MIAMIBEACH

BUILDING DEPARTMENT

2017 MAY 24 PM 2:18

MIAMIBEACH
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CODE COMPLIANCE

Plan Routing Sheet

General Information – All fields MUST be completed for submittal		
Date 05/24/2017	Process/Permit Number BC17028OZ	Historic (Y/N)
Job Address: 16098 BALTON ROAD MIAMI BEACH, FL. 33139		
Contact Name: DAMIAN GALLO		
E-mail: DGALLOJR@PERMITDOCTOR.COM		
Phone No: 305 522 5215	Alt No:	

Re-submittals - New Sheets: ☐ Yes ☒ No

List all new sheets:

OFFICE USE ONLY

Required Approvals - As Indicated		
☐ Building	☒ Flood Plain Management	☐ Public Works
☐ DERM	☒ Landscaping	☐ Roofing
☐ Electrical	☐ Mechanical	☒ Structural
☐ Elevator	☐ Parking	☐ Urban Forestry
☐ Environmental-Sustainability	☒ Planning & Zoning	☐
☐ Fire	☐ Plumbing	☐

Comments:

Clerk Name: Cristina P Today's Date: 5/24/17

☒ 2 sets of plans	☐ Energy calculations	☒ Narrative response
☐ Appraisal	☐ Flood Proofing Certificate	☒ Permit Application
☐ Construction Contract	☐ Geotechnical Report	☐ Special Inspector Forms
☐ DERM Approval	☐ Master set	☐ Structural calculations
☐ Elevation Certificate	☐ Plans in color	☐ Survey(s)

☐ **Walk Thru** ☒ **Drop Off** PLANS TO BE REVIEWED

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Co

Permit Resubmittal Narrative – City of Miami Beach

1698 Alton Road FPL Vault / 219420456

BU702802

Folio No:	02-3233-017-0040, 02-3233-017-0030, 02-3234-017-0200
Address:	1698 Alton Road Miami Beach, FL 33139
Issue Date:	January 20, 2017
Revision 2 Issue Date:	May 17, 2017
Attention:	City of Miami Beach – Structural Section 1700 Convention Drive Miami Beach, FL 33139

Re: Secondary Plan Review Comments

To whom this may concern,

Please find our responses to your secondary review comments:

FLOOD MANAGEMENT:

SAME COMMENT: 1- Revise Flood Information on sheet TE-101, this property is located on Flood Zone: "AE", Base Flood Elevation: +8.00' NGVD.

RESPONSE: Flood information has been revised. See updated sheet TE-101.

STRUCTURAL:

1) Through (3) OK.

4) S-3.1:

4.1) Indicate size & qty of "skin" or "face" reinforcement for beam IMF-12 (coordinate section 2/S-7.2).

RESPONSE: Section 2/S-7.2 shows the skin reinforcing as 3 bars. I revised the beam schedule to reflect that.

4.2) Provide size and reinforcement for column TC-1 (see plans on S-1.2).

RESPONSE: The TC-1 is in the tie column schedule on S-3.1.

LANDSCAPING:

General Correction: Please clarify, if the scope of the work is intended to be limited to the FPL room, why are the trees in the entire site scheduled for removal as part of this permit? Per City Code, tree removal triggers mitigation requirements, therefore review and approval of landscape and irrigation plans would also be required.

RESPONSE: No landscape or tree work under this permit. Refer to permit # PZ0716-0147 for tree permit. Refer to note added on sheet A.001 – Site Plan.

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Plan Routing Sheet

General Information – All fields MUST be completed for submittal		
Date 7/13/17	Process/Permit Number BC 1702202	Master Permit #
Job Address 1683 West		
Contact Name Jenny	E-mail permitdoctor@aol.com	Telephone

Re-submittals - New Sheets: ☐ Yes ☐ No

List all new sheets:
S-1.2A

OFFICE USE ONLY

Required Approvals - As Indicated		
☐ Planning & Zoning	☐ Fire	☐ Public Works
☐ Flood Plain Management	☐ Building	☒ Structural
☐ Electrical	☐ Mechanical	☐ Plumbing
☐ Elevator	☐ DERM	☐ Roofing
☐ Environmental	☐ Urban Forestry	☐ Landscaping

Comments:

Reviewer: Ernie Date: 7/13/17

DROP OFF ONLY - Items Received - As Indicated		
☑ 2 sets of plans	☐ Elevation Certificate	☐ Special Inspector Forms
☐ Permit Application	☐ Flood Proofing Certificate	☐ Structural calculations
☐ MDC Permit Application	☐ Survey(s)	☐ Energy calculations
☐ Master set	☐ Appraisal	☐ Geotechnical Report
☐ Narrative response	☐ Cost Affidavit	☐ PLANS IN COLOR

☐ Walk Thru ☒ Drop Off

MIAMIBEACH
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CODE COMPLIANCE

MIAMIBEACH

Plan Routing Sheet

General Information – All fields MUST be completed for submittal		
Date 8/9/2017	Process/Permit Number BC1702802	Historic (Y/N)
Job Address 1698 Alton Road Miami Beach, Fl 33139		
Contact Name Damian	E-mail permitdoctor@aol.com	Telephone (305) 522 5218

Re-submittals - New Sheets: ☑ Yes ☐ No

List all new sheets:
G.000 A.001 TE-101 S-1.2A

OFFICE USE ONLY

Required Approvals - As Indicated		
☐ Planning & Zoning	☐ Fire	☐ Public Works
☐ Flood Plain Management	☐ Building	☐ Structural
☐ Electrical	☐ Mechanical	☐ Plumbing
☐ Elevator	☐ DERM	☐

Comments: Scan & Create Files

Reviewer: Mike Date: 8/9/17

DROP OFF ONLY - Items Received - As Indicated		
☐ 2 sets of plans	☐ Elevation Certificate	☐ Special Inspector Forms
☐ Permit Application	☐ Flood Proofing Certificate	☐ Structural calculations
☐ MDC Permit Application	☐ Survey(s)	☐ Energy calculations
☐ Master set	☐ Appraisal	☐ Geotechnical Report
☐ Narrative response	☐ Cost Affidavit	☐

☐ Walk Thru ☒ Drop Off

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BC1702802

Stantec

Permit Resubmittal Narrative – City of Miami Beach

1220 17TH Street FPL Vault / 219420456

Folio No:	02-3233-017-0040, 02-3233-017-0030, 02-3234-017-0200
Address:	1220 17TH Street Miami Beach, FL 33139
Issue Date:	January 20, 2017
Revision Issue Date:	February 15, 2017
Attention:	City of Miami Beach – Structural Section 1700 Convention Drive Miami Beach, FL 33139

Re: Initial Plan Review Comments

To whom this may concern,
Please find our responses to your preliminary review comments:

STRUCTURAL:

1. Indicate the number for the permit for the whole building (BC1602075). If the construction of the building has been already completed (has CO) please provide certified copies of the latest approved permit drawings (attach copies).

RESPONSE: The whole building has not received its permit yet. The main permit is still pending.

2. Indicate on this set of drawings only the elements related to the vault, mark all others as for reference only, under separate permit.

RESPONSE: Scope of Work has been highlighted on the plans.

3. Indicate where the feeding lines for the vault will be, to coordinate with the foundations (vault and future building).

RESPONSE: FPL Coordination was complete. See sheet A.002.

4. Review will be performed when that information is provided.

RESPONSE: Acknowledged

ELECTRICAL:

1. Provide an electrical scope of work as per FBC 107.

RESPONSE: Added Scope of Work. See sheets TE-100 and TE-101.

2. Remove all electrical sheets referencing temporary construction power from plans (--- separate plans and permit required--)

RESPONSE: All wording referencing Temporary Construction has been removed.

PLANNING & ZONING:

1. Permit is showing permanent features that may not be approved unless part of a full building permit that is adherent to the conditions of the Planning Board and Design Review Board and

MIAMIBEACH
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CODE COMPLIANCE

the review and approval of staff. Project is currently still on the Agenda for review in the next coming month (per After-action from January DRB meeting)

RESPONSE: DRB Hearing was on February 6th. Final Order is pending.

BUILDING:

1. Provide a property address on plans

RESPONSE: Address has been added. See the Cover.

2. Fire Dept. APPROVED the drawings.

RESPONSE: Acknowledged

17TH & WEST AVENUE

1698 ALTON ROAD
MIAMI BEACH, FLORIDA 33139



DRAWING INDEX - FPL VAULT					
NO.	DRAWING NAME	PERMIT SET 12-23-2016	REVISION 1 02-15-2017	REVISION 2 05-17-2017	FPL REVISION 3 08-03-2017
G.000	COVER SHEET	•	•	•	•
A.001	SITE PLAN	•	•	•	•
A.002	PLANS, SECTIONS & ELEVATIONS	•	•		
A.003	DETAILS	•	•		
TE-100	ELECTRICAL POWER	•	•		
TE-101	ELECTRICAL POWER	•	•	•	•
S.1.0	STRUCTURAL NOTE & INDEX	•			
S.1.2A	PARTIAL FOUNDATION FRAMING PLAN	•			•
S.3.1	BEAM SCHEDULE	•		•	
S.4.1	COLUMN SCHEDULE	•			
S.5.1	PILE CAP DETAIL	•			
S.5.3	PILE CAP DETAIL	•			
S.6.3	SHEAR WALL DETAIL	•			
S.7.1	SECTION	•			
S.7.2	SECTION	•			

SCOPE OF WORK

CONSTRUCTION OF FPL VAULT FLOOR, WALLS, ROOF, DOOR, & LOUVER. CONSTRUCTION LIMITED TO ELEMENTS DIRECTLY ASSOCIATED WITH THE FPL VAULT.

OWNER / DEVELOPER:

1681 WEST VENTURES LLC.
19501 BISCAYNE BOULEVARD, SUITE 400
AVENTURA, FL 33180
T. 305.914.8207

ARCHITECT:

STANTEC
2 SOUTH BISCAYNE BOULEVARD
SUITE 1670
MIAMI, FLORIDA 33131
T. 305.482.8700

STRUCTURAL:

DE LOS REYES ENGINEERING INC.
8726 NW 26 STREET
SUITE 1 & 2
MIAMI, FLORIDA 33172
T. 305.477.8826

MEPFP:

FRANYIE ENGINEERS INC.
10610 N.W. 27 ST.
MIAMI, FLORIDA 33172
T. 305.592.1360

LIFE SAFETY:

SLS CONSULTING INC.
260 PALERMO AVENUE
CORAL GABLES, FLORIDA 33134
T. 305.461.9852

POOL:

AQUADYNAMICS DESIGN GROUP INC.
5000 SW 75 AVENUE
SUITE 103
MIAMI, FLORIDA 33155
T. 305.667.8975

CIVIL:

OCEAN ENGINEERING INC.
333 NE 24 STREET
SUITE 408
MIAMI, FLORIDA 33137
T. 786.253.5252

LAND SURVEYOR:

LONGITUDE SURVEYORS
7715 NW 48 STREET
SUITE 310
DORAL, FLORIDA 33166
T. 305.463.0912

LANDSCAPE ARCHITECT:

DS BOCA
2300 CORPORATE BOULEVARD NW
SUITE 214
BOCA RATON, FLORIDA 33431
T. 561.955.8623

PERMIT SET
DECEMBER 2016

BC1702802

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Stantec Architecture Inc.
One Biscayne Tower Suite 1670
2 South Biscayne Boulevard
Miami, FL 33131-1804
Tel: (305) 482-8700 / Fax: (305) 482-8770

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Jonathan Cardello Lic. # AR93391

5/12/2017

3	FPL Revision 3			2017.08.03
2	FPL Revision 2			2017.05.17
1	FPL Revision 1			2017.02.15
Revision		By	Appd	YYYY.MM.DD

PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26
Issued	By	Appd	YYYY.MM.DD

PERMIT SET

17th & West Avenue

1698 Alton Road
Miami Beach, FL 33139

COVER SHEET

Project No.	Scale
219420456	
Revision	Drawing No.
3	G.000

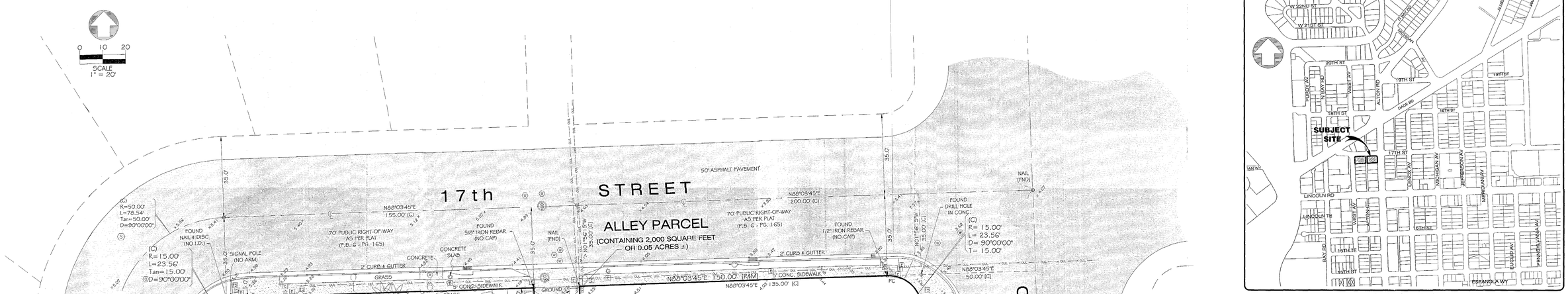
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8/7/2017 1:54:45 PM

ORIGINAL SHEET - ARCH E1 (30"x42")

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MAP OF BOUNDARY SURVEY

SECTION 33 - TOWNSHIP 53
LYING AND BEING IN THE CITY OF MIAMI I



LOCATION MAP
(NOT TO SCALE)

ALLEY PARCEL:

That portion of a a 20 foot wide alley, commonly known as Alton Court, lying between the West Boundary of Block 40 of said Plat of "FIRST ADDITION TO COMMERCIAL SUBDIVISION", according to the Plat thereof as recorded in Plat Book 6, at Page 30 of the Public Records of Miami-Dade County, Florida and the East Boundary Line of said Plat of "THE ALTON BEACH REALTY COMPANY'S PLAT OF SUBDIVISION OF WEST HALF OF BLOCKS 17, 40 AND 45", according to the Plat thereof as recorded in Plat Book 6, at Page 165 of the Public Records of Miami-Dade County, Florida, and bounded on the North by the South Right of Way Line of 17th Street, and bounded on the South by the Westerly prolongation of the South Boundary Line of Lot 9, Block 40 of said Plat of "FIRST ADDITION TO COMMERCIAL SUBDIVISION" and up to the East Boundary Line of said Plat of "THE ALTON BEACH REALTY COMPANY'S PLAT OF SUBDIVISION OF WEST HALF OF BLOCKS 17, 40 AND 45".

Containing 2,000 Square Feet or 0.05 Acres, more or less, by calculations.

ACCURACY:

The accuracy obtained by field measurement methods and office calculations of closed geometric figures meets and exceeds the Minimum Technical Standards requirement for Suburban Area (Linear: 1 foot in 7,500 feet) as defined in Rule 5J-17.051 of the Florida Administrative Code.

Elevations of well identified features as depicted on the Survey Map were measured to an estimated vertical position accuracy of 1/100 of a foot on hard surfaces and 1/10 of a foot on ground surfaces.

Well identified features as depicted on the Survey Map were measured to an estimated horizontal position accuracy of 1/10 of a foot.

This Map of Survey is intended to be displayed at a scale of One inch equals Twenty feet or smaller.

PERTINENT INFORMATION USED IN THE PREPARATION OF THE MAP OF SURVEY:

North arrow direction is based on an assumed Meridian.

Bearings as shown hereon are based upon the centerline of 17th Street with an assumed bearing of N88°03'45"E, said line to be considered a well established and monumented line.

This property is located in Flood Zone "AE", with the Base Flood Elevation being 8.0 feet, as per Federal Emergency Management Agency (FEMA) Community Number 120651 (City of Miami Beach), Map Panel No. 0317, Suffix L, Map Revised Date: September 11, 2009.

Legal Description was furnished by client.

Plat of "THE ALTON BEACH REALTY COMPANY'S PLAT OF SUBDIVISION OF WEST HALF OF BLOCKS 17, 40 AND 45", according to the Plat thereof as recorded in Plat Book 6 at Page 165 of the Public Records of Miami-Dade County, Florida.

Elevations shown hereon are based on the National Geodetic Vertical Datum of 1929, and a Benchmark supplied by the Public Works and Waste Management Department of Miami-Dade County, Florida.

Benchmark= C-100
Elevation= 11.06 Feet (NGVD 29)
Description: Brass Disc in North corner of bridge over Collins canal 65' East from the intersection of Dade Boulevard and Bay Road.

RESTRICTIONS:

Since no other information were furnished other than that is cited under pertinent information, the Client is hereby advised that there may be legal restrictions on the Subject Property that are not shown on the Survey Map that may be found in the Public Records of Miami-Dade County.

The Surveyor makes no representation as to ownership or possession of the Subject Property by any entity or individual that may appear on the Public Records of this County.

No excavation or determination was made as to how the Subject Property is served by utilities.

No improvements were located, other than those shown. No underground foundations, improvements and/or utilities were located or shown hereon.

PURPOSE OF SURVEY:

The survey was ordered for design purposes.

CLIENT INFORMATION:

This Boundary Survey was prepared at the insistence of and certified to:

TURNBERRY & ASSOCIATES

SURVEYOR'S CERTIFICATE:

I hereby certify: That this "Boundary Survey" and the Survey Map resulting therefrom 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 applicable provisions of the "Minimum Technical Standards for Land Surveying in the State of Florida", pursuant to Rule 5J-17.051 through 5J-17.052 of the Florida Administrative Code and its implementing law, Chapter 472.027 of the Florida Statutes.

LONGITUDE SURVEYORS, LLC., a Florida Limited Liability Company
Florida Certificate of Authorization Number LB7335

By: _____ 12/20/16
Jose Senas, PSM Signature Date
Registered Surveyor and Mapper LS5938
State of Florida

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

AREA CALCULATIONS:

1. Alton Court alley, between Parcels 1 and 2 = 2,000 square feet or 0.05 Acres ±
2. Parcel 1 = 14,952 square feet or 0.34 Acres ±
3. Parcel 2 = 22,452 square feet or 0.52 Acres ±

TOTAL AREA = 39,404 square feet or 0.91 Acres ±

SURVEYOR'S REPORT:

DATE OF FIELD SURVEY:

The date of completion of original field Survey was on August 19, 2015.
The date of completion of CAD was on August 21, 2015.
Revision 1: This Map of Survey was revised on February 16, 2016 to add the area of the adjoining portion of Alton Court alley.
Revision 2: This Map of Survey was revised on February 24, 2016 to add the parcel areas.
Revision 3: An updated field survey was performed on October 24, 2016 as per Client's request.

LEGAL DESCRIPTION:

Parcel 1:

Lots 9 and 10, Block 40, of FIRST ADDITION TO COMMERCIAL SUBDIVISION, according to the Plat thereof, recorded in Plat Book 6, Page 30, of the Public Records of Miami-Dade County, Florida.

Containing 14,952 Square Feet or 0.34 Acres (Net Area), more or less, by calculations.

Property Address and Tax Folio Number:

1698 Alton Road, Miami Beach, Florida 33139
Folio No. 02-3234-017-0200

Parcel 2:

Lots 12, 13 and 14, inclusive, Block 40, ALTON BEACH REALTY COMPANY SUBDIVISION, according to the Plat thereof, as recorded Plat Book 6, Page 165, of the Public Records of Miami-Dade County, Florida.

Containing 22,452 Square Feet or 0.52 Acres (Net Area), more or less, by calculations.

Property Addresses and Tax Folio Numbers:

1683 West Avenue, Miami Beach, Florida 33139
Folio No. 02-3233-017-0030

1681 West Avenue, Miami Beach, Florida 33139
Folio No.: 02-3233-017-0040

LEGEND

CONC. = CONCRETE	℄ = MONUMENT LINE	= CHAIN LINK FENCE	= STREET LIGHT SIGNAL
R = RECORDED VALUE	= OVERHEAD WIRE	= WOOD FENCE	= BRICK
M = MEASURED VALUE	= WATER VALVE	= METAL FENCE	= CONCRETE
(C) = CALCULATED	= WATER METER	= COLUMN	= PAVER
C.B.S. = CONCRETE BLOCK STUCCO	= FIRE HYDRANT	= GAS VALVE	= TILE
℄ = CENTERLINE	= TEMPORARY SITE BENCHMARK	= CATCH BASIN	= STAMPED CONCRETE
P.B. = PLAT BOOK	= HEDGE OR LANDSCAPED AREA	= ORNAMENTAL LIGHT	= ASPHALT
PG. = PAGE	= CLEAN OUT	= ORNAMENTAL LIGHT POLE	A = ARC
M.F. = METAL FENCE	= SANITARY SEWER MANHOLE	= LIGHT POLE	L = LENGTH
= WOOD POWER POLE	= STORM DRAINAGE MANHOLE	= FLAG POLE	Δ = ANGLE OF THE CURVE
= GUY ANCHOR	= UNKNOWN MANHOLE	R = RADIUS	= ORNAMENTAL LIGHT POLE
= CONCRETE POWER POLE	= FPL MANHOLE	ID. = IDENTIFICATION	= SIGNAL MAST ARM
= ORNAMENTAL PLANT	C.L.F. = CHAIN LINK FENCE	LP = LIGHT POLE	= PALM TREE
= BOLLARD	M.F. = METAL FENCE	W.F. = WOOD FENCE	
= SIGN	= TREE	= MAILBOX	

LONGITUDE
SURVEYORS
7715 NW 48TH STREET, SUITE 310
DORAL, FLORIDA 33166
PHONE:(305)463-0912 FAX:(305)513-5680
WWW.LONGITUDESURVEYORS.COM

JOB NO.: 14650.0.06 DRAWN BY: RE
FIELD BOOK: EFB SHEET 1 OF 1

J:\2650 16th Alton Block Island Way\Survey Survey\14650 Bnd 10-25-16.dwg, 12/19/2016 8:13:53 PM, EST

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One Biscayne Tower Suite 1670
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17TH STREET

NO LANDSCAPE OR TREE WORK UNDER THIS PERMIT. REFER TO PERMIT #: PZ0716-0147 FOR TREE PERMIT.

WEST AVENUE

ALTON ROAD

ALTON COURT

WORK UNDER SEPARATE PERMIT

WORK UNDER SEPARATE PERMIT

FPL VAULT

ONE STORY EXISTING BUILDING

40' - 10" | 29' - 4" | 37' - 4" | 39' - 5" | 7' - 1"

79' - 10"

1 A.001 FPL VAULT - SITE PLAN
3/32" = 1'-0"

Stantec Architecture Inc - AA26000733

Jonathan Cardello Lic. # AR93391

3	FPL Revision 3			2017.08.03
2	FPL Revision 2			2017.05.17
1	FPL Revision 1			2017.02.15
Revision		By	Appd	YYYY.MM.DD

PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26
Issued	By	Appd	YYYY.MM.DD

PERMIT SET

17th & West Avenue

1698 Alton Road
Miami Beach, FL 33139

SITE PLAN

Project No.	Scale
219420456	3/32" = 1'-0"
Revision 3	Drawing No.

A.001

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ORIGINAL SHEET - ARCH E1 (30"x42")

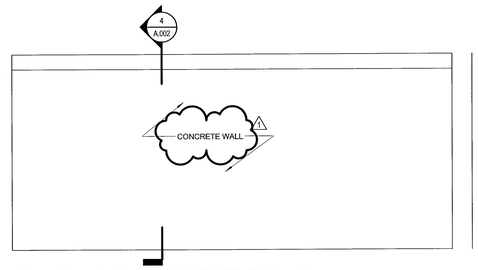
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Stantec Architecture Inc.
One Biscayne Tower Suite 1670
2 South Biscayne Boulevard
Miami, FL 33131-1804
Tel: (305) 482-8700 / Fax: (305) 482-8770

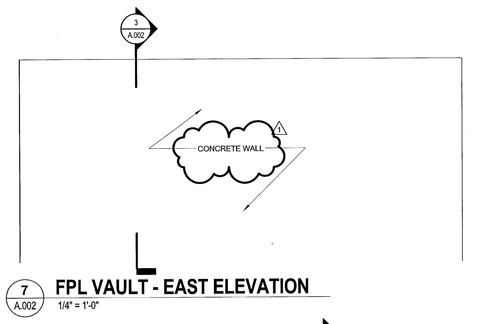
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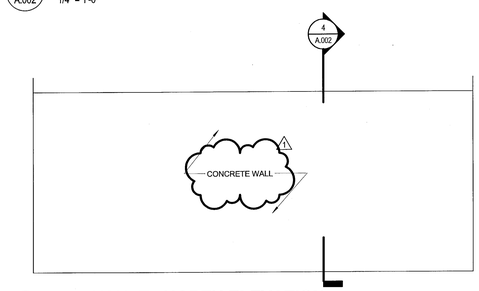
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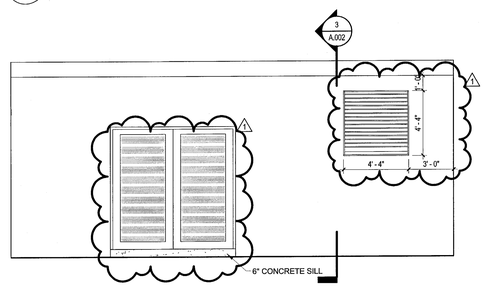
8 A.002 FPL VAULT - SOUTH ELEVATION
1/4" = 1'-0"



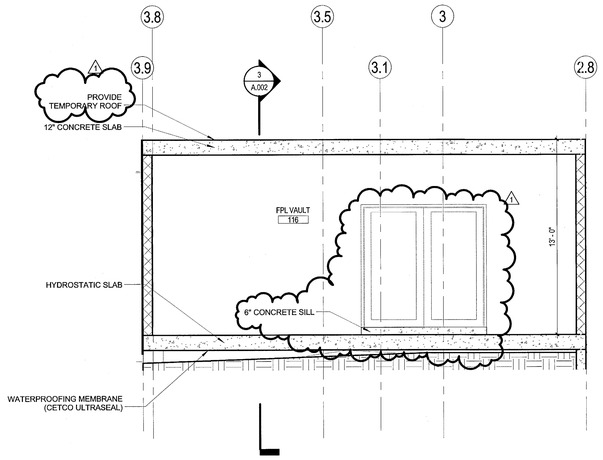
7 A.002 FPL VAULT - EAST ELEVATION
1/4" = 1'-0"



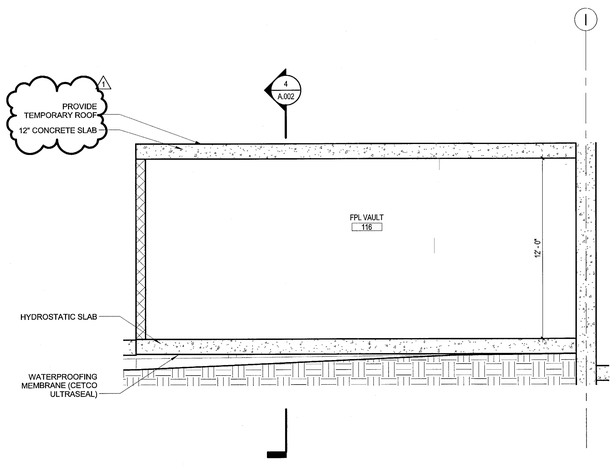
6 A.002 FPL VAULT - NORTH ELEVATION
1/4" = 1'-0"



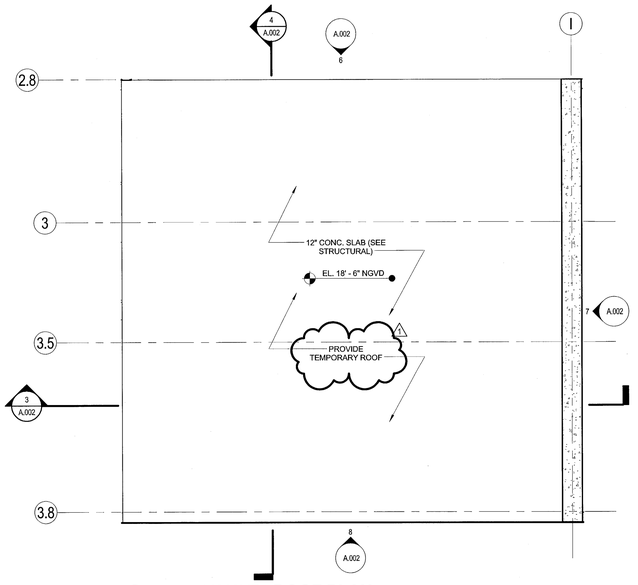
5 A.002 FPL VAULT - WEST ELEVATION
1/4" = 1'-0"



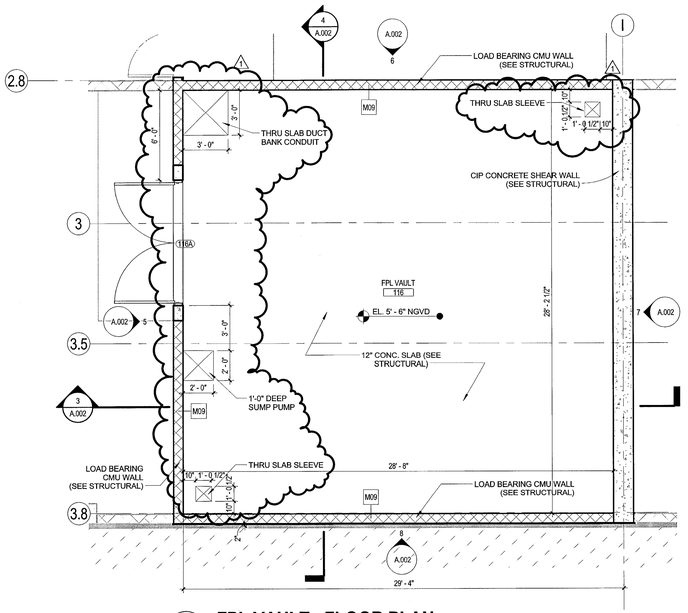
4 A.002 FPL VAULT SECTION 2
1/4" = 1'-0"



3 A.002 FPL VAULT SECTION 1
1/4" = 1'-0"



2 A.002 FPL VAULT - ROOF PLAN
1/4" = 1'-0"



1 A.002 FPL VAULT - FLOOR PLAN
1/4" = 1'-0"

Stantec Architecture Inc. : AA26000733
Jonathan Cardello Lic. # AR93391

1	FPL Revision 1		2017.02.15
Revision		By	Appd	YYYY.MM.DD

PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26
Issued		By	Appd	YYYY.MM.DD

PERMIT SET

17th & West Avenue
1698 Alton Road
Miami Beach, FL 33139

PLANS, SECTIONS & ELEVATIONS

Project No. 219420456	Scale 1/4" = 1'-0"
Revision 1	Drawing No.

A.002

C:\Users\Public\Documents\Local_Rev4_Revit\th_arch_dtl_17thWest_219420456_cesarmo.rvt
4/17/2017 12:42:03 PM

ORIGINAL SHEET - ARCH E1 (30"x42")

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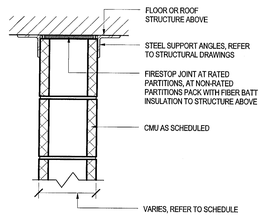
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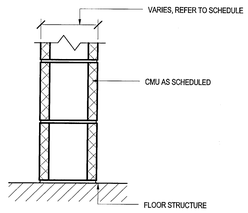
PARTITION DETAILS

PARTITION SCHEDULE - FPL VAULT

WALL TYPE	CONSTRUCTION DATA: OVERALL PARTITION DEPTH	GWB THICKNESS	MASONRY / FRAMING SIZE	METAL GA.	STUD SPACING	DETAIL AT TOP	DETAIL AT BASE	FIRE PARTITIONS: FIRE RATING (HRS)	FIRE TEST	ACOUSTICAL PERFORMANCE: SOUND INSULATION	STC RATING	STC TEST	NOTES
Group M - CMU													
M09	7 5/8"	0"	8" NOM.			T10	B7	3	UL U905	-	45	KAL-359-3-66	



TOP T10

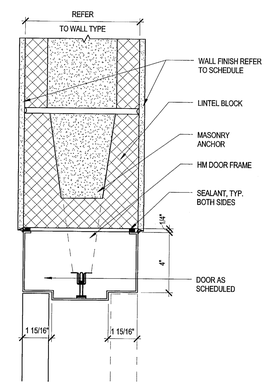


BASE B7

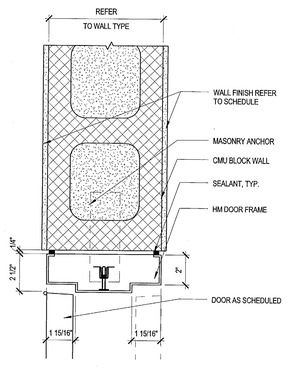
DOOR DETAILS

DOOR SCHEDULE FPL VAULT

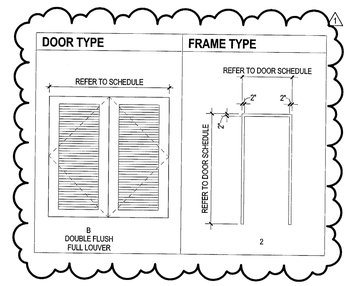
No.	Room Name	Rm. No.	Door: Clear Dim. Width	Clear Dim. Height	No. of Panels	Panel Widths: Panel 1 Width	Panel 2 Width	Thickness	Type	Mat'l	Frame: Type	Mat'l	Details: Head	Jamb	Sill	Opening: Fire Label	Glaz	Comments
Ground Level																		
116A	FPL VAULT	116	8' - 0"	8' - 0"	2	4' - 0"	4' - 0"	1 3/4"	O	HM	2	HM	H2	J2		180	-	



H2 / A.003 **CMU HEAD DETAIL 2**
3" = 1'-0"



J2 / A.003 **CMU JAMB DETAIL 2**
3" = 1'-0"



Stantec Architecture Inc - AA26000733
Jonathan Cardello Lic. # AR93391

1	FPL Revision 1		2017.02.15
Revision		By	Appd	YYYY.MM.DD
PERMIT SET			2017.01.20
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DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26
Issued		By	Appd	YYYY.MM.DD

PERMIT SET

17th & West Avenue
1698 Alton Road
Miami Beach, FL 33139

DETAILS

Project No.	Scale
219420456	As Indicated
Revision 1	Drawing No.

A.003

ORIGINAL SHEET - ARCH E1 (30"x42")

GENERAL ELECTRICAL NOTES:

1.0 GENERAL
1.1 WORK INCLUDED UNDER THIS DIVISION CONSISTS OF PROVIDING LABOR MATERIALS, APPLIANCES, EQUIPMENT, TOOLS, TRANSPORTATION, SUPERINTENDENCY AND SERVICES REQUIRED TO CONSTRUCT AND INSTALL COMPLETE AND PROPER OPERATING ELECTRICAL SYSTEMS AS SPECIFIED, INDICATED, AND ELSEWHERE REQUIRED.
1.2 ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC 2008), FLORIDA BUILDING CODE (FBC 2010) AND ALL OTHER APPLICABLE CODES IN THEIR LATEST EDITION.

2.0 EXAMINATION OF SITE
2.1 BIDDER IS ADVISED TO VISIT THE SITE AND ACQUAINT HIMSELF WITH WORKING CONDITIONS. CONTRACTOR SHALL ACCEPT CONDITIONS AS THEY EXIST ON BID DATE.

3.0 MATERIALS
3.1 MATERIALS, EQUIPMENT AND APPLIANCES SHALL BE NEW AND OF BEST QUALITY UNLESS OTHERWISE INDICATED.
3.2 DETERMINE THAT PROPOSED EQUIPMENT CAN BE INSTALLED IN SPACE AVAILABLE. INSTALL EQUIPMENT SO PARTS ARE READILY ACCESSIBLE FOR INSPECTION AND MAINTENANCE. EXTRA COMPENSATION WILL NOT BE ALLOWED FOR DISMANTLING EQUIPMENT TO OBTAIN ENTRANCE INTO BUILDING.
3.3 MATERIALS SHALL BEAR UNDERWRITER'S LABEL WHERE SUCH STANDARDS HAVE BEEN ESTABLISHED AND LISTED BY UNDERWRITER'S LABORATORIES, INC.
3.4 MATERIALS, EQUIPMENT AND APPLIANCES SHALL CONFORM TO LATEST STANDARDS OF: AMCA, ANSI, ASTM, NEMA, ARI & NFPA.
3.5 USE EXTREME CARE IN SELECTION AND INSTALLATION OF EQUIPMENT TO INSURE THAT NOISE AND VIBRATION ARE HELD TO ABSOLUTE MINIMUM. CORRECT OBJECTIONABLE NOISE AND VIBRATION. PROVIDE ELIMINATORS REQUIRED FOR PROPER RESULTS.

4.0 PERMITS, FEES AND CODES
4.1 COST FOR FEES, PERMITS, TESTS AND INSPECTIONS SHALL BE PAID FOR BY THIS CONTRACTOR.
4.2 INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS INCLUDING: F.B.C., N.E.C., N.F.P.A., O.S.H.A. AND STATE, COUNTY AND CITY DEPARTMENTS OF HEALTH.

5.0 COOPERATE WITH OTHER TRADES
5.1 MAKE KNOWN ARRANGEMENT OF WORK AND CHECK ARRANGEMENT AND LOCATION OF OTHER TRADES TO AVOID CONFLICTS. EXAMINE DRAWINGS OF OTHER TRADES TO DETERMINE EXACT EQUIPMENT LOCATIONS FOR ROUGH IN.
5.2 PROVIDE (FURNISH & INSTALL) POWER SUPPLY WIRING AND CONDUIT TO ALL TEMPERATURE CONTROL SYSTEMS, THERMOSTATS AND VAV TERMINALS ELECTRICAL CONTRACTOR SHALL COORDINATE ALL LOCATIONS AND REQUIREMENTS WITH THE MECHANICAL CONTRACTOR.

6.0 OPERATING INSTRUCTIONS
6.1 CONTRACTOR SHALL PROVIDE TO OWNER OPERATION AND MAINTENANCE MANUALS. CONTRACTOR SHALL INSTRUCT OWNER OR OWNER'S REPRESENTATIVE IN OPERATION OF ALL EQUIPMENT. TYPE WRITTEN LABELS SHALL BE PLACED IN PANEL BOXES DESIGNATING CIRCUIT LAYOUTS.

7.0 INSPECTION
7.1 NOTIFY OWNER TWENTY-FOUR HOURS IN ADVANCE WHEN PIPING OR EQUIPMENT IS TO BE TESTED, BEFORE PIPING IS INSULATED OR CONCEALED, AND BEFORE TRENCHES ARE BACKFILLED.
7.2 FAILING TO COMPLY WITH THE ABOVE, CONTRACTOR SHALL UNCOVER AND RETEST LINES, REPAIRING DAMAGE TO OTHER CONTRACTOR'S WORK, AS WELL AS HIS OWN.
7.3 BEFORE REQUESTING FINAL PAYMENT, INSPECT INSTALLATION TO ASSURE THAT WORK IS COMPLETE AND REQUIREMENTS OF CONTRACT HAVE BEEN FULFILLED.

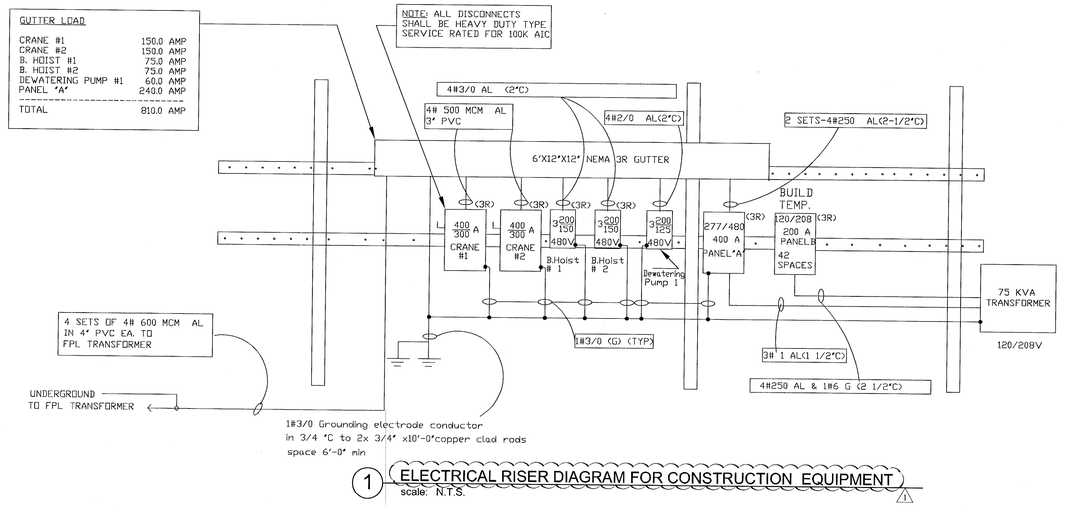
8.0 CUTTING AND PATCHING
8.1 UNLESS OTHERWISE INDICATED, DO NO MORE CUTTING AND PATCHING THAN REQUIRED FOR INSTALLATION OF WORK.
8.2 CUTTING OF STRUCTURAL MEMBERS OR EXPOSED SURFACE OF CONCRETE BLOCK WILL NOT BE PERMITTED.

9.0 MATERIALS AND EQUIPMENT
9.1 CONDUCTORS: CONDUCTORS SHALL BE THWN COPPER AS NOTED ON DRAWINGS UNLESS OTHERWISE NOTED
9.2 RECEPTACLES, SWITCHES & TELEPHONE OUTLETS: SHALL BE AS MANUFACURED BY LEVITON, HUBBELL, OR APPROVED SUBMITTAL. PROVIDE DECORA STYLE DEVICES AND PLATES IN WHITE.
9.3 COMPUTER OUTLETS: (IF APPLICABLE) SHALL BE AS SPECIFIED BY OWNER.
9.4 PANELBOARDS:
A. GENERAL: INTERRUPTING CAPACITY RATINGS SHALL BE VERIFIED AND BASED ON THE AVAILABLE SYMMETRICAL FAULT CURRENT GIVEN BY THE POWER COMPANY UPON LOCATION & INSTALLATION OF TRANSFORMER.
B. DIRECTORY: COMPLETE AT END OF JOB, TYPEWRITTEN.
C. FINISH: ANSI #61 ENAMEL OVER A RUST INHIBITING TREATMENT AFTER FABRICATION AND BEFORE ASSEMBLY. AFTER INSTALLATION, AND BEFORE ACCEPTANCE BY OWNER, ASSEMBLY SHALL BE PAINTED WITH A RUST INHIBITING PAINT (COLOR SELECTED BY ARCHITECT).
D. NAMEPLATES: PROVIDE A LAMACOID NAMEPLATE WITH 5/16" LETTERS ENGRAVED ON FRONT FACE SHOWING PANEL NAME, VOLTAGE AND PANEL RATING. COORDINATE TO GIVE SAME NAME AS SHOWN ON PANELBOARD SCHEDULE.
E. MANUFACTURERS: GENERAL ELECTRIC, WESTINGHOUSE, I-T-E, SQUARE D.
9.5 FIXTURES:
A. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL LIGHTING FIXTURES AS SPECIFIED ON DRAWINGS WITH DEVELOPER AND/OR ARCHITECT APPROVAL. VERIFY BEFORE PURCHASE AND INSTALLATION.
9.6 LAMPS: ALL LAMPS USED ON THIS PROJECT SHALL BE NEW, DELIVERED TO THE JOB SITE IN THE ORIGINAL PACKING CASES AND SLEEVES AND SHALL BE OF THE SAME MANUFACTURER UNLESS OTHERWISE SPECIFIED.
9.7 BALLAST: ALL BALLASTS SHALL BE RATED TO OPERATE AT THE SERVICE VOLTAGE AS SHOWN AND AS SPECIFIED, PLUS OR MINUS THE DEVIATIONS WITH THE ELECTRIC SERVICE COMPANY IS ALLOWED BY FRANCHISE.

