

CONSTRUCTION PLANS
FOR
201 WILLIAM ST,
CONCRETE SPALLING REPAIR

SITE LOCATION



LOCATION MAP:

PROJECT LOCATION:
201 WILLIAM ST,
KEY WEST, FL 33040

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SERGE MASHTAKOV PROFESSIONAL ENGINEER STATE OF FLORIDA LICENSE NO. 71480	

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CLIENT:	CITY OF KEY WEST
PROJECT:	201 WILLIAM ST CONCRETE SPALLING REPAIRS

SITE: 201 WILLIAM ST KEY WEST, FL 33040			
TITLE: COVER			
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PROJECT NO: 1907-09	DRAWING NO: G-100	REVISION: 1	

GENERAL REQUIREMENTS:

1. PRIOR TO STARTING ANY WORK THE CONTRACTOR SHALL REVIEW THESE PLANS AND SITE CONDITIONS AND NOTIFY THE ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.
2. THE ENGINEER IS NOT RESPONSIBLE FOR THE SUPERVISION OF THE CONTRACTOR NOR HIS EMPLOYEES DURING THE CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MEANS AND ESTABLISH METHODS OF THE CONSTRUCTION TO MEET REQUIREMENTS OF ALL APPLICABLE CODES, INDUSTRY STANDARDS AND REQUIREMENTS OF THESE PLANS.
3. QUALITY OF THE WORK SHALL MEET OR EXCEED INDUSTRY STANDARD PRACTICES.
4. ANY DEVIATIONS FROM THESE PLANS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER.

DESIGN DATA:

1. APPLICABLE BUILDING CODE: FBC EXISTING BUILDING 6TH EDITION (2017)
2. APPLICABLE DESIGN LOADS: PER ASCI/SEI 7-10
FLOOR LIVE LOAD: 100 PSF
ROOF LIVE LOAD: 20 PSF (300 LB CONC.)
BASIC WIND SPEED: 180 MPH
EXPOSURE: D
STRUCTURAL CATEGORY: II
FLOOD ZONE: VE10

ALL PRESSURES SHOWN ARE BASED ON ASD DESIGN, WITH A LOAD FACTOR OF 0.6

3.ASCE 24-14 FLOOD RESISTANT DESIGN AND CONSTRUCTION

SOILS AND FOUNDATIONS:

PRESUMPTIVE LOAD-BEARING VALUES OF FOUNDATION MATERIALS ARE USED IN LIEU OF A COMPLETE GEOTECHNICAL EXPLORATION. FOUNDATIONS SHALL BE PLACED ON A "SEDIMENTARY AND FOLIATED ROCK" WITH AN ALLOWABLE LOAD BEARING PRESSURE OF 3,000 PSF. NOTIFY THE ENGINEER IF SOIL CONDITIONS ARE DIFFERENT.

1. ALL FOUNDATIONS, SLABS AND FOOTERS SHALL BE PLACED ON STABILIZED UNDISTURBED SUBGRADE SOIL.
2. MINIMUM FOUNDATION DEPTH SHALL BE 24" UNLESS OTHERWISE IS SPECIFIED ON THE PLANS. IF OVER-EXCAVATED - FILL SHALL NOT BE PLACED BACK INTO THE TRENCH UNLESS APPROVED BY THE ENGINEER.
3. FILL UNDER THE FOUNDATIONS SHALL BE USED ONLY IF APPROVED BY THE ENGINEER. CLEAN FILL MATERIAL SHALL BE PLACED IN 6"-8" LAYERS AND COMPACTED TO 98% DENSITY USING THE MODIFIED PROCTOR TEST.
4. FILL MATERIAL SHALL BE CLEAN GRANULAR SAND OR LIMEROCK MIX WITHOUT ANY ORGANIC MATERIALS, CLAY, MUCK AND ROCKS LARGER THAN 4". BACKFILL SHALL NOT CONTAIN ANY WOOD OR CELLULOSE DEBRIS.

AUGERCAST PILES

1. AUGERCAST PILES SHALL BE 16" DIAMETER WITH MINIMUM EMBEDMENT OF 3FT INTO THE CAP ROCK UNLESS OTHERWISE SHOWN ON THE PLANS.
2. CONCRETE FOR PILES SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 5000 PSI. WATER/CEMENT RATIO SHALL NOT EXCEED W/C=0.40.
3. REINFORCEMENT SHALL BE FOUR (4) #5 REBAR VERTICALLY WITH #3 STIRRUPS AT 12" O.C. CONTRACTOR SHALL USE PLASTIC CHAIRS OR CENTRALIZERS TO PROVIDE A 3" COVER ON ALL SIDES OF THE REINFORCEMENT.

CONCRETE:

1. APPLICABLE CODE ACI 318 LATEST EDITION AND ACI 301.
2. ALL CONCRETE ELEMENTS SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE IS SHOWN ON THE PLANS. WATER/CEMENT RATIO SHALL NOT EXCEED W/C=0.40.

ALL CONCRETE USED FOR THE PROJECT SHALL CONTAIN CORROSION-INHIBITING ADMIXTURE, "MASTERLIFE CI 222" BY "BASF" (OR ENGINEER APPROVED EQUAL) WITH RECOMMENDED DOSAGE OF 1 GAL/CU.YARD OF CONCRETE. TRIAL BATCH IS RECOMMENDED TO INSURE CONTRACTORS TARGETED CONCRETE CHARACTERISTICS (SLUMP, WORKABILITY, HARDENED STRENGTH, ETC.)

TARGETED ENTRAINED AIR CONTENT SHALL BE 6.5% (+/-1.5%)

3. ALL CAST-IN-PLACE CONCRETE SHALL BE CURED AND PROTECTED FROM OVERDRYING PER ACI 305R-10 "HOT WEATHER CONCRETING".
4. ALL EXPOSED EDGES SHALL HAVE 1/2" CHAMFERS.
5. NO COLD JOINTS ARE ALLOWED UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. TESTING: ALL FIELD AND LABORATORY TESTING SHALL BE PERFORMED BY AN INDEPENDENT SPECIALIZED COMPANY. THE CONTRACTOR IS RESPONSIBLE FOR ALL SCHEDULING, COORDINATION AND COST OF THE TESTING COMPANY. THREE (3) SAMPLES SHALL BE TAKEN AND TESTED EACH TIME. MINIMUM SAMPLING FREQUENCY:
A) EACH DAY OF CONCRETING FOR EVERY CONCRETE MIX;
B) EVERY 50 CUBIC YARDS;
C) EVERY 2000 SQ.FT. OF SLAB AREA.

ALL TESTING SHALL BE PER LATEST ACI AND ASTM REQUIREMENTS. LABORATORY SHALL SUPPLY THREE (3) ORIGINAL SIGNED&SEALED REPORT RESULTS TO THE ENGINEER.

7. CAST-IN-PLACE AND PRECAST MEMBER ERECTION TOLERANCES SHALL BE AS SPECIFIED IN THE TABLE 8.2.2 OR IN SECTION 8.3 OF "PCI DESIGN HANDBOOK/SIXTH EDITION".

REINFORCEMENT:

1. ALL REBAR USED FOR CONCRETE REPAIRS SHALL BE ASTM 1035 GRADE 100 (CHROMX 9100)
2. ALL REQUIREMENTS FOR PLACEMENT, COVER, TOLERANCES, ETC. SHALL BE PER ACI 318-11.
3. ALL HOOKS AND BENDS SHALL BE FACTORY MADE UNLESS FIELD BENDS ARE APPROVED BY THE ENGINEER.
4. ONLY PLASTIC CHAIRS AND CENTRALIZERS SHALL BE USED FOR REBAR SUPPORT.

ALUMINUM COMPONENTS:

1. TYPE 6061-T6 ALUMINUM.
2. MIG WELD ALL JOINTS W/ CONTINUOUS 1/8" WELD. USE 5356 FILLER WIRE ALLOY.
3. ALL ALUMINUM IN CONTACT WITH CONCRETE, PT WOOD, DISSIMILAR METALS AND OTHER CORROSIVE MATERIALS SHALL COATED WITH COAL-TAR EPOXY OR PROTECTED BY OTHER ENGINEER APPROVED METHOD.

HARDWARE:

1. HARDWARE SHALL BE 304 STAINLESS STEEL OR BETTER OR ZMAX GALVANIZED FOR NON EXPOSED SIMPSON PRODUCTS, UNLESS OTHERWISE SPECIFIED.

STRUCTURAL LUMBER:

1. ALL WOOD MEMBERS SHALL MEET OR EXCEED REQUIREMENTS SPECIFIED IN "ANSI/AF&PA NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION" AND ALL REFERENCED STANDARDS.
2. ALL WOOD MEMBERS SHALL BE PRESSURE TREATED SOUTHER PINE No2 OR GREATER KILN DRIED AS SPECIFIED IN THE STANDARDS, UNLESS OTHERWISE SPECIFIED.
3. ALL WOOD MEMBERS EXPOSED TO EXTERIOR, IN DIRECT CONTACT WITH CONCRETE OR STEEL SHALL BE PRESSURE-TREATED (PT) UC3B GRADE PER AWPA STANDARDS.
4. ALL FIELD CUTS IN PT LUMBER SHALL BE TREATED ON SITE.
5. NAILING SHALL BE IN ACCORDANCE WITH FBC 6TH EDITION (2017). NAILS AND OTHER FASTENERS FOR PT WOOD SHALL BE STAINLESS STEEL OR ACQ APPROVED TREATED.
- 6.SHEATHING SHALL BE 19/32" CDX PLYWOOD SHEATHING GRADE, UNLESS OTHERWISE IS SPECIFIED ON THE PLANS. USE 8D RING-SHANK NAILS WITH SPACING OF 4" O.C. ON ALL EDGES AND 6" O.C. IN THE FIELD.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL COMPONENTS SHALL BE AS DESCRIBED IN "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS" AISC 2005 OR LATER EDITION.
2. HSS SHAPES (STRUCTURAL TUBING) SHALL BE ASTM A500 (FY=46 ksi).
3. STEEL PLATES, FLANGES AND MISCELLANEOUS ELEMENTS SHALL BE ASTM A36 (FY=36 ksi) UNLESS NOTED OTHERWISE ON THE PLANS.
4. W-SHAPES, C-SHAPES AND OTHER FORMED STEEL SHALL BE ASTM A992 (FY=50 ksi).
5. ALL WELDING SHALL BE IN CONFORMANCE WITH THE LATEST SPECIFICATIONS AWS D1.1/D1.1M:2010, STRUCTURAL WELDING CODE - STEEL.

STRUCTURAL STEEL COATING:

1. ALL SURFACES SHALL BE ABRASIVE BLAST CLEANED TO NEAR-WHITE METAL (PER SSPC-SP10) EXPOSED STEEL:
 2. ALL SURFACES SHALL BE PRIMED WITH POLYAMIDE EPOXY - ONE COAT (8.0 MILS DFT).
 3. APPLY SEALANT AT ALL LOCATIONS WHERE STEEL IS WELDED, LAPPED, ETC. SEALANT MATERIAL SHALL BE COMPATIBLE WITH THE PAINTING SYSTEM.
 4. TOP LAYER SHALL BE TWO (2) COAT POLYURETHANE (3.0 MILS DFT EACH).
 5. TOP PAINT SHALL BE UV RESISTANT OR HAVE A UV RESISTANT COATING.
 6. COLORS SHALL MATCH EXISTING OR TO BE SELECTED BY THE OWNER.
- NON-EXPOSED STEEL (INTERIOR):
7. 2 COATS OF "SUMTER COATINGS" UNIVERSAL PRIMER (6.0 MILS DFT) OR APPROVED EQUAL.

REINFORCED MASONRY (CMU):

1. ALL MASONRY SHALL BE REINFORCED CONCRETE MASONRY UNIT IN ACCORDANCE WITH THE LATEST EDITION OF ACI 530/ASCE 5/TMS 402.
2. INSTALL ALL BLOCKS IN RUNNING BOND.
3. MINIMUM MASONRY BLOCK (ASTM C90) STRENGTH SHALL (F'm) BE 2000 PSI.
4. TYPE "S" MORTAR (ASTM C270) SHALL BE USED USING 3/8" FULL BEDDING REINFORCED W/ 9 GAGE 304SS LADDER WIRE EVERY 2ND ROW.
5. FILLED CELLS SHALL BE REINFORCED WITH #5 REBAR @ 24" O.C. (UNLESS OTHERWISE IS SPECIFIED ON THE PLANS).
6. GROUT SHALL BE PEA ROCK PUMP MIX (ASTM C476) WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI (28 DAY) (ASTM C1019). TARGETED SLUMP SHALL BE 8"-11".
6. EACH GROUTED CELL SHALL HAVE CLEANOUT OPENINGS AT THE BOTTOM. THERE SHALL BE NO LOOSE MORTAR OR OTHER DEBRIS IN THE BOTTOM OF THE CELL. USE BLAST PRESSURE WASHING FOR SURFACE PREPARATION.

