Niles-Barnard House Renovation

OHM Project No. 0128-18-0020

Project Cl	hange Orders	2020-03-18
Owner:	Contractor: By Architect:	
	Michigan, Troy Cedroni Associates Inc.	34000 Plymouth Rd
Historic Villag	ge	Livonia, MI 48150
60 W. Wattles	5639 Auburn Road	Tel: 734.522.6711
Troy, Michiga		Fax: 734.522.6427
248.524.4907		www.ohm-advisors.com
Project Contac	. 0	
Kurt Bovensie	p	
Original Cont	ract Amount	\$454,500.00
Bulletin 1		
Item 1	EPS Foam replaced with Mineral-Wool Board Insulation.	\$1,150.00
Item 2	P. Lam. Countertop and SK-1 replaced with Stainless Steel and	
	Integrated bowls.	\$738.04
Item 3	Three way switched recepticals added to floor joists above in	
	basement.	\$2,917.55
Item 4	Exut signs and battery unit emergency lighting added in Basement.	
		\$1,092.50
Item 5	Cabinet unit heaters in Toilet Rooms 115, 116 to be hard wired.	
		\$142.60
Item 6	Emergency lighting circuiting added to toilet room 115, 116 D.1	
	Fixtures	\$1,947.53
Item 7	Exit sign at door 115A removed.	\$0.00
		\$7,988.22
Bulletin 2		
Item 1	Remove plaster and lath and install plywood and gypsum board as	
	indicated on drawings in Rooms E and F.	\$2,880.75
Item 2	Window muntins revised to 7/8" bead profile Simulated Divided	
	Lite. Windows identified in schedule revised to 6 over 6 muntin	
	configuration.	\$9,487.35
Item 3	Stairway treads and risers to be red oak.	\$902.75
Item 4	Refeed existing sump pump wiring to avoid conflict with new	
	stairway.	\$488.75
		\$13,759.60
Total Change		\$21,747.82
0		
Revised Contr	act 1 otal	\$476,247.82



Bulletin # 1

Project: Niles-Barnard House Renovation Project No: 0128-18-0020 Date: February 7, 2020

The intent of this bulletin is to request quotation(s) from the contractor for the stated work. The quote is to include all costs and time for a complete installation. If further description or clarification is required, the Contractor (or CM) shall contact the Architect for a written revision to this bulletin. Unless otherwise indicated, the Contractor (or CM) shall submit an itemized quotation with labor and material breakdown within ten days of receipt of this bulletin.

This bulletin is for quotation only: it is not a directive to change the contract. If the bulletin or portions of the bulletin are accepted by the Owner the Architect shall issue a Change Order for acceptance by the Owner and Contractor describing the accepted changes.

ITEM ONE

Refer to drawing(s) specification etc. dated 02-07-2020: 07 20 00

Extruded Polystyrene Foam-Plastic Board insulation in crawlspace replaced with Mineral-Wool Board Insulation.

Materials \$	500.00	
Labor \$	500.00	
Subcontractor \$		
Subcontractor Markup \$		
G C Markup \$	150.00	
\$	1,150.00	
Owner Approval _		

ITEM TWO

Refer to drawing(s) specification etc. dated 02-07-2020: A-102, A-211, M7.3

Plastic laminate top and drop in stainless steel sink (SK-1) in Room D 113 replaced with stainless steel countertop with integrated custom three-bowl sink. Faucet finish revised to Vibrant Stainless Steel.

Materials \$_	641.77	
Labor \$		
Subcontractor \$_		
Subcontractor Markup \$_		
G C Markup \$_	96.27	
\$_	738.04	
Owner Approval		

ITEM THREE

Refer to drawing(s) specification etc. dated 02-07-2020: E2.0

Three way switched receptacles added to floor joists above in basement.

is above in basement.
Materials \$742.30
Labor \$ <u>1,541.00</u>
Subcontractor \$2,283.30
Subcontractor Markup \$ 253.70
G C Markup \$ 380.55
\$2,917.55
Owner Approval

ITEM FOUR

Refer to drawing(s) specification etc. dated 02-07-2020: E2.0

Exit signs and battery unit emergency lighting added in Basement.

ba in Dabonnonit.		
Materials \$_	155.35	
Labor \$	699.00	
Subcontractor \$_	854.35	
Subcontractor Markup \$	95.65	
G C Markup \$	142.50	
\$1	,092.50	
Owner Approval		

ITEM FIVE

Refer to drawing(s) specification etc. dated 02-07-2020: E2.1

Cabinet unit heaters in Toilet Rooms 115, 116 to be hard wired.

111.60	
111.60	
12.40	
18.60	
142.60	
	111.60 12.40 18.60

ITEM SIX Refer to drawing(s) specification etc. dated 02-07-2020: E2.1

Emergency lighting circuiting added to toilet room 115, and 116 D1 fixtures.

Materials \$	940.55
Labor \$	583.60
Subcontractor \$1	524.15
Subcontractor Markup \$	169.35
G C Markup \$	254.03
\$1,	947.53
Owner Approval	

City of Troy, Niles-Barnard House February 7, 2020 Page 3 of 3



ITEM SEVEN Refer to drawing(s) specification etc. dated 02-07-2020: E2.1

Exit sign at door 115A removed.

Materials \$	0.00	
Labor \$	0.00	
Subcontractor \$	0.00	
Subcontractor Markup \$	0.00	
G C Markup \$	0.00	
\$	0.00	
Owner Approval		

Sincerely, OHM Advisors

Vincent Verna, Project Coordinator



Bulletin # 2

Project: Niles-Barnard House Renovation Project No: 0128-18-0020 Date: March 9, 2020

The intent of this bulletin is to request quotation(s) from the contractor for the stated work. The quote is to include all costs and time for a complete installation. If further description or clarification is required, the Contractor (or CM) shall contact the Architect for a written revision to this bulletin. Unless otherwise indicated, the Contractor (or CM) shall submit an itemized quotation with labor and material breakdown within ten days of receipt of this bulletin.

This bulletin is for quotation only: it is not a directive to change the contract. If the bulletin or portions of the bulletin are accepted by the Owner the Architect shall issue a Change Order for acceptance by the Owner and Contractor describing the accepted changes.

ITEM ONE

Refer to drawing(s) specification etc. dated 03-09-2020: A-102, A-211

Remove plaster and lath and install plywood and gypsum board as indicated on drawings in Rooms E and F.

Materials \$ 2,000.00
Labor \$500.00
Subcontractor \$
Subcontractor Markup \$
G C Markup \$ 375.75
\$2,880.75
Owner Approval
•••

ITEM TWO

Refer to drawing(s) specification etc. dated 03-09-2020: 08 52 00, A-602

Window muntins revised to 7/8" Bead profile Simulated Divided Lite. Windows identified in schedule revised to 6 over 6 muntin configuration.

Materials \$_	8,249.87
Labor \$_	
Subcontractor \$	
Subcontractor Markup \$	
G C Markup \$_	1,237.48
\$	9,487.35
Owner Approval	



Refer to drawing(s) specification etc. dated 03-09-2020: 08 52 00

Window muntins revised to 7/8" Bead profile Simulated Divided Lite. Windows muntin configuration to match permit drawings..

8,411.86
1,261.78
9,673.64
·····

ITEM THREE

Stairway treads and risers to be Red Oak.

Materials \$	785.00
Labor \$	
Subcontractor \$	
Subcontractor Markup \$	
G C Markup \$_	117.75
\$	902.75
Owner Approval	

ITEM FOUR

Refeed existing sump pump wiring to avoid conflict with new stairway.

with now stanway.		
Materials \$	202.50	
Labor \$	180.00	
Subcontractor \$		
Subcontractor Markup \$	42.50	
G C Markup \$	63.75	
\$	488.75	
Owner Approval		

Sincerely, OHM Advisors	
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meen	Kenn

Vincent Verna, Project Coordinator

PROJECT MANUAL

THE CITY OF TROY Niles Barnard Renovation Project

TROY, MI



PROJECT NO. 0128-18-0020

ISSUE: BULLETIN 1 DATE: February 7, 2020

SECTION 07 21 00 - THERMAL INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Mineral Wool Board.
- 2. Glass-fiber blanket.
- 3. Loose-fill insulation.

B. Related Requirements:

1. Section 09 29 00 "Gypsum Board" for sound attenuation blanket used as acoustic insulation.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

- 1.4 INFORMATIONAL SUBMITTALS
 - A. Product Test Reports: For each product, for tests performed by a qualified testing agency.
- 1.5 DELIVERY, STORAGE, AND HANDLING
 - A. Protect insulation materials from physical damage and from deterioration due to moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.
 - B. Protect foam-plastic board insulation as follows:
 - 1. Do not expose to sunlight except to necessary extent for period of installation and concealment.
 - 2. Protect against ignition at all times. Do not deliver foam-plastic board materials to Project site until just before installation time.
 - 3. Quickly complete installation and concealment of foam-plastic board insulation in each area of construction.

PART 2 - PRODUCTS

2.1 MINERAL-WOOL BOARD

- A. Mineral-Wool Board, Types IA and IB, Unfaced Rigid Insulation: ASTM C 612, Types IA and IB; with maximum flame-spread and smoke-developed indexes of 15 and zero, respectively, per ASTM E 84; passing ASTM E 136 for combustion characteristics. Nominal density of 4 lb/cu. ft. (64 kg/cu. m).
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. Johns Manville; a Berkshire Hathaway company.
- b. Rockwool International.
- c. Thermafiber, Inc.; an Owens Corning company.

2.2 GLASS-FIBER BLANKET

- A. Glass-Fiber Blanket, Unfaced: ASTM C 665, Type I; with maximum flame-spread and smokedeveloped indexes of 25 and 50, respectively, per ASTM E 84; passing ASTM E 136 for combustion characteristics.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. CertainTeed Corporation.
 - b. Johns Manville; a Berkshire Hathaway company.
 - c. Knauf Insulation;
 - d. Owens Corning.
- B. Glass-Fiber Blanket, Polypropylene-Scrim-Kraft Faced ASTM C 665, Type II (nonreflective faced), Class A (faced surface with a flame-spread index of 25 or less); Category 1 (membrane is a vapor barrier).
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. CertainTeed Corporation.
 - b. Johns Manville; a Berkshire Hathaway company.
 - c. Knauf Insulation.;
 - d. Owens Corning.

2.3 LOOSE-FILL INSULATION

- A. Cellulosic-Fiber Loose-Fill Insulation: ASTM C739, chemically treated for flame-resistance, processing, and handling characteristics.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. GreenFiber, INS765LD
 - b. Hamilton Manufacturing Inc.
 - c. Nu-Wool Co., Inc.
 - 2. Material Description:
 - a. Manufactured from recycled newspapers.
 - b. Post-Consumer Recycled Content: 85 percent minimum.
 - c. Fibers: Treated with boric acid additives to create permanent flame resistance: flame-spread index of 25 or less
 - d. Fungicide Additive:
 - 1) EPA registered.
 - 2) Makes insulation resistant to mold growth.
 - e. Dry Dense pack product.

2.4 ACCESSORIES

- A. Insulation for Miscellaneous Voids:
 - 1. Glass-Fiber Insulation: ASTM C 764, Type II, loose fill; with maximum flame-spread and smoke-developed indexes of 5, per ASTM E 84.
 - 2. Spray Polyurethane Foam Insulation: ASTM C 1029, Type II, closed cell, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.
- B. Adhesive for Bonding Insulation: Product compatible with insulation and air and water barrier materials, and with demonstrated capability to bond insulation securely to substrates without damaging insulation and substrates.

The City of Troy Niles Barnard Renovation Project OHM Project #0128-18-0020 C. Eave Ventilation Troughs: Preformed, rigid fiberboard or plastic sheets designed and sized to fit between roof framing members and to provide ventilation between insulated attic spaces and vented eaves.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean substrates of substances that are harmful to insulation, including removing projections capable of puncturing insulation or vapor retarders, or that interfere with insulation attachment.
- 3.2 INSTALLATION, GENERAL
 - A. Comply with insulation manufacturer's written instructions applicable to products and applications.
 - B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.
 - C. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
 - D. Provide sizes to fit applications and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units unless multiple layers are otherwise shown or required to make up total thickness or to achieve R-value.

3.3 INSTALLATION OF FOUNDATION WALL INSULATION

- A. Butt panels together for tight fit.
- B. Adhesive Installation: Install with adhesive or press into tacky dampproofing according to manufacturer's written instructions.

3.4 INSTALLATION OF INSULATION IN EXISTING CONSTRUCTION

- A. Loose-Fill Insulation in existing wall cavities: Apply according to ASTM C 1015 and manufacturer's written instructions. Level horizontal applications to uniform thickness as indicated, lightly settle to uniform density, but do not compact excessively.
 - 1. For cellulosic-fiber loose-fill insulation, comply with CIMA's Bulletin #2, "Standard Practice for Installing Cellulose Insulation."
 - 2. Blow-in insulation, do not use wet spray application.