10.0 FUSES
10.1 PART 1: GENERAL
A. SUPPLY AND INSTALL ALL FUSES IN EACH FUSED DEVICE.
B. ALL AIR CONDITIONING AND KITCHEN EQUIPMENT SHALL BE FUSED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
C. INSTALL LABELS IN ALL FUSED DEVICES INDICATING PROPER SIZE FUSE TO USE.

11.0 MISCELLANEOUS
11.1 ALL EMPTY CONDUIT TO BE SUPPLIED WITH NYLON PULL WIRE.
11.2 ALL FLEX CONDUIT SHALL HAVE "TITE-BITE" CONNECTORS.
11.3 ELECTRICAL CONTRACTOR TO INSTALL AND WIRE OUTLETS IN FIXTURES WHERE SHOWN ON DRAWINGS - OUTLETS TO BE INSTALLED IN FIXTURES AFTER FIXTURE INSTALLATION.
11.4 ALL DEDICATED CIRCUITS SHALL BE LABELED AS SUCH AT OUTLET.
11.5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND VERIFYING THE TELEPHONE COMPANY REQUIREMENTS FOR INSTALLATION OF SERVICE AND ADVISE THE OWNER AND/OR THE ENGINEER OF ANY ADDITIONAL REQUIREMENTS THAT MAY BE NECESSARY.
11.6 THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND VERIFYING THE ELECTRICAL COMPANY'S REQUIREMENTS AND SERVICE ENTRANCE FOR THE BUILDING TO MAIN ELECTRICAL ROOM.
11.7 PROVIDE (FURNISH & INSTALL) POWER SUPPLY WIRING SOURCE TO POWER CONNECTION, INCLUDE STARTERS, DISCONNECTS & REQUIRED ELECT. DEVICES, INTERLOCK WIRING, RACEWAY, CONDUITS, PULL WIRES TO MECH. SYSTEMS INCLUDING HVAC CONTROL . COORD. W/ MECH. CONTRACTOR.

NOTE: ALL EQUIPMENT TO BE MOUNTED ABOVE FLOOD CRITERIA.



1 ELECTRICAL RISER DIAGRAM FOR CONSTRUCTION EQUIPMENT
scale: N.T.S.

MAIN: (NEMA 3R) 277/480 V. 3 ø 4 W.
3P-400 A. M.C.B. SERVICE RATED PANEL "A"
AIC RATING: 65K
MOUNTING: SURFACE

CKT	SERVES	AMPS A ø	AMPS B ø	AMPS C ø	AMPS N	C.B.	P.	WIRE – CONDUIT	REMARKS
1	PANEL B THRU Transf	90	90	90	-	100	3	3# 1 AL(1 1/2"C)	75 KVA XMER
2	Fire Pump	50	50	50	-	100	3	3# 1 AL(1 1/2"C)	
3	Future	50	50	50	-	100	3	3# 1 AL(1 1/2"C)	
4	Concrete Pump	50	50	50	-	100	3	3# 1 AL(1 1/2"C)	
5	SPACE								
6	SPACE								
7	SPACE								
8	SPACE								
TOTAL AMPS		240	240	240	-				

FEEDER : SEE RISER

200A. Main. PANEL "B" (NEMA 3R) 120 / 208 V. 3 ø 4 W.
AIC RATING: 22K
MOUNT: SURFACE

CKT	SERVES	C.B.	P	K.V.A.	WIRE–COND	CKT	SERVES	C.B.	P	K.V.A.	WIRE–COND
1	TRAILER #1	100	2	16.6	3# 1 - 11/4"C	2	Lights	20	1	1.6	3# 10 - 3/4"C
3						4	Lights	20	1	1.6	3# 10 - 3/4"C
5	Receptacles	20	1	1.1	3# 10 - 3/4"C	6	Lights	20	1	1.6	3# 10 - 3/4"C
7	Receptacles	20	1	1.1	3# 10 - 3/4"C	8	Lights	20	1	1.6	3# 10 - 3/4"C
9	Receptacles	20	1	1.1	3# 10 - 3/4"C	10	Lights	20	1	1.6	3# 10 - 3/4"C
11	Receptacles	20	1	1.1	3# 10 - 3/4"C	12	Lights	20	1	1.6	3# 10 - 3/4"C
13	Space					14	Receptacles	20	1	1.1	3# 10 - 3/4"C
15	Space					16	Receptacles	20	1	1.1	3# 10 - 3/4"C
17	Space					18	Space				
19	Space					20	Space				
21	Space					22	Space				
23	Space					24	Space				
25	Space					26	Space				
27	Space					28	Space				
29	Space					30	Space				
31	Space					32	Space				
33	Space					34	Space				
35	Space					36	Space				
37	Space					38	Space				
39	Space					40	Space				
41	Space					42	Space				

TOTAL: 32.8 KVA (91.1 A)

FEEDER : SEE RISER

SCOPE OF WORK:
1) PROVIDE NEW EQUIPMENT RACK FOR FPL VAULT CONSTRUCTION.

1-20-2017 PERMIT SET

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VIANNA FRANYIE PE #69985 ML
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Certificate of Authorization # 00002906
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DESIGN: DRAWN: CHK: 1-20-17
JOB NUMBER 16-117

ALEJANDRO FRANYIE LICENSE No. 69985 STATE OF FLORIDA PROFESSIONAL ENGINEER Apr 20, 2017

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Revision	By	Appd	
1 FPL Revision # 1			2017.02.17
PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
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100% SCHEMATIC DESIGN			2016.09.26
Issued	By	Appd	YYYY.MM.DD

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ELECTRICAL POWER

Project No. 219420456
Scale N.T.S.
Revision
Drawing No. TE-100

ORIGINAL SHEET - ARCH E1 (30"x42")

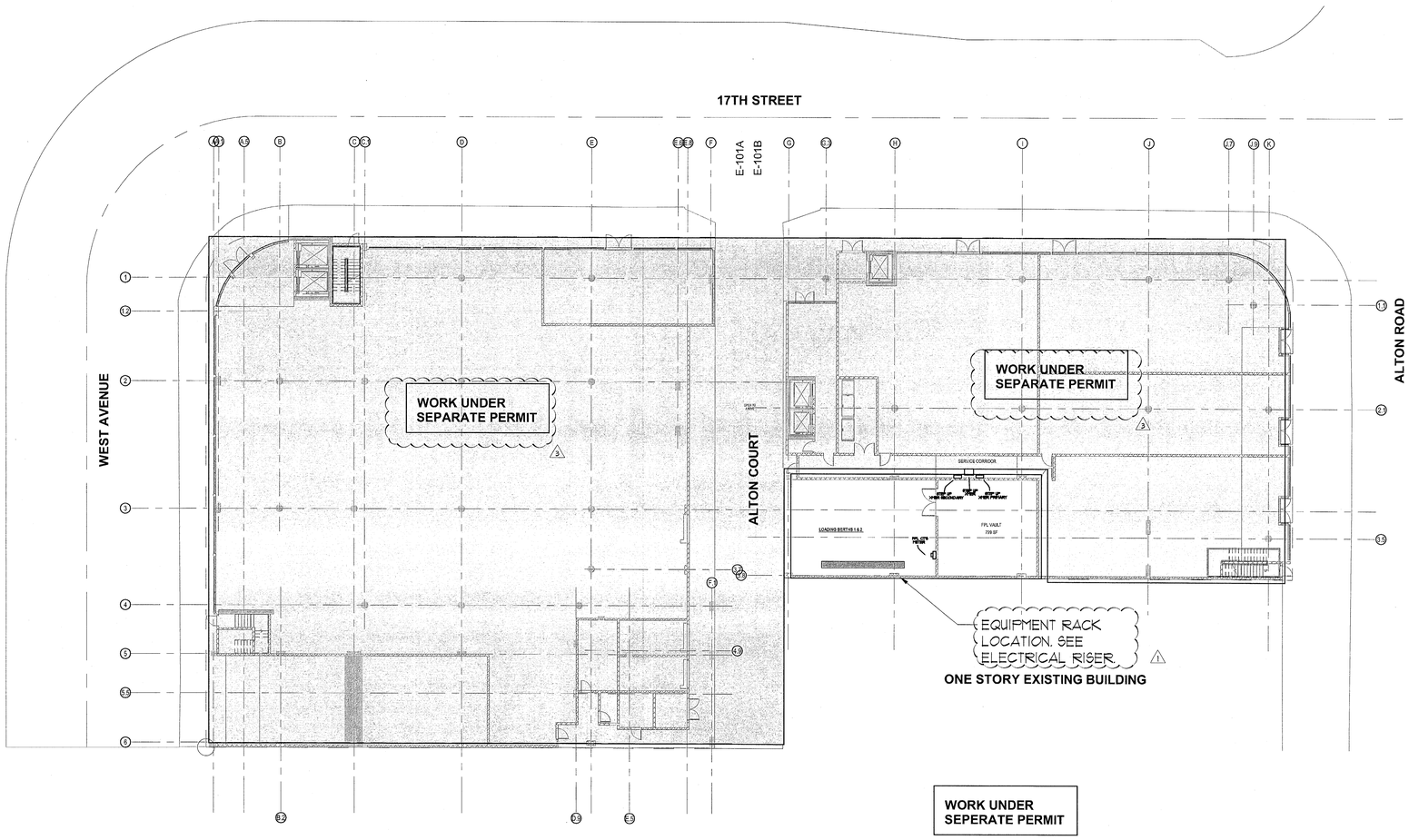
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WORK UNDER
SEPERATE PERMIT

NOTE:

FIRE PUMP TO BE DIESEL

FLOOD INFORMATION:

FEMA FLOOD ZONE: 'AE'
BASE FLOOD ELEVATION: +8.00 NGVD

1 SITE PLAN
scale: 1/16"=1'-0"

SCOPE OF WORK:

1) PROVIDE NEW EQUIPMENT RACK FOR FPL VAULT CONSTRUCTION.

1	Coordination		2017.08.04
2	FPL Revision # 2		2017.05.17
1	FPL Revision # 1		2017.02.15
Revision		By Appd	YYYY.MM.DD

	PERMIT SET		2017.01.20
	PERMIT SET		2016.12.23
	DESIGN DEVELOPMENT		2016.11.23
	50% DESIGN DEVELOPMENT		2016.11.04
	DERM SUBMISSION		2016.10.11
	100% SCHEMATIC DESIGN		2016.09.26
Issued		By Appd	YYYY.MM.DD

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1-20-2017
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17th & West Avenue

1698 Alton Road
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ELECTRICAL POWER

Project No. 219420456
Scale N.T.S.
Revision 1
Drawing No. TE-101

Stantec Architecture Inc - AA26000733

Jonathan Cardello Lic. # AR93391

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DESIGN: VF | DRAWN: VF | 1-24-17
JOB NUMBER 16-177

ORIGINAL SHEET - ARCH E1 (001142)

P:\PROJECTS\2016\STANTEC\16-177 1698 Alton - WEST & 17TH\0-temp-panel\17-west-TEMP POWER TE-1.dwg TE-101, 6/4/2017 3:36:07 PM, vadal 1:1

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STRUCTURAL NOTES

1. FOUNDATIONS:

A. FOUNDATION SYSTEM CONSISTS OF 14" ROUND AUGER-CAST CONCRETE PILES SUPPORTING REINFORCED CONCRETE PILE CAPS AND GRADE BEAMS. PILES SHALL BE INSTALLED TO DEVELOP CAPACITIES AS SHOWN ON PILE DETAILS ON DWG S-5.1.
B. FOR PILE DETAILS SEE DWG S-5.1
C. CONCRETE GROUT STRENGTH FOR PILES SHALL BE AS PER PILE DETAILS OF DWG. S-5.1.
D. PILE INSTALLATION SHALL BE SURPERVISED BY A STATE OF FLORIDA REGISTERED ENGINEER. E. PILE INSTALLATION SHALL CONFORM WITH CHAPTER 18 OF THE FLORIDA BUILDING CODE, 2014 EDITON, HVHZ.
F. CONTRACTOR SHALL PROVIDE TO THE STRUCTURAL ENGINEER OF RECORD AN AS-BUILT PLAN SHOWING PRECISE IDENTIFICATION AND LOCATION OF EVERY PILE FOR REVIEW AND APPROVAL PRIOR TO POURING OF PILE CAPS AND GRADE BEAMS. THE AS-BUILT PLAN SHALL INDICATE IN INCHES, THE RELATIVE POSITION OF THE INSTALLED PILE IN REFERENCE TO ITS THEORETICAL LOCATION AS INDICATED IN THE STRUCTURAL DRAWINGS USING ORTHOGONAL COORDINATES.
G. CONTRACTOR SHALL CONTRACT THE SERVICES OF A STATE OF FLORIDA REGISTERED PROFESSIONAL GEOTECHNICAL ENGINEER TO SUPERVISE PILE INSTALLATION AND CERTIFY IN A PILE LOG REPORT THAT PILE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND THESE STRUCTURAL DRAWINGS.
H. COMPRESSION AND TENSION LOAD TESTS SHALL BE PERFORMED FOR THE 14" DIAMETER PILES. LOAD TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THE FL. BLDG. CODE, 2014, EDITION.
I. THE ABOVE FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT AND BORINGS BY NV5, NO. 14931, DATED DECEMBER 1, 2015.
J. CENTERS OF COLUMNS SHALL COINCIDE WITH CENTERS OF PILE CAPS AND GRADE BEAMS, UNLESS OTHERWISE NOTED IN FOUNDATION FRAMING PLAN AND PILE CAP DETAILS.

2. GENERAL:

A. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE FLORIDA BUILDING CODE, 2014 EDITION, HVHZ, ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS, THE ACI 318-11 BUILDING CODE, AND ALL APPLICABLE FEDERAL, STATE AND LOCAL ORDINANCES.
B. THESE DRAWINGS AND SPECIFICATIONS COMPLY, TO THE BEST OF MY KNOWLEDGE WITH THE FLORIDA BUILDING CODE, 2014 EDITION, HVHZ .
C. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS OF EXISTING STRUCTURES AFFECTING NEW CONSTRUCTION BEFORE COMMENCING ANY WORK. ANY VARIATIONS IN ACTUAL FIELD CONDITIONS/DIMENSIONS FROM THOSE SHOWN IN THE CONTRACT DRAWINGS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR DETERMINING THE NEED OF REDESIGN PRIOR TO CONTRACTOR'S SUBMITTAL OF SHOP WORKING DRAWINGS FOR REVIEW.
D. THESE DRAWINGS SHALL BE WORKED TOGETHER WITH ARCHITECTURAL, AIR CONDITIONING, MECHANICAL AND ELECTRICAL DRAWINGS TO LOCATE DEPRESSED SLABS, SLOPES, DRAINS, OUTLETS, RECESSES, OPENINGS, REGLETS, BOLT SETTINGS, SLEEVES, ETC. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT/ ENGINEER BEFORE PROCEEDING WITH THE WORK. ANY DISCREPANCIES, OMISSIONS OR VARIATIONS FOUND ON THE DRAWINGS OR IN THE SPECIFICATIONS DISCOVERED DURING THE BIDDING PHASE SHALL BE IMMEDIATELLY COMMUNICATED TO ARCHITECT/ ENGINEER.
E. WHEN PERFORMING WORK BELOW GRADE, CARE SHALL BE TAKEN TO AVOID DAMAGING ANY EXISTING UTILITIES. ALL UNKNOWN UTILITIES DISCOVERED DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. ANY DAMAGE TO THE EXISTING UTILITIES SHALL BE REPORTED TO ALL AFFECTED PARTIES, INCLUDING THE ARCHITECT/ENGINEER.
F. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING HIS CONSTRUCTION DOCUMENTS WITH THE REVISED DRAWINGS AND SPECIFICATIONS, FIELD ORDERS, CHANGE ORDERS AND CLARIFICATION SKETCHES ISSUED DURING THE COURSE OF CONSTRUCTION.
G. TYPICAL DETAILS AND NOTES ON THESE DRAWINGS SHALL APPLY UNLESS SPECIFICALLY NOTED OTHERWISE. CONSTRUCTION DETAILS AND SECTIONS NOT COMPLETELY SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS AND SECTIONS SHOWN OR NOTED FOR SIMILAR CONDITIONS.
H. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH THE LOCAL BUILDING DEPARTMENT.
I. BACKFILL AROUND THE EXTERIOR PERIMETER OF WALLS SHALL NOT BE PLACED UNTIL AFTER THE WALLS ARE SUPPORTED BY THE COMPLETION OF INTERIOR FLOOR SYSTEMS. DO NOT PROCEED WITH BACKFILL UNTIL (7) DAYS AS A MINIMUM AFTER THE COMPLETION OF INTERIOR FLOOR SYSTEM UNLESS WALLS ARE ADEQUATELY BRACED. BACKFILL SHALL NOT BE PLACED UNTIL AFTER COMPLETION AND INSPECTION OF WATERPROOFING WHERE WATERPROOFING OCCUR.
J. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL ACCUMULATED WATER FROM EXCAVATIONS AND DEWATERING OPERATIONS IN SUCH A WAY AS TO NOT CAUSE INCONVENIENCE TO THE WORK AND DAMAGE TO THE STRUCTURAL ELEMENTS.
K. STRUCTURAL NOTES SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS. IF A CONFLICT EXISTS, THE MORE STRINGENT GOVERNS.
L. GENERAL CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITY LINES AND CONDUITS FROM DAMAGE. GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR DAMAGE OR INJURY DUE TO HIS ACT OR NEGLECT.
M. GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SAFETY, MEANS AND METHODS OF CONSTRUCTION AND CONSTRUCTION PROCEDURES.
N. DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS NOTED. IF DIMENSIONS ARE MISSING CONSULT ARCHITECT/ENGINEER FOR ADVISE.

3. SHOP DRAWINGS SUBMITTALS:

A. SUBMITTALS TO STRUCTURAL ENGINEER OF RECORD:
I. CONCRETE TEST REPORTS FOR CAST-IN-PLACE CONCRETE AS PER ACI 301-11.
II. REINFORCING STEEL SHOP DRAWINGS.
III. STRUCTURAL STEEL SHOP DRAWINGS AND ERECTION DRAWINGS.
IV. POST-TENSIONED CONCRETE SHOP DRAWINGS AND DESIGN DATA AS REQUIRED BY STRUCTURAL DRAWINGS.
V. SHORING AND RESHORING SHOP DRAWINGS AND CALCULATIONS.
VI. RAILING AND GUARDRAIL SHOP DRAWINGS AND DESIGN DATA.
VII. AUGER-CAST CONCRETE PILES SHOP DRAWINGS AND DESIGN DATA.

B. SHOP DRAWINGS REQUIRING ENGINEERING BY A SPECIALTY ENGINEER SHALL COMPLY WITH THE FOLLOWING:
I. THE SPECIALTY ENGINEER SHALL BE A FLORIDA REGISTERED PROFESSIONAL ENGINEER.
II. THE SPECIALTY ENGINEER SHALL HAVE AT LEAST FIVE YEARS OF SOLID PROFESSIONAL DESIGN EXPERIENCE IN THE DESIGN AND DETAILING OF THE STRUCTURAL COMPONENT AND/OR STRUCTURAL SYSTEM BEING SUBMITTED FOR APPROVAL.
III. THE SPECIALTY ENGINEER SHALL BE AN EMPLOYEE OR OFFICER OF A FABRICATOR, AN EMPLOYEE OR OFFICER OF ANOTHER COMPANY SUPPLYING COMPONENTS TO THE FABRICATOR
C. ALL SHOP DRAWINGS ARE AN AID FOR FIELD PLACEMENT AND ARE SUPERSEDED BY THE STRUCTURAL DRAWINGS. IT SHALL BE THE RESPPONSIBLILY OF THE GENERAL CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST STRUCTURAL DRAWINGS.
D. THE CONTRACTOR SHALL SUPPLY THE ENGINEER THREE COPIES OF SHOP DRAWINGS A MINIMUM OF ONE WEEK PRIOR TO PLACEMENT. THE REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS. THE REVIEW DOES NOT GUARANTEE IN ANY WAY THAT THE SHOP DRAWINGS ARE CORRECT NOR DOES IT INFER THAT THEY SUPERSEDE THE STRUCTURAL DRAWINGS. REVIEW WILL NOT INCLUDE CHECK OF DIMENSIONS, LENGTHS OR QUANTITIES.
E. THESE STRUCTURAL DRAWINGS SHALL NOT BE USED TO PRODUCE SHOP DRAWINGS WITHOUT PRIOR EXPRESSED WRITTEN APPROVAL FROM THE STRUCTURE ENGINEER OF RECORD.
F. SHOP DRAWINGS RE-SUBMITTED FOR APPROVAL SHALL BE CLEARLY CLOUDED AND NOTED. RE-REVIEW SHALL BE LIMITED TO THOSE ITEMS WHICH CAUSED THE RE-SUBMITTAL.

4. CONCRETE:

A. ALL CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301-11 'SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.'
B. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS:

PILE CAPS	5,000 PSI, W/C RATIO 0.40.
GRADE BEAMS	5,000 PSI, W/C RATIO 0.40.
FOUNDATION WALLS	5,000 PSI, W/C RATIO 0.40.
STRUCTURAL SLABS ON GRADE	5,000 PSI, W/C RATIO 0.40.
STRUCTURAL SLABS AND BEAMS	5,000 PSI MIN., SEE PLANS, W/C RATIO 0.40.
COLUMNS	SEE COLUMN SCHED, W/C RATIO 0.40.
SHEAR WALLS	SEE SHEAR WALL DETAILS, W/C RATIO 0.40.
CONCRETE VEHICULAR IMPACT WALLS	4,000 PSI.
CONCRETE PLANTER WALLS	4,000 PSI.
TIE COLUMNS, U. O. N.	4,000 PSI.
ALL OTHER CONCRETE	3,000 PSI.

C. FORMWORK SHALL COMPLY WITH ACI 347-04, ' RECOMMENDED PRACTICE FOR CONCRETE FORMWORK.'
D. MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF ANY CONCRETE WORK. SUBMIT STATISTICAL DATA FOR EACH CLASS OF CONCRETE.
E. NO WATER SHALL BE ADDED TO THE CONCRETE AT THE JOB SITE.
F. THE OWNER SHALL CONTRACT AN INDEPENDENT TESTING LABORATORY TO PERFORM CONCRETE CYLINDER TESTS AS FOLLOWS: SIX CYLINDER TESTS FOR ANY 50 CUBIC YARDS OF CONCRETE POURED, OR FRACTION THEREOF FOR EACH CLASS OF CONCRETE POURED EACH DAY. ONE CYLINDER SHALL BE TESTED AT 3 DAYS AND 7 DAYS, THREE AT 28 DAYS, AND ONE RESERVED TO BE TESTED AT 56 DAYS IF REQUIRED. FOLLOW ASTM STANDARDS FOR SAMPLING AND TESTING. ONE SLUMP TEST SHALL BE TAKEN FOR EACH SET OF TEST CYLINDERS CAST. SLUMP TEST SHALL CONFORM WITH ASTM C 143. NO CONCRETE TEST WILL BE ACCEPTED IF CONCRETE IS TAMPERED WITH IN ANY WAY AFTER SAID TEST IS PERFORMED. REPEAT TEST IF WATER IS ADDED AFTER INITIAL SAMPLING.
G. TRANSPORTING, PLACING, CURING AND DEPOSITING OF CONCRETE SHALL COMPLY WITH ACI 301-11: SPECIFICATIONS FOR STRUCTURAL CONCRETE.
H. CONSTRUCTION JOINTS IN STRUCTURAL SLABS AND BEAMS SHALL BE LOCATED AT 1/3 OF THE SPAN WITH REINFORCING CONTINUOUS ACROSS THE JOINT. PROVIDE A CONTINUOUS 2 X 4 SHEAR KEY AT SLABS. AT BEAMS PROVIDE A 1 1/2" DEEP SHEAR KEY WITH A WIDTH 8" SMALLER THAN THE BEAM WIDTH AND A DEPTH 8" SMALLER THAN THE BEAM DEPTH. LOCATIONS SHALL BE APPROVED BY STRUCTURAL ENGINEER OF RECORD BEFORE POUR.
I. CONCRETE USED AT BALCONIES AND TERRACES SHALL HAVE A WATER / CEMENT RATIO OF 0.40.
J. MAXIMUM WATER/CEMENT RATIO FOR CONCRETE CONTAINING A SUPERPLASTICIZING ADMIXTURE SHALL BE 0.40. SLUMP AFTER ADDITION OF SUPERPLASTICIZER SHALL BE 8" +/- 1"
K. MINIMUM CONCRETE COVER FOR REINFORCEMENT:
I. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH .... 3"
II. CONCRETE EXPOSED TO EARTH OR WEATHER
#6 BARS AND LARGER .... 2"
#5 BARS AND SMALLER .... 1 1/2"
III. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WIH EARTH:
SLABS AND WALLS .... 3/4"
BEAMS AND COLUMNS .... 1 1/2"
SHEAR WALLS .... 1 1/2"

5. REINFORCING STEEL:

A. REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 318-11.
B. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A 615-09b. (S1) GRADE 60.
C. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185-06.
D. REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES DURING PLACING OF CONCRETE, IN ACCORDANCE WITH CRSI 'MANUAL OF STANDARD PRACTICE', 2008.
E. ALL TOP REINFORCING SHALL TERMINATE WITH STANDARD HOOKS AT DISCONTINUOUS EDGES OR ENDS.
F. ALL BOTTOM BARS SHALL BEAR 6" MINIMUM OVER SUPPORTS, U.O.N.
G. ALL REINFORCING BARS MARKED CONTINUOUS SHALL BE LAPPED WITH CLASS 'B' TENSION LAP SPLICES AT CORNERS UNLESS OTHERWISE NOTED. LAP CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AS REQUIRED WITH CLASS 'B' TENSION LAP SPLICES. TERMINATE CONTINUOUS BARS AT NON-CONTINUOUS ENDS WITH STANDARD HOOKS, U.O.N.
H. SLAB TOP BARS ARE SHOWN IN PLAN AS SOLID LINES. SLAB BOTTOM BARS ARE SHOWN IN PLAN AS DASHED LINES.
I. IN BEAMS WITH MULTIPLE LAYERS OF REINFORCING AT TOP OR BOTTOM SEPARATE LAYERS WITH #8 SPACER BARS FOR BAR SIZES UP TO #8 AND SAME SPACER BAR AS BAR SIZE FOR #9 BARS AND LARGER.
J. IN BEAMS 8 INCHES WIDE PROVIDE A MAXIMUM OF 2 BARS PER LAYER OF REINFORCING.
K. BEAMS INTERMEDIATE BARS SHALL BE HOOKED AT DISCONTINIOUS ENDS AND SPLICED AT SUPPORTS WITH CLASS 'B' TENSION LAP SPLICES.
L. PROVIDE A 60 TON REINFORCING STEEL ALLOWANCE TO BE USED BY STRUCTURAL ENGINEER OF RECORD AT HIS OWN DISCRETION. BALANCE OF THIS ALLOWANCE NOT USED DURING CONSTRUCTION SHALL BE CREDITED TO THE OWNER AT THE SAME COST PER TON AS ORIGINALLY CHARGED.
M. ALL TOP AND BOTTOM AND ACCESSORY REINFORCING USED IN BALCONIES AND TERRACES SHALL BE GALVANIZED.
N. FOR CLASS 'B' TENSION LAP SPLICES FOLLOW CRSI 'DESIGN HANDBOOK, 2008', CHAPTER 5.

6. CONCRETE MASONRY WORK:

A. CONCRETE MASONRY WALLS NOTED AS LOAD BEARING WALLS, SHALL BE IN PLACE BEFORE THE SLABS AND BEAMS SUPPORTED BY THEM ARE POURED AS WELL AS THE CONCRETE TIE COLUMNS FRAMING THEM.
B. CONCRETE MASONRY WALLS NOTED AS NON-LOAD BEARING WALLS SHALL BE PLACED AFTER CONCRETE FRAME SUPPORTING THEM ARE 28 DAYS OLD AND ALL SHORING AND RE-SHORING IS COMPLETELY REMOVED FROM BELOW AND ABOVE. HOLD CLEAR OF CONCRETE ABOVE UNTIL ANTICIPATED DEAD LOAD DEFLECTION OF CONCRETE SLAB OR BEAM ABOVE HAS OCCURED. FILL JOINT WITH MORTAR AND SEAL AS REQUIRED BY ARCHITECTURAL DRAWINGS TO PREVENT WATER INTRUSION.
C. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C 90, 'STANDARD SPECIFICATIONS FOR HOLLOW LOAD BEARING CONCRETE MASONRY UNITS', WITH A NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS OF 1,900 PSI.
D. MORTAR SHALL CONFORM TO ASTM C 270, TYPE 'M', WITH A MINIMUM AVERAGE STRENGTH OF 2,500 PSI.
E. CONCRETE MASONRY STRENGTH, f'm, SHALL BE A MINIMUM OF 1500 PSI.
F. VERTICAL REINFORCING IN CMU CELLS SHALL BE SPLICED WITH 48 BAR DIAMETER LAP SPLICES. PROVIDE CLEAN OUT HOLES AT BASE OF FILLED CELLS FOR LAP INSPECTION AND VERIFYING THAT THE CELLS HAVE BEEN FILLED SOLID WITH GROUT.
G. FILLED CELLS SHALL BE FILLED WITH 3,000 PSI GROUT AS PER ACI 530-11 AND ACI 530.1-11. FILLING OF CELLS SHALL BE DONE IN FOUR FOOT LIFTS WITH A MAXIMUM POUR OF 12 FEET. USE MECHANICAL VIBRATION TO ACHIEVE GROUT-FILLED SOLID CELLS. GROUT SHALL CONFORM TO ASTM C476. SLUMP SHALL BE BETWEEN 8" AND 11".
H. ALL CMU WALLS SHALL BE HORIZONTALLY REINFORCED WITH STANDARD NO. 9 LADDER-TYPE GALVANIZED STEEL REINFORCING EVERY SECOND COURSE. EXTEND REINFORCING A MINIMUM OF 4 INCHES INTO TIE COLUMNS.
I. PROVIDE GALVANIZED STEEL DOVETAIL ANCHORS EVERY OTHER COURSE CONNECTING NON LOAD-BEARING WALLS TO CONCRETE COLUMNS AND SHEAR WALLS INTO THE MORTAR BED OF SOLID-GROUTED HOLLOW UNITS.
J. REINFORCING BARS IN GROUTED CELLS SHALL BE SECURED IN PLACE AT BASE OF BAR AND ABOVE BEFORE GROUTING OF CELL WITH GALVANIZED BAR POSITIONERS.
K. REINFORCING BARS BE SHALL CENTERED IN THE BLOCK CELL. DOWELS NOT LINED UP WITH THE BLOCK CELL SHALL NOT BE SLOPED MORE THAN 1 IN 6. HORIZONTAL DISTANCE BETWEEN DOWEL AND REINFORCING BAR MAY BE UP TO 8"(ONE BLOCK CELL APART)
L. ANCHOR BOLTS SHALL BE EMBEDDED IN WALLS IN GROUTED CELLS.
M. GROUTED CELLS WHERE WEDGE ANCHORS ARE TO BE INSTALLED SHALL HAVE THE BLOCK SHELL REMOVED SO THAT WEDGE ANCHOR IS EMBEDDED IN SOLID CONCRETE GROUT. FILL ONE COURSE BELOW AND ABOVE ANCHOR LOCATION.
N. ALL CONCRETE MASONRY WORK HAS BEEN DESIGNED AND DETAILED ASSUMING CONCRETE MASONRY WORK WILL BE COMPLETELY INSPECTED BY SPECIAL OR THRESHOLD INSPECTORS.
O. REINFORCING BARS SHALL BE LOCATED AS INDICATED IN PLAN OR CALLED OUT BY NOTES IN PLANS. WHERE PLANS AND NOTES DISAGREE CONSULT ENGINEER OF RECORD FOR CLARIFICATION.
P. LAY MASONRY UNITS IN RUNNING BOND.

7. STRUCTURAL STEEL:

A. STRUCTURAL STEEL SHALL COMPLY WITH AISC 'SPECIFICATIONS FOR DESIGN, FABRICATION AND ERECTION FOR STRUCTURAL STEEL BUILDINGS,' THIRTEENTH EDITION.
B. STRUCTURAL STEEL WIDE FLANGE SHAPES AND PLATES SHALL CONFORM TO ASTM A 572, Fy 50 KSI, EXCEPT OTHER SHAPES WHICH SHALL CONFORM TO ASTM A 36, Fy 36 KSI.
C. STRUCTURAL STEEL TUBES SHALL CONFORM TO ASTM A500, GRADE B, Fy=46 KSI.
D. STRUCTURAL STEEL PIPES SHALL CONFORM TO ASTM A53, TYPE S, GRADE B, Fy= 35 KSI.
E. ANCHOR BOLTS SHALL CONFORM TO EITHER ASTM A 307 OR ASTM A 36.
F. FRAMING BOLTS SHALL CONFORM TO ASTM 325, WITH HARDENED WASHERS AND HEX NUTS.
G. ALL EXTERIOR STEEL SHAPES, PLATES, NUTS, BOLTS, WASHERS SHALL BE HOT-DIPPED GALVANIZED.
H. SPLICING OF STEEL MEMBERS IS NOT ALLOWED, UNLESS SPECIFIED IN STRUCTURAL DRAWINGS OR APPROVED BY ENGINEER OF RECORD.
I. ALL BOLTS, NUTS AND WASHERS SHALL BE NEW, RUST-FREE, CLEAN AND WELL LUBRICATED.
J. BOLT HOLES THROUGH STEEL MEMBERS SHALL BE SHOP-DRILLED, CUT OR PUNCHED. DO NOT USE TORCH OR FLAME TO CUT OR ENLARGE HOLES.
K. ALL STRUCTURAL STEEL TUBE OR PIPE COLUMNS SHALL BE FILLED WITH 3000 PSI. CONCRETE GROUT. PROVIDE 1/4" DIAMETER WEEP HOLES EACH SIDE "3" FROM TOP AND BOTTOM OF COLUMN.
L. DO NOT PAINT PARTS OF STEEL MEMBERS TO BE EMBEDDED IN CONCRETE AND SURFACES TO BE IN CONTACT WITH CONCRETE.
M. FOR FIREPROOFING OF STRUCTURAL STEEL MEMBERS SEE ARCHITECTURAL DRAWINGS.
N. SEE ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL MISCELLANEOUS STRUCTURAL STEEL NOT SHOWN IN STRUCTURAL DRAWINGS.
O. FOR PAINTING OF NON-GALVANIZED STRUCTURAL STEEL SEE STRUCTURAL STEEL PROJECT SPECIFICATIONS.
P. WELDING SHALL BE DONE WITH E-70 ELECTRODES, UNLESS OTHERWISE NOTED, CONFORMING TO AWS D1.1. (WELDING OF GRADE 60 REINFORCEMENT IS NOT PERMITTED)
Q. ALL SHOP AND FIELD WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 STRUCTURAL WELDING CODE, LATEST EDITION. ALL WELDERS SHALL BE AWS-CERTIFIED. SUBMIT WELDER CERTIFICATES TO ARCHITECT/ENGINEER FOR APPROVAL BEFORE ANY SHOP OR FIELD-WELDING IS STARTED.
R. HEADED SHEAR STUDS SHALL BE NELSON ANCHORS WITH FLUXED ENDS OR APPROVED. DEFORMED BAR ANCHORS (D.B.A.) SHALL BE NELSON, TYPE D2L, OR APPROVED. STUDS AND D.B.A. SHALL BE AUTOMATICALLY END-WELDED WITH THE MANUFACTURER'S STANDARD EQUIPMENT IN ACCORDANCE WITH THEIR RECOMMENDATIONS.
S. EXPANSION BOLTS SHALL BE HILTI KWIK BOLT 3 OR APPROVED WITH EQUIVALENT ICC ALLOWABLE TENSION AND SHEAR VALUES. EXPANSION BOLTS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. DO NOT CUT REINFORCING IN NEW OR EXISTING CONCRETE DURING INSTALLATION.

