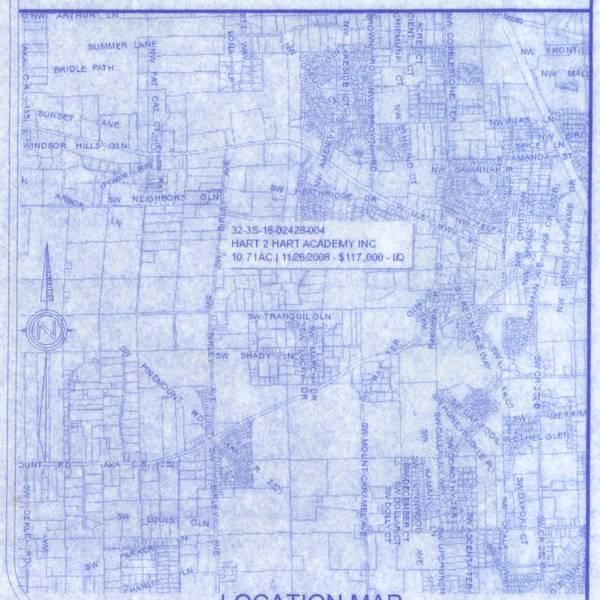
ABBREVIATIONS

A.B.	Anchor Bolt	F.B.C.	Florida Bldg. Code	Opn'g.	Opening
Abv.	Above	Fin. Flr.	Finished Floor	Opt.	Optional
A/C	Air-Conditioner	F.G.	Fixed Glass	Pc.	Piece
Adj.	Adjustable	Flr.	Floor	Ped.	Pedestal
A.F.F.	Above Finished Floor	Fdn.	Foundation	P.L.	Parallam
A.H.U.	Air Handler Unit	Flr. Sys.	Floor System	PLF	Pounds per lear foot
ALT.	Alternate	F.Pl.	Fireplace	Plt. Ht.	Plate Height
B.C.	Base Cabinet	Ft.	Foot / Feet	Plt Sh.	Plant Shelf
B.F.	Bifold Door	Ftg.	Footing	PSF	Pounds per ware foot
Bk Sh	Book Shelf	FX	Fixed	P.T.	Pressure Treed
Bm.	Beam	Galv.	Galvanized	Pwd.	Powder Root
BOT.	Bottom	G.C.	General Contractor	Rad.	Radius
B.P.	Bypass door	G.F.I.	Ground Fault Interrupter	Ref.	Refrigerator
Brg.	Bearing	G.T.	Girder Truss	Req'd.	Required
Cir.	Circle	Hdr.	Header	Rm.	Room
Clg.	Ceiling	Hgt.	Height	Rnd.	Round
Col.	Column	HB	Hose Bibb	R/SH	Rod and She
Comp.	A/C Compressor	Int.	Interior	SD.	Smoke Deter
C.T.	Ceramic Tile	K/Wall	Kneewall	S.F.	Square Ft.
D	Dryer	K.S.	Knee Space	Sh.	Shelves
Dec.	Decorative	Laun.	Laundry	SHT	Sheet
Ded.	Dedicated Outlet	Lav.	Lavatory	S.L.	Side Lights
Dbl.	Double	L.F.	Linear Ft.	S.P.F.	Spruce Piner
Dia.	Diameter	L.T.	Laundry Tub	Sq.	Square
Disp.	Disposal	Mas.	Masonry	S.Y.P.	Southern Yew Pine
Dist.	Distance	Max.	Maximum	Temp.	Tempered
D.S.	Drawer Stack	M.C.	Medicine Cabinet	Thik'n.	Thicken
D.V.	Dryer Vent	MDP	Master Distribution Panel	T.O.B.	Top of Block
D.W.	Dishwasher	Mfgr.	Manufacturer	T.O.M.	Top of Masoy
Ea.	Each	Micro.	Microwave	T.O.P.	Top of Plate
E.W.	Each Way	Min	Minimum	Trans.	Transom Wiow
Elec.	Electrical	M.L.	Microlam	Typ.	Typical
Elev.	Elevation	Mir.	Mirror	UCL.	Under Cabin Lighting
Ext.	Exterior	Mono	Monolithic	U.N.O.	Unless Noteotherwise
Exp.	Expansion	N.T.S.	Not to Scale	VB	Vanity Base
				Vert.	Vertical
				V.L.	Versalam
				VTR	Vent throughoof
				W	Washer
				W/	With
				W/C	Water Close
				W.A.	Wedge Anch
				Wd.	Wood
				WP	Water Proof

SYMBOLS LEGEND

1 / A-1 — section number / sheet number	SECTION MARK
A / A-1 — detail number / sheet number	DETAIL MARK
1 / A-1 — elevation number / sheet number	INTERIOR ELEVATION MAK
101 / A — room number / door identification	DOOR MARK
101	ROOM NUMBER



LOCATION MAP

STRUCTURAL DESIGN CRITERIA

CODES: FLORIDA BUILDING CODE, 2007 EDITION, INCLUDING 2009 REVISIONS
BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-05)
SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS (ACI 301-05)
BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-05)
NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 2001 EDITION
APA PLYWOOD DESIGN SPECIFICATION

LIVE LOADS:
ROOF — 20 10 PSF (REDUCIBLE)
OFFICE FLOOR — 50 0 PSF
1ST FLOOR CORRIDOR — 80 10 PSF

CONCRETE STRENGTH @ 28 DAYS
ALL CONCRETE UNLESS OTHERWISE INDICATED — 2500 00 PSI
PEA GRAVEL CONCRETE FOR MASONRY CELLS ONLY — 3000 00 PSI
(DO NOT USE FOR CONCRETE COLUMNS OR TIE BEAMS)

REINFORCING:
WELDED WIRE FABRIC SHALL CONFORM TO — AST STM A185
ALL REINFORCING BARS — AST STM A615-40 40,000 PSI
ALL STIRRUPS AND TIES — AST STM A615-40 40,000 PSI

CONCRETE MASONRY UNITS:
ASTM C90-99b, STANDARD WEIGHT UNITS, fm=1500 PSI
MORTAR TYPE "S" 1800 PSI
CONCRETE GROUT 3000 PSI
CONTINUOUS MASONRY INSPECTION IS REQUIRED DURING CONSTRUCTION

STRUCTURAL STEEL:
ALL STRUCTURAL AND MISCELLANEOUS STEEL A36 36,000 PSI, U.N.O
SHOP AND FIELD WELDS: E70XX ELECTRODES.
ALL BOLTS CAST IN CONCRETE: ASTM A36 OR ASTM A-307

WOOD FRAMING:
BEAMS, RAFTERS, JOIST, PLATES, ETC. U.N.O.
NO. 2 SOUTHERN YELLOW PINE (19% M.C.)
ROOF DECK: PLYWOOD C-C/C-D, EXTERIOR, or OSB
FLOOR SHEATHING: T&G A-C GROUP 1 APA RATED (48/24)
WALL SHEATHING: PLYWOOD C-C/C-D, EXTERIOR OR OSB
VERSA LAM BEAM Fb = 2900 PSI (2.0E)
WOOD COLS. PARALLAM 2.0E U.N.O.

WOOD ROOF TRUSSES:
DESIGN LOADS:
TOP CHORD LIVE AND DEAD LOAD: 30 PSF
BOTTOM CHORD DEAD LOAD: 10 PSF
TOTAL: 40 PSF

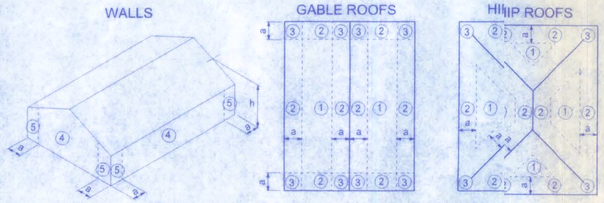
SEE DRAWINGS FOR SPECIAL CONCENTRATED LOADS. DESIGN FOR NEW WIND UPLIFT AS PER SPECIFIED CODES, DEDUCTING A MAXIMUM OF 5 P.S.F. DEAD LOAD, BUT NOT EXCEEDING ACTUAL DEAD LOAD.

SOIL BEARING VALUE:
ASSUMED ALLOWABLE SOIL BEARING PRESSURE AFTER COMPACTION: 1500 PSF
SEE SOILS REPORT AND SPECIFICATIONS FOR COMPACTION REQUIREMENTS
IF SOIL CONDITIONS IN THE PROJECT DO NOT MEET OR EXCEED THE CAPACITY THE GENERAL CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO FOUNDATION POUR FOR VERIFICATION OF FOUNDATION DESIGN.

ALL WIND LOADS ARE IN ACCORDANCE WITH SECTION 1609, FLORIDA BUILDING CODE, 2007

BASIC WIND SPEED		110 MPH	
IMPORTANCE FACTOR		1.15	
BUILDING CATEGORY		IV	
EXPOSURE		B	
INTERNAL PRESSURE COEFFICIENT		+/- 0.18	
TYPE OF STRUCTURE		ENCLOSED	
MWFRS PER ASCE 7 DESIGN WIND PRESSURES WORST CASE	Zone 1 - Windward Wall		18.2 -2.2 psf
	Zone 2 and 3 - Windward and Leeward Roof		-27.3 -7.3 psf
	Zone 2 - Sloped Windward Roof		+4.9 psf; -11.7 psf
	Zone		
	3 - Leeward Roof		-14.5 -5.6 psf
	4 - Leeward Wall		-12.2 -2.8 psf
	5 & 6 Sidewalls		-16.4 -5.4 psf
	Zone 7 - Overhang		14.4 -4.4 psf

COMPONENTS AND CLADDING PER ASCE 7 DESIGN WIND PRESSURES WORST CASE			windward	leeward
	Wall	Zone 4	25.0 psf	-27.2 psf
		Zone 5	25.0 psf	-33.5 psf
			positive	negative
	Roof	Zone 1	14.4 psf	-22.9 psf
		Zone 2	14.4 psf	-48.4 psf
		Zone 3	14.4 psf	-48.4 psf



a: 10% of least horizontal dim. or 0.4h, whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft.
h: mean roof height, in feet.

COMPONENTS AND CLADDING

BUILDING USE, CLASSIFACATION & OCCUPANCY AS PER TABLES 503 & 1004.1.1, FLORIDA BUILDING CODE, 2007 ED.

BUILDING GROUP OCCUPANCY	GROUP D
TABLE 503 TYPE OF CONSTRUCTION	TYPE V-B
TABLE 503 AREA/HEIGHT LIMITATIONS	9.5 KSF/1 STORY
OCCUPANCY	
LOAD CAPACITY: EDUCATIONAL: 20 SF/PERSON NET	92 PERSONS
	92 OCCUPANTS

MEANS OF EGRESS
FBC CHAPTER 10

OCCUPANCY CLASSIFICATION	UNSPRINKLERED & UNPROTECTED	
GROUP D - Daycare	REQUIRED	PROVIDED
MAX. TRAVEL DIST. (TABLE 1016.1)	200 FT.	44 FT.
MAX. DEAD-END CORRIDOR (FBC 1017.3)	20 FT	20 FT
TOTAL # OF EXITS (TABLE 1019.1)	2	6
EGRESS WIDTH PER PERSON (LEVEL) (TABLE 1005.1)	0.2 92 x 0.2 = 18.4"	64"/92 = 0.70
MINIMUM CORRIDOR AISLE WIDTH (FBC 1017.2)	44"	64"
MIN. CLEAR OPENING OF EXIT DOORS (FBC 1008.1.1)	32"	34"

MINIMUM NUMBER OF PLUMBING FACILITIES.
TABLES 403.1 FLORIDA PLUMBING CODE, 2007 ED.

92 OCCUPANTS = 46 MEN & 46 WOMEN

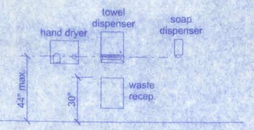
OCCUPANCY	WATER CLOSETS		LAVS		DRINKING FOUNTAIN	SERVICE SINKS
	M	F	M	F		
B	1 per 50 = 2		1 per 50 = 2		1 per 100 = 1	1 service sink
PROVIDED	5		9		2	1

REQUIRED OUTDOOR VENTILATION AIR (NEW CONSTRUCTION ONLY)
TABLES 403.3, FLORIDA MECHANICAL CODE, 2007 ED.

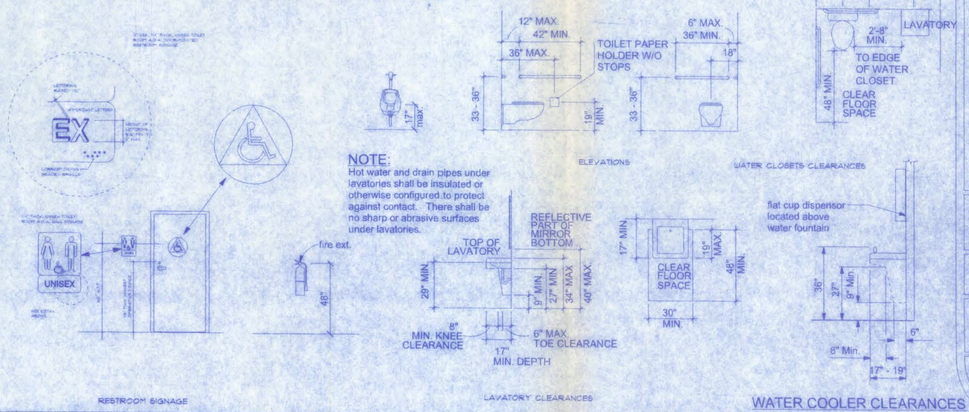
BUILDING GROUP OCCUPANCY	OCCUPANT LOAD	OUTDOOR AIR (CFM)
Daycare Building		
classroom	92	15 cfm/person
corridors	-	0.10 cfm/sqft

92*15 + 65*0.10 = 1,419 cfm
393 cfm outside air required for unit 1
300 cfm outside air required for unit 2
726 cfm outside air required for unit 3

INDEX OF DRAWINGS



TOILET AND BATH ACCESSORIES



HART 2 HART ACADEMY
AFTER SCHOOL BUILDING

128 SW NASSAU STREET
LAKE CITY, FL 32025
(386)758-4209
CERTIFICATE OF AUTHORIZATION # 00006701

Freeman Design Group INC

DATE	DRAWN BY
2/3/10	V.H.F.
	APPROVED V.H.F.

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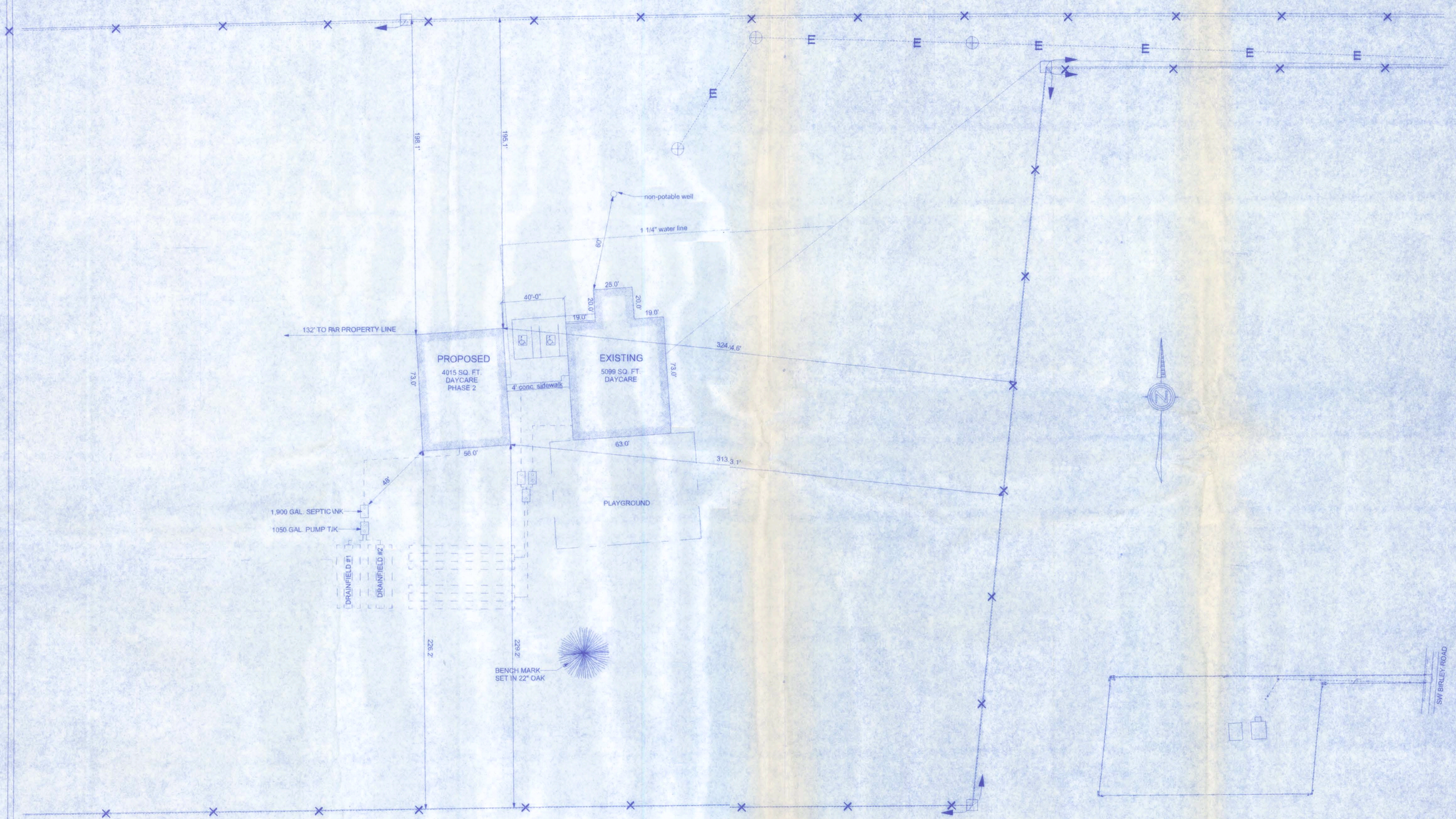
OF 1

PROJECT NO. 09 .0021



SITE PLAN

SCALE: 1" = 30'-0"

KEY SHEET

SCALE: 1" = 200'-0"

HART 2 HART ACADEMY
AFTER SCHOOL BUILDING

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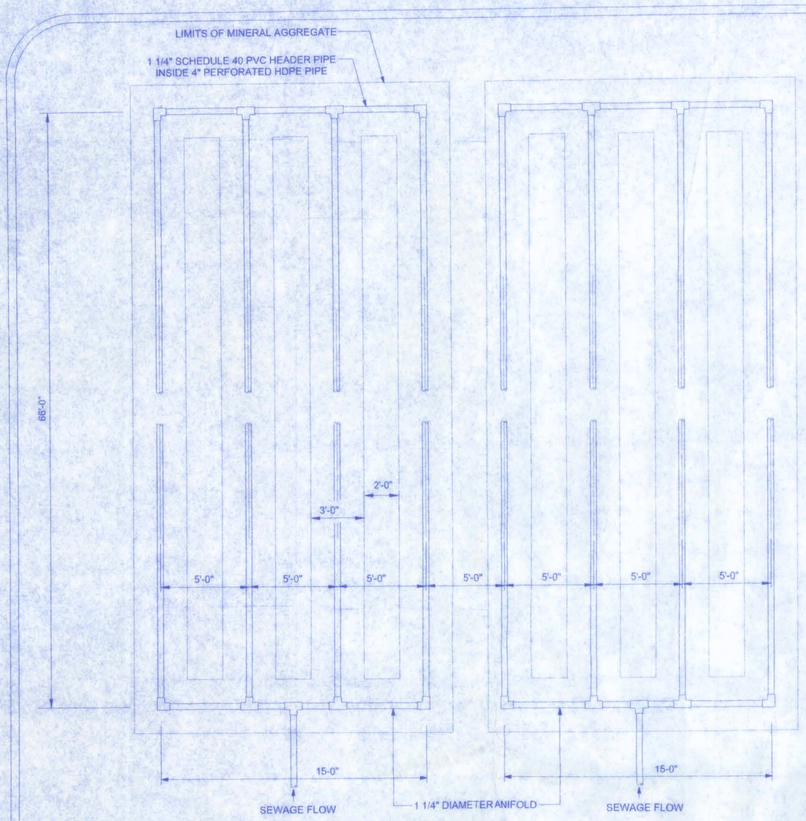
SHEET SAN-1

OF 2

PROJECT NO. 09.C08



TYPICAL DRAINFIELD

NTS

NOTES:

HEADER PIPE SHALL BE CONSTRUCTED OF PVC SCHEDULE 40 PIPE AND SHALL HAVE A NIMUM INSIDE DIAMETER OF 1 1/4".

