MADISON ROAD APARTMENTS TOWN OF ORANGE, VIRGINIA

VIRGINIA HOUSING CONTRACT SET

THE FOLLOWING SIGNATURES ARE INDIVIDUAL ACKNOWLEDGEMENTS THAT THESE DRAWINGS AND SPECIFICATIONS REPRESENT THE PROJECT AGREED TO BE CONSTRUCTED, AND INCLUDE A CURREN INDEX IDENTIFYING ALL SHEETS AND SHEET REVISION DATES. CHANGES FROM THE LATEST VIRGINIA HOUSING REVIEWED SET ARE CLOUDED AND TAGGED, AND A NARRATIVE DESCRIBING THOSE CHANGES IS PROVIDED.

Print Name Owner

Print Name Architect of Record

Print Name **General Contractor**

NOTICE TO CONTRACTOR & ALL TRADES

Sianatur

ALL TRADES SHALL BE RESPONSIBLE FOR THE CONTENTS CONTAINED HEREIN, AND FOR THE INFORMATION REPRESENTED ON ALL SHEETS. THESE CONSTRUCTION DOCUMENTS HAVE BEEN PRODUCED WITH THE INTENTION OF BEING USED AS A SINGULAR TOOL FOR THE CONSTRUCTION OF THIS PROJECT. NO SINGLE DRAWING WILL STAND ALONE, AND AT NO TIME WILL THE **ARCHITECT OR OWNER BE RESPONSIBLE FOR ACTIONS TAKEN BY** A CONTRACTOR OR SUBCONTRACTOR WHO HAS NOT REVIEWED AND IS NOT IN POSSESSION OF A FULL WORKING SET OF DRAWINGS. BE ADVISED, THERE MAY BE NOTES ON A DRAWING FOR ONE SPECIFIC TRADE THAT WILL PERTAIN TO THE WORK OF OTHER TRADES. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE

CLEAR COMMUNICATION BETWEEN ALL TRADES. AND THAT ALL WORKERS HAVE ADEQUATELY REVIEWED ALL DRAWINGS AND LOCATED ALL WORK THAT WOULD FALL UNDER THEIR **RESPONSIBILITY.**

BUILDING PERMIT BY GENERAL CONTRACTOR (VERIFY WITH OWNER)

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY SHORING, BRACING & WEATHER PROTECTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROTECTION AND BARRICADING OF PUBLIC AREAS AND NEIGHBORING PROPERTIES

CONTRACTOR SHALL COMPLY WITH ALL PERTINENT RULES, REGULATIONS, ORDINANCES, AND LAWS MANDATED BY LOCAL, STATE, AND FEDERAL AGENCIES

PRIOR TO CONSTRUCTION, EXAMINE ALL PROJECT SPECIFICATIONS, DRAWINGS, AND VISIT THE SITE TO DEVELOP A COMPLETE UNDERSTANDING OF THE PROJECT SCOPE. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM ALL WORK REQUIRED FOR A COMPLETE INSTALLATION. UPON REVIEW OF THESE DOCUMENTS, ADVISE THE ARCHITECT IN A TIMELY MANNER OF ANY DISCREPANCIES WHICH WILL EFFECT THE WORK REQUIRED SO THAT THE ARCHITECT MAY PROVIDE DIRECTION PRIOR TO BEGINNING EFFECTED WORK.

CODE INFORMATION 2018 VCC

BUILDINGS AND CONSTRUCTION OF A NEW 7,091 SF BUILDING FOOTPRINT WITH (3) STORY ABOVE GRADE PLANE R-2 UNIVERSAL DESIGN & ACCESSIBLE APARTMENTS & A BUSINESS OFFICE USE ON BASEMENT / GROUND FLOOR LEVEL.

ALL WORK SHALL COMPLY WITH THE 2018 VA USBC: VIRGINIA CONSTRUCTION CODE (VCC) ICC A117.1-2012

VIRGINIA FIRE PREVENTION CODE VIRGINIA ENERGY CONSERVATION CODE VIRGINIA MECHANICAL CODE

VIRGINIA PLUMBING CODE

VIRGINIA FUEL GAS CODE N.E.C.(CURRENT ADOPTED VERSION)

UNIFORM FEDERAL ACCESSIBILITY STANDARDS ALL REFERENCES BELOW REFER TO THE 2018 VCC U.N.O.

CHAPTER 3 USE & OCCUPANCY

OCCUPANCY: B BUSINESS; R-2 RESIDENTIAL

B [S] USE: 60FT, 3 STORY, 27,000 SF R-2[S13R] USE: 60 FT, 3 STORY, 7,000 SF

43'-0" HEIGHT, (3) STORY, 7,091 SF 506.3 If = $[372/404 - 0.25]\frac{30}{30} = 0.67$ Aa = 0.67(7,000) + 7,000 = 11,690 SF

(0) RATING FOR BUILDING ELEMENTS T602 (0) RATING FOR EXTERIOR WALLS X>10' **CODE INFORMATION** (CONTINUED)

CHAPTER 7 FIRE & SMOKE PROTECTION FIRE WALLS - NONE 707 FIRE BARRIERS - SHAFTS FIRE PARTITIONS - 1/2 HR SEPARATING DWELLING AND SLEEPING UNITS & CORRIDORS

CHAPTER 9 FIRE PROTECTION SYSTEMS 907 FIRE ALARM - [NR] FOR B OCCUPANCY; 907.2.9 OCCUPANCY 907.2.9.1 MANUAL FIRE ALARM W/ OCCUPANT NOTIFICATION

	R USE OCCUPANCY =
	TOTAL R USE OCCUP
T1006.2.1	COMMON PATH OF 1
T1006.3.2	MIN. NUMBER OF EXIT
1009.1	ACCESSIBLE MEANS (
1009.3.2	STAIRWAY CLEAR WI
1009.3.3	AREA OF REFUGE [NF
T1017.2	EXIT ACCESS TRAVEL
T1020.1	CORRIDOR FIRE RATIN
1023.4	ELEVATORS SHALL NO

CHAPTER 11 ACCESSIBILITY SHARED AMENITIES

CHAPTER 29 MINIMUM PLUMBING FXITURES 20 MEN & 21 WOMEN B USE

	REQUIRE
WC men	1
WC women	1
LAV M/W	1
DF	1 HI / LOV
SS	1
PER DWELLING UI	VIT
WC,TUB,LAV, SINI	< 1

80 EARTH SHEET WHERE SECTION ABV. A.C.T IS LOCATED POROUS FILL COLUMN BUBBLES A.F.F. ------ DRAWING NUMBER AND GRID LINES ADJ. CONCRETE ALT. 44 4 4 ALUM SECTION CMU - CONCRETE ARCH. MASONRY UNIT B.F.F. BSMNT BRICK DRAWING NUMBER MATCH LINE Blk'G MATCH LINE SEE 02/A2.03 B.O. STONE 06/A6.01 - SHEET WHERE DETAIL BOT. IS LOCATED BRD. METAL ELEVATION BLDG INDICATOR C.T. FINISHED WOOD CLG. (100)DOOR NUMBER CLOS. DETAIL S S PLYWOOD CMU SYMBOL б CONC. $\langle G \rangle$ WINDOW TYPE - DRAWING NUMBER CONST. GLASS Δ \sim DBL 05/A1.02 - SHEET WHERE ELEVATION Σ $\langle A \rangle$ DWG **KEYED NOTES** ACOUSTICAL TILE IS LOCATED DETL. S ELEVATION (E) GPDW - GYPSUM WALL TYPE E.C. GENERAL WALL BOARD ELEC **BATT INSULATION** ELEV. $\overline{\mathbf{v}}$ RM# EQ. ROOM NUMBER ш RIGID INSULATION \sim EXPAN. REVISION BB EXT. **ROOM FINISH** F.G.

DWELLING & SLEEPING UNIT SEPARATION REQ'D CHAPTER 5 GENERAL BUILDING HEIGHT AND AREA PROJECT ALLOWABLE / ACTUAL HEIGHT & AREAS BASED ON MOST RESTRICTIVE PROJECTED USE BUILDING LIMITATIONS (TABLES 504.3, 504.4 & 506.2): PROJECT ACTUAL HEIGHT & AREA: FRONTAGE INCREASE IF = [F/P-0.25]W/30

508.3 NON-SEPARATED OCCUPANCIES CHAPTER 6 TYPE OF CONSTRUCTION: 5B [S & R13]

PROJECT DESCRIPTION

SCOPE OF PROJECT INCLUDES DEMOLITION OF TWO EXISTING

713.4 718.4

SHALL COMPLY WITH VCC CHAPTER 8.

CHAPTER 10 MEANS OF EGRESS





- 708.4.2 EX4 ATTIC DRAFTSTOPPING REQ'D >3,000 SF OR EA. (2) UNITS FIRE BARRIERS - SHAFTS (2) HOURS CONNECTING (4) STORIES
- ATTIC DRAFTSTOPPING REQUIRED OVER EA. (2) UNITS CHAPTER 8 INTERIOR FINISHES: INTERIOR WALLS, CEILINGS, & FLOORS
- AUTOMATIC SPRINKLER SYSTEM PROVIDED [NFPA 13 & 13R]
- 906 FIRE EXTINGUISHERS PROVIDE IN B OCCUPANCY PER 906 & IFC FIRE ALARM & SMOKE DETECTION REQUIRED FOR R-2

 - OCCUPANCY LOADS: SEE PLAN FOR INDIVIDUAL SPACES B USE OCCUPANCY = 6,118/150 = (41)
 - = 6,407 / 200 = (32) PER FLOOR ANCY = (96)
 - TRAVEL < 100' B USE; ,125' R-2 USE TS EA FLOOR = (2)
 - OF EGRESS: (2) PROVIDED
 - DTH < 4'-0" PERMITTED W/ [S] R] W/ SPRINKLER
 - NG = (0) B USE; (1/2) R-2 USEDT OPEN TO INTERIOR EXIT STAIR
- ACCESSIBLE ROUTE & EXITS PROVIDED TO BUILDING, ALL UNITS AND

 - PROVIDED 1 HI/LOW

MEP COORDINATION NOTE

BASEMENT

1ST

2ND

3RD

TOTAL

F.F.

FIN.

FLR.

FT.

FTG.

G.C.

GWB

GA.

GALV.

HVAC

НW

HDR.

HGT.

HORIZ.

INSUL

JAN.

INT.

L.F.

M.C.

MRB

MAX.

MIN.

MTL.

O.C.

PT'D

ΡL

MANUF.

MECH.

FND.

FRMG.

AREA CALCULATIONS

GROSS FLOOR AREA (SF)

CODE INFORMATION (CONTINUED)

SITE IS NOT LOCATED IN A FLOOD HAZARD AREA

PLUMBING, ELECTRICAL, & HVAC SYSTEMS ARE TO MEET APPLICABLE BUILDING AND LIFE SAFETY CODES UNDER VA USBC 2018 & ANSI A117.1-2012. EACH SYSTEM DESIGNER/INSTALLER MUST COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER PROJECT SUB-CONTRACTORS.

R-2 APARTMENT UNIT TYPES		
ONE BEDROOM UD / HC		
NET RENTABLE AREA	16 UNITS	687 SF PER UN
		747 SE PER LIN
	2 01413	747 SI I LIK UIN
TWO BEDROOM UD / HC		
NET RENTABLE AREA	3 UNITS	<u>1,005 SF</u> PER U
TOTAL UNITS	21	15,501 SF ALL
IOIAL NEI RENIABLE UNII AREA		
(NON-PRORATED)		

7,081 7,091 6,975 <u>6,975</u> 28,122 SF

P.C.

PSF

PSI

P.T.

PERIM

PLUMB.

R.O.

RWC

REINF

REQ.

RESP.

RET.

RM

SE

S.S.R

std.

STOR.

T&G

TEMP

T.O.

TYP

U.G.

U.N.O

VWC

VERT.

V.C.T

W/O

W.W.F

WD.

W/

STL.

UNIVERSAL DESIGN BUILDING PLAN NOTES THIS PROJECT HAS A TOTAL OF (21) UNIVERSAL DESIGN / HANDICAP (UD/HC) UNITS. (18) ONE BEDROOM AND (3) TWO BEDROOM UNITS.

AT ABOVE ACOUSTICAL CEILING TILE ABOVE FINISHED FLOOR ADJUSTABLE ALTERNATE ALUMINUM ARCHITECTURA BELOW FINISHED FLOOR BASEMENT BLOCKING BOTTOM OF BOTTOM board BUILDING CERAMIC TILE CEILING CLOSET CONCRETE MASONRY UNIT CONCRETE CONSTRUCTION DOUBLE DRAWING DETAIL existing ELECTRICAL CONTRACTOR ELECTRICAL ELEVATION EQUIVALENT expansion EXTERIOR

FIBERGLASS

FINISHED FLOOR
FINISH
FLOOR
FOUNDATION
FRAMING
FOOT/FEET
FOOTING
GENERAL CONTRACTOR
GYPSUM WALLBOARD
GAUGE
GALVANIZED
HEATING, VENTILATION & AIR
CONDITIONING
HARDWARE
HEADER
HEIGHT
HORIZANTAL
INSULATION
INTERIOR
JANITOR
JOINT
LINEAR FOOT
MECHANICAL CONTRACTOR
MOISTURE RESISTANT BOARD
MANUFACTURED
MAXIMUN
MECHANICAL
MINIMUM
METAL
ON CENTER
PAINTED
PLATE



	encom	pass
\mathbf{N}	Community	Supports-

PROJECT OUTLINE SPECIFICATIONS (SEE BOOK PROJECT MANUAL FOR ADDITIONAL SPECIFICATIONS)

I. ALL ITEMS & SYSTEMS TO BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND IN CONFORMANCE WITH APPLICABLE BUILDING CODES, LAWS AND REGULATIONS.

2. UNLESS "NO SUBSTITUTIONS" IS SPECIFICALLY INDICATED, IT IS NOT THE INTENT OF THESE SPECIFICATIONS TO EXCLUDE MANUFACTURERS THAT PRODUCE EQUAL PRODUCTS OR SYSTEMS. CONTRACTOR IS ENCOURAGED TO SUBMIT ALTERNATE PRODUCT OR SYSTEM MANUFACTURERS FOR CONSIDERATION BY ARCHITECT PRIOR TO BID / ORDER.

3. CONTRACTOR SHALL DAILY REMOVE ALL DEBRIS FROM SITE AND KEEP WORK AREA CLEAN. REMOVE EXCESS MATERIALS FROM SITE IN COMPLIANCE WITH EARTHCRAFT GOLD STANDARDS.

4. SEE THE PROJECT MANUAL FOR ADDITIONAL SPECIFICATIONS AND INFORMATION.

5. FOLLOWING CONTRACT AWARD, SUBMIT PROPOSED COLOR CHARTS & SAMPLES FOR ALL REQUIRED COLOR SELECTIONS TO ARCHITECT FOR SELECTION & SCHEDULE. MANUFACTURER'S PRINTED COLOR CHARTS FOR PAINTED ITEMS OR PHYSICAL SAMPLES ARE REQUIRED. PAGES PRINTED FROM WEBSITES OR LINKS TO WEBSITES ARE NOT ACCEPTABLE.

6. SUBMITTAL INFORMATION REQUIRED FOR ALL SECTIONS LISTED IN THE SUBMITTAL SCHEDULE OR IDENTIFIED IN THE PROJECT MANAUL. EXCEPT FOR SAMPLES, FURNISH SUBMITTALS IN PDF FORMAT.

7. CONTRACTOR SHALL MAKE APPLICATION AND OBTAIN ALL PERMITS REQUIRED FOR THE EXECUTION OF THIS WORK. U.N.O. ALL PERMIT FEES WILL BE PAID BY THE CONTRACTOR. SPECIAL INSPECTIONS REQUIRED BY THE CODE SHALL BE PAID FOR BY THE OWNER. THE OWNER WILL PAY FOR ALL OTHER QUALITY CONTROL INSPECTIONS UNLESS INDICATED OTHERWISE IN THE CONTRACT DOCUMENTS AS WELL AS ELECTRIC & GAS UTILITY CONNECTION FEES & TELEPHONE & DATA SERVICE. CONTRACTOR SHALL COORDINATE WITH SERVICES PROVIDED BY OTHERS.

DEFERRED SUBMITTALS

NOTE: THE FOLLOWING DRAWINGS SHALL BE SUBMITTED BY THE SUB-CONTRACTOR. SEE THE PROJECT MANUAL & SPECIFICATIONS FOR DESIGN CRITERIA & REQUIREMENTS:

FIRE PROTECTION SYSTEM SHOP DRAWINGS: PROJECT COMMERCIAL LEVEL & RESIDENTIAL BUILDINGS TO BE FULLY SPRINKLED PER NFPA 13 & 13R RESPECTIVELY. SEE FIRE PROTECTION SHEETS FOR SPRINKLER SYSTEM SPECIFICATIONS, DESIGN STANDARDS, FIRE FLOW DATA AND DETAILS, CONTRACTOR TO BE LICENSED IN VIRGINIA.

FIRE ALARM SYSTEM SHOP DRAWINGS: BUILDING TO HAVE FIRE ALARM SYSTEM AS PER NFPA 72 FIRE ALARM CODE. SUBMITTAL SHALL BE PREPARED BY A LICENSED OR CERTIFIED INSTALLER. SHOP DRAWINGS WILL BE PROVIDED TO AND OBTAIN PERMIT FROM FIRE MARSHAL PRIOR TO INSTALLATION BY STATE LICENSED CONTRACTOR. SYSTEM SHALL BE TESTED IN THE PRESENCE OF AND A CERTIFICATE OF COMPLIANCE ISSUED TO THE FIRE MARSHAL. SECTION 907 PF THE IFC 2012 W/ VIRGINIA AMENDMENTS.

PRE-MANUFACTURED ROOF & FLOOR TRUSS SYSTEM: SHOP SUBMITTAL SHALL BE PREPARED BY A VIRGINIA LICENSED ENGINEER. LOCATE ALL MEP, FIRE RATED, AND STRUCTURAL APPURTENANCES FOR NON INTERFERENCE.

ACCESS CONTROL SYSTEM (BY OWNER): SHOP SUBMITTAL SHALL BE PREPARED BY A LICENSED ENGINEER / INSTALLER. COORDINATE WITH THE LOCAL FIRE MARSHAL.

PROJECT SIGNAGE: EXTERIOR SIGNS ARE NOT APPROVED WITHIN THE SCOPE OF THIS BUILDING PERMIT. A SEPARATE SIGN LOCATION PERMIT IS REQUIRED FOR EACH SIGN.

SPECIAL INSPECTIONS: SPECIAL INSPECTION REPORTS AND FINAL REPORT IN ACCORDANCE WITH CHAPTER 17, SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO THE TIME THAT PHASE OF WORK IS APPROVED FOR OCCUPANCY. IN ACCORDANCE WITH THE IBC. SEE STRUCTURAL SHEETS FOR A LIST OF REQUIRED SPECIAL INSPECTIONS. A STATEMENT OF SPECIAL INSPECTIONS AS REQUIRED BY THE AHJ WILL BE PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE: (DPIRC). SPECIAL INSPECTION REPORTS AND A FINAL REPORT IN ACCORDANCE WITH VCC SECTION 1704.1 SHALL BE AVAILABLE AT THE TIME THE BUILDING IS APPROVED FOR OCCUPANCY.

EMERGENCY RESPONDER RADIO COVERAGE: BUILDING TO COMPLY WITH IFC SECTION 510. PROVIDE EQUIPMENT AS NECESSARY TO MEET CRITERIA. TESTING SHALL BE CONDUCTED AT 50% COMPLETION AND 80% COMPLETION TO ENSURE THAT CERTIFICATE OF OCCUPANCY IS NOT HELD. G.C. TO COORDINATE WITH LOCAL FIRE & EMERGENCY SERVICES. 24 HOUR POWER EMERGENCY STANDBY AS NECESSARY (IFC 604.2.3).

02000 - SITE WORK (SEE SITE PLAN SHEETS)

1. EXCEPT FOR MATERIALS TO BE RE-USED ON SITE SUCH AS TOPSOIL, CLEARED / DEMOLISHED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM THE SITE. CONTRACTOR SHALL PROVIDE ADDITIONAL SOIL AND FILL MATERIAL AS NECESSARY TO COMPLETE THE WORK. 2. DO NOT OBSTRUCT EXISTING STREETS, PARKING OR TRAVELWAYS WITHOUT OBTAINING PRIOR PERMISSION FROM THE OWNER. DROP-OFF AND PICK-UP PARKING MUST BE MAINTAINED DURING

CONSTRUCTION FOR SCHEDULED ON-SITE OPERATIONS. 3. PROTECT ALL EXISTING SITE IMPROVEMENTS TO REMAIN DURING CONSTRUCTION. RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION AS ACCEPTABLE TO THE OWNER. THIS SHALL

INCLUDE EXISTING PAVING, STRUCTURES, LANDSCAPING AND UTILITY SERVICES. 4. REPLACE ALL EXISTING TREES SCHEDULED TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION. 5. DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER WITHOUT PRIOR WRITTEN PERMISSION. CONTRACTOR MUST FURNISH TEMPORARY UTILITY SERVICES IF SERVICE IS INTERRUPTED TO ANY OCCUPIED AREAS - UNLESS DURING SCHEDULED AND APPROVED SERVICE INTERRUPTION.

6. U.N.O., SUBGRADE BACK FILL SOILS SHALL BE CLEAN AND FREE FROM CLAY & SILTY SOILS AND ROCKS LARGER THAN 3" IN ANY DIMENSION, FROZEN MATERIALS, VEGETATION, WASTE AND OTHER DELETERIOUS MATTER. SEE GEOTECH REPORT RECOMMENDATIONS. 7. STRUCTURAL FILL AND DRAINAGE FILL TO BE #57 STONE OR AS INDICATED IN THE GEOTECHNICAL

REPORT OR BY THE GEOTECHNICAL ENGINEER. 8. EXCESS TOPSOIL MAY BE SPREAD AND SEEDED ON SITE IN A LOCATION AS ALLOWED AND DIRECTED

BY OWNER. (SEE SITE PLAN) 9. BEDDING FILL TO BE CRUSHED STONE OR GRAVEL WITH 100% PASSING A 1-INCH SIEVE.

10. PROVIDE DETECTABLE WARNING TAPE WITH METAL CORE INSCRIBED WITH DESCRIPTION OF THE UTILITY 1'-0" MINIMUM ABOVE ALL UNDERGROUND UTILITIES. 11. PROVIDE ALL EROSION AND SEDIMENT CONTROL MEASURES REQUIRED BY THE COUNTY AND STATE. 12. EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF THE CHARACTER OF SURFACE OR

SUBSURFACE CONDITIONS ENCOUNTERED INCLUDING ROCK, SOIL MATERIALS OR OTHER OBSTRUCTIONS. IF EXCAVATED MATERIALS INTENDED FOR BACKFILL INCLUDE UNSATISFACTORY SOIL MATERIALS AND ROCK - REPLACE WITH SATISFACTORY MATERIALS. ROCK GREATER THAN (1)ONE CUBIC YARD SHALL BE REMOVED UNDER UNIT PRICING WITH REMOVED QUANTITIES DOCUMENTED. 13. EXCAVATE TRENCHES 6 INCHES DEEPER THAN BOTTOM OF PIPE IN ROCK AND 4 INCHES DEEPER

ELSEWHERE TO ALLOW FOR BEDDING COURSE. 14. RE-CONSTRUCT SUBGRADES DAMAGED BY FREEZING TEMPERATURES OR WATER, ETC. 15. COMPACTION: PLACE FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES AND COMPACT AS

FOLLOWS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER: UNDER STRUCTURES - ENGINEERED FILL COMPACTED TO 95% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE (ASTM D-698) AS DIRECTED BY GEOTECHNICAL ENGINEER. UNDER WALKS & PAVEMENTS - 95%

UNDER LAWNS - 85%

16. OWNER MAY ENGAGE AN INDEPENDENT GEOTECHNICAL TESTING AGENCY TO TEST AND INSPECT EACH LAYER OF SUBGRADE FILL. WHEN REPORTS INDICATE THAT THE SPECIFIED DEGREE OF COMPACTION IS NOT ACHIEVED, RECOMPACT AND RETEST UNTIL COMPACTION IS ACHIEVED. 17. WHERE SETTLING OCCURS, REMOVE FINISHED SURFACE AND REPAIR TO NEW CONDITION. 18. SEE THE ATTACHED SOILS REPORT INCLUDED IN THE PROJECT MANUAL AND FOLLOW ALL RECOMMENDATIONS OF THE REPORT.

19. SEE THE ATTACHED ACM REPORT INCLUDED IN THE PROJECT MANUAL. ACM HAS BEEN IDENTIFIED AT 454 NORTH MADISON. 20. CONTRACTOR IS RESPONSIBLE FOR ALL SURVEY, BENCHMARKS AND STAKEOUT REQUIRED FOR THIS

02500 - BUILDLING UTILITIES

PROJECT.

1. CONTRACTOR SHALL EXTEND AND COMPLETE BUILDING UTITLITY SERVICES IN COORDINATION WITH WORK PERFORMED BY OTHERS.

2. PROTECT ALL EXIST. SERVICES IN PLACE. 3. CONTRACTOR SHALL CAREFULY EXAMINE THE SITE TO DETERMINE EXISTING CONDITIONS AND FULL EXTENT OF WORK REQUIRED TO EXTEND ALL UTILITIES TO BUILDING. UTILITY COSTS & PERMIT FEES NOT SPECIFICALLY EXCLUDED ARE A PART OF THIS WORK.

4. AT PRE-CONSTRUCTION MEETING, CONTRACTOR SHALL PRESENT THE OWNER WITH A SCHEDULE FOR HAVING THE OWNER PROVIDED UTILITIES COMPLETE. 5. CONTRACTOR SHALL PROVIDE AND PAY FOR ANY TEMPORARY UTILITY SERVICES REQUIRED FOR CONSTRUCTION PRIOR TO FINAL UTILITY INSTALLATION (I.E. TEMP. H20 & ELEC.).

SPECIFICATIONS (CONT.)

02361 - TERMITE CONTROL *

- YEARS FROM DATE OF SUBSTANTIAL COMPLETION.
- EPA-REGISTERED LABEL.
- POST WARNING SIGNS IN THE APPLICATION AREA.

02800 - LANDSCAPING

- 1. SEE CIVIL LANDSCAPING SHEETS FOR ADDITIONAL INFORMATION
- COORDINATE EXACT LANDSCAPE PLACEMENT WITH UTILITY LOCATIONS AND SPACE PLANTINGS FROM BUILDING SO FULL GROWN PLANTS DO NOT GROW INTO BUILDING. NO PLANTING SHALL BE DONE IN FROZEN OR MUDDY CONDITIONS.
- CONTRACTOR SHALL WATER PLANTS DAILY IF PLANTING OCCURS DURING DRY CONDITIONS. 5. ALL FERTILIZER SHALL CONFORM TO APPLICABLE STATE FERTILIZER LAWS. NO BIO-SOLIDS SHALL BE
- BROUGHT ON SITE.
- 6. ALL PLANTING SOIL SHALL BE CLEAN, FRIABLE AND WELL DRAINED. UNLESS OTHERWISE INDICATED, BARK MULCH SHALL BE FRESH PINE BARK CHIPS 1/2" TO 1" SIZE OR APPROVED EQUAL. APPLY 2-3" MINIMUM DEPTH MULCH AT PLANTINGS AND EARTH AREAS WITHOUT LAWN.
- PROVIDE ALL STAKING AND GUYING NECESSARY TO SUPPORT AND ESTABLISH PLANTINGS. CONTRACTOR'S MAINTENANCE: PLANTS SHALL BE MAINTAINED UNTIL SUBSTANTIAL COMPLETION AND LANDSCAPE WORK IS ACCEPTED.
- 9. ALL PLANTINGS AND LAWN AREAS SHALL BE GUARANTEED FOR (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. REPLACEMENT PLANTS ARE GUARANTEED (1) YEAR FROM THEIR
- PLANTING DATE. 02900 - ORNAMENTAL SITE FENCE
- 1. SITE FENCE TO BE EQ. TO ALUMI-GUARD BLACK COMMERCIAL GRADE, ASCOT 3 RAIL, 42" HIGH ABOVE GRADE WITH 2-1/2" POSTS, 1-1/4" CONCEALED FASTENER RAIL, 3/4" PICKETS, TYPICAL 6' WIDE MAXIMUM PANELS EXCEPT WHERE SHOWN SMALLER OR REQUIRED FOR INSTALLATION. PROVIDE STANDARD POST CAP AT POSTS.
- SET POSTS A MINIMUM OF 2'-6" DEEP BELOW FINISHED GRADE IN 8" DIAMETER CONCRETE 3. PROVIDE 3'-0" WIDE PEDESTRIAN GATE WITH SELF CLOSING HINGES AND ADA LEVER HANDLE LATCH.

03300 CAST-IN-PLACE CONCRETE **

SHEET SPECIFICATIONS WHERE STRUCTURAL SHEET REQUIREMENTS ARE MORE STRINGENT.

- 1. FLOOR SLABS & FOOTINGS 3,500 PSI WITH FIBER MESH FOR FINISHED INTERIOR SLABS. ALL CONCRETE EXPOSED TO EXTERIOR TO BE AIR ENTRAINED 6% AT ± 1.5% AT POINT OF PLACEMENT. 2. FLOOR SLAB CONCRETE: REPLACE >25% OF CEMENT WITH FLY ASH OR SLAG FOR EARTH CRAFT COMPLIANCE. MATERIALS FOR CONCRETE (SAND, GRAVEL & CEMENT TO BE SOURCED WITHIN 500
- MILES OF PROJECT SITE. CONCRETE WORK SHALL CONFORM TO THE CURRENT VERSION OF: ACI 318-14 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE ACI 301-10 - SPECIFICATIONS FOR STRUCTURAL CONCRETE
- 4. PROVIDE STANDARD BAR CHAIRS & AND SPACERS AS REQUIRED FOR 3" COVER AT FOUNDATIONS AND 2" COVER AT FORMED WALLS AND ELEVATED SLABS. SUPPORT WIRE MESH W/ CONT. SLAB BOLSTERS @ 4'-0" OC MAX
- 5. CONTRACTOR SHALL CAREFULLY MONITOR CONCRETE PLACEMENT ACTIVITIES TO MINIMIZE SPILLAGE & CLEAN BOTH INTERIOR AND EXTERIOR AREAS WHERE CONCRETE SPLATTERS OR DRIPS . 6. NO DUMPING OF EXCESS CONCRETE OR TRUCK CLEAN UP TO OCCUR ON SITE UNLESS APPROVED
- IN ADVANCE BY OWNER.
- 7. REINFORCING BARS: ASTM A615, GRADE 60. FLAT SHEET WELDED WIRE FABRIC: ASTM A1064. MINIMUM LAP SLICE TO BE 48 BAR DIAMETERS
- 8. WATERSTOPS: 6" PVC EQ. TO SIKA GREENSTREAK DUMBELL PVC 6"x3/8". VAPOR BARRIER: 10 MIL MINIMUM POLYETHYLENE SHEETS - SEAL ALL EDGES & TURN UP WALL AT SLAB AROUND PERIMETER. PROVIDE UNDER ALL INTERIOR SLABS 10. JOINT FILLER STRIPS: ASPHALT-SATURATED CELLULOSIC FIBER OR 10 MIL VAPOR BARRIER.

03350 INSULATED CONCRETE FORMS (ICF) (NOT USED)

- 04200 UNIT MASONRY (SEE PROJECT MANUAL) 1. CONFORM TO THE REQUIREMENTS OF THE LASTEST EDITION OF ACI-530-13 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND ACI 530.1-13 "SPECIFICATION FOR MASONRY PROVIDE UNITS IN SIZES INDICATED AND SPECIAL SHAPES WHERE REQUIRED. MINIMUM COMPRESSIVE STRENGTH MASONRY UNITS TO BE 1,900 PSI, ASTM C90, GRADE N. SEE COLOR
- SCHEDULE FOR COLORS. CONSTRUCT IN RUNNING BOND PATTERN EXCEPT WHERE INDICATED OTHERWISE GROUT: ASTM C476, 2,000 PSI MIN. COMPRESSIVE STRENGTH F'm = 1,900 PSI.
- MORTAR: ASTM C270 CEMENT LIME, TYPE S (CMU), TYPE N (BRICK) REINFORCING: ASTM A615, GRADE 60
- PROVIDE HORIZONTAL DUROWALL WIRE REINFORCING AT 16" OC VERT. (TYP) AT ALL MASONRY BEARING WALLS.
- PROVIDE GALVANIZED STEEL SLEEVES AT EXTERIOR WALL PIPE PENETRATIONS. GROUT ALL MASONRY SOLID BELOW GRADE. GROUT 24 INCHES SOLID BELOW BEARING PLATES,
- BEAMS, HEADERS OR LINTELS. PROTECT MASONRY CONSTRUCTION DURING COLD, HOT AND WET WEATHER. 10. MASONRY TIES TO BE GALVANIZED CARBON STEEL - ADJUSTABLE FOR VERTICAL OR HORIZONTAL DIRECTION. PROVIDE TIES AT 16" OC VERTICALLY AND 16" OC HORIZONTALLY MAX. FOR VENEERS.
- INSTALL ADDITIONAL ANCHORS AROUND OPENINGS AND PILASTERS. 11. EXPOSED EMBEDDED FLASHINGS TO BE .0156 STAINLESS STEEL OR ALL COPPER. CONCEALED FLASHING TO BE .040 THICKNESS EPDM OR RUBBERIZED-ASPHALT. PROVIDE CONTINUOUS FLASHING
- AT ALL WEEP HOLES AND END DAMS AT FLASHING TERMINATIONS. 12. CLEAN MASONRY OF ALL MORTAR DRIPS, STAINS AND EFFLORESCENCE USING EITHER A JOB MIX DETERGENT SOLUTION OR PROPRIETARY ACIDIC CLEANER TESTED TO INSURE THAT SURROUNDING CONSTRUCTION AND MASONRY FINISH IS NOT DAMAGED. PROTECT MASONRY FROM SOIL /
- CONCRETE STAINING DURING AND IMMEDIATELY AFTER INSTALLATION. 13. MASONRY SHALL BE INSTALLED PLUMB AND LEVEL. CUT MASONRY WITH A SAW ONLY. COORDINATE CLOSELY FOR BUILT-IN WORK AND COORDINATE ALL MASONRY OPENINGS WITH
- FRAMING AND MEP SYSTEMS. 14. AT VENEER MASONRY INSTALL WEEPS IN HEAD JOINTS OF FIRST COURSE IN EXTERIOR WALL AND ABOVE EMBEDDED FLASHING. USE PRE-FORMED WEEP UNITS AT 24" OC MAX. WEEPS TO BE EQ. TO MASONPRO CELL VENTS 3/8" x 3-1/2" x 3-3/8" IN FINISH TO MATCH MORTAR.
- 15. CONSTRUCT A 4'-0" X 3'-0" HIGH MINIMUM SIZE SAMPLE PANEL OF EACH MASONRY WALL TYPE
- SHOWING ALL COLORS / PATTERNS FOR OWNER APPROVAL IN A LOCATION ON SITE TO REMAIN UNTIL BUILDING MASONRY IS COMPLETE & CLEANED.

05000 METALS (SEE PROJECT MANUAL)

06000 WOOD AND PLASTIC (SEE PROJECT MANUAL) ALL TEMPORARY AND PERMANENT BRACING TO STABILIZE STRUCTURE AT ALL TIMES. 3. INTERIOR WOOD TRIM - MITRE BUTT JOINTS. TRIM & MILLWORK INSTALLATION SHALL CONFORM TO AWI CUSTOM GRADE.

07100 FOUNDATION WATERPROOFING (SEE PROJECT MANUAL)

COORDINATE SOIL TREATMENT WITH EXCAVATION, FILLING, GRADING AND CONCRETE WORK. SPECIAL WARRANTY: WRITTEN WARRANTY, SIGNED BY APPLICATOR AND CONTRACTOR CERTIFYING THAT TERMITE CONTROL WORK WILL PREVENT INFESTATION OF SUBTERRANEAN TERMITES FOR (5)

3. PROVIDE TERMITICIDE WITH NO PRE-TREATMENT THAT IS NOT HARMFUL TO PLANTS AND COMPLIES WITH EARTHCRAFT GOLD STANDARD DU 1.14 APPLY AS RECOMMENDED BY THE PRODUCT'S

RE-APPLY SOIL TREATMENT TO AREAS SUBSEQUENTLY DISTURBED BY CONSTRUCTION ACTIVITIES. APPLY TO AREAS UNDER SLABS ON GRADE AND FOUNDATIONS AND MASONRY VOIDS. PROVIDE TERMITE MESH SYSTEM THAT COMPLIES WITH EARTHCRAFT GOLD DU 1.17

SEE STRUCTURAL SHEETS & PROJECT MANUAL FOR ADDITIONAL INFORMATION. FOLLOW STRUCTURAL

- 1. MINIMUM WOOD BLOCKING OR NAILERS SHALL BE SYP #2, GROUND CONTACT PRESERVATIVE TREATED WHERE INDICATED AND REQUIRED BY CODE. ALL WOOD IN CONTACT WITH SLABS ON GRADE OR EXTERIOR CONC. / MASONRY WALLS TO BE PRESERVATIVE TREATED. ALL FASTENERS IN CONTACT WITH PRESERVATIVE TREATED WOOD TO BE STAINLESS STEEL OR HOT DIPPED GALVANIZED ONLY. 2. CONTRACTOR TO PROVIDE ALL NECESSARY BLOCKING, FASTENERS AND CONNECTORS. PROVIDE

SPECIFICATIONS (CONT.)

- 07210 BUILDING INSULATION ** 1. SOUND BATTS INSULATION TO BE UN-FACED SOUND ATTENUATION FIBERGLASS BATT INSULATION BY OWNENS CORNING IN 3" THICKNESS U.N.O. SOUND BATTS SHALL BE INSTALLED IN ALL INTERIOR FRAME WALLS SEPARATING OCCUPIED SPACES U.N.O.
- 2. PERIMETER FOUNDATION INSULATION TO BE DOW EXTRUDED POLYSTYRENE INSULATION. PERIMETER INSULATION SHALL EXTEND AROUND ENTIRE PERIMETER FROM TOP OF SLAB TO TOP OF FOOTING 3. ALL CAVITY WALL INSULATION TO BE GRADE 1.
- 4. CLOSED CELL SPRAY FOAM INSULATION EQ. TO CARLISLE SEALTITE PRO CLOSED CELL POLYURETHANE FOAM. R-VALUE = 6.9 PER INCH THICKNESS. MINIMUM TOTAL APPLIED THICKNESS = 7.25". FLAME SPREAD = CLASS 1<25; SMOKE DEVELOPED = CLASS 1 <450. USED FOR UNINHABITED ATTIC AREAS ONLY.
- 5. INSULATION TO CONTAIN GREATER THAN 25% RECYCLED CONTENT WITH NO UREA-FOMALDEHYDE 6. EARTHCRAFT INSULATION QUALITY GRADE 1 AT FLOORS, WALLS & CEILING
- 7. INSULATION SCHEDULE:

SLAB EDGE INSULATION = R-10 CI, 2' DEPTH MAXIMUM FROM TOP OF SLAB BASEMENT WALLS = R-15 GRADE II CAVITY EXTERIOR WALLS = R-21 CAVITY GRADE 1

EXTERIOR RIM / BANDBOARD = R-21 GRADE 1

ATTIC INSULATION = R-49 MIN CLOSED CELL FOAM INSUL.

07240 EXTERIOR INSULATION & FINISH SYSTEM (NOT USED)

- 07400 ROOFING & SIDING PANELS (SEE PROJECT MANUAL)
- 1. SEE PROJECT MANUAL FOR STANDING SEAM METAL ROOF SPECIFICATIONS. SUBMIT ACTUAL METAL COATED SAMPLE FOR APPROVAL. PROVIDE 40 YEAR WARRANTY. 2. PROVIDE CRIMP ON SNOW GUARDS, STAGGERED AT EACH SEAM EQ. TO SIEGER MODEL SS2A AT
- ALL ROOF OVERHANGS. 3. VENTED SOFFIT PANELS TO BE HARDIE PLANK FIBER-CEMENT VENTED PLUS SMOOTH 24" WIDE
- FACTORY PRIMED OR VENTED VINYL PANELS AS SPECIFIED & INDICATED. 4. EXTERIOR TRIM AT SIDING / SOFFIT TO BE JAMES HARDIE FIBER-CEMENT 2-1/2" SMOOTH BATTENS
- PRIMED OR BORAL TRIM SIZE AS INDICATED. 5. EXTERIOR WALL SHEATHING AT RATED WALLS TO BE EQUAL TO GP DENS-GLASS SHEATHING RATED FOR THE U.L. ASSEMBLY
- 6. SIDING PANELS TO BE EQ. TO JAMES HARDIE 6" EXPOSED LAP SMOOTH FIBER-CEMENT PANELS PRIMED. FASTEN WITH CONCEALED FASTENERS PENETRATING A MIN. 3/4" INTO STUDS. PROVIDE MANUFACTURED MOUNTING BLOCKS FOR MEP PENETRATIONS.

07420 FRP PANELS

- 1. FIBERGLASS REINFORCED PLASTIC PANELS (FRP) TO BE EQ. TO MARLITE STANDARD FRP \$100 WHITE, CLASS 'A' FIRE RATED, SMOOTH FINISH PANELS. 2. PANELS 4'x8'x 0.09" THICKNESS.
- 3. TRIM EQ. TO SANI-SEAL TO MATCH PANELS. PROVIDE 8' LONG SS CORNER GUARDS AT ALL OUTSIDE CORNERS. PROVIDE Z-TRIM OVER COVE BASE.
- 4. INSTALL PANELS VERTICALLY AND FASTEN WITH NON-STAINING NYLON DRIVE RIVETS. ADHESIVE TO BE EQ. TO MARLITE C-951 SOLVENT BASED ADHESIVE INSTALLED AS RECOMMENDED BY SYSTEM MANUFACTURER. ALTERNATE ADHESIVE MAY BE CONSIDERED IF RECOMMENDED BY MFG. FOR SUBSTRATE. SEALANT EQ. TO MS-251 WHITE SILICONE.
- 5. SHIP PANELS TO SITE AFTER BUILDING IS CONDITIONED AND ROOM TEMPERATURE WILL BE MAINTAINED BEFORE, DURING AND AFTER INSTALLATION. CLEAN PANELS AND LEAVE CLEAN & FREE FROM VISIBLE ADHESIVE.

07841 - THROUGH PENETRATION FIRESTOP SYSTEMS FIRESTOP ALL NEW PENETRATIONS THROUGH FLOORS AND RATED WALLS. REFER TO THE FOLLOWING U.L. TESTED FIRESTOP DETAILS:

W-L-2202 W-L-1001 C-AJ-8008 C-AJ-8013

THROUGH PENETRATION FIRE-STOPPING PRODUCTS SHALL BE MANUFACTURERED BY 3M. INSTALL APPROPRIATE PRODUCT AND SYSTEM BASED ON APPLICATION TO INCLUDE 3M FIRE BARRIER SEALANTS, 3M FIRE BARRIER MOLDABLE PUTTY, 3M FIRE BARRIER MORTAR AND 3M FIRE BARRIER FS-195+ WRAP STRIP. MINIMUM FIRE-RATING OF ALL ASSEMBLIES AND PENETRATIONS THROUGH FLOORS OR RATED WALLS SHALL BE 2 HOURS.

07900 CAULKING & SEALANTS

- 1. TYPICAL PRODUCTS SHALL BE DOW CORNING 790 OR GE SILICONE SILPRUF 2000 WEATHERING SFALANT
- 2. EXTERIOR BUILDING MASONRY CAULKING TO BE PECORA 890 NST WITH CONTINUOUS BACKER ROD SUBMIT COLOR SAMPLE FROM MANUFACTURER FOR SELECTION TO MATCH BRICK PREPAR ALL JOINTS AS RECOMMENDED BY THE MANUFACTURER AND PERFORM A FIELD ADHESION TEST PRIOR TO FINAL APPLICATION. APPLY AND TOOL SEALANT TO DEPTH RECOMMENDED BY PECORA. 3. SEAL ALL LOCATIONS BETWEEN BUILDING AND WALKS WITH PECORA SILICONE TRAFFIC SEALANT -
- TRAFFIC 301NS IN COLOR TO MATCH WALK. CUT OFF REMAINING EXPANSION JOINT FILLER (EPS) BACK TO RECOMMENDED DEPTH BEFORE APPLYING SEALANT.
- 4. SEAL ALL PENETRATIONS AROUND AND THROUGH EXTERIOR WALL, TOP & BOTTOM PLATES, BAND & RIM JOISTS, SHEATHING, CEILINGS, SHOWERS, SINKS, TOILETS & DRAINS, MEP PENETRATIONS, DRYWALL PARTITIONS, CHASES, EXTERIOR OPENINGS, ETC. AS REQUIRED BY EARTHCRAFT BE 1.5 2 TO BE 1.7 2.

079500 EXPANSION JOINT COVERS (NOT USED)

08000 WINDOWS **

1. SEE SHEET A4.2 FOR WINDOWS & STOREFRONT ENTRANCES.

- 08110 <u>STEEL DOOR & FRAMES</u> (SEE PROJECT MANUAL)**
- 1. STEEL FRAMES TO BE SHOP PRIMED 16 GA. STEEL WITH HARDWARE FACTORY CUT & FULLY WELDED SEAMS WITH ALL WELDS GROUND SMOOTH, DRYWALL RETURN ALL FRAMES. PROVIDE (3) JAMB ANCHORS PER JAMB & ANCHOR TO FLOOR. PROVIDE CONT. HEADER ABOVE DOORS.
- FIELD VERIFY WALL THICKNESSES AND MASONRY OPENINGS. 3. INSTALL DOOR & FRAME SQUARE, PLUMB & LEVEL SO DOORS OPEN AND CLOSE WITH EASE. 4. STEEL DOORS TO BE 16 GA, FULLY WELDED & INSULATED, REINFORCED FOR CLOSERS & OTHER HARDWARE. FACTORY FINISHED
- 08200 WOOD DOORS (SUBMITTAL REQUIRED)**
- WOOD DOORS: COMMERCIAL GRADE EQ. TO MASONITE MARSHFIELD-ALGOMA ASPIRO SERIES 5 PLIES SOLID CORE WOOD PRE-FINISHED WOOD VENEER DOORS. ALL DOORS TO HAVE SOLID ENGINEERED LUMBER STAVED CORE UNLESS A MINERAL CORE IS REQUIRED FOR FIRE-RATING. PARTICLE CORE DOORS ARE NOT ACCEPTABLE. ALL DOORS TO BE REINFORCED FOR CLOSERS. WDMA QUALITY GRADE: CUSTOM FINISH: PLAIN SPLICE, BOOK MATCH, RED OAK VENEER AS SELECTED FROM MANUFACTURER'S STANDARD FINISHES. SEE SHEET. A8.1 FOR ADDITIONAL INFORMATION. SUBMIT SAMPLES FOR COLOR SELECTION / VERIFICATION. GRAHAM / CURRIES IS
- AN ACCEPTABLE ALTERNATE MFG. 2. DOOR JAMBS TO BE SET PLUMB AND LEVEL SO DOOR HAS AN EVEN REVEAL AND OPENS AND CLOSES WITHOUT BINDING OR SCRAPING THE FLOOR. DOORS SHALL LATCH WITHOUT SLAMMING
- OR WITH CLOSER FORCE IF EQUIPPED WITH A CLOSER. 3. PROVIDE MATCHING TRIM AT GLASS LITES.

08710 DOOR HARDWARE

- 1. SEE SHEET A7.1 FOR HARDWARE SCHEDULE
- 09200 GYPSUM BOARD ASSEMBLIES (SEE PROJECT MANUAL)
- 1. PROVIDE COMPLETE GYPSUM BOARD ASSEMBLIES AS INDICATED FOR NEW WORK. INSTALL GYPSUM BOARD PANELS VERTICALLY ALONG STUD IN CONTINUOUS PANELS TO DECREASE BUTT JOINTS WHERE POSSIBLE OR HORIZONTALLY WHERE SEAMS ARE NOT VISIBLE. PROVIDE MR BOARD IN NON-FIRE RATED WET WALL LOCATIONS.
- 2. ACOUSTICAL INTERIOR WALLS INDICATED ARE TO BE INSTALLED W/ ALL EDGE CONDITIONS AND PENETRATIONS SEALED TO MAINTAIN ACOUSTICAL NRC RATING. ALL OFFICE, CLASSROOM & CORRIDOR WALLS REQUIRE ACOUSTIC SEPARATION.
- 3. FINISH GYPSUM BOARD SO THAT SEAMS & SCREW LOCATIONS ARE NOT VISIBLE AFTER PAINT FINISH IS APPLIED. 4. WHERE GYPSUM BOARD MEETS CMU WALLS, FRAMES OR OTHER STRUCTURE, PROVIDE A CONT.
- METAL J-BEAD OR ZIP BEAD EDGE WITH A FLEXIBLE SEALANT FILLER.
- 5. A LEVEL 5 FINISH SHALL BE REQUIRED IN ALL PUBLIC HALLS & CORRIDORS ALONG THE EXIT CIRCULATION PATH ON ALL LEVELS. (A LEVEL 5 FINISH REQUIRES THE ENTIRE BOARD SURFACE TO BE SKIMMED BEFORE PAINT PRIME COAT AND WIPED DOWN TIGHTLY FOR UNIFORM PAINT FINISH OR USE A LEVEL 5 PRIMER) PROVIDE A LEVEL 4 FINISH IN ALL OTHER SPACES INCLUDING INSIDE UNITS, PRIVATE OFFICES & MEETING ROOMS. AREAS OF ABOVE CEILINGS AND OTHER CONCEALED AREAS TO HAVE TAPED SEAMS ONLY.
- CROOKED CORNERS OR WALLS WILL BE REQUIRED TO BE STRAIGHTENED. PROVIDE CONTROL JOINTS WHERE INDICATED. REVIEW ANY ADDITIONAL CONTROL JOINT LOCATIONS RECOMMENDED BY THE GYPSUM BOARD SYSTEM INSTALLER WITH THE ARCHITECT DURING INTERIOR ROUGH-IN.

SPECIFICATIONS (CONT.)

09300 CERAMIC TILE & STONE (SEE PROJECT MANUAL)

09510 ACOUSTICAL TILE CEILING **

1. TYPICAL CEILING TILES TO BE ARMSTRONG DUNE 2'x2'x 🖁 , ANGLED TEGULAR INSTALLED IN STANDARD METAL SUSPENSION SYSTEM EQ. TO PRELUDE XL . MAIN BEAMS: .025" THICKNESS, 1-5" HIGH AND 15" FLANGE (WHITE ENAMEL FINISH). SUSPEND WITH 12 GA. HANGERS AT 4'-0" OC MAX. AND 8" FROM ENDS. CROSS BEAMS: .017" THICKNESS, LOCKED INTO MAIN BEAMS. SUSPEND FROM STRUCTURE ABOVE ONLY - NOT FROM PIPES OR DUCTWORK. INSTALL GRID LEVEL TO HEIGHT INDICATED OR, WITH PRIOR APPROVAL FROM THE ARCHITECT, AS HIGH AS STRUCTURE & EQUIPMENT ALLOW. U.N.O. CENTER GRID IN ROOM AS INDICATED ON THE REFLECTED CEILING PLAN. LEAVE (2) FULL BOXES OF TILE FOR OWNER REPLACEMENT AFTER OCCUPANCY. 2. CONTRACTOR TO COORDINATE ITEMS INSTALLED IN CEILING SO THAT LIGHTS ARE EVENLY SPACED

& DIFFUSERS & DETECTORS ARE CENTERED IN THE TILE. 3. PROVIDE U.L. RATED CEILING SYSTEM WHERE INDICATED OR REQ'D.

4. NEATLY TRIM & TOUCH UP PAINT ALL VISIBLE CUT EDGES. REPLACE ALL NICKED AND DAMAGED TILES BEFORE FINAL INSPECTION.

09650 <u>RESILIENT FLOORING</u> ** (SEE PROJECT MANUAL - SUBMIT SAMPLES)

1. $\frac{1}{2}$ " RUBBER COVE BASE BY JOHNSON RUBBER CO. OR ROPPE. INSTALL SO ALL SEAMS ARE TIGHT & FLUSH WITH WALL.

2. LVT AS SCHEDULED. FLOORING INSTALLER SHALL NOT START FINISHED FLOORING INSTALLATION UNTIL FLOOR IS SEALED WITH MANUFACTURER APPROVED SEALER, PREPPED AND LEVEL. START OF FINISH FLOORING SHALL INDICATE FLOOR SUB-CONTRACTOR ACCEPTANCE OF THE SUBSTRATE. PROVIDE SUB-FLOOR LEVELER COMPATIBLE WITH LVT & CONCRETE & GYPCRETE. CONFIRM THAT SLAB MOISTURE CONTENT IS ACCEPTABLE FOR ADHESIVE. 3. PROVIDE (2) FULL BOXES OF FIELD TILE LVT & ANY PARTIAL BOXES OF ACCENT TILE FOR OWNER

STOCK. 4. STAIR TREADS EQ. TO ROPPE #96 WITH SAFETY YELLOW RIBBED SURFACE INSERT & INTEGRAL RISER. INSTALL TREADS AND RISERS FULL WIDTH OF STAIR. ALL LANDINGS & FLOORING INSIDE STAIR SHAFTS TO MATCH STAIR TREAD PATTERN (ROPPE #96 OR 996 FLOOR) AND MATCHING COLOR INDICATED. 5. SPORTS FLOOR TO BE EQUAL TO KIEFER 5/16" MODULAR FITZONE MULTI. INSTALL WITH ALL EDGES FLUSH. PROVIDE SAMPLES FOR COLOR SELECTION.

09660 CARPET ** (SUBMIT SAMPLES)

1. NEW CARPET SQUARES AS INDICATED. ALL FLOOR SEALING, PATCHING, ADHESIVES AND INSTALLATION IS INCLUDED IN THE BASE BID. INSTALLER TO PROVIDE SUB-FLOOR LEVELER COMPATIBLE WITH SUB-FLOOR AND CARPET. CARPET TO CONTAIN GREATER THAN 50% RECYCLED CONTENT MATERIAL.

2. INSTALL CARPET IN AS MANY FULL PIECES AS POSSIBLE. LAYOUT CARPET SO EDGES ARE PARALLEL TO WALLS WHERE POSSIBLE. ALL EDGES SHALL BE SECURELY FASTENED TO THE SUBSTRATE. INSTALLED CARPET TO BE FREE FROM BUBBLES, WRINKLES OR MANUFACTURING IMPERFECTIONS. USE TAB APPLICATION ONLY IF RECOMMENDED BY MFG.

3. BEFORE INSTALLATION, THE CARPET INSTALLER SHALL CLEAN AND PREPARE THE SUB-FLOOR TO A LEVEL AND BUMP FREE CONDITION. NO CARPET SHALL BE INSTALLED OVER BARE CONCRETE THAT IS NOT FIRST SEALED. INSTALLATION OF CARPET SHALL INDICATE CONTRACTOR ACCEPTANCE OF SUB-FLOOR PREPARATION. CONFIRM CONCRETE MOISTURE CONTENT IS SUITABLE FOR INSTALLATION. 4. QUESTIONS CONCERNING CARPET DIRECTION OR PATTERN SHOULD BE DIRECTED TO THE ARCHITECT

5. PROVIDE (2) FULL BOXES OF EACH FIELD PATTERN OF CARPET (INCLUDING ENTRANCE CARPET) & (1) BOX OF ACCENT CARPET

encompas F \sim S SANDERS ARCHITECTURE PC 16125 RACCOON FORD RD CULPEPER, VIRGINIA 22701 (v)540-829-2590 \sim RTS ш Ο 4 SUPP $\mathbf{\mathcal{L}}$ OMMUNITY Δ \square \bigcirc \sim ASS OMP, \sim ENC $\overline{\Box}$ DEX A. SANDERS Lic. No. 8814 09-24-24 REVISIONS: DRAWN: CHECKED NOTED CALE 09-24-24 PROJECT #: 2030 PROJECT NOTES & SPECIFICATIONS



SPECIFICATIONS (CONT.)