CONCRETE REPAIRS:

1. REMOVE ALL LOOSE AND UNSOUND CONCRETE.
2. EXPOSE ALL CORRODED REBAR FROM ALL SIDES (1.5" AROUND).
3. CLEAN ALL EXPOSED REBAR BY MECHANICAL MEANS TO NEAR-WHITE CONDITION.
4. PRESSURE WASH ALL CONCRETE AND REINFORCEMENT WITH POTABLE WATER.
5. PRIME EXISTING REINFORCEMENT W/ "SIKA ARMATEC 110 EPOCEM" OR APPROVED EQUAL. FOLLOW MANUFACTURER INSTRUCTIONS FOR SURFACE PREPARATION, APPLICATION AND CURING.
6. ALL REBAR WITH LOSS OF SECTION OVER 20% SHALL BE DUPLICATED WITH NEW REBAR OF EQUAL SIZE.
7. MINIMUM CONCRETE COVER SHALL BE 1.5" UNLESS OTHERWISE IS APPROVED BY THE ENGINEER.
8. INSTALL SACRIFICIAL ANODES "GALVASHIELD XPT" (OR APPROVED EQUAL) AS SHOWN ON THE DIAGRAMS.
9. FOR SMALL PATCH REPAIRS (DEPTH UP TO 4", AREA UP TO 10 FT2) USE "SIKACRETE 211 SCC PLUS" REPAIR MORTAR. STRICTLY FOLLOW MANUFACTURER INSTRUCTIONS FOR SURFACE PREPARATION, APPLICATION AND CURING.
- 9A. FOR LARGE REPAIRS (FULL DEPTH SLAB, BEAM OR COLUMN REPAIR/REPLACEMENT) USE 4000 PSI CONCRETE MIX WITH W/C RATIO 0.4 MAX. WITH HIGH RANGE PLASTESIZER AND RUST INHIBITING ADMIXTURES. (SEE "CONCRETE" SPECIFICATION IN THE PRIOR TEXT)
10. FOR OVERHEAD REPAIR APPLICATION WITHOUT FORMING (SMALL DEPTH SLAB AND BEAM REPAIRS) USE "SIKAQUICK® VOH" TROWEL GRADE REPAIR MORTARS. STRICTLY FOLLOW MANUFACTURER INSTRUCTIONS FOR SURFACE PREPARATION, APPLICATION AND CURING.
11. THE CONTRACTOR IS RESPONSIBLE FOR ANY SHORING/RESHORING AND TEMPORARY SUPPORTS OF ALL STRUCTURAL ELEMENTS DURING THE REPAIR AND THROUGH THE CONCRETE CURING PERIOD.

! MOIST CURING FOR MINIMUM OF 4 DAYS IS REQUIRED. FOLLOW HOT WEATHER CONCRETING GUIDELINES.

! ALL REBAR USED FOR CONCRETE REPAIRS SHALL BE ASTM 1035 GRADE 100 (CHROMX 9100)

! USE SIKA SET-XP ADHESIVE FOR ALL DOWELS AND REBAR EMBEDDED INTO EXISTING CONCRETE

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SERGE MASHTAKOV
PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE NO 71480

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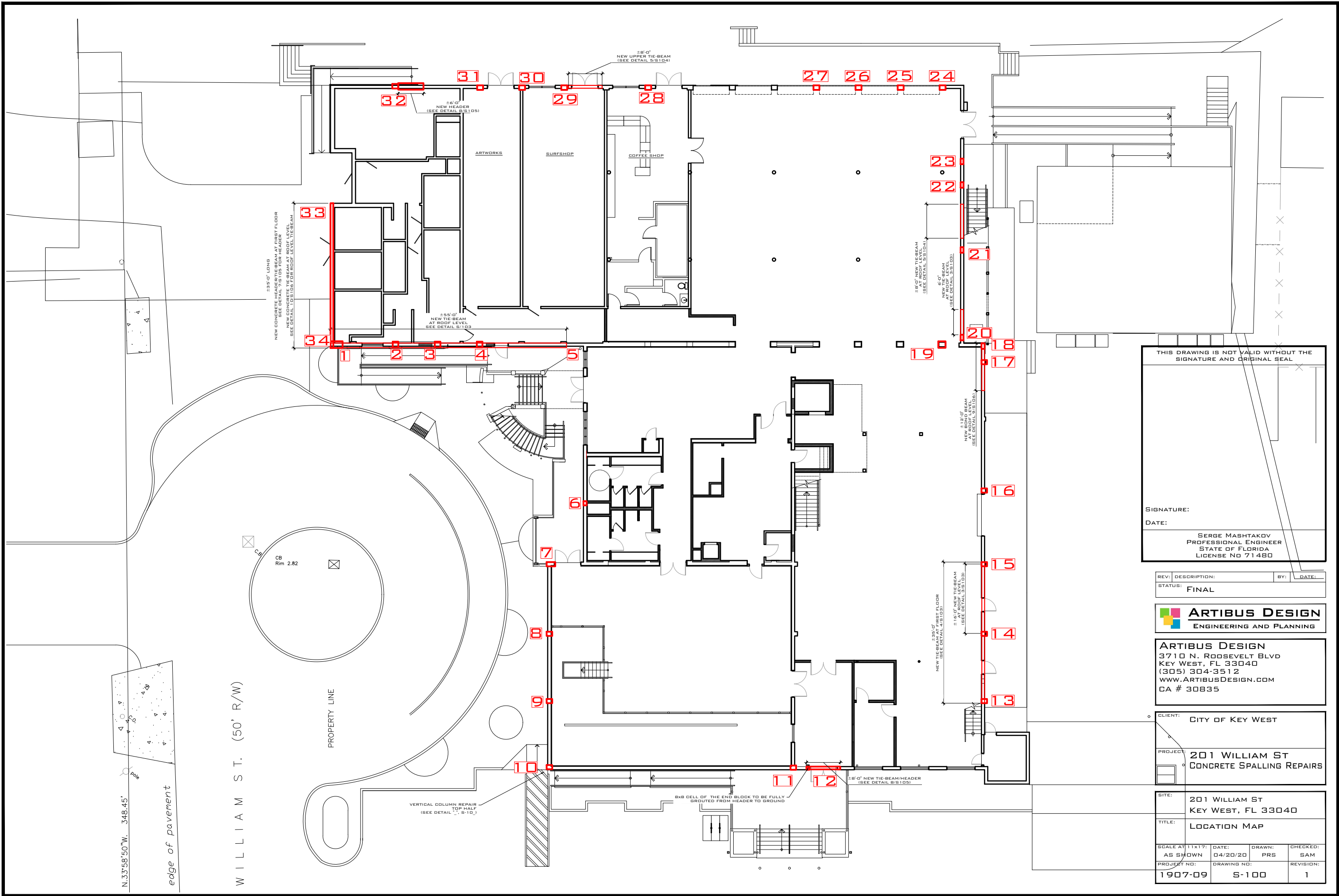
CLIENT: CITY OF KEY WEST

PROJECT: 201 WILLIAM ST
CONCRETE SPALLING REPAIRS

SITE: 201 WILLIAM ST
KEY WEST, FL 33040

TITLE: NOTES

SCALE AT 11x17:	DATE:	DRAWN:	CHECKED:
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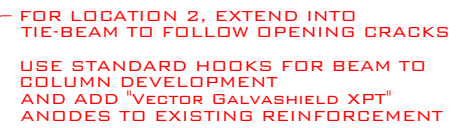
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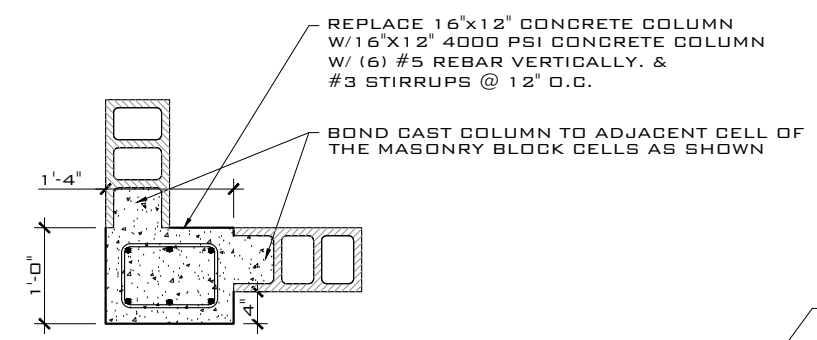
CLIENT:	CITY OF KEY WEST
PROJECT:	201 WILLIAM ST CONCRETE SPALLING REPAIRS

SITE:	201 WILLIAM ST KEY WEST, FL 33040		
TITLE:	LOCATION MAP		
SCALE AT 11X17: AS SHOWN	DATE: 04/20/20	DRAWN: PRS	CHECKED: SAM
PROJECT NO: 1907-09	DRAWING NO: S-100		REVISION: 1

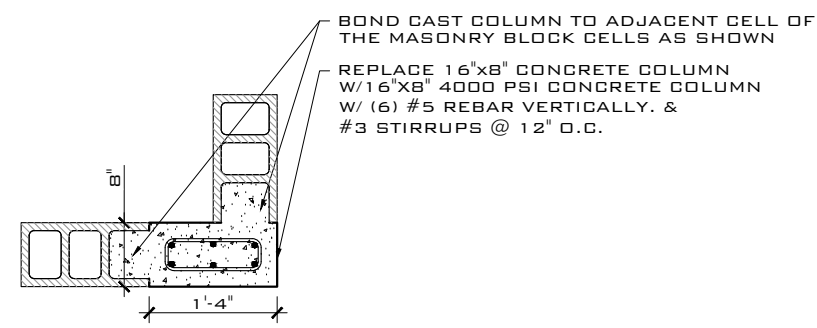
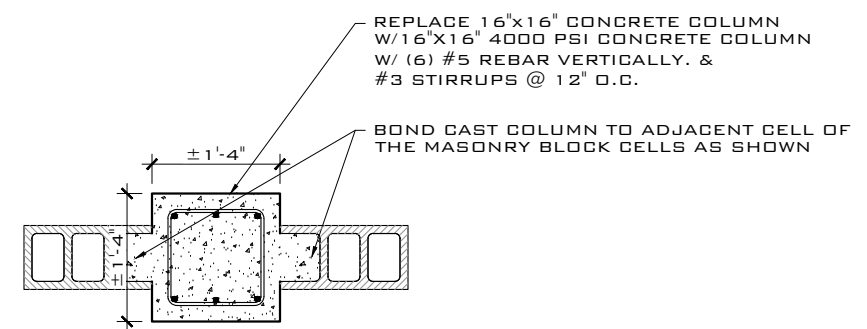


PLAN VIEW FOR LOCATION 1

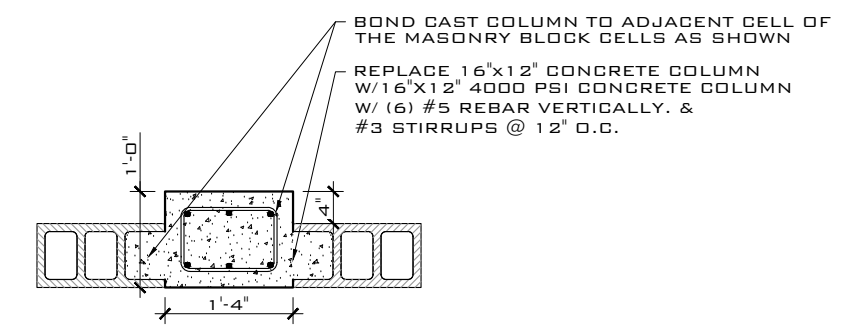
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PLAN VIEW FOR
LOCATION 2,3&4
SCALE: NTS



