



ADDENDUM NO. 1

Issue Date: September 15, 2023

Project Name: Renovation of the Jones' Pier Conservation Area Bungalow

Bid Number: 2024009

Bid Opening Date: October 6, 2023

This addendum is being released to answer questions received to date and provide meeting minutes.

The information and documents contained in this addendum are hereby incorporated in the invitation to bid. **This addendum must be acknowledged where indicated on the bid form, or the bid may be declared non-responsive.**

Project Clarifications:

- A. Site is an active site open from dusk to dawn.
- B. Construction Documents have been submitted for Permit to the Indian County Building Department.
- C. Original existing wood windows are stored on site and are to be reinstalled and refinished/painted within this contract as called out in the Construction Documents. Coordinate with Owner for on-site stored windows.
- D. See attached previous project Grading Plan Sheet C-7 as prepared by MBV Engineers dated 10/17/2018. for reference grades and tie-in grades for sidewalks, stairs, and handicap ramp.

Attachments:

Grading Plan Sheet C-7 prepared by MBV Engineers dated 10/17/2018
Probable Cost of Construction Estimate
Civil Utility Plan, Sheet C-9 prepared by MBV Engineers dated 10/17/2018
Electrical Sheet E0.1 as prepared by Kamm Consulting dated 4/24/2020
Asbestos Survey

Questions and Answers

1. What is the roofing material, type of material and material thickness?
5 "V" Crimp Metal Roofing shall be bid as specified in Section 07410. Self-Adhering, High Temp Polyethylene-Faced Sheet Underlayment shall be 60 mils thick minimum in lieu of 40 mils as

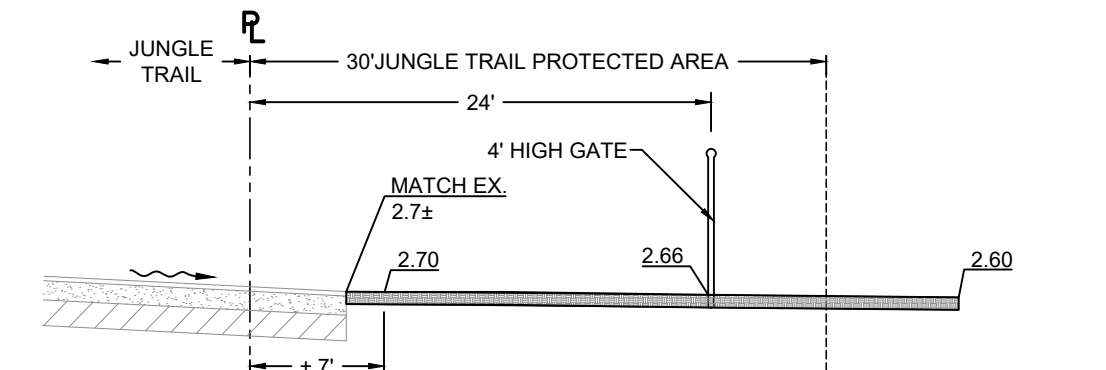
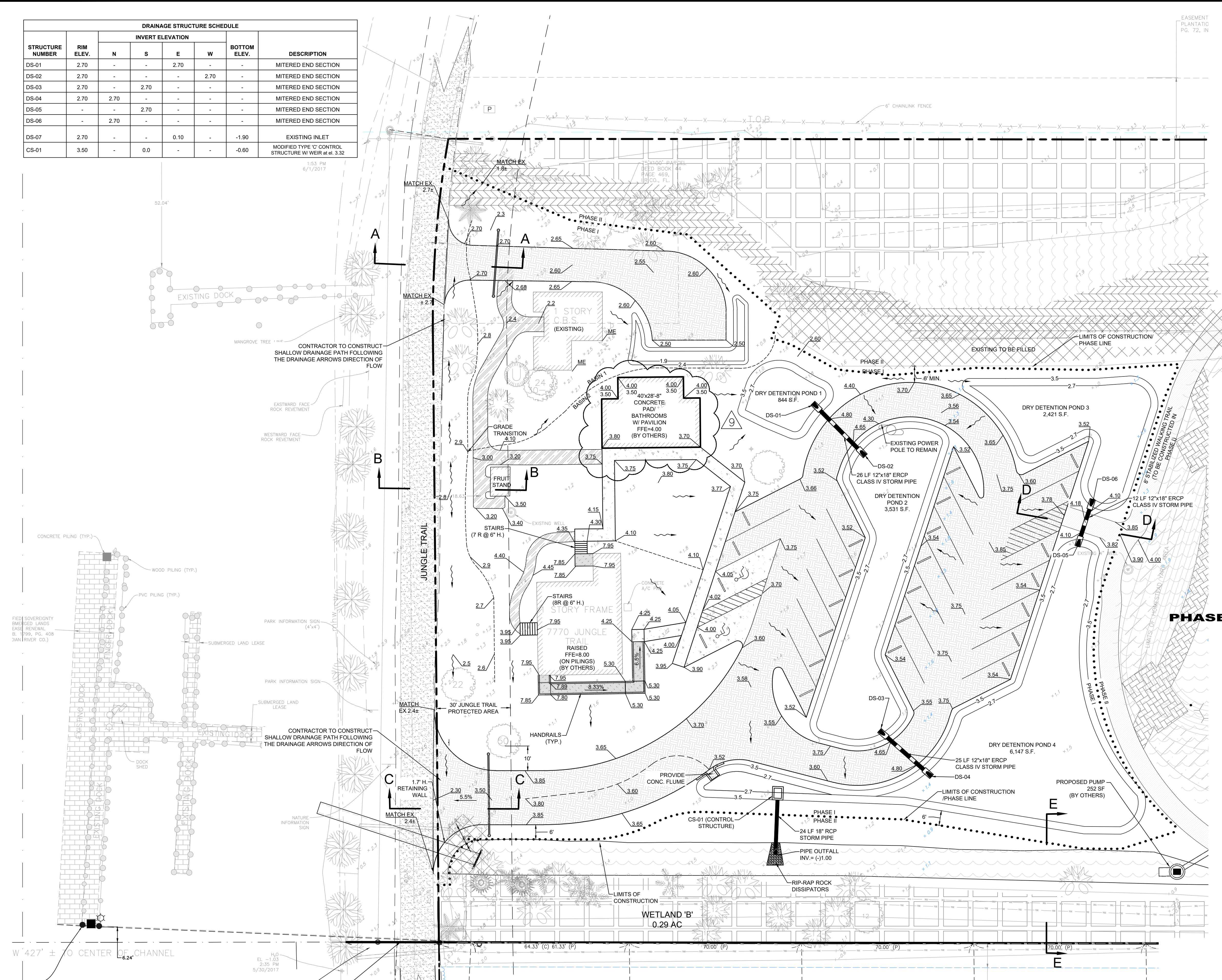
Addendum Form
specified.

2. Is there an Asbestos Report?
See attached Asbestos, Lead Paint and Limited Mold Assessment Report as prepared by Terrcon Consultants, Inc. on February 17, 2021.
3. Are there any roof framing improvements?
All framing enhancements shall be Bid as shown on Structural Sheets 1 of 7 thru 7 of 7 included in the Bid Set.
4. How will the existing wood flooring be handled once the LVT is removed?
Provide an Allowance of \$20,000 for new wood flooring and ¼" plywood underlayment material, labor and finish over the existing wood floor or for repair and/or partial replacement and complete refinishing of the existing wood flooring.
5. Is there a budget for this project?
See attached Probable Cost of Construction Estimate.
6. What is the cut off date for questions?
September 26, 2023, is the last day for questions.
7. Will the existing overhead electrical mast be removed?
Existing overhead electric mast, meter can and wiring to be removed completely. Electrical Service will come off of the existing Pavilion electrical MDP panel. Pavilion panel has been sized to service this structure. See Electrical Sheet E0.1 as prepared by Kamm Consulting dated 04/24/20 for reference. Also, underground electrical conduit is in place within 10 feet of the northern most end of the Residential Building.
8. Are there any existing underground utilities within the project site and to service this building?
See attached previous project Civil Utility Plan, Sheet C-9 as prepared by MBV Engineers dated 10/17/2018 for reference of in place utilities.

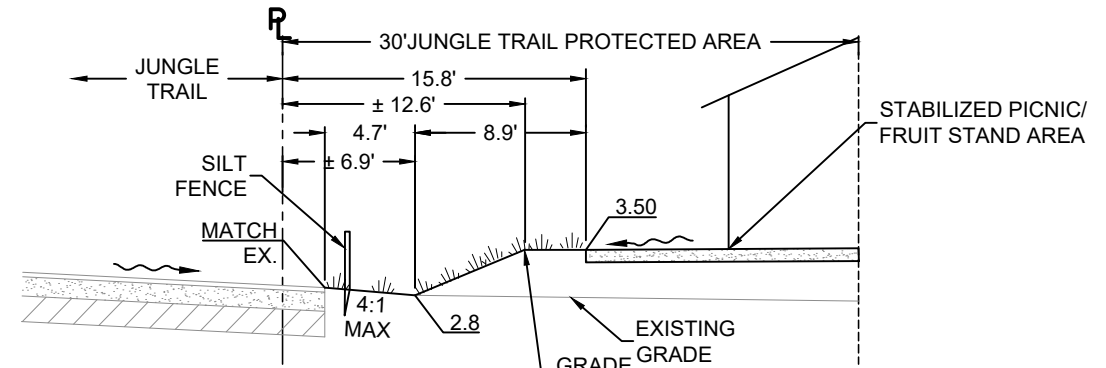
STRUCTURE NUMBER	RIM ELEV.	INVERT ELEVATION				BOTTOM ELEV.	DESCRIPTION
		N	S	E	W		
DS-01	2.70	-	-	2.70	-	-	MITERED END SECTION
DS-02	2.70	-	-	-	2.70	-	MITERED END SECTION
DS-03	2.70	-	2.70	-	-	-	MITERED END SECTION
DS-04	2.70	2.70	-	-	-	-	MITERED END SECTION
DS-05	-	-	2.70	-	-	-	MITERED END SECTION
DS-06	-	2.70	-	-	-	-	MITERED END SECTION
DS-07	2.70	-	-	0.10	-	-1.90	EXISTING INLET
CS-01	3.50	-	0.0	-	-	-0.60	MODIFIED TYPE 'C' CONTROL STRUCTURE W/ WEIR at el. 3.32

LEGEND

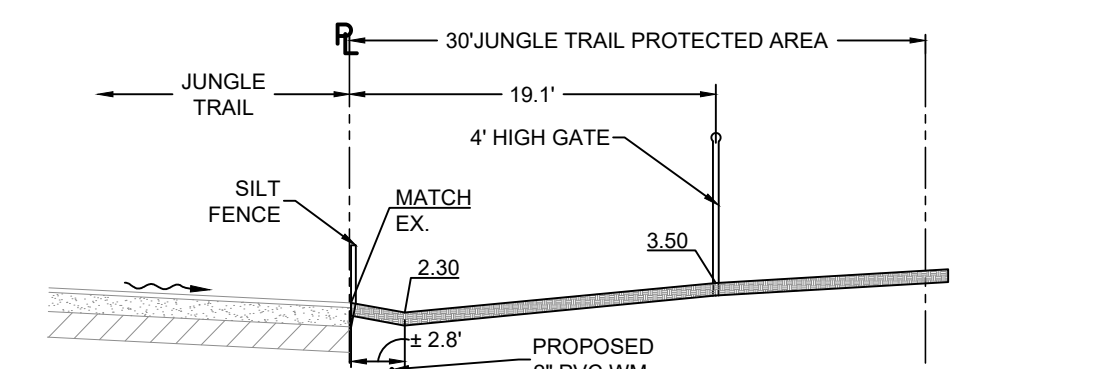
- PROPOSED ASPHALT MILLINGS DRIVEWAY & PARKING LOT
- PROPOSED WALKING PATH
- PROPOSED MARL WALK PATH BETW. BLDGS.
- PROPOSED CONCRETE
- CREATED UPLAND BUFFER AREA
- CREATED WETLAND AREA
- CONVERTED TO WETLAND AREA
- ENHANCED WETLAND AREA
- FILLED WETLAND AREA
- EXISTING ELEVATION
- PROPOSED ELEVATION
- DRAINAGE FLOW PATTERN
- OAK TREE W/SIZE
- MANGROVE TREE LINE
- COCONUT PALM
- CABBAGE PALM
- ROYAL PALM
- NORFOLK ISLAND PINE
- WASHINGTON PALM
- LIMITS OF CONSTRUCTION PHASE LINE



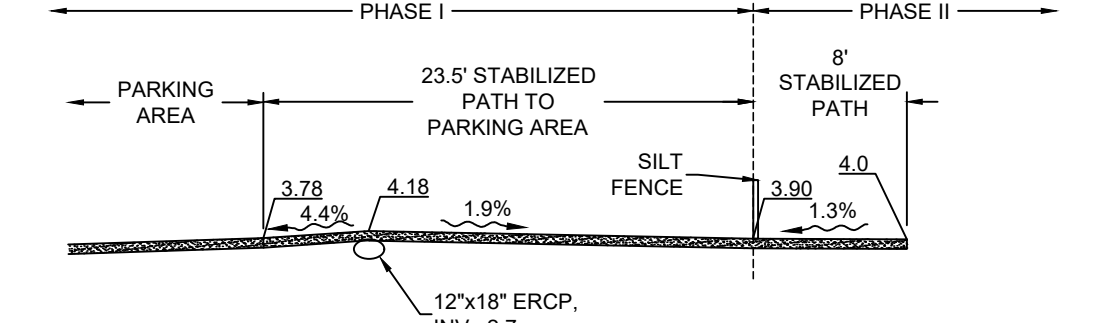
SECTION A-A
N.T.S.