- 09900 PAINTING 1. PREPARE ALL SURFACES FOR COATINGS & APPLY COATINGS AS RECOMMENDED BY THE MFG. SPECIFICATIONS BELOW BASED ON SHERWIN-WILLIAMS. NOTE THAT EXPOSED ALUM., BRASS, CHROME, STAINLESS STEEL, ETC. TO BE LEFT UNFINSHED. DO NOT PAINT OVER TAGS & LABELS.
- 2. NO SPRAY APPLICATION OF PAINT WITHOUT PRIOR APPROVAL FROM OWNER. IF SPRAY APPLICATION IS USED, TURN OFF HVAC SYSTEM & PROTECT EQUIPMENT & ADJACENT SURFACES FROM OVERSPRAY.
- 3. EXTENT OF COATING IN CONTRACT INCLUDES: EXTERIOR SURFACES THAT ARE NOT PRE-FINISHED. PAINT INTERIOR FERROUS METALS - METAL DOORS, FRAMES & RAILS, ALL EXPOSED GYPSUM DRYWALL SURFACES, AS WELL AS EXPOSED DUCTWORK, PIPING & CONDUIT.
- 4. PRIOR TO APPLICATION OF ANY COATING, PAINTING CONTRACTOR WILL EXAMINE THE SUBSTRATE TO BE COATED. APPLICATION OF PAINT DEMONSTRATES PAINTING CONTRACTOR'S ACCEPTANCE
- OF SUBSTRATE.
- 5. PAINT CONTRACT SHALL INCLUDE (2) PAINT WALL COLORS PER SPACE SEE FINISH PLANS AND SCHEDULE.
- 6. APPLY COATING TO FINISH THICKNESS RECOMMENDED BY COATING MFG. OWNER SHALL DOCUMENT PRIME COAT APPLICATION. NO FINISH COAT APPLICATION SHALL START UNTIL PRIME
- COAT IS DOCUMENTED. 7. ALL INTERIOR PAINTS CONTAIN LESS THAN 100 g/L VOC CONTENT. ALL INTERIOR PAINTS TO BE CERTIFIED LOW OR NO VOC MATERIALS.

PAINTING SCHEDULE:

EXTERIOR FERROUS METAL:

The dry film thickness of the paint at any point shall not be less than the following: for the primer 1.5 mils; for the three coat paint system 3.5 mils. In the event the required paint film thickness is not achieved as specified, additional coats shall be applied until the required thickness is obtained.

EXTERIOR STEEL GALVANIZED & NON-GALVANIZED (All exterior galvanized metal to be painted). Prepare per workmanship above.

1st Coat: SW Pro-Cryl Universal Acrylic Primer B66-1310 Series 2nd Coat: SW Pro Industrial Acrylic Coating, Semi-gloss B66-650 or 600 Series.

3rd Coat: SW Pro Industrial Acrylic Coating, Semi-gloss B66-650 or 600 Series

EXTERIOR SPLIT-FACE & GROUND FACE CMU S-W Loxon 40% Silane Water Repellant LX31T840

EXTERIOR FIBER-CEMENT (FACTORY PRIMED) Field Prime: PrimePlus 1st Coat: SW Duration Exterior ACRYLIC Latex Satin 2nd Coat: SW Duration Exterior ACRYLIC Latex Satin INTERIOR GYPSUM DRYWALL - PUBLIC AREAS: 1st Coat: SW Pro-Mar Zero VOC Interior Latex Primer 2nd Coat: SW DURATION 3rd Coat: SW DURATION INTERIOR GYPSUM DRYWALL - APARTMENT UNITS & PRIVATE OFFICE SPACE 1st Coat: SW Pro-Mar 200 Zero VOC Interior Latex Primer

2nd Coat: SW Pro-Mar 200HP Zero VOC Acrylic 3rd Coat: SW Pro-Mar 200HP Zero VOC Acrylic

NOTE: EGGSHELL TYPICAL FOR WALLS ; APPLY SEMI-GLOSS FINISH TO TOILET, KITCHEN & JANITOR CLOSET WALLS & ALL TRIM

INTERIOR FERROUS METALS:

Group A: All interior metal not pre-finished and in particular: door jambs, steel doors and frames, etc. Primer: Factory primer or SW Pro-Cryl Universal Acrylic Primer 2nd Coat: SW Pro-Mar 200HP Zero VOC Acrylic

3rd Coat: SW Pro-Mar 200HP Zero VOC Acrylic

GALVANIZED METAL: same as for ferrous metals above.

PAINTED WOOD WORK:

1st Coat: SW Pro-Mar 200 Zero VOC Interior Latex Primer 2nd Coat: SW Pro-Mar 200HP Zero VOC Acrylic

3rd Coat: SW Pro-Mar 200HP Zero VOC Acrylic

INTERIOR CONCRETE FLOOR (UTILITY AREAS)

1st Coat: H&C CLARISHIELD WATER BASED NATURAL SEALER 2nd Coat: H&C CLARISHIELD WATER BASED NATURAL SEALER

NATURAL FINISH WOOD

1ST Coat: Stained - Minwax penetrate color - lightly sanded 2nd Coat: Minwax clear gloss polyurethane

- 3rd Coat: Minwax clear gloss polyurethane
- 4th Coat: Minwax clear gloss polyurethane

10260 WALL & CORNER GUARDS

1. SEE SHEET A1.1.

10425 INTERIOR SIGNAGE

- 1. PROVIDE BEST MANUFACTURING SYSTEM GRAPHIC BLAST ADA SYSTEM. COLOR AS SELECTED BY ARCHITECT.
- 2. PROVIDE (1) 6"x8" ADA SIGN AT EACH TOILET DOOR MOUNTED AT 60" A.F.F TO CENTER. SIGNS SHOULD INDICATE "UNI-SEX" OR "MEN" OR "WOMEN" AS WELL AS HC ACCESSIBILITY.
- 3. PROVIDE (1) ADA TACTILE 8"x6" SIGN AT EACH APARTMENT UNIT ENTRANCE DOOR.
- 4. PROVIDE (1) ADA TACTILE STAIR SIGN AT 60" A.F.F. AT EACH SIDE OF ALL INTERIOR STAIR LANDING DOORS. SIGN SHALL INDICATE STAIR DESIGNATION & FLOOR LEVEL.
- 5. PROVIDE REQUIRED ADA FLOOR LEVEL SIGNAGE AT ELEVATORS. 6. ADDITIONAL INTERIOR SIGNAGE BY OWNER.

10500 <u>LOCKERS</u> (BY OTHERS)

10600 <u>Partitions</u> (NOT USED)

10800 TOILET ACCESSORIES ** 1. SEE SHEET A2. SHEETS FOR TOILET ACCESSORIES AND PARTITIONS.

11130 <u>AUDIOVISUAL EQUIPMENT</u>

1. U.N.O. ALL AUDIO VISUAL EQUIPMENT WILL BE FURNISHED AND INSTALLED BY OWNER. AT PRE-CONSTRUCTION MEETING CONTRACTOR TO IDENTIFY SCHEDULING REQUIREMENTS AND ALERT OWNER OF TIMING OF ANY A/V INSTALLATIONS. THE OWNER WILL PROVIDE ALL DATA CABLING, TELEPHONE SERVICE AND EQUIPMENT.

2. SEE ELECTRICAL FOR EMPTY DATA BOXES AND CONDUIT IN CONTRACT.

11400 FOOD SERVICE EQUIPMENT

1. PROVIDE KITCHEN APPLIANCES & EQUIPMENT - SEE SPECIFICATIONS.

2. CONTRACTOR TO COORDINATE KITCHEN APPLIANCES, SINKS AND CABINETRY WITH PLUMBING, VENTILATION & ELECTRICAL REQUIREMENTS.

SPECIFIC	ATIONS (CONT.)	encompass
11480 <u>AT</u>	HLETIC EQUIPMENT (NOT USED)	Community Supports -
12000 <u>FU</u> 1. ALL FU 2. CONT CONTRA	<u>RNISHINGS</u> RNISHINGS ARE BY OTHERS. RACTOR MUST COORDINATE EXACT ELECTRICAL FEED LOCATIONS WITH SYSTEMS FURNITURE CTOR.	
11310 <u>LIC</u>	GHTNING PROTECTION (NOT USED)	
13120 <u>PR</u>	E-ENGINEERED STRUCTURES (NOT USED)	
13850 <u>FI</u> See elec	RE ALARM & DETECTION TRICAL	
14240 <u>HY</u>	DRAULIC PASSENGER ELEVATOR (SEE PROJECT MANUAL)	
15000 <u>Me</u> SEE PLUN SUBMIT A	ECHANICAL ** ABING & MECHANICAL PLANS ALL EQUIPMENT & FIXTURES FOR REVIEW	
16000 <u>EL</u>	ECTRICAL **	
SEE ELEC SUBMIT A	ITRICAL PLANS ALL PANELS, DEVICES & LIGHTING FOR REVIEW	
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		Ž Ž
SUBMIT (SUBMIT (COMBIN SECTION	3) PHYSICAL SAMPLES - (1) ARCHITECT, (1) OWNER & (1) RETURN TO CONTRACTOR. E MULTIPLE PDF DOCUMENTS INTO ONE PDF DOCUMENT FOR REVIEW FOR EACH DIVISION OR	L L L L L L L L L L L L L L L L L L L
02361 03300	TERMITE CONTROL CAST-IN-PLACE CONCRETE	
04200 05000	UNIT MASONRY (SAMPLES & SAMPLE PANEL) STRUCTURAL STEEL & REINFORCING	
05500 06000	METAL HANDRAILS & RAILINGS MILLWORK, COUNTER & FINISH SAMPLES	
07100 07200	WATER-PROOFING INSULATION	
07410 07460	METAL ROOFING MATERIALS (COLOR SAMPLES) SIDING & SOFFIT PANELS	
07520 07600	MEMBRANE ROOFING GUTTERS & DOWNSPOUTS	
07720 08110	ROOF EQUIPMENT SCREEN STRUCTURAL FRAMING STEEL DOORS & FRAMES	
08200 08500	WOOD DOORS & FRAMES (FINISH SAMPLES) EXTERIOR WINDOWS	
08710 09220	DOOR HARDWARE SCHEDULE GYPSUM WALLBOARD SYSTEMS	
09300 09510	CERAMIC TILE (SAMPLES) ACOUSTICAL TILE CEILING (SAMPLE)	
09650 09660	RESILIENT FLOORING (SAMPLES)	ARCHITECTURE PC
09900	PAINTING (COLOR SAMPLES)	16125 RACCOON FORD RD CULPEPER, VIRGINIA 22701
10130	WIRE SHELVING	(v)540-829-2590
10281		
11260	RESIDENTIAL MILLWORK (CABINETS & SAMPLE)	IS
12210	WINDOW BLINDS	
21000	FIRE SURPRESSION	μο Τ
22000 23000	PLUMBING HVAC	N L L
26000		Y SI 2960
	SEE MECHANICAL, ELECTRICAL & PLUMBING SHEETS FOR MEP, SPRINKLER, FIRE ALARM EQUIPMENT AND SYSTEM SUBMITTALS REQUIRED TO EVALUATE EACH SYSTEM.	
	RED SUBMITTALS TRACTOR / SYSTEM DESIGNER WITH STATE LICENSE REQUIREMENTS SHALL SUBMIT SHOP	
SUB-CON	VTRACTORS:	SS C R NORT
FIRE ALA	RM SYSTEM	45
ENGINEE	RED FLOOR & ROOF TRUSS	IS Co
SHOP FA	BRICATED WOOD STAIRS & RAILINGS	
DATA CA		
ROOF FG		
SITE SIGN		
PROG	RAM / CERTIFICATION SUBMITTALS	SAMEALTH OF FR
AN INTEC DESGINA EARTHCR PROGRA	GRAL PART OF THE WORK OF THIS CONTRACT IS TO CONSTRUCT THE PROJECT TO COMPLY WITH TED VHDA & LIHTC FUNDING REQUIREMENTS. THE PROJECT IS DESIGNED TO OBTAIN RAFT GOLD CERTIFICATION & MEET OR COMPLY WITH CERTIFICATION REQUIREMENTS OF MS LISTED BELOW.	DEX A. SANDERS Lic. No. 8814
PROVIDE REQUIRE	SUBMITTALS SPECIFICALLY REQUESTED BY THE BELOW PROGRAMS & AGENCIES TO MEET MENTS AND OBTAIN CERTIFICATIONS:	ARCHITECT
	RAFT GOLD STAR	REVISIONS:
	HANCEMENTS	
	AL DESIGN	DRAWN:
√п∪А М		CHECKED: DAS SCALE: NOTED
		DATE: 09-24-24 PRO IECT #: 2030

CS1.2

PROJECT NOTES & Specifications

	FINAL (Rev. 1/1/2022)
Now and Adaptive Bour	to Units Dick 10 Ontional Itoms
	Dick E Ontional Itams
SUBMIT CHECKLIST TO VIRGINIA HOUS	ING PRIOR TO PRE-CONSTRUCTION MEETING.
ESSENTIAL ELEMENTS	SHEET OR SPECIOCATION
1 Boute	
1.1 Accessible Boute	UD1.1. UD1.2. UD1.3. UD1.4.A1.1.A1.2.A2.1
1.2 Accessible Parking	
1.3 Garbage Collection	
1.4 Common Spaces	
1.5 Curb Cuts	
1.6 Ramps	
2. Movement	
2.1 Exterior Walkways	UD1 1
2.2 Interior Passageways	UD1.2. UD1.3. UD1.4. A1.1. A1.2. A2.1
2.3 Level Space at Entryways	UD1.2. UD1.3. UD1.4. A1.1. A1.2. A2.1
2.4 Clear Space on Pull Side of All Doors	UD1.2. UD1.3. UD1.4. A1.1. A1.2. A2.1
2.5 Interior Passage Doorways	UD1.2. UD1.3. UD1.4. A1.1. A1.2. A2.1
2.6 Exterior Doorways and Unit Entry	UD1.2. A1.1
3.Approach	
3.1 Clear Floor Space	UD1.2, UD1.3, UD1.4, A1.1, A1.2, A2.1, A2.2
3.2 Reach Range	UD1.4, A2.1, A2.2
3.3 Operation	UD1.2, UD1.3, UD1.4, A2.1
3.4 Door Hardware	UD1.2, UD1.3, UD1.4, A2.1
3.5 Plumbing Fixtures	UD1.4, A2.1
4.Kitchens	
4.1 Clear Floor Space	UD1.2, UD1.3, UD1.4, A1.1, A1.2, A2.1
4.2 Range	UD1.4, A2.1
4.3 Refrigerator	UD1.4, A2.1
4.4 Sink	UD1.4, A2.1, A2.2
4.5 Multiple Height Work Surfaces	A2.2
4.6 Cabinet Hardware	UD1.4, A2.1
5.Bathrooms	
5.1 Bathroom Type (# of Option A Baths)	UD1.4, A2.1, A2.2
5.2 Bathing Area (# of Step-in and Roll-in Showers)	UD1.4, A2.1, A2.2
5.3 Shower Fixtures	UD1.4, A2.1, A2.2
6.Laundry	
6.1 Side by Side, Front Loading Equipment	UD1.2, UD1.3, UD1.4, A1.1, A1.2, A2.1
7.Technology	
7.1 Thermostats	

OPTIONAL ELEMENTS

1.Route 1.1 Weather Sheltered Entryways 1.2 Signage 2.Movement 2.1 Access to All Common Areas 2.2 Enhanced Site Lighting 3.Approach 3.1 Accessible Windows 4.Kitchens 4.1 Extra Floor Space 4.2 Roll-Under Range 4.3 Full Extension Drawers and Shelves 4.4 Task Lighting 4.5 Full Length Pantry Style Cabinet 5.Bathrooms 5.1 Extra Floor Space 5.2 Roll-Under Vanity or Sink 5.3 Tilt Mirror 5.4 Non-Glare Lighting 5.5 Solid In-Wall Blocking 5.6 Handheld Showerheads 6.Bedrooms 6.1 Closets 7. Audio/Visual 7.1 Audio/Visual Doorbell 7.2 Visual Alarm 8.Technology 8.1 Keyless Entry 9.Innovation 9.1 Innovation Provided that the development's archit Architects, and all essential elements and the required number of optional elements are incorporated into the design and construction of the qualified UD units: 15 points, if all the units in an elderly development meet this requirement. 15 points multiplied by the percentage of units meeting this requirement for non-elderly developments. PROPERTY NAME: Madison Road Apartments APPLICANT: Pre-Construc ARCH OF REC: (same as TC app) Pre-Construc SITE ENGINEER: (if owner retained) Pre-Construc

	Included (X)	SHEET OR SPEC LOCATION
	Х	UD1.1, UD1.2, UD1.3, UD1.4, A4.1
	Х	UD1.1, UD1.2, UD1.3, UD1.4, A2.1
	x	UD1.1, UD1.2, UD1.3, UD1.4, A1.1, A1.2, A2.1
	х	UD1.1, UD1.2, UD1.3, UD1.4, A2.1
	x	UD1.1, UD1.2, UD1.3, UD1.4, A1.1, A1.2, A2.1
S		
	x	UD1.1, UD1.2, UD1.3, UD1.4, A1.1, A1.2, A2.1, A2.2
	x	UD1.1, UD1.2, UD1.3, UD1.4, A1.1, A1.2, A2.1, A2.2
	x	UD1.1, UD1.2, UD1.3, UD1.4, A1.1, A1.2, A2.1, A2.2
	х	UD1.1, UD1.2, UD1.3, UD1.4, A2.1, A2.2
	Х	E3.0, E3.1
	X	UD1.1, UD1.2, UD1.3, UD1.4, A2.1
	Х	P0.1
tect of record	l is on Virginia	Housing's list of Universal Design Certified

uction Signature / Date	Post-Construction Signature / Date
uction Signature / Date	Post-Construction Signature / Date
uction Signature / Date	Post-Construction Signature / Date



EARTHCRAFT SUMMARY

ALL CONTRACTORS SHALL REVIEW CONSTRUCTION DOCUMENTS AND SPECIFICATIONS BEFORE START OF WORK. ARCHITECT SHALL BE CONTACTED FOR ANY QUESTIONS OR DISCREPANCIES.

ALL EARTHCRAFT GOLD POINT ITEMS SHALL BE IMPLEMENTED.

EARTHCRAFT REQUIREMENTS SHALL TAKE PRECEDENCE OVER DRAWINGS AND SPECIFICATIONS.

SHOP DRAWINGS SHALL COMPLY WITH EARTHCRAFT REQUIREMENTS. REVIEW THE FULL EARTHCRAFT WORKSHEET IN THE PROJECT MANUAL FOR ALL EARTHCRAFT REQUIRED ITEMS.

- PROVIDE THE EARTHCRAFT WORKSHEET TO ALL SUB-CONTRACTORS. ALL REQUIRED ITEMS MAY NOT BE LISTED IN THE BELOW SUMMARY.
- PROVIDE AN EARTHCRAFT PROGRAM SIGN ON THE PROJECT SITE IN A LOCATION APPROVED BY THE OWNER.

ID	DECODIDITION
SP 1.0 2	Previously developed site
SP 1.1 3	Dwelling units per acre \geq 25 dwelling units per acre
SP 2.0 1A	Connectivity - Walking distance to bus line (\leq 1/2 mile) - Existing
SP 2.2	Reduce light pollution - all exterior lights full cutoff
SP 2.4	Street Trees are \leq 40' on center at minimum
SP 2.5 1	Connectivity to adjacent sites - Vehicular access (2+ connections)
SP 2.7	Outdoor Community gathering space
SP 3.0	
SP 3.1	Site assessment identifying all greenspace and tree save potential
SP 3.2	Erosion and sedimentation control plan
SP 3.3	Do not install invasive plants on site
SP 3.4	Comply with all federal, state, and local government erosion control and tree protection measures
SP 3 5	Phase I environmental testing and remediation plan (if applicable)
	On call parconnel decignated for exercise control during rain events
SF 3.0	
SP 3.7	Downstream water quality testing (if applicable)
SP 3.8	Label all storm drains or storm inlets to discourage dumping of pollutants
SP 3.9	Road/vehicle cleaning protocols posted and enforced
SP 3.10	Tree preservation and protection measures employed on site
SP 3.13	Grind stumps and limbs for mulch (\geq 80%)
SP 4.0	Bike racks
5r 4.4	
CW 1.0	No construction materials burned or buried on site
CW 1.1	Only state-approved landfills may be utilized
CW 1.2 1	Post waste management plan and divert 75% from landfill of - Wood
CW 1.2 2	Post waste management plan and divert 75% from landfill of - Cardboard
CW 1.2 3	Post waste management plan and divert 75% from landfill of - Metal (including beverage containers)
CW 1 2 5	Post waste management plan and divert 75% from landfill of - Plastic (including beverage containers)
	Post waste management plan and divert 75% from landfill of - Flastic (including beverage concludiners)
CW 1.2 6	Post waste management plan and divert 75% from landfill of - Shingles
CW 1.3	Central Cut Area
RE 1.0	Limit framing at all windows and doors
RE 1.1	Engineered roof framing (90%)
RE 1.2 1	Advanced Framing - 2-stud corners where structurally feasible
RE 1.2 2	Advanced Framing - Ladder T-walls where structurally feasible
DE 1 2 3	Advanced Framing - Size beaders for loads (non-structural beaders in non-load bearing walls)
RL 1.2 J	
RE 1.3 A	Average floor area of unit < 800 square feet
RE 2.3 2	Deliver panelized construction or SIPs to the site pre-framed (≥90%) - Exterior walls
RE 3.1 1	Replace \geq 25% of cement in concrete with fly ash or slag - Slab and/or foundation walls (100%)
RE 3.1 2	Replace \geq 25% of cement in concrete with fly ash or slag - Exterior cladding and trim (\geq 75%)
RE 3.2	Lumber/Millwork/Flooring: Use No Tropical Wood
RE 3.3	Use building materials extracted, processed and manufactured ≤ 500 miles from site (1 point per product
	maximum 5 points)
RE 3.4 1	Reused, recycled, MDF with no added urea-formaldehyde, local species or FSC certified wood in all - Cabinet
	faces
RE 3.4 2	Reused, recycled, MDF with no added urea-formaldehyde, local species or FSC certified wood in all -
	Countertops
RE 3.6	Insulation (≥25% recycled content material)
RE 3.7 3	Flooring - Carpet (\geq 50% recycled content material on \geq 50% of all carpeted floor area)
RE 4.0	Gut Rehab (project exposing wall cavities or removing exterior cladding) or Adaptive Reuse (for adaptive reuse
	see addendum to worksheet)
DU 1.0	All roof valleys direct water away from walls, dormers, chimneys, etc.
DU 1.1	Install drainage plane per manufacturer's specifications
DU 1.2 1	Integrate drainage plane with - Window and door pan flashing at sills and side flashing
Du 1.2 2	Integrate drainage plane with - Window and door head/top flashing
DU 1.3	Double layer of building paper or house wrap behind cementitious stucco, stone veneer or synthetic stone
	veneer on framed walls
DU 1.4	Roof gutters discharge water \geq 5' from foundation
DU 1.5 1	Flashing - Self-sealing bituminous membrane or equivalent at valleys and roof deck penetrations
DU 1.5 2	Flashing - Step and kick-out flashing at wall/roof and wall/porch intersections. flashing $\geq 4^{"}$ on wall surface and
	integrated with wall and roof/deck/porch drainage planes
DU 1.6	Continuous foundation termite flashing (Required if slab edge is insulated)
DU 1.7	Maintain 2" clearance between wall siding and roof surface
DU 1.8	Install air conditioner condensing unit pad
DU 1.9	Roof drip edge with $\geq 1/4$ " overhang
	Drain nan far water besters and waching machines
DU 1 12	
DU 1.12	
00 1.13	Hashing at bottom of exterior walls integrated with drainage system
DU 1.14	Alternative termite treatment with no soil pretreatment
DU 1.17	Install termite mesh system
DU 1.18	Exterior cladding (\geq 75% facade) with > 30-year warranty
DU 1.20	Insulate cold water pipes ≥R-2
DU 1.21	All entrance doors have overhang ≥3' depth
DU 1 22 A	Roofing warranty ≥40-year
	Gravel bod (57's no fines) beneath sub grade slabs, on stade slabs, or stade slabs
DU 2.1	100% coverage of ≥6mil vapor barrier beneath all slabs, in all crawlspaces
DU 2.2	Foundation drain on top of sub-grade footing
DU 2.3	Patio slabs, walks and driveways sloped $\geq 1/4''$ per 1' away from building for $\geq 10'$ or to the edge of the
	surface, whichever is less
DU 2.4	Final site grade sloped $\geq 1/2^{\circ}$ per 1' away from home for $\geq 10'$ or to the edge of the site, whichever is less
DU 2.5	Do not install wet or water-damaged building materials
DU 2.6	Capillary break between foundation and framing at exterior walls
DU 2.7	Drainage board and damp proofing for below-grade walls
DU 2.7 DU 2.8	Drainage board and damp proofing for below-grade walls Design for additional dehumidification: rough-In electrical and plumbing for dehumidifier
DU 2.7 DU 2.8	Drainage board and damp proofing for below-grade walls Design for additional dehumidification: rough-In electrical and plumbing for dehumidifier Additional dehumidification system: Basement or sealed crawlspace system
DU 2.7 DU 2.8 DU 2.9	Drainage board and damp proofing for below-grade walls Design for additional dehumidification: rough-In electrical and plumbing for dehumidifier Additional dehumidification system: Basement or sealed crawlspace system Ecupdation drain at outside parimeter adde of facting are useded with the track of the state of the

DU 2.11	Install whole-house ENERGY STAR dehumidifier
 DU 2.12	Slab and crawlspace vapor barrier ≥10 mil or reinforced
DU 2 14 1	Capillary break - Between ground/footing or footing/foundation
	Capinary break - between roundation and traming for all walls
IAQ 1.0	No unvented combustion fireplaces, appliances, or space heaters
IAQ 1.1	All fireplaces have outdoor combustion air supply and masonry-built fireplaces have gasketed doors
IAQ 1.2	No atmospherically vented water heaters or furnaces
IAQ 1.3	Sealed-combustion or electric water heater, must be installed in conditioned space
IAQ 1.4	Carbon monoxide detector required if combustion appliances exist
IAQ 2.0	Protect all ducts until construction is complete
IAQ 2.1	Filter(s) easily accessible for property maintenance to service
IAO 2.2	Provide rodent and corrosion proof screens with mesh ≤ 0.5 " for all openings not fully sealed or caulked
	All outdoor supply air crosses filter prior to distribution
IAQ 2.4	
IAQ 2.5	No carpet in below grade units
IAQ 2.6	Filters are ≥ MERV 8
IAQ 2.7 1	Certified low or no VOC materials - Interior paints
IAQ 2.7 4	Certified low or no VOC materials - Carpet
IAQ 2.7 5	Certified low or no VOC materials - Carpet pad
IAQ 2.7 6	Certified low or no VOC materials - Carpet pad adhesive
IAQ 2.8	Protect all bath fans until floor/wall finishing is complete
	No added urea-formaldebyde - Insulation
1AQ 2.9 3	
1AQ 2.10	Seal all particle board surfaces with water-based sealant
IAQ 2.11	No carpet in all units
IAQ 2.12	No carpet in main living area of all units
BE 0.1	IECC adopted by jurisdiction plus applicable state amendments
BE 0.2	Certified level projects must achieve a confirmed HERS Index \leq 75
BE 0.3	Gold and Platinum level projects must achieve a confirmed HERS Index \leq the ENERGY STAR Multifamily New
	Construction Target HERS Index (Adaptive Reuse Project must follow Adaptive Reuse Tab)
BE 0.4	Confirmed HERS Index ≤ Zero Energy Ready Home Target HERS Index
BE 1.0	Vapor barriers installed under slabs and crawls only and not on any vertical surfaces
BE 1.1	Seal bottom plates to subfloor or foundation for entire unit envelope
BE 1.2.1	Block and seal joists cavities - Above supporting walls at captilevered floors
	Plack and seal joists cuvities . Under attic knowyalls
BE 1.2 3	Block and seal joists cavities - Above attached garage walls
BE 1.3	Block stud cavities at change in ceiling height
BE 1.4	Install blocking and baffles in insulated and vented attics
BE 1.5 1	Seal penetrations through - Foundations and exterior wall assemblies
BE 1.5 2	Seal penetrations through - Top and bottom plates
BE 1.5 3	Seal penetrations through - Band and rim joists
BE 1.5 4	Seal penetrations through - Insulated subfloor
BE 1 5 5	Seal penetrations through - Sheathing
DE 1.5 5	Seal penetrations through Walls and coilings in attached carages
BE 1.5 /	Seal penetrations through - All ceilings
BE 1.6 1	Seal penetrations around - Shower, sinks, toilets and tub drains
BE 1.6 2	Seal penetrations around - HVAC supply and return boots sealed to subfloor or drywall (floor, walls, or ceilings)
BE 1.6 3	Seal penetrations around - Window and door rough openings
BE 1.6 4	Seal penetrations around - All drywall penetrations (common walls between attached units included)
BE 1.6 5	Seal penetrations around - Exhaust fans to drywall
BE 1.6 6	Seal penetrations around - Attic pull-down stairs, scuttle holes and kneewall doors
BE 1.6.7	Seal penetrations around - Chases
BE 1 7 1	Cool coome and gape in _ Pand joint cheathing
ве 1.72	Seal seams and gaps in - Exterior wall sheathing
BE 1.7 3	Seal seams and gaps in - All seams in SIP's
BE 1.8 1	Install rigid air barriers - Behind tubs and showers on insulated walls
BE 1.8 2	Install rigid air barriers - At attic kneewall on attic-side (including skylight shafts)
BE 1.8 3	Install rigid air barriers - At chases in contact with the building envelope (including fireplace chases)
BE 1.8 4	Install rigid air barriers - Along staircases on insulated walls
BE 1.8 5	Install rigid air barriers - Along porch roofs
BE 1.8.6	Install rigid air barriers - At dropped ceiling/soffit
BE 1 0 7	
BE 1.9 1	Install weather-stripping at - All exterior doors (if not included in door assembly)
BE 1.9 2	Install weather-stripping at - Attic kneewall doors, scuttle holes and pull down stairs
BE 1.10	All recessed can lights must be air tight, gasketed at all floors and also IC-rated in insulated ceilings; in Climate
	$2 \text{ Une 4, insulate exterior surface or fixture to \geq \text{K-10}$
BE 1.11	Fire rated assemblies that do not use draft block in band areas must comply with Air Tight Drywall approach
BE 1.12	Units adjacent to CMU walls: framing and sub-floor at unit envelope, including interstitial space, must be sealed
BE 1 10	Cost top plate to drawall at the attic level
DE 1.13	
BE 1.14	Comply with Air tight drywall approach (required if band area draft blocking is not used)
BE 1.15	Gypcrete on all framed floors separating unit envelopes
BE 2.0	Air Changes per Hour ≤ 5 ACH50
BE 3.0 1	Floors - Framed \geq R-19
BE 3.0 2	Floors - Cantilevered ≥ R-30
BE 3 0 2	Floors - Podium/Elevated Slab > R-19
BE 3.1 1	wails - Exterior wails and band joists \geq R-15
BF 3 1 2	
	Walls - Elevator walls adjacent to dwelling units \geq R-13
BE 3.1 3	Walls - Elevator walls adjacent to dwelling units \geq R-13Walls - Foundation walls \geq R-10 continuous or \geq R-13 cavityClimate Zene 2/2 \geq D 5 continuous or \geq R-13 cavity
BE 3.1 3	Walls - Elevator walls adjacent to dwelling units \ge R-13 Walls - Foundation walls \ge R-10 continuous or \ge R-13 cavity Climate Zone 2/3 \ge R-5 continuous or \ge R-13 cavity Climate Zone 4 \ge R-10 continuous or \ge R-13 cavity
BE 3.1 3	Walls - Elevator walls adjacent to dwelling units \geq R-13Walls - Foundation walls \geq R-10 continuous or \geq R-13 cavity Climate Zone 2/3 \geq R-5 continuous or \geq R-13 cavity Climate Zone 4 \geq R-10 continuous or \geq R-13 cavityCeilings/Roof - Vented: Climate Zone 4 \geq R-49
3E 3.2 1	Walls - Elevator walls adjacent to dwelling units \geq R-13Walls - Foundation walls \geq R-10 continuous or \geq R-13 cavity Climate Zone 2/3 \geq R-5 continuous or \geq R-13 cavity Climate Zone 4 \geq R-10 continuous or \geq R-13 cavityCeilings/Roof - Vented: Climate Zone 4 \geq R-49Ceilings (Roof - Centinuous of Rest Rest Rest Rest Rest Rest Rest Rest
3E 3.1 3 3E 3.2 1 3E 3.2 2	Walls - Elevator walls adjacent to dwelling units \geq R-13Walls - Foundation walls \geq R-10 continuous or \geq R-13 cavity Climate Zone 2/3 \geq R-5 continuous or \geq R-13 cavity Climate Zone 4 \geq R-10 continuous or \geq R-13 cavityCeilings/Roof - Vented: Climate Zone 4 \geq R-49Ceilings/Roof - Continuous Roof Deck: Climate Zone 4 \geq R-30
BE 3.1 3 BE 3.2 1 BE 3.2 2 BE 3.2 3	Walls - Elevator walls adjacent to dwelling units \geq R-13Walls - Foundation walls \geq R-10 continuous or \geq R-13 cavity Climate Zone 2/3 \geq R-5 continuous or \geq R-13 cavity Climate Zone 4 \geq R-10 continuous or \geq R-13 cavityCeilings/Roof - Vented: Climate Zone 4 \geq R-49Ceilings/Roof - Continuous Roof Deck: Climate Zone 4 \geq R-30Ceilings/Roof - Cathedral: Climate Zone 4 \geq R-38

0 - 2 2 2 2	Attic/Deef Energy heal twoese or reject to plate
	Attic/Rool - Ellergy fleet trusses of raised top plate
BE 3.3 3	Attic/Roof - Attic platforms allow for full-depth insulation below
BE 3.4 1	Attic kneewall - Doors \geq R-19
BE 3.4 2	Attic kneewall - Insulation and attic-side air barrier \ge R-19
BE 3.5	Attic pull-down/scuttle hole \geq R-49
BE 3.6	When installing loose-fill attic insulation, card and rulers must be installed
BF 3.7	Steel framed buildings require thermal break > R-7.5
	Crade II inculation quality at all building envelope locations
DL 3.0	
BE 3.9	Slab edge insulation \geq R-10
BE 3.10 A	Insulation installation quality (floors, walls and ceilings) - Grade I
BE 3.11	Corners ≥ R-6
BE 3.12	Headers \geq R-3
BE 3.13	Fiberglass batts are unfaced/friction fit
BE 3.14 1	Walls - Insulate exterior walls and band joist \geq R-19
BE 3.14 2	Walls - Insulate exterior walls and band joist \geq R-20 or \geq R-13 cavity plus R-5 insulated sheathing
BE 3 17 1	Collings - Elst Vented: Climate Zone $4 > P_{-60}$
	Ceilings - Hat Venteu. Climate Zone 4 2 R-00
DE 3.17 2	Cellings - Continuous Roof Deck. Climate Zone 4 \geq R-55
BE 3.17 3	Cellings - Sloped: Climate Zone 4 2 R-49
BE 4.0 1	Door U-factors and SHGC - U-factor ≤0.35
BE 4.0 2	Door U-factors and SHGC - SHGC \leq 0.30
BE 4.1 1	Window U-factor and SHGC - U-factor ≤ 0.35
BE 4.1 2	Window U-factor and SHGC - SHGC ≤ 0.30
BE 4.2 1	Skylight U-factor and SHGC - U-factor ≤0.55
BE 4.2 2	Skylight U-factor and SHGC - SHGC ≤ 0.30
BE 4.3	NFRC certified doors, windows and skylights with label
BF 4 4 1	Door Il-factor - Opaque door: Il factor< 0.21
BE 4 4 2	Door Ul-factor - Door with $\leq 50\%$ glass: Ul-factor ≤ 0.27
	Deer II factor Deer with $\geq 50\%$ glass, U-factor ≤ 0.22
	$\frac{1}{2} \int \frac{1}{2} \int \frac{1}$
DE 4.5 1	
BE 4.5 2	Window U-factor and SHGC - SHGC ≤0.27
BE 4.6 1	Skylight U-factor and SHGC - U-factor ≤0.50
BE 4.6 2	Skylight U-factor and SHGC - SHGC ≤0.27
BE 4.13	Window area is \leq 15% of conditioned floor area (all units)
BE 5.0 A	If Ducts located in unconditioned attic - Attic Side Radiant Barrier
BE 5.0 B	If Ducts located in unconditioned attic - ENERGY STAR qualified roof (≥75% of total roof area)
ES 1.0 1	Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Complete Room by Room load
	calculation utilizing ACCA Manual J 8th Edition Software or later or current
п	ASHRAE based software (Trane Trace or Carrier HAP) and submit to EarthCraft for review prior to issuing
FO 4 0 0	construction drawings. Loads must include detailed inputs.
ES 1.0 2	Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Based on worst case unit orientation per unit type
ES 1.0 3	Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Use 2009 ASHRAE Handbook of
	Fundamentals Climate Design Information or later for outdoor design temperatures
ES 1.0 4	Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Indoor temperatures 70 F for beating and 75 for cooling
ES 1.0 4	Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Indoor temperatures 70 F for heating and 75 for cooling
ES 1.0 4 ES 1.0 5	Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Indoor temperatures 70 F for heating and 75 for cooling Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Base infiltration on project team selected infiltration goal
ES 1.0 4 ES 1.0 5 ES 1.0 6	Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Indoor temperatures 70 F for heating and 75 for cooling Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Base infiltration on project team selected infiltration goal Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Use actual area, U-factor and
ES 1.0 4 ES 1.0 5 ES 1.0 6	Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Indoor temperatures 70 F for heating and 75 for cooling Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Base infiltration on project team selected infiltration goal Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Use actual area, U-factor and SHGC for windows and doors, actual area and R-values of floors, walls , and ceilings
ES 1.0 4 ES 1.0 5 ES 1.0 6 ES 1.0 7	Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Indoor temperatures 70 F for heating and 75 for cooling Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Base infiltration on project team selected infiltration goal Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Use actual area, U-factor and SHGC for windows and doors, actual area and R-values of floors, walls , and ceilings Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Base mechanical ventilation on ASHRAF 62 2- 2010 standard
ES 1.0 4 ES 1.0 5 ES 1.0 6 ES 1.0 7 ES 1.0 8	Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Indoor temperatures 70 F for heating and 75 for cooling Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Base infiltration on project team selected infiltration goal Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Use actual area, U-factor and SHGC for windows and doors, actual area and R-values of floors, walls , and ceilings Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Base mechanical ventilation on ASHRAE 62.2- 2010 standard Size and select all HVAC equipment in accordance with ACCA Manuals J and S - Cooling equipment and/or
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FC 2 11 2	Minimize pressure imbelonce within write. Measured pressure differential < 2 De between bodycern and return
ES 2.11 2 ES 2.12	Minimize pressure imbalance within units - Measured pressure differential ≤ 3 Pa between bedroom and return Install rigid duct work or pull all flex ducts with no pinches and support at intervals $\leq 5'$
ES 2.13	Measure and balance airflow for each duct run (±20% of design)
ES 2.14	Verify supply and return duct static pressure
ES 2.15	HVAC system and ductwork is dry and clean
ES 2.17 1	Duct design and installation - Rigid metal supply trunk
ES 2.19	Return plenum duct take-off free area is 120% of supply plenum duct take-off free area
ES 3.0 2	Test duct leakage based on conditioned floor area (CFA) - Total leakage to outside $\leq 4\%$
ES 3.1 1	Test duct leakage based on conditioned floor area (CFA) - Leakage to outside $\leq 2\%$
ES 3.1 2	Test duct leakage based on conditioned floor area (CFA) - Total leakage $\leq 4\%$
ES 4.0	Install exhaust fans in all bathrooms and duct to outside
ES 4.1	Gas kitchen range vented to exterior ≥100 cfm fan
ES 4.2	Outside air ventilation strategy complies with ASHRAE 62.2-2010
ES 4.3 2	idling zones, parking garages When installed to achieve ES 4.2, design and install fresh air intakes - \geq 2' above grade
ES 4.3 3	When installed to achieve ES 4.2, design and install fresh air intakes - When run to soffit the duct must be
ES 4.3 4	When installed to achieve ES 4.2, design and install fresh air intakes - Fresh air duct may not be run to the roof
ES 4.3 5	When installed to achieve ES 4.2, design and install fresh air intakes - Fresh air shutoff may not be controlled by humidistat
ES 4.3 6	When installed to achieve ES 4.2, design and install fresh air intakes - Install rigid duct with insulation
ES 4.3 7	When installed to achieve ES 4.2, design and install fresh air intakes - All intakes must be ducted to exterior of building
ES 4.4	Seal seams of all intake and exhaust ducts with mastic
ES 4.5	No nower roof vents
ES 4.7	Back-draft dampers for kitchen and bathroom exhaust
ES 4.8	If installed, ceiling fans must be ENERGY STAR qualified (1/bedroom and 1 in living room)
ES 4.9	ENERGY STAR bath fans with properly sized ductwork and measured airflow \geq 50 cfm
ES 4.10	Electric kitchen range vented to exterior ≥ 100 cfm fan
ES 4.11	Verify outdoor air supply ventilation airflow test within +/- 20% of design values
ES 4.12	Install and label accessible ventilation controls, with override controls for continuously operating ventilation fans
ES 4.14 1	Radon resistant construction - Passive, radon/soil gas vent system labeled on each floor
ES 4.14 2	Radon resistant construction - Radon test of building prior to occupancy
ES 4.15	Exhaust fan wired with light in bathroom
ES 4.16	Duct all exhaust fans with rigid duct
ES 5.0	Water Heater must be installed in conditioned space. If gas, direct vent
ES 5.1	Heat trap on all storage water heaters
"	Water heater efficiencies for 55-100 gal tank size: 0.75 EF, 1.97 Electric EF, 0.76 Gas UEF, 2.03 Electric UEF
п	Water heater efficiencies for <2 gal tank size: 0.82 EF, 0.93 Electric EF, 0.81 Gas UEF, 0.91 Electric UEF
ES 5.3	Pipe insulation on first 2'
ES 5.4	High efficiency storage water heater - ≤ 55 gal tank size: ≥0.67 Gas EF, ≥2.00 Electric EF, ≥0.64 Gas UEF, ≥2.00 Electric UEF
'n	High efficiency storage water heater - > 55 gal tank size: ≥0.77 Gas EF, ≥2.20 Electric EF, ≥0.78 Gas UEF, ≥2.20 Electric UEF
ES 6.0	High-efficacy lighting in 100% of all permanent fixtures
ES 6.1	If installed, ENERGY STAR dishwasher
ES 6.2	If installed, ENERGY STAR refrigerator
ES 6.3	If installed, ENERGY STAR qualified clothes washer If installed, high efficiency clothes driver with moisture sensor (not applicable to commercial drivers)
ES 6.5 A	Fixtures and bulbs - ENERGY STAR qualified compact fluorescent fixtures or LED bulbs (100%)
ES 7.0	100% LED bulbs in all corridor/breezeway and all common spaces
ES 7.1 1	Control systems - Automatic indoor lighting controls
ES 7.2 3	High Efficiency Exterior Lighting - High efficiency exterior lighting using 100% LED bulbs
WE 1.0	Meet National Energy Policy Act low flow standards for all fixtures
WF 1.2 1	Low-flow fixtures (units and common facilities) - WaterSense labeled toilet (<1.28 avg. gal/fluch)
WE 1.2 2	Low-flow fixtures (units and common facilities) - WaterSense labeled urinal (≤0.5 gal/flush)
WE 1.2 3	Low-flow fixtures (units and common facilities) - WaterSense lavatory faucet and accessories (≤1.5 gpm at 60 psi)
WE 1.2 4	Low-flow fixtures (units and common facilities) - WaterSense labeled Showerhead (<2.0 gpm)
WE 2.0	Cover all exposed soil with 2"-3" mulch layer
WF 2.1 1	Irrigation system - Must have rain sensor shutoff switch
WE 2.1 3	Irrigation system - Provide irrigation system layout to property management
WE 2.2	If installed, ornamental water features must recirculate water and serve beneficial use
WE 2.3 EO 1.0	Install plants to maintain distance ≥2' from home at maturity Provide property manager with project-specific owner's manual
EO 1.3	Household hazardous waste resources
EO 2.0	Provide all subcontractors with EarthCraft Multifamily worksheet
EO 2.1	Property Maintenance Staff representative attends design review and/or kick off meeting
EO 2.2	Market EarthCraft Multifamily program
EU 2.3	Project participates in post occupancy project debriefing
EO 2.5	Environmental management and building maintenance guidelines for staff
EO 2.6	Landscape maintenance guide for maintenance and management personnel
EO 3.0	ENERGY STAR Multifamily New Construction
EO 3.1	Indoor airPLUS
EO 3.6	Zero Energy Ready Home Certification



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GENERAL NOTES

1. All construction shall conform to existing State and Local building codes. It is the contractor's responsibility to be aware of all applicable standards and specifications as well as required methods of construction. The contractor shall furnish all materials, labor, and equipment to perform all work, including restoration, for the completed installation of all improvements shown hereon or implied as necessary to complete the proposed improvements.

2. The contractor or his agent shall be responsible for digging test pits to determine the exact location of any existing underground utilities prior to the beginning of construction. In particular, test pits adjacent to existing high pressure gas mains shall be performed in the presence of a gas company representative and shall be hand dug according to their instruction. Utilities shown hereon are based on available information.

3. A title report has not been furnished, however this property is subject to any existing easements, covenants and servitudes of record.

4. All erosion and sediment control practices shall be constructed and maintained in accordance with the minimum standards and specifications of the 1992 Virginia Erosion and Sediment Control Handbook and Town ordinances. Removal of said controls shall be authorized by the Town inspector but, at least, shall not be removed until permanent vegetative cover is established on all denuded areas.

5. Construction should be sequenced so that grading operations can begin and end as quickly as possible. Sediment trapping measures, such as silt fences, shall be installed and made functional before any land disturbing activity begins.

6. Engineered fill and backfill shall be approved select materials and shall be placed in six to eight inch layers and compacted at optimum moisture, plus or minus two percent, to a density of not less than 95 percent in accordance with A.A.S.H.T.O. T-99 or A.S.T.M. D-698.

7. No subsurface investigation has been performed by Hinchey and Baines, PLC. to attest to the soil conditions or the presence of toxic or contaminated waste.

8. It shall be the responsibility of the contractor or developer to have sufficient soils and foundation testing performed to determine that the support values and C.B.R. 's are adequate for the standards shown on this plan.

9. All construction involving problem soils must be performed under the full-time inspection of a professional geotechnical engineer.

10. The contractor shall perform necessary grading to preclude the ponding of water on roadways and buildable areas.

11. There are no known gravesites on this site. No identification or location of any grave, object or structure marking a place of burial has been found. In the event gravesites are discovered during construction, the Town Planning Office should be notified immediately. All activities must cease and shall not resume until authorization to proceed is granted by the Town Planning Office. Gravesites shall be protected in accordance with state law.

12. There are no archeological, natural, and historic features or landmarks found on the site. Should any be found during the review process, such areas will be delineated on the plans.

13. There are no identification or location of areas of contamination, remediation or other adverse environmental conditions on the site. Should any be discovered during the review proces, these areas will be delineated on the plans.

14. All fill materials and their subgrade will be approved by the soils engineer for this site.

15. No portion of the land hereon is appears to be located in F.I.R.M. 100-year special floodplain area zone "A", as indicated on Flood Insurance Rate Map (FIRM) number 51137C0150E, effective date

May 17, 2022. This property appears to be located in zone "X" - area of minimal flooding.

16. According to the National Wetlands Inventory there are no known wetlands on site. All wetland permits required by federal, state, and local laws and regulations shall have been obtained prior to initiating grading or any other on-site land disturbing activity.

17. The developer shall be responsible for the relocation of any utilities which may be required as a result of this project. The relocation should be done prior to construction.

18. The developer shall be responsible for any damage to the existing streets and utilities which occurs as a result of this project within or contiguous to the existing right-of-way.

19. The developer shall be responsible for any damage to the existing streets and utilities which occurs as a result of this project within or contiguous to the existing right-of-way.

20. Any work performed within existing or proposed VDOT maintained Right-of-Way shall conform to the current editions of and latest revisions to the Virginia Department of Transportation (VDOT) Road and Bridge Specifications and Standards and The Town of Orange. In case of discrepancy or conflict between the Standards, Specifications or Regulations, the most stringent shall apply.

21. Prior to initiation of work within the public street right-of-way, a Permit for such work will be obtianed from the Town of Orange Department of Public Works.

22. Per Town Zoning Ordinance 12-40.60b, A Stormwater Management Facility Maintenance Agreement, in a form acceptable to the Zoning Administrator, shall be executed by and between the owner and the Town to ensure that stormwater management facilities are maintained in a satisfactory manor by the owner without expense to the Town.

23. Per Town Zoning Ordinance 12-50.90, Upon completion of all required improvements on the approved site development plan, the applicant shall submit to the Zoning Administrator four (4) copies of the completed as-built site plan. The as-built site plan shall be submitted within 1 year of the issuance of occupancy permits. Final approval of the as-built plan shall be required before final release of applicable bonds.

NOTICE REQUIRED

CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION.

ENGINEER'S CERTIFICATION THE PROPERTY SHOWN HEREON IS IN THE NAME OF THE COUNTY OF ORANGE AS RECORDED IN DEED BOOK 147, PAGE 45 OF THE LAND RECORDS OF ORANGE COUNTY, VIRGINIA.

ENGINEEF

017596 LICENSE NUMBER

02/22/2023 DATE

APPROVAL BLOCK

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SITE PLAN FOR MADISON ROAD APARTMENTS TAX MAP #44A3 - 10 - 8ORANGE COUNTY, VIRGINIA





PLANNING (540) 829-2220 (540) 829-2239 AND \sim HINCHERNC ENGINEERING 125 EAST DAVIS STREET SUITE 201 CULPEPER, VIRGINIA 227 ARTMENTS ORANGE Р TOWN SHEET AP COVER AD O 2 ADISON SO \geq SCALE: 1" = 30' DATE: 12/16/2022 **REVISIONS:** 2-6-23 PER TOWN COMMENTS 2-22-23 PER TOWN COMMENTS 03/08/2023 9-24-2024

SHEET

FILE NO.

of **14**

1588

PLAN NOTES

1. PARCEL IDENTIFICATION: T.M. 44A3-10-8 (1.465 ACRES)

2. OWNER: **COUNTY OF ORANGE**

PO BOX 111 ORANGE, VA 22960

APPLICANT: RAPPAHANNOCK-RAPIDAN COMMUNITY SERVICES BOARD PO BOX 1568 CULPEPER, VA 22701

3. PROPOSED DEVELOPMENT: CONSTRUCTION OF A 27,660 SF, 4-FLOOR MULTI-USE BUILDING WITH 21 APARTMENT UNITS & PROFESSIONAL OFFICES AND ASSOCIATED PARKING.

- 4. BOUNDARY & TOPOGRAPHICAL INFORMATION FROM A SURVEY BY BATTLEFIELD LAND SURVEYING, PLC., DATED NOVEMBER 7, 2022.
- 5. ZONING: TAC (TOWN ACTIVITY CENTER)
- 6. SETBACKS:

FRONT: 10' (FACADE HT. < 35') SIDE YARDS: 10' (CORNER LOT) 5' INTERIOR LOT **REAR YARDS: 20'**

7. MAX BUILDING HEIGHT ALLOWED = 3 STORIES, 55'

8. TOTAL IMPERVIOUS AREA = 50,490 SF

9. THE PROPOSED BUILDING WILL BE SERVED BY TOWN OF ORANGE WATER AND SEWER.

ESTIMATE OF WATER CONSUMPTION: APARTMENT UNITS: 3000 gal/month/unit

10. PARKING:

REQUIRED:	
FOR EXISTING OFFICE	
GOVERNMENTAL USE	
1/EMPLOYEE x 9 EMPLOYEES =	9
1/1000 SF = 7,150/1000 =	7.15
TOTAL =	16.15
FOR PROPOSED CONSTRUCTION	
1/1-BR UNIT x 18 UNITS =	18
1.5/2-BR UNIT x 3 UNITS =	4.5
STORAGE 1210 SF	
1210 SF/1 SPACE/1000 SF =	1.21
PROFESSIONAL OFFICE 5,119 SF	
<u>1 SPACE/300 SF = 5,119/300 =</u>	17.06
TOTAL = 40.77	
TOTAL REQUIRED = 57 SPACES	
TOTAL PROVIDED = 57 SPACES	

11. TRAFFIC PROJECTION:

MAXIMUM HOURLY FROM THE ABOVE PROPOSED USES WILL BE 11.2 VPH IN THE A.M. SEE SEPARATE TRAFFIC GENERATION ANALYSIS DATED FEBRUARY 28, 2023

SHEET INDEX

OFFICES: 8 EMPLOYEES@15 gpd=3,600 gal/month

- 1. COVER SHEET 2. EXISTING CONDITIONS AND DEMOLITION PLAN
- 3. SITE PLAN
- 4. SUBDIVISION PLAN AND NEW PAVING PLAN 5. SANITARY SEWER PLAN & PROFILE AND UTILITY DETAILS
- 6. PRE-DEVELOPMENT DRAINAGE AREA MAP
- 7. POST-DEVELOPMENT DRAINAGE AREA MAP 8. HYDROGRAPHS AND STORMWATER MANAGEMENT SUMMARY
- 9. STORM SEWER PROFILES & DETAILS
- 10. EROSION & SEDIMENT CONTROL PLAN 11. EROSION & SEDIMENT CONTROL NOTES & NARRATIVE
- 12. LANDSCAPE PLAN
- 13. LANDSCAPE NOTES & DETAILS

14. LIGHTING PLAN & DETAILS





ETAIL	TITLE
vl—1	STANDARD DROP INLET
1H-2	PRE-CAST MANHOLE
G-2	STANDARD 6" CURB
G-6	COMBINATION 6" CURB & GUTTE



	T	LEGEND DRAINAGE DIVIDE IMPERVIOUS AREA	HINCHEY & BAINES, PLC ENGINEERING AND LAND PLANNING I25 EAST DAVIS STREET SUITE 201 SUITE 201 SU
			MARVIN T. HINCHER 09/24/2024
			PRE-DEVELOPMENT DRAINAGE MAP MADISON ROAD APARTMENTS ORANGE COUNTY, VIRGINIA - TOWN OF ORANGE
Implementation Implementation Implementation Implementa	AINAGE AREA 'A' RVIOUS (C=0.90): 0.23 ACRES C(C=0.25): 0.31 ACRES AL 0.54 ACRES		SCALE: 1" = 20' DATE: 12/16/2022 REVISIONS: 2-6-23 PER TOWN COMMENTS 2-22-23 PER COMMENTS 2-26-2023
SOIL NAMEHYDRIC WHOL SOILK- WHOL SOILCLAY LOAM, 2-7%, MOD. ERODED0.28CLAY LOAM, 7-15%, MOD. ERODED0.28CLAY, 7-15%, SEVERELY ERODED0.15E SILT LOAM, 2-10%3.37	FACTOR HYDRO-LOGIC DEP TH DEP TH TO SATURATE E ROCK SOIL DEP TH DEP TH TO HYDROLOGIC 2.28 B >6' >6' MOD H .28 B >6' >6' MOD H .15 B >6' >6' MOD H .37 B >6' >6' MOD H COPYRIGHT 2024 © HINCHE	D AVAILABLE FLOODING GC WATER FREQUENCY (TY CAPACITY CLASS I 15 NONE I 15 NONE I 15 NONE I 16 NONE I 16 NONE	SHEET 6 OF 14 FILE NO. 1588

FILE NO.

