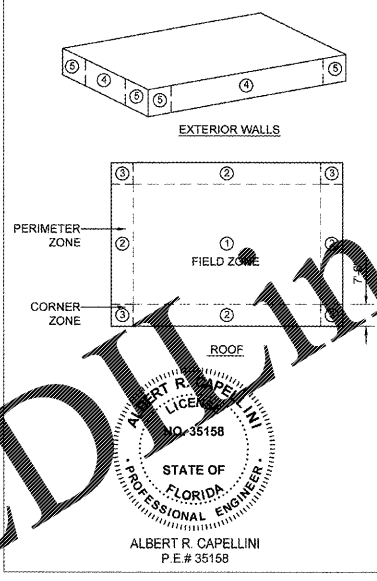


BUILDING 80 - NEW ROOF PLAN
SCALE: 1/8" = 1'-0"

WIND PRESSURE DIAGRAMS (COMPOSITE)

WIND LOADS = ASCE-7-10 FBC-2014	DESIGN PRESSURE
WIND VELOCITY = 180 MPH	ZONE POS (+) NEG (-)
CATEGORY = III	1 29.81 -72.79
EXPOSURE = C	2 29.61 -122.15
ROOF LOADS = ASCE-7-10 FBC-2014	3 29.61 -183.84
DEAD LOAD = Unknown	4 66.62 -72.18
LIVE LOAD = Unknown	5 66.62 -88.83
TOTAL LOAD = Unknown	

a = 7.6 Edge strip width



ABBREVIATIONS

AAR	ABANDONED AIR PRESSURE RELIEF VALVE
ARV	ABANDONED ROOF VENT
AHU	AIR HANDLER UNIT
ANT	ANTENNAE
ANS	ANTENNAE SUPPORT
AS	ABANDON SUPPORT
CH	CHIMNEY
DFR	DEFLECTOR
DS	DOWNSPOUT
EC	ELECTRICAL CONDUIT
EF	EXHAUST FAN
EJ	EXPANSION JOINT
EL	ELECTRIC LIGHT EQUIPMENT STANDPIPE
ESS	GOOSENECK
GNK	GUTTER
GTR	GUTTER
HP	HIGH POINT
HS	HEAT STACK
LP	LOW POINT
NOS	NEW OVERFLOW SCUPPER
NORD	NEW OVERFLOW ROOF DRAIN
OS	OVERFLOW SCUPPER
P	PARAPET
PP	PIPE PENETRATION
PPN	PITCH PAN
RWL	RAIN WATER LEADER
RC	PHOTO CELL
RD	ROOF DRAIN
RF	ROOF FAN
RH	ROOF HATCH
RL	ROOF LADDER
RV	ROOF VENT
CSKY	CLOSED SKYLIGHT
S	SCUPPER
SB	SPLASHBLOCK
SL	SLOPE
SP	SPOTLIGHT
SUP	SUPPORT
TP	NEW 3" TRAFFIC PAD
R/RV	ROOF RELIEF VENT
VTR	VENT THROUGH ROOF
WH	WEATHERHEAD
WF	WALL FAN
WS	WORKING SCUPPER
MOD	NEW OVERFLOW DRAIN