MINERAL AGGREGATE SHALL CONFORM WITH ASTM C33-86 OR LIGHTWEIGHT AGGREGAE CONFORMING TO ASTM C330-87 MEETING FDOT SPECIFICATIONS UNDER SECTION 901 "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION"

THE DRAINFIELD SHALL BE PROTECTED FROM INFILTRATION OF EARTH BACKFILL BY A BARRIER OF POLYESTER FILLAMENT. THE BARRIER SHALL BE PLACED ON TOP OF THE DRAINFIELD ONLY

SEWAGE CALCULATIONS

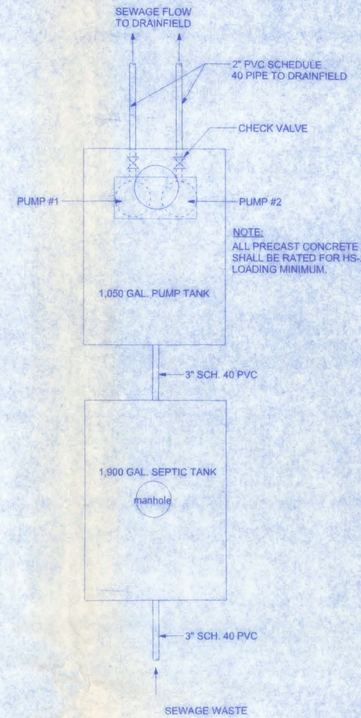
86 children @ 10 gpd = 860 gpd 6 full time employees @ 15 gpd = 90 gpd total estimated sewage = 950 gpd		
ESTIMATED TOTAL SEWAGE	950	GPD
FACTOR OF SAFETY	0.8	-
DRAINFIELD AREA REQ'D.	1,188	SQ. FT.
LINEAR FEET OF LATERAL	320	LF
NUMBER OF LATERALS	8	EACH
LATERAL LENGTH	40	LF
SEPTIC TANK CAPACITY	1,900	GAL.
DOSING TANK CAPACITY	1,050	GAL

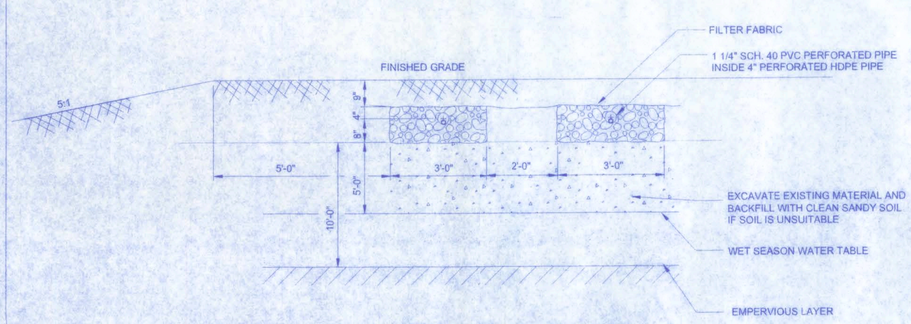
PUMP SPECIFICATIONS

CAPACITIES TO	31 GPM
HEADS TO	23 FT
SOLIDS HANDLING CAP.	1/2 "
MOTOR	1/3 HP SHADED POLE 1550 RPM
ELECTRICAL	115V, 8.5 AMPS SINGLE PHASE, 60 Hz
MIN. SUMP DIAMETER	12"

SYSTEM REQUIREMENTS PER PUMP (2 REQ'D.)

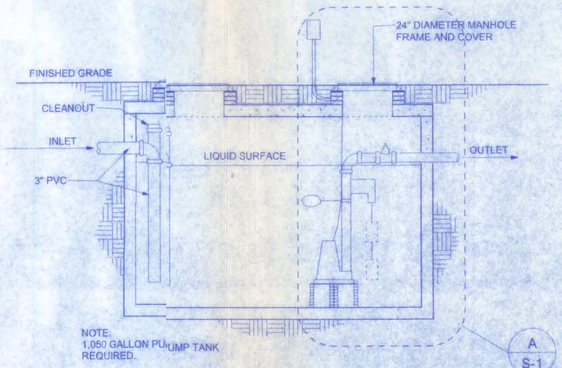
Daily waste flow	950	gpd
Septic Tank size	1,900	gal
Pumping Tank size	1,050	gal
Effluent loading rate	0.8	ga/ft^2/day
Absorbtion area	594	sf
Total length of laterals	160	ft
Lateral diameter	1 1/4	inch
Lateral configuration	4 x 40	ft lines
Supply line length	50	ft
Supply line diameter	2	inch
Manifold placement	end	
Hole size	5/32	inch
Hole Spacing	5	ft
Number of Holes	24	
Pressure Head	3	ft
Total Head	10.02	ft
Pump Requirements	22.4 gpm	10.02 ft of head
Storage Volume in laterals	10.24	gal
Storage Volume in supply line	8.1	gal
Total Storage Volume	18.34	gal
Dosing Volume	101.2	gal
Dosing Depth	1.32	ft
Check Valve needed?	yes	





DRAINFIELD SECTION

NTS



PUMP TANK SECTION

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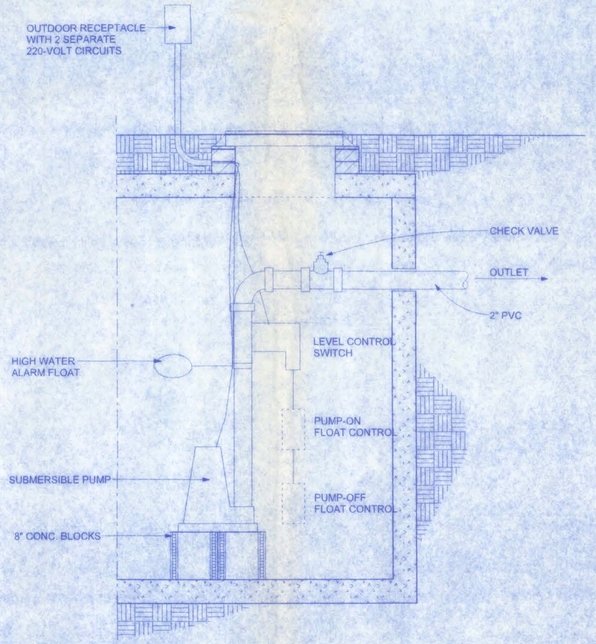

A PUMP CHAMBER DETAIL

NTS

P.E. #58001

HART 2 HART ACADEMY AFTER SCHOOL BUILDING

128 SW NASSAU STREET
LAKE CITY, FL 32025
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Freeman Design Group

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SHEET S/N-2

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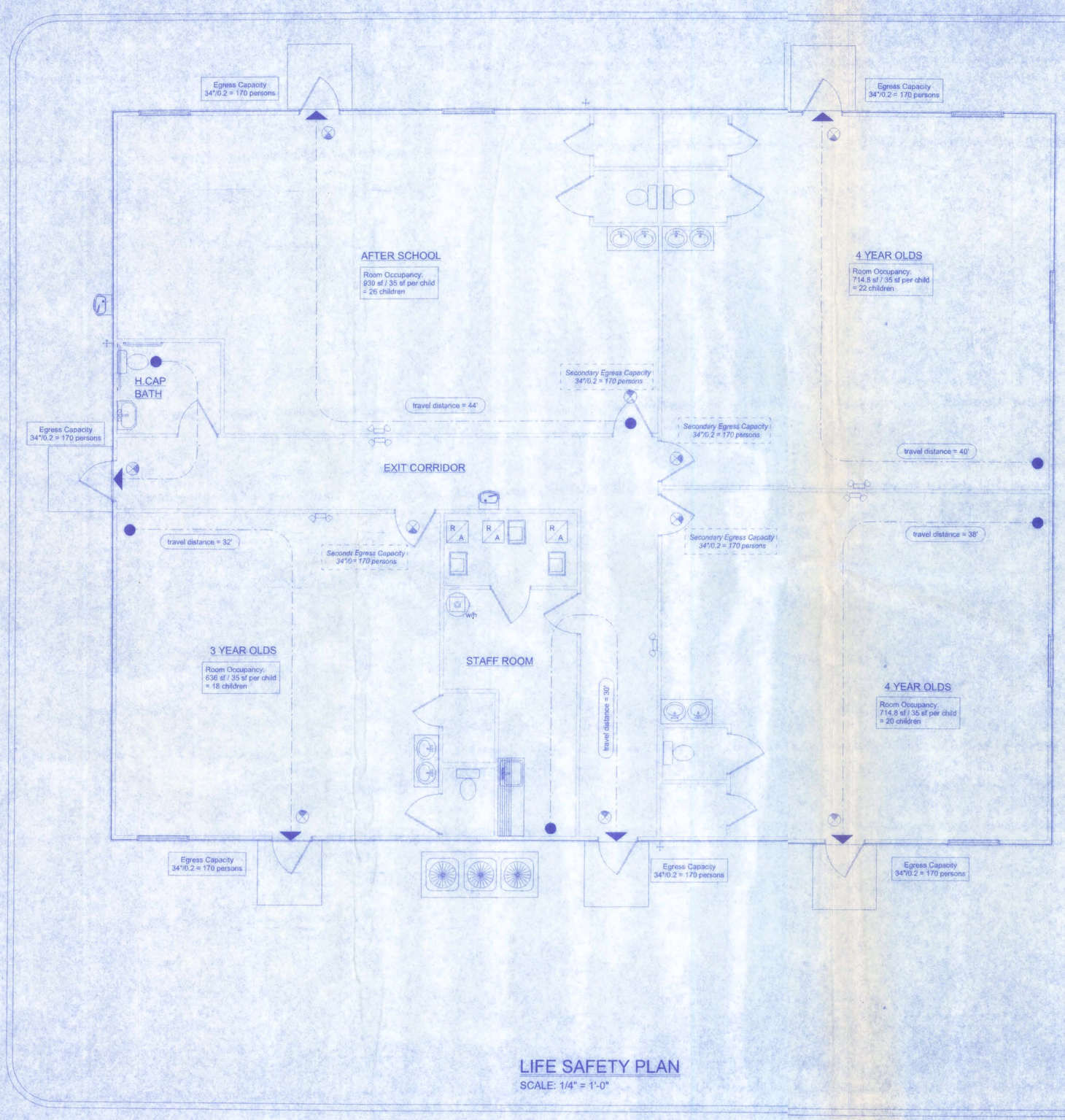

NOTE:
provide a readily visible sign on or adjacent to all egress doors stating: THIS EXIT TO REMAIN UNLOCKED WHEN THIS BUILDING IS OCCUPIED. the sign shall have 1" lettering with contrasting background.

LIFE SAFETY NOTES

ALL EXIT AND EMERGENCY LIGHTING SHALL BE INSTALLED PER NEC 700-12, 2008 EDITION.

ACCESS TO EXITS SHALL BE MARKED BY APPROVED READILY VISIBLE SIGNS IN ALL CASES WHERE THE EXIT OR WAY TO REACH THE EXIT IS NOT READILY APPARENT TO THE OCCUPANTS. SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN THE EXIT ACCESS CORRIDOR IS MORE THAN 100 FT FROM THE NEAREST EXTERNALLY ILLUMINATED SIGN AND IS NOT IN EXCESS OT THE MARKED RATING FOR INTERNALLY ILLUMINATED SIGNS.

ALL FIRE EXTINGUISHERS SHALL BE TYPE 10ABC AND SHALL BE LOCATED SO THAT NO POINT IN THE DIRECTION OF TRAVEL FROM ANY POINT IS MORE THAN 75 FT TO THE FIRE EXTINGUISHER.

ELECTRICAL	COUNT	SYMBOL
emergency light with illuminated exit	7	
emergency lighting with battery backup	1	
exit	1	

LIFE SAFETY PLAN

SCALE: 1/4" = 1'-0"

HART 2 HART ACADEMY
AFTER SCHOOL BUILDING

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Freeman Design Group inc.

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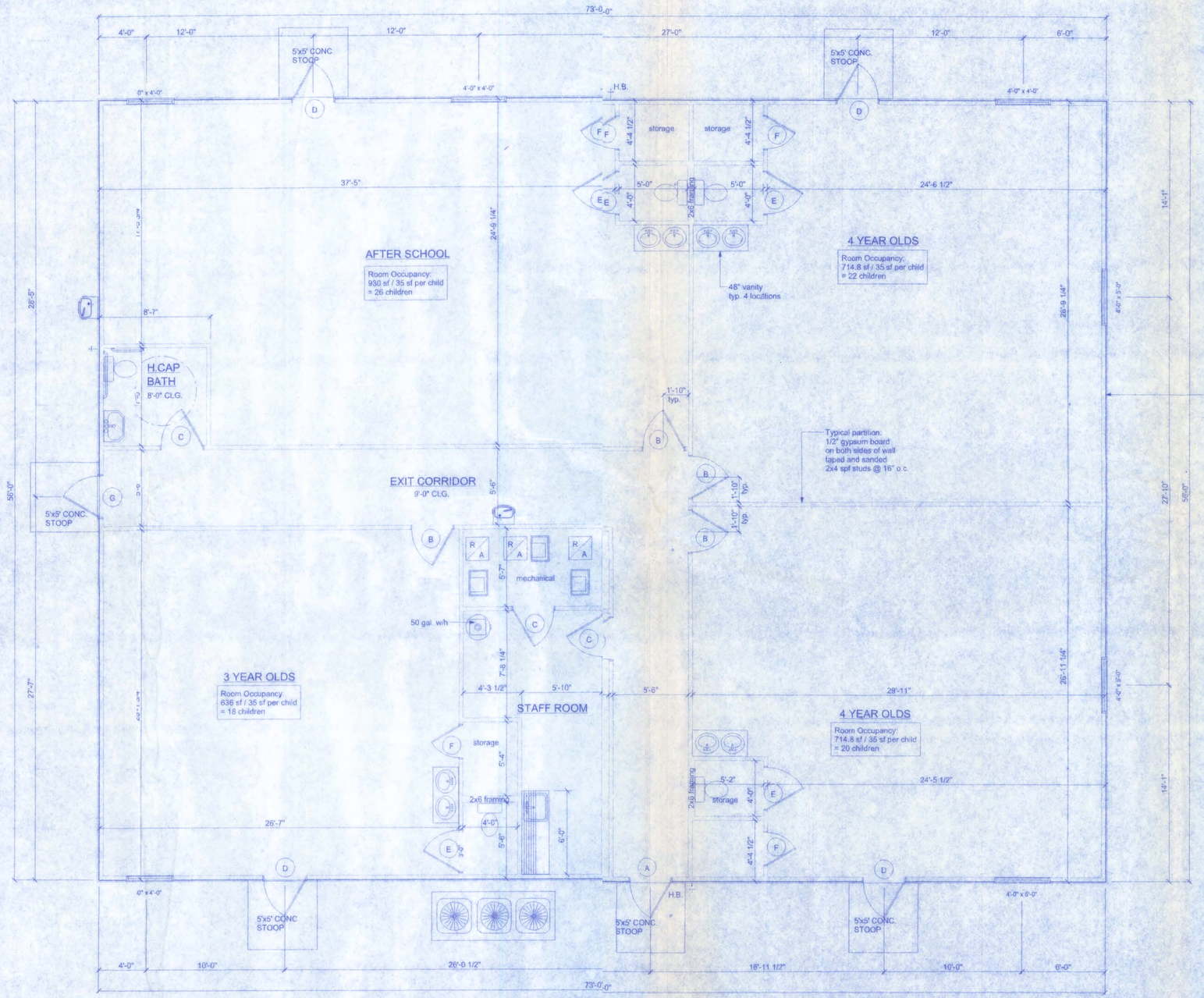
	APPROVED W.H.F.

REVISIONS

SHEET LS-1
OF 1

PROJECT NO.
09 C029



AREASUMMARY

MAIN BUILING 4,088 SF

FLOOR PLAN

SCALE: 1/4" = 1'-0"

P.E. #56001

HART 2 HART ACADEMY
AFTER SCHOOL BUILDING

128 SW NASSAU STREET
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(386)755-4209
CERTIFICATE OF AUTHORIZATION # 00002701

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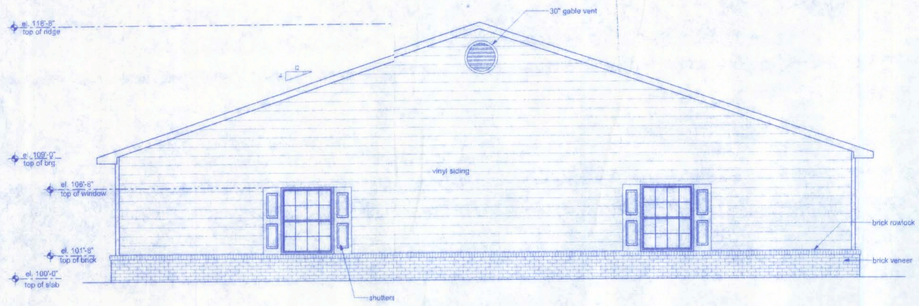
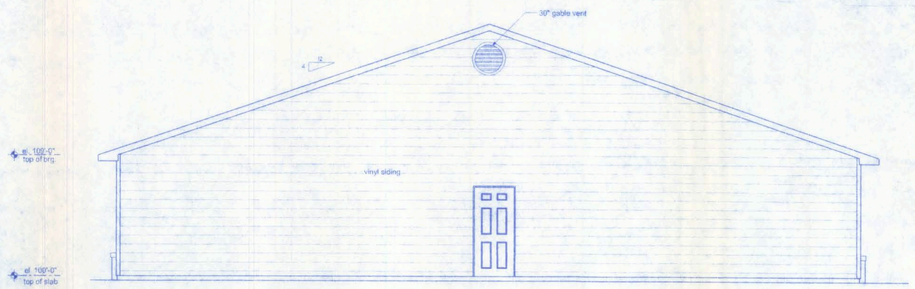
SHEET A-1
OF 5

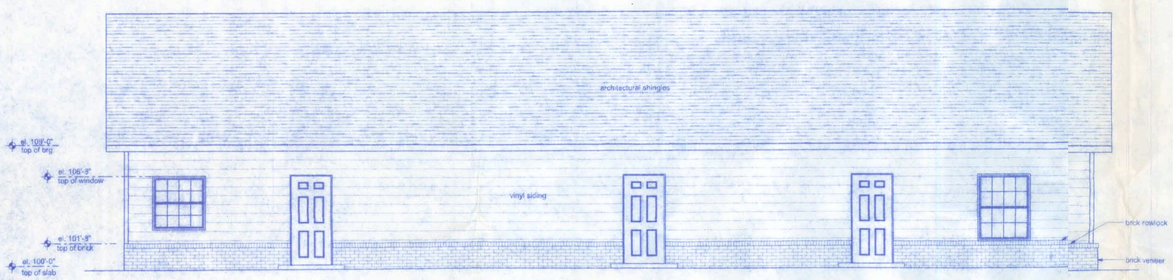
PROJECT NO. 09 029



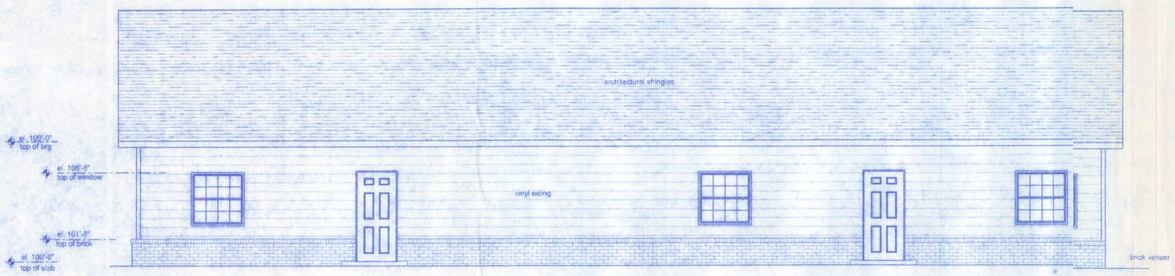
NORTH ELEVATION
SCALE: 3/16" = 1'-0"



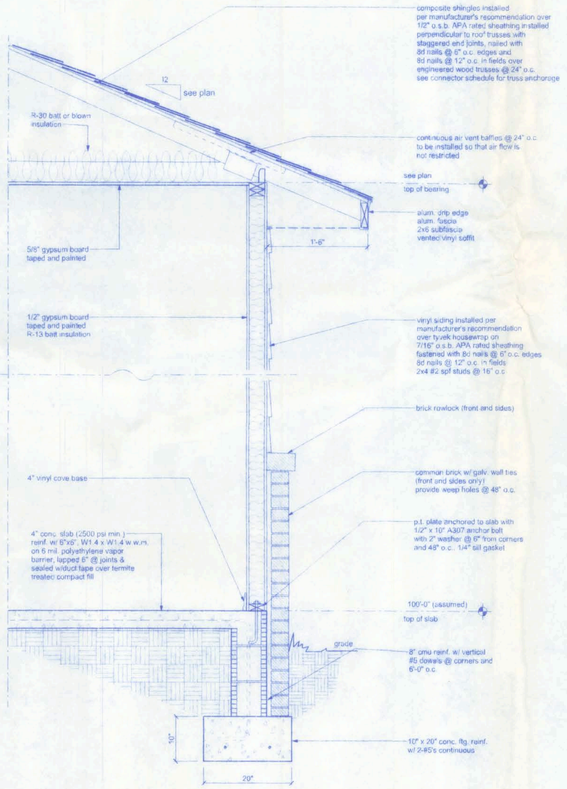
SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