1588

AREA TABULATION

41 – AREA TO 30" ST	ORAGE PIPE:
MPERVIOUS (C=0.90):	0.15 ACRES
TURF (C=0.35):	<u>0.13 ACRES</u>
TOTAL	0.28 ACRES (C=0.64)
· • · · · · · · · · · · · · · · · · · ·	

TOP=476.6 INV.=473.0(10" INV =473.0(10"

<u>A2 – BYPASS:</u> IMPERVIOUS (C=0.90): 0.21 ACRES TURF (C=0.35): <u>0.05 ACRES</u> 0.26 ACRES (C=0.79)

LEGEND

DRAINAGE DIVIDE

IMPERVIOUS AREA

SOILS DATA												
SOIL NAME	HYDRIC %	K-FA WHOLE SOIL	CTOR ROCK FREE	HYDRO- LOGIC SOIL GROUP	DEPTH	DEPTH TO WATER	SATURATED HYDROLOGIC CONDUCTIVITY (IN/HR)	AVAILABLE WATER CAPACITY (%)	FLOODING FREQUENCY CLASS			
CLAY LOAM, 2-7%, MOD. ERODED	0	.28	.28	В	>6'	>6'	MOD HI	15	NONE			
CLAY LOAM, 7-15%, MOD. ERODED	0	.28	.28	В	>6'	>6'	MOD HI	15	NONE			
CLAY, 7–15%, SEVERELY ERODED	0	.15	.15	В	>6'	>6'	MOD HI	15	NONE			
E SILT LOAM, 2-10%	3	.37	.37	В	>6'	>6'	MOD HI	16	NONE			

HYDROGRAPHS - 1-YR STORM

Hyd.	Hydrograph	Peak	 Time	Time to	Hyd.	Inflow	Maximum	Total		Hydrograph
No.	type (arigin)	flow (cfs)	interval (mun)	pcak (min)	volume (cuff)	hyd(s)	elevation (11)	strge used (cuff)		description
1	Rational	- 330	1	6	555				PRE DV	SET DISTURBED
2	Rational	1 651	1	6	661				POST G	NS TE DISTURBI D
3	Mod Testonal	0.250	1	5	736				POST B) (4) (4)
4	Reserver	0.250	1	27	735	3	491 80	236	100019	HRU D PL
5	Rational	0.872	1	5	349				IPPASS	
8	Compine	0.912	1	5	1 075	4-5			POS [*]	
Hy	drograp	h R	eport	t						۲
Hydraf	low Hydrographs I	by Intelise	olve v9.23							Sunday, Feb 26, 2023
Нус	l. No. 1									
PRE	ONSITE DI	ISTUR	BED							
Hydi Stori Time Draii Inter IDF	rograph type m frequency e interval nage area nsity Curve	e) = / = = = =	Rationa 1 yrs 1 min 0.540 a 4.245 in ORANG	l c i/hr bE.IDF			P Ti H Ri To As	eak dischar me to peak yd. volume unoff coeff. by User sc/Rec limb	ge = = = = fact =	= 1.330 cfs = 0.08 hrs = 533 cuft = 0.58* = 5.00 min = 1/1.67
" Com	posite (Area/C) =	(0. 2 30 x	0.90) + (0.3	10 x 0.35)].	0.540					
⊓yd P∩s	T ONSITE F	USTU	RRED							
 			Rational	l				ak diaabar	- no	- 1651 ofo
Storr Time Drair	n frequency interval nage area	= = =	1 yrs 1 min 0.540 ac	0			Tii Hy Ru	me to peak /d. volume inoff coeff.	96 - = =	= 0.08 hrs = 661 cuft = 0.72*
Inten IDF (isity Curve	=	4.245 in ORANG	/hr E.IDF			Tc As	by User c/Rec limb	= fact =	= 5.00 min = 1/1.67
orm orm aina tensi F Cu	graph type frequency nterval ige area ity urve	= M = 1 = 0. = 1. = 0	od. Rati yrs 280 ac 397 in/h RANGE	onai r .IDF			Pea Tim Hyd Rur Tc b Stoi	k discharge e to peak . volume off coeff. by User m duration Regid Stor	= = = = = =	0.250 cfs 0.08 hrs 736 cuft 0.64* 5.00 min 9.8 x Tc 570 cuft
arget Compos	• Q site (Area/C) = [(0.	= 0.	0) + (0.130	x 0.35)] / 0.	280		Est.	Req'a Stor	age =	
Hyd	I. No. 4									
Hydi	rograph type	1PE e =	Reservo	oir			P	eak dischar	qe =	= 0.250 cfs
Stor Time Inflo Rese	m frequency e interval w hyd. No. ervoir name	/ = = = =	1 yrs 1 min 3 - POS 30 PIPE	T TO P	IPE		Ti Hy M M	me to peak yd. volume ax. Elevatic ax. Storage	= = = = = = =	= 0.45 hrs = 735 cuft = 481.80 ft = 236 cuft
Storag	e Indication metho	od used.								
Hyd BYP/	. No. 5									
∕ ۱۱ – ⊶ارسا	ograph tim -	_	Dation - '					ak diash	10	• 0 870 afa
Storr	ograph type n frequencv	=	rtauonai 1 yrs				Pe Tir	ak uschar ne to peak	ye = =	• 0.072 cis • 0.08 hrs
Time	interval	=	1 min	_			<u>H</u> y	d. volume	=	= 349 cuft
Drair	nage area Isitv	=	0.260 ac 4 245 in	: /hr			Ri To	Inoff coeff.	=	= 0.79* = 5.00 min
DF (Curve	=	ORANG	E.IDF			As	c/Rec limb	fact =	1/1.67
Comr	oosite (Area/C) = fi	(0. 21 0 x ().90) + (0.05	0 x 0.35)1/	0.260					
lyd.	No. 6									
OST	-									
iydro torm ime i	graph type frequency interval	= C = 1 = 1	Combine yrs min				Pea Tim Hyd	ak discharg le to peak 1. volume	e = = =	0.912 cfs 0.08 hrs 1,075 cuft

Hydrograph Summary Report								Hydraillow Hydrographs by intel solv	Hydrograph Summary Report
Hyd Hydrograph i No type f (origin) ()	Peak flow cfs)	Time interval (min)	lume to peak (min)	Hyd volume (cuft)	inflow hyd(s)	Maximum elevation (ft)	i lotal strge used (cuft)	Hydrograph description	Hyd Hydrograph Peak time time to Hyd Toflow Maximum Total Hydrograph No type flow inferval peak volume hyd(s) elevation strgelused description (origin) (cfs) (min) (min) (cuft) (ft) (cuft)
 Reforment Reforment Reforment ModerNationent Resorvoir 	534 366 420 420		5 5 17	1834 787 744 735	3	481 84	24*	- - (REONSTED STURFED - (OSLONSHED STURFED - (OSLOTTE - (OSLOTTE - (OUT - TRU-TP)	* Reficine 2084 5 895 *RECNS 1* 0 STURB*1* 2 Reficine 2.588 5 1,036 *OSTONSHED STURB*1* 3 Mode Walkine 0.736 5 818 *OSTONSHED STURB*1* 4 Reservori 0.752 10 664 3 481.80 240 +COTIL TIRU+10*
o Refore 1	::39		5	418				HY-ASS	p Reficie 1.367 1 5 547
6 Combrie 1			5 L	1,155	4.5			-1051 IV	6 Combine 1424 1 5 1,327 4,5 (OS)
Hydrograph			[Hydraflow Hydrographs by Intelisolyc v9 23
Hvd No 1	Intenso	ve v9.25						Sunday, red 20, 2023	Hvd. No. 1
PRE ONSITE DIS	TURI	BED							PRE ONSITE DISTURBED
Hydrograph type Storm frequency Time interval Drainage area Intensity IDF Curve		Rationa 2 yrs 1 min).540 a 5.056 ir ORANC	l c n/hr òE.IDF			 	Peak dischary Fime to peak Hyd. volume Runoff coeff. Tc by User Asc/Rec limb	ge = 1.584 cfs = 0.08 hrs = 634 cuft = 0.58* = 5.00 min fact = 1/1.67	Hydrograph type= RationalPeak discharge= 2.084 cfsStorm frequency= 10 yrsTime to peak= 0.08 hrsTime interval= 1 minHyd. volume= 835 cuftDrainage area= 0.540 acRunoff coeff.= 0.58*Intensity= 6.655 in/hrTc by User= 5.00 minIDF Curve= ORANGE.IDFAsc/Rec limb fact= 1/1.67
* Composite (Area/C) = [(0.2	230 x 0	.90) + (0.3	10 x 0.35)] .	/ 0.540					* Composite (Area/C) = [(0.230 x 0.90) + (0.310 x 0.35)] / 0.540
Hyd. No. 2 POST ONSITE DIS	STUF	RBED							Hyd. No. 2 POST ONSITE DISTURBED
Hydrograph type Storm frequency Time interval Drainage area Intensity IDF Curve	= F = 2 = (= 5 = 0	Rationa 2 yrs 1 min 0.540 a 5.056 in 0RANG	l c /hr bE.IDF			F T F T <i>A</i>	Peak discharg Time to peak Hyd. volume Runoff coeff. To by User Asc/Rec limb	ge = 1.966 cfs = 0.08 hrs = 787 cuft = 0.72* = 5.00 min fact = 1/1.67	Hydrograph type= RationalPeak discharge= 2.588 cfsStorm frequency= 10 yrsTime to peak= 0.08 hrsTime interval= 1 minHyd. volume= 1,036 cuftDrainage area= 0.540 acRunoff coeff.= 0.72*Intensity= 6.655 in/hrTc by User= 5.00 minIDF Curve= ORANGE.IDFAsc/Rec limb fact= 1/1.67
* Composite (Area/C) = [(0.3 Hyd. No. 3 POST TO PIPE	360 x 0	90) + (0.18	30 x 0.35)] /	0.540					* Composite (Area/C) = [(0.360 x 0.90) + (0.180 x 0.35)] / 0.540 Hyd. No. 3
Hydrograph type Storm frequency Time interval Drainage area Intensity IDF Curve Target Q	= N = 2 = 1 = 0 = 2 = 0 = 0	Aod. Ra 9 yrs 0.280 ac 0.344 in 0RANG 0.350 cf	tional c /hr E.IDF s			F T F T S E	Peak discharg ime to peak lyd. volume Runoff coeff. ic by User Storm duration ist. Req'd Sto	le = 0.420 cfs = 0.08 hrs = 744 cuft = 0.64* = 5.00 min n = 5.9 x Tc prage = 368 cuft	POST TO PIPEHydrograph type= Mod. RationalStorm frequency= 10 yrsTime interval= 1 minDrainage area= 0.280 acIntensity= 4.105 in/hrIDF Curve= ORANGE.IDFTarget Q= 0.700 cfs
* Composite (Area/C) = [(0.1	50 x 0.	90) + (0.13	0 x 0.35)] /	0.280					$\frac{1}{2} = \frac{1}{2} = \frac{1}$
Hyd. No. 4 ROUTE THRU PIP	E								Hyd. No. 4 ROUTE THRU PIPE
Hydrograph type Storm frequency Time interval Inflow hyd. No. Reservoir name	= F = 2 = 1 = 3 = 3	Reservo yrs min - POS 0 PIPE	ir T TO PI	PE		P T H N	eak discharg ime to peak lyd. volume lax. Elevatior lax. Storage	e = 0.420 cfs = 0.28 hrs = 730 cuft = 481.84 ft = 241 cuft	Hydrograph type= ReservoirPeak discharge= 0.752 cfsStorm frequency= 10 yrsTime to peak= 0.17 hrsTime interval= 1 minHyd. volume= 794 cuftInflow hyd. No.= 3 - POST TO PIPEMax. Elevation= 481.89 ftReservoir name= 30 PIPEMax. Storage= 249 cuft
Storage Indication method us	sed.								Storage Indication method used.
Hyd. No. 5 BYPASS									Hyd. No. 5 BYPASS
Hydrograph type Storm frequency Time interval Drainage area Intensity IDF Curve		Rationa 2 yrs 1 min 0.260 a 5.056 ii ORANG	al ic n/hr GE.IDF				Peak dischar Time to peak Hyd. volume Runoff coeff. Tc by User Asc/Rec limb	ge = 1.039 cfs = 0.08 hrs = 416 cuft = 0.79* = 5.00 min fact = 1/1.67	Hydrograph type= RationalPeak discharge= 1.367 cfsStorm frequency= 10 yrsTime to peak= 0.08 hrsTime interval= 1 minHyd. volume= 547 cuftDrainage area= 0.260 acRunoff coeff.= 0.79*Intensity= 6.655 in/hrTc by User= 5.00 minIDF Curve= ORANGE.IDFAsc/Rec limb fact= 1/1.67
* Composite (Area/C) = [(0.	.210 x ().90) + (0.0	50 x 0.35)]	/ 0.260					* Composite (Area/C) = [(0.210 x 0.90) + (0.050 x 0.35)] / 0.260 Hyd. No. 6 POST
Hyd. No. 6 POST Hydrograph type Storm frequency Time interval Inflow hyds.	= = =	Combir 2 yrs 1 min 4, 5	ne				Peak dischar Time to peak Hyd. volume Contrib. drair	rge = 1.085 cfs = 0.08 hrs = 1,135 cuft n. area = 0.260 ac	Hydrograph type= CombinePeak discharge= 1.424 cfsStorm frequency= 10 yrsTime to peak= 0.08 hrsTime interval= 1 minHyd. volume= 1,327 cuftInflow hyds.= 4, 5Contrib. drain. area = 0.260 ac

Hydrograph type	= Combine
Storm frequency	= 2 yrs
Time interval	= 1 min
nflow hyds.	= 4, 5

HYDROGRAPHS - 2-YR STORM

HYDROGRAPHS - 10-YR STORM

-														6
Pon	Id Kep	by netsov	e vii 23									Sind	lay - eb i	20.2023
Pond N	No. 1 - 30	PIPE												
Pond D	Data													
Pond sto	orage is based	d on user-do	fined val	lues.										
Stage /	Storage T	able												
Stage (fl) E	levation (It)	Cr	antour :	area (sqft)) In	or Storage (cuft)	fotal stor	age (cuff)				
0.00		480.00		n/s	.:		0			0				
0.50		480.50		16	н		29			20				
1.50		481-50 481-50		125 116	ii H		74 85			00 35				
2.00		482.00 782.50		n/s n/s	:i 9		93 111			268 307				
1														
Culvert	t / Orifice S	itructures					Weir Str	uctures	5					
		[A]	[B]	[C]	[PrfR	ទា]			[A]	[B]	[C]	[D]		
Rise (in)	6	00	1.60	0.00	0 00		Crest Len	(11)	2.00	had ve	00 0	00 0		
S pan (in) 8	00	1.60	0.00	0.00		Crest El. (ft)	781 75	0.00	00 0	00 0		
No. Barro	CIS 1 (19) 4	80.00	-	0	0 ~~		Weir Goef	l.	D DD Biser	3.35 Bioad	3.33	3.33		
Longth (i	ft) 2	- 00	0.00	0.00	0.00		Multi-Stag	e	Yes	No	No	No		
Slope (%	b) 2	38	0.0::	0.00	n/e		-							
N Value	()*3	013	013	n da									
Multi-Sta	,0011. J 3010 I	50 M	No.	No.	0 au No		TW Elev. () Ft)	0.000 (by 0.000	worarea)				
	-		X .v. 21 .		:					ata	,		a" 5	
Stage /	Storage / I	Discharge	e Table								-			
Stage ft	Storage cuft	Elevation ft	Clv. cfs	A	Clv B cfs	ClvC cfs	PrfRsr cfs	WrA cfs	WrB cfs	WrC cfs	WrD cfs	Exfil cfs	User cfs	Total cfs
:: ::0	0	480 00	0 ::::		0.0::			0 ::::						0 :::::
0.50 1.00	29	480-50 281-00	0.00		004 c 005 c			0.00						0.039
1.50	- 85	481.50	0.00		00/ c			0.00						0.071
2.00	263	482.00 282.60	- 22	100 CCC	0.08 c 0.09 c			1 22 s 1 40 s						* 1111 * 404

WATER QUALITY

SINCE THE AREA TO BE DISTURBED IS LESS THAN ONE ACRE, NO WATER QUALITY MEASURES SHALL BE REQUIRED FOR THIS PROJECT.

WATER QUANTITY

THE SITE AREA INCLUDES THE ONSITE DISTURBED AREA AND A PORTION OF OFFSITE RUNOFF FROM DOGWOOD LANE BUT DOES NOT INCLUDE THE FRONT AND REAR PARKING SPACES THAT WILL BE REPAVED. THESE PARKING SPACES ARE ON EXISTING PAVEMENT.

1-YEAR	2-YEAR	10-YEAR
1.330 cfs	1.584 cfs	2.084 cfs
0.912 cfs	1.039 cfs	1.424 cfs
	1-YEAR 1.330 cfs 0.912 cfs	1-YEAR2-YEAR1.330 cfs1.584 cfs0.912 cfs1.039 cfs

1-YEAR STORM ENERGY BALANCE CALCULATIONS

THE ALLOWABLE 1-YEAR SITE RUNOFF WAS CALCULATED USING THE 'ENERGY BALANCE' EQUATION FOUND AT SECTION 9VAC25-870-66.B.3.A OF THE VIRGINIA STATE CODE.

THE SITE AREA INCLUDES THE ONSITE DISTURBED AREA AND A PORTION OF OFFSITE RUNOFF FROM DOGWOOD LANE BUT DOES NOT INCLUDE THE FRONT AND REAR PARKING SPACES THAT WILL BE REPAVED. THESE PARKING SPACES ARE ON EXISTING PAVEMENT.

THE MODIFIED RATIONAL METHOD WAS USED TO DEVELOP THE HYDROGRAPH TO BE ROUTED THROUGH THE STORAGE PIPE.

THE ALLOWABLE DISCHARGE IS CALCULATED AS

Qall = Qpre(0.90)(RVpre/PVpost)

WHERE Qpre = 1.33, RVpre = 533 cf and RVpost = 661 cf

Qall = 1.33(0.90)(533/661) = 0.965 cfs

THE MAXIMUM DISCHARGE WILL BE 0.912 CFS. ENERGY BALANCE IS SATISFIED.

		SOI	LS	DAJ	T A			
MAP SYMBOL	SOIL NAME	HYDRIC %	K-FA WHOLE SOIL	CTOR ROCK FREE	HYDRO- LOGIC SOIL GROUP	DEPTH	DEPTH TO WATER	SATUR HYDRO CONDU((IN/
DaB2	FAUQUIER CLAY LOAM, 2-7%, MOD. ERODED	0	.28	.28	В	>6'	>6'	MOD
DaC2	FAUQUIER CLAY LOAM, 7-15%, MOD. ERODED	0	.28	.28	В	>6'	>6'	MOD
DdC3	FAUQUIER CLAY, 7–15%, SEVERELY ERODED	0	.15	.15	В	>6'	>6'	MOD
SrC	MEADOWVILLE SILT LOAM, 2-10%	3	.37	.37	В	>6'	>6'	MOD

IED)GIC VITY)	AVAILABLE WATER CAPACITY (%)	FLOODING FREQUENCY CLASS
-11	15	NONE
-11	15	NONE
łI	15	NONE
-11	16	NONE

9VAC25-840-40. MINIMUM STANDARDS

A VESCP MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS: . PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION. 4. SEDIMENT BASINS AND TRAPS. PERIMETER DIKES. SEDIMENT BARRIERS AND OTHER MEASURES. INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION. 5. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL

DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN. A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE

OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES. B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. LOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED. 8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEOUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE. 9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED

10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

11. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL. ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.

13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.

14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET. 15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE

WATERCOURSE IS COMPLETED. 16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

- A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
- B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.

- D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
- E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.
- F. APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.

7. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE EDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS: A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO

AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:

(1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE **PROJECT IN OUESTION: OR** (2)(a) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS. (b) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND

(c) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM. C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:

WITHIN THE APPURTENANCES; OUTFALLS INTO A MAN-MADE CHANNEL; OR

WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION. D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS. E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT. F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE. G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATERS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL. H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE. I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.

J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS. K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER

WATERS OF THE STATE. L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS: (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24 HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10 YEAR, 24 HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15:54 OR 62.1-44.15:65 OF THE ACT.

M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15:24 ET SEO. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS. N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS SHALL BE DEEMED TO SATISFY THE **REQUIREMENTS OF SUBDIVISION 19 OF THIS SUBSECTION.**

MAINTENANCE

1. SAFETY FENCE - 3.01 SAFETY FENCE SHALL BE CHECKED REGULARLY FOR WEATHER-RELATED OR OTHER DAMAGE. ANY NECECCARY REPAIRS MUST BE MADE IMMEDIATELY. CARE SHOULD BE TAKEN TO SECURE ALL ACCESS POINTS (GATES) AT THE END OF EACH WORKING DAY. ALL LOCKING DEVICES MUST BE REPAIRED OR REPLACED AS NECESSARY.

2. TEMPORARY CONSTRUCTION ENTRANCE - 3.02 THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED. WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.

3. SILT FENCE - 3.05 & FILTER SOCKS SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

4. DROP-INLET PROTECTION - 3.07 THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

5. PERMANENT SEEDING - 3.32 WHEN IT IS CLEAR THAT PLANTS HAVE NOT GERMINATED ON AN AREA OR HAVE DIED, THESE AREAS MUST BE RESEEDED IMMEDIATELY TO PREVENT EROSION DAMAGE. HOWEVER, IT IS EXTREMELY IMPORTANT TO DETERMINE FOR WHAT REASON GERMINATION DID NOT TAKE PLACE AND MAKE ANY CORRECTIVE ACTION NECESSARY PRIOR TO RESEEDING THE AREA.

(1) IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR THE BANKS; OR (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED

(3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF

(4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES

TEMPORARY SEEDING REQUIREMENTS VESCH - TABLE 3.31-B

50/50 MIX OF ANNUAL RYEGRASS AND CEREAL (WINTER) RYE (a) 50-100 LBS/ACRE (SEPT. 1 - FEB. 15)

ANNUAL RYEGRASS (a) 60-100 LBS/ACRE (FEB. 15 - APR. 30)

GERMAN MILLET @ 50 LBS/ACRE (MAY 1 - AUG. 31)

FERTILIZER: 10/20/10 MIX @ 600 LBS/ACRE LIME: AGRICULTURAL LIMESTONE @ 2 TONS/ACRE STRAW MULCH: APPLIED @ 1.5-2.0 TONS/ACRE

PERMANENT SEEDING REQUIREMENTS VESCH - TABLE 3.32-D

COMMERCIAL/RESIDENTIAL MIXTURE @ 175-200 LBS/ACRE KENTUCKY 31 OR TURF TYPE TALL FESCUE (95-100%) **IMPROVED PERENNIAL RYEGRASS (0-5%)** KENTUCKY BLUEGRASS (0-5%)

FERTILIZER: 10/20/10 MIX @ 1,000 LBS/ACRE LIME: AGRICULTURAL LIMESTONE @ 2 TONS/ACRE STRAW MULCH: APPLIED @ 1.5-2.0 TONS/ACRE

ACCEPTABLE	TABLE 3.31-B TEMPORARY SEEDING PLANT	MATERIALS
"QUIC	K REFERENCE FOR ALL REGIO	NS"
Planting Dates	Species	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (<u>Lolium multi-florum</u>) & Cereal (Winter) Rye (<u>Secale cereale</u>)	50 - 100
Feb. 16 - Apr. 30	Annual Ryegrass (Lolium multi-florum)	60 - 100
May 1 - Aug 31	German Millet (<u>Setaria italica</u>)	50

TABLE 3.32-D SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA

	Total Lbs. Per Acre
Minimum Care Lawn	
 Commercial or Residential Kentucky 31 or Turf-Type Tall Fescue Improved Perennial Ryegrass Kentucky Bluegrass 	175-200 lbs. 95-100% 0-5% 0-5%
High-Maintenance Lawn	200-250 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	100%
General Slope (3:1 or less)	
 Kentucky 31 Fescue Red Top Grass Seasonal Nurse Crop * Low-Maintenance Slope (Steeper than 3:1)	128 lbs. 2 lbs. <u>20 lbs.</u> 150 lbs.
 Kentucky 31 Fescue Red Top Grass Seasonal Nurse Crop * Crownvetch ** 	108 lbs. 2 lbs. 20 lbs. <u>20 lbs.</u> 150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below: February 16th through April Annual Rve Foxtail Millet May 1st through August 15th . August 16th through October Annual Rye November through February 15th Winter Rye

* Substitute Sericea lespedeza for Crownvetch east of Farmville, Va. (May through September use hulled Sericea, all other periods, use unhulled Sericea) If Flatpea is used in lieu of Crownvetch, increase rate to 30 lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

EXISTING SITE CONDITIONS SHEETS 8.

ADJACENT PROPERTY IT IS BOUNDED ON THE NORTH AND WEST BY DOGWOOD LANE, TO THE EAST BY N. MADISON ROAD AND TO THE SOUTH BY THE ORANGE CHAMBER OF COMMERCE BUILDING.

CRITICAL EROSION AREAS: THERE ARE NO CRITICAL AREAS ON THIS PROPERTY.

THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED PRIOR TO THE INSTALLATION OF ANY EROSION AND SEDIMENT CONTROLS OR START OF ANY LAND DISTURBING ACTIVITY. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING. PRIOR TO DEVELOPMENT, THE LIMITS OF CLEARING SHALL BE CLEARLY MARKED ON THE PROPERTY AND SUITABLE PROTECTIVE BARRIERS SHALL BE ERECTED 5 FEET OUTSIDE THE DRIP LINE OF ANY TREE OR STAND OF TREES TO BE PRESERVED WITHIN 100 FEET OF THE CONSTRUCTION FOOTPRINT. THE BARRIERS SHALL REMAIN ERECTED THROUGHOUT ALL PHASES OF CONSTRUCTION. THE STORAGE OF EQUIPMENT, MATERIALS, DEBRIS OR FILL SHALL NOT BE ALLOWED WITHIN THE AREA TO BE PROTECTED BY THE BARRIER.

ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

THE E&S INSPECTOR HAS THE AUTHORITY TO ADD OR DELETE E&S CONTROLS AS NECESSARY IN THE FIELD AS SITE CONDITIONS CHANGE. NO SEDIMENT BASIN OR TRAP CAN BE REMOVED WITHOUT WRITTEN AUTHORIZATION. RESPONSIBLE LAND DISTURBER REPORTS CAN BE AUDITED BY THE E&S INSPECTOR AT ANY TIME. IF RLD REPORTS ARE NOT PROVIDED, THE E&S INSPECTOR CAN REPORT THIS TO THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ). A FOLLOW UP INSPECTION MAY TAKE PLACE BY DEQ (VIRGINIA EROSION & SEDIMENT CONTROL LAW, SEC. 62.1-44.15:58.)

TEMPORARY AND PERMANENT SOIL STABILIZATION: ALL CUT AND FILL SLOPES ARE TO BE STABILIZED IMMEDIATELY UPON COMPLETION IN ACCORDANCE WITH MINIMUM STANDARD NO. 5. AREAS NOT TO BE PAVED SHALL RECEIVE PERMANENT SEEDING AND MULCHING IN ACCORDANCE WITH SPEC 3.32. DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 14 DAYS SHALL RECEIVE TEMPORARY SEEDING AND MULCHING IN ACCORDANCE WITH SPEC 3.31. SEE SEEDING REQUIREMENTS, THIS SHEET.

COMMENCES.

I. CONSTRUCTION WILL BE SEOUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS OUICKLY AS POSSIBLE. 2. INSTALL TEMPORARY CONSTRUCTION ENTRANCE WITH WASH RACK AT ENTRANCE LOCATION OF CONSTRUCTION SITE MUD AND DEBRIS SHALL BE WASHED FROM ALL CONSTRUCTION VEHICLES AND EQUIPMENT BEFORE LEAVING THE SITE. A WATER TANKER TRUCK SHALL BE USED IF PUBLIC WATER IS NOT AVAILABLE. 3. INSTALL PERIMETER CONTROLS TO INCLUDE SAFETY FENCING, TREE PROTECTION, SILT FENCE AND FILTER SOCKS. 4. GRADING OPERATIONS MAY COMMENCE ONCE THE PERIMETER CONTROLS ARE INSTALLED TO THE SATISFACTION OF THE INSPECTOR.

SLOPES.

DURING PHASE 2. PRACTICES. CLEANED UP AND REMOVED AT THE DIRECTION OF THE SITE INSPECTOR.

MAINTENANCE PROGRAM: ALL MEASURES ARE TO BE INSPECTED DAILY BY THE SITE SUPERINTENDENT. ANY DAMAGED STRUCTURAL MEASURE SHALL BE REPAIRED BY THE CLOSE OF DAY. SEE MAINTENANCE INSTRUCTIONS ON THIS SHEET FOR SPECIFIC MAINTENANCE PROCEDURES FOR EACH CONTROL MEASURE.

EROSION & SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:

TOTAL SITE AREA: 1.465 ACRES. A TOTAL OF 0.67 ACRES WILL BE DISTURBED DURING CONSTRUCTION. THE PURPOSE OF THIS PROJECT IS THE REMOVAL OF TWO EXISTING OFFICE BUILDINGS AND THE CONSTRUCTION OF AN OFFICE AND 21-UNIT APARTMENT BUILDING IN THEIR PLACE.

THE SITE IS LOCATED VA-15, NORTH MADISON ROAD JUST NORTH OF ITS INTERSECTION WITH SPICER'S MILL RD.

THIS SITE IS CURRENTLY OCCUPIED BY TWO OFFICE BUILDINGS AND THE ORANGE COUNTY HEALTH DEPARTMENT WHICH IS TO REMAIN ON THE SITE. THE LOT IS MOSTLY PAVED AND SLOPING. SOILS INFORMATION HAS BEEN PROVIDED ON

EROSION AND SEDIMENT CONTROL GENERAL NOTES: ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE V.E.S.C.H. 3RD ED. 1992 AND SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

STRUCTURAL PRACTICES

. TEMPORARY CONSTRUCTION ENTRANCE - 3.02 - A TEMPORARY CONSTRUCTION ENTRANCE WITH WASH RACK SHALL BE INSTALLED AT THE SITE ACCESS POINT. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE ENTERING THE ADJACENT ROADWAY.

2. SILT FENCE - 3.05 - SILT FENCE SEDIMENT BARRIERS WILL BE INSTALLED DOWNSLOPE OF AREAS WITH MINIMAL GRADES TO FILTER SEDIMENT-LADEN RUNOFF FROM SHEET FLOW AS INDICATED ON SHEET 10. 3. FILTER SOCK - FILTER SOCK SHALL BE INSTALLED IN LIEU OF SILT FENCE ON THE DOWN-SLOPE PAVED AREA.

4. TREE PROTECTION FENCING - 3.38 - TREE PROTECTION SHALL BE USED TO PROTECT EXISTING LANDSCAPING TREES ADJACENT TO THE PROPOSED CONSTRUCTION. 5. SAFETY FENCING - 3.01 - SHALL BE INSTALLED TO ALONG DOGWOOD LANE TO DISCOURAGE THE PUBLIC FROM

ENTERING THE CONSTRUCTION AREA, 6. STORM DRAIN INLET PROTECTION - 3.07 - ALL STORM SEWER INLETS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS. . OUTLET PROTECTION - 3.18 - EC-3 IS TO BE PLACED AT THE OUTLET OF THE PROPOSED STORM SEWER SYSTEM. SEE SHEET 9 FOR SIZING.

VEGETATIVE PRACTICES

1. TOP SOILING (STOCKPILE) - 3.30 - TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATIONS SHALL BE STABILIZED WITH TEMPORARY VEGETATION OR SEDIMENT TRAPPING MEASURES. PRIOR TO LAND-DISTURBING ACTIVITIES, SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT PLAN TO THE OWNER COVERING THE STOCKPILE AREA WHICH MAY HAVE TO BE APPROVED BY THE PLAN AUTHORITY BEFORE ANY ACTIVITY

2. TEMPORARY STABILIZATION MATTING - 3.35 - SLOPES GRADED AT STEEPER THAN 1:3 SHALL BE PROTECTED WITH TEMPORARY SOIL STABILIZATION MATTING UNTIL PERMENANT SEEDING HAS BECOME ESTABLISHED. 3. TEMPORARY SEEDING - 3.31 - ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED. 3. PERMANENT SEEDING - 3.32 - ALL DISTURBED AREAS WHERE PERMANENT, LONG-LIVED VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL AND WHERE ROUGH-GRADED AREAS WHICH WILL NOT BE BROUGHT TO FINAL GRADE FOR A

YEAR OR MORE SHALL BE SEEDED WITH PERMANENT VEGETATION. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED. SOIL TYPES, CLIMATE, AND SLOPES.

5. FILL SLOPE SURFACES SHALL BE LEFT IN ROUGHENED CONDITION TO REDUCE SHEET AND RILL EROSION OF THE 6. TEMPORARY SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.

7. AREAS THAT ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.

1. PERIMETER CONTROLS FROM PHASE 1 WHICH DO NOT INTERFERE WITH CONSTRUCTION SHALL REMAIN IN PLACE 2. ONCE THE STORM SEWER AND SWM FACILITY HAVE BEEN INSTALLED AND THE AREA HAS BEEN BROUGHT NEAR FINAL

GRADE IN A MANNER SUCH THAT STORM INLETS ARE FUNCTIONAL, INSTALL THE INLET PROTECTIONS AND AND OUTLET PROTECTION AS INDICATED ON SHEET 10. 3. FOR VEGETATIVE STABILIZATION OF ALL DENUDED AREAS SEE EROSION CONTROL MEASURES AND VEGETATIVE

4. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES. 5. AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY EROSION AND SILTATION CONTROLS WILL BE

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THIS SHEET IS FOR LANDSCAPE PURPOSES ONLY!

SPECIFICATIONS FOR PLANTING

PLANT IDENTIFICATION: ALL PLANTS SHALL BE PROPERLY MARKED FOR IDENTIFICATION AND CHECKING.

LIST OF PLANT MATERIAL: THE CONTRACTOR WILL VERIFY PLANT QUANTITIES PRIOR TO BIDDING AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS REQUIRED TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS. SUBSTITUTIONS SHALL NOT BE MADE WITHOUT THE WRITTEN APPROVAL OF THE OWNER.

PLANT QUALITY: ALL SHRUBS SHALL BE DENSE, HEAVY TO THE GROUND, AND WELL GROWN, SHOWING EVIDENCE OF HAVING BEEN SHEARED REGULARLY, SHALL BE VIGOROUS, HEALTHY, AND OF GOOD COLOR. ALL PLANTS SHALL BE SOUND, FREE OF PLANT DISEASE OR INSECT EGGS, AND SHALL HAVE HEALTHY NORMAL ROOT SYSTEMS. PLANTS SHALL BE FRESHLY DUG AND NOT HELD-IN STOCK, NOR STOCK FROM COLD STORAGE. ALL PLANTS SHALL BE NURSERY GROWN. PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY. THE SHAPE OF THE PLANT IN GENERAL SHALL CONFORM TO ITS NATURAL GROWTH PROPORTIONS, UNLESS OTHERWISE SPECIFIED. ALL PLANTS INCLUDING CONTAINER-GROWN SHALL CONFORM TO THE BRANCHING, CALIPER, AND HEIGHT SPECIFICATIONS OF THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

PLANT SPACING: PLANT SPACING IS TO SCALE ON PLAN. NO PLANTS EXCEPT ESPALIERED MATERIAL SHALL BE CLOSER THAN 30 INCHES TO BUILDINGS.

SOIL MIX: SOIL MIX WILL BE 2/3 EXISTING SOIL, 1/3 LEAF MOLD OR EQUAL ORGANIC MATERIAL, THOROUGHLY MIXED AND HOMOGENIZED.

BALL SIZE: THE BALL SIZE SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK.

EXCAVATION: HOLES FOR ALL PLANTS SHALL BE 18 INCHES LARGER IN DIAMETER THAN SIZE OF BALL OR CONTAINER, AND SHALL HAVE VERTICAL SIDES. HEDGES SHALL BE PLANTED IN A TRENCH 12 INCHES WIDER THAN BALL DIAMETER. BEDS FOR MASS PLANTING SHALL BE ENTIRELY ROTOTILLED TO A DEPTH OF 8 INCHES AND SHALL BE 18 INCHES BEYOND THE AVERAGE OUTSIDE EDGE OF PLANT BALLS. ORGANIC MATERIAL (I.E., LEAF MOLD) WILL BE INCORPORATED INTO PLANT BED BY TILLING AGAIN. PROPORTIONS OF SOIL TO ORGANIC MATERIAL WILL BE 2 PARTS TO 1 PART.

PLANTING: BACKFILLING SHALL BE DONE WITH SOIL MIX, REASONABLY FREE OF STONES, SUBSOIL CLAY, LUMPS, STUMPS, ROOTS, WEEDS, BERMUDA GRASS, LITTER, TOXIC SUBSTANCES, OR ANY OTHER MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH OR HINDER GRADING, PLANTING, OR MAINTENANCE OPERATIONS. SHOULD ANY UNFORESEEN OR UNSUITABLE PLANTING CONDITIONS ARISE SUCH AS FAULTY SOIL DRAINAGE OR CHEMICAL RESIDUES, THEY SHOULD BE CALLED TO THE ATTENTION OF THE OWNER FOR ADJUSTMENT BEFORE PLANTING. THE PLANT SHALL BE SET PLUMB AND STRAIGHT AND SHALL BE STAKED AT THE TIME OF PLANTING. BACKFILL SHALL BE WELL WORKED ABOUT THE ROOTS AND SETTLED BY WATERING. PLANTS WILL BE PLANTED HIGHER THAN SURROUNDING GRADE. SHRUBS WILL BE 1 INCH HIGHER AND TREES WILL BE 3 INCHES HIGHER. REMOVE ROPE FROM AROUND TREE TRUNKS AND LAY BACK BURLAP FROM TOP OF B&B MATERIAL NYLON OR VINYL ROPE AND/OR BURLAP WILL BE COMPLETELY REMOVED FROM ALL PLANT MATERIAL PRIOR TO PLANTING.

TRANSPLANTING TREES BY TREE MACHINES: TREES SHALL BE MOVED BY MACHINES THAT PROVIDE A MINIMUM BALL DIAMETER OF 12 INCHES PER 1 INCH OF TREE CALIPER. HOLES ARE TO BE DUG BY THE SAME SIZE MACHINE AS THE ONE TRANSPORTING THE PLANT. THE PLANT MATERIAL SHALL BE TRANSPLANTED IN APPROXIMATELY THE SAME GROWING CONDITION AS IT IS PRESENTLY GROWING IN TERMS OF SOIL TYPE AND MOISTURE CONTENT. FERTILIZE AND GUY AS DESCRIBED IN THESE PLANS AND SPECIFICATIONS.

TRANSPLANTING EXISTING TREES: HARDWOODS SHOULD BE TRANSPLANTED IN THE LATE FALL FOLLOWING THEIR LEAF DROP. EVERGREENS MAY BE TRANSPLANTED BEGINNING WITH THE FALL COOL-DOWN PERIOD (NORMALLY SEPTEMBER) AND MAY CONTINUE INTO SPRING PRIOR TO ELONGATION OF THE NEW GROWTH. PROPER DIGGING OF A TREE INCLUDES THE CONSERVATION OF AS MUCH OF THE ROOT SYSTEM AS POSSIBLE, PARTICULARLY THE FINE ROOTS. SOIL ADHERING TO THE ROOTS SHOULD BE DAMP WHEN TREE IS DUG, AND KEPT MOIST UNTIL PLANTING. THE SOIL (OR "ROOT") BALL SHOULD BE 12 INCHES IN DIAMETER FOR EACH INCH OF DIAMETER OF THE TRUNK. THE TREE SHOULD BE CAREFULLY EXCAVATED AND THE SOIL BALL WRAPPED IN BURLAP AND TIED WITH ROPE. SOIL AROUND BALLED AND BURLAPPED TREE ROOTS SHOULD BE DUG WITH THE TREE AND NOT JUST PACKED AROUND BARE ROOTS. BALLED AND BURLAPPED PLANT MATERIAL SHALL BE KEPT MOIST.

CULTIVATION: ALL TRENCHES AND SHRUB BEDS SHALL BE CULTIVATED, EDGED, AND MULCHED TO A DEPTH OF 3 INCHES WITH FINE SHREDDED HARDWOOD BARK. THE AREA AROUND ISOLATED PLANTS SHALL BE MULCHED TO AT LEAST A 6-INCH GREATER DIAMETER THAN THAT OF THE HOLE. PLANT BEDS ADJACENT TO BUILDINGS SHALL BE MULCHED TO THE BUILDING WALL.

MAINTENANCE: THE CONTRACTOR SHALL BE RESPONSIBLE DURING THE CONTRACT AND, UP TO THE TIME OF ACCEPTANCE, FOR KEEPING THE PLANTING AND WORK INCIDENTAL THERETO IN GOOD CONDITION, BY REPLANTING, PLANT REPLACEMENT, WATERING, WEEDING, CULTIVATING, PRUNING AND SPRAYING, STAKING, AND CLEANING UP, AND BY PERFORMING ALL OTHER NECESSARY OPERATIONS OF CARE FOR PROMOTION OF GOOD PLANT GROWTH, SO THAT ALL WORK IS IN SATISFACTORY CONDITION AT THE TIME OF ACCEPTANCE, AT NO ADDITIONAL COST TO THE OWNER.

FERTILIZER: FERTILIZER SHALL BE A SLOW-RELEASE TYPE CONTAINED IN POLYETHYLENE PERFORATED BAGS WITH MICROPORE HOLES FOR CONTROLLED FEEDING, SUCH AS "EASY GROW" AS MANUFACTURED BY SPECIALTY FERTILIZER, INC., BOX 355, SUFFERN, NEW YORK, 10901 OR APPROVED EQUAL. THE BAGS SHALL CONTAIN 1 OUNCE OF SOLUBLE FERTILIZER ANALYSIS 16-18-16 PER UNIT TO LAST FOR THREE YEARS AND SHALL BE APPLIED DURING PLANTING AS RECOMMENDED BY THE MANUFACTURER. IF FERTILIZER PACKETS ARE NOT USED, THE CONTRACTOR SHALL APPLY GRANULAR FERTILIZER TO THE SOIL MIX OF 10-6-6 ANALYSIS, 50% ORGANIC, AT THE FOLLOWING RATES:

TREE PITS: 2-3 LBS. PER CALIPER INCH

SHRUB BEDS: 3-5 LBS. PER 100 SQ. FT.

GROUND COVER:

2-3 LBS. PER 100 SQ.FT.

GROUND COVER: ALL AREAS OF GROUND COVER SHALL BE ROTOTILLED TO A DEPTH OF SIX INCHES. APPLY 2 INCHES OF ORGANIC MATERIAL AND ROTOTILL UNTIL THOROUGHLY MIXED. APPLY FERTILIZER AS STATED ABOVE.

NOTES:

- ABOVE FINISH GRADE.
- 4. SOAK PLANT BALL AND PIT
- PLANTING REQUIREMENTS.

NOTES:

- 1. RUBBER HOSE MAY BE DELETED IF
- 3/4" NYLON STRAP IS USED.
- 3. INSTALL TOP OF BALL 2" ABOVE FINISH GRADE.
- 4. SOAK ROOT BALL AND PLANT PIT IMMEDIATELY AFTER INSTALLATION
- 5. WRAP TREE TRUNK IF SPECIFIED
- ON PLANS. (SEE SPECS.)
- CIRCUMFERENCE OF TREE.
- 7. PLACE 2 WOOD STAKES PARALLEL TO STREET.
- 9. SEE SPECIFICATIONS FOR OTHER PLANTING REQUIREMENTS.

		-	<u>PLANT LIST</u>					
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	CANOPY/ SPREAD	REMARKS	TOTAL
SHADE TR	EES:							
AR	8	Acer rubrum	Red Maple	2-1/2" MIN.	6' MIN.	250 SF	B&B	2,000 SF
SHRUBS:	SHRUBS: TOTAL CANOPY AREA OF TREES TO BE PLANTED: 2,000 SF				2,000 SF			
JH	40	Juniperus Horizontalis	Blue Rug Juniper	N/A	24" MIN.	N/A		N/A

SINGLE-STEM TREE PLANTING DETAIL NOT TO SCALE

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STREET TREES

<u>REQUIRED:</u>	1 LARGE DECIDUOUS TREE 35–40 LINEAR FEET.
495' DOGWOOD	LANE LESS 10'0' ENTRANCES = 395' / 40 = 10 TREES REQUIRED
	8 PROPOSED TREES + 2 EVISTING TREES
<u>FILOVIDLD.</u>	6 PROPOSED TREES + 2 EXISTING TREES

FOUNDATION PLANTINGS

REQUIRED: 3 SMALL SHRUBS PER 10 LF OF BUILDING FRONTAGE x 130' = 39 SHUBS PROVIDED: 40 SMALL SHRUBS

9,120 SF (14.3%)

CANOPY COVER

TOTAL:

REQUIRED:	10% OF 1.465 AC (63,815 SF) = $6,382$ SF	
PROVIDED:	PROPOSED NEW PLANTINGS: 2,000 SF EXISTING VEGATION: <u>7,120 SF</u>	

SUBSTITUTES & TRANSPLANTS: MANY OF THE PROPOSED SHRUB SPECIES ARE COMMON IN THE LANDSCAPE INDUSTRY, HOWEVER, SUBSTITUTES MAY BE MADE BASED ON AVAILABILITY OR COST FACTORS. AS LONG AS THE SUBSTITUTES ARE EQUIVALENT IN SIZE, FORM, AND FUNCTION AS THE PROPOSED SPECIES. MANY OF THE EXISTING PLANTS ON-SITE WOULD BE CONSIDERED EQUIVALENT TO THE PROPOSED SPECIES AND MAY BE USED IF THE OWNER DESIRES TO DO SO. PLEASE SEE TRANSPLANT NOTES ON THIS SHEET.

MAINTENANCE:

DEAD AND DYING TREES AND REPLACEMENTS. THE APPLICANT SHALL REPLACE ANY REQURIED PLANTINGS THAT DIE WITHIN THREE (3) YEARS OF PLANTING. IF ANY TREES SHOWN ON THE APPROVED SITE PLAN TO BE PRESERVED OR PLANTED BECOME DISEASED OR ARE DYING, THEN THE APPLICANT MAY REMOVE THOSE TREES. THE REPLACEMENT TREES MUST BE EQUIVALENT TO THAT SHOWN ON THE APPROVED PLAN.

PROTECTION:

THE APPLICANT SHALL BE RESPONSIBLE FOR AND EMPLOY REASONABLE EFFORTS FOR THE PROTECTION OF THE TOPS, TRUNKS AND ROOTS OF ALL EXISTING TREES, AS WELL AS OTHER VEGETATION ON THE SITE. PROTECTION DEVICES SHALL BE INSTALLED ALONG THE LIMITS OF CLEARING AND GRADING, PRIOR TO ANY CONSTRUCTION OCCURRING ON-SITE. SUCH PROTECTION SHALL BE MAINTAINED UNTIL ALL WORK IN THE VICINITY HAS BEEN COMPLETED, AND SHALL NOT BE REMOVED WITHOUT THE CONSENT OF THE ZONING ADMINISTRATOR.

HINCHEY & BAINES, PLC	ENGINEERING AND LAND PLANNING	125 EAST DAVIS STREET PHONE (540) 829–2220 SUITE 201 FAX (540) 829–2239 CULPEPER, VIRGINIA 22701
HE THE MAN	MARVIN T. HINCHEY	CONAL EVEN
LANDSCAPE NOTES AND DETAILS	MADISON ROAD APARTMENTS	ORANGE COUNTY, VIRGINIA – TOWN OF ORANGE
SCALE:	: 1" =	= 20'
DATE: REVISIO	12/16 	COMMENTS
2-6-23 PE		
2-6-23 PE 2-22-23 P 09-24-202	ER COMM 24	ENTS
2-6-23 PE 2-22-23 P 09-24-202	ER COMM 24	ENTS
2-6-23 PE 2-22-23 P 09-24-202		ENTS

FILE NO.

1588

<u>SEE ARCHITECTURAL PLAN E0.4 AND E4.1 FOR</u> <u>SITE MORE DETAILED LIGHTING INFORMATION.</u>

HINCHEY & BAINES, PLC	ENGINEERING AND LAND PLANNING	CULPEPER, VIRGINIA 22701 FAX (540) 829-2239 CULPEPER, VIRGINIA 22701
AO HEITHAMAN	MARVIN T. HINCHEY LIC. NO. 017596	CONAL EVOLUTION
LIGHTING PLAN & DETAILS	MADISON ROAD APARTMENTS	ORANGE COUNTY, VIRGINIA – TOWN OF ORANGE
SCALE	: 1" =	20'
DATE:	12/16,	/2022
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GENERAL/BUILDING CODE

GBC-1: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2018 VIRGINIA CONSTRUCTION CODE, PART 1 OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (VUSBC), EFFECTIVE JULY 1, 2021.

<u>GBC-2:</u> NO LOADS IN EXCESS OF THE DESIGN LIVE LOADS LISTED SHALL BE IMPOSED UPON ANY AREA DURING CONSTRUCTION, UNLESS ADEQUATE SHORING OR OTHER MEANS IS PROVIDED TO SUPPORT THE EXCESSIVE LOADS.

GBC-3: IF ANY CHANGES ARE MADE IN WEIGHT AND/OR LOCATION OF POINTS OF SUPPORT OF EQUIPMENT, THE CONTRACTOR SHALL FURNISH DETAILS OF CHANGES TO THE ARCHITECT FOR REVIEW AND NECESSARY MODIFICATIONS.

GBC-4: TEMPORARY BRACING, GUY WIRES, SHORING, ETC., SHALL BE USED AS NECESSARY TO RESIST ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED DURING CONSTRUCTION, INCLUDING EQUIPMENT AND ITS OPERATION.

<u>GBC-5</u>: THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. THE ERECTION PROCEDURE AND SEQUENCE INCLUDING THE DESIGN ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC., IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

GBC-6: STRUCTURAL DRAWINGS DO NOT SHOW ALL OPENINGS, COORDINATE WITH MECHANICAL DRAWINGS. VERIFY SIZES AND LOCATIONS OF ALL OPENINGS WITH MECHANICAL

<u>GBC-7</u>; REFER TO ARCHITECTURAL DRAWINGS FOR WATERPROOFING DETAILS.

GBC-8: THE ENGINEER SHALL NOT HAVE THE AUTHORITY OR RESPONSIBILITY TO SUPERVISE OR DIRECT THE CONSTRUCTION WORK.

GBC-9: ALL SECTIONS AND DETAILS, WHETHER EXPLICITLY CUT ON PLAN OR NOT, SHALL BE CONSIDERED TYPICAL AND SHALL APPLY AT SIMILAR CONDITIONS.

SPECIAL INSPECTIONS

<u>SI-1:</u> SPECIAL INSPECTIONS ARE REQUIRED BY THE BUILDING CODE (CHAPTER 17). REFER TO SECTION 014000 OF THE SPECIFICATIONS FOR THE GENERAL INSPECTION REQUIREMENTS. THE FOLLOWING IS A LIST OF ITEMS THAT REQUIRE SPECIAL INSPECTION. REFER TO THE REFERENCED SPECIFICATION SECTION FOR THE SPECIFIC REQUIREMENTS FOR EACH ITEM. THE INDEPENDENT INSPECTION AGENCY, ENGAGED BY THE OWNER, SHALL REVIEW THE TEST PROCEDURES AND INSPECTIONS WITH THE STRUCTURAL ENGINEER OF RECORD, THE GENERAL CONTRACTOR, AND THE OWNER PRIOR TO CONDUCTING TESTS AND INSPECTIONS.

SECTION 312000

SECTION 031000

SECTION 032000

SECTION 033000

SECTION 042000

SECTION 051200 SECTION 061000

SECTION 061753

(SEE GENERAL NOTE)

- EARTH MOVING
- CONCRETE FORMING AND ACCESSORIES
- CONCRETE REINFORCING CAST-IN-PLACE CONCRETE
- UNIT MASONRY
- STRUCTURAL STEEL FRAMING
- ROUGH CARPENTRY SHOP-FABRICATED WOOD TRUSSES
- POST-INSTALLED ANCHORS

SHOP DRAWING SUBMITTALS

SDS-1: THE CONTRACTOR SHALL COORDINATE THE ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL REQUIREMENTS WITH THE STRUCTURAL DRAWINGS, INCLUDING THE LOCATION OF MISCELLANEOUS ITEMS AFFECTING THE STRUCTURAL WORK SUCH AS OPENINGS, BENT PLATES, INSERTS, ETC. PROMPTLY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS.

<u>SDS-2</u>: THE CONTRACTOR SHALL VERIFY ALL FLOOR AND ROOF MOUNTED MECHANICAL EQUIPMENT DIMENSIONS AND WEIGHTS, AND VERIFY ALL ROOF OPENING SIZES AND LOCATIONS, WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND REVIEWED SHOP DRAWINGS.

SDS-3: REFER TO PROJECT MANUAL FOR SUBMITTAL REQUIREMENTS. IN THE ABSENCE OF A PROJECT MANUAL, PROVIDE (1) ELECTRONIC PDF COPY OF ALL STRUCTURAL SUBMITTALS.

<u>SDS-4:</u> SHOP DRAWINGS ARE TO BE REVIEWED BY THE CONTRACTOR AND SUBCONTRACTOR PRIOR TO BEING SUBMITTED FOR APPROVAL. SUBMITTED SHEETS SHALL CONTAIN THE CONTRACTOR'S SIGNED AND DATED **REVIEW STAMP.**

DEFERRED STRUCTURAL SUBMITTALS

DS-1: THE FOLLOWING ITEMS ARE CONSIDERED TO BE DEFERRED STRUCTURAL SUBMITTALS AND SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW. WHO SHALL REVIEW THEM AND FORWARD THEM TO THE CONTRACTOR WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE CONTRACTOR IS RESPONSIBLE FOR FORWARDING REVIEWED DEFERRED SUBMITTALS TO THE BUILDING OFFICIAL. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE CONTRACTOR. ALL DEFERRED SUBMITTALS SHALL BE SEALED BY THE SPECIALTY STRUCTURAL ENGINEER REGISTERED IN THE JURISDICTION OF THE PROJECT, WHO IS RESPONSIBLE FOR THEIR PREPARATION. REFER TO ARCHITECTURAL DRAWINGS FOR NON-STRUCTURAL DEFERRED SUBMITTALS.

- STAIRS AND RAILINGS
- SHOP-FABRICATED WOOD TRUSSES CANOPIES AND SUNSHADES

FOUNDATIONS

F-1: FOUNDATIONS FOR THIS STRUCTURE ARE SPREAD FOOTINGS BEARING ON EITHER VIRGIN SOIL OR CONTROLLED COMPACTED FILL WITH AN ASSUMED SOIL BEARING CAPACITY OF 2500 PSF IN ACCORDANCE WITH THE OWNER'S GEOTECHNICAL ENGINEER'S REPORT BY ECS DATED OCTOBER 23, 2023.

