GENERAL NOTES

- A. ALL CONTRACTORS ARE RESPONSIBLE FOR PROVIDING COMPLETE INSTALLATION OF ALL COMPONENTS AND SHALL COORDINATE THEIR SCOPE OF WORK WITH ALL OTHER TRADES PRIOR TO SUBMITTING BIDS TO ENSURE THERE ARE NO MISSING OR DUPLICATE COMPONENTS WITH-IN THEIR SCOPE
- B. DO NOT SCALE DRAWINGS. USE INDICATED DIMENSIONS ONLY.
- C. SHOULD A CONTRACTOR FIND DISCREPANCIES OR AMBIGUITIES IN OR OMISSIONS FROM THE DRAWINGS OR SPECIFICATIONS, OR BE IN DOUBT ABOUT THEIR MEANING, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY.
- D. CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE JOB DURING CONSTRUCTION LAYOUT AND ADVISE THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK.
- E. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS ON-SITE AND ADVISING ARCHITECT OF ANY DISCREPANCIES WITH DEMOLITION OR NEW WORK PLANS PRIOR TO PERFORMING ANY WORK.
- F. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY IF ANY UNFORESEEN STRUCTURAL OR UTILITY RELATED ISSUES ARISE DURING DEMOLITION OR EXCAVATION.
- G. ALL SPECIFIED ITEMS SHALL BE PROVIDED AND INSTALLED PER MANUFACTURERS WRITTEN REQUIREMENTS

BUILDING CODE INFORMATION

BUILDING CODE	2015 MICHIGAN BUILDING CODE
NERGY CODE	2015 MICHIGAN ENERGY CODE
PLUMBING CODE	2015 MICHIGAN BUILDING CODE
MECHANICAL CODE	2015 MICHIGAN BUILDING CODE
LECTRICAL CODE	2017 MICHIGAN ELECTRICAL CODE
ADA	2010 MICHIGAN BUILDING CODE

DESIGN CRITERIA

SEE STRUCTURAL DRAWINGS FOR STRUCTURAL DESIGN CRITERIA

PROJECT INFORMATION

OCCUPANCY TYPE OF CONSTRUCTION	U II-B
SQUARE FOOTAGE	1440sq ft
BUILDING FIRE SPRINKLED	_NS
THERMAL	

ASHRAE 90.1 2007 TABLE 5.5-5

Roof Structure Min. R-Value Req. Existing to Remain	R-20.0 ci R-20.0 ci
WINDOWS U-FACTOR	

MAX ALLOWED

0.32 MAX ALLOWED SHGC 0.40

ENERGY CODE REQUIRED

PART 10A MICHIGAN ENERGY CODE

BUILDING THAT ARE BEING ALTERED.

ROOF STRUCTURE

R 408.31098 (C506.1) ENVELOPE ALTERATIONS. RULE 1098. SECTION 5.1.3 OF THE STANDARD IS AMENDED TO READ AS FOLLOWS: (5.1.3). ALTERATIONS TO THE BUILDING ENVELOPE SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 5 FOR INSULATION, AIR LEAKAGE, AND FENESTRATION APPLICABLE TO THOSE SPECIFIC PORTIONS OF THE

EXCEPTIONS:

5. ROOF RECOVERING.

6. REMOVAL AND REPLACEMENT OF A ROOF MEMBRANE WHERE THERE IS EXISTING ROOF INSULATION INTEGRAL TO OR BELOW THE ROOF DECK.

7. REMOVAL AND REPLACEMENT OF A ROOF MEMBRANE WHERE THE INSULATION IS INSTALLED ENTIRELY ABOVE THE ROOF DECK, A MINIMUM OF R-20 INSULATION SHALL BE PERMITTED WHERE THE PLACEMENT OF ADDITIONAL INSULATION GREATER THAN R-20 INSULATION WOULD REQUIRE EITHER OF THE FOLLOWING:

A. RAISING THE HEIGHT OF PARAPETS, WEEP SYSTEMS, OR THROUGH WALL FLASHINGS WHERE ROOF ABUTS ADJOINING WALLS OR PARAPETS.

B. RAISING THE HEIGHT OF MECHANICAL OR ELECTRICAL EQUIPMENT, MECHANICAL CURBS, ROOF HATCHES, SKYLIGHT CURBS, SERVICE EQUIPMENT, PIPING, CONDUIT, DUCT WORK, ROOF PLATFORMS, LADDERS, STAIRS, GUARD RAILS, EXPANSION JOINTS,

REROOFING CODE

2015 INTERNATIONAL BUILDING CODE

SECTION 1511

REROOFING

1511.1 GENERAL

MATERIALS AND METHODS OF APPLICATION USED FOR RECOVERING OR REPLACING AN EXISTING ROOF COVERING SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 15.

EXCEPTIONS:

. <u>ROOF REPLACEMENT</u> OR <u>ROOF RECOVER</u> OF EXISTING LOW-SLOPE <u>ROOF COVERINGS</u> SHALL NOT BE REQUIRED TO MEET THE MINIMUM DESIGN SLOPE REQUIREMENT OF ONE-QUARTER UNIT VERTICAL IN 12 UNITS HORIZONTAL (2-PERCENT SLOPE) IN <u>SECTION 1507</u> FOR ROOFS THAT PROVIDE POSITIVE ROOF DRAINAGE.

2. RECOVERING OR REPLACING AN EXISTING ROOF COVERING SHALL NOT BE REQUIRED TO MEET THE REQUIREMENT FOR SECONDARY (EMERGENCY OVERFLOW) DRAINS OR SCUPPERS IN SECTION 1503.4 FOR ROOFS THAT PROVIDE FOR POSITIVE ROOF DRAINAGE. FOR THE PURPOSES OF THIS EXCEPTION, EXISTING SECONDARY DRAINAGE OR <u>SCUPPER</u> SYSTEMS REQUIRED IN ACCORDANCE WITH THIS CODE SHALL NOT BE REMOVED UNLESS THEY ARE REPLACED BY SECONDARY DRAINS OR SCUPPERS DESIGNED AND INSTALLED IN ACCORDANCE WITH SECTION 1503.4.