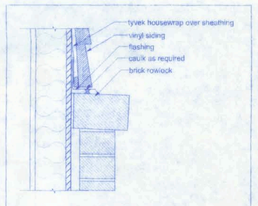
EAST ELEVATION
SCALE: 3/16" = 1'-0"



WEST ELEVATION
SCALE: 3/16" = 1'-0"



TYPICAL WALL SECTION
SCALE: 3/4" = 1'-0"



1 ROWLOCK DETAIL
SCALE: 1 1/2" = 1'-0"

3/5/10
P.E. #59901

HART 2 HART ACADEMY
AFTER SCHOOL BUILDING

128 SW NASSAU STREET
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(386)758-4209
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Freeman Design Group Inc

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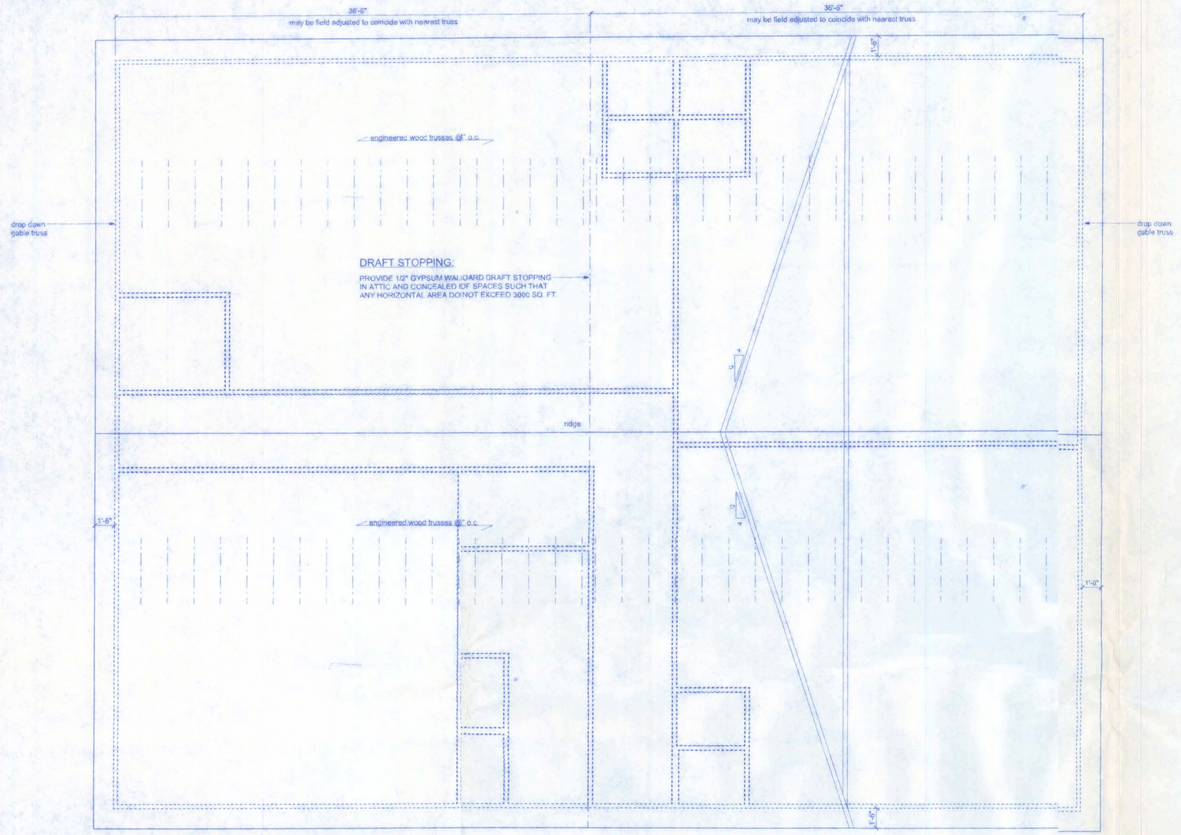
SHEET A-2
OF 5

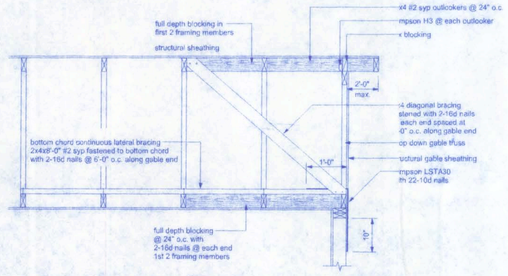
PROJECT NO
09 C029



NOTE:
ventilation shall be provided to furnish cross ventilation of each separate attic space with weather protected vents. all vents shall be screened to protect the interior from intrusion of birds. the ratio of total net free ventilation area to the area of ceiling shall not be less than 1/150.

ROOF PLAN

SCALE: 3/16" = 1'-0"



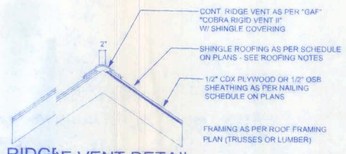
END WALL BRACING FOR CEILING DIAPHRAGM

NTS

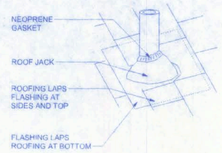
NOTE: ALL WOOD TO BE NUMBER 2 GRADE SOUTHERN YELLOW PINE

VENTILATION REQUIREMENTS

Total Attic Square Footage	Recommended Length of Cobra Rigid Vent II (Feet)	Minimum Intake Ventilation (Net Free Area in Sq. in.)
1600	21	384
1900	25	456
2200	29	528
2500	33	600
2800	41	744
3100	41	820
3400	45	816



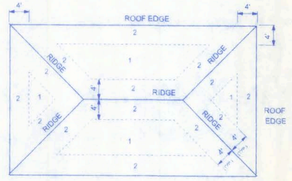
RIDGE VENT DETAIL



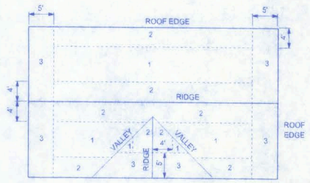
ROOF JACKS AND VENTS

CONNECTOR SCHEDULE FOR TRUSS ANCHORAGE				
CONNECTOR	TRUSS	TOP PLATE	UPLIFT PROVIDED	MANUFACTURER
H2.5	5-8d NAILS	5-8d NAILS	385 LBS	SIMPSON
H10	8-8d NAILS	8-8d NAILS	850 LBS	SIMPSON
MTS12	7-10d NAILS	7-10d NAILS	1,000 LBS	SIMPSON
H16	2-10d NAILS	10-10d NAILS	1,300 LBS	SIMPSON
(2)HTS20	10-10d NAILS	10-10d NAILS	2 x 1,450 = 2,900 LBS	SIMPSON

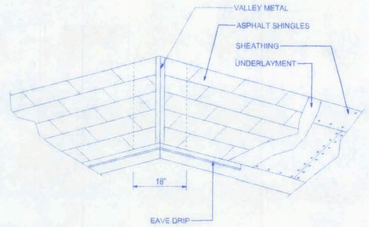
ROOF SHEATHING FASTENINGS			
NAILING ZONE	SHEATHING TYPE	FASTENER	SPACING
1	1/2 O.S.B.	8d COMMON OR 8d HOT DIPPED GALVANIZED BOX NAILS	6 in. o.c. EDGE 12 in. o.c. FIELD
2			6 in. o.c. EDGE 6 in. o.c. FIELD
3			4 in. o.c. @ GABLE ENDWALL OR GABLE TRUSS 6 in. o.c. EDGE 6 in. o.c. FIELD

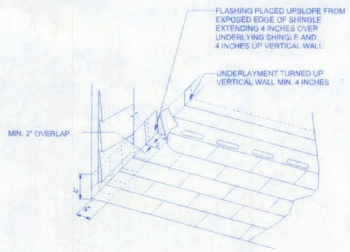


ROOF SHEATHING NAILING ZONES (HIP ROOF)



ROOF SHEATHING NAILING ZONES (GABLE ROOF)





DECK REQUIREMENTS:
ASPHALT SHINGLES SHALL BE FASTENED TO SOLIDLY SHEATHED DECKS.

SLOPE:
ASPHALT SHINGLES SHALL BE USED ONLY ON ROOF SLOPES OF 2:12 OR GREATER. FOR ROOF SLOPES FROM 2:12 TO 4:12, DOUBLE UNDERLAYMENT IS REQUIRED.

UNDERLAYMENT:
UNLESS OTHERWISE NOTED, UNDERLAYMENT SHALL CONFORM WITH ASTM D 226, TYPE 1, OR ASTM D 4869, TYPE 1.

SELF-ADHERING POLYMER MODIFIED BITUMEN SHEET:
SELF ADHERING POLYMER MODIFIED BITUMEN SHALL COMPLY WITH ASTM D 1970.

ASPHALT SHINGLES:
ASPHALT SHINGLES SHALL HAVE SELF SEAL STRIPS OR BE INTERLOCKING, AND COMPLY WITH ASTM D 225 OR ASTM D 3462.

FASTENERS:
FASTENERS FOR ASPHALT SHINGLES SHALL BE GALVANIZED, STAINLESS STEEL, ALUMINUM OR COPPER ROOFING NAILS, MINIMUM 12 GAUGE SHANK WITH A MINIMUM 3/8 INCH DIAMETER HEAD, OF A LENGTH TO PENETRATE THROUGH THE ROOFING MATERIAL AND A MINIMUM 3/4" INTO THE ROOF SHEATHING. WHERE ROOF SHEATHING IS LESS THAN 3/4" THICK, THE NAILS SHALL PENETRATE THROUGH THE SHEATHING.

ATTACHMENT:
ASPHALT SHINGLES SHALL BE SECURED TO THE ROOF WITH NOT LESS THAN FOUR FASTENERS PER STRIP SHINGLE OR TWO FASTENERS PER INDIVIDUAL SHINGLE. WHERE ROOFS LOCATED IN BASIC WIND SPEED OF 110 MPH OR GREATER, SPECIAL METHODS OF FASTENING ARE REQUIRED. UNLESS OTHERWISE NOTED, ATTACHMENT OF ASPHALT SHINGLES SHALL CONFORM WITH ASTM D 3161 OR M-DC PA 107-95.

UNDERLAYMENT APPLICATION:
FOR ROOF SLOPES FORM 2:12 TO 4:12, UNDERLAYMENT SHALL BE A MINIMUM OF TWO LAYERS APPLIED AS FOLLOWS:
1. STARTING AT THE EAVE, A 19 INCH STRIP OF UNDERLAYMENT SHALL BE APPLIED PARALLEL WITH THE EAVE AND FASTENED SUFFICIENTLY TO STAY IN PLACE.
2. STARTING AT THE EAVE, 36 INCH WIDE STRIPS OF UNDERLAYMENT FELT SHALL BE APPLIED OVERLAPPING SUCCESSIVE SHEETS 19 INCHES AND FASTENED SUFFICIENTLY TO STAY IN PLACE.

FOR ROOF SLOPED 4:12 AND GREATER, UNDERLAYMENT SHALL BE A MINIMUM OF ONE LAYER OF UNDERLAYMENT FELT APPLIED AS FOLLOWS:
STARTING AT THE EAVE, UNDERLAYMENT SHALL BE APPLIED SHINGLE FASHION PARALLEL TO THE EAVE, LAPPED 2 INCHES, AND FASTENED SUFFICIENTLY TO STAY IN PLACE.

BASE AND CAP FLASHINGS:
BASE AND CAP FLASHING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. BASE FLASHING SHALL BE OF EITHER CORROSION RESISTANT METAL OF MINIMUM NOMINAL THICKNESS 0.019 INCH OR MINERAL SURFACE ROLL ROOFING WEIGHING A MINIMUM OF 77 LBS PER 100 SQUARE FEET. CAP FLASHING SHALL BE CORROSION RESISTANT METAL OF MINIMUM NOMINAL THICKNESS OF 0.019 INCH.

VALLEYS:
VALLEY LININGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS BEFORE APPLYING ASPHALT SHINGLES. VALLEY LININGS OF THE FOLLOWING TYPES SHALL BE PERMITTED:
1. FOR OPEN VALLEYS LINED WITH METAL, THE VALLEY LINING SHALL BE AT LEAST 16 INCHES WIDE AND OF ANY OF THE CORROSION RESISTANT METALS IN TABLE 1507.3.9.2.
2. FOR OPEN VALLEYS, VALLEY LINING OF TWO PLIES OF MINERAL SURFACE ROLL ROOFING SHALL BE PERMITTED. THE BOTTOM LAYER SHALL BE 19 INCHES AND THE TOP LAYER A MINIMUM OF 36 INCHES WIDE.
3. FOR CLOSED VALLEYS VALLEY LINING SHALL BE ONE OF THE FOLLOWING:
   1. BOTH TYPES 1 AND 2 ABOVE, COMBINED.
   2. ONE PLY OF SMOOTH ROLL ROOFING AT LEAST 36 INCHES WIDE AND COMPLYING WITH ASTM D 224.
   3. SPECIALTY UNDERLAYMENT AT LEAST 36 INCHES WIDE AND COMPLYING WITH ASTM D 1970.

MATERIAL	MINIMUM THICKNESS (in)	GAGE	WEIGHT (LB)
COPPER			1
ALUMINUM	0.024		
STAINLESS STEEL		28	
GALVANIZED STEEL	0.0179	26 (zinc coated G90)	
ZINC ALLOY LEAD PAINTED TERNE	0.027		2 1/2 20

HART 2 HART ACADEMY
AFTER SCHOOL BUILDING

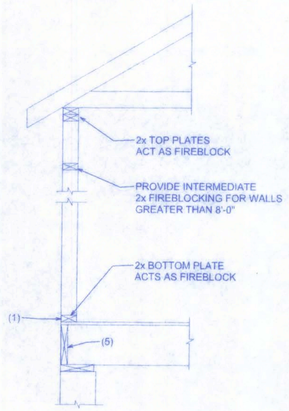
128 SW NASSAU STREET
LAKE CITY, FL 32025
(386) 758-4209
CERTIFICATE OF AUTHORIZATION # 00008701
Freeman Design Group inc

DATE	DRAWN BY
2/3/10	W.H.F.
	APPROVED W.H.F.

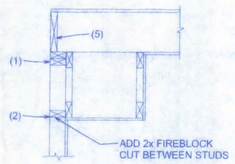
REVISIONS

SHEET A-3
OF 5

PROJECT NO. 09 .029



PLATFORM FRAMING

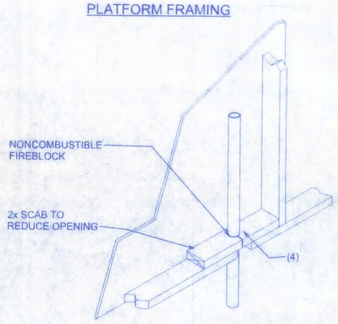


SOFFIT/DROPPED CLG.

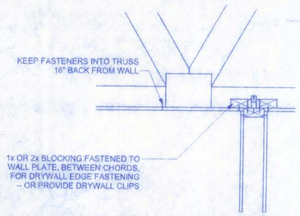
FIREBLOCKING NOTES:

FIREBLOCKING SHALL BE INSTALLED IN WOOD FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:

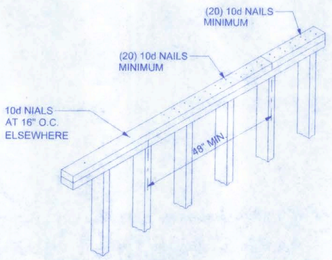
1. CONCEALED SPACES OF STUD WALLS AND PARTITIONS INCLUDING FURRED SPACES AT CEILING AND FLOOR LEVELS.
2. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS, COVE CEILINGS, ETC.
3. CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN.
4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS AND FIREPLACES AT CEILING AND FLOOR LEVELS WITH PYROPANEL MULTIFLEX SEALANT
5. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL STUD WALL OR PARTITION SPACES AND CONCEALED SPACES CREATED BY AN ASSEMBLY OF FLOOR JOISTS, FIREBLOCKING SHALL BE PROVIDED FOR THE FULL DEPTH OF THE JOISTS AT THE ENDS AND OVER THE SUPPORTS.



PENETRATIONS

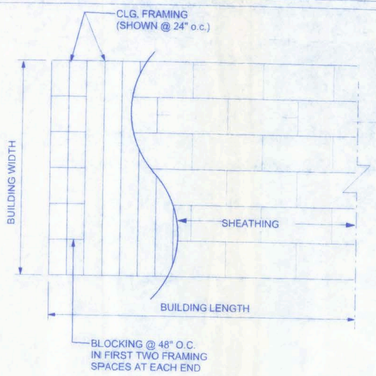


NON-BEARING INT. WALL ATTACHMENT TO TRUSSES

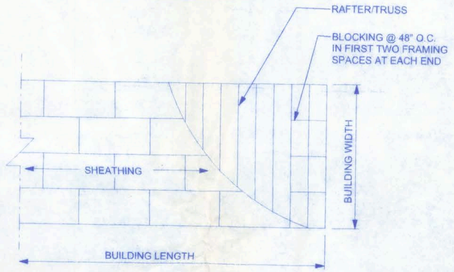


TOP PLATE SPLICE DETAILS

SCALE: 1/2" = 1'-0"



ENDWALL BRACING PERPENDICULAR TO CLG. FRAMING



ROOF SHEATHING LAYOUT AND ENDWALL ROOF BRACING

STEEL COATING RECOMMENDATIONS IN PRESSURE TREATED WOOD:

- Thicker galvanizing generally extends service life of a product. The treated wood industry recommends use of Stainless Steel and hot-dip galvanized connectors and fasteners with treated wood.
- Due to the uncertainties, which are out of the specifiers control, in regard to the chemicals used in pressure treated wood, Simpson recommends the use of stainless steel fasteners, anchors and connectors with treated wood when possible. At a minimum, customers should use ZMAX (G185 HDG per ASTM A653), Batch/Post Hot-Dip Galvanized (per ASTM A123 for connectors and ASTM A153 for fasteners), or mechanically galvanized fasteners (per ASTM B695, Class 55 or greater), product with the newer alternative treated woods.
- G60 galvanized products should not be used with treated woods.
- G90 galvanized connectors can be used with Sodium Borate (DOT - Disodium Octaborate Tetrahydrate) treated woods. Sodium Borate Treated woods are not suitable for applications where moisture exposure is likely. They are suitable for mudsill applications when transported, stored, and installed appropriately.
- When using stainless steel or hot-dip galvanized connectors, the connectors and fasteners should be made of the same material.

Simpson Strong-Tie Product Finishes	Untreated Wood	Chromated Copper Arsenate (CCA-C)	DOT Sodium Borate (SBX)	Alkaline Copper Quat ACQ-C and ACQ-D (Carbonate)	Copper Azole (CBA-A and CA-B)	SBX (DOT) with NASiO 2	Ammoniacal Copper Zinc Arsenate (ACZA)	Other Pressure Treated Woods
Standard (G90)	X	X	X					
ZMAX (G185)	X	X	X	X	X	X		
Post Hot-Dip Galvanized (HDG)	X	X	X	X	X	X	X	X
SST300 (Stainless Steel)	X	X	X	X	X	X	X	X

W.H.F. 2/3/10 P.E. #56001

HART 2 HART ACADEMY AFTER SCHOOL BUILDING

128 SW NASSAU STREET
LAKE CITY, FL 32025
(386)758-4209
CERTIFICATE OF AUTHORIZATION #00008701
Freeman Design Group Inc

DATE	DRAWN BY
2/3/10	W.H.F.
	APPROVED W.H.F.

REVISIONS

SHEET A-4
OF 5

PROJECT NO. 09.C029

INTERIOFFINISH SCHEDULE

ROOM	FLOORING	BAS	WALLS	CEILING	CLG. HEIGHT
MECH. ROOM	CONCRETE	4" VINYL ASE	TEXTURED/PAINTED	TEXTURED/PAINTED	9'-0"
STAFF ROOM	STRIP VINYL	4" VINYL ASE	TEXTURED/PAINTED	TEXTURED/PAINTED	9'-0"
STORAGE	STRIP VINYL	4" VINYL ASE	TEXTURED/PAINTED	TEXTURED/PAINTED	9'-0"
CORRIDOR	STRIP VINYL	4" VINYL ASE	TEXTURED/PAINTED	TEXTURED/PAINTED	9'-0"
H.C. RESTROOM	STRIP VINYL	4" VINYL ASE	TEXTURED/PAINTED	TEXTURED/PAINTED	9'-0"
ROOM RESTROOMS	STRIP VINYL	4" VINYL ASE	TEXTURED/PAINTED	TEXTURED/PAINTED	9'-0"
AFTER SCHOOL	STRIP VINYL	4" VINYL ASE	TEXTURED/PAINTED	TEXTURED/PAINTED	9'-0"
4 YEAR OLD	STRIP VINYL	4" VINYL ASE	TEXTURED/PAINTED	TEXTURED/PAINTED	9'-0"
3 YEAR OLD	STRIP VINYL	4" VINYL ASE	TEXTURED/PAINTED	TEXTURED/PAINTED	9'-0"

NOTE:
ALL WALLS SHALL RECEIVE ONE PRIMER COAT AND FINISH COATS OF LATEX PAINT.
COLORS BY OWNER.