F-2: THE OWNER'S GEOTECHNICAL ENGINEER SHALL VERIFY, PRIOR TO POURING CONCRETE, THAT THE SOIL IS CAPABLE OF SUPPORTING SUCH A LOAD AND IS CONSISTENT WITH THE GEOTECHNICAL REPORT.

F-3: THE CONTRACTOR SHALL PROTECT THE FOOTINGS AND SLABS FROM DAMAGE FROM FROST HEAVE DURING CONSTRUCTION UNTIL THE FINAL DESIGN STRUCTURE IS COMPLETE.

<u>F-4</u>; STEPS IN WALL FOOTINGS SHALL HAVE A MINIMUM SPACING OF DOUBLE THE CHANGE IN ELEVATION.

F-5: BACKFILL AGAINST WALLS SPANNING VERTICALLY BETWEEN FLOORS SHALL NOT BE PLACED UNTIL BOTH FLOORS ARE IN PLACE AND CONCRETE HAS REACHED 75% OF ITS 28-DAY STRENGTH. WALLS INDICATED AS CANTILEVER RETAINING WALLS MAY BE BACKFILLED WITH NO. 57 STONE WHEN CONCRETE HAS REACHED 75% OF ITS 28-DAY STRENGTH.

F-6: AT NON-RETAINING WALLS BELOW GRADE, BACKFILL AGAINST BOTH SIDES OF WALL SIMULTANEOUSLY SO THAT GRADE DIFFERENCE IS NO MORE THAN 1'-0" AT ANY TIME.

<u>F-7</u>: AT LOCATIONS WHERE THE BUILDING ELECTRICAL GROUND LOOP IS TIED TO FOUNDATION REINFORCING STEEL, CONTINUOUSLY TIE REINFORCING TOGETHER FOR MINIMUM DISTANCE REQUIRED BY ELECTRICAL CODE AND BUILDING OFFICIAL.

DESIGN LOADS AND PARAMETERS

<u>DL-2: LIVE LOADS</u> (REFER TO FRAMING PLANS FOR MORE SPECIFIC LOADS)

ROOF ROOF AT MECHANICAL FLOORS LOBBIES (MAIN FLOOR) STAIRS

300 POUNDS - ROOFS 2000 POUNDS - OFFICES

DL-4: SNOW LOADS

C_t=1.0 (THERMAL FACTOR)

 $V_{asd} = 85 \text{ MPH}$ EXPOSURE C K_{zt}=1.0 (TOPOGRAPHIC FACTOR)

WIND LOAD DETERMINATION BY: ASCE 7-16, CHAPTERS 26, 27, 29, 30 (DIRECTIONAL PROCEDURE) COMPONENTS AND CLADDING LOADS (STRENGTH LEVEL LOAD INDICATED IN TABLE THIS DRAWING):

Ss=0.21g S₁=0.054g F_a=1.60 F_v=2.40

RATED FOR SHEAR RESISTANCE R=(RESPONSE MODIFICATION FACTOR) = 6.5 = 3.0 $\Omega_{0} = (SYSTEM OVERSTRENGTH FACTOR)$ C_d=(DEFLECTION AMPLIFICATION FACTOR) = 4.0 SEISMIC- FORCE- RESISTING SYSTEM: INTERMEDIATE REINFORCED MASONRY SHEAR WALLS R= (RESPONSE MODIFICATION FACTOR) = 3.5 Ω_{0} = (SYSTEM OVERSTRENGTH FACTOR) = 2.5 C_d= (DEFLECTION AMPLIFICATION FACTOR) = 2.25

PASSIVE

CONCRETE

<u>C-1:</u> ALL CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301-10 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318-14 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"

CONCRE CLASS
A1
A2
В
С
Н
I
J
К

COVERINGS.

<u>DL-1: BUILDING RISK CATEGORY</u> (TABLE 1604.5) = CATEGORY II

(20 + 40 MECH) = 60 PSF TOTAL40 PSF + 5 PSF PARTITIONS + 50 PLF AT PARALLEL PARTITIONS 100 PSF

FLOOR LIVE LOAD REDUCTION BY EQ 16-23 ROOF LIVE LOAD REDUCTION NOT USED

DL-3: CONCENTRATED LIVE LOADS (OVER 2.5'X2.5' AREA):

P_q=30 PSF (GROUND SNOW) C_e=1.0 (SNOW EXPOSURE FACTOR)

Is=1.0 (SNOW LOAD IMPORTANCE FACTOR: ASCE 7-16 TABLE 1.5-2) P_f (SNOW LOAD FOR LOW-SLOPE ROOF) = 21 PSF

MINIMUM P_f (LOW-SLOPE ROOF WHERE $P_{g} > 20.0 \text{ PSF}$) = $P_m = (20)X(I_s) = 20.0X1.0 = 20.0 \text{ PSF}$

20 PSF

100 PSF

USE 30 PSF MINIMUM DESIGN SNOW LOAD AT FLAT ROOFS USE 25 PSF MINIMUM DESIGN SNOW LOAD AT SLOPED ROOFS

REFER TO ROOF FRAMING PLAN FOR SNOW DRIFT LOAD DIAGRAM.

DL-5: WIND LOADS

V=110 MPH (BUILDING RISK CATEGORY: II) (BASIC WIND SPEED: 3-SECOND GUST)

K_d=0.85 (WIND DIRECTIONALITY FACTOR)

Ke=1.0 (GROUND ELEVATION FACTOR)

GC_{DI}=±0.18 (ENCLOSED BUILDING OR PARTIALLY OPEN BUILDING)

DL-6: SEISMIC LOADS

l_e=1.0 (ASCE 7-16 TABLE 1.5-2) SEISMIC SITE CLASS = D (ASSUMED)

> $S_{ms} = 0.336g$ S_{m1}=0.13g S_{ds}=0.224g S_{d1}=0.087g

SEISMIC DESIGN CATEGORY = B

BASIC STRUCTURAL SYSTEM: BEARING WALL SYSTEMS

SEISMIC FORCE-RESISTING SYSTEM: LIGHT-FRAME WOOD WALLS SHEATHED WITH WOOD STRUCTURAL PANELS

DL-7: EARTH PRESSURES (EQUIVALENT FLUID PRESSURES)

VALUES ARE ASSUMED AT REST (BRACED WALLS) 64 PCF ACTIVE (CANTILEVERED WALLS) 30 PCF 250 PCF 0.35

FRICTION COEFFICIENT FOR SLIDING

<u>TE</u>	PROJECT LOCATION	EXPOSURE CLASS	CONC WT	<u>MIN F'c</u> (PSI)	MAX W/CM RATIO	<u>AIR</u> CONTENT
	INTERIOR FDNS	F0	NW	3000	NA	<u><</u> 3.0%
	EXT AND PERIMETER FDNS	F2	NW	4500	0.45	6.0% ± 1.5%
	FDN WALLS BELOW GRADE	F1	NW	3500	0.55	4.5% ± 1.5%
	INTERIOR SOG	F0	NW	3500	NA	<u><</u> 3.0%
	BLDG WALLS	F0	NW	4000	NA	4.5% ± 1.5%
	METAL STAIR TREADS/LANDINGS	F0	NW	3500	NA	<u>≤</u> 3.0%
	EXT WALLS	F2	NW	4500	0.45	6.0% ± 1.5%
	EXT PAVING	C2	NW	5000	0.40	6.0% ± 1.5%

C-2: STEEL REINFORCING OF CONCRETE SHALL MEET THE FOLLOWING REQUIREMENTS.

ASTM A615 GRADE 60 (TYPICAL REINFORCING STEEL) ASTM A1064 (PLAIN WELDED WIRE FABRIC - USE FLAT SHEETS ONLY)

C-3: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF DEPRESSIONS FOR SPECIAL FLOOR

<u>C-4:</u> REFER TO SPECIFICATIONS FOR FINISHES.

C-6: NORMAL WEIGHT CONCRETE INDICATED TO HAVE 4.5% AIR MAY BE PROVIDED WITH 6.0% AIR +/- 1.5%.

STRUCTURAL MASONRY

M-1: ALL MASONRY WORK SHALL CONFORM TO THE REQUIREMENTS OF TMS 402/602-16 "BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES."

- ASTM C90 (BLOCK) ASTM C270 (MORTAR) - TYPE S (CMU), TYPE N (BRICK)
- ASTM C476 (GROUT) 2000 PSI MINIMUM COMPRESSIVE STRENGTH
- f'm=2000 PSI • • ASTM A615 GRADE 60 (REINFORCING)

M-2: SOLIDLY FILL COLLAR JOINTS WITH MORTAR AS THE WORK PROGRESSES.

M-3: PROVIDE STEEL SLEEVES AT PIPE PENETRATIONS (GALVANIZED AT EXTERIOR WALLS AND ALL BELOW GRADE WALLS).

<u>M-4</u>; GROUT ALL CELLS OF FOUNDATION WALLS SOLID UP TO FINISH GROUND FLOOR.

M-5: AT HOLLOW WALLS THAT CHANGE IN THICKNESS OR NUMBER OF WYTHES, PROVIDE A COURSE OF SOLID MASONRY OR GROUT FILLED UNITS BELOW THE TRANSITION.

<u>M-6:</u> ALL BLOCK CONTAINING VERTICAL REINFORCING SHALL HAVE TWO CELLS PER 16" BLOCK. CELLS SHALL ALIGN VERTICALLY AND BE GROUTED SOLID AT ALL REINFORCING LOCATIONS. BARS SHALL BE HELD IN PLACE BY REBAR POSITIONERS OR OTHER SUITABLE DEVICES AND SHALL BE CENTERED IN CMU UNO.

M-7: MASONRY JOINT REINFORCING SHALL BE PROVIDED IN ALL WALLS AT 16" OC MAXIMUM VERTICAL SPACING UNLESS INDICATED TO BE CLOSER TOGETHER ON SECTIONS AND DETAILS OF THE DRAWINGS. JOINT REINFORCING SHALL MEET ASTM A951 AND BE MILL-GALVANIZED AT INTERIOR WALLS AND HOT-DIP-GALVANIZED AT EXTERIOR WALLS. MINIMUM WIRE DIAMETER FOR SIDE RODS AND CROSS RODS SHALL BE 0.148 INCHES UNLESS INDICATED TO BE GREATER IN SECTIONS AND DETAILS OF THE DRAWINGS. PROVIDE PREFABRICATED CORNER AND TEE UNITS FOR WALL INTERSECTIONS. LAP REINFORCING A MINIMUM OF 6 INCHES AT SPLICES.

M-8: IN VERTICALLY REINFORCED WALLS, USE LADDER TYPE (NOT TRUSS TYPE) REINFORCING IN HORIZONTAL MORTAR JOINTS.

<u>M-9:</u> GROUT SLUMP SHALL BE 8" TO 11". PLACE GROUT PER TMS 602 SECTION 3.5 AND CONSOLIDATE BY VIBRATION. RECONSOLIDATE BY VIBRATION AFTER INITIAL WATER LOSS AND SETTLEMENT HAS OCCURRED.

<u>M-10:</u> AFTER STEEL ERECTION IS COMPLETE, FILL ALL POCKETS AT BEARING OF JOISTS AND BEAMS SOLID WITH MASONRY. BUILD TIGHT TO STEEL MEMBER.

COMPONENTS AND CLADDING DESIGN WIND PRESSURE TABLE FOR BUILDINGS WITH MEAN ROOF HEIGHT H≤60'

	<u>GABLE </u>	ROOF	<u>(20°<</u>	θ≤27	⁷⁰)
/	ALL DESIGN F	PRESSURES	(PSF) (F	GURE	30.3-1
	EFFECTIVE WIND AREA (SQ FT)	ZONES 4,5 (+)	ZONE 4 (-)	ZONE (-)	5
	10 20 50 100 200 500	+33.2 +31.7 +29.8 +28.3 +26.8 +24.8	-36.1 -34.6 -32.6 -31.1 -29.6 -27.6	-44.5 -41.5 -37.5 -34.6 -31.6 -27.6	
	(FIGURE	ROOF DE 30.3-2C) R(SIGN PRI DOF SLO	ESSURI PES 20°	ES (Ρ: ²<θ≤2
	EFFECTIVE WIND AREA (SQ FT)	ALL ZONE (+)	S ZON	IE 1/2e (-)	ZON
	10 20 50 100 200 500	+20.2 +18.2 +16.0 +16.0 +16.0 +16.0	 	47.3 47.3 40.6 35.6 30.6 27.6	
	ROOF OVERHANG DESIGN PRESSURE (FIGURE 30.3-2C)				
	EFFECTIVE WIND AREA (SQ FT)	ZONES 1/2 (-)	e ZONE (2n/2r -)	ZON (
	10 20 50 100 200 500	-61.4 -61.4 -59.5 -58.1 -56.6 -55.8	-8 -8 -7 -7 -6	9.6 3.8 6.2 0.4 7.0 7.0	-1(-9 -7 -6 -5 -5
	NOTES: 1. $h = 45.0' = MEAN ROOF HEIGHT$ 2. $a = 10.0'$ 3. PLUS SIGN (+, -) SIGNIEIES PRESSURE (-)				

MINUS SIGN (-) SIGNIFIES PRESSURE ACTING AWAY FROM THE SURFACE. ALL PRESSURES INDICATED ARE STRENGTH-LEVEL DESIGN LOADS

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 \sim Ш RTM \sim \checkmark AMUNITY \triangleleft \square \checkmark Ο \bigcirc \mathbf{C} SS Ζ OMP, Ο DIS \mathcal{Q} Alephen D. Ball Stephen D. Barber Lic. No. 025731 09-24-24 DRAWN DMW SDB CHECKED AS NO 2024-09-24 PROJECT # GENERAL STRUCTURAL NOTES

ABBREVIATIONS

HS = HIGH STRENGTH

AB = ANCHOR BOLT	HT = HEIGHT
AFF = ABOVE FINISHED FLOOR	INT = INTERIOR
APC = ARCHITECTURAL PRECAST CONCRETE	JBE = JOIST BEARING ELEVATION
ARCH = ARCHITECTURAL	JT = JOINT
BLDG = BUILDING	LBS = POUNDS
BM = BEAM	LL = LIVE LOAD
BOT = BOTTOM	$I \downarrow H = I ONG \downarrow FG HOBIZONTAL$
BBG - BEARING	
CANT - CANTILEVER	
GL = GENTERLINE	
	MISC = MISCELLANEOUS
CLSM = CONTROLLED LOW-STRENGTH MATERIAL	MIN = MINIMUM
CMU = CONCRETE MASONRY UNIT	[NC] = NON-COMPOSITE
COL = COLUMN	NO. = NUMBER
CONC = CONCRETE	NIC = NOT IN CONTRACT
CONN = CONNECTION	NTS = NOT TO SCALE
CONT = CONTINUOUS	NW = NORMAL WEIGHT
COORD = COORDINATE	OC = ON CENTER
CSP = CONCRETE SURFACE PROFILE	OPP = OPPOSITE
DBA = DEFORMED BAR ANCHOR	OH = OPPOSITE HAND
DET = DETAIL	OWSJ = OPEN WEB STEEL JOIST
DFT = DRY FILM THICKNESS	PAF = POWDER ACTUATED FASTENER
DIA = DIAMETER	PL = PLATE
DIAG = DIAGONAI	PLF = POUNDS PEBLINEAB FOOT
DIM = DIMENSION	PO.I = PI ANE OF JOIST
DI = DEADIOAD	PSE = POUNDS PER SOUARE FOOT
DN = DOWN	
EJ = EXPANSION JOINT	
EL = ELEVATION	
ELEV = ELEVATOR	SIM = SIMILAR
EOS = EDGE OF SLAB	SOG = SLAB-ON-GROUND
EQ = EQUAL	SPA = SPACE
EQUIP = EQUIPMENT	SID = SIANDARD
EXIST = EXISTING	STIFF = STIFFENER
EW = EACH WAY	TBE = TRUSS BEARING ELEVATION
EXP = EXPANSION	T&B = TOP AND BOTTOM
EXT = EXTERIOR	T&G = TONGUE AND GROOVE
FFE = FINISHED FLOOR ELEVATION	TOB = TOP OF BEAM
FLR = FLOOR	TOC = TOP OF CONCRETE
FLT = FLAT BAR	TOS = TOP OF STEEL
FRT = FIRE RETARDANT TREATED	TYP = TYPICAL
FTG = FOOTING	UNO = UNLESS NOTED OTHERWISE
GA = GAUGE	VERT = VERTICAL
GALV = GALVANIZED	WCJ = WALL CONTROL JOINT
GC = GENERAL CONTRACTOR	WT = WEIGHT
GT = GIBDEB TBUSS	WWF = WFI DFD WIRE FARRIC
HK = HOOK	(H) = HIGH
$H \cap R I Z = H \cap R I Z \cap N T A I$	(1) - 10W

WOOD ROOF TRUSSES

<u>RT-1:</u> LIGHT METAL-PLATE-CONNECTED WOOD ROOF TRUSSES SHALL BE DESIGNED AND FABRICATED BY A TRUSS MANUFACTURER FOR TYPICAL LOADS LISTED BELOW:

- SNOW LOAD: REFER TO DESIGN LOADS SECTION
- 10 PSF TOP CHORD DEAD LOAD (REFER TO DESIGN LOADS SECTION AND PLANS FOR ADDITIONAL INFORMATION) 10 PSF - BOTTOM CHORD DEAD LOAD
- 20 PSF BOTTOM CHORD LIVE LOAD AT ATTIC WALKWAYS
- TOP CHORD UPLIFT LOAD PER VUSBC
- EQUIPMENT LOADING, WHETHER INDICATED OR NOT. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL LOADING WITH SUPPLIERS PRIOR TO FABRICATION OF TRUSSES

RT-2: DESIGN TRUSSES FOR 250 POUND CONCENTRATED SERVICE LOAD AT ALL DIAGONAL STRUTS FRAMING TO JOIST CHORDS, UNLESS NOTED OTHERWISE.

<u>RT-3:</u> AT FIRE SPRINKLER SUPPORT LOCATIONS, DESIGN FOR VERTICAL LOAD OF WATER-FILLED PIPE PLUS 250 LBS.

<u>RT-4:</u> REFER TO DRAWINGS FOR OTHER SPECIAL LOADS. THE CONTRACTOR SHALL COORDINATE ALL LOADING REQUIREMENTS PRIOR TO FABRICATION.

<u>RT-5:</u> DESIGN FOR THE FOLLOWING DEFLECTION LIMITS:

L/480 LIVE LOAD L/360 LIVE LOAD + DEAD LOAD

RT-6: DESIGN OF BOTTOM CHORDS SHALL NOT EXCEED 95% OF ALLOWABLE COMBINED STRESSES

<u>RT-7:</u> TOP AND BOTTOM CHORDS SHALL BE 2X6 MINIMUM. USE SOUTHERN PINE.

RT-8: SUBMIT SHOP DRAWINGS ON ALL TRUSSES FOR DUNBAR REVIEW PRIOR TO FABRICATION, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE JURISDICTION OF THE PROJECT. SHOP DRAWINGS SHALL INCLUDE AN ERECTION PLAN SHOWING TRUSS TYPE, LOCATION, AND SPACING.

<u>RT-9:</u> METAL-PLATE-CONNECTED WOOD TRUSSES ARE UNSTABLE UNTIL PROPERLY BRACED. PROPER HANDLING, SAFETY PRECAUTIONS, AND TEMPORARY BRACING ARE THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE TEMPORARY BRACING IN ADDITION TO PERMANENT LATERAL BRACING (SHOWN ON TRUSS SHOP DRAWINGS TO REDUCE MEMBER UNBRACED LENGTH) AND ANY PERMANENT BRACING SHOWN ON THESE DRAWINGS.

RT-10: THE CONTRACTOR SHALL NOT CUT ANY MEMBER, DRILL HOLES, INSTALL LAG SCREWS OR INSTALL NAILS IN EXCESS OF 16d WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.

<u>RT-11:</u> REFER TO MINIMUM WOOD TRUSS BRACING DIAGRAM AND TYPICAL BRACING TYPES.

<u>RT-12:</u> PROVIDE NUMBER OF PLIES OF TRUSSES REQUIRED TO KEEP BEARING STRESS ON WOOD TOP PLATE BELOW THE FOLLOWING LIMITS:

565 PSI - NO. 2 SOUTHERN PINE PLATES • 425 PSI - NO. 1/NO. 2 SPRUCE PINE FIR PLATES

<u>RT-13:</u> WHERE TRUSSES BEAR DIRECTLY ON MASONRY, PROVIDE ENOUGH TRUSS PLIES AS REQUIRED TO LIMIT BEARING STRESS ON MASONRY TO 600 PSI. IF WOOD PLATE IS PRESENT AT TOP OF MASONRY, WOOD BEARING STRESS LIMITS OF NOTE RT-12 APPLY.

POST-INSTALLED ANCHORS

PA-1: ALL POST-INSTALLED ANCHORS (IN CONCRETE OR CMU) ARE TO BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS (INCLUDING BUT NOT LIMITED TO DRILL BIT SIZE, PROPER CLEANING OF HOLES, INSTALLATION TORQUE, AND TEMPERATURE CONSTRAINTS).

PA-2: WHEN A SPECIFIC PRODUCT AND MANUFACTURER IS REFERENCED IN THE CONTRACT DOCUMENTS, THAT SPECIFIC PRODUCT SHALL BE USED UNLESS AN ALTERNATE PRODUCT IS APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CODE COMPLIANT STRENGTH DESIGN CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC - ES REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.

PA-3: THE ANCHOR MANUFACTURER'S REPRESENTATIVE SHALL BE PRESENT DURING THE INITIAL INSTALLATION OF EACH TYPE OF ANCHOR TO REVIEW AND APPROVE OF THE CONTRACTOR'S INSTALLATION PROCEDURES. THE OWNER'S TESTING AGENCY SHALL ALSO OBSERVE THE INITIAL INSTALLATION OF EACH ANCHOR TYPE, AND PROVIDE THE INSPECTION OF ANCHORS DURING INSTALLATION TO VERIFY CONFORMANCE WITH THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS. SUBMIT REPORT FROM MANUFACTURER'S REPRESENTATIVE FOR DUNBAR REVIEW. INSTALLATION OF ALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY ACI/CRSI ADHESIVE ANCHOR INSTALLER CERIFICATION PROGRAM OR APPROVED EQUIVALENT. SUBMIT CREDENTIALS OF CERTIFIED INSTALLERS. CONTINUOUS INSPECTION IS REQUIRED FOR ALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS. REMOVE AND REPLACE MISPLACED OR MALFUNCTIONING ANCHORS. FILL EMPTY ANCHOR HOLES AND PATCH FAILED ANCHOR LOCATIONS WITH HIGH-STRENGTH, NONMETALLIC GROUT.

PA-6: CHEMICAL ADHESIVE ANCHORING SYSTEMS USED IN SOLID OR GROUTED MASONRY GENERICALLY REFERRED TO AS ADHESIVE ANCHORING SYSTEMS SHALL BE ONE OF:

- SET XP BY SIMPSON STRONG TIE
- HIT-HY 270 BY HILTI
- 3. AC100+ GOLD BY DEWALT

PA-7: CHEMICAL ADHESIVE ANCHORING SYSTEMS USED IN CONCRETE GENERICALLY REFERRED TO AS "ADHESIVE ANCHORS" SHALL BE ONE OF

- SET 3G BY SIMPSON STRONG-TIE
- HIT-RE 500-V3 BY HILTI
- HIT-HY 200 BY HILTI PURE 110+ BY DEWALT
- AC 200+ BY DEWALT

THREADED ROD ANCHORS USED WITH THESE SYSTEMS SHALL BE PROVIDED BY THE ADHESIVE MANUFACTURER AND HAVE A MINIMUM STEEL STRENGTH OF $F_y = 36$ KSI UNLESS NOTED OTHERWISE.

PA-10: FASTENERS GENERICALLY REFERRED TO AS "CONCRETE/MASONRY SCREWS" SHALL BE ONE OF:

- TITEN TURBO BY SIMPSON STRONG-TIE
- KWIK-CON II+ BY HILTI

TAPPER+ BY DEWALT

PA-12: FASTENERS GENERICALLY REFERRED TO AS "PAF" (POWER ACTUATED FASTENERS) SHALL BE ONE OF :

PAF INTO CONCRETE OR STRUCTURAL STEEL:

	ANCHOR	MANUF	SHANK DIAMETER
1. 2.	X-U 8 mm HEAD SPIRAL CSI PIN	HILTI DEWALT FASTENERS	0.157" 0.157"
3.	PDPA	SIMPSON	0.157"

USE ONLY HILTI X-U PAF IN STRUCTURAL STEEL GREATER THAN 1/2" THICK. 1/2" MINIMUM POINT PENETRATION IS REQUIRED IN STRUCTURAL STEEL GREATER THAN 1/2" THICK.

PROVIDE MINIMUM 1 1/4" EMBEDMENT OF PAF INTO CONCRETE.

PA-13: OTHER MANUFACTURER'S PRODUCTS MAY BE SUBMITTED AS A FORMAL REQUEST FOR SUBSTITUTION IF REQUIREMENTS ABOVE ARE MET. SIZES AND EMBEDMENTS OF SUBSTITUTE ANCHORS SHALL BE INCREASED AS NECESSARY TO ACHIEVE SHEAR AND TENSION VALUES PUBLISHED FOR LISTED ANCHORS. CONTRACTOR SHALL SUBMIT A COMPLETE SUBSTITUTION LIST FOR ALL ANCHOR SIZES AND SUBSTRATES. DUE TO HIGH VARIABILITY BETWEEN NOMINAL SIZES AND ACTUAL SIZES OF SCREW ANCHORS (AND HOLES REQUIRED), THIS SUBSTITUTION REQUEST SHALL BE SUBMITTED PRIOR TO STEEL SHOP DRAWINGS. ANY PRODUCTS SUBMITTED AS A REQUEST FOR SUBSTITUTION IN CONCRETE SHALL BE COMPLIANT WITH ACI 318-14 CHAPTER 17 AND APPROVED FOR USE IN CRACKED CONCRETE. PROPOSED SUBSTITUTE PRODUCTS SHALL HAVE AN ICC-ES REPORT WHICH CONSIDERS EQUIVALENT EDGE AND SPACING REQUIREMENTS AS THE SPECIFIED PRODUCTS.

WOOD FLOOR TRUSSES

LIVE LOA
PARTITIC
20 PSF -
5 PSF - E
EQUIPM
COORDI

PLUS 250 LBS.

L/360 LIVE LOAD

FT-7: SUBMIT SHOP DRAWINGS ON ALL TRUSSES FOR DUNBAR REVIEW PRIOR TO FABRICATION, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE JURISDICTION OF THE PROJECT. SHOP DRAWINGS SHALL INCLUDE AN ERECTION PLAN SHOWING TRUSS TYPE, LOCATION, AND SPACING.

DRAWINGS.

FT-9: THE CONTRACTOR SHALL NOT CUT ANY MEMBER, DRILL HOLES, INSTALL LAG SCREWS OR INSTALL NAILS IN EXCESS OF 16d WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.

<u>FT-10:</u> PROVIDE NUMBER OF PLIES OF TRUSSES REQUIRED TO KEEP BEARING STRESS ON WOOD TOP PLATE BELOW THE FOLLOWING LIMITS:

<u>FT-11:</u> WHERE TRUSSES BEAR DIRECTLY ON MASONRY, PROVIDE ENOUGH TRUSS PLIES AS REQUIRED TO LIMIT BEARING STRESS ON MASONRY TO 600 PSI. IF WOOD PLATE IS PRESENT AT TOP OF MASONRY, WOOD BEARING STRESS LIMITS OF NOTE FT-10 APPLY.

RC-1: ALL ROUGH CARPENTRY SHALL CONFORM TO THE REQUIREMENTS OF THE NDS-2018 "NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION WITH 2018 SUPPLEMENT".

<u>RC-2:</u> PROVIDE NO. 2 SOUTHERN PINE WITH 19% MAXIMUM MOISTURE CONTENT FOR ALL FRAMING LUMBER INCLUDING, LINTELS, JOISTS, RAFTERS, AND BEAMS UNLESS NOTED OTHERWISE. WALL STUDS AND PLATES MAY BE S-P-F No. 1 / 2 UNO ON PROJECT SPECIFIC DETAILS AND NOTES.

RC-4: ALL FRAMING CONNECTIONS NOT SPECIFICALLY INDICATED ON THESE CONSTRUCTION DOCUMENTS SHALL COMPLY WITH THE MINIMUMS ESTABLISHED BY TABLE 2304.10.1 OF THE VUSBC.

RC-5: ALL NAILED CONNECTIONS (OF TWO 2x MEMBERS) SPECIFICALLY INDICATED ON THESE CONSTRUCTION DOCUMENTS ARE ASSUMED TO BE DONE USING A MINIMUM NAIL SIZE OF 0.131" DIAMETER x 3" LONG UNLESS NOTED OTHERWISE.

<u>RC-6:</u> ALL COLD-FORMED STEEL PRE-FORMED CONNECTORS SHALL BE INSTALLED USING THE NUMBER OF NAILS AND NAIL TYPE LISTED FOR THAT CONNECTOR BY THE MANUFACTURER IN THEIR PUBLISHED LITERATURE. ALL NAILS LISTED AS 1 1/2" LONG SHALL BE MADE BY THE MANUFACTURER OF THAT CONNECTOR. HANGERS OR CONNECTORS USED WITH PRESSURE TREATED LUMBER SHALL HAVE G185 MINIMUM ZINC COATING (I.E. SIMPSON ZMAX G185).

<u>RC-7:</u> PROVIDE A MINIMUM OF THREE INCHES OF BEARING FOR ENGINEERED LUMBER BEAMS, UNLESS OTHERWISE NOTED.

COMMON NAILS.

RC-11: THE FOLLOWING ALLOWABLE STRESSES WERE USED IN DESIGN OF WOOD FRAMING MEMBERS.

 $F_b =$ $F_t =$

135 PSI $F_v =$ 425 PSI Fc⊥ = 1,150 PSI $F_{C} =$ 1,400,000 PSI E = NO.2 SOUTHERN PINE:

2"-4" WIDE 5"-6" WIDE 8" WIDE 10" WIDE 12" WIDE

FT-1: LIGHT METAL-PLATE-CONNECTED WOOD FLOOR TRUSSES SHALL BE DESIGNED AND FABRICATED BY A TRUSS MANUFACTURER FOR TYPICAL LOADS LISTED BELOW:

AD: REFER TO DESIGN LOADS SECTION IONS: REFER TO DESIGN LOADS SECTION

TOP CHORD DEAD LOAD

BOTTOM CHORD DEAD LOAD IENT LOADING, WHETHER INDICATED OR NOT. THE CONTRACTOR SHALL VERIFY AND INATE ALL LOADING WITH SUPPLIERS PRIOR TO FABRICATION OF TRUSSES • 50 PLF DEAD LOAD AT TRUSSES SUPPORTING PARALLEL PARTITION WALLS OVER >50% OF SPAN

FT-2: REFER TO DRAWINGS FOR OTHER SPECIAL LOADS. THE CONTRACTOR SHALL COORDINATE ALL LOADING REQUIREMENTS PRIOR TO FABRICATION.

<u>FT-3:</u> AT FIRE SPRINKLER SUPPORT LOCATIONS, DESIGN FOR VERTICAL LOAD OF WATER-FILLED PIPE

FT-4: DESIGN FOR THE FOLLOWING DEFLECTION LIMITS:

L/240 LIVE LOAD + DEAD LOAD

FT-5: DESIGN OF BOTTOM CHORDS SHALL NOT EXCEED 95% OF ALLOWABLE COMBINED STRESSES.

FT-6: TOP AND BOTTOM CHORDS SHALL BE 2X4 MINIMUM (3 1/2" WIDE). USE SOUTHERN PINE.

FT-8: METAL-PLATE-CONNECTED WOOD TRUSSES ARE UNSTABLE UNTIL PROPERLY BRACED. PROPER HANDLING, SAFETY PRECAUTIONS, AND TEMPORARY BRACING ARE THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE TEMPORARY BRACING AND ANY PERMANENT BRACING SHOWN ON THESE

• 565 PSI - NO. 2 SOUTHERN PINE PLATES 425 PSI - NO. 1/NO. 2 SPRUCE PINE FIR PLATES

ROUGH CARPENTRY

RC-3: PROVIDE WOOD I-JOIST, MICROLLAM VENEER LUMBER (LVL), PARALLAM PARALLEL STRAND LUMBER (PSL), AND TIMBERSTRAND LUMBER (LSL) MANUFACTURED BY TRUS JOIST (OR APPROVED EQUAL).

RC-8: ALL BEAMS SHALL BE LATERALLY SUPPORTED BY BLOCKING OR OTHER MEANS AT ALL POINTS OF BEARING.

RC-9: NAILS INSTALLED PARALLEL TO THE GLUE LINES ON THE NARROW FACE OF ENGINEERED LUMBER BEAMS SHALL NOT BE SPACED CLOSER THAN FOUR INCHES FOR 10d COMMON NAILS AND THREE INCHES FOR 8d

<u>RC-10:</u> DO NOT DRILL, NOTCH, CUT (EXCEPT TO LENGTH), OR ALTER ENGINEERED LUMBER BEAMS OR JOISTS WITHOUT WRITTEN APPROVAL OF FABRICATOR AND REVIEW BY STRUCTURAL ENGINEER.

NO.1/NO.2 SPRUCE-PINE-FIR:

875 PSI 450 PSI

Fb	FC	Fv	Fc⊥	Fc	E
1,100 PSI	675 PSI	175 PSI	565 PSI	1,450 PSI	1,400,000 PSI
1,000 PSI	600 PSI	175 PSI	565 PSI	1,400 PSI	1,400,000 PSI
925 PSI	550 PSI	175 PSI	565 PSI	1,350 PSI	1,400,000 PSI
800 PSI	475 PSI	175 PSI	565 PSI	1,300 PSI	1,400,000 PSI
750 PSI	450 PSI	175 PSI	565 PSI	1,250 PSI	1,400,000 PSI

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GENERAL STRUCTURAL NOTES

PROJECT #

S0.2

<u>FD-1</u>: TYPICAL SLAB-ON-GROUND SHALL BE 4" NORMAL WEIGHT CONCRETE WITH 6X6-W1.4XW1.4 WWF AT MID-DEPTH, OVER VAPOR BARRIER, OVER 4" POROUS FILL.

<u>FD-2:</u> REFER TO TYPICAL FOUNDATION DETAILS.

<u>FD-3</u>: TOP OF FOOTING ELEVATIONS INDICATED THUS 0'-0" RELATIVE TO TYPICAL GROUND FLOOR ELEVATION 479.58'.

FD-4: REFERENCE "TYPICAL THICKENED SLAB AT PARTITION WALL" DETAIL. REFER TO ARCH DRAWINGS FOR LOCATIONS AND DIMENSIONS.

<u>FD-5</u>: FOOTING EXCAVATIONS MAY REQUIRE ADDITIONAL UNDERCUT (AS INDICATED BY THE OWNER'S ON-SITE GEOTECHNICAL ENGINEER). BACKFILL EXCAVATION TO DESIGN SUBGRADE USING CLSM OR CONCRETE.

<u>FD-6:</u> GROUT ALL CMU SOLID BELOW GRADE.

<u>FD-7:</u> EXTEND ALL WALL FOOTINGS A MINIMUM OF 8" BEYOND END OF WALL UNO.

<u>FD-8:</u> REFER TO TYPICAL PLAN DETAILS OF REINFORCING IN MASONRY WALLS.

<u>FD-9</u>: AT CMU WALLS, PROVIDE MIN (1) #5 VERTICAL EACH END OF CMU AND #5 AT 48" OC WITH MATCHING DOWELS TO FOOTING. GROUT ENTIRE CMU SHEAR WALL SOLID FULL HEIGHT AND LENGTH. DO NOT PLACE ANY WALL CONTROL JOINTS IN SHEAR WALLS.

<u>FD-10:</u> REFER TO WALL STUD SCHEDULE ON FRAMING PLANS FOR STUD SIZE AND SPACING.

MARK	WIDTH	THICKNESS	REINFORCING
RWF3.0	3'-0"	1'-0"	REFER TO RETAINING WALL DETAIL
RWF4.0	4'-0"	1'-0"	REFER TO RETAINING WALL DETAIL
RWF6.0	6'-0"	1'-0"	REFER TO RETAINING WALL DETAIL
TS2.0	2'-0"	1'-0"	(2) #5 CONT, REFER TO THICKENED SLAB DETAIL
WF2.0	2'-0"	1'-0"	(2) #5 CONT TOP AND BOTTOM
WF3.0	3'-0"	1'-0"	(3) #5 CONT

S1.1

DMW

SDB

AS NO

2024-09-24

DRAWN:

CHECKED

PROJECT #

FOUNDATION PLAN

<u>EF-1:</u> FIRST FLOOR ELEVATION = 491.24'

FIRST FLOOR ELEVATION = (+XX'-X") MEASURED RELATIVE TO FIRST FLOOR.

EF-2: FLOOR DECK CONSTRUCTION = 23/32" APA RATED STURD-I-FLOOR (TONGUE AND GROOVE) WITH 3/4" GYPCRETE TOPPING. LAY LONG DIRECTION OF PANEL PERPENDICULAR TO SPAN OF FLOOR FRAMING MEMBER. STAGGER PANEL JOINTS 48" OC GLUE AND NAIL PANEL TO FLOOR FRAMING MEMBERS WITH 8d NAILS AT 6" OC AT PANEL EDGES AND 8d NAILS AT 12" OC AT INTERIOR SUPPORTS.

EF-3: REFER TO GENERAL NOTES FOR FLOOR LOADING USED FOR DESIGN OF FLOOR TRUSSES.

EF-4: TYPICAL EXTERIOR WOOD STUD WALLS SHALL BE 2X6 NO. 2 SOUTHERN PINE. (NO.1/NO.2 SPRUCE-PINE-FIR) WITH 7/16" APA RATED OSB OR 15/32" PLYWOOD SHEATHING. PROVIDE 2X BLOCKING AT PANEL EDGES. FASTEN SHEATHING TO STUDS WITH 8d NAILS AT 6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS.

EF-5: TYPICAL INTERIOR WOOD STUD BEARING WALLS SHALL BE 2X4 OR 2X6 NO. 2 SOUTHERN PINE AS INDICATED. (NO.1/NO.2 SPRUCE-PINE-FIR). <u>EF-6:</u> ALL 2X FLOOR JOISTS SHALL BE NO. 2 SOUTHERN PINE.

EF-7: PROVIDE DOUBLE FRAMING MEMBERS BELOW PARALLEL PARTITION WALLS. SPACE JOISTS APART AS REQUIRED TO ALLOW FOR PASSAGE OF PLUMBING LINES FROM WALL ABOVE.

<u>EF-8</u>: REFER TO HORIZONTAL JOINT DETAILS AT BRICK WALLS

EF-8: ALL MEMBERS LABELED 'LVL' SHALL BE 1 3/4" WIDE WITH E=1900 KSI

WALL STUD SCHEDULE

OR	EXTERIOR	INTERIOR
DUND	(2) 2X6 SPF AT 16" OC	(2) 2X6 SPF AT 16" OC
ST	(1) 2X6 SPF AT 16" OC	(2) 2X4 SPF AT 12" OC
OND	(1) 2X6 SPF AT 16" OC	(2) 2X4 SPF AT 16" OC
۱D	(1) 2X6 SPF AT 16" OC	(1) 2X4 SPF AT 16" OC

WOOD POST AND BEAM SCHEDULE

<	TYPE	COMMENT
3X5	3 1/2" X 5 1/4" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS
5X5	5 1/4" X 5 1/4" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS
3X3	3 1/2" X 3 1/2" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS

LOAD-BEARING HEADER/JAMB SCHEDULE

LOCATION	Rough Opening width	HEADER SIZE	JACK STUD	KING STUD	COMMENT
	UP TO 3'-0"	(3) 2X8	(1) 2X6	(1) 2X6	
TYPICAL EXT					
	UP TO 6'-0"	(3) 2X10	(1) 2X6	(1) 2X6	
TYPICAL INT	UP TO 4'-0"	(3) 2X8 IN 2X6 WALL	(1) 2X6	1ST: (1) 2X6	USE (2) AT 2X4 WALL
				2ND: (1) 2X6	
				3,R: (1) 2X6	
TYPICAL KING	UP TO 6'-0"			(1) 2X6	REF PLAN FOR JACK
	UP TO 10'-0"			(2) 2X6	REF PLAN FOR JACK
H1		(3) 14" LVL	(2) 2X6	(2) 2X6	-
H2	UP TO 6'-0"	(2) 7 1/4" LVL	3 1/2 X 3 1/2 PSL 2ND-R 5 1/4 X 5 1/4 PSL AT 1ST	(1) 2X4	TYP INT LB 2X4 WALL
H3	UP TO 6'-0"	(3) 7 1/4" LVL	(3) 2x6	(1) 2X6	
NOTES:					

HEADER SPECIES IS S.P. NO. 2 OR BETTER.

TYPICAL HEADER SIZE APPLIES UNLESS NOTED OTHERWISE ON PLAN. PROVIDE SOLID BLOCKING WITHIN FLOOR DEPTH TO MATCH POST/STUDS ABOVE

CONTINUE ALL JAMBS/POST CONTINUOUSLY TO THE GROUND

REFER TO MASONRY LINTEL SCHEDULE FOR CMU AND BRICK LINTELS REFER TO PSL POST ON FLOOR FRAMING DETAIL

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FIRST FLOOR FRAMING PLAN

S1.2

OR	EXTERIOR	INTERIOR
DUND	(2) 2X6 SPF AT 16" OC	(2) 2X6 SPF AT 16" OC
ST	(1) 2X6 SPF AT 16" OC	(2) 2X4 SPF AT 12" OC
OND	(1) 2X6 SPF AT 16" OC	(2) 2X4 SPF AT 16" OC
RD	(1) 2X6 SPF AT 16" OC	(1) 2X4 SPF AT 16" OC

WOOD POST AND BEAM SCHEDULE

<	TYPE	COMMENT
3X5	3 1/2" X 5 1/4" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS
5X5	5 1/4" X 5 1/4" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS
3X3	3 1/2" X 3 1/2" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS

LOAD-BEARING HEADER/JAMB SCHEDULE

ATION	ROUGH OPENING WIDTH	HEADER SIZE	JACK STUD	KING STUD	COMMENT
	UP TO 3'-0"	(3) 2X8	(1) 2X6	(1) 2X6	
CAL EXT					
	UP TO 6'-0"	(3) 2X10	(1) 2X6	(1) 2X6	
CAL INT	UP TO 4'-0"	(3) 2X8 IN 2X6 WALL	(1) 2X6	1ST: (1) 2X6	USE (2) AT 2X4 WALL
				2ND: (1) 2X6	
				3,R: (1) 2X6	
CAL KING	UP TO 6'-0"			(1) 2X6	REF PLAN FOR JACK
	UP TO 10'-0"			(2) 2X6	REF PLAN FOR JACK
		(3) 14" LVL	(2) 2X6	(2) 2X6	-
	UP TO 6'-0"	(2) 7 1/4" LVL	3 1/2 X 3 1/2 PSL 2ND-R	(1) 2X4	TYP INT LB 2X4 WALL
			5 1/4 X 5 1/4 PSL AT 1ST		
	UP TO 6'-0"	(3) 7 1/4" LVL	(3) 2x6	(1) 2X6	
 S:					

- HEADER SPECIES IS S.P. NO. 2 OR BETTER. TYPICAL HEADER SIZE APPLIES UNLESS NOTED OTHERWISE ON PLAN. PROVIDE SOLID BLOCKING WITHIN FLOOR DEPTH TO MATCH POST/STUDS ABOVE
- CONTINUE ALL JAMBS/POST CONTINUOUSLY TO THE GROUND
- REFER TO MASONRY LINTEL SCHEDULE FOR CMU AND BRICK LINTELS REFER TO PSL POST ON FLOOR FRAMING DETAIL

 \mathbf{S} _ ARTMEN **SUPPORTS** AMUNITY AP, AD COV **ADISON RO** COMPASS ENO ENO M

SECOND FLOOR FRAMING PLAN

TS

WALL STUD SCHEDULE

FLOOR	EXTERIOR	INTERIOR
GROUND	(2) 2X6 SPF AT 16" OC	(2) 2X6 SPF AT 16" OC
FIRST	(1) 2X6 SPF AT 16" OC	(2) 2X4 SPF AT 12" OC
SECOND	(1) 2X6 SPF AT 16" OC	(2) 2X4 SPF AT 16" OC
THIRD	(1) 2X6 SPF AT 16" OC	(1) 2X4 SPF AT 16" OC

WOOD POST AND BEAM SCHEDULE

MARK	TYPE	COMMENT
PSL-3X5	3 1/2" X 5 1/4" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS
PSL-5X5	5 1/4" X 5 1/4" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS
PSL-3X3	3 1/2" X 3 1/2" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS

LOAD-BEARING HEADER/JAMB SCHEDULE

LOCATION	Rough Opening Width	HEADER SIZE	JACK STUD	KING STUD	COMMENT
	UP TO 3'-0"	(3) 2X8	(1) 2X6	(1) 2X6	
TYPICAL EXT					
	UP TO 6'-0"	(3) 2X10	(1) 2X6	(1) 2X6	
TYPICAL INT	UP TO 4'-0"	(3) 2X8 IN 2X6 WALL	(1) 2X6	1ST: (1) 2X6	USE (2) AT 2X4 WALL
				2ND: (1) 2X6	
				3,R: (1) 2X6	
TYPICAL KING	UP TO 6'-0"			(1) 2X6	REF PLAN FOR JACK
	UP TO 10'-0"			(2) 2X6	REF PLAN FOR JACK
H1		(3) 14" LVL	(2) 2X6	(2) 2X6	-
H2	UP TO 6'-0"	(2) 7 1/4" LVL	3 1/2 X 3 1/2 PSL 2ND-R 5 1/4 X 5 1/4 PSL AT 1ST	(1) 2X4	TYP INT LB 2X4 WALL
H3	UP TO 6'-0"	(3) 7 1/4" LVL	(3) 2x6	(1) 2X6	
NOTES					

- HEADER SPECIES IS S.P. NO. 2 OR BETTER. TYPICAL HEADER SIZE APPLIES UNLESS NOTED OTHERWISE ON PLAN. PROVIDE SOLID BLOCKING WITHIN FLOOR DEPTH TO MATCH
- POST/STUDS ABOVE CONTINUE ALL JAMBS/POST CONTINUOUSLY TO THE GROUND
- REFER TO MASONRY LINTEL SCHEDULE FOR CMU AND BRICK LINTELS REFER TO PSL POST ON FLOOR FRAMING DETAIL

ENCOMPASS COMMUNITY SUPPORTS	MADISON ROAD APARTMEN	454 NORTH MADISON ROAD	ORANGE, VIRGINIA 22960
OTHE STA	LTH (DF FJ	Rein

SCALE: DATE: 2024-09-24 PROJECT # THIRD FLOOR FRAMING

PLAN

1/8" = 1'-0"

DEAD LOAD • LIVE LOAD ٠ • SNOW DRIFT

<u>*R-1:*</u> PROVIDE WOOD ROOF TRUSSES AT 24" OC MAXIMUM. REFER TO GENERAL NOTES FOR TRUSS DESIGN LOADS.

WHERE TRUSSES HAVE TO BE SPREAD BETWEEN 24" AND 48" OC FOR MECHANICAL, PROVIDE 2x4 BETWEEN TOP AND BOTTOM CHORDS AT 16" OC WHERE TRUSSES HAVE TO BE SPREAD BETWEEN 48" AND 96" OC FOR MECHANICAL, PROVIDE 2x6 BETWEEN TOP AND BOTTOM CHORDS AT 16" OC (PROVIDE 2x6 BLOCKING AT MIDSPAN OF ROOF PURLINS).

<u>R-2</u>: PROVIDE 19/32" APA RATED SHEATHING (OSB OR PLYWOOD) OVER WOOD TRUSSES OR 2X RAFTERS. INSTALL SHEATHING PANELS WITH LONG DIRECTION PERPENDICULAR TO RAFTER OR TRUSS SPAN. STAGGER SHEATHING PANEL JOINTS 48" BETWEEN ROWS.

TYPICAL NAILING: 8d NAILS AT 6" OC AT SUPPORTED PANEL EDGES 8d NAILS AT 12" OC AT INTERMEDIATE SUPPORTS

<u>*R-3:*</u> ROOF LOADING USED FOR DESIGN

= 10 PSF ROOF ASSEMBLY (DOES NOT INCLUDE ROOF TRUSS WEIGHT) = 20 PSF

UNIFORM SNOW LOAD = REFER TO GENERAL NOTES =

<u>*R-4:*</u> REFER TO GENERAL NOTES FOR DESIGN LOADS FOR ROOF TRUSSES.

<u>*R-5:*</u> TYPICAL EXTERIOR WOOD STUD WALLS SHALL BE 2X6 NO. 2 SOUTHERN PINE. (NO.1/NO.2 SPRUCE-PINE-FIR) WITH 7/16" APA RATED OSB OR 15/32" PLYWOOD SHEATHING. PROVIDE 2X BLOCKING AT PANEL EDGES. FASTEN SHEATHING TO STUDS WITH 8d NAILS AT 6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS. <u>*R-6:*</u> TYPICAL INTERIOR WOOD STUD BEARING WALLS SHALL BE 2X4 OR 2X6 NO. 2 SOUTHERN PINE AS INDICATED. (NO.1/NO.2 SPRUCE-PINE-FIR).

WALL STUD SCHEDULE

OR	EXTERIOR	INTERIOR
DUND	(2) 2X6 SPF AT 16" OC	(2) 2X6 SPF AT 16" OC
ST	(1) 2X6 SPF AT 16" OC	(2) 2X4 SPF AT 12" OC
OND	(1) 2X6 SPF AT 16" OC	(2) 2X4 SPF AT 16" OC
RD DF	(1) 2X6 SPF AT 16" OC	(1) 2X4 SPF AT 16" OC

WOOD POST AND BEAM SCHEDULE

<	TYPE	COMMENT
3X5	3 1/2" X 5 1/4" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS
5X5	5 1/4" X 5 1/4" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS
3X3	3 1/2" X 3 1/2" PSL	REFER TO PSL POST AT FLOOR AND FOUNDATION DETAILS

LOAD-BEARING HEADER/JAMB SCHEDULE

LOCATION	Rough Opening width	HEADER SIZE	JACK STUD	KING STUD	COMMENT
	UP TO 3'-0"	(3) 2X8	(1) 2X6	(1) 2X6	
TYPICAL EXT					
	UP TO 6'-0"	(3) 2X10	(1) 2X6	(1) 2X6	
TYPICAL INT	UP TO 4'-0"	(3) 2X8 IN 2X6 WALL	(1) 2X6	1ST: (1) 2X6	USE (2) AT 2X4 WALL
				2ND: (1) 2X6	
				3,R: (1) 2X6	
TYPICAL KING	UP TO 6'-0"			(1) 2X6	REF PLAN FOR JACK
	UP TO 10'-0"			(2) 2X6	REF PLAN FOR JACK
H1		(3) 14" LVL	(2) 2X6	(2) 2X6	-
H2	UP TO 6'-0"	(2) 7 1/4" LVL	3 1/2 X 3 1/2 PSL 2ND-R 5 1/4 X 5 1/4 PSL AT 1ST	(1) 2X4	TYP INT LB 2X4 WALL
H3	UP TO 6'-0"	(3) 7 1/4" LVL	(3) 2x6	(1) 2X6	
NOTES:					

HEADER SPECIES IS S.P. NO. 2 OR BETTER.

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- TYPICAL HEADER SIZE APPLIES UNLESS NOTED OTHERWISE ON PLAN. PROVIDE SOLID BLOCKING WITHIN FLOOR DEPTH TO MATCH
- POST/STUDS ABOVE CONTINUE ALL JAMBS/POST CONTINUOUSLY TO THE GROUND
- REFER TO MASONRY LINTEL SCHEDULE FOR CMU AND BRICK LINTELS REFER TO PSL POST ON FLOOR FRAMING DETAIL

APASS COMMUNITY SUPPORTS	ON ROAD APARTMENTS	454 NORTH MADISON ROAD
ENCOMPAS	ADISON	454 N

ROOF FRAMING PLAN

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	PLATE WA	ASHER TABL HOR RODS
	ANCHOR ROD DIAMETER	PLATE WASHER SIZE
	3/4"	2"X1/4"X0'-2"
•	1. PROVIDE STD R	OUND HOLES IN PLATE WAS
	2. PLATE WASHER	S TO BE ASTM A36, UNO.
	3. PLATE WASHER BASEPLATE, UN	S ARE NOT TO BE WELDED 1 O.

REFER TO ARCH DWGS, FOR SPECIFIC STAIR GEOMETRY.

NO SCALE

-AT LOCATIONS WHERE NO SLAB JOINT OCCURS, PROVIDE (2) #4 X 4'-0" AT MID-DEPTH OF SLAB

-IN LIEU OF SAW-CUT CONTROL JOINTS, DIAMOND-SHAPED BLOCKOUT MAY BE PROVIDED AROUND COLUMNS AND INFILLED WITH CONCRETE AT A LATER DATE

JOINT LAYOUT 1/16"=1'-0"

TYPICAL SLAB TURN DOWN AT BUILDING PERIMETER 3/4"=1'-0"

TYPICAL CONCRETE FOOTING, W SLAB REINFORCING BAR LAP SP				
BAR SIZE	BOTTOM BAR LAP SPLICE LENGTH	TOP BAR L LENGTH		
#3	1'-4"	1'-5"		
#4	1'-5"	1'-11"		
#5	1'-10"	2'-4"		
#6	2'-2"	2'-10"		
#7	3'-7"	4'-7"		
#8	4'-6"	5'-10"		
#9	5'-6"	7'-2"		

LAP SPLICE LENGTHS ARE MINIMUMS FOR FOOTINGS, WALLS AND SLABS IN f'c=3000 PSI 1 NORMAL WEIGHT CONCRETE. MULTIPLY THESE LAP SPLICE LENGTHS BY 1.3 FOR USE IN LIGHTWEIGHT CONCRETE.

TOP BAR LAP SPLICES APPLY WHEN 12 INCHES OF CONCRETE OR MORE ARE CAST BELOW THE BARS. THIS ALSO APPLIES TO HORIZONTAL BARS IN WALLS.

REFER TO OTHER SECTIONS AND DETAILS FOR MORE STRINGENT REQUIREMENTS.

