1.5	1.5
JANITOR'S SINK	3	3
SHOWER/BATHTUB	2	2

DO NOT PROVIDE AIR CHAMBERS. PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE # 1010 AND ANSI # A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE.

* PLUMBING & DRAINAGE INSTITUTE(PDI)

WATER HAMMER ARRESTERS INSTALLATION GUIDE

N.T.S.



HOSE BIBB DETAIL

N.T.S.

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4 OF 4

NOT VALID FOR CONSTRUCTION UNLESS SIGNED AND SEALED IN THIS BLOCK
CONSTRUCTION DOCUMENTS SET. 12.10.2014

GENERAL NOTES:

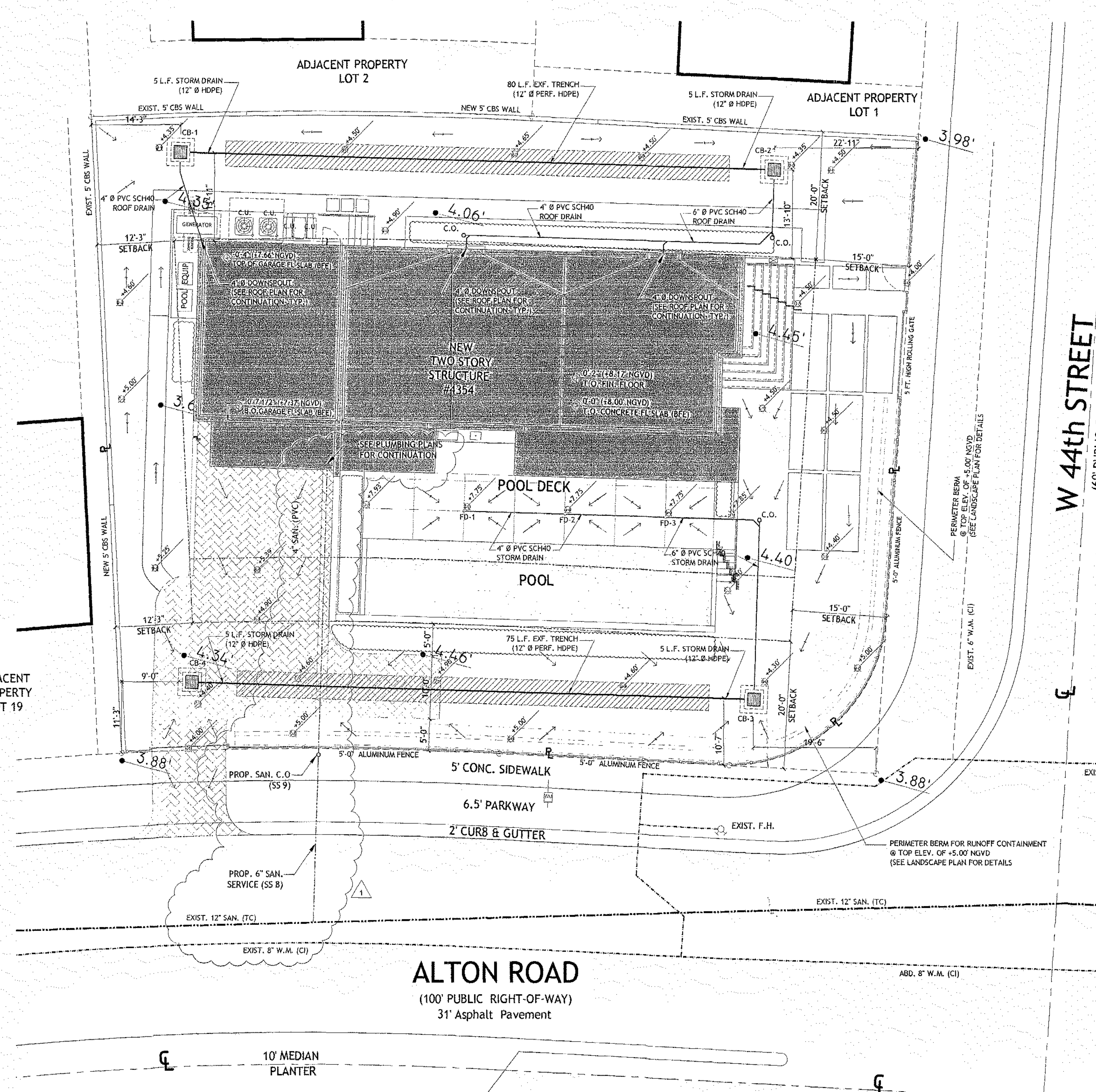
1. ALL APPLICABLE PERMITS MUST BE OBTAINED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. ALL MATERIALS AND CONSTRUCTION UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF MIAMI BEACH, PUBLIC WORKS DEPARTMENT.
3. THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THE APPROVED PLANS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER OF ANY DISCREPANCY OR VARIATION FROM THE APPROVED DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES AND IMPROVEMENTS FROM DAMAGE, DISRUPTION OF SERVICE, OR DESTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING NECESSARY MEASURES TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
5. THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION PLANS ON SITE. THE PLANS ARE TO BE MADE AVAILABLE TO THE ENGINEERING INSPECTOR OF THE CITY OF MIAMI BEACH OR HIS DESIGNEE UPON REQUEST.
6. THE CONTRACTOR SHALL PROVIDE ACCESS AND ASSISTANCE TO THE CITY ENGINEER OR HIS DESIGNEE TO MAKE INSPECTIONS, AS NECESSARY, DURING CONSTRUCTION.
7. NO DEVIATION FROM APPROVED PLANS SHALL BE PERMITTED WITHOUT THE WRITTEN CONSENT OF THE CITY ENGINEER OR HIS DESIGNEE.
8. CONTRACTOR MUST CALL CITY OF MIAMI BEACH, PUBLIC WORKS DEPARTMENT TO OBTAIN A RIGHT OF WAY PERMIT AND ARRANGE A PRE-CONSTRUCTION MEETING 48 HOURS PRIOR TO START OF CONSTRUCTION.
9. ENGINEERING PERSONNEL WILL INSPECT ALL FACILITIES APPROVED BY THEIR OFFICE. ALL OTHER REQUIREMENTS OF THE PERMITTING AGENCIES SHALL BE IN ACCORDANCE WITH THEIR STANDARDS.
10. TRENCH EXCAVATIONS IN EXCESS OF 5 FEET DEEP SHALL COMPLY WITH THE TRENCH SAFETY ACT AS PER O.S.H.A. STANDARD 29 CFR S.926.650 SUBPART P IN STATUTES. THE TRENCHES AND DITCHES SHALL BE PROTECTED IN ACCORDANCE WITH RULE 38c 43.02 FAC AND 6A-1,095(2).
11. ERECTION OR INSTALLATION OF APPROPRIATE SAFETY AND WARNING DEVICES SHALL BE REQUIRED DURING THE COURSE OF CONSTRUCTION. SAID DEVICES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S "MANUAL ON TRAFFIC CONTROL AND SAFETY PRACTICES" AND THE MIAMI-DADE COUNTY PUBLIC WORKS MANUAL.
12. PLANS AND SPECIFICATIONS REQUIRE THAT COMPACTED BACKFILL BE PLACED ALONGSIDE OF AND OVER ALL UTILITIES. THE CITY ENGINEER REQUIRES THAT COMPACTION TESTS BE TAKEN TO VERIFY BACKFILL COMPACTION. THE COST OF SUCH COMPACTION TESTS WILL BE BORNE BY THE CITY. THE RETESTING COST, DUE TO FAILURE OF THE COMPACTION TEST, WILL BE PAID BY THE CONTRACTOR.
13. WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED COMPLETE UNTIL THE FOLLOWING DOCUMENTS ARE RECEIVED BY THE CITY OF MIAMI BEACH, PUBLIC WORKS DEPARTMENT.
    A. CONTRACTOR'S, SUBCONTRACTOR'S AND SUPPLIER'S WAIVER AND RELEASE OF LIEN.
    B. CONTRACTOR'S LETTER OF WARRANTY (I.E. LETTER OF AGREEMENT).
    C. "AS BUILT" - FOUR (4) ORIGINALS 22"X34" & 11"X17" SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR SHOWING SPECIFIC LOCATION, DEPTH, ETC. OF ALL CITY FACILITIES TOGETHER WITH A DIGITAL COPY IN AUTOCAD LAST VERSION 2011 OF THE "AS-BUILT" DRAWINGS USING STATE PLANE FLORIDA EAST FIPS 0901 FEET MAP 1983 (FEET).
14. THESE PLANS ARE PREPARED FROM UTILITY INFORMATION OF PREVIOUS AND RECENT AVAILABLE RECORDS. THE DESIGNER IS NOT LIABLE FOR ANY UTILITY CONFLICTS AND UNKNOWNS THAT ARE DISCOVERED DURING CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITIES. IN CASE THAT A CONFLICT ARISES, THE ENGINEER OF RECORDS OR HIS DESIGNEE SHALL BE INFORMED TO MAKE THE APPROPRIATE DESIGN CHANGES.
15. FOR SPECIFICATIONS, PLEASE REFER TO THE CITY OF MIAMI BEACH PUBLIC WORKS MANUAL.
16. DUE TO SOIL CONDITIONS, HIGH WATER TABLE AND PROTECTION OF ROADWAY, UTILITIES AND EXISTING LANDSCAPING, SHORING WILL BE REQUIRED FOR TRENCH AND STRUCTURE CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT THE PROPOSED METHOD OF CONSTRUCTION TO THE ENGINEER FOR APPROVAL AT THE PRECONSTRUCTION MEETING. THE COST OF SHORING WILL BE INCLUDED IN THE COSTS OF STRUCTURE AND PIPES. DEWATERING MAY BE REQUIRED AND SHALL BE INCLUDED IN THE COSTS OF STRUCTURES AND PIPES.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TURBIDITY BARRIER AT ALL OUTFALLS SUBJECT TO POTENTIAL DISCHARGE DURING CONSTRUCTION. SEE FDOT INDEX No 104. CONTRACTOR SHALL BE RESPONSIBLE FOR FULL KNOWLEDGE OF ALL APPLICABLE REGULATORY REQUIREMENTS AND CORRECT ANY SILTATION OR OTHER DAMAGE TO THE DRAINAGE SYSTEM.
18. CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC DURING CONSTRUCTION IN ACCORDANCE WITH ALL STATE, COUNTY AND LOCAL REQUIREMENTS.
19. WHEN POWER POLES ARE ADJACENT TO ANY PROPOSED UTILITY, THE CONTRACTOR SHALL PROVIDE PROPER SHORING OR OTHER SUITABLE SUPPORT DURING CONSTRUCTION. THE SHORING AND SUPPORT METHODS SHALL BE APPROVED BY THE UTILITY COMPANY ENGINEERING DEPARTMENT.
20. ALL DEFECTIVE WORK NOT ACCEPTED BY THE CITY ENGINEER OR HIS DESIGNEE, OR BY ANY GOVERNMENT PERMITTING AGENCY SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
21. CONTRACTOR SHALL CONTACT PWD TO INSPECT METERS AND BOXES AHEAD OF CONSTRUCTION TO DETERMINE WHETHER REPLACEMENT IS NECESSARY.
22. ELEVATIONS ARE REFERRED TO NAVD 88, BASED ON A ______ BENCH MARK NO. ______ ELEVATION: ______ (NGV DATUM) = ______ (NAVD 88) LOCATOR: ______ NAME: ______ ELEVATION: ______ LOCATED AT ______
23. PROVIDE RESTRAINING BY THE USE OF FIELD LOCK GASKET ON TYTON JOINT PIPE AND AS MANUFACTURED BY U.S. PIPE OR EQUAL.
24. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING UNINTERRUPTED WATER SERVICE DURING THE CONSTRUCTION OF THE TIE-IN CONNECTION OF ALL PROPOSED WATER SYSTEMS TO ANY EXISTING WATER SERVICE LINES. ABANDONMENT SHALL NOT OCCUR UNTIL THE PROPOSED WORK HAS BEEN APPROVED AND ACCEPTED FOR OPERATION BY THE ENGINEER OF RECORD AND THE CITY OF MIAMI BEACH PUBLIC WORKS DEPARTMENT, WATER DIVISION. CONTRACTOR SHALL REQUEST FROM CMB 48 HOURS PRIOR FOR WATER MAIN SHUTDOWN.
25. ALL WATER METER BOXES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH CITY ISSUED WATER METER BOXES AND PAID FOR BY CONTRACTOR.
26. ALL PROPOSED WATER METERS SHOULD BE A MINIMUM OF A 2-INCH SERVICE.
27. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE ACTUAL NUMBER OF EXISTING WATER SERVICES TO BE CONNECTED TO THE PROPOSED WATER MAIN.
28. ALL DUCTILE IRON PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C 600 LATEST REVISIONS WITH A DETECTOR TAPE. DETECTOR TAPE SHALL BE 3" WIDE BLUE TAPE FOR WATER MAIN WITH A METALLIC FOIL CORE LAMINATED BETWEEN TWO LAYERS OF PLASTIC FILM. THE WORKS "CAUTION WATER LINE BURIED BELOW" ON THE UPPER SIDE OF THE PIPE SHALL BE PRINTED AT 30" INTERVALS ALONG THE TAPE. TAPE SHALL BE PLACED 18" BELOW GRADE ABOVE ALL WATER MAINS AND SERVICES OR AS RECOMMENDED BY MANUFACTURER NON-METALLIC TAPE SHALL BE USED ABOVE DUCTILE IRON PIPE.
30. CONTRACTOR WILL BE RESPONSIBLE TO COORDINATE WITH HRS (DEPT. OF HEALTH) THE WATER SAMPLING AND BACTERIOLOGICAL TESTS AND FINAL CERTIFICATION FROM HRS.
31. TAPPING SLEEVE VALVE TO BE PRESSURE TESTED AT 125 PSI FOR TWO (2) HOURS BEFORE TAPPING.
32. THRUST BLOCK NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER. USE MEGALUGS OR CLASS 316 STAINLESS STEEL RESTRAINING RODS.
33. CONTRACTOR SHALL EXERCISE CARE WHEN WORKING NEAR EXISTING CLAY PIPING.
34. EXISTING FIRE HYDRANTS SHALL REMAIN IN SERVICE UNTIL THE NEW MAIN IS PLACED IN SERVICE. ONCE THE NEW MAIN IS IN SERVICE, THE OLD HYDRANT SHALL BE COVERED AND TAGGED WITH A SIGN INDICATING "OUT OF SERVICE" UNTIL IT IS REMOVED BY THE CONTRACTOR.
35. NPDES BMP FOR SEDIMENTATION AND EROSION WORK MUST BE STRICTLY FOLLOWED DURING AND AFTER CONSTRUCTION.
36. PIPES SHALL BE INSTALLED IN THE DRY.
37. ALL D.I. PIPE SHALL BE THICKNESS CLASS 52 AND SHALL BE POLYWRAPPED AS PER WS7.
38. ALL RELATED HARDWARE FOR RESTRAINING RODS TO BE STAINLESS STEEL CLASS 316.
39. A CONCRETE SLAB SHALL BE INSTALLED OVER ANY PIPE INSTALLED WITH LESS THAN 30" OF COVER AS PER STANDARD DETAIL SES1.
40. ELEVATIONS ON PLANS REFER TO THE NATIONAL AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
41. THE CONTRACTOR SHALL BE GOVERNED BY THE LATEST APPLICABLE PORTIONS OF THE F.D.O.T. DESIGN STANDARDS, AND THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND SUPPLEMENTS THERE TO IF NOTED IN THE SPECIAL PROVISIONS FOR THIS PROJECT.
42. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES IN THE PROJECT AREA BEFORE THE START OF CONSTRUCTION. SEE THE UTILITY CONTACT INFORMATION TABLE FOR CONTACT NUMBERS.
43. ANY DAMAGED PUBLIC OR PRIVATE PROPERTY BY THE CONTRACTOR SHALL BE RESTORED TO PREEXISTING CONDITIONS OR BETTER AT NO EXPENSE TO THE OWNER.
44. ALL CONSTRUCTION DEBRIS SHALL BE PROPERLY DISPOSED OF OFFSITE AT THE CONTRACTOR'S EXPENSE.
45. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 553.851 FOR THE PROTECTION OF UNDERGROUND GAS LINES.
46. ERECTION OR INSTALLATION OF APPROPRIATE SAFETY AND WARNING DEVICES SHALL BE REQUIRED DURING THE COURSE OF CONSTRUCTION. SAID DEVICES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S "MANUAL OF TRAFFIC CONTROL AND SAFETY PRACTICES" AND THE MIAMI-DADE COUNTY PUBLIC WORKS MANUAL.
47. ALL EXISTING UTILITIES, MAN HOLE COVERS, ELECTRICAL BOXES, VALVE BOXES, METER BOXES, DRAINAGE STRUCTURES, ETC. WITHIN PROPOSED AREAS OF IMPROVEMENTS SHALL BE ADJUSTED TO GRADE ELEVATION, UNLESS OTHERWISE NOTED.
48. CONTRACTOR SHALL REPLACE ALL UTILITY BOXES/COVERS DAMAGED DURING CONSTRUCTION. CONTRACTOR SHALL NOTE THE CONDITION OF WATER METER BOXES BEFORE STARTING WORK. IF EXISTING WATER METER BOXES ARE DAMAGED, CONTACT THE CITY OF MIAMI BEACH FOR REPLACEMENT.
49. CONTRACTOR SHALL USE A STREET SWEEPER (USING WATER) OR OTHER EQUIPMENT CAPABLE OF CONTROLLING AND REMOVING DUST. APPROVAL OF THE USE OF SUCH EQUIPMENT IS CONTINGENT UPON ITS DEMONSTRATED ABILITY TO DO THE WORK.
50. THE COLOR OF THE DETECTABLE WARNINGS ON CONCRETE OF COLORS OTHER THAN MIAMI BEACH RED, COORDINATE WITH THE PUBLIC WORKS DEPARTMENT FOR APPROPRIATE COLOR AND CONTRAST.
51. ALL SIGNING AND PAVEMENT MARKINGS INSTALLED AS PART OF THESE PLANS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS. ALL SIGN PANELS SHALL BE FABRICATED TO COMPLY WITH THE LATEST EDITION OF THE FEDERAL HIGHWAY AND ADMINISTRATION STANDARD HIGHWAY SIGNS.
52. MATCH EXISTING PAVEMENT MARKINGS AT THE BEGINNING AND THE END OF THE PROJECT WITHOUT JOGS OR OFFSETS.
53. INCORRECTLY PLACED (THERMOPLASTIC OR) PAINT MARKINGS OVER ASPHALT PAVEMENT WILL BE REMOVED BY MILLING AND REPLACING THE ASPHALT PAVEMENT A MINIMUM WIDTH 18 IN. AT THE CONTRACTOR'S EXPENSE. THE ENGINEER MAY APPROVE AN ALTERNATE METHOD IF IT CAN BE DEMONSTRATED TO COMPLETELY REMOVE THE MARKINGS WITHOUT DAMAGING THE ASPHALT.