8. POST-TENSIONED CONCRETE:

A. DESIGN IS BASED ON EFFECTIVE PRE-STRESSING FORCE OF 0.60 F'S (ULTIMATE STRENGTH), AND ANCHORED AT 0.70 F'S. TENDONS MAY BE STRESSED TO 0.80 F'S TO OVERCOME FRICTION. FORCES SHOWN ON DRAWINGS ARE MINIMUM EFFECTIVE FORCES, AFTER ALL LOSSES ARE INCURRED. THE MAXIMUM EFFECTIVE FORCE SHALL BE TAKEN AS 27 KIPS PER TENDON. POSTENSION FORCES SHOWN ON THE STRUCTURAL DRAWINGS ARE EFFECTIVE FORCES AFTER ALL LOSSES. THE CONTRACTOR AND HIS POSTENSION MATERIALS SUPPLIER ARE RESPONSIBLE FOR REVIEWING THE LOCATION OF CONSTRUCTION JOINTS AND/OR POUR STRIPS TO ASSURE ITS ADEQUACY IN ORDER TO ACHIEVE THE REQUIRED PRECOMPRESSION STRESSES ASSUMED IN THE STRUCTURAL DESIGN.
B. CALCULATIONS OF FRICTION LOSSES SHALL BE SUBMITTED FOR APPROVAL. IN CASE FRICTION LOSS IS TOO HIGH TO BE COMPENSATED BY OVER-STRESSING, ADDITIONAL TENDONS SHALL BE PROVIDED BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER. IN THE CALCULATION OF FRICTION LOSSES USE THE K AND U VALUES RECOMMENDED IN A.C.I 318-11. THE POSTENSION MATERIALS SUPPLIER IS RESPONSIBLE FOR PROVIDING THE FINAL EFFECTIVE FORCES SHOWN ON THE STRUCTURAL DRAWINGS.
C. TENDONS SHALL BE SHOP COATED WITH COATING COMPOUND TO PREVENT BOND, REDUCE FRICTION AND RESIST CORROSION. TENDONS SHALL BE ENCASED IN PLASTIC SHEATHING TO FURTHER ASSURE PREVENTION OF BOND. AFTER PLACEMENT OF TENDONS, THEY MUST BE INSPECTED FOR ANY CUTS IN THE SHEATHING OR EXPOSED STEEL AT THE END, AND MUST BE TAPED COMPLETELY TO INSURE PREVENTION OF BONDING. TENDONS SHALL BE DRAPED TO APPROXIMATE PARABOLIC PROFILE BETWEEN SUPPORTS, AND SHALL CONFORM TO THE CONTROL POINTS SHOWN IN THE PROFILE. DIMENSIONS SHOWN ON PLANS LOCATE THE CENTER OF GRAVITY OF THE TENDON OR GROUP OF TENDONS. LOW POINTS ARE AT MID SPAN, U.O.N. ADEQUATE SUPPORT BARS AND CHAIRS SHALL BE FURNISHED TO HOLD TENDONS IN THEIR CORRECT POSITION DURING THE CONCRETE PLACEMENT. THE SUPPORT CHAIRS AND SLAB RUNNERS, SHALL BE SECURELY CONNECTED TO THE SLAB FORM, WITH STAINLESS STEEL STAPLES, IN ORDER TO MAINTAIN TENDONS POSITION. VERTICAL TENDON DIMENSION SHALL NOT VARY MORE THAN 1/8" FROM THE DIMENSION SHOWN. SLIGHT DEVIATIONS IN SPACING OF SLAB TENDONS WILL BE PERMITTED WHERE REQUIRED TO AVOID OPENINGS, INSERTS AND DOWELS. WHERE TENDONS SEEM TO INTERFERE WITH EACH OTHER ONE TENDON MAY BE MOVED SLIGHTLY HORIZONTALLY IN ORDER TO AVOID THIS INTERFERENCE. WHERE THIS IS NOT POSSIBLE, AT SUPPORT POINTS, THEN THE BANDED TENDONS WILL BE RUN ABOVE THE UNIFORM TENDONS, U.O.N. WHERE MILD REINFORCING STEEL INTERFERES WITH TENDON LOCATION, THE TENDON LOCATION WILL CONTROL AND THE RE-BAR MOVED AS REQUIRED.
D. TENSIONING OPERATIONS SHALL NOT COMMENCE UNTIL TEST CYLINDERS INDICATE THAT CONCRETE HAS REACHED A MINIMUM COMPRESSION STRENGTH OF 3,500 P.S.I. ALL POST-TENSIONED CONCRETE SHALL REMAIN SHORED UNTIL TENDONS ARE STRESSED.
E. ANCHORING HARDWARE SHALL MEET THE MINIMUM REQUIREMENTS SET FORTH IN A.C.I 318-11 EDITION, AND POST-TENSIONING INSTITUTE 'RECOMMENDATIONS FOR CONCRETE MEMBERS PRE-STRESSED WITH UNBOUNDED TENDONS'. THE SHEATHING SHALL BE CONNECTED TO ALL STRESSING, INTERMEDIATE AND FIXED ANCHORAGES IN A WATERTIGHT FASHION. THUS PROVIDING A COMPLETE ENCAPSULATION OF THE STRESSING STEEL FROM END TO END.
F. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL. DRAWINGS SHALL INDICATE THE FOLLOWING:
1) COMPLETE DETAILS OF PRE-STRESSING TENDONS INCLUDING THEIR ARRANGEMENT IN THE MEMBERS, TENDONS, PROFILES, TENDON DESIGNATIONS, TYPES OF POST-TENSIONING ENCLOSURES, EXPECTED ELONGATIONS, ANCHORAGE DETAILS AND STRESSING DATA.
2) CLEARANCE REQUIREMENTS FOR THE HYDRAULIC EQUIPMENT AND THE DEPTH FOR ANY POCKETS IN THE MEMBERS. WHENEVER STRESSING IS TO BE PERFORMED AT AN ANGLE OTHER THAN 90 DEGREES TO THE OUTSIDE EDGE OF THE SLAB, POSITIONING OF BLOCK-OUTS FOR STRESSING ENDS MUST BE DETAILED.
3) LOCATION AND HEIGHT OF CHAIRING DEVICES, PLACING SEQUENCE AND ELONGATION OF STRANDS. (COORDINATE WITH REINFORCING BAR DRAWINGS). CARRYING BARS FOR HIGH POINTS SHALL BE #3 MINIMUM SIZE.
4) SHOP DRAWINGS MUST SHOW GENERAL CONTRACTOR'S PROPOSED LOCATIONS OF ALL CONSTRUCTION JOINTS AND/OR POUR STRIPS.
G. THE POST-TENSIONING MATERIAL SUPPLIER SHALL HAVE TECHNICAL REPRESENTATIVE ON THE SITE TO INSTRUCT THE POST-TENSIONING REINFORCEMENT PLACING CONTRACTOR IN THE PROPER METHOD OF INSTALLATION, INSPECTION, AND STRESSING OF CABLES. IF REQUIRED, REPRESENTATIVE SHALL BE PRESENT TO INSPECT THE PLACING AND THEN THE STRESSING OPERATIONS, OR AT ANY OTHER TIME. THE REPRESENTATIVE WILL ALSO REVIEW ALL THE STRESSING RECORDS AND APPROVE THE SAME. AN INDEPENDENT LABORATORY OR INDEPENDENT ENGINEER WILL BE RETAINED TO MARK THE TENDONS PRIOR TO STRESSING AND RECORD TENDONS ELONGATION AND FORCES, AND WITNESS THE COMPLETE STRESSING OPERATION, SUBMITTING A COPY OF THE ORIGINAL RECORD TO THE ENGINEER AND TO THE TENDON SUPPLIER FOR APPROVAL. NO BURNING-OFF OF TENDONS IS PERMITTED WITHOUT APPROVAL OF ENGINEER AND TENDON SUPPLIER. ACTUAL RECORDED ELONGATIONS ARE TO BE WITHIN 7% (+/-) OF THE CALCULATED ELONGATIONS.
H. PLACING OF THE REINFORCING STEEL AND POST-TENSIONING TO BE DONE BY THE SAME FIRM. SUCH PLACING SUBCONTRACTOR MUST HAVE LOCAL EXPERIENCE IN POST-TENSIONING WORK AND HAVE PLACED AT LEAST TWO OTHER SIMILAR STRUCTURES UNDER THE SAME CORPORATION NAME.
I. ALL POST-TENSIONING STEEL SHALL BE STRESSED BY MEANS OF HYDRAULIC RAMS EQUIPPED WITH ACCURATE READING CALIBRATED HYDRAULIC PRESSURE GAUGES TO PERMIT THE STRESS IN THE POST- TENSIONING STEEL TO BE COMPUTED AT ANY TIME. A CERTIFIED CALIBRATION CURVE SHALL ACCOMPANY EACH RAM. IF INCONSISTENCY BETWEEN THE MEASURED ELONGATION AND THE RAM GAUGE OCCURS, THE JACK GAUGE SHALL BE IMMEDIATELY RE-CALIBRATED. AN AGREEMENT WITHIN 7%%% SHALL BE SATISFACTORY. SUPERVISION OF CONTRACTOR'S PERSONNEL IN THE STRESSING OPERATION AND STRESSING EQUIPMENT WITH CERTIFIED HYDRAULIC GAUGE SHALL BE PERFORMED BY THE SUPPLIERS TECHNICAL REPRESENTATIVE AND INDEPENDENT LABORATORY OR INDEPENDENT ENGINEER. IN ORDER TO INSURE THAT PROPER CALIBRATION IS MAINTAINED, CARE SHALL BE TAKEN IN HANDLING STRESSING EQUIPMENT. PRECAUTIONS SHALL BE TAKEN TO INSURE THAT THE STRESSING OPERATION IS CONDUCTED IN A SAFE MANNER.
J. ALL INSERTS FOR SUSPENDED MECHANICAL, ELECTRICAL AND ARCHITECTURAL WORK SHALL BE CAST IN PLACE. IF ADDITIONAL FASTENERS ARE REQUIRED, POWER DRIVEN FASTENERS WILL BE PERMITTED ONLY WHERE IT CAN BE SHOWN THAT THE INSERTS ARE LOCATED SO AS TO AVOID THE TENDONS AND MUST SUBMIT TO ENGINEER FOR HIS APPROVAL. UNDER NO CONDITION SHALL A TENDON BE CUT OR OTHERWISE DAMAGED AFTER CONCRETE HAS BEEN PLACED. NO OPENINGS WILL BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER AND SUPPLIER. IF A TENDON IS CUT, THE GENERAL CONTRACTOR WILL CONTACT THE ENGINEER AND THE TENDON SUPPLIER FOR RECOMMENDATIONS FOR REPAIRS. NO REPAIRS WILL BE UNDERTAKEN WITHOUT PERMISSION AND APPROVAL OF THE ENGINEER AND SUPPLIER. COSTS FOR SAID REPAIRS WILL BE PAID BY THE GENERAL CONTRACTOR, AT NO COST TO THE OWNER.
K. THE ORDER OF STRESSING OF POST-TENSIONING REINFORCING TENDONS SHALL BE THE UNIFORM CABLES FIRST, THE BANDED TENDONS SECOND AND THE GIRDERS (IF APPLICABLE) LAST.
L. THE GENERAL CONTRACTOR SHALL COORDINATE THE DETAILING AND PLACING OF TENDONS AND MILD REINFORCING STEEL BETWEEN SUPPLIERS AS REQUIRED.
M. ALL TENDONS SHALL HAVE BEEN STRESSED BEFORE CONCRETE FOR FLOOR ABOVE IS PLACED.
N. GENERAL CONTRACTOR TO SUBMIT SIGNED AND SEALED (BY FLORIDA REGISTERED PROFESSIONAL ENGINEER) SHORING AND RE-SHORING PLANS, AND RE-SHORING SCHEDULE, FOR APPROVAL BY ARCHITECT AND ENGINEER, PRIOR TO COMMENCEMENT OF ANY ELEVATED STRUCTURAL WORK. THE RE-SHORING IS TO INCLUDE THE EXACT TIME SEQUENCE THAT THE FLOORS ARE TO BE STRIPPED, RE- SHORED AND RE-SHORES REMOVED.
O. POST-TENSIONING CONTRACTOR SHALL HAVE A MINIMUM OF FIVE YEARS OF SATISFACTORY EXPERIENCE IN PROJECTS OF SIMILAR SIZE AND REQUIRED COMPLEXITY TO THIS PROJECT.
P. POST-TENSIONING DESIGN AND DETAILING SHALL COMPLY WITH ACI 318-11, ACI 423-3R-05 RECOMMENDATIONS, AND P. T. I. POST-TENSIONING MANUAL, 6TH EDITION. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
Q. TENDONS SHALL BE 1/2" DIAMETER, 7 WIRE STRANDS WITH AN ULTIMATE TENSILE STRENGTH OF 270 KSI. TENDONS SHALL CONFORM WITH ASTM A-416.
R. BANDED TENDON FORCES SHALL BE SHOWN THUS: F=300 K, WHICH IS THE TOTAL EFFECTIVE PRESTRESS FORCE. TENDON BANDS SHALL BE PLACED SYMMETRICALLY OVER THE CENTER LINE OF COLUMN. UNIFORM TENDON FORCES SHALL BE SHOWN THUS: F=10K/FT., WHICH IS THE UNIT EFFECTIVE PRESTRESS FORCE PER FOOT WIDTH OF SLAB.
S. TENDONS SHALL BE PLACED FOLLOWING 'TYPICAL TENDON PROFILE' DETAIL, UNLESS OTHERWISE NOTED. TENDONS SHALL BE PLACED PARABOLICALLY BETWEEN SUPPORTS IN ACCORDANCE WITH THE CONTROL POINTS SHOWN IN PLAN, U.O.N. HARPED TENDONS SHALL BE PLACED ON A STRAIGHT LINE BETWEEN CONTROL POINTS. TENDONS LOW POINTS SHALL OCCUR AT MID SPAN, U. O. N. PROFILE VERTICAL DIMENSIONS REFER TO THE CENTER OF GRAVITY OF THE TENDON OR GROUP OF TENDONS (C. G. S.). TO THESE DIMENSIONS ARE MEASURED FROM THE BOTTOM OF THE MEMBER. PLACING TOLERANCES SHALL BE 1/8+ 1/8".
T. PLACE A MINIMUM OF TWO TENDONS DIRECTLY OVER COLUMN CENTER LINE.
U. CLEARANCE TO TENDONS AROUND SLAB OPENINGS SHALL BE AT LEAST 3 INCHES. MAXIMUM CURVATURE AROUND OPENINGS SHALL BE NO MORE THAN 1 IN 6.
V. FOR CURVED TENDONS PLACE #4 HAIRPINS BY APPROPRIATE LENGTH.
W. FOR UNIFORM TENDONS USE #4 SUPPORT BARS @48" PARALLEL TO BAND OF TENDONS.
X. PLACE MIN. 2 #4 BARS CONTINUOUS ALONG SLAB EDGES BEHIND ALL SLAB ANCHORAGES. BARS MUST BE CONTINUOUS AROUND CORNERS. PLACE MIN. 4 #4 X 6" HAIRPINS AT SLAB CORNERS. PLACE MIN. 2 #4 BARS HORIZONTAL AND / OR VERTICAL, WITH APPROPRIATE DEVELOPMENT LENGTH BEHIND ALL BEAM ANCHORAGES. ALTERNATE OR ADDITIONAL BURSTING REINFORCEMENT REQUIRED FOR THE POST-TENSIONING SYSTEM SHALL BE DESIGNED AND DETAILED BY POST-TENSIONING SUPPLIER.
Y. PROVIDE CONSTRUCTION JOINTS WITH KEYWAY AND #4 @ 24" X 4" ACROSS JOINT. GENERALLY LOCATE CONSTRUCTION JOINTS WHERE THE C.G. OF THE STRAND COINCIDES WITH C.G. OF THE CONCRETE SECTION. VERIFY ALL JOINT LOCATIONS WITH STRUCTURAL ENGINEER.
Z. CALIBRATE RAM AND GAGE TOGETHER. MAINTAIN AS A SET DURING STRESSING WITH CALIBRATION CHART. FURNISH TO STRUCTURAL ENGINEER AND P.T. SUPPLIER A STRESSING RECORD KEPT BY CONTRACTOR UNDER THE OBSERVATION OF AN INDEPENDENT INSPECTOR, INDICATING TENDON NUMBER AND LOCATION, ELONGATION, EQUIVALENT GAGE READING FOR SPECIFIED FORCE (CALIBRATION CHART), JACKING FORCE AND ANCHOR FORCE. STRESS TENDONS ONLY UNDER THE IMMEDIATE CONTROL OF A PERSON EXPERIENCED IN SUCH WORK.
AA. CHECK ELONGATIONS AS STRESSING OCCURS. USE SLOTTED SHEET METAL TEMPLATE TO APPLY PAINT MARKS.
BB. FIELD READINGS OF ELONGATIONS AND STRESSING FORCES SHALL BE WITHIN 7% OF CALCULATED VALUES. AS SHOWN ON SHOP DRAWINGS RECORD TWO-WAY PULLS AFTER BOTH ENDS ARE STRESSED. SUBMIT A RECORD OF ALL STRESSING FORCES AND FIELD-MEASURED ELOGATIONS TO ARCHITECT/ ENGINEER.
CC. IF THERE ARE NO EXCEPTIONS TO STRESSING RECORDS, THE CABLE ENDS MAY BE BURNED OFF A MINIMUM OF 7 DAYS AFTER REMOVAL OF FORMWORK. DO NOT HEAT WEDGES WHEN BURNING STRAND. COAT STRESSING ANCHORAGES, INCLUDING WEDGES, WITH CORROSION-RESISTANT COATING WHICH WILL NOT REDUCE THE BOND OF THE GROUT. GROUT FLUSH WITH NON-SHIRINK GROUT COMPATIBLE WITH PRESTRESSING STEEL.
DD. DO NOT USE GROUT OR CONCRETE CONTAINING CHLORIDES, FLUORIDES, SULFIDES, NITRATES, OR OTHER SUBSTANCES DETRIMENTAL TO PRESTRESSING STEEL.
EE. CAST IN ALL INSERTS AND SLEEVES WHEREVER POSSIBLE. DRILLED AND/ OR POWDER DRIVEN FASTENERS WILL BE PERMITTED ONLY WHEN IT CAN BE SHOWN THAT THE INSERTS OR FASTENERS WILL NOT SPALL THE CONCRETE AND ARE LOCATED SO AS TO AVOID THE TENDONS AND ANCHORAGES. LOCATE TENDONS ON THE SURFACE OF THE SLAB PRIOR TO ANY DRILLING OR CORING.
FF. CONTRACTOR SHALL INCLUDE IN THE BASE BID, THE COST OF 8,000 LBS. OF ADDITIONAL P-T CABLES, INCLUDING FABRICATION, CONNECTORS, FURNISHING AND PLACING. THIS EXTRA STOCK SHALL BE FURNISHED AND USED FOR SPECIAL CONDITIONS AS DIRECTED BY THE ENGINEER OF RECORD, THE ENGINEER'S AGENT OR BY THE OWNER'S CONSTRUCTION SUPERVISOR. THE PRICE OF THE UNUSED EXTRA STOCK BE SHALL CREDITED TO THE OWNER'S ACCOUNT.

9. SHORING AND RESHORING:

A. SHORING AND RESHORING DRAWINGS SHALL BE PREPARED BY A STATE OF FLORIDA REGISTERED SPECIALTY ENGINEER WITH A MINIMUM OF TEN YEARS OF EXPERIENCE IN SHORING AND RESHORING DESIGN AND DETAILING.
B. SHORING AND RESHORING DRAWINGS SHALL INCLUDE AT LEAST THE FOLLOWING ITEMS:
1.) LOCATION, SIZE, TYPE AND CAPACITY OF ALL SHORING.
2.) LOCATION, SIZE, TYPE, AND CAPACITY OF ALL RESHORING.
3.) LOCATION, SIZE, AND TYPE OF ALL BLOCKING, MUD SILLS, TEMPORARY LATERAL BRACING AND OTHER ACCESSORIES REQUIRED TO ADEQUATELY AND SAFELY SUPPORT AND BRACE THE STRUCTURE DURING CONSTRUCTION.
4.) INSTALLATION PROCEDURE, SEQUENCE OF INSTALLATION, LOAD RELIEF AND REMOVAL OF ALL SHORING AND RESHORING.
C. SHORING AND RESHORING SUBMITTAL FOR APPROVAL SHALL INCLUDE AT LEAST TWO COPIES FOR THE BUILDING DEPARTMENT, ONE FOR THE ENGINEER OF RECORD, ONE FOR THE THRESHOLD INSPECTOR, AND ONE FOR THE ARCHITECT.
D. DESIGN, DETAIL AND ERECT FORMS, SHORING AND RESHORING IN COMPLIANCE WITH ACI 347-04, PROJECT SPECIFICATIONS, AND THESE NOTES. FORMS, SHORING AND RESHORING SHALL BE DESIGNED FOR THE WEIGHT OF THE FLOOR OR ROOF, A CONSTRUCTION LOAD OF 50 PSF. AND FOR THE CUMULATIVE LOADS OF THE SUPPORTED HORIZONTAL CONCRETE MEMBERS. USE A DESIGN FACTOR OF SAFETY OF 3 FOR WOOD SHORES AND 2 FOR METAL SHORES.
E. NO CONSTRUCTION LOAD SHALL BE APPLIED TO ANY MEMBER UNTIL THE CONCRETE STRENGTH IS 70% OF THE SPECIFIED 28 DAY STRENGTH.
F. FORMS MAY BE REMOVED 72 HOURS AFTER CONCRETE POUR PROVIDED THAT CONCRETE STRENGTH IS 70% OF THE SPECIFIED 28 DAY STRENGTH AND NOT LESS THAN 3,500 PSI. RESHORE EACH BAY IMMEDIATELY AFTER FORMS ARE STRIPPED AND REMOVED. REMOVAL OF FORMS IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. REMOVAL OF FORMS SHALL BE CARRIED OUT IN SUCH A WAY AS TO NOT DAMAGE THE STRUCTURE, INSURE SAFETY AND PREVENT CREEP DEFLECTION OF STRUCTURAL MEMBERS.

10. RAILINGS:

BALCONY, TERRACE, AND STAIR RAILINGS SHALL BE DESIGNED BY THE MANUFACTURER'S REGISTERED ENGINEER IN THE STATE OF FLORIDA TO RESIST A LOAD OF 50 PLF. APPLIED IN ANY DIRECTION AT TOP OF SUCH BARRIER. POSTS SHALL BE DESIGNED TO RESIST THE REACTION FROM THE RAILINGS OR A MINIMUN LOAD OF 200 LBS. HANDRAILS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST A LOAD OF NOT LESS THAN 200 LBS. APPLIED IN ANY DIRECTION AND AT ANY POINT ON THE RAIL. GUARDRAIL SYSTEMS SHALL BE DESIGNED AND CONSTRUCTED FOR A CONCENTRATED LOAD OF 200 LBS. APPLIED AT ANY POINT AND IN ANY DIRECTION AT THE TOP OF THE GUARDRAIL. GUARDRAIL SYSTEMS LOCATED OTHER THAN IN DWELLING UNITS SHALL BE DESIGNED AND CONSTRUCTED FOR A LOAD OF 50 PLF APPLIED HORIZONTALLY AT THE REQUIRED GUARDRAIL HEIGHT AND A SIMULTANEOUS LOAD OF 100 PLF APPLIED VERTICALLY DOWNWARD AT THE TOP OF THE GUARDRAIL. THE GUARDRAIL SYSTEM SHALL ALSO BE DESIGNED AND CONSTRUCTED TO RESIST A 200 LBS. CONCENTRATED HORIZONTAL LOAD APPLIED ON A 1 SQ. FT. AREA AT ANY POINT IN THE SYSTEM INCLUDING INTERMEDIATE RAILS OR OTHER ELEMENTS SERVING THIS PURPOSE. LOADING CONDITIONS ABOVE SHALL NOT BE APPLIED SIMULTANEOUSLY, BUT EACH SHALL BE APPLIED TO PRODUCE MAXIMUM STRESS IN EACH OF THE RESPECTIVE COMPONENTS OR ANY OF THE SUPPORTING COMPONENTS.

11. COLD-FORMED STEEL MEMBERS:

A. DESIGN COLD-FORMED STEEL MEMBERS SHALL CONFORM WITH 'SPECIFICATION FOR THE DESIGN OF COLD-FORM STEEL STRUCTURAL MEMBERS, AISI SG-671, LATEST EDITION, AND 'DESIGN GUIDE FOR COLD-FORMED STEEL TRUSSES', AISI RG-9518.
B. RESULTS OF THE DESIGN OF STEEL MEMBERS SHALL BE SIGNED AND SEALED BY A STATE OF FLORIDA REGISTERED ENGINEER AND THE DESIGN SHALL FOLLOW DESIGN METHODOLOGIES RECOMMENDED BY AISI.
C. MEMBERS SHALL COMPLY WITH ASTM A 653/ A 653M GALVANIZED STEEL SHEET, MINIMUM G 60 COATING, MINIMUM YIELD STRENGTH OF 55,000 PSI. MINIMUM GAUGE OF MEMBERS SHALL BE 22 GA.

12. ALUMINUM:

A. ALUMINUM WORK SHALL COMPLY WITH THE ALUMINUM ASSOCIATION, INC. 'SPECIFICATIONS FOR ALUMINUM STRUCTURES', 'THE COMMENTARY ON SPECIFICATIONS FOR ALUMINUM STRUCTURES', AND 'ENGINEERING DATA FOR ALUMINUM STRUCTURES'.
B. ALUMINUM WORK SHALL COMPLY WITH THE FLORIDA BUILDING CODE, 2014, SECTION 2003.
C. ALUMINUM TUBING, BARS, AND PLATES SHALL CONFORM TO ALLOY 6061-T6.
D. WELDING OF ALUMINUM PARTS AND MEMBERS SHALL DONE WITH AN INERT-GAS-SHIELDING ARC OR RESISTANCE WELDING PROCESS.
E. ALUMINUM SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED STRUCTURAL ENGINEERS

13. WIND ANALYSIS DESIGN PARAMETERS:

A. WIND DESIGN HAS BEEN DONE IN ACCORDANCE WITH ASCE 7-10.
B. EXPOSURE 'C'
C. RISK CATEGORY II
D. INTERNAL PRESSURE COEFFICIENT, GCpi= ±0.18.
E. WIND VELOCITY, Vu= 175 MPH.

14. THRESHOLD BUILDING:

THIS BUILDING IS A THRESHOLD BUILDING AND SHALL FOLLOW THE REQUIREMENTS OF THE FBC, 2014 EDITION, CHAPTER 1, SECTION 109.3.6.1. I HAVE BEEN HIRED BY THE OWNER TO ACT AS THE THRESHOLD ENGINEER FOR THIS PROJECT. I HAVE SUBMITTED A THRESHOLD BUILDING PLAN WHICH OUR INSPECTORS WILL FOLLOW WHILE PERFORMING THE THRESHOLD BUILDING INSPECTIONS. THIS PLAN HAS BEEN SUBMITTED TO THE BUILDING DEPARTMENT FOR APPROVAL. THE PURPOSE FOR THIS THRESHOLD INSPECTION PLAN IS TO PROVIDE SPECIFIC INSPECTION PROCEDURES AND SCHEDULES SO THAT THE BUILDING CAN BE ADEQUATELY INSPECTED FOR COMPLIANCE WITH THE PERMITTED DOCUMENTS. THE CONTRACTOR'S CONTRACTURAL OR STATUTORY OBLIGATIONS ARE NOT RELIEVED BY ANY ACTION OF THE THRESHOLD BUILDING INSPECTOR. WE WILL DETERMINE THAT THE SHORING PROFESSIONAL ENGINEER HAS INSPECTED THE SHORING AND RESHORING FOR CONFORMANCE WITH THE SHORING AND RESHORING PLANS SUBMITTED TO THE ENFORCING AGENCY.

15. LETTER OF COMPLIANCE:

I, AS THE THRESHOLD BUILDING INSPECTOR OF THIS BUILDING, UPON COMPLETION OF THE BUILDING AND PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, WILL FILE A SIGNED AND SEALED STATEMENT WITH THE THE ENFORCEMENT AGENCY THAT STATES THAT 'TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE ABOVE DESCRIBED CONSTRUCTION OF ALL LOAD-BEARING STRUCTURAL COMPONENTS COMPLIES WITH THE PERMITTED DOCUMENTS, AND THE SHORING AND RESHORING TO THE SHORING AND RESHORING PLANS SUBMITTED TO THE ENFORCING AGENCY'.

STRUCTURAL INDEX

DWGS. No	DESCRIPTION
S-1.0	STRUCTURAL NOTES & INDEX
S-1.2	PARTIAL FOUNDATION / GROUND FLOOR FRAMING PLAN
S-2.1	STRUCTURAL TYPICAL DETAILS
S-3.1	BEAM SCHEDULE
S-4.1	COLUMN SCHEDULE
S-5.1	PILE CAP DETAILS
S-5.3	PILE CAP DETAILS
S-6.3	SHEAR WALL DETAILS
S-7.1	SECTIONS
S-7.2	SECTIONS

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1 FPL Revision 1			2017.02.15
Revision	By	Appd	YYYY.MM.DD

PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26
Issued	By	Appd	YYYY.MM.DD

PERMIT SET

17th & West Avenue

1698 Alton Road
Miami Beach, FL 33139

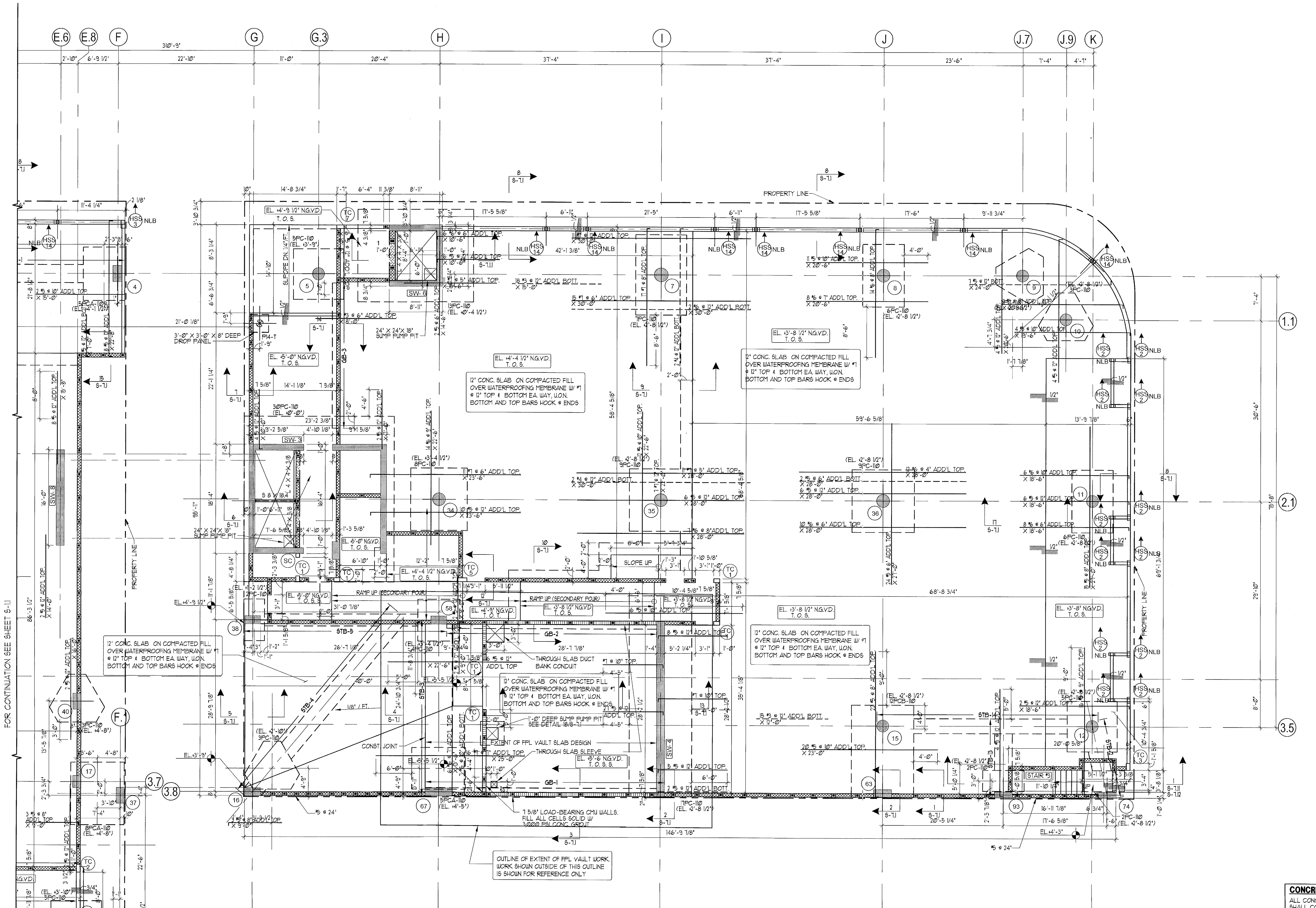
STRUCTURAL NOTES & INDEX

Project No. 219420456
Scale 3/32" = 1'-0"
Revision 1
Drawing No.

S-1.0

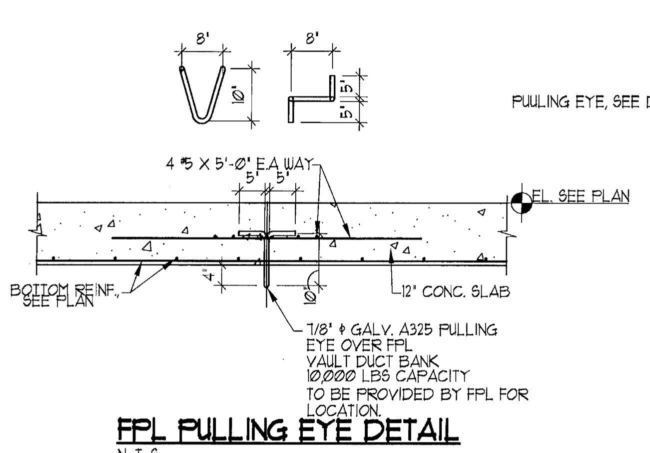
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ORIGINAL SHEET - ARCH E1 (30"x42")

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REVIEWED FOR
CODE COMPLIANCE



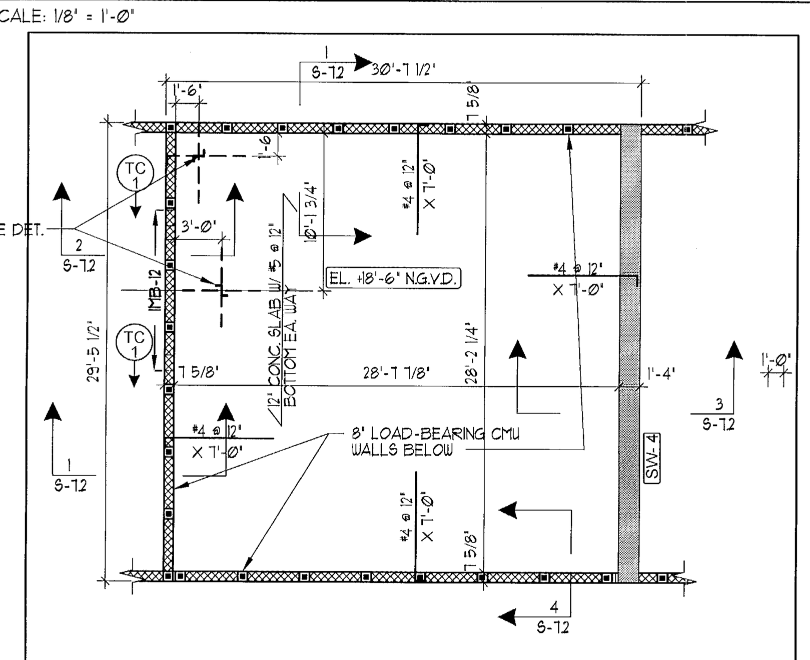
PARTIAL FOUNDATION /GROUND LEVEL FRAMING PLAN

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



FPL PULLING EYE DETAIL

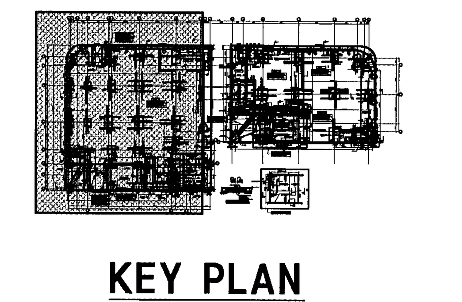
N.T.S.



OUTLINE OF EXTENT OF FPL VAULT WORK.

F. P. L. VAULT ROOF FRAMING PLAN

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



KEY PLAN

N.T.S.

SUPERIMPOSED LOADS		
RETAIL	DEAD	25 PSF
	LIVE	125 PSF
STORAGE	DEAD	0 PSF
	LIVE	125 PSF
ELEVATOR LOBBY	DEAD	25 PSF
	LIVE	100 PSF
STAIRS	DEAD	0 PSF
	LIVE	100 PSF
LOADING BERTHS WELL	DEAD	0 PSF
	LIVE	250 PSF
FPL VAULT	DEAD	10 PSF
	LIVE	150 PSF
CORRIDOR	DEAD	25 PSF
	LIVE	80 PSF

SOIL STATEMENT

FOUNDATION SYSTEM FOR COLUMNS & SHEAR WALLS CONSISTS OF GRADE BEAMS & PILE CAPS SUPPORTED ON 14" ⌀ AUGER-CAST CONCRETE PILES (SEE NOTES ON DWG. S-1.0) BASED ON GEOTECHNICAL, FILE NO. 14931, BY NV5, DATED DECEMBER 1, 2015.

CONCRETE MASONRY NOTE:

ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C 90 "STANDARD SPECIFICATIONS FOR HOLLOW LOAD BEARING CONCRETE MASONRY UNITS, WITH A NET AREA COMPRESSIVE STRENGTH OF MASONRY OF 1900 PSI.
CONCRETE MANSORY WALL REINF. THIS LEVEL SHALL BE #5 @ 48" MAX. FOR EXTERIOR WALLS, U.O.N. & #5 @ 48" MAX. FOR INTERIOR WALLS, U.O.N.

NOTES:

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2.- FOR STRUCTURAL NOTES SEE DWG. S-1.0
3.- FOR ADDITIONAL DIMENSIONS SEE ARCH. DWGS. DIMENSIONS SHOWN SHALL BE FIELD-VERIFIED. ANY DISCREPANCIES SHALL BE NOTED AND THE ENGINEER OF RECORD NOTIFIED BEFORE CONTINUING WITH THE WORK.
4.- FOR STRUCTURAL TYPICAL DETAILS SEE DWG. S-2.1
5.- FOR POST-TENSIONING TYP. DETAILS SEE DWGS. S-2.2 & S-2.3
6.- FOR BEAM SCHEDULES SEE DWG. S-3.1
7.- FOR COLUMN SCHEDULES AND DETAILS SEE DWG. S-4.1
8.- FOR PILE CAP DETAILS SEE DWGS. S-5
9.- FOR SHEAR WALL DETAILS SEE DWGS. S-6.
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12. CENTER OF PILE CAPS IS CENTER OF COLUMN, U.O.N.
13. TOP OF PILE CAP ELEVATION ARE NOTED IN PLAN.
14. ALL PILE CAPS, GRADE BEAMS, AND STRAP BEAMS SHALL BE FORMED
15.- TOP OF SLAB ON GRADE ELEVATION ARE NOTED IN PLAN.

LEGEND

- LOAD-BEARING CMU WALL
- NON-LOAD BEARING CMU WALL
- CONC. LOAD BEARING COLUMN OR TIE COLUMN
- CONC. NON-LOAD BEARING COLUMN OR TIE COLUMN
- CONC. COLUMN OR TIE COLUMN BELOW

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2014 AND THE APPLICABLE FIRE-SAFETY STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH FBC 2014, 110.8.4.4. AND CHAPTER 633, FLORIDA STATUTES.

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1 FPL Revision 1			2017.02.15

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PARTIAL FOUNDATION FRAMING PLAN

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Drawing No.

S-1.2

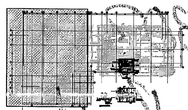
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ORIGINAL SHEET - ARCH E1 (30"x42")

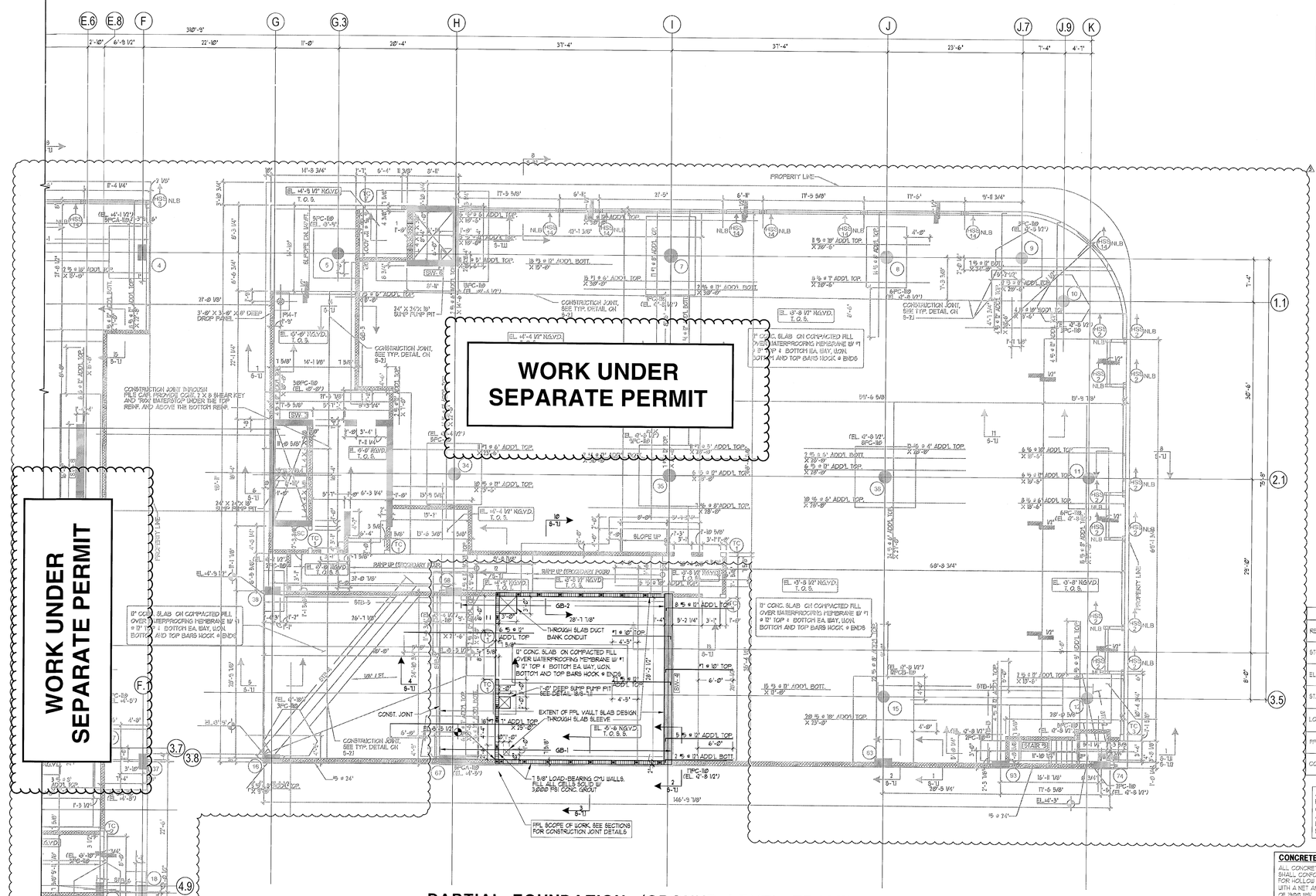
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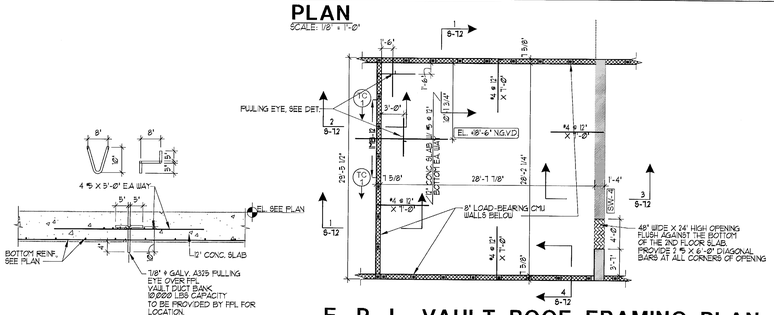


KEY PLAN
N.T.S.



PARTIAL FOUNDATION /GROUND LEVEL FRAMING PLAN

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



F. P. L. VAULT ROOF FRAMING PLAN

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

FPL PULLING EYE DETAIL

N.T.S.

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- LOAD-BEARING CMU WALL
- NON-LOAD BEARING CMU WALL
- CONC. LOAD BEARING COLUMN OR TIE COLUMN
- CONC. NON-LOAD BEARING COLUMN OR TIE COLUMN
- CONC. COLUMN OR TIE COLUMN BELOW

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2014 AND THE APPLICABLE FIRE-SAFETY STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH FBC 2014, 1.8.6.A.1. AND CHAPTER 633, FLORIDA STATUTES.

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8/14/17

Stantec Architecture Inc - AA26000733

Jonathan Cardello Lic. # AR93391

3	FPL REVISION 3			2017.08.03
2	FPL Revision 2			2017.05.17
1	FPL Revision 1			2017.02.15
Revision		By	Appd	YYYY.MM.DD

PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26
Issued		By	Appd YYYY.MM.DD

PERMIT SET

17th & West Avenue

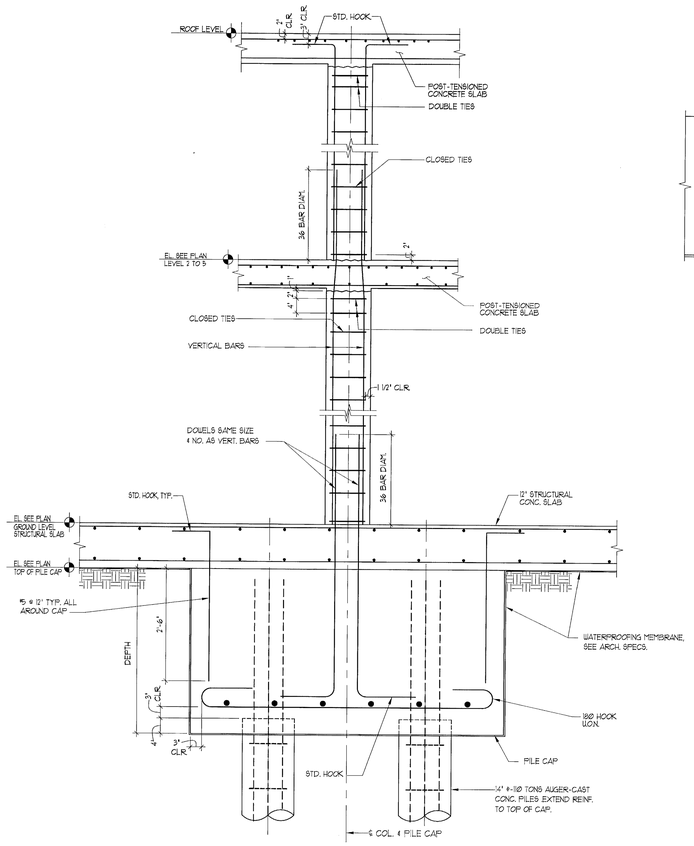
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Miami Beach, FL 33139

PARTIAL FOUNDATION FRAMING PLAN

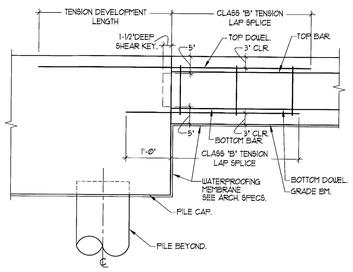
Project No.	Scale
219420456	3/32" = 1'-0"
Revision 1	Drawing No.

S-1.2A

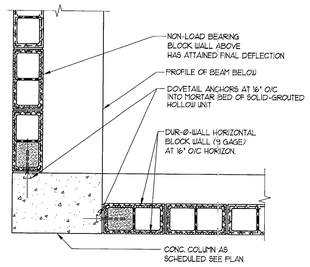
C:\Users\Public\Documents\Local Revit Files\17th_Dsgn_all_17thAtWest_219420456_zzsmithal.rvt
4/17/2017 4:45:24 PM
ORIGINAL SHEET - ARCH E1 (24"x36")



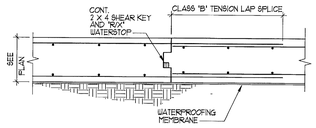
TYPICAL COL. - PILE CAP DETAIL
N.T.S.



TYPICAL GRADE BEAM-PILE CAP CONNECTION DETAIL
N.T.S.



TYPICAL DETAIL OF TIE. COLUMN NON-LOAD BEARING BELOW POST-TENSIONED CONC. SLAB
3/4" = 1'-0"



TYPICAL GROUND FLOOR STRUCTURAL SLAB CONSTRUCTION JOINT DETAIL

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www.stantec.com

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1 FPL Revision 1			2017.02.15
Revision	By	Appd	YYYY.MM.DD
PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26
Issued	By	Appd	YYYY.MM.DD

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1698 Alton Road
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STRUCTURAL TYPICAL DETAILS

Project No.	Scale
219420456	3/32" = 1'-0"
Revision 1	Drawing No.