PLAN VIEW FOR
LOCATION 18
SCALE: NTS



PLAN VIEW FOR
LOCATION 19
SCALE: NTS

FIELD VERIFY ALL DIMENSIONS.
MATCH NEW COLUMN WIDTH
W/ EXISTING COLUMN WIDTH

DETAIL 1: TYPICAL 16" DEEP COLUMN REPLACEMENT
FOR LOCATIONS 1,2,3,4,18&19 (DIMENSION VARIES)
SCALE:NTS

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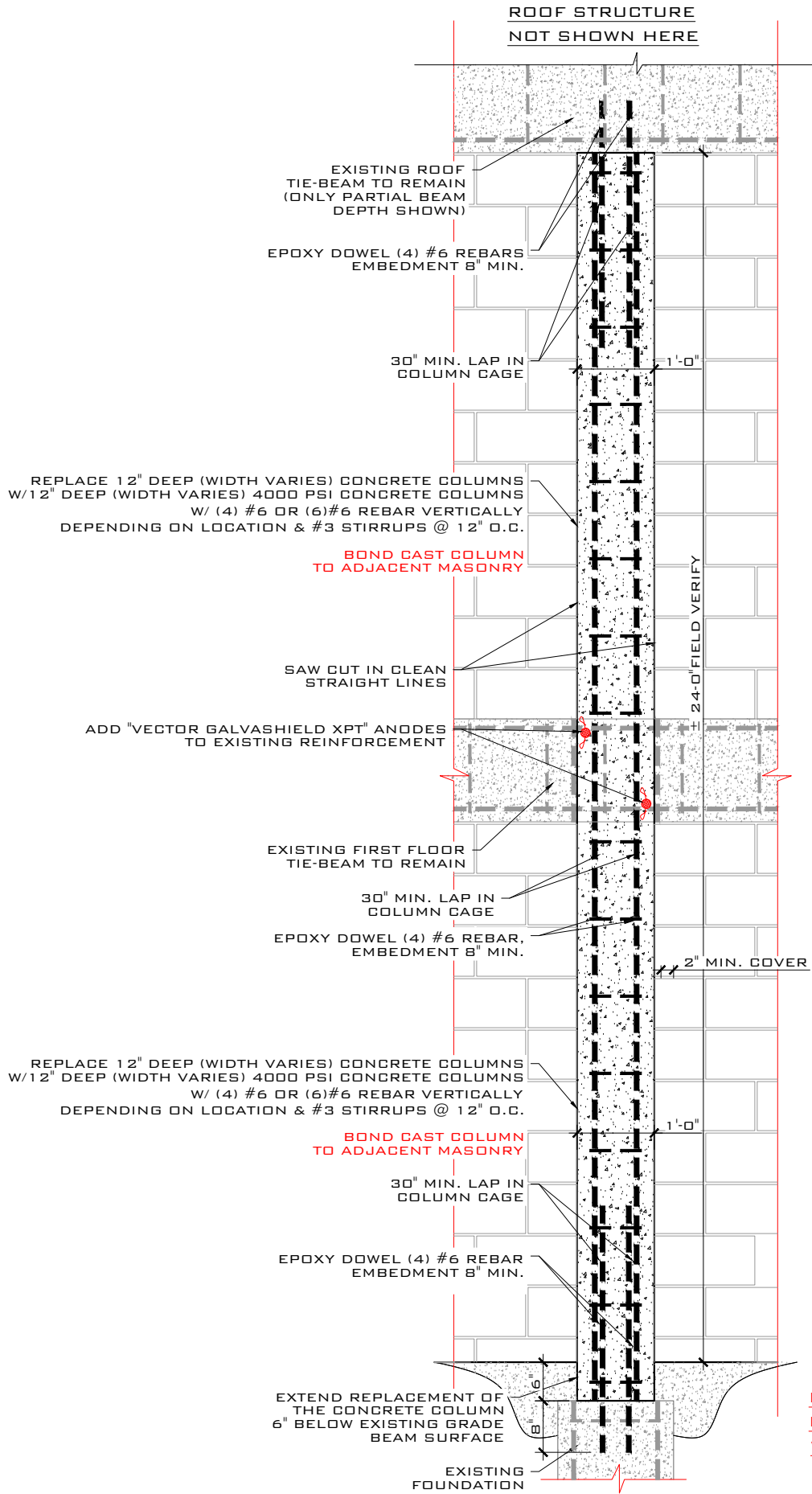
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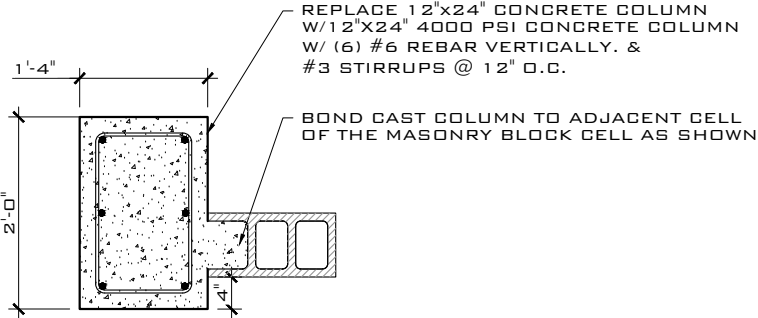
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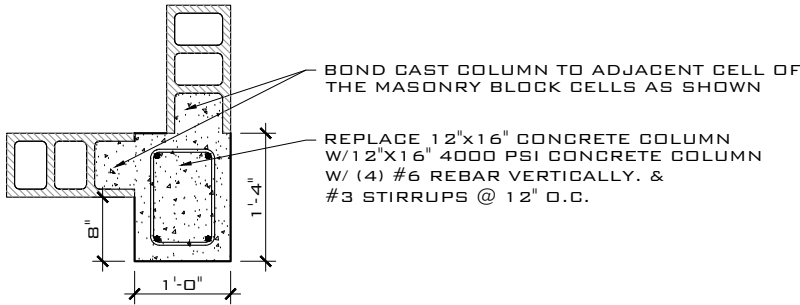
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TITLE: DETAILS							
SCALE AT 1/16"=1'-0"		DATE: 04/20/20		DRAWN: PRS		CHECKED: SAM	
PROJECT NO: 1907-09		DRAWING NO: S-101				REVISION: 1	



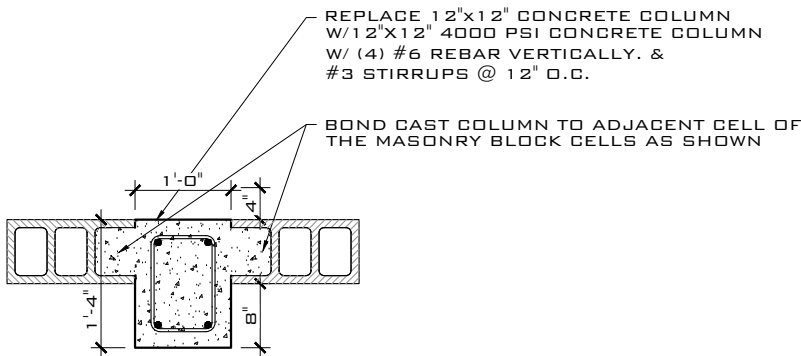
DETAIL 2: TYPICAL 12" WIDE COLUMN REPLACEMENT
FOR LOCATIONS 6 TO 11 & 13 TO 17 (DIMENSION VARIES)
SCALE: NTS



PLAN VIEW FOR
LOCATION 7
SCALE: NTS



PLAN VIEW FOR
LOCATION 10
SCALE: NTS



PLAN VIEW FOR LOCATIONS 8, 9, 11
& 13 TO 17
SCALE: NTS

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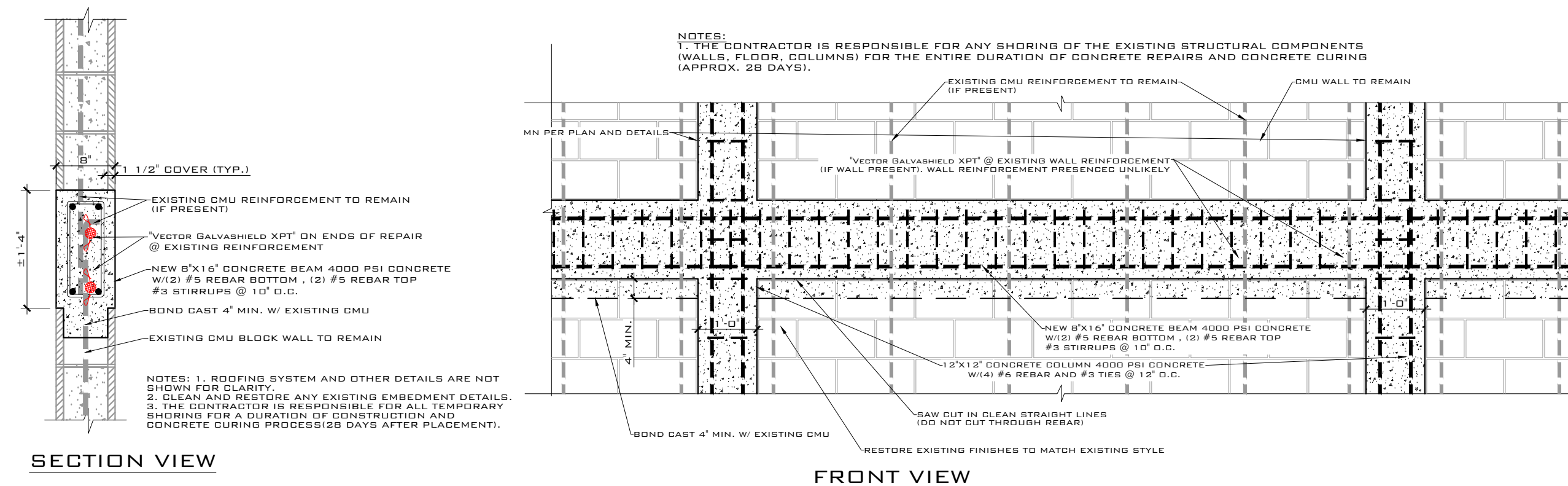
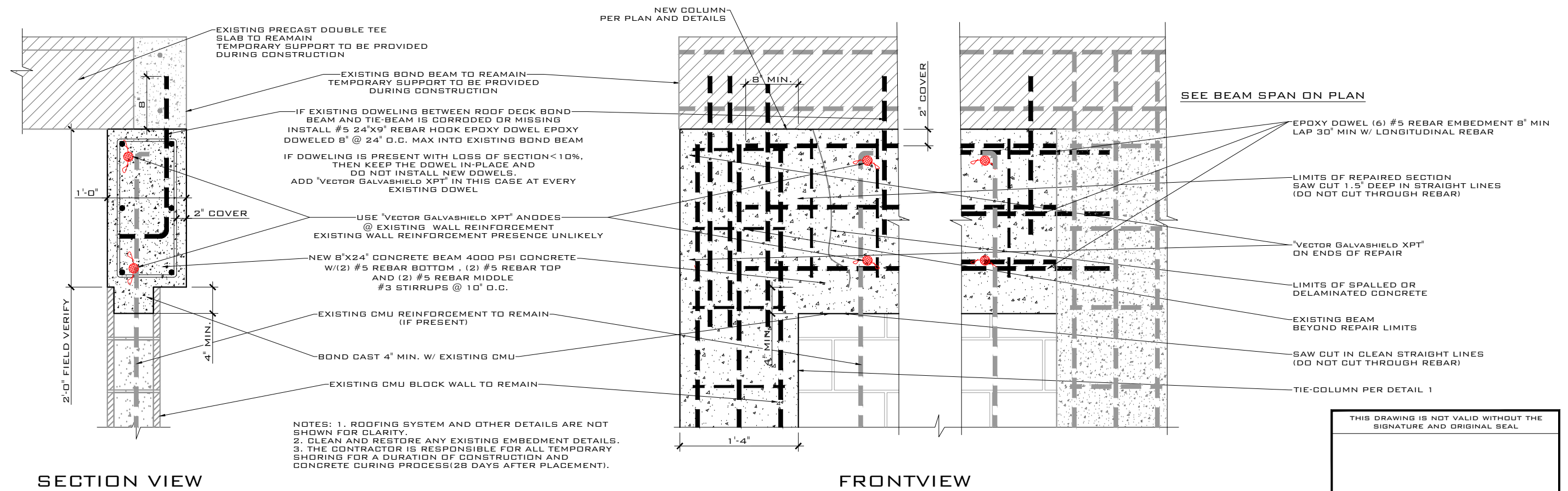
CLIENT: CITY OF KEY WEST