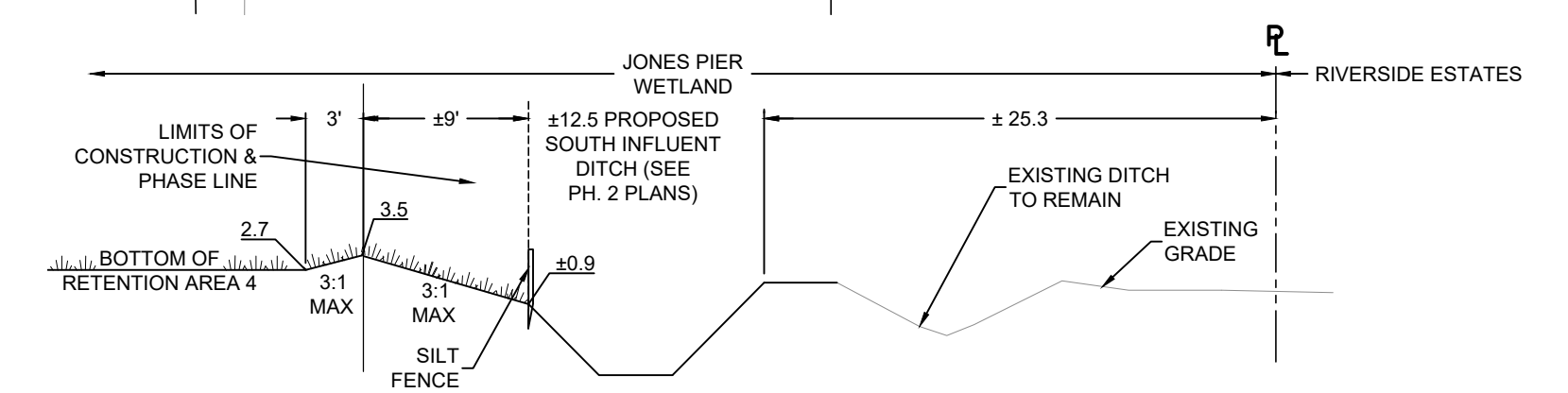
SECTION B-B
N.T.S.



SECTION C-C
N.T.S.



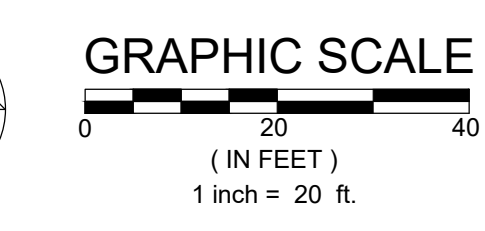
SECTION D-D
N.T.S.



SECTION E-E
N.T.S.

PHASE I PAVING, GRADING AND DRAINAGE PLAN

SCALE: 1" = 20'



72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
Know what's below.
Call before you dig.

DATE	ISSUED	REVISIONS
10-17-2018	10/28/2019	1 PER CIVIL AND IRC COMMENTS
10-15-2018	AS	2 PER CIVIL UTIL DEPT
03-22-2019	AS	3 PHASING COORDINATION
09-09-2019	RT	4 FORCE MAIN
09-11-2019	ND	5 L.S. TO STEP SYSTEM
10-28-2019	ND	6 CONSTRUCTION REVIEW
03-16-2020	ND	7 PATH GRADING

MBV ENGINEERING, INC.
MOHA BOMLES WILLIAMS & ASSOCIATES
1835 W. 20TH STREET
MIAMI BEACH, FL 33140
TEL: (305) 253-1510
FAX: (772) 778-3817
MEMORPHISE, FL - PH (772) 488-0055

PHASE 1 PAVING, GRADING AND DRAINAGE PLAN

JONES PIER WETLAND RESTORATION AND CONSERVATION IMPROVEMENTS PHASE 1

AARON G. STANTON
LICENSE No. 72460
STATE OF FLORIDA
PROFESSIONAL ENGINEER
AARON G. STANTON
FL. P.E. #72460 DATE:

SHEET
C7
OF 17
17-0133

C C & A
CONSTRUCTION CONSULTANTS & ASSOCIATES, INC.

PROJECT : **Historic Residence Museum - Jones' Pier**
LOCATION : **Vero Beach, FI**
FILE NAME : **Jones' Pier**

DATE : 09/06/23
PROJ # : 2023.135
PAGE : 1 OF 2

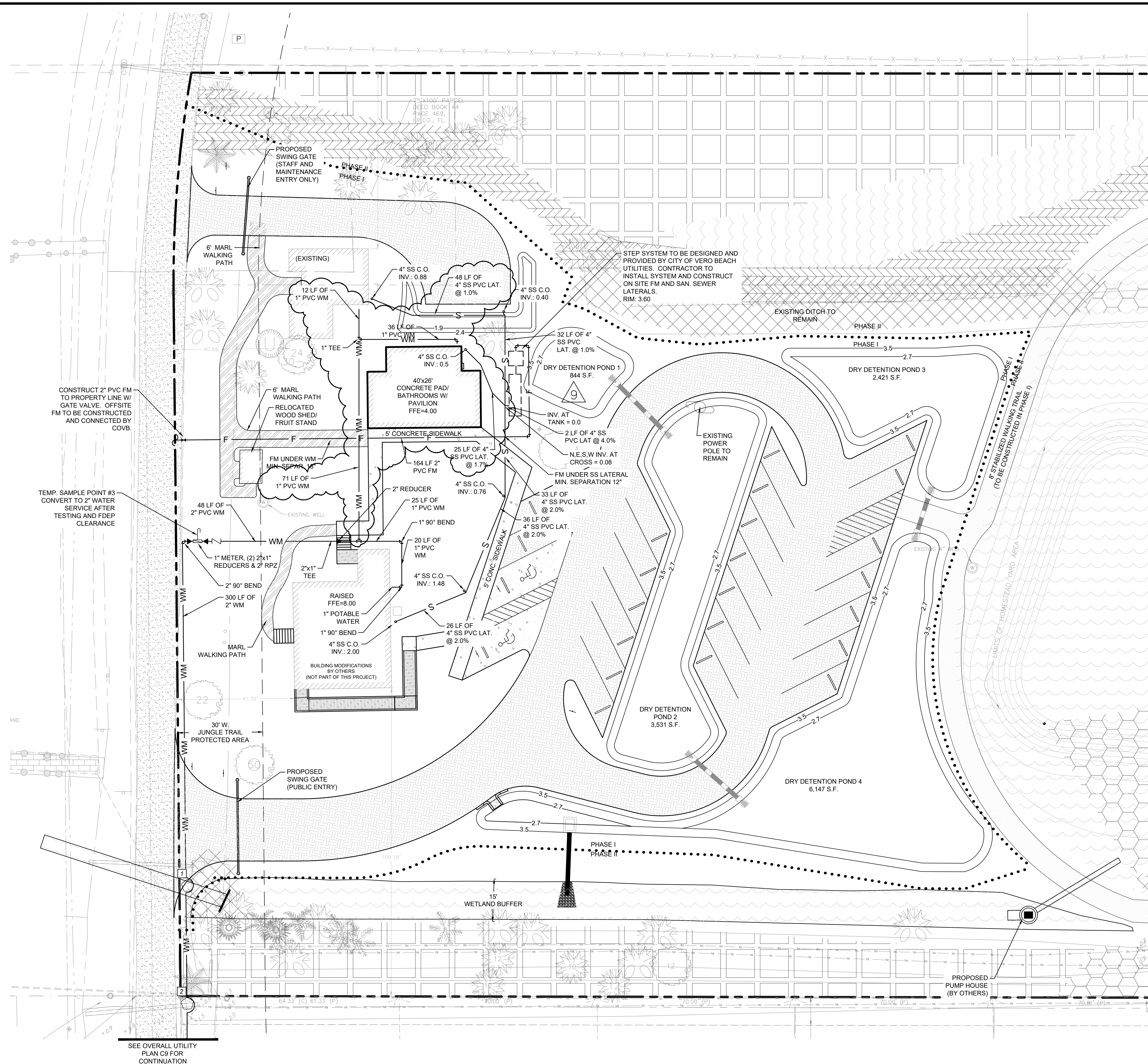
DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL	REMARKS
CD Budget					
Site Work					\$59,850
Conc sidewalk	90	sf	15.00	1,350	
Conc steps	30	lf/risers	50.00	1,500	
Wood stepsw/landing	65	sf	150.00	9,750	
Wood ramp	315	sf	150.00	47,250	
Selective Demolition					\$32,488
Interior demo	960	sf	15.00	14,400	
Cover porch demo	425	sf	10.00	4,250	
Rem ext wall plywd/siding/sheathing	2,168	sf	5.00	10,838	
AHU/ductwork demo	1	ls	1,500.00	1,500	
Electrical work demo	1	ls	1,500.00	1,500	
Concrete Work					\$13,546
Pad footings	6	cy	1,500.00	9,703	
Strip footings	0	cy	1,500.00	746	
Strip footings	1	cy	1,500.00	1,242	
Stem wall footings	1	cy	1,500.00	1,855	
Carpentry Work					\$149,669
House framing repairs					
Wood column 4x4	2	ea	125.00	250	
Wood column dbl 2x4	2	ea	125.00	250	
Wood LVL 1.75x7.25	21	lf	50.00	1,050	
Wood rafters 2x6	150	lf	25.00	3,750	
Wood bracing 2x4	200	lf	25.00	5,000	
Rough Hardware	1	ls	2,500.00	2,500	
Threaded rod tie-downs	25	ea	1,000.00	25,000	
Renovations					
Wood columns	30	lf	30.00	891	
Wood framed partitions	79	sf	10.00	792	
ext wall plywd/insul/siding/int paneling	1,139	sf	55.00	62,618	
ext wall insul/int paneling	495	sf	25.00	12,375	
ext wall plywd/siding	506	sf	35.00	17,710	
Ext fascia & blocking	278	lf	10.00	2,783	
Int wood trim	1,080	sf	7.50	8,100	
Int Cabinets (base & wall)	21	lf	275.00	5,775	
PL Lam countertops	11	lf	75.00	825	
Moisture Protection					\$57,792
Floor insul R11	1,242	sf	0.75	932	
Attic insul R30	1,242	sf	1.00	1,242	
Rem shingles/install Peel&Stick	2,613	sf	6.00	15,677	
Metal roof 5v-crimp	2,613	sf	15.00	39,192	
Gable Louvers	3	ea	250.00	750	

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DATE : 09/06/23
PROJ # : 2023.135
PAGE : 2 OF 2

DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL	REMARKS
CD Budget					
Openings					\$22,486
Install ext windows	13	ea	150.00	1,950	
Install new windows	10	ea	750.00	7,500	
Screen panels	202	sf	15.00	3,036	
WD/Screen Door	2	ea	1,500.00	3,000	
WD Door/Frame	2	ea	3,500.00	7,000	
Finishes					\$35,579
Wood flooring	1,188	sf	10.00	11,880	
Composite decking	330	sf	10.00	3,300	
Gyp bd ceiling, ptd	1,188	sf	13.50	16,038	
Patch T&G ceiling	1	ls	1,000.00	1,000	
New attic access	1	ea	500.00	500	
Paint exterior siding/trim	1,907	sf	1.50	2,861	
Specialties					\$1,750
Toilet Accessories	1	ls	1,750.00	1,750	
Equipment					\$3,000
Refrigator	1	ea	3,000.00	3,000	
Plumbing					\$7,500
Water & Sanitary Lines - 5ft out	1	ls	7,500.00	7,500	
HVAC					\$45,000
Split sys	1	ls	45,000.00	45,000	
Electrical					\$45,000
Power & Lighting	1	ls	45,000.00	45,000	
SubTotal				473,659	
Contractor General Conditions	20.0%			94,732	
Contractor Insurance & Bonds	3.0%			17,052	
Estimate Contingency	5.0%			29,272	
Construction Escalation	0.0%			0	
Contractor Fees	10.0%			61,472	
Probable Construction Budget Total				676,187	



FDEP SEPARATION CRITERIA:

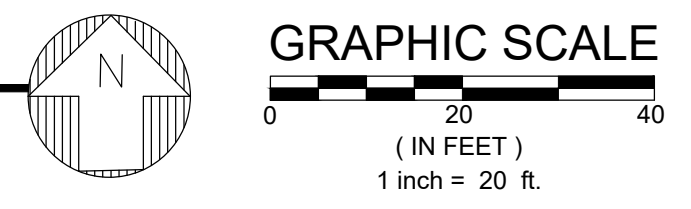
- (1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
- (A) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- (B) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
- (C) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
- (D) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.
- (2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
- (A) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- (B) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- (C) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL THE WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- (3) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES
- (A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
- (B) EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.
- (4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

LEGEND

- PROPOSED ASPHALT MILLINGS DRIVEWAY & PARKING LOT
- PROPOSED WALKING PATH
- PROPOSED MARL WALKING PATH BETW. BLDGS.
- PROPOSED CONCRETE
- CREATED UPLAND BUFFER AREA
- CREATED WETLAND AREA
- CONVERTED TO WETLAND AREA
- ENHANCED WETLAND AREA
- FILLED WETLAND AREA
- EXISTING WATER MAIN
- EXISTING SANITARY SEWER
- EXISTING FORCE MAIN
- PROPOSED WATER MAIN
- PROPOSED WATER MAIN
- UTILITY CONFLICT (SEE TABLE)
- LIMITS OF CONSTRUCTION/ PHASE LINE