3.5 INSTALLATION OF INSULATION IN FRAMED CONSTRUCTION

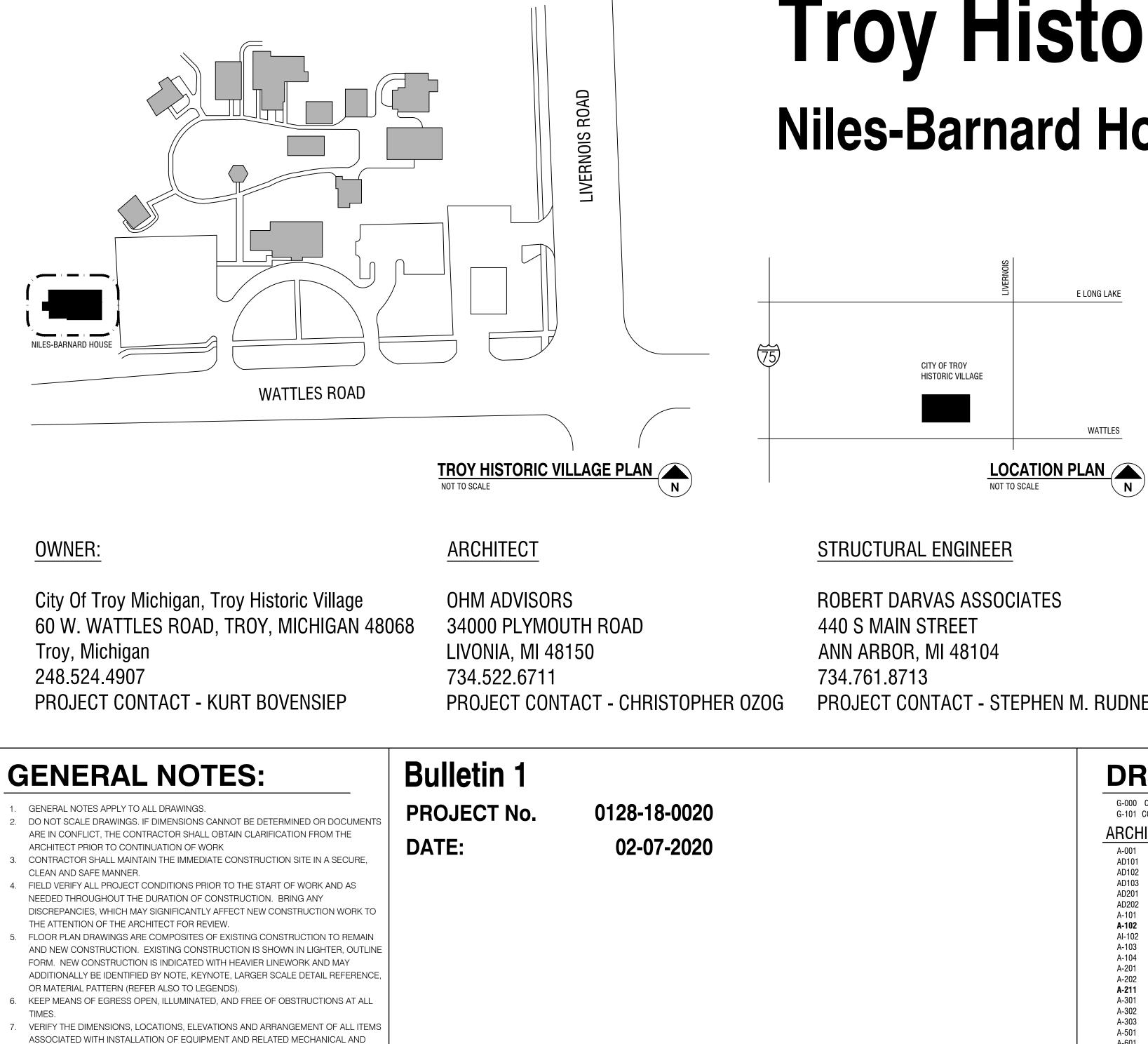
- A. Blanket Insulation: Install in cavities formed by framing members according to the following requirements:
 - 1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill the cavities, provide lengths that will produce a snug fit between ends.
 - 2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.

- 3. Maintain 3-inch clearance of insulation around recessed lighting fixtures not rated for or protected from contact with insulation.
- 4. For wall cavities where cavity heights exceed 96 inches, support unfaced blankets mechanically and support faced blankets by taping flanges of insulation to flanges of metal studs.
- 5. Attics: Install eave ventilation troughs between roof framing members in insulated attic spaces at vented eaves. Provide 1" minimum clear between insulation and sheathing.
- 6. For wood-framed construction, install blankets according to ASTM C 1320 and as follows:
 - a. With faced blankets having stapling flanges, lap blanket flange over flange of adjacent blanket to maintain continuity of vapor retarder once finish material is installed over it.
- 7. Vapor-Retarder-Faced Blankets: Tape joints and ruptures in vapor-retarder facings, and seal each continuous area of insulation to ensure airtight installation.
 - a. Exterior Walls and attics: Set units with facing placed toward interior of construction.
- B. Miscellaneous Voids: Install insulation in miscellaneous voids and cavity spaces where required to prevent gaps in insulation using the following materials:
 - 1. Glass-Fiber Insulation: Compact to approximately 40 percent of normal maximum volume equaling a density of approximately 2.5 lb/cu. ft..
 - 2. Spray Polyurethane Insulation: Apply according to manufacturer's written instructions.
- C. Loose-Fill Insulation: Apply according to ASTM C 1015 and manufacturer's written instructions. Level horizontal applications to uniform thickness as indicated, lightly settle to uniform density, but do not compact excessively.
 - 1. For cellulosic-fiber loose-fill insulation, comply with CIMA's Bulletin #2, "Standard Practice for Installing Cellulose Insulation."
- D. Spray-Applied Cellulosic Insulation: Apply spray-applied insulation according to manufacturer's written instructions. Do not apply insulation until installation of pipes, ducts, conduits, wiring, and electrical outlets in walls is completed and windows, electrical boxes, and other items not indicated to receive insulation are masked. After insulation is applied, make flush with face of studs by using method recommended by insulation manufacturer.
 - 1. Attics: Install eave ventilation troughs between roof framing members in insulated attic spaces at vented eaves.

3.6 PROTECTION

A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 07 21 00



- ELECTRICAL WORK. COORDINATE OPENINGS AND PENETRATIONS BETWEEN TRADES. 8. INFORMATION SHOWN IN ONE LOCATION ON THE DRAWINGS IS THE SAME AS IF SHOWN ON MULTIPLE LOCATIONS. 9. TYPICAL CONDITIONS ARE NOTED ONLY ONCE.
- 10. REFER TO PROJECT INFORMATION SHEET FOR EACH DISCIPLINE FOR MATERIAL / REFERENCE SYMBOLS AND ABBREVIATIONS.

City Of Troy Michigan, Troy Historic Village **Niles-Barnard House Renovation**

PROJECT CONTACT - STEPHEN M. RUDNER

MECHANICAL AND PLUMBING ENGINEER

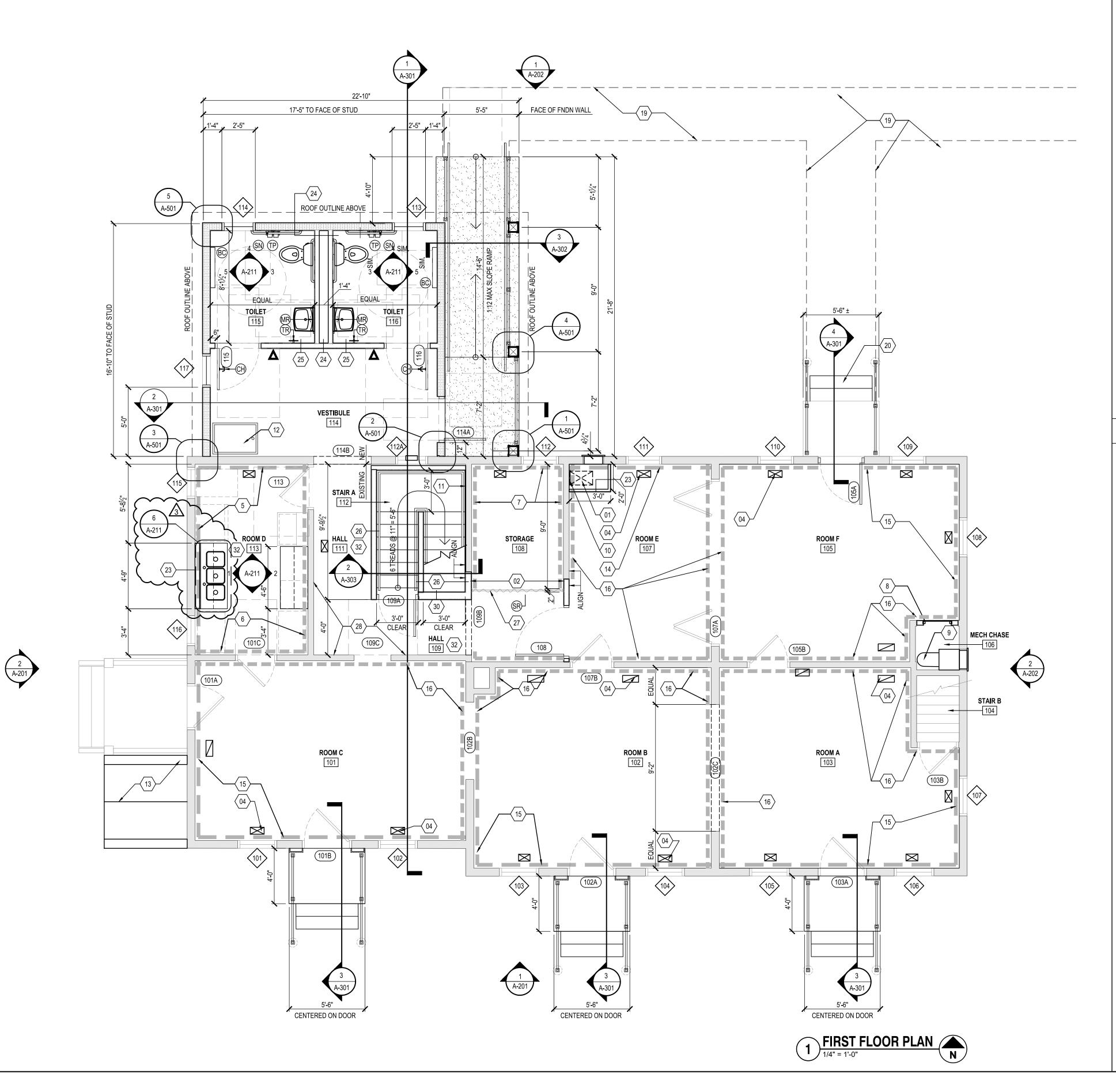
PETER BASSO ASSOCIATES 5145 LIVERNOIS ROAD #100 TROY, MI 5666 248.879.8713 PROJECT CONTACT - ANDREW LUZENSKI

G-000 COVER SHEET G-101 CODE COMPLIANCE			
ARCHITECTURAL	STRUCTURAL	PLUMBING/ MECHANICAL	ELECTRICAL
A-001ARCHITECTURAL ABBREVIATIONS, SYMBOLS, AND LEGENDAD101BASEMENT DEMOLITION PLANAD102FIRST FLOOR DEMOLITION PLANAD103SECOND FLOOR DEMOLITION PLANAD201EAST AND SOUTH DEMOLITION ELEVATIONSAD202NORTH AND WEST DEMOLITION ELEVATIONSA-101BASEMENT FLOOR PLANA-102FIRST FLOOR PLANA-103SECOND FLOOR PLANA-104FIRST FLOOR PLANA-201SOUTH AND WEST ELEVATIONSA-202NORTH AND WEST ELEVATIONSA-203SOUTH AND WEST ELEVATIONSA-204SOUTH AND WEST ELEVATIONSA-305WALL SECTIONSA-306WALL SECTIONSA-307TYPICAL DETAILSA-601DOOR SCHEDULE AND DETAILSA-602WINDOW SCHEDULE AND DETAILS	S0-1STRUCTURAL NOTESS0-2LOADING SCHEDULE AND TYPICAL DETAILSS1-1FOUNDATION PLANS1-2FIRST FLOOR FRAMING PLANS1-3ROOF FRAMING PLANS2-1BUILDING SECTIONS3-1STRUCTURAL DETAILS	 M0.1 MECHANICAL STANDARDS AND DRAWING INDEX M0.2 MECHANICAL SPECIFICATIONS M0.3 MECHANICAL SPECIFICATIONS M0.4 MECHANICAL SPECIFICATIONS MD1.0 BASEMENT MECHANICAL DEMOLITION PLAN MD1.1 FIRST FLOOR MECHANICAL DEMOLITION PLAN M2.0 BASEMENT PLUMBING NEW WORK PLAN M2.1 FIRST FLOOR PLUMBING NEW WORK PLAN M4.0 BASEMENT SHEET METAL NEW WORK PLAN M4.1 FIRST FLOOR SHEET METAL NEW WORK PLAN M6.1 MECHANICAL DETAILS M7.1 MECHANICAL SCHEDULES M7.3 MECHANICAL SCHEDULES M7.3 MECHANICAL SCHEDULES 	E.01ELECTRICAL STANDARDS AND DRAWING INDEXE.02ELECTRICAL STANDARD SCHEDULESE.03ELECTRICAL SPECIFICATIONSED1.0BASEMENT ELECTRICAL DEMOLITION PLANED1.1FIRST FLOOR ELECTRICAL DEMOLITION PLANE2.0BASEMENT ELECTRICAL NEW WORK PLANE2.1FIRST FLOOR ELECTRICAL NEW WORK PLANE7.1ELECTRICAL PANEL SCHEDULES, DETAILS AND DIAGRAMS
	I Certify That The Structural Under My Direct Supervision		