MIAMIBEACH PUBLIC WORKS DEPARTMENT | APPROVED | REVISED | GENERAL NOTES | GN1d

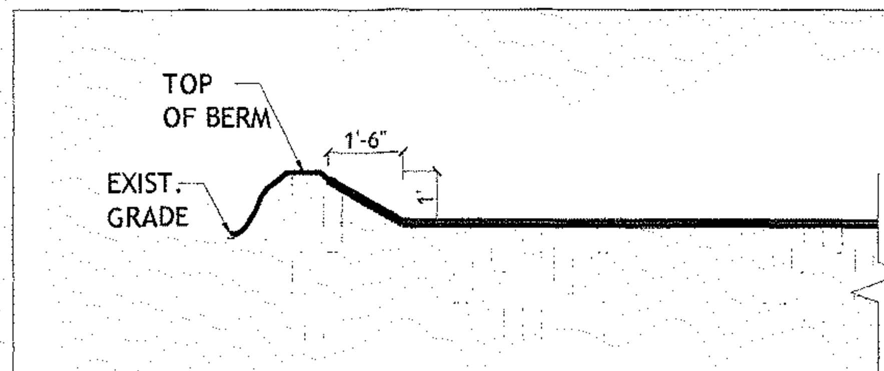
ENGINEER'S NOTES:

1. EXISTING UNDERGROUND UTILITIES: INFORMATION SHOWN ON THE DRAWINGS AS TO THEIR LOCATION AND CHARACTER HAS BEEN PREPARED FROM THE MOST RELIABLE DATA AVAILABLE TO THE ENGINEER; THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED. THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA, INC.(1-800-432-4770) TWO (2) BUSINESS DAYS PRIOR TO ANY EXCAVATION TO DETERMINE SAID LOCATIONS AND THE LOCATIONS OF RECENT ADDITIONS TO THE SYSTEMS NOT SHOWN. EXTREME CAUTION SHALL BE EXERCISED BY THE CONTRACTOR TO ELIMINATE ANY POSSIBILITY OF DAMAGE TO UTILITIES DURING CONSTRUCTION. THE LOCATION AND CHARACTER OF ALL UTILITIES SHALL BE VERIFIED AND THE OWNER'S REPRESENTATIVE NOTIFIED OF ANY CONFLICT THAT MIGHT OCCUR.
2. ALL EXISTING GRASSED AREAS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE SODDED COMPLETELY AS DIRECTED BY THE CONSTRUCTION MANAGER AT NO ADDITIONAL COST TO THE OWNER.
3. PROTECT MATERIALS AND EQUIPMENT ON SITE FROM WEATHER, DUST, AND DEBRIS AT ALL TIMES, AND AVOID THE CREATION OF NUISANCE OR HAZARD IN THE SURROUNDING AREA.
4. UNSCHEDULED ITEMS SHALL BE RESTORED TO THEIR ORIGINAL DESIGN AND FUNCTION AT CONTRACTOR'S EXPENSE.
5. WHERE PAVEMENT DEMOLITION IS REQUIRED, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO PROTECT AND PREVENT DAMAGE TO ADJACENT STRUCTURES AND PAVEMENTS TO REMAIN. LIMITS OF PAVEMENT DEMOLITION SHALL BE PERFORMED IN A NEAT, STRAIGHT LINE BY SAW CUTTING.
6. EXISTING BENCHMARKS LOCATED WITHIN THE LIMITS OF CONSTRUCTION SHALL NOT BE DISTURBED.
7. ADJUSTMENT AND CLEANING: CLEAN DEBRIS FROM AREAS OF DEMOLITION LEAVING AREA SUITABLE FOR WORK.
8. FALL MATERIALS RESULTING FROM DEMOLITION WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR. REMOVE FROM SITE AND DISPOSE OF THESE MATERIALS IN A MANNER AND LOCATION APPROVED BY MIAMI-DADE COUNTY REGULATIONS.

SUBJECT PROPERTY



DRAINAGE PLAN
SCALE: 3/32" = 1'-0



TYPICAL BERM SECTION
SCALE: N.T.S.

LEGEND

	FLOW DIRECTION
	STORM MANHOLE
	SANITARY MANHOLE
	DRAINAGE WELL
	CATH BASIN
	VALVE
	TEE
	45 DEG. BEND
	90 DEG. BEND
	CROSS
	REDUCER
	PLUG
	FIRE HYDRANT
	WATER METER
	EXFILTRATION TRENCH
	EXIST. ELEVATION
	PROP. ELEVATION

ABBREVIATIONS

ABD	ABANDONNED
ARV	AIR RELEASE VALVE
BFV	BUTTERFLY VALVE
BL	BASE LINE
BST	BELL SOUTH TELEPHONE
CB	CATCH BASIN
CIP	CAST IRON PIPE
CL	CENTERLINE
CO	CLEAN OUT
DIP	DUCTILE IRON PIPE
E	EAST
EOP	EDGE OF PAVEMENT
EL, ELEV	ELEVATION
ESMT	EASEMENT
EXIST	EXISTING
FH	FIRE HYDRANT
FPL	FLORIDA POWER & LIGHT
FT	FOOT/FEET
GV	GATE VALVE
LF	LINEAR FEET
LT	LEFT
MH	MANHOLE
N	NORTH
NTS	NOT TO SCALE
PL	PROPERTY LINE
PROP	PROPOSED
RT	RIGHT
S	SOUTH
SAN, SS	SANITARY SEWER
ST	STORM SEWER
TC	TERRA COTTA
TS	TAPPING SLEEVE
TV	TAPPING VALVE
TBFV	TO BE FIELD VERIFIED
W	WEST
WM	WATER MAIN

FOLIO No:
02-3222-011-1430

LEGAL DESCRIPTION:
LOT 20 & 21 BLOCK 6 OF NAUTILUS SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 8, AT PAGE 95, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.

2 BUSINESS DAYS PRIOR TO ANY EXCAVATIONS PLEASE CONTACT OUR OFFICE FOR LOCATIONS OF CITY UTILITIES
305-673-7080
PUBLIC WORKS DEPARTMENT CITY OF MIAMI BEACH

48 HOURS BEFORE DIGGING
CALL
SUNSHINE STATE ONE CALL OF FL., INC.
TOLL FREE
1-800-432-4770
UNDERGROUND UTILITIES NOTIFICATION CENTER OF FLORIDA

PL MGS 12/2/15

Stanley Fardin, P.E.
FL PE # 58023
Date:

Samabi GROUP INC.
Consulting Engineers
13335 SW 124th STREET, SUITE 111
MIAMI, FL 33186
T: 305-454-8212
F: 305-514-0582
samabi@bellsouth.net
Certificate of Authorization No.: 26C11

DRAWN BY:
REVISIONS:
1 11/19/15

AA0003569
ANTHONY LEON
0016752

3 DESIGN ARCHITECTURE
4300 Biscayne Blvd. #G-04, Miami, FL 33137
P: 305.438.9377 | F: 305.438.9378

SEAL

NEW RESIDENCE
FOR:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

THESE PLANS ARE FOR BUILDING DEPARTMENT REVIEW ONLY. THEY ARE NOT TO BE CONSTRUED AS CONSTRUCTION DOCUMENTS UNTIL ALL BUILDING DEPARTMENT APPROVALS ARE OBTAINED.

C-1
LOCATION MAP
GENERAL NOTES
DRAINAGE PLAN

SCHEDULE OF DRAINAGE STRUCTURES

MARK	SIZE(*)	TOP EL.	BOTT. EL.	INVERTS				NOTES
				N	S	E	W	
CB-1	52"x52"	4.35'	-1.75'	0.30'				Provide 30" Sump & Baffle (N,S)
CB-2	52"x52"	4.35'	-1.75'		0.30'			Provide 30" Sump & Baffle (N)
CB-3	52"x52"	4.35'	-1.75'		0.30'	1.80'		Provide 30" Sump
CB-4	52"x52"	4.30'	-1.75'	0.30'				Provide 30" Sump
FD-1	12" Diam.	7.75'		5.90'				Nyloplast Drain Basins or 'approved equal'
FD-2	12" Diam.	7.75'		5.80'	5.80'			Nyloplast Drain Basins or 'approved equal'
FD-3	12" Diam.	7.75'		5.70'	5.70'			Nyloplast Drain Basins or 'approved equal'
* - DENOTES EXTERIOR DIMENSION OF STRUCTURE								

SPECIALE NOTES:

1- SEE SHEET C-1 FOR DRAINAGE AND GRADING PLANS.

2- SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR ADDITIONAL DETAILS.

3- CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ALL PIPING, INLETS/CATCH BASINS, WELL BOX, WELL CASING, AND ALL OTHER APPURTENANCES TO THE ENGINEER-OF-RECORD FOR REVIEW.

4- CONTRACTOR SHALL REPAIR/REPLACE EXISTING PAVEMENT, CURB AND GUTTER, DRIVEWAY, SIDEWALK, AND OTHER EXISTING FEATURES DAMAGED DURING THE INSTALLATION OF THE IMPROVEMENTS AS PER THE CITY OF MIAMI BEACH AND/OR FDOT STANDARDS.

5- ALL EXISTING PAVEMENT MARKINGS AND SIGNAGE IN THE RIGHT-OF-WAY TO REMAIN.

6- ALL PROPOSED PAVEMENT MARKINGS AND SIGNAGES SHALL CONFORM TO THE CITY OF MIAMI BEACH AND/OR FDOT STANDARDS.

7- FOR INSTALLATION OF PROPOSED CURB AND GUTTER, SAWCUT E.O.P, AND MATCH EXISTING ELEVATIONS.

8- FOR MAINTENANCE OF TRAFFIC, REFER TO FDOT INDEX NO. 600, AND NO. 603

9- FOR ADDITIONAL NOTES AND SPECIFICATIONS, CONTRACTOR SHALL REFER TO CITY OF MIAMI BEACH PUBLIC WORKS MANUAL, PART II, SECTION 6 - WATER AND DISTRIBUTION SYSTEM, SECTION 7 - SANITARY SEWER COLLECTION SYSTEM, AND SECTION 8 - STORM WATER DRAINAGE SYSTEM.

GENERAL NOTES

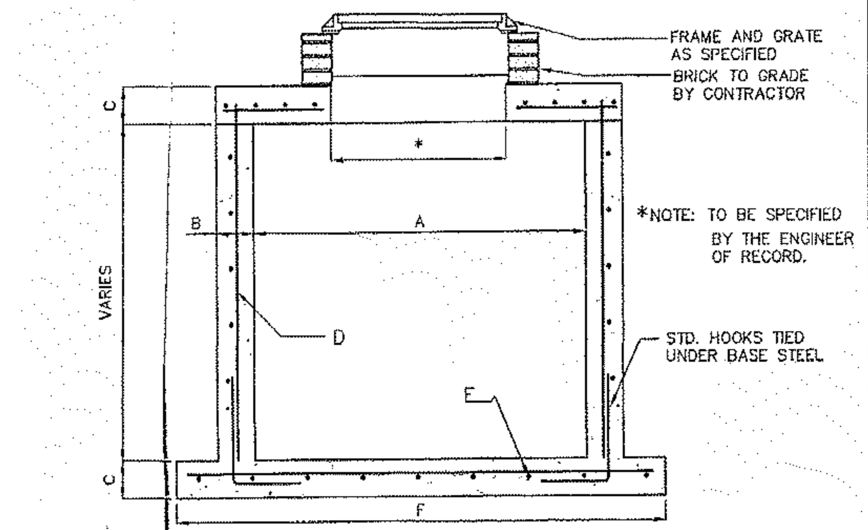
1. THE FRENCH-DRAIN SKIMMER IS A HOODED COVER, MOUNTED OVER AN OUTLET IN A CATCH-BASIN, THAT PREVENTS OIL AND FLOATING DEBRIS FROM EXITING THE BASIN. USE THIS SKIMMER IN FRENCH-DRAIN CATCH-BASINS AND IN OTHER LOCATIONS WHERE THERE IS A NEED TO PREVENT OIL, DEBRIS OR OTHER FLOATING CONTAMINANTS FROM EXITING CATCH-BASINS THROUGH OUTLET PIPES.
2. PLACE NEOPRENE GASKET MATERIAL BETWEEN THE SKIMMER AND THE CATCH-BASIN AT ALL POINTS OF CONTACT. TRIM THE GASKET NEATLY TO EXTEND ½ INCH BEYOND THE JOINT ON ALL SIDES.
3. SKIMMER BAFFLE, CLEANOUT PIPE AND ANGLES SHALL BE PRIMARILY CONSTRUCTED OF EITHER GALVANIZED STEEL, ALUMINUM, POLYVINYL CHLORIDE, POLYETHYLENE, FIBERGLASS OR ACRYONITRILE BUTADIENE STYRENE. ALL STEEL COMPONENTS, OTHER THAN STAINLESS, SHALL BE HOT-DIP GALVANIZED.
4. MOUNTING HARDWARE, HINGES AND LATCHES SHALL ALL BE STAINLESS STEEL. LOSS PREVENTION DEVI[CE] SHALL BE EITHER STAINLESS STEEL CHAIN OR RIVETED NYLON STRAP.
5. MATERIAL USED IN CONSTRUCTION OF SKIMMER BODIES (BAFFLES) AND CLEANOUT PIPE SHALL COMPLY WITH STANDARD SPECIFICATIONN 943 FOR STEEL, 945 FOR ALUMINUM OR 948 FOR PLASTICS.
6. ALL COSTS FOR FURNISHING AND INSTALLING A FRENCH-DRAIN SKIMMER SHALL BE INCLUDED IN COST OF THE BASIN IN WHICH IT IS INSTALLED. RETROFIT SKIMMERS SHALL BE PAID FOR AS "MODIFY EXISTING STRUCTURE".
7. PLASTIC SKIMMERS SHALL CONTAIN A MINIMUM OF 1.5% BY WEIGHT OF CARBON BLACK FOR UV PROTECTION.
8. REFER TO 2006 FDOT DESIGN STANDARDS, INDEX NO. 241.