PERSPECTIVE VIEW



LOCATION MAP



RENOVATION TO HARVEY STREET **BOOSTER STATION**

PROJECT ADDRESS

2501 S. HARVEY STREET MUSKEGON, MI

SHEET INDEX

TITLE SHEETS

T1.1 TITLE SHEET T1.2 REFERENCE SHEET

SITE DRAWINGS

C1.1 SITE - DEMOLITION PLAN C1.2 SITE - CONSTRUCTION PLAN SITE - DETAILS C2.1

DEMOLITION DRAWINGS

D1.1 DEMOLITION ELEVATIONS

ARCHITECTURAL DRAWINGS

- NEW WORK FLOOR PLANS A1.1
- NEW WORK ROOF PLAN A2.1 NEW WORK EXTERIOR ELEVATIONS A3.1
- A4.1 WINDOW SCHEDULE & DETAILS
- A5.1 **ROOF DETAILS**

MECHANICAL DRAWINGS

M3.0 HARVEY STREET PLUMBING PLANS

PROJECT SCOPE

HARVEY BOOSTER STATION

UNDERGROUND RESERVOIR

REMOVE EXISTING TOPSOIL RESERVOIR AND SAND FILL ABOVE AND STOCKPILE ON SITE, DISPOSE OF EXISTING LAWN, DO NOT STOCKPILE

- PROVIDE MEMBRANE OVER UNDERGROUND RESERVOIR REMOVE EXISTING FENCE. MATCH EXISTING STYLE AND HEIGHT OF FENCE
- AFTER MEMBRANE INSTALLATION, PLACE EXISTING SAND AND TOPSOIL FILL OVER MEMBRANE AND ROUGH GRADE

LANDSCAPING

· INSTALL 1-2" TOPSOIL OVER EXISTING, FINE GRADE HYDROSEED ENTIRE AREA (VERIFY SITE ACCESS)

PUMP STATION BUILDING

- REMOVE EXISTING ROOF AND REPLACE
- REMOVE AND REPLACE EXISTING WINDOWS REPLACING PLUMBING DRAINS & SUMP PUMP
- REMOVE EXISTING NOSING AND INSTALL SAFETY NOSINGS AT EXTERIOR STAIRS.
- REPLACE EXISTING PERIMETER FENCE
- SALVAGE EXISTING GATE AT STREET AND PROVIDE NEW GATE AT BUILDING ENTRANCE PROVIDE KEY READER AT GATE. PROVIDE ALTERNATE FOR USING EXISTING FRAME AND OPERATION

HARVEY BOOSTER STATION

- **UNDERGROUND RESERVOIR: EXCAVATION AND INSTALLATION OF SOIL**
- UNDERGROUND RESERVOIR: LANDSCAPING PUMP STATION & UNDERGROUND RESERVOIR: REMOVE & REPLACE ROOFING
- PUMP STATION: REMOVE & REPLACE WINDOWS & STAIR NOSING
- PUMP STATION: MECHANICAL AND PLUMBING
- PUMP STATION: REMOVE EXISTING FENCING & REPLACE WITH NEW FENCE WITH NEW SLIDING GATE & OPERATOR

EPDM ROOFING ALTERNATE:

FULLY ADHEARED SYSTEM FOR INSULATION AND MEMBRANE, NO MECHANICAL ATTACHMENT OF INSULATION TO CONC. DECKING. 60 MIL MEMBRANE THICKNESS. TAPERED INSULATION SYSTEM OVER THE ENTIRE ROOF - PROVIDE A MINIMUM OF 15 YEAR TOTAL SYSTEM WARRANTY. IF TAPERED INSULATION ADDS HEIGHT TO ROOF INSULATION SYSTEM THICKNESS, PROVIDE ADDITIONAL TREATED WOOD BLOCKING AT ROOF EDGE AS REQUIRED, ADD INCREASED HEIGHT OF FASCIA SYSTEM TO CONCEAL BLOKING.

PROJECT TEAM					ίE
	HE	ARCHITECTURAL / CIVIL / STRUCTURAL / INTERIOR DESIGN ABONMARCHE CONSULTANTS, INC 95 West Main Street Benton Harbor, MI 49022			
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	NO.	REVISION DESCRIPTION	BY	DATE	



PLAN ABBREVIATIONS

FIN. F.D.

FT.

FTG.

FDN.

H.C.

H.M.

H.P.

HW.

I.D.

INV.

LAM.

L.H.

LIN.

L.L. L.P.

MAS. MAT.

MAX.

MET. M.T.

MTD.

MFR.

M.H.

MIN.

М.О.

MR.

#

0.A. 0.C. 0.D.

O.H.

PTN.

P.C.

A.C. ADJ A.F.F. AL. APPROX ARCH. & BM. B.M. BRG. BITUM. BLKG. BD. BOT. B.O.F. BLDG C/C C.B. CEM. CER. C.I. C.I.P. C.J. CLG. CL CLO. C.M.U. C.O. COL. CONTR. CONC. CONN. CONT. CPT. C.S. C.T. D.L. D. DET. DIA. DIM. DN. DWG. EA. ELEC. ELEV., E E.W. E.Q. EXP. E.J. EXIST. EXT. EQUIP. F.O.B.

F.O.C.

F.O.M.

F.O.S.