UTILITY PLAN ENLARGEMENT

SCALE: 1" = 20'



CONFLICT TABLE						
CONFLICT NUMBER	GROUND ELEV.	UPPER PIPE	UPPER PIPE BOTTOM	LOWER PIPE	LOWER PIPE TOP	SEPARATION
1	2.60	EX. 12" STORM	(-)0.89	2" WM	(-)2.39	1.50
2	2.40	EX. 15" STORM	(-)0.75	2" WM	(-)2.25	1.50

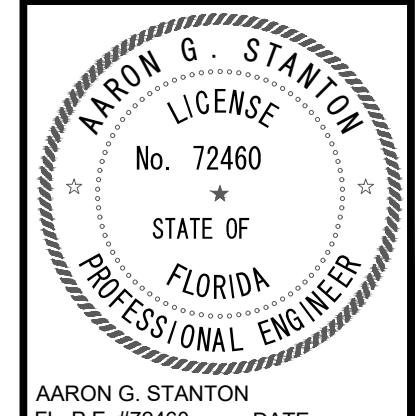


DATE	REVISIONS
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11-01-2018	2. PER CIVIL UTIL DEPT
03-22-2019	3. PER CIVIL UTIL DEPT
09-09-2019	4. PHASING COORDINATION
09-11-2019	5. FORCE MAIN
10-28-2019	6. L.S. TO STEP SYSTEM
03-16-2020	7. CONSTRUCTIBILITY REVIEW
04-14-2020	8. PATH GRADING

MBV ENGINEERING, INC.
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 VERO BEACH, FL 32960
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 MESAURNE FL - PH (321) 252-1510
 FT. PIERCE, FL - PH (772) 488-0055

UTILITY PLAN ENLARGEMENT

JONES PIER WETLAND RESTORATION AND CONSERVATION IMPROVEMENTS PHASE 1



No.:	Date:	Description:
A.	11/02/18	CLIENT REVIEW
B.	11/07/19	PERMIT SET
C.	12/11/19	PERMIT RESPONSE
D.	04/24/20	OWNER CHANGE



ELECTRICAL NOTES



Dm:	Dwg. File:
MT	
Chd:	XREF File:
AJD	
Project No.:	Plot File:
2018-23.002	
Sheet No.:	
Cert. No.:	12456

ELECTRICAL SHEET INDEX

E0.1	ELECTRICAL NOTES, LEGEND, RISER, SCHEDULE & INDEX
E2.1	ELECTRICAL PLAN

ELECTRICAL LEGEND

- ▽ TELEPHONE OUTLET WITH 3/4" CONDUIT STUBBED OUT FROM WALL 6" ABOVE CEILING. MOUNT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS OTHERWISE NOTED.
- ▼ DATA OUTLET WITH 3/4" CONDUIT STUBBED OUT FROM WALL 6" ABOVE CEILING. MOUNT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS OTHERWISE NOTED.
- ▽ TELEPHONE/DATA OUTLET WITH 3/4" CONDUIT STUBBED OUT FROM WALL 6" ABOVE CEILING. MOUNTED ABOVE COUNTER, SEE ARCHITECTURAL DRAWING FOR SPECIFIC REQUIREMENTS.
- ▽ TELEPHONE/DATA OUTLET WITH 3/4" CONDUIT STUBBED OUT FROM WALL 6" ABOVE CEILING. MOUNT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS OTHERWISE NOTED.
- ▽ TELEPHONE/DATA OUTLET WITH 3/4" CONDUIT RUN TO THE NEAREST STUD WALL AND STUBBED OUT FROM WALL 6" ABOVE CEILING. PROVIDE BRASS COVER PLATE AND CARPET FLANGE.
- TV TELEVISION OUTLET WITH 3/4" CONDUIT STUBBED OUT FROM WALL 6" ABOVE CEILING. MOUNT AT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS OTHERWISE NOTED.
- ⊙ 20 AMP SINGLE RECEPTACLE (NEMA 5-20R) MOUNTED AT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS NOTED OTHERWISE.
- ⊙ 20 AMP DUPLEX RECEPTACLE (NEMA 5-20R) MOUNTED AT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS NOTED OTHERWISE.
- ⊙ 20 AMP QUADRUPLUX RECEPTACLE (NEMA 5-20R) MOUNTED AT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS NOTED OTHERWISE.
- ⊙ 20 AMP DUPLEX RECEPTACLE (NEMA 5-20R) WITH GROUND FAULT CIRCUIT INTERRUPTER, MOUNT AT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS NOTED OTHERWISE.
- ⊙ 20 AMP DUPLEX RECEPTACLE (NEMA 5-20R) MOUNTED ABOVE COUNTER. SEE ARCHITECTURAL DRAWINGS FOR SPECIFIC REQUIREMENTS.
- ⊙ 20 AMP DUPLEX RECEPTACLE (NEMA 5-20R) WITH ISOLATED GROUND, MOUNT AT 18" A.F.F. TO CENTERLINE OF OUTLET UNLESS OTHERWISE NOTED.
- ⊙ 20 AMP QUADRUPLUX RECEPTACLE (NEMA 5-20R) WITH ISOLATED GROUND, MOUNT AT 18" A.F.F. TO CENTERLINE OF OUTLET UNLESS OTHERWISE NOTED.
- ⊙ 20 AMP DUPLEX RECEPTACLE (NEMA 5-20R), RECESS FLOOR MOUNTED. PROVIDE BRASS COVER PLATE AND CARPET FLANGE.
- ⊙ 20 AMP DUPLEX RECEPTACLE (NEMA 5-20R), CEILING MOUNTED.
- ⊙ SPECIAL-PURPOSE RECEPTACLE
- ⊙ JUNCTION BOX
- ⊙ SINGLE GANG JUNCTION BOX FOR POWER CONNECTION TO MODULAR FURNITURE SYSTEM. INSTALL IN EXACT MANNER AS DIRECTED BY FURNITURE SUPPLIER.
- ⊙ DOUBLE GANG JUNCTION BOX FOR TELEPHONE/DATA CONNECTION TO MODULAR FURNITURE SYSTEM. INSTALL IN EXACT MANNER AND LOCATION AS DIRECTED BY FURNITURE SUPPLIER. EXTEND (2) 3/4" EMPTY CONDUITS FROM JUNCTION BOX TO ABOVE CEILING AND TERMINATE WITH INSULATING BUSHING 6" FROM WALL.
- ⊙ TELE/POWER POLE FOR TELEPHONE/DATA/POWER CONNECTION TO MODULAR FURNITURE 8 WIRE SYSTEM (SEE DETAIL THIS SHEET). INSTALL IN EXACT MANNER AND LOCATION AS DIRECTED BY FURNITURE SUPPLIER, WIREMOLD CATALOG # 25D1P-4D W/IVORY FINISH. SPECIAL PURPOSE RECEPTACLE MOUNTED BELOW RAISE FLOOR.
- ⊙ EXHAUST FAN. SEE MECHANICAL DRAWINGS FOR SPECIFICATIONS.
- ⊙ SINGLE POLE, 20 AMP, SWITCH. MOUNT 46" A.F.F. TO CENTERLINE OF SWITCH UNLESS OTHERWISE NOTED.
- ⊙ 3-WAY, 20 AMP, SWITCH. MOUNT 46" A.F.F. TO CENTERLINE OF SWITCH UNLESS OTHERWISE NOTED.
- ⊙ SINGLE POLE, 20 AMP, SWITCH WITH DIMMER. MOUNT 46" A.F.F. TO CENTERLINE OF SWITCH UNLESS OTHERWISE NOTED.
- ⊙ MOTOR RATED SWITCH
- ⊙ OCCUPANCY SWITCH, WATTSTOPPER, MOUNT 46" A.F.F. TO CENTERLINE OF SWITCH UNLESS OTHERWISE NOTED.
- ⊙ TWO POLE, 30 AMP SWITCH. MOUNT ADJACENT EQUIPMENT TO BE CONTROLLED.
- ⊙ FUSIBLE DISCONNECT SWITCH A = POLES, B = FRAME SIZE, C = FUSE RATING
- ⊙ FUSIBLE MOTOR STARTER DISCONNECT SWITCH A = POLES, B = NEMA SIZE, C = FUSE RATING
- ⊙ GROUNDING ELECTRODE & CONDUCTOR SYSTEM
- ⊙ TRANSFORMER
- ⊙ ELECTRICAL PANELBOARD
- ⊙ TELEPHONE WOOD BACKBOARD
- ⊙ WEATHERPROOF
- ⊙ TIME CLOCK
- ⊙ RELOCATED
- ⊙ EXISTING TO REMAIN
- ⊙ A.F.F. ABOVE FINISH FLOOR
- ⊙ CEILING MOUNTED DUAL TECHNOLOGY MOTION SENSOR BY WATTSTOPPER.
- ⊙ CEILING MOUNTED LOW VOLTAGE DUAL TECHNOLOGY MOTION SENSOR BY WATTSTOPPER.