34000 PLYMOUTH ROAD LIVONIA, MI 48150

734.522.6711 734.522.6427 FAX



GENERAL PLAN NOTES

- FIRST FLOOR REFERENCE ELEVATION 100'-0" = 694.67.
- ALL WALL DIMENSIONS ARE TO FINISHED FACE OF WALL, ROUGH OPENINGS FOR DOORS AND WINDOWS, AND FACE OF BRICK/CONCRETE OR FACE OF SHEATHING, UNO.
- REFER TO CODE PLAN DRAWINGS (G-001) FOR LOCATIONS AND EXTENTS OF RATED ASSEMBLIES, AS WELL AS FIRE EXTINGUISHER LOCATIONS. IF PARTITION DESIGNATION DISCREPANCY OCCURS BETWEEN THE CODE DRAWING AND THE FLOOR PLANS, PROVIDE THE PARTITION TYPE INDICATED
- WITH THE MOST STRINGENT REQUIREMENTS. REFER TO PROJECT INFORMATION SHEET (A-001) FOR MATERIAL /REFERENCE SYMBOLS AND ABBREVIATIONS
- REFER TO DRAWING A-001 FOR TOILET ACCESSORIES AND MOUNTING DIAGRAMS.
- REFER TO DRAWING A-601 FOR DOOR INFORMATION AND DETAILS
- REFER TO A-602 FOR PUNCHED WINDOW TYPES AND DETAILS REFER TO AI DRAWINGS FOR ROOM FINISHES.
- WHERE NEW WALL CONSTRUCTION ABUTS EXISTING, IN-LINE, ON PLANS, DIRECTLY ALIGN NEW FINISH WALL SURFACE(S) WITH EXISTING.

NEW WORK PLAN KEYNOTES

- MECHANICAL DUCT, REFER TO MECHANICAL DRAWINGS FOR SIZE AND ROUTING.
- PROVIDE 2X STUD FRAMING, INFILL WITH GYPSUM BOARD EACH SIDE, ALIGN WITH FACE OF ADJACENT EXISTING FINISH.
- FOUNDATIONS / FOOTINGS, REFER TO STRUCTURAL DRAWINGS.
- MODIFY EXISTING FLOOR OPENING TO BE REUSED FOR NEW MECHANICAL GRILLE, PATCH OVERSIZED OPENINGS WITH WOOD TO MATCH EXISTING ADJACENT SURFACE. REFER TO MECHANICAL DRAWINGS FOR SIZING.
- PROVIDE 5/16" MOISTURE RESISTANT GYPSUM BOARD ON EXISTING FINISH (PLASTER OR FIBERBOARD) ABOVE WAINSCOT REFER TO DETAIL 8/AI102 MOLDING TRANSITION DETAIL. PROVIDE 1/4" GYPSUM BOARD ON EXISTING PLASTER WALLS ABOVE WAINSCOT, REFER TO DETAIL 8/AI102
- FOR BASE AND MOLDING TRANSITION DETAIL PROVIDE FRP BOARD w/ 5/8" PLYWOOD BACKING ON EXISTING FINISH.
- ACCESS PANEL: JL INDUSTRIES, TMW FLUSH ACCESS PANEL OR APPROVED EQUAL. SIZE 22"x30"
- RELIEF AIR DUCT AND GRILLE TO EXTERIOR, REFER TO MECHANICAL DRAWINGS.
- 10. PATCH LOCATION OF PLUMBING ACCESS PANEL WITH NEW WALL.
- PROVIDE NEW 5/8" GYPSUM BOARD AT EXISTING EXPOSED STUD WALL.
- 12. 24"X36" ACCESS PANEL TO CRAWL SPACE, REFER TO DETAIL 8/A-302. 13. RECONSTRUCT HATCH COVER TO BASEMENT, MATCH REMOVED EXISTING IN DESIGN AND
- CONSTRUCTION.
- PROVIDE 5/8" GYPSUM BOARD WHERE PLASTER REMOVED AND LATH TO REMAIN.
- PROVIDE 5/16" MOISTURE RESISTANT GYPSUM BOARD ON EXISTING FINISH (PLASTER OR FIBERBOARD) REFER TO DETAIL 8/AI102 FOR BASE AND MOLDING TRANSITION DETAIL. PROVIDE 1/4" GYPSUM BOARD ON EXISTING PLASTER WALLS, REFER TO DETAIL 8/AI102 FOR BASE AND MOLDING TRANSITION DETAIL.
- NEW DOMESTIC WATER HEATER, REFER TO MECHANICAL DRAWINGS.
- 18. NEW FURNACE, REFER TO MECHANICAL DRAWINGS.
- 19. SIDEWALK BY OTHERS.
- 20. PROVIDE NEW CONCRETE STEPS AND METAL HAND / GUARDRAILS. REFER TO DETAIL 3/A-301 21. INFILL EXISTING STAIRWAY OPENING.
- 22. RIDGE VENT.
- 23. 2X4 STUD TO UNDERSIDE OF CEILING WITH 5/8" GYPSUM BOARD ONE SIDE.
- 24. 2X4 STUD TO UNDERSIDE OF CEILING WITH 5/8" GYPSUM BOARD ONE SIDE SIDE, ACOUSTIC BATTING.
- 25. 2X4 STUD TO UNDERSIDE OF CEILING WITH 5/8" GYPSUM BOARD EACH SIDE, ACOUSTIC BATTING.
- 26. 2X4 STUD TO UNDERSIDE OF CEILING WITH 5/8" GYPSUM BOARD EACH SIDE.
- 27. CLOSET ROD: EPCO ROUND MOUNTING FLANGE CLOSET ROD SUPPORT (EPC-857-ORB;) OIL RUBBED
- BRONZE OR APPROVED EQUAL. 1-5/19" ROD, BLACK. MOUNT @ 7'4" AFF. PROVIDE BLOCKING IN WALL FOR ATTACHMENT. 28. CLEAN EXISTING WALLS, PATCH PENETRATIONS, PROVIDE TWO LAYERS OF SKIM COAT OVER EXISTING WALLS TO PROVIDE LEVEL 4 FINISH.
- 29. ENERGY RECOVERY UNIT, REFER TO MECHANICAL.
- 30. 2X6 STUD TO UNDERSIDE OF CEILING WITH 5/8" GYPSUM BOARD EACH SIDE. 31. EAVE VENT - HARDIPLANK VENTED SOFFIT PANEL.
- 32. PROVIDE 1/2" PLYWOOD UNDERLAYMENT ON TOP OF BASE LAYER OF FLOORING.



ARCHITECTS ENGINEERS PLANNERS

34000 Plymouth Road

Livonia, MI 48150

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OHM-ADVISORS.COM

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Troy, Michigan arnard House Renovation

of

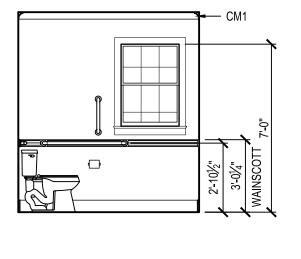
City

PLAN

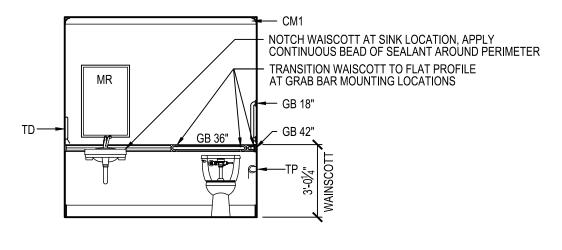
FLOOR

Niles-Ba

A-102



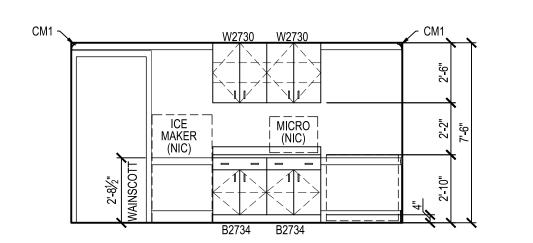
4 TOILET 115, 116 SIM 1/4" = 1'-0"

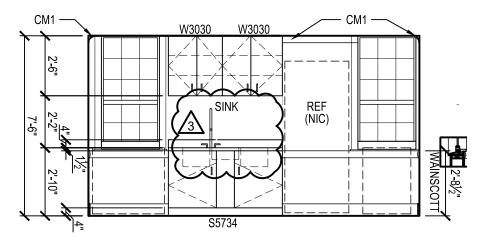


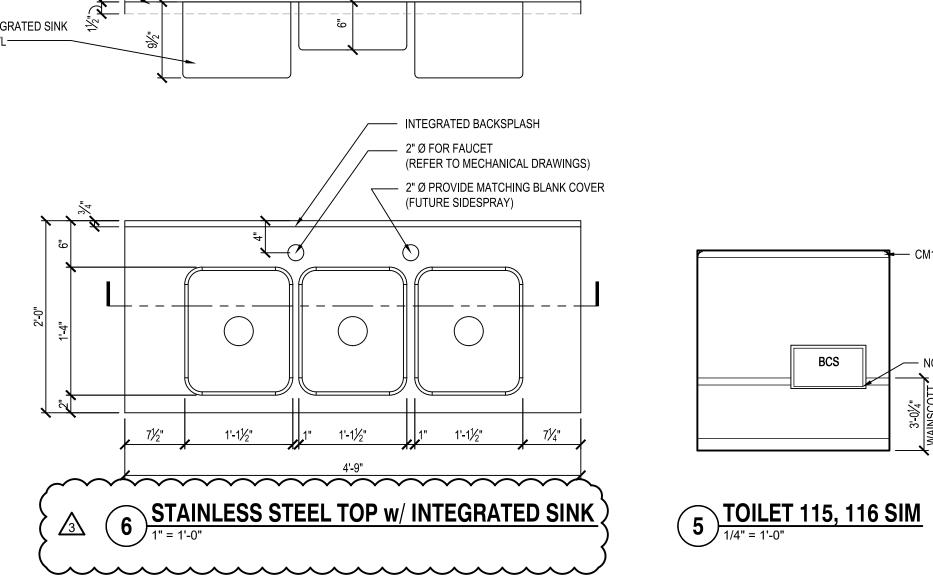
3 TOILET 115, 116 SIM 1/4" = 1'-0"