S-2.1

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4/19/17

C:\Users\Public\Documents\Local_Revit_Files\sth_arch_cd_17th&West_219420456_jonsmithcd.rvt
4/19/2017 4:42:44 PM

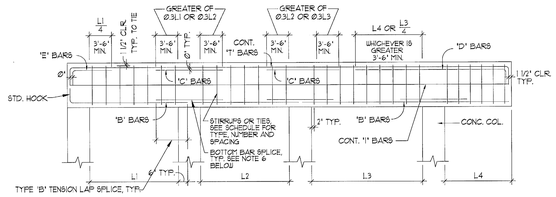
ORIGINAL SHEET - ARCH E1 (30"x42")

BEAM SCHEDULE

MARK	TOP ELEV. (NGVD)	SIZE W x H	REINFORCING 'B'	'T'	'C'	'E'	'S'	'I' BARS EA FACE	TIES OR STIRRUP NO.	TYPE	SPACING EA END	REMARKS
GB-1	+5'-6"	16" X 60"	8 #10 #	3 #6				#4 @ 10"	#4		@ 7"	# 2 LAYERS OF 4 EA.
GB-2	+5'-6"	16" X 60"	9 #11 #	3 #6				#4 @ 10"	#4		@ 7"	# 3 LAYERS OF 3 EA.
STB-3	+4'-5"	34" X 42"	8 #9	20 #6				11 #6 # X 17'-0"	#4 @ 10"	#5	TRIPLE @ 3 1/2" WITHIN CAP, BAL. TRIPLE @ 12"	# SECOND LAYER
STB-4	+2'-10"	36" X 36"	6 #9	12 #3				1 #6 # X 15'-0"	#4 @ 10"	#5	TRIPLE @ 7" WITHIN CAP, BAL. TRIPLE @ 12"	# SECOND LAYER
STB-5	+3'-9"	24" X 42"	10 #10 #	3 #6				#4 @ 10"	#4		DOUBLE @ 12"	# 2 LAYERS OF 5 EA.
IMB-12	-18'-6"	1 5/8" X 64"	4 #6 #	2 #5				3 #4	#5		@ 12"	# 2 LAYERS OF 2 EA.

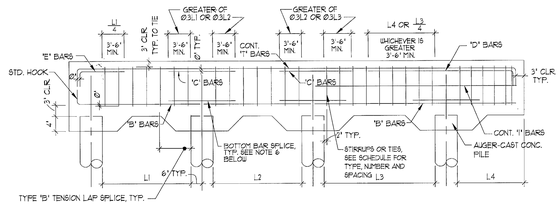
TIE COLUMN SCHEDULE

MARK	SIZE	REINFORCEMENT VERTICAL	REINFORCEMENT CLOSED TIES	REMARKS
(T1)	1 5/8" X 12"	4 # 5	#3 @ 8"	
(T2)	1 5/8" X 16"	4 # 6	#3 @ 8"	
(T3)	1 5/8" X 13 3/8"	4 # 5	#3 @ 8"	
(T4)	1 5/8" X 28"	8 # 5	#3 @ 8"	
(T5)	1 5/8" X 19 1/4"	6 # 5	#3 @ 8"	
(CC)	8" X 8"	2 # 5		
(CC)	SEE PLAN	2 # 5		
(P1)	1 # 6 IN 1 GROUT- FILLED CELLS			
(P2)	2 # 6 IN 2 GROUT- FILLED CELLS			



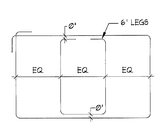
TYPICAL BEAM BAR PLACING DIAGRAM

NOTES:
1. PLACE A MAXIMUM OF 2 BARS PER LAYER IN 8'-WIDE BEAMS.
2. SPLICE TOP BARS AT MID SPAN W/ CLASS 'B' TENSION LAP SPLICES.
3. SPLICE 'T' BARS AT SUPPORTS W/ CLASS 'B' TENSION LAP SPLICES.
4. PLACE 'C' BARS OVER RIGHT-HAND SUPPORT, UNLESS NOTED IN REMARKS.
5. 'T' BARS AS SCHEDULED SHALL BE PLACED EACH SIDE OF BEAM.
6. PROVIDE 1/4 OF THE AREA OF THE BOTTOM REINFORCING OF THE ADJACENT SPAN WITH THE HIGHEST AREA OF BOTTOM REINFORCING, BUT NOT LESS THAN TWO BARS. BAR SIZE NO LESS THAN A #5 BAR. WHERE ADJACENT BEAMS ARE DIFFERENT IN DEPTH PLACE THE SPLICE BAR AT THE LEVEL OF THE BOTTOM BARS OF THE SHALLOWEST BEAM.

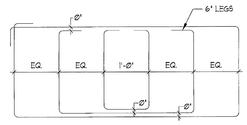


TYPICAL GRADE BEAM BAR PLACING DIAGRAM

NOTES:
1. PLACE A MAXIMUM OF 2 BARS PER LAYER IN 8'-WIDE BEAMS.
2. SPLICE TOP BARS AT MID SPAN W/ CLASS 'B' TENSION LAP SPLICES.
3. SPLICE 'T' BARS AT SUPPORTS W/ CLASS 'B' TENSION LAP SPLICES.
4. PLACE 'C' BARS OVER RIGHT-HAND SUPPORT, UNLESS NOTED IN REMARKS.
5. 'T' BARS AS SCHEDULED SHALL BE PLACED EACH SIDE OF BEAM.
6. PROVIDE 1/4 OF THE AREA OF THE BOTTOM REINFORCING OF THE ADJACENT SPAN WITH THE HIGHEST AREA OF BOTTOM REINFORCING, BUT NOT LESS THAN TWO BARS. BAR SIZE NO LESS THAN A #5 BAR. WHERE ADJACENT BEAMS ARE DIFFERENT IN DEPTH PLACE THE SPLICE BAR AT THE LEVEL OF THE



TYP. BEAM DOUBLE TIE SETS



TYP. BEAM TRIPLE TIE SETS

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Revision	By	Appd	YYYY.MM.DD
2 FPL Revision 2			2017.05.17
1 FPL Revision 1			2017.02.15

Issued	By	Appd	YYYY.MM.DD
PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26

PERMIT SET

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Miami Beach, FL 33139

BEAM SCHEDULE

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Project No.	Scale
219420456	3/32" = 1'-0"
Revision 1	Drawing No.

S-3.1

COLUMN SCHEDULE

Concrete strength (PSI): Roof Level – Level 5: 5,000; Level 5 – Level 4: 5,000; Level 4 – Level 3: 5,000; Level 3 – Level 2: 6,000; Level 2 – Ground Level: 6,000.

Levels: EL. +68'-0" ROOF LEVEL; EL. +55'-6" LEVEL 5; EL. +43'-0" LEVEL 4; EL. +33'-0" LEVEL 3; EL. + 23'-0" LEVEL 2; EL. +0'-0" GROUND LEVEL

COLUMN NUMBER	ROOF LEVEL – LEVEL 5 (5,000)	LEVEL 5 – LEVEL 4 (5,000)	LEVEL 4 – LEVEL 3 (5,000)	LEVEL 3 – LEVEL 2 (6,000)	LEVEL 2 – GROUND LEVEL (6,000)
1			14" X 24" 6 #7 #3 @ 14"	14" X 24" 6 #7 #3 @ 14"	14" X 24" 6 #7 #3 @ 14"
2	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 8 #8 #3 @ 16"
3	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 8 #8 #3 @ 16"
4	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 8"	22" X 32" 10 #8 (3S, 4L) #3 @ 16"	18" X 32" 16 #9 (3S, 7L) #3 @ 18"
5	20"φ 8 #7 #3 @ 14"	20"φ 8 #7 #3 @ 14"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 8 #8 #3 @ 16"
6	12" X 36" 8 #7 #3 @ 12"	12" X 36" 8 #7 #3 @ 12" EL. +47'-0" SW-6			
7	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #9 #3 @ 18"	28"φ 18 #10 #3 @ 18"
8	16" X 24" 8 #8 #3 @ 16"	16" X 24" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	26"φ 15 #10 #3 @ 18"
9	16" X 24" 8 #8 #3 @ 16"	20"φ 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 8 #8 #3 @ 16"
10			16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 8 #8 #3 @ 16"
11	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 11 #10 #3 @ 18"
12	16" X 24" 6 #8 #3 @ 16"	16" X 24" 8 #9 #3 @ 10"	16" X 32" 10 #9 #3 @ 8"	16" X 32" 10 #9 #3 @ 7"	24"φ 12 #9 #3 @ 18"
13		16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 14 #9 (3S, 6L) #3 @ 9"	2B-12
14		16" X 32" 12 #8 #3 @ 16"	16" X 32" 12 #8 #3 @ 16"	16" X 32" 18 #9 (3S, 8L) #3 @ 11"	2B-13
15					24"φ 12 #10 #3 @ 18"
16					16" X 32" 16 #10 (3S, 7L) #3 @ 18"
17					EL. +22'-5" 16" X 24" 8 #8 #3 @ 16"
18		16" X 32" 18 #8 (3S, 8L) #3 @ 6"	EL. +41'-0" 16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"
19		EL. +55'-0" 16" X 32" 8 #8 #3 @ 16"	EL. +40'-0" 16" X 32" 8 #8 #3 @ 16"	EL. +29'-0" 16" X 32" 8 #8 #3 @ 16"	EL. +21'-0" 16" X 32" 10 #11 (3S-4L) #4 @ 16"
20		16" X 32" 8 #8 #3 @ 16"	EL. +39'-4" 16" X 32" 8 #8 #3 @ 16"	EL. +29'-0" 16" X 32" * *	EL. +19'-8" 16" X 32" 10 #11 (3S-4L) #4 @ 16"
21					OMITTED
22	16" X 36" 18 #9 #3 @ 5"	16" X 48" 18 #9 #3 @ 5"	16" X 48" 18 #9 #3 @ 5"	16" X 48" 18 #9 #3 @ 16"	16" X 48" 16 #10 #3 @ 18"
23					* 16" X 48" 18 #10 #3 @ 8"
24					16" X 36" 12 #9 #3 @ 8" EL. +14'-3 1/2" 16" X 36" 12 #9 #3 @ 8"
25	16" X 24" 6 #8 #3 @ 16"	16" X 24" 8 #8 #3 @ 10"	4B-16		
26	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 12 #9 #3 @ 12"	2B-26
27	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 10 #9 #3 @ 12"	2B-27
28			16" X 32" 8 #8 #3 @ 8"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"
29	14" X 24" 6 #7 #3 @ 14"	14" X 24" 6 #7 #3 @ 14"	14" X 24" 6 #7 #3 @ 14"	14" X 24" 6 #7 #3 @ 14"	14" X 24" 6 #7 #3 @ 14"
30	14" X 24" 6 #7 #3 @ 14"	14" X 24" 6 #7 #3 @ 14"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 8 #8 #3 @ 16"
31	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 12 #8 #3 @ 16"
32	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 12 #10 #3 @ 18"
33	16" X 24" 6 #8 #3 @ 16"	SW-8			OMITTED
34	16" X 24" 6 #8 #3 @ 10"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	26"φ 13 #10 #3 @ 18"
35	16" X 24" 6 #8 #3 @ 10"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	26"φ 13 #10 #3 @ 18"
36	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	26"φ 10 #8 #3 @ 16"
37		EL. +55'-0" 16" X 32" 14 #10 #4 @ 7"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 10 #11 (3S-4L) #4 @ 16"
38					16" X 32" 12 #9 #3 @ 16"
39	16" X 24" 6 #8 #3 @ 16"	SW-8			OMITTED
40				20"φ 6 #7 #3 @ 14"	16" X 32" 8 #8 #3 @ 16"
41		EL. +55'-0" 16" X 24" 14 #9 #3 @ 10"	16" X 32" 8 #9 #3 @ 16"	16" X 32" 8 #9 #3 @ 16"	24"φ 8 #8 #3 @ 16"
42	16" X 24" 10 #8 #3 @ 10"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 8 #8 #3 @ 16"
43	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 8 #8 #3 @ 16"
44	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 8 #8 #3 @ 16"
45	16" X 24" 12 #8 #3 @ 16"	24" X 24" 16 #8 (3S, 5L) #3 @ 4 1/2"	24" X 24" 10 #8 (3S, 4L) #3 @ 10"	24" X 24" 10 #8 (3S, 4L) #3 @ 9"	24"φ 10 #8 #3 @ 16"
46		EL. +55'-0" 16" X 32" 14 #8 #3 @ 8"	SEE DETAIL 10 #8 #3 @ 10"	SEE DETAIL 10 #8 #3 @ 8"	2B-23
47		EL. +55'-0" 16" X 32" 12 #8 #3 @ 8"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	24"φ 8 #8 #3 @ 16"
48					EL. +18'-4" 7 5/8" X 24" 6 #7 #3 @ 8"
49					EL. +18'-7" MB-8 16" X 24" 6 #8 #3 @ 16"
50					EL. +15'-2" 7 5/8" X 24" 6 #7 #3 @ 8"
51					16" X 24" 6 #7 #3 @ 14"
52					* 16" X 48" 18 #10 #3 @ 8"
53					16" X 32" 8 #8 #3 @ 16"
54	7 5/8" X 32" 8 #6 #3 @ 8"	7 5/8" X 32" 8 #6 #3 @ 8"	7 5/8" X 32" 8 #6 #3 @ 8"	16" X 32" 10 #8 #3 @ 7"	16" X 32" 10 #8 #3 @ 16"
55	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 36" 10 #8 #3 @ 16" EL. +14'-3 1/2" 16" X 36" 10 #8 #3 @ 16"
56				EL. +28'-11" 20"φ 7 #7 #3 @ 14"	EL. +19'-11" 14" X 28" 14 #9 #3 @ 14"
57				EL. +27'-4"	16" X 24" 8 #8 #3 @ 16"
58					16" X 32" 12 #9 #3 @ 7"
59					16" X 32" 8 #8 #3 @ 16"
60	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 10"	2B-3

* CLASS 'B' TENSION LAP SPLICE

COLUMN IN FPL SCOPE OF WORK (column 58)

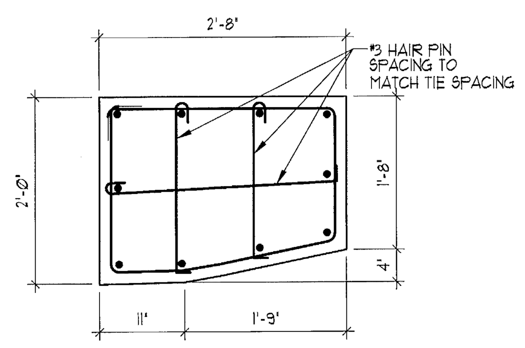
COLUMN SCHEDULE

COLUMN NUMBER	ROOF LEVEL – LEVEL 5 (5,000)	LEVEL 5 – LEVEL 4 (5,000)	LEVEL 4 – LEVEL 3 (5,000)	LEVEL 3 – LEVEL 2 (6,000)	LEVEL 2 – GROUND LEVEL (6,000)
61	16" X 24" 6 #8 #3 @ 16"	16" X 24" 6 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	16" X 32" 8 #8 #3 @ 16"	2B-4
62		7 5/8" X 36" 14 #7 #3 @ 8"			
63					16" X 36" 12 #11 #4 @ 16"
64			EL. +37'-6" 12" X 24" 10 #8 #3 @ 12"	EL. +27'-6" 2B-9	
65				EL. +31'-4" 20"φ 8 #8 #3 @ 16"	EL. +22'-4" 2B-28
66					OMITTED
67					16" X 54" 22 #10 #4 @ 7"
68		16" X 32" 14 #9 #3 @ 16"	SW-4		
69					OMITTED
70					OMITTED
71					OMITTED
72					OMITTED
73		EL. +55'-0" 16" X 39" 16 #8 #3 @ 16"	EL. +40'-0" 16" X 28" 8 #10 #3 @ 16"	EL. +30'-0" 16" X 28" 8 #10 #3 @ 16"	EL. +20'-9 1/4" 16" X 28" 10 #11 #4 @ 16"
74	7 5/8" X 36" 12 #7 #3 @ 8"	7 5/8" X 36" 8 #7 #3 @ 8"	7 5/8" X 36" 8 #7 #3 @ 8"	7 5/8" X 36" 8 #7 #3 @ 8"	12" X 36" 10 #7 #3 @ 12"
75	16" X 24" 12 #8 #3 @ 10"	5B-11			
76			12" X 24" 6 #7 #3 @ 12"	12" X 50" 12 #7 #3 @ 12"	12" X 30" 8 #7 #3 @ 12"
77			12" X 24" 6 #7 #3 @ 12"	12" X 50" 12 #7 #3 @ 12"	12" X 30" 8 #7 #3 @ 12"
78		12" X 28" 6 #7 #3 @ 14" EL. +48'-8" SW-1			
79		10" X 32" 10 #7 #3 @ 10"	4B-28		
80	7 5/8" X 32" 14 #7 #3 @ 8"	7 5/8" X 32" 12 #7 #3 @ 8"	4B-18		
81		7 5/8" X 36" 14 #7 #3 @ 8"	4B-23		
82	10" X 32" 10 #7 #3 @ 10"				
83					24"φ 8 #8 #3 @ 16"
84					16" X 32" 8 #8 #3 @ 16"
85					24"φ 8 #8 #3 @ 16"
86					24"φ 15 #10 #3 @ 9"
87	7 5/8" X 48" 10 #7 #3 @ 8"				
88	10" X 32" 12 #7 #3 @ 10"				
89					OMITTED
90	16" X 24" 6 #8 #3 @ 16"				
91	16" X 32" 8 #9 #3 @ 16"	5B-18			
92	7 5/8" X 48" 26 #7 #3 @ 8"				
93	7 5/8" X 36" 14 #8 #3 @ 8"	7 5/8" X 36" 14 #8 #3 @ 8"	7 5/8" X 36" 14 #8 #3 @ 8"	7 5/8" X 36" 14 #8 #3 @ 8"	12" X 36" 18 #10 #3 @ 8"

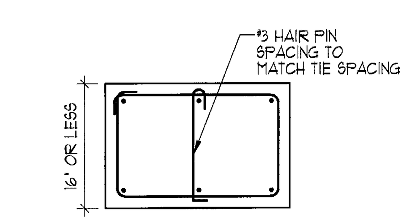
* CLASS 'B' TENSION LAP SPLICE

COLUMN IN FPL SCOPE OF WORK (column 67)

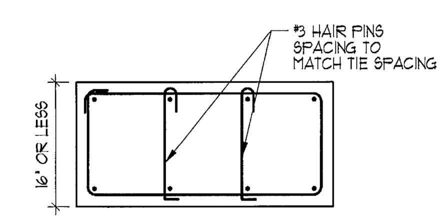
SEE COLUMN TRANSFER DETAIL ON S-42 (columns 76 and 77)



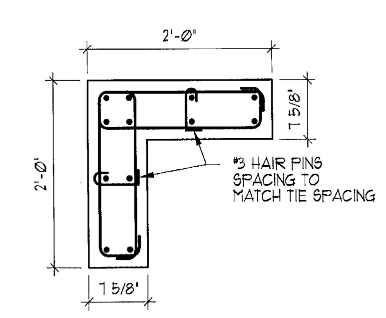
COL. 46 (2ND FLOOR) DETAIL
3/4" = 1'-0"



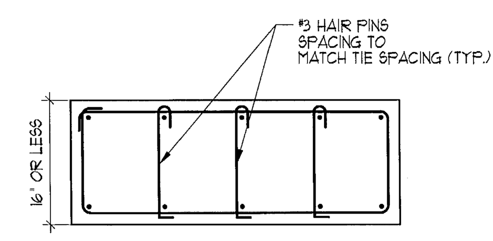
SIX BAR COL. DETAIL
3/4" = 1'-0"



EIGHT BAR COL. DETAIL
3/4" = 1'-0"

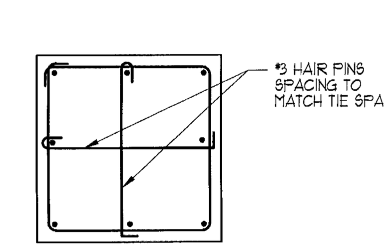


COL 37 DETAIL
3/4" = 1'-0"

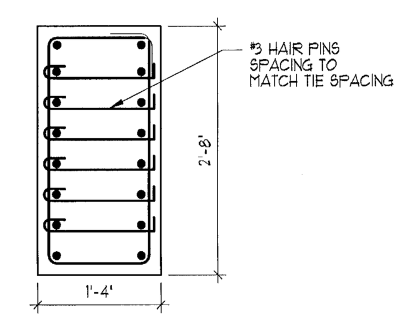


TEN BAR COL. DETAIL
3/4" = 1'-0"

UNLESS OTHERWISE NOTED ALL OTHER INFORMATION IN THIS DRAWING IS SHOWN AS REFERENCE ONLY



8 BARS SQUARE COL. DET.
3/4" = 1'-0"



COL. 73 (LEVEL 4) DETAIL
3/4" = 1'-0"

HAIR PIN NOTES OF REINFORCEMENT:
PLACE HAIR PINS WHEN THE SPACING BETWEEN ADJACENT BARS IS MORE THAN 6"
WHEN THE SPACING IS LESS THAN 6" ONE UNTIED BAR MAY BE LOCATED BETWEEN EACH TIED BAR OR BETWEEN A TIED BAR AND A CORNER BAR

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	Revision	By	Appd	YYYY.MM.DD
1	FPL Revision 1			2017.02.15

Issued	By	Appd	YYYY.MM.DD
PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26

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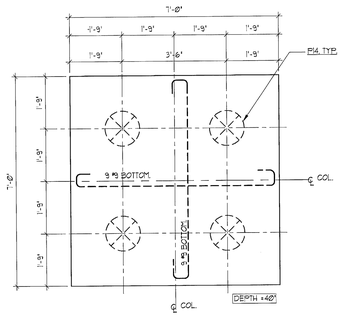
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COLUMN SCHEDULE

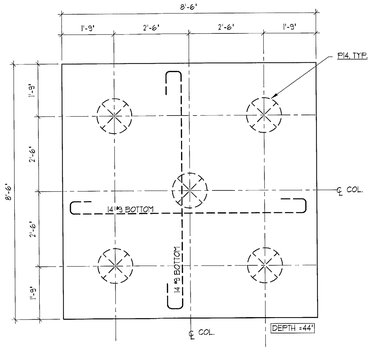
Project No. 219420456
Scale 3/32" = 1'-0"
Revision 1
Drawing No.

S-4.1

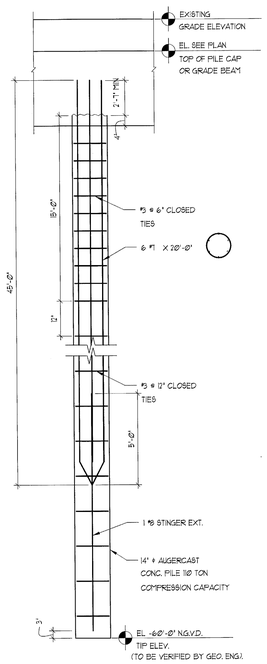
C:\Users\Public\Documents\Local_Revit_Files\stn_arch_all_17th&West_219420456_arosenthal.rvt
4/17/2017 4:42:44 PM
ORIGINAL SHEET - ARCH E1 (30"x42")



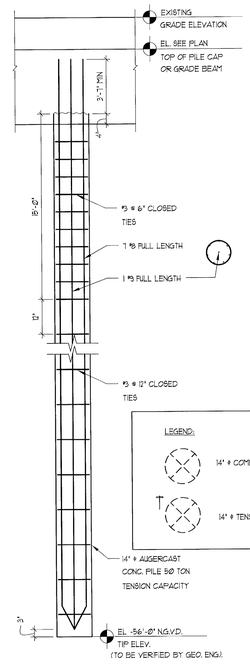
4PC-110 DETAIL
SCALE: 1/2" = 1'-0"



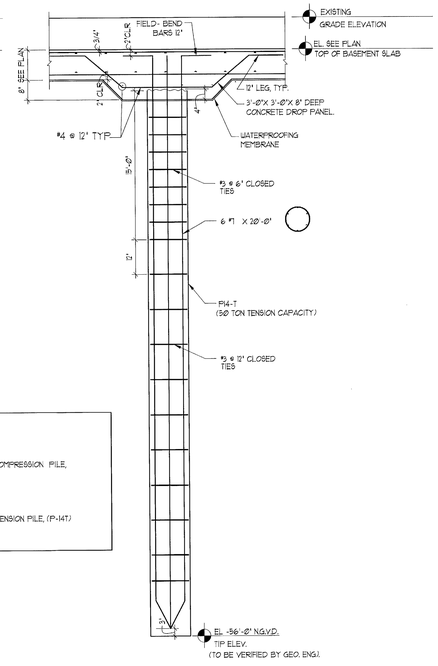
5PC-110 DETAIL
SCALE: 1/2" = 1'-0"



14"ø-110 TON COMPRESSION PILE DETAIL
SCALE : NTS



14"ø-50 TON TENSION PILE DETAIL
SCALE : NTS



TYPICAL GROUND FLOOR SLAB/ P14-T TENSION PILE- DROP PANEL DETAIL

P-14 PILE PARAMETERS

LENGTH	COMPRESSION CAPACITY	TENSION CAPACITY OF COMPRESSION PILE	TENSION CAPACITY OF TENSION PILE	LATERAL CAPACITY	GROUT STRENGTH @ 28 DAYS
±62 FT. (TO BE VERIFIED BY GEO. ENG.)	110 TONS	20 TONS	50 TONS	25 TONS	5,000 psi

CONCRETE STRENGTH FOR PILE CAPS

CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE:

f'c=5,000 psi (Ec=4,415 ksi) FOR PILE CAPS

f'c=5,000 psi (Ec=4,415 ksi) FOR PILE GROUT.

PILE DETAIL NOTES:
1) THE DETAILS ABOVE ARE PRELIMINARY FOR PURPOSES OF PRELIMINARY PRICING ONLY.
2) PILING CONTRACTOR TO PROVIDE FINAL PILE DESIGN, REINFORCING, AND DETAILING
3) PILING CONTRACTOR TO SUBMIT SHOP DRAWINGS AND PILE DESIGN CALCULATIONS FOR APPROVAL
4) FOR INSTALLATION SEE PILING CONTRACTOR'S SHOP DRAWINGS.

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DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26
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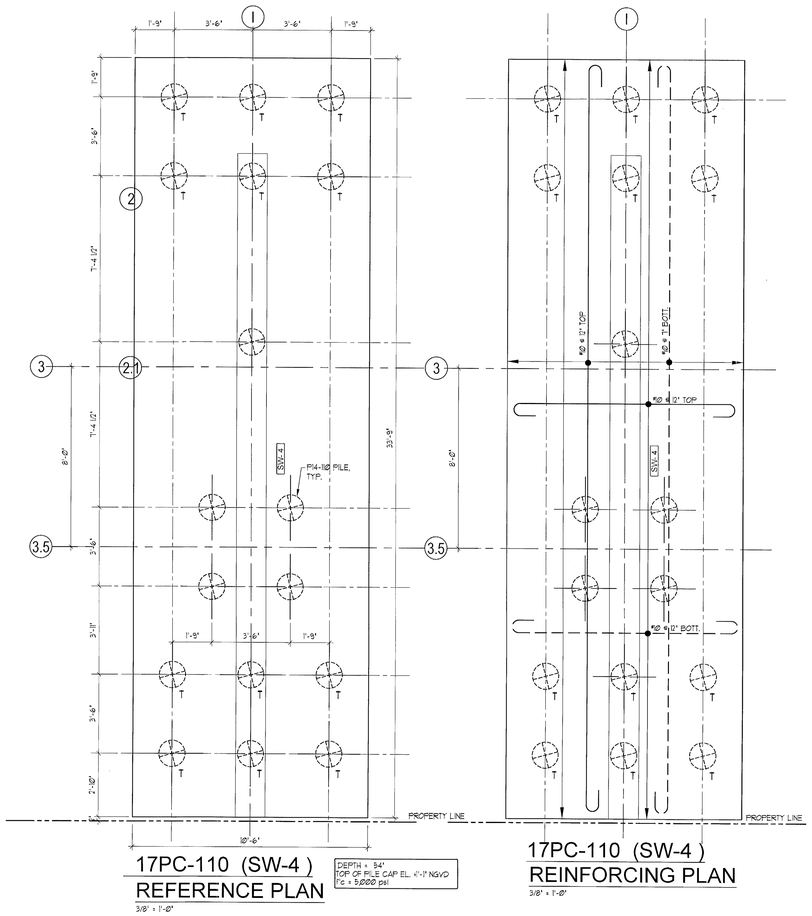
PILE CAP DETAILS

Project No.	Scale
219420456	3/32" = 1'-0"
Revision 1	Drawing No.

S-5.1

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ORIGINAL SHEET - ARCH D1 (30"x42")



17PC-110 (SW-4)
REFERENCE PLAN
3/8" = 1'-0"

DEPTH = 34'
TOP OF PILE CAP EL. +1'-1" NGVD
f'c = 5,000 psi

17PC-110 (SW-4)
REINFORCING PLAN
3/8" = 1'-0"

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100% SCHEMATIC DESIGN			2016.09.26
Issued	By	Appd	YYYY.MM.DD

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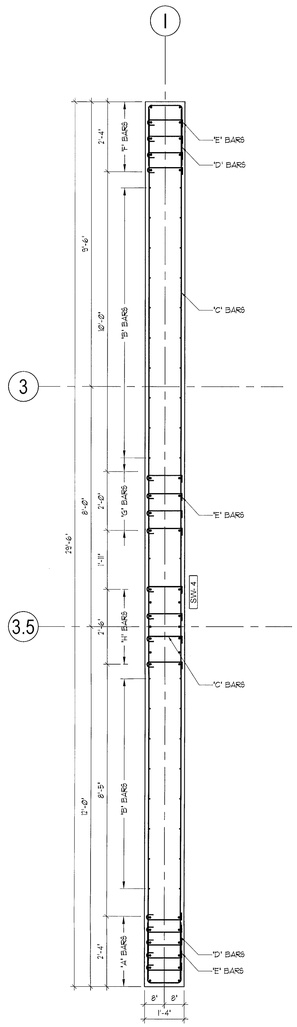
PILE CAP DETAILS

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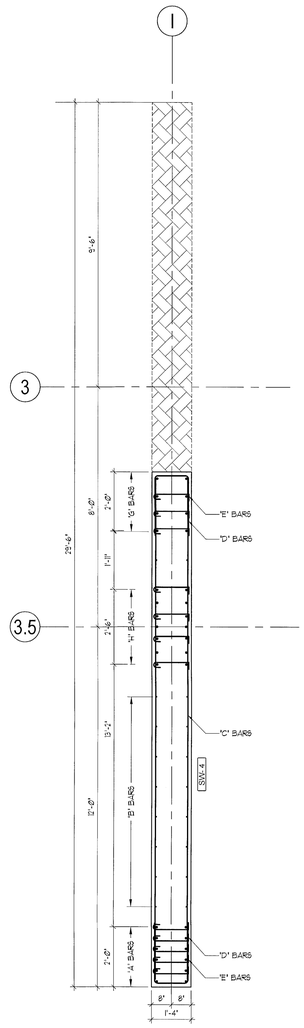
Project No. 219420456
Scale 3/32" = 1'-0"
Revision 1
Drawing No. **S-5.3**

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ORIGINAL SHEET - ARCH B1 (30"x42")



SHEAR WALL No. 4 REINFORCING DETAIL
GROUND LEVEL
SCALE : 1/2" = 1'-0"



SHEAR WALL No. 4 REINFORCING DETAIL
SECOND LEVEL TO THIRD LEVEL
SCALE : 1/2" = 1'-0"

SHEAR WALL NO. 4 REINFORCING SCHEDULE

LEVEL	BAR MARKS								
	f'c (PSI)	'A' BARS	'B' BARS	'C' BARS	'D' BARS	'E' BARS	'F' BARS	'G' BARS	'H' BARS
GROUND FLOOR	6000	12 #8 (2'-4")	#5 @ 12"	#4 @ 8"	#4 @ 8" [24"	#5 @ 8" [1"	10 #8 (2'-4")	10 #8 (2'-0")	14 #10 (2'-6")
2ND FLOOR	6000	12 #8 (2'-0")	#5 @ 12"	#4 @ 8"	#4 @ 8" [24"	#5 @ 8" [1"	———	10 #8 (2'-0")	14 #10 (2'-6")
3RD FLOOR	5000	8 #7 (1'-6")	#5 @ 12"	#4 @ 8"	#4 @ 8" [24"	#5 @ 8" [1"	———	8 #7 (1'-6")	14 #10 (2'-6")
4TH FLOOR	5000	———	———	———	———	———	———	———	SPLICE TO COL
5TH FLOOR	5000	———	———	———	———	———	———	———	———

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100% SCHEMATIC DESIGN			2016.09.26
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SHEAR WALL DETAILS

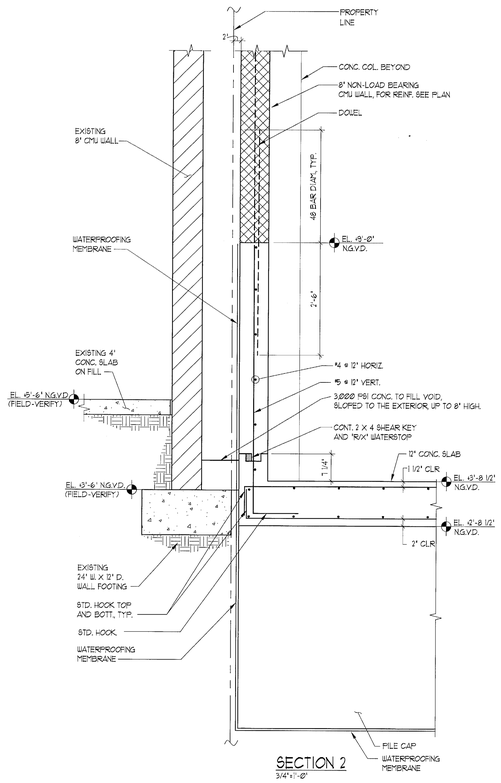
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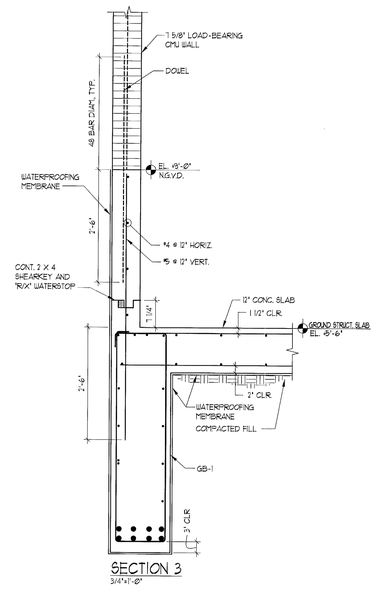
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Revision 1	Drawing No.

S-6.3

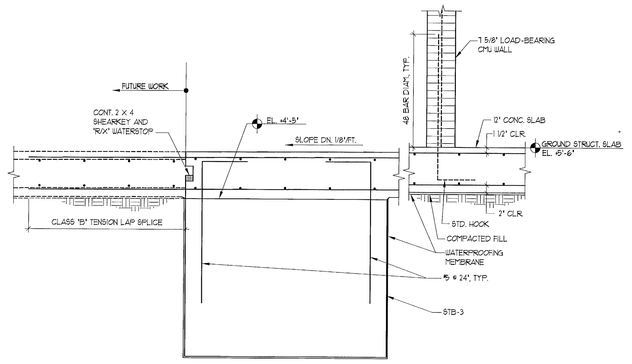
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ORIGINAL SHEET - ARCH E1 (30"x42")



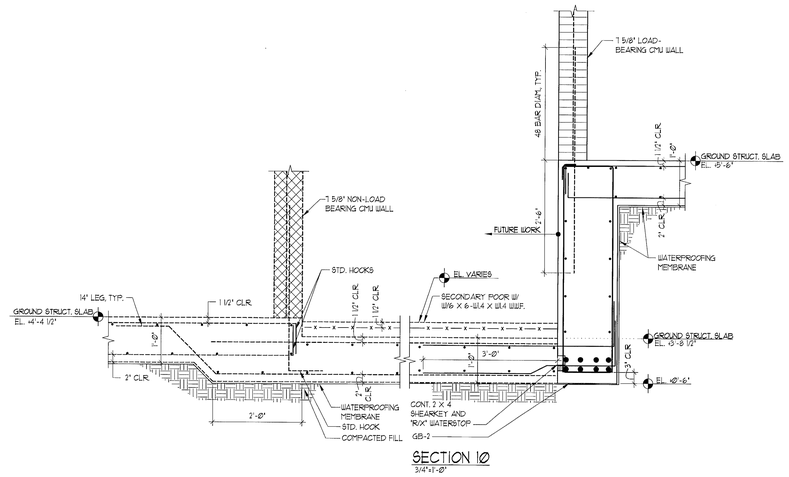
SECTION 2
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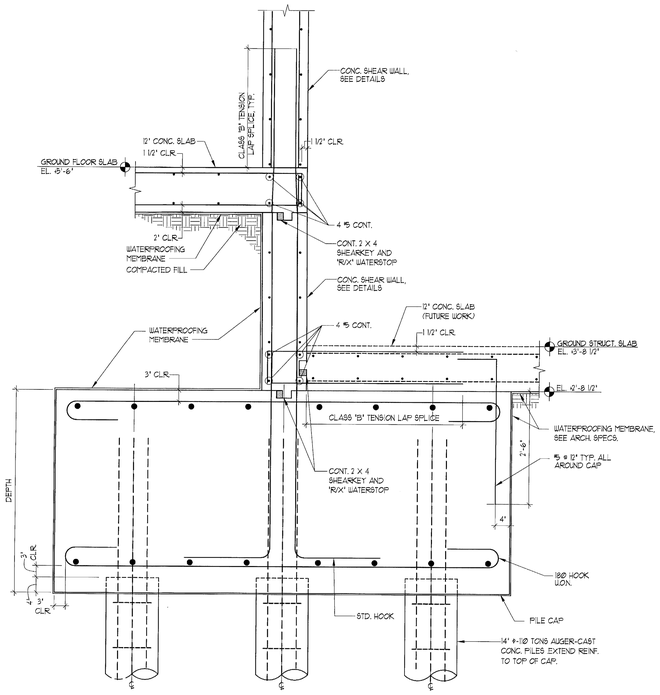
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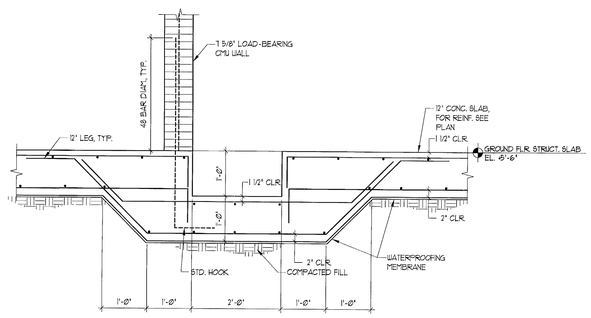
SECTION 4
3/4"=1'-0"



SECTION 10
3/4"=1'-0"



SECTION 13
3/4"=1'-0"



DETAIL 18
3/4"=1'-0"

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PERMIT SET			2016.12.23
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50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26
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SECTIONS

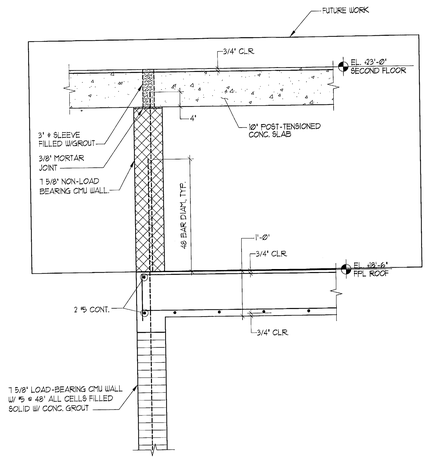
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Revision 1	Drawing No. S-7.1

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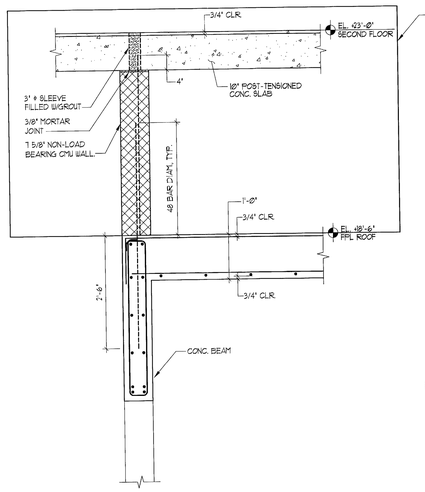
4/19/17

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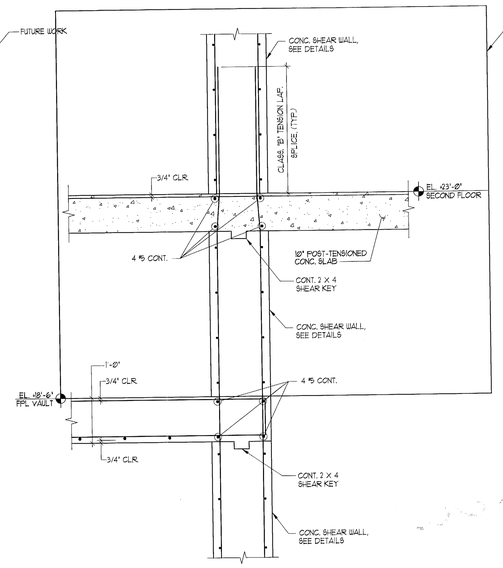
ORIGINAL SHEET - ARCH E1 (30"x42")



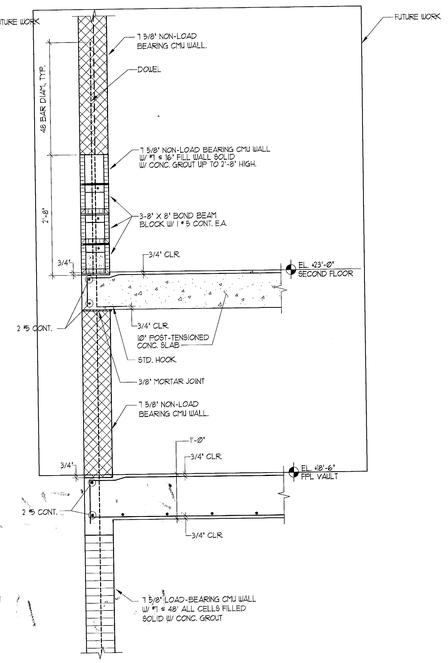
SECTION 1
3/4"=1'-0"



SECTION 2
3/4"=1'-0"



SECTION 3
3/4" = 1'-0"



SECTION 4
3/4"=1'-0"

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MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE

Stantec Architecture Inc - AA26000733

Jonathan Cardello Lic. # AR93391

Revision	By	Appd	
1 FPL Revision 1			2017.02.15

Issued	By	Appd	YYYY.MM.DD
PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26

PERMIT SET

17th & West Avenue

1698 Alton Road
Miami Beach, FL 33139

SECTIONS

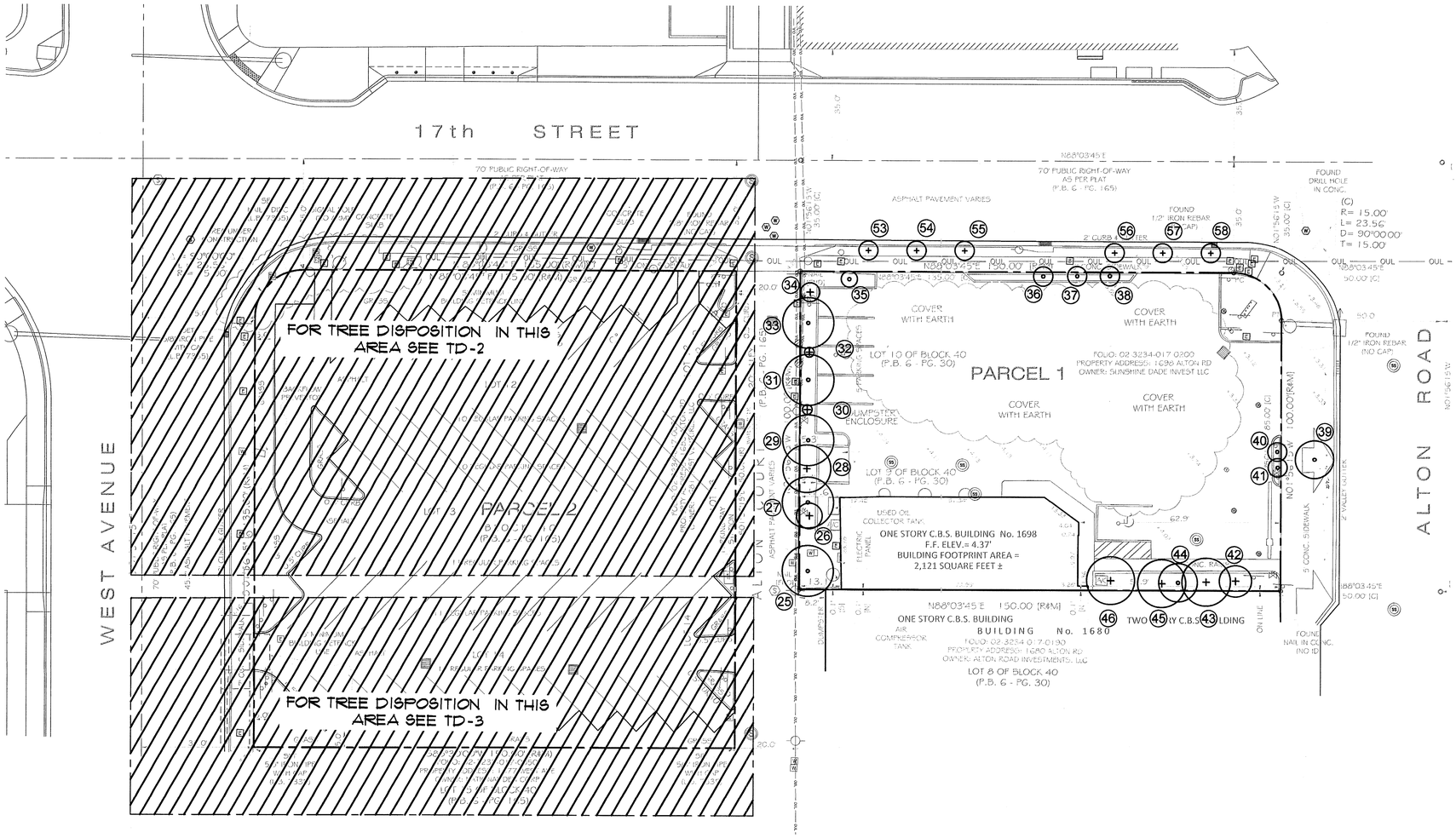
Project No.	Scale
219420456	3/32" = 1'-0"
Revision 1	Drawing No.