DESIGN NOTES

1. THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE DESIGN PRE-FABRICATED FRENCH-DRAIN SKIMMER FOR APPROVAL BY THE ENGINEER.
2. SHOW, IN THE PLANS, THE LOCATION OF THE BASIN AND INDICATE THE INTERIOR SIDE(S) OF THE BASIN IN WHICH THE SKIMMER WILL BE INSTALLED.
3. TYPE I SKIMMER DIMENSIONS SHALL BE BASED ON THE OUTLET PIPE DIAMETER AS SHOWN IN THE DIMENSION TABLE.
4. TYPE II SKIMMERS ARE TO BE USED ONLY WITH OUTLET PIPE DIAMETERS OF 15", 18", AND 24".

GENERAL AND DESIGN NOTES FOR SKIMMER FOR FRENCH-DRAIN OUTLETS
N.T.S.

MIAMI BEACH PUBLIC WORKS DEPARTMENT | STORM WATER DETAILS NO. 4 GENERAL AND DESIGN NOTES FOR SKIMMER FOR FRENCH-DRAIN OUTLETS | SD29

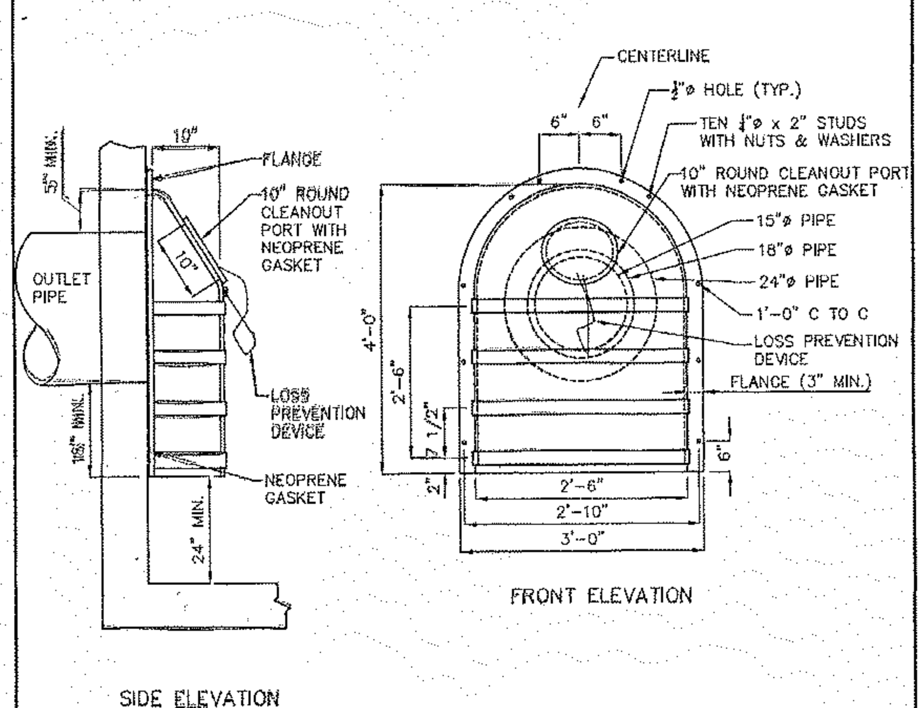


GENERAL DETAILS
1-PROVIDE SHOP DRAWINGS OF STRUCTURES.
2-PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478, SHALL BE TYPE II ACID RESISTANT CEMENT AND SHALL MAINTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS.
3-REFER TO FDOT INDEX 200 FOR ADDITIONAL DETAILS AND SPECIFICATIONS.
4-ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60, ALL COVER SHALL BE 3 INCHES MINIMUM.
5-INSTALL LIFT HOOKS AS REQUIRED.

A	B	C	D	E	F	G	H
4'-0" ø	8"	8"	#4 AT 12" CCEW	#4 AT 12" CCEW	6'-4" ø	5'-4" ø	#4 AT 6" CCEW
5'-0" ø	8"	8"	#5 AT 12" CCEW	#5 AT 12" CCEW	7'-4" ø	6'-4" ø	#5 AT 8" CCEW
6'-0" ø	8"	10"	#5 AT 12" CCEW	#5 AT 6" CCEW	8'-4" ø	7'-4" ø	#5 AT 6" CCEW
7'-0" ø	8"	10"	#5 AT 12" CCEW	#5 AT 6" CCEW	9'-4" ø	8'-4" ø	#5 AT 6" CCEW
8'-0" ø	10"	10"	2 - W.W.M. W/#4 AT 12" CC VERT.	#5 AT 6" CCEW	10'-8" ø	9'-8" ø	#5 AT 6" CCEW

STANDARD STORM WATER MANHOLE AND TABLE DIMENSIONS
N.T.S.

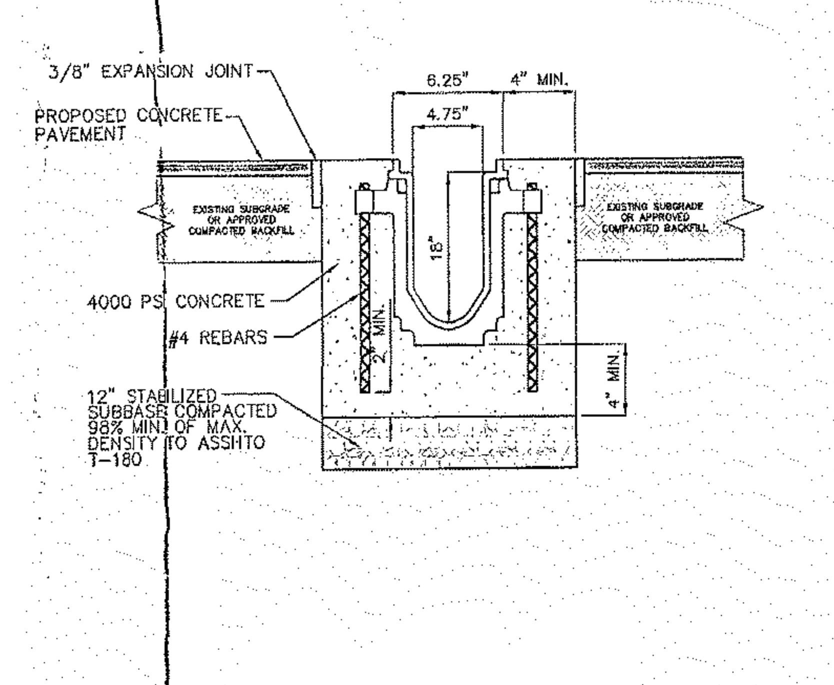
MIAMI BEACH PUBLIC WORKS DEPARTMENT | STORM WATER DETAILS NO. 1 STANDARD STORM WATER MANHOLE AND TABLE DIMENSIONS | SD2



NOTES:
1. THE CLEANOUT PORT FOR THE TYPE II SKIMMER SHALL BE GASKETED, WITH EITHER A THREADED SCREW-IN LID OR A LID SECURED BY FOUR STAINLESS STEEL QUICK-RELEASE LATCHES.
2. THE BACKS OF SKIMMERS MUST CONFORM TO THE SHAPE OF THE BASIN WALLS ON WHICH THEY ARE MOUNTED.
3. SHOW, IN THE PLANS, THE RADII REQUIRED FOR CURVED-BACK SKIMMERS.

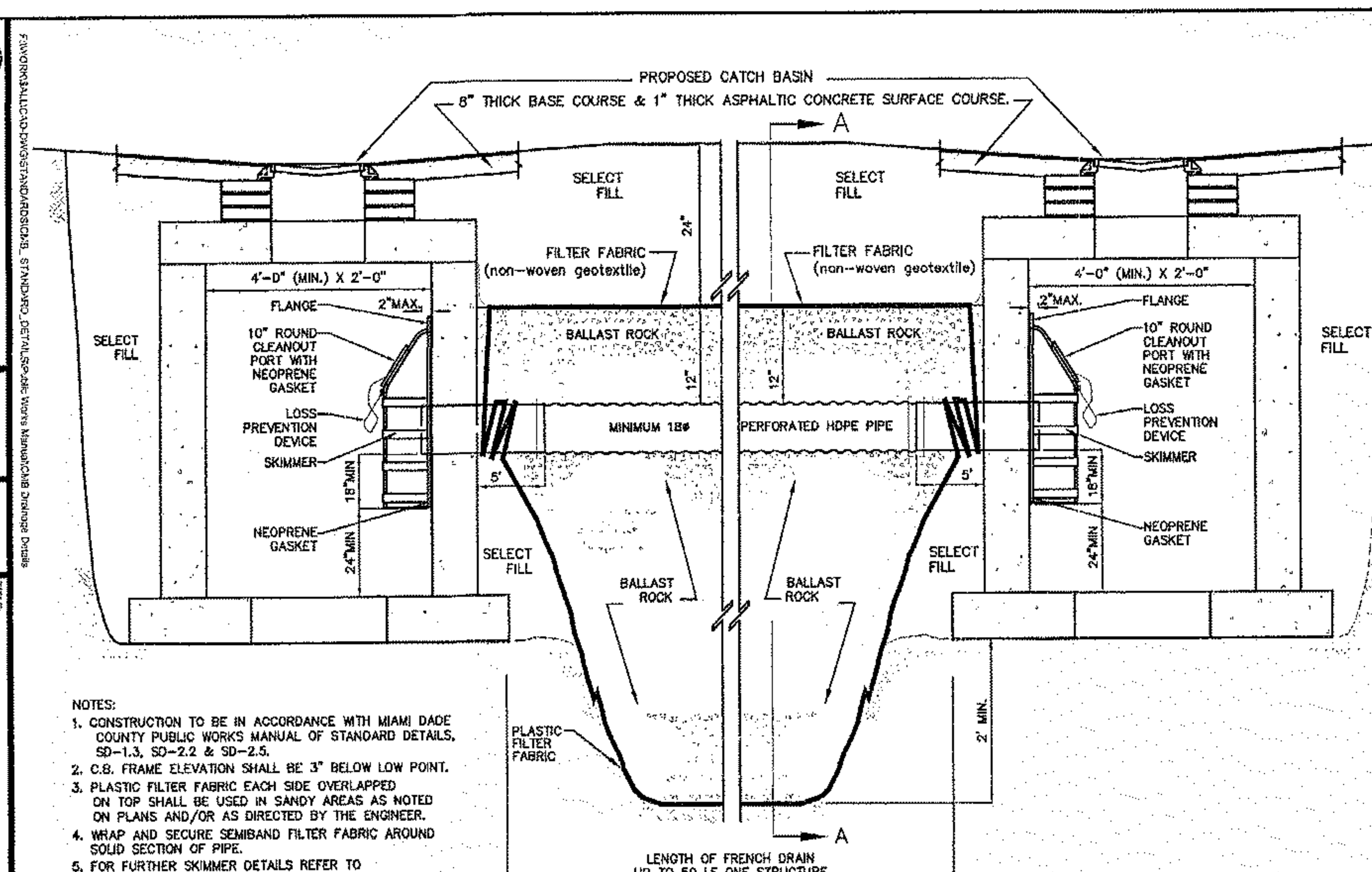
TYPE II SKIMMER FOR FRENCH-DRAIN OUTLETS
N.T.S.

MIAMI BEACH PUBLIC WORKS DEPARTMENT | STORM WATER DETAILS NO. 4 TYPE II SKIMMER FOR FRENCH-DRAIN OUTLETS | SD28



TRENCH DRAIN SYSTEM DETAIL
N.T.S.

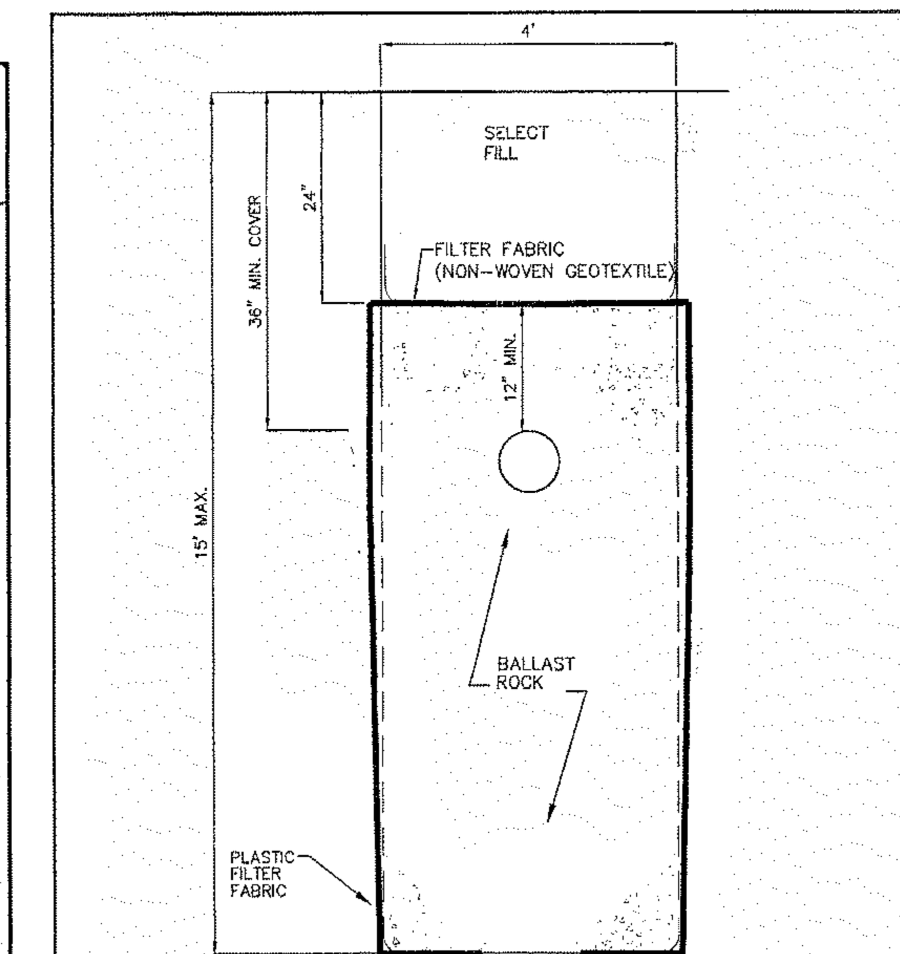
MIAMI BEACH PUBLIC WORKS DEPARTMENT | STORM WATER DETAILS NO. 4 TRENCH DRAIN SYSTEM DETAIL | SD24



NOTES:
1. CONSTRUCTION TO BE IN ACCORDANCE WITH MIAMI DADE COUNTY PUBLIC WORKS MANUAL OF STANDARD DETAILS, SD-1.3, SD-2.2 & SD-2.5.
2. C.B. FRAME ELEVATION SHALL BE 3" BELOW LOW POINT.
3. PLASTIC FILTER FABRIC EACH SIDE OVERLAPPED ON TOP SHALL BE USED IN SANDY AREAS AS NOTED ON PLANS AND/OR AS DIRECTED BY THE ENGINEER.
4. WRAP AND SECURE SEMBAND FILTER FABRIC AROUND SOLID SECTION OF PIPE.
5. FOR FURTHER SKIMMER DETAILS REFER TO STANDARDS: SD26, SD27, SD28, & SD29.