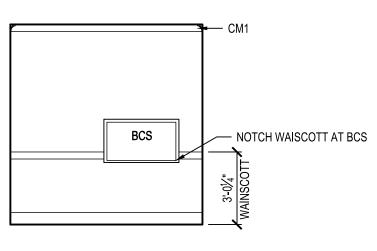


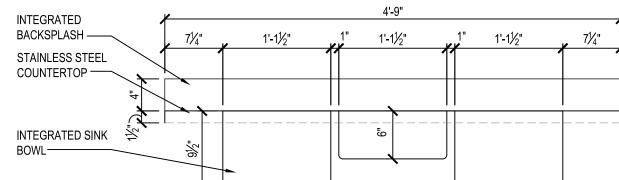












GENERAL CASEWORK NOTES			
 CABINET WIDTHS TO BE BASED ON MODULE INCREMENTS OF 3" UNO. PROVIDE FILLER PANELS AND TIM WHERE EQUIPMENT IS LOCATED WITHIN CABINETS. PROVIDE FILLER PANELS AND TRIM WHERE EQUIPMENT IS LOCATED WITHIN CABINETS. PROVIDE FINISHED END PANELS END RETURNS AT OPEN ENDED CABINETS, KNEE SPACES, AND ACCESSIBLE SINKS. PROVIDE 11%" THICK FINISHED END PANEL AT FREE STANDING END OF ACCESSIBLE SINKS AND KNEE SPACES. WHEN FILLER PANELS ARE REQUIRED AT BOTH ENDS OF CASEWORK TERMINATION. BOTH FILLER PANELS SHALL BE EQUAL WIDTH. PROVIDE WALL BRACKET SUPPORTS AT 36" OC MAX TO SUPPORT COUNTERTOP AT CONTINUOUS KNEE SPACE. PROVIDE END SPLASH WHEN COUNTERTOP IS ADJACENT TO WALL AT SIDES. PROVIDE END SPLASH WHEN COUNTERTOP IS ADJACENT TO WALL AT SIDES. PROVIDE END SPLASH WHEN COUNTERTOP IS ADJACENT TO WALL AT SIDES. PROVIDE ADJUSTABLE SHELVES IN CABINETS AT THE FOLLOWING LOCATIONS UNO ON ELEVATIONS A BASE CABINET - 1 SHELVES IN CABINETS AT THE FOLLOWING LOCATIONS UNO ON ELEVATIONS A BASE CABINET - 2 SHELVES, 1 FIXED C. WALL CABINET - 2 SHELVES, 1 FIXED C. WALL CABINET - 5 SHELVES, 1 FIXED D. NOTE: SHELVES TO BE 3/4" THICK FOR SPANS UP TO 32" AND 1" THICK FOR SPANS UP TO 36" 		ARCH	ITECTS ENGINEERS PLANNERS 34000 Plymouth Road Livonia, MI 48150 34.522.6711 F 734.522.6427 OHM-ADVISORS.COM
SHEET KEYNOTES			
	SEAL		2019 2020
	REVISIONS:		1 ISSUED FOR BIDS 09/30/2019 2 ISSUED FOR PERMIT 12/09/2019 3 BULLETIN 1 02/07/2020
LEEGEND CASEWORK INDICATOR CABINET TYPE (SEE ABBREVIATIONS BELOW) WIDTH IN INCHES (TWO DIGITS) DEPTH IN INCHES (TWO DIGITS) DEDTH IN INCHES (TWO DIGITS) DECIAL CONDITION SPECIAL CONDITIONS BASE CABINET A ACCESSIBLE C BASE CORNER E FINISHED END PANEL DA WICROWAVE BASE DA WICROWAVE BASE DEPCIAL CONDITIONS DECIAL CONDITIONS DECIAL CONDITIONS DECIAL CONDITIONS DECIAL CON	PROJ NUMBER ARCH PROJ MGR	12/09/2019 0128-18-0020 CO CO VV	City of Troy, Michigan Niles-Barnard House Renovation ^{60 W. Wattles Road} INTERIOR ELEVATIONS
T TALL CABINET TC TALL CUSTOM W WALL CABINET WC WALL CORNER WO OPEN WALL CABINET TC TALL CUSTOM WALL CABINET WC WALL CORNER WO OPEN WALL CABINET ACCESSIBLE CABINETS • WALL CABINET • WALL CABINET • WALL CABINET • BASE CABINETS 34" COUNTER HEIGHT	SHEET	12/C	A-211