AIR CONDITIONING ADJACENT ABOVE FIN. FLOOR ALUMINUM APPROXIMATE ARCHITECT AND BEAM BENCH MARK BEARING BITUMINOUS BLOCKING BOARD BOTTOM BOTTOM OF FOOTING BUILDING CENTER TO CENTER CATCH BASIN CEMENT CERAMIC CAST IRON CAST IN PLACE CONTROL JOINT CEILING CENTERLINE CLOSET CONCRETE MASONRY UNIT CLEAN OUT COLUMN CONTRACTOR CONCRETE CONNECTION CONTINUOUS CARPET CARPET STRIP CERAMIC TILE DEAD LOAD DEEP/DEPTH DETAIL DIAMETER DIMENSION DOWN DRAWING EACH ELECTRIC(AL) ELEVATION EACH WAY EQUAL EXPANSION EXPANSION JOINT EXISTING EXTERIOR EQUIPMENT FACE OF BRICK FACE OF CONCRETE FACE OF MASONRY FACE OF STUD

FINISH FLOOR DRAIN FOOT/FEET FOOTING FOUNDATION FURN. FURNACE GALV. GA G.C. GL. GR. GYP. GALVANIZED GAUGE GENERAL CONTRACTOR GLASS GRADE GYPSUM HOLLOW CORE HDWE. HARDWARE HOLLOW METAL HORIZ. HORIZONTAL HIGH POINT HEATING/VENTING/AIR COND. HVAC HT., H. HEIGHT/HIGH HARDWOOD INSIDE DIAMETER INSUL. INT. INSULATION INTERIOR INVERT LAMINATED LEFT HAND LINEAR LIVE LOAD LOW POINT MASONRY MATERIAL MAXIMUM METAL MARBLE THRESHOLD MOUNTED MECH. MECHANICAL MANUFACTURER MANHOLE MINIMUM MISC. MISCELLANEOUS MASONRY OPENING MIRROR N.I.C. NOT IN CONTRACT NO., # NUMBER NOM. NOMINAL N.T.S. NOT TO SCALE NUMBER/POUND OVERALL ON CENTER OUTSIDE DIAMETER OVERHEAD OPNG. OPENING OPP. HD. OPPOSITE HAND PARTITION PRECAST PLAM. PLASTIC LAMINATE PLAS. PLASTER

PLYW. PLYWOOD P.L. PNL. PROPERTY LINE PANEL PR. PAIR P.S.F. POUNDS PER S.F. P.S.I. POUNDS PER S.I. P.T. PRESSURE TREATED P.V.C. POLYVINYL CHLORIDE PVMT. PAVEMENT Q.T. QUARRY TILE RAD. RADIUS R.A. **RETURN AIR** R. & G. ROD & GROUT R.D. ROOF DRAIN REINF. REINFORCING REQUIRED REQ'D. R.H. RIGHT HAND RM. ROOM R.O. ROUGH OPENING RND. ROUND S.A. SUPPLY AIR S.C. SOLID CORE SCHED. SCHEDULE SEC. SECTION S.F. SQUARE FOOT SHT., SH. SHEET SQUARE INCH S.I. SIM. SIMILAR SPEC. SPECIFICATIONS SQ. SQUARE STOR. STORAGE STL. STEEL STRUCT. STRUCTURAL SUSP. SUSPEND(ED) Т&В TOP & BOTTOM TEL. TELEPHONE TG. TEMPERED GLASS T & G TONGUE & GROOVE THK. T.O. T.O.C. T.O.F. THICKNESS TOP OF TOP OF CONCRETE TOP OF FOOTING T.O.S. TOP OF STEEL T.O.W. TOP OF WALL TYP. TYPICAL U.N.O. UNLESS NOTED OTHERWISE VERT. VERTICAL VCT. VINYL COMPOSITION TILE VWC. VINYL WALL COVERING W.C. WATER CLOSET WCT. WAINSCOAT WH. WATER HEATER WD. WOOD WWF. WELDED WIRE FABRIC W/ WITH W/O WITHOUT XFMR. TRANSFORMER

MATERIAL LEGEND

EARTH OR GRADE COMPACT FILL CONCRETE 4 A - A - A - A CONCRETE BLOCK PLYWOOD MASONRY BRICK STONE STEEL FINISH WOOD ROUGH WOOD WOOD BLOCKING RIGID INSULATION BATT/LOOSE INSULATION GYPSUM BOARD CERAMIC TILE FACE BRICK

<u>GENERAL GRAPHIC REFERENCE SYMBOLS</u> INTERIOR SECTION OR DETAIL ELEVATION DESIGNATION ELEVATION ____| | | ___ DESIGNATION SHEET ON WHICH 2 INTERIOR ELEVATION SHEET ON WHICH A4.1 ∖ A3.1 •⁄ IS DRAWN SECTION OR DETAIL ELEVATION DETAIL NUMBER IS DRAWN DETAIL NUMBER - REVISION TAG DETAIL - DETAIL TITLE • 2[•] NAME A4.1 SCALE: 1/8" = 1'-0" • DRAWING SCALE 123 -- ROOM TAG SHEET NO. WHERE DETAIL IS LOCATED (A) •---- WINDOW TAG REF FLR. 123 • - DOOR TAG - ENTRY DOOR NUMBER SHALL BE THE SAME EL. 00'-0" AS THE ROOM NUMBER NOTE: SYMBOL INDICATES A SPECIFIC REFERENCE HEIGHT IN AN ELEVATION OR SECTION DRAWING

AARCHE	Battle Creek Goshen Benton Harbor Hobart Manistee Lafayette South Haven South Bend Valparaiso	Engineering, Architecture, Land Surveying
	95 West Main Street Benton Harbor, MI. 49023 T 269.927.2295 F 269.927.1017 abonmarche.com	COPYRIGHT 2016 - ABONMARCHE CONSULTANTS, INC.
PROJECT:	RENOVATIONS TO 2501 S. HARVEY STREET HARVEY BOOSTER STATION	MUSKEGON, MI
	REFERENCE SHEET	
HILL HILL HS MODELED B DESIGNED E PM REVIEW QA/QC REV DATE: SEAT:	Y: BY: IEW: 03-17-2 0F MICANO FMICANO FMICANO SAYLOR RCHITECT NO. 30836 	JLF JLF EML JMS 021
DATE: HARD COPY 24" x 36" SCALE(S) GRAPHIC G BE ACCURA SCALE: Unless N ACI JOB # 19 SHEET NO.	IS INTENDED TC WHEN PLOTTED INDICATED ANE QUALITY MAY NG SIZES oted Otherwise -14364	D BE D DT HER