-1/2" DIA X 2'-0" SMOOTH GALV DOWELS AT 12" OC AT MID- DEPTH OF SLAB. CENTER ON JOINT. GREASE END OF

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ION CONNECTORS					
ERIES	COMMENT	DIAGRAM			
	DOES NOT APPLY FOR HANGER SUPPORTED RAFTERS OR TRUSSES	::			
3		Service Se			
Q		· · · · · · · · · · · · · · · · · · ·			
Q	CORNER AND END POSTS. SHOP WELD TO STEEL				
0	COLUMNS				
	PACK GROUT SOLID UNDER STANDOFF PLATE. PROVIDE ADHESIVE ANCHOR EMBED 8" MIN	Level			

TYPICAL INTERIOR NON LOAD-BEARING HEADER/JAMB SCHEDULE

Ή	HEADER SIZE	JACK STUD	KING STUD	COMMENT		
	(2)2X4	SINGLE 2X	SINGLE 2X			
	(2)2X6	SINGLE 2X	SINGLE 2X			
	(2)2X8	SINGLE 2X	SINGLE 2X			

HEADERS NOTED ON PLAN SUPERCEDE SCHEDULE. JACK AND KING STUDS SHALL MATCH DEPTH OF WALL STUD FRAMING

TYPICAL NAILING SCHEDULE					
MEMBER	NAILS	CONNECTION			
JOIST TO SILL OR GIRDER	(3) 8d COMMON (3) 3" X 0.131" DIA	TOE NAIL			
BRIDGING TO JOIST	(2) 8d COMMON (2) 3" X 0.131" DIA	TOE NAIL EACH END			
SOLE PLATE TO JOIST OR BLOCKING	16d COMMON AT 16" OC 3" X 0.131" DIA AT 8" OC	FACE NAIL			
TOP PLATE TO STUD	(2) 16d COMMON (3) 3" X 0.131" DIA	END NAIL			
STUD TO SOLE PLATE	(4) 8d COMMON (4) 3" X 0.131" DIA	TOE NAIL			
	(2) 16d COMMON (3) 3" X 0.131" DIA	END NAIL			
DOUBLED STUDS	16d COMMON AT 24" OC 3" X 0.131" DIA AT 8" OC	FACE NAIL			
DOUBLED TOP PLATE	16d COMMON AT 16" OC 3" X 0.131" DIA AT 8" OC	FACE NAIL			
DOUBLED TOP PLATE LAP SPLICE	(8) 16d COMMON (12) 3" X 0.131" DIA	FACE NAIL			
TOP PLATE INTERSECTIONS	(2) 16d COMMON (3) 3" X 0.131" DIA	FACE NAIL			
CONTINUOUS HEADER-MULTI-PLY	16d COMMON AT 16" OC	FACE NAIL ALONG EACH EDGE			
CONTINUOUS HEADER TO STUD	(4) 8d COMMON	TOE NAIL			
BUILT- UP CORNER STUDS, EACH BRG	16d COMMON AT 24" OC 3" X 0.131" DIA AT 16" OC	FACE NAIL			
RIM JOIST TO TOP PLATE	8d COMMON AT 6" OC 3" X 0.131" DIA AT 6" OC	TOE NAIL			

NOTE: USE NAILS SPECIFIED BY MANUFACTURER FOR ALL MANUFACTURED METAL CONNECTORS (SIMPSON STRONG- TIE OR EQUIVALENT HANGERS, UPLIFT ANCHORS, ETC ...)

AT CONTRACTOR'S OPTION, LARGER NAILS MAY BE USED.

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NO SCALE

NO SCALE

DUNBAR 110 THIRD ST. N.E. CHARLOTTESVILLE, VIRGINIA 22902 (434) 293-5171 Project No.: 2302-47

- 1 = 2X4 CONTINUOUS BOTTOM CHORD BRACING AT OR NEAR A PANEL POINT OF WEBS.
- 2 = 2X4 "VERT" CROSS BRACING, NAILED TO TRUSS WEBS (EXTEND FROM TOP TO BOTTOM CHORD) AT AN APPROXIMATE 45 DEGREE ANGLE AT 20'-0" OC INTERVALS MAXIMUM.
- (3) = 2X4 DIAGONAL BOTTOM CHORD BRACING.

AT PERMANENT WEB MEMBER LATERAL BRACING (INDICATED ON TRUSS SHOP DRAWINGS), ADD A 2X4, 45 DEGREE DIAGONAL BRACE ON THE OPPOSITE SIDE OF THE WEB AT 20'-0" OC FROM TOP TO BOTTOM CHORD.

LAP SPLICES OF BRACING MEMBERS ACROSS (2) TRUSSES MINIMUM.

NAIL BRACING WITH (2) 16d NAILS TO EACH TRUSS. (3) NAILS AT ENDS OF BRACING.

NOTE: TRUSS MANUFACTURER SHALL DESIGN COMPLETE BRACING SYSTEM AND PROVIDE PLANS AND DETAILS OF BRACING AS PART OF SHOP DRAWING SUBMITTAL.

NSTRUCI Ο \bigcirc FOR SANDERS ARCHITECTURE PC 16125 RACCOON FORD RD CULPEPER, VIRGINIA 22701 (v)540-829-2590 S APARTMEN ENCOMPASS COMMUNITY SUPPORTS MADISON ROAD Alephen

TION

	MASONRY LINTEL SCHEDULE							
MARK	ROUGH OPENING	CMU LINTEL	BRICK ANGLE	E BE				
L1	UP TO 4'-0", UNO	(2) 4" X 8" PRECAST CMU UNITS WITH (1) #5 TOP AND BOTTOM EACH	-					
L2	UP TO 6'-0", UNO		L3 1/2 X 3 1/2 X 1/4					
L3	UP TO 9'-0", UNO		L7X4X3/8 (LLV)					

- 3. SOLID GROUT ALL CELLS CONTAINING REINFORCEMENT.
- 4. PROVIDE DOWELS TO MATCH REINFORCMENT SHOWN INTO FOUNDATION.

PERIMETER CMU WALLS

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CMU WALL DETAILS

PROJECT #
MI	MINIMUM BOLTING SCHEDULE													
BEAM SIZE	# OF BOLTS IN SINGLE SHEAR CONN/SINGLE ANGLE	# OF BOLTS IN DOUBLE ANGLE CONN												
W8	2	2 ANGLE X 2 BOLTS= 4 TOTAL												
W10	2	2 ANGLE X 2 BOLTS= 4 TOTAL												
W12	3	2 ANGLE X 3 BOLTS= 6 TOTAL												
W14	3	2 ANGLE X 3 BOLTS= 6 TOTAL												
W16	4	2 ANGLE X 4 BOLTS= 8 TOTAL												
W18	5	2 ANGLE X 4 BOLTS= 8 TOTAL												
W21	6	2 ANGLE X 5 BOLTS= 10 TOTAL												
W24	7	2 ANGLE X 5 BOLTS= 10 TOTAL												
W27	8	2 ANGLE X 6 BOLTS= 12 TOTAL												
W30	9	2 ANGLE X 6 BOLTS= 12 TOTAL												
W33	10	2 ANGLE X 7 BOLTS= 14 TOTAL												
W36	10	2 ANGLE X 8 BOLTS= 16 TOTAL												
W40	11	2 ANGLE X 9 BOLTS= 18 TOTAL												
W44	12	2 ANGLE X 10 BOLTS= 20 TOTAL												

NOTES

BOLTS ARE 3/4" DIA ASTM F3125 GR A325N UNO. PROVIDE ASTM F436 WASHERS AT ALL BOLTS. BOLT HOLES FOR SINGLE SHEAR CONN OR SINGLE ANGLE CONN SHALL BE HORIZ SHORT- SLOTTED HOLES UNO- PROVIDE STD ROUND HOLES AT FULL HEIGHT STIFF PLATES, OR THRU- PLATES.

SINGLE SHEAR CONN SHALL BE 3/8" SHEAR TAB OR 3/8" FULL HEIGHT STIFF PLATE AS INDICATED IN 3. DETAILS. REF PLANS FOR 3/8" THRU- PLATE CONNECTION LOCATIONS. STANDARD DOUBLE ANGLE THICKNESS SHALL BE 5/16" MINIMUM. USE SHORT HORIZ SLOTTED HOLES

4.

IN ANGLE. WHERE SLIP CRITICAL CONNECTION OR FULLY PRE- TENSIONED BOLTS ARE INDICATED, USE TENSION CONTROL BOLTS (TWIST-OFF TYPE). AT POJ BEAM-TO-GIRDER CONNECTIONS, PROVIDE DOUBLE ANGLE CONNECTION PER THIS SCHEDULE 5.

UNLESS NOTED OTHERWISE



TYPICAL SHEAR TAB CONNECTION

- 1 1/2"=1'-0"
- DETAIL APPLIES AT WIDE FLANGE BEAM CONNECTIONS TO HSS 1.
- COLUMNS AND OTHER WIDE FLANGE BEAMS. REFER TO MINIMUM BOLTING SCHEDULE FOR REQUIRED NUMBER OF 2. ROWS OF BOLTS.



TYPICAL BEAM TO TOP OF COLUMN CONNECTION AND **BEAM SPLICE DETAIL** 3/4"= 1'-0"





TYPICAL END BEAM OVER COLUMN DETAIL 3/4"= 1'-0"



TYPICAL PLAN DETAIL AT W-SHAPE BEARING PLATE 3/4"= 1'-0"



<u>TYPICAL SECTION AT W-SHAPE</u> BEARING PLATE WITH HEADED STUDS 3/4"= 1'-0"

NSTRUC⁻ Ο \bigcirc FOR SANDERS ARCHITECTURE PC 16125 RACCOON FORD RD CULPEPER, VIRGINIA 22701 (v)540-829-2590 S ARTMEN ENCOMPASS COMMUNITY SUPPORTS 4 AD ADISON RO Z - ALTH Stephen D.B. Stephen D. Barber Lic. No. 025731 09-24-24 visions: DMW SDB AS NOT DRAWN: CHECKED: SCALE: DATE: 2024-09-24 PROJECT # STEEL FRAMING DETAILS

TION

S5.1



- 1. PLYWOOD FOR SHEARWALLS SHALL BE 7/16" THICK APA RATED PANELS. USE MINIMUM 4'-0" X 8'-0" SHEETS WITH THE LONG DIMENSION ORIENTED VERTICALLY.
- 3. IF END OF SHEAR WALL FALLS AT A WINDOW OR DOOR JAMB, PLACE HOLDOWN AT JAMB AS INDICATED AND CONTINUE PLYWOOD TO NEXT INTERSECTING STUD WALL.
- 4. PROVIDE SOLID BLOCKING AT ALL PANEL EDGES AT ALL SHEAR WALLS.









S6.1





SHEAR WALL HOLD DOWN SCHEDULE

NUMBER AND TYPE OF FASTENERS	THREADED ROD ANCHOR AND FOUND EMBEDMENT (F1554 GR 36)	COMMENTS
(8) 1/4 x 11/2" SDS Screw	1/2" DIA	-
(10) 1/4 x 21/2" SDS Screw	5/8" DIA	
(20) 1/4 x 21/2" SDS Screw	7/8" DIA	
(30) 1/4 x 21/2" SDS Screw	1" DIA	
(36) 1/4 x 21/2" SDS Screw	1" DIA	

NOTE: IF NOT MARKED ON PLAN, REFER TO SHEAR WALL ELEVATIONS FOR HOLDOWN TYPE

1. HOLD DOWNS SHOWN ON PLAN SHALL BE INSTALLED AT LEVEL INDICATED.

HOLD DOWNS SHOWN ON THE FOUNDATION PLAN SHALL BE INSTALLED THROUGH CONCRETE TURNDOWN INTO SOLID MASONRY BELOW OR DIRECTLY INTO SOLID MASONRY AS REQUIRED PER THE FOUNDATION FRAMING, ANCHOR SHALL BE INSTALLED WITH ADHESIVE AND INSTALLED PER MANUFACTURER'S

HOLD DOWNS INDICATED INSTALLED INTO END STUDS WITH SIMPSON SDS SCREWS. SCREWS SHALL NOT BE COUNTERSUNK OR DISTORT METAL OF HANGER. REFER TO SIMPSON HOLD DOWN INSTALLATION REQUIREMENTS FOR ADDITIONAL INFORMATION.



REFER TO SCHEDULE FOR PLYWOOD. PROVIDE MINIMUM 4'-0" X 8'-0" SHEETS WITH THE LONG DIMENSION ORIENTED VERTICALLY. PLYWOOD SHALL BE CONTINUOUS FULL WALL HEIGHT FROM FIRST FLOOR SILL PLATE TO UNDERSIDE OF ROOF SHEATHING.

2. REFER TO PLYWOOD SHEAR WALL SCHEDULE FOR FASTENING PATTERN

TYPICAL PLYWOOD SHEAR WALL SECTION -PARALLEL WITH FRAMING

3/4"=1'-0"

NOTES:

- SHEATHING AND/OR OPPOSITE FACE OF STUDS.
- SHEAR WALL AND EXTEND SHEATHING TO NEXT INTERSECTING STUD WALL
- (EXPOSURE 1) WITH 32/16 SPAN RATING. SHEATHING SHALL BE 4-PLY MINIMUM.
- 2. BE INSTALLED IN ACCORDANCE WITH ASTM C840.
- 3.
- 5

SIMPSON STUD PLATE

TIES - REF ROOF SECTIONS-ROOF-MINIMUM 4 PIECES 2X CORNER STUD FRAMING, TYP AT EXTERIOR WALLS IF NOT AT EXTERIOR WALL, SEE "SHEAR WALL HOLDDOWN SCHEDULE," THIS SHEET, FOR NUMBER OF STUDS REQD-CONT BLOCKING AT ALL PANEL EDGES (BLOCKED CONSTRUCTION)-SECOND, THIRD AND FOURTH FLOOR-SOLID BLOCKING TO MATCH POST ABOVE

SIMPSON HOLDOWN NOTED THUS ON PLAN SEE SCHEDULE FOR SIZE

CONT BLOCKING AT ALL PANEL EDGES (BLOCKED CONSTRUCTION)-

SIMPSON HOLDOWN WITH THREADED ROD ANCHOR ROD NOTED THUS ON PLAN SX REF SCHEDULE BELOW FOR SIZE

FIRST FLOOR-



110 THIRD ST. N.E. CHARLOTTESVILLE, VIRGINIA 22902 (434) 293-5171 Project No.: 2302-47

1. ALL SHEATHING SHALL BE ON (1) FACE UNLESS NOTED OTHERWISE. REFER TO ARCH DRAWINSG FOR ADDITIONAL FINISHES ON

2. IF END OF SHEAR WALL FALLS AT WINDOW, INSTALL HOLD DOWN OUTBOARD OF SHEAR WALL AND CONTINUE SHEATHING TO NEXT INTERSECTING STUD WALL. IF END OF SHEAR WALL OCCURS AT DOOR JAMB, INSTALL HOLD DOWN INBOARD END OF

3. SHEAR WALL MATERIAL NOTED ABOVE AS 'SHEATHING' SHALL BE 7/16" APA RATED SHEATHING; COVERED IN DOC PS1 AND PS2

1. CONNECTORS LISTED FOR SHEATHING SHALL BE 8d COMMON WIRE NAILS (0.148" DIA X 0.312" HEAD X 3" LENGTH). SHEAR WALL MATERIAL NOTED ABOVE AS 'GYPSUM' SHALL BE 5/8" GYPSUM WALLBOARD AND COMPLY WITH ASTM C1396 AND

CONNECTORS LISTED ABOVE FOR GYPSUM SHALL BE 6d =COOLER NAILS (0.092" DIA X 0.312" HEAD X 3" LENGTH).

WHEN NAIL SPACING IS LESS THAN 4" OC AND SHEATHING IS PRESENT ON TWO SIDES OF WALL, SHEATHING JOINTS SHALL BE STAGGERED SUCH THAT THEY DO NOT SHARE A COMMON STUD BLOCKING.

SHEAR WALL PANELS SHALL NOT BE LESS THAN 4'-0" X 8'-0" EXCEPT AT BOUNDARY ELEMENTS OR CHANGES IN FRAMING. CONNECTORS SHALL BE ISNTALLED 3/8" MINIMUM FROM PANEL EDGES.



REFER TO SCHEDULE FOR PLYWOOD. PROVIDE MINIMUM 4'-0" X 8'-0" SHEETS WITH THE LONG DIMENSION ORIENTED VERTICALLY PLYWOOD SHALL BE CONTINUOUS FULL WALL HEIGHT FROM FIRST FLOOR SILL PLATE TO DOUBLE TOP PLATE AT ROOF.

2. REFER TO PLYWOOD SHEAR WALL SCHEDULE FOR FASTENING PATTERN.

TYPICAL PLYWOOD SHEAR WALL ELEVATION -

ARCHITECTURE PC 16125 RACCOON FORD RD CULPEPER, VIRGINIA 22701 (v)540-829-2590 S Z Ш ORTS ARTMI SUPP COMMUNITY \checkmark \square \checkmark R O ENCOMPASS DISON \triangleleft 5 a ALTH Stephen D. Bale , Stephen D. Barber Lic. No. 025731 09-24-24 DRAWN: DMW CHECKED SDB AS NO 2024-09-24 PROJECT # SHEAR WALL DETAILS

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UNIVERSAL DESIGN BUILDING PLAN NOTES

THIS PROJECT HAS A TOTAL OF (21) UNIVERSAL DESIGN / HANDICAP (UD/HC) UNITS. (18) ONE BEDROOM AND (3) TWO BEDROOM UNITS.

ESSENTIAL ELEMENTS

ALL UD/HC UNITS AND AMENITIES COMPLY WITH THE 2022 VIRGINIA HOUSING UNIVERSAL DESIGN GUIDELINES - ESSENTIAL ELEMENTS 1-7 AND AS SPECIFICALLY DESCRIBED BELOW:

- 1. ROUTE
- a. ALL ACCESSIBLE ROUTES (WALKS) ARE 5' WIDE MINIMUM CONCRETE WALKS WITH SLOPES NO GREATER THAN 5% AND CROSS SLOPES NO GREATER THAN 2% AND NO CHANGES IN LEVEL GREATER THAN 1/2" VERTICAL.
- b. RUNNING SLOPES DO NOT EXCEED 5% AND CROSS SLOPES DO NOT EXCEED 2%. c. CROSS WALKS ARE 60" WIDE, STRIPED, WITH A RUNNING SLOPE NO
- GREATER THAN 5% AND A CROSS SLOPE NO GREATER THAN 2%. d. ACCESSIBLE ROUTE DOES NOT TRAVEL BEHIND OR THROUGH
- PARKING SPACES.
- e. ACCESSIBLE PARKING SPACES ARE 9'-0" WIDE BY 18'-0" LONG WITH A SLOPE NO GREATER THAN 2% IN ANY DIRECTION. f. ACCESSIBLE PARKING AISLES, LOCATED ADJACENT TO ACCESSIBLE PARKING SPACES ARE 5'-0" WIDE BY 18'-0" LONG WITH SLOPES NO
- GREATER THAN 2% IN ANY DIRECTION AND ARE STRIPED. g. AN 8'-0" WIDE BY 18'-0" LONG VAN ACCESSIBLE PARKING SPACE IS PROVIDED WITH AN 9'-0" WIDE BY 18'-0" LONG ACCESSIBLE PARKING
- AISLE, BOTH WITH SLOPES NO GREATER THAN 2% IN ANY DIRECTION. h. FOUR (4) ACCESSIBLE PARKING SPACES & ONE (1) VAN-ACCESSIBLE PARKING SPACE ARE PROVIDED, WHICH MEETS THE UD GUIDELINES, SECTION 1.2.1, EXCEPTION 1. ALL ACCESSIBLE PARKING AREAS AND AISLES ARE PAVED.
- i. ALL ACCESSIBLE LANES WITHIN THE HC PARKING AREAS LEAD TO ADJACENT ACCESSIBLE SIDEWALKS BY WAY OF A LEVEL WALK OR CURB CUT CONFORMING TO THE 2022 UD GUIDELINES. ALL HC PARKING SPACES ARE MARKED BY AN HC PARKING OR VAN-ACCESSIBLE HC PARKING CONFORMING TO THE 2022 UD GUIDELINES.
- THE DUMPSTER MEETS ALL REACH RANGE REQUIREMENTS AND IS ON THE ACCESSIBLE ROUTE LEADING TO HC PARKING AND ALL APARTMENT UNITS.
- k. THE POSTAL BOXES ARE COVERED, MEET ALL REACH RANGE REQUIREMENTS, AND ARE ON THE ACCESSIBLE ROUTE LEADING TO
- HC PARKING AND TO ALL APARTMENT UNITS. I. EACH UNIT IS LOCATED ON AN ACCESSIBLE ROUTE TO COMMON SPACES INCLUDING THE LEASING OFFICE, COMMUNITY MEETING SPACE, PUBLIC TRANSPORTATION AND PICK UP AREAS.
- m. CURB CUTS AT HC PARKING AREAS COMPLY WITH THE UD
- GUIDELINES SECTION 1.5, CURB CUTS. n. RAMPS, IF NEEDED WILL COMPLY WITH UD GUIDELINES SECTION 1.6 RAMPS.
- 2. MOVEMENT
- a. ALL WALKS ADJACENT AND PERPENDICULAR TO PARKING SPACES ARE A MINIMUM OF 6' WIDE AND HAVE A SLOPE NO GREATER THAN 5% WITH A CROSS SLOPE NO GREATER THAN 2%. THERE ARE NO ON-SITE WALKS WITH A SLOPE GREATER THAN 5%.
- b. UNIT BUILDING AND ENTRIES HAVE A CLEAR 60"x60" LEVEL FLOOR SPACE ON BOTH SIDES OF THE ENTRY DOOR WITH THE CLEAR FLOOR SPACE EXTENDING 18" PAST THE LATCH ON THE PULL SIDE OF THE DOOR.
- c. AN ACCESSIBLE ROUTE IS PROVIDED FROM THE SITE TO THE SITE'S PROPERTY LINE, CONNECTING WITH THE SIDEWALK CURB CUT AT NORTH MADISON AVE.

OPTIONAL ELEMENTS

OPTIONAL ELEMENTS PROVIDED INCLUDE THE FOLLOWING:

- I. ALL EXTERIOR BUILDING ENTRIES ARE COVERED. 2. ALL SIGNAGE FOR THE PROJECT WILL COMPLY WITH 1.2 SIGNAGE
- OF THE OPTIONAL ELEMENTS. 3. ACCESS IS PROVIDED TO ALL COMMON AREAS FROM ALL UNITS VIA
- AN ACCESSIBLE PEDESTRIAN ROUTE. 4. A MINIMUM OF ONE FOOT CANDLE OF ILLUMINATION WILL BE
- PROVIDED AT ALL EXTERIOR PEDESTRIAN ROUTES AND AMENITIES.
- 5. ALL UD KITCHENS HAVE A 60" DIAMETER, UNENCUMBERED TURNING
- DIAMETER WITHIN THE KITCHEN BOUNDARY. 6. A FULL-LENGTH PANTRY CABINET, COMPLYING WITH 4.5 FULL LENGTH PANTRY CABINET WILL BE PROVIDED IN EACH UD KITCHEN.
- AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL HAVE A 60"
- DIAMETER UNENCUMBERED TURNING DIAMETER. 8. AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL BE PROVIDED
- WITH A ROLL-UNDER SKINK / VANITY TOP.
- 9. AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL BE PROVIDED WITH A TILT / PIVOT STYLE MIRROR.
- 10. SOLID IN-WALL BLOCKING WILL BE INSTALLED IN WALLS AROUND THE TUB, TOILET AND SHOWER FOR NEW AND FUTURE GAB BARS AND SHOWER SEATS. BLOCKING WILL BE ABLE TO CARRY A 250 LB. LOAD. MOLDED SHOWER SURROUNDS WILL HAVE AN INTEGRAL PLYWOOD BACKING, OR , REINFORCING WILL BE PROVIDED BETWEEN SURROUND AND WALL BLOCKING AT SHOWER / TUB GRAB BAR AND SEAT LOCATIONS.
- 11. ALL APARTMENTS WILL HAVE NON-GLARE LIGHTING AND WILL COMPLY WITH UD 5.4.
- 12. ALL APARTMENTS WILL HAVE HANDHELD SHOWERHEADS AND WILL COMPLY WITH UD 5.6

PLAN NOTES:

- 1. SEE SHEET UD1.1, UNIVERSAL DESIGN SITE PLAN FOR BUILDING AND UNIT LOCATIONS, ACCESSIBLE ROUTES, ACCESSIBLE PARKING AND ACCESSIBLE SITE AMENITIES.
- SEE THIS SHEET FOR ACCESSIBILITY INTO THE BUILDING. 3. SEE UD1.3 FOR UNIVERSAL DESIGN UNIT PLANS.
- SEE UNIVERSAL DESIGN SECTION IN PROJECT MANUAL FOR MORE
- DETAILED REQUIREMENTS. 5. THIS SHEET SHOWS ACCESSIBILITY INFORMATION ONLY. SEE SITE PLAN FOR SITE CONSTRUCTION DETAILS.





GROUND FLOOR PLAN SCALE: 1/8" = 1'-0"

<u>LEGEND</u> APARTMENT USE SPACE ON OFFICE LEVEL THE REMAINDER OF INTERIOR BUILDING SPACE ON THE GROUND FLOOR LEVEL IS FOR

- ALL EXTERIOR BUILDING ENTRIES ARE COVERED.
- ALL SIGNAGE FOR THE PROJECT WILL COMPLY WITH 1.2 SIGNAGE
- OF THE OPTIONAL ELEMENTS. ACCESS IS PROVIDED TO ALL COMMON AREAS FROM ALL UNITS VIA AN ACCESSIBLE PEDESTRIAN ROUTE.
- 4. A MINIMUM OF ONE FOOT CANDLE OF ILLUMINATION WILL BE
- PROVIDED AT ALL EXTERIOR PEDESTRIAN ROUTES AND AMENITIES. ALL UD KITCHENS HAVE A 60" DIAMETER, UNENCUMBERED TURNING
- DIAMETER WITHIN THE KITCHEN BOUNDARY.
- 6. A FULL-LENGTH PANTRY CABINET, COMPLYING WITH 4.5 FULL LENGTH PANTRY CABINET WILL BE PROVIDED IN EACH UD KITCHEN.
- AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL HAVE A 60" DIAMETER UNENCUMBERED TURNING DIAMETER.
- AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL BE PROVIDED WITH A ROLL-UNDER SKINK / VANITY TOP.
- AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL BE PROVIDED WITH A TILT / PIVOT STYLE MIRROR.
- 10. SOLID IN-WALL BLOCKING WILL BE INSTALLED IN WALLS AROUND THE TUB, TOILET AND SHOWER FOR NEW AND FUTURE GAB BARS AND SHOWER SEATS. BLOCKING WILL BE ABLE TO CARRY A 250 LB. LOAD. MOLDED SHOWER SURROUNDS WILL HAVE AN INTEGRAL PLYWOOD BACKING, OR , REINFORCING WILL BE PROVIDED BETWEEN SURROUND AND WALL BLOCKING AT SHOWER / TUB GRAB BAR AND SEAT LOCATIONS.
- 11. ALL APARTMENTS WILL HAVE NON-GLARE LIGHTING AND WILL
- COMPLY WITH UD 5.4.
- 12. ALL APARTMENTS WILL HAVE HANDHELD SHOWERHEADS AND WILL COMPLY WITH UD 5.6

PLAN NOTES:

- 1. SEE SHEET UD1.1, UNIVERSAL DESIGN SITE PLAN FOR BUILDING AND UNIT LOCATIONS, ACCESSIBLE ROUTES, ACCESSIBLE PARKING AND ACCESSIBLE SITE AMENITIES.
- 2. SEE THIS SHEET FOR ACCESSIBILITY INTO THE BUILDING.
- SEE UD1.3 FOR UNIVERSAL DESIGN UNIT PLANS. 4. SEE UNIVERSAL DESIGN SECTION IN PROJECT MANUAL FOR MORE
- DETAILED REQUIREMENTS.

- OFFICE SERVICES USE.

(UD/HC) UNITS. (18) ONE BEDROOM AND (3) TWO BEDROOM UNITS.

ESSENTIAL ELEMENTS

ALL UD/HC UNITS AND AMENITIES COMPLY WITH THE 2022 VIRGINIA HOUSING UNIVERSAL DESIGN GUIDELINES - ESSENTIAL ELEMENTS 1-7 AND AS SPECIFICALLY DESCRIBED BELOW:

- 2. MOVEMENT
- a. ALL WALKS LEADING FROM THE SIDEWALK TO THE BUILDING ENTRIES ARE A MINIMUM OF 5' WIDE AND HAVE A SLOPE NO GREATER THAN 5% WITH A CROSS SLOPE NO GREATER THAN 2%. THERE ARE NO ON-SITE WALKS WITH A SLOPE GREATER THAN 5%.
- b. UNIT BUILDING AND ENTRIES HAVE A CLEAR 60"x60" LEVEL FLOOR SPACE ON BOTH SIDES OF THE ENTRY DOOR WITH THE CLEAR FLOOR SPACE EXTENDING 18" PAST THE LATCH ON THE PULL SIDE OF THE DOOR.
- c. ALL UNIT ENTRY DOORS ARE 36" WIDE (CLEAR OPENING WIDTH IS NOT LESS THAN 32") WITH A THRESHOLD LEVEL CHANGE NO GREATER THAN 1/2" (MAX 1/4" VERTICAL RISE AND 1/4" AT 1:2 SLOPE).
- d. THERE IS NO LEVEL CHANGE BETWEEN THE EXTERIOR LANDING AND INTERIOR FLOOR.
- e. ALL LATCHES ARE LEVER TYPE. PRIVACY FUNCTION LATCHES HAVE PUSH BUTTON OPERATION.
- f. THE FORCE REQUIRED TO OPEN THE UNIT ENTRY DOORS IS NO GREATER THAN 5 LBS.

18'-6<u>-</u>"

99'-9<u>1</u>"

106





3RD FLOOR PLAN SCALE: 1/8" = 1'-0"





UNIVERSAL DESIGN BUILDING PLAN NOTES THIS PROJECT HAS A TOTAL OF (21) UNIVERSAL DESIGN / HANDICAP

ESSENTIAL ELEMENTS

ALL UD/HC UNITS AND AMENITIES COMPLY WITH THE 2022 VIRGINIA HOUSING UNIVERSAL DESIGN GUIDELINES - ESSENTIAL ELEMENTS 1-7 AND AS SPECIFICALLY DESCRIBED BELOW:

- 2. MOVEMENT
- a. ALL WALKS LEADING FROM THE SIDEWALK TO THE BUILDING ENTRIES ARE A MINIMUM OF 5' WIDE AND HAVE A SLOPE NO GREATER THAN 5% WITH A CROSS SLOPE NO GREATER THAN 2%. THERE ARE NO ON-SITE WALKS WITH A SLOPE GREATER THAN 5%.
- b. UNIT BUILDING AND ENTRIES HAVE A CLEAR 60"x60" LEVEL FLOOR SPACE ON BOTH SIDES OF THE ENTRY DOOR WITH THE CLEAR FLOOR SPACE EXTENDING 18" PAST THE LATCH ON THE PULL SIDE OF THE DOOR.
- c. ALL UNIT ENTRY DOORS ARE 36" WIDE (CLEAR OPENING WIDTH IS NOT LESS THAN 32") WITH A THRESHOLD LEVEL CHANGE NO GREATER THAN 1/2" (MAX 1/4" VERTICAL RISE AND 1/4" AT 1:2 SLOPE).
- d. THERE IS NO LEVEL CHANGE BETWEEN THE EXTERIOR LANDING AND INTERIOR FLOOR.
- e. ALL LATCHES ARE LEVER TYPE. PRIVACY FUNCTION LATCHES HAVE PUSH BUTTON OPERATION. f. THE FORCE REQUIRED TO OPEN THE UNIT ENTRY DOORS IS NO
- GREATER THAN 5 LBS.

- 5. ALL UD KITCHENS HAVE A 60" DIAMETER, UNENCUMBERED TURNING DIAMETER WITHIN THE KITCHEN BOUNDARY. 6. A FULL-LENGTH PANTRY CABINET, COMPLYING WITH 4.5 FULL LENGTH
- PANTRY CABINET WILL BE PROVIDED IN EACH UD KITCHEN. 7. AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL HAVE A 60"
- DIAMETER UNENCUMBERED TURNING DIAMETER. 8. AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL BE PROVIDED WITH A ROLL-UNDER SKINK / VANITY TOP.
- 9. AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL BE PROVIDED WITH A TILT / PIVOT STYLE MIRROR.
- 10. SOLID IN-WALL BLOCKING WILL BE INSTALLED IN WALLS AROUND THE TUB, TOILET AND SHOWER FOR NEW AND FUTURE GAB BARS AND SHOWER SEATS. BLOCKING WILL BE ABLE TO CARRY A 250 LB. LOAD. MOLDED SHOWER SURROUNDS WILL HAVE AN INTEGRAL PLYWOOD BACKING, OR , REINFORCING WILL BE PROVIDED BETWEEN SURROUND AND WALL BLOCKING AT SHOWER / TUB GRAB BAR AND SEAT LOCATIONS.
- 11. ALL APARTMENTS WILL HAVE NON-GLARE LIGHTING AND WILL
- COMPLY WITH UD 5.4. 12. ALL APARTMENTS WILL HAVE HANDHELD SHOWERHEADS AND WILL COMPLY WITH UD 5.6

PLAN NOTES:

- 1. SEE SHEET UD1.1, UNIVERSAL DESIGN SITE PLAN FOR BUILDING AND UNIT LOCATIONS, ACCESSIBLE ROUTES, ACCESSIBLE PARKING AND ACCESSIBLE SITE AMENITIES.
- 2. SEE THIS SHEET FOR ACCESSIBILITY INTO THE BUILDING.
- 3. SEE UD1.3 FOR UNIVERSAL DESIGN UNIT PLANS. 4. SEE UNIVERSAL DESIGN SECTION IN PROJECT MANUAL FOR MORE DETAILED REQUIREMENTS.

THIS SHEET SHOWS UNIVERSAL DESIGN COMPLIANCE ELEMENTS ONLY. REFER TO ARCHITECTURAL FLOOR PLANS FOR CONSTRUCTION INFORMATION

UD1.3

UNIVERSAL DESIGN

FLOOR PLANS

Lic. No. 8814

ACHI

revisions:

DRAWN:

SCALE:

DATE:

CHECKED:

PROJECT #:

09-24-24

DAS

NOTED

2030

09-24-24



203 UNIT FLOOR PLAN



UNIT 303 SIMILAR

UNIVERSAL DESIGN BUILDING PLAN NOTES THIS PROJECT HAS A TOTAL OF (21) UNIVERSAL DESIGN / HANDICAP (UD/HC) UNITS. (18) ONE BEDROOM AND (3) TWO BEDROOM UNITS.

ESSENTIAL ELEMENTS

ALL UD/HC UNITS AND AMENITIES COMPLY WITH THE 2022 VIRGINIA HOUSING UNIVERSAL DESIGN GUIDELINES - ESSENTIAL ELEMENTS 1-7 AND AS SPECIFICALLY DESCRIBED BELOW:

- 1. MOVEMENT
- a. ALL INTERIOR PASSAGEWAYS HAVE A MINIMUM 42" CLEAR WIDTH. b. UNIT BUILDING AND ENTRIES HAVE A CLEAR 60"x60" LEVEL FLOOR SPACE ON BOTH SIDES OF THE ENTRY DOOR WITH THE CLEAR FLOOR SPACE EXTENDING 18" PAST THE LATCH ON THE PULL SIDE OF THE DOOR.
- c. ALL INTERIOR DOORS HAVE A CLEAR FLOOR SPACE EXTENDING 18" PAST THE LATCH ON THE PULL SIDE OF THE DOOR.
- d. ALL PASSAGE DOORS TO ROOMS GREATER THAN 2'-0" DEEP ARE 36" WIDE (CLEAR OPENING WIDTH IS NOT LESS THAN 32") WITH A THRESHOLD LEVEL CHANGE NO GREATER THAN 1/2" (MAX 1/4" VERTICAL RISE AND 1/4" AT 1:2 SLOPE).
- e. UNIT ENTRY DOORS ARE 36" WIDE (CLEAR OPENING WIDTH IS NOT LESS THAN 32") WITH A THRESHOLD LEVEL CHANGE NO GREATER THAN 1/2" (MAX 1/4" VERTICAL RISE AND 1/4" AT 1:2 SLOPE).
- ALL UNITS PROVIDE CLEAR FLOOR SPACE IN FRONT OF ALL CONTROLS AS DELINEATED IN UNIVERSAL DESIGN GUIDELINES SECTION 3.1, CLEAR FLOOR SPACE.
- g. ALL OPERABLE PARTS WITHIN ALL UNITS ARE LOCATED WITHIN THE REACH RANGES AS DELINEATED IN UNIVERSAL DESIGN GUIDELINES SECTION 3.2, REACH RANGE.
- h. ALL CONTROL AND OPERATING MECHANISMS (PULL HANDLES, LATCHES, LEVERS, PUSH BUTTON LATCHSETS, ETC.) CAN BE OPERATED WITH ONE HAND AND DO NOT REQUIRE GRASPING AND DO NOT REQUIRE GREATER THAN 5 LBS TO OPERATE.
- i. ALL LATCHSETS ARE LEVER TYPE. PUSH BUTTON OPERATION ON
- PRIVACY LATCHSETS. j. ALL PLUMBING FIXTURES ARE LEVER TYPE.
- 2. KITCHEN
- a. CLEAR FLOOR SPACE IS PROVIDED AROUND ALL APPLICANCES IN COMPLIANCE WITH THE UD GUIDELINES SECTION4.1 - CLEAR FLOOR
- b. ALL RANGES HAVE FRONT CONTROLS AND ARE SELF-CLEANING
- UNITS. c. RANGE HOOD FAN AND LIGHT WILL BE SWITCHED SEPARATELY AND WILL COMPLY WITH REACH RANGE REQUIREMENTS.
- d. ALL REFRIGERATORS ARE SIDE-BY-SIDE UNITS WITH ALL CONTROLS WITHIN 54" A.F.F. e. ALL KITCHEN SINKS ARE 6" DEEP UNITS WITH REAR SET DRAINS. THE
- AREA BELOW THE SINK IS OPEN WITH THE EXCEPTION OF A REMOVABLE CONCEALMENT PANEL. THE FLOORING BELOW THE SINK EXTENDS TO A FINISHED WALL WITH BASE TRIM.
- f. ALL KITCHEN CABINET DOORS AND DRAWERS WILL HAVE PULL HANDLES COMPLYING WITH SECTION 4.6 - CABINET HARDWARE. g. KITCHEN SINK COUNTER & BATH LAV HEIGHT IS 34" AFF IN UD/HC UNITS.
- 3. BATHROOMS a. ALL UD BATHROOMS COMPLY WITH ANSI A117.1-2009, TYPE B-
- OPTION A. b. ALL FULLY HANDICAP UNITS (UD/HC UNITS) HAVE A ROLL-IN SHOWER
- COMPLYING WITH UD GUIDELINES SECTION 5.2 BATHING AREAS.
- c. THE SHOWER FIXTURES IN THE ROLL-IN SHOWERS COMPLY WITH UD **GUIDELINES SECTION 5.3 - SHOWER FIXTURES.**
- 4. LAUNDRY CLOSETS
- a. LAUNDRY CLOSETS WITHIN UNITS (WASHER AND DRYER NOT INCLUDED) ARE SIZED TO ACCOMMODATE SIDE BY SIDE PLACEMENT OF WASHER / DRYER UNITS AND COMPLY WITH CLEAR FLOOR SPACE REQUIREMENTS.

OPTIONAL ELEMENTS

OPTIONAL ELEMENTS PROVIDED INCLUDE THE FOLLOWING:

- ALL EXTERIOR BUILDING ENTRIES ARE COVERED. 2. ALL SIGNAGE FOR THE PROJECT WILL COMPLY WITH 1.2 SIGNAGE
- OF THE OPTIONAL ELEMENTS. ACCESS IS PROVIDED TO ALL COMMON AREAS FROM ALL UNITS VIA
- AN ACCESSIBLE PEDESTRIAN ROUTE. 4. A MINIMUM OF ONE FOOT CANDLE OF ILLUMINATION WILL BE
- PROVIDED AT ALL EXTERIOR PEDESTRIAN ROUTES AND AMENITIES. ALL UD KITCHENS HAVE A 60" DIAMETER, UNENCUMBERED TURNING
- DIAMETER WITHIN THE KITCHEN BOUNDARY. 6. A FULL-LENGTH PANTRY CABINET, COMPLYING WITH <u>4.5 FULL LENGTH</u>
- PANTRY CABINET WILL BE PROVIDED IN EACH UD KITCHEN. AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL HAVE A 60"
- DIAMETER UNENCUMBERED TURNING DIAMETER.
- AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL BE PROVIDED
- WITH A ROLL-UNDER SKINK / VANITY TOP. 9. AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL BE PROVIDED
- WITH A TILT / PIVOT STYLE MIRROR. 10. SOLID IN-WALL BLOCKING WILL BE INSTALLED IN WALLS AROUND THE TUB, TOILET AND SHOWER FOR NEW AND FUTURE GAB BARS AND SHOWER SEATS. BLOCKING WILL BE ABLE TO CARRY A 250 LB. LOAD.
- MOLDED SHOWER SURROUNDS WILL HAVE AN INTEGRAL PLYWOOD BACKING, OR , REINFORCING WILL BE PROVIDED BETWEEN SURROUND AND WALL BLOCKING AT SHOWER / TUB GRAB BAR AND SEAT LOCATIONS.
- 11. ALL APARTMENTS WILL HAVE NON-GLARE LIGHTING AND WILL COMPLY WITH UD 5.4.
- 12. ALL APARTMENTS WILL HAVE HANDHELD SHOWERHEADS AND WILL COMPLY WITH UD 5.6

PLAN NOTES:

- 1. SEE SHEET UD1.1, UNIVERSAL DESIGN SITE PLAN FOR BUILDING AND UNIT LOCATIONS, ACCESSIBLE ROUTES, ACCESSIBLE PARKING AND ACCESSIBLE SITE AMENITIES.
- SEE THIS SHEET FOR ACCESSIBILITY INTO THE BUILDING.
- SEE UD1.3 FOR UNIVERSAL DESIGN UNIT PLANS. 4. SEE UNIVERSAL DESIGN SECTION IN PROJECT MANUAL FOR MORE DETAILED REQUIREMENTS.



INTERIOR WALL TYPES

NOTES:

1. PROVIDE 3" ROCKWOOL SOUND BATTS INSULATION IN ALL INTERIOR PARTITIONS SEPARATING OCCUPIED SPACES NOT LOCATED IN THE SAME SLEEPING OR DWELLING UNIT.

2. SEAL AROUND ALL EDGES AT SOUND PARTITIONS & ALL PENETRATIONS.

3. PROVIDE MR GWB AT WET WALLS & BATHROOMS (WHERE NOT FIRE RATED)

4. U.N.O. EXTEND PARTITIONS & GWB TO UNDERSIDE OF FLOOR FRAMING OR ROOF TRUSSES ABOVE.

- 1/2" TYPE 'C' GWB EACH SIDE W/ ONE LAYER 1/8" MASS LOADED VINYL TYPE '**A**' BARRIER CORRIDOR / PUBLIC SIDE ON 2X4 STUDS @ 16" OC MAX W/ 3" SOUND BATTS (U.L. U317 @ 30 MINUTE FIRE PARTITION) ACOUSTICALLY SEAL ALL EDGES & PENETRATIONS AND STAGGER RECEPTACLES TYPICAL APARTMENT UNIT SEPARATION WALLS.
- TYPE 'AS' TYPE 'A' WITH (1) LAYER 7/16" OSB SHEATH'G HALL SIDE (SHEAR WALL)
- TYPE 'A1' 1/2" GWB EACH SIDE ON 2X4 STUDS @ 16" OC MAX W/ 3" SOUND BATTS TYPICAL INTERIOR WALL TYPE - USE WHERE NOT OTHERWISE INDICATED.
- TYPE 'A1S' 1/2" GWB EACH SIDE WITH 1/2" WD SHEATH'G ONE SIDE ON 2X4 STUDS @ 16" OC MAX W/ 3" SOUND BATTS (SHEAR WALL)
- TYPE 'A2' 1/2" GWB EACH SIDE ON 1/8" MASS LOADED VINYL BARRIER EA. SIDE ON 2X4 STUDS @ 16" OC MAX W/ 3" SOUND BATTS. ACOUSTICALLY SEAL ALL EDGES & PENETRATIONS AND STAGGER RECEPTACLES
- TYPE '**b**' 1/2" GWB EACH SIDE ON 2X6 STUDS @ 16" OC MAX. W/ 6" SOUND BATTS (U.L. U317 @ 30 MINUTE FIRE PARTITION)
- TYPE 'B1S' 1/2" GWB EACH SIDE WITH 7/16" OSB SHEATH'G ONE SIDE ON 2X6 STUDS @ 16" OC MAX W/ 6" SOUND BATTS (SHEAR WALL)
- 1/2" GWB ON 2X4 FURR'G @ 16" OC MAX. TYPE '**C**'
- 1/2" GWB ON 2X2 FURR'G @ 16" OC MAX. TYPE '**D**'
- (2) HOUR CMU FIRE BARRIER (U905) TYPE '**f.1**'
- TYPE 'F.2' (1) HOUR RATED FIRE BARRIER: (1) LAYER 5/8" TYPE 'X' GWB EACH SIDE ON 2X4 AT 16" OC MAX. (UL U305)
- TYPE 'F.3' (1) HOUR RATED EXTERIOR WALL FIRE BARRIER: (1) LAYER 5/8" DENS-GLASS FIRE GUARD SHEATH'G ON EXTERIOR SIDE 2X6 STUDS @ 16" OC. (1) LAYER 5/8" TYPE 'X' GWB ON INTERIOR SIDE (UL U309)
- TYPE 'F.4' (2) HOUR RATED FIRE BARRIER: (2) LAYERS 5/8" TYPE 'X' GWB EACH SIDE ON MIN. 2X4 AT 16" OC MAX. W/ R-15 INSULATION (UL U301) TYPE 'F.4S' ADD ONE LAYER 7/16" OSB SHEATH'G EXT. SIDE STUD (SHEAR WALL)

(1) HOUR RATED HORIZONTAL ASSEMBLY

FROM TABLE 721.1(3)21-1.1:

[BASE LAYER & TYPE 'X' GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO JOIST OR TRUSS 24" OC WITH 1-1/4" TYPE 'S' OR TYPE 'W' DRYWALL SCREWS 24" OC. FACE LAYER ⁵/₈" TYPE 'X' GYPSUM WALL BOARD OR VENEER BASE APPLIED AT RIGHT ANGLES TO JOISTS OR TRUSS THROUGH BASE LAYERS WITH 1-7/8" TYPE 'S' OR TYPE 'W' DRYWALL SCREWS 12" OC AT JOINTS AND INTERMEDIATE JOISTS OR TRUSS. FACE LAYER TYPE 'G' DRYWALL SCREWS PLACED 2" BACK ON EITHER SIDE OF FACE LAYER END JOINTS, 12" OC.]

Design No. U317 **Bearing Wall Rating -- 3/4 Hr.**

Finish Rating -- See Item 3.



1.Nailheads -- Exposed or covered with joint compound.

Joints -- Exposed joints covered with joint compound and paper tape. Joint compound and paper tape may be omitted when square edge boards are used. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with the joints reinforced with paper tape. **Gypsum Board*** -- 1/2 in. thick wallboard, paper or vinyl surfaced with beveled, square, or tapered edges.

Wallboard nailed 7 in. OC with 5d cement coated nails 1-5/8 in. long, 0.086 in. shank diam and 15/64 in. diam heads. When used in widths of other than 48 in., wallboard is to be installed horizontally. GEORGIA-PACIFIC GYPSUM L L C -- Types 6, C (finish rating 15 min), Type 5 (finish rating 15 min), Type

GPFS1 (finish rating 15 min), DAP, DA, DAPC, TG-C. NATIONAL GYPSUM CO -- Type FSK-1, FSK-G, FSW-1, FSW-G (finish rating 15 min), Type FSK or FSW (finish

rating 15 min), FSK-C, FSW-C, or FS45. UNITED STATES GYPSUM CO -- Type C (finish rating 20 min), Type WRC (finish rating 20 min), Type IP-X2 (finish rating 20 min), Type IPC-AR (finish rating 20 min).

Steel Corner Fasteners -- (Optional) -- For use at wall corners. Channel shaped, 2 in. long by 1 in. high on the back side with two 1/8 in. wide cleats protruding into the 1/2 in. wide channel, fabricated from 24 gauge galv steel. Fasteners applied only to the end or cut edge (not along tapered edges) of the wallboard, no greater than 2 in. from corner of wallboard, max spacing 16 in. OC. Nailed to adjacent stud through tab using one No. 6d cement coated nail per fastener. Corners of wallboard shall be nailed to top and bottom plate using No. 6d cement coated nails. Batts and Blankets* -- (Not shown) -- Optional-Glass fiber or mineral wool insulation placed in stud cavities.

CERTAINTEED CORP

JOHNS MANVILLE

Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Design No. U305 July 01, 2010

Bearing Wall Rating -- 1 HR.

Finish Rating -- See Items 3, 3A, 3D, 3E, 3F, 3G, 3H and 3I.

STC Rating - 56 (See Item 9)



1. Wood Studs -- Nom 2 by 4 in. spaced 16 in. OC max, effectively firestopped.

2. Joints and Nail-Heads -- Joints covered with joint compound and paper tape. Joint compound and paper tape may be omitted when square edge boards are used. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with the joints reinforced with paper tape. Nailheads exposed or covered with joint compound.

Gypsum Board* -- 5/8 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths other than 48 in., gypsum panels are to be installed horizontally

NATIONAL GYPSUM CO -- Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSW-6 (finish rating 20 min).

UNITED STATES GYPSUM CO -- Type AR (finish rating 24 min), Type SCX (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type FCV (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type FRX-G (finish rating 29 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min).

3. Steel Corner Fasteners -- (Optional) -- For use at wall corners. Channel shaped, 2 in. long by 1 in. high on the back side with two 1/8 in. wide cleats protruding into the 5/8 in. wide channel, fabricated from 24 gauge galv steel. Fasteners applied only to the end or cut edge (not along tapered edges) of the gypsum board, no greater than 2 in. from corner of gypsum board, max spacing 16 in. OC. Nailed to adjacent stud through tab using one No. 6d cement coated nail per fastener. Corners of wall board shall be nailed to top and bottom plate using No. 6d cement coated nails.

4. Batts and Blankets* -- (Optional - Required when Item 6A is used) Glass fiber or mineral wool insulation. Placed to completely or partially fill the stud cavities. When Item 6A is used, glass fiber or mineral wool insulation shall be placed to completely fill the stud cavities and shall be secured to the studs 24 in. OC with staples, nails or screws.

CERTAINTEED CORP

CORNING -- Corning Fiberglas Corp.

Caulking and Sealants -- (not shown, optional) A bead of acoustical sealant applied around the partition perimeter for sound control

6. STC Rating -- The STC Rating of the wall assembly is 56 when it is constructed as described by Items 1 through 6, except:

A. Item 2, above - Nailheads Shall be covered with joint compound.

B. Item 2, above - Joints As described, shall be covered with fiber tape and joint compound.

C. Item 5, above - Batts and Blankets* The cavities formed by the studs shall be friction fit with R-19 unfaced fiberglass insulation batts measuring 6-1/4 in. thick and 15-1/4 in. wide.

D. Item 6, above - Steel Framing Members* Type RSIC-1 clips shall be used to attach gypsum board to studs on either side of the wall assembly.

E. Item 8, above - Caulking and Sealants (not shown) A bead of acoustical sealant shall be applied around the partition perimeter for sound control.

F. Steel Corner Fasteners (Item 4), Fiber, Sprayed (Items 5A and 5B) and Steel Framing Members (Item 6A), not evaluated as alternatives for obtaining STC rating.

7. Non-Bearing Wall Partition Intersection -- (Optional) -- Two nominal 2 by 4 in. studs or nominal 2 by 6 in. studs nailed together with two 3 in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.

*Bearing the UL Classification Mark

Design No. U301

December 23, 2008

Bearing Wall Rating -- 2 HR. Finish

Rating -- 66 Min



Nailheads -- Exposed or covered with joint finisher.

2. Joints -- Exposed or covered with fiber tape and joint finisher. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

3. Nails -- 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam, 1/4 in. diam heads, and 8d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam heads.

4. Gypsum Board -- * -- 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with the 1-7/8 in. nails spaced 6 in. OC. Outer layer attached to studs over inner layer with the 2-3/8 in. long nails spaced 8 in. OC. Vertical joints located over studs. All joints in face layers staggered with joints in base layers. Joints of each base layer offset with joints of base layer on opposite side.

When used in widths other than 48 in., gypsum board to be installed horizontally.

When Steel Framing Members* (Item 6) are used, base layer attached to furring channels with 1 in. long Type S bugle- head steel screws spaced max 24 in. OC; face layer attached with 1-5/8 in. long Type S bugle-head steel screws spaced max 12 in. OC.

AMERICAN GYPSUM CO -- Types AGX-1, AG-C, AGX-11.

CERTAINTEED GYPSUM INC -- Types 1, FRPC, EGRG, ProRoc Type C or ProRoc Type X GEORGIA-PACIFIC GYPSUM L L C -- Types 5, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6. LAFARGE NORTH AMERICA INC -- Types LGFC-C, LGFC2, LGFC2A , LGFC6, LGFC6A., LGFC-C/A.

NATIONAL GYPSUM CO -- Types FSK, FSK-C, FSK-G, FSW, FSW-3, FSW-5, FSW-6, FSW-C, FSW-G, FSMR-C.

TEMPLE-INLAND FOREST PRODUCTS CORP -- Type TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X.

UNITED STATES GYPSUM CO -- Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

4D. Gypsum Board* -- As an Alternate to Item 4 - 5/8 in. thick applied either horizontally or vertically. Inner layers fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last srcrew 1 in. from edge of board. Outer layers fastened to framing with 1-7/8 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths other than 48 in., gypsum board to be installed horizontally. All joints in face layers staggered with joints in base layers. Joints of each base layer offset with joints of base layer on opposite side.

AMERICAN GYPSUM CO -- Types AGX-1, AG-C.

5. Steel Framing Members -- (Optional, Not Shown)* - Furring channels and resilient sound isolation clip as described below:

A. Furring Channels -- Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Wallboard attached to furring channels as described in Item 4.

B. Steel Framing Members* -- Resilient sound isolation clip used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

PAC INTERNATIONAL INC -- Type RSIC-1.

*Bearing the UL Classification Mark

Design No. L521

June 11, 2021

Unrestrained Assembly Rating -- 1 Hr Finish Rating -- 25 Min (See Items 5 and 5A), 20 Min (See Items 6H and 7A) This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used --

Guide **BXUV** or **BXUV7**

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Flooring System -- The flooring system shall consist of one of the following: System No. 1 NOT USED

System No. 2

Subflooring -- Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails

Vapor Barrier -- (Optional) -- Nom 0.030 in. thick commercial asphalt saturated felt. Finish Flooring* -- Floor Topping Mixture -- Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO -- Types LRK, HSLRK, CSD LATICRETE SUPERCAP L L C -- Types LRK, HSLRK

2. Batts and Blankets* -- (Optional) -- Glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. When the resilient channels (Item 6) or furring channels (Item 6A) are spaced 24 in. OC, no insulation shall be installed in the concealed space. When the resilient channels (Item 6) or furring channels (Item 6A) are spaced 16 in. OC, the insulation shall be a max of 3-1/2 in. thick, and shall be secured against the subflooring with staples at 12 in. OC or held suspended in the concealed space with 0.090 in. diam galv steel wires attached to the wood trusses at 12 in. OC. When the resilient channels (Item 6) or furring channels (Item 6A) are spaced a max of 12 in. OC or when the Steel Framing Members (Item 6B) are used, there is no limit in the overall thickness of insulation, and the insulation can be secured against the subflooring, held suspended in the concealed space or draped over the resilient or furring channels (or Steel Framing Members) and gypsum panel membrane. When Steel Framing Members (Item 6C) are used, max 3-1/2 in. thick insulation shall be draped over the furring channels (Item 6Ca) and gypsum board ceiling membrane, and friction-fitted between trusses and Steel Framing Members (Item 6Cd). The finished rating has only been determined when the insulation is secured to the subflooring.

5D. Cavity Insulation - Batts and Blankets* or Fiber, Sprayed* -- (As described above in Items 5 through 5B) -- (For Use with Item 7A, Not Shown) -- Min. 3-1/2 in thick with no limit on maximum thickness fitted in the concealed space, draped over the resilient channel (Item 6H)/gypsum board (Item 7A) ceiling membrane.