				PLUMB	NG FIX	FURE S							
				WATER CLOSETS									
	UNIT IDENTIFICATION MATERIAL		MOUNTING STYLE	CONSUMPTION GALLONS/ FLUSH									
	WC-1	VITREOUS CHINA	FLOOR	1.28									
				ON, KOHLER, SLOAN, ZURN JSON, OLSONITE, SANDERSON, ZURN									
	UNIT IDENTIFICATION			LAVATORIES/SINKS									
	IDEN IFICATION	FIXTURE MATERIAL	MOUNTING STYLE	BOWL DIMENSIONS L × W × D INCHES	NUMBER OF BOWLS	OVER, DIMENS L x W INCH							
	LAV–1	VITREOUS CHINA	WALL HUNG	18" x 12" x 6 1/2"	1	22" x 18" :							
	SK-1												
~~~	SS-1	ENAMEL STEEL	FLOOR MOUNT	20-1/8" x 17-3/4" x 11-5/8"	1	24" × 20" ×							
	SINKS – ELKAY,	AMERICAN STAND JUST, MOEN	ARD, KOHLER, SLO D, CHICAGO, KOHL	DAN, ZURN ER, SLOAN, ZURN	1								

NOTE: 1. ALL PLUMBING FIXTURES, EQUIPMENT, TRIM AND FITTINGS SHALL COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS AND CODES, INCLUDING, BUT NOT LIMITED TO, 1. ALL PLUMBING FIXTURES, EQUIPMENT, TRIM AND FITTINGS SHALL COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS AND CODES, INCLUDING, BUT NOT LIMITED TO, 1. ALL PLUMBING FIXTURES, EQUIPMENT, TRIM AND FITTINGS SHALL COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS AND CODES, INCLUDING, BUT NOT LIMITED TO, 1. ALL PLUMBING FIXTURES, EQUIPMENT, TRIM AND FITTINGS SHALL COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS AND CODES, INCLUDING, BUT NOT LIMITED TO, 1. ALL PLUMBING FIXTURES, EQUIPMENT, TRIM AND FITTINGS SHALL COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS AND CODES, INCLUDING, BUT NOT LIMITED TO, 1. ALL PLUMBING FIXTURES, EQUIPMENT, TRIM AND FITTINGS SHALL COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS AND CODES, INCLUDING, BUT NOT LIMITED TO, 1. ALL PLUMBING FIXTURES, EQUIPMENT, TRIM AND SHALL BE TH' WATER AND ENERGY CONSERVATION CODES. THE SCHEDULED AND/OR SPECIFIC PLUMBING FIXTURES AND EQUIPMENT REPRESENT THE MINIMUM CRITERIA AND SHALL BE THE BASIS FOR THE CONTRACTOR'S BASE BID. IF THE SCHEDULED OR SPECIFIED FIXTURES OR EQUIPMENT DO NOT COMPLY WITH GOVERNING CODES OR REGULATIONS IN ALL RESPECTS, THE CONTRACTOR SHALL PROVIDE AN ALTERNATE BID FOR COMPLYING FIXTURES, EQUIPMENT, TRIM OR FITTINGS. THE ABSENCE OF AN ALTERNATE BID SHALL BE CONSTRUED TO MEAN THAT THE CONTRACTOR'S BID INCLUDES ALL COSTS NECESSARY TO MEET ALL REGULATIONS AND CODES.

2. REFER TO ARCHITECTURAL FOR INTEGRATED COUNTERTOP SINK. 

	BATHROOM EXHAUST FAN SCHEDULE											
UNIT IDENTIFICATION	SYSTEM SERVED	AIRFLOW CFM	T.S.P. IN. W.G.	MOTOR	MODULATION/ CONTROL TYPE	ELECTRICAL			MODEL NUMBER	REMARKS		
				WATTS		VOLTS	PHASE OPTIONS/ ACCESSORIES					
EF-1	TOILET 108	80	0.1	23.3	MANUAL	120	1		QTXEN080			
EF-2	TOILET 202	80	0.1	23.3	MANUAL	120	1		QTXEN080			

1. REFER TO SCHEDULES GENERAL NOTES. 2. MODEL NUMBERS ARE NUTONE UNLESS OTHERWISE NOTED.

	ELECTRIC CENTRIFUGAL FAN CABINET UNIT HEATER SCHEDULE																	
UNIT IDENTIFICATION	CAPACITY MBH		AIR		FAN			DIMENSIONS		RECESS DEPTH	MODULATION/ CONTROL TYPE			ELECTRICA	L		MODEL NUMBER	REMARKS
		AIRFLOW CFM	E.D.B. °F	L.D.B. °F	R.P.M.	TOTAL KW	LENGTH INCHES	HEIGHT INCHES	DEPTH INCHES	INCHES		VOLTS	PHASE	FLA	МОР	OPTIONS/ ACCESSORIES		
ECUH-1	6.143	160	50	107	1060	1.5	16-1/16	22-3/4	5-7/8	4-5/16	NOTE 3	120	1	12.9	20	R2	933U01500B	
ECUH-2	6.143	160	50	107	1060	1.5	16-1/16	22-3/4	5-7/8	4-5/16	NOTE 3	120	1	12.9	20	R2	933U01500B	

NOTE: 1. REFER TO SCHEDULES GENERAL NOTES. 2. MODEL NUMBERS ARE INDEECO UNLESS OTHERWISE NOTED. 3. 24V RELAY WITH TRANSFORMER TO THERMOSTAT ON WALL.

SCHE	DULE						
	TOILET SEAT MANUFACTURER/ MODEL	MANUFACTURER/MODEL	REMARKS				
	OLSONITE	KOHLER TRESHAM/ K-3950-RA					
FAUCET MANUFACTURER/ MODEL NSIONS W x D		MANUFACTURER/MODEL	REMARKS				
CHES 5" x 7 1/2"	KOHLER KELSTON/ K-13491-4, POLISHED CHROME	KOHLER PINOIR/ K-2035-8					
······	KOHLER SIMPLICE / K- 596- VS VIBRANT STAINLESS		NOTE 2	~~			
'x 13-3/8"	INCLUDED WITH SERVICE SINK	FIAT PRODUCTS / FL-7					

ABOVEGROUND PLUMBING							RY	' IN	ISL	JLA	
	INSULATION MATERIAL & THICKNESS (INCHES) FIELD-APPLIED JACKET MATERIAL										
INDOOR PIPE SYSTEM AND SIZE (INCHES)	FLEXIBLE ELASTOMERIC	FIBERGLASS	MINERAL WOOL	POLYISOCYANURATE	PHENOLIC	CELLULAR GLASS	CALCIUM SILICATE	ALUMINUM	STAINLESS STEEL	PVC	KEYED NOTES
DOMESTIC COLD WATER	1	1						Х		Х	A
DOMESTIC HOT WATER SUPPLY & RETURN 140 DEG F AND LESS:											
NPS 1-1/4 AND SMALLER	1	1						X		Х	А
NPS 1-1/2 AND LARGER	1.5	1.5						Х		Х	А

	DOMESTIC	COLD	WATER	
--	----------	------	-------	--

	11	ISULATION MATI	ERIAL	& THIC	KNESS	(INCH	ES)		.D—APF ET MA ⁻		
	FLEXIBLE ELASTOMERIC	FIBERGLASS	MINERAL WOOL	POLYISOCYANURATE	PHENOLIC	CELLULAR GLASS	CALCIUM SILICATE	ALUMINUM	STAINLESS STEEL	PVC	KEYED NOTES
INDOOR PIPE SYSTEM AND SIZE (INCHES)											
DOMESTIC COLD WATER	1	1						Х		Х	А
DOMESTIC HOT WATER SUPPLY & RETURN 140 DEG F AND LESS:											
NPS 1-1/4 AND SMALLER	1	1						Х		Х	А
NPS 1-1/2 AND LARGER	1.5	1.5						Х		Х	А

UNLESS OTHERWISE INDICATED OR SCHEDULED, DO NOT INSULATE THE FOLLOWING: FIRE SUPPRESSION PIPING UNDERGROUND PIPING

LABORATORY GAS AND VACUUM PIPING MEDICAL GAS AND VACUUM PIPING

FUEL GAS PIPING FUEL OIL PIPING

<u>GENERAL NOTES</u>

'X' OR THICKNESS IN INCHES INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
 INSULATE PIPING WITHIN AIR HANDLING EQUIPMENT THE SAME AS INDOOR PIPING. PROVIDE ALUMINUM OR STAINLESS STEEL JACKET.

<u>keyed notes</u>

A. PROVIDE FIELD APPLIED JACKET FOR PIPING EXPOSED IN EQUIPMENT ROOMS, STORAGE ROOMS, JANITORS CLOSETS, RECEIVING ROOMS, TEST AREAS, CIRCULATION AREAS AND SUCH AREAS SUBJECT TO DAMAGE, WITHIN 10 FEET (3 METERS) OF FINISHED FLOOR. B. PROVIDE MANUFACTURER'S RECOMMENDED PROTECTIVE COATING FOR FLEXIBLE ELASTOMERIC THERMAL INSULATION.

Oł	HM	

34000 Plymouth Road Livonia, MI 48150 PH 734.522.6711 | F 734.522.6427

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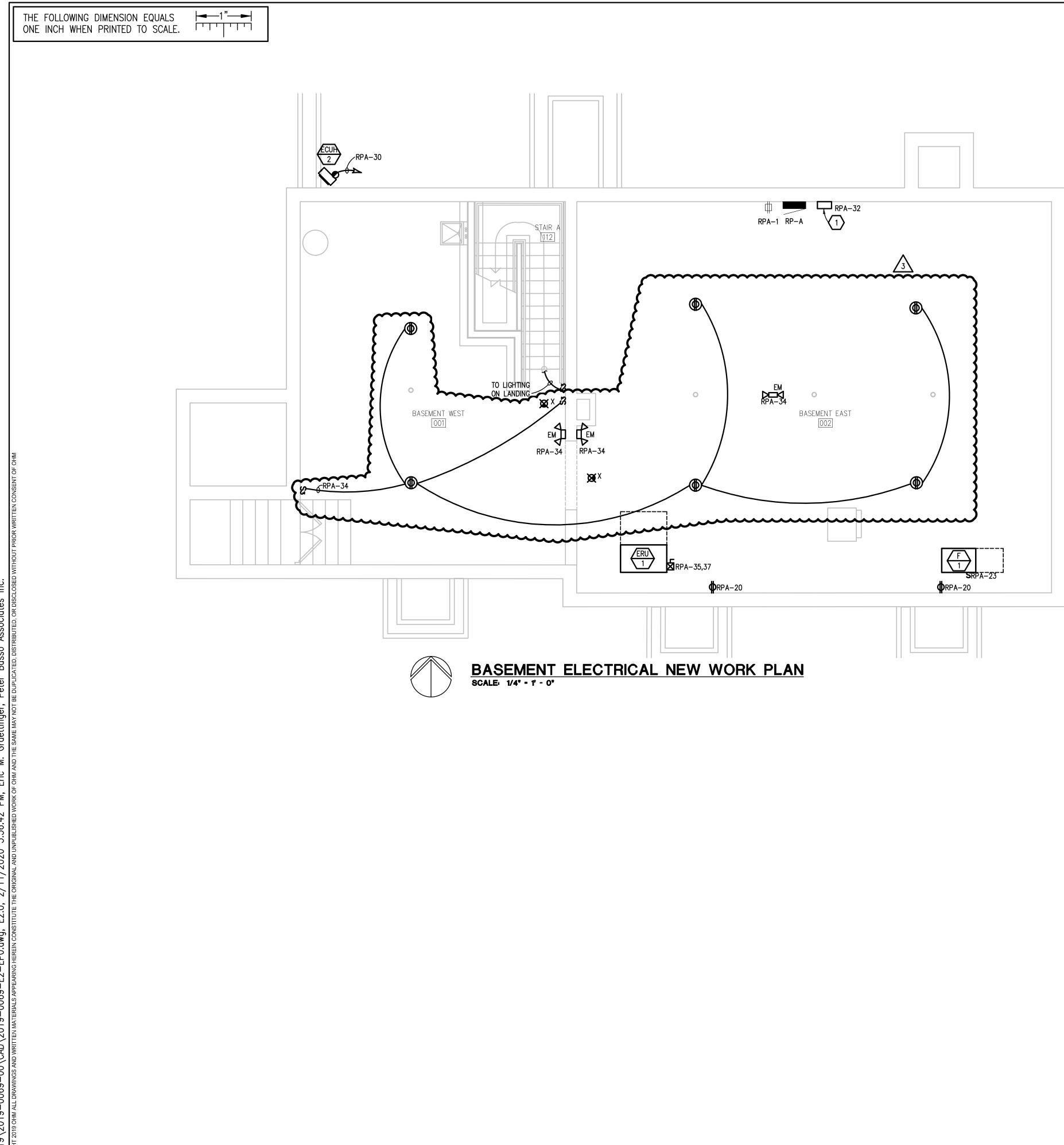
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Peter Basso Associates Inc CONSULTING ENGINEERS 5145 Livernois, Suite 100 Troy, Michigan 48098-3276 Tel: 248-879-5666 Fax: 248-879-0007 www.PeterBassoAssociates.com PBA Project No.: 2019.0069

DATE     PROJ NUMBER     ACH     PROJ MGR     CAD       2/07/2019     0128-18-0020     C     EMG     AFL       City of Troy, Michigan       Niles-Barnard House Renovation       60 w. wattles Road       MECHANICAL SCHEDULES	SHEET DATE PRO	02/07/2019 0128	City of -	Niles-Ba	9	
EMG EMG nigan Lise Renovation CHEDULES	PROJ NUMBER	8-18-0020	Trov N	arnard	Road	ANICAI
EMG EMG Renovation EDULES	ARCH	C 0	Aichiga			
AFL	PROJ MGR	EMG		Renovation		EDULES
	CADD	AFL				
	REVISIONS:		ISSUED FOR PE	BULLETIN 1		

SOIR



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- SYSTEMS.

# ELECTRICAL GENERAL NOTES

1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.

2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.

3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.

4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL

5. REFER TO PROJECT MANUAL FOR LIGHTING FIXTURE PACKAGE CUTSHEETS.

6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.

7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.

8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.

9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.