- A. CONTRACTOR SHALL CONTACT MISS DIG AND LOCAL AUTHORITIES PRIOR TO ANY ACTIVITY ON SITE (CONTRACT 1)
- B. G.C. SHALL VERIFY THAT ALL UTILTIES TO BUILDING HAVE BEEN DEACTIVATED PRIOR TO ANY ACTIVITY ON SITE (CONTRACT 1 & 6)
- C. TAKE APPROPRIATE MEASURES TO ENSURE THE PROTECTION OF THE EXISTING STRUCTURES AND VENTS. (CONTRACT 1 & 2)
- D. CONTRACTOR TO REMOVE EXISTING LANSCAPING AND SOIL FROM TOP OF UNDER GROUND RESOUVIOR AND ALONG THE PERIMETER DOWN TO A MIN OF 2' FEET BELOW EXISTING GRADE. -SEE 6 / C2.1 (CONTRACT 1)
- E. DISPOSE OF EXISTING LAWN, STOCK PILE FOR REUSE ONLY EXISTING TOPSOIL AND SAND (CONTRACT 1)
- F. REMOVE EXISTING FENCE AND REPLACE WITH NEW IN THE SAME LOCATION. NEW FENCE TO MATCH EXISTING. (CONTRACT 6)
- G. VERIFY CONDITION OF EXISTING DECK NOTIFY ARCHITECT OF ANY DAMAGED DECK AREAS THAT REQUIRE REPAIR OR REPLACEMENT. DAMAGED AREAS OF DECK TO BE REVIEWED BY ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO ANY NEW WORK. REPAIRS TO DAMAGED DECK AREAS TO BE PERFORMED ON A CASE BY CASE BASIS PER ARCHITECT OR ENGINEERS DIRECTION (CONTRACT 1)

SITE DEMOLITION LEGEND

— LIMITS OF RESEVOIR TANK / SIDE WALLS

*CAUTION: WEIGHT RESTRICTION ON TOP OF UNDER GROUND RESOUVIOR CONTRACT 1 AND 2.

- BASED UPON A REVIEW OF THE EXISTING PLANS, THE EXISTING ROOF SLAB APPEARS TO HAVE BEEN DESIGNED TO SUPPORT A MAXIMUM UNIFORM LIVE LOADING OF 50 PSF IN ADDITION TO THE EXISTING UNIFORM SOIL LOAD. PLEASE NOTE THAT THIS IS NOT AN OFFICIAL LOAD RATING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL SEQUENCING AND METHODS USED FOR THE REMOVAL OF THE EXISTING SOILS DOES NOT DAMAGE OR OVERSTRESS THE EXISTING CONCRETE ROOF SLAB.
- BE SURE TO NOTE THAT THE SOILS TO BE PLACED BACK ON THE ROOF AFTER THE MEMBRANE IS APPLIED MUST BE A MAXIMUM OF 2'-0" DEEP AND MUST HAVE A SATURATED UNIT WEIGHT OF 120 PCF OR LESS (OR MATCH THE DENSITY OF THE REMOVED SOILS IF THEY ARE FOUND TO BE LESS THAN 120 PCF).
- EQUIPMENT ALLOWED FOR REMOVAL AND REINSTALLATION OF FILL OVER RESEVIOR SHALL BE LIMITED 4,000 LBS. MAXIMUM. IF MORE THAN ONE PIECE OF EQUIPMENT IS USED, THEY MUST REMAIN 30 FT. OR MORE APART WHEN OVER THE RESEVIOR.

KEYNOTES - SITE DEMOLITION

- 1 NEW GATE TO BE INSTALLED IN THIS LOCATION (CONTRACT 6)
- 2 VERIFY ALL EXISTING UNDER GROUND RESERVIOR PENETRATION (LOCATION & CONFIGURATION) - ALL TO REMAIN ((CONTRACT 3)
- 3 EXISTING SIDEWALK TO REMAIN

6)

SITE DIAGRAM

SCALE: 1" = 100'-0"

NO.

- 4 EXISTING CONCRETE PAD TO REMAIN
- 5 REMOVE EXISTING FENCE AND INSTALL NEW IN THE SAME LOCATION SEE SHEET C1.2
- SITE-CONSTRUCTION PLAN (CONTRACT 6)
- 6 SALVAGE EXISTING ELECTRICAL ROLLING GATE, CONTROL BOX & GATE (CONTRACT
- 7 EXISTING ELECTRICAL TRANSFORMER TO REMAIN
- 8 REUSE A PORTION OF THE EXISTING CONDUIT, REROUTING IT TO THE NEW GATE CONTROL LOCATION AND ADD NEW WIRE. (CONTRACT 6)

REVISION DESCRIPTION

.Users\jficklen\Documents\Harvey Booster Station Central_jfic

GENERAL NOTES - SITE PLAN

- A. CONTRACTOR SHALL CONTACT MISS DIG AND LOCAL AUTHORITIES PRIOR TO ANY ACTIVITY ON SITE (CONTRACT 1)
- B. G.C. SHALL VERIFY THAT ALL UTILTIES TO BUILDING HAVE BEEN DEACTIVATED PRIOR TO ANY ACTIVITY ON SITE (CONTRACT 1 & 6)
- C. TAKE APPROPRIATE MEASURES TO ENSURE THE PROTECTION OF THE EXISTING STRUCTURES AND VENTS. (CONTRACT 1 & 2)
- D. CONTRACTOR TO REMOVE EXISTING LANSCAPING AND SOIL FROM TOP OF UNDER GROUND RESOUVIOR AND ALONG THE PERIMETER DOWN TO A MIN OF 2' FEET BELOW EXISTING GRADE. -SEE 6 / C2.1 (CONTRACT 1)
- E. DISPOSE OF EXISTING LAWN, STOCK PILE FOR REUSE ONLY EXISTING TOPSOIL AND SAND (CONTRACT 1)
- F. REMOVE EXISTING FENCE AND REPLACE WITH NEW IN THE SAME LOCATION. NEW FENCE TO MATCH EXISTING. (CONTRACT 6)