EXFILTRATION TRENCH
N.T.S.

MIAMI BEACH PUBLIC WORKS DEPARTMENT | STORM WATER DETAILS NO. 3 EXFILTRATION TRENCH DETAIL | SD19a



SECTION A-A

EXFILTRATION TRENCH DETAIL SECTION A-A
N.T.S.

MIAMI BEACH PUBLIC WORKS DEPARTMENT | STORM WATER DETAILS NO. 3 EXFILTRATION TRENCH DETAIL SECTION A-A | SD19b

PAVING, GRADING AND DRAINAGE NOTES:

1- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF MIAMI BEACH, MIAMI-DADE COUNTY DERM, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), AND ALL OTHER LOCAL AND NATIONAL CODES WHERE APPLICABLE.

2- ALL WORK TO BE IN COMPLIANCE WITH THE REQUIREMENTS OF AND ACCEPTABLE TO THE CITY OF MIAMI BEACH, MIAMI-DADE COUNTY, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT).

3- CONTRACTOR SHALL PROVIDE HIS OWN LINE AND GRADE FROM HORIZONTAL AND VERTICAL CONTROL. CONTRACTOR SHALL ALSO PROVIDE 'AS-BUILT' GRADE CERTIFIED BY A REGISTERED LAND SURVEYOR, AS REQUIRED BY MIAMI-DADE COUNTY, AND THE CITY OF MIAMI-BEACH.

4- REFER TO STRUCTURAL PLANS FOR SPECIFICATIONS AND DETAILS FOR PARKING GARAGE SLAB UNDER PROPOSED BUILDING.

5- ALL ELEVATIONS REFER TO N.G.V.D., 1929 DATUM.

6- ALL EXCAVATIONS SHALL COMPLY WITH OSHA'S SAFETY EXCAVATION STANDARDS AND FLORIDA'S TRENCH SAFETY ACT. CONTRACTOR SHALL FURNISH THE OWNER WITH WRITTEN ASSURANCE THAT HE WILL COMPLY WITH THESE REGULATIONS.

7- BID PRICES SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS COMPLETE IN-PLACE, TESTED, AND ACCEPTED BY THE ENGINEER.

8- ALL AREAS WHERE NEW STORM DRAINAGE IMPROVEMENTS ARE INSTALLED SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING STRUCTURE CONTRACTOR SHALL SOD ALL AREAS DISTURBED BY THE WORK UPON COMPLETION OF THE GRADING.

9- CONTRACTOR SHALL REMOVE AND REPLACE SIDEWALK ALONG THE ENTIRE PROPERTY LINE.

10- CONTRACTOR SHALL RECONSTRUCT SWALE/SOD ALONG THE ENTIRE PROPERTY LINE.

11- CONTRACTOR SHALL MILL AND RESURFACE 2-INCHES AVERAGE USING S-III ASPHALT MIX DESIGN ON THE DRIVING LANE (10-FOOT WIDE) ALONG THE ENTIRE PROPERTY LINE.

12- ANY WORK AND/OR IMPROVEMENTS FROM/TO THE RIGHT-OF-WAY INCLUDING LANDSCAPING AND IRRIGATION WILL REQUIRE A SEPARATE CMB PUBLIC WORKS DEPARTMENT RIGHT-OF-WAY CONSTRUCTION PERMIT.

13- ALL CONSTRUCTION AND/OR USE OF EQUIPMENT IN THE RIGHT-OF-WAY WILL A SEPARATE CMB PUBLIC WORKS DEPARTMENT RIGHT-OF-WAY CONSTRUCTION PERMIT PRIOR TO THE START OF CONSTRUCTION

14- A CMB RIGHT-OF-WAY CONSTRUCTION PERMIT IS REQUIRED BEFORE STARTING ANY DEMOLITION AND/OR CONSTRUCTION ACTIVITY INSIDE THE RIGHT-OF-WAY.

305-673-7080
CITY OF MIAMI BEACH

48 HOURS BEFORE DIGGING CALL
SUNSHINE STATE ONE CALL OF FL., INC.
TOLL FREE
1-800-432-4770
UNDERGROUND UTILITIES NOTIFICATION CENTER OF FLORIDA

PL MGS 12/2/15

Stanley Fardin, P.E.
Date: 08-14-15

Samabi Group Inc.
Consulting Engineers
13335 SW 124th STREET, SUITE 111
MIAMI, FL 33186
T: 305-454-8212
F: 305-514-0582
samabi@bellsouth.net
Certificate of Authorization No.: 26611

DRAWN BY:
REVISIONS:

AA0003569
ANTHONY LEON

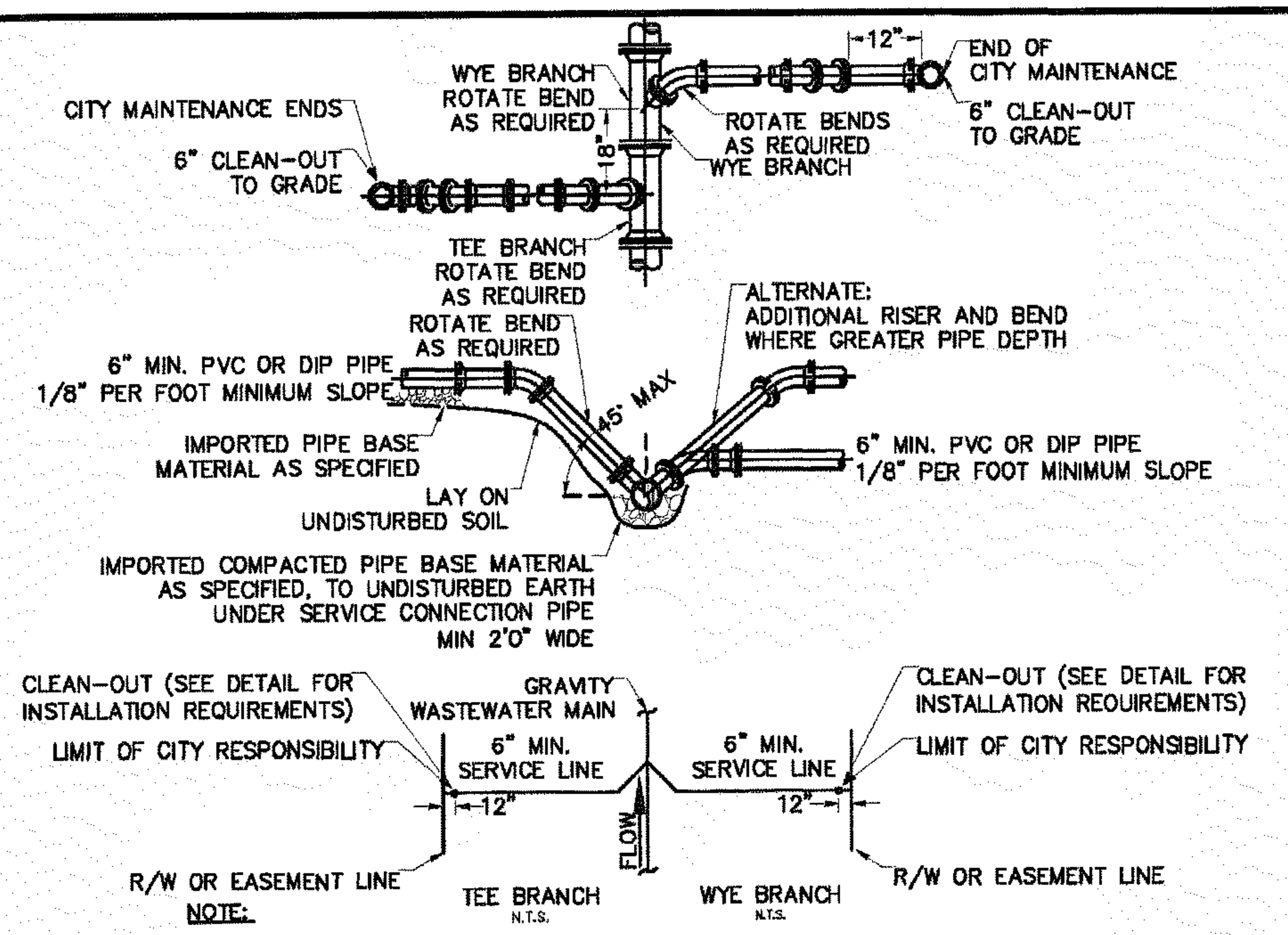
3 DESIGN ARCHITECTURE
4300 Biscayne Blvd, #G-04, Miami, FL 33137
P: 305.438.9377 | F: 305.438.9379

SEAL

NEW RESIDENCE FOR
4354 ALTON ROAD
MIAMI BEACH, FL 33139

THESE PLANS ARE FOR BUILDING DEPARTMENT REVIEW ONLY. THEY ARE NOT TO BE CONSTRUED AS CONSTRUCTION DOCUMENTS UNTIL ALL BUILDING DEPARTMENT APPROVALS ARE OBTAINED.

C-2
GENERAL NOTES DETAILS

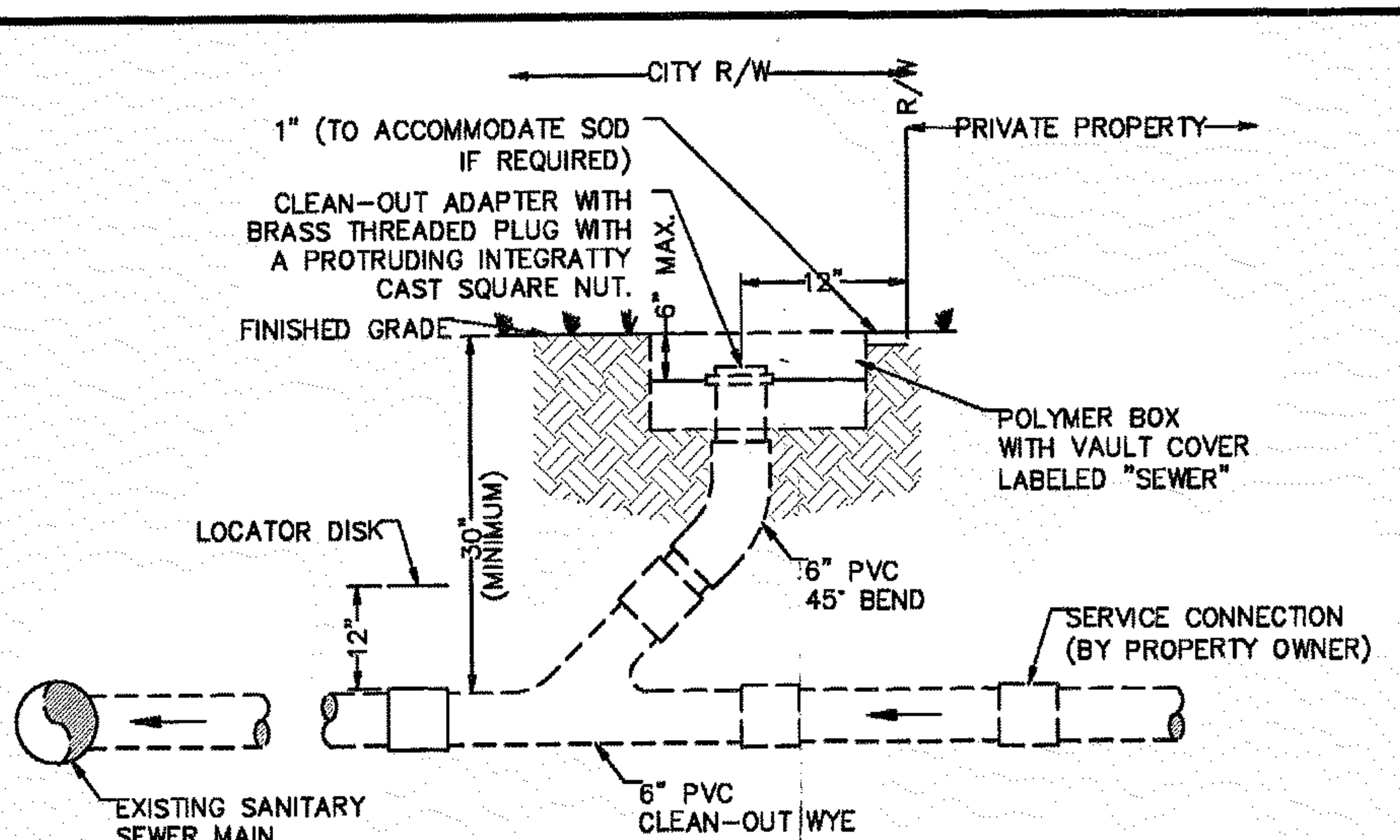


NOTE:

1. WASTEWATER MAIN WYE BRANCH FITTING TO MATCH MAIN PIPE MATERIAL
2. NO 90° BENDS SHALL BE USED FOR WASTEWATER SERVICE AND CLEAN-OUT INSTALLATIONS
3. SERVICE LATERALS SHALL TERMINATE 12" OUTSIDE THE PROPERTY LINE AT A DEPTH OF 30" EXCEPT WHERE A DEEPER INVERT IS REQUIRED BY EXISTING BUILDING CONDITIONS, AND ENDED WITH A 1"X2" TREATED WOODEN STAKE

TYPICAL WASTEWATER SERVICE CONNECTION
N.T.S.

MIAMIBEACH PUBLIC WORKS DEPARTMENT
SANITARY SEWER DETAILS NO.2
TYPICAL WASTEWATER SERVICE CONNECTION
SS8



NOTE:

1. PROVIDE APPROVED PLUG OR JOINT FOR DISSIMILAR GRAVITY SEWER PIPE FOR HOUSE SERVICE CONNECTION.
2. CLEAN-OUT ASSEMBLY SHALL BE INSTALLED AT PROPERTY LINE.
3. 30" MIN. FOR RESIDENTIAL SERVICE UNLESS OTHERWISE SHOWN.
4. 8" DIAMETER LATERALS FOR MULTI-FAMILY AND NON-RESIDENTIAL PROPERTIES ARE TO BE CONNECTED TO THE MAIN THROUGH A MANHOLE.

TYPICAL CLEAN-OUT INSTALLATION CONNECTION
N.T.S.

MIAMIBEACH
SANITARY SEWER DETAILS NO.2
TYPICAL CLEAN-OUT INSTALLATION CONNECTION
SS9

WATER & SEWER INSTALLATION NOTES:

1– A HORIZONTAL DISTANCE OF 10 FT. SHALL BE MAINTAINED BETWEEN WATER & SEWER MAINS. WHEN THE 10 FEET HORIZONTAL DISTANCE CRITERIA CANNOT BE MET DUE TO AN EXISTING UNDERGROUND FACILITY CONFLICT, THE SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH MECHANICAL JOINTS.

2– A VERTICAL DISTANCE OF AT LEAST 18 INCHES SHALL BE MAINTAINED BETWEEN ANY WATER AND SEWER MAINS. THE SEWER SHALL BE A DUCTILE IRON SINGLE 20 FEET LENGTH CENTERED ON THE CROSSING IF THE MINIMUM VERTICAL DISTANCE IS LESS THAN 18 INCHES OR THE SEWER IS INSTALLED ABOVE THE WATER MAIN (REGARDLESS OF SEPARATION).

3– IN HIGHLY CONGESTED AREAS, WHERE EITHER WATER OR SEWER FACILITIES ARE EXISTING AND THE SEPARATION REQUIREMENTS CANNOT BE MET, SPECIAL CONSIDERATION MAY BE GIVEN SUBJECT TO A COMPLETE EVALUATION OF EXISTING AND PROPOSED CONDITIONS.

4– THE MAXIMUM ALLOWABLE EXFILTRATION RATE OF GRAVITY SANITARY SEWERS CONSTRUCTED IN A PUBLIC WELLFIELD PROTECTION AREA SHALL BE FIFTY (50) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY FOR RESIDENTIAL LAND USE AND TWENTY (20) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY FOR NONRESIDENTIAL LAND USE.