10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.

11. THE DESIGN INTENT OF THE PROJECT IS FOR ALL RACEWAYS, BOXES AND CABLING SYSTEMS BE INSTALLED CONCEALED IN CEILING AND WALL CONSTRUCTION WITH THE EXCEPTION OF NON-PUBLIC ROOMS (I.E. BASEMENT). WHERE THE EXISTING CONDITIONS ARE SUCH THAT IT IS NOT FEASIBLE TO CONCEAL THE RACEWAYS, BOXES AND CABLING SYSTEMS, THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ARCHITECT OF THE CONDITION AND SEEK AN ACCEPTABLE REMEDY PRIOR TO THE INSTALLATION OF ANY RACEWAYS, BOXES AND CABLING SYSTEMS.

12. FIRE ALARM SHALL BE INSTALLED BY TROY MUSEUM.

13. ALL LIGHTING FIXTURES WITH AN "E" SUFFIX SHALL BE CONTROLLED BY THE LIGHTING CONTROL IN THE SPACE, BUT SHALL BE POWERED BY BOTH THE NORMAL POWER CIRCUIT, AS WELL AS THE LIGHTING INVERTER, VIA AN EMERGENCY LOAD TRANSFER DEVICE. TRANSFER DEVICES SHALL BE LOCATED IN THE BASEMENT NEAR THE PANELBOARD AND SHALL BE LABELED USING OWNER'S FINAL ROOM DESIGNATIONS. ALL EXIT SIGNS SHALL BE CIRCUITED TO THE LIGHTING INVERTER.

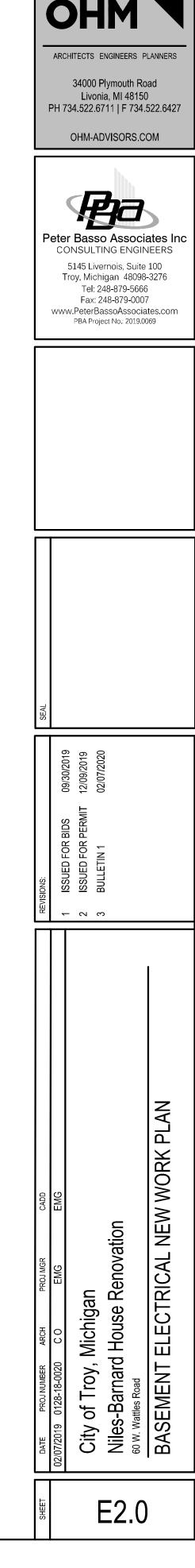
14. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OWNER'S SECURITY AND FIRE ALARM VENDER TO INSTALL WIRING AND BOXES FOR THE FIRE ALARM DEVICES, AS WELL AS POWER TO THE FIRE ALARM AND SECURITY PANELS.

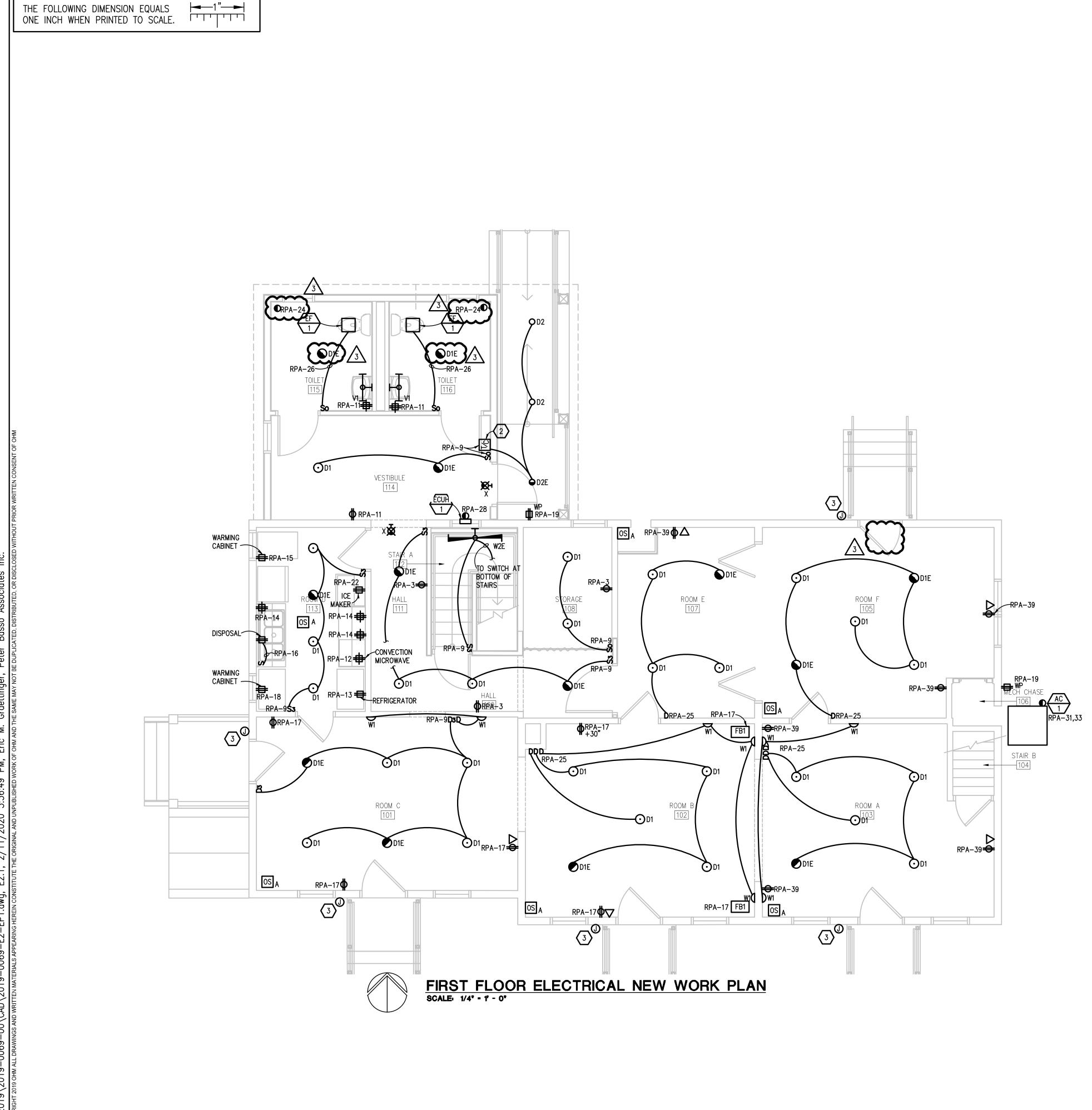
# (#) CONSTRUCTION KEY NOTES:

1. CIRCUIT ALL EMERGENCY LIGHTING TO A NEW BODINE ELI-S-400 OR EQUAL INVERTER FOR EMERGENCY OPERATION THROUGH AN ELTD. ELTD SHALL BE COMPATIBLE WITH INSTALLED DIMMERS WHERE APPLICABLE. INSTALL THE INVERTER ADJACENT TO THE PANEL IN THE BASEMENT.

2. PROVIDE AN INTERMATIC STOIC OR SIMILAR ASTRONOMIC IN-WALL TIMER FOR CONTROL OF EXTERIOR LIGHTING. PROVIDE AN ALCR ON THE CIRCUIT TO ALLOW TRANSFER OF EMERGENCY LIGHTING FIXTURES TO THE LIGHTING INVERTER UPON LOSS OF NORMAL POWER. CIRCUIT TO THE CIRCUIT INDICATED AND THE LIGHTING INVERTER. MOUNT THE EXTERIOR LIGHTING TIMER ADJACENT TO THE PANELBOARD IN THE BASEMENT.

3. THIS FIXTURE WILL BE SELECTED BY THE OWNER. COORDINATE HEIGHT OF J-BOX WITH OWNER. 10-WATT LED LAMP MAXIMUM. CIRCUIT TO ASTRONOMIC TIMECLOCK, NORMAL CIRCUIT, AND EMERGENCY LIGHTING CIRCUIT WITH ALCR (SEE CONSTRUCTION NOTE 2)





# **ELECTRICAL GENERAL NOTES:**

- SYSTEMS.

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- IN THE BASEMENT.
- NOTE 2)

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ARCHITECTS ENGINEERS PLANNERS

34000 Plymouth Road

Livonia, MI 48150

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**PROJECT MANUAL** 

# THE CITY OF TROY Niles Barnard Renovation Project

TROY, MI



PROJECT NO. 0128-18-0020

ISSUE: BULLETIN 2 DATE: March 9, 2020

# SECTION 08 52 00 - WOOD WINDOWS

# PART 1 - GENERAL

## 1.1 SUMMARY

A. Section includes aluminum-clad wood windows.

## 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product, including installation instructions.
- B. Shop Drawings: Include plans, elevations, sections, hardware, accessories, insect screens, operational clearances, and details of installation, including anchor, flashing, and sealant installation.
- C. Samples: For each exposed product and for each color specified.

## 1.3 INFORMATIONAL SUBMITTALS

- A. Product test reports.
- B. Sample warranties.

## 1.4 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace wood windows that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period:
    - a. Window: 10 years from date of Substantial Completion.
    - b. Glazing Units: 20 years from date of Substantial Completion.

# PART 2 - PRODUCTS

### 2.1 WINDOW PERFORMANCE REQUIREMENTS

- A. Product Standard: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
  - 1. Window Certification: WDMA certified with label attached to each window.
- B. Performance Class and Grade: AAMA/WDMA/CSA 101/I.S.2/A440 as follows:
  1. Minimum Performance Class: CW.
- C. Thermal Transmittance: NFRC 100 maximum whole-window U-factor of 0.30 Btu/sq. ft. x h x deg F.
- D. Window Unit Air Leakage, ASTM E 283, 1.57 psf (25 mph): 0.3 cfm per square foot of frame or less.
- E. Window Unit Water Penetration: No water penetration through window unit when tested in accordance with ASTM E 547, under static pressure of 7.5 psf (52 mph) after 4 cycles of 5 minutes each, with water being applied at a rate of 5 gallons per hour per square foot.

# 2.2 WOOD WINDOWS

- A. Wood Windows:
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Pella Corporation; or comparable product by one of the following:
    - a. Jeld-Wen, Inc.
    - b. Kolbe & Kolbe Millwork Co., Inc.
    - c. Marvin Windows and Doors.
- B. Operating Types: Double Hung.
- C. Factory-Primed Wood Double-Hung Windows: Architect Series factory-assembled wood double-hung windows. Sash shall tilt to interior without removal for cleaning.
  - 1. Frame:
    - a. Select wood, water-repellent, preservative-treated with EnduraGuard® in accordance with WDMA I.S.-4. EnduraGuard includes water-repellency, three active fungicides and an insecticide applied to the frame.
    - b. Overall Frame Depth: 4-3/8 inches (111 mm).
  - 2. Sash:
    - a. Select wood, water-repellent, preservative-treated with EnduraGuard in accordance with WDMA I.S.-4. EnduraGuard includes water-repellency, three active fungicides and an insecticide applied to the sash.
    - b. Exterior Finish: Factory-Primed.
    - c. Corners: Mortised and tenoned, glued and secured with metal fasteners.
    - d. Operable sash tilt to interior for cleaning or removal.
  - 3. Exterior finish: White to match.
  - 4. Interior finish: factory primed.
- D. Sash Thickness: 1-3/4 inches (44 mm).
  - 1. Weather Stripping:
    - a. Water-stop santoprene wrapped foam at head and sill.
    - b. Thermal-plastic elastomer bulb with slip coating set into lower sash for tight contact at checkrail.
    - c. Vinyl-wrapped foam inserted into jambliner or jambliner components to seal to sides of sash.

# 2.3 GLAZING

- A. Insulating-Glass Units: ASTM E2190.
  - 1. Glass: ASTM C1036, Type 1, Class 1, q3.
  - a. Tint or Pattern: Clear or Obscure as indicated.
  - 2. Lites: Two.
  - 3. Filling: Fill space between glass lites with argon.
  - 4. Low-E Coating: .

# 2.4 Hardware

- A. Balances:
  - 1. Block-and-tackle balances.
  - 2. Balances are attached to frame and connected to sash with polyester cord.
- B. Locking System:
  - 1. Self-aligning sash lock factory-installed.
  - 2. One installed on units with frame width less than 37 inches, 2 locks installed on units with frame width of 37 inches or greater.

The City of Troy Niles Barnard Renovation Project OHM Project #0128-18-0020 WOOD WINDOWS 08 52 00 - Page 2 of 4 BULLETIN 2 - 3/9/2020 C. Lock finish: Backed enamel, Oil-rubbed bronze.

# 2.5 OPTIONS

- A. Insect Screens: Vivid View half.
  - 1. Compliance: ASTM D 3656 and SMA 1201.
  - 2. Screen Cloth: Vinyl-coated fiberglass, 21/17 mesh, with minimum 78 percent light transmissivity.
  - 3. Set in aluminum frame fitted to inside of window. Complete with necessary hardware.
  - 4. Screen Frame Finish: Baked enamel.

# B. Simulated Divided Lites:

- 1. Profile: 7/8 inch Bead.
- 2. Wood grilles applied to exterior and interior with spacer between 2 panes of sealed insulating glass.
- 3. Grille Color: Exterior: White to match. Interior: Factory primed.