ELECTRICAL SPECIFICATIONS

- PART 1 - GENERAL**
- THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW ELECTRICAL WORK INDICATED. CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS AND APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL ARCHITECT/ENGINEER HAS DIRECTED CORRECTIVE ACTION TO BE TAKEN.
 - THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATIONS INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF.
 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION) AND ALL CODES AND ORDINANCES OF THE AUTHORITY HAVING JURISDICTION. THE SPECIFICATION, CODES AND STANDARDS LISTED BELOW ARE UTILIZED IN THIS PROJECT.
 - NATIONAL ELECTRICAL CODE (NFPA-70)
 - CODE FOR SAFETY TO LIFE (NFPA-101)
 - STANDARD FOR THE INSTALLATION, MAINTENANCE AND USE OF LOCAL PROTECTIVE SIGNALING SYSTEMS (NFPA-72)
 - UNDERWRITERS' LABORATORIES (UL)
 - NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
 - AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
 - FEDERAL SPECIFICATION (FED. SPEC.)
 - INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
 - FLORIDA BUILDING CODE 2017 EDITION
 - INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
 - CITY OF VERO BEACH BUILDING CODE. (AMENDMENTS TO FLORIDA BUILDING CODE 2017)
 - ADDITIONALLY, DESIGNS, WORK PRACTICES AND CONDITIONS MUST CONFORM WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA)
 - DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT. CONFIRM WITH OWNER'S REPRESENTATIVE.
 - IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
 - CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FROM A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.
 - CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THERE BY.
 - ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
 - CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT.
 - THE TERM "PROVIDE" USED IN THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS SHALL MEAN THAT THE CONTRACTOR IS TO FURNISH, INSTALL AND CONNECT COMPLETE.
- PART 2 - PRODUCTS**
- MINIMUM WIRE SIZE SHALL BE #12 A.W.G. (EXCEPT AS NOTED OTHERWISE FOR CONTROL WIRING). ALL CONDUCTORS SHALL BE 98% CONDUCTIVITY, COPPER WITH "THHN-THWN" INSULATION UNLESS OTHERWISE NOTED.
 - ELECTRICAL METALLIC TUBING (EMT) SHALL BE OF BEST QUALITY STEEL, SMOOTH INSIDE AND OUT AND SHALL BE HOT-DIPPED GALVANIZED.
 - OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS, AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
 - RIGID NONMETALLIC CONDUIT SHALL BE SCHEDULE 40 PVC.
 - ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.
 - PANELBOARDS:
 - CURRENT CARRYING BUSES SHALL BE COPPER. GROUND BUS BARS SHALL BE COPPER.
 - ALL CIRCUIT BREAKERS SHALL BE BOLT ON, PLUG-IN BREAKERS ARE NOT ACCEPTABLE.
 - CIRCUIT BREAKERS USED AS SWITCHES IN FLUORESCENT OR HID LIGHTING CIRCUITS SHALL BE LISTED AND MARKED "SWD"
 - ALL CIRCUIT BREAKERS FEEDING MECHANICAL EQUIPMENT SHALL BE HACR TYPE.
 - A.I.C. RATINGS SHALL BE AS INDICATED ON PANELBOARD SCHEDULES.
 - ALL PANELBOARDS SHALL BE FURNISHED WITH PLASTIC LAMINATE NAMEPLATES WITH 1/4" ENGRAVED LETTERING FOR PANEL IDENTIFICATION.
 - ALL PANELBOARDS SHALL BE PROVIDED WITH TYPE-WRITTEN DIRECTORY OF BRANCH CIRCUIT DESIGNATIONS.
 - DISCONNECT SWITCHES SHALL BE H.P. RATED, HEAVY DUTY, QUICK-MAKE, QUICK-BREAK. ENCLOSURES SHALL BE NEMA-1 FOR INDOOR LOCATIONS, NEMA 3R FOR OUTDOOR LOCATIONS OR AS OTHERWISE NOTED.
 - MOTOR STARTERS SHALL BE MANUAL OR MAGNETIC AS INDICATED ON THE ELECTRICAL DRAWINGS, WITH OVERLOAD RELAYS IN EACH PHASE.
 - WIRING DEVICES (GENERAL PURPOSE RECEPTACLES AND WALL SWITCHES) COLOR SHALL BE COORDINATED WITH CLIENT.
- PART 3 - EXECUTION**
- COLOR CODING OF CONDUCTORS SHALL BE AS FOLLOWS:
 - 208/120 VOLTS, 3 PHASE, 4-WIRE SYSTEM: UNGROUNDED CONDUCTORS: 1 BLACK, 1 RED AND 1 BLUE. GROUNDED (NEUTRAL) CONDUCTOR; WHITE. GROUNDED CONDUCTORS SHALL BE GREEN.
 - 480/277 VOLT, 3-PHASE, 4-WIRE SYSTEM: UNGROUNDED CONDUCTORS: 1 BROWN, 1 YELLOW, AND 1 PURPLE. GROUNDED (NEUTRAL) CONDUCTORS; GREY. GROUNDED CONDUCTORS SHALL BE GREEN.
 - BRANCH CIRCUIT WIRING (#6 AND SMALLER) SHALL BE COLOR CODED BY CONTINUOUS INSULATION COLOR AND FEEDERS AND SERVICES (#4 AND LARGER) SHALL BE CODED AT ALL JUNCTION OR PULL POINTS (EXCEPT LBS OR LBS'S) USING COLOR MARKERS OR PLASTIC TAPE MANUFACTURED FOR THE PURPOSE.
 - WIRING METHODS
 - ALL CONDUCTORS SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING (EMT) UNLESS OTHERWISE NOTED, SPECIFIED OR AS SPECIFICALLY PROHIBITED BY THE AUTHORITY HAVING JURISDICTION. ALL FITTINGS AND COUPLINGS FOR EMT CONDUIT SHALL BE ALL-STEEL RAIN TIGHT COMPRESSION TYPE OR ALL STEEL CONCRETE TIGHT SET SCREW TYPE.
 - SCHEDULE 40 PVC CONDUIT, WITH FITTINGS AND COUPLINGS APPROPRIATE FOR THE USE, SHALL BE INSTALLED UNDERGROUND OR BELOW SLABS ON GRADE.
 - TYPE MC CABLE WITH ALUMINUM ARMOR AND INTERNAL GROUND IS ACCEPTABLE FOR USE AS GENERAL BRANCH CIRCUIT WIRING FOR CIRCUITS 20 AMPERES OR LESS AND CONCEALED IN WALLS OR ABOVE SUSPENDED CEILING AND AS APPROVED BY THE AUTHORITY HAVING JURISDICTION.
 - ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE LATEST EDITION OF THE N.E.C. AND LOCAL CODES.
 - ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.
 - ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
 - THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER AND TELEPHONE COMPANIES, AND SHALL BE FULLY COORDINATED WITH THEM PRIOR TO COMMENCEMENT OF WORK.
 - PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES, AND WIRING DEVICES FOR ALL OUTLETS AS INDICATED.
 - MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SUCH AS APPEAR ON THE UL LIST OF APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF NEC, NEMA, AND IEC.
 - CONTRACTOR SHALL SUBMIT AT LEAST FIVE (5) SETS OF SHOP DRAWINGS OR CUT SHEETS OF LIGHTING FIXTURES, SWITCHES, AND OTHER ELECTRICAL ITEMS FOR APPROVAL BY ENGINEER/ARCHITECT.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED OF HIS WORK.
 - ALL LAY-IN LIGHTING FIXTURES SHALL BE SECURED TO THE SUSPENDED CEILING GRID AT EACH CORNER.
 - CONTRACTOR SHALL COORDINATE WITH MECHANICAL DRAWINGS AND PROVIDE ALL NECESSARY CONTROL WIRING.
 - ALL ELECTRICAL POWER WIRING FOR THE HVAC SYSTEM INCLUDING WIRING THRU LINE VOLTAGE CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
 - CONDUCTORS FOR BRANCH CIRCUITS SHALL BE INCREASED FROM SIZES INDICATED ON PANEL SCHEDULES TO PREVENT VOLTAGE DROP EXCEEDING 3% AT THE FARTHEST DEVICE. LOADS FOR DETERMINING CONDUCTOR SIZE SHALL BE BASED ON ACTUAL CONNECTED LOAD OR 80% OF BREAKER SIZE, WHICHEVER IS GREATER. CONTACT ENGINEER OF RECORD FOR ALL RUNS IN EXCESS OF 100 FT. FOR DETERMINATION OF WIRE SIZE. FOR BID PURPOSES, INCREASE WIRE BY ONE (1) WIRE SIZE FOR RUNS 100 FT. TO 200 FT. AND TWO (2) WIRE SIZES FOR RUNS OVER 200 FT.
 - FEEDER CONDUCTORS SHALL BE INCREASED FROM SIZES INDICATED ON RISER DIAGRAM TO PREVENT VOLTAGE DROP EXCEEDING 2% LOADS FOR DETERMINING CONDUCTOR SIZE SHALL BE BASED ON ACTUAL CONNECTED LOAD OR 80% OF BREAKER SIZE, WHICHEVER IS GREATER.
 - THE CONTRACTOR SHALL CONFIRM WITH THE ELECTRICAL UTILITY COMPANY ANY AND ALL REQUIREMENTS SUCH AS: METERING EQUIPMENT REQUIREMENTS AND METERING EQUIPMENT LOCATION, TRANSFORMER SIZE AND LOCATION OR SERVICE POINT, CONDUIT ENTRY AND LUG SIZE RESTRICTIONS. THE CONTRACTOR SHALL SCHEDULE ALL REQUIRED DOWNTIME FOR THE OWNERS CONFIRMATION.
 - ANY CONFLICTS AND DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK.
 - PER NEC 210.8(B)(2) ALL 15- AND 20-AMPERE, 125-VOLT RECEPTACLES IN NONDWELLING-TYPE KITCHENS TO BE GFCI PROTECTED.

LIGHTING FIXTURE SCHEDULE

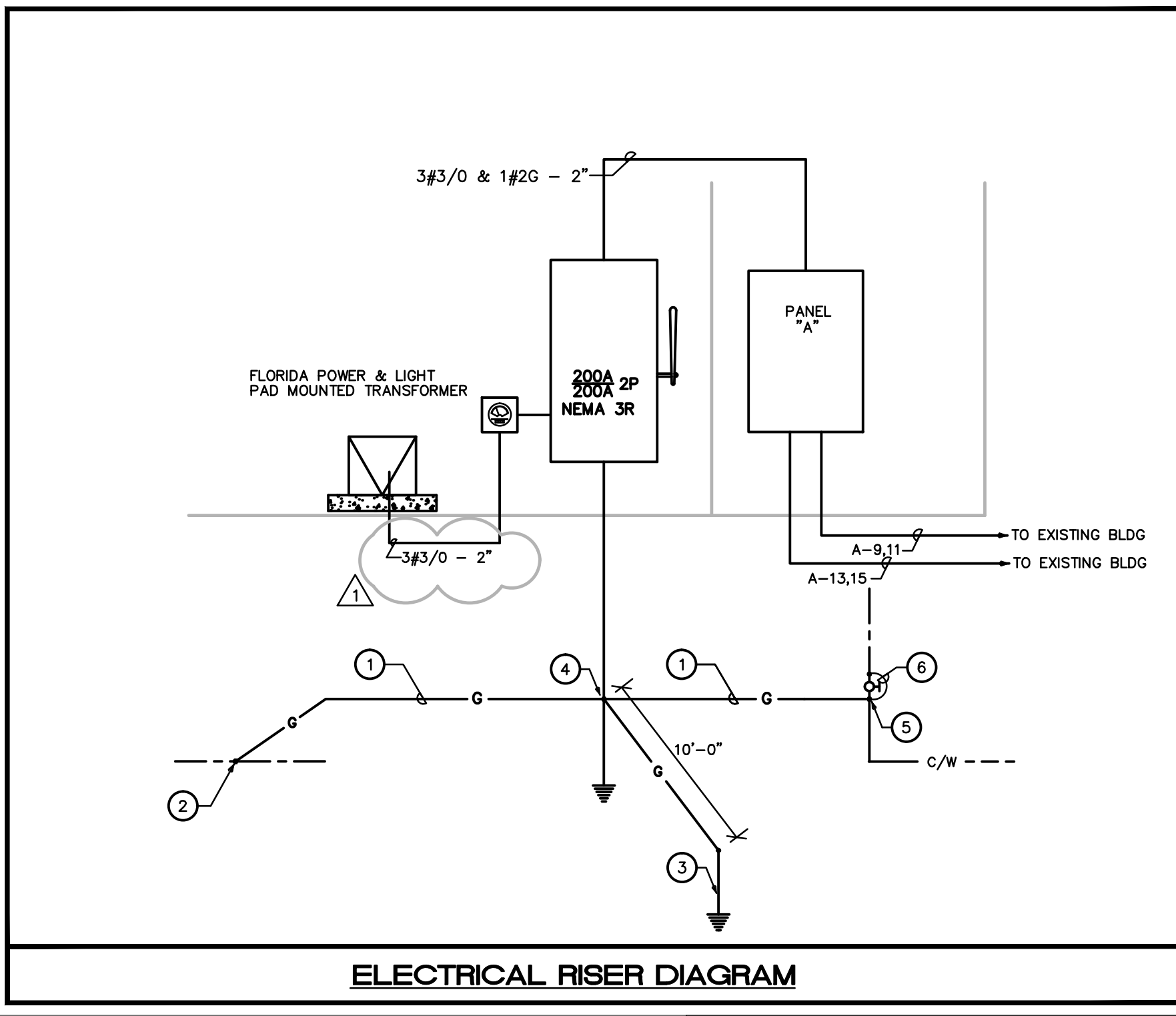
SYMBOL	TYPE	DESCRIPTION	LAMPS		DRIVER	VOLTAGE	MOUNTING	REMARKS
			NO.	WATT				
	A	4' LED LENSED STRIP 5000 LUMEN H.E. WILLIAMS "736" SERIES	INTEGRAL	LED 3500K	56 STANDARD	120	SURFACE MOUNTED	① ②
	B	4' LED LENSED STRIP H.E. WILLIAMS "AEX" SERIES	INTEGRAL	LED 3500K	56 STANDARD	120	SURFACE MOUNTED	①

- NOTES:**
- VERIFY CEILING TYPES PRIOR TO ORDERING FIXTURES.
 - PROVIDE FIXTURE WITH ACCESSORY WIRE GUARD.
- GENERAL NOTE:**
NO SUBSTITUTIONS TO THE LIGHT FIXTURE SCHEDULE CONTAINED IN THESE DOCUMENTS WILL BE CONSIDERED WITHOUT PRIOR REVIEW AND/OR APPROVAL BY THE ARCHITECT AND ELECTRICAL ENGINEER.

SCHEDULE OF BRANCH CIRCUIT PANEL "A"

DESCRIPTION		WIRE	GND.	COND.	TRIP	CKT.	A PHASE KVA	C PHASE KVA	CKT.	TRIP	COND.	GND.	WIRE	DESCRIPTION
LIGHTING	RECEPTACLE	#12	#12	1/2"	20	1	0.2 0.6	—	2	20	1/2"	#12	#12	RECEPTACLE
HAND DRYER	EXISTING BUILDING	#12	#12	1/2"	20	3	1.0 1.5	0.2 1.5	4	30	3/4"	#12	#12	IWH
EXISTING BUILDING	EXISTING BUILDING	#12	#12	1/2"	20	7	—	1.0 1.0	8	20	1/2"	#12	#12	SCREW PUMP
EXISTING BUILDING	EXISTING BUILDING	#12	#12	1/2"	20	7	—	1.0 1.0	8	20	1/2"	#12	#12	SANITARY STEP PUMP
EXISTING BUILDING	EXISTING BUILDING	#12	#12	1/2"	20	7	—	1.0 1.0	8	20	1/2"	#12	#12	SPACE
EXISTING BUILDING	EXISTING BUILDING	#12	#12	1/2"	20	7	—	1.0 1.0	8	20	1/2"	#12	#12	SPACE
							19.3	19.7	KVA PER PHASE					
							160.8	164.1	AMPS PER PHASE					
							39.0		TOTAL KVA					

MAIN: 200 AMP MAIN LUGS ONLY
SPEC: SQUARE D TYPE "QO" LOAD CENTER OR APPROVED EQUIVALENT
MOUNTING: SURFACE
VOLTAGE: 120/240V, 1Ø, 3 WIRE
AIC SYMM: 22,000



KEY NOTES

- #2-G GROUNDING ELECTRODE CONDUCTOR IN 1" SCHEDULE 40 PVC CONDUIT.
- EXOTHERMIC CONNECTION. ELECTRICALLY CONTINUOUS STEEL REINFORCING BAR (20FT MIN. LENGTH) IN BOTTOM OF BUILDING FOUNDATION IN DIRECT CONTACT WITH EARTH.
- 10 FT. LONG x 3/4" DIAMETER COPPER DRIVEN GROUND ELECTRODE.
- EXOTHERMIC CONNECTION. (TYPICAL)
- MAKE CONNECTION TO METALLIC COLD WATER ENTRANCE PIPE BEFORE FIRST VALVE WITH HEAVY DUTY BRONZE GROUND CLAMP.
- PROVIDE (1) #2 BONDING JUMPER AROUND FIRST VALVE.