PROJECT: 201 WILLIAM ST
CONCRETE SPALLING REPAIRS

SITE: 201 WILLIAM ST
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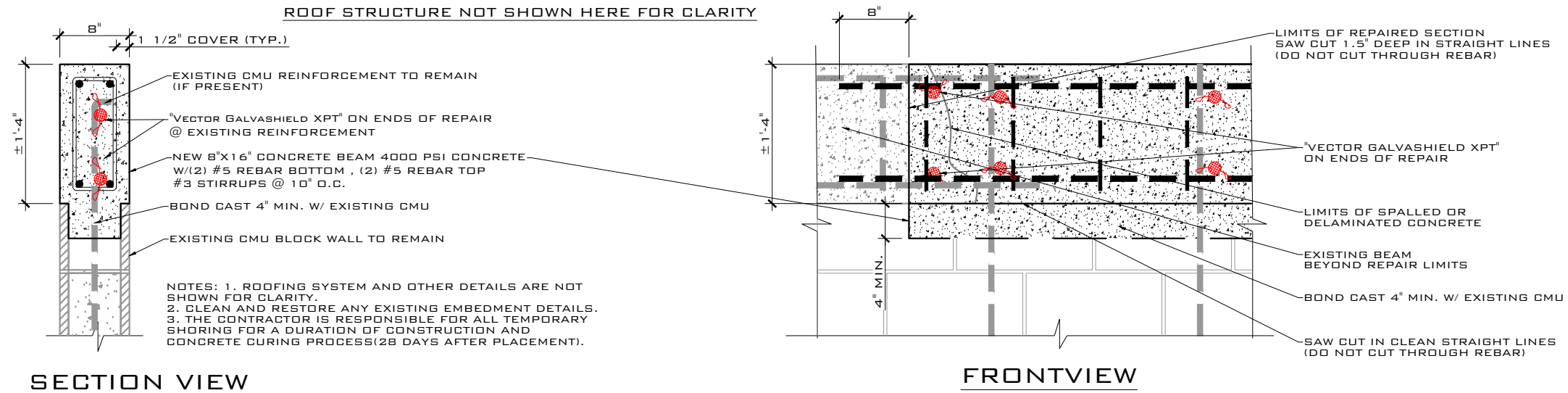
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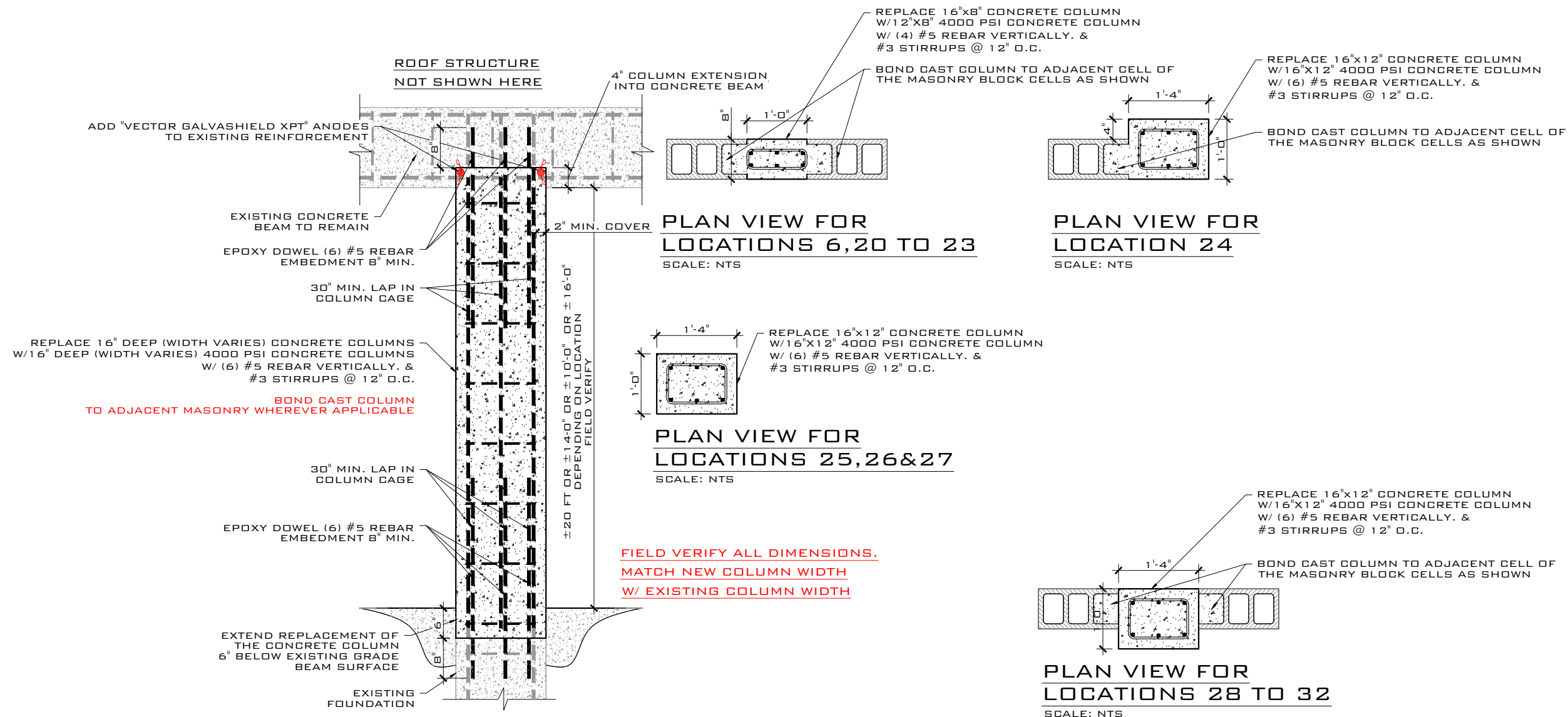
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DETAIL 5: CONCRETE TIE-BEAM REPLACEMENT DETAIL AT ROOF LEVEL
SCALE: NTS



DETAIL 6: TYPICAL COLUMN REPLACEMENT FOR LOCATIONS 6 & 20 TO 32 (DIMENSION VARIES)
SCALE: NTS

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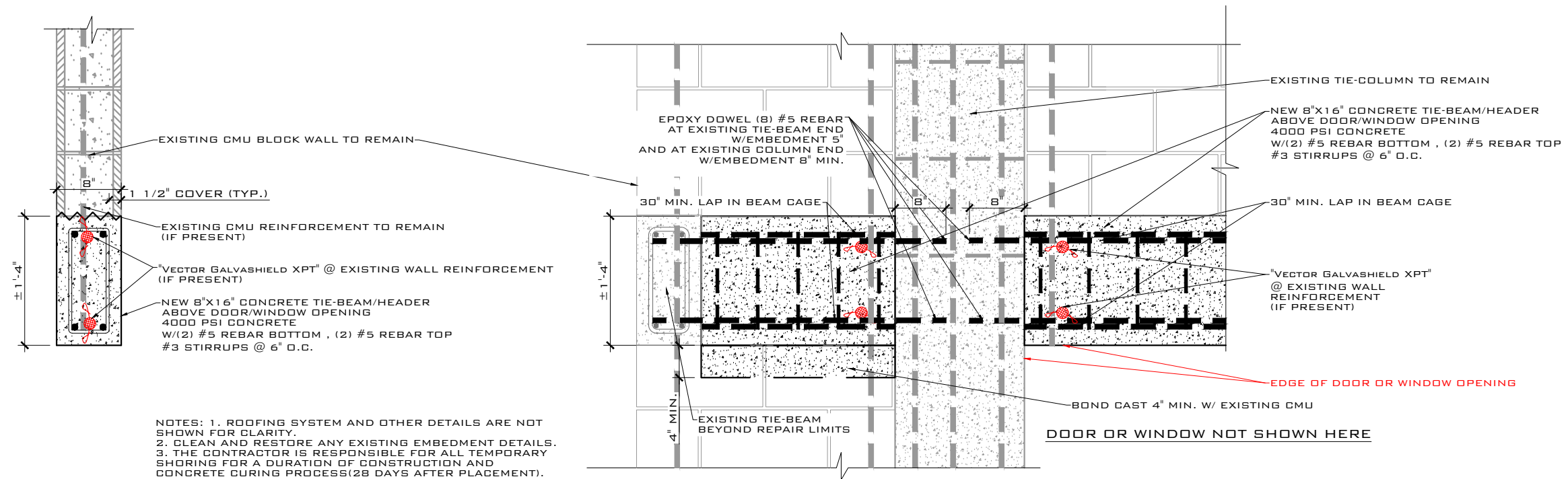
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SCALE AT 1/16"=1'-0"	DATE:	DRAWN:	CHECKED:
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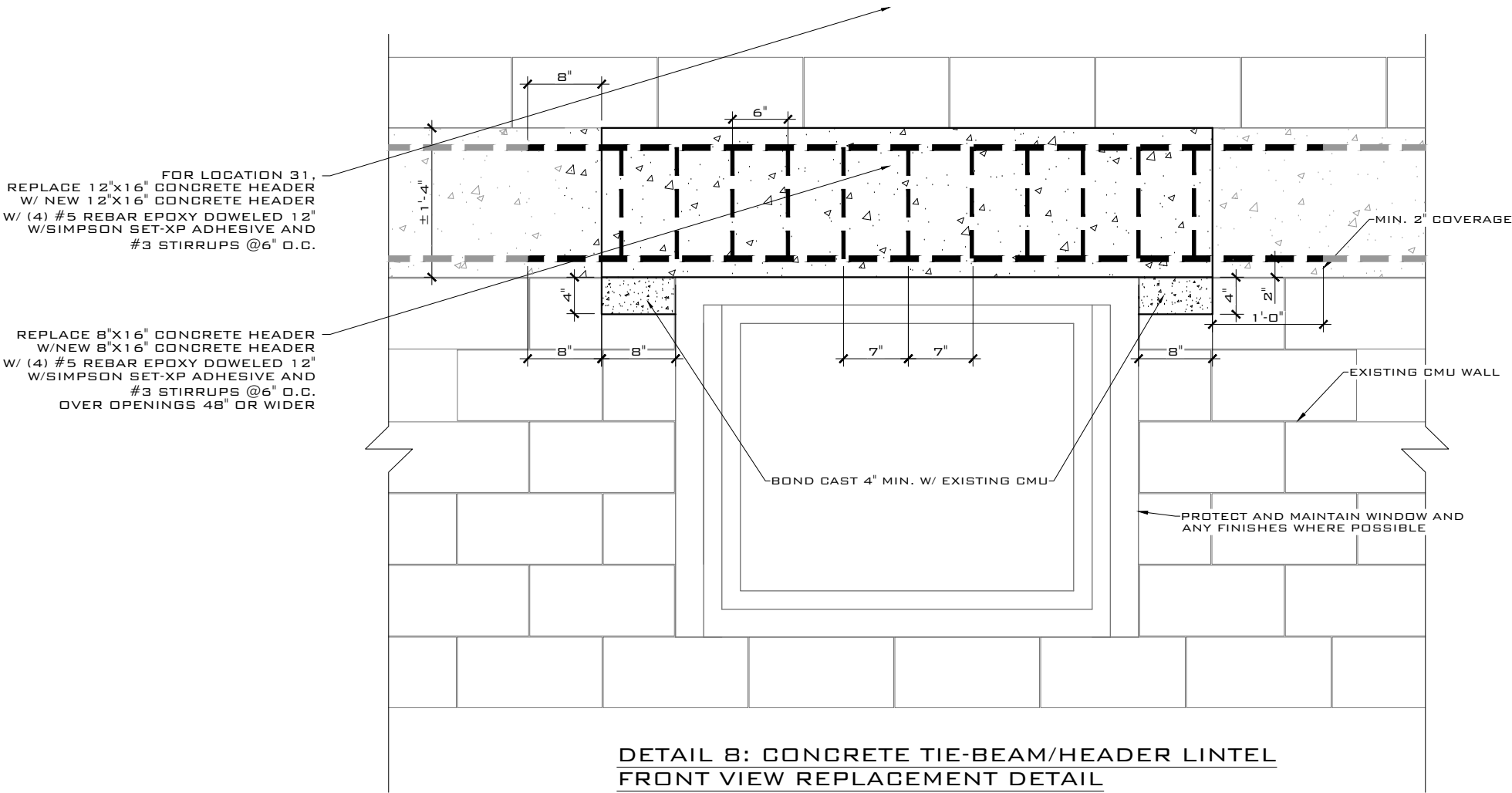