S-7.2

DE LOS REYES
ENGINEERING, INC.
CONSULTING STRUCTURAL ENGINEERS
HECTOR DE LOS REYES, P.E.
FLORIDA LICENSE NO. 33112, EB NO. 6705
8726 N.W. 26th ST., SUITES 1 & 2 MIAMI, FL. 33172
TEL: (305) 477-8826 FAX: (305) 477-8814
E-MAIL: delosreyes@dlreng.com

4/14/17

C:\Users\Public\Documents\Local_Revit_files\sm_acct_117fb83\rvt_219420456_assemblies.rvt
4/17/2017 4:42:54 PM
ORIGINAL SHEET - ARCH E1 (30"x42")



TREE DISPOSITION LEGEND

NUMBER	COMMON NAME	BOTANICAL NAME	DBH	HEIGHT	SPREAD	SF CANOPY	CONDITION	DISPOSITION
25	COCONUT PALM	COCOS NUCIFERA	N/A	25'	16'	201	GOOD	REMOVE
26	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	3"	12'	8'	51	FAIR	REMOVE
27	COCONUT PALM	COCOS NUCIFERA	N/A	25'	16'	201	GOOD	REMOVE
28	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	3"	16'	15	177	FAIR	REMOVE
29	COCONUT PALM	COCOS NUCIFERA	N/A	25'	16'	201	GOOD	REMOVE
30	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	3"	12'	3'	7	FAIR	REMOVE
31	COCONUT PALM	COCOS NUCIFERA	N/A	25'	16'	201	GOOD	REMOVE
32	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	3"	9'	3'	7	POOR	REMOVE
33	COCONUT PALM	COCOS NUCIFERA	N/A	25'	16'	201	GOOD	REMOVE
34	PINK TRUMPET TREE	TABEBUIA HETEROPHYLLA	4"	14'	6'	29	FAIR	REMOVE
35	FLORIDA THATCH PALM	THRINAX RADIATA	N/A	7'	5'	20	GOOD	REMOVE
36	FLORIDA THATCH PALM	THRINAX RADIATA	N/A	9'	6'	28	GOOD	REMOVE
37	FLORIDA THATCH PALM	THRINAX RADIATA	N/A	9'	6'	28	GOOD	REMOVE
38	FLORIDA THATCH PALM	THRINAX RADIATA	N/A	9'	6'	28	GOOD	REMOVE
39	VEITCHIA PALM	VEITCHIA MONTGOMERYANA	N/A	25'	12'	113	GOOD	REMOVE
40	FLORIDA THATCH PALM	THRINAX RADIATA	N/A	9'	6'	28	GOOD	REMOVE
41	FLORIDA THATCH PALM	THRINAX RADIATA	N/A	9'	6'	28	GOOD	REMOVE
42	ORANGE GEIGER	CORDIA SEBESTENA	3"	15'	10'	79	FAIR	REMOVE
43	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	4"	20	15	177	FAIR	REMOVE
44	VEITCHIA PALM	VEITCHIA MONTGOMERYANA	N/A	25'	12'	113	FAIR	REMOVE
45	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	4"	15'	15'	177	FAIR	REMOVE
46	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	4"	20'	15'	177	FAIR	REMOVE
53	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
54	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
55	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
56	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
57	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
58	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
					TOTAL SF:	2446		

TREE MITIGATION LEGEND

REQUIREMENT: 2446 SF
CALCULATION: 300 SF x 7 CATEGORY 1 TREE = 2100 SF
50 SF x 4 CATEGORY 4 PALMS = 200 SF
A CONTRIBUTION TO THE MIAMI DADE COUNTY TREE FUND WILL BE MADE FOR THE REMAINING 146 SF

MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE

Stantec Architecture Inc.
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Stantec Architecture Inc. - AA26000733

Revision	By	Appd	YYYY.MM.DD
REVISION 1			2017.03.03

Issued	By	Appd	YYYY.MM.DD
PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26

PERMIT SET

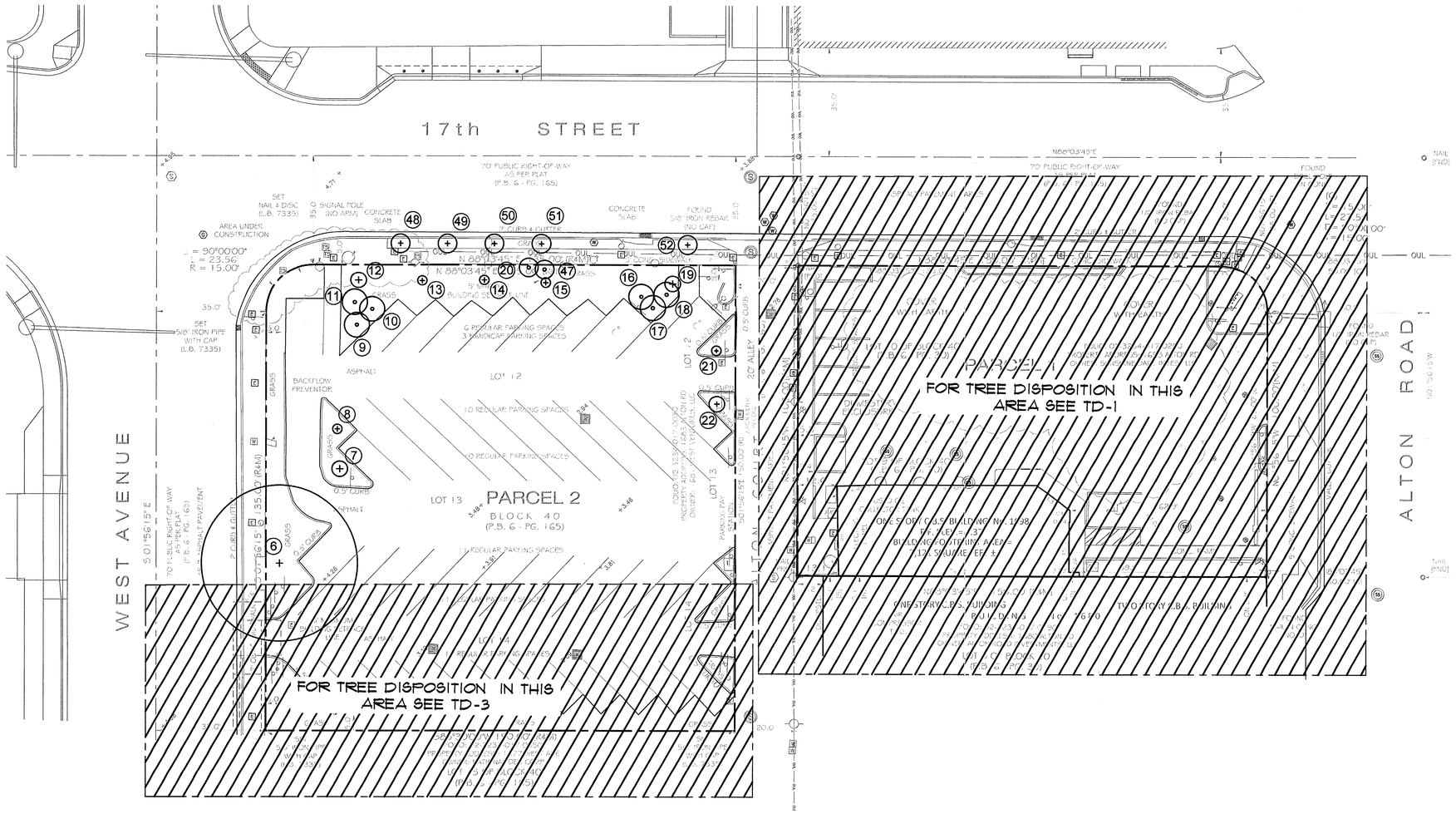
17th & West Avenue

TREE SURVEY PLAN

Project No.	Scale
219420456	1/16" = 1'-0"
Revision	Drawing No.

TD-1

ORIGINAL SHEET - ARCH E1 (30"x42")



TREE DISPOSITION LEGEND

MULTI USE 17TH ALTON RD — DATE: 03-03-2017

NUMBER	COMMON NAME	BOTANICAL NAME	DBH	HEIGHT	SPREAD	SF CANOPY	CONDITION	DISPOSITION
*6	PITHECELLOBIUM DULCE	MANILA TAMARIND	34+20 (54")	45'	55'	4,750	GOOD	REMOVE
7	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2.5"	12'	5'	20	FAIR	REMOVE
8	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2 "	12'	3'	7	FAIR	REMOVE
9	SABAL PALMETTO	CABBAGE PALM	N/A	14'	8'	51	GOOD	REMOVE
10	SABAL PALMETTO	CABBAGE PALM	N/A	14'	8'	51	GOOD	REMOVE
11	SABAL PALMETTO	CABBAGE PALM	N/A	14'	8'	51	GOOD	REMOVE
12	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2.5"	14'	5'	20	FAIR	REMOVE
13	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2.5"	12'	3'	7	FAIR	REMOVE
14	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2"	12'	3'	7	FAIR	REMOVE
15	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2"	12'	3'	7	FAIR	REMOVE
16	SABAL PALMETTO	CABBAGE PALM	N/A	15'	8'	51	GOOD	REMOVE
17	SABAL PALMETTO	CABBAGE PALM	N/A	15'	8'	51	GOOD	REMOVE
18	SABAL PALMETTO	CABBAGE PALM	N/A	15'	8'	51	GOOD	REMOVE
19	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2"	12'	3'	7	FAIR	REMOVE
⚠ 20	SABAL PALMETTO	CABBAGE PALM	N/A	15'	6'	29	GOOD	REMOVE
21	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2"	12'	3'	7	FAIR	REMOVE
22	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2.5"	12'	5'	20	FAIR	REMOVE
⚠ 47	SABAL PALMETTO	CABBAGE PALM	N/A	10'	6'	29	GOOD	REMOVE
48	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
49	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
50	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
51	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
52	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	1.5"	10'	6'	29	FAIR	REMOVE
					TOTAL SF:	5,361		

* SPECIMEN TREE DOUBLE MITIGATION REQUIRED

TREE MITIGATION LEGEND

⚠

REQUIREMENT: 5361 SF
CALCULATION: 300 SF x 18 CATEGORY 1 TREE = 5400 SF

Stantec

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Stantec Architecture Inc - AA26000733

Revision	By	Appd	YYYY.MM.DD
REVISION 1			2017.03.03

Issued	By	Appd	YYYY.MM.DD
PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DRB/PB SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26

PERMIT SET

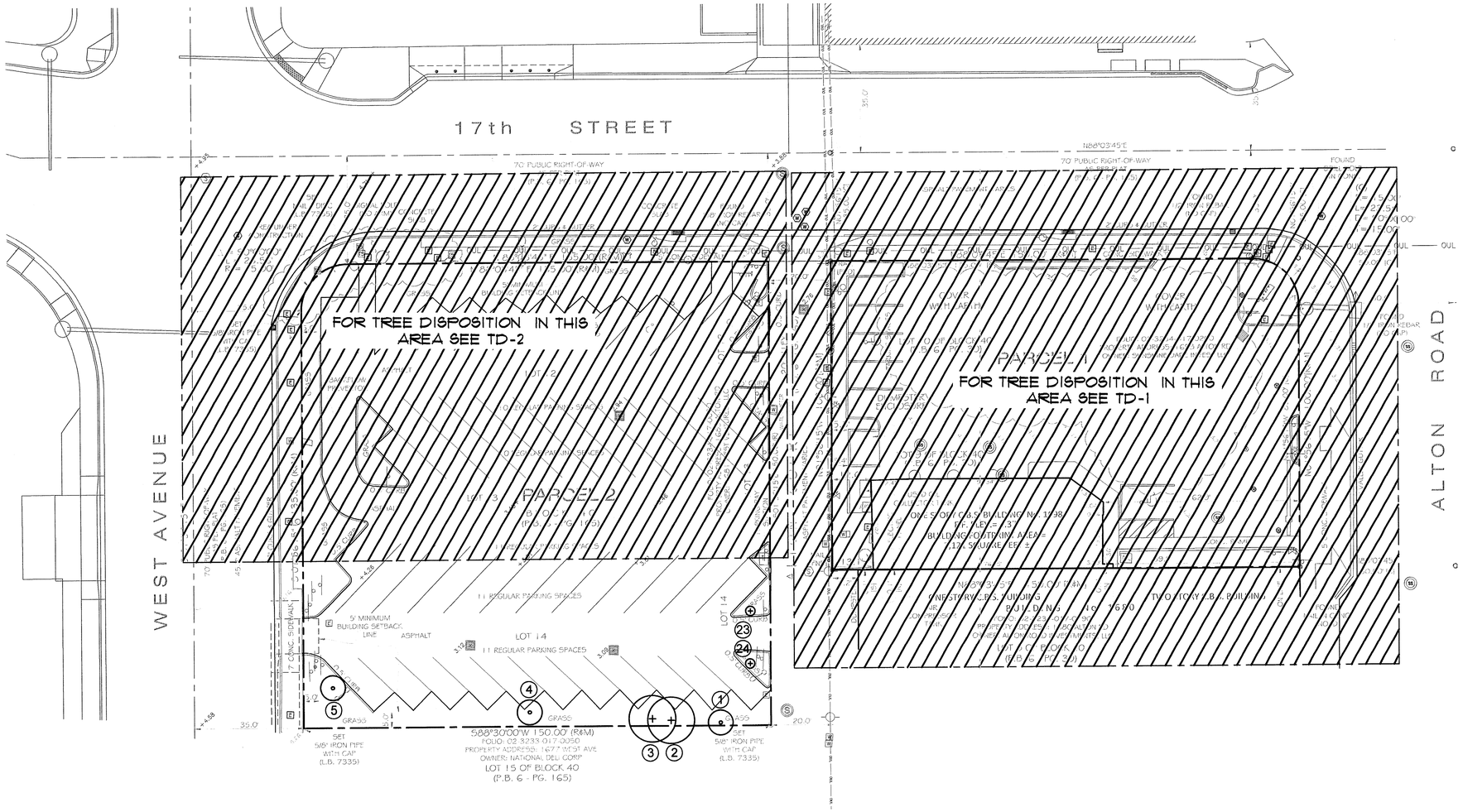
17th & West Avenue

TREE SURVEY PLAN

Project No.	Scale
219420456	1/16" = 1'-0"
Revision	Drawing No.

TD-2

ORIGINAL SHEET - ARCH E1 (30"x42")



TREE DISPOSITION LEGEND

NUMBER	COMMON NAME	BOTANICAL NAME	DBH	HEIGHT	SPREAD	SF CANOPY	CONDITION	DISPOSITION
1	ALEXANDER PALM (TRIPLE)	PTYCHOSPERMA ELEGANS	N/A	9'	8'	51	POOR	REMOVE
2	GUMBO LIMBO	BURSERA SIMARUBA	10"	20'	15'	177	GOOD	REMOVE
3	GUMBO LIMBO (MULTI TRUNK)	BURSERA SIMARUBA	3X8 (24")	20'	15'	177	GOOD	REMOVE
4	SABAL PALMETTO	CABBAGE PALM	N/A	8'	8'	51	FAIR	REMOVE
5	ALEXANDER PALM (DOUBLE)	PTYCHOSPERMA ELEGANS	N/A	15'	8'	51	GOOD	REMOVE
23	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2.5"	14'	3'	7	FAIR	REMOVE
24	PIGEON PLUM	COCCOLOBA DIVERSIFOLIA	2"	12'	3'	7	FAIR	REMOVE

TREE MITIGATION LEGEND

REQUIREMENT: 521 SF
CALCULATION: 300 SF x 2 CATEGORY 1 TREE = 600 SF

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Revision	By	Appd	YYYY.MM.DD
REVISION 1			2017.03.03

Issued	By	Appd	YYYY.MM.DD
PERMIT SET			2017.01.20
PERMIT SET			2016.12.23
DESIGN DEVELOPMENT			2016.11.23
50% DESIGN DEVELOPMENT			2016.11.04
DERM SUBMISSION			2016.10.11
100% SCHEMATIC DESIGN			2016.09.26

PERMIT SET

17th & West Avenue

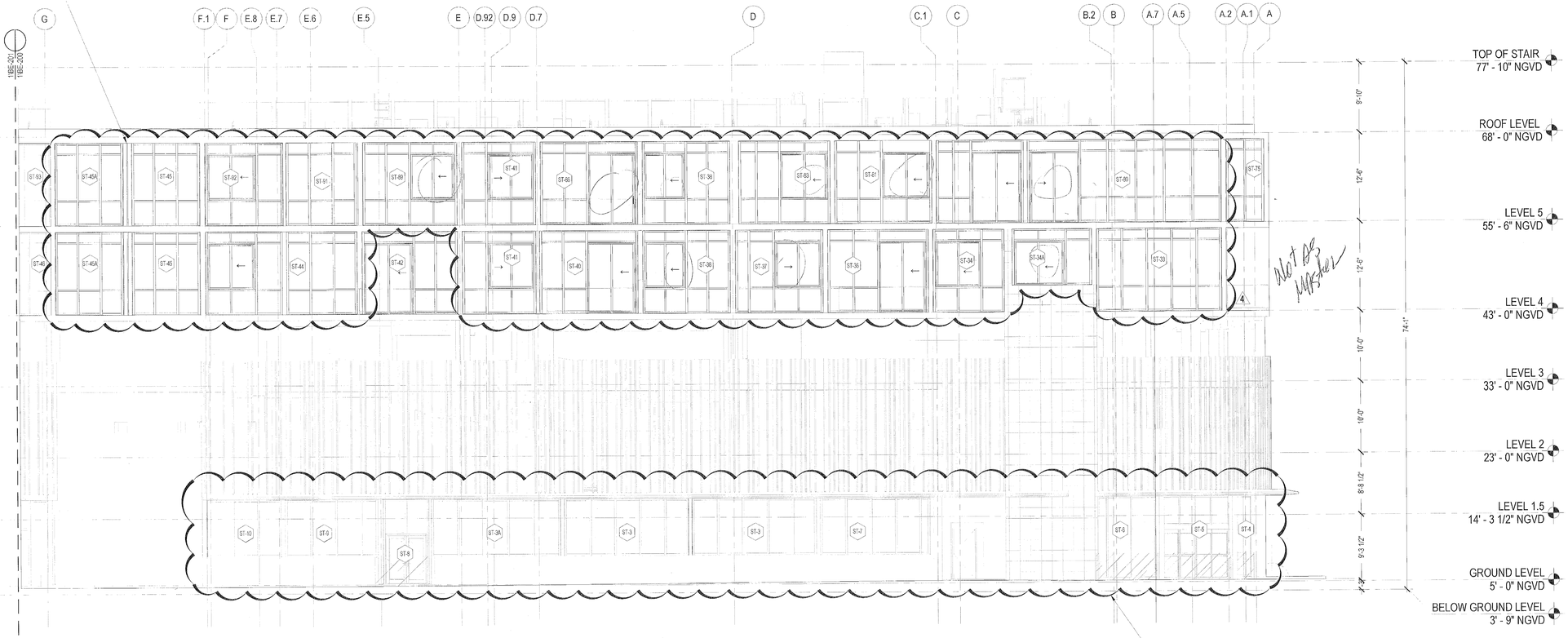
TREE SURVEY PLAN

Project No.	Scale
219420456	3/64" = 1'-0"
Revision	Drawing No.

TD-3

MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE

EXPANSION JOINTS



1 ENLARGED NORTH ELEVATION - A

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

WINDOWS WALL TO BE SUBMIT IN DIFFERENT SET

"REVIEWED and APPROVED FOR CODE COMPLIANCE"

NOVA ENGINEERING and ENVIRONMENTAL LLC

8-3-18 BY

...SHOP DRAWING REVIEW.
...ROVED REJECTED
...PROVED AS NOTED RE-SUBMIT
...DIRECTIONS AND COMMENTS MADE ON SHOP ...DRAWINGS DURING THIS REVIEW DO NOT RELIEVE ...CONTRACTOR FROM COMPLYING WITH REQUIREMENTS ...OF THE PERMITTED DRAWINGS AND SPECIFICATIONS. ...THIS CHECK IS ONLY FOR GENERAL CONFORMANCE ...WITH DESIGN CONCEPT AND GENERAL COMPLIANCE ...WITH THE INFORMATION IN THE CONTRACT DOCUMENTS. ...CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND ...CORRELATING ALL QUANTITIES AND DIMENSIONS, ...FABRICATION PROCESSES AND TECHNIQUES ...OF ...CONSTRUCTION, COORDINATING ALL WORK WITH ...THAT OF ALL OTHER TRADES, AND PERFORMING ALL WORK ...IN A SAFE AND SATISFACTORY MANNER.
...APPROVAL REPRESENTS OUR REVIEW OF THIS ...SUBMITTAL ONLY FOR THOSE MODIFICATIONS ...REQUESTED HEREIN OR IN PREVIOUS SUBMISSIONS, OR ...SPECIFICALLY NOTED BY CONTRACTOR IN THIS ...SUBMISSION AND CONFIRMATION TO THIS EFFECT BY ...THE CONTRACTOR OF PREVIOUSLY REVIEWED ...MATERIAL IS SPECIFICALLY DISAPPROVED, IT IS ...ASSUMED THAT ENGINEERS NOTATIONS ON ...SUBMITTAL ITEM IS NOT TO BE CONSTRUED AS AUTHORIZATION ...OF ADDITIONAL WORK OR COST.
8-3-18 BY

Stantec
Two South Biscayne Blvd., Suite 1070
Miami, Florida 33131
REVIEW, NO EXCEPTIONS NOTED
Dated: 7/12/18 By: R.G.

KEY PLAN

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Building with Precision
GRYCON LLC
4101 Ravenswood RD Suite 325
Dania Beach, FL 33312
954-620-0451

WINDOW MANUFACTURER:
gmp
GM&P Consulting and Glazing Contractors,Inc
3550 NW 49th street
Miami, Fl. 33142 EE.UU
Tel: 305-638-5151
Fax: 305-638-5156

SHOP DRAWINGS BY:
4G ARCHITECTURE
4G ARCHITECTURE S.A.S.
Cr51 B 80-58 OF. 901
Smart Office Center
Barranquilla, Colombia

FAÇADE+ENVELOPE
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WWW.FACADENVELOPE.COM
CA# 30168

STRUCTURAL COMPLIANCE ONLY
No 71643
STATE OF FLORIDA
MANUEL MORA, P.E.
FL. REG. #71643

17TH & WEST AVENUE
1220 17TH STREET
MIAMI BEACH, FLORIDA 33139

REVISION N°	DATE	DESCRIPTION
A	12. 15. 2017	SHOP DRAWINGS FIRST SUBMITTAL LEVEL 4 TO LEVEL 5
1	12. 26. 2017	FIRST SUBMITTAL UPDATE
2	01. 17. 2018	SHOP DRAWINGS FIRST RESUBMITTAL
3	21. 05. 2018	RESUBSUBMITTAL PER BULLETIN # 2018.04.10
4	06. 08. 2018	RESUBMITTAL PER FEEC COMMENTS 06072018 JJ

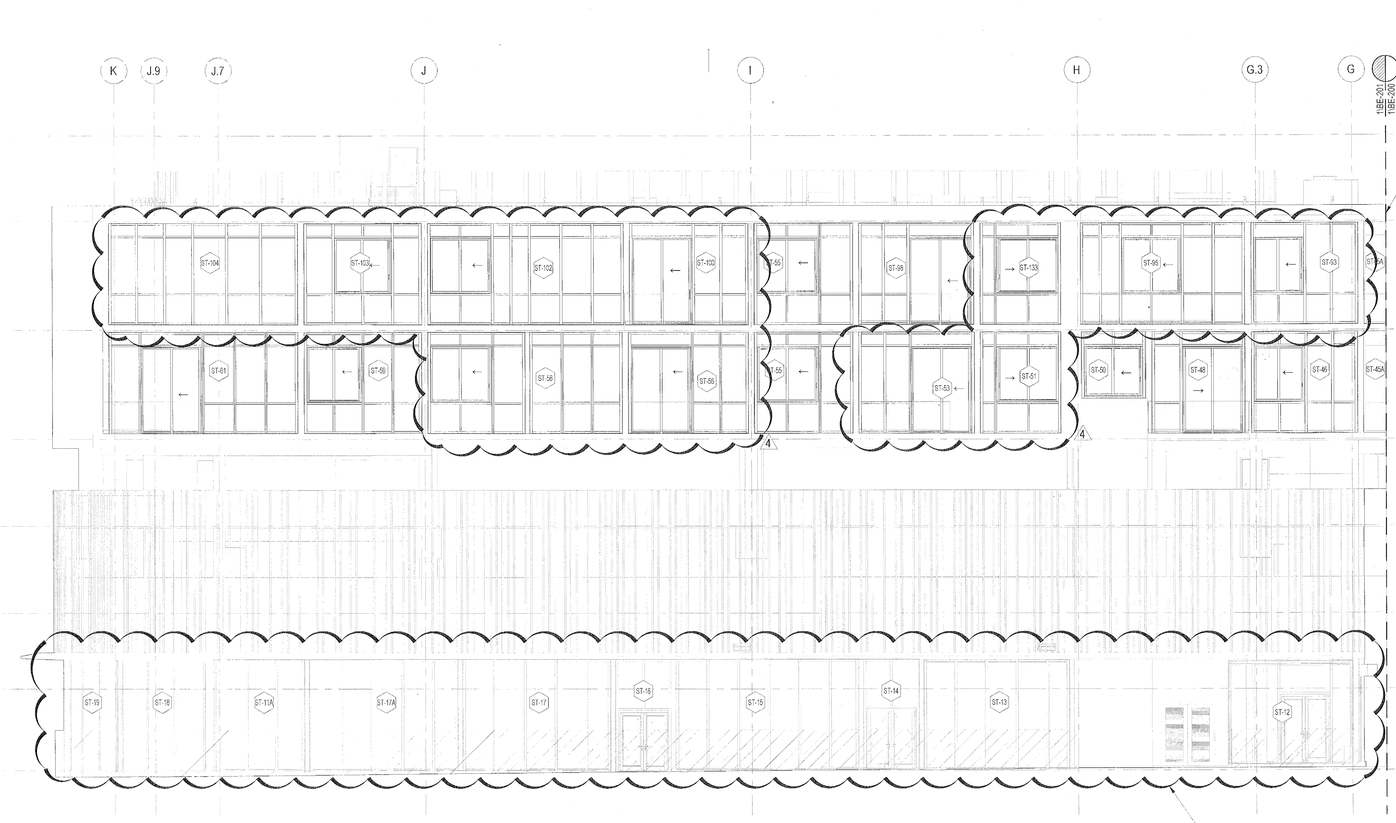
PROJECT #: SD2017009
17TH & WEST AVENUE

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

CONTENT:
1 - ENLARGED NORTH ELEVATION - A

SHEET:
BE-200

MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE



1 ENLARGED NORTH ELEVATION - B

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

"REVIEWED and APPROVED
FOR CODE COMPLIANCE"

NOVA ENGINEERING
and ENVIRONMENTAL LLC

SHOP DRAWING REVIEW

APPROVED
APPROVED AS NOTED
REJECTED
RE-SUBMIT

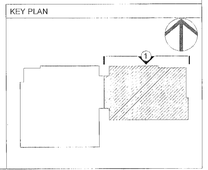
CLARIFICATIONS AND COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLYING WITH REQUIREMENTS OF THE PERMITTED DRAWINGS AND SPECIFICATIONS. SHOP DRAWING REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE INFORMATION IN THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

APPROVAL REPRESENTS OUR REVIEW OF DESIGN INTENT ONLY FOR THOSE MODIFICATIONS REQUESTED HEREIN OR IN PREVIOUS SUBMISSIONS SPECIFICALLY NOTED BY CONTRACTOR IN SUBMISSION. ANY OTHER MODIFICATION TO THIS DRAWING BY THE CONTRACTOR OR PREVIOUSLY REVIEWED MATERIAL IS SPECIFICALLY DISAPPROVED. IT IS UNDERSTOOD THAT ENGINEERS NOTATIONS SHALL NOT BE CONSTRUED AS AUTHORIZATION OF ADDITIONAL WORK OR COST.

8-3-18 BY: EM

Stantec
Two South Biscayne Blvd., Suite 1670
Miami, Florida 33131
REVIEW, NO EXCEPTIONS NOTED
Dated 7/12/18 By R.G.

KEY PLAN



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GENERAL CONTRACTOR:
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Building with Precision
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4101 Ravenswood RD Suite 325
Dania Beach, FL 33312
954-626-0451

WINDOW MANUFACTURER:
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3550 NW 49th street
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SHOP DRAWINGS BY:
4G ARCHITECTURE
4G ARCHITECTURE S.A.S.
Cr51 B 80-58 OF. 901
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1200 HARRISON STREET, SUITE 204
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CA# 30168

STATE OF FLORIDA
MANUEL MARTINEZ-PEREZ
No 71643
STATE OF
MANUEL MARTINEZ-PEREZ, P.E.
FL. Reg # 71643

17TH & WEST AVENUE
1220 17TH STREET
MIAMI BEACH, FLORIDA 33139

REVISION N°	DATE	DESCRIPTION
1	12. 15. 2017	SHOP DRAWINGS FIRST SUBMITTAL LEVEL 4 TO LEVEL 5
2	12. 26. 2017	FIRST SUBMITTAL UPDATE
3	01. 17. 2018	SHOP DRAWINGS FIRST RESUBMITTAL
4	21. 05. 2018	RESUBSUBMITTAL PER BULLETIN #1 2018.04.10
5	06. 08. 2018	RESUBMITTAL PER. FEEC COMMENTS 06072018 JJ

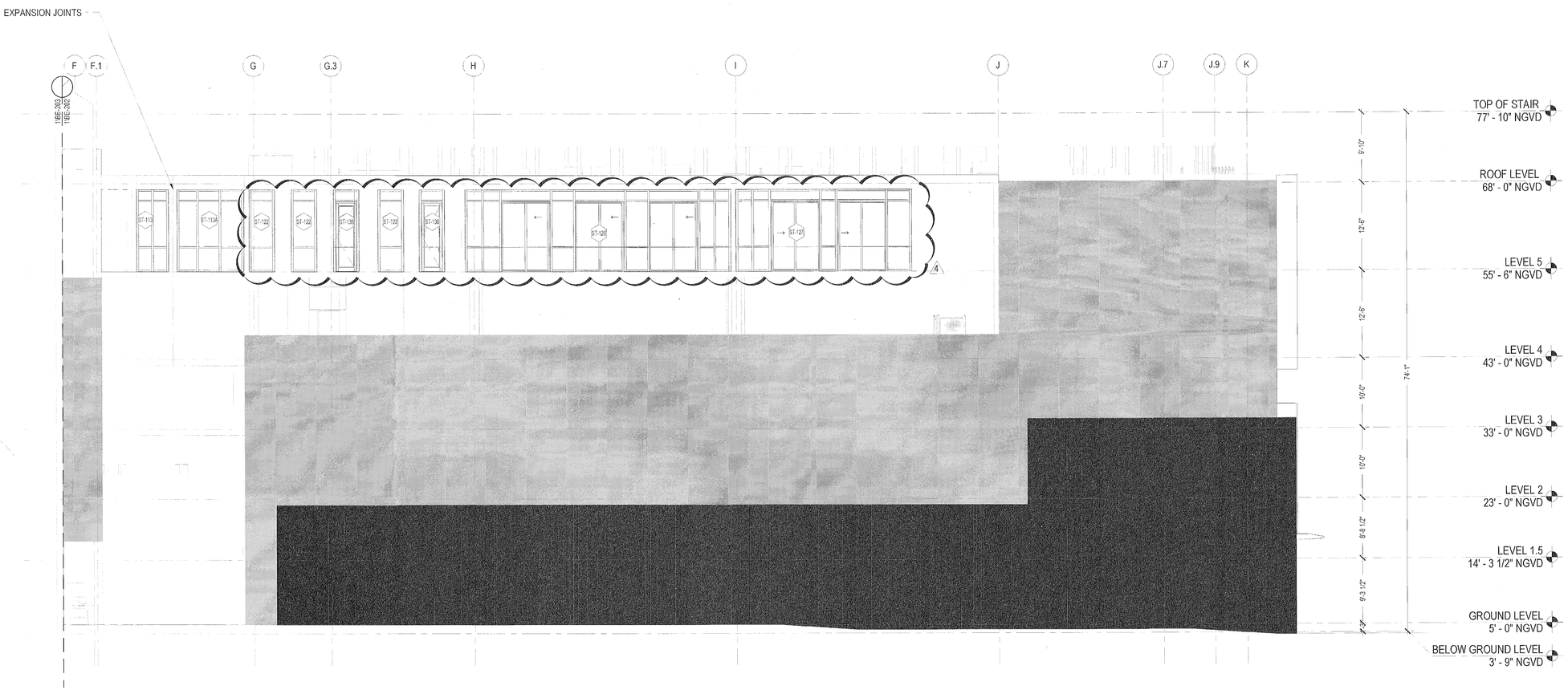
PROJECT #: SD2017009
17TH & WEST AVENUE

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

CONTENT:
1 - ENLARGED NORTH ELEVATION - B

SHEET:
BE-201

MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE



1 ENLARGED SOUTH ELEVATION - B

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

"REVIEWED and APPROVED FOR CODE COMPLIANCE"

NOVA ENGINEERING and ENVIRONMENTAL LLC

SHOP DRAWING REVIEW
APPROVED
APPROVED AS NOTED
REJECTED
RESUBMIT
DIRECTIONS AND COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLYING WITH REQUIREMENTS OF THE PERMITTED DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE INFORMATION IN THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.
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8-3-18 BY: EM

Stantec
Two South Biscayne Blvd. Suite 1670
Miami, Florida 33131
REVIEW, NO EXCEPTIONS NOTED
Dated 7/12/18 By R.G.

KEY PLAN

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Tel: 305-638-5151
Fax: 305-638-5156

SHOP DRAWINGS BY:
4G ARCHITECTURE
4G ARCHITECTURE S.A.S.
CRA 8 B 80-58 OF. 901
Smart Office Center
Barranquilla, Colombia

FAÇADE+ENVELOPE
ENGINEERING CONSULTANTS, LLC
1930 HARRISON STREET, SUITE 204
HOLLYWOOD, FL 33020 (954) 589-1729
WWW.FACADEENVELOPE.COM
CA# 30168

STRUCTURAL COMPLIANCE REVIEWED
No 71643
STATE OF FLORIDA
PROFESSIONAL ENGINEER
MARCELO MORELES, P.E.
FL Reg # 71643

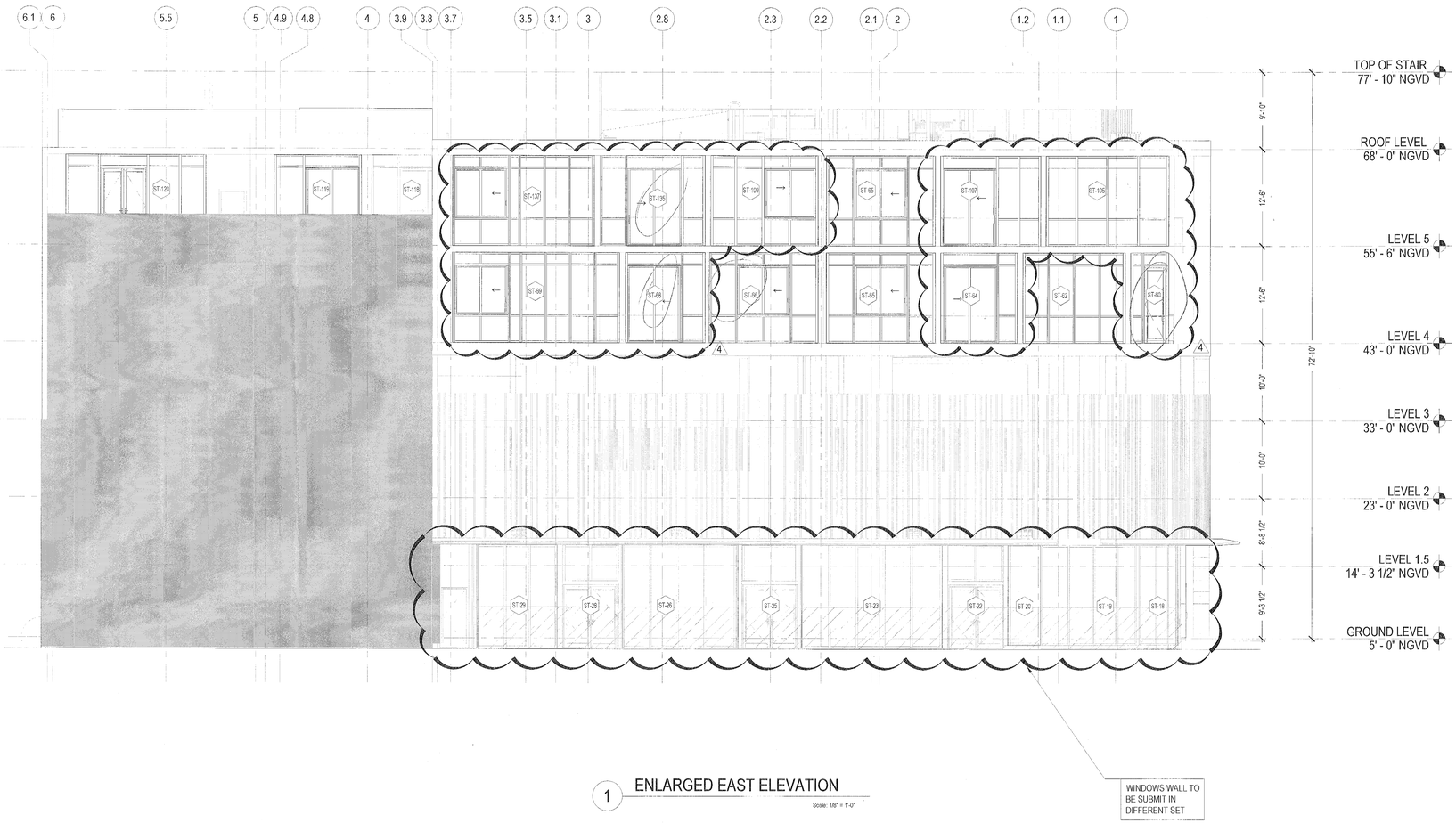
17TH & WEST AVENUE
1220 17TH STREET
MIAMI BEACH, FLORIDA 33139

REVISION N°	DATE	DESCRIPTION
1	12. 15. 2017	SHOP DRAWINGS FIRST SUBMITTAL LEVEL 4 TO LEVEL 5
2	12. 26. 2017	FIRST SUBMITTAL UPDATE
3	01. 17. 2018	SHOP DRAWINGS FIRST RESUBMITTAL
4	21. 05. 2018	RESUBSUBMITTAL PER BULLETIN #1 2018-04-10
5	06. 08. 2018	RESUBMITTAL PER FEEC COMMENTS 2607218 JJ

PROJECT #: SD20170009
17TH & WEST AVENUE
SCALE: 1/8" = 1'-0"
CONTENT:
1 -ENLARGED SOUTH ELEVATION - B

SHEET:
BE-202

MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE



1 ENLARGED EAST ELEVATION

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

NOVA REYES ENGINEERING, INC.
SHOP DRAWING REVIEW
APPROVED X REJECTED
APPROVED AS NOTED RE-SUBMIT

CORRECTIONS AND COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLYING WITH REQUIREMENTS OF THE PERMITTED DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE INFORMATION IN THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

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DATE: 8-3-18 BY: EM

Stantec

Two South Biscayne Blvd., Suite 1870
Miami, Florida 33131

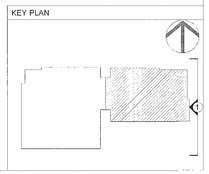
REVIEW, NO EXCEPTIONS NOTED

Dated: 7/12/18 By: R. G.