FIXTURE SCHEDULE

H.C. ACCESSIBLE RESTROOM

QTY.	DESCRIPTION
1	GERBER #21-718, 17" HIGH ELONGATED BOWL, WHITE.
1	GERBER #22-554 24"x20" LAV. W/ PEDESTAL,WHITE.
1	GERBER 44-051 SERIES LAVATORY FAUCETW/ WRIST BLADE HANDLES.
1	1 1/2" X 36" GRAB BAR ON WALL BEHIND TOIET.
1	1 1/2" X 42" GRAB BAR ON WALL LEFT SIDE OF TOILET.

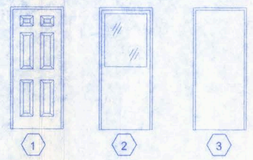
4 REQ'D. ROOM RESTROOM/SINK

QTY.	DESCRIPTION
2	UNIVERSAL RUNDLE 20" x 17" SELF RIMMINGINK, WHITE
2	GERBER 40-501 SERIES LAVATORY FAUCETW/ SINGLE HANDLE

STAFF ROOM

QTY.	DESCRIPTION
1	KOHLER STAINLESS STEEL SINK #K-3348-4-A.
1	KOHLER REVIVAL SINK FAUCET #K-16112-4A SINGLE HANDLE

WATER COOLER - OASIS MODEL P8AMEE WATER COLER (CORRIDOR)
OASIS MODEL FLF120 WATER COLER (EXTERIOR)



DOOR SCHEDULE

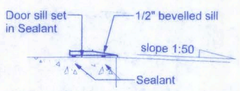
NO.	LOCATION	DOOR SIZE	TYPE	MATERIAL	JAMB MATERIAL	JAMB SIZE	LOCKS	DOOR CLOSER	PULL PLATE	PUSH PLATE	KICK PLATE	DOOR BUMPER	FIRE RATING
A	SIDE CORRIDOR ENTRY	6/0 X 6/8 X 1 3/4	1	METAL	PVC	4 3/4	ENTRY LOCK DEAD BOLT				X	X	
B	CORRIDOR INTERIOR	3/0 X 6/8 X 1 3/4	2	BIRCH	WOOD	4 3/4	PRIVACY					X	
C	H.C. RESTROOM	3/0 X 6/8 X 1 3/8	3	MASONITE	METAL	4 3/4	KEYED ENTRY	X				X	
C	MECHANICAL ROOM	3/0 X 6/8 X 1 3/8	3	MASONITE	METAL	4 3/4	KEYED ENTRY					X	
D	CLASS EXTERIOR	3/0 X 6/8 X 1 3/4	1	FIBERGLASS	PVC	4 3/4	ENTRY LOCK DEAD BOLT					X	
E	CLASSROOM BATH	3/0 X 6/8 X 1 3/8	1	MASONITE	WOOD	4 3/4	KEYED ENTRY						
F	CLASSROOM CLOSET	2/4 X 6/8 X 1 3/8	1	MASONITE	WOOD	4 3/4	KEYED ENTRY						
G	REAR CORRIDOR	3/0 X 6/8 X 1 3/4	1	METAL	PVC	4 3/4	ENTRY LOCK DEAD BOLT						

NOTE:
BATHROOM DOORS SHALL BE DESIGNED TO ALLOW OPENING OF LOCKED DOOR FROM OUTSIDE BY OPENING DEVICE READILY ACCESSIBLE BY STAFF.
ALL CLOSET DOORS SHALL BE SUCH THAT CLIENT CAN OPEN THE DOOR FROM THE INSIDE.

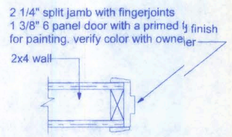
PUSH PLATE - 4"X16" BB
PULL PLATE - 4"X16" #132X70C BB
WALL DOOR BUMPER #407 1/2 - BB
- ALL DOOR HANDLESETS AND LOCKS SHALL BE KWIK-SET OR EQUAL, COLOR AND STYLE DESIGN BY OWNER.
- ALL LEVER TYPE HARDWARE SHALL BE MOUNTED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED HANDICAP MOUNTING HEIGHT.

GENERAL NOTES - DOORS

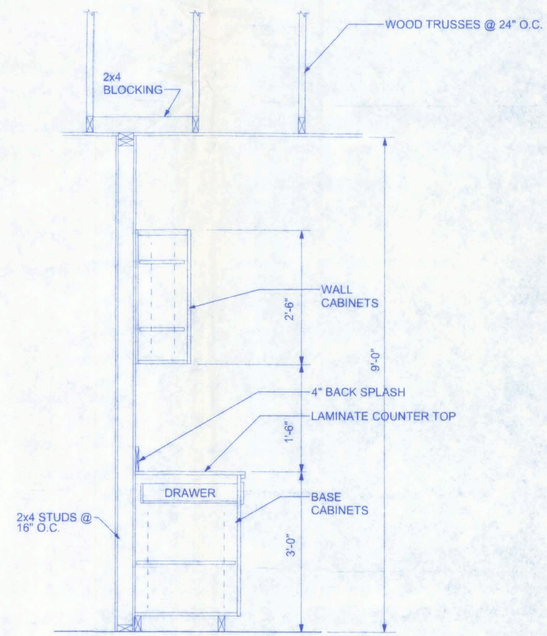
1. ALL INTERIOR DOORS SHALL BE 6 PANEL MASONITE 6/8 x 1 3/8" PREHUNG UNLESS NOTED OTHERWISE.
2. ALL EXTERIOR DOORS SHALL BE 6 PANEL FIBERGLASS, PREHUNG 6/8 X 1 3/4" - WOOD JAMBS WEATHERSTRIPPING, AND THRESHOLD FACTORY INSTALLED UNLESS NOTED OTHERWISE.
3. IF REQUIRED, UNDERCUT DOORS FOR RETURN AIR. COORDINATE WITH MECHANICAL SUB-CONTRACTOR AS PER FINAL DESIGN.
4. CONFIRM DEPTHS OF ALL WOOD FLAT JAMBS. COORDINATE WITH CORRESPONDING WALL SECTIONS, PARTITION TYPES, AND WALL MODIFICATION DETAILS.
5. PAINT ALL EXTERIOR SURFACES OF EXTERIOR METAL DOORS AND THE SOLID WOOD DOOR FRAME. COLOR SELECTION BY OWNER.
6. PAINT ALL INTERIOR SURFACES OF EXTERNAL METAL DOORS AND THE SOLID WOOD DOOR FRAME. COLOR SELECTION BY OWNER.
7. PAINT ALL INTERIOR WOOD FLAT JAMBS. COLOR SELECTION BY OWNER.
8. PAINT ALL INTERIOR DOORS. COLOR SELECTION BY OWNER.



SILL DETAIL
SCALE: 1 1/2" = 1'-0"



JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



CABINET SECTION, TYP.
SCALE: 3/4" = 1'-0"

HART 2 HART ACADEMY
AFTER SCHOOL BUILDING

128 SW NASSAU STREET
LAKE CITY, FL 32025
(386)758-4209
CERTIFICATE OF AUTHORIZATION # 00008701
Freeman Design Group INC
P.E. #56101

DATE	DRAWN BY
2/3/10	W.H.F.
	APPROVED W.H.F.

REVISIONS

SHEET A-5
OF 5

PROJECT NO. 09 0129

GENERAL STRUCTURAL NOTES

GENERAL:

1. THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMEN' DESIGN AND EXTENT OF THE WORK AND ARE PARTIALLY DIAGRAMMATIC. THEY ARE NOT INTENDED TO BE SCALED FOR ROUGH-IN MEASUREMENTS, R TO SERVE AS SHOP DRAWINGS OR PORTIONS THEREOF.

2. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT D'AIL OR SECTION IS SHOWN.

3. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR AND ALL THE SUBCONTRACTORS SHALL VERIFY ALL GRADES, LINES, LEVELS, DIMENSION AND COORDINATE EXISTING CONDITIONS AT THE JOB SITE WITH THE PLANS AND SPECIFICATIONS. THEY SHALL REPORT ANY INCONSISTENCIES OR ERORS IN THE ABOVE TO THE ARCHITECT/ENGINEER BEFORE COMMENCING WORK THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL LAY OUT THEIR WOF FROM ESTABLISHED REFERENCE POINTS AND BE RESPONSIBLE FOR ALL LES, ELEVATIONS AND MEASUREMENTS IN CONNECTION WITH THEIR WORK.

4. IF ANY ERRORS OR OMISSIONS APPEAR IN THE DRAWINGS, GENERAL NOTES OR OTHER DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH OMISSION OR ERROR PRIOR TO PROCEEDIG WITH ANY WORK WHICH APPEARS IN QUESTION. IN THE EVENT OF THE CONTRACTOR'S FAILING TO GIVE SUCH AN ADVANCED NOTICE, HE SHALL BI HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS OR OMISSIOS AND THE COST OF RECTIFYING THE SAME.

5. THE CONTRACTOR SHALL USE THE STRUCTURAL DRAWINGS AND SPECIFICATIONS TOGETHER WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND OTHER TRADE DRAWINGS AND SHOP DRAWINGS, TO LOCTE DEPRESSED SLABS, SLOPES, DRAINS, OUTLETS, RECESSES, OPENINGS, BO' SETTING, SLEEVES, DIMENSIONS, ETC. NOTIFY ARCHITECT/ENGINEER, IN WRITING, OF ANY POTENTIAL CONFLICTS BEFORE PROCEEDING WITH THE WORK.

SHOP DRAWINGS AND DELEGATED ENGINEERING:

1. ALL SHOP DRAWINGS SHALL BE SUBMITTED FOR ENGINEER'S REVIEW ONLY AFTER THEY HAVE BEEN THOROUGHLY REVIEWED BY THE CONTRACTR FOR CONSTRUCTION METHODS, DIMENSIONS AND OTHER TRADE REQUIREMENTS, AND STAMPED WITH THE CONTRACTOR'S APPROVAL STAM THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DIMENSIONS, QUANTITIE ENGINEERING DESIGN BY DELEGATED ENGINEERS, ERRORS OR OMISSIONSS A RESULT OF REVIEWING ANY SHOP DRAWINGS. ANY ERRORS OR OMISSIONS MUST BE MADE GOOD BY THE CONTRACTOR, IRRESPECTIVE OF RECEIPT, CHECKING OR REVIEW OF DRAWINGS BY THE ENGINEER AND EVEN THOUGI WORK IS DONE IN ACCORDANCE WITH SUCH DRAWINGS.

2. BEFORE STRUCTURAL INSPECTIONS CAN BE MADE ON A PORTION OF THE STRUCTURE, ALL RELATED SHOP DRAWINGS, DELEGATED ENGINEENG, PRODUCT APPROVAL, MANUFACTURER'S DATA AND OTHER RELATED INFORMATION, MUST BE REVIEWED AND ACCEPTED BY THE ENGINEER-OF-RECORD AND APPROVED BY THE BUILDING DEPARTMENT.

3. SHOP DRAWINGS SHALL CONTAIN ALL INFORMATION SHOWN ON THE STRUCTURAL PLANS (RELATED TO THE DELEGATED DESIGN) INCLUDING ALL DESIGN LOADS, IN ADDITION TO THE INFORMATION REQUIRED BY THE DELEGATED ENGINEER'S DESIGN.

4. A/E WILL REVIEW ALL SUBMITTED SHOP DRAWINGS, PREPARED AND SIGNED AND SEALED BY THE CONTRACTOR'S DELEGATED ENGINEER, ONLY FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT, REQUIRED LOADING AND COORDINATION WITH THE STRUCTURAL DESIGN.

5. CONTRACTOR SHALL SUBMIT TO THE A/E ONLY ONE SET OF SEPIA AND TO SETS OF BLUE PRINTS OF THE STRUCTURAL SHOP DRAWINGS FOR A/E REVIW, BEFORE STARTING FABRICATION. THE A/E WILL RETURN THE MARKED-UP AN STAMPED SEPIA TO THE CONTRACTOR. THESE SEPIA COPIES SHALL BE USE TO MAKE THE PRINTS REQUIRED FOR SHOP DRAWING DISTRIBUTION. SETS F BLUE PRINTS (WITHOUT SEPIA) WILL NOT BE ACCEPTED.

CONSTRUCTION MEANS AND METHODS:

1. THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE OR PROCEDURES, SAFETY PRECAUTIONS, SHORES, RESHORES, LATERAL BRACING AND PROGRAMS IN CONNECTION WITH THE PROJECT, ARE THE SO: RESPONSIBILITY OF THE CONTRACTOR. OUR SERVICES DO NOT GUARANTEI NOR ASSURE LIABILITY FOR THE JOB SAFETY, TEMPORARY SHORING AND BRACING AND THE PERFORMANCE OF THE CONTRACTOR.

2. THE CONTRACTOR IS RESPONSIBLE AND SHALL COMPLY WITH THE SAFETY REQUIREMENTS OF THE STANDARD BUILDING CODE AND APPLICABL LOCAL, STATE AND FEDERAL LAWS.

3. PROVIDE ALL SHORING, BRACING AND SHEETING AS REQUIRED FOR SAFETY, STRUCTURAL STABILITY AND FOR THE PROPER EXECUTION OF THE WORK. REMOVE WHEN WORK IS COMPLETED.

4. PROVIDE AND MAINTAIN GUARD LIGHTS AT ALL BARRICADES, RAILINGS, OBSTRUCTIONS IN THE STREETS, ROADS OR SIDEWALKS AND ALL TRENCHES OR PITS ADJACENT TO PUBLIC WALKS OR ROADS.

5. AT ALL TIMES, PROVIDE PROTECTION AGAINST WEATHER (RAIN, WIND, STORMS OR THE SUN), SO AS TO MAINTAIN ALL WORK, MATERIALS, APPARATUS AND FIXTURES FREE FROM INJURY OR DAMAGE.

6. AT THE END OF THE DAYS WORK, COVER ALL WORK LIKELY TO BE DAMAGED. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION SHA BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.

7. THE CONTRACTOR SHALL PAY FOR ALL DAMAGES TO ADJACENT STRUCTURES, SIDEWALKS AND TO STREETS OR OTHER PUBLIC PROPERTY O PUBLIC UTILITIES.

STRUCTURAL DESIGN CRITERIA:

1. THE DESIGN COMPLIES WITH THE REQUIREMENTS OF THE 2007 FLORIDA BUILDING CODE - WITH ALL UPDATES AND OTHER REFERENCED CODES AND SPECIFICATIONS. ALL CODES AND SPECIFICATIONS SHALL BE LATEST EDITION AT TIME OF PERMIT.

FOUNDATIONS: (SPREAD FOOTINGS)

1. FOUNDATIONS ARE DESIGNED TO BEAR ON WELL COMPACTED GRADE OR CLEAN FILL OF AN ALLOWABLE BEARING CAPACITY OF 1,500 PSF MINIMUM. A CERTIFIED TESTING LABORATORY SHALL BE ENGAGED BY THE OWNER TO VERIFY THAT THE REQUIRED BEARING CAPACITY WAS OBTAINED. SAID SOIL CAPACITY SHALL BE CERTIFIED AND TESTED BY A FLORIDA REGISTERED FOUNDATION ENGINEER, PRIOR TO CASTING OF CONCRETE IN THE FOOTINGS.

2. NATURAL GRADE (OR FILL) BELOW FOOTINGS SHALL BE COMPACTED TO 98 % MODIFIED PROCTOR (ASTM D-1557).

3. TOP OF WALL FOOTINGS TO BE AT THE SAME ELEVATION AS TOP OF COLUMN PAD FOOTINGS. STEP WALL FOOTING FROM HIGHER COLUMN FOOTING TO THE LOWER ONE (AS DETAILED ON THE PLANS).

4. TOP OF ALL FOOTINGS TO BE A MINIMUM 1'-4" BELOW THE TOP OF CONCRETE SLAB ON GRADE (UNLESS OTHERWISE NOTED) OR MINIMUM 1'-0" BELOW FINISHED GRADE, WHICHEVER IS LOWER. IN THE EVENT THAT THE SLAB STEPS ON EACH SIDE OF THE FOOTING, THE FOOTING SHALL BE 1'-4" BELOW TOP OF THE LOWER SLAB.

5. REINFORCING IN THE CONTINUOUS WALL FOOTINGS (MONOLITHIC AND NON-MONOLITHIC) SHALL BE SPLICED 36 BAR DIAMETERS MINIMUM AND SHALL EXTEND CONTINUOUSLY THRU ALL FOOTING PADS.

6. ALL LONGITUDINAL REBARS IN THE CONTINUOUS WALL FOOTINGS. SHALL BE CONTINUED AT BENTS AND CORNERS BY BENDING THE REBARS 48 BAR DIAMETERS AROUND THE CORNERS OR ADDING MATCHING CORNER BARS, EXTENDING 48 BAR-DIAMETERS INTO FOOTING EACH SIDE OF CORNER OR BENT.

7. ALL FOOTINGS SHALL BE 12" MINIMUM THICKNESS.

CONCRETE SLABS ON GRADE:

1. ALL INTERIOR AND EXTERIOR SLABS AND WALKWAYS AS SHOWN ON THE STRUCTURAL OR ARCHITECTURAL PLANS, SHALL BE FOUR INCHES THICK MINIMUM REINFORCED WITH 6 X 6 - W1.4 X W1.4 WELDED WIRE FABRIC (UNLESS OTHERWISE NOTED).

2. ALL SLABS ON GRADE TO BE CONSTRUCTED IN ACCORDANCE WITH LATEST A.C.I - "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" (A.C.I. - 302.1R)

3. JOINTS SHALL BE PROVIDED IN ALL INTERIOR SLABS ON GRADE AT COLUMN CENTER-LINES DIVIDING THE SLAB INTO SQUARE PANELS NOT TO EXCEED 20 X 20 FT. IN SIZE. CAST SLAB IN LONG ALTERNATE STRIPS. PROVIDE A CONTRACTION JOINT BETWEEN EACH STRIP. SEE PLAN FOR SAW-CUT, CONTRACTION AND ISOLATION JOINT DETAILS.

4. PROVIDE SAW-CUT JOINTS AT ALL SIDEWALKS AT A MAXIMUM SPACING OF FIVE FEET ON CENTERS AND ISOLATION JOINTS AT 20 FEET O.C. (U.O.N.).

5. FILL MATERIAL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12" AND COMPACTED TO 98 % MODIFIED PROCTOR (ASTM D-1557) WITHIN A DISTANCE OF 3 FEET BEYOND ALL FOOTING EDGES. TAKE AT LEAST ONE DENSITY TEST FOR EACH 1,600 SQ.FT. OF AREA AND 12" BELOW SURFACE. SEND RESULTS OF THE TEST TO OWNER, ARCHITECT AND ENGINEER.

CONCRETE AND REINFORCING:

1. CONCRETE DESIGN AND REINFORCEMENT IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (A.C.I. 318 - LATEST EDITION) AND WITH "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" - (A.C.I. 315 - LATEST EDITION).

2. ALL CONCRETE WORK IN ACCORDANCE WITH "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING" (A.C.I. 301 - LATEST EDITION), PRODUCTION OF CONCRETE, DELIVERY, PLACING AND CURING TO BE IN ACCORDANCE WITH "HOT WEATHER CONCRETING" (A.C.I. 305R - LATEST EDITION).

3. ALL CONCRETE TO BE REGULAR WEIGHT WITH A DESIGN STRENGTH OF 2,500 P.S.I. AT 28 DAYS. MAXIMUM SLUMP 5".

4. ALL REINFORCING TO BE NEW BILLET STEEL CONFORMING TO THE LATEST A.S.T.M. A-615 GRADE 40, FABRICATED IN ACCORDANCE WITH C.R.S.I. MANUAL OF STANDARD PRACTICE AND PLACED IN ACCORDANCE WITH A.C.I. 315 AND C.R.S.I. MANUAL OF STANDARD PRACTICE.

5. CONCRETE COVER UNLESS OTHERWISE DETAILED ON DRAWINGS:

FOOTINGS:	(BOTTOM)	3"
	(TOP & SIDES)	2"
SLABS ON GRADE:	CENTERED W/SLAB	
COLUMNS AND BEAMS:	(TO THE TIES)	1-1/2"

6. COLUMN REINFORCEMENT: DOWELS TO BE SAME SIZE AND NUMBER AS VERTICAL REBARS ABOVE. LAP 36 BAR DIAMETER OR MINIMUM OF 18 INCHES, U.O.N. PROVIDE RIGID TEMPLATES FOR DOWEL LOCATION. PROVIDE STANDARD HOOKS AT TOP OF ALL VERTICAL REINFORCEMENT AT NONCONTINUOUS COLUMNS (U.O.N.).

7. ALL DOWELS FOR COLUMNS SHALL BE SECURED IN POSITION PRIOR TO CONCRETING. PUSHING THE DOWELS INTO POSITION IN WET CONCRETE IS NOT PERMITTED.