SECTION VIEW

FRONTVIEW

DETAIL 7: CONCRETE HEADER REPLACEMENT DETAIL
BETWEEN LOCATION 33 AND LOCATION 34

SCALE: NTS



DETAIL 8: CONCRETE TIE-BEAM/HEADER LINTEL
FRONT VIEW REPLACEMENT DETAIL

SCALE: NTS

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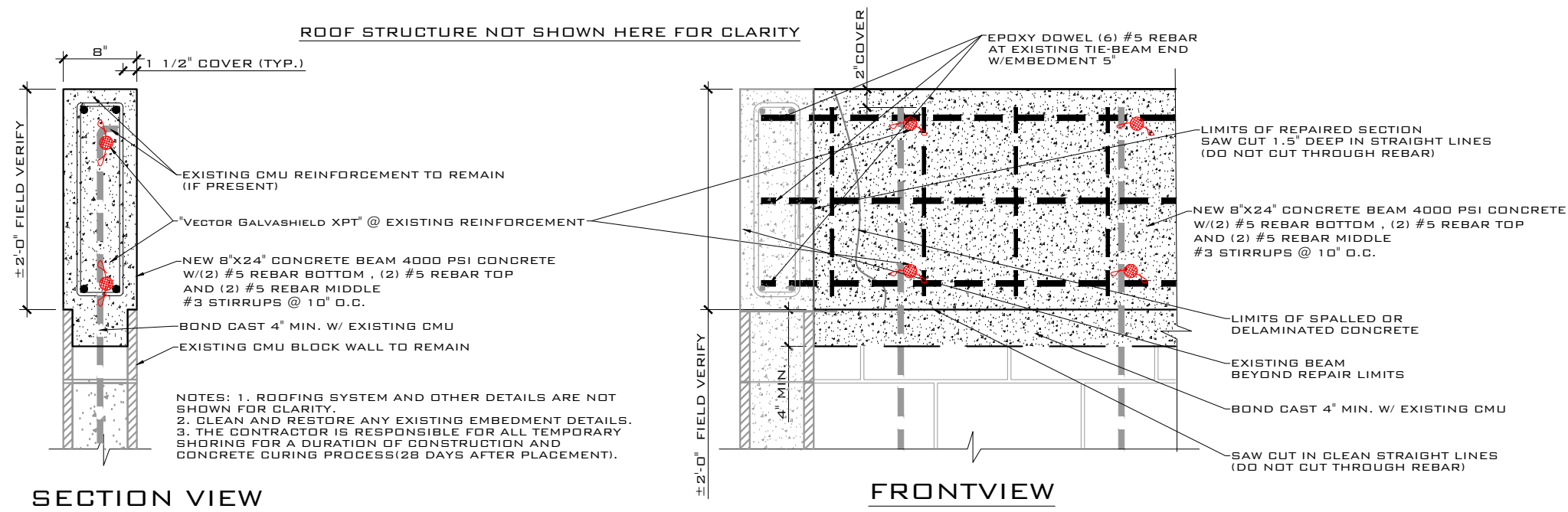
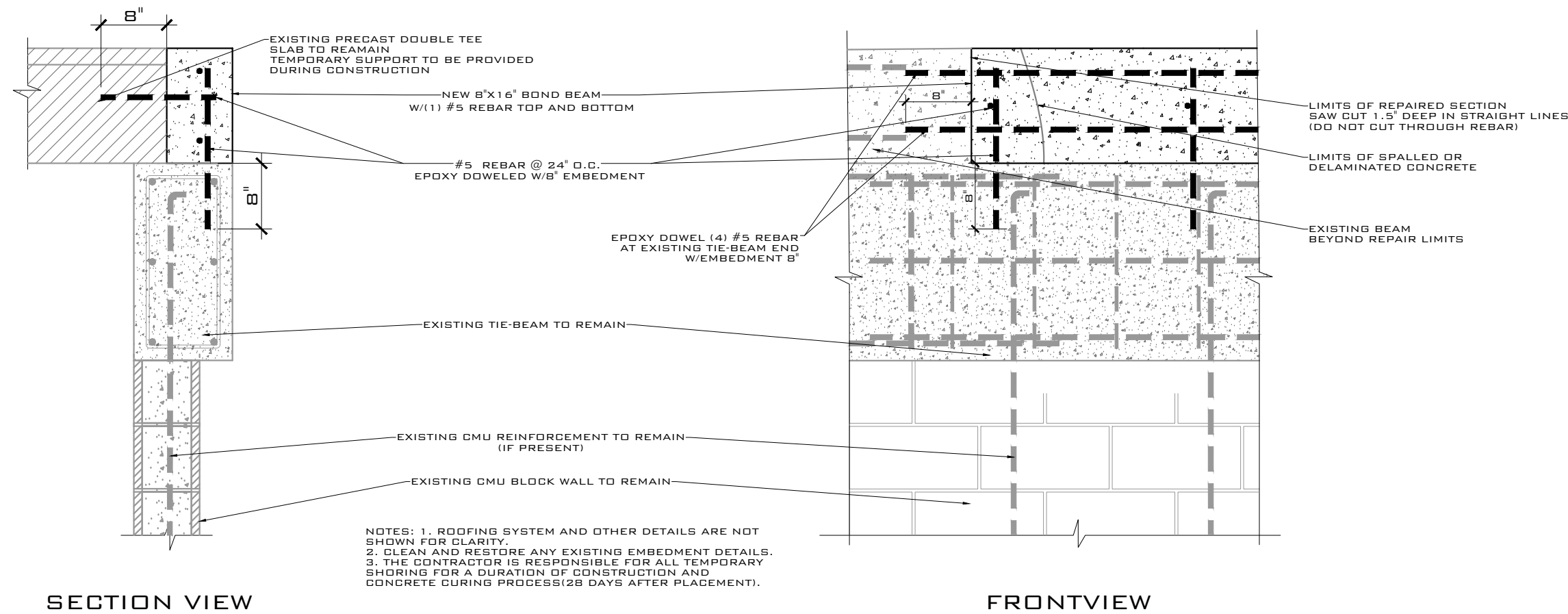
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ARTIBUS DESIGN

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Figure 0. Site Map



Figure 1. Front Elevation near roundabout. Location 1: **Approximately 16 ft long new corner 16x12 concrete column. See detail 1/S101. Approximately 55 ft long new 12x24 horizontal tie-beam. See detail 3/S103.**

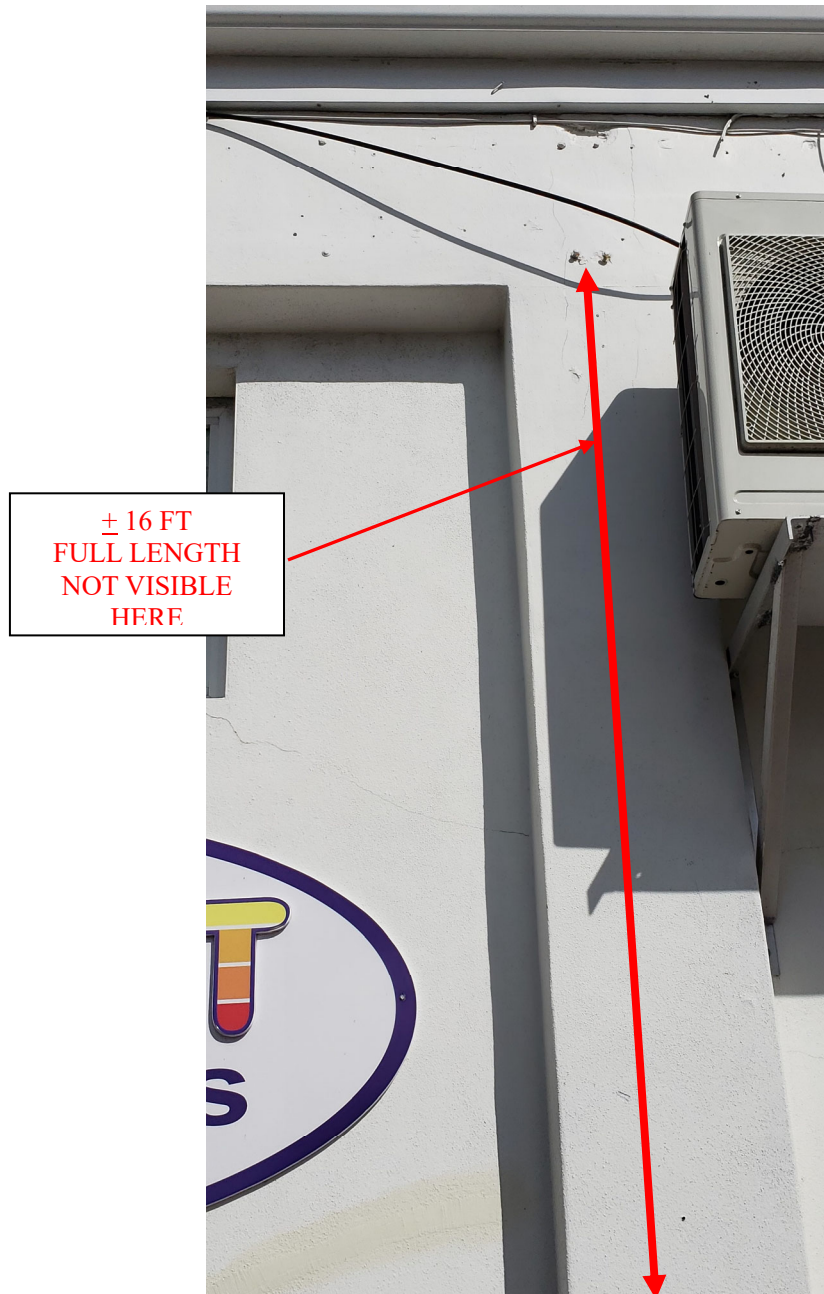


Figure 2. Front Elevation near roundabout. Location 2: **Approximately 16 ft long new 16x16 concrete column. See detail 1/S101.**



Figure 3. Front Elevation near roundabout. Location 3: **Approximately 16 ft long new 16x16 concrete column. See detail 1/S101.**

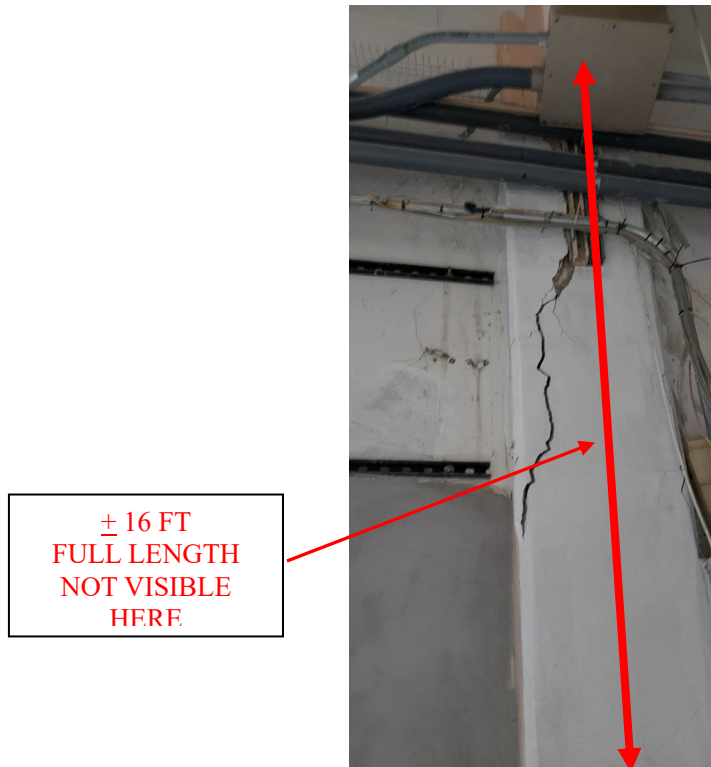


Figure 4. Interior of the Building. Location 4: **Approximately 16 ft long new 16x16 concrete column. See detail 1/S101.**



Figure 5. Location 5: **Approximately 55 ft long new 12x24 horizontal tie-beam. See detail 3/S103.**



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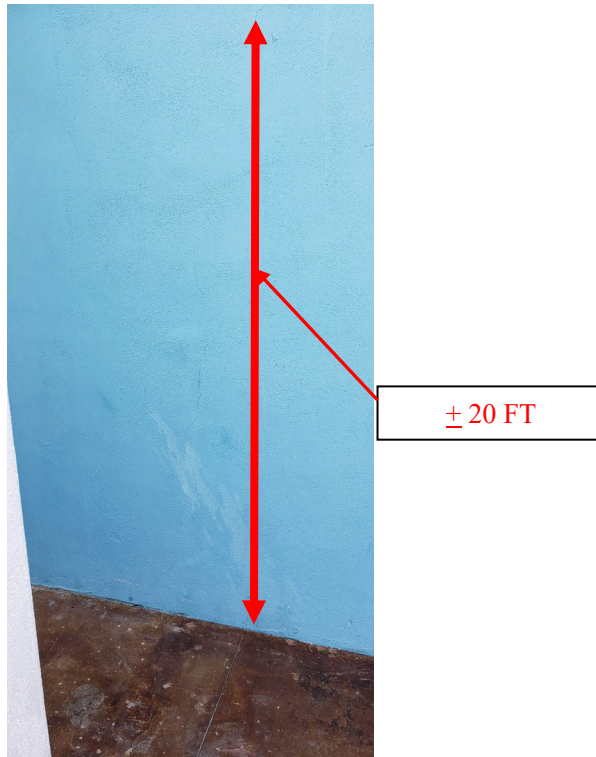