6. **Resilient Channels --** Formed from min 25 MSG galv steel installed perpendicular to trusses. When there is no insulation installed in the concealed space the resilient channels are spaced 24 in. OC. When insulation (Item 5) is secured to the underside of the subfloor the resilient channels are spaced 16 in. OC. When insulation, Items 5, 5A or 5B is applied over the resilient channel/gypsum panel ceiling membrane, or when Item 5C, 5E or 5F is applied to underside of subflooring, the resilient channels are spaced 12 in. OC. Channels secured to each truss with 1-1/4 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint as shown in the above illustration. Additional channels shall extend min 6 in. beyond each side edge of panel.

6A. Steel Framing Members* -- (Not Shown) -- As an alternate to Item 6. a. Furring Channels -- Formed of No. 25 MSG galv steel, 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to wood structural members. When insulation, Items 5, 5A or 5B is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap. b. Steel Framing Members* --

Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to alternating trusses with No. 8 x 2-1/2 in. course drywall screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to alternating trusses with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. RSIC-Si-X secured to alternating trusses with No 10. X 3-1/2 in. coarse screw. Furring channels are friction fitted into clips. RSIC-1, RSIC-V and RSIC-Si-X clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels. Adjoining channels are overlapped as described in Item a. As an alternate,

ends of adjoining channels may be overlapped 6 in. and secured together with two self- tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7. When Fiber, Sprayed (Item 5B) is used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board shall be installed as described in Item 7. PAC INTERNATIONAL L C -- Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75), RSIC-Si-X

6B. Steel Framing Members -- (Not Shown) -- As an alternate to Item 6, main runners, cross tees, cross channels and wall angle as listed below.

a. Main Runners -- Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Hanger wires to be located adjacent to main runner/cross tee intersections. Hanger wires wrapped and twist-tied on 16d nails driven in to side of trusses at least 5 in, above the bottom face.

b. Cross Tees or Channels -- Nom 4 ft long cross tees, with 15/16 in. or 1-1/2 in. wide face, or nom 4 ft long cross channels, with 1-1/2 in. wide face, either spaced 16 in. OC, installed perpendicular to the main runners. Additional cross tees or channels used 8 in. from each side of butted gypsum board end joints. The cross tees or channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation

c. Wall Angle or Channel -- Painted or galv steel angle with 1 in. legs or channel with 1 in. legs, 1-9/16 in. deep attached to walls at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw-attachment of the gypsum panel. **CGC INC** -- Type DGL or RX

USG INTERIORS LLC -- Type DGL or RX

6G. Steel Framing Members* -- (Not Shown) -- As an alternate to Item 6 -- Not for use with Items 5, 5A or 5B -- Main runners nom 12 ft long, spaced 72 in. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. The main runners and cross tees may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation. **USG INTERIORS LLC --** Type DGL or R

6K. Steel Framing Members* -- (Not Shown) -- As an alternate to Item 6. furring channels and Steel Framing Members as described below.

a. Furring Channels -- Hat channels formed of No. 25 MSG galv steel, nom. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, When there is no insulation installed in the concealed space the resilient channels are spaced 24 in. OC. When insulation (Item 5) is secured to the underside of the subfloor the resilient channels are spaced 16 in. OC. When insulation, Items 5, 5A or 5B is applied over the resilient channel/gypsum panel ceiling membrane, or when Item 5C, 5E or 5F is applied to underside of subflooring, the resilient channels are spaced 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap. b. Steel Framing Members* -- Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC with No. 8 x 2-1/2 in. course drywall screw through the center grommet. Furring channels are friction fitted into clips. Additional clips required to hold furring channel that supports the gypsum board

butt joints, as described in Item 7. **CLARKDIETRICH BUILDING SYSTEMS --** Type ClarkDietrich Sound Clip

GEORGIA-PACIFIC GYPSUM L L C -- Type 5. 7. **Gypsum Board*** -- Nom 5/8 in. thick, 48 in. wide gypsum panels. When resilient channels (Item 6) are used, gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. When insulation (Items 5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane screw spacing shall be reduced to 8 in. OC. When insulation (Item 5C, 5E or 5F) is applied to the underside of the subflooring, screw spacing shall be reduced to 8 in. OC and minimum 1-1/4 in. long Type S screws to install gypsum to the resilient channels (Item 6), and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. End joints secured or WRC. to both resilient channels as shown in end joint detail. When **Steel Framing Members** (Item 6A) are used, gypsum panels installed with long dimensions perpendicular to furring channels. Panels attached to the furring channels using 1 in. long Type S bugle-head steel screws spaced 8 in. OC along butted end joints and in the completely filling stud cavity. field of the panel. Butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum panel shall be supported by a single length of furring channel equal to the width of the gypsum panel plus 6 in. on each end. The two support furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to underside of the truss with one clip at each end of the channel. UNITED STATES GYPSUM CO -- Types C, IP-X2, IPC-AR *Bearing the UL Classification Mark USG BORAL DRYWALL SFZ LLC -- Type C

8. Finishing System -- (Not Shown) -- Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board. 9. Grille -- Grille installed in accordance with the installation instructions provided with the ceiling damper. 10. Wire Mesh -- (Not Shown) -- For use with Item 5A and 5B -- 1 in. 20 gauge galvanized poultry netting installed between the furring channels and gypsum board. The poultry netting is attached with washers and 1/2

in. wafer head screws, spaced 24 in. OC., to the furring channels. The Fiber, * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



See Concrete Blocks category for list of eligible manufacturers.

Mortar -- Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

Portland Cement Stucco or Gypsum Plaster -- Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1)

Loose Masonry Fill -- If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

Foamed Plastic* -- (Optional-Not Shown) -- 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).

THE DOW CHEMICAL CO -- Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel and Thermax Heavy Duty Plus (HDP)

*Bearing the UL Classification Mark

Design No. U469

June 13, 2009

Assembly Rating -- 1 HR

Nonbearing Wall



1. Floor and Ceiling Runners -- "J" - shaped, 2-1/2 in. wide with unequal legs of 1 in. and 2 in., fabricated from 24 MSG galv steel (min 20 MSG steel required when Item 4A is used). Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.

2. Steel Studs -- "C-H" shaped studs, 2-1/2 in. wide by 1-1/2 in. deep, fabricated from min 25 MSG galv steel (min 20 MSG steel required when Item 4A is used), spaced 24 in. or 600 mm OC. Vertically restrained walls require studs to be cut 3/8 in. less than floor to ceiling height.

3.Gypsum Board* -- 1 in. thick gypsum wallboard liner panels, supplied in nominal 24 in. or 600 mm widths. Vertical edges inserted in "H" shaped section of "C-H" studs. Free edge of end panels attached to long leg of "J" runners with 1-5/8 in. long Type S head steel screws spaced not greater than 12 in. OC.

CANADIAN GYPSUM COMPANY -- Type SLX. **UNITED STATES GYPSUM CO --** Type SLX USG MEXICO S A DE C V -- Type SLX.

4. Gypsum Board* -- 5/8 in. thick, 4 ft or 1200 mm wide, applied vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards.

AMERICAN GYPSUM CO -- Types AGX-1, AG-C. **CERTAINTEED GYPSUM INC --** ProRoc Type C. **CERTAINTEED GYPSUM CANADA INC --** ProRoc Type C. CANADIAN GYPSUM COMPANY -- Types C, IP-X1, IP-X2, IPC-AR, SCX or WRC.

LAFARGE NORTH AMERICA INC -- Types LGFC-C, LGFC-C/A, LGFC6A PABCO BUILDING PRODUCTS L L C, DBA PABCO

GYPSUM -- Type C, PG-11 or PG-C

UNITED STATES GYPSUM CO -- Types C, FRX-G, IP-X1, IP-X2, IPC-AR, SCX

5. Batts and Blankets* -- (Optional) -- Mineral wool batts partially or

THERMAFIBER INC -- Type SAFB.

Ŭ D \sim ST Ζ С (\sim С SANDERS ARCHITECTURE PC 16125 RACCOON FORD RD CULPEPER, VIRGINIA 22701 (v)540-829-2590 \mathcal{S} RTMEN' SUPPORTS RO, 229. COMMUNITY Δ \triangleleft 5 ∢ \square \sim ENCOMPASS Z DIS DEX A. SANDERS Lic. No. 8814 09-24-24 REVISIONS: DRAWN: CHECKED DA SCALE: NOTED DATE: 09-24-24 PROJECT #: 2030 FIRE RATED ASSEMBLIES A0.1

encompass







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ATTIC LEVEL PLAN SCALE: 1/8" = 1'-0"



SPACE	ROOM NAME	FLOOR		BASE	TRIM		WALLS		CEILING	REMARKS
0.7.01		MATL	MATL	FINISH	MATL FINISH	MATL	FINISH	MATL	FINISH	
	VERTICAL CIRCULATION			L. HUMBERT						
	ELEVATOR	LVT-1	SS	BY MFG	BY MFG	PLAM	PLAM-4	GRID	BY MFG	See Elevator specs
	SOUTH STAIR	Rubber	Wood	PTD-2	PTD-2	GWB	PTD-1	GWB	PTD-4	Rubber treads & risers & landings
	NORTH STAIR	Rubber	Wood	PTD-2	PTD-2	GWB	PTD-1	GWB	PTD-4	Rubber treads & risers & landings
	BASEMENT LEVEL									
B01	VESTIBULE	LVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT / GWB	ACT-1, PTD-4	Soffits PTD-4
B02	PUBLIC MEETING ROOM	LVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B02A	MECHANICAL	LVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	GWB	PTD-4	
B03	FAMILY UNISEX	LVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B04	FAMILY UNISEX	LVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B05	NURSING	LVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B06	CORRIDOR	LVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B06A	DATA	LVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B07	PCITASSESSMENT	RUBBER-1	Rubber	B-1	PID-2	GWB	PID-1	ACT	ACT-1	
B07A	TIME OUT	RUBBER-1	Rubber	B-1	PID-2	GWB	PID-1	ACI	ACI-1	
B07B	OBSERVATION	CPI-1	Rubber	B-1	PID-2	GWB	PID-1	ACI	ACI-1	
B08			Rubber	B-1	PID-2	GVVB	PTD-1	ACT	ACT-1	
B08A	CLOSET		Rubber	B-1		GVVB	PTD-1	GVVB	PID-4	
B09			Rubber	B-1		GVVB		ACT	ACT-1	
BIO			Rubber	B-1		GVVB		ACT	ACT-1	
BIUA B11			Rubber	B-1		GVVB		ACT	ACT-1	
B11 B12			Rubber	D-I		GVVB		ACT	ACT-1	
D12			Rubber	D-1		GVVB		ACT		
D13			Rubber	D-1		GVVB				Soffic DTD 4
			Rubber	D-1		GWB		ACT/ GVVB		3011113 F 1D-4
D14A			Rubber	D-1		GWB		ACT		
B15			Rubber	B 1		GWB		ACT		
B16	SHARED OFFICE	CPT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B17	SKILL SUPERVISOR	CPT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B18	BREAK		Rubber	B-1	PTD-2	GWB	PTD-1	ACT/GW/B	ACT-1 PTD-4	Soffits PTD-4
B19	WOMEN	LVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B20	MEN	IVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B21	UTILITY	CONC-1	Rubber	B-1	PTD-2	GWB	PTD-1	GWB	PTD-4	
B22	APARTMENT RENTAL OFFICE	CPT-1	Rubber	B-1	PTD-2	GWB	PTD-1	ACT	ACT-1	
B23	ELEVATOR LOBBY	LVT-1	Wood	PTD-2	PTD-2	GWB	PTD-1	ACT / GWB	ACT-1, PTD-4	Soffits PTD-4
	1ST FLOOR									
101-107	UNIT APARTMENTS	LVT-2	Wood	PTD-2	PTD-2	GWB	PTD-1	GWB	PTD-4	All Unit spaces except unit baths, doors to match trim
101-107	UNIT BATHS	CT-1	6" Cove	CT-2	PTD-2	GWB	PTD-1	GWB	PTD-4	All unit baths
108	ELEVATOR LOBBY	LVT-1	Wood	PTD-2	PTD-2	GWB	PTD-1	ACT / GWB	ACT-1, PTD-4	Soffits PTD-4
109	HALL	LVT-1	Wood	PTD-2	PTD-2	GWB	PTD-1	ACT / GWB	ACT-1, PTD-4	Soffits PTD-4
110	HALL	LVT-1	Wood	PTD-2	PTD-2	GWB	PTD-1	ACT / GWB	ACT-1, PTD-4	Soffits PTD-4
110A	CLOSET	LVT-1	Rubber	B-1	PTD-2	GWB	PTD-1	GWB	PTD-4	
	2ND FLOOR									
201-207	UNIT APARTMENTS	LVT-2	Wood	PTD-2	PTD-2	GWB	PTD-1	GWB	PTD-4	All Unit spaces except unit baths, doors to match trim
201-207	UNIT BATHS	CT-1	6" Cove	CT-2	PTD-2	GWB	PTD-1	GWB	PTD-4	All unit baths
208	ELEVATOR LOBBY	LV I-1	VVood	PID-2	PTD-2	GWB		ACT/GWB	ACI-1, PTD-4	Soffits PID-4
209	HALL	LV I-1	VVood	PID-2	PTD-2	GWB		ACT/GWB	ACI-1, PTD-4	Soffits PTD-4
210	HALL	LV I-1	VVood	P1D-2	PTD-2	GWB		ACT/GWB	ACI-1, PTD-4	Soffits PID-4
210A	CLOSET	LVI-1	Rubber	B-1	PID-2	GWB	PID-1	GWB	PID-4	
2108	CLOSET		Rupper	B-1	P1D-2	GVVB		GVVB	PID-4	
		-			+		-			
201 207			Mood			CIMP		CIMP		All light appage eveent unit bethe share to write them
301-307			VVOOD			GVVB		GVVB		All unit spaces except unit baths, doors to match thm
200			b Cove			GVVB		GVVB		
200			VVOOd			GVVB		GWB		
210			VVOOd			GWB		GWB		
310			Rubbor	R 1		GWB		GWB		
310A			Rubbor	B 1		GWD GWD		GWB		
3100			Nubbel	D-1		GVVD		GVVD		
		+			+ +					
1	1	1		1	1 1	1	1		1	

PRODUCT	ABREV.	MANUFACTURER	NAME	COLOR
Assuration Optilizer Tite		A		
Acoustic Celling Tile	ACI	Armstrong	DUNE TEGULAR 2'x2'	WHITE
Carpet	CPT-1	Interface	To Scale	7765 ELEVATIONS
Luxury Vinyl Tile	LVI-1	Armstrong	Unity	J/206 HALDEN
	LVI-2	Armstrong		JI212 ODENSE
Rubber Stair	TRD-1	Roppe	SYMETRY	S638 CADET
	RSR-1	Roppe	SYMETRY	S638 CADET
	RT-1	Roppe	SYMETRY	S638 CADET
Rubber Base	B-1	Roppe	4" Rubber Base	114 LUNAR DUST
Rubber Flooring	RUBBER-1	Kiefer	Modular FitZone Multi	Marble Gray 115
Stain Doors		Algoma	Plain Sliced Red Oak	
		Aigoma		
Plastic Laminate	PL-1	Wilsonart Laminate	Oiled Soapstone	4882-38
Solid Counter Top		Meganite	Acrylic Solid Surface	932SA MOTTLED GRAY
Paint	PTD-1	Sherwin Williams	(wall color)	
	PTD-2	Sherwin Williams	(trim color)	TBD
	PTD-3	Sherwin Williams	(accent color)	TBD
	PTD-4	Sherwin Williams	(ceiling & soffit color)	TBD
	00 DECKER 2			
Ceramic Tile	CT-1	DALTILE	DIGNITARY	NOTABLE BEIGE – TEXTURED
	CT-2	DALTILE	DIGNITARY	NOTABLE BEIGE – TEXTURED – BULLNOSE

BLDG. NORTH



encompass



203 UNIT FLOOR PLAN

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



UNIVERSAL DESIGN BUILDING PLAN NOTES THIS PROJECT HAS A TOTAL OF (21) UNIVERSAL DESIGN / HANDICAP (UD/HC) UNITS. (18) ONE BEDROOM AND (3) TWO BEDROOM UNITS.

ESSENTIAL ELEMENTS

ALL UD/HC UNITS AND AMENITIES COMPLY WITH THE 2022 VIRGINIA HOUSING UNIVERSAL DESIGN GUIDELINES - ESSENTIAL ELEMENTS 1-7 AND AS SPECIFICALLY DESCRIBED BELOW:

- 1. MOVEMENT
- a. ALL INTERIOR PASSAGEWAYS HAVE A MINIMUM 42" CLEAR WIDTH. b. UNIT BUILDING AND ENTRIES HAVE A CLEAR 60"x60" LEVEL FLOOR SPACE ON BOTH SIDES OF THE ENTRY DOOR WITH THE CLEAR FLOOR SPACE EXTENDING 18" PAST THE LATCH ON THE PULL SIDE OF THE DOOR.
- c. ALL INTERIOR DOORS HAVE A CLEAR FLOOR SPACE EXTENDING 18" PAST THE LATCH ON THE PULL SIDE OF THE DOOR. d. ALL PASSAGE DOORS TO ROOMS GREATER THAN 2'-0" DEEP ARE 36"
- WIDE (CLEAR OPENING WIDTH IS NOT LESS THAN 32") WITH A THRESHOLD LEVEL CHANGE NO GREATER THAN 1/2" (MAX 1/4" VERTICAL RISE AND 1/4" AT 1:2 SLOPE).
- e. UNIT ENTRY DOORS ARE 36" WIDE (CLEAR OPENING WIDTH IS NOT LESS THAN 32") WITH A THRESHOLD LEVEL CHANGE NO GREATER THAN 1/2" (MAX 1/4" VERTICAL RISE AND 1/4" AT 1:2 SLOPE). ALL UNITS PROVIDE CLEAR FLOOR SPACE IN FRONT OF ALL
- CONTROLS AS DELINEATED IN UNIVERSAL DESIGN GUIDELINES SECTION 3.1, CLEAR FLOOR SPACE. ALL OPERABLE PARTS WITHIN ALL UNITS ARE LOCATED WITHIN THE
- REACH RANGES AS DELINEATED IN UNIVERSAL DESIGN GUIDELINES SECTION 3.2, REACH RANGE.
- h. ALL CONTROL AND OPERATING MECHANISMS (PULL HANDLES, LATCHES, LEVERS, PUSH BUTTON LATCHSETS, ETC.) CAN BE OPERATED WITH ONE HAND AND DO NOT REQUIRE GRASPING AND DO NOT REQUIRE GREATER THAN 5 LBS TO OPERATE.
- ALL LATCHSETS ARE LEVER TYPE. PUSH BUTTON OPERATION ON PRIVACY LATCHSETS.
- ALL PLUMBING FIXTURES ARE LEVER TYPE.
- 2. KITCHEN
- a. CLEAR FLOOR SPACE IS PROVIDED AROUND ALL APPLICANCES IN COMPLIANCE WITH THE UD GUIDELINES SECTION4.1 - CLEAR FLOOR SPACE.
- b. ALL RANGES HAVE FRONT CONTROLS AND ARE SELF-CLEANING units.
- c. RANGE HOOD FAN AND LIGHT WILL BE SWITCHED SEPARATELY AND WILL COMPLY WITH REACH RANGE REQUIREMENTS.
- d. ALL REFRIGERATORS ARE SIDE-BY-SIDE UNITS WITH ALL CONTROLS WITHIN 54" A.F.F. e. ALL KITCHEN SINKS ARE 6" DEEP UNITS WITH REAR SET DRAINS. THE
- AREA BELOW THE SINK IS OPEN WITH THE EXCEPTION OF A REMOVABLE CONCEALMENT PANEL. THE FLOORING BELOW THE SINK EXTENDS TO A FINISHED WALL WITH BASE TRIM. ALL KITCHEN CABINET DOORS AND DRAWERS WILL HAVE PULL
- HANDLES COMPLYING WITH SECTION 4.6 CABINET HARDWARE g. KITCHEN SINK COUNTER & BATH LAV HEIGHT IS 34" AFF IN UD/HC UNITS.
- 3. BATHROOMS
- a. ALL UD BATHROOMS COMPLY WITH ANSI A117.1-2009, TYPE B-
- OPTION A.
- b. ALL FULLY HANDICAP UNITS (UD/HC UNITS) HAVE A ROLL-IN SHOWER COMPLYING WITH <u>UD GUIDELINES SECTION 5.2 BATHING AREAS</u>. c. THE SHOWER FIXTURES IN THE ROLL-IN SHOWERS COMPLY WITH UD
- GUIDELINES SECTION 5.3 SHOWER FIXTURES.
- 4. LAUNDRY CLOSETS

a. LAUNDRY CLOSETS WITHIN UNITS (WASHER AND DRYER NOT INCLUDED) ARE SIZED TO ACCOMMODATE SIDE BY SIDE PLACEMENT OF WASHER / DRYER UNITS AND COMPLY WITH CLEAR FLOOR SPACE REQUIREMENTS.

OPTIONAL ELEMENTS

OPTIONAL ELEMENTS PROVIDED INCLUDE THE FOLLOWING:

- 1. ALL EXTERIOR BUILDING ENTRIES ARE COVERED. 2. ALL SIGNAGE FOR THE PROJECT WILL COMPLY WITH 1.2 SIGNAGE
- OF THE OPTIONAL ELEMENTS. 3. ACCESS IS PROVIDED TO ALL COMMON AREAS FROM ALL UNITS VIA
- AN ACCESSIBLE PEDESTRIAN ROUTE. 4. A MINIMUM OF ONE FOOT CANDLE OF ILLUMINATION WILL BE PROVIDED AT ALL EXTERIOR PEDESTRIAN ROUTES AND AMENITIES.
- 5. ALL UD KITCHENS HAVE A 60" DIAMETER, UNENCUMBERED TURNING DIAMETER WITHIN THE KITCHEN BOUNDARY.
- 6. A FULL-LENGTH PANTRY CABINET, COMPLYING WITH 4.5 FULL LENGTH PANTRY CABINET WILL BE PROVIDED IN EACH UD KITCHEN. AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL HAVE A 60"
- DIAMETER UNENCUMBERED TURNING DIAMETER.
- 8. AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL BE PROVIDED
- WITH A ROLL-UNDER SKINK / VANITY TOP. 9. AT LEAST ONE FULL BATHROOM IN EACH UNIT WILL BE PROVIDED WITH A TILT / PIVOT STYLE MIRROR.
- 10. SOLID IN-WALL BLOCKING WILL BE INSTALLED IN WALLS AROUND THE TUB, TOILET AND SHOWER FOR NEW AND FUTURE GAB BARS AND SHOWER SEATS. BLOCKING WILL BE ABLE TO CARRY A 250 LB. LOAD. MOLDED SHOWER SURROUNDS WILL HAVE AN INTEGRAL PLYWOOD BACKING, OR , REINFORCING WILL BE PROVIDED BETWEEN SURROUND AND WALL BLOCKING AT SHOWER / TUB GRAB BAR AND SEAT LOCATIONS.
- 11. ALL APARTMENTS WILL HAVE NON-GLARE LIGHTING AND WILL
- COMPLY WITH UD 5.4. 12. ALL APARTMENTS WILL HAVE HANDHELD SHOWERHEADS AND WILL COMPLY WITH UD 5.6

PLAN NOTES:

- 1. SEE SHEET UD1.1, UNIVERSAL DESIGN SITE PLAN FOR BUILDING AND UNIT LOCATIONS, ACCESSIBLE ROUTES, ACCESSIBLE PARKING AND ACCESSIBLE SITE AMENITIES.
- 2. SEE THIS SHEET FOR ACCESSIBILITY INTO THE BUILDING.
- 3. SEE UD1.3 FOR UNIVERSAL DESIGN UNIT PLANS. 4. SEE UNIVERSAL DESIGN SECTION IN PROJECT MANUAL FOR MORE DETAILED REQUIREMENTS.





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

|| ST

- CONTRACTOR TO FURNISH AND INSTALL COUNTERS AND CABINETRY SPECIFIED OR EQUAL AS DETERMINED BY ARCHITECT. CABINETS TO BE KRAFTMAID CABINETRY - ALL PLAIN SLICED MAPLE VENEER WITH SQUARE RECESSED PANEL SHAKER 5 FULL DOORS. NATURAL FINISH COLOR. HARDWARE: STAINLESS STEEL 7-1/2" PULL SIM. TO WICKER REVIEW.
- CABINETS TO HAVE (3) ADJUSTABLE SHELVES. 36" HIGH WALL CABINETS TO HAVE (2) ADJUSTABLE SHELVES ALIGN BASE & WALL CABINETS WIDTHS VERTICALLY. PROVIDE
- DEGREE DOOR OPENING.
- PANELS. PROVIDE ALL PLYWOOD CONSTRUCTION UPGRADE. MDF TO BE RECYCLED WITH NO ADDED UREA-FORMALDEHYDE, FSC CERTIFIED OR LOCAL SPECIES.
- UNIT COUNTERTOPS & DESKTOPS TO BE 1-1/4" THICKNESS HIGH PRESSURE LAMINATE COLOR AS INDICATED OR SELECTED BY OWNER W/ CONTINUOUS PRE-FORMED BACKSPLASH & MATCHING SIDE SPLASH & EASED FRONT EDGES. MAKE COUNTERTOPS IN AS LONG A LENGTH AS PRACTICAL & PROVIDE SUPPORT UNDER AWI CUSTOM GRADE. MDF TO BE RECYCLED WITH NO ADDED
- BLOCKING NECESSARY FOR A COMPLETE INSTALLATION. AS A MINIMUM, PROVIDE TOP AND BOTTOM OF ALL WALL CABINETS.
- COUNTERS WITH RECEPTACLES BELOW COUNTER HEIGHT.



HOUSING'S MINIMUM CABINET REQUIREMENTS:

- OR PROVIDE A MINIMUM SPACING OF 12 INCHES BETWEEN WALL AND
- MINIMUM OF 12 INCHES BETWEEN CABINET AND CEILING/SOFFITS. MINIMUM OF FOUR WASHER HEAD CABINET SCREWS; TWO IN EACH UPPER AND LOWER NAILING STRIP FOR EACH WALL

- COVERED BY ESCUTCHEON PLATES.
- 15-INCH-WIDE.

- MINIMUM 20-INCH-WIDE RANGE. PROVIDE MAXIMUM 24-INCH-WIDE RANGE
- ALL COOKING RANGES.
- REFRIGERATORS ARE TO BE 12 CUBIC FEET FOR STUDIO/EFFICIENCY APARTMENTS, 14 CUBIC FEET FOR 1 AND 2 BEDROOM APARTMENTS, AND 16 OPEN FULLY OR HAVE AT LEAST 12" OF CABINETRY BETWEEN AN ADJACENT SIDFWALL
- OR FULL-SIZE STACK TYPE WASHERS AND DRYERS. IN ALL UNITS. WHEN PROVIDED, LAUNDRY EQUIPMENT AND CONNECTIONS SHALL BE INSTALLED IN A CLOSET WITH DOORS IN A LOCATION OTHER THAN A BEDROOM. OTHERWISE, PROVIDE ONSITE LAUNDRY FACILITIES.











-EASED EDGES & CORNERS

- PTD. STL. ADA WORK STATION

-CONT. BACK & SIDE

SPALSH

	DEVICE	MFG.	DESCRIPTION	MODEL	COLOR	ENER
	GROUND FLOOR					
	REFRIGERATOR	GE	18 CF SIDE-BY-SIDE W/ ICEMAKER (ADA)	BY OWNER	STAINLESS / BLACK	YES
	 DISHWASHER	GE	BUILT-IN DISHWASHER (ADA)	BY OWNER	SS/ BLACK	YES
Š						
Щ						
$ \bigcirc$	APARTMENT UNITS	1				
	REFRIGERATOR	GE	18 CF SIDE-BY-SIDE W/ ICEMAKER (ADA)	-	BLACK	YES
РРГ	RANGE/ OVEN	GE	30" SLIDE IN ELECTRIC RANGE & OVEN - FRONT CONTROLS	JS250DFBB	BLACK	YES
∢	DISHWASHER	GE	BUILT-IN DISHWASHER (ADA)	GLDT690JBB	BLACK	YES
	DISPOSAL	GE	1/2 HP CONTINUOUS FEED	6FC52SV	BLACK	NO
	MICROWAVE	GE	COUNTER TOP MICROWAVE	PEM31DFBB	BLACK	YES
	RANGE HOOD	GE	30" VENTED HOOD W/ LIGHT & TWO SPEED FAN, SUPPRESSION CANISTER, REMOTE SWITCH	JVX5305DJBB	BLACK	YES
	 WASHER	WHIRLPOOL	4.5 CF ADA FRONT LOAD ON RISER	WFW5605MW	WHITE	YES
	DRYER	-	SEE MECHANICAL M0.2	BY CONTRACTOR	WHITE	YES

UNIT APPLIANCE NOTES:

1. SCHEDULED APPLIANCES ARE SUBJECT TO AVAILABILITY. EQUAL ALTERNATE PRODUCTS MAY BE SUBMITTED FOR REVIEW. ALL KITCHEN APPLIANCES TO BE MATCHING COLOR AND DESIGN BY SAME MANUFACTURER. BEFORE ORDER, FIELD VERIFY ALL DIMENSIONS & INSTALLATION REQUIREMENTS AND PROVIDE APPLIANCES TO FIT IN

THE ACTUAL AVAILABLE SPACE. 3. PROVIDE ALL ACCESSORIES NECESSARY FOR COMPLETE ADA INSTALLATION, INCLUDING CONNECTIONS, CORDS, HOSES, FITTINGS & ADA BASE STANDS FOR WASHER & DRYERS.

4. U.N.O., OR PERMITTED BY VHDA AND FUNDING SOURCES, ALL APPLIANCES TO BE ENERGY STAR CERTIFIED.

5. PROVIDE ADA DRYERS WITH VENTING CAPACITY BASED ON ACTUAL LENGTH AND CONFIGURATION OF DRYER VENT. IF POSSIBLE, MATCH WASHING MACHINE TO DRYER WITH SAME MANUFACTURER.





1. STANDARD VDOT GALVANIZED STL. WELDED & SHOP

2. DESIGN FOR LOADS INDICATED IN STRUCTURAL

3. 1-1/2"Ø O.D. RAIL - RETURN ALL HANDRAILS TO

4. SHOP FABRICATE IN AS LONG SECTIONS AS POSSIBLE,

CONDITIONS BEFORE FABRICATION & PROVIDE

PROVIDING EXPANSION JOINTS TO ACCOMMODATE

THERMAL MOVEMENT. FIELD VERIFY ALL EXISTING

DETAILED SHOP DRAWINGS FOR REVIEW PRIOR TO

03 TYPICAL EXTERIOR RAIL DETAIL SCALE: 1-1/2" = 1'-0"

ADJACENT WALL OR GUARDRAIL POST.

PITTED SURFACES.

FABRICATION.

APPLIED CONCURRENTLY.

PAINTED ALL SURFACES INCLUDING UNDERSIDE OF MOUNTING PLATES. GROUND WELDS SMOOTH & FILL

DRAWINGS OR MIN. 50 PLF UNIFORM LOAD IN ANY

DIRECTION OR 200 LB CONCENTRATED LOAD APPLIED

IN ANY DIRECTION. LOADS ARE NOT ASSUMED TO BE



WEST STAIR - 2ND FLOOR SCALE: 1/4" = 1'-0"



WEST STAIR - 1ST FLOOR SCALE: 1/4" = 1'-0"



02 WEST STAIR - GROUND FLOOR SCALE: 1/4" = 1'-0"



















NOTE: DETAILS ON THIS SHEET ARE TYPICAL FOR THE PRIMARY SPECIFIED MANUFACTURER AND ARE PROVIDED TO COMMUNICATE DESIGN INTENT FOR TYPICAL CONDITIONS. FINAL PROJECT DETAILS ARE TO BE SUBMITTED TO ALLOW SYSTEM TO COMPLY WITH SPECIFIC PROJECT CONDITIONS AS SHOWN ON BUILDING SECTIONS AND MANUFACTURER WARRANTY REQUIREMENTS.

A3.2

ROOF PLAN & DETAILS

DA

NOTED

2030

09-24-24

REVISIONS:

DRAWN:

SCALE: DATE

CHECKED:

PROJECT #:

















SCALE: N.T.S.

-MTL. DRIP EDGE

-CONT. GUTTER W/ GUTTER SUPPORTS @ 32" OC MAX.

- PRE-FINISHED FASICA ON CONT. 2X8

- VINYL VENTED SOFFIT

- 5/4x12 TRIM ON 2X4 FRAMING

-FIBER-CEMENT PANEL ON 2X4 FRAMING

-CONT. GUTTER W/ GUTTER

Ζ \supset \sim ⊢ S Z $\left(\right)$ \sim \bigcirc SANDERS ARCHITECTURE PC 16125 RACCOON FORD RD CULPEPER, VIRGINIA 22701 (v)540-829-2590 S RTMEN ENCOMPASS COMMUNITY SUPPORTS | ROAD 22960 \checkmark Δ \triangleleft ∢ \square \sim DISON 154 OR Σ DEX A. SANDERS Lic. No. 8814 09-24-24 ARCHIT **REVISIONS:** DRAWN: CHECKED: DAS SCALE: NOTED 09-24-24 DATE: PROJECT #: 2030 SECTIONS & DETAILS A5.5

encompass







INTERIOR HOLLOW METAL WINDOW FRAMES: 2" x MATCH WALL THICKNESS W/ DRYWALL RETURNS. PROVIDE REMOVABLE GLASS STOPS & NEOPRENE GLASS SEATING TO SUPPORT GLASS WITHOUT RATTLING. MOUNT FRAMES TO MATCH TOP OF ADJACENT DOOR FRAMES



WINDOW NOTES

- 1. FENESTRATION AIR LEAKAGE MUST BE NO MORE THAN 0.3 CFM / SF FOR WINDOWS AND 0.5 CFM / SF FOR SWINGING DOORS
- 2. WINDOWS MUST BE ENERGY STAR RATED 3. OPENING LIMITERS SHALL BE PROVIDED WHERE THE SILL OF AN OPERABLE WINDOWS IS LESS THAN 24" ABOVE THE FINISHED FLOOR AND MORE THAN 72" ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW. A LIMITED SHALL BE INSTALLED ON THE OPERABLE SASH TO PREVENT THE PASSAGE OF A 4" DIAMETER SPHERE THROUGH THE WINDOW OPENING.
- 4. WINDOWS ARE TO HAVE A MINIMUM 3/4" INCH INSULATED GLASS. PROVIDE A MINIMUM 10-YEAR MATERIAL WARRANTY FOR WINDOWS. INSULATING GLASS IS TO HAVE A MINIMUM 10-YEAR WARRANTY FOR BREAKAGE OF SEAL. PROVIDE THERMAL BREAK FOR ALUMINUM FRAMES. INSTALL AND FLASH PER MANUFACTURER'S SPECIFICATIONS. PROVIDE SAMPLE INSTALLATION. 5. PROVIDE NFRC CERTIFIED EXTERIOR DOORS & WINDOWS WITH LABEL.
- PROVIDE TEMPERED GLASS AT ALL LOCATIONS REQUIRED BY THE 2018 VCC. 7. PROVIDE INSECT SCREENS AT ALL OPERABLE WINDOWS. SCREEN SHALL HAVE A MESH WITH NO LESS THAN 16 MESH PER INCH. SCREENS AND FRAMES SHALL MATCH WINDOWS.
- 8. PROVIDE AUTO-LOCKS WITHIN ALL ACCESSIBLE DWELLING UNITS TO MAKE WINDOWS OPERABLE WITHIN HC REACH RANGES.
- 9. PROVIDE 1", WHITE OPERABLE MINI-BLINDS WITH 6-GAUGE ALUMINUM ALLOY SLATS, POLYESTER BAKED COATING, CORDLESS LIFT SYSTEM SIZED TO FIT WINDOW WIDTH AND LENGTH AT ALL RESIDENTIAL UNIT WINDOWS. INSTALL BLINDS FLUSH WITH INTERIOR WALL FACE & SECURELY FASTEN TO WINDOW HEAD. BLINDS EQUAL TO 1 INCH MINI BLINDS BY BLINDS.COM - SUBMIT MANUFACTURER'S PRINTED COLOR CHART FOR SELECTION.

EARTHCRAFT GOLD MINIMUM VALUES

INTERIOR CORRIDOR ENTRY DO
EXTERIOR ENTRY DOOR
door W/ <50% Glass
door W/ >50% Glass
WINDOWS

OOR <0.21 U-VALUE <0.21 U-VALUE <0.27 U-VALUE / < 0.27 SHGC <0.32 U-VALUE / < 0.27 SHGC <0.32 U-VALUE / < 0.27 SHGC





4. PROVIDE (3) SILENCERS TYP. AT EACH INTERIOR DOOR IN HOLLOW METAL FRAME ON THE LATCHING SIDE.

5. ALL RESIDENTIAL UNIT ENTRY DOORS TO HAVE SINGLE LEVER THUMB TURN DEADBOLT & (2) EYE VIEWERS - 42" & STANDARD HEIGHT.

6. ALL EXTERIOR DOORS TO BE EITHER INSULATED FIBERGLASS OR INSULATED METAL.

DOO	۲	DOO	۲	1	1	FRAME						REMARKS	Community Supports
NO.	SIZE W X H X T	MAT'L	FIN	TYPE	LOUVER	MAT'L	FIN	DETAIL HEAD / JAMB	THRES	U. L. LABEL	HDW SET		
FX-1	EXTERIOR PR. 3'-0''x7'-0''x1-3/4''	НМ	PTD	A		НМ	PTD	H3/J3				PANIC EXIT. ENTRANCE LOCKSET. ADA CLOSER, KICK PL, ELECTRIC STRIKE	_
EX-2	3'-0''x7'-0''x1-3/4''	HM	PTD	B	-	НМ	PTD	H3/J3	T4	-	-	PANIC EXIT, ENTRANCE LOCKSET, ADA CLOSER, KICK PL., ELECTRIC STRIKE	
EX-3	PR. 3'-0"x7'-0"x1-3/4"	HM	PTD	Α	-	НМ	PTD	H3/J3	T4	-	-	PANIC EXIT, ENTRANCE LOCKSET, ADA CLOSER, KICK PL., ELECTRIC STRIKE	
EX-4	3'-0''x7'-0''x1-3/4''	HM	PTD	В	-	НМ	PTD	H3/J3	T4	-	-	PANIC EXIT, EXTERIOR LOCKSET, ADA CLOSER, KICK PL.,	
EX-5	3'-0"x6'-8"x1-3/4"	HM	PTD	A	-	HM	PTD	H3/J3	T4	-	-	PANIC EXIT, ENTRANCE LOCKSET, ADA CLOSER, KICK PL, ELECTRIC STRIKE	_
<u>,</u>	GROUND FLOOR												
B01	3'-0''x7'-0''x1-3/4''	WD	STN	В	-	HM	PTD	H1/J1 SIM.	-	-	-	PASSAGE LATCHSET, NO CLOSER, KICKPL	
B01A	PR. 2'-6" x 7'-0"x1-3/4"	WD	STN	C	-	HM	PTD	H1/J1	T1	-	-	LOCKSET, NO CLOSER, HEAD & FOOT BOLTS INACTIVE LEAF, SOUND SEALS	
B02	3'-0"x/'-0"x1-3/4"	WD	SIN	C	3/4" U/C	HM		HI/JI	-	-	-		
B03 B04	3'-0"x7'-0"x1-3/4"	WD	STN	C	3/4" U/C	HM	PTD	H1/J1			_	PRIVACY LOCKSET, CLOSER, KICKPL	$ \square$ \square
B05	3'-0''x7'-0''x1-3/4''	WD	STN	D	-	НМ	PTD	H1/J1	_	_	_	ELEC. LOCKSET, CLOSER, KICKPL, ACCESS CONTROL	
B06	3'-0''x7'-0''x1-3/4''	WD	STN	D	-	НМ	PTD	H1/J1	-	-	-	OFFICE LOCKSET, NO CLOSER, KICKPL	
B06A	3'-0"x7'-0"x1-3/4"	WD	STN	D	-	НМ	PTD	H1/J1	-	-	-	OFFICE LOCKSET, NO CLOSER,	<u> </u>
B07	3'-0"x7'-0"x1-3/4"	WD	STN	D	-	HM	PTD	H1/J1	-	-	-	OFFICE LOCKSET, NO CLOSER, KICKPL	
B08	3'-0''x7'-0''x1-3/4''	WD	STN	D	-	HM	PTD	H1/J1	-	-	-	PASSAGE LATCHSET, NO CLOSER, KICKPL	
BU8A	3'_0''v7'_0''v1_3/4"	WD	SIN STNI		-	НМ		ні/Јі	-	-	-		
BOOD BOOD	3'-0" x 7'-0"x1-3/4"	WD	STN	C.	- 3/4" U/C	HM	PTD	H1/J1	-	-	-	LOCKSET, NO CLOSER	
B10	3'-0"x7'-0"x1-3/4"	WD	STN	D		HM	PTD	H1/J1		-	-	OFFICE LOCKSET, NO CLOSER, KICKPL	
B11	3'-0''x7'-0''x1-3/4''	WD	STN	D		НМ	PTD	H1/J1		-	-	OFFICE LOCKSET, NO CLOSER, KICKPL	
B12A	3'-0''x7'-0''x1-3/4''	WD	STN	E	-	HM	PTD	H1/J1	-	-	-	PANIC EXIT, CLOSER, KICKPL - ELEC. STRIKE	
B12	3'-0"x7'-0"x1-3/4"	WD	STN	D	-	НМ	PTD	H1/J1	-	-	-	OFFICE LOCKSET, NO CLOSER, KICKPL	
B13	3'-0''x7'-0''x1-3/4''	WD	STN	D	-	HM	PTD	H1/J1	-	-	-	PASSAGE LATCHSET, NO CLOSER, KICKPL	
B14	3'-0"x7'-0"x1-3/4"	WD	STN	D	-	HM	PTD	H1/J1	-	-	-	PASSAGE LATCHSET, NO CLOSER, KICKPL	_
B15	3'-0"x7'-0"x1-3/4"	WD	STN	D	-	HM	PTD	H1/J1	-	-	-	OFFICE LOCKSET, NO CLOSER, KICKPL	_
B16	3-0 X/ -0 XI-3/4	WD	51N 51N		-	НМ		HI/JI	-	-	-		_
B17	3'-0''x7'-0''x1-3/4''	WD	STN	D	_	HM	PTD	H1/J1			_	OFFICE LOCKSET, NO CLOSER, KICKPL	_
B18A	PR. 3'-0" x 7'-0"x1-3/4"	WD	STN	С	3/4" U/C	НМ	PTD	H1/J1	_	_	_	LOCKSET, NO CLOSER, HEAD & FOOT BOLTS INACTIVE LEAF, KICKPL	
B19	3'-6''x7'-0''x1-3/4''	WD	STN	С	3/4" U/C	НМ	PTD	H1/J1	-	-	-	PANIC EXIT, STOREROOM LOCKSET, CLOSER W/ HOLD OPEN, , KICKPL	
B20	3'-0"x7'-0"x1-3/4"	WD	STN	С	3/4" U/C	HM	PTD	H1/J1	-	-	-	PRIVACY LOCKSET, CLOSER, KICKPL	
B21	3'-0"x7'-0"x1-3/4"	WD	STN	С	3/4" U/C	HM	PTD	H1/J1	-	-	-	PRIVACY LOCKSET, CLOSER, KICKPL	
B22	3'-6"x7'-0"x1-3/4"	WD	STN	E	-	HM	PTD	H1/J1	-	-	-	PANIC EXIT, LOCKSET, CLOSER, KICKPL, ELECTRIC STRIKE	
B23	3'-0''x7'-0''x1-3/4''	HM		F	-	НМ	PID	-	- T4	90 MIN	-	PANIC EXIT / LATCHSET, CLOSER, KICKPLATE, SMOKE SEAL	
B24	3'-6"x7'-0" ELEVR.	MTL	MFG	-	_	HM	PTD.	_	-	60 MIN.	_	DOOR BY ELEVR. MFG.	
	1ST FLOOR												16125 RACCOON FORD RE
101	3'-0"x7'-0"x1-3/4"	HM	PTD	E	-	HM	PTD.	-	T4	90 MIN.	-	PANIC EXIT / LATCHSET, CLOSER, KICKPLATE, SMOKE SEAL	(v)540-829-2590
102	3'-6"x7'-0" ELEVR.	MTL	MFG	-	-	HM	PTD.	-	-	60 MIN.	-	DOOR BY ELEVR. MFG.	_
103	3-0 X6-8 X1-3/4	НМ		E	-	НМ	PID.	-	14	90 MIN.	-	PANIC EXIT / LATCHSET, CLOSER, NICKPLATE, SMOKE SEALS, INSUL. DOOR	_
104					0/4 0/0		110.						
	2ND FLOOR												_ s Z
201	3'-0''x7'-0''x1-3/4''	HM	PTD	E	-	HM	PTD.	-	T4	90 MIN.	-	PANIC EXIT / LATCHSET, CLOSER, KICKPLATE, SMOKE SEAL	
202	3'-6"x7'-0" ELEVR.	MTL	MFG	-	-	HM	PTD.	-	-	60 MIN.	-	DOOR BY ELEVR. MFG.	° Σ
203	3'-0"x6'-8"x1-3/4"	HM	PTD	E	-	HM	PTD.	-	T4	90 MIN.	-	PANIC EXIT / LATCHSET, CLOSER, KICKPLATE, SMOKE SEAL, INSUL. DOOR	
204	3-U X6-8 XI-3/4" 3'-0"x6'-8"v1-3/4"	НМ	PTD	C C	3/4" U/C	НМ	PID.	-	-	-	-	LEVER LOCKSET, NO CLOSER, KICKPLATE	SL SL
200	0.0.00.01-0/4	11/V1				11/71							²²³ ⁸ b ∃
	3RD FLOOR												
301	3'-0''x7'-0''x1-3/4''	HM	PTD	E	-	HM	PTD.	-	T4	90 MIN.	-	PANIC EXIT / LATCHSET, CLOSER, KICKPLATE, SMOKE SEAL	
302	3'-6"x7'-0" ELEVR.	MTL	MFG		-	HM	PTD.	-	-	60 MIN.	-	DOOR BY ELEVR. MFG.	$ \stackrel{\scriptstyle \leftarrow}{\scriptstyle >} \sum \overline{\mathbf{A}} \stackrel{\scriptstyle \leftarrow}{\scriptstyle >} \sum $
303	3'-0"x6'-8"x1-3/4"	HM	PTD	E	-	HM	PTD.	-	T4	90 MIN.	-	PANIC EXIT / LATCHSET, CLOSER, KICKPLATE, SMOKE SEAL, INSUL. DOOR	
304	3'-0"x6'-8"x1-3/4"	НМ	PTD	C C	3/4" U/C	НМ	PTD.			-		LEVER LOCKSET, NO CLOSER, NORFLATE	
					-,, -								DRA 2 AS
													$ \stackrel{A}{=} \bigcup_{4}$
			חדק	<u> </u>			רוזק	L1/11	ТА	20 64161			$\overline{\mathbf{v}}$ $\overline{\mathbf{v}}$
U-1 11_2	3'-0"x6'-8"x1-3/4			F	-			Н1/Л	14 T2	∠∪ <i>I</i> MIN.	-	PRIVACY LOCKSET SCHILLTER ADA FLOOR TRANSITION STRIP	- ¥ 0
U-3	3'-0"x6'-8"x1-3/8"	WD	PTD	F	3/4" U/C	WD	PTD.	H2/J2	-	-	-	PRIVACY LOCKSET	│ │ ^Ш ◀
U-4	PR. 2'-6" x 6'-8" x 1-3/8"	WD	PTD	F	3/4" U/C	WD	PTD.	H2/J2		-	-	FIXED LEVER / FRICTION LATCH BOTH LEAFS	
U-5	PR. 1'-6"x6'-8"x1-3/8"	WD	PTD	F	3/4" U/C	WD	PTD.	H2/J2	-	_	-	FIXED LEVER / FRICTION LATCHSET BOTH LEAFS	
U-6	PR. 2'-0" x 6'-8" x 1-3/8"	WD	PTD	G	3/4" U/C	WD	PTD.	H2/J2	-	-	-	LEVER LATCHSET, HEAD & FOOT BOLTS INACTIVE LEAF (AHU SIDE)	











3RD FLOOR PLAN SCALE: 1/8" = 1'-0"



2ND FLOOR PLAN SCALE: 1/8" = 1'-0"

BLDG. NORTH



1.	GEN	NERAL
1.1	DES	CRIPTION OF WORK:
	Α.	ALL FIXTURES, EQUIPMENT, ACCESS PROVIDE COMPLETE, COORDINATED, GENERALLY AS INDICATED ON THE 1. HEATING SYSTEM 2. COOLING SYSTEM 3. VENTILATION SYSTEM 4. EXHAUST SYSTEMS 5. DRYER VENT SYSTEMS
1.2	REL/	ATED DOCUMENTS:
	Α.	THE REQUIREMENTS OF THE CIVIL, ELECTRICAL DRAWINGS AND SPECIF A PART OF THE HVAC WORK IN-S WORK AND ARE REQUIRED FOR CO
1.3	JOB	CONDITIONS:
	Α.	DUE TO THE SMALL SCALE OF THE ALL OFFSETS, FITTINGS AND ACCES A COMPLETE INSTALLATION OF THE
	в.	PROVIDE FITTINGS, OFFSETS, TRANS REQUIRED TO MEET CONDITIONS OF
	C.	PROVIDE SERVICE ACCESS FOR EQUAND SPECIALTIES.
	D.	PROVIDE ACCESS PANELS FOR VAL FINISHED SURFACES.
	E.	MODIFY DUCT DIMENSIONS AS REQU STRUCTURE OR OTHER WORK AT N TO THE OWNER. MAINTAIN EQUIVA
1.4	CON	FORMANCE TO REGULATIONS:
	A.	WORK SHALL CONFORM WITH VIRGINNER, AND LOCAL ORDINANCES.
	В.	COMPLY WITH EARTHCRAFT, UNIVER ENERGY READY HOMES, GUIDELINES
1.5	QUA	LITY ASSURANCE:
	Α.	COMPLY WITH MANUFACTURER'S RE SHOWN HEREIN FOR INSTALLATION
	В.	COMPLY WITH RECOMMENDATIONS (
1.6	ΜΑΤ	ERIALS AND EQUIPMENT:
	Α.	EQUIPMENT PROVIDED FOR THIS PR SPECIFIED.
	В.	CONTRACTOR SHALL GUARANTEE E MODIFICATIONS REQUIRED AND COO SUBSTITUTED PRODUCT INTO THE F
	C.	MATERIALS AND EQUIPMENT OF TH SINGLE MANUFACTURER.
	D.	PROTECT STORED MATERIALS AND
	E.	IF HVAC EQUIPMENT IS OPERATED TEMPORARY FILTERS TO PROTECT
1.7	SUB	MITTALS:
	Α.	SUBMIT SHOP DRAWINGS AND PROI SPECIFIED HEREIN AND ON THE DR SHALL BE IDENTIFIED PER INDICATI INDICATED SPECIFIC ITEM BE PROP ORDERLY MANNER. SUBMIT IN .PD
	В.	SUBMIT OPERATING AND MAINTENA INSTALLED IN THIS PROJECT. INCL WARRANTIES IN MANUAL.
	C.	UPON COMPLETION OF THE INSTALL OWNER, CONTRACTOR SHALL FURN DOCUMENTATION. ALL CHANGES T AND CLEARLY IDENTIFIED ON THE
1.8	PRO	JECT CLOSEOUT:
	A.	REPLACE OR REPAIR DAMAGED EQU
	в.	TOUCH-UP SHOP APPLIED FINISHE
	C.	INSTRUCT OWNER'S REPRESENTATIVE EQUIPMENT UTILIZING OPERATION A INSTRUCTION PERIOD SHALL BE TW
	D.	REPLACE FILTERS IN AIR HANDLING OF PROJECT TURNOVER TO OWNER
	E.	VACUUM INTERIORS OF DUCTWORK

ESSORIES, MATERIALS, AND LABOR REQUIRED TO ED, AND FULLY FUNCTIONAL HVAC SYSTEMS THE DRAWINGS AND AS SPECIFIED HEREIN.

VIL, ARCHITECTURAL, STRUCTURAL, PLUMBING AND ECIFICATIONS SHALL APPLY TO AND BE CONSIDERED N-SO-FAR AS THEY APPLY TO THE HVAC COORDINATION.

THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE CESSORIES WHICH MAY BE REQUIRED TO PROVIDE THE WORK DESCRIBED AND INDICATED.

ANSITIONS, CONTROL TRANSFORMERS AND ACCESSORIES OF THE PROJECT.

EQUIPMENT, CONTROL COMPONENTS, VALVES, FILTERS

VALVES, ACCESS DOORS, ETC. CONCEALED BEHIND

EQUIRED BY BUILDING T NO ADDITIONAL COSTS JIVALENT FREE AREA SIZES.

RGINIA UNIFORM STATEWIDE BUILDING CODE,

IVERSAL DESIGN, ENERGY STAR, AND ZERO INES AND REQUIREMENTS FOR INSTALLATION OF WORK.

REQUIREMENTS AND NOTES AND DETAILS

NS OF SMACNA AND ASHRAE.

PROJECT SHALL BE EQUIVALENT TO PRODUCTS

E EQUIVALENCE AND IS RESPONSIBLE FOR COORDINATION WITH OTHER TRADES TO FIT IE PROJECT.

THE SAME TYPE AND USE SHALL BE FROM A

ND EQUIPMENT FROM WEATHER.

ED DURING CONSTRUCTION, PROVIDE

PRODUCT DATA FOR EQUIPMENT DRAWINGS. SHOP DRAWINGS AND PRODUCT DATA CATIONS ON DRAWINGS, SHALL BE MARKED TO ROPOSED, AND SHALL BE ORGANIZED IN AN .PDF FORMAT VIA EMAIL.

ENANCE MANUALS FOR EACH PIECE OF EQUIPMENT INCLUDE COPIES OF SPECIFIC EQUIPMENT

TALLATION, AND PRIOR TO ACCEPTANCE BY THE JRNISH TWO COPIES OF AS-BUILT IS TO THE BIDDING DOCUMENTS SHALL BE NEATLY HE AS-BUILT DOCUMENTATION.

EQUIPMENT AND CLEAN ALL EXPOSED SURFACES. SHES TO RESTORE DAMAGED OR SOILED AREAS.

ATIVE IN OPERATION AND MAINTENANCE OF N AND MAINTENANCE MANUAL. MINIMUM TWO HOURS.

ING EQUIPMENT AT TIME

VACUUM INTERIORS OF DUCTWORK AND EQUIPMENT WHICH BECOMES DIRTY, PRIOR TO PROJECT TURNOVER TO OWNER. CLEAN ANY DIRTY EQUIPMENT COILS.

- 2. PRODUCTS
 2.1 PIPING SYSTEMS:
 - A. CONDENSATE DRAIN SCH. 40 PVC WITH SOLVENT WELD FITTINGS
 - B. REFRIGERANT TYPE C&C OR ARC COPPER, SILVER SOLDER FITTINGS.