ISSUED FOR PERMIT

KAMM CONSULTING PROJECT # 2019-0073
PROJECT MANAGER: DUANE MILLAR

1408 Orange Avenue
Fort Pierce, Florida 34950
Phone 772.595.1744
hbrown@kammconsulting.com
Certification of Authorization #8189

PRINCIPAL
Bradly L. Brown Florida License #58232

04-24-20
date

signed

Asbestos Survey, Lead Paint Testing and Limited Mold Assessment

**Historic Building
7770 Jungle Trail
Vero Beach, Florida 32963**

February 17, 2021
Terracon Project No. HD207110



Prepared for:
Donadio & Associates, Architects, P.A.
Vero Beach, Florida

Prepared by:
Terracon Consultants, Inc.
West Palm Beach, Florida

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials



February 17, 2021

Donadio & Associates, Architects, P.A.
2001 9th Avenue, Suite 308
Vero Beach, FL 32960

Attn: Mr. Anthony Donadio
E: anthony@donadio-arch.com

Re: Asbestos Survey, Lead Paint Testing, and Limited Mold Assessment
Historic Building
7770 Jungle Trail
Vero Beach, Florida 32963
Terracon Project No. HD207110

Dear Mr. Donadio:

The purpose of this report is to present the results of the asbestos survey, lead paint testing and limited mold assessment performed on February 2, 2021 of the building located at 7770 Jungle Trail, Vero Beach, Florida. This survey was conducted in general accordance with the Agreement for Services attached to Terracon Proposal No. PHD207110 dated January 15, 2021. We understand this survey was requested in support of the planned renovation of the building.

Terracon appreciates the opportunity to provide these services to Donadio & Associates, Architects, P.A. If you have any questions regarding this report, or if you need assistance with project oversight and sampling during renovation of this building, please contact the undersigned at (561) 494-7059.

Sincerely,

Terracon Consultants, Inc.

Florida Asbestos Consultant Business No. ZA337

Joshua Feltner
Staff Geologist

for/ Tom Holley, CHMM, CIH, CSP, MRSA
Mold Related Services Assessor 2749
Florida Licensed Asbestos Consultant AX-75
Senior Industrial Hygienist



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ASBESTOS SURVEY, LEAD PAINT TESTING, AND LIMITED MOLD ASSESSMENT REPORT

Historic Building
7770 Jungle Trail
Vero Beach, Florida 32963
Terracon Project No. HD207110

EXECUTIVE SUMMARY

Terracon Consultants, Inc. (Terracon) conducted an asbestos survey, lead paint testing, and a limited mold assessment of the building located at 7770 Jungle Trail, Vero Beach, Florida. The survey was conducted on February 2, 2021 by a team of Asbestos Hazard Emergency Response Act (AHERA)-accredited asbestos inspector and Florida license mold assessor in general accordance with the Agreement for Services attached to Terracon Proposal No. PHD207110 dated January 15, 2021.

Interior building components were surveyed and homogeneous areas of suspect asbestos-containing materials (ACM) and lead-containing paint (LCP) were visually identified and documented. Although reasonable effort was made to survey accessible suspect materials, additional suspect but unsampled materials could be located in walls, in voids or in other concealed areas. At the client's direction, the roof was excluded from the survey.

Terracon also visually assessed the proposed renovation areas for the presence of suspect visible mold growth (SVG) within readily accessible areas of the indoor environment. The visual observations for suspect fungal growth were restricted to readily visible and accessible building materials. Surface tape lift samples were collected as part of the observation.

ACM Analytical Results

Terracon collected twenty-eight (28) bulk samples from sixteen (16) HAs of suspect ACM observed; laboratory analysis did not identify asbestos in the collected samples with the exception of the following:

- Off White with Blue "Box" Pattern Linoleum: 20% Chrysotile asbestos was detected in sample B6B. The linoleum is estimated to be approximately 200 square feet and is located in the laundry room located on the north side of the building.
- Off White with Peach "Box" Pattern Linoleum: 15% Chrysotile asbestos was detected in samples B7A and B7B. The linoleum is estimated to be approximately 200 square feet and is located in the bathroom on the east side of the building.
- Gray Duct Mastic: 5% and 6% Chrysotile asbestos was detected in samples B11A and B11B respectively. The gray duct mastic is estimated to be less than 100 square feet and is located on fiberglass ducts throughout the attic of the building.

Asbestos Survey, Lead Paint Testing, and Limited Mold Assessment

Historic Building

7770 Jungle Trail ■ Vero Beach, Florida

February 17, 2021 ■ Terracon Project No. HD207110



LCP Analytical Results

Terracon collected thirteen (13) samples of representative paint applied to the subject painted surfaces. Analysis of these samples yielded results greater than the limit of detection (LOD) for the analytical method in the following materials:

- Paint (Light and Dark Green) around exterior window frame on south wall of the building (Sample P1A) was reported to contain lead at a concentration of 4.7% by weight.
- Paint (Light and Dark Green) around exterior window frame on north wall of the building (Sample P1B) was reported to contain lead at a concentration of 4.5% by weight.
- Paint (White) on the exterior siding of the south wall of the building (Sample P2A) was reported to contain lead at a concentration of 0.011% by weight.
- Paint (White) on the exterior siding of the south wall of the building (Sample P2B) was reported to contain lead at a concentration of 0.013% by weight.
- Paint (White and Dark Green) on the stairs on the northwest portion of the building (Sample P3A) was reported to contain lead at a concentration of 0.18% by weight.
- Paint (White and Dark Green) on the stairs on the main entrance of the building (Sample P3B) was reported to contain lead at a concentration of 0.36% by weight.
- Paint (White) on the east wall of the porch (Sample P4C) was reported to contain lead at a concentration of 0.019% by weight.
- Paint (Green) on exterior shutters on north side of the building (Sample P6B) was reported to contain lead at a concentration of 0.16% by weight

Mold Analytical Results

Terracon collected six (6) non-viable tape samples from one outdoor and five indoor locations of the subject building.

- Elevated (high) spore concentrations (>1000 spores per area analyzed) of *Aspergillus* / *Penicillium* and *Cladosporium* spores were reported in interior tape lift samples collected from the bedroom 1 east wall, living room north wall, bedroom 2 east wall, laundry room north wall, and kitchen east wall.

Please refer to the report for details.



ASBESTOS SURVEY, LEAD PAINT TESTING, AND LIMITED MOLD ASSESSMENT REPORT

**Historic Building
7770 Jungle Trail
Vero Beach, Florida 32960
Terracon Project No. HD207110**

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted an asbestos survey, lead paint testing, and a limited mold assessment of the building located at 7770 Jungle Trail, Vero Beach, Florida. The survey was conducted on February 2, 2021 by a team of Asbestos Hazard Emergency Response Act (AHERA)-accredited asbestos inspectors and Florida license mold assessors in general accordance with the Agreement for Services attached to Terracon Proposal No. PHD207110 dated January 15, 2021.

Interior building components were surveyed and homogeneous areas of suspect asbestos-containing materials (ACM) and lead-containing paint (LCP) were visually identified and documented. Although reasonable effort was made to survey accessible suspect materials, additional suspect but unsampled materials could be located in walls, in voids or in other concealed areas. At the client's direction, the roof was excluded from the survey.

Terracon also visually assessed the proposed renovation areas for the presence of suspect visible mold growth (SVG) within readily accessible areas of the indoor environment. The visual observations for SVG were restricted to readily visible and accessible building materials. Surface tape lift samples were collected as part of the observation.

1.1 Project Objective

Based on information provided by the client, we understand the building is proposed for renovation. The objective of the asbestos survey, lead paint testing and visual mold assessment was to identify the presence and location of accessible friable and nonfriable ACM, LCP or mold present at the existing building located at 7770 Jungle Trail, Vero Beach, Florida.

Building materials that will be impacted by renovation activities are required to be sampled and analyzed for asbestos content to comply with the United States Environmental Protection Agency's (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation.

The U.S. Occupational Safety and Health Administration (OSHA) Asbestos standard for the construction industry (29 CFR 1926.1101) regulates workplace exposure to asbestos. The OSHA standard requires employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc).

The OSHA Lead Standard for Construction (29 CFR 1926.62) applies to construction work where an employee may be occupationally exposed to lead. Work related to construction, alteration, or repair (including painting and decorating) is included.

2.0 BUILDING DESCRIPTION

The structure is a one-story building, approximately 1,100 square feet and was reportedly constructed in 1921, with wood framing atop a slab-on-grade concrete floor. Interior finishes predominantly consisted of drywall and joint compound ceiling, painted drywall and joint compound systems, and linoleum floor.

3.0 ASBESTOS FIELD ACTIVITIES

The survey was conducted by Mr. Carver Gittens, an AHERA-accredited building inspector. Copies of Mr. Gittens' asbestos inspector training certificate and applicable license are attached in Appendix H. The survey was conducted in general accordance with the sample collection protocols established in EPA regulation 40 CFR 763, the AHERA. A summary of survey activities is provided below.

3.1 Visual Assessment

Our survey activities began with visual observation of the interior and exterior of the building to identify homogeneous areas of suspect ACM. A homogeneous area (HA) consists of building materials that appear similar throughout in terms of color, texture and date of application. The assessment was conducted throughout visually accessible areas of the building. Building materials identified as bare concrete, glass, wood, masonry, metal or rubber were not considered suspect ACM.

3.2 Physical Assessment

A physical assessment of each HA of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the EPA as a material which can be crumbled, pulverized or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect materials.

3.3 Sample Collection

Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with AHERA sampling protocols. Terracon collected random samples from each HA of suspect CM observed. Sample team members collected bulk samples using wet methods as applicable to reduce the potential for fiber release. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

Terracon collected twenty-eight (28) bulk samples from sixteen (16) HAs of suspect ACM observed. A summary of suspect ACM samples collected by Terracon is included in Appendix A.

3.4 Sample Analysis

Bulk samples were submitted under chain of custody to EMSL Analytical, Inc. of Orlando, Florida for analysis by PLM per EPA methodology EPA/600/R-93/116. The percentage of asbestos, where applicable, was determined by microscopic visual estimation. EMSL is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP Accreditation No. 101151-0). A summary of the suspect asbestos containing material samples is included in Appendix A and a copy of the asbestos laboratory analytical results is included in Appendix B.

4.0 LEAD PAINT FIELD ACTIVITIES

4.1 Site Limitations

It should be noted that suspect LCP, other than those identified during the sampling, may be present in the building. This LCP testing is not considered comprehensive in nature and the results are not intended to be used to determine lead hazards, develop abatement plans, or prepare detailed cost estimates for abatement. Suspect LCP which have not been specifically evaluated should be tested prior to disturbance of the material. If suspect LCP is identified during the renovation process, those materials should be assumed LCP until testing can be performed to determine whether lead is present in the paint.

4.2 Methodology and Analysis

Terracon collected thirteen (13) samples of representative paint applied to the subject painted surfaces. The lead paint testing was conducted by scraping approximately 2 square inches of paint from the supporting substrate. The samples were submitted to EMSL Analytical, Inc. of Orlando, Florida, an AIHA-LAP, LLC accredited service lab (Lab ID: 163563) laboratory. The analysis was performed by Flame Atomic Absorption Spectrophotometry (EPA method SW846 7000B). Sample results reported below the limit of detection (LOD) may contain lead at a concentration below the analytically defined LOD. A summary of the suspect lead paint samples is included in Appendix C and a copy of the lead laboratory analytical results is included in Appendix D.

No materials were assumed to be LCP. Inaccessible areas that contain painted surfaces should be tested when access permits or should be assumed to be positive for LCP.

5.0 MOLD FIELD ACTIVITIES

The visual mold assessment and sampling was conducted by Mr. Carver Gittens under the direct supervision of Mr. John O'Reilly a Mold Assessor (License No. MRSA212). A copy of Mr. O'Reilly's license is attached in Appendix H.

5.1 Visual Assessment

Based on the multiple sources of potential indoor contaminants that can affect indoor air quality, the visual assessment was conducted to determine general indoor hygiene, building maintenance practices, moisture intrusion and uncontrolled condensate formation, and odors. The assessment focused primarily on collecting observational data (i.e., information obtained by visual assessment of the building). The visual assessment can help to formulate plans for more in-depth investigation.

The visual assessment included:

- An examination of the physical structure and potential indoor and outdoor sources of moisture intrusion;
- The determination of the type of enclosure (walls, windows, roof, and foundation), age, location, and condition;
- The determination of the types of finishes on walls, floors, and ceilings, the types of furnishings;
- The identification of housekeeping activities and products, office equipment, and any renovation activities; and
- The identification of any discoloration or odor that could indicate moisture intrusion, water damage, and/or fungal growth.

Terracon conducted the scope of services in general accordance with mold and indoor air quality assessment guidelines published by the American Industrial Hygiene Association (AIHA) in *Recognition, Evaluation, and Control of Indoor Mold*, 2008; *Assessment, Remediation, and Post-Remediation Verification of Mold in Buildings* (AIHA Guideline 3-2004); the US Environmental Protection Agency (EPA), *Mold Remediation in Schools and Commercial Buildings*, 2008; ASTM D7338-10, *Standard Guide for Assessment of Fungal Growth in Buildings*, 2010; U.S. Occupational Safety and Health Administration's (OSHA) *Indoor Air Quality Technical Manual*; and the AIHA, *The IAQ Investigator's Guide* (AIHA – 2006). Destructive sampling or testing to inspect interior wall cavity spaces or mechanical enclosures was not within the scope of work for this project.

5.2 Sample Collection

Terracon collected surface tape samples for analysis for fungal spores. Samples were collected using laboratory-supplied sample media and submitted under secure chain of custody to an accredited laboratory for analysis for fungal spores reported to the genera. Sample locations were based on visual observation.