G. VERIFY CONDITION OF EXISTING DECK - NOTIFY ARCHITECT OF ANY DAMAGED DECK AREAS THAT REQUIRE REPAIR OR REPLACEMENT. DAMAGED AREAS OF DECK TO BE REVIEWED BY ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO ANY NEW WORK. REPAIRS TO DAMAGED DECK AREAS TO BE PERFORMED ON A CASE BY CASE BASIS PER ARCHITECT OR ENGINEERS DIRECTION (CONTRACT 1)

SITE DEMOLITION LEGEND

----- EXISTING FENCE LINE TO BE REMOVED

-----E------E-----EXISTING ELECTRICAL CONDUIT

<u>KEYNOTES - NEW SITE</u>

- NEW FENCE TO BE INSTALLED (INCLUDING REQUIRED FOOTINGS). MATCH EXISTING FENCE STYLE, HEIGHT & LOCATION
- 2 OPERATOR FOR/CONTROL BOX FOR MOTIRIZED GATE/CARD READERS
- 3 NEW MOTORIZED ROLLING GATE SEE SHEET C2.1
- 4 NEW CARD READER FOR MOTORIZED GATE

NO.

REVISION DESCRIPTION

- 5 NEW CONDUIT AS REQUIRED FOR MOTORIZED GATE OPERATOR
- 6 RE-INSTALL EXCAVATED SOIL AND GRADE TO MATCH EXISTING GRADES (CONTRACT 1)
- 7 INSTALL 1-2" STORED TOPSOIL OVER EXISTING, FINE GRADE, AND HYDROSEED OVER TOPSOIL (CONTRACT 2)

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PROJECT:	RENOVATIONS TO 2501 S. HARVEY STREET HARVEY BOOSTER STATION	MUSKEGON, MI
	SITE - CONSTRUCTION PLAN	
SHEET TITLE:		
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DATE:	03-17-2	JMS 021
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SHEET NO.		

CRITICAL	DIMENSIONS	
	DESCRIPTION	FORMULA
"A"	CLEAR OPENING	А
"B"	COUNTERBALANCE	A/2
"C"	OVERALL GATE LENGTH	A + B + 12"
"D"	TOP OF GATE HEIGHT	D
"E"	POST HEIGHT	E
BARB ARMS R	Equired	NOT REQUIRED

3 South Elevation - [DEMOLITION	
1/4" = 1'-0"		
	3 SOUTH ELEVATION - 1 1/4" = 1'-0"	3 SOUTH ELEVATION - DEMOLITION

<u>GENERAL NOTES</u>

- A. ALL CONTRACTORS ARE RESPONSIBLE FOR PROVIDING COMPLETE INSTALLATION OF ALL COMPONENTS AND SHALL COORDINATE THEIR SCOPE OF WORK WITH ALL OTHER TRADES PRIOR TO SUBMITTING BIDS TO ENSURE THERE ARE NO MISSING OR DUPLICATE COMPONENTS WITH-IN THEIR SCOPE
- B. DO NOT SCALE DRAWINGS. USE INDICATED DIMENSIONS ONLY.
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- G. ALL SPECIFIED ITEMS SHALL BE PROVIDED AND INSTALLED PER MANUFACTURERS WRITTEN REQUIREMENTS

EXISTING STRUCTURE TO REMAIN

5 NEW PARAPET DETAIL @ HIGH ROOF 1 1/2" = 1'-0"

BITUMINOUS MEMBRANE ROOFING 1/4" OVERLAYMENT BOARD OVER ALL INSULATION - 2" ROOF INSULATION WITH TAPPERED SADDLES PER ROOF PLAN - 9 1/2" HIGH ALUM. FASCIA SYSTEM

TREATED 2X4 WOOD BLOCKING

OVER EXISTING

- STAINLESS STEEL FASTENERS

- EXISTING BRICK

- EXISTING STRUCTURE

 $\langle \mathbb{O} \rangle$

- BITUMINOUS MEMBRANE ROOFING

- 1/4" OVERLAYMENT BOARD OVER ALL INSULATION
- SADDLES PER ROOF PLAN
- NEW TREATED 2X4 WOOD BLOCKING
- STAINLESS STEEL FASTENERS - EXISTING TREATED WOOD BLOCKING
- EXISTING 1" RIGID FILL BOARD TO
- COATED STEEL COVER METAL OVER EXISTING BLOCKING
- EXISTING STRUCTURE TO REMAIN
- 6 NEW PARAPET DETAIL @ LOWER ROOF 1 1/2" = 1'-0"

GENERAL NOTES

- A. ALL CONTRACTORS ARE RESPONSIBLE FOR PROVIDING COMPLETE INSTALLATION OF ALL COMPONENTS AND SHALL COORDINATE THEIR SCOPE OF WORK WITH ALL OTHER TRADES PRIOR TO SUBMITTING BIDS TO ENSURE THERE ARE NO MISSING OR DUPLICATE COMPONENTS WITH-IN THEIR SCOPE
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- G. ALL SPECIFIED ITEMS SHALL BE PROVIDED AND INSTALLED PER MANUFACTURERS WRITTEN REQUIREMENTS