5– SANITARY SEWER FORCE MAIN EXFILTRATION RATE SHALL NOT BE GREATER THAN ONE-HALF (1/2) THE ALLOWABLE LEAKAGE RATE SPECIFIED IN AWWA C600–82 AT A TEST PRESSURE OF 100 POUNDS PER SQUARE INCH.

6– THE CONTRACTOR SHALL VERIFY NATURE, DEPTH, AND CHARACTER OF EXISTING UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.

7– ALL OTHER PUBLIC OR PRIVATE UTILITY FACILITIES SHALL BE CONSTRUCTED AT LEAST 3 FEET (HORIZONTAL SEPARATION) FROM ANY WATER AND SEWER MAIN AS MEASURED FROM THE OUTSIDE BELL OF THE WATER AND SEWER PIPE TO THE OUTSIDE OF THE UTILITY PIPE.

8– WHEN THE 3 FEET HORIZONTAL SEPARATION BETWEEN PROPOSED AND EXISTING LINE IS NOT POSSIBLE, THE CONTRACTOR SHALL HAND DIG OR EXPOSE THE WATER AND SEWER PIPES BEFORE PROCEEDING WITH POWER EQUIPMENT EXCAVATION.

9– IN NO CASE SHALL A CONTRACTOR INSTALL UTILITY PIPES, CONDUITS, CABLES, ETC., IN THE SAME TRENCH PARALLEL TO AND ABOVE EXISTING WATER AND SEWER PIPES EXCEPT WHERE THEY CROSS. ANY DEVIATION FROM NOTES 6, 7 AND 8 SHALL BE APPROVED IN WRITING BY THE RESPONSIBLE WATER AND SEWER UTILITY.

SPECIALE NOTES:

1– SEE SHEET C–2 FOR DRAINAGE PLAN, AND SHEET C–4 FOR DRAINAGE DETAILS.

2– SEE ARCHITECTURAL AND STRUCTURAL PLAN FOR ADDITIONAL DETAILS.

3– CONTRACTOR SHALL REPAIR/REPLACE EXISTING PAVEMENT, CURB AND GUTTER, DRIVEWAY, SIDEWALK, AND OTHER EXISTING FEATURES DAMAGED DURING THE INSTALLATION OF THE IMPROVEMENTS AS PER THE CITY OF MIAMI BEACH AND/OR FDOT STANDARDS.

4– ALL EXISTING PAVEMENT MARKINGS AND SIGNAGE IN THE RIGHT–OF–WAY TO REMAIN.

5– ALL PROPOSED PAVEMENT MARKINGS AND SIGNAGES SHALL CONFORM TO THE CITY OF MIAMI BEACH AND/OR FDOT STANDARDS.

6– FOR MAINTENANCE OF TRAFFIC, REFER TO FDOT INDEX NO. 600, AND NO. 603

7– FOR ADDITIONAL NOTES AND SPECIFICATIONS, CONTRACTOR SHALL REFER TO CITY OF MIAMI BEACH PUBLIC WORKS MANUAL, PART II, SECTION 6 – WATER AND DISTRIBUTION SYSTEM, SECTION 7 – SANITARY SEWER COLLECTION SYSTEM, AND SECTION 8 – STORM WATER DRAINAGE SYSTEM.

8– SEE PLUMBING PLANS FOR CONTINUATION OF SANITARY SEWER SERVICE LINES AND EQUIPMENT.

2 BUSINESS DAYS PRIOR TO ANY EXCAVATIONS PLEASE CONTACT OUR OFFICE FOR LOCATIONS OF CITY UTILITIES
305–673–7080
PUBLIC WORKS DEPARTMENT
CITY OF MIAMI BEACH

48 HOURS BEFORE DIGGING
CALL
SUNSHINE STATE ONE CALL
OF FL., INC.
TOLL FREE
1–800–432–4770
UNDERGROUND UTILITIES NOTIFICATION
CENTER OF FLORIDA

PL MGS 12/2/15

Stanley Fardin, P.E.
FL-PE # 058023?
Date:

Samabi GROUP INC.
Consulting Engineers
13335 SW 124th STREET, SUITE 111
MIAMI, FL 33186
T: 305-454-8212
F: 305-514-0582
samabi@bellsouth.net
Certificate of Authorization No.: 26611

DRAWN BY:
REVISIONS:
1 11/19/15

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3 DESIGN
ARCHITECTURE
4300 Biscayne Blvd. #G-04, Miami, FL 33137
P: 305.438.9377 | F: 305.438.9379

SEAL

NEW RESIDENCE
FOR:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

THESE PLANS ARE FOR BUILDING DEPARTMENT REVIEW ONLY. THEY ARE NOT TO BE CONSTRUED AS CONSTRUCTION DOCUMENTS UNTIL ALL BUILDING DEPARTMENT APPROVALS ARE OBTAINED.

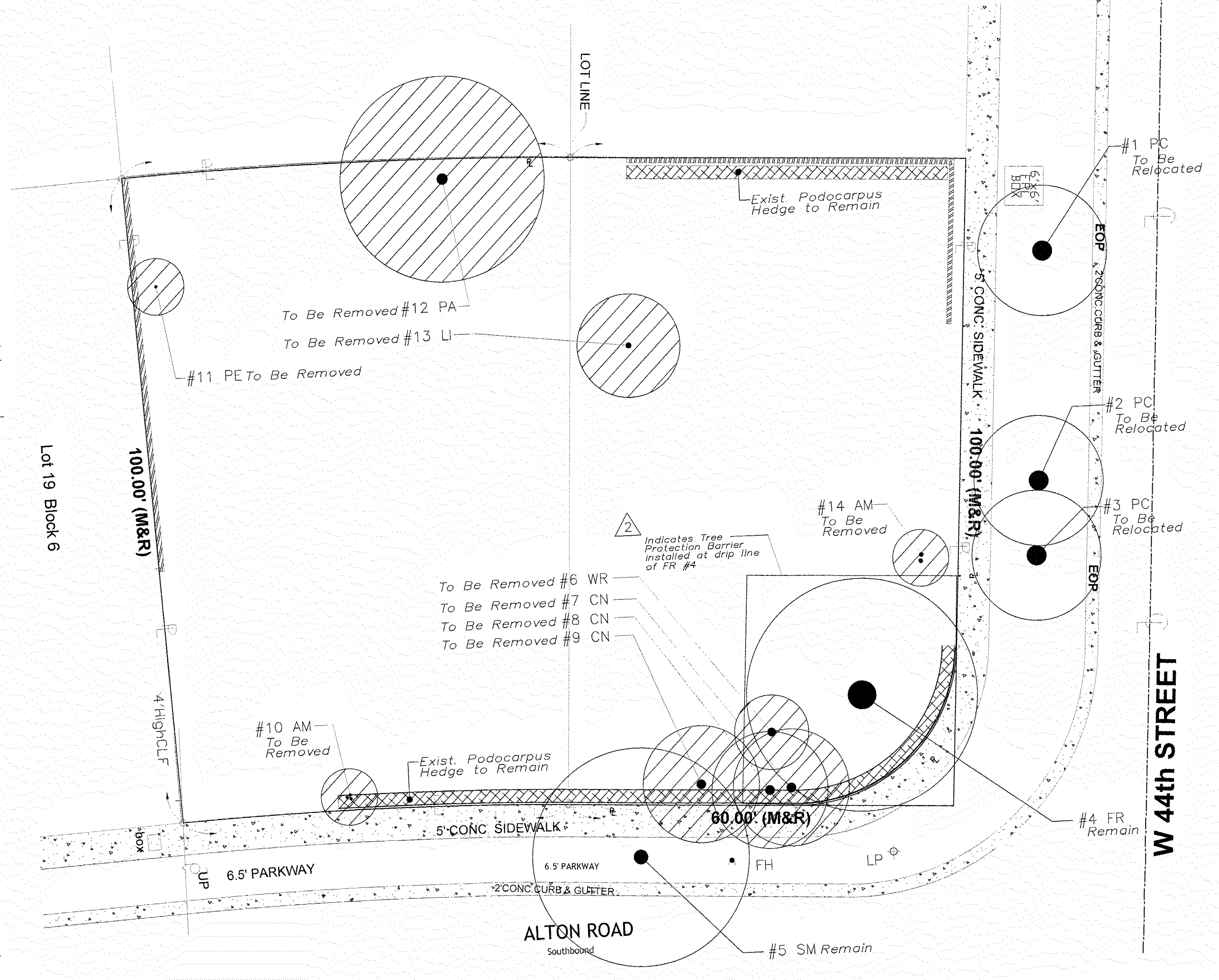
1

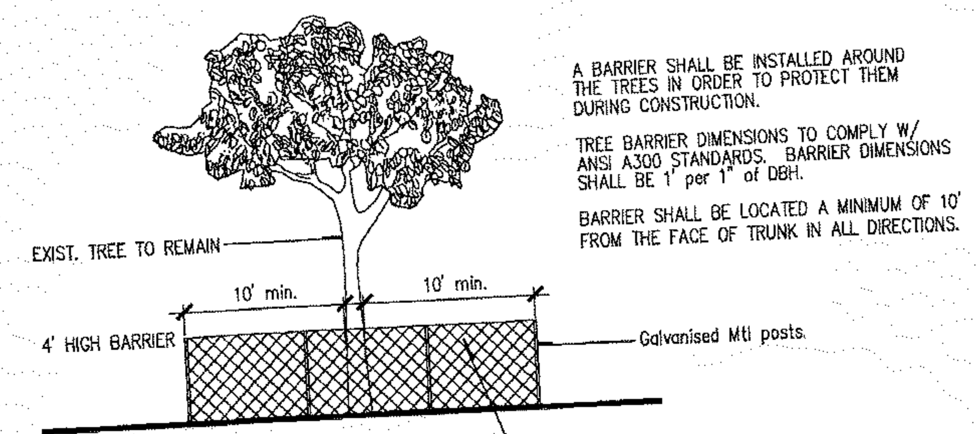
C-3
SANITARY SEWER NOTES - DETAILS

Tree Survey

#–Key	Botanical / Common Name	Disposition	Description, Notes
#1 PC	Phoenix canariensis / Canary Island Date	–Relocate–	18' oa ht, 20' spr, 35" dbh.
#2 PC	Phoenix canariensis / Canary Island Date	–Relocate–	18' oa ht, 20' spr, 31" dbh.
#3 PC	Phoenix canariensis / Canary Island Date	–Relocate–	16' oa ht, 18' spr, 28" dbh.
#4 FR	Ficus religosa / Bo Tree	Remain	35' oa ht, 35' spr, 17,25,21,7,8" dbhs
#5 SM	Swietenia mahogani / Mahagony	–Remove–	25' oa ht, 33' spr, 18" dbh,
#6 WR	Washingtonia robusta / Washingtonia Palm	–Remove–	25' oa ht, 33' spr, 18" dbh,
#7 CN	Cocos nucifera / Coconut Palm	–Remove–	45' oa ht, 20' spr, 8.5" dbh,
#8 CN	Cocos nucifera / Coconut Palm	–Remove–	45' oa ht, 20' spr, 10" dbh.
#9 CN	Cocos nucifera / Coconut Palm	–Remove–	45' oa ht, 18' spr, 11.5" dbh.
#10 AM	Adonidia merrillii / Christmas Palm	–Remove–	24',18',14' oa ht, 13' spr, 3 @ 4" dbh.
#11 PE	Ptychosperma elegans / Alexander Palm	–Remove–	20' oa ht, 8' spr, 3" dbh,
#12 PA	Persea americana / Avocado	–Remove–	30' oa ht, 32' spr, 13" dbh,
#13 LI	Lagerstromia indica / Crape Myrtle	–Remove–	20' oa ht, 16' spr, 8" dbh,
#14 AM	Adonidia merrillii / Christmas Palm	–Remove–	22', 18' oa ht, 15' spr, 2 @ 5" dbh,

Indicates Existing Tree / Palm To Be Removed





A BARRIER SHALL BE INSTALLED AROUND THE TREES IN ORDER TO PROTECT THEM DURING CONSTRUCTION.

TREE BARRIER DIMENSIONS TO COMPLY W/ ANSI A300 STANDARDS. BARRIER DIMENSIONS SHALL BE 1' per 1" of DBH.

BARRIER SHALL BE LOCATED A MINIMUM OF 10' FROM THE FACE OF TRUNK IN ALL DIRECTIONS.

Galv. mtl. chain link fence w/posts @ 8' oc. Field locate posts to avoid disturbane (damage) to roots., Post locotions to not exceed 8' oc.

CITY OF MIAMI BEACH
TREE PROTECTION BARRIER DETAIL — N.T.S.

CITY OF MIAMI BEACH TREE PROTECTION NOTES

1) Understory plants within areas surrounded by protective barriers shall be protected.
2) No oil, fill, equipment, building materials, building debris, or ony other material sholl be placed within the oreo surrounded by the protective barrier.
3) No disposol of any waste material such as paints, oils, solvents, asphalt, concrete, mortar, or ony other materiol shall occur within the areos surrounded by protective barriers.
4) Natural grade shall be maintained on areas surrounded by the protective barriers. In the event that the natural grode of the site is changed as a result of site development such thot the safety of the tree is endangered, tree wells or retaing walls are required.
5) Only hond digging ond grading activities will be permitted within thebtree protection zone. All surrounding oreas must be graded to a point that meets the outside of the tree protection zone.
6) Underground utility lines, including, but not limited to, irrigation, plumbing, electricol, or tele–. communication lines shall be placed outside the areos enclosed by protective barriers. If said placement is not possible, disturbance and root damage shall be minimized by using techniques such as tunneling, hand digging, excavotions with an air spade, or use of overhead utility lines.
7) No vehicles or equipment sholl be permitted within areas surrounded by the protective borrier.
8) Written permission is required from the Urban Forester & the Planning Department prior to removal of the Tree Protection Barrier, in order to complete the work, within the boundary. Work performed within the boundary is to be done by hand, (no machinery), and an on–site walk through may be required.