"REVIEWED and APPROVED
FOR CODE COMPLIANCE"

NOVA ENGINEERING
and ENVIRONMENTAL LLC

KEY PLAN



1681 WEST VENTURES LLC
19501 Biscayne Boulevard, Suite 400
Aventura, FL 33180
T: (305) 914-8207

ARCHITECT:

Stantec

STANTEC ARCHITECTURE INC.
One Biscayne Tower Suite 1670
2 South Biscayne Boulevard
Miami, FL 33131-1804
T: (305) 482-8700 Fax: (305) 482-8770

GENERAL CONTRACTOR:

GRYCON
Building with Precision

GRYCON LLC
4101 Ravenswood RD Suite 325
Dania Beach, FL 33312
954-626-0451

WINDOW MANUFACTURER:

gmp

GM&P Consulting and Glazing Contractors,Inc
3550 NW 49th street
Miami, Fl. 33142 EE.UU
Tel: 305-638-5151
Fax: 305-638-5158

SHOP DRAWINGS BY:

4G ARCHITECTURE

4G ARCHITECTURE S.A.S.
CR51 B 80-56 OF 901
Smart Office Center
Barranquilla, Colombia

FAÇADE+ENVELOPE

ENGINEERING CONSULTANTS, LLC
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HOLLYWOOD, FL 33020 (954) 589-1729
WWW.FACADEANDENVELOPE.COM
C#A# 30158

STRUCTURAL PORTION OF THIS PLAN FOR CODE COMPLIANCE ONLY
No 71643
STATE OF FLORIDA
PROFESSIONAL ENGINEER
MANUEL MIRANDA P.E.
FL. Reg # 71643

17TH & WEST AVENUE
1220 17TH STREET
MIAMI BEACH, FLORIDA 33139

REVISION N°	DATE	DESCRIPTION
1	12.15.2017	SHOP DRAWINGS FIRST SUBMITTAL-LEVEL 4 TO LEVEL 5
2	12.26.2017	FIRST SUBMITTAL UPDATE
3	01.17.2018	SHOP DRAWINGS FIRST RESUBMITTAL
4	21.05.2018	REVISE/SUBMITTAL PER BULLETIN #1 2018.04.10
5	06.08.2018	RESUBMITTAL PER FEEC COMMENTS 05272018.JJ

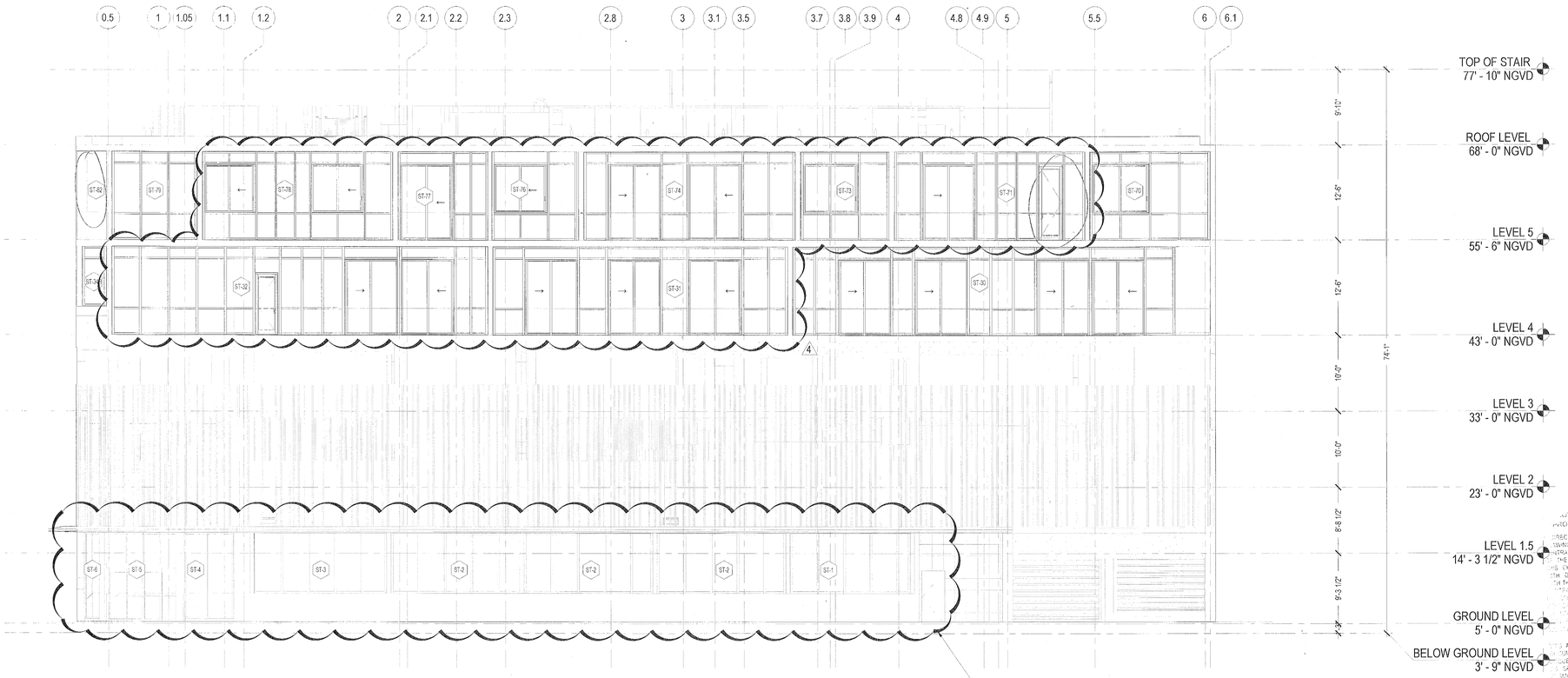
PROJECT #: SD2017009
17TH & WEST AVENUE

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

CONTENT:
1 -ENLARGED EAST ELEVATION

SHEET:
BE-204

MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE



1 ENLARGED WEST ELEVATION

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

SHOP DRAWING REVIEW
APPROVED
APPROVED AS NOTED
REJECTED
RE-SUBMIT
DIRECTIONS AND COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE PERMITTED DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE INFORMATION IN THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.
APPROVAL REPRESENTS OUR REVIEW OF DOCUMENT ONLY FOR THOSE MODIFICATIONS REQUESTED HEREIN OR IN PREVIOUS SUBMISSIONS SPECIFICALLY NOTED BY CONTRACTOR IN T... SUBMISSION. ANY OTHER MODIFICATION TO THIS SHOP... THE CONTRACTOR OF PREVIOUSLY REVIEWED MATERIAL IS SPECIFICALLY DISAPPROVED. IT IS UNDERSTOOD THAT ENGINEER'S NOTATIONS ON DETAILS IS NOT TO BE CONSTRUED AS AUTHORIZATION OF ADDITIONAL WORK OR COST.
8-8-18 BY EMC

Stantec
Two South Biscayne Blvd., Suite 1670
Miami, Florida 33131
REVIEW: NO EXCEPTIONS NOTED
Dated 7/12/18 By R.G.

"REVIEWED and APPROVED FOR CODE COMPLIANCE"
NOVA ENGINEERING and ENVIRONMENTAL LLC

KEY PLAN

1691 WEST VENTURES LLC.
19501 Biscayne Boulevard, Suite 400
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T: (305) 914 8207

ARCHITECT:
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STANTEC ARCHITECTURE INC.
One Biscayne Tower Suite 1670
2 South Biscayne Boulevard
Miami, FL 33131-1804
T: (305) 482-8700 Fax: (305) 482-8770

GENERAL CONTRACTOR:
GRYCON
Building with Precision
GRYCON LLC
4101 Ravenswood RD Suite 325
Dania Beach, FL 33312
954-828-0451

WINDOW MANUFACTURER:
gmp
GM&P Consulting and Glazing Contractors,Inc
3950 NW 49th street
Miami, FL 33142 EE.UU
Tel: 305-638-5151
Fax: 305-638-5198

SHOP DRAWINGS BY:
4G ARCHITECTURE
4G ARCHITECTURE S.A.S.
Cr51 B 80-58 OF. 901
Smart Office Center
Barranquilla, Colombia

FAÇADE+ENVELOPE
ENGINEERING CONSULTANTS, LLC
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HOLLYWOOD, FL 33020 (954) 589-1729
WWW.FACADENVELOPE.COM
CA# 30168

REVIEWED FOR STRUCTURAL COMPLIANCE
MANUEL MIGUEL GARCIA
LICENSED
No 71643
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
MANUEL MIGUEL GARCIA, P.E.
7/12/2018

17TH & WEST AVENUE
1220 17TH STREET
MIAMI BEACH, FLORIDA 33139

REVISION N°	DATE	DESCRIPTION
1	12.15.2017	SHOP DRAWINGS FIRST SUBMITTAL-LEVEL 4 TO LEVEL 5
2	12.26.2017	FIRST SUBMITTAL/UPDATE
3	01.17.2018	RESUBSUBMITTAL PER BULLETIN #1 2018.04.10
4	21.05.2018	RESUBMITTAL PER COMMENTS 06072018 JJ
5	06.08.2018	RESUBMITTAL PER FEEC COMMENTS 06072018 JJ

PROJECT #: SD2017009
17TH & WEST AVENUE
SCALE: 1/8" = 1'-0"
CONTENT:
1 - ENLARGED WEST ELEVATION

SHEET:
BE-205

BC 18085

MIAMIBEACH
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STRUCTURAL CALCULATIONS FOR GLAZING SYSTEM AT

17TH AND WEST AVENUE
LEVELS 4 AND 5

1220 17TH STREET
MIAMI BEACH, FL 33139

"REVIEWED and APPROVED FOR CODE COMPLIANCE"

AUG 16 2018

NOVA ENGINEERING and ENVIRONMENTAL LLC

Stantec
Two South Biscayne Blvd., Suite 1670
Miami, Florida 33131
REVIEW. NO EXCEPTIONS NOTED
Dated 7/12/16 By PG

Prepared for:
GM&P Consulting and Glazing Contractors, Inc.
3550 NW 49th Street
Miami, FL 33142

DE LOS REYES ENGINEERING, P.C.
SHOP DRAWING REVIEW
APPROVED ☒ REJECTED ☐
APPROVED AS NOTED ☒ RE-SUBMIT ☐

CORRECTIONS AND COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLYING WITH REQUIREMENTS OF THE PERMITTED DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE INFORMATION IN THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

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8-3-18 EM

Prepared by:
Cristina Moreno

Reviewed by:

MANUEL MORALES LICENSE No 71643 STATE OF FLORIDA PROFESSIONAL ENGINEER

Manuel Morales, P.E.
FL. Reg. # 71643

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CONTENT

DESCRIPTION	PAGE
- Design Criteria	D
- Wind Loads Extract	1 to 3
- Glazing System Analysis	4 to 23
- Window Wall Jamb Clip	24 to 30
- Steel Beam Analysis	31 to 33
- Fastener Capacities	A1 to A4
- Attachments:	

- Series ES-7100 Aluminum Window Wall per NOA No. 17-1218.09 [SMI]
- Series 2400 ST Aluminum Sliding Glass Door per NOA No. 17-1115.03 [SMI]
- Series HR-2600 Aluminum Sliding Glass Window per NOA No. 18-0301.12 [SMI]
- Series ES-9100 Aluminum Outswing Door per NOA No. 17-0802.15 [SMI]
- Series ENV-350 Aluminum Outswing Door per FL #20701 [SMI]

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FOR CODE COMPLIANCE"

AUG 16 2018

NOVA ENGINEERING
and ENVIRONMENTAL LLC

Prepared by:
Cristina Moreno

MANUEL MORALES LICENSE No 71643 STATE OF FLORIDA PROFESSIONAL ENGINEER

Reviewed by:

Manuel Morales, P.E.
FL. Reg. # 71643

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D

DESIGN CRITERIA

1. Florida Building Code 2014

2. Max. Wind Loads: +64.8/-86.8 psf per ASCE 7-10 as shown on structural drawings sheets S-8.1 and S-8.2.

3. Aluminum:
   a. Material and installation shall comply with calculations, NOA's and Product Approval.
   b. Aluminum not included in NOA's shall be 6063-T6 or stronger.

4. Aluminum shall comply with the Aluminum Association Aluminum Design Manual 2010.

5. All aluminum in contact with dissimilar materials shall be isolated per the requirements of the 2010 ADM.

6. Calculations are based on shop drawings revision 05 dated 06/08/2018 prepared by GM&P.

7. Dimensions shown on drawings are only to ensure compliance with structural requirements.

8. Any field conditions not included in the drawings and calculation package shall be engineered separately.

9. Supporting structure by designed and installed by others shall be capable of withstanding wind loads imposed by glazing systems.

10. Steel: Structural steel shall comply with AISC 360 (specification for structural steel buildings).

11. All welds shall comply with AWS structural welding code - steel -d1.1.

12. Bolts shall be carbon steel as required per calculations.

13. All structural steel shall be shop primed with corrosion resistant coating as indicated on project structural drawings.

14. This engineer reserves the right to revise the calculations if any conditions are discovered after the documents are completed which merit such a change.

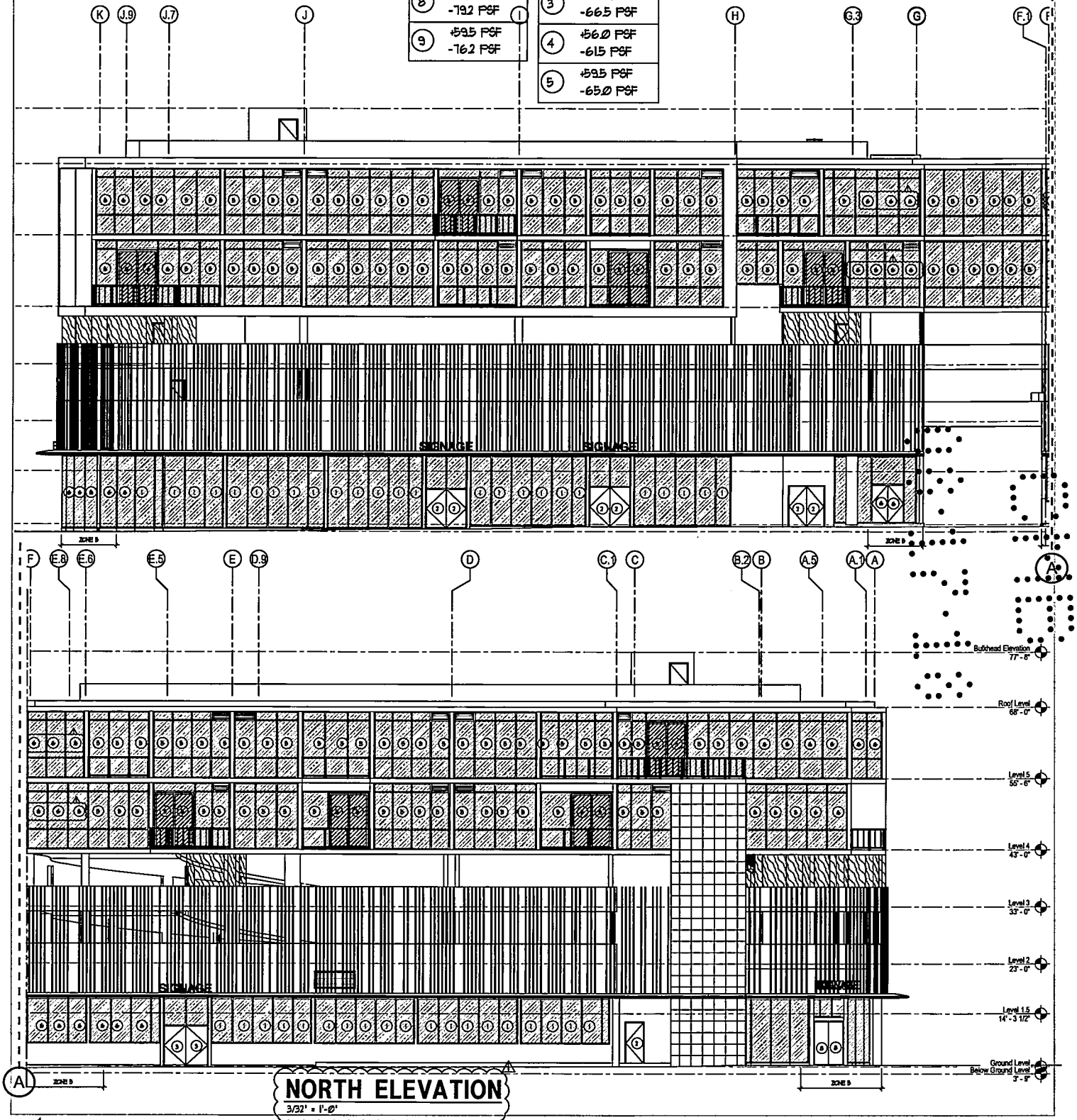
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MIAMI BEACH
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Wind Loads per Structural Drawings
Sheets S-8.1 through S-8.2

ZONE 5	
6	+64.8 PSF -86.8 PSF
7	+61.1 PSF -80.5 PSF
8	+61.0 PSF -79.2 PSF
9	+59.5 PSF -76.2 PSF

ZONE 4	
1	+64.8 PSF -70.3 PSF
2	+61.1 PSF -67.1 PSF
3	+61.0 PSF -66.5 PSF
4	+56.0 PSF -61.5 PSF
5	+59.5 PSF -65.0 PSF



NORTH ELEVATION
3/32" = 1'-0"

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PROJECT: 17th and West Avenue
ADDRESS: Miami Beach, Florida
DATE: 06/20/2018

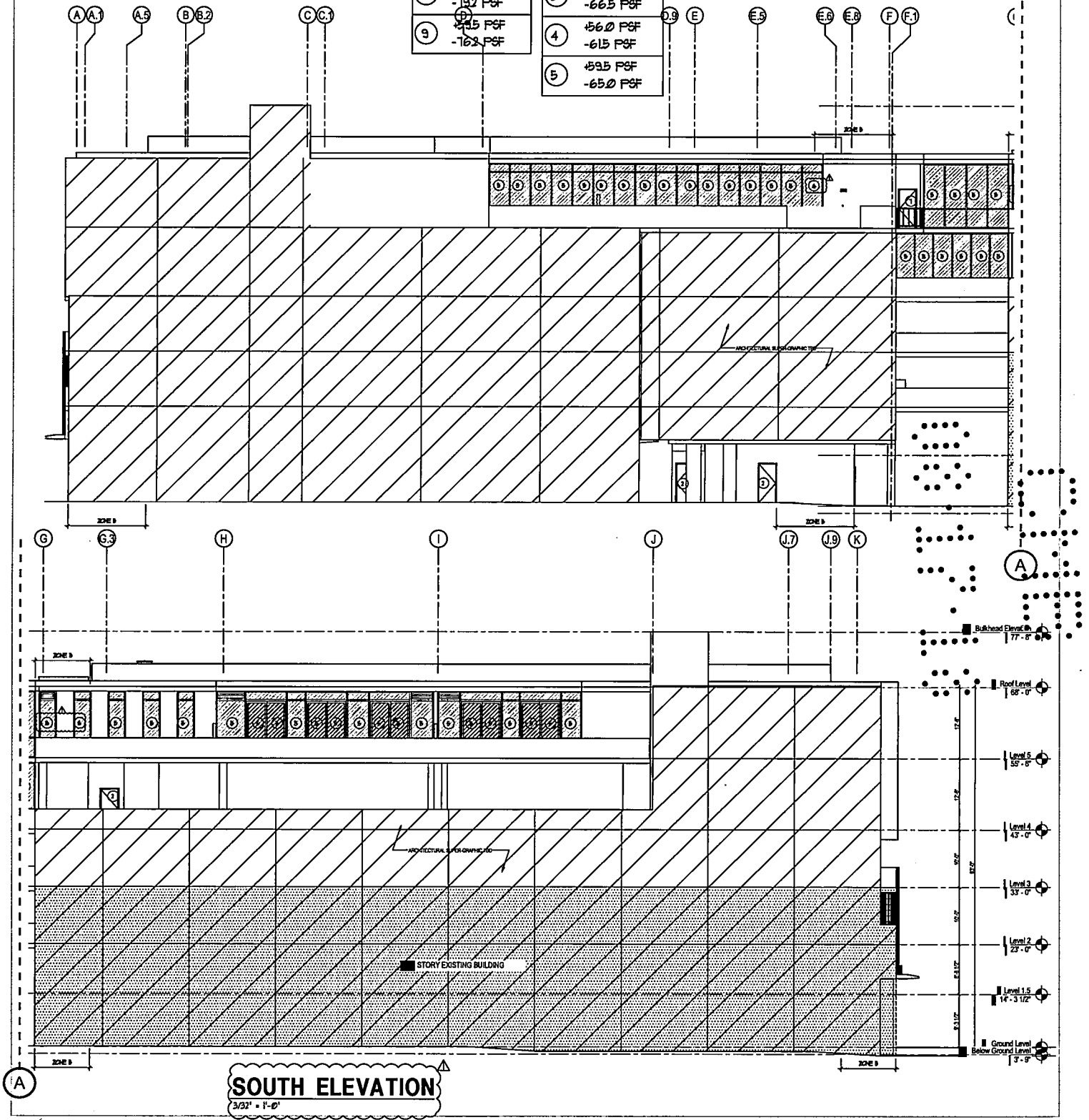
PREPARED BY: CM
REVIEWED BY: MM
PAGE: 1

MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE

Wind Loads per Structural Drawings
Sheets S-8.1 through S-8.2

ZONE 5	
6	+64.8 PSF -86.8 PSF
7	+61.7 PSF -80.5 PSF
8	+61.0 PSF -79.2 PSF
9	+59.5 PSF -76.2 PSF

ZONE 4	
1	+64.8 PSF -70.3 PSF
2	+61.7 PSF -67.1 PSF
3	+61.0 PSF -66.5 PSF
4	+56.0 PSF -61.5 PSF
5	+59.5 PSF -65.0 PSF



SOUTH ELEVATION
3/32" = 1'-0"

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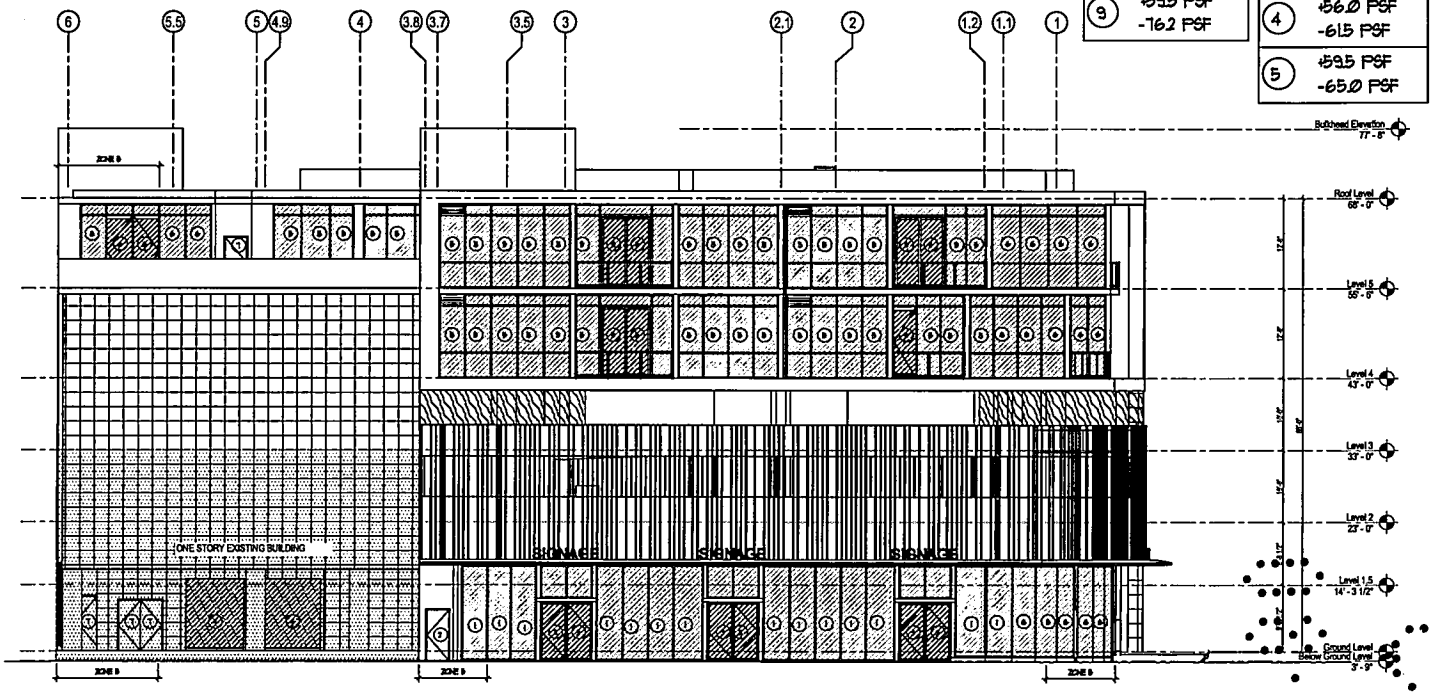
PROJECT: 17th and West Avenue
ADDRESS: Miami Beach, Florida
DATE: 06/20/2018

PREPARED BY: CM
REVIEWED BY: MM
PAGE: 2

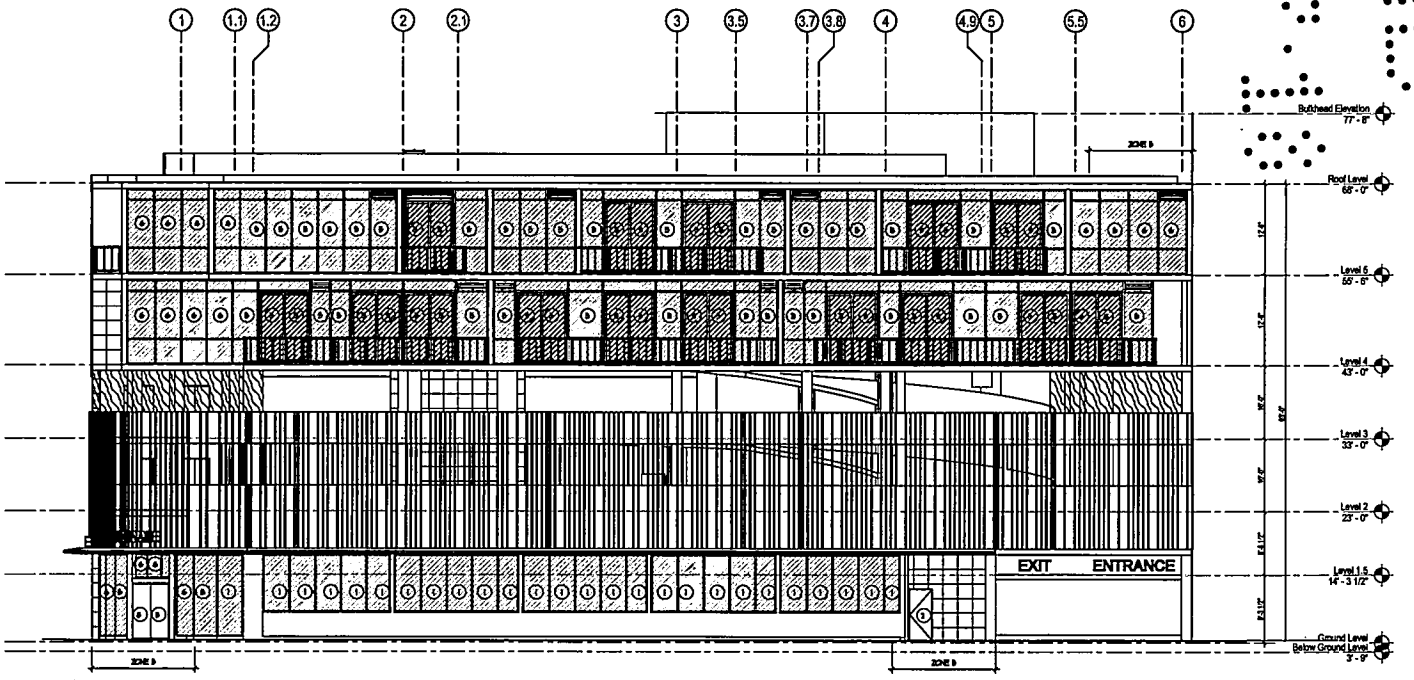
MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE

Wind Loads per Structural Drawings
Sheets S-8.1 through S-8.2

8	+61.0 PSF -79.2 PSF
9	+59.5 PSF -76.2 PSF
3	+61.0 PSF -66.5 PSF
4	+56.0 PSF -61.5 PSF
5	+59.5 PSF -65.0 PSF



EAST ELEVATION
3/32" = 1'-0"



WEST ELEVATION
3/32" = 1'-0"

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Hollywood, FL 33020
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PROJECT: 17th and West Avenue
ADDRESS: Miami Beach, Florida
DATE: 06/20/2018

PREPARED BY: CM
REVIEWED BY: MM
PAGE: 3

MIAMI BEACH
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Project: 17th and West Avenue
Address: 1220 17th Street
Miami Beach, Fl

ANALYSIS OF ALUMINUM AND GLASS SLIDING GLASS DOOR SYSTEM

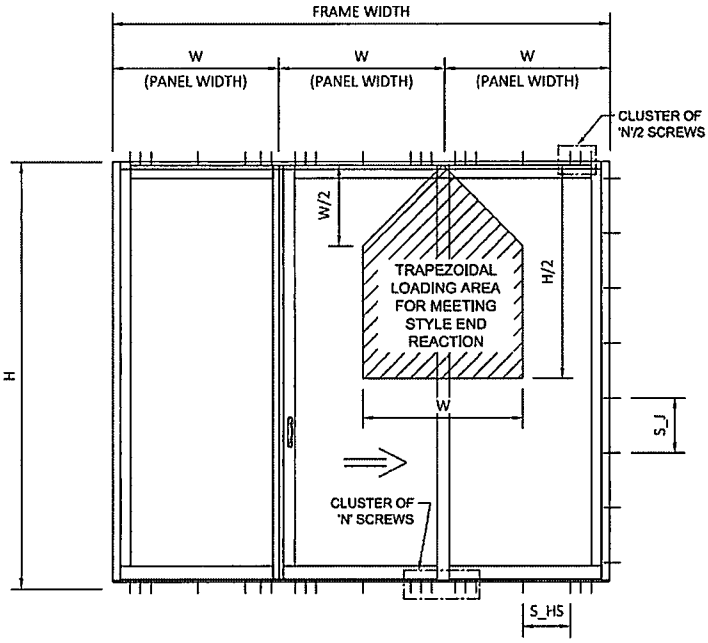
SYSTEM SERIES: 2400 ST Case 1
NOA NO.: 17-1115.03

Project Pressures:

Positive: 64.8 PSF
Negative: 86.8 PSF

Project Panel Dimensions:

Max Width W = 43.25 in
Max Height H = 119.75 in



Allowable Per NOA:

Allowable Size and Pressure based on Frame/Mullions:

Allowable Width Wa = 48 in
Allowable Height Ha = 120 in

Positive Pamp = 120 PSF
Negative Pamn = 120 PSF
Reinforcement (Y/N): N
Reinforcement Type per NOA: NA

Allowable Size and Pressure based on Anchorage:

Allowable Width Wa = 48 in
Allowable Height Ha = 120 in

Positive Paap = 110.1 PSF
Negative Paan = 110.1 PSF
Anchor Type per NOA: C6 D6

Maximum Allowable Pressures:

Positive Pmaxp =	110.1	PSF	>	64.8	PSF	==> **O.K.**
Negative Pmaxn =	110.1	PSF	>	86.8	PSF	==> **O.K.**

Project: 17th and West Avenue
Address: 1220 17th Street
Miami Beach, Fl

ANALYSIS OF ALUMINUM AND GLASS SLIDING GLASS DOOR SYSTEM

MIAMIBEACH
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Anchorage Check:

Head and Sill:

Cluster of Fasteners at Mullion Ends N = 6
Spacing of Remaining Fasteners S_HS = NA in

Jambs:

Spacing of Jamb Fasteners S_J = NA in

Type of Loading (Trapezoidal or Rectangular) : Trapezoidal

Area for Mullion End Reaction Am = (W/2)*(H-(W/2)) = 2121.953 in^2

Area for Remaining H/S Screws A_HS = (W/2)*(S_HS) = NA in^2

Area for Jamb Screws A_J = (W/2)*(S_J) = NA in^2

Max Load Per Fastener:

At Anchor Cluster R1 = (Pdmax/144)*Am*(1/N) = 213.1777 lbs

At Remaining Fasteners Head and Sill R2 = (Pdmax/144)*A_HS = NA lbs

At Jamb Fasteners R3 = (Pdmax/144)*A_J = NA lbs

Allowable Loads per Fastener:

At Head	Va1 =	383	lbs	(See page	A2)
At Sill	Va2 =	365	lbs	(See page	A1)
At Jambs	Va3 =	NA	lbs	(See page	NA)

Va1	>	R1	==>	**O.K.**
Va1	NA	R2	==>	**NA**
Va2	>	R1	==>	**O.K.**
Va2	NA	R2	==>	**NA**
Va3	NA	R3	==>	**NA**

Façade and Envelope Engineering Consultants, LLC
1930 Harrison Street | Suite 204 | Hollywood, FL 33020
Ph: (954) 589-1729 | E: info@facadenvelope.com | CA# 30168

MIAMIBEACH
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CODE COMPLIANCE

Project: 17th and West Avenue
Address: 1220 17th Street
Miami Beach, Fl

ANALYSIS OF ALUMINUM AND GLASS SLIDING GLASS DOOR SYSTEM

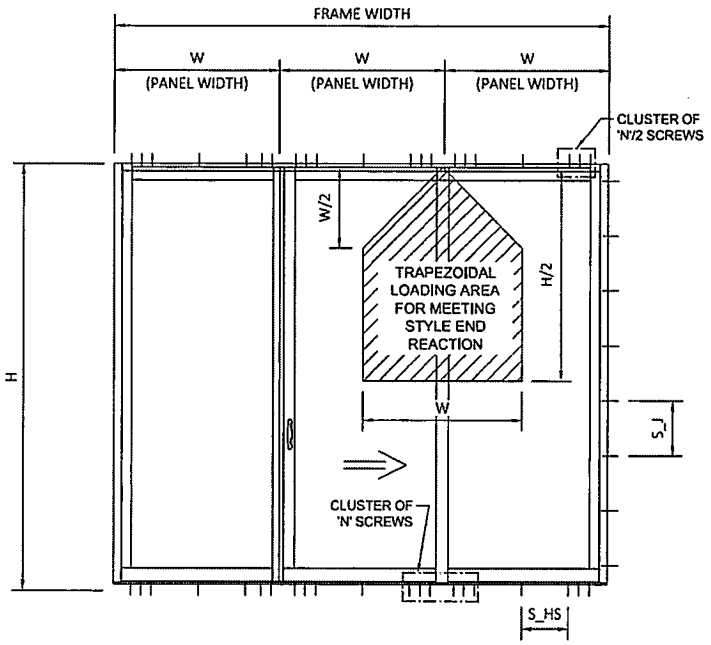
SYSTEM SERIES: 2400 ST Case 2
NOA NO.: 17-1115.03

Project Pressures:

Positive: 64.8 PSF
Negative: 86.8 PSF

Project Panel Dimensions:

Max Width W = 43.25 in
Max Height H = 119.75 in



Allowable Per NOA:

Allowable Size and Pressure based on Frame/Mullions:

Allowable Width Wa =	48	in	Positive Pamp =	120	PSF
Allowable Height Ha =	120	in	Negative Pamn =	120	PSF
			Reinforcement (Y/N):	N	
			Reinforcement Type per NOA:	NA	

Allowable Size and Pressure based on Anchorage:

Allowable Width Wa =	48	in	Positive Paap =	110.1	PSF
Allowable Height Ha =	120	in	Negative Paan =	110.1	PSF
			Anchor Type per NOA:	B6 D6	

Maximum Allowable Pressures:

Positive Pmaxp =	110.1	PSF	>	64.8	PSF	==> **O.K.**
Negative Pmaxn =	110.1	PSF	>	86.8	PSF	==> **O.K.**

Project: 17th and West Avenue
Address: 1220 17th Street
Miami Beach, Fl

ANALYSIS OF ALUMINUM AND GLASS SLIDING GLASS DOOR SYSTEM

MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE

Anchorage Check:

Head and Sill:

Cluster of Fasteners at Mullion Ends N = 6
Spacing of Remaining Fasteners S_HS = NA in

Jambs:

Spacing of Jamb Fasteners S_J = NA in

Type of Loading (Trapezoidal or Rectangular) : Trapezoidal

Area for Mullion End Reaction Am = (W/2)*(H-(W/2)) = 2121.953 in^2

Area for Remaining H/S Screws A_HS = (W/2)*(S_HS) = NA in^2

Area for Jamb Screws A_J = (W/2)*(S_J) = NA in^2

Max Load Per Fastener:

At Anchor Cluster R1 = (Pdmax/144)*Am*(1/N) = 213.1777 lbs

At Remaining Fasteners Head and Sill R2 = (Pdmax/144)*A_HS = NA lbs

At Jamb Fasteners R3 = (Pdmax/144)*A_J = NA lbs

Allowable Loads per Fastener:

At Head	Va1 =	300.76	lbs	(See page	A4)
At Sill	Va2 =	365	lbs	(See page	A1)
At Jambs	Va3 =	NA	lbs	(See page	NA)

Va1	>	R1	==>	**O.K.**
Va1	NA	R2	==>	**NA**
Va2	>	R1	==>	**O.K.**
Va2	NA	R2	==>	**NA**
Va3	NA	R3	==>	**NA**

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Project: 17th and West Avenue
Address: 1220 17th Street

ANALYSIS OF ALUMINUM AND GLASS SLIDING GLASS WINDOW SYSTEM

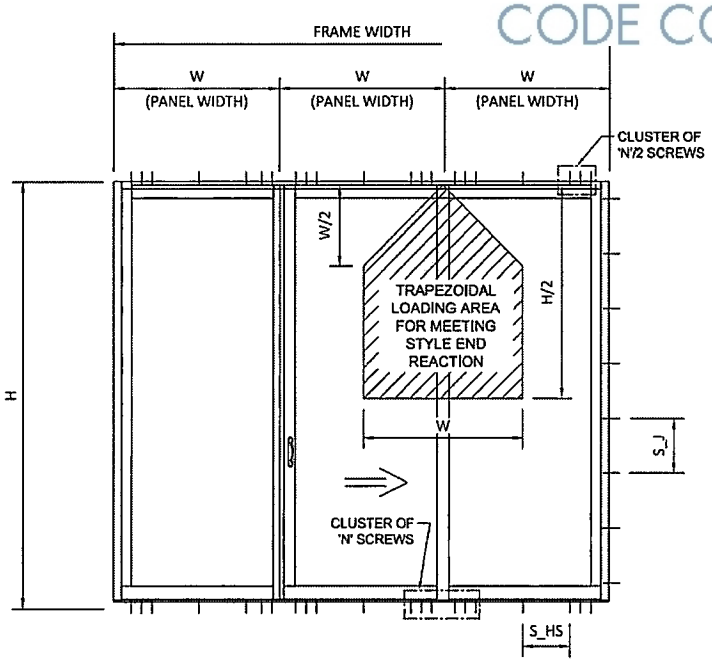
SYSTEM SERIES: HR-2600
NOA NO.: 18-0301.12

Project Pressures:

Positive: 64.8 PSF
Negative: 86.8 PSF

Project Panel Dimensions:

Max Width W = 89.875 in
Max Height H = 76.5 in



Allowable Per NOA:

Allowable Size and Pressure based on Frame/Mullions:

Allowable Width Wa = 96 in
Allowable Height Ha = 80.75 in

Positive Pamp = 98.7 PSF
Negative Pamn = 98.7 PSF
Reinforcement (Y/N): N
Reinforcement Type per NOA: NA

Allowable Size and Pressure based on Anchorage:

Allowable Width Wa = 96 in
Allowable Height Ha = 80.75 in

Positive Paap = 98.7 PSF
Negative Paan = 98.7 PSF
Anchor Type per NOA: A6 B4

Maximum Allowable Pressures:

Positive Pmaxp =	98.7	PSF	>	64.8	PSF	==> **O.K.**
Negative Pmaxn =	98.7	PSF	>	86.8	PSF	==> **O.K.**

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ANALYSIS OF ALUMINUM AND GLASS SLIDING GLASS WINDOW SYSTEM

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Anchorage Check:

Head and Sill:

Cluster of Fasteners at Mullion Ends N = 4

Spacing of Remaining Fasteners S_HS = NA in

Jambs:

Spacing of Jamb Fasteners S_J = 13 in

Type of Loading (Trapezoidal or Rectangular) : Trapezoidal

Area for Mullion End Reaction	Am =	(W/2)*(H-(W/2)) =	1418.34	in^2
Area for Remaining H/S Screws	A_HS =	(W/2)*(S_HS) =	NA	in^2
Area for Jamb Screws	A_J =	(W/2)*(S_J) =	584.1875	in^2

Max Load Per Fastener:

At Anchor Cluster	R1 =	(Pdmax/144)*Am*(1/N) =	213.7359	lbs
At Remaining Fasteners Head and Sill	R2 =	(Pdmax/144)*A_HS =	NA	lbs
At Jamb Fasteners	R3 =	(Pdmax/144)*A_J =	352.1352	lbs

Allowable Loads per Fastener:

At Head	Va1 =	383 lbs	(See page	A2)
At Sill	Va2 =	383 lbs	(See page	A2)
At Jambs	Va3 =	383 lbs	(See page	A2)

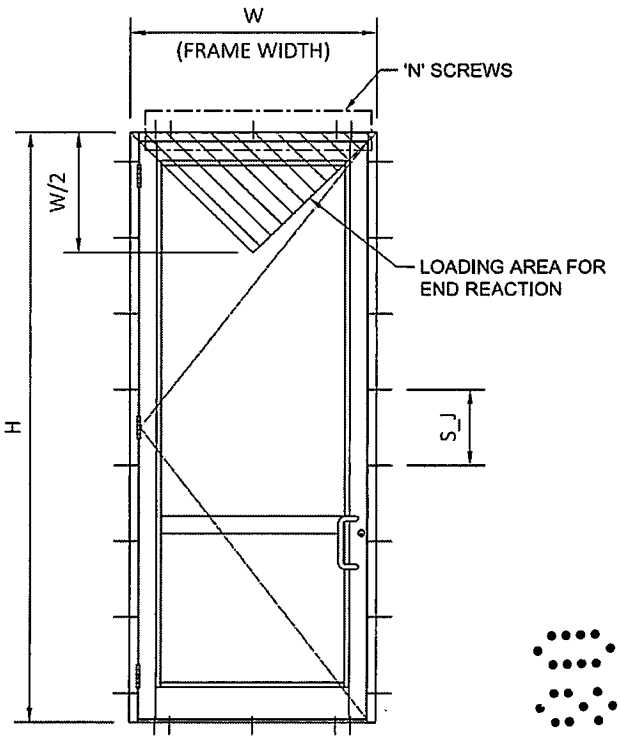
Va1	>	R1	==>	**O.K.**
Va1	NA	R2	==>	**NA**
Va2	>	R1	==>	**O.K.**
Va2	NA	R2	==>	**NA**
Va3	>	R3	==>	**O.K.**

Project: 17th and West
Address: 1220 17th Street

ANALYSIS OF ALUMINUM AND GLASS SWING DOOR SYSTEM

MIAMIBEACH
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CODE COMPLIANCE

SYSTEM SERIES: ES 9100
NOA #: 17-0802.15



Project Pressures:

Positive: 64.8 PSF
Negative: 86.8 PSF

Project Panel Dimensions:

Max Width W = 44.50 in
Max Height H = 119.75 in

Allowable Per NOA:

Allowable Size and Pressure based on Door Frame:

Allowable Width Wa = 50 in
Allowable Height Ha = 120 in

Positive Pamp = 120 PSF
Negative Pamn = 150 PSF
Reinforcement (Y/N): N
Reinforcement Type per NOA: NA

Allowable Size and Pressure based on Anchorage:

Allowable Width Wa = 50 in
Allowable Height Ha = 120 in

Positive Paap = 120 PSF
Negative Paan = 150 PSF
Anchor Type per NOA: B C

Maximum Allowable Pressures:

Positive Pmaxp =	120	PSF	>	64.8	PSF	==> **O.K.**
Negative Pmaxn =	150	PSF	>	86.8	PSF	==> **O.K.**

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ANALYSIS OF ALUMINUM AND GLASS SWING DOOR SYSTEM

MIAMI BEACH
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Anchorage Check:

Head:

Number of Fasteners at Head N = 3

Sill:

Number of Fasteners at Sill N = 2

Jambs:

Spacing of Jamb Fasteners S_J = 12 in

Type of Loading (Trapezoidal or Rectangular) : Trapezoidal

Area for End Reaction (Am) = (1/2)*(W)*(W/2)) = 495.0625 in^2

Area for Jamb Screws (A_J) = (W/2)*(S_J) = 267 in^2

Max Load Per Fastener:

At Head Fasteners **R1h** = (Pdmax/144)*(Am)*(1/N) = 99.47089 lbs

At Sill Fasteners **R1s** = (Pdmax/144)*(Am)*(1/N) = 149.2063 lbs

At Jamb Fasteners **R3** = (Pdmax/144)*(A_J) = 160.9417 lbs

Allowable Loads per Fastener:

At Head Va1 = 383 lbs (See page A2)
At Sill Va2 = 390 lbs (See page A1)
At Jambs Va3 = 383 lbs (See page A2)

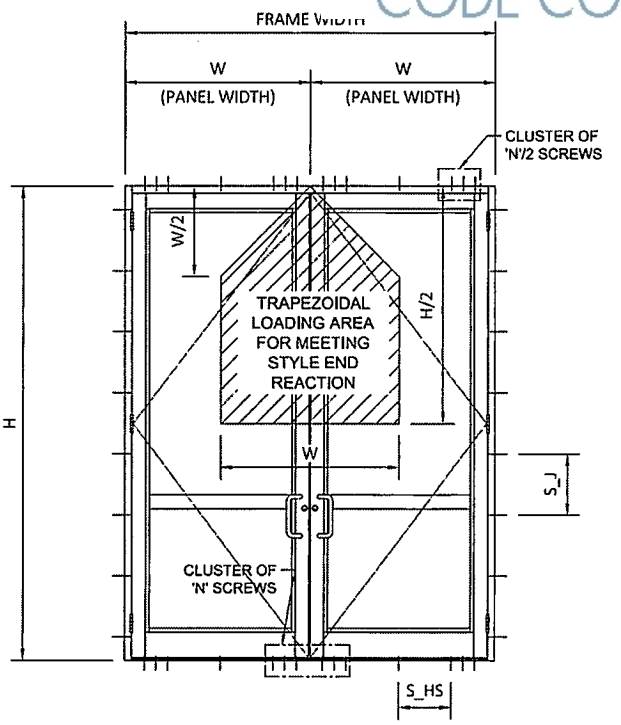
Va1 > R1h ==> **O.K.**
Va2 > R1s ==> **O.K.**
Va3 > R3 ==> **O.K.**

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Project: 17th and West
Address: 1220 17th Street
Miami Beach, Fl 33139

ANALYSIS OF ALUMINUM AND GLASS SWING DOOR SYSTEM

SYSTEM SERIES: ENV 350 OS DOOR SMI
NOA NO.: FL #20701.2



Project Pressures:

Positive:	64.8	PSF
Negative:	86.8	PSF

Project Panel Dimensions:

Max Frame Width FW =	71.75	in
Max Width W =	35.875	in
Max Height H =	119.75	in

Allowable Per NOA:

Panel Dimensions:

Allowable Width Wa =	99.5	in
Allowable Height Ha =	120	in

Allowable Pressure based on Frame/Mullions:

Positive Pamp =	72	PSF
Negative Pamn =	144	PSF
Reinforcement (Y/N):	N	
Reinforcement Type per NOA:	NA	

Panel Dimensions:

Allowable Width Wa =	99.5	in
Allowable Height Ha =	120	in

Allowable Pressure based on Anchorage:

Positive Paap =	109.5	PSF
Negative Paan =	109.5	PSF
Anchor Type per NOA:	A1.6, C.6	

Maximum Allowable Pressures:

Positive Pmaxp =	72	PSF	>	64.8	PSF	==> **O.K.**
Negative Pmaxn =	109.5	PSF	>	86.8	PSF	==> **O.K.**

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Project: 17th and West
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ANALYSIS OF ALUMINUM AND GLASS SWING DOOR SYSTEM

MIAMIBEACH
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Check Anchorage

Head and Sill:

Cluster of Fasteners at Mullion Ends N = 6

Spacing of Remaining Fasteners S_HS = 16 in

Jambs:

Spacing of Jamb Fasteners S_J = 9.5 in

Type of Loading (Trapezoidal or Rectangular) : Trapezoidal

Area for Mullion End Reaction Am = (W/2)*(H-(W/2)) = 1826.262 in^2

Area for Remaining H/S Screws A_HS = (W/2)*(S_HS) = 287 in^2

Area for Jamb Screws A_J = (W/2)*(S_J) = 170.4063 in^2

Max Load Per Fastener:

At Anchor Cluster R1 = (Pdmax/144)*Am*(1/N) = 183.4717 lbs

At Remaining Fasteners Head and Sill R2 = (Pdmax/144)*A_HS = 172.9972 lbs

At Jamb Fasteners R3 = (Pdmax/144)*A_J = 102.7171 lbs

Allowable Loads per Fastener:

At Head	Va1 =	748	lbs	(See page	A2)
At Sill	Va2 =	577.77	lbs	(See page	A1)
At Jambs	Va3 =	748	lbs	(See page	A2)

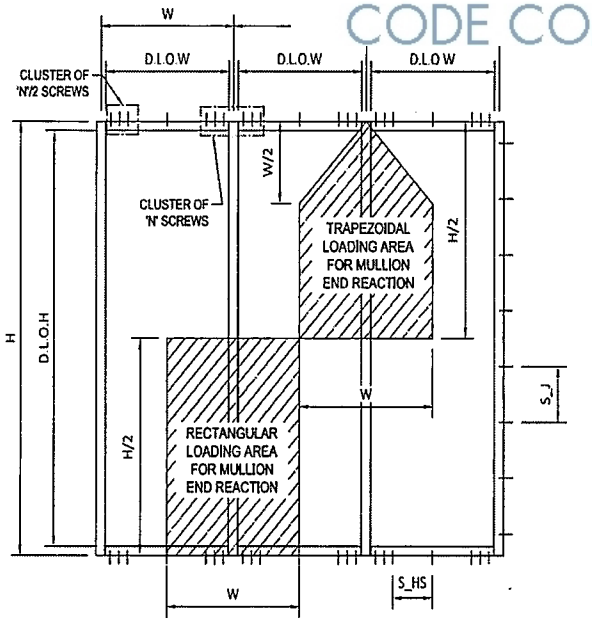
Va1	>	R1	==>	**O.K.**
Va1	>	R2	==>	**O.K.**
Va2	>	R1	==>	**O.K.**
Va2	>	R2	==>	**O.K.**
Va3	>	R3	==>	**O.K.**

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Project: 17th and West Avenue
Address: 1220 17th Street
Miami Beach, Fl 33139

ANALYSIS OF ALUMINUM AND
GLASS WINDOW WALL SYSTEM

SYSTEM SERIES: ES 7100
NOA NO.: 17-1218.09



Project Pressures:

Positive: 59.5 PSF
Negative: 65 PSF
(For Zone 4 Locations)

Project Panel Dimensions:

Max Width W = 48 in
Max Height H = 139 in

Project Glass Dimensions:

Glass Width DLOW = 42.125 in
Glass Height DLOH = 76.5 in

Allowable Per NOA:

Panel Dimensions:

Allowable Width Wa = 48 in
Allowable Height Ha = 144 in

Allowable Pressure based on Frame/Mullions:

Positive Pamp = 66.6 PSF
Negative Pamn = 66.6 PSF
Reinforcement (Y/N): N
Reinforcement Type per NOA: J1 M1

Glass Dimensions:

Allowable Glass Width Wag = 45.5 in
Allowable Glass Height Hag = 88 in

Allowable Pressure based on Glass:

Positive Pagp = 150 PSF
Negative Pagn = 150 PSF

Panel Dimensions:

Allowable Width Wa = 48 in
Allowable Height Ha = 144 in

Allowable Pressure based on Anchorage:

Positive Paap = 72 PSF
Negative Paan = 72 PSF
Anchor Type per NOA: A3

Maximum Allowable Pressures:

Positive Pmaxp =	66.6	PSF	>	59.5	PSF	==> **O.K.**
Negative Pmaxn =	66.6	PSF	>	65	PSF	==> **O.K.**

Project: 17th and West Avenue
Address: 1220 17th Street
Miami Beach, Fl 33139

ANALYSIS OF ALUMINUM AND
GLASS WINDOW WALL SYSTEM

MIAMI BEACH
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Check Anchorage:

Head and Sill:

Cluster of Fasteners at Mullion Ends N = 6
Spacing of Remaining Fasteners S_HS = NA in

Jambs:

Spacing of Jamb Fasteners S_J = NA in

Type of Loading (Trapezoidal or Rectangular) : Rectangular

Area for Mullion End Reaction Am = W*H/2 = 3336 in^2

Area for Remaining H/S Screws A_HS = (W/2)*(S_HS) = NA in^2

Area for Jamb Screws A_J = (W/2)*(S_J) = NA in^2

Max Load Per Fastener:

At Anchor Cluster R1 = (Pdmax/144)*Am*(1/N) = 250.9722 lbs

At Remaining Fasteners Head and Sill R2 = (Pdmax/144)*A_HS = NA lbs

At Jamb Fasteners R3 = (Pdmax/144)*A_J = NA lbs

Allowable Loads per Fastener:

At Head Va1 = 344.24 lbs (See page A1)
At Sill Va2 = 344.24 lbs (See page A1)
At Jambs Va3 = NA lbs (See page NA)

Va1	>	R1	==>	**O.K.**
Va1	NA	R2	==>	**NA**
Va2	>	R1	==>	**O.K.**
Va2	NA	R2	==>	**NA**
Va3	NA	R3	==>	**NA**

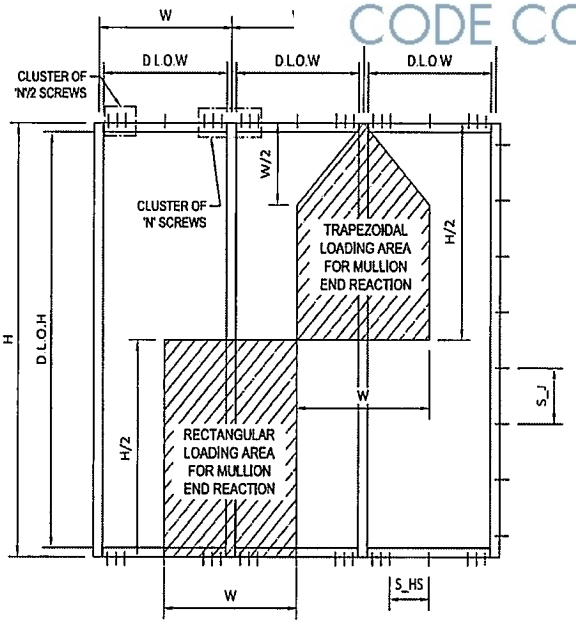
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Project: 17th and West Avenue
Address: 1220 17th Street
Miami Beach, Fl 33139

ANALYSIS OF ALUMINUM AND
GLASS WINDOW WALL SYSTEM

SYSTEM SERIES: ES 7100
NOA NO.: 17-1218.09



Project Pressures:

Positive: 64.8 PSF
Negative: 86.8 PSF
(For Zone 5 Locations)

Project Panel Dimensions:

Max Width W = 48 in
Max Height H = 139 in

Project Glass Dimensions:

Glass Width DLOW = 42.125 in
Glass Height DLOH = 76.5 in

Allowable Per NOA:

Panel Dimensions:

Allowable Width Wa = 48 in
Allowable Height Ha = 144 in

Allowable Pressure based on Frame/Mullions:

Positive Pamp = 101.7 PSF
Negative Pamn = 101.7 PSF
Reinforcement (Y/N): Y
Reinforcement Type per NOA: J2 M2

Glass Dimensions:

Allowable Glass Width Wag = 45.5 in
Allowable Glass Height Hag = 88 in

Allowable Pressure based on Glass:

Positive Pagp = 150 PSF
Negative Pagn = 150 PSF

Panel Dimensions:

Allowable Width Wa = 48 in
Allowable Height Ha = 144 in

Allowable Pressure based on Anchorage:

Positive Paap = 96 PSF
Negative Paan = 96 PSF
Anchor Type per NOA: A4

Maximum Allowable Pressures:

Positive Pmaxp =	96	PSF	>	64.8	PSF ==>	**O.K.**
Negative Pmaxn =	96	PSF	>	86.8	PSF ==>	**O.K.**

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Check Anchorage:

Head and Sill:

Cluster of Fasteners at Mullion Ends N = 8

Spacing of Remaining Fasteners S_HS = NA in

Jambs:

Spacing of Jamb Fasteners S_J = NA in

Type of Loading (Trapezoidal or Rectangular) : Rectangular

Area for Mullion End Reaction Am = W*H/2 = 3336 in^2

Area for Remaining H/S Screws A_HS = (W/2)*(S_HS) = NA in^2

Area for Jamb Screws A_J = (W/2)*(S_J) = NA in^2

Max Load Per Fastener:

At Anchor Cluster R1 = (Pdmax/144)*Am*(1/N) = 251.3583 lbs

At Remaining Fasteners Head and Sill R2 = (Pdmax/144)*A_HS = NA lbs

At Jamb Fasteners R3 = (Pdmax/144)*A_J = NA lbs

Allowable Loads per Fastener:

At Head Va1 = 344.24 lbs (See page A1)

At Sill Va2 = 344.24 lbs (See page A1)

At Jambs Va3 = NA lbs (See page NA)

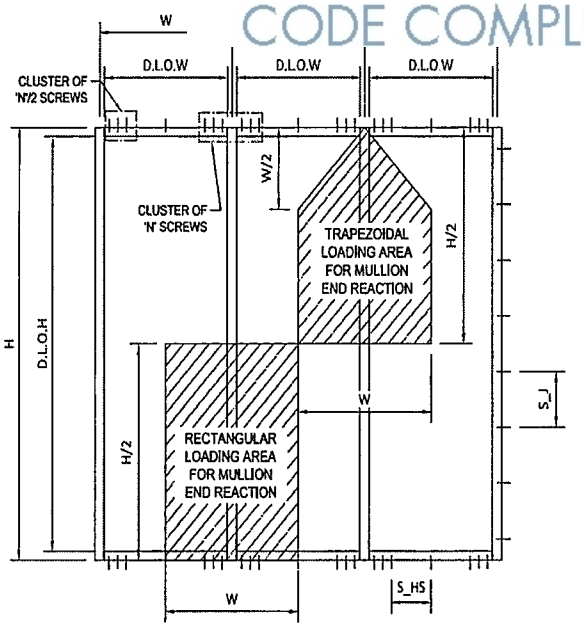
Va1	>	R1	==>	**O.K.**
Va1	NA	R2	==>	**NA**
Va2	>	R1	==>	**O.K.**
Va2	NA	R2	==>	**NA**
Va3	NA	R3	==>	**NA**

MIAMI BEACH
REVIEWED FOR
CODE COMPLIANCE

Project: 17th and West Avenue
Address: 1220 17th Street
Miami Beach, Fl 33139

ANALYSIS OF ALUMINUM AND
GLASS WINDOW WALL SYSTEM

SYSTEM SERIES: ES 7100
NOA NO.: 17-1218.09
For Zone 4 Locations - WW Mullion/SGD or HR



Project Pressures:

Positive:	59.5	PSF
Negative:	65	PSF
(For Zone 4)		

Project Panel Dimensions:

Max Width W =	60.75	in
Max Height H =	139	in

Project Glass Dimensions:

Glass Width DLOW =	47.25	in
Glass Height DLOH =	76.5	in

Allowable Per NOA:

Panel Dimensions:

Allowable Width Wa =	60.75	in
Allowable Height Ha =	139	in

Allowable Pressure based on Frame/Mullions:

Positive Pamp =	83.2	PSF
Negative Pamn =	83.2	PSF
Reinforcement (Y/N):	Y	
Reinforcement Type per NOA:	J2 M2	

(See Comparative Analysis Calculations)

Glass Dimensions:

Allowable Glass Width Wag =	48	in
Allowable Glass Height Hag =	88	in

Allowable Pressure based on Glass:

Positive Pagp =	145.7	PSF
Negative Pagn =	145.7	PSF

Panel Dimensions:

Allowable Width Wa =	60.75	in
Allowable Height Ha =	139	in

Allowable Pressure based on Anchorage:

Positive Paap =	83.2	PSF
Negative Paan =	83.2	PSF
Anchor Type per NOA:	A4	

Maximum Allowable Pressures:

Positive Pmaxp =	83.2	PSF	>	59.5	PSF ==>	**O.K.**
Negative Pmaxn =	83.2	PSF	>	65	PSF ==>	**O.K.**

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Check Anchorage:

Head and Sill:

Cluster of Fasteners at Mullion Ends N = 8

Spacing of Remaining Fasteners S_HS = NA in

Jambs:

Spacing of Jamb Fasteners S_J = NA in

Type of Loading (Trapezoidal or Rectangular) : Rectangular

Area for Mullion End Reaction Am = W*H/2 = 4222.125 in^2

Area for Remaining H/S Screws A_HS = (W/2)*(S_HS) = NA in^2

Area for Jamb Screws A_J = (W/2)*(S_J) = NA in^2

Max Load Per Fastener:

At Anchor Cluster R1 = (Pdmax/144)*Am*(1/N) = 238.2275 lbs

At Remaining Fasteners Head and Sill R2 = (Pdmax/144)*A_HS = NA lbs

At Jamb Fasteners R3 = (Pdmax/144)*A_J = NA lbs

Allowable Loads per Fastener:

At Head	Va1 =	344.24	lbs	(See page	A1)
At Sill	Va2 =	344.24	lbs	(See page	A1)
At Jambs	Va3 =	NA	lbs	(See page	NA)

Va1	>	R1	==>	**O.K.**
Va1	NA	R2	==>	**NA**
Va2	>	R1	==>	**O.K.**
Va2	NA	R2	==>	**NA**
Va3	NA	R3	==>	**NA**

MIAMI BEACH
REVIEWED FOR
CODE COMPLIANCE

Project Name: 17th and West
Project Address: 1220 17th Street

Comparative Analysis for Oversized Glass Panel per 2014 FBC S (Rectangular Loading)

Mark: **Window Wall and SGD/HR Mullion (at Zone 4 Locations)**
NOA No.: **17-1218.09**

1. Tested Unit Values (from NOA):

Test Unit Span, L1 =	**144**	in
Test Unit Width, w1 =	**48**	in
Test Unit Area, A1 =	6912	in^2
Test Unit Design Pressure, P1(+) =	**101.7**	psf
Test Unit Design Pressure, P1(-) =	**-101.7**	psf
Test Unit Coefficient, K1 = w/2L =	0.167	
Test Unit Moment Coeff., Kf1 =	6.92	
Test Unit Deflection Coeff., Kd1 =	66.5	

Moment & Deflection Coefficients Values:
K = w/2L

K	Kd	Kf
0	76.8	8.00
0.1	70.1	7.30
0.2	65.5	6.80
0.3	62.4	6.37
0.4	60.6	6.10
0.5	60.0	6.00

2. New (compared) Unit Values:

Compared Unit Span, L2 =	**139**	in
Compared Unit Width, w2 =	**60.75**	in
Compared Unit Area, A2 =	8444.25	in^2
Compared Unit Coefficient, K2= w/2L =	0.219	
Compared Unit Moment Coeff., Kf2 =	6.67	
Compared Unit Deflection Coeff., Kd2 =	64.47	

A. Fiber Stress Check:

P2(+) = (P1*A1*L1*Kf2)/(A2*L2*Kf1) =	83.16	psf
P2(-) = (P1*A1*L1*Kf2)/(A2*L2*Kf1) =	-83.16	psf

B. Deflection Check:

P2(+) = (P1*A1*$L1^2$*Kd2)/(A2*$L2^2$*Kd1) =	86.57	psf
P2(-) = (P1*A1*$L1^2$*Kd2)/(A2*$L2^2$*Kd1) =	-86.57	psf

C. Concentrated Load Check:

P2(+) = (P1*A1)/A2 =	83.25	psf
P2(-) = (P1*A1)/A2 =	-83.25	psf

Maximum Design Loads for Compared Unit:		
P2(+) =	**83.2**	**psf**
P2(-) =	**-83.2**	**psf**

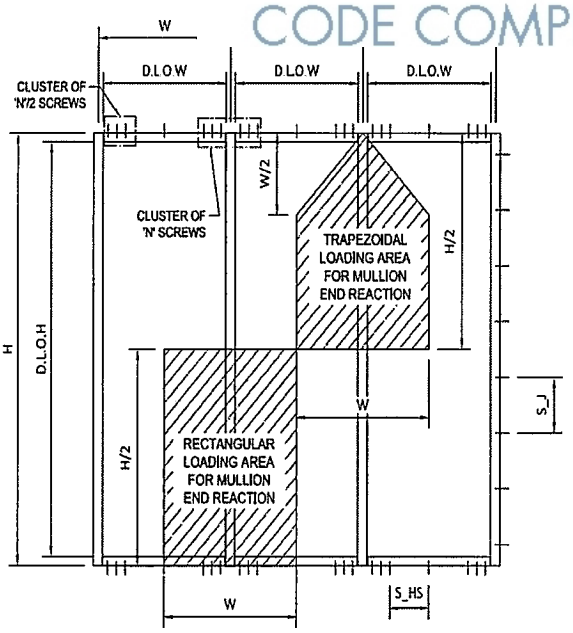
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Project: 17th and West Avenue
Address: 1220 17th Street
Miami Beach, Fl 33139

ANALYSIS OF ALUMINUM AND
GLASS WINDOW WALL SYSTEM

SYSTEM SERIES: ES 7100
NOA NO.: 17-1218.09
For Zone 5 Locations - WW Mullion/SGD or HR
Project Pressures:

Positive: 64.8 PSF
Negative: 86.8 PSF
(For Zone 5)



Project Panel Dimensions:

Max Width W = 64.1875 in
Max Height H = 139 in

Project Glass Dimensions:

Glass Width DLOW = 47.25 in
Glass Height DLOH = 76.5 in

Allowable Per NOA:

Panel Dimensions:

Allowable Width Wa = 64.1875 in
Allowable Height Ha = 139 in

Allowable Pressure based on Frame/Mullions:

Positive Pamp = 96 PSF
Negative Pamn = 107.5 PSF
Reinforcement (Y/N): Y
Reinforcement Type per NOA: J3 M3
(See Comparative Analysis Calculations)

Glass Dimensions:

Allowable Glass Width Wag = 48 in
Allowable Glass Height Hag = 88 in

Allowable Pressure based on Glass:

Positive Pagp = 145.7 PSF
Negative Pagn = 145.7 PSF

Panel Dimensions:

Allowable Width Wa = 64.1875 in
Allowable Height Ha = 139 in

Allowable Pressure based on Anchorage:

Positive Paap = 96 PSF
Negative Paan = 107.5 PSF
Anchor Type per NOA: A4

Maximum Allowable Pressures:

Positive Pmaxp =	96	PSF	>	64.8	PSF	==> **O.K.**
Negative Pmaxn =	107.5	PSF	>	86.8	PSF	==> **O.K.**

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Check Anchorage:

Head and Sill:

Cluster of Fasteners at Mullion Ends N = 8
Spacing of Remaining Fasteners S_HS = NA in

Jambs:

Spacing of Jamb Fasteners S_J = NA in

Type of Loading (Trapezoidal or Rectangular) : Rectangular

Area for Mullion End Reaction Am = W*H/2 = 4461.031 in^2

Area for Remaining H/S Screws A_HS = (W/2)*(S_HS) = NA in^2

Area for Jamb Screws A_J = (W/2)*(S_J) = NA in^2

Max Load Per Fastener:

At Anchor Cluster R1 = (Pdmax/144)*Am*(1/N) = 336.1263 lbs

At Remaining Fasteners Head and Sill R2 = (Pdmax/144)*A_HS = NA lbs

At Jamb Fasteners R3 = (Pdmax/144)*A_J = NA lbs

Allowable Loads per Fastener:

At Head Va1 = 344.24 lbs (See page A1)
At Sill Va2 = 344.24 lbs (See page A1)
At Jambs Va3 = NA lbs (See page NA)

Va1	>	R1	==>	**O.K.**
Va1	NA	R2	==>	**NA**
Va2	>	R1	==>	**O.K.**
Va2	NA	R2	==>	**NA**
Va3	NA	R3	==>	**NA**

MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE

Project Name: 17th and West
Project Address: 1220 17th Street

Comparative Analysis for Oversized Glass Panel per 2014 FBC S (Rectangular Loading)

Mark: **Window Wall and SGD/HR Mullion (at Zone 5 Locations)**
NOA No.: **17-1218.09**

1. Tested Unit Values (from NOA):

Test Unit Span, L1 =	**144**	in
Test Unit Width, w1 =	**48**	in
Test Unit Area, A1 =	6912	in^2
Test Unit Design Pressure, P1(+) =	**125.0**	psf
Test Unit Design Pressure, P1(-) =	**-140.0**	psf
Test Unit Coefficient, K1 = w/2L =	0.167	
Test Unit Moment Coeff., Kf1 =	6.92	
Test Unit Deflection Coeff., Kd1 =	66.5	

Moment & Deflection Coefficients Values:
K = w/2L

K	Kd	Kf
0	76.8	8.00
0.1	70.1	7.30
0.2	65.5	6.80
0.3	62.4	6.37
0.4	60.6	6.10
0.5	60.0	6.00

2. New (compared) Unit Values:

Compared Unit Span, L2 =	**139**	in
Compared Unit Width, w2 =	**64.1875**	in
Compared Unit Area, A2 =	8922.0625	in^2
Compared Unit Coefficient, K2= w/2L =	0.231	
Compared Unit Moment Coeff., Kf2 =	6.62	
Compared Unit Deflection Coeff., Kd2 =	64.09	

A. Fiber Stress Check:

P2(+) = (P1*A1*L1*Kf2)/(A2*L2*Kf1) =	95.99	psf
P2(-) = (P1*A1*L1*Kf2)/(A2*L2*Kf1) =	-107.50	psf

B. Deflection Check:

P2(+) = (P1*A1*$L1^2$*Kd2)/(A2*$L2^2$*Kd1) =	100.12	psf
P2(-) = (P1*A1*$L1^2$*Kd2)/(A2*$L2^2$*Kd1) =	-112.13	psf

C. Concentrated Load Check:

P2(+) = (P1*A1)/A2 =	96.84	psf
P2(-) = (P1*A1)/A2 =	-108.46	psf

Maximum Design Loads for Compared Unit:		
P2(+) =	**96.0**	**psf**
P2(-) =	**-107.5**	**psf**

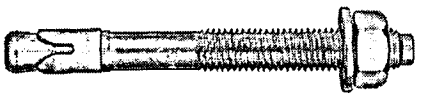
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Specifier's comments: Window Wall Jamb Clip

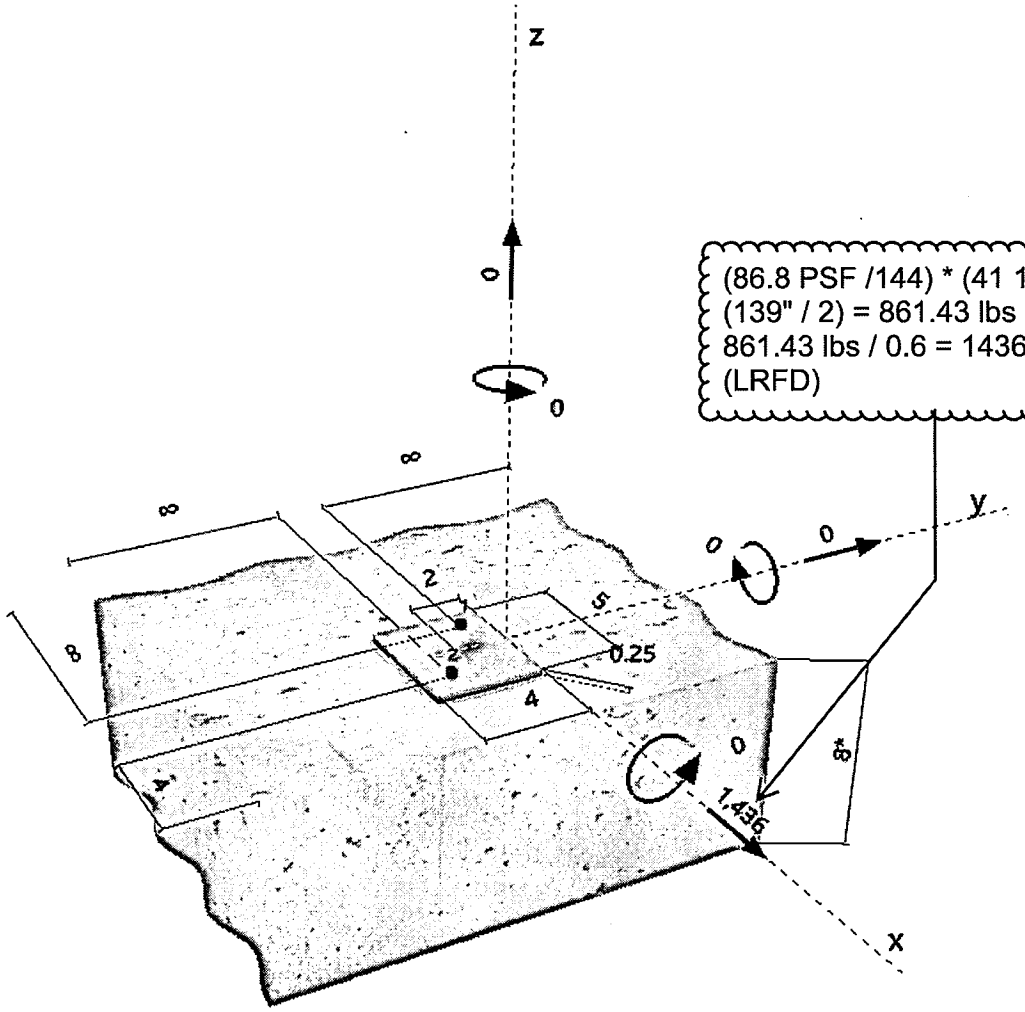
1 Input data



SAFESET

Anchor type and diameter:	**Kwik Bolt 3 - CS 3/8 (2)**
Effective embedment depth:	h_{ef} = 2.000 in., h_{nom} = 2.313 in.
Material:	Carbon Steel
Evaluation Service Report:	ESR-2302
Issued I Valid:	12/1/2015 | 12/1/2017
Proof:	Design method ACI 318 / AC193
Stand-off installation:	e_b = 0.000 in. (no stand-off); t = 0.250 in.
Anchor plate:	l_x x l_y x t = 5.000 in. x 4.000 in. x 0.250 in.; (Recommended plate thickness: not calculated
Profile:	no profile
Base material:	uncracked concrete, 7000, f_c' = 7,000 psi; h = 8.000 in.
Reinforcement:	tension: condition B, shear: condition B; no supplemental splitting reinforcement present edge reinforcement: none or < No. 4 bar
Seismic loads (cat. C, D, E, or F)	no

Geometry [in.] & Loading [lb, in.lb]



(86.8 PSF /144) * (41 1/8" / 2) * (139" / 2) = 861.43 lbs (ASD)
861.43 lbs / 0.6 = 1436 lbs (LRFD)

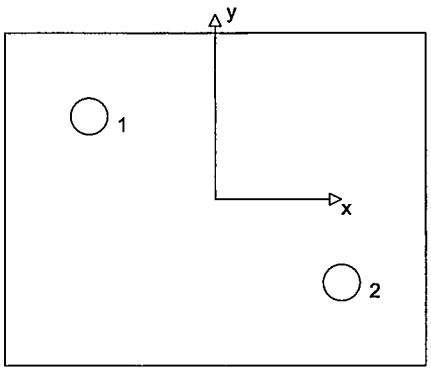
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Phone I Fax:	(954) 589-1729 |	Date:	6/6/2018
E-Mail:	mmorales@facadenvelope.com		

2 Load case/Resulting anchor forces

Load case: Design loads



Anchor reactions [lb]
Tension force: (+Tension, -Compression)

Anchor	Tension force	Shear force	Shear force x	Shear force y
1	0	1,336	1,160	663
2	0	718	276	-663

max. concrete compressive strain: - [‰]
max. concrete compressive stress: - [psi]
resulting tension force in (x/y)=(0.000/0.000): 0 [lb]
resulting compression force in (x/y)=(0.000/0.000): 0 [lb]

3 Tension load

	Load N_{ua} [lb]	Capacity ϕN_n [lb]	Utilization $\beta_N = N_{ua}/\phi N_n$	Status
Steel Strength*	N/A	N/A	N/A	N/A
Pullout Strength*	N/A	N/A	N/A	N/A
Concrete Breakout Strength**	N/A	N/A	N/A	N/A

* anchor having the highest loading **anchor group (anchors in tension)

Input data and results must be checked for agreement with the existing conditions and for plausibility!
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4 Shear load

	Load V_{ua} [lb]	Capacity ϕV_n [lb]	Utilization $\beta_V = V_{ua}/\phi V_n$	Status
Steel Strength*	1,336	2,905	46	OK
Steel failure (with lever arm)*	N/A	N/A	N/A	N/A
Pryout Strength*	1,336	3,313	41	OK
Concrete edge failure in direction x+**	1,582	3,930	41	OK

* anchor having the highest loading **anchor group (relevant anchors)

4.1 Steel Strength

V_{sa} = ESR value refer to ICC-ES ESR-2302
$\phi\ V_{steel} \geq V_{ua}$ ACI 318-08 Eq. (D-2)

Variables

$A_{se,V}$ [in.^{2}]	f_{uta} [psi]
0.06	106,000

Calculations

V_{sa} [lb]
4,470

Results

V_{sa} [lb]	ϕ_{steel}	$\phi\ V_{sa}$ [lb]	V_{ua} [lb]
4,470	0.650	2,905	1,336

4.2 Pryout Strength

$V_{cp} = k_{cp}\left[\left(\frac{A_{Nc}}{A_{Nc0}}\right)\psi_{ed,N}\,\psi_{c,N}\,\psi_{cp,N}\,N_b\right]$ ACI 318-08 Eq. (D-30)

$\phi\ V_{cp} \geq V_{ua}$ ACI 318-08 Eq. (D-2)

A_{Nc} see ACI 318-08, Part D.5.2.1, Fig. RD.5.2.1(b)

$A_{Nc0} = 9\ h_{ef}^2$ ACI 318-08 Eq. (D-6)

$\psi_{ec,N} = \left(\frac{1}{1+\frac{2\,e'_N}{3\,h_{ef}}}\right) \leq 1.0$ ACI 318-08 Eq. (D-9)

$\psi_{ed,N} = 0.7 + 0.3\left(\frac{c_{a,min}}{1.5h_{ef}}\right) \leq 1.0$ ACI 318-08 Eq. (D-11)

$\psi_{cp,N} = MAX\left(\frac{c_{a,min}}{c_{ac}}, \frac{1.5h_{ef}}{c_{ac}}\right) \leq 1.0$ ACI 318-08 Eq. (D-13)

$N_b = k_c\,\lambda\,\sqrt{f'_c}\,h_{ef}^{1.5}$ ACI 318-08 Eq. (D-7)

Variables

k_{cp}	h_{ef} [in.]	$e_{c1,N}$ [in.]	$e_{c2,N}$ [in.]	$c_{a,min}$ [in.]
1	2.000	0.000	0.000	4.000

$\psi_{c,N}$	c_{ac} [in.]	k_c	λ	f'_c [psi]
1.000	3.875	24	1	7,000

Calculations

A_{Nc} [in.^{2}]	A_{Nc0} [in.^{2}]	$\psi_{ec1,N}$	$\psi_{ec2,N}$	$\psi_{ed,N}$	$\psi_{cp,N}$	N_b [lb]
30.00	36.00	1.000	1.000	1.000	1.000	5,679

Results

V_{cp} [lb]	$\phi_{concrete}$	$\phi\ V_{cp}$ [lb]	V_{ua} [lb]
4,733	0.700	3,313	1,336

Input data and results must be checked for agreement with the existing conditions and for plausibility!
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4.3 Concrete edge failure in direction x+

$V_{cbg} = \left(\frac{A_{Vc}}{A_{Vc0}}\right) \Psi_{ec,V} \Psi_{ed,V} \Psi_{c,V} \Psi_{h,V} \Psi_{parallel,V} V_b$ ACI 318-08 Eq. (D-22)

$\phi V_{cbg} \geq V_{ua}$ ACI 318-08 Eq. (D-2)

A_{Vc} see ACI 318-08, Part D.6.2.1, Fig. RD.6.2.1(b)

$A_{Vc0} = 4.5 c_{a1}^2$ ACI 318-08 Eq. (D-23)

$\Psi_{ec,V} = \left(\frac{1}{1 + \frac{2e_v'}{3c_{a1}}}\right) \leq 1.0$ ACI 318-08 Eq. (D-26)

$\Psi_{ed,V} = 0.7 + 0.3\left(\frac{c_{a2}}{1.5c_{a1}}\right) \leq 1.0$ ACI 318-08 Eq. (D-28)

$\Psi_{h,V} = \sqrt{\frac{1.5c_{a1}}{h_a}} \geq 1.0$ ACI 318-08 Eq. (D-29)

$V_b = \left(7\left(\frac{l_e}{d_a}\right)^{0.2}\sqrt{d_a}\right) \lambda \sqrt{f_c'} c_{a1}^{1.5}$ ACI 318-08 Eq. (D-24)

Variables

c_{a1} [in.]	c_{a2} [in.]	e_{cV} [in.]	$\Psi_{c,V}$	h_a [in.]
4.000	-	0.000	1.400	8.000

l_e [in.]	λ	d_a [in.]	f_c' [psi]	$\Psi_{parallel,V}$
2.000	1.000	0.375	7,000	1.000

Calculations

A_{Vc} [in.^{2}]	A_{Vc0} [in.^{2}]	$\Psi_{ec,V}$	$\Psi_{ed,V}$	$\Psi_{h,V}$	V_b [lb]
72.00	72.00	1.000	1.000	1.000	4,010

Results

V_{cbg} [lb]	$\phi_{concrete}$	ϕV_{cbg} [lb]	V_{ua} [lb]
5,614	0.700	3,930	1,582

5 Warnings

- The anchor design methods in PROFIS Anchor require rigid anchor plates per current regulations (ETAG 001/Annex C, EOTA TR029, etc.). This means load re-distribution on the anchors due to elastic deformations of the anchor plate are not considered - the anchor plate is assumed to be sufficiently stiff, in order not to be deformed when subjected to the design loading. PROFIS Anchor calculates the minimum required anchor plate thickness with FEM to limit the stress of the anchor plate based on the assumptions explained above. The proof if the rigid base plate assumption is valid is not carried out by PROFIS Anchor. Input data and results must be checked for agreement with the existing conditions and for plausibility!
- Condition A applies when supplementary reinforcement is used. The Φ factor is increased for non-steel Design Strengths except Pullout Strength and Pryout strength. Condition B applies when supplementary reinforcement is not used and for Pullout Strength and Pryout Strength. Refer to your local standard.
- Refer to the manufacturer's product literature for cleaning and installation instructions.
- Checking the transfer of loads into the base material and the shear resistance are required in accordance with ACI 318 or the relevant standard!

Fastening meets the design criteria!

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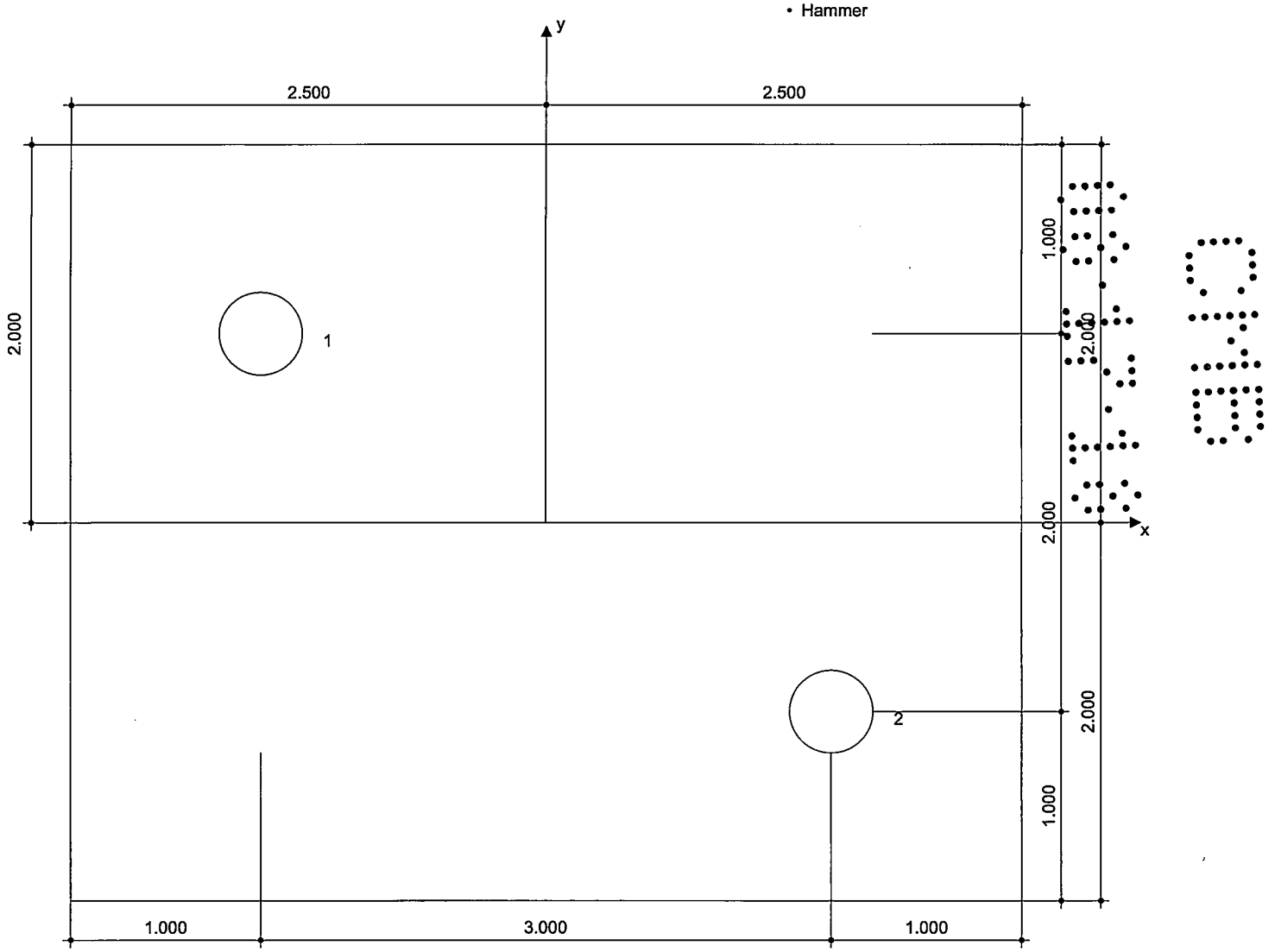
6 Installation data

Anchor plate, steel: -
Profile: no profile
Hole diameter in the fixture: d_f = 0.438 in.
Plate thickness (input): 0.250 in.
Recommended plate thickness: not calculated
Drilling method: Hammer drilled
Cleaning: Manual cleaning of the drilled hole according to instructions for use is required.

Anchor type and diameter: Kwik Bolt 3 - CS 3/8 (2)
Installation torque: 240.000 in.lb
Hole diameter in the base material: 0.375 in.
Hole depth in the base material: 2.625 in.
Minimum thickness of the base material: 5.000 in.