GENERAL - NEW CONSTRUCTION NOTES

- NEW MODIFIED BITUMEN ROOFING MEMBRANE. ONE PLY CAP SHEET MEMBRANE, TORCH APPLIED TO A MODIFIED BITUMEN INTER-PLY MEMBRANE TORCH APPLIED TO A MECHANICALLY ATTACHED FELT BASE SHEET, WITH WALL AND BASE FLASHING. A VENTED BASE SHEET WILL BE REQUIRED OVER LIGHTWEIGHT INSULATING CONCRETE. NEW 1/2" THICK DENSEDECK ROOF BOARD OVER EXIST METAL DECK.
- PROVIDE NEW CURB EXTENSION AS PER DETAIL AND REINSTALL EXISTING ROOF FANS.
- EXTEND VTR'S AND/OR PIPE PENETRATION MINIMUM OF 12" FROM FINISH ROOF AND PROVIDE NEW PIPE FLASHING AS PER DETAIL SECURE AND PROVIDE VANDAL PROOF COVERS (TYP.).
- NOT USED.
- INSTALL NEW EDGE AS PER DETAIL FOR DETAIL LOCATION REFER TO DRAWINGS.
- NOT USED.
- PROVIDE NEW FLASHING AT ALL NEW EQUIPMENT STAND AND SUPPORT AS PER DETAILS.
- NOT USED.
- RAISE ALL EXISTING PIPES, ELECTRICAL UNITS AND JUNCTION BOXES TO MAINTAIN 16" CLEARANCE ABOVE FINISHED ROOF ELEVATION. INSTALL NEW LB FITTING WEATHER PROOF JUNCTION BOXES TO BE SIZED AS PER NEC 310 USE INDIVIDUAL CONDUITS AND JUNCTION BOXES FOR POWER WIRE ALUM AND COMMUNICATION SYSTEMS. USE COMMON CONDUIT TO JUNCTION BOXES FOR P.A. CCTV, AND SECURITY.
- NOT USED.
- NOT USED.
- PROVIDE NEW ST. STL. COPING SYSTEM @ EXISTING PARAPET AS PER DETAIL.
- RELOCATE VTR'S AND/OR PIPE PENETRATIONS MINIMUM 2'-0" FROM PERMITE EDGE.
- NOT USED.
- CONTRACTOR SHALL TEST EXISTING ROOF DRAINAGE SYSTEM IN COMPLIANCE WITH PLUMBING SECTION 1101.4.
- PROVIDE NEW ST. STL. COPING SYSTEM @ EXISTING PARAPET AS PER DETAIL.
- ROOF DRAIN, SCUPPERS & O.S ARE TO BE RAISED TO MATCH NEW FINISH ELEV AS REQUIRED PER CODE.
- NOT USED.
- PROTECT EXISTING / NEW FANS WITH INTERNAL ELECTRICAL CONNECTIONS TO AVOID ELECTRICAL PIPE PENETRATIONS ON THE ROOF.
- G.C. DETERMINE IF EXISTING ROOF UNDER WARRANTY. TO PREVENT AVOIDING MANUFACTURER'S WARRANTY SHALL USE SAME MANUFACTURER'S ROOFING MATERIALS FOR ROOF REPAIR IF ROOF IS UNDER WARRANTY. THE MANUFACTURER AND ROOF TYPE MUST BE IDENTIFIED BY PROF. OF RECORD.

SCOPE OF WORK - NEW CONSTRUCTION NOTES

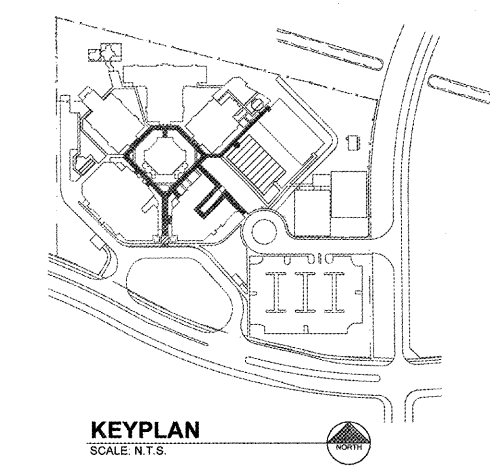
DECK A: 1 2 3 5 7 9 12 13 15 16 17 19

NOTE:
ALL LOW/PARAPET WALL TO BE SMOOTHED AND FREE OF ROUGH SURFACES TO RECEIVE MEMBRANE FLASHING.

NOTE:
REFER TO ROOFING SPECIFICATION AND DESIGN WIND PRESSURE DIAGRAM FOR ROOFING MEMBRANE ANCHORING SYSTEM & SPACING. PER FBC 2-14 FIFTH E.D.

100% CONSTRUCTION DOCUMENTS 12-13-2017

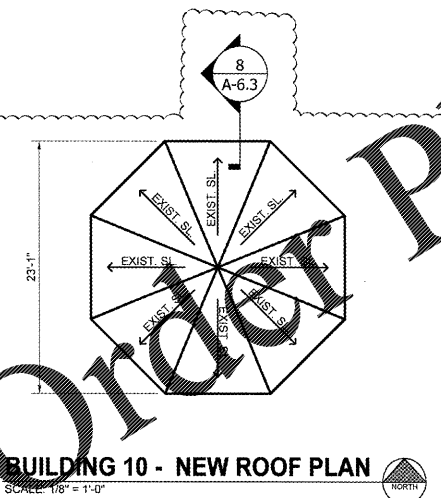
NOTE:
ALL DIMENSIONS AND EXACT LOCATION OF ALL EXISTING EQUIPMENT AND ASSOCIATED PARTS AND ACCESSORIES ARE TO BE FIELD VERIFIED BY THE CONTRACTOR.