# 2.6 FABRICATION

- A. Fabricate wood windows in sizes indicated. Include a complete system for installing and anchoring windows.
- B. Glaze wood windows in the factory.
- C. Weather strip each operable sash to provide weathertight installation.
- D. Mullions: Provide mullions and cover plates, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections. Provide mullions and cover plates capable of withstanding design wind loads of window units.
- E. Complete fabrication, assembly, finishing, hardware application, and other work in the factory to greatest extent possible. Disassemble components only as necessary for shipment and installation. Allow for scribing, trimming, and fitting at Project site.

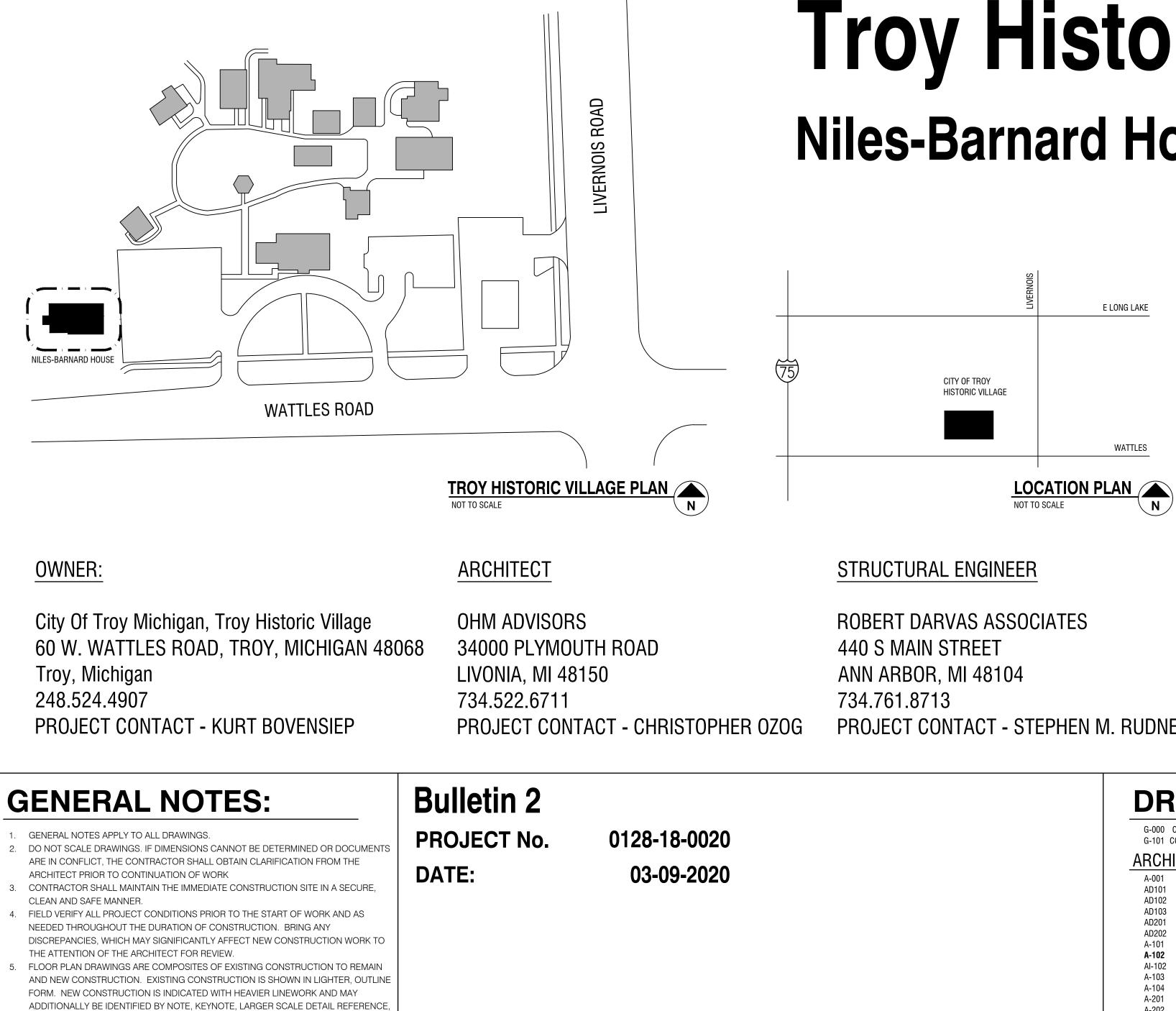
# PART 3 - EXECUTION

# 3.1 INSTALLATION

- A. Comply with manufacturer's written instructions for installing windows, hardware, accessories, and other components. For installation procedures and requirements not addressed in manufacturer's written instructions, comply with installation requirements in ASTM E2112.
- B. Install windows level, plumb, square, true to line, without distortion, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction to produce weathertight construction.
- C. Adjust operating sashes and hardware for a tight fit at contact points and weather stripping for smooth operation and weathertight closure.
- D. Clean exposed surfaces immediately after installing windows. Remove excess sealants, glazing materials, dirt, and other substances.

E. Remove and replace sashes if glass has been broken, chipped, cracked, abraded, or damaged during construction period.

END OF SECTION 08 52 00



OR MATERIAL PATTERN (REFER ALSO TO LEGENDS). 6. KEEP MEANS OF EGRESS OPEN, ILLUMINATED, AND FREE OF OBSTRUCTIONS AT ALL TIMES. VERIFY THE DIMENSIONS, LOCATIONS, ELEVATIONS AND ARRANGEMENT OF ALL ITEMS ASSOCIATED WITH INSTALLATION OF EQUIPMENT AND RELATED MECHANICAL AND ELECTRICAL WORK. COORDINATE OPENINGS AND PENETRATIONS BETWEEN TRADES. 8. INFORMATION SHOWN IN ONE LOCATION ON THE DRAWINGS IS THE SAME AS IF SHOWN ON MULTIPLE LOCATIONS. 9. TYPICAL CONDITIONS ARE NOTED ONLY ONCE. 10. REFER TO PROJECT INFORMATION SHEET FOR EACH DISCIPLINE FOR MATERIAL / REFERENCE SYMBOLS AND ABBREVIATIONS.

# City Of Troy Michigan, Troy Historic Village **Niles-Barnard House Renovation**

PROJECT CONTACT - STEPHEN M. RUDNER

MECHANICAL AND PLUMBING ENGINEER

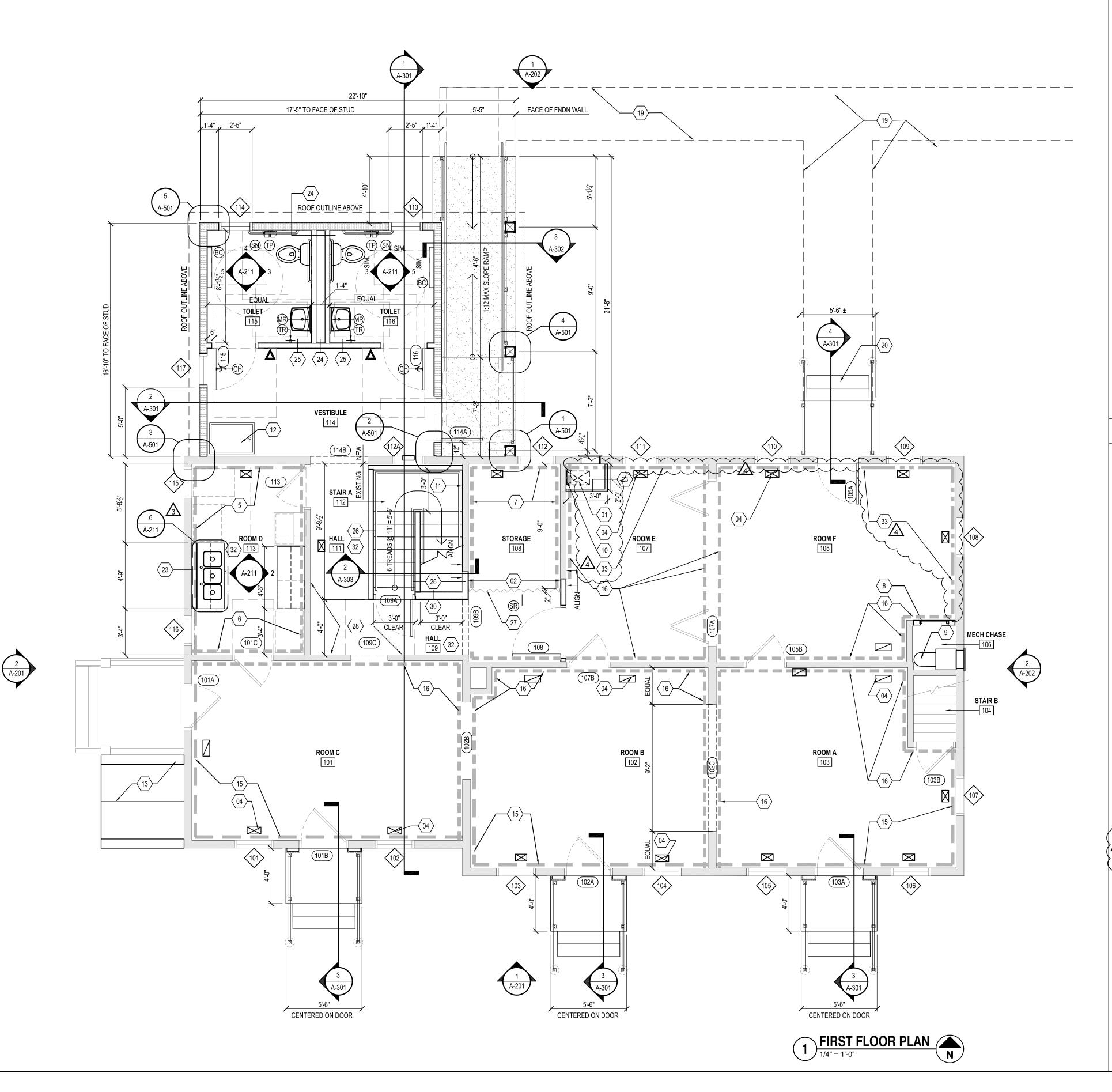
PETER BASSO ASSOCIATES 5145 LIVERNOIS ROAD #100 TROY, MI 5666 248.879.8713 PROJECT CONTACT - ANDREW LUZENSKI

G-000 COVER SHEET G-101 CODE COMPLIANCE			
ARCHITECTURAL	STRUCTURAL	PLUMBING/ MECHANICAL	ELECTRICAL
A-001ARCHITECTURAL ABBREVIATIONS, SYMBOLS, AND LEGENDAD101BASEMENT DEMOLITION PLANAD102FIRST FLOOR DEMOLITION PLANAD103SECOND FLOOR DEMOLITION PLANAD201EAST AND SOUTH DEMOLITION ELEVATIONSAD202NORTH AND WEST DEMOLITION ELEVATIONSA-101BASEMENT FLOOR PLANA-102FIRST FLOOR PLANA-103SECOND FLOOR FINISH PLANA-104FIRST FLOOR FINISH PLANA-104FIRST FLOOR REFLECTED CEILING PLANA-201SOUTH AND WEST ELEVATIONSA-202NORTH AND WEST ELEVATIONSA-203STAIR SECTIONSA-301BUILDING SECTIONSA-303STAIR SECTIONS AND DETAILSA-601DOOR SCHEDULE AND DETAILSA-602WINDOW SCHEDULE AND DETAILS	S0-1STRUCTURAL NOTESS0-2LOADING SCHEDULE AND TYPICAL DETAILSS1-1FOUNDATION PLANS1-2FIRST FLOOR FRAMING PLANS1-3ROOF FRAMING PLANS2-1BUILDING SECTIONS3-1STRUCTURAL DETAILS	M0.1MECHANICAL STANDARDS AND DRAWING INDEXM0.2MECHANICAL SPECIFICATIONSM0.3MECHANICAL SPECIFICATIONSM0.4MECHANICAL SPECIFICATIONSMD1.0BASEMENT MECHANICAL DEMOLITION PLANMD1.1FIRST FLOOR MECHANICAL DEMOLITION PLANM2.0BASEMENT PLUMBING NEW WORK PLANM2.1FIRST FLOOR PLUMBING NEW WORK PLANM4.0BASEMENT SHEET METAL NEW WORK PLANM4.1FIRST FLOOR SHEET METAL NEW WORK PLANM6.1MECHANICAL DETAILSM7.1MECHANICAL SCHEDULESM7.3MECHANICAL SCHEDULESM7.3MECHANICAL SCHEDULES	E.01ELECTRICAL STANDARDS AND DRAWING INDEXE.02ELECTRICAL STANDARD SCHEDULESE.03ELECTRICAL SPECIFICATIONSED1.0BASEMENT ELECTRICAL DEMOLITION PLANED1.1FIRST FLOOR ELECTRICAL DEMOLITION PLANE2.0BASEMENT ELECTRICAL NEW WORK PLANE2.1FIRST FLOOR ELECTRICAL NEW WORK PLANE7.1ELECTRICAL PANEL SCHEDULES, DETAILS AND DIAGRAMS
	I Certify That The Structural Under My Direct Supervisio		



# 34000 PLYMOUTH ROAD LIVONIA, MI 48150

734.522.6711 734.522.6427 FAX



# **GENERAL PLAN NOTES**

- FIRST FLOOR REFERENCE ELEVATION 100'-0" = 694.67.
- ALL WALL DIMENSIONS ARE TO FINISHED FACE OF WALL, ROUGH OPENINGS FOR DOORS AND WINDOWS, AND FACE OF BRICK/CONCRETE OR FACE OF SHEATHING, UNO.
- REFER TO CODE PLAN DRAWINGS (G-001) FOR LOCATIONS AND EXTENTS OF RATED ASSEMBLIES, AS WELL AS FIRE EXTINGUISHER LOCATIONS. IF PARTITION DESIGNATION DISCREPANCY OCCURS BETWEEN THE CODE DRAWING AND THE FLOOR PLANS, PROVIDE THE PARTITION TYPE INDICATED
- WITH THE MOST STRINGENT REQUIREMENTS. REFER TO PROJECT INFORMATION SHEET (A-001) FOR MATERIAL /REFERENCE SYMBOLS AND ABBREVIATIONS
- REFER TO DRAWING A-001 FOR TOILET ACCESSORIES AND MOUNTING DIAGRAMS.
- REFER TO DRAWING A-601 FOR DOOR INFORMATION AND DETAILS
- REFER TO A-602 FOR PUNCHED WINDOW TYPES AND DETAILS
- REFER TO AI DRAWINGS FOR ROOM FINISHES. WHERE NEW WALL CONSTRUCTION ABUTS EXISTING, IN-LINE, ON PLANS, DIRECTLY ALIGN NEW FINISH WALL SURFACE(S) WITH EXISTING.

# NEW WORK PLAN KEYNOTES $\langle \ \rangle$

- MECHANICAL DUCT, REFER TO MECHANICAL DRAWINGS FOR SIZE AND ROUTING. PROVIDE 2X STUD FRAMING, INFILL WITH GYPSUM BOARD EACH SIDE, ALIGN WITH FACE OF ADJACENT
- EXISTING FINISH. FOUNDATIONS / FOOTINGS, REFER TO STRUCTURAL DRAWINGS.
- MODIFY EXISTING FLOOR OPENING TO BE REUSED FOR NEW MECHANICAL GRILLE, PATCH OVERSIZED OPENINGS WITH WOOD TO MATCH EXISTING ADJACENT SURFACE. REFER TO MECHANICAL DRAWINGS FOR SIZING.
- PROVIDE 5/16" MOISTURE RESISTANT GYPSUM BOARD ON EXISTING FINISH (PLASTER OR FIBERBOARD) ABOVE WAINSCOT REFER TO DETAIL 8/AI102 MOLDING TRANSITION DETAIL. PROVIDE 1/4" GYPSUM BOARD ON EXISTING PLASTER WALLS ABOVE WAINSCOT, REFER TO DETAIL 8/AI102
- FOR BASE AND MOLDING TRANSITION DETAIL. PROVIDE FRP BOARD w/ 5/8" PLYWOOD BACKING ON EXISTING FINISH.
- ACCESS PANEL: JL INDUSTRIES, TMW FLUSH ACCESS PANEL OR APPROVED EQUAL. SIZE 22"x30"
- RELIEF AIR DUCT AND GRILLE TO EXTERIOR, REFER TO MECHANICAL DRAWINGS. 10. PATCH LOCATION OF PLUMBING ACCESS PANEL WITH NEW WALL.
- 11. PROVIDE NEW 5/8" GYPSUM BOARD AT EXISTING EXPOSED STUD WALL.
- 12. 24"X36" ACCESS PANEL TO CRAWL SPACE, REFER TO DETAIL 8/A-302.
- 13. RECONSTRUCT HATCH COVER TO BASEMENT, MATCH REMOVED EXISTING IN DESIGN AND CONSTRUCTION.
- 14. PROVIDE 5/8" GYPSUM BOARD WHERE PLASTER REMOVED AND LATH TO REMAIN.
- 15. PROVIDE 5/16" MOISTURE RESISTANT GYPSUM BOARD ON EXISTING FINISH (PLASTER OR FIBERBOARD) REFER TO DETAIL 8/AI102 FOR BASE AND MOLDING TRANSITION DETAIL. 16. PROVIDE 1/4" GYPSUM BOARD ON EXISTING PLASTER WALLS, REFER TO DETAIL 8/AI102 FOR BASE AND MOLDING TRANSITION DETAIL.
- 17. NEW DOMESTIC WATER HEATER, REFER TO MECHANICAL DRAWINGS.
- 18. NEW FURNACE, REFER TO MECHANICAL DRAWINGS.
- 19. SIDEWALK BY OTHERS. 20. PROVIDE NEW CONCRETE STEPS AND METAL HAND / GUARDRAILS. REFER TO DETAIL 3/A-301
- 21. INFILL EXISTING STAIRWAY OPENING.
- 22. RIDGE VENT.