Figure 6. Location 6: **Approximately 20 ft long new 12x8 concrete column. See detail 6/S104.**



Figure 7A. Location 7-10. **Approximately 26 ft long new columns. See Figure 7-10 for column size and details.**



Figure 7. Location 7: **Approximately 26 ft long new 12x24 concrete column. See detail 2/S102.**



Figure 8. Location 8: **Approximately 26 ft long new 12x16 concrete column. See detail 2/S102.**



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Figure 9. Location 9: **Approximately 26 ft long new 12x16 concrete column. See detail 2/S102.**



Figure 10. Location 10: **Approximately 26 ft long new 12x16 concrete column. See detail 2/S102.**

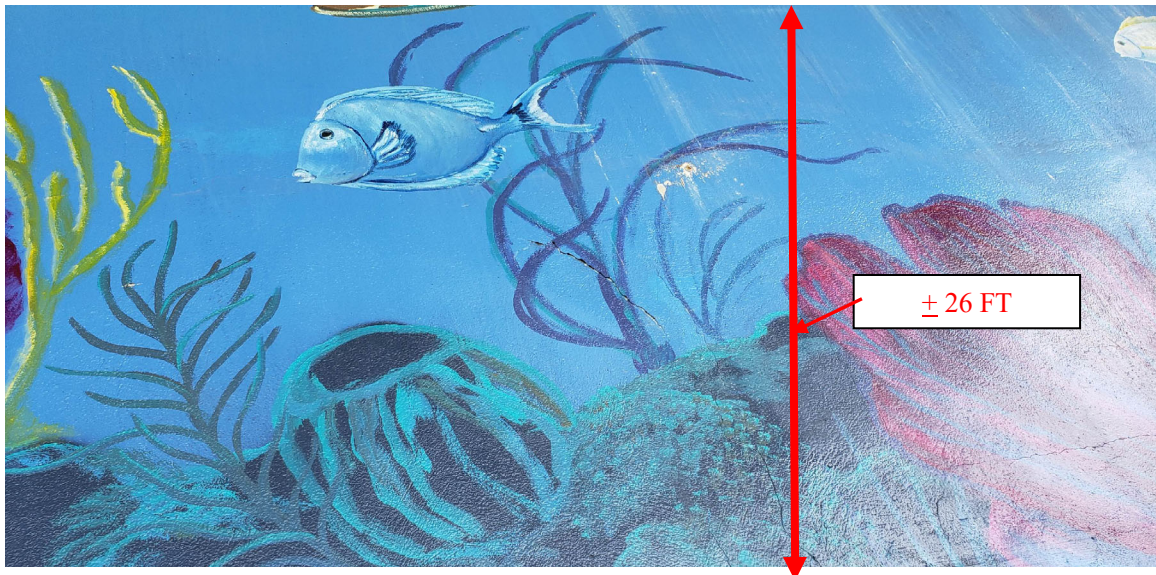


Figure 11. Location 11: **Approximately 26 ft long new 12x16 concrete column.**
See detail 2/S102.



Figure 12. Front Entrance. Location 12: **8x8 cell of the end CMU block to be fully grouted from header to ground.**



Figure 12A. Front Entrance. Location 12: **8 ft long new tie-beam/header. See typical detail 8/S105.**

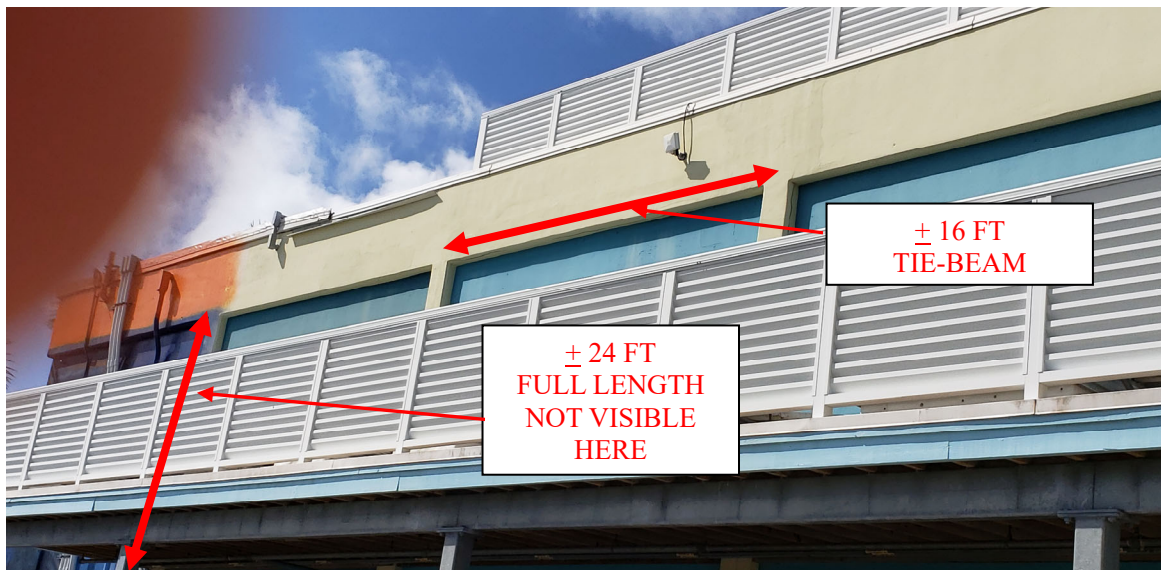
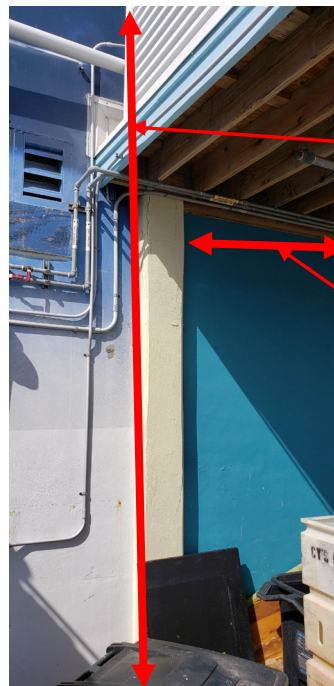


Figure 13A. Location 13-15: **Approximately 24 ft long new columns. See Figure 6-9 for column size and details. Approximately 16 ft long new tie-beam. See detail 3/S103.**



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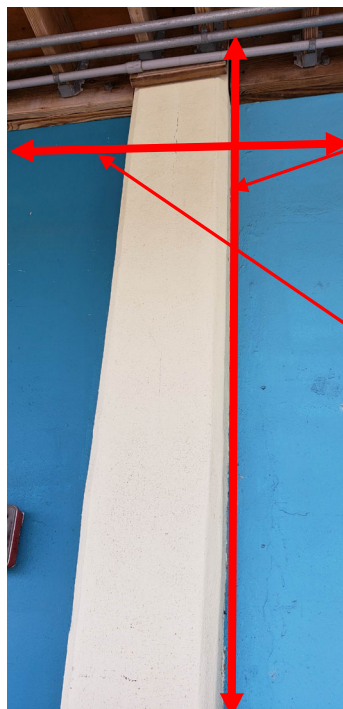
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± 24 FT
FULL LENGTH
NOT VISIBLE
HERE

± 35 FT
TIE-BEAM
FULL LENGTH
NOT VISIBLE
HERE

Figure 13. Location 13: **Approximately 24 ft long new 12x12 concrete column. See detail 2/S102. Approximately 35 ft long new tie-beam. See detail 4/S103.**



± 24 FT
FULL LENGTH
NOT VISIBLE
HERE

± 35 FT
TIE-BEAM
FULL LENGTH
NOT VISIBLE
HERE

Figure 14. Location 14: **Approximately 24 ft long new 12x12 concrete column. See detail 2/S102. Approximately 35 ft long new tie-beam. See detail 4/S103.**



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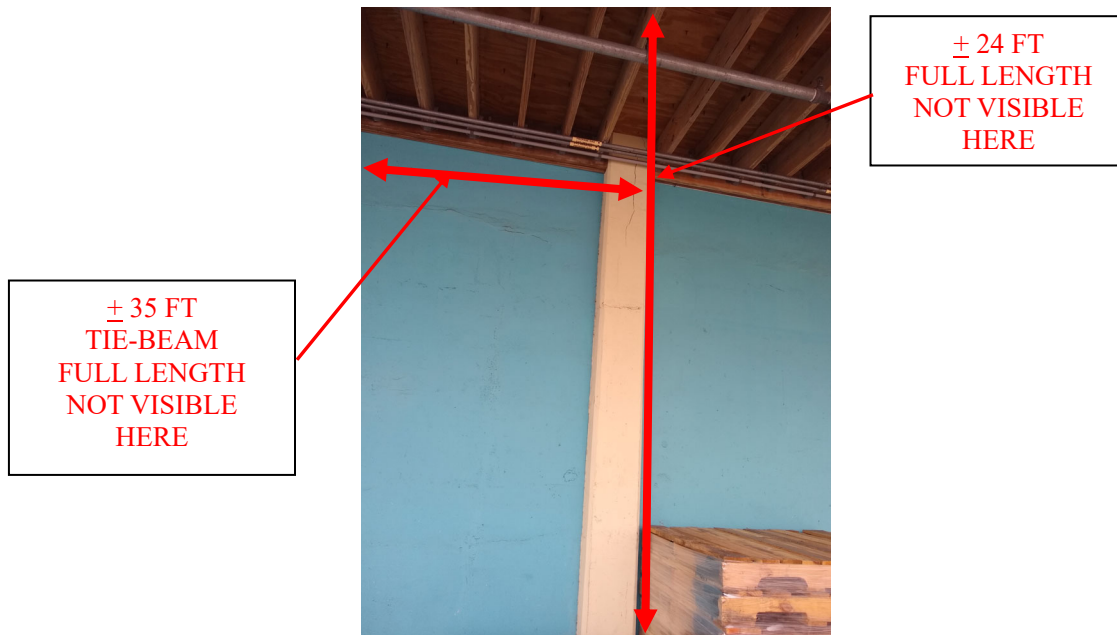


Figure 15. Location 15: **Approximately 24 ft long new 12x12 concrete column. See detail 2/S102. Approximately 35 ft long new tie-beam. See detail 4/S103.**



Figure 16. Location 16: **Approximately 24 ft long new 12x12 concrete column. See detail 2/S102.**

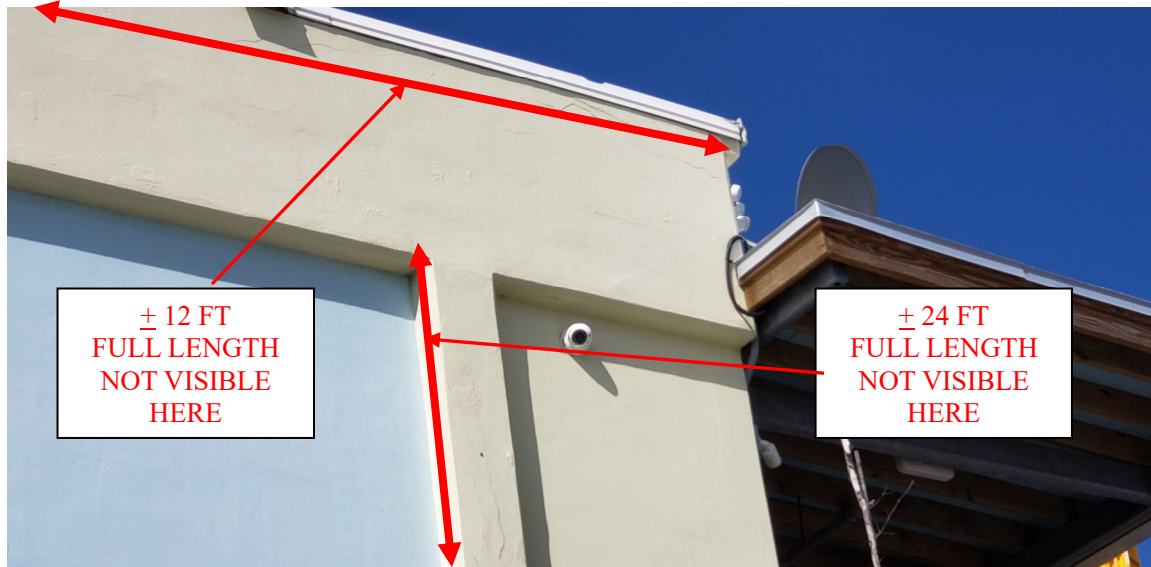


Figure 17. Location 17: **Approximately 24 ft long new 12x12 concrete column. See detail 2/S102. Approximately 35 ft long bond beam. See detail 9/S104.**