GENERAL ROOF DEMOLITION NOTES

- A. REMOVE EXISTING ROOF BALLAST & DISPOSE OF OFF-SITE. STAGE REMOVAL TO AVOID OVER LOADING ROOF STRUCTURE IN ANY ONE AREA
- B. SITE TO BE CLEAN & MAINTAIN DAILY TO ENSURE DAY-TO-DAY OPERATIONS OF THE WATER PLANT CAN CONTINUE TO OPERATED DURING CONSTRUCTION
- C. CUT EXISTING ROOFING & INSULATION INTO SECTIONS FOR REMOVAL DOWN TO EXISTING DECK & DISPOSE OF OFF-SITE. CUT ONLY THE AREAS THAT CAN BE REMOVED DURING ONE WORK DAY. PROTECT AREAS THAT ARE LEFT EXPOSED FROM THE WEATHER AS REQUIRED.
- D. CAREFULLY REMOVE EXISTING PERIMETER FLASHING FROM AREAS OF ROOF WORK TAKE CARE TO NOT DAMAGE THE EXISTING ADJACENT MATERIALS
- E. PROTECT EXISTING ROOF TOP EQUIPMENT OR ACCESSORIES DURING ROOFING REMOVAL. INCLUDING MECH. UNITS, FANS, DRAINS, VENTS, CURBS, ETC.
- F. VERIFY CONDITION OF EXISTING DECK NOTIFY ARCHITECT OF ANY DAMAGED DECK AREAS THAT REQUIRE REPAIR OR REPLACEMENT. DAMAGED AREAS OF DECK TO BE REVIEWED BY ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO ANY NEW WORK. REPAIRS TO DAMAGED DECK AREAS TO BE PERFORMED ON A CASE BY CASE BASIS PER ARCHITECT OR ENGINEERS DIRECTION
- G. VERIFY CONDITION OF EXISTING PERIMETER BLOCKING NOTIFY ARCHITECT OF ANY DAMAGED OR DETERIORATED BLOCKING THAT REQUIRES REPAIR OR REPLACEMENT. BLOCKING REPLACEMENT SHALL BE PERFORMED PER LINEAL FOOT COST PROVIDED IN BID
- H. VERIFY CONDITION OF EXISTING WOOD ROOF CURBS EXPOSED DURING ROOF WORK -NOTIFY ARCHITECT OF ANY DAMAGED OR DETERIORATED WOOD THAT REQUIRES REPAIR OR REPLACEMENT - CURB REPLACEMENT SHALL BE PERFORMED PER LINEAL FOOT COST PROVIDED IN BID
- I. VERIFY CONDITION OF EXISTING WOOD SLEEPERS SUPPORTING MECH. EQUIPMENT. NOTIFY ARCHITECT OF ANY DAMAGED OR DETERIORATED WOOD THAT REQUIRES REPAIR OR REPLACEMENT - SLEEPER REPLACEMENT SHALL BE PERFORMED PER LINEAL FOOT COST PROVIDED IN BID
- J. VERIFY CONDITION OF EXISTING ROOF DRAINS, SCREENS & PIPING. NOTIFY ARCHITECT OF ANY DAMAGED OR DETERIORATED WOOD THAT REQUIRES REPAIR OR REPLACEMENT - ROOF DRAIN REPLACEMENT SHALL BE PERFORMED PER UNIT COST PROVIDED IN BID

KEYNOTES - EXISTING ROOF

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- 1 EXISTING AIR EXHAUST TO REMAIN
- EXISTING VENT STACK TO REMAIN 2
- 3 EXISTING ROOF DRAIN REMAIN, INCLUDING STRAINER

<u>KEYNOTES - NEW ROOF PLAN</u>

- BITUMINOUS MEMBRANE ROOFING SYSTEM: 2" RIGID INSULATION OVER CONCRETE DECK. TAPPERED INSULATION WHERE SHOWN ON PLANS. 1/4" OVERLAYMENT BOARD OVER ALL INSULATION. BITUMINOUS ROOFING MEMBRANE OVER OVERLAYMENT BOARD.
- TAPPERED INSULATION SADDLES OVER NEW 2" RIGID INSULATION, 1/8" PER FT SLOPE 2" MAX HIEGHT.
- 8'X8' OR 4'X4' TAPPER INSULATION DRAIN SUMP AS SHOWN, 1" INSULATION AT DRAIN, 2" THICKNESS AT EDGE.

	MARCHE	Battle Creek Goshen Benton Harbor Hobart Manistee Lafayette South Haven Valparaiso Fingineering, Architecture, Land Surveying
		95 West Main Street Benton Harbor, MI. 49023 T 269.927.2295 F 269.927.1017 abonmarche.com copyright 2016 - ABONMARCHE CONSULTANTS, INC
R-	PROJECT:	RENOVATIONS TO 2501 S. HARVEY STREET HARVEY BOOSTER STATION MUSKEGON, MI
		NEW WORK ROOF PLAN
	HILL HANDDELED B DESIGNED F PM REVIEW QA/QC REV DATE: SEAC:	Y: JLF SY: JLF EML /IEW: JMS 03-17-2021 OF MIC-MONTON SAYLOR RCHITECT NO. 30836 COMPARENTING SAYLOR
	HARD COPY 24" x 36" SCALE(S) GRAPHIC G BE ACCURA SCALE: Unless N ACI JOB # 19 SHEET NO.	IS INTENDED TO BE WHEN PLOTTED INDICATED AND QUALITY MAY NOT TE FOR ANY OTHER SIZES ofed Otherwise -1436A 2.1

- A. ALL CONTRACTORS ARE RESPONSIBLE FOR PROVIDING COMPLETE INSTALLATION OF ALL COMPONENTS AND SHALL COORDINATE THEIR SCOPE OF WORK WITH ALL OTHER TRADES PRIOR TO SUBMITTING BIDS TO ENSURE THERE ARE NO MISSING OR DUPLICATE COMPONENTS WITH-IN THEIR SCOPE
- B. DO NOT SCALE DRAWINGS. USE INDICATED DIMENSIONS ONLY.
- C. SHOULD A CONTRACTOR FIND DISCREPANCIES OR AMBIGUITIES IN OR OMISSIONS FROM THE DRAWINGS OR SPECIFICATIONS, OR BE IN DOUBT ABOUT THEIR MEANING, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY.
- D. CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE JOB DURING CONSTRUCTION LAYOUT AND ADVISE THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK.
- E. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS ON-SITE AND ADVISING ARCHITECT OF ANY DISCREPANCIES WITH DEMOLITION OR NEW WORK PLANS PRIOR TO PERFORMING ANY WORK.
- F. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY IF ANY UNFORESEEN STRUCTURAL OR UTILITY RELATED ISSUES ARISE DURING DEMOLITION OR EXCAVATION.
- G. ALL SPECIFIED ITEMS SHALL BE PROVIDED AND INSTALLED PER MANUFACTURERS WRITTEN REQUIREMENTS