HVAC SPECIFICATIONS

- 2.2 HVAC EQUIPMENT:
- A. REFER TO SCHEDULE SHEETS AND EQUIPMENT LIST FOR MANUFACTURERS AND MODEL NUMBERS.
- B. ALTERNATE MANUFACTURER'S ARE: LENNOX, YORK, MCQUAY, TITUS, CARRIER, SANYO, MITSUBISHI, TRANE, COOK, CARNES, TWIN CITY, ACME, METALAIRE
- C. PROVIDE MINIMUM MERV 8 RETURN AIR FILTERS FOR AIR HANDLING EQUIPMENT.
- 2.3 AIR DISTRIBUTION:
 - A. METAL DUCTWORK: SHOP FABRICATED AS FOLLOWS.
 - MATERIALS: GALVANIZED STEEL SHEET, ASTM A 527-85.
 CONSTRUCTION: PER SMACNA HVAC DUCT CONSTRUCTION STANDARDS
 - FOR LOW PRESSURE SYSTEM UP TO 2" W.C. CONSTRUCTION. 3. JOINT SEALANT: UL LISTED FOSTER MASTIC, HARDCAST FTA-20, KINGCO 18-136.
 - JOINT SEALANT: UL LISTED FOSTER MASTIC, HARDCAST FTA-20, KINGCO
 SUPPLY AIR BRANCH DUCTS RUN IN CONCEALED AREAS MAY BE PRE-INSULATED, UL CLASS 1, FLEXIBLE DUCT - LIMIT LENGTH TO TEN
 - FEET USE RIGID DUCT FOR REMAINDER OF RUNOUT.
 5. DRYER VENT SHALL BE RIGID GALVANIZED STEEL WITH LONG RADIUS ELBOWS AND NO SCREWS PROTRUDING INTO VENT. USE RIVETS AT JOINT AND FITTING CONNECTIONS. USE FLEXIBLE METAL VENT AT CONNECTION TO DRYER. MINIMUM THICKNESS OF VENT TO BE 26 GAUGE. FIRESTOP VENT PENETRATIONS THRU
 - FIRE RATED CONSTRUCTION PER ULC-AJ7063.
 6. WALL CAP SHALL BE ALUMINUM CONSTRUCTION WITH BACKDRAFT DAMPER, BIRDSCREEN (1/4" MESH) AND HOOD. COLOR TO MATCH BUILDING FINISHES.
 - B. DAMPERS AS MANUF. BY RUSKIN, CESCO, ARROW, CREATIVE METALS, PREFCO
 1. VOLUME DAMPERS SHALL BE GALVANIZED STEEL, 16 GAUGE, BLADE HEIGHT SHALL NOT EXCEED 12". DAMPER LINKAGE AND LOCKING QUADRANT SHALL BE OUTSIDE OF AIRSTREAM.
 - 2. MOTORIZED DAMPERS REFER TO EQUIPMENT LIST ON DRAWINGS.
 - 5. FIRE DAMPERS SHALL BE UL LISTED TYPE 'B' WITH BLADE POCKET OUTSIDE OF AIRSTREAM, DYNAMIC TYPE WITH 212F RATED LINK, POTTORF OR EQUAL. DAMPERS IN CEILING TO BE RADIATION TYPE WITH THERMAL BLANKET. SECURE DAMPER TO STRUCTURE SO IN CASE OF DUCT COLLAPSE, DAMPER WILL REMAIN INTACT IN FIRERATED ASSEMBLY. PROVIDE INSTALLATION INSTRUCTIONS ON SITE FOR INSPECTORS.
 - C. ACCESS DOORS –
 1. FACTORY BUILT WITH SASH LOCKS, BUTT HINGE, GASKET, 24 GA. DOOR AND 22 GA. FRAME.
 - 2. ACCESS DOOR IN INSULATED DUCT SHALL BE DOUBLE
 - CONSTRUCTION, WITH INSULATION ENCASED. 3. MINIMUM SIZE TO BE 75% SIZE OF DUCT IN WHICH INSTALLED, OR 10" X 10".
 - 4. CESCO MODEL HAD-10, LOUVERS AND DAMPERS, KEES, INC. OR AIR BALANCE.
- 2.4 CONTROLS:
 - A. PROVIDE ALL RELAYS, TRANSFORMERS, CONTROL WIRING,
 - TERMINAL BLOCKS, ETC. FOR A COMPLETE SYSTEM. 1. COMPONENT MANUFACTURER'S AND MODEL NUMBERS AS SPECIFIED ON DRAWINGS.
 - B. THE WARRANTY PERIOD SHALL COMMENCE AFTER 60 DAYS OF BENEFICIAL USE, MEASURED FROM THE DATE OF ACCEPTANCE FROM THE OWNER.
- 3. EXECUTION
- 3.1 PIPING SYSTEMS:
- A. VERIFY INVERT ELEVATIONS PRIOR TO EXCAVATION.
- B. BACKFILL BURIED PIPE IN TRENCHES WITH DIRT FREE OF ROCK, STONE OR DEBRIS.
- C. VERIFY EXACT LOCATION OF EQUIPMENT PRIOR TO ROUGH-IN.
- D. COORDINATE ROUTING OF WORK WITH OTHER TRADES AND INSTALL TO ALLOW MAXIMUM HEADROOM CLEARANCES, SERVICE ACCESS AND MAINTAIN PROPER PITCH OF SLOPING LINES.
- E. INSULATE PIPING SYSTEMS AS FOLLOWS:
 - REFRIGERANT CODE REQUIRED THICKNESS OF CLOSED CELLULAR RUBBER
 HORIZONTAL CONDENSATE DRAIN 1/2" THICK FIBERGLASS WITH ASJ.
 SEAL VAPOR BARRIERS. SECURE WITH ADHESIVE AND SEAL JOINTS WITH
 - SEALANT. 4. PROVIDE GALVANIZED STEEL SADDLE AT HANGERS SURROUNDING INSULATED
 - PIPE. 5. DO NOT COMPRESS INSULATION EXCEPT IN AREAS OF STRUCTURAL
 - INTERFERENCE. 6. INSTALL PRE-FITTED PLASTIC ELBOWS OR APPLY CANVAS JACKET IN THREE LAYERS AT ELBOWS.
- 7. INSULATE FITTINGS, VALVES AND EQUIPMENT BODIES.
- 8. PROVIDE 2 COATS OF GREY WEATHERPROOF FINISH ON EXTERIOR REFRIGERANT PIPING.F. PROVIDE SLEEVES FOR PIPING PENETRATING WALLS. INSULATION SHALL BE
- CONTINUOUS THROUGH SLEEVES.
- G. FIRESTOP PIPING PASSING THROUGH FIRE RATED WALLS OR CEILINGS.
- H. PATCH FINISHED AREAS DISTURBED BY WORK TO MATCH SURROUNDING AREAS.
- I. WELDING SHALL BE DONE BY CERTIFIED WELDERS FOR THE APPROPRIATE SYSTEM BEING WELDED.
- J. MAKE CONNECTIONS OF DISSIMILAR METALLIC PIPING WITH DIELECTRIC UNIONS. K. DO NOT USE PLASTIC PIPING IN RETURN AIR PLENUM SPACES. L. PROVIDE SHUT OFF VALVES AT EQUIPMENT CONNECTIONS. С M. HANGERS SUPPORTING COPPER PIPING SHALL BE COPPER PLATED OR PLASTIC Ē COVERED. HANGERS SUPPORTING INSULATED PIPING SHALL BE SIZED TO () SURROUND INSULATION AND STEEL SADDLE. RU N. CLEAN AND FLUSH PIPING THEN TEST PIPING SYSTEMS AS FOLLOWS: REFRIGERANT PIPING - TO 100 PSIG W/ COMPRESSED NITROGEN FOR FOUR HOURS AND TEST FITTINGS WITH ST FREON AND HALIDE LEAK DETECTOR. 2. CONDENSATE DRAIN PIPING - W/ 10 FT. WATER COLUMN OR 5 PSI Ż COMPRESSED AIR FOR 12 HOURS. TESTS SHALL SHOW NO SUBSTANTIAL LOSS IN PRESSURE. \bigcirc PIPING RUN IN CONCEALED AREAS SHALL BE LEAK TESTED PRIOR TO BEING CONCEALED. 5. SUBMIT WRITTEN REPORT OF TEST RESULTS. \sim \bigcirc 3.2 HVAC EQUIPMENT: PROVIDE PERMANENT TAG ON EQUIPMENT INDICATING EXPIRATION DATE OF WARRANTIES. LOCATE TAG IN A READILY VISIBLE LOCATION. B. PROVIDE FACTORY AUTHORIZED START-UP OF EQUIPMENT AND SUBMIT TEST REPORTS. (INCLUDE IN O&M MANUAL). COMPLY WITH MANUFACTURER REQUIREMENTS AND NOTES STATED ON THE CONSTRUCTION DOCUMENTS FOR INSTALLATION OF EQUIPMENT. BALANCE THE OUTSIDE AIR CFM TO QUANTITIES LISTED. D. SPLIT SYSTEM UNITS: 1. SUPPORT INDOOR UNIT FROM STRUCTURE WITH BLOCKING BEHIND GYP. BOARD AND ANCHOR UNITS TO WALL IN LAUNDRY ROOM - INSTALL LEVEL. CONNECT DUCTWORK WITH FLEXIBLE DUCT CONNECTIONS. INSTALL TO ALLOW PROPER SERVICE ACCESS. MEI PROVIDE DRAIN PAN BENEATH UNITS. SUPPORT PAN BELOW AHU. PROVIDE CONDENSATE DRAIN PIPING AND EXTEND TO FLOOR DRAIN. Engineering, Inc CONNECT REFRIGERANT PIPING AND CONTROL WIRING. 4. chanical - Electrical - Indust Consultants FANS: I. ASSURE PROPER BACKDRAFT DAMPER OPERATION. 1592 CF Pours Drive Harrisonburg, VA 22802 3.3 AIR DISTRIBUTION: (540) 432-6272 MEIengineeringinc.com A. DUCTWORK: SEAL JOINTS IN DUCTWORK WITH COATING OF HARDCAST SEALANT OR UL LISTED FSK DUCT TAPE. INSTALL INTERNAL ENDS OF SLIP JOINTS IN DIRECTION OF AIRFLOWS. MAXIMUM ANGLE OF OFFSETS AND TRANSITIONS SHALL NOT EXCEED 30 DEGREES. ADEQUATELY SUPPORT DUCT AS PER CODE REQUIREMENTS -ELIMINATE SAGGING AND COMPRESSION OF DUCT. SANDERS TRANSITION DUCTS TO FIT EQUIPMENT. PROVIDE FLEXIBLE FLAME SECURE LINER TO DUCTS WITH ADHESIVE AT 70% COVERAGE AND WITH 6. MECHANICAL FASTENERS AT 18" CENTERS, AND WITHIN 6" OF BUTT JOINTS AND EDGES OF DUCT. COAT ALL EXPOSED 'ROUGH' LINER WITH MASTIC. ENLARGE DUCT 16125 RACCOON FORD RD TO ACCOMMODATE THE LINER - SIZES ON TH EPALNS ARE INSIDE FREE CULPEPER, VIRGINIA 22701 540-829-2590 AREA DIMENSIONS. 7. USE LONG RADIUS RIGID DUCT FITTINGS AT ELBOWS IN FLEXIBLE DUCT FLEXIBLE DUCT EXCEEDING 60 DEGREE ANGLE. ELBOWS IN FLEXABLE DUCT LESS THAN 60 DEGREE ANGLE SHALL BE LONG SWEEP TYPE. INSULATE DUCT SYSTEMS PER CODE OR AS FOLLOWS, WHICHEVER IS MORE STRINGENT: \mathcal{O} 1. WITHIN BUILDING STRUCTURE AND INSIDE OF BUILDING INSULATION ENVELOPE \sim (OUTSIDE AIR, SUPPLY AND RETURN AIR DUCTS): ONE LB./CU.FT. DENSITY **SUPPORT** 2" THICK FIBERGLASS, WITH FSK JACKET; OR WITH 3/8" THICK FOIL FACED Ш AIR CELL INSULATION, REFLECTIX OR EQUAL. INSULATE SUPPLY AIR AND RETURN AIR DUCTS OUTSIDE OF BUILDING INSULATION WITH 3" THICK FIBERGLASS WITH FSK JACKET – MINIMUM R = 8.0 INSTALLED. _ EXHAUST AIR DUCTS: DO NOT INSULATE. Ľ Ľ SECURE INSULATION TO DUCTS W/ ADHESIVE AT 60% COVERAGE AND SECURE WITH 00 4. OMMUNITY : \checkmark MECHANICAL FASTENERS AND WASHERS AT 18" CENTERS - SEAL VAPOR BARRIER. ∟ C. DAMPERS: ACTUATORS AND PUSH-RODS SHALL BE ACCESSIBLE. \triangleleft \triangleleft ACTUATORS AND PUSH-RODS SHALL BE ACCESSIBLE. PROVIDE COMBINATION DAMPER/EXTRACTOR/SPIN-IN FOR ROUND DUCT \square CONNECTIONS TO TRUNK DUCTS. PROVIDE 45 DEGREE BEVEL INLET WITH BALANCE DAMPER FOR RECTANGULAR DUCT CONNECTIONS TO TRUNK DUCT. DAMPER ADJUSTMENT TO BE LOCATED ON BOTTOM SIDE OF DUCT. \bigcirc D. ACCESS DOORS - PROVIDE IN DUCT FOR ACCESS TO COILS, FILTERS, FIRE & MOTORIZED \sim ENCOMPASS DAMPERS, AND ALL OTHER EQUIPMENT NOT OTHERWISE ACCESSIBLE. INSTALL TO ALLOW Ζ SERVICE ACCESS. PROVIDE LABEL ON ACCESS DOOR INDICATING DEVICE SERVED. 54 OR E. BALANCE AIR DISTRIBUTION TO WITHIN 10% OF DESIGN AND SUBMIT REPORT. REPORT SHALL IDENTIFY ZONES, DESIGN AIRFLOWS AND FINAL AIRFLOWS S (SUPPLY AIR, RETURN AIR AND OUTSIDE AIR). SUPPLY AND RETURN STATIC \square PRESSURES, ENTERING AND LEAVING AIR TEMPERATURES. INCLUDE EXHAUST FAN SYSTEMS, AND HVAC EQUIPMENT. COMPLY WITH NEBB AND AABC REQUIREMENTS. 3. 3.4 CONTROLS: A. SEAL PROBE PENETRATIONS FOR DUCT MOUNTED SENSORS. B. PROVIDE JUNCTION BOX HOUSING FOR CONTROL WIRING INTERLOCK TO COMPONENTS. CALTH C. ROUTE CONDUCTORS NEATLY AND PARALLEL OR PERPENDICULAR TO BUILDING CONSTRUCTION. WIRING AND CONDUCTORS IN FINISHED SPACES TO BE RUN CONCEALED. WESLEY FRANKLIN 5 D. SEQUENCE OF CONTROL ON A CALL FOR COOLING - BLOWER AND COOL COMPRESSOR SHALL BE ENABLED. SIEVER ON A CALL FOR HEAT - BLOWER AND HEAT COMPRESSOR SHALL BE ENABLED. OA TO BE INTRODUCED IN SPACES WHEN BLOWER RUNS. FOR UNITS WITH MOTORIZED Lic. No. 0402 043863 OA DAMPER ONLY, VENTILATION CONTROL SHALL OPEN DAMPER IF OUTDOOR 9/24/24 CONDITIONS ARE APPROPRIATE, OTHERWISE OA DAMPER TO CLOSE. 4. PROGRAM THERMOSTATS PER OWNER'S SCHEDULING. ONAL FLOAT SWITCH IN DRAIN PAN TO DISABLE HVAC UNIT IN CASE OF WATER IN PAN. 6. OUTSIDE AIR TO BE INTRODUCED WHEN BLOWER RUNS. FOR UNITS WITH AIR REVISIONS: QUALITY SENSOR, THERMOSTAT TO ENABLE SENSOR TO OPEN MOTORIZED OA DAMPER TO SETPOINT IN CASE OF POOR RA QUALITY (1000 PPM IN OCCUPIED MODES ONLY), OTHERWISE OA DAMPER TO CLOSE. GSW DRAWN CHECKED: MD SCALE: 1/8'' = 1'-0DATE: 09-24-24 PROJECT #: 2300 HVAC **SPECIFICATIONS**

M0.1

								_																			
	GRILLES, REGISTERS, DIFFUSERS AND LOUVERS						HVAC EQUIPMENT SCHEDULE																				
ΤY	PE DE	SCRIPTION	NECK	FRAME	FINISH	MFR. MDL.	REMARKS	ZONE	OUTDOOR HEAT	NOMINAL TONS	MAX COOLING	MAX HEAT	SEER2	O.U. VOLT	O.U. S MCA/ MOCP	HSPF2	IND KW HEAT	MODEL NO.	CFM	ESP.	MIN. OA CFM	BLOWER SPEED	HP	I.U. VOLTS	I.U. MCA/ MOCF	U.U.	REMARKS
α	2-1	WAY CEILING DIFFUSER	4×12	FLANGE	WHITE	PROSELECT PS2WWI2P	FRAME	HP-I AH-I	MITSUBISHI SUZ-KAI2NA2	I	12,000	16,700	20.1	208/1	I 9 15	HSPF2 10.5	3.8	MITSUBISHI SVZ-KPI2NA	425	0.42"	53	VARIABLE	NA	208/1	25.6 30	150 LBS.	02395
D	2 2-0	JAY CEILING DIFFUSER	12×8	FLANGE		PROSELECT PS2WWI2X	FRAME	HP-2 AH-2	MITSUBISHI SUZ-KAI2NA2	I	12,000	16,700	20.1		9 15	HSPF2 10.5	3.8	MITSUBISHI SVZ-KPI2NA	420	0.36"	36	VARIABLE	NA	208/1	25.6 30	I50 LBS.	5
D	5 4-U	JAY CEILING DIFFUSER	12×12	FLANGE		PROSELECT PSSQCDW12	FRAME	HP-3 (3) AH-3	CARRIER 25TPA124A003	2	24,000	24,000	г		l6.4 25	HSPF 9.5	6.8	CARRIER FV4CNF002L00	800	0.50"	63	VARIABLE	1/2	208/3	32.0 35	250 LBS.	
D	1 4-U	JAY CEILING DIFFUSER	6"	T-BAR LAY-IN		PROSELECT PSHVD3IBDU	24" SQUARE PANEL	HP-4 (1) AH-4	CARRIER 25TPA148A003	4	46,000	48,000	г		33.5 50	HSPF 9.5	11.3	CARRIER FV4CNB006	1600	0.60	268	VARIABLE	3/4	208/3	47.7 50	250 LBS.	
D	; 4-l	WAY CEILING DIFFUSER	8"	T-BAR LAY-IN		PROSELECT PSHVD3IBDX	24" SQUARE PANEL	HP-5 (1) AH-5	CARRIER 25TPA136A003	3	36,000	36,000	п		25.2 40	HSPF 9.5	II.3	CARRIER FV4CNB003	1200	0.60	115	VARIABLE	3/4	208/3	47.7 50	250 LBS.	
D	4-	WAY CEILING DIFFUSER	10"	T-BAR LAY-IN		PROSELECT PSHVD3IBDIO	24" SQUARE PANEL	HP-6 (1) AH-6	25TPA148A003	4	46,000	48,000	ГІ		33.5	HSPF 9.5	II.3	CARRIER FV4CNB006	1600	0.60	150	VARIABLE	3/4	208/3	47.7 50	250 LBS.	
D	1 2-U	JAY CEILING DIFFUSER	14×8	FLANGE		PROSELECT PS2WWI4X	FRAME	HP-7 (1) AH-7	CARRIER 25TPA148A003	4	46,000	48,000	ГІ		33.5	HSPF 9.5	11.3	CARRIER FV4CNB006	1600	0.60	135	VARIABLE	3/4	208/3	47.7 50	250 LBS.	
R	R	ETURN AIR GRILLE	12×12	FLANGE		PROSELECT PSAH45WI2I2	FRAME		CARRIER 25TPA124A003	2	24,000	24,000	г		16.4	HSPF	6.8		800	0.50"	0	VARIABLE	1/2	208/3	32.0 35	250 LBS.	
R	R	CETURN AIR GRILLE	14×14	FLANGE		PROSELECT PSSAH45WI4I4	FRAME	AH-8						↓ ↓		1.5										<u> </u>	<u> </u>
R	, R	RETURN AIR GRILLE	16×16	FLANGE		PROSELECT PSAH45WI66	FRAME											NOTES:									
R	R	ETURN AIR GRILLE	20×20	FLANGE		PROSELECT PSAH45W2O2O	FRAME			(]) COOLIN TIME D	G CAPACI ELAY REL	TIES AT 95 AYS.	F DB/671	F EWB TEMPE	RATURES.	PROVIDE BL	LOWER	(4) ₩⁄ I	NTERGRAL	ELECTRIC HE	EAT KIT CIR	CUIT BRE	EAKERS			
R	RE	GRILLE	22×22	T-BAR LAY-IN		PROSELECT PSAEC5ITB2222	24" SQUARE PANEL		 REFER TO DRAWINGS FOR EXACT AIRFLOW QUANTITIES. W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ COMPRESSOR TIME DELAY, COMPRESSOR CRANKCASE HEATER, REFRIGERANT LINE W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ COMPRESSOR TIME DELAY, COMPRESSOR CRANKCASE HEATER, REFRIGERANT LINE W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT. TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT. TO BE VOICE ACTIVATED W/ COMPRESSOR TIME DELAY, COMPRESSOR CRANKCASE HEATER, REFRIGERANT LINE W/ WALL MOUNTED THERMOSTAT. THERMOSTAT. THERMOSTAT. TO BE VOICE ACTIVATED W/ WALL MOUNTED THERMOSTAT. THERMOSTAT. TO BE VOICE ACTIVATED W/ COMPRESSOR TIME DELAY, COMPRESSOR CRANKCASE HEATER, REFRIGERANT LINE W/ WALL MOUNTED THERMOSTAT. THERMOSTAT. TO BE VOICE OR SMART HOME HUB.) E HUB.										
LI		UTSIDE AIR AKE LOUVER	18×18	FLANGE	SEL. BY ARCHIT.	DAYTON 20UA08	W/ BIRDSCREEN						-														





DRYER EXHAUST NOTE INSTALL A PLACARD TO DISPLAY TOTAL DEVELOPED LENGTH OF THE DRYER VENT DUCT AND MONT AT DRYER VENT LOCATION. CONTRACTOR TO SUPPLY A DRYER CAPABLE OF EXHAUSTING THE TOTAL DEVELOPED LENGTH.



	SYMBOLS		
\square	SUPPLY DUCT		EQUIPMENT: EC SUBSTITUTED.
	RETURN OR EXHAUST DUCT		THERMOS AUTO-CHANGE
\bigcirc	THERMOSTAT-MID. 48" AFF		CARRIER KSA
(A) 100	INDICATES AIR OUTLET OR INLET TOP LETTER INDICATES G.R&D TYPE (SEE SCHEDULE); BOTTOM NUMERAL INDICATES CFM FOR BALANCING		DH-DEHUMIDIFII 20 VOLT VA USE 2X4 WAL USE BLUE DIA TO PUMP TO
	VOLUME DAMPER (VD)		CO₂ SENSOR - 24∨ TRANSFC EQUAL.
	MOTORIZED DAMPER (MOD)		MOD – 24VAC LINKAGE MTD COMPATIBLE
	FIRE DAMPER		EF-I - CENTRIF SAFETY SWITC
	BBREVIATIONS		FLOAT SWITCH 24 VAC CONT
AFF CD DN EA EF EG FC OA RA RG SA SG WC TYP	ABOVE FINISHED FLOOR CEILING DIFFUSER DOWN EXHAUST AIR EXHAUST FAN EXHAUST GRILLE FAN COIL OUTSIDE AIR RETURN AIR RETURN GRILLE SUPPLY AIR SUPPLY GRILLE WALL CAP TYPICAL		OA CONTROLLE FOR CONTINUC TEMPERATURE INTERLOCK, 24 IN ECO MODE H.V.A.C CON (TWO) RELAYS AND (ONE) TR 24 VOLTS SEC WILL CONTROL LOW VOLTAGE TO START TH MOTORIZED I CONTRACTOR LOCATE JUNC OA VENTILATI FANTECH MO
TYP	TYPICAL	L	

INVERTER HEAT PUMP SCHEDULE O.U. O.U. OUTDOOR NOMINAL TONS RATED RATED COOLING HEATING EER2 COP ZONE CFM I.U. MCA I.U. HEAT NAME MODEL NO. PUMP MOCP 18,000 BTUH CARRIER CARRIER 18,000 16 IHP-I 1.5 3.10 208/1 FC-IA 12.5 635 40MAHBQI8XA3 втин 38MARBQI8AA3

PROVIDE ALL PIPING, CONTROL KIT, W/ WIRED WALL MOUNTED ROOM THERMOSTAT. WYE FITTINGS, ETC. AS REQUIRED FOR A COMPLETE OPERATING SYSTEM. (NOTE) POWER TO INDOOR UNIT SUPPLIED FROM THE OUTDOOR UNIT.

EQUIPMENT LIST
IT: EQUIVALENT MANUFACTURERS MAY BE TED. EQUIPMENT TO BE UL OR ETL LISTED.
RMOSTAT- SHALL BE WIRED WALL MOUNTED, HEATING-COOLING HANGEOVER TYPE, W/ FAN SWITCH SUBBASE, SUITABLE FOR IMP USE AS APPLICABLE, I DAY PROGRAMMABLE, W/ OVERRIDE TIMER, KSACNO60AAA, FOR COMMON AREA SPACES.
MIDIFIER ULTRAMD33 IN WALL MOUNT 155 CFM WEIGHT 40 LBS T VAC/60 HZ FLA 2.8 AMPS. WITH ELECTRICAL CORD AND PLUG. WALL MOUNTING BEZEL KIT. FOR IN-WALL 2X4 STUDDED WALL INSALLATIONS. IE DIAMOND CONDENSATE PUMP WITH RESERVOIR MODEL X81-11 TO DAYLAGHT.
OR - CARBON DIOXIDE TYPE, 350 TO 2250 PPM RANGE, NON-GROUNDING, ANSFORMER, DUCT MOUNT BOX, 2 POSITION CONTROL. HONEYWELL OR
VAC MOTORIZED DAMPER, 2 POSITION TYPE, W/ ACTUATOR AND MTD. OUTSIDE OF AIRSTREAM. NORMALLY CLOSED, SIZE TO FIT DUCT, IBLE W/ CO2SENSOR, HONEYWELL OR EQUAL.
NTRIFUGAL CEILING EXHAUSTER, 120 VAC, BACKDRAFT DAMPER, SWITCH, 80 CFM ® 0.10" SP, 0.1A, BROAN XB80.
ITCH - LOCATED IN GALV. STEEL CONDENSATE DRAIN PAN, SPST, CONTACTS, LITTLE GIANT MDL. ACF-2 OR EQUAL.
ROLLER - OFF MODE ALLOWS MANUAL OVERRIDE, ON MODE ALLOWS NTINUOUS OPERATION, ECO MODE ALLOWS MIN AND MAX HUMIDITY AND ATURE SET POINTS LIMIT VENTILATION DURING SPECIFIC TIMES. BLOWER, CK, 24 VAC CONTROL, MAINTAINS ASHRAE 62.2 VENTILATION REQUIREMENTS, 10DE SET TO RUN 20MIN/HOUR @90CFM. S&P MDL ES24V.
CONTRACTOR TO PROVIDE (ONE) 12X12X6 JUNCTION BOX, ELAYS WITH NORMAL OPEN/CLOSED CONTACTS WITH 24 VOLT COILS E) TRANSFORMER WITH 120 VOLT PRIMARY VOLTAGE AND S SECONDARY CONTROL VOLTAGE.THE ES24V CONTROLLER NTROL ONE RELAY TO START THE MAIN BLOWER BY USING TAGE.THE SECOND RELAY WILL USE THE ES24V CONTROLLER RT THE OA VENTILATION FAN AND OPEN THE 120 VOLT ED DAMPER. ALL LOW VOLATGE WIRE TO BE RUN BY MECHANICAL CTOR. ALL LINE VOLTAGE TO BE RUN BY ELECTRICIAN. JUNCTION BOX IN AN ACCESSIBLE LOCATION IN MECHANICAL CLOSET.
TILATION FAN - 90 CFM @ 0.25 SP., 120/1 VAC, 0.18A, CH MODEL FRIOO.
E

	INDOOR UNIT														
1	MIN.		RAI	FED	BLOWER										
	OA	ESP,	COOLING TOTAL	HEATING	SPEED	VOLIO	MCA								
	NA	NA	18,000 18,000 BTUH BTUH		HIGH	208/1	0.62								
			-												

















TYPICAL 2 BED UNIT HVAC PLAN Scale: 1/4" = 1'-0"

PROVIDE OPOSSIBLE BLADE DAMPER BEHIND ALL SUPPLY GRILLES FOR BALANCE PURPOSE.











WESLEY FRANKLIN SIEVER COMM Lic. No. 0402 043863 **IONAL** ******** **REVISIONS:** DRAWN: CHECKED: SCALE: DATE: PROJECT #: GSW MDI 1/8" = 1'-0" 09-24-24 23003 HVAC ATTIC PLAN

CALTH

M3.1
GENERAL ELECTRICAL SPECIFICATIONS

I. GENERAL

I.I RELATED DOCUMENTS:

A. REQUIREMENTS OF THE GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS, AND SPECIAL CONDITIONS APPLY TO THIS SECTION.

B. ARCHITECTURAL, STRUCTURAL, MECHANICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS. **C.** MANUFACTURER'S INSTALLATION GUIDELINES AND REQUIREMENTS FOR ALL EQUIPMENT, DEVICES, AND

FIXTURES D. MANUFACTURER DATA SHEETS AND GUIDELINES OF FINAL EQUIPMENT SELECTIONS FROM OTHER TRADES. E. STRUCTURED CABLING SPECIFICATIONS.

1.2 WORK INCLUDED:

A. ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.
B. PERMITS AND INSPECTIONS REQUIRED FOR WORK.
C. TEMPORARY ELECTRIC FOR SITE DURING CONSTRUCTION AS REQUIRED.
D. COORDINATION OF FINAL SELECTIONS, LOCATIONS, CONNECTIONS, ELECTRICAL CHARACTERISTICS, ETC. OF EQUIPMENT SUPPLIED BY OTHERS ON PROJECT.

1.3 JOB CONDITIONS:

A. COORDINATE WITH BUILDING CONSTRUCTION AND WITH OTHER TRADES.
 B. IN CASE OF CONFLICT BETWEEN SPECIFICATIONS AND DRAWINGS, CONSULT ARCHITECT IMMEDIATELY FOR DETERMINATION OF PROCEDURE METHOD.

I.4 CONFORMANCE TO REGULATIONS:

A. WORK SHALL CONFORM WITH 2018 VIRGINIA UNIFORM STATEWIDE BUILDING CODE, NFPA, LOCAL ORDINANCES AND THE RULES AND REGULATIONS OF THE UTILITIES. **B.** WORK SHALL BE IN ACCORDANCE WITH THE OWNER'S BUILDING CRITERIA AND TENANT BUILD-OUT REQUIREMENTS. C. WORK SHALL BE IN ACCORDANCE WITH THE CURRENT VHDA, ENERGY STAR, HUD, UNIVERSAL DESIGN, AND EARTHCRAFT REQUIREMENTS AND GUIDELINES.

1.5 QUALITY ASSURANCE:

 A. MEET OR EXCEED RECOMMENDATIONS OF: IEEE, IES, NEMA AND UL.
 B. NOTIFY ARCHITECT IMMEDIATELY OF CONFLICTS AND DEFICIENCIES. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN RESOLVED. C. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING DRAWINGS AND SUBMITTALS OF FINAL EQUIPMENT SELECTIONS OF OTHER TRADES.

I.6 MATERIALS AND EQUIPMENT:

A. PROVIDE NEW MATERIALS AND EQUIPMENT UNLESS OTHERWISE NOTED

B. FURNISH (INCLUDING FREIGHT AND UNLOADING) AND INSTALL UNLESS OTHERWISE NOTED. **C.** EQUIPMENT PROVIDED FOR THIS PROJECT SHALL BE NEW UNLESS NOTED OTHERWISE.

I.1 UTILITIES AND CONNECTIONS:

A. OWNER WILL PAY ANY UTILITY SERVICE FEES DIRECTLY TO THE RESPECTIVE UTILITY COMPANIES. B. PROVIDE ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED BUT NOT PROVIDED OR FURNISHED BY THE UTILITY COMPANIES TO BRING SERVICE INTO THE BUILDING.

I.8 SUBMITTALS:

A. SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR EQUIPMENT IN ACCORDANCE WITH THE ARCHITECT'S REQUIREMENTS. **B.** UPON COMPLETION OF THE INSTALLATION, AND PRIOR TO ACCEPTANCE BY THE OWNER, CONTRACTOR SHALL FURNISH AS-BUILT DOCUMENTATION AND OWN MANUALS IN ACCORDANCE WITH THE ARCHITECT'S REQUIREMENTS C. PROVIDE WIRING DIAGRAMS SPECIFIC TO THIS PROJECT FOR ALL ROOMS WITH LOW VOLTAGE DEVICES SHOWING INTERCONNECTIONS BETWEEN POWER PACK, SWITCHES, AND OCCUPANCY SENSORS.

I.9 PROJECT CLOSEOUT:

A. REPAIR DAMAGED AND DEFECTIVE EQUIPMENT AND MATERIALS. REPLACE ITEMS THAT CANNOT BE PROPERLY REPAIRED.

 B. CLEAN EXPOSED AND SEMI-EXPOSED SURFACES OF EQUIPMENT AND MATERIALS.
 C. TOUCH-UP SHOP-APPLIED FINISHES TO RESTORE DAMAGED AND SOILED AREAS.
 D. INSTRUCT OWNER'S REPRESENTATIVE IN OPERATION AND MAINTENANCE OF ELECTRICAL SYSTEMS UTILIZING THE OPERATION AND MAINTENANCE MANUAL. I. INSTRUCTION PERIOD SHALL OCCUR AFTER SUBSTANTIAL COMPLETION OF ELECTRICAL SYSTEMS AND PRIOR TO COMPLETION OF THE PROJECT. COORDINATE WITH THE ARCHITECT AND OWNER.

2. PRODUCTS

2.1 RACEWAYS AND FITTINGS:

A. CONDUIT SIZES SHALL BE AS REQUIRED BY THE CODE (UNLESS INDICATED OR SPECIFIED OTHERWISE) FOR THE NUMBER AND SIZE OF WIRE INDICATED. MINIMUM SIZE CONDUIT SHALL BE 1/2" ELECTRICAL TRADE SIZE. FLEXIBLE METAL CONDUIT USED FOR LIGHTING FIXTURE WHIPS MAY BE 3/8" WHERE ALLOWED BY THE CODE. B. USE ELECTRICAL METALLIC TUBING EXCEPT AS FOLLOWS. USE RIGID NONMETALLIC CONDUIT IN OR UNDER ON GRADE CONCRETE SLABS. USE FLEXIBLE METAL CONDUIT FOR MOTOR AND EQUIPMENT CONNECTIONS IN DRY LOCATIONS. USE LIQUIDTIGHT FLEXIBLE METAL CONDUIT IN WET OR DAMP LOCATIONS.

2.2 WIRE AND CABLE:

A. CONDUCTORS SHALL BE COPPER, MINIMUM SIZE NO. 12 AWG. OTHER WIRE SIZES SHALL BE AS NOTED OR AS REQUIRED FOR THE CIRCUIT SIZE. CONDUCTOR INSULATION SHALL BE THHN/THWN. B. BRANCH CIRCUIT WIRING WHERE CONCEALED IN WALLS AND ABOVE CEILINGS MAY BE TYPE MC (METAL AD) CABLE WHERE ALLOWED BY THE CODE C. NM CABLE (ROMEX) MAY BE USED WHERE ALLOWED AND INSTALLED IN ACCORDANCE WITH NEC ARTICLE 334.

2.3 BOXES:

A. GALVANIZED SHEET STEEL TYPE. SINGLE DEVICE BOX SHALL BE "NON-GANGABLE" TYPE AND FOR MULTIPLE DEVICES "GANGABLE" TYPE SHALL BE USED. BOXES FOR EXPOSED WORK SHALL BE 4" SQUARE TYPE. BOXES FOR EXPOSED WORK IN WET LOCATIONS SHALL BE DIE CAST TYPE WITH THREADED HUBS. SECTIONAL BOXES SHALL NOT BE USED IN MASONRY OR CONCRETE. SIZED FOR NUMBER OF CONDUCTORS, FITTINGS AND DEVICES AS REQUIRED BY THE CODE.

2.4 WIRING DEVICES:

- A. 20 AMPERE SPECIFICATION GRADE.
- **B.** COVERPLATES SHALL BE AS FOLLOWS: INTERIOR RECESSED SMOOTH UNBREAKABLE NYLON: SURFACE -4" SQUARE RAISED COVER. GALVANIZED; WEATHERPROOF DIE CAST ALUMINUM, GFCI TYPE, WATERTIGHT WHILE IN USE TYPE, USE EXTERNAL OPERATING TYPE FOR WEATHERPROOF SWITCHES.
- C. DEVICE AND PLATE COLOR SHALL BE AS SELECTED BY ARCHITECT. D. GFCI OUTLETS TO BE SELF-TESTING TYPE. E. RECEPTACLES SHALL BE TAMPER RESISTANT TYPE.

2.5 DISCONNECT SWITCHES:

A. SAME MANUFACTURER AS THE PANELBOARDS, NEMA 3R FOR OUTDOOR USE. B. DISCONNECT SWITCHES SHALL BE FUSED OR NON-FUSED AS INDICATED AND BE VISIBLE BLADE TYPE WITH EXTERNAL OPERATING HANDLE AND COVER INTERLOCK AND PAD LOCKING. C. ALL LABELING ON EXTERIOR DISCONNECT SWITCHES SHALL BE UV RESISTANT

2.6 GROUNDING:

A. CONNECTIONS TO BUILDING STEEL, GROUND RODS AND PIPING SYSTEMS SHALL BE MADE WITH BRONZE OR BRASS BOLTED TYPE FITTINGS DESIGNED FOR THE USE. B. GROUNDING ELECTRODE CONDUCTOR SHALL BE SIZE AS INDICATED ON THE DRAWINGS AND AS DESCRIBED IN ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.

2.1 PANELBOARDS (OR GEAR):

A. PANELBOARDS SHALL BE AS SCHEDULED OR BY: SQUARE-D, CUTLER HAMMER, GENERAL ELECTRIC OR SIEMENS. PANELS TO HAVE MINIMUM 20" WIDE CABINETS AND COPPER BUS BARS.
B. CIRCUIT BREAKERS SHALL BE THERMAL-MAGNETIC, MOLDED CASE, BOLT-ON TYPE. MULTI-POLE SHALL BE COMMON TRIP TYPE, BREAKERS FOR HVAC EQUIPMENT SHALL BE "HACR" RATED WHERE REQUIRED.
C. PANELBOARDS SHALL HAVE LOCKABLE DOORS, LOCKS SHALL BE KEYED ALIKE.
D. PANELBOARDS SHALL BE FULLY RATED OR HAVE A UL LISTED SERIES CONNECTED RATING OF A MINIMUM (FOOD ALC ORTAIN AND SUBMIT FAMILY COMPEND VERTION LETTER FROM THE ROWER COMPANY TO THE 5,000 AIC. OBTAIN AND SUBMIT FAULT CURRENT VERIFICATION LETTER FROM THE POWER COMPANY TO THE

E. ELECTRIC GEAR SHALL COMPLY WITH NEC 240.87. F. METER STACKS SHALL BE THE SAME MANUFACTURER AS PANELBOARDS AND SHALL BE TYPE APPROVED BY THE POWER COMPANY. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO POWER COMPANY FOR APPROVAL AS REQUIRED G. ALL LABELING ON EXTERIOR GEAR SHALL BE UV RESISTANT.

2.8 ELECTRIC SERVICE:

A. SERVICE SHALL BE 120/208 3 PHASE, 4 WIRE

2.9 DRIVERS AND ACCESSORIES:

 A. LED DRIVERS SHALL BE ELECTRONIC TYPE WITH EQUAL TO OR LESS THAN 10% THD AND A 3 YEAR WARRANTY, VOLTAGE TO MATCH SYSTEM VOLTAGE.
 B. ACCESSORIES SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING FOR A COMPLETE LIGHTING FIXTURE INSTALLATION: PLASTER FRAMES, TEE BAR HANGERS, FIXTURE STUDS AND HOLD DOWN CLIPS FOR SUSPENDED CEILINGS.

2.10 LIGHTING FIXTURES:

A. LIGHTING FIXTURES SHALL BE AS SPECIFIED ON THE DRAWINGS.
B. PHOTOCELLS: SWIVEL MOUNT, 1800 WATT, TORK SERIES 2020 OR EQUAL.
C. TIMECLOCKS: ASTRONOMIC, 1 DAY, 100 HOUR BATTERY BACKUP, TORK SERIES EWZIOO OR EQUAL.
D. CONTACTOR: MECHANICALLY HELD, ELECTRICALLY OPERATED, NUMBER OF POLES AS REQUIRED.

2.II FIRE ALARM SYSTEM:

A. PROVIDE A COMPLETE ADDRESSABLE FIRE ALARM SYSTEM FOR BUILDING AS INDICATED ON THE PLANS AND NOTED HEREIN WITH CAPACITY FOR FUTURE TENANTS. B. PROVIDE PROPERLY SIZED BATTERY TO BACK UP PANEL UPON LOSS OF NORMAL POWER C. PROVIDE CONTROL PANEL WITH INTEGRAL DACT (DIGITAL ALARM COMMUNICATING TRANSMITTER) TO PROVIDE OFF-SITE MONITORING OF THE SYSTEMS, MONITORING SHALL BE AS APPROVED BY THE LOCAL AUTHORITY, POTS LINES AND WIRELESS COMMUNICATOR SHALL BE PROVIDED AS REQUIRED FOR THIS

MONITORING D. FIRE ALARM CONTRACTOR SHALL PROVIDE ALL DESIGN, DRAWINGS, CALCULATIONS, PRODUCT DATA, ETC. TO THE LOCAL AUTHORITY REQUIRED FOR PERMITTING AND INSPECTIONS OF THE SYSTEM. E. SIGNALING DEVICES SHALL BE ADA COMPLIANT. F. CABLE SHALL BE FIRE PROTECTIVE SIGNALING TYPE.

G. ALL ACCESSORIES, EXPANDERS, ANNUNCIATORS, GRAPHIC PANELS, ETC. SHALL BE INCLUDED AS REQUIRED FOR A COMPLETE FULLY FUNCTIONING SYSTEM MEETING STATE AND LOCAL CODE REQUIREMENTS.

3. EXECUTION

3.1 RACEWAYS AND FITTINGS:

A. INSTALL CONDUITS CONCEALED IN WALLS, CEILINGS OR FLOORS UNLESS INDICATED OR SPECIFIED OTHERWISE. CONDUITS MAY BE INSTALLED EXPOSED IN UNFINISHED AREAS (IE: EQUIPMENT ROOMS). INSTALL EXPOSED CONDUITS IN RUNS PARALLEL OR PERPENDICULAR TO WALLS STRUCTURAL MEMBERS, OR INTERSECTIONS OF VERTICAL PLANES OR CEILINGS. EXPOSED AND CONCEALED CONDUITS SHALL PASS HROUGH WALLS, FLOORS OR CEILINGS AT RIGHT ANGLES. UNDERGROUND CONDUITS SHALL HAVE BURY

DEPTH AS REQUIRED BY THE CODE. **B.** INSURE THAT CONDUITS ARE IN ALIGNMENT BETWEEN BENDS, ELBOWS AND TERMINATIONS: THAT BENDS ARE FREE OF CRIMPS, THAT JOINTS AND TERMINATIONS ARE TIGHT AND SECURE; THAT INTERIORS ARE SMOOTH AND FREE OF BURRS AND FOREIGN OBJECTS; AND THAT INTERIORS ARE FULL SIZE ENTIRE LENGTH. DURING CONSTRUCTION, CLOSE ENDS OF CONDUITS WITH METAL OR PLASTIC CAPS INTENDED FOR THE PURPOSI

C. FIELD BENDING OF CONDUITS AND TUBING SHALL BE MADE WITH HAND OR POWERED EQUIPMENT APPROVED FOR THE PURPOSE. USE OF TORCHES TO BEND NONMETALLIC CONDUIT IS NOT APPROVED. RADIUS OF BENDS SHALL BE AS PER THE CODE FOR TYPE OF CONDUIT AND TUBING USED. CONDUITS PASSING THROUGH A FIRE RATED WALL OR FLOOR SHALL NOT LESSEN THE RATING OF THE STRUCTURE THROUGH WHICH THEY PASS. FINAL INSTALLATION OF CONDUITS PENETRATING WATERPROOF CONSTRUCTION SHALL BE COMPLETELY WATERTIGHT. D. SLEEVE CONDUITS PASSING THROUGH CONCRETE FLOOR SLABS AND CONCRETE, MASONRY, TILE AND

GYPSUM WALLS. **E.** CONDUIT SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE AT INTERVALS REQUIRED BY THE CODE. USE STANDARD CONDUIT HANGERS, ONE HOLE SNAP STRAPS, THIN WALL CONDUIT CLAMPS, MALLEABLE IRON PIPE STRAPS, STRUT CHANNEL, BEAM CLAMPS, U-BOLTS AND ALL-THREAD RODS. DO NOT USE WIRE TIES, STAB-ON CLIPS OR PERFORATED STRAP IRON. F. PAINT ANY EXPOSED CONDUITS NOT WITHIN UTILITY ROOMS TO MATCH SURROUNDINGS.

3.2 WIRE AND CABLE:

CONDUCTORS NO. 10 AND SMALLER WITH STEEL SPRING WIRE CONNECTOR WITH THERMOPLASTIC SPLICE CONDUCTORS NO.8 AND LARGER WITH MECHANICAL TYPE, TAP CONNECTORS WITH INSULATED COVERS OR SPLIT BOLTS TAPED TO CONDUCTOR INSULATION VALUE. B. INSTALL CONDUCTORS IN RACEWAYS. CONDUCTORS SHALL BE CONTINUOUS FROM POINT OF ORIGIN TO PANEL OR EQUIPMENT TERMINATION WITHOUT RUNNING SPLICES IN INTERMEDIATE BOXES. CONDUCTORS OF

DIFFERENT VOLTAGES SHALL NOT BE PULLED INTO SAME RACEWAY **C.** CABLE SHALL BE SUPPORTED DIRECTLY FROM THE BUILDING STRUCTURE WITH STAPLES OR ONE-HOLE STRAPS AT INTERVALS REQUIRED BY THE CODE. BORED HOLES SHALL NOT EXCEED I" DIAMETER AND SHALL BE A MINIMUM OF 2'-O" FROM STRUCTURAL BEARING POINTS, NOTCHING OF STRUCTURAL MEMBERS IS PROHIBITED. IN ACCOUNTS TO DE COMPARISON OF STRUCTURAL MEMBERS IS OF OF

STRUCTURE IN ACCESSIBLE ATTIC SPACES. D. DO NOT RUN ANY WIRE OR CABLE IN PLUMBING WALLS UNTIL PIPING SYSTEMS HAVE BEEN COMPLETED. LUMBING SHALL PRESIDE IN THESE WALLS.

 E. DO NOT SHARE NEUTRAL CONDUCTORS FOR 120 VOLT CIRCUITS.
 F. COLOR CODE CONDUCTORS TO INDUSTRY STANDARDS.
 G. INCREASE WIRE SIZES AS REQUIRED TO COMPENSATE FOR VOLTAGE DROP BASED ON FEEDER/BRANCH CIRCUIT LENGTH.

3.3 BOXES:

A. SECURE BOXES TO STRUCTURE BY MEANS OF SCREWS, BOLTS, ROD HANGERS OR OTHER APPROVED MEANS. RACEWAYS ENTERING OR LEAVING BOX SHALL NOT BE USED AS SUPPORT. BOXES SHALL BE LEVEL AND PLUMB. BOXES FOR FLUSH EQUIPMENT SHALL BE PLACED TO WITHIN 1/4" OF THE FINISHED SURFACE, PROVIDE EXTENSIONS OR PLASTER RINGS AS REQUIRED. JUNCTION AND PULL BOXES SHALL BE INSTALLED READILY ACCESSIBLE, UNOBSTRUCTED BY PIPING, DUCTS OR OTHER EQUIPMENT. B. BOXES SHALL BE MOUNTED AT HEIGHT INDICATED ON THE DRAWINGS OR DIRECTLY ADJACENT TO PIECE OF EQUIPMENT SERVED. SEAL SPARE OR UNUSED OPENINGS IN BOXES WITH APPROVED FITTINGS. FOR BOXES INSTALLED IN WET LOCATIONS PROVIDE CLEAR SILICONE CAULK BETWEEN BOX AND SURROUNDING SURFACE TO PREVENT WATER ENTRY. C. BOXES IN RATED CONSTRUCTION SHALL BE SUITABLE FOR THE USE AND INSTALLED IN ACCORDANCE WITH THE CODE.

3.4 WIRING DEVICES:

A. INSTALL DEVICES APPROXIMATELY AT THE LOCATIONS INDICATED ON THE DRAWINGS. DETERMINE EXACT LOCATION BY CONDITIONS OF CONSTRUCTION. COORDINATE LOCATIONS TO AVOID CONFLICT WITH OTHER EQUIPMENT BEING INSTALLED. INSTALL DEVICES STRAIGHT AND SOLID TO BOX. MOUNTING HEIGHTS OF WALL OUTLETS SHALL BE AS INDICATED ON THE DRAWINGS AND SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE CENTER OF THE OUTLET. WHERE DEVICES ARE SHOULD GROUPED TOGETHER PROVIDE A CONCLE THE CENTER OF THE OUTLET. WHERE DEVICES ARE SHOWN GROUPED TOGETHER, PROVIDE A SINGLE, MULTIPLE GANG PLATE. B. COORDINATE PLACEMENT IN AND AROUND KNEE SPACES, LAVATORIES AND OTHER EQUIPMENT TO AVOID CONFLICTS WITH MIRRORS AND OTHER APPURTENANCES, REFER TO ARCHITECTURAL DRAWINGS. SWITCHES SHALL BE LOCATED TO STRIKE SIDE OF THE DOOR, VERIFY FINAL DOOR SWINGS. C. WHERE GFCI OUTLETS ARE USED TO PROVIDE FEED-THRU PROTECTION FOR DOWNSTREAM OUTLETS ON SAME CIRCUIT, DO NOT FEED-THRU WIRE ACROSS PARTITIONS, USE A SEPARATE DEVICE. D. VERIFY THE NEMA CONFIGURATIONS OF ALL OUTLETS WITH OWNER.

3.5 DISCONNECT SWITCHES:

A. MOUNT SWITCHES ON WALL OR AT ASSOCIATED PIECE OF EQUIPMENT. WALL MOUNTED SWITCHES SHALL BE 48 INCHES ABOVE FINISHED FLOOR. PROVIDE ENGRAVED PLASTIC LAMINATE NAMEPLATE FOR EACH DISCONNECT SWITCH LOCATED ON FRONT OUTSIDE COVER, NAMEPLATE SHALL INDICATE ITEM SERVED. **B.** SWITCHES SCHEDULED ARE FOR DESIGN BASED EQUIPMENT, REVIEW OTHER TRADES' SUBMITTALS TO DETERMINE IF SUBSTITUTIONS HAVE BEEN MADE, PROVIDE SWITCH TO MATCH EQUIPMENT SUPPLIED.

3.6 GROUNDING:

 A. CONDUIT SYSTEM SHALL NOT BE USED FOR GROUNDING.
 B. FOR BONDING OF SERVICE EQUIPMENT PROVIDE BONDING BUSHINGS AND JUMPERS WHERE REQUIRED.
 WELDING OF CONDUIT AND FITTINGS WILL NOT BE CONSIDERED ACCEPTABLE FOR THE PURPOSE OF BONDING.
 C. PROVIDE PROTECTION FROM PHYSICAL DAMAGE FOR ANY EXPOSED SECTION OF THE GROUNDING ELECTRODE CONDUCTOR SYSTEM. 3.1 PANELBOARDS (OR GEAR):

A. NEATLY PRINT CIRCUIT DESIGNATIONS ON DIRECTORY CARD. NOTATIONS SHALL INDICATE THE NATURE AND LOCATION OF LOADS SERVED. DO NOT USE A PERMANENT MARKER TO LABEL CIRCUIT DESIGNATIONS

ON PANEL HOUSING **B.** PROVIDE ENGRAVED LAMINATE NAMEPLATE FOR EACH NEW PANELBOARD LOCATED ON OUTSIDE OF DOOR. NAMEPLATE SHALL INCLUDE PANELBOARD DESIGNATION ON THE DRAWINGS, SERVICE VOLTAGE, PHASE AND AMPERAGE. C. BREAKERS SCHEDULED ARE FOR DESIGN BASED EQUIPMENT, REVIEW OTHER TRADES' SUBMITTALS TO DETERMINE IF SUBSTITUTIONS HAVE BEEN MADE. PROVIDE BREAKERS TO MATCH EQUIPMENT SUPPLIED. D. ASSEMBLE THER STACK SECTIONS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. E. LABEL METER STACKS WITH ENGRAVED LAMINATE PLATES AS TO SUITE NUMBER THAT IS APPROVED BY THE POWER COMPANY AND THE OWNER'S MATRIX.

3.8 ELECTRIC SERVICE:

A. PROVIDE LABOR AND MATERIALS NOT FURNISHED BY THE POWER COMPANY. DO WORK REGARDING THE ELECTRICAL SERVICE AND ITS EQUIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE POWER COMPANY. IF THE CONTRACT DOCUMENTS INDICATE WORK THAT IS TO EXCEED THESE REQUIREMENTS, FOLLOW THE CONTRACT DOCUMENTS. B. LABEL EQUIPMENT FOR THE ELECTRIC SERVICE IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THIS DIVISION. MAIN SWITCHES OR BREAKERS ARE TO BE IDENTIFIED AS SUCH IN ADDITION TO IDENTIFYING THE ITEM FED. C. NOTIFY THE POWER COMPANY OF THE TIMING REQUIREMENTS FOR THE PROJECT AND ARRANGE FOR METERING EQUIPMENT, CONNECTIONS AND SERVICE. D. COORDINATE INSTALLATION OF NEW SERVICE AND REMOVAL OF EXISTING TO MINIMIZE DOWNTIME.

COORDINATE TIMING WITH THE OWNER.

3.9 LAMPS:

A. PERMANENT LAMPS SHALL NOT BE USED AS TEMPORARY LIGHTING DURING CONSTRUCTION, IF FIXTURES ARE TO BE USED, TEMPORARY LAMPS SHALL BE PROVIDED AND PERMANENT LAMPS SHALL NOT BE INSTALLED UNTIL TIME OF OWNER'S ACCEPTANCE OF BUILDING.

3.10 LIGHTING FIXTURES:

A. INSTALLATION OF FIXTURES SHALL BE IN A NEAT, WORKMANLIKE MANNER. PROVIDE STRAPS, SUPPORTS, HANGERS AND OTHER MATERIALS REQUIRED FOR PROPER INSTALLATION. B. SURFACE MOUNTED FIXTURES SHALL NOT HAVE GAPS BETWEEN THE FIXTURE AND ATTACHING SURFACE UNLESS MOUNTING IS DESIGNED TO HOLD FIXTURE OFF CEILING, OR EXCEPT WHERE REQUIRED BY THE CODE REGULATION. CONTINUOUS ROWS OF FIXTURES SHALL BE INSTALLED SO AS TO PROVIDE PERFECT ALIGNMENT. ${\sf C}$. Support surface mounted fixtures directly from the building structure and not from the CEILING GRID SYSTEM. USE ALL-THREAD RODS, BEAM CLAMPS, PIPE CLAMPS AND PIPE OR PERFORATED STEEL CHANNEL FOR SUPPORT. WIRE TIES AND STAB-ON CLIPS WILL NOT BE ACCEPTED. THE SUPPORT ASSEMBLY SHALL BE CAPABLE OF SUPPORTING 150 POUNDS IN ADDITION TO THE FIXTURE WEIGHT INDEFINITELY D. RECESSED FIXTURES SHALL NOT HAVE GAPS BETWEEN THE FIXTURE TRIM AND ADJACENT SURFACE. WHERE LIGHT LEAKS OCCUR, SUITABLE GASKETS SHALL BE INSTALLED. **E.** RECESSED LIGHTING FIXTURES INSTALLED IN MODULAR OR INTEGRATED CEILINGS SHALL BE OF THE PROPER TYPE FOR THE TYPE OF CEILING BEING INSTALLED. VERIFY TYPE OF CONSTRUCTION PRIOR TO ORDERING OF FIXTURES. ADDITIONAL CEILING TIES SHALL BE INSTALLED AT EACH CORNER OF THE

LIGHTING FIXTURE TO REINFORCE THE CEILING SYSTEM.