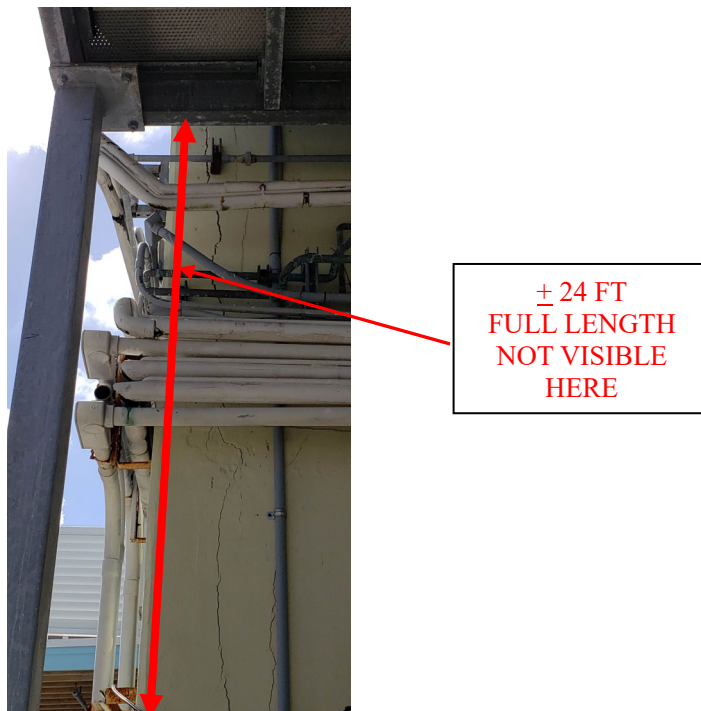


Figure 18. Location 18: **Approximately 24 ft long new 16x8 concrete column. See detail 1/S101.**

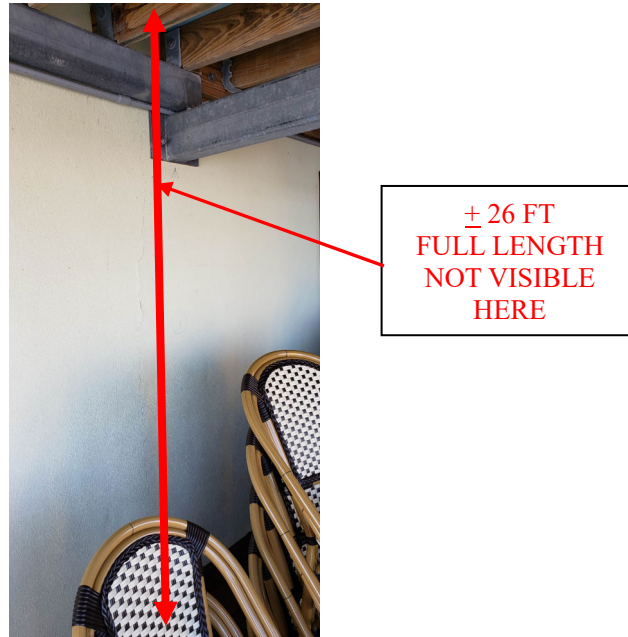


Figure 19. Location 19: **Approximately 26 ft long new 16x8 concrete column. See detail 1/S101.**

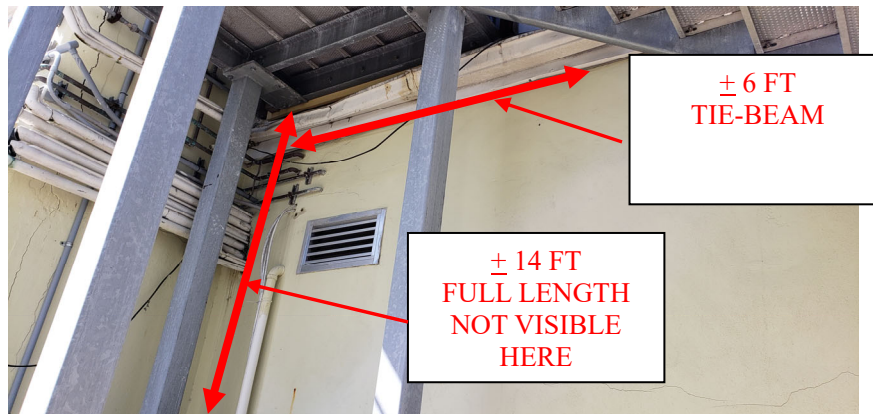


Figure 20. Location 20: **Approximately 14 ft long new 16x8 concrete column. See detail /S104. Approximately 6 ft long new 8x16 horizontal tie-beam. See detail 5/S104.**

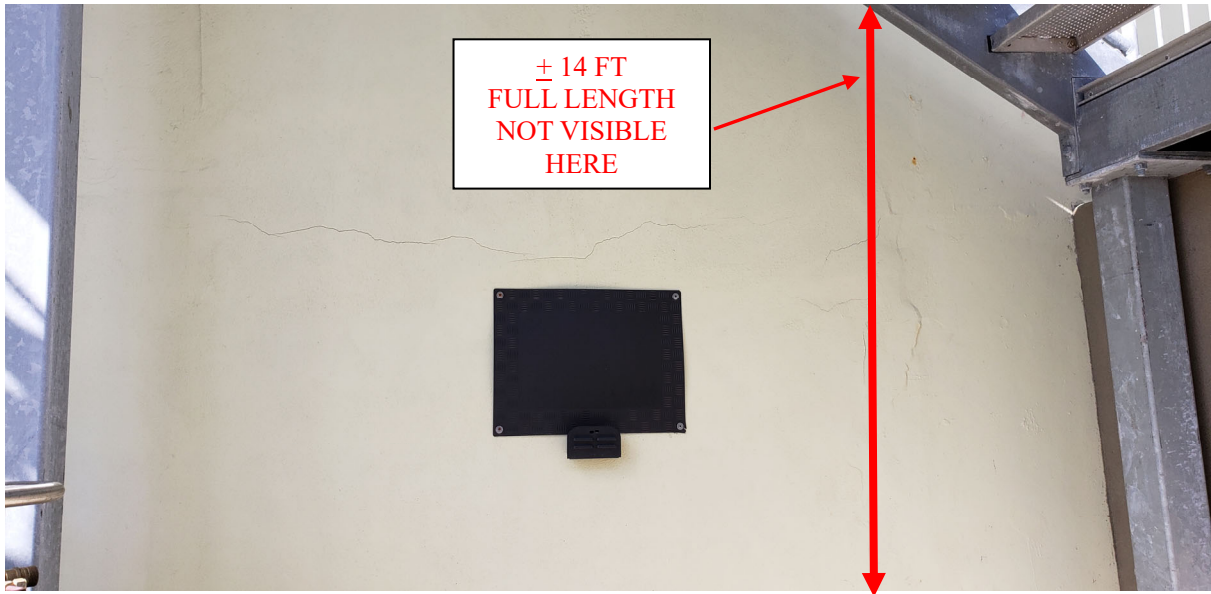


Figure 21. Location 21: **Approximately 14 ft long new 16x8 concrete column. See detail /S104.**



Figure 21A. Between Location 21 and Location 22. **Approximately 12 ft long new 8x16 horizontal tie-beam. See detail 5/S104.**



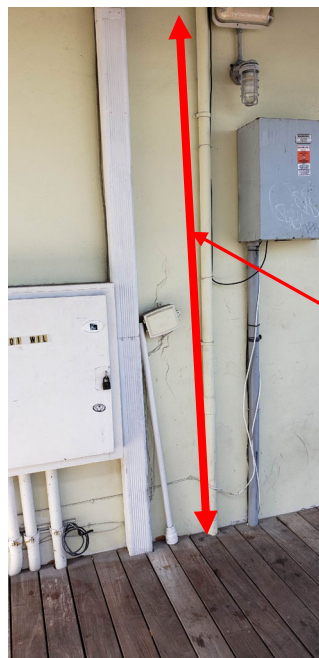
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± 14 FT
FULL LENGTH
NOT VISIBLE
HERE

Figure 22. Location 22: **Approximately 14 ft long new 16x8 concrete column. See detail 6/S104.**



± 14 FT
FULL LENGTH
NOT VISIBLE
HERE

Figure 23. Location 23: **Approximately 14 ft long new 16x8 concrete column. See detail 6/S104.**

PAGE 15 OF 23

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Figure 24. Location 24: **Approximately 10 ft long new 16x12 concrete column.**
See detail 6/S104.



Figure 25. Location 25: **Approximately 10 ft long new 16x12 concrete column.**
See detail 6/S104.



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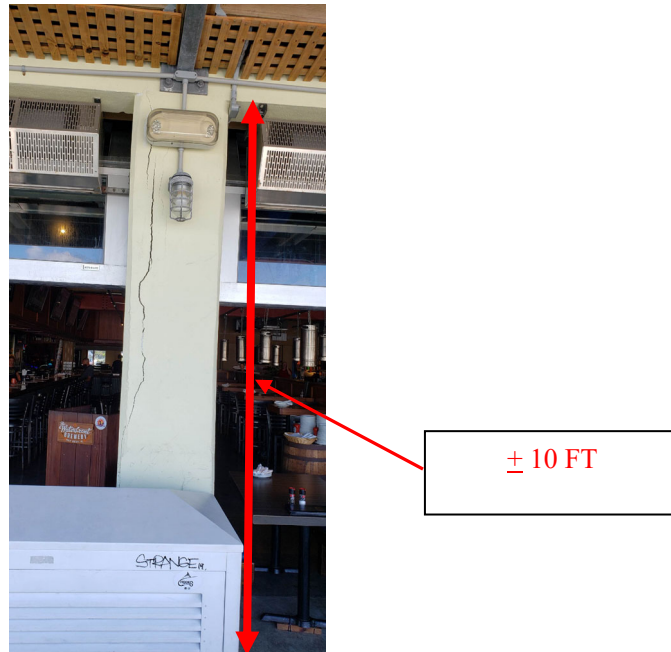


Figure 26. Location 26: **Approximately 10 ft long new 16x12 concrete column.**
See detail 6/S104.

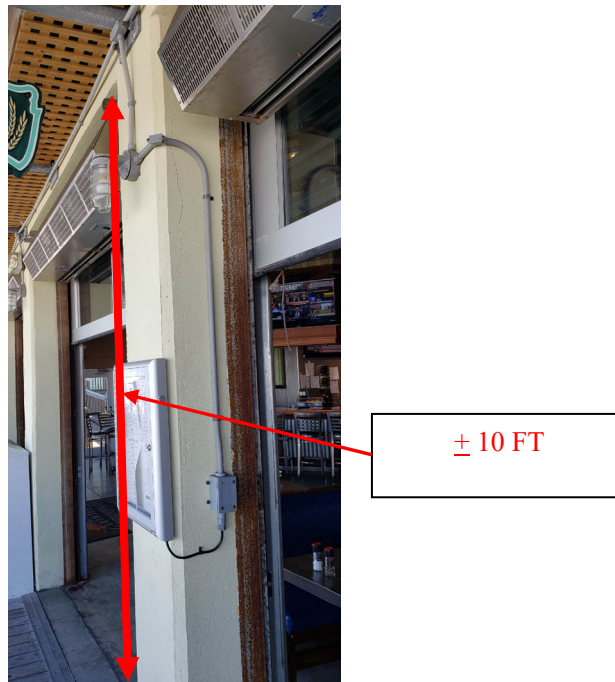


Figure 27. Location 27: **Approximately 10 ft long new 16x12 concrete column.**
See detail 6/S104.