8. BEAM REINFORCEMENT: LAPPED 36 BAR DIAMETER OR MINIMUM 18 INCHES. BOTTOM BARS SPLICED ONLY AT SUPPORTS, TOP BARS SPLICED ONLY AT MID-SPAN. ALL TOP BARS HOOKED AT NONCONTINUOUS EDGES (U.O.N.). ALL HOOKS TO BE STANDARD 90 DEGREE HOOKS AS REQUIRED (U.O.N.).

9. ADDED REINFORCEMENT: PROVIDE ADDITIONAL CORNER BARS BENT 36 INCHES MINIMUM EACH WAY AT "L" AND "T" CORNERS IN OUTER FACES OF ALL BEAMS TO MATCH ALL HORIZONTAL BAR (TOP, BOTTOM AND INTERMEDIATE REBARS).

10. SEE PLAN FOR MINIMUM SIZE CONCRETE TIE BEAM REQUIREMENTS.

REINFORCED MASONRY WALLS:

1. HOLLOW LOAD-BEARING MASONRY UNITS SHALL CONFORM TO ASTM C-90, TYPE I, GRADE N, SQUARE END, WITH A MINIMUM AVERAGE COMPRESSIVE STRENGTH ON NET AREA OF f'm=2,000 (PSI). CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 530.1 SPECIFICATIONS.

2. SPECIAL INSPECTOR SERVICES ARE REQUIRED FOR ALL REINFORCED MASONRY CONSTRUCTION. THE SPECIAL INSPECTOR SHALL INSPECT THE PLACING OF THE REBARS IN THE CELLS, VERIFY CLEANLINESS OF THE CELLS TO BE GROUTED, AND OBSERVE THE PLACING OF THE GROUT OR CONCRETE INTO THE CELLS.

3. MORTAR SHALL CONFORM TO ASTM C-270, TYPE "M" OR "S".

4. LAY ALL MASONRY WITH FULL FACE HEAD JOINTS AND WITH FACE SHELL MORTAR BEDDING.

5. MASONRY ANCHORAGE TO SUPERSTRUCTURE SHALL BE PROVIDED IN ACCORDANCE WITH STRUCTURAL DRAWINGS AND DETAILS.

6. THE USE OF ADMIXTURES SHALL NOT BE PERMITTED WITHOUT PRIOR REVIEW OF THE ENGINEER.

7. VERTICAL REINFORCING:

(A) ASTM A-615 PER REINFORCING SECTION.

(B) WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL CORE IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL INCH TO SIX INCHES VERTICAL FOR ALIGNMENT, EVEN THOUGH IT IS IN A CELL ADJACENT TO THE VERTICAL WALL REINFORCING.

(C) VERTICAL REINFORCING STEEL SHALL BE PLACED CENTERED IN THE CELL. LAP 48 BAR-DIAMETERS. PROVIDE BAR SPACERS AS REQUIRED TO MAINTAIN REINFORCING SECURED IN POSITION.

(D) VERTICAL REINFORCEMENT SHALL BE PROVIDED AT EACH SIDE OF OPENINGS IN WALL, AT WALL INTERSECTIONS, CORNERS AND ENDS. THIS REINFORCING SHALL BE THE SAME SIZE AS THE SCHEDULED WALL REINFORCING FOR THE PARTICULAR WALL BUT NEVER LESS THAN A #5 REBAR. SPECIAL CARE SHALL BE TAKEN TO INSURE THAT CELLS TO BE GROUTED LINE UP PROPERLY AND ARE CLEAN OF EXCESS MORTAR.

(E) ALL VERTICAL REINFORCING SHALL BE HOOKED INTO THE BOND BEAMS AT THE NON-CONTINUOUS END OF THE REBARS.

(F) PROVIDE INSPECTION HOLES AT THE BOTTOM OF EACH REINFORCED MASONRY CELL, AS REQUIRED FOR LIFTS HIGHER THAN 5 FT.

8. HORIZONTAL REINFORCING:

PROVIDE GALVANIZED #9 GAGE, LADDER TYPE HORIZONTAL JOINT REINFORCING EVERY SECOND BLOCK COURSE (1'-4" O.C. VERTICALLY) LAPPED 7-1/2". PROVIDE SPECIAL HORIZONTAL REINFORCING AT "T" AND "L" INTERSECTION. ANCHOR TO COLUMNS WITH MINIMUM 4" EXTENSION INTO AREA OF POUR.

9. PROVIDE "DOVE-TAIL" ANCHORS AT 16" O.C. VERTICALLY FOR ALL MASONRY PLACED ADJACENT TO ALREADY IN PLACE COLUMNS.

10. CELL FILLING CONCRETE SHALL BE "PEA DOCK" CONCRETE MIX (8" TO 9" SLUMP) OR GROUT WITH f'c=3,500 PSI MIN. AT 28 DAYS.

11. LINTELS:

A. THE CONTRACTOR SHALL PROVIDE PRECAST CONCRETE OR CAST-IN-SITE LINTELS AT THE HEADS OF ALL OPENINGS IN MASONRY WALLS NOT EXCEEDING SIX (6) FEET IN WIDTH WHERE BEAMS HAVE NOT BEEN SPECIFIED. FOR OPENING ADJACENT TO CONCRETE COLUMNS - THE LINTEL SHALL BE CAST-IN-PLACE WITH THE COLUMN.

B. LINTEL MAY BE INTEGRAL WITH THE STRUCTURAL OR TIE BEAM WHEN HEAD OF THE OPENING IS 16 INCHES OR LESS BELOW. CONTINUE BEAM'S TYPICAL BOTTOM REBARS THROUGH AND ADD 2-#5 BOTTOM TRUSS BARS AT DROPS AND 2-#3 STIRRUPS AT 6 INCHES O.C. EACH END AT DROP.

C. MINIMUM BEARING FOR ALL LINTELS 8 INCHES EACH SIDE OR PROVIDE DOWELS AND POCKETS IN ADJACENT CONCRETE COLUMNS.

D. LINTEL TO BE MINIMUM OF 8 INCHES DEEP WITH 2-#4 TOP AND BOTTOM FOR CLEAR SPANS LESS THAN 6 FEET. 12 INCHES DEEP WITH 2-#5 TOP AND BOTTOM AND 2-#3 STIRRUPS AT 6 INCHES O.C. EACH END, FOR SPANS GREATER THAN 6 FEET (UP TO 8 FEET). CALL ENGINEER FOR SPANS LARGER THAN 8 FEET WITH NO SPECIFIED BEAMS OR LINTELS OVER.

STRUCTURAL STEEL: (SHOP DRAWINGS REQUIRED)

1. ALL STRUCTURAL STEEL TO BE DOMESTIC A.S.T.M. A-36 (Fy=36 K.S.I.) AND DESIGNED IN ACCORDANCE WITH THE LATEST A.I.S.C. "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" AND THE A.I.S.C. CODE OF STANDARD PRACTICE.

2. STEEL TUBES TO BE DOMESTIC STEEL CONFORMING TO A.S.T.M. A-500 GRADE B (Fy=46 K.S.I.).

TUBE AND PIPE COLUMNS TO BE CONCRETE FILLED WITH VENT HOLES TOP, MIDDLE AND BOTTOM.

3. ALL COLUMN BASE AND CAP PLATES SHALL BE 3/4" THICK (UNLESS OTHERWISE NOTED). WIDTH AND LENGTH AS REQUIRED FOR PROPER BOLTING AND AS INDICATED ON THE PLANS AND DETAILS.

4. ALL WELDING TO BE IN ACCORDANCE WITH A.W.S. LATEST "STRUCTURAL WELDING CODE - STEEL". CLEAN AND RUSTPROOF ALL FIELD WELDS WITH HEAVY DUTY RUSTPROOFING PAINT.

5. ALL CONNECTIONS TO BE FIELD AND SHOP WELDED AND TO DEVELOP MEMBER IN SHEAR.

6. SPLICE LOCATIONS TO BE REVIEWED BY ARCHITECT/ENGINEER.

7. STEEL BEARING ON STEEL TO BE WELDED THERETO.

STRUCTURAL WOOD:

1. TO CONFORM TO RULES OF THE MANUFACTURER'S ASSOCIATION UNDER WHOSE RULES THE LUMBER IS PRODUCED. (SEE SUPPLIER'S SPECIFICATIONS).

2. TO BE AIR DRIED, WELL SEASONED AND GRADE MARKED AT MILL.

3. TO BE NO. 2 SOUTHERN PINE, UTILITY GRADE DOUGLAS FIR OR WEST COAST HEMLOCK.

4. ALL STRUCTURAL WOOD TO BE SURFACED FOUR (4) SIDES (S-4-S) WITH A MINIMUM FIBER STRESS IN BENDING OF 1,200 P.S.I. AND A MAXIMUM MOISTURE CONTENT OF 19 PERCENT.

5. ALL LUMBER AND PLYWOOD IN CONTACT WITH CONCRETE, STUCCO, MASONRY OR OTHER CEMENTITIOUS MATERIALS SHALL BE TREATED TO COMPLY WITH AWPA STANDARD LP-2.

6. STORE ALL LUMBER ABOVE GRADE OR FLOOR. STACK TO ALLOW PROPER AIR CIRCULATION AND PROTECT FROM WETTING WITH SUITABLE COVER.

COLD FORMED METAL FRAMING: (SHOP DRAWINGS REQUIRED)

1. ALL COLD FORMED METAL FRAMING SHALL BE DOMESTIC A.S.T.M. A 653 (Fy = 33 K.S.I.) STEEL, AND DESIGNED IN ACCORDANCE WITH THE LATEST S.S.M.A. SPECIFACATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF COLD FORMED METAL FRAMING AND THE S.S.M.A. CODE OF STANDARD PRACTICE.

2. ALL CFMF COMPONENTS SHALL BE MANUFACTURED AS PER ASTM C 955 AND BE GALVANIZED WITH A MINIMUM G-60 COATING PER ASTM C 955.

ALL PRODUCTS SHALL BE FREE OF RUST, DENTS, BENDS & TWISTS AND STORED ON A FLAT PLANE PRIOR TO INCLUSION IN THE WORK.

3. ALL WELDING TO BE IN ACCORDANCE WITH A.W.S. LATEST, E1.3 & D1.3 "STRUCTURAL WELDING CODE - STEEL". CLEAN AND RUSTPROOF ALL FIELD WELDS WITH ZINK RICH RUSTPROOFING PAINT.

4. BOTTOM TRACK SHALL BE SECURED TO THE CONCRETE FOUNDATION W/ ANCHOR BOLTS AS PER THE FOUNDATION PLAN AND SHALL BE FURTHER FASTENED AT EA. FULL STUD W/ .177"~ X 1\" PAF, SHOT THROUGH A 1"~ X 16 GA HOLELESS WASHER.

5. ALL CONNECTIONS TO BE FIELD AND SHOP WELDED AND TO FULLY DEVELOP MEMBER IN SHEAR.

6. SPLICE LOCATIONS TO BE REVIEWED BY ARCHITECT/ENGINEER.

7. STEEL BEARING ON STEEL TO BE WELDED THERETO.

TERMITE PROTECTION NOTES:

SOIL CHEMICAL BARRIER METHOD:

1. A PERMANENT SIGN WHICH IDENTIFIES THE TERMITE TREATMENT PROVIDER AND NEED FOR REINSPECTION AND TREATMENT CONTRACT RENEWAL SHALL BE PROVIDED. THE SIGN SHALL BE POSTED NEAR THE WATER HEATER OR ELECTRIC PANEL. FBC 104.2.6

2. CONDENSATE AND ROOF DOWNSPOUTS SHALL DISCHARGE AT LEAST 1'-0" AWAY FROM BUILDING SIDE WALLS. FBC 1503.4.4

3. IRRIGATION/SPRINKLER SYSTEMS INCLUDING ALL RISERS AND SPRAY HEADS SHALL NOT BE INSTALLED WITHIN 1'-0" FROM BUILDING SIDE WALLS. FBC 1503.4.4

4. TO PROVIDE FOR INSPECTION FOR TERMITE INFESTATION, BETWEEN WALL COVERINGS AND FINAL EARTH GRADE SHALL NOT BE LESS THAN 6". EXCEPTION: PAINT AND DECORATIVE CEMENTIOUS FINISH LESS THAN 5/8" THICK ADHERED DIRECTLY TO THE FOUNDATION WALL. FBC 1403.1.6

5. INITIAL TREATMENT SHALL BE DONE AFTER ALL EXCAVATION AND BACKFILL IS COMPLETE. FBC 1816.1.1

6. SOIL DISTURBED AFTER THE INITIAL TREATMENT SHALL BE RETREATED INCLUDING SPACES BOXED OR FORMED. FBC 1816.1.2

7. BOXED AREAS IN CONCRETE FLOOR FOR SUBSEQUENT INSTALLATION OF TRAPS, ETC., SHALL BE MADE WITH PERMANENT METAL OR PLASTIC FORMS. PERMANENT FORMS MUST BE OF A SIZE AND DEPTH THAT WILL ELIMINATE THE DISTURBANCE OF SOIL AFTER THE INITIAL TREATMENT. FBC 1816.1.3

8. MINIMUM 6 MIL VAPOR RETARDER MUST BE INSTALLED TO PROTECT AGAINST RAINFALL DILUTION, IF RAINFALL OCCURS BEFORE VAPOR RET-ARDER PLACEMENT, RETREATMENT IS REQUIRED. FBC 1816.1.4

9. CONCRETE OVERPOUR AND MORTAR ALONG THE FOUNDATION PERIMETER MUST BE REMOVED BEFORE EXTERIOR SOIL TREATMENT. FBC 1816.1.5

10. SOIL TREATMENT MUST BE APPLIED UNDER ALL EXTERIOR CONCRETE OR GRADE WITHIN 1'-0" OF THE STRUCTURE SIDEWALLS. FBC 1816.1.6

11. AN EXTERIOR VERTICAL CHEMICAL BARRIER MUST BE INSTALLED AFTER CONSTRUCTION IS COMPLETE INCLUDING LANDSCAPING AND IRRIGATION. ANY SOIL DISTURBED AFTER THE VERTICAL BARRIER IS APPLIED, SHALL BE RETREATED. FBC 1816.1.6

12. ALL BUILDINGS ARE REQUIRED TO HAVE PER-CONSTRUCTION TREATMENT. FBC 1816.1.7

13. A CERTIFICATE OF COMPLIANCE MUST BE ISSUED TO THE BUILDING DEPART-MENT BY # LICENSED PEST CONTROL COMPANY BEFORE A CERTIFICATE OF OCCUPANCY WILL BE ISSUED. THE CERTIFICATE OF COMPLIANCE SHALL STATE: "THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. THE TREATMENT IS IN ACCORDANCE WITH THE RULES AND LAWS OF THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONS-UMER SERVICES". FBC 1816.1.7

14. AFTER ALL WORK IS COMPLETED, LOOSE WOOD AND FILL MUST BE REMOVED FROM BELOW AND WITHIN 1'-0" OF THE BUILDING. THIS INCLUDES ALL GRADE STAKES, TUB TRAP BOXES, FORMS, SHORING OR OTHER CELLULOSE CONTAINING MATERIAL. FBC 2303.1.3

15. NO WOOD, VEGETATION, STUMPS, CARDBOARD, TRASH, ETC., SHALL BE BURIED WITHIN 15'-0" OF ANY BUILDING OR PROPOSED BUILDING. FBC 2303.1.4

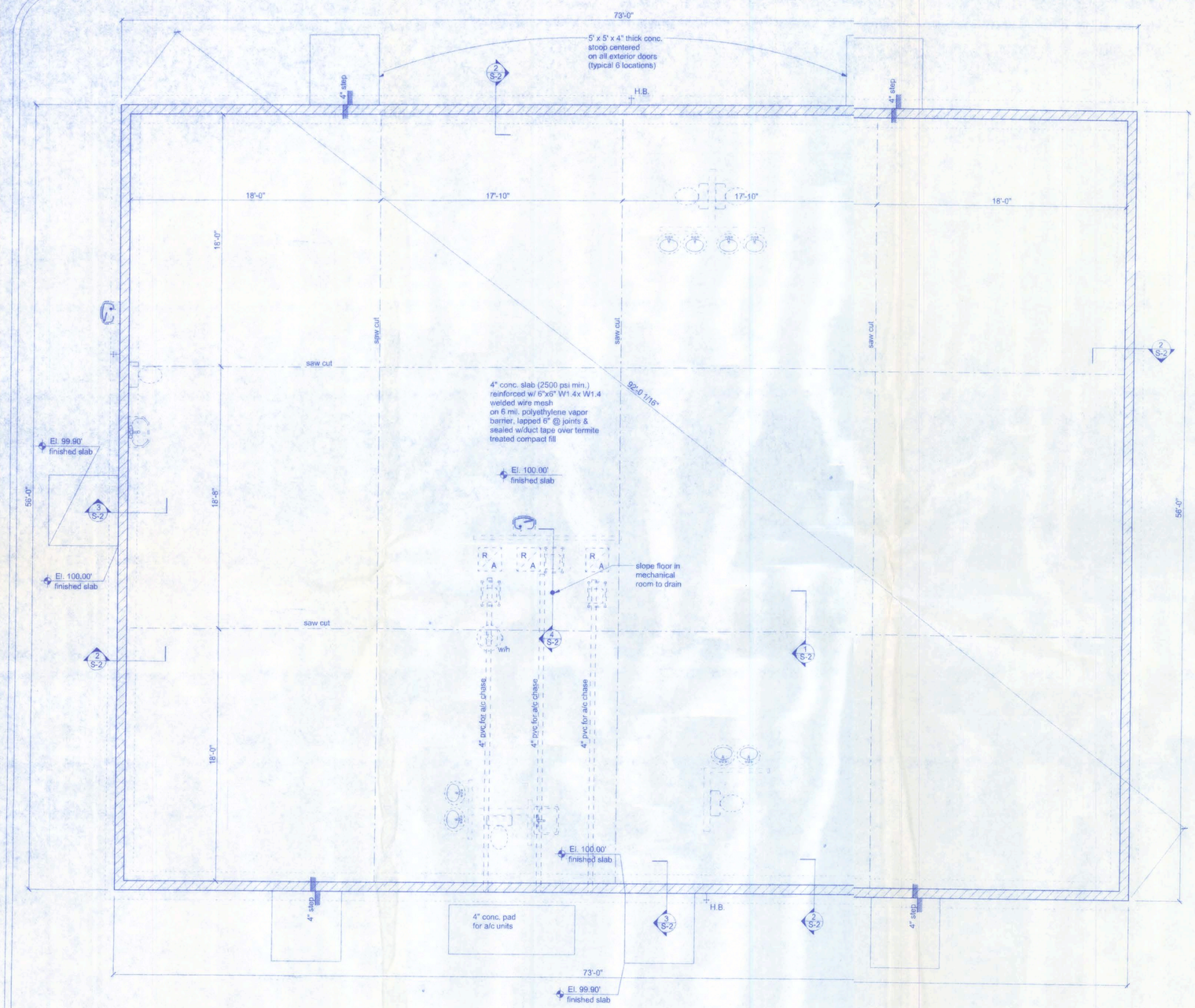
2/3/10
P.E. #56001

HART 2 HART ACADEMY
AFTER SCHOOL BUILDING

128 SW NASSAU STREET
LAKE CITY, FL. 32025
(386)758-4209
CERTIFICATE OF AUTHORIZATION # 00008701

Freeman Design Group INC

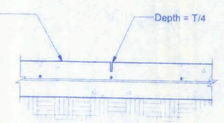
DATE 2/3/10	DRWN BY V.H.F.
	APPROVED V.H.F.
REVISIONS	
SHEET S-1 OF 3	
PROJECT Nº 09 .C029	



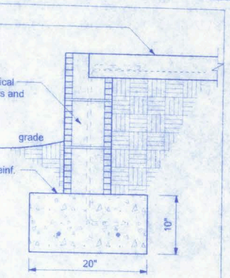
FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

NOTE:
saw cut shall be made within 24 hours of pour



1 SAWCUT DETAIL



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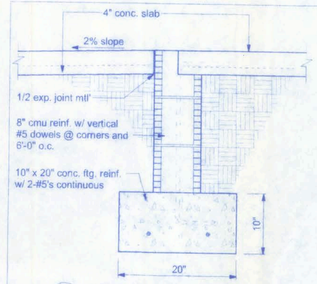
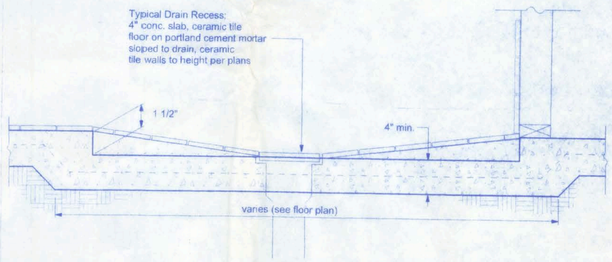


3 STEMWALL SECTION @ PORCH STEPDOWN



4 TYPICAL SLAB RECESS

HART 2 HART ACADEMY AFTER SCHOOL BUILDING

William H. Freeman 2/3/10 P.E. #56001

128 SW NASSAU STREET
LAKE CITY, FL. 32025
(386)752-4209
CERTIFICATE OF AUTHORIZATION # 00008701

Freeman Design Group

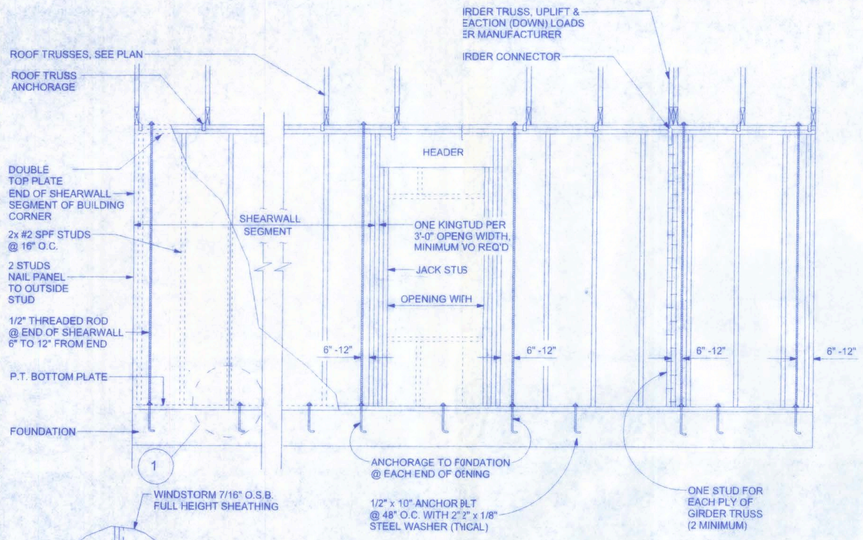
DATE	DRAWN BY
2/3/10	W.H.F.
	APPROVED W.H.F.