- 23. 2X4 STUD TO UNDERSIDE OF CEILING WITH 5/8" GYPSUM BOARD ONE SIDE.
- 24. 2X4 STUD TO UNDERSIDE OF CEILING WITH 5/8" GYPSUM BOARD ONE SIDE SIDE, ACOUSTIC BATTING. 25. 2X4 STUD TO UNDERSIDE OF CEILING WITH 5/8" GYPSUM BOARD EACH SIDE, ACOUSTIC BATTING.
- 26. 2X4 STUD TO UNDERSIDE OF CEILING WITH 5/8" GYPSUM BOARD EACH SIDE.
- 27. CLOSET ROD: EPCO ROUND MOUNTING FLANGE CLOSET ROD SUPPORT (EPC-857-ORB;) OIL RUBBED
- BRONZE OR APPROVED EQUAL. 1-5/19" ROD, BLACK. MOUNT @ 7'4" AFF. PROVIDE BLOCKING IN WALL FOR ATTACHMENT. 28. CLEAN EXISTING WALLS, PATCH PENETRATIONS, PROVIDE TWO LAYERS OF SKIM COAT OVER EXISTING WALLS TO PROVIDE LEVEL 4 FINISH.
- 29. ENERGY RECOVERY UNIT, REFER TO MECHANICAL. 30. 2X6 STUD TO UNDERSIDE OF CEILING WITH 5/8" GYPSUM BOARD EACH SIDE.
- 31. EAVE VENT HARDIPLANK VENTED SOFFIT PANEL. 32. _ PROVIDE 1/2" PLYWOOD UNDERLAYMENT ON TOP OF BASE LAYER OF FLOORING.
- 33. GLUE AND NAIL 1/2" PLYWOOD FACE GRAIN HORIZONTAL IN KNEE SHAPED PIECES AROUND THE

CORNERS OF THE WINDOW AND DOOR OPENINGS WITH RECTANGULAR FILLERS BETWEEN AS A NECESSARY TO EXISTING STUDS, PROVIDING ADDITIONAL STUDS AND BLOCKING WHERE NECESSARY SO THAT ALL PANEL EDGES CAN BE ATTACHED. APPLY 1/2" GYPSUM BOARD WITH JOINTS STAGGERED SO THEY DO NOT COINCIDE WITH THE PLYWOOD JOINTS. REFER TO ELEVATIONS 7/A-211 AND 8/A-211 



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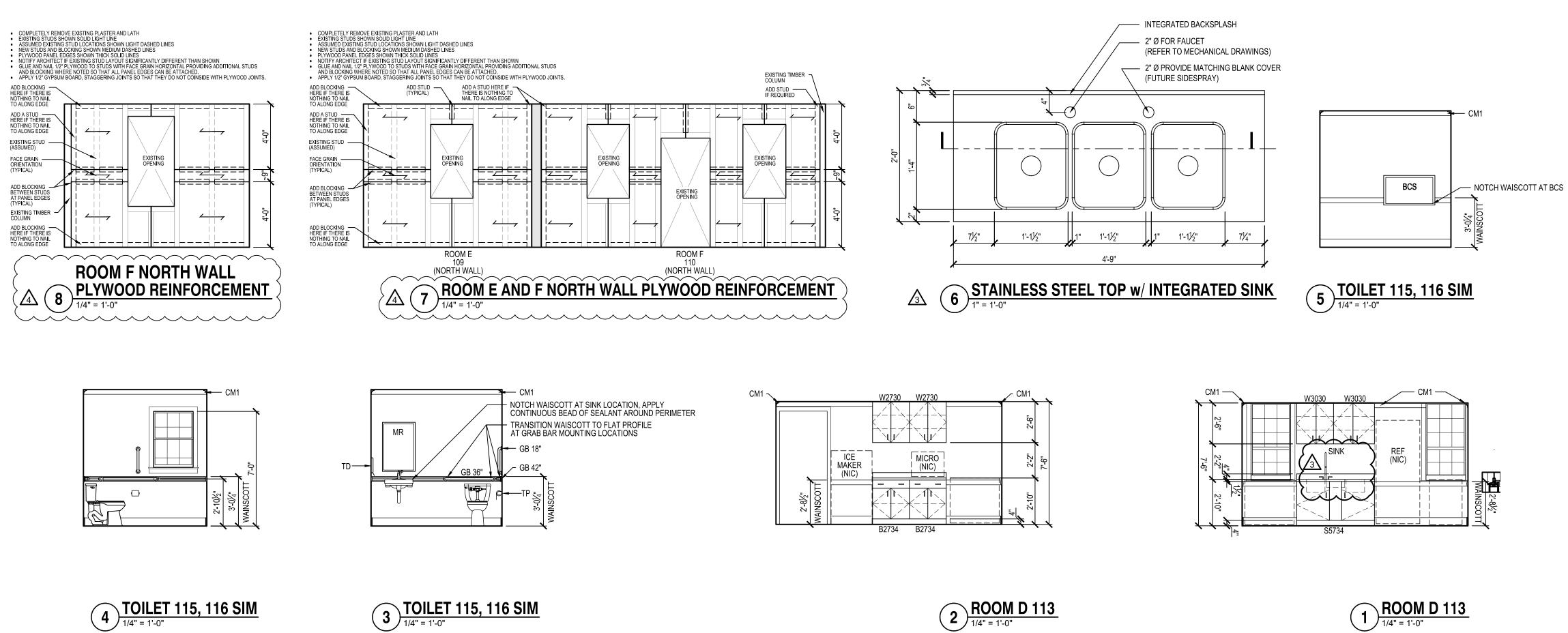
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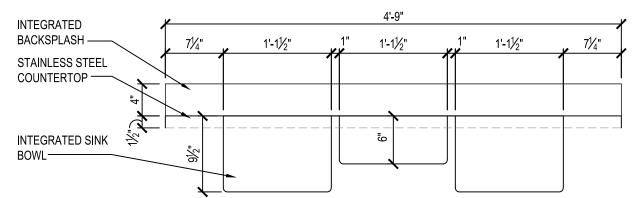
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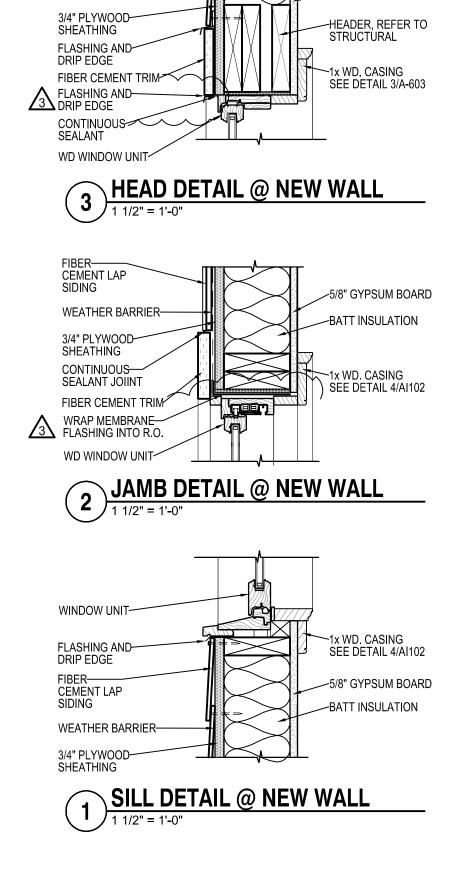




GENERAL CASEWORK NOTES					
<ol> <li>CABINET WIDTHS TO BE BASED ON MODULE INCREMENTS OF 3" UNO.</li> <li>PROVIDE FILLER PANELS TO FINISH OUT TO SCRIBE CABINETS TO WALL.</li> <li>PROVIDE FILLER PANELS AND TRIM WHERE EQUIPMENT IS LOCATED WITHIN CABINETS.</li> <li>PROVIDE FINISHED END PANELS END RETURNS AT OPEN ENDED CABINETS, KNEE SPACES, AND ACCESSIBLE SINKS.</li> <li>PROVIDE 1 ½" THICK FINISHED END PANEL AT FREE STANDING END OF ACCESSIBLE SINKS AND KNEE SPACES.</li> <li>WHEN FILLER PANELS ARE REQUIRED AT BOTH ENDS OF CASEWORK TERMINATION. BOTH FILLER PANELS SHALL BE EQUAL WIDTH.</li> <li>PROVIDE WALL BRACKET SUPPORTS AT 36" OC MAX TO SUPPORT COUNTERTOP AT CONTINUOUS KNEE SPACE.</li> <li>PROVIDE END SPLASH WHEN COUNTERTOP IS ADJACENT TO WALL AT SIDES.</li> <li>PROVIDE ADJUSTABLE SHELVES IN CABINETS AT THE FOLLOWING LOCATIONS UNO ON ELEVATIONS A BASE CABINET - 1 SHELF</li> <li>B. FULL HEIGHT CABINET - 5 SHELVES, 1 FIXED</li> <li>C. WALL CABINET - 5 SHELVES, 1 FIXED</li> <li>C. WALL CABINET - 5 SHELVES, 1 FIXED</li> <li>D. NOTE: SHELVES TO BE 3/4" THICK FOR SPANS UP TO 32" AND 1" THICK FOR SPANS UP TO 36"</li> </ol>		ARCHI H 73	34000 P Livoni 4.522.67	NGINEERS F lymouth Rc a, MI 48150 '11   F 734. VISORS.C	oad ) 522.6427
SHEET KEYNOTES					
	SEAL				
	REVISIONS:		ISSUED FOR BIDS ISSUED FOR PERMIT	3 BULLETIN 1 02/07/2020 4 BULLETIN 2 03/09/2020	
LEGEND         CABINET TYPE (SEE ABBREVIATIONS BELOW)         WIDTH IN INCHES (TWO DIGITS)         DEFINITIONS DELOW)         WIDTH IN INCHES (TWO DIGITS)         DEFINITIONS DELOW)         WIDTH IN INCHES (TWO DIGITS)         DEFINITIONS DELOW)         SEGUAL CONDITION (SEE ABBREVIATIONS BELOW)         SEGUAL CONDITION (SEE ABBREVIATIONS BELOW)         SPECIAL CONDITION (SEE ABBREVIATIONS BELOW)         SPECIAL CONDITION (SEE ABBREVIATIONS BELOW)         SAGE CONDITION (SEE ABBREVIATIONS BELOW)         SUBJECT CONDITIONS         B BASE CABINET         BASE CORNER         CABINET TYPES         SPECIAL CONDITIONS         B BASE CORNER         D. DRAWER BASE (x = 0TY.)         D. SUPPORT BRACKET         SUPPORT BRACKET         SUPPORT BRACKET         SUPPORT PANEL         TAIL CUSTOM         ACCESSIBLE CABINETS	PROJ NUMBER ARCH PROJ MGR	03/09/2020 0128-18-0020 C O C O V V	City of Troy, Michigan	Niles-Barnard House Renovation	INTERIOR ELEVATIONS
W WALL CABINET WC WALL CORNER WO OPEN WALL CABINET WO OPEN WALL CABINET	SHEET		A	-21	1

			SIZE		FINISH		DETAIL						
MARK	REPAIR TYPE	CONFIGURATION	WIDTH	HEIGHT	INTERIOR	EXTERIOR	HEAD	JAMB	SILL	GLAZING	WOOD STORM WDO.	OPERABLE/ FIXED	REMARKS
101	RPL	6 OVER 6	2'-10 ½"	5'-5 ½"	PAINT	PAINT	_	_	_	LOW E ARGON	N	ο	
102	RPL	6 OVER 6	2'-10 ¹ ⁄2"	5'-5 ½"	PAINT	PAINT	_	_	_	LOW E ARGON	N	о	
103	RPL	6 OVER 6	2'-10 ¹ ⁄2"	5'-5 ½"	PAINT	PAINT	_	_	_	LOW E ARGON	N	о	
104	RPL	6 OVER 6	2'-10 ¹ ⁄2"	5'-5 ½"	PAINT	PAINT	_	_	_	LOW E ARGON	N	о	
105	RPL	6 OVER 6	2'-10 ¹ ⁄2"	5'-5 ¹ ⁄2"	PAINT	PAINT	_	_	_	LOW E ARGON	N	ο	
106	RPL	6 OVER 6	2'-10 ¹ ⁄2"	5'-5 ½"	PAINT	PAINT	_	_	_	LOW E ARGON	N	о	
107	RPL	6 OVER 6	2'-10 ¹ ⁄2"	5'-5 ½"	PAINT	PAINT	_	_	_	LOW E ARGON	N	о	
108	RPL	6 OVER 6	2'-10 ¹ ⁄2"	5'-5 ½"	PAINT	PAINT	_	_	_	LOW E ARGON	N	ο	
109	RPL (	4 6 OVER 6	2'-8 ½''	4'-1 ¹ ⁄2"	PAINT	PAINT	_	_	_	LOW E ARGON	N	0	
110	RPL	6 OVER 6	2'-8 ½''	4'-1 ¹ ⁄2"	PAINT	PAINT	_	_	_	LOW E ARGON	N	0	
111	RPL	6 OVER 6	2'-8''	4'-1 ¹ ⁄2"	PAINT	PAINT	_	_	_	LOW E ARGON	N	0	
112	RPL	6 OVER 6	2'-8 ½''	4'-3"	PAINT	PAINT	_	_	_	LOW E ARGON	N	0	
112A		N/A	2'-4 ¹ ⁄2"	4'-8"	PAINT	PAINT	_	_	_	E.T.R.		о	ADJUST FRAMING AS REQUIRED FOR RELOCATION AS ILLUSTRATED ON SECTION 2/A-301 AND 4/A-302
113	NEW	6 OVER 6	2'-9"	3'-5"	PAINT	PAINT	3/A-602	2/A-602	1/A-602	LOW E ARGON OBS		о	
114	NEW	6 OVER 6	2'-9"	3'-5"	PAINT	PAINT	3/A-602	2/A-602	1/A-602	LOW E ARGON OBS		о	
115	RPL (	6 OVER 6	2'-5"	4'-8''	PAINT	PAINT	-	_	_	LOW E ARGON	N	о	
116	RPL	6 OVER 6	2'-4"	4'-7"	PAINT	PAINT	-	_	_	LOW E ARGON	N	ο	
117	NEW	6 OVER 6	2'-5"	3'-11"	PAINT	PAINT	3/A-602	2/A-602	1/A-602	LOW E ARGON		0	
201	RPL	6 OVER 6	2'-10 ½"	5'-5''	PAINT	PAINT	-	_	_	LOW E ARGON	N	0	
202	RPL	6 OVER 6	2'-10 ½"	5'-5''	PAINT	PAINT	-	_	_	LOW E ARGON	N	0	
203	RPL	6 OVER 6	2'-10 ½"	5'-5''	PAINT	PAINT	-	_	_	LOW E ARGON	N	0	
204	RPL	6 OVER 6	2'-10 ½"	5'-5''	PAINT	PAINT	-	_	_	LOW E ARGON	N	0	
205	RPL	6 OVER 6	2'-10 ½"	5'-5''	PAINT	PAINT	-	_	_	LOW E ARGON	N	0	
206	RPL	6 OVER 6	2'-10 ½"	5'-5''	PAINT	PAINT	-	_	_	LOW E ARGON	N	0	
207	RPL	4 6 OVER 6	2'-8"	4'-2"	PAINT	PAINT	-	_	_	LOW E ARGON	N	0	
208	RPL	6 OVER 6	2'-8"	4'-2"	PAINT	PAINT	-	_	_	LOW E ARGON	N	о	
209	RPL	6 OVER 6	2'-8"	4'-2"	PAINT	PAINT	-	_	_	LOW E ARGON	N	о	
210	RPL 🖌	6 OVER 6 <b>र</b>	2'-8"	4'-2"	PAINT	PAINT	_	_	_	LOW E ARGON	N	о	
211	RPL	6 OVER 6	2'-1"	3'-4 1⁄2"	PAINT	PAINT	_	_	_	LOW E ARGON	N	о	
212	RPL	6 OVER 6	2'-4"	4'-6"	PAINT	PAINT	_	_	_	LOW E ARGON	N	о	
213	RPL	6 OVER 6	2'-4"	4'-6"	PAINT	PAINT	_	_	_	LOW E ARGON	N	о	
214	RPL	6 OVER 6	2'-1"	3'-4 ½"	PAINT	PAINT	_	_	_	LOW E ARGON	N	о	

ABBREVIATIONS:E.T.R.EXISTING TO REMAINFFIXEDHORIZ.HORIZONTALL.LEFTN/ANOT APPLICABLEOOPERABLEOBSOBSCURE GLASSRRESTORER.RIGHTRPLREPLACE EXISTINGWDWOODWDO.WINDOW



BATT INSULATION

5/8" GYPSUM BOARD

FIBER CEMENT LAP SIDING

WEATHER BARRIER------

-	ARC	CHITECTS ENGINEERS F 34000 Plymouth Ro Livonia, MI 48150 734.522.6711   F 734. OHM-ADVISORS.C	bad ) 522.6427
REVISIONS: SEAL		1         ISSUED FOR BIDS         09/30/2019           2         ISSUED FOR PERMIT         12/09/2019           3         BULLETIN 1         02/07/2020           4         BULLETIN 2         03/09/2020	
DATE PROJ NUMBER ARCH PROJ MGR CADD	03/09/2020 0128-18-0020 C O C O V V	City of Troy, Michigan Niles-Barnard House Renovation	WINDOW SCHEDULE AND DETAILS