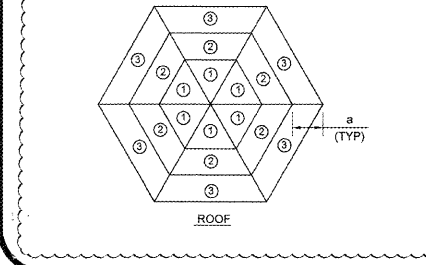
WIND PRESSURE DIAGRAMS (COMPOSITE)

WIND LOADS = ASCE-7-10 FBC-2014	DESIGN PRESSURES (PSF)
WIND VELOCITY = 180 MPH	ZONE POS (+) NEG (-)
CATEGORY = III	1 +33.6 -34.0
EXPOSURE = C	2 +51.9 -52.3
ROOF LOADS = ASCE-7-10 FBC-2014	3 +67.1 -72.6
DEAD LOAD = 25 PSF	4 n/a n/a
LIVE LOAD = 30 PSF	5 n/a n/a
TOTAL LOAD = 55 PSF	

Pressures are nominal (ASD) a = 3.0 FT (Edge strip width)



BUILDING 10 - NEW ROOF PLAN
SCALE: 1/8" = 1'-0"



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STATE OF FLORIDA
PROFESSIONAL ENGINEER
NO. 35158
P.E.# 35158

PRIMARY DRAINAGE CALCULATIONS
SEA CASTLE ELEMENTARY BLDG. #80

**BASED ON MAX. RAINFALL RATE = 5" / HR. PER TABLES 1106.1 & 1106.2 (2) BASED ON HORIZONTALLY PROJECTED AREAS.

DECK NUMBER	TOTAL DECK AREA (s.f.)	No. VERTICAL LEADERS (7"x11")	CALCULATED FLOW CAPACITY (GPM per s.f.)	TOTAL REQUIRED CAPACITY (GPM per s.f.)
1	10,408	4	4832	541

NOTE: ALL CALCULATIONS ARE BASED ON CHAPT. 11, FBC PLUMBING 5TH ED. 2014; TABLES: 1106.2(1) & 1106.2(2) & 1106.7(3) & FIGURE: 1106.1

OVERFLOW SCUPPER DRAINAGE CALCULATIONS
SEA CASTLE ELEMENTARY BLDG. #80

**BASED ON MAX. RAINFALL RATE = 5" / HR. PER TABLES 1106.1 & 1106.2 (2) BASED ON HORIZONTALLY PROJECTED AREAS.

DECK NUMBER	TOTAL DECK AREA (s.f.)	No. OVERFLOW SCUPPERS (6"x5")	CALCULATED FLOW CAPACITY (GPM per s.f.)	TOTAL REQUIRED CAPACITY (GPM per s.f.)
1	10,408	8	4504	541

NOTE: ALL CALCULATIONS ARE BASED ON CHAPT. 11, FBC PLUMBING 5TH ED. 2014; TABLES: 1106.2(1) & 1106.2(2) & 1106.7(3) & FIGURE: 1106.1