REVISIONS

SHEET S2

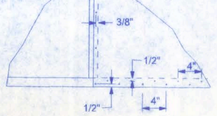
OF

PROJECT NO. 09-C29



SHEARWAL DETAILS

SCALE: 1/2" = 1'-0



1 DOUBLE NAIL EDGE SPACING TOP AND BOTTOM PLATE

UPLIFT CAPACITY = 474 plf
(TABLE 305S1 SSTD10-99)

RULES:
1. One all-thread rod at each corner.
2. One all-thread rod at each end of shearwall segment
3. One all-thread rod at each end of opening headers
4. Check sub-sheathing to top plate connection for horizontal transfer capability.
5. If necessary, add all-thread rods to girders individually to exclude the from average uplift plf.
6. Check sole plate to slab connection, additional anchors may be required for lateral and shear load transfer.

ALLOWABLE VALUES	
Connection Type	Allowable Value
Foundation / S.Y.P. Top Plate	3840 lbs.
Foundation / Spruce-Pine-Fir Top Plate	3840 lbs.
Lintel or Bond Beam / S.Y.P. Top Plate	3840 lbs.
Lintel or Bond Beam / Spruce-Pine-Fir Top Plate	3840 lbs.

Placement at slab level:

Corners
When presetting the all-thread rod at a building corner, tha rod should be placed 8 to 12 inches away from the corner so it does not set under the corner framing members. When a all-thread rod is specified at a building corner, it may be placed on either side of the corner.

Header ends
When presetting the all-thread rod at a header end, the rod should be placed 8 to 12 inches away from the header end so it does not fall under the stud pack framing members.

Top Connections
Top connections made at corners and header ends shall be made within 2 inches of the framing pack. A nut and 3X3 washer shall be applied to the top plates and tightened securely.

Intermediate Coupler Connections
When using the rod coupler, care should be taken to ensure full and equal thread engagement. This is easily achieved by threading the coupler all the way onto the rod, then standing the two rods end to end, then threading the coupler back over the rod joint so each rod is halfway into the coupler.

Retro-fits
In the case of an all thread rod misplacement, the rod may be epoxied into the concrete.

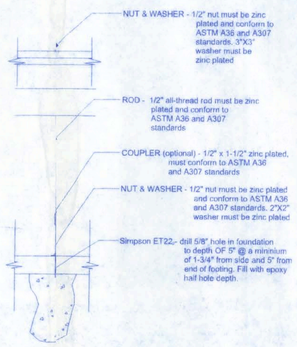
Sole plate to slab connection:
The slab level sole plate shall be connected to the slab with the connectors specified and at the spacing specified within the design documents. All-thread rods shall be placed as per the design specifications. All-thread rods with a nut and washer at the sole plate will qualify as a sole plate connection but may require other anchors intermediate of the all-thread rod locations to qualify the specified spacing requirements.

System Tightening:
On multiple story applications, the all-thread rod system shall be rechecked for proper tension just before the walls are veneered. This will allow the all-thread rod system to compensate for the buildings dead load compression.

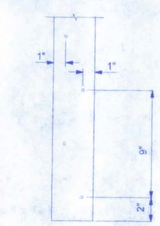
SHEARWALL NOTES:

1. ALSHEARWALLS SHALL BE TYPE 2 SHEARWALLS ADEFINED BY STD 10-99 305.4.3.
2. TH WALL SHALL BE ENTIRELY SHEATHED WITH 7/" O.S.B. INCLUDING AREAS ABOVE AND BELOW OINNINGS.
3. ALSHEATHING SHALL BE ATTACHED TO FRAMING ALNG ALL FOUR EDGES WITH JOINTS FOR ADJACENT PJELS OCCURING OVER COMMON FRAMING MEMBERS ORLONG BLOCKING.
4. NA SPACING SHALL BE 6" O.C. EDGES AND 12D.C. IN THE FIELD.
5. TYE 2 SHEARWALLS ARE DESIGNED FOR THE OPENING IT ONTAINS. MAXIMUM HEIGHT OF OPENING SHALL BE 5/EIMES THE WALL HEIGHT. THE MINIMUM DISTANCE BEWEEN OPENINGS SHALL BE THE WALL HEIGHT/3.5 ie. OR 8'-0" WALLS - (2'-3").

OPEING WIDTH	SILL PLATES	16d TOE NAILS EACH END
U TO 6'-0"	(1) 2x4 OR (1) 2x6	1
>' TO 9'-0"	(3) 2x4 OR (1) 2x6	2
>' TO 12'-0"	(5) 2x4 OR (2) 2x6	3



NOTE:
A SOLID MEMBER OF EQUAL OR GREATER SIZE THAN MULTIPLE MEMBERS MAY BE USED.
IF RATED SHEATHING IS APPLIED TO NARROW EDGES, NAILED TO EACH STUD AT 12" O.C. MAXIMUM, THE LAMINATION NAILING SHOWN HERE IS NOT REQUIRED.



END (TOP OR BOTTOM)

GIRDER COLUMN DETAIL

SCALE: 1/2" = 1'-0"

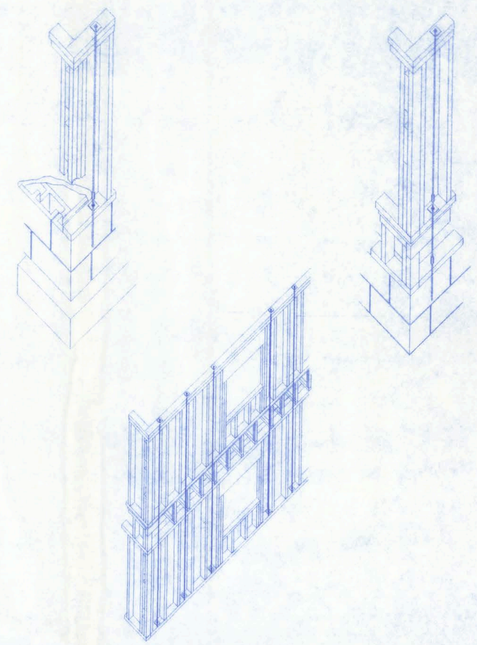
OPENING CONNECTION REQUIREMENTS

CLEAR OPENING WIDTH	HEADER SIZE #2 GRADE OR BETTER	END BEARING	CONNECTOR AT EACH END OF OPENING	ANCHORAGE TO FOUNDATION @ EACH END OF OPENING
0' - 3'	(2) 2x8	1.5"	N/A	N/A
>3' - 6'	(2) 2x10	3"	1/2" ALL THREAD ROD	1/2" ALL THREAD ROD
>6' - 9'	(2) 2x12	3"	1/2" ALL THREAD ROD	1/2" ALL THREAD ROD
>9' - 12'	(2) 1 3/4" x 11 1/4" LVL - 2.0E	3"	1/2" ALL THREAD ROD	1/2" ALL THREAD ROD
>12' - 15'	(2) 1 3/4" x 11 1/4" LVL - 2.0E	3"	1/2" ALL THREAD ROD	1/2" ALL THREAD ROD
>15' - 18'	(2) 1 3/4" x 11 1/4" LVL - 2.0E	4.5"	1/2" ALL THREAD ROD	1/2" ALL THREAD ROD

ALLOWABLE DEFLECTION OF STRUCTURAL MEMBERS

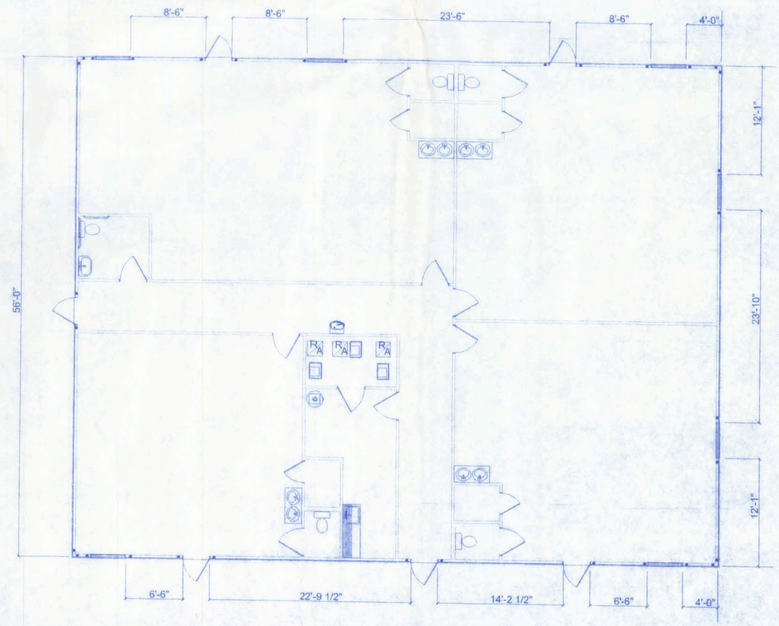
STRUCTURAL MEMBER	ALLOWABLE DEFLECTION
rafters having slopes greater than 2/12 with no finished ceiling attached to rafters	L/180
interior walls and partitions	H/180
floors and plastered ceilings	L/360
all other structural members	L/240
exterior walls with plaster or stucco finish	H/360
exterior walls - wind loads with brittle finishes	L/240
exterior walls - wind loads with flexible finishes	L/120

NOTE:
ALL WALL SHEATHING SHALL BE WINDSTORM 9'-1 1/8" FULL HEIGHT SHEATHING-
SEE DETAIL 1 FOR NAILING



● ALL THREAD LOCATION

NOTE:
VERIFY GIRDER TRUSS LOCATION ON TRUSS LAYOUT FOR REQ'D ALL THREAD AT GIRDER LOCATION



SHEARWALL LAYOUT

SCALE: 1/8" = 1'-0"

HART 2 HART ACADEMY AFTER SCHOOL BUILDING

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CERTIFICATE OF AUTHORIZATION # 00008701
Freeman Design Group inc
P.E. #56001

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2/3/10	W.I.F.
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SHEET S-2
OF 3

PROJECT NO
09 .C029

PLUMBING PLAN

SCALE: 3/16" 1'-0"

PLUMBING NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARD BUILDING CODE AND LOCAL REGULATION.
2. ALL PLUMBING SHALL BE BID AS SPECIFIED OR OF EQUAL VALUE
3. PROVIDE COLD WATER TO ALL PLUMBING FIXTURES AND HOT WATER TO ALL LAVATORIES
4. PROVIDE DRAIN TO WATER HEATERS
5. PROVIDE A SLOPE ON ALL WASTE LINES OF 1/8" PER FOOT OF RUN (MINIMUM), UNLESS OTHERWISE NOTED ON THE PLANS
6. ALL WASTE LINES SHALL BE PVC DWV.
7. ALL WATER LINES SHALL BE CPVC PIPE AND FITTINGS.
8. INSTALL AIR CHAMBERS AS NEEDED
9. WATER SERVICE SHALL BE SCH. 40 PVC 1 1/4" OR AS NECESSARY TO PROVIDE NECESSARY WATER PRESSURE FOR PLUMBING FIXTURES TO WORK PROPERLY
10. ALL ROOF FLASHING SHALL BE GALVANIZED WITH NEOPRENE COLLARS.
11. ALL WATER PIPES, WHERE PASSING THROUGH MASONRY WALL OR CONCRETE SHALL HAVE PROTECTIVE SLEEVES.
12. PROVIDE PIPE SLEEVES OR CONCRETE RELIEVING ARCH AT ALL LOCATIONS WHERE SANITARY PIPES PASS UNDER OR THROUGH CONCRETE FOOTINGS OR FOUNDATION ALL IN ACCORDANCE WITH THE STANDARD PLUMBING CODE.
13. ALL PVC PIPE SHALL BE SCHEDULE 40.
14. SPECIFY IN BID HOW MANY FEET OF SEWER AND WATER PIPE IS INCLUDED IN BID. SPECIFY PRICE PER FOOT FOR ADDITIONAL SEWER AND WATER PIPE.
15. ALL PLUMBING FIXTURES AND LABOR SHALL HAVE A STANDARD ONE YEAR WARRANTY FROM ISSUANCE OF CERTIFICATE OF OCCUPANTS.
16. ANY CHANGES TO THE PLUMBING THAT WILL RESULT IN PRICE INCREASE OR DECREASE SHALL NOT BE DONE UNTIL A WRITTEN CHANGE ORDER IS IN PLACE.

NOTES:

1. THE SUCCESSFUL PLUMBING CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, IF DIFFERENT FROM PLANS, AND CUT SHEETS ON ALL FIXTURES AND FAUCETS TO BE USED.
2. ALL PLUMBING SHALL BE BID AS SPECIFIED OR OF EQUAL VALUE.

NOTE!
PLUMBING CONTRACTOR SHALL PREPARE "AS-BUILT" SHOP DRAWINGS INDICATING ALL PLUMBING WORK, INCLUDING ALL PLUMBING LINE LOCATIONS AND RISER DIAGRAM - CONTR. SHALL PROVIDE 1 COPY OF AS-BUILT DWGS TO OWNER AND 1 COPY TO THE PERMIT ISSUING AUTHORITY.

NOTE!
ADDED FILL SHALL BE APPLIED IN 8" LIFTS - EA. LIFT SHALL BE COMPACTED TO 95% DRY COMPACTION PER THE "MODIFIED PROCTOR" METHOD.

NOTE!
PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS - PRIME EACH F.D. INDIVIDUALLY. DO NOT MANIFOLD

NOTE!
PROVIDE PLUMBING CLEAN-OUTS AT THE BASE OF ALL STACKS, A MAXIMUM OF 75' O.C. ALONG ALL MAIN DRAIN RUNS AND THE UP-STREAM ENDS OF MAIN DRAIN RUNS. WHERE THE MAIN BUILDING DRAIN EXITS THE BUILDING AND AT 75' INTERVALS TO THE DISPOSAL SITE.

NOTE
Where water heaters or hot water storage tanks are installed above the ground floor space, or in attics or ceiling areas, the tank or water heater shall be installed in a galvanized steel or other metal pan of equal corrosion resistance having a minimum thickness of 24 gauge, 0.0276 inch (0.70 mm). Electric water heaters shall be installed in a metal pan as herein required or in a high-impact plastic pan of at least 0.0625 inch (1.59 mm) thickness.

Pan size and drain. The pan shall not be less than 1-1/2 inches (38 mm) deep and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a minimum diameter of 3/4 inch.

Pan drain termination. The pan drain shall extend full-size and terminate over a suitably located indirect waste receptor or floor drain or extend to the exterior of the building and terminate not less than 6 inches (152 mm) or more than 24 inches (610 mm) above the adjacent ground surface.

SUPPLY RISER

WATER CLOSET CLEARANCES

WATER COOLER CLEARANCES

LAVATORY CLEARANCES

GRAB BARS AT WATER CLOSETS

CLEAR FLOOR SPACE AT LAVATORIES

HANDICAPPED ACCESSIBLE CONSTRUCTION DETAILS

TYP. - HC STALL

2/8/10
P.E. #50021

HART 2 HART ACADEMY
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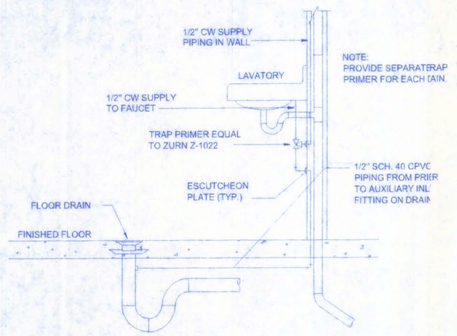
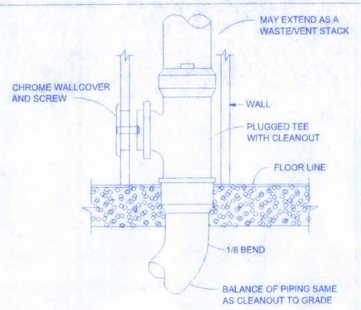
PROJECT NO.
09-C029



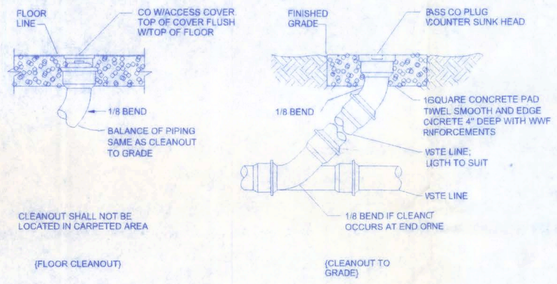
1 / P-2 FLOOR DRAIN TRAP PRIMER DETAIL

NOT TO SCALE



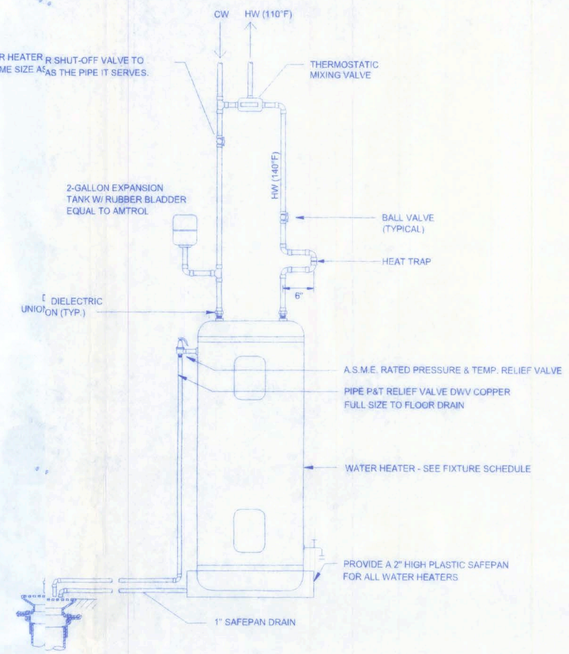
2 / P-2 WALL CLEANOUT DETAILS

NOT TO SCALE



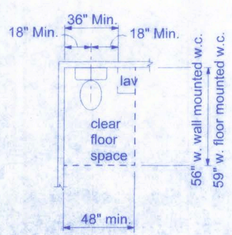
4 / P-2 FLOOR CLEANOUT DETAILS

NOT TO SCALE

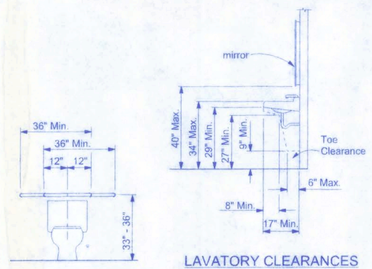


3 / P-2 WATER HEATER PIPING DETAIL

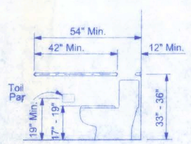
NOT TO SCALE



WATER CLOSET CLEARANCES



LAVATORY CLEARANCES



GRA BARS AT WATER CLOSETS

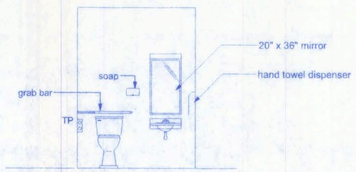
CLEAR FLOOR SPACE AT LAVATORIES

HADICAPPED ACCESSIBLE CONSTRUCTION DETAILS

NOTE:

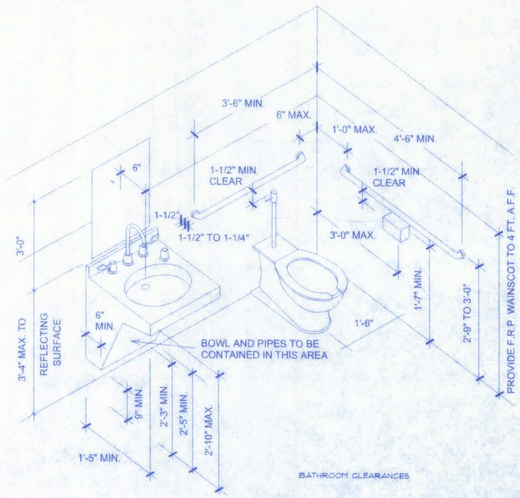
Contractor shall provide all toilet accessories such as mirror, toilet paper dispensor, hand tower dispensor and soap dispensor

Hot water and drain pipes exposed under sinks shall be insulated or otherwise configured so as to protect against contact. There shall be no sharp or abrasive surfaces under sinks.