6.1 Recommended accessories

Drilling	Cleaning	Setting
• Suitable Rotary Hammer • Properly sized drill bit	• Manual blow-out pump	• Torque controlled cordless impact tool (Hilti Safeset System) • Torque wrench • Hammer



Coordinates Anchor in.

Anchor	x	y	c_{-x}	c_{+x}	c_{-y}	c_{+y}
1	-1.500	1.000	-	7.000	-	-
2	1.500	-1.000	-	4.000	-	-

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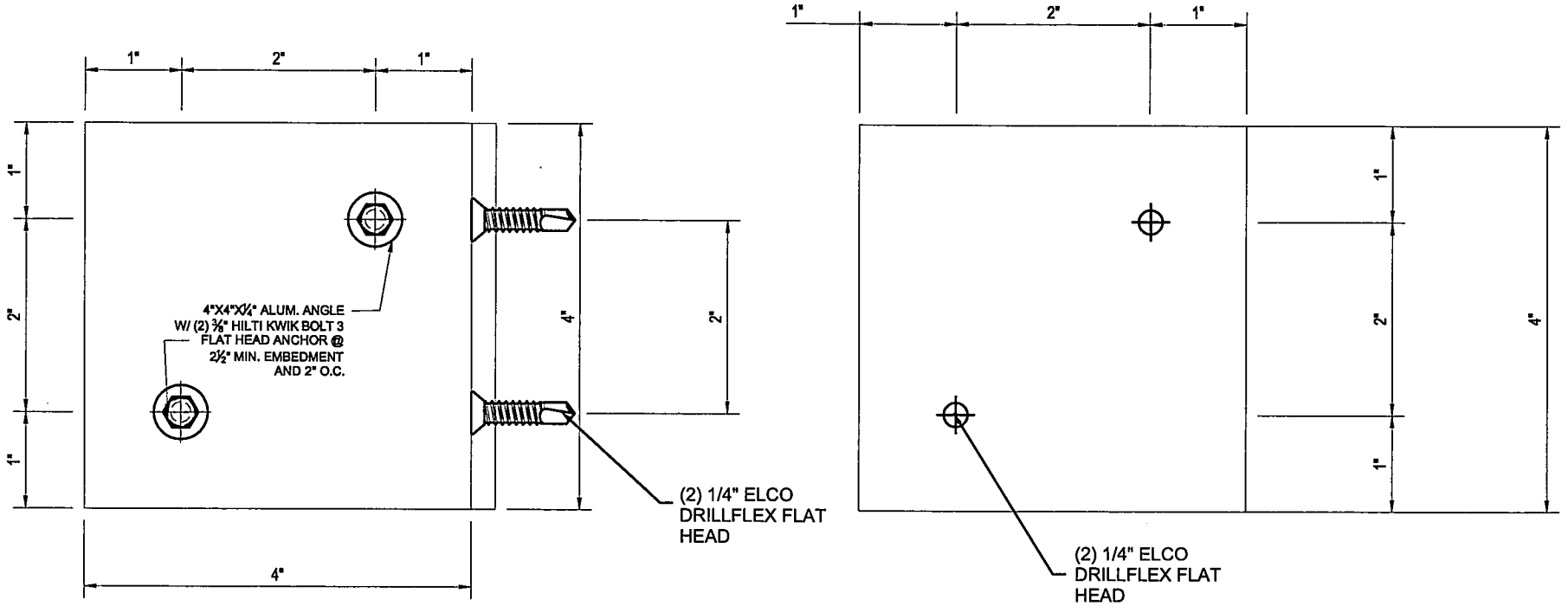
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Cbeam 2002

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Steel Beam Analysis ST-138

By: JJ

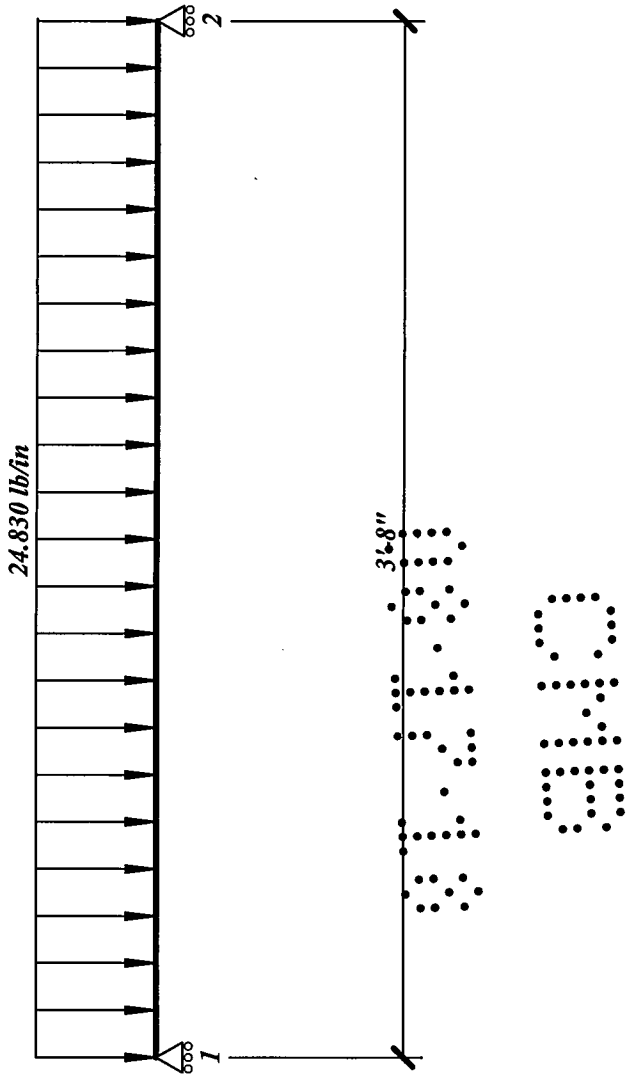
Beam Results			
Max. Span Deflection	=	-0.0032"	(Span 1, @ 22.00")
Max. Positive Moment	=	6009"#	(Span 1, @ 22.00")

Member Information				
Span	Length(in)	I(in^4)	S(in^3)	E(psi)
1	44.000	13.100	4.370	2.9e+007

Distributed Load Information				
Span	W1(#/in)	W2(#/in)	X1(in)	X2(in)
1	24.830	24.830	0.000	44.000

Support Reactions	
Joint	Pounds
1	546
2	546

CHECK BY DEFLECTION:
L/180 = 0.24444 in > 0.0032 in --> O.K.



Maximum distributed load value shown only, see distributed load table for detailed information.

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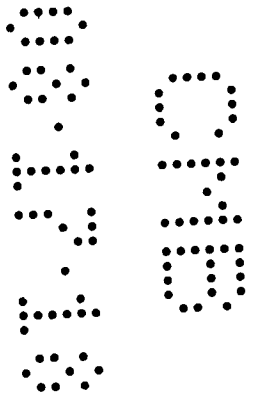
Cbeam 2002

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Span No. 1

	0.00L	0.10L	0.20L	0.30L	0.40L	0.50L	0.60L	0.70L	0.80L	0.90L	1.00L
Location	0.00	4.40	8.80	13.20	17.60	22.00	26.40	30.80	35.20	39.60	44.00
Shear	546.26	437.01	327.76	218.50	109.25	0.00	-109.25	-218.50	-327.76	-437.01	-546.26
Moment	-0.0	2163.2	3845.7	5047.4	5768.5	6008.9	5768.5	5047.4	3845.7	2163.2	0.0
Defl.	0.0000	-0.0010	-0.0019	-0.0026	-0.0030	-0.0032	-0.0030	-0.0026	-0.0019	-0.0010	0.0000
Stress	-0.0	495.0	880.0	1155.0	1320.0	1375.0	1320.0	1155.0	880.0	495.0	0.0

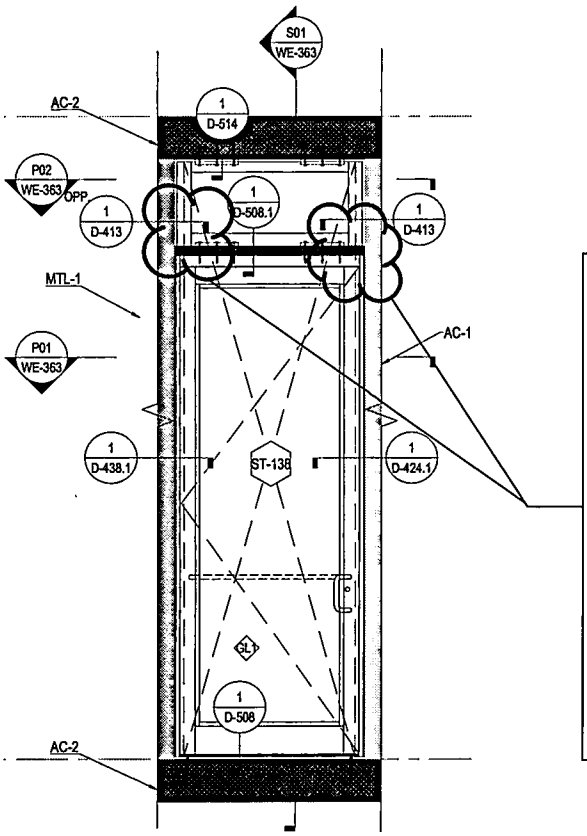
CHECK BY BENDING STRESS:
fbmax = 1,375.0 psi < 27,544.91 psi --> O.K. for A500 Steel

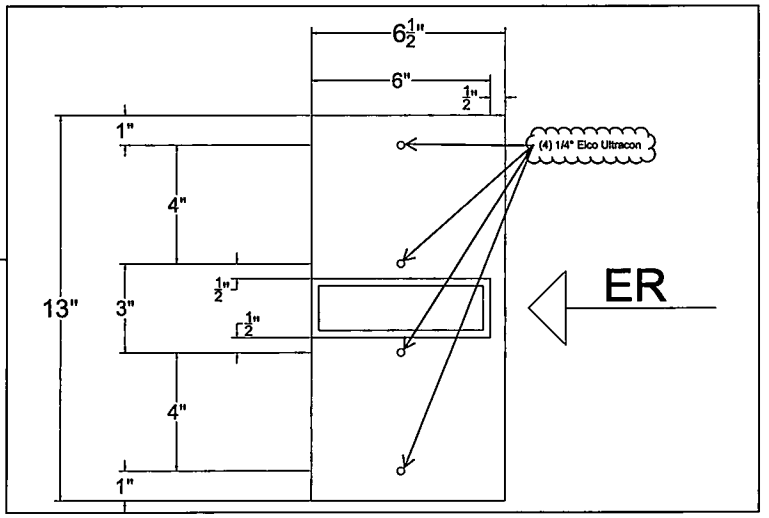


For questions on Cbeam, a Windows-based program, contact:
Architectural Wall Systems, Inc. at
Ph- (972) 552-9336 Fax- (972) 552-9608
Email: software@arcwallsys.com

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Base Plate into CMU Calculations for





- End Reaction (ER) = 546 lbs

Check Anchors:

- Anchor Type: (4) 1/4" Elco Ultracon w/ 1 3/4" min embedment & 2 1/2" min edge distance

- Reaction per Anchor: R = 546/4 = 136.5 lbs

- Anchor Allowable Shear Load: Va = 250 (See Elco Ultracon Screws into Grout Filled Blocks Data - A1)

- Va > R = 136.5 lbs ---> O.K.

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PROJECT: 17th & West Avenue
ADDRESS: Miami Beach, Florida
DATE: 06/20/2018

PREPARED BY: JJ
REVIEWED BY: MM

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3/16"Ø ULTRACON ALLOWABLE LOAD CAPACITIES:

	EDGE DISTANCE	SPACING		EMBEDMENT	TENSION (LB)	SHEAR (LB)
		INCHES	NUMBER OF DIAMETERS			
2,846 P.S.I. CONCRETE*	1"	1-1/8"	6d	1-3/4"	270	120
		2-1/4"	12d	1-3/4"	270	195
		3"	16d	1"	105	155
				1-3/8"	185	195
		3-9/16"	19d	1-3/4"	270	195
	2-1/2"	1-1/8"	6d	1-3/4"	315	175
		2-1/4"	12d	1-3/4"	315	175
		3"	16d	1"	110	155
				1-3/8"	185	195
		3-9/16"	19d	1-3/4"	315	195
GROUT FILLED BLOCK	2-1/2"	3-9/16"	16d	1-3/4"	175	135
		4-1/2"	24d	2-1/4"	220	195
HOLLOW BLOCK	1"	6"	32d	1-1/4"	80	105
	2-1/2"	1-1/8"	6d		85	75
		2-1/4"	12d		85	115
		6"	32d		85	115

NOTE:
*ULTRACON ALLOWABLE LOAD CAPACITIES LISTED HEREIN ARE NOT VALID FOR CRACKED CONCRETE SUBSTRATES.

5/16"Ø ULTRACON ALLOWABLE LOAD CAPACITIES:

	EDGE DISTANCE	SPACING		EMBEDMENT**	TENSION (LB)	SHEAR (LB)
		INCHES	NUMBER OF DIAMETERS			
3,515 P.S.I. CONCRETE*†	1-1/4"	1-7/8"	6d	2"	205	120
		3-3/4"	12d	2"	290	120
		5"	16d	1"	180	215
				1-3/4"	525	330
	2-3/16"	5"	16d	1"	205	370
				1-3/4"	600	785
	3-1/8"	1-7/8"	6d	2"	300	120
		3-3/4"	12d	2"	455	710
		5"	16d	1"	210	450
				1-3/4"	660	850
				2"	835	850
GROUT FILLED BLOCK	2-1/2"	5"	16d	1-3/4"	230	370
				2-1/4"	290	375
HOLLOW BLOCK	1-9/16"	6"	20d	1-1/4"	130	140
	3-1/8"	1-7/8"	6d		130	175
		3-3/4"	12d		140	175
		6"	20d		225	290

FROM ULTRACON TABLE (N.O.A - 15-022.08): INTERPOLATE
Reduction due to spacing: 5-3.75 / 785-655.48 = 3.75-3 / 655.48 -Vallow
For 5/16" diam. Ultracon w/ 2 3/16" Edge dist. And 3 " spacing w/ 1 3/4" Min. Emb.
Vallow = 577.77 lbs

~~HOLLOW BLOCK APPLICATIONS SHALL NOT BE USED IN CONJUNCTION WITH ANY WOOD BUCKS.~~

1/4"Ø ULTRACON ALLOWABLE LOAD CAPACITIES:

	EDGE DISTANCE	SPACING		EMBEDMENT**	TENSION (LB)	SHEAR (LB)
		INCHES	NUMBER OF DIAMETERS			
2,846 P.S.I. CONCRETE*	1"	1-1/2"	6d	1-3/4"	345	120
		3"	12d	1-3/4"	345	170
		4"	16d	1"	150	155
				1-3/8"	290	225
				1-3/4"	460	225
	2-1/2"	1-1/2"	6d	1-3/4"	455	315
		3"	12d	1-3/4"	465	390
		4"	16d	1"	200	265
				1-3/8"	375	395
				1-3/4"	475	445
2,730 P.S.I CONCRETE*†	2-1/2"	4"	16d	1-3/4"	-	315
GROUT FILLED BLOCK	2-1/2"	4"	16d	1-3/4"	230	250
		4-1/2"	18d	2-1/4"	410	250
HOLLOW BLOCK	1"	6"	24d	1-1/4"	140	140
	2-1/2"	1-1/2"	6d		140	100
		3"	12d		140	150
		6"	24d		140	295

NOTE:
~~HOLLOW BLOCK APPLICATIONS SHALL NOT BE USED IN CONJUNCTION WITH ANY WOOD BUCKS.~~
~~CONCRETE, GROUT FILLED BLOCK OR~~
HOLLOW BLOCK. EMBEDMENT DEPTH DOES NOT INCLUDE THE THICKNESS OF ANY WOOD BUCKS.

Reduction due to edge distance: 170 + (((2 3/16 - 1)*(390-170))/(2 1/2 - 1)) = 344.24 lbs
For 1/4" Diam. Ultracon w/ 2 3/16" Edge dist. and 3 3/4" spacing.
Vallow = 344.24 lb

Reduction due to spacing: 315 + (((2 1/2 - 1 1/2)*(390-315))/(3 - 1 1/2)) = 365 lbs
For 1/4" Diam. Ultracon w/ 2 1/2" Edge dist. and 2 1/2" spacing.
Vallow = 365 lb

ULTRACON HEAD DIMENSIONS:

HEAD STYLE	HEAD DIAMETER
3/16" PFH	0.363"
3/16" PPH	0.365"
1/4" PFH	0.480"
1/4" TRIMFIT	0.414"
5/16" PFH	0.543"
5/16" LDFH	0.695"
5/16" TRIMFIT	0.414"

HEX WASHER HEAD (HWH) DIMENSIONS:

HEAD STYLE	ACROSS FLAT	WASHER DIAMETER
3/16" HWH	1/4"	0.355"
1/4" HFH	5/16"	0.625"
1/4" HWH	5/16"	0.415"
1/4" 300 SS CAP HWH	5/16"	0.580"

DRILL BIT SCHEDULE:

SCREW-ANCHOR DIAMETER	DRILL BIT
3/16"	5/32" DIAMETER ELCO ULTRACON BIT
1/4"	3/16" DIAMETER ELCO ULTRACON BIT
5/16"	1/4" DIAMETER ELCO ULTRACON BIT

1. INSTALLATION SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS MIAMI-DADE COUNTY, FLORIDA P.E.R.A. NOTICE OF ACCEPTANCE.
2. DRILL HOLES AT LEAST ¼" DEEPER THAN ULTRACON EMBEDMENT.
3. CLEAN HOLES OR DEBRIS AND DUST BEFORE INSTALLATION OF ANCHOR.
4. ANCHORS SHALL NOT BE INSTALLED BEFORE THE CONCRETE HAS DEVELOPED ITS DESIGN STRENGTH.
5. ANCHORS SHALL NOT BE INSTALLED IN CRACKED CONCRETE SUBSTRATES, AS DEFINED IN ACI 355.2.

PRODUCT RENEWED as complying with the Florida Building Code
Miami-Dade Approval No 11-0406.01
Miami-Dade Expiration Date 01/08/2016
Miami-Dade Product Control

ENGINEERING EXPRESS, INC.
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 Fax: (954) 354-0943
WWW.ENGEXP.COM
CERT OF AUTH #8665
A. FRANK L. BENARDO, P.E., INC. INNOVATION

STATE OF FLORIDA PROFESSIONAL ENGINEER

01/30/2012

ELCO CONSTRUCTION PRODUCTS, DIV. OF INFASTECH
1304 KERR DRIVE
DECORAH, IA 52101

ULTRACON CONCRETE ANCHORS
MIAMI-DADE NOTICE OF ACCEPTANCE

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CSL	KL	03/07/11
REV. PER BMC	CSL	KL	10/20/11
REV. FOR 2010 FBC	CSL	KL	11/10/11
ADDITIONAL HEAD STYLE	KL	FLB	01/18/12
ADDL REVIEWER COMMENTS	KL	FLB	01/30/12

11-ECP-0001
SCALE: 1:04
PAGE DESCRIPTION:
3
34 3

F:\01 Project Files\Elco Construction Products-Infastech (ECP)\2011\11-ECP-0001 Ultracon Concrete Anchor (NOA)\05 Addtional Review\11-ECP-0001_05a Ultracon Concrete Anchor (NOA).dwg
01/30/2012 - 2:34pm kathy

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CODE COMPLIANCE

SAE Grade 2 Steel for Diameters up thru 9/16" (UNC Threads)

Nominal Fastener Diameter & Threads per Inch	D Nominal Thread Diameter (in)	A(S) Tensile Stress Area (in^2)	A(R) Thread Root Area (in^2)	Allowable Tension (lbs)	Allowable Shear		Allowable Bearing (lbs)			Minimum Material Th to Equal Tensile C Fastener			Maximum Tensile Load (lbs) for Available 3/8" Plate Thickness		
					Single (lbs)	Double (lbs)	1/8" Steel A36	1/8" Aluminum 6063-T5	1/8" Aluminum 6063-T6	A36	6063-T5	6063-T6	3/8" Steel A36	3/8" Aluminum 6063-T5	3/8" Aluminum 6063-T6
#6-32	0.1380	0.0091	0.0078	224	111	222	900	253	345	0.0988	0.2005	0.1522	224	224	224
#8-32	0.1640	0.0140	0.0124	346	177	353	1,070	301	410	0.1282	0.2487	0.1900	346	346	346
#10-24	0.1900	0.0175	0.0151	432	216	431	1,240	348	475	0.1385	0.2524	0.1951	432	432	432
#12-24	0.2160	0.0242	0.0214	596	304	608	1,409	396	540	0.1679	0.3044	0.2274	596	596	596
1/4-20	0.2500	0.0318	0.0280	785	398	796	1,631	458	625	0.1911	0.3404	0.2497	785	785	785
5/16-18	0.3125	0.0524	0.0469	1,552	801	1,603	2,039	573	781	0.2507	> 3/8"	0.3276	1,552	1,303	1,552
3/8-16	0.3750	0.0775	0.0699	2,294	1,194	2,389	2,447	688	938	0.2742	> 3/8"	> 3/8"	2,294	1,572	2,144
7/16-14	0.4375	0.1063	0.0961	3,147	1,643	3,286	2,855	802	1,094	0.2945	> 3/8"	> 3/8"	3,147	1,873	2,554
1/2-13	0.5000	0.1419	0.1292	4,200	2,208	4,417	3,263	917	1,250	0.3183	> 3/8"	> 3/8"	4,200	2,140	2,918
9/16-12	0.5625	0.1819	0.1664	5,386	2,843	5,687	3,670	1,031	1,406	0.3511	> 3/8"	> 3/8"	5,386	2,444	3,333

SAE Grade 2 Steel (Spaced Threads)

Nominal Fastener Diameter & Threads per Inch	D Nominal Thread Diameter (in)	K Basic Minor Diameter (in)	A(R) Thread Root Area (in^2)	Allowable Tension (lbs)	Allowable Shear		Allowable Bearing (lbs)			Minimum Material Thickness (lbs) to Equal Tensile Capacity of Fastener (in)			Maximum Tensile Load (lbs) for Available 3/8" Plate Thickness		
					Single (lbs)	Double (lbs)	1/8" Steel A36	1/8" Aluminum 6063-T5	1/8" Aluminum 6063-T6	A36	6063-T5	6063-T6	3/8" Steel A36	3/8" Aluminum 6063-T5	3/8" Aluminum 6063-T6
#6-20	0.1380	0.0990	0.0077	190	110	219	900	253	345	0.1191	0.1418	0.1191	190	190	190
#8-18	0.1640	0.1160	0.0106	261	151	301	1,070	301	410	0.1437	0.1611	0.1437	261	261	261
#10-16	0.1900	0.1350	0.0143	353	204	408	1,240	348	475	0.1401	0.1852	0.1516	353	353	353
#12-14	0.2160	0.1570	0.0194	478	276	551	1,409	396	540	0.1820	0.2166	0.1820	478	478	478
1/4-14	0.2500	0.1850	0.0269	663	383	766	1,631	458	625	0.1797	0.2418	0.1967	663	663	663
5/16-12	0.3125	0.2360	0.0437	1,295	748	1,495	2,039	573	781	0.2428	0.3026	0.2453	1,295	1,295	1,295
3/8-12	0.3750	0.2990	0.0702	2,078	1,200	2,400	2,447	688	938	0.2811	> 3/8"	0.2969	2,078	2,017	2,078

	SAE Grade 2 (≤ 9/16")
F_U (Min. Ultimate Tensile Strength)	74,000 psi
F_T (Allow. Tensile Stress, D≤1/4")	24,667 psi
F_T (Allow. Tensile Stress; D> 1/4")	29,600 psi
F_V (Allowable Shear Strass; D≤1/4")	14,241 psi
F_V (Allowable Shear Strass; D>1/4")	17,090 psi

For All Diameters	Effective Area (UNC Threads)	Effective Area (Spaced Threads)
$F_T = F_U / SF$	$A(R) = \pi (D-1.2269/N)^2 / 4$	$A(R) = \pi K^2/4$
Allowable Tension = $F_T[A(S)]$	$A(S) = \pi (D-0.9743/N)^2 / 4$	$A(S) = \pi K^2/4$
$F_V = Fu / (SF \times sq\ rt\ (3))$		
Allowable Single Shear = $F_V[A(R)]$		

NOTE 4:

1. *Values are taken from AISC, ASTM, IFI, SAE and AA documents. K values for spaced threads are taken as the minimum values in IFI Fastener Handbook, 8th Ed.*
2. *Safety Factor used for fasteners with diameters 1/4" or less is 3.0, Safety Factor used for fasteners with diameters 5/16" or greater is 2.5.*

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3.3.15.2 Material specifications

Carbon Steel with KWIK Cote[1]

Screws manufactured from 1018 to 1022 cold rolled steel case hardened to HRC 45 minimum
Minimum tensile strength and yield strength for the 1/4-in. is 138 ksi and 127 ksi, respectively. Minimum tensile strength and yield strength for the 3/8-in. is 138 ksi and 127 ksi, respectively.

KWIK Cote corrosion resistant coating

KWIK Cote is a zinc-rich basecoat with an aluminum-rich topcoat.

AISI Type 410 stainless steel[1]

Screws manufactured from AISI Type 410 stainless steel. Minimum tensile strength and yield strength for the 1/4-in. is 184ksi and 157 ksi, respectively. Minimum tensile strength and yield strength for the 3/8-in. is 194 ksi and 170 ksi, respectively.

Head Styles

Tapered flat head with #3 Phillips recess for 3/16- and 1/4-in. anchors.
Tapered flat head with T-25 TORX recess for 3/16-in. anchor.
Tapered flat head with T-27 TORX recess for 1/4-in. anchor.
5/16-in. hex washer with internal T-25 TORX recess for 3/16- and 1/4-in. anchors.



Head diameter

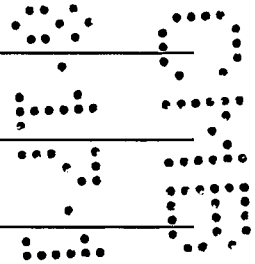
Maximum 0.507 in. for 3/16- and 1/4-in. tapered Phillips flat head and 1/4-in. tapered T-27 TORX flat head anchors.
Maximum 0.385 in. for 3/16-in. tapered T-25 TORX flat head anchor.
Maximum 0.432 in. maximum for 3/16- and 1/4-in. T-25 TORX hex washer head anchors.

Thread diameter

Nominal 3/16-in., Major dia. is 0.217 inches, Minor[2] is 0.145 inches.

Shank diameter

Nominal 3/16-in. is 0.170 inches.
Nominal 1/4-in. is 0.224 inches.



Lengths (in.)

1-1/4, 1-3/4, 2-1/4, 2-3/4, 3-1/4, 3-3/4, 4 (See ordering information section).

Thread design

Trilobular, cold formed.

Threads per inch

Nominal 3/16-in. have 8 tpi.
Nominal 1/4-in. have 8 tpi.

Inches of thread per fastener

1.875 inches maximum.

Bending capacity

Ductility at 10° minimum.

1 Minimum tensile and yield strength are the average of strength measurement of (30) tested samples. These are not minimum steel properties or minimum manufacturing specifications.

2 Minor diameter is the average measurement taken from (30) samples. This is not a controlled dimension.

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3.3.15 KWIK-CON II+ Concrete and Mason

3.3.15.3 Technical data

Table 1 - Tension and shear allowable loads in concrete [1,2]

Nominal anchor diameter	Nominal embedment in. (mm)	f'_c = 2,000 psi		f'_c = 4,000 psi		f'_c = 6,000 psi	
		Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)
3/16	1 (25)	100 (0.44)	260 (1.16)	125 (0.56)	260 (1.16)	185 (0.82)	280 (1.25)
3/16	1-3/4 (44)	275 (1.22)	260 (1.16)	295 (1.31)	265 (1.18)	325 (1.45)	300 (1.33)
1/4	1 (25)	190 (0.85)	325 (1.45)	240 (1.07)	390 (1.73)	275 (1.22)	540 (2.40)
1/4	1-3/4 (44)	425 (1.89)	560 (2.49)	625 (2.78)	630 (2.82)	650 (2.89)	600 (2.67)

1 Screws installed in holes drilled with Hilti TKC carbide bits.
2 Allowable loads are based on a safety factor of 4.

Table 2 - Tension and shear ultimate loads in concrete[1]

Nominal anchor diameter	Nominal embedment in. (mm)	f'_c = 2,000 psi		f'_c = 4,000 psi		f'_c = 6,000 psi	
		Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)
3/16	1 (25)	400 (1.78)	1,050 (4.67)	500 (2.22)	1,050 (4.67)	750 (3.34)	1,150 (5.12)
3/16	1-3/4 (44)	1,100 (4.89)	1,050 (4.67)	1,180 (5.25)	1,070 (4.76)	1,300 (5.78)	1,300 (5.84)
1/4	1 (25)	760 (3.38)	1,300 (5.78)	970 (4.31)	1,575 (7.01)	1,100 (4.89)	2,175 (9.68)
1/4	1-3/4 (44)	1,700 (7.56)	2,250 (10.0)	2,500 (11.1)	2,400 (11.3)	2,600 (11.6)	2,400 (10.7)

1 Screws installed in holes drilled with TKC bits.

Table 3 - Tension and shear allowable loads in hollow block[1,2,3]

Nominal anchor diameter	Nominal embedment in. (mm)	Tension lb (kN)	Shear lb (kN)
3/16	1 (25)	150 (0.67)	225 (1.00)
3/16	1-3/4 (44)	290 (1.29)	300 (1.33)
1/4	1 (25)	165 (0.73)	275 (1.22)
1/4	1-3/4 (44)	310 (1.38)	400 (1.78)

1 All values for anchors installed in hollow concrete masonry with a minimum prism strength of 1,500 psi. Concrete block may be lightweight, medium-weight or normal-weight conforming to ASTM C90.
2 Screws installed in holes drilled with TKB bits.
3 Allowable loads calculated using a factor of safety of 4.

Table 4 - Tension and shear allowable loads in red brick[1,2]

Nominal anchor diameter	Nominal embedment in. (mm)	Tension lb (kN)	Shear lb (kN)
3/16	1 (25)	125 (0.56)	235 (1.05)
3/16	1-3/4 (44)	350 (1.56)	300 (1.33)
1/4	1 (25)	205 (0.91)	415 (1.65)
1/4	1-3/4 (44)	350 (1.56)	500 (2.22)

1 This test was performed on individual specimens of ASTM C62 common red brick. Due to the wide variations encountered in the compressive strength of brick, these values should be considered guide values.
2 Allowable loads are based on a safety factor of 4.

The anchors are installed a minimum of 12 diameters on center with a minimum edge distance of six diameters for 100 percent anchor efficiency. Spacing and edge distance may be reduced to six diameter spacing and three diameter edge distance providing values are reduced 50 percent. Linear interpolation may be used for intermediate spacing and edge margins.

Combined shear and tension loading

$$\left(\frac{N_a}{N_d}\right) + \left(\frac{V_a}{V_d}\right) \leq 1.0$$

3.3.15.4 Installation Instructions

Installation Instructions For Use (IFU) are included with each product package. They can also be viewed or downloaded online at www.us.hilti.com (US) and www.hilti.ca (Canada). Because of the possibility of changes, always verify that downloaded IFU are current when used. Proper installation is critical to achieve full performance. Training is available on request. Contact Hilti Technical Services for applications and conditions not addressed in the IFU.

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Project Name: 17th and West Avenue Fastener Cap Calculation
Project Address: 1220 17th Street
Miami Beach, Fl 33139

FASTENER CAPACITY CALCULATION

Fastener Type: 1/4" Diameter Hilti Kwik Con II CS

Fastener Diameter: 1/4 in Root Dia. (Dr) = 0.19 in
Shank Dia. (Ds) = 0.224 in

Ω = 2.00

Fy= 137,000 PSI Fb = $\frac{0.75 * Fu}{\Omega}$ = 51,750 PSI

Fu= 138,000 PSI Fv = $\frac{0.45 * Fu}{\Omega}$ = 31,050 PSI

$A = (\Pi Dr^2)/4$ = 0.02835 in^2

$S = (\Pi Ds^3)/32$ = 0.00110 in^3

fv = P/A **fb = PL/S**

(fv/Fv) + (fb/Fb) < 1

$\frac{P}{AFv} + \frac{PL}{SFb} < 1$ (Solve for P)

Approved shims used (y/n) = Y

Gap (in)	Gap used (L) (in)	Capacity (P) (lbs)	Bending stress on anchor: fb (PSI)	Shear stress on anchor: fv (PSI)
1/4	0.125	300.76	34,071	10,608
3/8	0.188	226.27	38,449	7,981
1/2	0.250	181.36	41,089	6,396
3/4	0.375	129.82	44,119	4,579

Façade and Envelope Engineering Consultants, LLC
1930 Harrison Street | Suite 204 | Hollywood, FL 33020
Ph: (954) 589-1729 | E: info@facadenvelope.com | CA# 30168

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CODE COMPLIANCE

BC18C

17TH & WEST AVENUE

1220 17TH STREET

MIAMI BEACH, FLORIDA 33139

DESIGN CRITERIA

2014 FLORIDA BUILDING CODE
WINDLOADS PER ASCE 7-10

GENERAL NOTES

GM&P, LLC. ASSUMES NO RESPONSABILITY FOR WORK AND/OR ERRORS INCURRED BY OTHER TRADES THROUGH THE USE OF THESE SHOP DRAWINGS.

ALL WINDOWS AND DOORS (BY OTHERS) SIZES ARE BASED ON THE ARCHITECTURAL DRAWINGS SENT BY GM&P, LLC. TO 4G ARCHITECTURE ON 12/15/2017.

ALL ALUMINUM IN CONTACT WITH CONCRETE OR GROUT MATERIALS SHALL BE COATED WITH ALKALI RESISTANT COATING SUCH AS HEAVY BODIED BITUMINOUS PAINT

FIELD VERIFY ALL DIMENSIONS BEFORE INSTALLATION

ALL SEALANTS AND/OR CAULKING ARE TO BE APPLIED IN STRICT IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. THE COMPATIBILITY OF SEALANTS AND OTHER MATERIALS SHALL BE CHECKED WITH THE SEALANT MANUFACTURER.

GLASS, GLAZING AND FRAMING HAVE BEEN DESIGNED BY THE MANUFACTURERS. SYSTEMS HEREIN INCLUDED, AS APPROVED BY CUSTOMER, WILL CONFORM WITH GENERAL REQUIMERENTS USING THE FOLLOWING MATERIAL:

GLAZING SYSTEMS

1. ALUMINUM WINDOW WALL SYSTEM SERIES "ES-7100 S.M.I. NOA NO.17-1218.09
2. ALUMINUM SLIDING GLASS DOORS SERIES "2400 S.M.I. NOA NO.17-1115.03
3. ALUMINUM SLIDING GLASS WINDOWS SERIES "HR-2600 S.M.I. NOA NO.18-0301.12
4. ALUMINUM OUT-SWING ENTRANCE DOORS SERIES "ES-9100 S.M.I." NOA NO 17-0802.15"
5. ALUMINUM OUT-SWING ENTRANCE DOORS SERIES ENV-350 "FL #20701"

ALUMINUM & FINISHES

EXTRUSIONS PER N.O.A AS APPROPRIATE TO MEET STRUCTURAL AND MANUFACTURING REQUIREMENTS. ALUMINUM DESIGNED PER ALUMINUM ASSOCIATION'S ALUMINUM DESIGN MANUAL 2005 STRUCTURAL EXTRUSION ALLOY AND TEMPER TO BE 6005-T5 OR 6063-T6 AS INDICATED IN SYSTEM NOA EXTRUSION THICKNESS AS APPROPRIATE TO MEET REQUIREMENTS AND AS INDICATED ON PRODUCT APPROVALS.

ALUMINUM FINISHES TO BE: EXTERIOR: SUNSTORM SILVERSTORM UC106685F

WINDLOADS:

PER ASCE 7-10 AS SHOWN ON STRUCTURAL DRAWINGS SHEETS S-8.1 AND S-8.2

SEALANTS SCHEDULE:

EXTERIOR PERIMETER SEAL TO BE DOW CORDING 790 (OR EQUIVALENT), COLOR TBD; SINGLE BEAD TO CREATE PRIMARY WATERPROOF SEAL BETWEEN ALUMINUM AND MASONRY AND /OR CONCRETE .

METAL TO METAL SEAL TO BE DOW CORNING 795, COLOR TBD.
SHOP GLAZING SEAL (WET SEAL) TO BE DOW CORNING 791 (OR EQUIVALENT), COLOR TBD.
ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER OF GLAZING BEAD TO FRAME SEALED WITH SILICONE SEALANT.

MISCELLANEOUS NOTES:

IT IS UNDERSTOOD THAT THE GLAZING SYSTEM ARE PROPRIETARY SYSTEM AND AS SUCH. CERTAIN ASPECT OF THE SYSTEM WILL DEVIATE FROM THE DETAILS ON THE CONTRACT DOCUMENT IN ORDER TO MEET THE APPROVED NOA AND/OR OTA FOR SUCH SYSTEM. AS A RESULT OF SUCH DEVIATION, THE SUBCONTRACTOR'S APPROVED SHOP DRAWINGS WILL SERVICE TO SUPERSEDE THE REQUIREMENTS ON THE CONTRACT DOCUMENTS.

SHOP DRAWINGS WILL BE SEALED AND SIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA, ONCE THE REVIEW PROCESS IS COMPLETED.



GLASS

ALL EXTERIOR GLASS TYPES TO BE LAMINATED :

GL-1 9/16" THICK LAMINATED GLASS
1/4" H.S. SOLAR GRAY + LOW E N/70/38 ON #2 + 0.06 PVB + 1/4" H.S. CLEAR (ES-7100, ES-2400,ES-2600,ES-9100) 4 5

GL-2 9/16" THICK LAMINATED GLASS
1/4" H.S. SOLAR GRAY + LOW E N/70/38 ON #2 + 0.09 PVB + 1/4" H.S. CLEAR (ENV-350) 5

FASTENERS

ALL FRAME ASSEMBLY SCREWS WILL BE STAINLESS STEEL SERIES 300.

ALL INSTALLATION ANCHORS SHALL BE CARBON STEEL TO COMPLY WITH PRODUCTS APPROVAL AND STRUCTURAL CALCULATIONS.

ASSEMBLY SCREWS, SHALL BE STAINLESS STEEL (NON-MAGNETIC). INSTALLATION

SCREWS AGAINST CONCRETE ELEMENTS AND METAL TO METAL INSTALLATION SCREWS SHALL BE CARBON STEEL AS NECESSARY TO MEET STRUCTURAL REQUIREMENTS

EXPOSED ASSEMBLY SCREWS, MACHINE BOLTS, NUTS AND WHASHERS TO BE STAINLESS STEEL.

PLASTIC SHIMS WILL BE NON-COMPRESSIBLE PLASTIC THROUGHOUT THE JOB. PLASTIC SHIMS ARE NOT PROVIDED BY GM&P, LLC.

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CITY OF MIAMI BEACH
APPROVED FOR PERMIT BY
THE FOLLOWING
BUILDING:
ZONING:
PLUMBING:
ELECTRICAL:
MECHANICAL:
FIRE PREVENTION: 8/4/18
FLOOR:
PUBLIC WORKS:
STRUCTURAL:
ELEVATOR:
ROOFING:

SHOP DRAWING REVIEW
APPROVED AS NOTED REJECTED RE-SUBMIT
DIRECTIONS AND COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLYING WITH REQUIREMENTS OF THE PERMITTED DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE INFORMATION IN THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES AND PERFORMING THE WORK IN A SAFE AND SATISFACTORY MANNER.
THIS APPROVAL REPRESENTS OUR REVIEW OF THIS DOCUMENT ONLY FOR THOSE MODIFICATIONS REQUESTED HEREIN OR IN PREVIOUS SUBMISSIONS OR AS SPECIFICALLY NOTED BY CONTRACTOR IN THIS SUBMISSION. ANY OTHER MODIFICATION TO THIS DRAWING BY THE CONTRACTOR, OF PREVIOUSLY REVIEWED MATERIAL IS SPECIFICALLY DISAPPROVED. IT IS UNDERSTOOD THAT ENGINEERS NOTATIONS ON SUBMITTAL IS NOT TO BE CONSTRUED AS AUTHORIZATION FOR ADDITIONAL WORK OR COST.
8-3-18 BY: EL

"REVIEWED and APPROVED
FOR CODE COMPLIANCE"
AUG 13 2018
NOVA ENGINEERING
and ENVIRONMENTAL LLC

Stantec
Two South Biscayne Blvd., Suite 1670
Miami, Florida 33131
REVIEW: NO EXCEPTIONS NOTED
Dated 7/12/18 By R.G.

SHOP DRAWINGS FIRST SUBMITTAL LEVEL 4 TO LEVEL 5

gmp

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SUBMISSION RECORD

SUBMISSION	DATE	REVISION	DESCRIPTION
1	12 / 22	2	FOR ARCH APPROVAL
2	1 / 17	3	FOR RESUBMIT
3	5 / 22	4	FOR RESUBMIT
4	6 / 8	5	FOR RESUBMIT
			APPROVED MIAMI BEACH FIRE DEPARTMENT

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No 71643
STATE OF FLORIDA
PROFESSIONAL ENGINEER
MANUEL ORTEGA, P.E.
FL Reg.# 71643

17TH & WEST AVENUE
1220 17TH STREET
MIAMI BEACH, FLORIDA 33139

REVISION N°	DATE	DESCRIPTION
1	12.15.2017	SHOP DRAWINGS FIRST SUBMITTAL LEVEL 4 TO LEVEL 5
A	12. 22. 2017	FIRST SUBMITTAL UPDATE
A	01. 17. 2018	SHOP DRAWINGS FIRST RESUBMITTAL
A	05. 22. 2018	RESUBMITTAL PER BULLETIN # 2018.04.10
A	06. 08. 2018	RESUBMITTAL PER FEEC COMMENTS 06072018 JJ

PROJECT #: SD2017009
17TH & WEST AVENUE
SCALE: NTS
CONTENT:
COVER SHEET, GENERAL NOTES
SHEET:
CS-000

MIAMIBEACH
REVIEWED FOR
CODE COMPLIANCE

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SHOP DRAWING REVIEW
APPROVED REJECTED
APPROVED AS NOTED RE-SUBMIT
DIRECTIONS AND COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLYING WITH REQUIREMENTS OF THE PERMITTED DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE INFORMATION IN THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF HIS WORK. APPROVAL REPRESENTS OUR REVIEW OF CONTRACTOR'S SUBMITTAL ONLY FOR THOSE MODIFICATIONS REQUESTED HEREIN OR IN PREVIOUS SUBMISSIONS WHICH WERE SPECIFICALLY NOTED BY CONTRACTOR IN THEIR TRANSMISSION. ANY OTHER MODIFICATION TO THIS DRAWING BY THE CONTRACTOR OR PREVIOUSLY REVIEWED MATERIAL IS STRICTLY DISAPPROVED. IT IS UNDERSTOOD THAT ENGINEERS NOTATIONS ON THIS MATERIAL IS NOT TO BE CONSTRUED AS AUTHORIZATION OF ADDITIONAL WORK OF COST.
8-3-18 BY: EM

"REVIEWED and APPROVED FOR CODE COMPLIANCE"
NOVA ENGINEERING and ENVIRONMENTAL LLC

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REVIEW, NO EXCEPTIONS NOTED
Date 7/12/18 By R.G.

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