GENERAL NOTES - EXTERIOR ELEVATIONS

A. PROVIDE SEALANT AND BACKER ROD BETWEEN ALL DISSIMILAR MATERIALS

KEYNOTES - NEW ELEVATION

- NEW ALUM. FASCIA SYSTEM
- EXISTING DOOR TO REMAIN 2
- NEW ALUMINUM WINDOW SEE WINDOW ELEVATION
- 4 EXISTING LOUVERS TO REMAIN
- STRIP EXISTING PAINT AND REPAINT COLOR TO MATCH
- BALCO RETROFIT STAIR NOSING: RS-RIBBED ABRASIVE (8120 TYPE 7) AT 6 EACH STAIR NOSING
- EXISTING ELECTRICAL PANELS TO REMAIN
- CLEAN EXISTING CONCRETE PANEL
- NEW OPAQUE GLASS WINDOW WITH WIRE GLASS (EXT. LITE)

NO.

9'-9" 2'-0" 4 1/2" NOTE: THERMALLY BROKEN ALUMINUM WINDOW SYSTEM WITH 1" INSULATED & TEMPERED

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- MANUFACTURERS RECOMMENDATIONS. SEE SPECIFICATIONS

HEADER

WINDOW FRAME DETAILS

NO.

PPROPRIATE	
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- AIR BARRIER, REFER TO SPECIFICATION FOR TYPE

GENERAL NOTES - ROOF DETAILS

- A. DETAILS SHOWN ARE REPRESENTATIVE OF FINISHED DETAILS. CONTRACTORS SHALL TAKE INTO ACCOUNT EXISTING INSULATION, NEW INSULATION, AND THE NEW ROOF SYSTEM. WOOD BLOCKING SHALL BE ADDED TO ACHIEVE THE MINIMUM FLASHING HEIGHTS SHOWN.
- B. DECK TYPES VARY BETWEEN ROOF AREAS AND BUILDINGS. CONTRACTOR MUST VERIFY ROOF DECKS AND APPLY DETAILS ACCORDINGLY.
- C. REFERENCE SPECIFICATION FOR SURFACING, MEMBRANE ADHESIVE TYPE, AND INSULATION/COVER BOARD TYPE AND ATTACHMENT METHOD.
- D. ASSURE ROOF AIR BARRIER PROPERLY TIES INTO WALL SYSTEM AIR BARRIER, IF PRESENT.

BY DATE

AX. JT)			

NO.

REVISION DESCRIPTION

SPECIFICATIONS:

I. <u>GENERAL:</u>

A. WORK SHALL BE DONE COMPLETE IN ALL RESPECTS, INCLUDING THE FOLLOWING ITEMS BRIEFLY MENTIONED AND ALL OTHER ITEMS WHICH ARE INDICATED, SPECIFIED OR NECESSARY FOR A COMPLETE AND SATISFACTORY MECHANICAL SYSTEM.

B. ALL WORK AND MATERIALS SHALL BE GUARANTEED IN WRITING FOR ONE YEAR FROM PROJECT COMPLETION.

C. MODEL NUMBERS LISTED ON DRAWINGS ARE BASED ON MANUFACTURERS LISTED. THE CONTRACTOR MAY AT HIS OPTION PROVIDE AN "OR EQUAL" MANUFACTURED PRODUCT. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL COST ADDITIONS REQUIRED TO THE SYSTEM SHOULD AN "OR EQUAL" MANUFACTURER BE SELECTED.

D. COORDINATE THE INSTALLATION OF THE WORK WITH ALL OTHER TRADES BEFORE INSTALLATION TO ELIMINATE CONFLICTS OVER AVAILABLE SPACE.

E. ARRANGE WITH OTHER TRADES FOR THE PROVISION OF ALL CHASES, SLOTS, AND OPENINGS NECESSARY FOR THE PROPER INSTALLATION OF THE MECHANICAL WORK.

F.COORDINATE THE INSTALLATION OF ALL REQUIRED SUPPORTING DEVICES.

G. MAINTAIN A "CLEAN" SET OF PROJECT DRAWINGS FOR THE SOLE PURPOSE OF RECORDING DEVIATIONS FROM THE DESIGN. THIS SET OF DRAWINGS SHALL BE MAINTAINED WITH ALL MODIFICATIONS MARKED-UP AS WORK PROGRESSES. DRAWINGS TO BE TURNED OVER TO THE OWNER FOR FUTURE REFERENCE.

H. ALL OPENINGS IN PIPING AND DUCT WORK SYSTEMS SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT THE ENTRANCE OF FOREIGN MATERIALS.

I. ALL SYSTEMS FABRICATED ON SITE SHALL BE TESTED BY THE CONTRACTOR; TESTING SHALL INCLUDE THE PROVISION OF ALL NECESSARY EQUIPMENT, LABOR, AND FLUIDS.

J. WHEN CONNECTIONS TO SITE SERVICES ARE REQUIRED CONFIRM LOCATIONS AND ELEVATION OF SAME PRIOR TO PROCEEDING WITH THE LAYOUT OF BUILDING SYSTEM. II. FACILITY PIPING DISTRIBUTION:

A. ROUTE PIPING IN ORDERLY MANNER AND MAINTAIN GRADIENT.

B. ESTABLISH INVERT ELEVATIONS, SLOPES FOR DRAINAGE TO 1/8 INCH PER FOOT MINIMUM. MAINTAIN GRADIENTS. DRAIN AT LOW POINTS.

C. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR CONNECTED EQUIPMENT.

D. PROVIDE CLEARANCE IN HANGERS AND FROM STRUCTURE AND OTHER EQUIPMENT FOR INSTALLATION OF INSULATION AND ACCESS TO VALVES AND FITTINGS.

E. SUPPLY ALL NECESSARY TRIM, P-TRAPS, AND ANGLE STOPS AT EACH PLUMBING FIXTURE.

F.INSTALL EACH FIXTURE WITH TRAP, EASILY REMOVABLE FOR SERVICE AND CLEANING.