5.3 Sample Analysis

Samples were submitted under secure chain of custody to EMSL Analytical, Inc. a laboratory accredited by the American Industrial Hygiene Association (AIHA) Environmental Microbiology Laboratory Accreditation Program (EMLAP) and participates in AIHA's Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program. A summary of the suspect mold samples is included in Appendix E and a copy of the mold laboratory analytical results is included in Appendix F.

6.0 REGULATORY OVERVIEW

6.1 Asbestos

The asbestos NESHAP (40 CFR Part 61 Subpart M) regulates asbestos fiber emission and asbestos waste disposal practices. It also requires the identification and classification of existing building materials prior to demolition or renovation activity. Under NESHAP, asbestos containing building materials are classified as either friable, Category I nonfriable or Category II nonfriable ACM. Friable materials are those that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure. Category I nonfriable ACM includes packing, gaskets, resilient floor coverings and asphalt roofing products containing more than 1% asbestos. Category II nonfriable ACM are any materials other than Category I materials that contain more than 1% asbestos.

Friable ACM, Category I and II nonfriable ACM in poor condition and has become friable or which will be subject to drilling, sanding, grinding, cutting, or abrading and which could be crushed or pulverized during anticipated renovation or demolition activities are considered regulated ACM (RACM). The FDEP and NESHAP require that written notification be submitted before beginning renovation projects which include the disturbance of any asbestos-containing material (ACM) in a building or facility, or before the demolition of a building or facility, even when no asbestos is present. This written notification must be provided to the FDEP at least 10 working days prior to the commencement of asbestos abatement or demolition activities. Removal of RACM must be conducted by a State of Florida licensed asbestos abatement contractor. In addition, third party air monitoring must be performed during the abatement.

The OSHA Asbestos standard for the construction industry (29 CFR 1926.1101) regulates workplace exposure to asbestos. The OSHA standard requires employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc). The OSHA standard classifies construction and maintenance activities which could disturb ACM and specifies work practices and precautions which employers must follow when engaging in each class of regulated work.

6.2 Lead Paint

Occupational Safety and Health Administration (OSHA) regulations govern exposure of workers to lead, regardless of the concentration of lead identified. The OSHA regulations, which have been established for general and construction industries, cover any type of workplace activity that could expose an employee to potential lead contamination (OSHA Standards 29 CFR 1926.62 and 1910.1025).

Construction work covered by 29 CFR 1926.62 includes any repair or renovation activities or other activities that disturb in-place lead-containing materials but does not include routine cleaning and repainting where there is insignificant damage, wear, or corrosion of existing lead-containing coatings or substrates. Employers must assure that no employee will be exposed to lead at concentrations greater than 50 micrograms per cubic meter averaged over an eight-hour period without adequate protection. Utilizing lead-safe work practices is recommended to reduce employee exposure during activities that disturb or generate lead dust.

6.3 Mold

Molds are ubiquitous to the environment and have somewhat specific requirements for survival and growth. Elevated mold concentrations in indoor environments occur when both moisture and a food source are present. Indoor food sources for mold growth can include organic materials such as those resulting from a flood or sewer back up, or building materials high in cellulose such as, but not limited to, carpet backing, drywall paper, or ceiling panels. Moisture sources in buildings can occur because of leaks from water or sewer lines, moisture intrusion through walls and foundations, or as condensation in HVAC systems. In some areas of the United States, relative humidity during certain times of the year is high enough to serve as a moisture source. In order to reduce the potential occurrence or recurrence of mold growth in indoor environments, sources of indoor moisture must be eliminated or controlled

There are no State or Federal exposure limits established for fungal aerosols. There are currently no regulatory standards or medically based threshold limit or dose-response relationships for exposure to airborne or surface concentrations of fungal spores. Terracon relies upon experience, professional judgment, current scientific literature, guidelines and recommendations made by professional organizations and experts, and statistical methods in interpreting fungal sampling results.

High variability in airborne fungal spore concentrations can exist in different geographic locations, during different seasons, and weather patterns, and over the course of a given day. As a general rule, indoor air fungal spore concentrations in mechanically ventilated buildings are typically less than, but qualitatively similar to, fungal spore concentrations found in the outside environment.

- The mold spore concentration in indoor air should generally be quantitatively lower than, but qualitatively like, that of outdoor air.
- The presence of one or more fungal genera at significant levels indoors but not outdoors is evidence of indoor amplification (i.e., fungal growth occurring in the indoor environment).
- Pathogenic (disease-causing) and toxigenic (toxin-producing) molds should not be present in quantities indicative of indoor amplification.

7.0 FINDINGS AND RECOMMENDATIONS

7.1 Asbestos

Off White with Blue “Box” Pattern Linoleum: 20% Chrysotile asbestos **was detected** in sample B6B. The linoleum is estimated to be approximately 200 square feet and is located in the laundry room located on the north side of the building.

Off White with Peach “Box” Pattern Linoleum: 15% Chrysotile asbestos **was detected** in samples B7A and B7B. The linoleum is estimated to be approximately 200 square feet and is located in the bathroom on the east side of the building.

Gray Duct Mastic: 5% and 6% Chrysotile asbestos **was detected** in samples B11A and B11B respectively. The gray duct mastic is estimated to be less than 100 square feet and is located on fiberglass ducts throughout the attic of the building.

Asbestos was **not** detected in the remaining samples collected by Terracon.

As Terracon did not inspect the roof or collect samples of the roofing material, Terracon cannot warrant whether additional suspect ACM is present on the roof. Terracon recommends that the roof be thoroughly inspected for ACM in accordance the NESHAP prior to disturbance of any suspect ACM present (e.g., cements, mastics, caulking, membranes, flashings, etc.).

The OSHA Asbestos standard for the construction industry (29 CFR 1926.1101) regulates workplace exposure to asbestos and classifies construction and maintenance activities which could disturb ACM and specifies work practices and precautions which employers must follow when engaging in each class of regulated work. The OSHA standard requires employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc) as an 8-hour time-weighted average (TWA).

7.2 Lead Paint

The Occupational Safety and Health Administration (OSHA), defines LCP as a paint which contains lead, regardless of the concentration. A total of thirteen (13) samples of the following materials were determined to contain concentrations of lead greater than the limit of detection for the analytical method performed:

- Paint (Light and Dark Green) around exterior window frame on south wall of the building (Sample P1A) was reported to contain lead at a concentration of 4.7% by weight.
- Paint (Light and Dark Green) around exterior window frame on north wall of the building (Sample P1B) was reported to contain lead at a concentration of 4.5% by weight.
- Paint (White) on the exterior siding of the south wall of the building (Sample P2A) was reported to contain lead at a concentration of 0.011% by weight.
- Paint (White) on the exterior siding of the south wall of the building (Sample P2B) was reported to contain lead at a concentration of 0.013% by weight.
- Paint (White and Dark Green) on the stairs on the northwest portion of the building (Sample P3A) was reported to contain lead at a concentration of 0.18% by weight.
- Paint (White and Dark Green) on the stairs on the main entrance of the building (Sample P3B) was reported to contain lead at a concentration of 0.36% by weight.
- Paint (White) on the east wall of the porch (Sample P4C) was reported to contain lead at a concentration of 0.019% by weight.
- Paint (Green) on exterior shutters on north side of the building (Sample P6B) was reported to contain lead at a concentration of 0.16% by weight.

Samples of the following materials were determined to contain concentrations of lead below the limit of detection for the analytical method performed:

- Paint (White) on the south wall of the bedroom (Sample P4A).
- Paint (White) on the west wall of the laundry room (Sample P4B).
- Paint (White) on the gutter/downspout on northwest exterior of the building (Sample P5A).
- Paint (White) on the gutter/downspout on southwest exterior of the building (Sample P5B).
- Paint (Green) on exterior shutters on south side of the building (Sample P6A).

Any contractor and/or workers conducting any renovation, repair or demolition activities should be notified of the findings presented in this report and the contractor should be tasked with determining whether lead-safe work practices are to be employed and/or whether personnel should be provided personal protective equipment (PPE).

7.3 Mold

Terracon collected six (6) non-viable tape samples from one outdoor and five indoor locations of the subject building. Based on the comparison approach previously mentioned in this report, the fungal types and the numbers of spores present in each sample, revealed the following:

- Elevated (high) spore concentrations (>1000 spores per area analyzed) of *Aspergillus* / *Penicillium* and *Cladosporium* spores were reported in interior tape lift samples collected from the bedroom 1 east wall, living room north wall, bedroom 2 east wall, laundry room north wall, and kitchen east wall. The visual staining and SVG observed in the report indicate indoor mold amplification which may be the result of uncontrolled temperature and humidity or moisture intrusion into the building. We recommend that additional assessment be performed to correct the issue prior to planned renovations.

Asbestos Survey, Lead Paint Testing, and Limited Mold Assessment

Historic Building

7770 Jungle Trail ■ Vero Beach, Florida

February 17, 2021 ■ Terracon Project No. HD207110



8.0 GENERAL COMMENTS

The asbestos survey, lead paint testing and limited mold assessment were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the building. The information contained in this report is relevant to the date on which this survey was performed and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by Donadio & Associates, Architects, P.A. for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

APPENDIX A
ASBESTOS SURVEY SAMPLE SUMMARY
Historic Building
7770 Jungle Trail
Vero Beach, Florida 32963
Terracon Project No. HD207110

HA No.	Material Description	Sample Number	Sample Location	Lab Results	NESHAP Category	Condition
	Compressed Siding	B1A	South Ext. Wall	None Detected	N/A	Good
	Compressed Siding	B1B	East Ext. Wall	None Detected	N/A	Good
	Black Felt	B2A	Under Siding (South Wall)	None Detected	N/A	Good
	Black Felt	B2B	Under Siding (East Wall)	None Detected	N/A	Good
	Off-White Caulk	B3A	Seams of Siding and Shutters (South Ext. Wall)	None Detected	N/A	Good
	Off-White Caulk	B3B	Seams of Siding and Shutters (North Ext. Wall)	None Detected	N/A	Good
	Window Glaze Putty	B4A	East Wall of Porch	None Detected	N/A	Good
	Window Glaze Putty	B4B	North Exterior Wall	None Detected	N/A	Good
	6"x36" "Faux" wood vinyl flooring w/adhesive	B5A	North Section of Porch Floor	None Detected	N/A	Good
	6"x36" "Faux" wood vinyl flooring w/adhesive	B5B	South Section of Hallway Floor	None Detected	N/A	Good
	6"x36" "Faux" wood vinyl flooring w/adhesive	B5C	Bedroom 1	None Detected	N/A	Good
	Off-White & Blue "Box" Pattern SNF w/yellow mastic	B6A	Laundry Room Floor	None Detected	N/A	Good
	Off-White & Blue "Box" Pattern SNF w/yellow mastic	B6B	Laundry Room Floor	20% Chrysotile (Linoleum)	N/A	Good
	Off-White & Peach "Box" Pattern SNF w/adhesive	B7A	Bathroom Floor	15% Chrysotile (Linoleum)	N/A	Good
	Off-White & Peach "Box" Pattern SNF w/adhesive	B7B	Bathroom Floor	20% Chrysotile (Linoleum)	N/A	Good
	White Caulk	B8A	Porch – South Int. Wall	None Detected	N/A	Good
	White Caulk	B8B	Porch – West Int. Wall	None Detected	N/A	Good
	12"x12" White Compressed CT	B9A	Living Room Ceiling	None Detected	N/A	Good
	12"x12" White Compressed CT	B9B	Bedroom 2 Ceiling	None Detected	N/A	Good
	12"x12" White Compressed CT	B9C	Laundry Room Ceiling	None Detected	N/A	Good
	Black Mastic on Fiberglass Insulation	B10A	Attic – Above CT	None Detected	N/A	Good
	Black Mastic on Fiberglass Insulation	B10B	Attic – Above CT	None Detected	N/A	Good
	Black Mastic on Fiberglass Insulation	B10C	Attic – Above CT	None Detected	N/A	Good
	Gray Mastic on Fiberglass Insulation	B11A	Attic – Above CT	5% Chrysotile	N/A	Good
	Gray Mastic on Fiberglass Insulation	B11B	Attic – Above CT	6% Chrysotile	N/A	Good
	12"x12" Brown "Marble" Pattern Tile w/adhesive	B12A	Kitchen - Backsplash	None Detected	N/A	Good
	12"x12" Brown "Marble" Pattern Tile w/adhesive	B12B	Kitchen - Backsplash	None Detected	N/A	Good
	4"x4" Off-White Ceramic Tile w/Grout & Brown Mastic	B13A	Bathroom Walls	None Detected	N/A	Good
	4"x4" Off-White Ceramic Tile w/Grout & Brown Mastic	B13B	Bathroom Walls	None Detected	N/A	Good

APPENDIX B
ASBESTOS LABORATORY ANALYTICAL REPORTS



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EMSL Order: 342101970

Customer ID: TERC62

Customer PO: HD207110

Project ID:

Attention: Carver Gittens
Terracon Consultants, Inc.
1675 Lee Road
Winter Park, FL 32789

Phone: (407) 740-6110

Fax: (407) 740-6112

Received Date: 02/03/2021 1:15 PM

Analysis Date: 02/05/2021 - 02/08/2021

Collected Date:

Project: Historic Bldg - HD207110

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B1A 342101970-0001	South Ext. Wall - Compressed Siding	Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
B1B 342101970-0002	East Ext. Wall - Compressed Siding	Brown/White Fibrous Homogeneous	97% Cellulose	3% Non-fibrous (Other)	None Detected
B2A 342101970-0003	Under Siding - S. Wall (Ext.) - Black Felt	Black Non-Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
B2B 342101970-0004	Under Siding - E. Wall (Ext.) - Black Felt	Black Fibrous Heterogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
B3A 342101970-0005	Seams Of Siding & Shutters - S. Ext Wall - Off White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B3B 342101970-0006	Seams Of Siding & Shutters - N. Ext Wall - Off White Caulk	White/Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B4A 342101970-0007	E. Wall Of Porch - Window Glaze Putty	Tan/White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
B4B 342101970-0008	N. Ext. Wall - Window Glaze Putty	Tan/White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
B5A-Vinyl Floor Tile 342101970-0009	N. Sect Of Porch - Floor - 6"x36" "Faux" Wood Vinyl Flooring w/Adhesive	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B5A-Adhesive 342101970-0009A	N. Sect Of Porch - Floor - 6"x36" "Faux" Wood Vinyl Flooring w/Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B5B-Vinyl Floor Tile 342101970-0010	S. Sect Of Hallway - Floor - 6"x36" "Faux" Wood Vinyl Flooring w/Adhesive	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B5B-Adhesive 342101970-0010A	S. Sect Of Hallway - Floor - 6"x36" "Faux" Wood Vinyl Flooring w/Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B5C-Vinyl Floor Tile 342101970-0011	Bed 1 - 6"x36" "Faux" Wood Vinyl Flooring w/Adhesive	Brown/Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B5C-Adhesive 342101970-0011A	Bed 1 - 6"x36" "Faux" Wood Vinyl Flooring w/Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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EMSL Order: 342101970
Customer ID: TERC62
Customer PO: HD207110
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B6A-Vinyl Sheet Flooring <small>342101970-0012</small>	Laundry Room - Floor - Off White & Blue "Box" Pattern S.V.F w/Yellow Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B6A-Mastic <small>342101970-0012A</small>	Laundry Room - Floor - Off White & Blue "Box" Pattern S.V.F w/Yellow Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B6B-Vinyl Sheet Flooring <small>342101970-0013</small>	Laundry Room - Floor - Off White & Blue "Box" Pattern S.V.F w/Yellow Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B6B-Mastic <small>342101970-0013A</small>	Laundry Room - Floor - Off White & Blue "Box" Pattern S.V.F w/Yellow Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B6B-Linoleum <small>342101970-0013B</small>	Laundry Room - Floor - Off White & Blue "Box" Pattern S.V.F w/Yellow Mastic	Tan Fibrous Heterogeneous		80% Non-fibrous (Other)	20% Chrysotile
B7A-Vinyl Sheet Flooring <small>342101970-0014</small>	Bathroom - Floor - Off White w/Peach "Box" Pattern S.V.F w/Adhesive	White Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B7A-Mastic <small>342101970-0014A</small>	Bathroom - Floor - Off White w/Peach "Box" Pattern S.V.F w/Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B7A-Linoleum <small>342101970-0014B</small>	Bathroom - Floor - Off White w/Peach "Box" Pattern S.V.F w/Adhesive	Brown Fibrous Homogeneous	65% Cellulose	20% Non-fibrous (Other)	15% Chrysotile
B7B-Vinyl Sheet Flooring <small>342101970-0015</small>	Bathroom - Floor - Off White w/Peach "Box" Pattern S.V.F w/Adhesive	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B7B-Mastic <small>342101970-0015A</small>	Bathroom - Floor - Off White w/Peach "Box" Pattern S.V.F w/Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B7B-Linoleum <small>342101970-0015B</small>	Bathroom - Floor - Off White w/Peach "Box" Pattern S.V.F w/Adhesive	Tan Fibrous Heterogeneous		80% Non-fibrous (Other)	20% Chrysotile
B8A <small>342101970-0016</small>	Porch - S. Int. Wall - White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B8B <small>342101970-0017</small>	Porch - W. Int. Wall - White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B9A <small>342101970-0018</small>	Living Room - Ceiling - 12"x12" White Compressed C.T.	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
B9B <small>342101970-0019</small>	Bed 2 - Ceiling - 12"x12" White Compressed C.T.	Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected

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EMSL Order: 342101970
Customer ID: TERC62
Customer PO: HD207110
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B9C 342101970-0020	Laundry Rm - Ceiling - 12"x12" White Compressed C.T. (Newer)	Tan Fibrous Heterogeneous	40% Cellulose 30% Min. Wool	20% Perlite 10% Non-fibrous (Other)	None Detected
B10A-Mastic 342101970-0021	Attic - Above C.T - Black Mastic On Fiberglass Insulation	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B10A-Fiberglass 342101970-0021A	Attic - Above C.T - Black Mastic On Fiberglass Insulation	Pink Fibrous Homogeneous	95% Min. Wool	5% Non-fibrous (Other)	None Detected
B10B-Mastic 342101970-0022	Attic - Above C.T - Black Mastic On Fiberglass Insulation	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B10B-Fiberglass 342101970-0022A	Attic - Above C.T - Black Mastic On Fiberglass Insulation	Pink Fibrous Homogeneous	95% Min. Wool	5% Non-fibrous (Other)	None Detected
B10C-Mastic 342101970-0023	Attic - Above C.T - Black Mastic On Fiberglass Insulation	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B10C-Fiberglass 342101970-0023A	Attic - Above C.T - Black Mastic On Fiberglass Insulation	Pink Fibrous Homogeneous	97% Min. Wool	3% Non-fibrous (Other)	None Detected
B11A 342101970-0024	Attic - - Gray Mastic On Fiberglass Ducts	Gray Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
B11B 342101970-0025	Attic - - Gray Mastic On Fiberglass Ducts	Gray Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
B12A-Floor Tile 342101970-0026	Kitchen - Backsplash - 12"x12" Brown "Marble" Pattern V.T w/Adh.	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B12A-Adhesive 342101970-0026A	Kitchen - Backsplash - 12"x12" Brown "Marble" Pattern V.T w/Adh.	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B12B-Floor Tile 342101970-0027	Kitchen - Backsplash - 12"x12" Brown "Marble" Pattern V.T w/Adh.	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B12B-Adhesive 342101970-0027A	Kitchen - Backsplash - 12"x12" Brown "Marble" Pattern V.T w/Adh.	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B13A-Ceramic Tile 342101970-0028	Bathroom - Walls. - 4"x4" Off White Cer. Tile, Grout & Brown Mastic	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B13A-Grout 342101970-0028A	Bathroom - Walls. - 4"x4" Off White Cer. Tile, Grout & Brown Mastic	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
B13A-Mastic 342101970-0028B	Bathroom - Walls. - 4"x4" Off White Cer. Tile, Grout & Brown Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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EMSL Order: 342101970
Customer ID: TERC62
Customer PO: HD207110
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B13B-Ceramic Tile <i>342101970-0029</i>	Bathroom - Walls. - 4"x4" Off White Cer. Tile, Grout & Brown Mastic	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
B13B-Grout <i>342101970-0029A</i>	Bathroom - Walls. - 4"x4" Off White Cer. Tile, Grout & Brown Mastic	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
B13B-Mastic <i>342101970-0029B</i>	Bathroom - Walls. - 4"x4" Off White Cer. Tile, Grout & Brown Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Jhon Rosario (26)

Laura Vera (22)

Carlos Rivadeneyra, Laboratory Director
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Orlando, FL NVLAP Lab Code 101151-0

Initial report from: 02/08/2021 11:36:57

APPENDIX C
LEAD SURVEY SAMPLE SUMMARY
Historic Building
7770 Jungle Trail
Vero Beach, Florida 32963
Terracon Project No. HD207110

Sample Number	Sample Location	Component	Lead Concentration* (% by weight)
P1A	Around Exterior Window Frame (South Wall)	Light & Dark Green Paint	4.7%
P1B	Around Exterior Window Frame (North Wall)	Light & Dark Green Paint	4.5%
P2A	Exterior Siding (South wall)	White Paint	0.011%
P2B	Exterior Siding (North wall)	White Paint	0.013%
P3A	Stairs (NW Section of Building)	Dark Green & White Paint	0.18%
P3B	Stairs (Main Entry)	Dark Green & White Paint	0.36%
P4A	Bedroom 2 (South Wall)	White Paint	<0.008%
P4B	Laundry Room (West Wall)	White Paint	<0.008%
P4C	Porch (East Wall)	White Paint	0.019%
P5A	Gutter/Downspout (NW Exterior)	White Paint	<0.014%
P5B	Gutter/Downspout (SW Exterior)	White Paint	<0.008%
P6A	Exterior Shutters (South Section)	Green Paint	<0.008%
P6B	Exterior Shutters (North Section)	Green Paint	0.16%

*OSHA Lead Standard for Construction (29 CFR 1926.62) applies to any detectable concentration lead in paint. Demolition or renovation of the listed components will be subject to the OSHA Lead Standard for Construction.

The OSHA Lead Standard for Construction (29 CFR 1926.62) applies to construction work where an employee may be occupationally exposed to lead. All work related to construction, alteration, or repair (including painting and decorating) is included.

APPENDIX D
LEAD ANALYTICAL LABORATORY DATA

**EMSL Analytical, Inc.**

3303 PARKWAY CENTER COURT, Orlando, FL 32808

Phone/Fax: (407) 599-5887 / (407) 599-9063

<http://www.EMSL.com>orlandolab@emsl.com

EMSL Order: 342101846

CustomerID: TERC62

CustomerPO: HD207110

ProjectID:

Attn: **Carver Gittens**
Terracon Consultants, Inc.
1675 Lee Road
Winter Park, FL 32789

Phone: (407) 740-6110
 Fax: (407) 740-6112
 Received: 2/3/2021 01:15 PM
 Collected:

Project: **Historic Bldg - HD207110****Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)***

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>Lead Concentration</i>
P1A	342101846-0001	2/4/2021		0.2853 g	4.7 % wt
Site: Around Ext. Window Frame - S. Wall, Lt & Dk Green					
P1B	342101846-0002	2/4/2021		0.2812 g	4.5 % wt
Site: Around Ext. Window Frame - N. Wall, Lt & Dk Green					
P2A	342101846-0003	2/4/2021		0.2780 g	0.011 % wt
Site: Ext. Siding - S. Wall, White					
P2B	342101846-0004	2/4/2021		0.2588 g	0.013 % wt
Site: Ext. Siding - N. Wall, White					
P3A	342101846-0005	2/4/2021		0.2611 g	0.18 % wt
Site: Stairs - N. W Sect, Dk Green & White					
P3B	342101846-0006	2/4/2021		0.2695 g	0.36 % wt
Site: Stairs - Main Entry, Dk Green & White					
P4A	342101846-0007	2/4/2021		0.2787 g	<0.0080 % wt
Site: Bed 2 - S. Wall, White					
P4B	342101846-0008	2/4/2021		0.2610 g	<0.0080 % wt
Site: Laundry - W. Wall, White					
P4C	342101846-0009	2/4/2021		0.2562 g	0.019 % wt
Site: Porch - E. Wall, White					
P5A	342101846-0010	2/4/2021		0.1478 g	<0.014 % wt
Site: Gutter/Down Spout - N.W. Sect, White					
P5B	342101846-0011	2/4/2021		0.2545 g	<0.0080 % wt
Site: Gutter/Down Spout - S.W Sect, White					
P6A	342101846-0012	2/4/2021		0.2698 g	<0.0080 % wt
Site: Ext. Shutters - S. Sect, Green					
P6B	342101846-0013	2/4/2021		0.3062 g	0.16 % wt
Site: Ext. Shutters - N. Sect, Green					

Carlos Rivadeneyra, Laboratory Director
 or other approved signatory

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Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL AIHA-LAP, LLC--ELLAP Accredited #163563

Initial report from 02/05/2021 19:03:17

APPENDIX E
MOLD SAMPLE SUMMARY
Historic Building
7770 Jungle Trail
Vero Beach, Florida 32963
Terracon Project No. HD207110

Sample Number	Sample Location	Indoor/Outdoor	Detected Mold Genera (Spore Count)
TL1	Bedroom 1 (East Wall)	Indoor	Aspergillus/Penicillium (> 1,000)*
TL2	Living Room (North Wall)	Indoor	Aspergillus/Penicillium (> 1,000)*
TL3	Porch (East Wall)	Outdoor	Alternaria-Ulocladium (1-10) Aspergillus/Penicillium (10-100)* Bipolaris (1-10)*
TL4	Bedroom 2 (East Wall)	Indoor	Aspergillus/Penicillium (> 1,000)*
TL5	Laundry Room (North Wall)	Indoor	Aspergillus/Penicillium (> 1,000)*
TL6	Kitchen (East Wall)	Indoor	Aspergillus/Penicillium (> 10-100)* Cladosporium (> 1,000)*

* = Sample contains fruiting structures and/or hyphae associated with the spores

APPENDIX F
MOLD LABORATORY ANALYTICAL REPORTS



EMSL Analytical, Inc.