ROOFING PLAN REVIEW CHECKLIST

- PERMITS WITHIN HIGH WIND AREAS SHALL BE REQUIRED FOR ALL WORK IN CONNECTION WITH THE APPLICATION, REPAIR OR MAINTENANCE OF ANY ROOFING COMPONENT OR ANY ROOFING ASSEMBLY AND/OR ANY OF ITS COMPONENTS. FBC 14, SECTION 1512.3
- PERMIT REQUIRED FOR ALL NEW ROOFING CONSTRUCTION, INCLUDING RECOVERING AND REPAIRING. REPAIR OR MAINTENANCE SHALL HAVE A UNIFORM ROOFING PERMIT APPLICATION AS ESTABLISHED BY THE AUTHORITY HAVING JURISDICTION, COMPLETED AND EXECUTED BY A LICENSED CONTRACTOR. FBC 14, SECTION 1512.3.1
- ROOF PLAN WITH REFERENCED DETAIL ANNOTATIONS. FBC 14, SECTION 1512.3.1
- ROOF PLAN WITH DESIGNER'S UNIT PRESSURE AND DELIMITED ZONES. FBC 14, SECTION 1512.3.1
- ROOF DETAILS, TYPICAL AND SPECIFIC TO ROOF CONDITIONS. FBC 14, SECTION 1512.3.1
- TEST PROTOCOLS FOR HIGH VELOCITY HURRICANE ZONES. LATEST DESIGN MATERIAL STANDARDS.
- ROOF PLAN WITH SPECIFIC ELEVATIONS AT DECK, PARAPETS, INDICATING WATER FLOW AT HIGH AND LOW POINTS, SPECIALLY AT CRITICAL JUNCTURES AND ROOF COMPONENTS. FBC 14, SECTION 1512.3.3
- ROOF DRAINAGE CALCULATIONS. FBC 14, SECTION 1514.4, SECTION 1517, FBC 14 PLUMBING, SECTION 1104.7
- ROOF WIND LOAD CALCULATIONS FOR DECK INCLUSIVE OF ALL ROOF ACCESSORIES INCLUDE COMPONENTS AND/OR EQUIPMENT THAT MAY DISLODGE AND CAUSE DAMAGE BOTH AS A PROJECTILE AND/OR A POINT OF WATER INTRUSION TO BUILDING ENVELOPE. FBC 14, SECTION 453.25.4.2, SECTION 1522.2, SECTION 1626.1
- IDENTIFY METHOD, TYPE, MATERIAL AND SPACING FOR ALL ATTACHMENTS REQUIRED TO MEET UNIT PRESSURES ON ROOF COVERING COMPONENTS INCLUSIVE OF ACCESSORIES AND/OR EQUIPMENT IN THE FIELD, PERIMETER AND CORNER ZONES. FBC 14, SECTION 1512, SECTION 1514.7, SECTION 1626.1, RAS 111, DMS SECTION 0760.
- PROVIDE NOTICE OF ACCEPTANCE INCLUSIVE OF FRONT PAGE, MATERIAL SELECTION, SPECIFIC SYSTEM DESCRIPTION, ALONG WITH SYSTEM AND GENERAL LIMITATIONS. FBC 14, SECTION 1512
- PROVIDE CONTRACT SPECIFICATIONS FROM DMS, THAT PERTAIN TO THE SELECTED ROOFING ASSEMBLY IN THE NOTICE OF ACCEPTANCE. FBC 14, SECTION 1072.1, SECTION 453.4
- PROVIDE PIRE DIRECTORY LISTING FOR THE SELECTED ROOFING ASSEMBLY FROM NOA TESTED IN ACCORDANCE WITH ASTM E 136 OR UL 793. FBC 14, SECTION 453.1.1
- PROVIDE A NON-EXECUTED TOTAL SYSTEM WARRANTY SPECIMEN BY MANUFACTURER, NON-PRO RATED 30 YEAR WRITTEN FULL WARRANTY, NEX WITH A WIND RISKER UP TO 180MPH4 WARRANTY IS TO COVER "ROOFING SYSTEM" AS SPECIFIED IN DIVISION 7 OR DMS DMS SECTIONS 07510, 07540, 07550, 07590, 07800, 07851, 07716, 07722, 07724, ETC.
- PROVIDE A NON-EXECUTED TOTAL SYSTEM WARRANTY SPECIMEN BY INSTALLER FOR 5 YEARS. WARRANTY SHALL BE AS SPECIFIED IN DIVISION 7 OF DMS. DMS SECTIONS 07510, 07540, 07550, 07590, 07800, 07851, 07716, 07722, 07724, ETC.
- PROVIDE A NON-EXECUTED TRIAL STATEMENT OF COMPLIANCE FORM FBC 14, SECTION 453.12.3
- PROVIDE A NON-EXECUTED MANUFACTURER'S ONE YEAR INSPECTION FORM. FBC 14, SECTION 453.12.4
- PROVIDE AN AFFIDAVIT AFFIRMING ASBESTOS CONTAINING MATERIALS WILL NOT BE USED IN PROJECT. THIS AFFIDAVIT MUST BE CERTIFIED BY PROFESSIONAL OF RECORD WHEN APPROVED. FBC 14, SECTION 453.8
- PROVIDE A NON-EXECUTED ASBESTOS ABATEMENT AFFIDAVIT FORM FOR ALL REPAIRS, REPAIRING AND RECOVERY PROJECTS. FBC 14, SECTION 453.8.8
- PROVIDE ALL APPURTENANT TESTING FOR EXISTING ROOFS AS PRESCRIBED ON THE TEST PROTOCOLS FOR HIGH VELOCITY HURRICANE ZONES. FBC 14, CHAPTER 15, TEST PROTOCOLS FOR HIGH VELOCITY HURRICANE ZONES

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REVISIONS

DATE	REVISION
02/23/2018	BUILDING DEPARTMENT COMMENTS
06/05/2018	BUILDING DEPARTMENT COMMENTS
04/15/2019	BUILDING DEPARTMENT COMMENTS

SEA CASTLE ELEMENTARY SCHOOL
9600 MIRAMAR BOULEVARD
MIRAMAR, FLORIDA 33025

THE SCHOOL BOARD OF BROWARD COUNTY

BUILDING 10 & 80 NEW ROOF PLAN

100% CONSTRUCTION DOCUMENTS 12-13-2017

RECEIVED
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BUILDING DEPARTMENT BCPS

KEYPLAN
SCALE: N.T.S.

ALBERT R. CAPELLINI
STATE OF FLORIDA
PROFESSIONAL ENGINEER
NO. 35158
P.E.# 35158

XAVIER SALAS
ARCHITECT
AR # 98387

DRAWING No. A-6.1