TREE SURVEY & DISPOSITION PLAN
SCALE: 1/8" = 1'-0

DRAWN BY:
REVISIONS:
1 8-14-15
2 11-25-15

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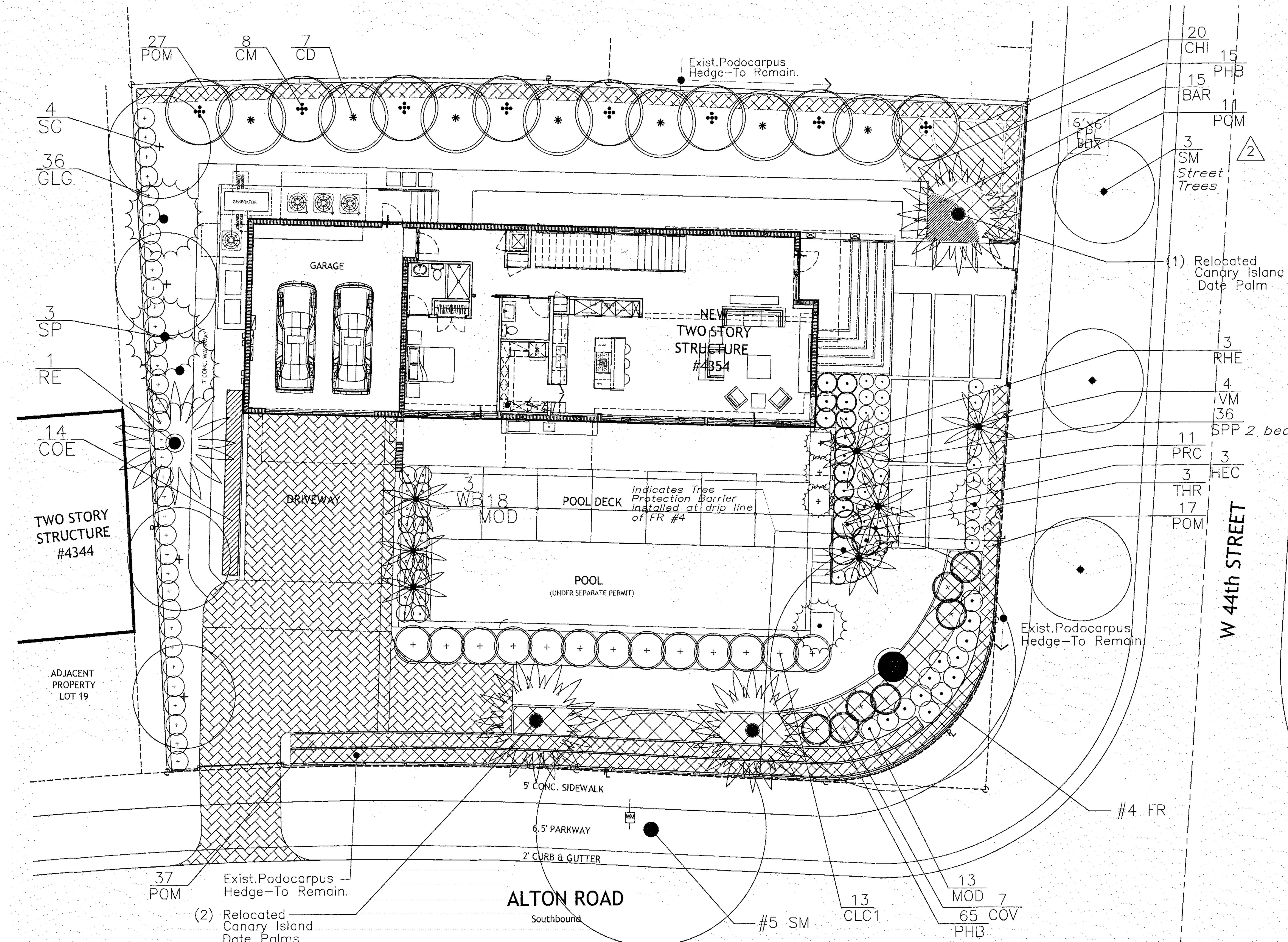
ANTHONY LEON
0016752

3 DESIGN ARCHITECTURE
4300 Biscayne Blvd. #G-04, Miami, FL 33137
P: 305.438.9377 | F: 305.438.9379

H.L. Martin, Landscape Architect, P.A.
LC# 26000404 LA #0001722
5965 SW 38th Street, Miami, Florida 33155
305 790-4372
Herbert L. Martin, Landscape Architect

NEW RESIDENCE AT: 4354 ALTON ROAD MIAMI BEACH, FL 33139

LA 1.0
TREE SURVEY & DISPOSITION PLAN



LANDSCAPE LEGEND
City of Miami Beach

Zoning District: RS-4 Net Lot Area: .28 acres 12,446 s.f.

		REQUIRED	PROVIDED
A. Square Feet of open space required by Chapter 33, as indicated on site plan: Net lot area= ____s.f. x ____ %=square fee			
B. Square Feet of parking lot open space required by Chapter 18A, as indicated on site plan: No. parking spaces NA x per parking space=		NA	NA
C. Total s.f. of landscaped open space required by Chapter 33: A + B=			
A. Total square feet of landscaped open space required by Chapter 33=			
B. Maximum lawn area (sod) permitted= ____% x ____ square feet=			
A. No. trees required per net lot acre		3	10 New Trees
less existing number of trees meeting minimum requirements:	-(1 exist. to remain)	1	1 Exist. Tree
= 3 trees x net lot acres (____) square feet=			15P / 7T
B. 30 % palms allowed (two palms=one tree) Palms provided=		1	15P / 7T
C. Percentage of natives required= the number of trees provided x 30% =		1	4
D. Street trees (maximum average spacing of 35' o.c.): 220' linear feet along street / 35 =		6	4 (1 exist.)
E. Street trees located directly beneath power lines (maximum average spacing of 25' o.c.): N/A linear feet along street / 25 =		N/A	N/A
F. Total number of trees provided A+D+E=		9	22
A. The total number of trees required x 10 = the number of shrubs required	(@18" ht. min.)	90	161
B. The number of shrubs required x 30%=the number of native shrubs required		27	34

Required by Chapter 33. Auto Irrigation or hose bib____provided.

Plant List

Qty	Key	Botanical / Common Name	Description	
4	SG	Simarubo glauca / Paradise Tree	12' oa ht, 2" cal, 5' spr.	Yes
3	SM	Swietenia mahogani / Mahogany Street Trees	14' oa ht, 3" cal, 7' spr, 4' ct	Yes
1	RE	Roystonea elata / Royal Palm	14' GW, 28-30' oa hts	Yes
3	THR	Thrinax radiata / Thatch Palm	5', 7', 9' oa hts	Yes
4	VM	Veitchia montgomeriana / Veitchia Palm	22', 18', 2 @ 14' oa hts	No
7	CD	Coccoloba diversifolia / Pigeon Plum	12' oa ht, 2" cal, 5' spr.	Yes
8	CM	Caryota mitis / Fishtail Palm	16'-18' oa ht, 8' spr, 5 trunks, min.	No
3	SP	Sabal palmetto / Sabal Palm	16'-30' oa hts, staggered	Yes
3	WB	Wodyetia bifurcata / Foxtail Palm	18' oa hts, matched	No
3	RHE	Rhapis excelsa / Lady Palm	4'-5' ht, 3'spr, 15 gal.	No
14	COE	Conocarpus erectus / Green Buttonwod	36"ht x 18"spr, 7 gal.	Yes
20	CHI	Chrysobolanus icaco / Red Tip Cocoplum	18"ht x 18"spr, 3 gal.	Yes
92	POM	Podocarpus macrophyllus / Podocarpus	7-8'ht x 3'spr, 45 gal.	No
36	CLG	Clusia guttifera / Small Leaf Clusia	4-5'ht x 2'spr, 15 gal.	No
13	CLG1	Clusia guttifera / Small Leaf Clusia	8-9'ht x 3'spr, 25 gal.	No
7	COV	Codiaeum variegatum / Crotons	30"ht, 24" spr. 15 gal.	No
3	HEC	Hedychium coronarium / White Ginger	30"ht, 24" spr. 15 gal.	No
31	MOD	Monstera deliciosa / Monstera	24"ht, 24"spr, 7 gal.	No
80	PHB	Philodendron Burle Marx / Burle Marx	16"ht x 16"spr, 3 gal.	No
11	PRC	Philodendron rojo-congo / Rojo Congo	18"ht, 18"spr, 3 gal.	No
15	BAR	Barleria repens / Coral Creeper	8"ht x 8" spr, 3 gal.	No
36	SPP	Spathoglottis plicata / Ground Orchids	18"ht x 18"spr, 3 gal.	No

Tree Disposition List (Remain & Relocated)

#-Key	Botanical / Common Name	Disposition	Description, Notes
#1 PC	Phoenix canariensis / Canary Island Date	Relocated	18' oa ht, 20' spr, 35" dbh.
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#4 FR	Ficus religosa / Bo Tree	Remain	35' oa ht, 35' spr, 17,25,21,7,8" dbhs

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

DRAWN BY:

REVISIONS:
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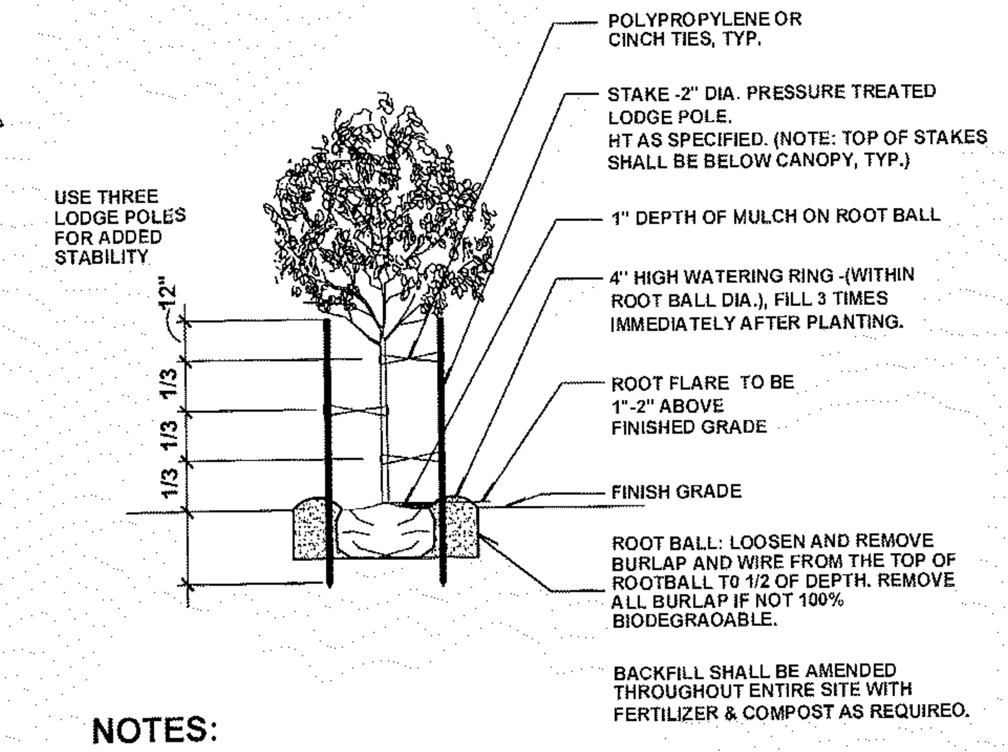
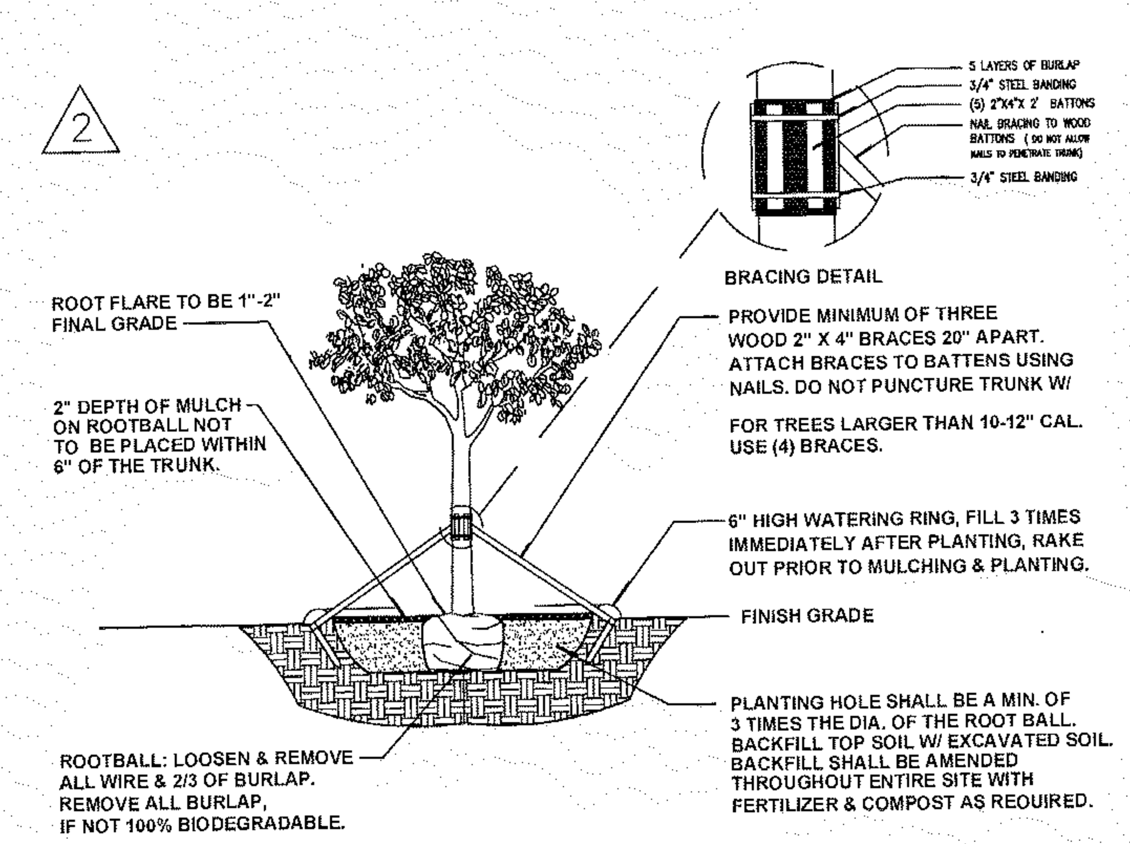
LA 1.1
LANDSCAPE PLAN



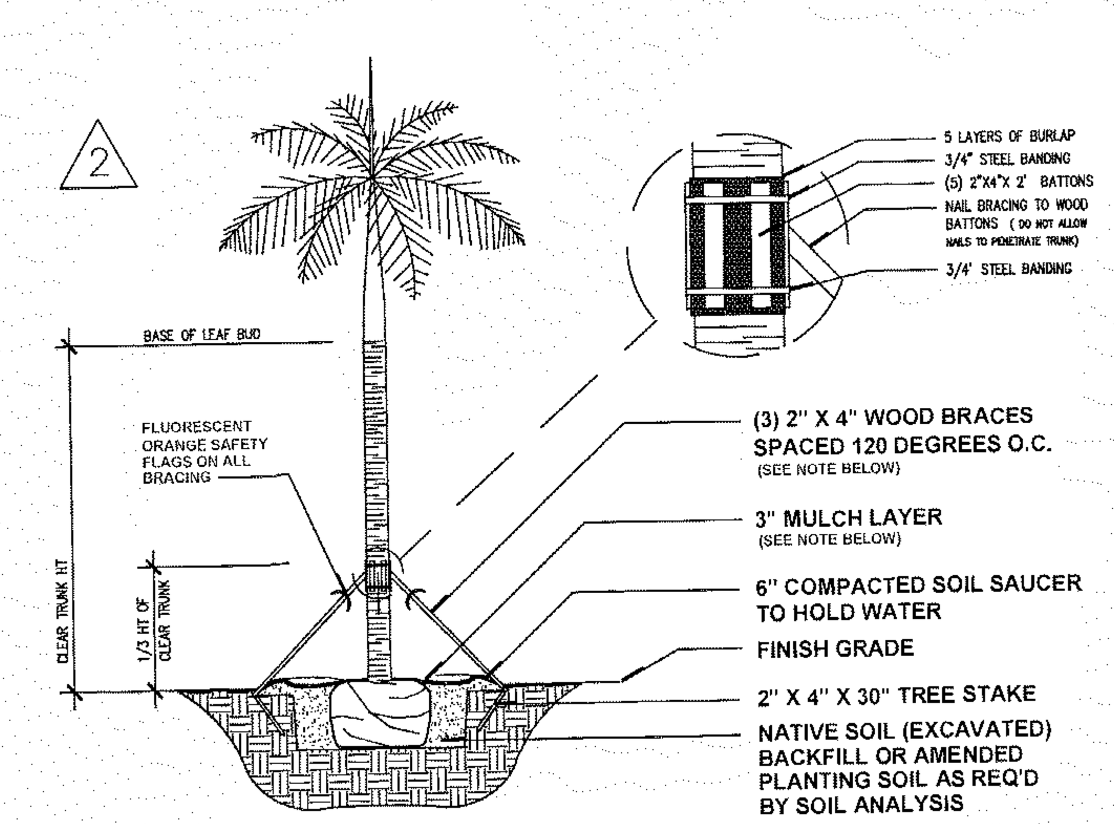
NOTES:

1. MULCH SHALL BE AMERIGROW RECYCLED PINEBARK BROWN OR CITY APPROVED EQUIVALENT.
2. DO NOT APPLY MULCH WITHIN 6" OF THE TREE TRUNK

City of Miami Beach
Tree Planting & Bracing Detail With
A Caliper up to 2.5" N.T.S.



City of Miami Beach
Tree Planting & Bracing Detail
Caliper of 2.5" or Greater N.T.S.