HC RESTROOM DETAILS

N.T.S.



BATHROOM CLEARANCES

HART 2 HART ACADEMY
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SHEET P-2

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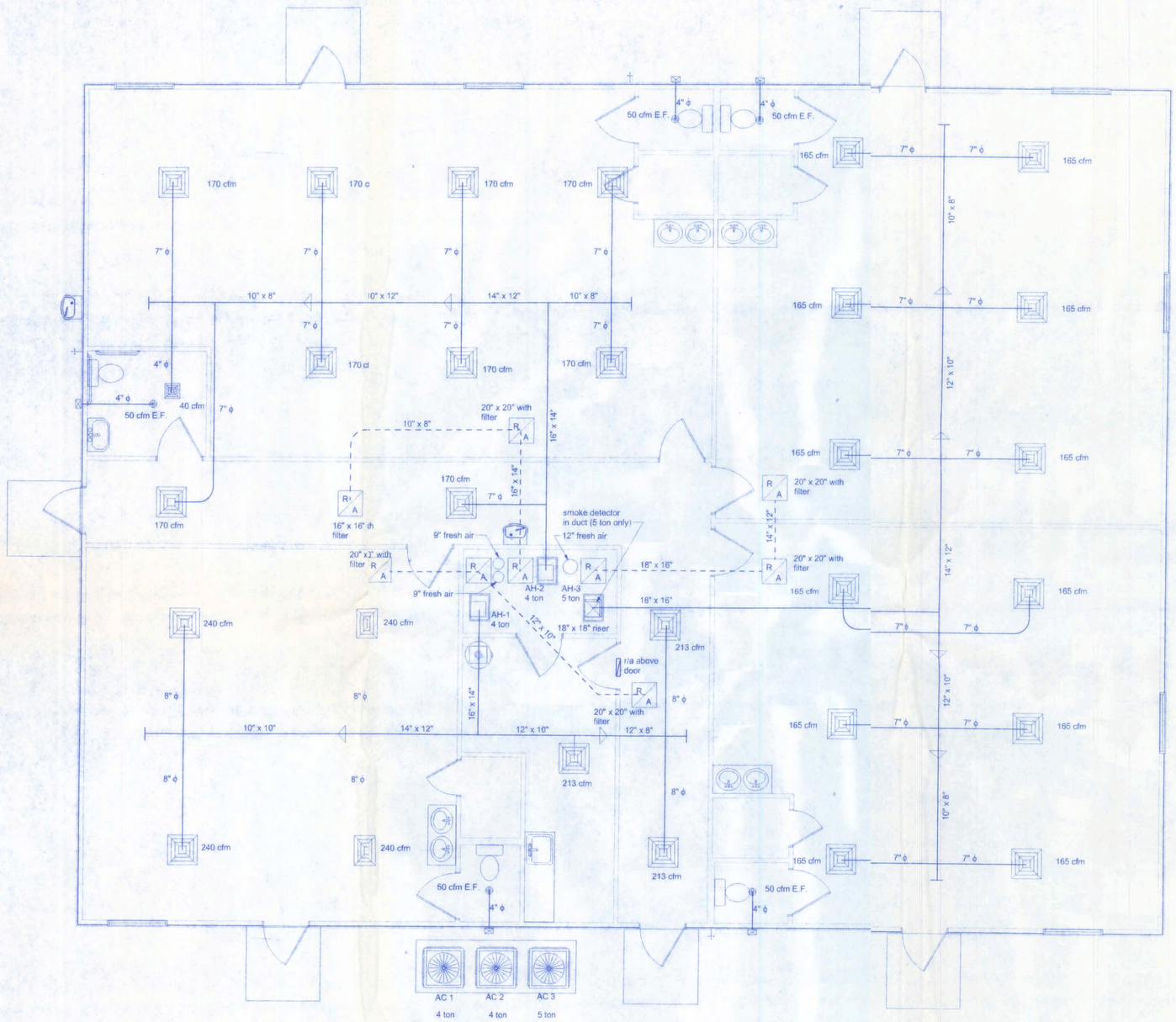

HVAC LAYOJT

SCALE: 1/4" = 1'-0"

HART 2 HART ACADEMY
AFTER SCHOOL BUILDING

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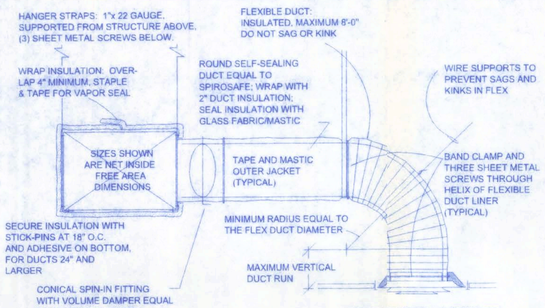
SHEET M-1
OF 2

PROJECT NO.
09 .C02

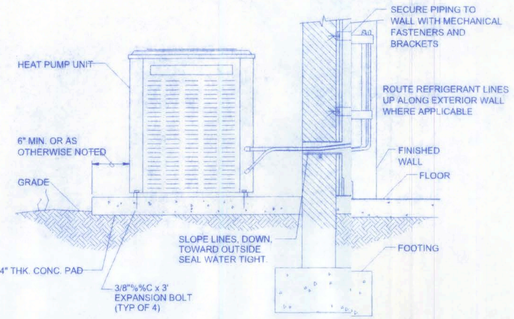


DUCT FABRICATION NOTES:

1. SHEET METAL DUCTS SHALL BE FABRICATED & INSTALLED PER THE LATEST EDITION OF SMACNA DUCT CONSTRUCTION STANDARDS.
2. ALTERNATE INTERPRETATIONS OF SMACNA DUCT MATERIAL, HANGERS AND REINFORCEMENTS ARE SUBJECT TO ENGINEER APPROVAL, AND REQUIRE SEPARATE SUBMITTAL OF ALTERNATES.
3. FLEXIBLE DUCT CONNECTORS SHALL BE PROVIDED WHERE SHOWN ON THE PLAN.
4. SUPPLY AIR DROPS FROM ROOFTOP UNITS SHALL TRANSITION FROM THE UNIT OPENING SIZE TO SQUARE NECK ELBOWS, WITH SIZES AS SHOWN ON THE PLAN. IF TWO SUPPLY AIR DUCT RUNS ARE AT THE UNIT, THEN TWO SEPERATE DROPS & ELBOWS SHALL BE PROVIDED.
5. RETURN AIR DROPS FROM THE ROOFTOP UNITS SHALL BE FULL SIZE OF THE UNIT OPENING.
6. ELBOWS SHALL BE SQUARE NECK (SAME IN OUT DIMENSION) WITH 2" DOUBLE THICKNESS TURNING VANES.
7. OFFSETS SHALL NOT REDUCE THE FREE AREA, AND SHALL NOT EXCEED 30°. RADIUS HEEL HEEL SHALL BE PROVIDED ON 30° OFFSETS. SMALLER OFFSETS SHALL BE MITERED AT BOTH THE HEEL & THROAT.
8. TRANSITIONS SHALL NOT EXCEED 1:3 RATIO (4" TRANSITION PER FOOT SINGLE SIDED TRANSITION, AND 8" PER FOOT DOUBLE SIDED TRANSITION).
9. INSULATION SHALL BE NFPA 90 APPROVED, WITH MINIMUM 4.2 R VALUE. WRAP INSULATION SHALL BE 2" THICK WITH ALUMINUM FOIL FACING. LINER SHALL BE 1" THICK, 1-1/2 PCF DENSITY.
10. RECTANGULAR BRANCH CONNECTIONS SHALL BE 45° ENTRY TYPE PER SMACNA FIGURE 2-6.
11. ROUND DUCT CONNECTIONS SHALL BE WITH "CROWN PRODUCTS COMPANY" 200-DS FITTINGS, DAMPER AND HANDLE. SPRAY PAINT LOCATIONS OF HANDLES.
12. FLEXIBLE DUCT SHALL INCLUDE AN INNER POLYETHYLENE LINER, A SPRING WIRE, 1-1/4" BLANKET INSULATION (R-6.0), A FOIL OUTER VAPOR BARRIER, AND BE UL-181 APPROVED.
13. SEAL ALL SUPPLY, RETURN & OUTSIDE AIR DUCT JOINTS WITH DUCT SEALER. SEAL ALL INSULATION JOINTS WITH GLASS FABRIC AND MASTIC.

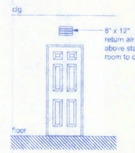
1 / M-2 CONCEALED DUCTWORK DETAIL

NOT TO SCALE



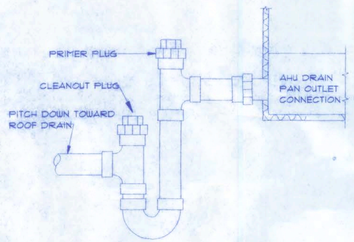
2 / M-2 AIR-COOLED HEAT PUMP DETAIL

NOT TO SCALE



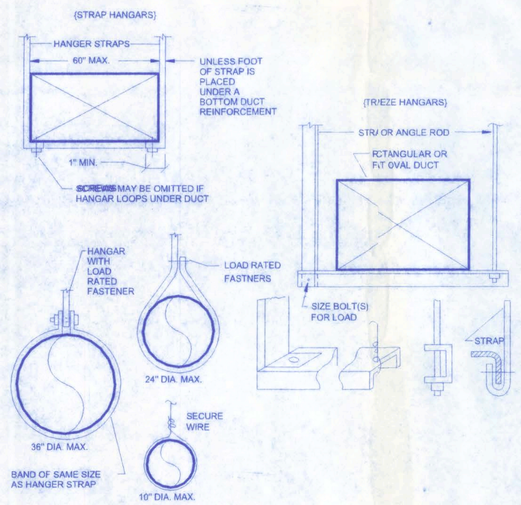
3 / M-2 RETURN AIR DETAIL

SCALE: 1/4" = 1'-0"



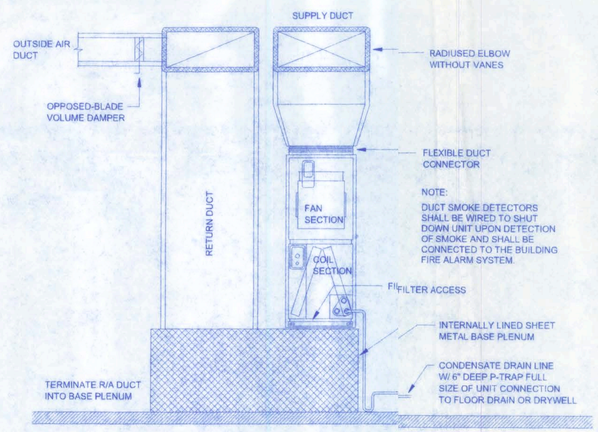
4 / M-2 CONDENDATE TRAP DETAIL

NOT TO SCALE



5 / M-2 DUCTWORK SUPPORT DETAIL

NOT TO SCALE



NOTE:
DUCT SMOKE DETECTORS SHALL BE WIRED TO SHUT DOWN UNIT UPON DETECTION OF SMOKE AND SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM.

6 / M-2 VERTICAL AIR HANDLING UNIT DETAIL

NOT TO SCALE

HVAC NOTES

1. SUB-CONTRACTORS PROVIDING HVAC INSTALLATION SHALL BE SUBJECT TO THE PROVISIONS OF NOTES 1 THRU 6, GENERAL NOTES.
2. HVAC SUB-CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, TOOLS AND EQUIPMENT TO INSTALL A COMPLETE HVAC SYSTEM.
3. HVAC SYSTEM SHALL BE AS DETAILED IN THE PLANS (IF INCLUDED) OR SHALL BE AS DIRECTED BY THE OWNER IN CONSULTATION WITH THE HVAC SUB-CONTRACTOR.
4. HVAC SUB-CONTRACTOR SHALL FURNISH SHOP DRAWINGS FOR DUCTWORK, CONDENSING UNIT & AIR HANDLER, EXHAUST FANS AND AIR DEVICES.
5. IT IS THE HVAC SUB-CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH NFPA-90A AND ALL APPLICABLE CODES.
6. FLEXIBLE DUCT SHALL BE FULLY ANNEALED, CORRUGATED ALUMINUM W/ 1 3/4 LB. DENSITY FIBERGLASS INSULATION AND SHALL BE U.L. LISTED. SHEET METAL DUCT SHALL BE LINED W/ 1" MATFACED DUCT LINER & WRAPPED W/ 1 3/4 L. FOILFACED FIBERGLASS INSULATION. ALL FIBERGLASS DUCT SHALL BE FOILFACED, R4.3/R6.0 DUCTBOARD.
7. ALL EXHAUST AND OUTSIDE AIR DUCT SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH ASHREA AND SMACNA STANDARDS.
8. ALL AIR DEVICES SHALL BE OF ALUMINUM CONSTRUCTION FOR WALL AND CEILING APPLICATIONS AND STEEL CONSTRUCTION IN FLOOR APPLICATIONS. ACCEPTABLE MANUFACTURERS SHALL BE TITUS, METALAIRE, NAILOR/HART, HART & COOLIE OR AS DIRECTED BY THE OWNER.
9. IF REQUIRED BY THE OWNER, THE HVAC SUB-CONTRACTOR SHALL SUPPLY A TEST AND BALANCE REPORT IN ACCORDANCE WITH AIR BALANCE COUNCIL STANDARDS, SIGNED AND SEALED BY A REGISTERED ENGINEER.
10. HVAC SUB-CONTRACTOR SHALL SUPPLY ALL CONTRACTORS, RELAYS AND THERMOSTATS. THE ELECTRICAL SUB-CONTRACTOR SHALL PROVIDE ALL SWITCHES, DISCONNECTS & CONTROL WIRING. THERMOSTATS SHALL BE APPROVED BY THE EQUIPMENT MANUFACTURER.
11. ALL DUCT SIZES INDICATED IN THE PLANS (IF INCLUDED) ARE NET INSIDE DIMENSION.
12. ALL EQUIPMENT SHALL BE FULLY WARRANTED FOR 1 YEAR AND THE COMPRESSOR(S) SHALL BE WARRANTED 5 YEARS FROM DATE OF FINAL ACCEPTANCE, BY THE OWNER.
13. ALL WORK IN THIS TRADE SHALL BE COORDINATED WITH ALL OTHER TRADES SO AS TO AVOID CONFLICTS OR HINDRANCE TO COMPLETION OF THE JOB.
14. CONDENSATE DRAIN PIPING SHALL BE INSULATED WITH 1.2" THICK ARMAFLEC INSULATION.
15. FILTERS SHALL BE DISPOSABLE TYPE AND HAVE INITIAL SHARE WRIGHT ARRESTANCE OF 10% AND A CLEAN PRESSURE DROP OF 0.15. PROVIDE 2 SETS, ONE DURING CONSTRUCTION AND ONE FOR USE AT FINAL ACCEPTANCE.
16. HVAC SUB-CONTRACTOR SHALL PROVIDE & INSTALL ALL NECESSARY OFFSETS, TRANSITIONS & BENDS REQUIRED TO PROVIDE A COMPLETE SYSTEM AT NO ADDITIONAL COST TO THE OWNER.
17. IT IS THE RESPONSIBILITY OF THE HVAC SUB-CONTRACTOR TO COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH THE ELECTRICIAN, LIGHTS AND ARCHITECTURAL ELEMENTS.
18. COORDINATE W/ THE ELECTRICIAN, TO ASSURE SUITABLE SIZES OF BREAKER, SWITCHES AND WIRING.

NOTE:
BATHROOM EXHAUST SHALL BE DIRECTED TO OUTSIDE OF BUILDING.
EXHAUST AIR SHALL NOT BE DIRECTED ONTO WALKWAYS. AIR EXHAUST OPENINGS SHALL BE PROTECTED WITH CORROSION-RESISTANT SCREENS, LOUVERS OR GRILLS IF TERMINATING OUT DOORS.

P.E. #56001

HART 2 HART ACADEMY AFTER SCHOOL BUILDING

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	APROVED V.H.F.

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SHEET M-2 OF 2

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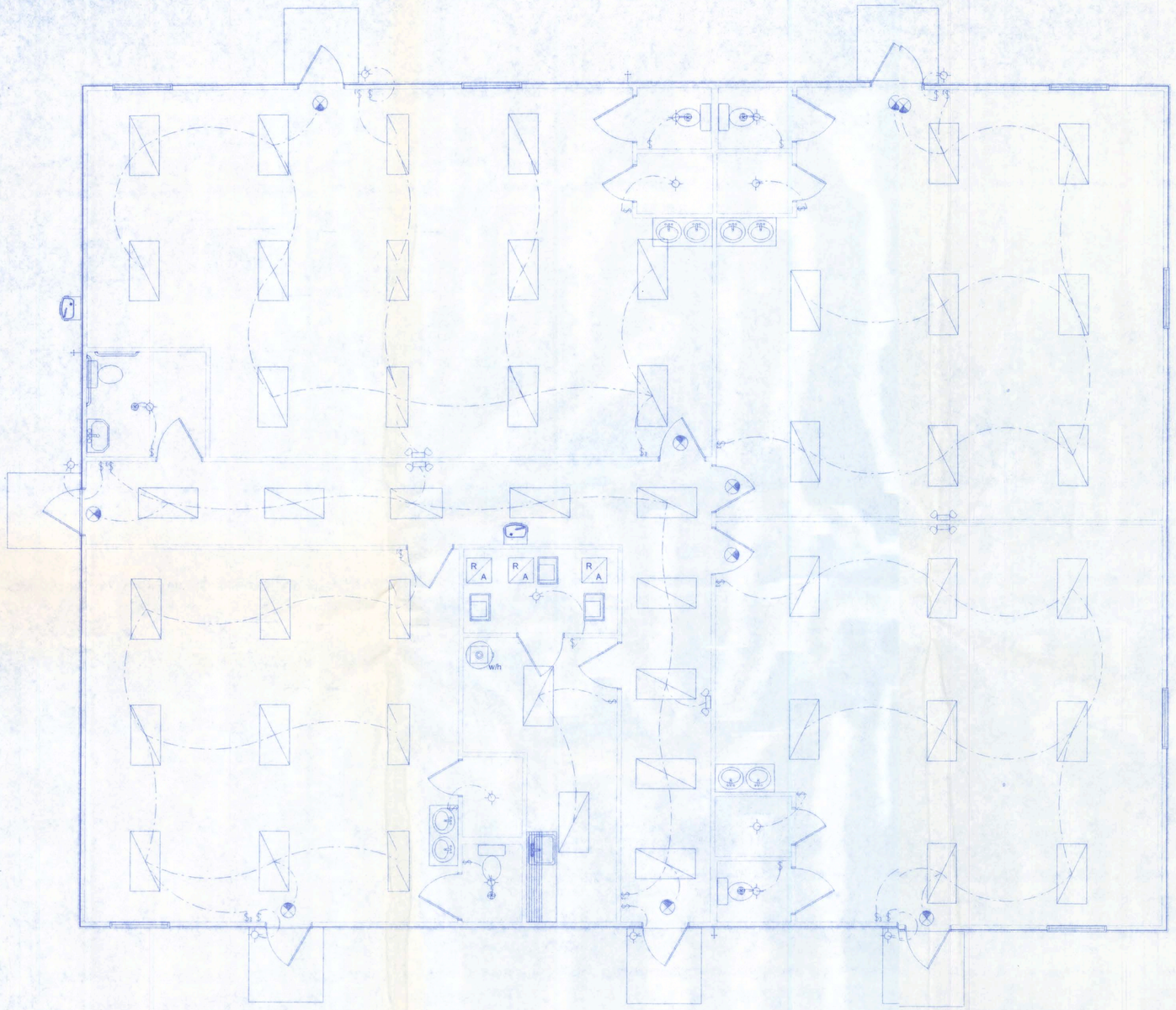

ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

ELECTRICAL	SYMBOL
fluorescent light 2 x 4	
electric motor	
electrical meter	
main distribution panel	M.D.P.
non-fused disconnect	N
50 cfm exhaust fan	
incandescent light	
switch	
switch 3 way	

NOTE:

ALL RECEPTACLES SHALL BE 60" A.F.F. EXCEPT IN KITCHEN AND OFFICE

SMOKE DETECTORS SHALL BE LOCATED EVERY 10' IN HALL WAYS AND IN KITCHEN.

HEAT SENSORS SHALL BE LOCATED IN KITCHEN AND IN A/C CLOSETS.

A TYPE 20ABC FIRE EXTINGUISHER SHALL BE LOCATED WITHIN 15 FEET OF RANGE IN KITCHEN.