3303 PARKWAY CENTER COURT Orlando, FL 32808

Tel/Fax: (407) 599-5887 / (407) 599-9063

http://www.EMSL.com / orlandolab@emsl.com

EMSL Order: 342101971

Customer ID: TERC62

Customer PO: HD207110

Project ID:

Attention: Carver Gittens
Terracon Consultants, Inc.
1675 Lee Road
Winter Park, FL 32789

Phone: (407) 740-6110

Fax: (407) 740-6112

Collected Date:

Received Date: 02/03/2021

Analyzed Date: 02/08/2021

Project: Historic Bldg - HD207110

Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number: Client Sample ID: Sample Location:	342101971-0001 TL1 Bedroom 1 - E. Wall	342101971-0002 TL2 Living Rm - N. Wall	342101971-0003 TL3 Porch - E. Wall	342101971-0004 TL4 Bed 2 - E. Wall	342101971-0005 TL5 Laundry Rm. - N. Wall
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	Rare	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	*High*	*High*	*Low*	*High*	*High*
Basidiospores	-	-	-	-	-
Bipolaris++	-	-	Rare	-	-
Chaetomium	-	-	-	-	-
Cladosporium	-	-	*High*	-	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	-	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	Rare	Rare	-	-
Pollen	Rare	-	Medium	-	-

Category: Count/per area analyzed - Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000

- Denotes Not Detected.

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

* = Sample contains fruiting structures and/or hyphae associated with the spores.

Yessica Martinez Seeman, Microbiology Technical
Manager, Central Florida
or other Approved Signatory

No discernable field blank was submitted with this group of samples.

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Samples analyzed by EMSL Analytical, Inc. Orlando, FL AIHA-LAP, LLC-EMLAP Accredited #163563

Initial report from: 02/08/2021 12:41 PM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com



EMSL Analytical, Inc.

3303 PARKWAY CENTER COURT Orlando, FL 32808

Tel/Fax: (407) 599-5887 / (407) 599-9063

<http://www.EMSL.com> / orlandolab@emsl.com

EMSL Order: 342101971

Customer ID: TERC62

Customer PO: HD207110

Project ID:

Attention: Carver Gittens
Terracon Consultants, Inc.
1675 Lee Road
Winter Park, FL 32789

Phone: (407) 740-6110

Fax: (407) 740-6112

Collected Date:

Received Date: 02/03/2021

Analyzed Date: 02/08/2021

Project: Historic Bldg - HD207110

Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number:	342101971-0006			
Client Sample ID:	TL6			
Sample Location:	Kitchen - E. Wall			
Spore Types	Category			
Alternaria (Ulocladium)	-			
Ascospores	-			
Aspergillus/Penicillium	*Low*			
Basidiospores	-			
Bipolaris++	-			
Chaetomium	-			
Cladosporium	*High*			
Curvularia	-			
Epicoccum	-			
Fusarium	-			
Ganoderma	-			
Myxomycetes++	-			
Pithomyces++	-			
Rust	-			
Scopulariopsis/Microascus	-			
Stachybotrys/Memnoniella	-			
Unidentifiable Spores	-			
Zygomycetes	-			
Hyphal Fragment	-			
Insect Fragment	-			
Pollen	-			

Category: Count/per area analyzed - Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000

- Denotes Not Detected.

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

* = Sample contains fruiting structures and/or hyphae associated with the spores.

Yessica Martinez Seeman, Microbiology Technical
Manager, Central Florida
or other Approved Signatory

No discernable field blank was submitted with this group of samples.

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Samples analyzed by EMSL Analytical, Inc. Orlando, FL AIHA-LAP, LLC-EMLAP Accredited #163563

Initial report from: 02/08/2021 12:41 PM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

APPENDIX G
SITE PHOTOGRAPHS

Site Photographs

Historic Building

7770 Jungle Trail ■ Vero Beach, Florida

February 16, 2021 ■ Terracon Project No. HD207110



Photo #1 View of building facing south.



Photo #2 View of building facing southwest.



Photo #3 View of building facing northwest.



Photo #4 View of building facing northeast.



Photo #5 View of off-white & blue "box" pattern SVF reported to be ACM.



Photo #6 View of off-white & peach "box" pattern SVF reported to be ACM.

Site Photographs

Historic Building

7770 Jungle Trail ■ Vero Beach, Florida

February 16, 2021 ■ Terracon Project No. HD207110

Terracon



Photo #7 Gray mastic reported to be ACM.



Photo #8 View of porch.



Photo #9 View of living room.



Photo #10 View of Kitchen.



Photo #11 View of attic.



Photo #12 Example of possible mold growth.

APPENDIX H
LICENSES AND CERTIFICATIONS



Center for Training, Research and Education for Environmental Occupations

certifies

Carver D. Gittens

Terracon Consultants, Inc., 1675 Lee Rd. Winter Park, FL 32789

Having passed a 25-question exam with a score of 70% or higher has successfully met training requirements for

Asbestos Refresher: Inspector Online

FDBPR Asbestos Licensing Unit: Provider #0000995; Course #FL49-0006389 (1/2 Day; 3.40 Contact Hours)

(Reaccreditation for Inspector under TSCA Title II/AHERA)

Conducted

02/05/2020

Certificate #: 210135-1105

Exam Date: 02/05/2020

EPA accreditation expires: 02/05/2021

Principal Instructor: Brian Duchene, PE, LAC

CEUs: 0.4

FBPR LAC: #0000995; Course ## 0006389

FBPE CEHs: #0004021; Course #0009083/Educational Institutions: 4 CEHs

A handwritten signature in blue ink that reads 'Carol Hinton'.

Carol Hinton, Associate Director



Ron DeSantis, Governor

Halsey Beshears, Secretary



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ASBESTOS LICENSING UNIT

THE ASBESTOS CONSULTANT HEREIN IS LICENSED UNDER THE
PROVISIONS OF CHAPTER 469, FLORIDA STATUTES

HOLLEY, TOM C

TERRACON CONSULTANTS INC
5463 W WATERS AVE STE 830
C/O TERRACON CONSULTANTS
TAMPA FL 33634

LICENSE NUMBER: AX75

EXPIRATION DATE: NOVEMBER 30, 2022

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Halsey Beshears, Secretary



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ASBESTOS LICENSING UNIT

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TERRAGON CONSULTANTS INC

MICHAEL W SCHRUM
1675 LEE ROAD
WINTER PARK FL 32789

LICENSE NUMBER: ZA337

EXPIRATION DATE: NOVEMBER 30, 2021

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**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

MOLD-RELATED SERVICES LICENSING PROGRAM

THE MOLD ASSESSOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 468, FLORIDA STATUTES

O REILLY, JOHN LEE

3876 LOWER UNION ROAD
ORLANDO FL 32814

LICENSE NUMBER: MRSA212

EXPIRATION DATE: JULY 31, 2022

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PROVISIONS OF CHAPTER 469, FLORIDA STATUTES

HOLLEY, TOM C

TERRACON CONSULTANTS INC
5463 W WATERS AVE STE 830
C/O TERRACON CONSULTANTS
TAMPA FL 33634

LICENSE NUMBER: AX75

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United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101151-0

EMSL Analytical, Inc.

Orlando, FL

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2020-07-01 through 2021-06-30

Effective Dates




For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EMSL Analytical, Inc.
3303 Parkway Center Court
Orlando, FL 32808
Mr. Carlos Rivadeneyra
Phone: 407-599-5887
Email: crivadeneyra@emsl.com
<http://www.emsl.com>

ASBESTOS FIBER ANALYSIS

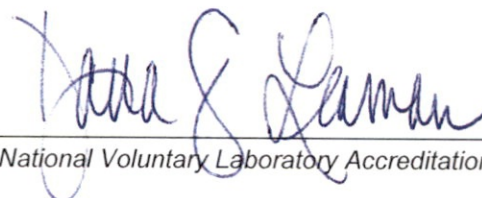
NVLAP LAB CODE 101151-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.



For the National Voluntary Laboratory Accreditation Program



AIHA Laboratory Accreditation Programs, LLC

acknowledges that

EMSL Analytical, Inc.

3303 Parkway Center Ct Orlando, FL 32808-1040

Laboratory ID: LAP-163563

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2017 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

LABORATORY ACCREDITATION PROGRAMS

- | | | |
|-------------------------------------|-----------------------------------|--|
| <input checked="" type="checkbox"/> | INDUSTRIAL HYGIENE | Accreditation Expires: February 01, 2022 |
| <input checked="" type="checkbox"/> | ENVIRONMENTAL LEAD | Accreditation Expires: February 01, 2022 |
| <input checked="" type="checkbox"/> | ENVIRONMENTAL MICROBIOLOGY | Accreditation Expires: February 01, 2022 |
| <input type="checkbox"/> | FOOD | Accreditation Expires: |
| <input type="checkbox"/> | UNIQUE SCOPES | Accreditation Expires: |

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Elizabeth Bair

Elizabeth Bair
Chairperson, Analytical Accreditation Board

Cheryl O. Morton

Cheryl O Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC



AIHA Laboratory Accreditation Programs, LLC

SCOPE OF ACCREDITATION

EMSL Analytical, Inc.

3303 Parkway Center Ct Orlando, FL 32808-1040

Laboratory ID: LAP-163563

Issue Date: 01/31/2020

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air and composited wipes analyses are not included as part of the NLLAP.

Environmental Lead Laboratory Accreditation Program (ELLAP)

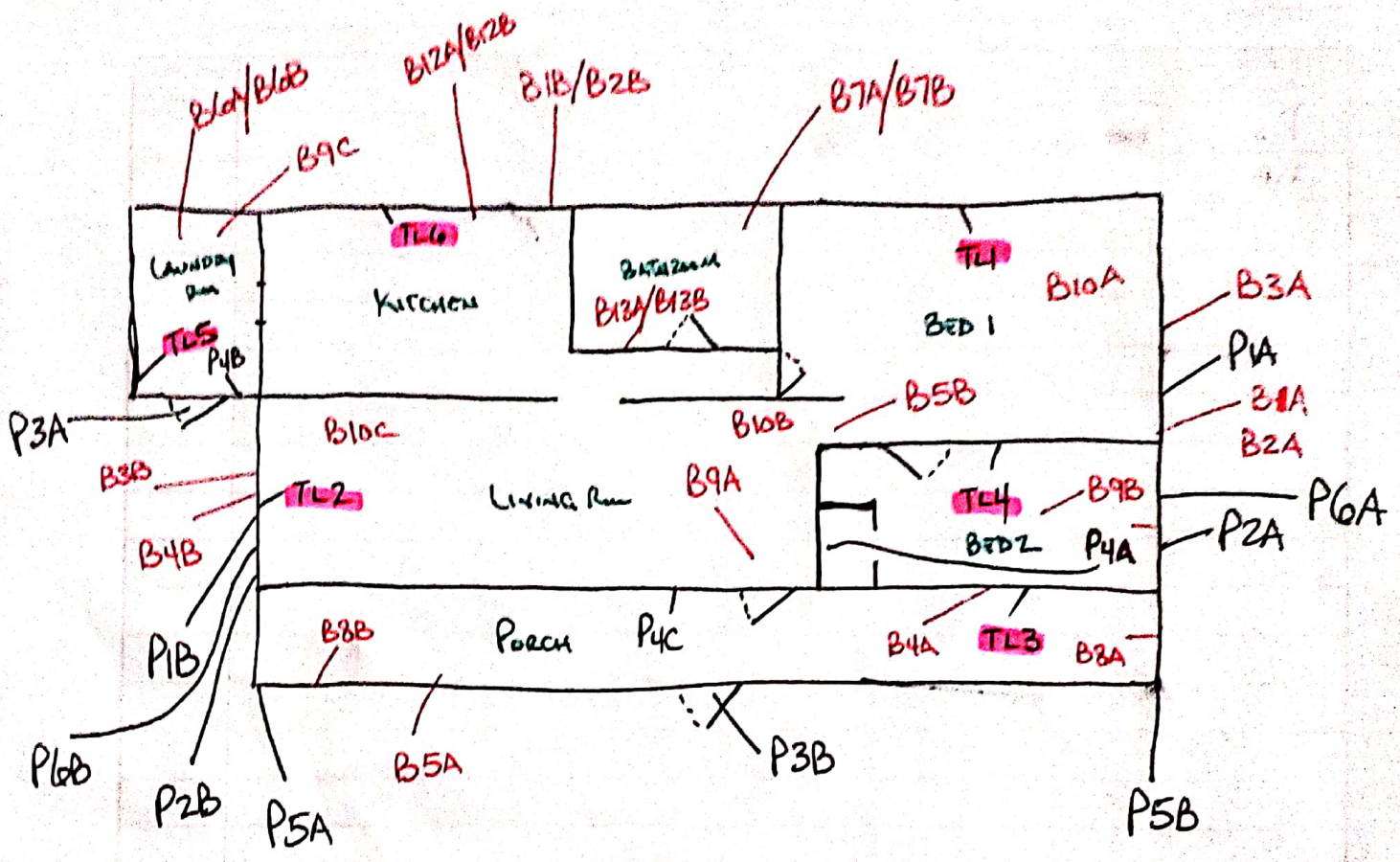
Initial Accreditation Date: 09/01/2007

Component, parameter or characteristic tested	Technology sub-type/Detector	Method	Method Description <i>(for internal methods only)</i>
Airborne Dust	AA	NIOSH 7082	N/A
Paint	AA	EPA SW-846 3050B	N/A
		EPA SW-846 3051A	N/A
		EPA SW-846 7000B	N/A
Settled Dust by Wipe	AA	EPA SW-846 3050B	N/A
		EPA SW-846 3051A	N/A
		EPA SW-846 7000B	N/A
Soil	AA	EPA SW-846 3050B	N/A
		EPA SW-846 3051A	N/A
		EPA SW-846 7000B	N/A

A complete listing of currently accredited ELLAP laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>

APPENDIX I
SITE DRAWING

FIELD N



Historic Bldg
2-3-21
CGITTENS.
HD207110