G. PROVIDE TRAP SEALS AT ALL FLOOR DRAINS, BASED ON "SURE SEAL" OR EQUAL.

H. PROVIDE CLEAN OUTS INSIDE AND OUTSIDE THE BUILDING 100 FEET APART, AND WHERE A CHANGE INDIRECTION GREATER THAN 45 DEGREES OCCURS.

III. <u>PIPING:</u>

A. DRAIN, VENT, AND WASTE PIPING: SCHEDULE DWV PVC OR CAST IRON. CLEAN OUTS IN FINISHED AREAS SHALL BE RECESSED AND HAVE CHROME OR BRASS COVER PLATES FLUSH WITH FINISHED SURFACE.

B. SLEEVE PIPE PASSING THROUGH PARTITIONS, WALLS, AND FLOORS.

C. INSTALL FIRESTOPPING AT FIRE RATED CONSTRUCTION PERIMETERS AND OPENINGS CONTAINING PENETRATING SLEEVES AND PIPING.

D. INSTALL PIPE IDENTIFICATION.

PLUMBING FIXTURE SCHEDULE										
MARK	FIXTURE	cw	нพ	SAN	v	FIXTURE MODEL	FIXTURE MANUFACTURER	TRIM MODEL	TRIM MANUFACTURER	DESCRIPTION
CO-HD	CLEANOUT	-	-	4"	-	ZN1400-HD	ZURN	-	-	EXTRA-HEAVY-DUTY LEVEL-TROL ADJUSTABLE FLOC CLEANOUT - BASEMENT LOCATIONS ONLY
FD-1	FLOOR DRAIN	-	-	6"	-	ZN415B	ZURN	SURE SEAL TRAP SEAL	RECTORSEAL	FLOOR DRAIN, DURA-COATED CAST IRON BODY WIT BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND "TYP B" POLISHED NICKEL BRONZE, 8" LIGHT DUTY STRAINER

LEGEND:

ABBREVIATIONS:

/. HANGER AND SUPPORTS:	——— V ———	PLUMBING SYSTEM VENT
. CONFORM TO ASME B31.9, ASTM F708.		
. HANGERS FOR COLD PIPE SIZES 2 INCHES AND LARGER: CARBON STEEL, DJUSTABLE, CLEVIS.	SAN	SANITARY SEWER
. MULTIPLE OR TRAPEZE HANGERS: STEEL CHANNELS WITH WELDED SPACERS AND HANGER RODS.		DROP TEE IN-LINE
. VERTICAL SUPPORT: STEEL RISER CLAMP.		
. FLOOR SUPPORT FOR COLD PIPE: CAST IRON ADJUSTABLE PIPE SADDLE, LOCK UT, NIPPLE, FLOOR FLANGE, AND CONCRETE PIER OR STEEL SUPPORT.	0	RISE
. INSTALL IN ACCORDANCE WITH ASME B31.1, ASME B31.5, ASME 31.9.		REDUCER
. SUPPORT HORIZONTAL PIPING AS SCHEDULED.		
. INSTALL HANGERS WITH MINIMUM $\frac{1}{2}$ INCH SPACE BETWEEN FINISHED COVERING ND $$ ADJACENT WORK.	POINT OF NE	EW CONNECTION TO EXISTING
PLACE HANGERS WITHIN 12 INCHES OF EACH HORIZONTAL ELBOW.		
USE HANGERS WITH 1-1/2 INCH MINIMUM VERTICAL ADJUSTMENT.		

K. PIPE HANGER SPACING

10'

1-1/4

1-1/2

PIPE SIZE HANGER SPACING DIAMETER INCHES

3/8

3/8

3/8

3/8

3/8

TOS TOP OF STEEL VENT V VTR VENT THROUGH ROOF WC WATER CLOSET WTW WALL TO WALL

TO EXISTING VTR-

GENERAL CONTRACTOR REQUIREMENTS:

- 1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES, AND LAWS.
- 2. ARRANGE AND PAY FOR ALL PERMITS AND INSPECTIONS AS REQUIRED.
- 3. MAKE ARRANGEMENTS WITH AND PAY ALL CHARGES REQUIRED BY UTILITY COMPANIES FOR, WATER, AND SEWER SERVICES.
- 4. ALL WORK SHALL BE PERFORMED TO FACILITATE EXPEDITIOUS PROGRESS ON THE WHOLE PROJECT. COORDINATE WORK WITH OTHER TRADES TO MINIMIZE AND RESOLVE POTENTIAL CONFLICTS.
- 5. COMPLETED SYSTEM SHALL BE TESTED, BALANCED, AND GUARANTEED.
- 6. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE. THE CONTRACTOR SHALL PROVIDE FITTINGS, OFFSETS, ETC.., AS NECESSARY TO PROPERLY COMPLETE THE INSTALLATION OF THE SYSTEMS.
- 7. ALL PIPES PASSING THRU FINISHED WALLS, PARTITIONS AND FLOORS SHALL BE FITTED WITH ADJUSTABLE ESCUTCHEONS, AND APPROPRIATE FIRE TOPPING WHERE REQUIRED.

- 8. LAYOUT PLUMBING WORK TO AVOID CONFLICTS WITH OTHER BUILDING COMPONENTS. ESTABLISH ELEVATION OF PUBLIC SEWER SYSTEM.
- 9. WHERE FIXTURES ARE MOUNTED TO WALLS SEAL ALL INTERSECTIONS WITH SILICONE CAULK.
- 10. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY DETAIL OF CONSTRUCTION. CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS NECESSARY FOR A COMPLETE CODE COMPLYING MECHANICAL SYSTEM TO BE IN PROPER WORKING ORDER.
- 11. MATERIALS EXPOSED WITHIN A PLENUM SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84. EXISTING AND NEW PVC PIPING WILL REQUIRE 1/2 INCH MINERAL FIBER INSULATION WITH VAPOR RETARDER FACING THAT MEETS ASTM E84.
- 12. COORDINATE ALL DUCT AND PIPING PENETRATIONS AND HANGERS WITH FIRE PROTECTION AN RATINGS.

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