FIRE BELLS SHALL BE LOCATED ON OPPOSITE ENDS OF ALL ROOMS AND SHALL BE ACCESSIBLE.

NOTE:

VERIFY LOCATIONS OF CHANGING TABLES AND LOCATE 50 CFM EXHAUST FAN IN THE VICINITY.

ELECTRICAL PLAN NOTES

WIRE ALL APPLIANCES, HVAC UNITS AND OTHER EQUIPMENT PER MANUF. SPECIFICATIONS.

CONSULT THE OWNER FOR THE NUMBER OF SEPARATE TELEPHONE LINES TO BE INSTALLED.

INSTALLATION SHALL BE PER NAT'L. ELECTRIC CODE.

ALL SMOKE DETECTORS SHALL BE 120V W/ BATTERY BACKUP OF THE PHOTOELECTRIC TYPE, AND SHALL BE INTERLOCKED TOGETHER.

TELEPHONE, TELEVISION AND OTHER LOW VOLTAGE DEVICES OR OUTLETS SHALL BE AS PER THE OWNER'S DIRECTIONS, & IN ACCORDANCE W/ APPLICABLE SECTIONS OF NEC-LATEST EDITION.

ELECTRICAL CONT'R SHALL PREPARE "AS-BUILT" SHOP DWGS INDICATING ALL ELECTRICAL WORK, INCLUDING ANY CHANGES TO THE ELEC. PLAN, ADD'NS TO THE ELEC. PLAN, RISER DIAGRAM, AS-BUILT PANEL SCHEDULE W/ ALL CKTS IDENTIFIED W/ CKT Nr., DESCRIPTION & BRKR, SERVICE ENT. & ALL UNDERGROUND WIRE LOCATIONS/ROUTING/DEPTH. RISER DIA. SHALL INCLUDE WIRE SIZES/TYPE & EQUIPMENT TYPE W/ RATINGS & LOADS.
CONTRACTOR SHALL PROVIDE 1 COPY OF AS-BUILT DWGS TO OWNER & 1 COPY TO THE PERMIT ISSUING AUTHORITY.

NOTE:

COMBO EXIT LIGHT w/ EMERGENCY LIGHTING MAY BE USED

NOTE:

ALL ELECTRICAL FIXTURES (LIGHTS, OUTLETS, ETC.) SHALL BE PRE-APPROVED BY OWNER PRIOR TO ANY INSTALLATION BY ELECTRICAL CONTRACTOR OR BY THE GENERAL CONTRACTOR OR ANY SUB-CONTRACTORS.

NOTE:

ALL FLUORESCENT FIXTURES TO BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.

DETECTION:

A smoke detection system shall be installed in accordance with NFPA 72, with placement of detectors in each story in front of doors to the stairways and in front of corridors of all floors occupied by the day-care occupancy. Detectors shall also be installed in lounges, recreation areas and sleeping rooms in the day-care occupancy.

P.E. #56030

HART 2 HART ACADEMY
AFTER SCHOOL BUILDING

128 SW NASSAU STREET
LAKE CITY, FL. 32025
(386)758-4209
CERTIFICATE OF AUTHORIZATION # 00006701

Freeman Design Group Inc

DATE	DRAWN BY
2/3/10	V.H.F.
	APROVED V.H.F.

REVISIONS

SHEET E-1
OF 4

PROJECT Nº
09 .C029

ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

ELECTRICAL	COUNT	SYMBOL
electric motor	3	
electrical meter	1	
electrical panel	2	
main distribution panel	1	
non fused disconnect	4	N
non-fused disconnect	3	N
outlet	47	
outlet gfi	6	
weather proof GFI	4	

NOTE:

ALL RECEPTACLES SHALL BE 60" A.F.F. EXCEPT IN KITCHEN AND OFFICE

SMOKE DETECTORS SHALL BE LOCATED EVERY 10' IN HALL WAYS AND IN KITCHEN.

HEAT SENSORS SHALL BE LOCATED IN A/C CLOSETS.

FIRE BELLS SHALL BE LOCATED ON OPPOSITE ENDS OF ALL ROOMS AND SHALL BE ACCESSIBLE.

P.E. #56801

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Freeman Design Group inc

DATE	DRAWN BY W.HF
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SHEET E-2

OF 4

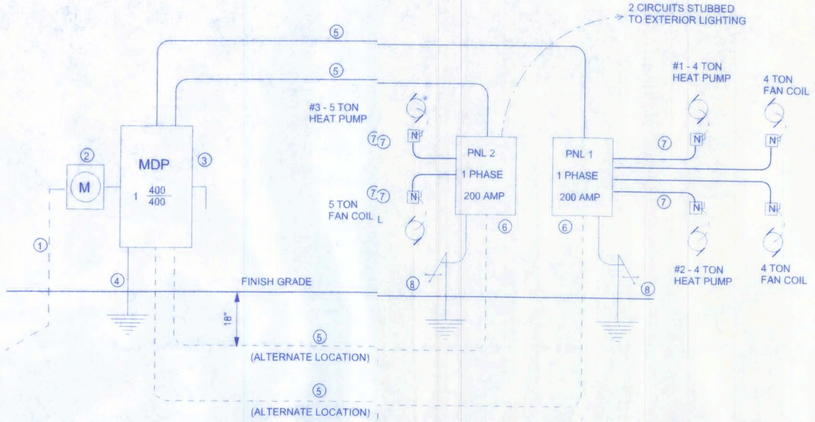
PROJECT NO.

09 C029

PANEL BOARD SCHEDULE

PANEL: PNL 1 | LOCATION: STAFF ROOM
TYPE: SQ.D. NQOD | MAIN LUGS: ONLY | MAIN BREAKER: X | AMPS: 200
VOLTS: 120/240 | PHASE: 1 | WIRE: 3 | SINGLE/DLES: 40
A.I.C. RATING: 10,000 KVA | FEEDER SIZE: 3 - 3/0 THW
FEED: TOP: X | BOTTOM:
MOUNTING / SURFACE: | FLUSH: X
CABINET / STANDARD: X
TOTAL KW LOAD: 46.5

WIRE	GND.	COND.	APPLICATION	LOAD	CIR.	BRK.	BRK.	CIR.	LOAD	APPLICATION	COND.	GND.	WIRE
4	6	1"	HEAT PUMP #3		1	60/2	60/2	2		IR HANDLER	1"	6	4
					3			4					
12	12	1/2"	RECEPT.		5	20/1	20/1	6		RECEPT.	1/2"	12	12
12	12	1/2"	RECEPT.		7	20/1	20/1	8		RECEPT.	1/2"	12	12
12	12	1/2"	RECEPT.		9	20/1	20/1	10		RECEPT.	1/2"	12	12
12	12	1/2"	RECEPT.		11	20/1	20/1	12		RECEPT.	1/2"	12	12
12	12	1/2"	LIGHTING		13	20/1	20/1	14		LIGHTING	1/2"	12	12
12	12	1/2"	LIGHTING		15	20/1	20/1	16		LIGHTING	1/2"	12	12
12	12	1/2"	LIGHTING		17	20/1	20/1	18		LIGHTING	1/2"	12	12
			SPACE		19			20		SPACE			
			SPACE		39			40		SPACE			



1. Service/Feeder Entrance Conductors: 2 1/2" rigid conduit, min 18" deep, w. continuous ground bonding conductor. Service/ Entrance Conductors shall not be spliced except that bolted connections at the Meter, Disconnection Devices and Panel shall be allowed.
2. Meter Enclosure, weatherproof, U.L. Listed.
3. Main Disconnect Switch: fused or Main Breaker, weatherproof, U.L. Listed.
4. Service entrance ground: 5/8" diameter iron/steel rod x 8'-0" long and/or concrete encased foundation steel rebar x 20'-0" long. Grounding conductor shall be bonded to each piece of Service/Entrance Equipment, and shall be sized per Item #5 below.
5. 200 Ampere Feeder: 3-3/0-THW-Cu, 1-#2-Cu-GND, 2 1/2" Conduit.
6. House Panel (PNL), U.L. Listed, sized per schedule.
7. Equipment Disconnect Switch: non-fused, in weather proof enclosure, size according to Panel Schedule loads.
8. Provide Ground Bond Wire to metal piping, size in accordance with the Service Ground Conductor.

WIRING NOTES:

WIRING, DISTRIBUTION EQUIPMENT AND DEVICES

A. CONDUCTORS: Copper, in accordance with ASTM Standards, size reference AWG. Conductors No. 10 and smaller size solid. No. 8 and Larger, Stranded. Insulation of conductor thermoplastic, type THHN (min. size No. 12) any wire installed outside, underground, in slabs or exposed to moisture shall have THWN insulation.

B. RACEWAYS: RIGID STEEL CONDUIT, full weight pipe galvanized, threaded, and minimum 1/2 inch except as noted or required for wiring. ELECTRICAL METALLIC TUBING (EMT), thin wall pipe, galvanized, threadless, compression fittings, and minim 1/2" size except as noted or required for wiring. FLEXIBLE STEEL CONDUIT: continuous single strip, galvanized, and minimum 1/2" size except as noted or required for wiring. PVC CONDUIT, heavy duty type, size as indicated. Separate raceways shall be used for each voltage system.

C. DISCONNECT SWITCHES: General Duty, horsepower rated for motor loads 250 volt rating, fused or non-fused as noted; number of poles as indicated. Enclosure NEMA 1 for indoor use and NEMA 3R for weatherproof applications. Switch to be Square "D" or equal.

D: CIRCUIT BREAKERS: molded case, thermal-magnetic, quick make, quick break, bolt-on type with manually operated insulated trip-free handle. Multi-pole types with internal common trip bar. Terminals suitable for copper or aluminum conductors. Interrupting capacity minimum 10,000 RMS. symmetrical amperes circuit circuit breakers to be Square "D", Siemens or equal, type as required.

E: PANEL BOARDS: Voltage, phasing, and ampere ratings as indicated, circuit breaker type as indicated, buss bars of hard drawn copper, minimum 98% conductivity, galvanized steel back box, door and trim. All corners lapped and welded, hardware chrome plated with flush lock and catch. Hinges semi-concealed, 5 knuckles steel with nonferrous pins. 180 degree openings. Minimum gutter space 5-3/4" sides, top and bottom. Increase size where required by code. Directory holder complete with clear plastic transparent cover indicating typewritten list of feeder cables, conduit sizes, circuit number, outlets of equipment supplied, and their location. Circuit breaker type panel boards to be Square "D" type NQOD or I-Line, or equal. A plastic label shall be located on exterior of panel board identifying the system voltage, phase, and current rating.

F: WIRING DEVICES: All devices their product of the same manufacturer. Wall switches and receptacles to be 20 amp, 125 volt, unless noted otherwise. Color to be selected by Architect.

G: DEVICE PLATES: provide for all outlets where devices are installed. Provide engraved marking for special outlets (where noted). Provide blank plates for empty or future outlet boxes. DEVICE AND DEVICE PLATE COLORS TO BE VERIFIED WITH ARCHITECT AND OWNER.

GROUNDING SYSTEM:

a. EQUIPMENT: Ground non-current carrying metal parts of panel board, raceways and all lighting fixtures. All conduit shall have equipment grounding conductors.

INSTALLATION:

A. Secure all supports to building structure as specified under raceways. Support horizontal runs of metallic conduit not more than 10 feet apart. Run exposed raceways parallel with or at right angles to walls.

B. Pass raceways over water, steam or other piping when pull boxes are not required. no raceway within 3 inches of steam or hot water pipes, or appliances. expect crossing where the raceway shall be at least 2 inches from pipe cover.

C. Cut conduit ends square , ream smooth. Paint male threads of field threaded conduit with Graphite based pip compound. Draw up tight with conduit couplings.

D. Leave wire sufficiently long to permit making final connections. In raceway over 50 feet in which wiring is not installed, furnish pull wire.

E. Verify locations of outlets and switches.

F. Support panel, junction and pull boxes independently to building structure with no weight bearing on conduits.

G. Connect conduit to motor conduit terminal bases with flexible conduit; minimum 18 inches in length and 50% slack. Do not terminate in or fasten raceways to motor foundation.

H. This contractor shall provide a temporary electrical distribution system as required; 120/208 volt, 1 phase, 100 amp, for new construction. All temporary work shall be installed in a neat and safe manner.

I. Contractor to remove and salvage all abandoned electrical equipment.

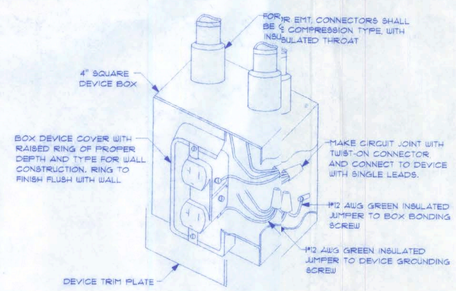
J. This contractor shall warrant all labor and materials for one year from date of final written acceptance.

PANEL BOARD SCHIDULE

PANEL: PNL 1 | LOCATION: STAFF ROOM
TYPE: SQ.D. NQOD | MAIN LUGS: ONLY | MAIN BREAKER: X | AMPS: 200
VOLTS: 120/240 | PHASE: 1 | WIRE: 3 | SINGLE/DLES: 40
A.I.C. RATING: 10,000 KVA | FEEDER SIZE: 3 - 3/0 THW
FEED: TOP: X | BOTTOM:
MOUNTING / SURFACE: | FLUSH: X
CABINET / STANDARD: X
TOTAL KW LOAD: 46.5

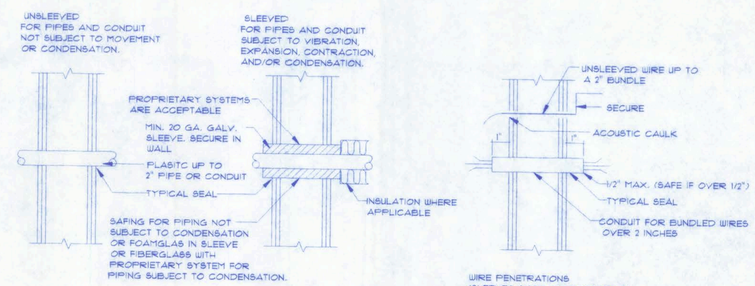
WIRE	GND.	COND.	APPLICATION	LOAD	CIR.	BRK.	BRK.	CIR.	LOAD	APPLICATION	COND.	GND.	WIRE
8	10	3/4"	HEAT PUMP #1		1	50/2	50/2	2		EAT PUMP #2	3/4"	10	8
					3			4					
4	6	1"	AIR HANDLER		5	60/2	60/2	6		A HANDLER	1"	6	4
					7			8					
12	12	1/2"	EM. LIGHTING		9	20/1		10	20/1	ALARM	1/2"	12	12
12	12	1/2"	EXT. LIGHTING		11	20/1		12	20/1	ET. LIGHTING	1/2"	12	12
12	12	1/2"	1/3 HP SEWAGE PUMP		13	20/1		14	20/1	1/3 SEWAGE PUMP	1/2"	12	12
10	12	3/4"	WATER HEATER		15	30/2		16				12	12
					17			18					
			SPACE		39			40		SPACE			

NOTE:
The minimum AIC rating for panel boards, breakers and disconnect switches shall be 10,000 AIC.



NOT TO SCALE

TYPICAL DUPLEX RECEFPTACLE INSTALLATION



CONDUIT PENETRATION DETAIL

P.E. #56001

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Freeman Design Group INC

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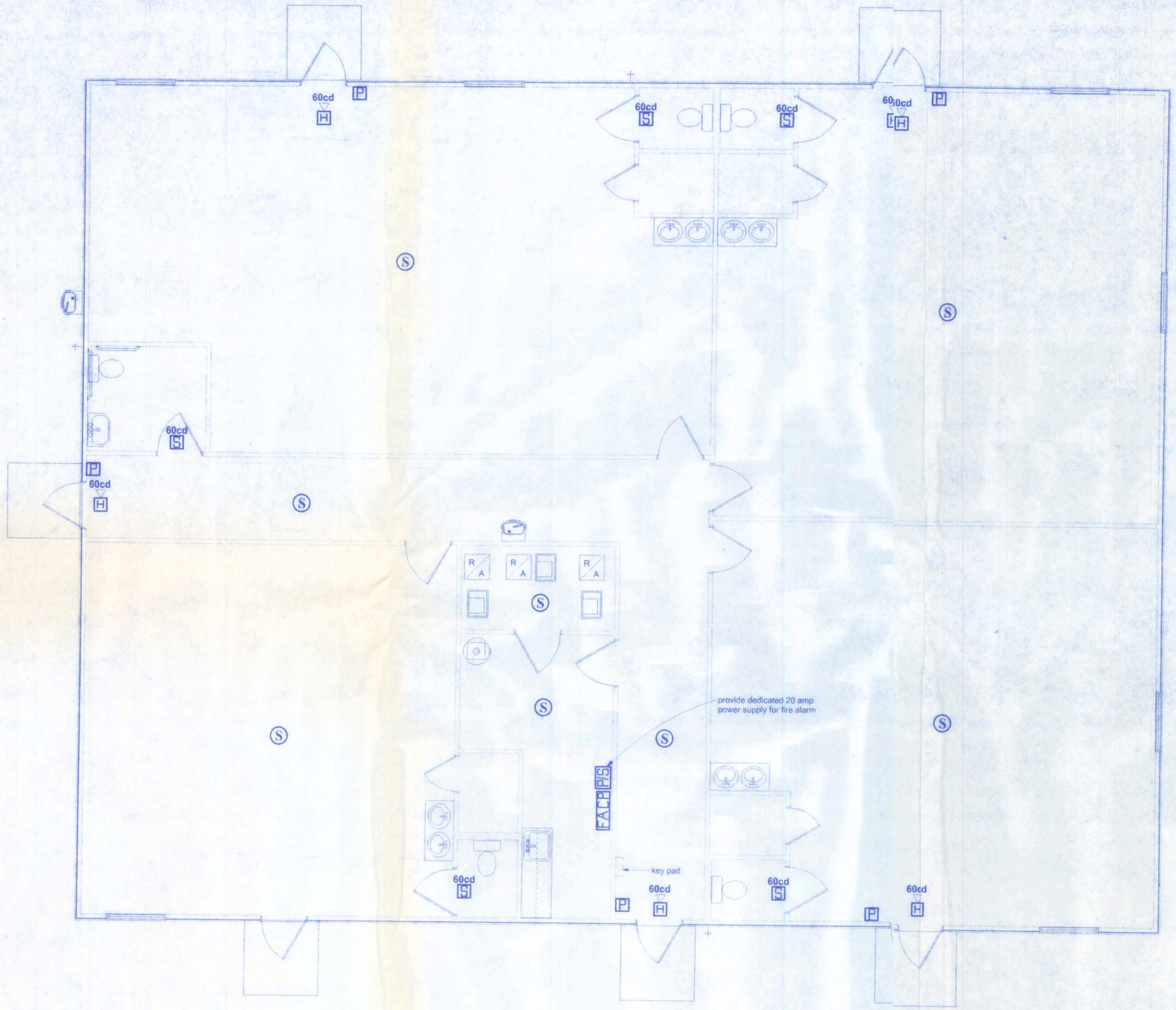

ALARM PLAN

SCALE: 1/4" = 1'-0"

ELECTRICAL	COUNT	SYMBOL
Damper Detector	3	DD
Fire Alarm Control Panel	3	FACP
Heat Detector	1	H
Horn-Strobe 60cd	6	60cd H
20 Amp dedicated ckt	1	P/S
Pull Station	7	P
Smoke Detector	10	S
Strobe 60cd	7	60cd S

OCCUPANT NOTIFICATION:

AUDIBLE AND VISIBLE ALARMS SHALL BE PROVIDED TO ALERT OCCUPANTS OF A FIRE OR OTHER EMERGENCY.

INITIATION:

INITIATION OF THE REQUIRED FIRE ALARM SYSTEM SHALL BE BY MANUAL MEANS AND BY OPERATION OF ANY REQUIRED SMOKE DETECTORS.

FIRE DEPARTMENT NOTIFICATION:

THE FIRE ALARM SYSTEM SHALL BE ARRANGED TO TRANSMIT THE ALARM AUTOMATICALLY TO THE FIRE DEPARTMENT IN ACCORDANCE WITH NFPA 72 BY MEANS OF ONE OF THE FOLLOWING METHODS AS APPROVED BY THE BUILDING OFFICIAL:

1. an auxiliary alarm system, or
2. a central station connection, or
3. a proprietary system, or
4. a remote station connection.

Exception:

Where none fo the above means of notification is available, a plan for notification of the fire department, acceptable to the building official, shall be provided.

NOTE:

The HVAC contractor shall provide relay switches from each smoke damper to connect to the alarm system.

MOUNTING HEIGHT:

key pad - 48"
smoke detector - ceiling
horn strobe - 81"
pull station - 48"
strobe - 81"

DETECTION:

A smoke detection system shall be installed in accordance with NFPA 72, with placement of detectors in each story in front of doors to the stairways and in front of corridors of all floors occupied by the day-care occupancy. Detectors shall also be installed in lounges, recreation areas and sleeping rooms in the day-care occupancy.

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