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Figure 28. Coffee Shop. Location 28: **Approximately 14 ft long new 16x12 concrete column. See detail 6/S104.**



Figure 28A. Surf Shop. Between Location 28 and 29: **Approximately 8 ft long new 8x16 horizontal tie-beam. See detail 5/S104 - tie-beam / header replacement detail.**



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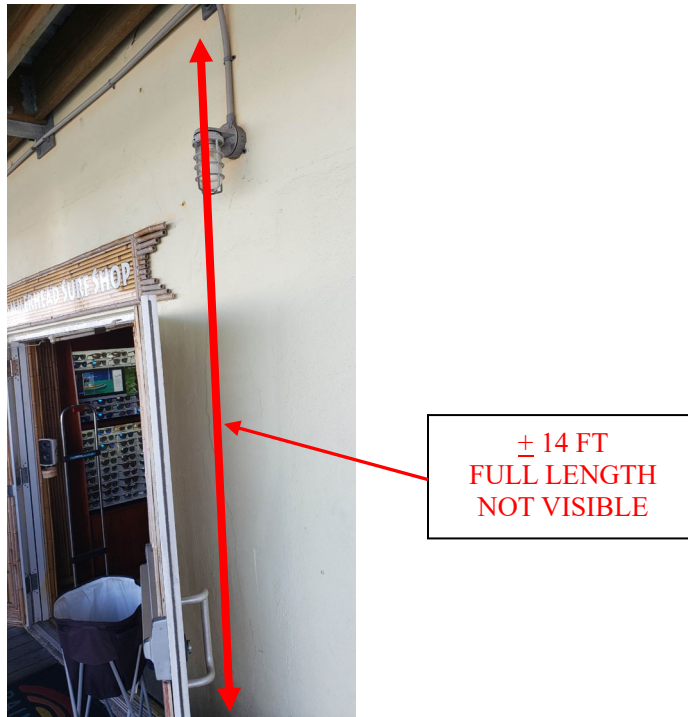


Figure 29. Location 29. **Approximately 14 ft long new 16x12 concrete column.**
See detail 6/S104.

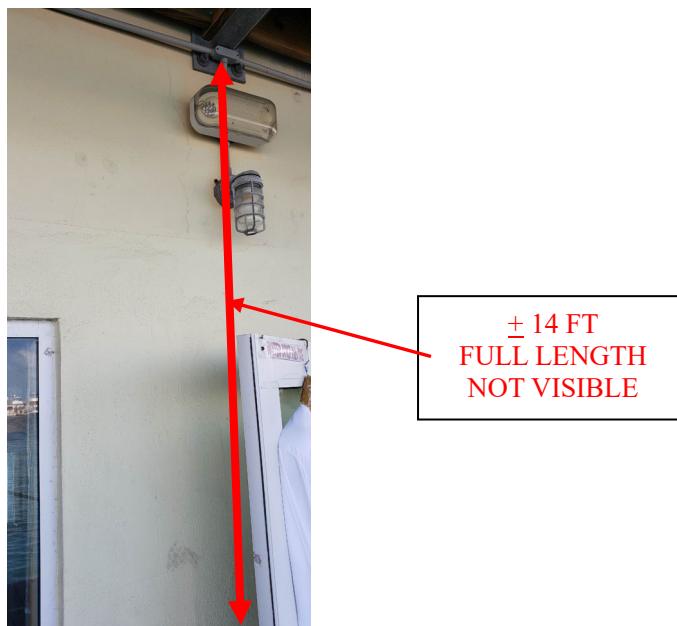


Figure 30. Location 30. **Approximately 14 ft long new 16x12 concrete column.**
See detail 6/S104.

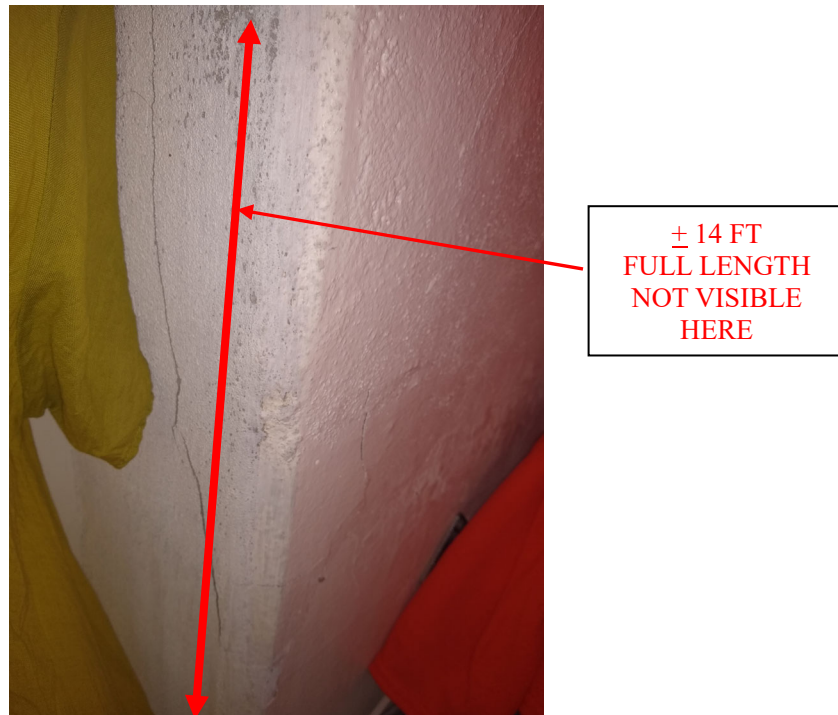


Figure 31. Location 31. **Approximately 14 ft long new 16x12 concrete column. See detail 6/S104.**

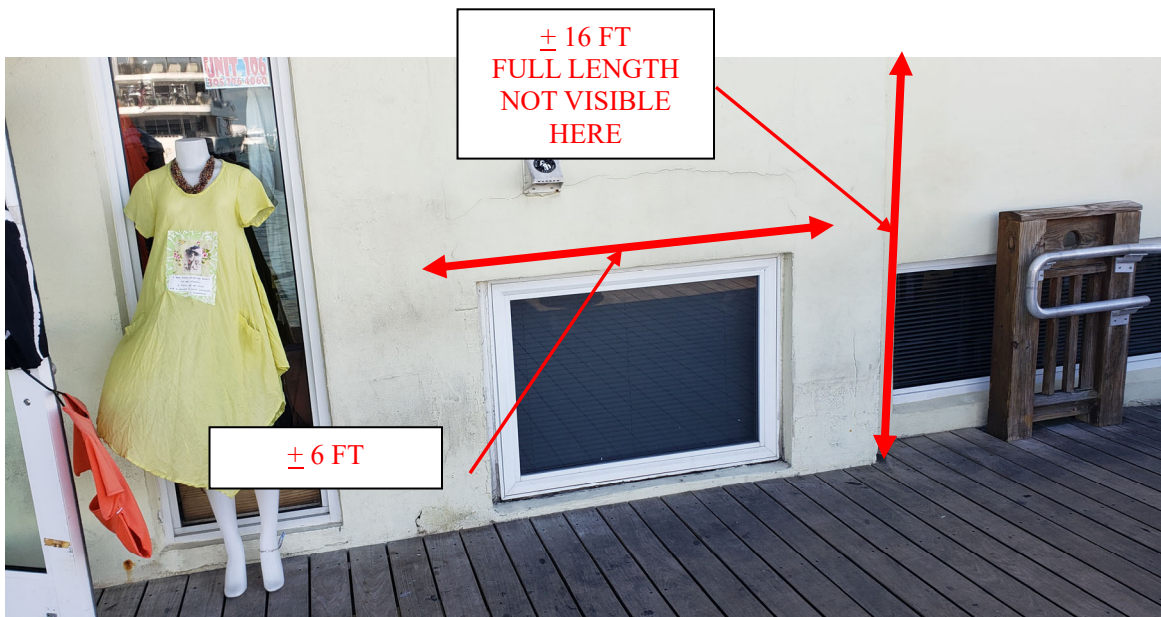


Figure 32. Location 32: **Approximately 16 ft long new 16x12 concrete column. See detail 6/S104. Approximately 6 ft long new 12x16 horizontal tie-beam/header. See detail 8/S105 - tie-beam /header replacement detail.**

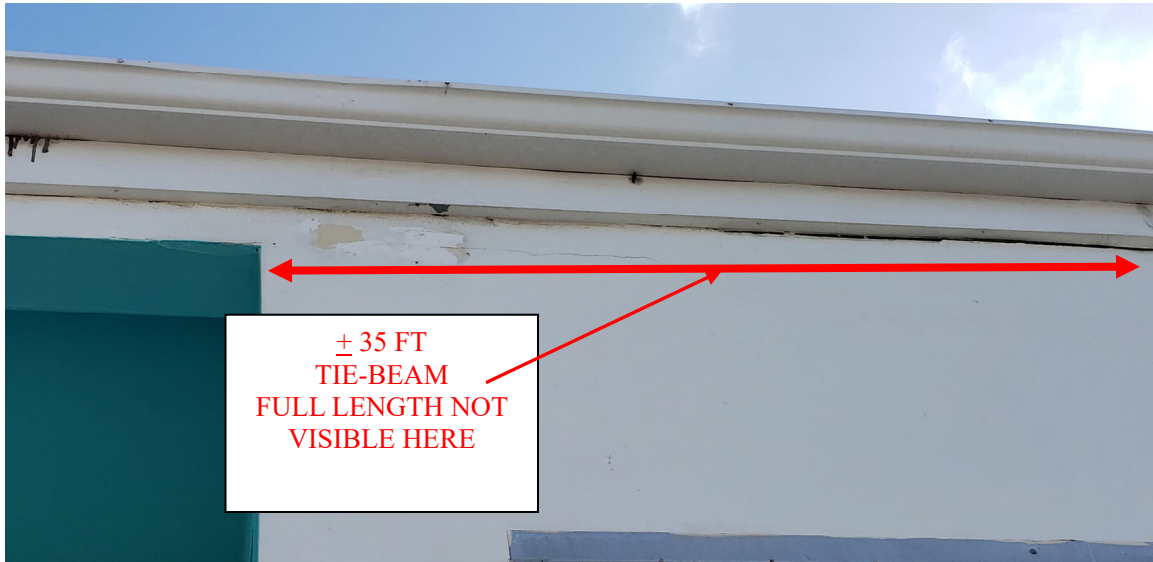


Figure 33. Location 33: **Approximately 35 ft long new 8x24 horizontal tie-beam at roof level. See detail 10/S106.**



Figure 32A. Between Location 33 and Location 34: **Approximately 35 ft long continuous new 8x16 horizontal tie-beam/header above opening. See detail 7/S105.**



Figure 34. Location 34: **Approximately 35 ft long continuous new 8x16 horizontal tie-beam/header above opening. See detail 7/S105.**

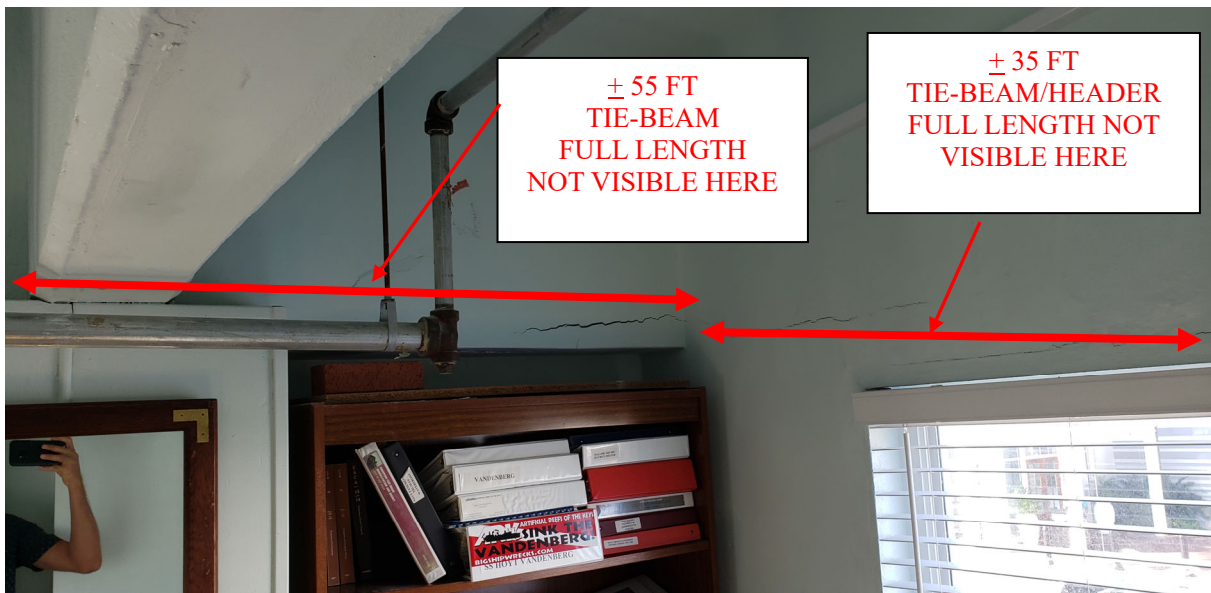


Figure 34A. Interior corner view. Location 34: **Approximately 55 ft long new 12x24 horizontal tie-beam. See detail 3/S103.**
Approximately 35 ft long new 8x24 horizontal tie-beam/header. See detail 10/S106.