NOTES:

1. PALMS OVER 30' GW HT, USE MINIMUM (4) 4" X 4" BRACING AND STAKES.
2. PRIMARY STAKES SHOULD BE PLACED PARALLEL TO WALKWAYS WHENEVER POSSIBLE.
3. RECEIVING PLANTING HOLE SHALL BE APPROXIMATELY 1/3 LARGER THAN ROOTBALL.
4. BUD SHALL BE PERPENDICULAR TO THE GROUND PLANE.
5. TRUNK SHALL BE STRAIGHT AND WITHOUT CURVES.
6. NO SCARRED OR BLACKENED TRUNKS.
7. AMENDED SOIL MIX, TO BE ADDED AT THE TIME OF PLANTING, IF NEEDED. SHALL CONSIST OF A RATIO MIX 80% CLEAN SILICA SAND AND 20% SCREENED, PULVERIZED TOPSOIL AS NEEDED.
8. ANCHORIING STAKES SHALL BE DRIVEN A MIN. OF 3" BELOW GRADE.
9. MULCH SHALL BE AMERIGROW RECYCLED PINEBARK BROWN OR CITY APPROVED EQUIVALENT.

City of Miami Beach
Typical Palm Planting Detail N.T.S.

PLANT NOTES

1. ALL PLANT MATERIAL TO BE FLORIDA NO. 1 OR BETTER FLORIDA DEPARTMENT OF AGRICULTURE GRADES AND STANDARDS; PARTS I AND II, 5th EDITION: 2015. RESPECTIVELY.
2. MULCH TO BE "PREMIUM PINEBARK BROWN" SHREDDED MULCH, BY AMERIGROW, OR A CITY APPROVED ALTERNATIVE. (1)
3. ALLTREES TO BE STAKED IN A GOOD WORKMANLIKE MANNER, NO NAIL STAKING IN TRUNKS PERMITTED. ALL GUYING & STAKING TO BE REMOVED WITHIN 12 MONTHS AFTER PLANTING. (1)
4. LANDSCAPE PLAN SHALL BE INSTALLED IN COMPLIANCE WITH ALL LOCAL CODES.
5. ALL SOD SHALL BE ST. AUGUSTINE 'FLORATAM' SOLID SOD, (UNLESS OTHERWISE NOTED) AND LAID WITH ALTERNATING AND ABUTTING JOINTS.
6. ALL PLANTING BEDS TO BE WEED AND GRASS FREE.
7. LANDSCAPE CONTRACTOR SHALL LOCATE AND VERIFY ALL UNDER-GROUND UTILITIES PRIOR TO DIGGING.
8. LANDSCAPE CONTRACTOR SHALL REVIEW ALL DRAWINGS AND PREPARE ONES OWN QUANTITY COUNTS(PRIOR TO BID COST AND COMPARE TO ARCHITECT'S PLANT LIST). LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ATTAINING ACCURATE COUNT OF PLANT MATERIALS SPECIFIED. IN THE EVENT OF DISCREPANCIES, LANDSCAPE CONTRACTORS SHALL BRING TO THE ATTENTION OF LANDSCAPE ARCHITECT. PLAN SHALL TAKE PRECEDENCE OVER PLANT LIST.
9. NO CHANGES SHALL BE MADE WITHOUT THE PRIOR CONSENT OF THE LANDSCAPE ARCHITECT. ADDITIONALLY, SEE CITY OF MIAMI BEACH'S GREENSPACE MANAGEMENT NOTE #4 BELOW. (1)
10. ALL PLANTED AREAS TO RECEIVE 100% COVERAGE BY AN AUTOMATIC IRRIGATION SYSTEM, WITH A MINIMUM OF 50% OVERLAP. RAIN SENSOR TO BE PROVIDED.
11. LANDSCAPE CONTRACTOR TO WARRANTY ALL PLANT MATERIAL FOR FOR ONE YEAR, FOLLOWING FINAL ACCEPTANACE BY THE CITY OF MIAMI BEACH.
12. ALL GUYING & STAKING SHALL BE REMOVED FROM ALL TREES & PALMS WITHIN TWELVE MONTHS AFTER PLANTING. ACCEPTANCE. EXCEPTIONS REQUIRE WRITTEN AUTHORIZATION FROM THE CITY URBAN FORESTER. (1)
13. A FINAL ON-SITE INSPECTION SHALL BE REQUIRED WITH GREENSPACE MANAGEMENT STAFF PRIOR TO ANY OFFICIAL ACCEPTANCE OF ROW PLANT MATERIAL, IN ORDER TO VERIFY PROPER PLANTING DEPTH, SPACING AND QUALITY OF THE MATERIAL. FAILURE TO CONDUCT THE INSPECTION COULD RESULT IN REJECTION OF THE PLANT MATERIAL.

City of Miami Beach, Greenspace Management Notes: (1)

1. An onsite inspection shall be required with Greenspace Management staff prior to installation of any plant material., in order to perform a grades and standards inspection. Failure to conduct the inspection could result in rejection of the plant material.
2. A final onsite inspection shall be required with Greenspace Management staff prior to any official acceptance of plant material, in order to verify proper planting depth, spacing and quality of the material. Failure to conduct the inspection could result in rejection of the plant material.
3. Please utilize Amerigrow (Premium Pinebark Brown) shredded mulch or a City approved alternative. Mulch shall not be applied within 6" of the trunks of any existing or proposed trees or palms.
3. All guying & staking shall be removed within twelve months after planting. Exceptions require written authorization from the City Urban Forester.
4. No substitutions shall be made without prior consent of the City Urban Forester and/or the Planning Department.

(1) A Tree Removal Permit shall be required from the City of Miami Beach for all trees & palms to be removed or relocated, that are not considered exempt, prior to ANY tree or palm removal activity. Please provide a copy of the issued permit prior to FINAL inspection and if not required, proof of exemption.

Plant List

Qty	Key	Botanical / Common Name		Description	
4	SG	Simaruba glauca / Paradise Tree		12' oa ht, 2" cal, 5' spr.	Yes
3	SM	Swietenia mahogani / Mahogany	Street Trees	14' oa ht, 3" cal, 7' spr, 4' ct	Yes
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3	WB	Wodyetia bifurcata / Foxtail Palm		18' oa hts, matched	No
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11	PRC	Philodendron rojo-congo / Rogo Congo		18"ht, 18"spr, 3 gal.	No
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36	SPP	Spathoglottis plicata / Ground Orchids		18"ht x 18"spr, 3 gal.	No

Tree Disposition List (Remain & Relocated)

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LA 1.1A
LANDSCAPE PLAN

LIGHTING EQUIPMENT TABLE

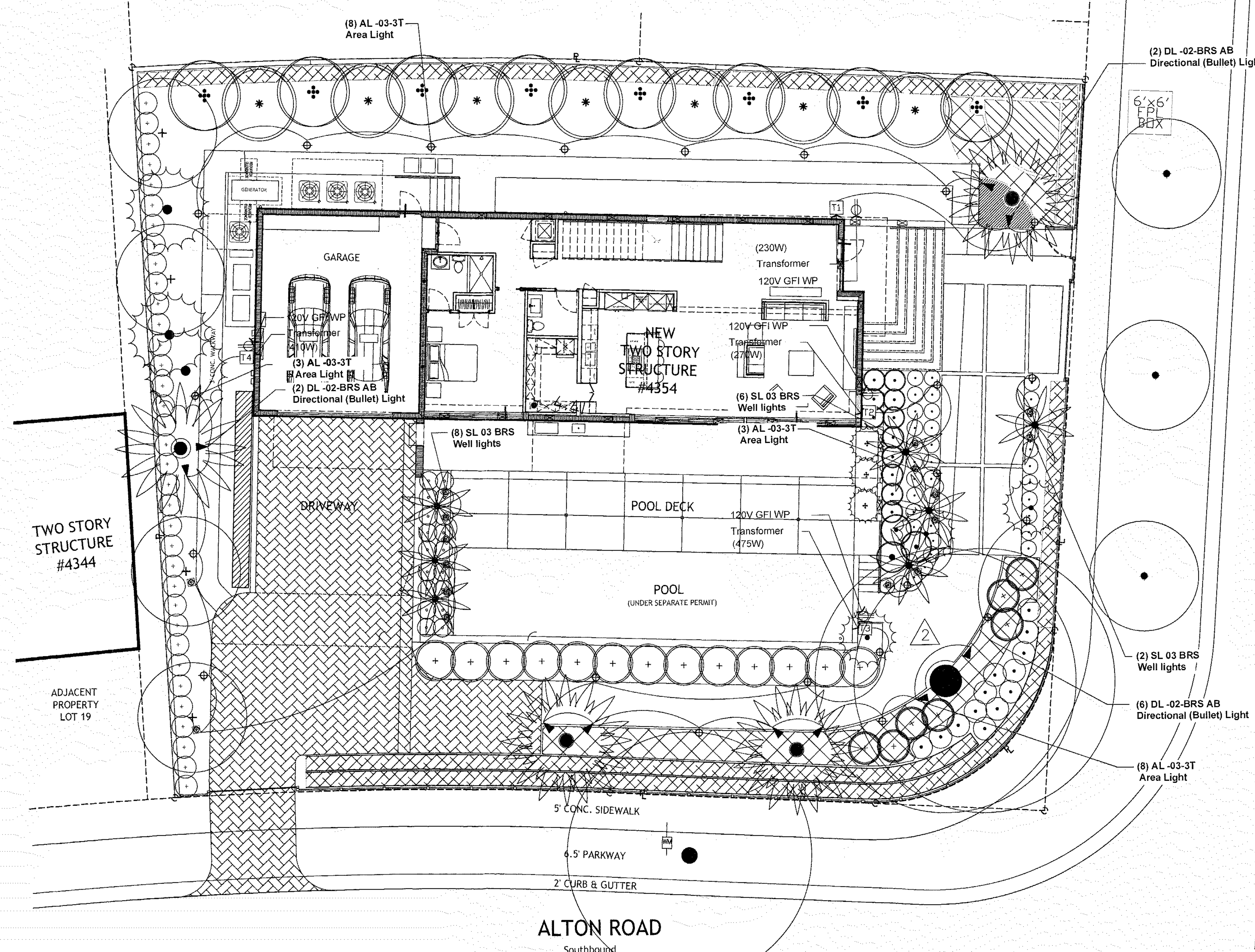
Landscape Lighting Components by Focus Lighting

2	10 ◄	DIRECTIONAL (Bullet) LIGHT DL- 02-BRS w/ 35W MR-16 Ultra Bulb W/ FA-03 Black 9" ABS Stake threaded 1/2" NPS
	16	WELL LIGHT SL- 03-BRS w/ 35 W MR-16 Ultra Bulb
	21 ⊕	AREA LIGHT AL- 03-3T w/ 20 W-H Bulb
	T1 T2	TRANSFORMER WT-12-300. Wall mounted, weatherproof
	T3 T4	TRANSFORMER WT-12-600. Wall mounted, weatherproof

Landscape Lighting Contractor to provide 2" PVC (electrical rated) under all paved & sodded areas.

Landscape Lighting Contractor to coordinate CFI & transformer locations w/ electrical subcontractor.

Note: Bottom of wall mtd. tranformers to be a minimum of 24" above adjacent grade.



LANDSCAPE LIGHTING PLAN

SCALE: 1/8" = 1'-0

DRAWN BY:

REVISIONS:

2 8-14-15

3 11-25-15

AA0003569
ANTHONY LEON
001672

3 DESIGN ARCHITECTURE

4300 Biscayne Blvd. #G-04, Miami, FL 33137
P: 305.438.9377 | F: 305.438.9379

H.L. Martin, Landscape Architect, P.A.

Herbert L. Martin, Landscape Architect

NEW RESIDENCE
AT:
4354 ALTON ROAD
MIAMI BEACH, FL 33139

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LA 1.2

LANDSCAPE LIGHTING PLAN

LAYOUT

LAYOUT IRRIGATION SYSTEM MAINLINES AND LATERAL LINES. MAKE ALL NECCESSARY ADJUSTMENTS AS REQUIRED TO TAKE INTO ACCOUNT ALL SITE OBSTRUCTIONS AND LIMTATIONS PRIOR TO EXCAVATING TRENCHES

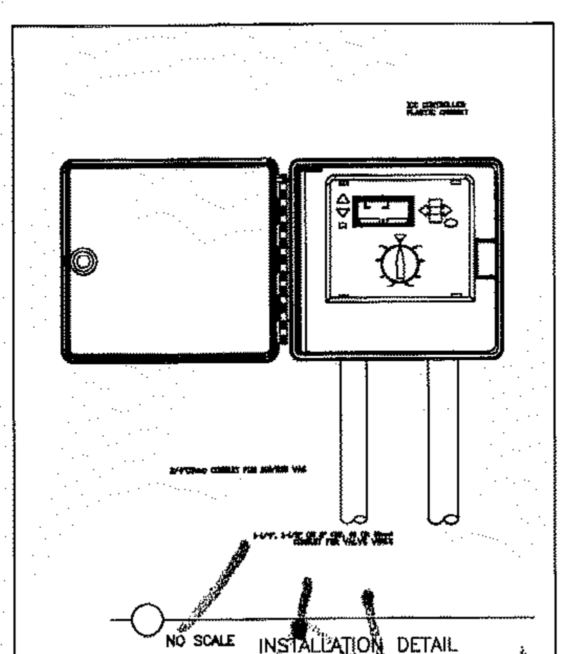
FLAG ALL SPRINKLER HEAD LOCATIONS. ADJUST LOCATION AND MAKE THE NECESSARY MODIFICATIONS TO NOZZLE TYPES ETC. REQUIRED TO INSURE 100% COVERAGE.

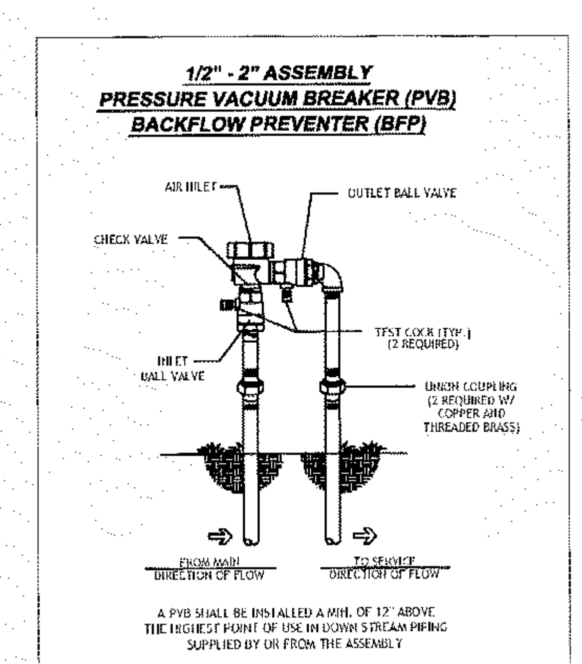
PIPE

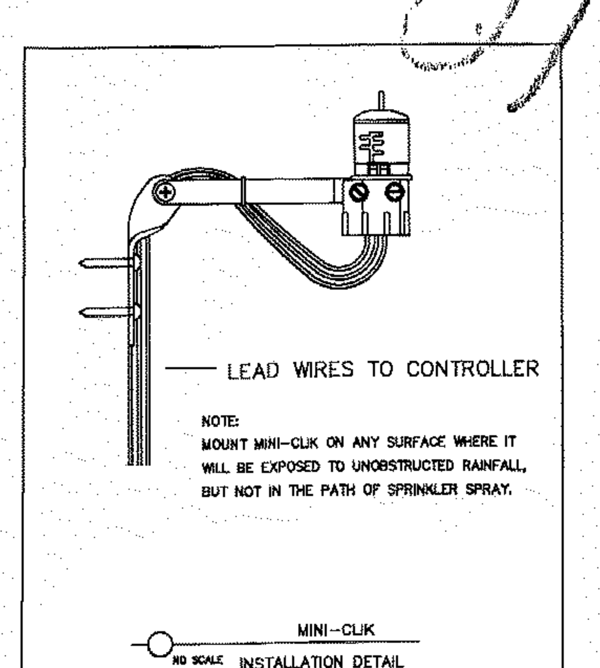
PIPE LOCATIONS SHOWN ON PLAN ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED IN THE FIELD. WHEN LAYING-OUT MAINS AND LATRALS, LOCATE PIPE NEAR EDGES OF PAVEMENT OR AGAINST BUILDINGS WHENEVER POSSIBLE TO ALLOW SPACE FOR PLANT ROOT BALLS.
PIPING UNDER HARDSCAPES SUCH AS ROADS, WALKS, AND PATIOS ARE TO BE SLEEVED USING SCH. 40 PIPE.

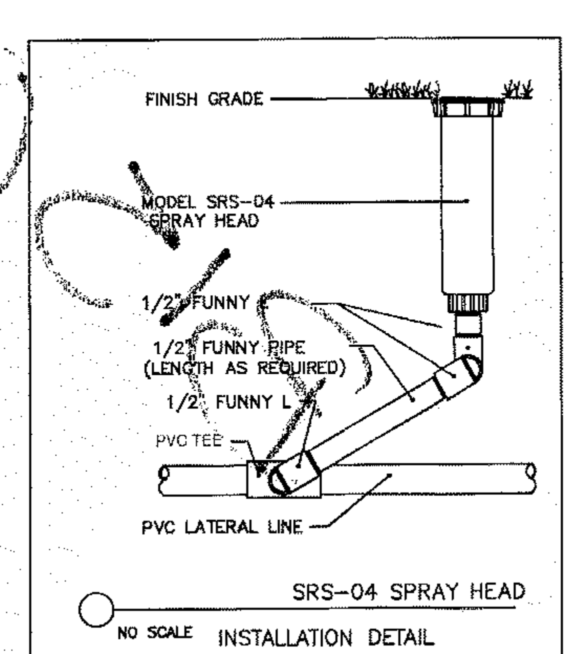
FLUSHING

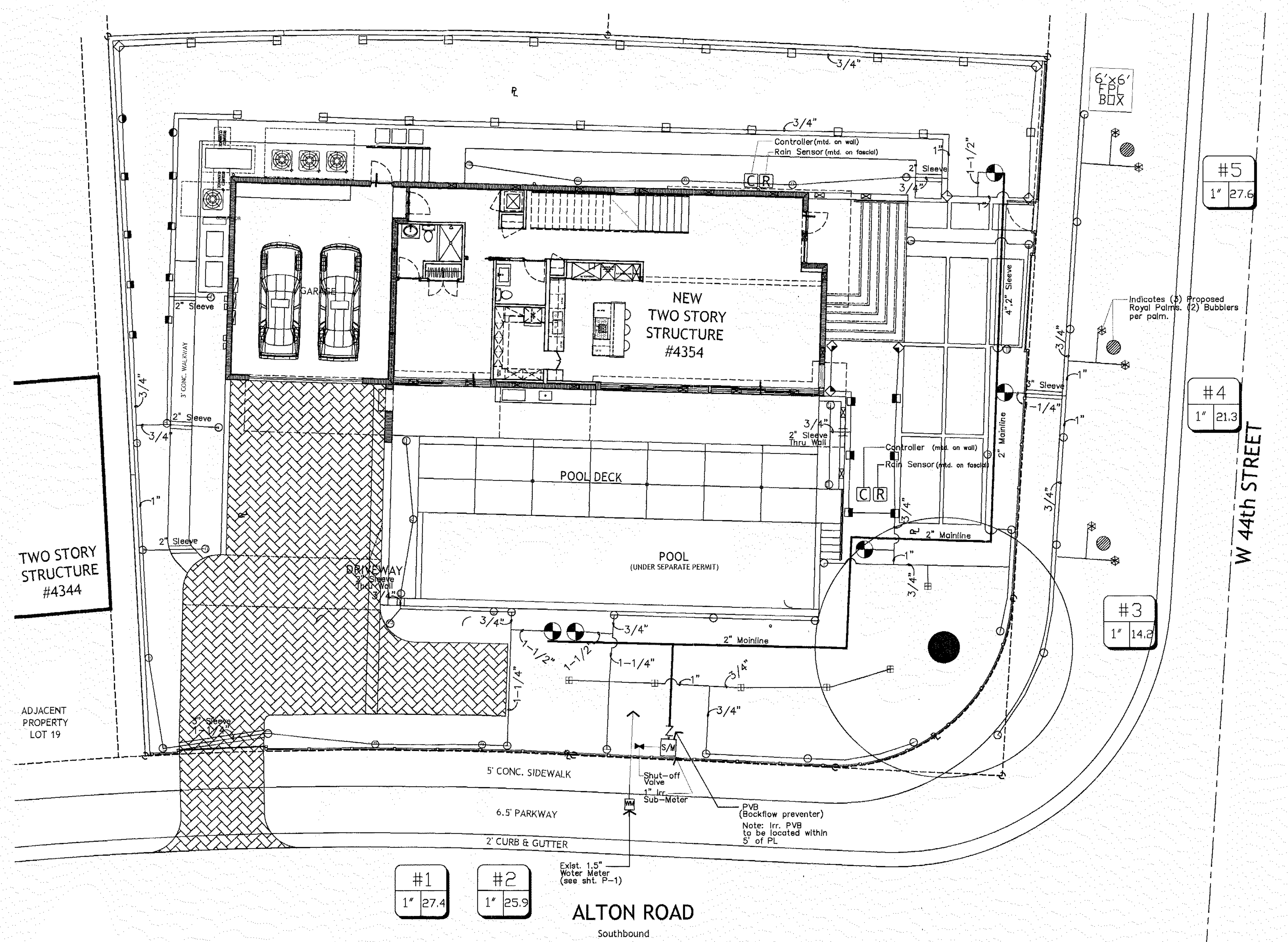
PRIOR TO PLACEMENT OF HEADS FLUSH ALL LINES UNTIL LINES ARE COMPLETLY CLEAN OF DEBRIS.











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

IRRIGATION PLAN EQUIPMENT TABLE	
◇	6" Spray Head Rainbird 1800 Series w/ MPR Nozzle, 8' qtr.
▭	6" Spray Head Rainbird 1800 Series w/ MPR Nozzle, 8' half
●	6" Spray Head Rainbird 1800 Series w/ MPR Nozzle, 10' half
◇	6" Spray Head Rainbird 1800 Series w/ MPR Nozzle, 12' qtr.
⊟	6" Spray Head Rainbird 1800 Series w/ MPR Nozzle, 12' half
⊞	6" Spray Head Rainbird 1800 Series w/ MPR Nozzle, 12' full
⊙	6" Spray Head Rainbird 1800 Series w/ MPR Nozzle, 15' qtr.
⊖	6" Spray Head Rainbird 1800 Series w/ MPR Nozzle, 15' half
⊙	6" Spray Head Rainbird 1800 Series w/ MPR Nozzle, 15' Strip Series-End,
⊖	6" Spray Head Rainbird 1800 Series w/ MPR Nozzle, 15' Strip Series-Center,
✻	Bubbler, 1300 AF by Rainbird
◕	1.5" / 1" Valves by Irritrol, in Carson Valve Box
▬	2" Mainline, Schedule 40 PVC
═	Sleeves, Schedule 40 PVC
—	Lateral Lines, Schedule 160 pvc
C	Controller, ESP Modular Series 4 Stations
R	Rain Sensor, by Miniclik
N	PVB - Pressure Vacuum Breaker by Watts - Watts 800M-4
WM	Exist. 1.5" Water Meter, refer to Plumbing Plans , P-1.
WM	Prop. 1" Irrigation Sub Meter

PL M&S 12/2/15

City of Miami Beach
Planning Department
Landscape Review
APPROVED
EN 10/20/15

DRAWN BY:
REVISIONS:
1 8-14-15

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IR 1.0
IRRIGATION PLAN

PERMIT #	COMP_TYPE	SUB_TYPE	APPLIED	APPROVED	EXPIRED
BA913979	AUTOPROJ	OTH	06-Dec-89	06-Dec-89	04-Jun-90
BA901035	AUTOPROJ	OTH	17-Nov-89	17-Nov-89	02-Dec-89
BC910158	BCOMPL	OTH	27-Feb-91	27-Feb-91	01-Mar-91
BD040169	BDEMO	PARTIAL	15-Jun-04	26-Jul-04	22-Jan-05
BD070070	BDEMO	PARTIAL	28-Dec-06	08-Feb-08	
BD060142	BDEMOPRJ	PARTIAL	16-May-06		
BD140089	BDEMOPRJ	ALL	11-Dec-13	02-May-14	29-Oct-14
BE042522	BELEC	DEMO	20-Jul-04	20-Jul-04	08-Apr-06
BMS51258	BMISC	OTH	08-Aug-95	08-Aug-95	
BMS0400064	BMISC	RESEARCH	06-Oct-03		
BMS0505616	BMISC	DOC HIST	29-Sep-05		
BMS1601710	BMISC	DOC HIST	08-Apr-16		
BP920502	BPLUM	OTH	10-Mar-92	10-Mar-92	02-Feb-93
BP920964	BPLUM	OTH	17-Jul-92	17-Jul-92	03-Feb-93
BP041426	BPLUM	DEMO	23-Jul-04	23-Jul-04	19-Jan-05
B1403916	BSBUILD	FENCE-R	13-May-14	13-May-14	09-Nov-14
B9802610	BSBUILD	OTH	04-Jun-98	04-Jun-98	01-Dec-98
B0500165	BSBUILD	RPR-R	12-Oct-04	26-Apr-05	14-Jan-07
B0604117	BSBUILD	AWNING	23-May-06		
B1501641	BUILD	NCONST-R	26-Dec-14		
B0702848	BUILD	ALTRMD-R	01-Mar-07		
BV13000424	BVIO	UNSAFE	14-Feb-13	14-Feb-13	20-Feb-13
BV14000627	BVIO	UNSAFE	08-Apr-14	08-Apr-14	06-Jun-14
BS890360	SBUIL	OTH	06-Dec-89	06-Dec-89	04-Jun-90

STATUS
CLOSED
CLOSED
CLOSED
CLOSED
VOID
VOID
FINAL
CLOSED
CLOSED
CLOSED
CLOSED
APPLIED
FINAL
FINAL
CLOSED
FINAL
VOID
VOID
VOID
APPLIED
VOID
CLOSED
CLOSED
FINAL

DESCRIPTION
PAINT INT. & REPLACE 3 WINDOWS
MULTI-FAMILY
CONSTRUCTION W/O PERMIT
INTERIOR DEMOLITION, FLOOR , CEILING, NON-STRUCTURAL WALLS, ETC.
RENEWAL OF PERMIT BD040169.INTERIOR DEMOLITION, FLOOR, CEILING, NON STRUCTURAL WALLS, ETC
PARTIAL DEMOLITION OF ILEGAL ROOM IN BACK OF THE HOUSE.
Total Demolition of single family home (4500sq ft)
ELECTRICAL DEMOLITION (
TWO MICROFILM COPIES
permit research
4 COPIES MICROFILM
1 Cd
GAS PIPING
REPLACE WATER HEATER
DEMO, SEWER CAP
BD140089---->Chain link fence around property vacant land
REMOVE 113LF. WALL & PATCHING
FOUNDATION AT THE PERIMETER LOAD BEARING WALLS.
Install temporary shade umbrella in backyard.
New construction SFR.
Int & Ext rpr, struc rprs, nw hvac sys, nw wndw & doors, nw ele, plum, kitchen cabinets, finishes, int & ext paint
NOTICE OF VIOLATION ISSUED. PROPERTY OPEN AND ABANDON, NEED TO SECURE THE PROPERTY.
NOTICE OF VIOLATION ISSUED. Property with Extension failure of foundation, reinforced concrete elements corroded, property has been unoccupied for an extended period of time, cracks in walls and, roof caved in, As per Florida Building Code and Miami-Dade County chapter 8-5 (6) Physical criteria (2) building is unsafe. Emergency demolition must occur. Compliance must be obtained by the due date an additional penalty of $500.00 fees will be imposed.
PAINT INT. & REPLACE 3 WINDOWS

STREET_NO	TREET_DIRECTIO	STREET_NAME	PARCEL_NO
4354		ALTON RD	32220111430
4354		ALTON RD	32220111430
4354		ALTON RD	32220111430
4354		ALTON RD	32220111430
4354		ALTON RD	32220111430
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4354		ALTON RD	32220111430

Owner Robert M. Gifford Mailing Address Permit No. 1072 Date Jan.8-1925

Lot 20 & 21 Block 6 Subdivision Nautilus Address 4354 Alton Road

General Contractor Borg & Roller 13136 Address 3222-115-143

Architect Borg & Roller Bond # 8 Address

Front 78'-o Depth 50'-o Height 28'-o Stories 2 Use Residence -14 rm and garage

Type of construction Ordinary Hollow tile Cost $ 34,000.oo Foundation Piling Roof B--

Plumbing Contractor Dilbs & Company Address Date Mar.3-1925

Plumbing Fixtures 17 Rough approved by H, Scheibli Date

Gas Stoves GAS - O K O'Neill 11/26/46

Gas Heaters Address Date

John Stolpman 1 fixture - Feb.15-1927

John Stolpman Feb.10-1927 Final approved by Date

Sewer connection 1 Septic tank 1 Make Florida Septic Tank Date June 8-1925

Electrical Contractor Southern Electric Co. Address Date Mar.27-1925

Range 2 Motors Fans Temporary service

OUTLETS Switch Light Receptacles 75 HEATERS Water Space Centers of Distribution

Electrical Contractor Pullen & Zoll Electric Co. Address Date Nov.27-1925

No. fixtures set 50 Final approved by Date

Date of service

Alterations or repairs # 9964- REMODELING and painting (new floors) $2,000.oo Date June 14.-1937

BUILDING PERMIT #19340... Painting ... C. D. Hatter, painter $ 1,100.. Nov. 14,1944

PLUMBING PERMIT * # 20454 Gas Co. 1 Gas range. Nov.20,1946

Nuzzo - BUILDING PERMIT # 24571 Painting, outside - True Color Painting Co: $1,100... May 22, 1947

Over

ALTERATIONS & ADDITIONS

[redacted]

Building Permits: # 29442 Buffing off old paint & painting outside - Bailor Jim, contr. $9 0..2/16/49
35304 Remodeling front porch- removing screen making square headsin ead of circle heads- A. Velazquez, contr. $ 300.... Mar n 6, 1951
#74139 Owner, M. A. Grondin: Repairs, paint, replace windows, etc. - $3500 - 5/27/65 ~~OK Brown 9/23/65~~ OK Brown 9/23/65
#82095 Owner Addn to Res. 18'6" x 27' 11" as per plan $4640.00 3/21/69
#04329-Keyes Co.-Fro Sale Sign-$5-10-16-73
07578-Owner-Garden house over garage-$200-7-9-75
#89025-Scope Construction-Add pool, 14,334 gallons-$6000-3-11-76
#09971-Owner-Add carport and a gate-$150-10-11-76
1-10-81/#19563/exterior painting & patching cracks/Owner/$2,000
#90829 3/9/83 owner building deck wood deck & trellis as per plans (double fee) $700.
#25959 9/25/84 owner repair balcony floor $300.
#26388 1/8/85 owner build stairway to exist deck on 2nd floor $250.

Plumbing Permits:
#39111 Economy Plmbg: 1 4" Sewer - Feb. 18, 1957
#44812 Roy Loving: 2 sinks; 1 dish washing machine; 1 water service - 6/15/65
#53542-R & L Plumbing- 1 pool piping-3-16-76
#61707 8/14/84 - Serota Plumb - replace heater + fine $110.00
#61709 8/15/84 - Nicholas Lucenti - 1 clothes washer, remove 2 KS & CW, repair vent, repipe parlor bath $132.25

Electrical Permits: # 36655 E.C. "Red" Cornelius, Inc.: 2 motors- June 2, 1952 -OK-HOR - 7-7-52
#62473 Fassbach Elec. Co.: partial permit - 7/1/65
#63153 Fassbach Elec. Co.: 4 switch outlets; 6 light outlets; 16 receptacles; 6 fixtures; 1 range outlet; 1 refrig.outlet; 1 fan outlet; 4 appliance outlets - 1/17/66
#66688 Fassbach Elect. Co. 200A Service Equipment 2/14/69
#79645 8/14/84 Ocean Elec remove violation $10.00