3.II FIRE ALARM SYSTEM:

A. ON CALL FROM INITIATING DEVICE, SYSTEM SHALL SOUND EVACUATION THROUGHOUT BUILDING AND NOTIFY CENTRAL STATION. SPRINKLER TAMPER SWITCHES TO SOUND TROUBLE SIGNAL. **B.** COORDINATE FLOW AND TAMPER SWITCHES WITH SPRINKLER CONTRACTOR AND SHUTDOWN OF ROOF TOP UNITS WITH HVAC CONTRACTOR. VERIFY EXACT QUANTITIES AND LOCATIONS OF FLOW AND TAMPER SWITCHES WITH THE SPRINKLER CONTRACTOR REQUIRED FOR RISER, STANDPIPES, AND FIRE SERVICE LINE. CONTRACTOR COORDINATE DEVICE ROUGH-IN LOCATIONS WITH FINAL FIRE ALARM DESIGN DRAWINGS

D. COORDINATE DEVICE ROUGH-IN LOCATIONS WITH FINAL FIRE ALARM DESIGN DRAWINGS. E. TEST SYSTEM TO INDUSTRY STANDARDS AND PROVIDE WRITTEN DOCUMENTATION TO THE ARCHITECT OF SYSTEM ACCEPTANCE F. LOCATE HEAT DETECTORS IN ATTIC SPACES FOR FULL COVERAGE.

SEE APARTMENT UNIT ELECTRICAL SPECS. FOR ADDITIONAL DWELLING UNIT SPECIFIC REQUIREMENTS ON SHEET E3.O. SEE SHEET E5.I FOR ADDITIONAL TELECOM. SPECS. AND REQUIREMENTS.







1600A SWITCHBOARD LOAD SUMMARY DESCRIPTION LOAD (KW) 271.97 APARTMENTS HOUSE LOADS 286.18 TOTAL = 558.15 AT 208 VOLT, 3 PHASE = 1550.42 AMP

	× EQUIPMENT CONNECTION SCHEDULE										
ITEM	DESCRIPTION	VOLTS	PH	FLA	WIRE	GND	MOCP	DISCONNECT	PNL.&CKT.	REMARKS	
1A	HP-1	208	1	9.0	2#12	#12	15A	2P-30A-NFSS NEMA 3R		APT. UNIT ONLY	
1B	AH-1	208	1	25.6	2#10	#10	30A	2P-30A-NFSS		APT. UNIT ONLY	
2A	HP-2	208	1	9.0	2#12	#12	15A	2P-30A-NFSS NEMA 3R		APT. UNIT ONLY	
2B	AH-2	208	1	25.6	2#10	#10	30A	2P-30A-NFSS		APT. UNIT ONLY	
3A	HP-3	208	1	16.4	2#10	#10	25A	2P-30A-NFSS NEMA 3R			
3B	AH-3	208	3	32.0	3#8	#10	35A	3P-60A-NFSS			
4A	HP-4	208	1	33.5	2#8	#10	50A	2P-60A-NFSS NEMA 3R			
4B	AH-4	208	3	44.7	3#8	#10	50A	3P-60A-NFSS	SEE PANEL		
5A	HP-5	208	1	25.2	2#8	#10	50A	2P-60A-NFSS NEMA 3R	SCHEDULLS		
5B	AH-5	208	3	44.7	3#8	#10	50A	3P-60A-NFSS			
6A	HP-6	208	1	33.5	2#8	#10	50A	2P-60A-NFSS NEMA 3R			
6B	AH-6	208	3	44.7	3#8	#10	50A	3P-60A-NFSS			
7A	HP-7	208	1	33.5	2#8	#10	50A	2P-60A-NFSS NEMA 3R			
7B	AH-7	208	3	44.7	3#8	#10	50A	3P-60A-NFSS			
8	HOT WATER HEATER	208	1	21.6	2#10	#10	30A	2P-30A-NFSS			
9A/9B	IHP-1/FC-1A	208	1	16.6	2#10	#10	25A	2P-30A-NFSS NEMA 3R		NOTE A	
10A	HP-8	208	1	16.4	2#10	#10	30A	2P-30A-NFSS NEMA 3R			
10B	AH-8	208	3	32.0	3#8	#10	50A	3P-60A-NFSS			
					SCHEDU	LE NO [.]	ΓES				

-- VERIFY FINAL CONNECTIONS, ELECTRICAL CHARACTERISTICS, ETC. WITH FINAL EQUIPMENT SELECTIONS. CONTRACTOR IS RESPONSIBLE FOR CORRECTNESS OF ALL BREAKERS, WIRES, ETC. A. WIRE INDOOR UNIT THROUGH OUTDOOR UNIT IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.

VOI	TC: 10	0/208		<u>ົ</u>										
	13. 12 PS· 400)	MAIN II	JGS ONLY				WINES. 4				MOUNTING. SURFACE		
BR	KR					PH	HASELOA	D		CIRCUIT			BR	K
P	Α	DESCRIPTION	AMPS	DEMAND	NO.	A	B	С	NO.	DEMAND	AMPS	DESCRIPTION		
2	25	2ND FLOOR OHP-3	16.4	100%	1	18.9			2	125%	2.0	2ND, 3RD ZONE INVERTOR	20	Γ
-			16.4	100%	3		25.4		4	100%	9.0	2ND FLOOR HALL RECS	20	
2	25	3RD FLOOR OHP-3	16.4	100%	5			25.4	6	100%	9.0	3RD FLOOR HALL RECS	20	
-			16.4	100%	7	32.8			8	100%	16.4	OHP-8	25	
2	40	OHP-4	27.4	100%	9		43.8		10	100%	16.4			
-			27.4	100%	11			59.4	12	100%	32.0	AHU-8	35	
2	40	OHP-5	27.4	100%	13	59.4			14	100%	32.0			
-			27.4	100%	15		59.4		16	100%	32.0			
2	40	OHP-6	27.4	100%	17			30.4	18	100%	3.0	2ND FLOOR TELECOM ROOM	20	
-			27.4	100%	19	31.2			20	125%	3.0	ELEV. EQP SPACE REC/LT	20	
2	40	OHP-7	27.4	100%	21		32.4		22	125%	4.0	2ND FLOOR LIGHTS	20	
-			27.4	100%	23			32.4	24	125%	4.0	3RD FLOOR LIGHTS	20	
2	25	IHP-FC-1A	16.6	100%	25	16.6			26	100%	0.0	SPARE	20	
-			16.6	100%	27		16.6		28	100%	0.0	SPARE	20	
3	35	2ND FLOOR AHU-3	32.0	100%	29			32.0	30	100%	0.0	SPARE	20	
-			32.0	100%	31	32.0			32	100%	0.0	SPARE	20	
-			32.0	100%	33		32.0		34	100%	0.0	SPARE	20	
3	35	3RD FLOOR AHU-3	32.0	100%	35			32.0	36	100%	0.0	SPARE	20	
-			32.0	100%	37	32.0			38	100%	0.0	SPARE	20	
-			32.0	100%	39		32.0		40	100%	0.0	SPARE	20	
1	20	ROOF/ATTIC RECS.	9.0	100%	41			9.0	42	100%	0.0	SPARE	20	
						222.0	2416	220.6						

	800A APARTMENT METER	STACK LO	AD CALC.
	21 UNITS		
	TYPE		LOAD (KW)
	TOTAL APT. LIGHTING LOAD		48.37
	SMALL APPLIANCES		63.00
	ELEC. RANGE		168.00
	LAUNDRY		130.20
	ELEC. WATER HEATER		94.50
	DISPOSER		21.00
	DISHWASHER		25.20
	REFRIGERATOR		25.20
	HVAC		159.60
-	TOTAL	=	735.07
_	DEMAND FACTOR OF 37%		
	PER NEC TABLE 220-84	=	271.97
PS	AT 208 VOLT, 3 PHASE	=	755.48 AMPS

NOTE: CALCULATIONS ARE IN ACCORDANCE WITH NEC 220.40

	PANEL H1S													
VOL AMP	TS: 12 PS: 22	20/208 5	PHASE: 3 MAIN: LU	3 JGS ONLY				WIRES: 4				MOUNTING: SURFACE		
BR	KR			CIRCUIT		PH	IASE LOA	D		CIRCUIT			BRI	KR
Р	Α	DESCRIPTION	AMPS	DEMAND	NO.	Α	В	C	NO.	DEMAND	AMPS	DESCRIPTION	Α	Р
1	20	TELE BACKBOARD RECS	3.0	100%	1	15.0			2	125%	9.6	GRND/ 1ST LTS ZONE INV.	20	1
1	20	SECURITY SYSTEM	6.0	100%	3		17.4		4	125%	9.1	GROUND FLOOR LIGHTS	20	1
1	20	FACP [1]	6.0	100%	5			24.3	6	125%	14.6	GROUND FLOOR LIGHTS	20	1
1	20	SPARE	0.0	100%	7	5.0			8	125%	4.0	1ST FLOOR LIGHTS	20	1
1	20	MENS/WOMENS BATH RECS	3.0	100%	9		8.0		10	125%	4.0	SITE LIGHTS [3]	20	1
1	20	RENTAL OFFICE RECS	7.5	100%	11			20.0	12	125%	10.0	MONUMENT SIGN [3]	20	1
1	20	LOBBY/HALL RECS	6.0	100%	13	6.0			14	100%	0.0	SPARE	20	1
1	20	BREAK RM REF. [2]	8.0	100%	15		18.0		16	100%	10.0	EWC [2]	20	1
1	20	COUNTER TOP RECS	4.5	100%	17			15.0	18	100%	10.5	1ST FLOOR HALL RECS	20	1
1	20	DISHWASHER	6.0	100%	19	30.1			20	100%	24.1	STAIR ELEC. HEATER	30	2
1	20	BREAK RM RECS.	4.5	100%	21		28.6		22	100%	24.1			-
1	20	SKILL SUPERVISOR RECS	<u>6.0</u>	100%	23			<u>30.1</u>	24	100%	<u>24.1</u>	STAIR ELEC, HEATER	30	2
1	20	SHARED OFFICE RECS	6.0	100%	25	30.1			26	100%	24.1			-
1	20	SHARED OFFICE RECS	6.0	100%	27		14.0		28	100%	8.0	HAND DRYER [4]	20	1
1	20	OFFICE WORK AREA RECS	3.0	100%	29			11.0	30	100%	8.0	HAND DRYER [4]	20	1
1	20	OFFICE WORK AREA RECS	6.0	100%	31	14.0			32	100%	8.0	HAND DRYER [4]	20	1
1	20	OFFICE WORK AREA RECS	<u>3.0</u>	100%	33		11.0		34	100%	8.0	HAND DRYER [4]	20	1
1	20	HALLWAY RECS	6.0	100%	35			10.5	36	100%	4.5	MEETING SPACE RECS.	20	1
1	20	MEETING SPACE RECS.	4.5	100%	37	8.3			38	125%	3.0	ELEVATOR CAR LIGHTS	20	1
1	20	MEETING SPACE RECS.	6.0	100%	39		11.6		40	125%	4.5	ELEVATOR PIT RECS/LTS	20	1
1	20	ITC RECS	7.5	100%	41			<u>9.5</u>	42	100%	<u>2.0</u>	RECIRC. PUMP	20	1
1	20	LINK COORD RECS	6.0	100%	43	6.0			44	100%	0.0	SPARE	20	1
1	20	LINK COORD, STORAGE RECS	7.5	100%	45		7.5		46	100%	0.0	SPARE	20	1
1	20	OBSERVATION, TIMEOUT RECS	6.0	100%	47			6.0	48	100%	0.0	SPARE	20	1
1	20	OBSERVATION RECS	6.0	100%	49	6.0			50	100%	0.0	SPARE	20	1
1	20	OBSERVATION RECS	4.5	100%	51		4.5		<u> </u>	100%	0.0	SPARE	20	1
1	20	PCIT ASSESSMENT RECS	9.0	100%	53			15.0	54	100%	<u>6.0</u>	AIR HANDLERS CO SENSOR	20	1
	20	SHARED OFFICE RECS	7.5	100%	55	7.5			<u> </u>	100%	0.0	SPARE	20	1
1	20	SHARED OFFICE RECS	<u> </u>	100%	5/		7.5		<u> </u>	100%	0.0	SPARE	$\frac{20}{20}$	1
$\frac{1}{\sqrt{1}}$	20		30	100%	59			30	60	100%	0.0		$\frac{20}{20}$	
1	20		<u> </u>	100%	61	/.5			62	100%	0.0	SPARE	$\left \frac{20}{20} \right $	
1	20		9.0	100%	63		9.0		64	100%	0.0		$\frac{20}{20}$	1
	20		<u> </u>	100%	65	7.5		6.0	<u> </u>	100%	0.0		$\frac{20}{00}$	
	20		<u> </u>	100%	67	7.5	0.0		<u> </u>	100%	0.0			
	20				<u>69</u>		0.0	2.0	70		0.0			
	20				72	60		<u>3.</u> U	12	100%	0.0			
	20			100%	13	0.0	60		<u>/4</u> 76	100%	0.0			
	20		20	100%	/ J 77		0.0	3.0	/0 70	100%	0.0			
	20		<u> </u>	100%	70	15		3.0	<u>10</u> 20	100%	0.0			
	20		<u>4.5</u> 2.0	100%	19 Q1	4.5	30		<u>00</u> 82	100%	0.0			
1	20		<u>3.0</u> 3.0	100%	83		5.0	3.0	<u> </u>	100%	0.0		20	
	201	BAR BOARD REOD	0.0		00	153.5	1/6 1	159 /			0.0			

[1] - PROVIDE BREAKER WITH RED HANDLE LOCK

[2] - GFCI CIRCUIT BREAKER

[4] - PROVIDE BREAKER WITH HANDLE LOCK

SQUARE-D NQ OR EQUAL

						PA	NELI	H1						
VOL	.TS: 12	20/208	PHASE:	3				WIRES: 4				MOUNTING: SURFACE		
AMPS: 1000 MAIN: LUGS ONL				UGS ONLY										
BR	KR		CIRCUIT			PHASE LOAD			CIRCUIT				BR	KR
Р	Α	DESCRIPTION	AMPS	DEMAND	NO.	Α	В	С	NO.	DEMAND	AMPS	DESCRIPTION	Α	Р
3	35	AHU-3	32.0	100%	1	223.8			2	125%	153.5	PANEL H1S	225	3
<u> </u>			32.0	100%	3		214.6		4	125%	146.1			-
			32.0	100%	5			231.2	6	125%	159.4			
3	50	AHU-4	44.7	100%	7	323.3			8	125%	222.9	PANEL H3	400	3
<u> </u>			44.7	100%	9		346.7		10	125%	241.6			
			44.7	100%	11			265.3	12	100%	220.6			
3	50	AHU-5	44.7	100%	13	90.7			14	100%	46.0	ELEVATOR [1]	60	3
<u> </u>			44.7	100%	15		90.7		16	100%	46.0			
<u> </u>			44.7	100%	17			90.7	18	100%	46.0			
3	50	AHU-6	44.7	100%	19	44.7			20	100%	0.0	SHUNT TRIP		1
<u> </u>			44.7	100%	21		<u>53.7</u>		22	100%	<u>9.0</u>	ELEV. SUMP PUMP	15	3
<u> </u>			44.7	100%	23			<u>53.7</u>	24	100%	9.0			-
3	50	AHU-7	44.7	100%	25	53.7			26	100%	<u>9.0</u>			<u> </u>
<u> </u>			44.7	100%	27		44.7		28	100%	0.0	PROVISION		1
<u> </u>			44.7	100%	29			<u>44.7</u>	30	100%	0.0	PROVISION		1
2	50	EV CHARGER	40.0	125%	31	50.0			32	100%	0.0	PROVISION		1
<u> </u>			40.0	125%	33		<u>50.0</u>		34	100%	0.0	PROVISION		1
2	50	EV CHARGER	40.0	125%	35			50.0	36	100%	0.0	PROVISION		1
<u> </u>			40.0	125%	37	<u>50.0</u>			38	100%	0.0	PROVISION		1
2	25	1ST FLOOR OHP-3	16.4	100%	39		16.4		40	100%	0.0	PROVISION		1
<u> </u>			16.4	100%	41			16.4	42	100%	0.0	PROVISION		1
						836.2	816.8	752.0						

[1] - SHUNT TRIP BREAKER

SQUARE-D I-LINE OR EQUAL SEE SPEC. NOTES

SEE SPEC. NOTES

[3] - WIRE CIRCUIT THROUGH PHOTOCELL FOR DUSK TO DAWN OPERATION.

WITH INTEGRAL 120kA TVSS







CORE LIGHTIN	G FIXTURE SCHE	EDULE	
ATALOG NO.	LAMPS & WATTAGE	MOUNTING	REMARKS
GHTING _03-SWW7	LOW LUMEN, 3500K, 27 WATTS	RECESSED	NOTE A
GHTING _03-SWW7	MED LUMEN, 3500K, 36 WATTS	RECESSED	NOTE A
GHTING _06-SWW7	LOW LUMEN, 3500K, 32 WATTS	RECESSED	NOTE A
GHTING <u>.06-SWW7</u>	MED LUMEN, 3500K, 40 WATTS	RECESSED	NOTE A
GHTING <u>L06-WR-MVOLT</u>	LOW LUMEN, 3500K, 12 WATTS	RECESSED	NOTE A
GHTING <u>L06-WR-MVOLT</u>	MED LUMEN, 3500K, 19 WATTS	RECESSED	NOTE A
GHTING <u>35-MSD7</u>	3100 LUMEN LED ARRAY, 28.2 WATTS	WALL AT 7'-6" AFF	WITH INTEGRAL OCCUPANCY SENSOR
HOUSE D-24	MED LUMEN, 3500K, 25 WATTS	WALL ABOVE MIRROR	NOTE A
ARCHITECT ED BY CONTRACTOR	20W LED MAX.	SEE ARCH. PLANS	\$200 ALLOWANCE
GHTING <u>WW3-80CRI</u>	MED LUMEN, 3500K, 36 WATTS	SURFACE	NOTE A
GHTING <u>WW3-80CRI</u>	HIGH LUMEN, 400K, 44 WATTS	WALL	NOTE A
) RI-*-WF6PAN	970 LUMEN, 4000K, 13 WATTS	RECESSED	NOTE A
IANE ⁻ -FC5-*-NF-A0-CLGL	5000 LUMEN LED ARRAY, 40 WATTS	POST TOP, NOTE B	TYPE IV OPTICS
IANE -NF-A0-CLGL-CLHSSGL3R	6100 LUMEN LED ARRAY, 50 WATTS	POST TOP, NOTE B	TYPE III OPTICS, WITH HOUSE SIDE SHIELD
GHTING 10K-MVOLT	2,000 LUMEN LED ARRAY, 18 WATTS	WALL AT 17'-0" AFF	
GHTING R-LSS-MVOLT-EZ1	500 LUMEN, 3500K, 9 WATTS	RECESSED	
Ghting -Mvolt-pe-ddbxd	MED LUMEN, 4000K, 9 WATTS	WALL, SEE PLAN	NOTE A
) -90CRI-WH-M6	MED LUMEN, 3500K, 9 WATTS	UNDER CABINET	NOTE A
GHTING D/277-ELN-SD	FURNISHED W/FIXTURE	WALL OR CEILING, SEE PLAN	
SC	HEDULE NOTES		











2ND FLOOR POWER PLAN







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









A. WIRE LIGHTING IN THIS ROOM THROUGH POWER PACK WITH OCCUPANCY SENSORS AND LOW VOLTAGE WALL CONTROL SWITCH. **B.** WIRE LIGHTING IN THIS ROOM THROUGH POWER PACK WITH OCCUPANCY SENSOR AND LOW VOLTAGE DIMMER SWITCHES. WIRE SWITCHES TO CONTROL ZONES AS SHOWN. C. EMERGENCY LIGHTING ZONE INVERTER ZI, SEE DETAIL ON SHEET E0.4. MOUNT HIGH ON WALL. **D.** WIRE EMERGENCY LIGHTS IN THIS AREA TO CIRCUIT BREAKER CBI IN EMERGENCY LIGHTING ZONE INVERTER ZI, SEE DETAIL ON SHEET EO.4. **E.** WIRE EXTERIOR EMERGENCY LIGHTS TO CIRCUIT BREAKER CB2 IN EMERGENCY ZONE INVERTER ZI, SEE DETAIL ON SHEET E0.4.

Out WESLEY FRANKLIN SIEVER PO 9. Lic. No. 0402 043863 9/24/24 revisions: DRAWN: MHJ/WRG CHECKED: WFS SCALE: 1/8" = 1'-0" DATE: 09-24-24 PROJECT #: 23003 GROUND FLOOR LIGHTING PLAN

E2.1





APT. LIGHTING FIXTURE SCHEDULE UNTING REMARKS JFACE FAN WITH LIGHT KIT JFACE NOTE A **BOVE MIRROR** NOTE A JFACE NOTE A JFACE NOTE A JFACE NOTE A

TYPE	MANUFACTURER/CATALOG NO.	LAMPS & WATTAGE	MO
A1	PEACOCK FAN CO. 4-3WC	60W MOTOR, 19W LED	SI
A2	CANDELA LIGHTING SSPR-UNV-7-FS	MED LUMEN, 3500K, 15 WATTS	SI
A3	DUNTON HOUSE SWORD-24	MED LUMEN, 3500K, 25 WATTS	WALL AB
A4	DUNTON HOUSE BARS-14-FS5-80	MED LUMEN, 3500K, 15 WATTS	รเ
A5	ENVISION LED LED-WRP-FR-4FT-3P-48-6CT-UNV-	MED LUMEN, 3500K, 30 WATTS	รเ
A6	CANDELA LIGHTING UCS-8"-FS1-UCS	450 LUMEN LED, 6 WATTS	SI
		SCHEDULE NOTES	
	EQUIVALENT FIXTURES ACCEPTED BY ALTERNA ALL FINISHES SHALL BE AS SELECTED BY ARCH	ATE MANUFACTURERS: SIG IITECT.	INIFY, CRE

A. SELECTABLE FIXTURE, INITALLY SET TO SETTINGS NOTED, AND FIELD ADJUST TO OWNER'S SATIFACTION.

	.TS: 1	20/208 PHAS		TE:3	MOUNTING: FLUSH			
						BRKR		
		DESCRIPTION			DESCRIPTION		D	
<u>r</u> 2	15	ОНР	1	2	GENITS & RECS (A)	A	<u> </u>	
<u> -</u>			3	<u> </u>	GENITS & RECS (A)	15	1	
2	30		5	6	GENITS & RECS (A)	15	1	
-			7	8	GENITS & RECS (A)	15	1	
2	30	ELEC. WATER HEATER	9	10	REFRIGERATOR (A)(G)	20	1	
-			11	12	DISPOSER (A)	20	1	
2	50	ELECTRIC RANGE	13	14	SMALL APPLIANCE (A)	20	1	
-			15	16	SMALL APPLIANCE (A)	20	1	
2	30	DRYER	17	18	EXHAUST HOOD (A)	15	1	
-			19	20	STRUCTURED CABLE (A)	15	1	
1	20	LAUNDRY (A)(G)	21	22	DISHWASHER (A)(G)	20	1	
1	20	BATH OUTLET (A)	23	24	SPARE (A)	15	1	
1	15	SMOKE DETECTOR (A)	25	26	SPARE (A)	15	1	
1	15	OUTSIDE AIR FAN	27	28	PROVISIONAL	-	1	
1		PROVISIONAL	29	30	PROVISIONAL		1	
	(A) = (G) = * = 20 <u>SEE</u>	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES		SFOR (DHP SERVING EACH UNIT.			
	(A) = (G) = * = 20 SEE	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA <u>SPEC NOTES</u> LO	WINGS AD SU	S FOR (MMAF	DHP SERVING EACH UNIT. RY			
	(A) = (G) = * = 20 <u>SEE</u>	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA <u>SPEC NOTES</u>	WINGS AD SU	S FOR (MMAF	DHP SERVING EACH UNIT. RY			
	(A) = (G) = * = 20 <u>SEE</u> GEN	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA <u>SPEC NOTES LO,</u> . LIGHTING LOAD 735 SQ.	AWINGS AD SU LC FT. X 3	S FOR (MMAF MMAF W	DHP SERVING EACH UNIT. RY 2.21			
	(A) = (G) = * = 2 SEE GEN SMA	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA <u>SPEC NOTES LO</u> LIGHTING LOAD 735 SQ. LL APPLIANCES	AWINGS AD SU LC FT. X 3	S FOR (<u>MMAF</u> <u>DAD (KV</u> W	DHP SERVING EACH UNIT. <u>Ry</u> 2.21 3.00			
	(A) = (G) = * = 20 SEE GEN SMA ELEC	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA <u>SPEC NOTES</u> LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE	AWINGS AD SU LC FT. X 3	s for (<u>mmaf</u>)ad (Kv W	DHP SERVING EACH UNIT. <u>RY</u> 2.21 3.00 8.00			
	(A) = (G) = * = 20 SEE GEN SMA ELEC LAUI	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA <u>SPEC NOTES LO</u> . LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY	AWINGS AD SU LC FT. X 3	S FOR (MMAF MMAF W	DHP SERVING EACH UNIT. <u>RY</u> 2.21 3.00 8.00 6.20			
	(A) = (G) = * = 20 SEE GEN SMA ELEC LAUI ELEC	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY C. WATER HEATER	AWINGS AD SU LC FT. X 3	s for (<u>mmaf</u> Dad (KV W	DHP SERVING EACH UNIT. <u>RY</u> 2.21 3.00 8.00 6.20 4.50			
	(A) = (G) = * = 20 SEE GEN SMA ELEC LAUI ELEC DISP	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA <u>SPEC NOTES</u> LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY C. WATER HEATER OSER	AWINGS AD SU LC FT. X 3	s for (<u>mmaf</u> M <u>ad (Kv</u> W	DHP SERVING EACH UNIT. <u>RY</u> 2.21 3.00 8.00 6.20 4.50 1.50 1.20			
	(A) = (G) = * = 20 SEE GEN SMA ELEO LAUI ELEO DISP DISH	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY C. WATER HEATER OSER WASHER	AWINGS AD SU LC FT. X 3	s for (<u>mmaf</u>)ad (Ky W	DHP SERVING EACH UNIT. <u>RY</u> 2.21 3.00 8.00 6.20 4.50 1.50 1.20 4.20			
	(A) = (G) = * = 2 SEE GEN SMA ELEC LAUI ELEC DISP DISH REFF	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY C. WATER HEATER OSER WASHER RIGERATOR	AWINGS AD SU LC FT. X 3	s for (<u>mmaf</u>)ad (Kv W	DHP SERVING EACH UNIT. <u>RY</u> 2.21 3.00 8.00 6.20 4.50 1.50 1.20 1.20			
	(A) = (G) = * = 20 SEE GEN SMA ELEO LAUI ELEO DISP DISP DISH REFF	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY C. WATER HEATER OSER WASHER RIGERATOR	AWINGS AD SU LC FT. X 3	S FOR (MMAF DAD (KV W	DHP SERVING EACH UNIT. <u>RY</u> 2.21 3.00 8.00 6.20 4.50 1.50 1.20 1.20 27.81			
	(A) = (G) = * = 20 SEE GEN SMA ELEO LAUI ELEO DISP DISH REFF	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY C. WATER HEATER OSER WASHER RIGERATOR AL	AD SU	s for (<u>MMAF</u> <u>AD (KV</u> W	DHP SERVING EACH UNIT. <u>RY</u> 2.21 3.00 8.00 6.20 4.50 1.50 1.20 1.20 27.81			
	(A) = (G) = * = 20 SEE GEN SMA ELEC LAUI ELEC DISP DISH REFF TOT, 1ST	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY C. WATER HEATER OSER WASHER RIGERATOR AL	AWINGS	s for (<u>MMAF</u> <u>AD (KV</u> W	DHP SERVING EACH UNIT. <u>RY</u> 2.21 3.00 8.00 6.20 4.50 1.50 1.20 1.20 1.20 27.81 10.00 7.10			
	(A) = (G) = * = 20 SEE GEN SMA ELEC DISP DISH REFF TOT, 1ST REM	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY C. WATER HEATER OSER WASHER RIGERATOR AL 10KVA AT 100% AINDER AT 40%	AWINGS	S FOR (MMAF DAD (KV W	DHP SERVING EACH UNIT. <u>RY</u> 2.21 3.00 8.00 6.20 4.50 1.50 1.20 1.20 27.81 10.00 7.12 2.21			
	(A) = (G) = SEE SEE GEN SMA ELEC DISP DISH REFF TOT, 1ST REM HVA	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY C. WATER HEATER OSER WASHER RIGERATOR AL 10KVA AT 100% AINDER AT 40% C SYSTEM	AWINGS	s for (<u>MMAF</u> <u>AD (KV</u> W	DHP SERVING EACH UNIT. RY 2.21 3.00 8.00 6.20 4.50 1.50 1.20 1.20 27.81 10.00 7.12 3.98 2.47			
	(A) = (G) = * = 20 SEE GEN SMA ELEC DISP DISH REFF TOT, 1ST REM HVA	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES LO, LO, LIGHTING LOAD 735 SQ. LL APPLIANCES C. RANGE NDRY C. WATER HEATER OSER WASHER RIGERATOR AL 10KVA AT 100% AINDER AT 40% C SYSTEM P HEAT AT 65%	AWINGS	S FOR (MMAF DAD (KV W	DHP SERVING EACH UNIT. RY 2.21 3.00 8.00 6.20 4.50 1.50 1.20 1.20 27.81 10.00 7.12 3.98 2.47 22.57			
	(A) = (G) = * = 20 SEE GEN SMA ELEC DISP DISH REFF TOT, 1ST REM HVA STRI	AFCI BREAKER GFCI BREAKER DA OR 25A, SEE HVAC DRA SPEC NOTES LO, LL APPLIANCES C. RANGE NDRY C. WATER HEATER OSER WASHER RIGERATOR AL 10KVA AT 100% AINDER AT 40% C SYSTEM P HEAT AT 65% TOTAL	AWINGS	S FOR (MMAF DAD (KV W	DHP SERVING EACH UNIT. RY 2.21 3.00 8.00 6.20 4.50 1.50 1.20 1.20 27.81 10.00 7.12 3.98 2.47 23.57			

VOLTS: 120/208 PHASE:1 WIRE:3 MOUNTING: FLUSH									
AME	.15: 1 2S: 12	20/200 РПА 5 MAIN:	LUGS	NLY	WOUNTING: FLUSH				
BR	KR		CKT	СКТ	DESCRIPTION	BR	KR		
Ρ	A	DESCRIPTION	NO.	NO.	DESCRIPTION	A	Р		
2	15	OHP	1	2	GEN LTS. & RECS (A)	15	1		
-			3	4	GEN LTS & RECS (A)	15	1		
2	30	INDOOR UNIT	5	6	GEN LTS. & RECS (A)	15	1		
-			7	8	GEN LTS. & RECS (A)	15	1		
2	30	ELEC. WATER HEATER	9	10	GEN LTS. & RECS (A)	15	1		
-			11	12	REFRIGERATOR (A)(G)	20	1		
2	50	ELECTRIC RANGE	13	14	DISPOSER (A)	20	1		
-			15	16	SMALL APPLIANCE (A)	20	1		
2	30	DRYER	17	18	SMALL APPLIANCE (A)	15	1		
-			19	20	EXHAUST HOOD (A)	15	1		
1	20	LAUNDRY (A)(G)	21	22	STRUCTURED CABLE (A)	20	1		
1	20	BATH OUTLET (A)	23	24	DISHWASHER (A)(G)	15	1		
1	20	BATH OUTLET (A)	25	26	SMOKE DETECTORS (A)	15	1		
1	15	SMOKE DETECTORS (A)	27	28	SPARE (A)	15	1		
		LO	AD SU	MMAF	RY				
			IC	א) חער	M)				
	GEN	LIGHTING LOAD 1081 SQ) FT X	3W	3.24				
	SMA	LL APPLIANCES			3.00				
	ELEC	C. RANGE			8.00				
	LAUI	NDRY			6.20				
	ELEC	C. WATER HEATER			4.50				
	DISP	OSER			0.75				
	DISH	WASHER			1.20				
	REF	RIGERATOR			1.20				
TOTAL = 28.09									
	1ST	10KVA AT 100%			10.00				
	REM	AINDER AT 40%			7.24				
	HVA	C SYSTEM			5.02				
	STR	P HEAT AT 65%			2.47				
		τοται		=	24 73				
		TOTAL			24.75				

E, LITHONIA, UTOPIA, PROGRESS.

SYMBO	DLS LIST - APARTMENTS	
		OUTL WALL
	OUTLET FOR CEILING OR WALL MOUNTED LED LIGHTING FIXTURE	A2. WALL
OО	OUTLET FOR CEILING OR WALL MOUNTED LED LIGHTING FIXTURE	
	OUTLET FOR LED TRACK LIGHTING FIXTURE, AIM HEADS TO THE SATISFACTION OF OWNER	CABL USED APPR
X	OUTLET FOR CEILING MOUNTED PADDLE FAN WITH LED LIGHT KIT	A3. PROV
S	SINGLE POLE WALL SWITCH	CÖNS OF T FXTF
S3	THREE-WAY WALL SWITCH	
€	AT 18" AFF	A5.
₽	GENERAL PURPOSE DUPLEX RECEPTACLE ABOVE COUNTER	A6.
ĒF	EXHAUST FAN FURNISHED BY HVAC, WIRED BY ELECTRICAL	STEE DEVIO REQU
ER 🖨	250 VOLT DEVICE FOR ELECTRIC RANGE HEIGHT TO SUIT APPLIANCE SERVED	BOTH BE M
REF. 🕀	OUTLET FOR REFRIGERATOR HEIGHT TO SUIT APPLIANCE SERVED	A1. GRAI
∟ 🕀	OUTLET FOR LAUNDRY HEIGHT TO SUIT APPLIANCE SERVED	WEAT
D 🖨	250 VOLT DEVICE FOR STACKED DRYER. HEIGHT TO SUIT APPLIANCE SERVED	
DISP. 🛈	SWITCHED OUTLET FOR DISPOSER HEIGHT TO SUIT APPLIANCE SERVED	A8. Equif
\mathbb{D} wd	OUTLET FOR CONNECTION TO DISHWASHER	GÉÑE SPEC
ЕН 🛈	OUTLET FOR CONNECTION TO EXHAUST HOOD	A9. Outl Feed
M∕E⊕	OUTLET FOR CONNECTION TO MICROWAVE HOOD, OUTLET TO SUIT APPLIANCE SERVED	DEVI CROS PROV
\triangleright	OUTLET FOR TELEPHONE/TV/DATA LINES ROUGH-IN AND PREWIRE AT 18" AFF.	AIO. Outl
	OUTLET FOR TELEPHONE/TV/DATA LINES ROUGH-IN AND PREWIRE AT ABOVE COUNTER OUTLET FOR TELEPHONE/DATA ONLY,	AFCI PANE
r Sa	DOORBELL BUTTON AT 48" AFF	
LB.	SEE DRAWING NOTES. DOORBELL ON WALL	
ن ب اکا	CEILING MOUNTED SINGLE STATION	26 F
Ē	AUDIO/VISUAL FIRE ALARM SIGNAL DEVICE	
	AI 6'-8" AFF VISILAL FIRE ALARM SIGNAL DEVICE	
\bigcirc	AT 6'-8" AFF	
	PANELBOARD/LOAD CENTER SWITCH LEG WIRING	
2	MECHANICAL EQUIPMENT TAG SEE EQUIPMENT CONNECTION SCHEDULE	
1	LIGHTING FIXTURE TYPE SEE LIGHTING FIXTURE SCHEDULE	
	WNGTION DOX AT 100 AFE TO DOTTOM	

- JUNCTION BOX AT 18" AFF TO BOTTOM OF BOX OR AT ASSOCIATED PIECE OF EQUIPMENT AFF ABOVE FINISHED FLOOR
- C/EC CONDUIT/EMPTY CONDUIT
- GFCI GROUND FAULT CIRCUIT INTERRUPTOR TYPE



BRANCH CIRCUIT WIRING CONCEALED IN LS OR CEILING SPACES MAY BE TYPE NM MEX) COPPER, MINIMUM SIZE #14 FOR 15 AMP CUITS, #12 FOR 20 AMP CIRCUITS, #10 FOR 30 P CIRCUITS. FOR BRANCH CIRCUITS LARGER AN 30A USE PROPER SER OR SEU ALUMINUM BLE. HVAC/WATER HEATER CLOSETS ARE ED AS RETURN AIR PLENUM SPACES, USE PROVED WIRING METHODS IN THESE CLOSETS.

PROVIDE QUANTITY OF WIRES IN RUNS TO VIDE A COMPLETE INSTALLATION.

CABLE PASSING THRU FIRE RATED ISTRUCTION SHALL NOT LESSEN THE RATING THE CONSTRUCTION. CABLES PENETRATING ERIOR WALLS SHALL BE COMPLETELY ERTIGHT. GIVE SPECIAL CONSIDERATIONS TO LETS IN SHEER WALLS WHERE WIRING OCCURS BOTH SIDES OF THE WALL.

BOXES SHALL BE FIBERGLASS, PLASTIC OR EL, SIZED FOR NUMBER OF CONDUCTORS AND VICES. BOXES IN RATED CONSTRUCTION WHERE RUIRED SHALL BE PLACED A MINIMUM OF 24" CENTER IF ON ONE SIDE OF ASSEMBLY AND GGERED A MINIMUM OF 24" ON CENTER IF ON 'H SIDES OF ASSEMBLY, IF SPACING CANNOT MAINTAINED PROVIDE PROPER BOX ECTION.

WIRING DEVICES SHALL BE RESIDENTIAL ADE TYPE, COVERPLATES SHALL BE H-IMPACT PLASTIC, MID-SIZED, THERPROOF COVERPLATES SHALL BE ERTIGHT IN USE TYPE, DEVICE/PLATE COLOR LL BE AS DIRECTED BY THE OWNER OR THIECT, USE TAMPER-RESISTANT ZEPTACLES IN ALL ROOMS, SWITCHES SHALL DECORA TYPE,

PROVIDE LOCAL DISCONNECTS FOR IPMENT. DISCONNECT SWITCHES SHALL BE ERAL DUTY FUSED OR NON-FUSED AS CIFIED. BREAKERS SHALL BE "HACR".

PROVIDE GROUND FAULT PROTECTION FOR LETS IN ACCORDANCE WITH NEC 210.8. D-THRU PROTECTION CAN BE USED IF /ICES ARE IN THE SAME ROOM, DO NOT DSS PARTITIONS WITH FEED THRU WIRING, DVIDE SEPARATE DEVICES.

LBOARDS.

WIRE SMOKE DETECTORS IN TANDEM TO DVIDE COMMON ALARM WITHIN INDIVIDUAL ARTMENT UNIT. SMOKE DETECTORS SHALL BE AL SENSOR PHOTOELECTRIC/IONIZATION TYPE RD-WIRED WITH BATTERY BACKUP, SMOKE FECTORS SHALL BE LOCATED A MINIMUM OF FROM HVAC REGISTERS AND CEILING FANS.



SUPPORT CABLE DIRECTLY FROM THE DING STRUCTURE.

PROVIDE ARC-FAULT PROTECTION FOR ALL LETS (INCLUDING LIGHTING, SMOKE DETECTORS, ...) IN ACCORANCE WITH NEC 210.12. PROVIDE I BREAKERS FOR SUCH CIRCUITS IN

AIS. VERIFY EXACT LOCATION, CHARACTERISTICS AND CONFIGURATION OF CONNECTIONS REQUIRED FOR OWNER FURNISHED EQUIPMENT AND EQUIPMENT SPECIFIED UNDER OTHER DIVISIONS. IF ALTERNATE EQUIPMENT IS USED PROVIDE PROPER OVERCURRENT PROTECTION, DEVICES AND CIRCUIT REQUIRED. EQUIVALENT EQUIPMENT TO THAT SPECIFIED MAY BE SUBSTITUTED, HOWEVER, THE CONTRACTOR SHALL MAKE ANY ADJUSTMENTS AND CHANGES REQUIRED TO ACCOMMODATE THE SUBSTITUTIONS AT NO COST TO THE OWNER. CONTRACTOR SHALL GUARANTEE EQUIVALENCE OF SUBSTITUTED EQUIPMENT.

AIL. RESIDENT UNIT LOAD CENTERS SHALL BE AS SCHEDULED OR BY SQUARE D, EATON OR SIEMENS.

AIT. ALL UNITS SHALL HAVE PROVISIONS FOR ADDING VISUAL FIRE ALARM DEVICES IN BEDROOMS AND BATHROOMS. IN UNITS WHERE THESE DEVICES ARE NOT INSTALLED. PROVIDE CONDUIT AND JUNCTION BOXES WITH BLANK COVER PLATES.

AIB. ALL ADA AND UFAS APARTMENTS SHALL ALSO COMPLY WITH THE FOLLOWING:

A. MAXIMUM HEIGHT OF CIRCUIT BREAKERS IN PANELBOARD SHALL BE 48" AFF.

B. PROVIDE A LIGHT SWITCH ABOVE KITCHEN COUNTER FOR EXHAUST HOOD TO OVERRIDE FRONT MOUNT CONTROLS. C. SINGLE STATION SMOKE DETECTORS SHALL BE AUDIO/VISUAL TYPE.

D. VISUAL ONLY FIRE ALARM SIGNALING DEVICES SHALL BE PROVIDED IN ALL BEDROOMS AND BATHROOMS.

E. INSTALL RECEPTACLES, SWITCHES, CONTROLS, ELECTRIC PANELS AT 15" AFF MINIMUM TO BOTTOM AND 48" AFF MAXIMUM TO TOP OF THE DEVICE AS MEASURED FROM FINISHED FLOOR, UNLESS NOTED. WHEN ELECTRICAL DEVICES ARE INSTALLED ABOVE A COUNTER AND THE INSTALLATION HEIGHT EXCEEDS 2'-10" PROVIDE A DUPLICATE ALTERNATE DEVICE LOCATED AS FOR EXAMPLE, FOR A DISPOSAL SWITCH ABOVE A 3'-0" HEIGHT COUNTER (THE PRIMARY LOCATION) PROVIDE A 3-WAY SWITCH SYSTEM AND LOCATE THE OTHER SWITCH (SECONDARY) IN AN ACCESSIBLE LOCATION. NOTE THAT THE PLANS SHOW THE LOCATION OF THE PRIMARY ELECTRICAL DEVICE BUT NOT THE SECONDARY DEVICE.

F. KITCHEN COUNTERTOP RECEPTACLES AND SWITCHES SHALL BE PROVIDED IN BACKSPLASH OF COUNTER OR IN BOXES PROTRUDING 1.5" FROM WALL. MAXIMUM OBSTRUCTION TO RECEPTACLES SHALL NOT EXCEED 24".



Ζ Ö \bigcirc \supset TR ONS⁻ 0 R L MEI Engineering, Inc 1echanical - Electrical - Indust Consultants 1592 CF Pours Drive Harrisonburg, VA 22802 (540) 432-6272 MEIengineeringinc.com SANDERS 16125 RACCOON FORD RD CULPEPER, VIRGINIA 22701 540-829-2590 S \sim ' SUPPORTS MEN ART Δ < 9 COMMUNITY \triangleleft AD ΣŞ Ο 54 NORTH ORANGE, Ř **ENCOMPASS** NO $\overline{\mathbf{S}}$ \Box MA JEALTH C WESLEY FRANKLIN SIEVER Lic. No. 0402 043863 9/24/24 SIONAL . Au +++++ REVISIONS: WRG DRAWN: CHECKED WF CALE: 1/4'' = 1'-0DATE: 09-24-24 PROJECT #: 23003 APARTMENT ELEC. SPECS E3.0





NERAL NOTES	DRAWING NOTES
HVAC DRAWINGS FOR INDOOR/OUTDOOR QUIREMENTS, PROVIDE AND INSTALL AND WIRING FOR EACH IN	A. ALL COUNTER TOP RECEPTACLES IN KITCHEN AREA, AND ALL BATHROOM RECEPTACLES TO BE GFCI TYPE.
	B. STRUCTURED CABLE BOX. SEE SHEET E3.0 FOR DETAIL.
ATIONS AND REQUIREMENTS. PROVIDE DISCONNECTS AND WIRING IN E WITH MANUFACTURER'S INSTALLATION L UNIT WASHERS LEFT OF UNIT DRYERS	C. MECHANICAL CLOSET WITH HVAC EQUIPMENT AND WATER HEATER (SEE HVAC AND PLUMBING PLANS). WIRE OUTSIDE AIR FAN, OA CONTROLLER, AND DAMPER IN THIS CLOSET TO I20V CIRCUIT THROUGH TIMER AND RELAY PROVIDED BY HVAC CONTRACTOR (SEE OUTSIDE AIR SYSTEM DETAIL ON SHEET E3.0), COORDINATE WITH HVAC CONTRACTOR
	D. COORDINATE DEHUMIDIFIER OUTLET WITH MILLWORK.
	E. ALL 120V KITCHEN COUNTER RECEPTACLES TO BE NO FARTHER THAN 24" FROM EDGE OF THE KITCHEN COUNTER. SEE APARTMENT SPEC. NOTES ON SHEET E3.0.
	F. WIRE HOOD TO WALL SWITCHES FOR ON/OFF CONTROLS FOR FAN AND LIGHT. SEE APARTMENT SPEC. NOTES ON SHEET E3.0.
	G. DOOR BELL SYSTEM. WIRE TO CIRCUIT SERVING GENERAL OUTLETS IN THIS ROOM. VERIFY ALL REQUIREMENTS PRIOR TO ROUGH-IN.
	H. PROVIDE UNDER CABINET LIGHTING ALONG ALL COUNTER SPACES IN THE KITCHEN. CONTROL WITH A SWITCH BESIDE THE DISPOSER SWITCH. UNDER CABINET LIGHTING FIXTURES TO BE TYPE A6. PROVIDE IN QUANTITIES AS REQUIRED FOR EVEN COVERAGE OF COUNTER SPACES.







SCALE: |" = 20'



I DRAWING NOTES

RO

A. EV CHARGING STATION MOUNTED ON PEDESTAL. ENELX JUICEBOX40 OR EQUAL. WIRE WITH 3#6+#8 GND. INSTALL IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. ELECTRICIAN TO PROVIDE ALL CHARGING SYSTEM AND MOUNTING COMPONENTS AS REQUIRED FOR A COMPLETE INSTALLATION. ELECTRICIAN TO MAKE FINAL CONNECTION TO EV CHARGER. ROUTE ADDITIONAL I"EC FROM PEDESTAL TO STUB-UP UNDER MAIN BUILDING TELECOM. BACKBOARD FOR DATA CABLE USE, LEAVE WITH PULL STRING.

B. FOR MONUMENT SIGN. VERIFY EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.

C. EXTEND A I" EC FROM STUB UP INTO POLE TO TERMINATE IN GRASS AREA FOR FUTURE SITE LIGHTING. CAP AND MARK END WITH DRIVEN IRON ROD.





2ND FLOOR TELECOM. PLAN SCALE: 1/8'' = 1'-0''NOTE: REFER TO SHEETS E3.0 & E3.1 FOR TELECOM. REQUIREMENTS FOR EACH INDIVIDUAL APARTMENT UNIT ON 2ND & 3RD FLOORS.

GENERAL TELECOM. SPECIFICATIONS

I. GENERAL

I.I RELATED DOCUMENTS:

A. REQUIREMENTS OF THE GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS, AND SPECIAL CONDITIONS APPLY TO THIS SECTION.
 B. ARCHITECTURAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.
 C. TELECOM SPECIFICATIONS DOCUMENT.

1.2 WORK INCLUDED:

A. TELECOM. SYSTEMS AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.
B. PERMITS AND INSPECTIONS REQUIRED FOR WORK.
C. COORDINATION OF FINAL CONNECTIONS, LABELING, AND EQUIPMENT LOCATIONS WITH OWNER'S I.T. MANAGER.
D. WIRING, OF TELECOM. EQUIPMENT, AND OUTLETS FROM DATA/IT EQUIPMENT TO OUTLET, FULLY TERMINATING D. WIRING OF TELECOT. EQUIPTIENT, AND OUTLETS FROM DATA/IT EQUIPTIENT TO OUTLET, FULLT TERMINATING BOTH ENDS.
E. ALL EQUIPMENT REQUIRED FOR A COMPLETE SYSTEM INCLUDING BUT NOT LIMITED TO BULK CABLE, PATCH PANELS, PATCH CABLES, WIRING BLOCKS, JACKS, COVERPLATES, STRAPS, J-HOOKS, ETC.
F. RACK POWER MANAGEMENT, SWITCHES, AND ROUTERS TO BE PROVIDED AND INSTALLED BY OWNER AND IS NOT THE RESPONSIBILITY OF THE CONTRACTOR.
G. WIRELESS ACCESS POINTS TO BE PROVIDED BY OWNER, BUT FULL INSTALLED BY CONTRACTOR.

1.3 JOB CONDITIONS:

 A. COORDINATE WITH BUILDING CONSTRUCTION AND WITH OTHER TRADES.
 B. IN CASE OF CONFLICT BETWEEN SPECIFICATIONS AND DRAWINGS, CONSULT ARCHITECT IMMEDIATELY FOR DETERMINATION OF PROCEDURE METHOD.
 C. FACILITY IS TO REMAIN IN NORMAL OPERATION DURING RENOVATIONS. CONTRACTOR SHALL MINIMIZE AND CLOSELY COORDINATE AND SCHEDULE ANY REQUIRED DOWN-TIME DURING CONSTRUCTION WITH OWNER. **I.4 CONFORMANCE TO REGULATIONS:**

A. WORK SHALL CONFORM WITH 2018 VIRGINIA UNIFORM STATEWIDE BUILDING CODE, NFPA, LOCAL ORDINANCES AND THE RULES AND REGULATIONS OF THE UTILITIES. B. WORK SHALL BE IN ACCORDANCE WITH THE OWNER'S BUILDING CRITERIA AND I.T. INSTALLATION REQUIREMENTS.

I.5 QUALITY ASSURANCE:

A. MEET OR EXCEED RECOMMENDATIONS OF: IEEE, IES, NEMA AND UL.
 B. FOLLOW INDUSTRY BEST PRACTICES FOR ALL WORK.

I.6 MATERIALS AND EQUIPMENT:

A. PROVIDE NEW MATERIALS AND EQUIPMENT UNLESS OTHERWISE NOTED.
B. FURNISH (INCLUDING FREIGHT AND UNLOADING) AND INSTALL UNLESS OTHERWISE NOTED.
C. EQUIPMENT PROVIDED FOR THIS PROJECT SHALL BE NEW UNLESS NOTED OTHERWISE.

I.7 SUBMITTALS:

A. SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR EQUIPMENT IN ACCORDANCE WITH THE OWNER & ARCHITECT'S REQUIREMENTS. B. UPON COMPLETION OF THE INSTALLATION, AND PRIOR TO ACCEPTANCE BY THE OWNER, CONTRACTOR SHALL FURNISH AS-BUILT DOCUMENTATION AND O&M MANUALS IN ACCORDANCE WITH THE OWNER & ARCHITECT'S REQUIREMENTS.

I.8 PROJECT CLOSEOUT:

A. REPAIR DAMAGED AND DEFECTIVE EQUIPMENT AND MATERIALS. REPLACE ITEMS THAT CANNOT BE PROPERLY REPAIRED. **B.** CLEAN EXPOSED AND SEMI-EXPOSED SURFACES OF EQUIPMENT AND MATERIALS. **C.** TOUCH-UP SHOP-APPLIED FINISHES TO RESTORE DAMAGED AND SOILED AREAS.



2. PRODUCTS	
 A. ETHERNET OUTLET JACKS SHALL BE RJ-45 KEYSTONES. A. ETHERNET OUTLET JACKS SHALL BE RJ-45 KEYSTONES. ACCESS POINT TERMINATIONS SHALL BE TO RJ-45 CONNECTORS AND HAVE A MINIMUM IO FOOT SERVICE OOP. ALL JACKS SHALL BE WHITE. COAX CABLE SHALL BE RG6 GRADE OR HIGHER COAX CABLE SHALL BE TERMINATED AT IU COAX PATCH PANELS. SHALL BE BY LEGRAND, LEVITON, OR EQUAL MANUFACTURER. 	G
A. RACKS SHALL BE FULL HEIGHT, FOUR POST, OPEN FRAME, FLOOR MOUNTED TYPE WITH A MOUNTING DEPTH OF 30 INCHES MINIMUM. 3. SECURE RACKS TO FLOOR. 5. DEPTH OF RACK SHALL ALLOW FOR A MINIMUM OF 30 INCHES OF EQUIPMENT MOUNTING SPACE. 5. RACKS SHALL BE PROVIDED WITH VERTICAL CABLE MANAGEMENT ON BOTH SIDES OF RACK, RUN THE 5. ULL HEIGHT OF THE RACK. 6. RACKS SHALL BE BY LIEBERT, APC, OR EQUAL. 7. PROVIDE AND INSTALL 2U CABLE MANAGEMENT PANELS BETWEEN EACH PATCH PANEL. 7. PROVIDE SIX SPARE MATCHING 2U CABLE MANAGEMENT INSERTS MINIMUM TO OWNER.	SCA
3. EXECUTION	
B.I CABLE, JACKS, AND PATCH PANELS:	
A. TERMINATIONS SHALL BE MADE AS DATA FOR ALL RUNS. NO DISTINCTION BETWEEN PHONE AND DATA ACKS SHALL BE MADE TO RETAIN FLEXIBILITY IN USAGE. TEST AND CERTIFY ALL CABLING RUNS TO ENSURE FUNCTIONALITY. STRAIN RELIEF SHALL BE PROVIDED FOR ALL CABLES. CABLE SHALL BE SUPPORTED DIRECTLY FROM THE BUILDING STRUCTURE WITH J-HOOKS AT INTERVALS OT TO EXCEED 4 FEET. BORED HOLES SHALL NOT EXCEED I" DIAMETER AND SHALL BE A MINIMUM OF "-O" FROM STRUCTURAL BEARING POINTS, NOTCHING OF STRUCTURAL MEMBERS IS PROHIBITED. PROVIDE GUARD STRIPS AT LEAST AS HIGH AS CABLE WHERE RUN ACROSS TOP OF STRUCTURE IN ACCESSIBLE ATTIC SPACES. CABLE BUNDLES SHALL NOT EXCEED 24 CABLES PER BUNDLE, AND SHALL BE CABLE TIED EVERY 6	
SLEEVE ALL WALL AND FLOOR PENETRATIONS. INSTALL PATCH PANELS IN RACKS AS DIRECTED BY OWNER'S IT MANAGER. I. LABEL JACKS SEQUENTIALLY STARTING AT I AND INCREASING TO THE TOTAL NUMBER OF RUNS (I.E. I - 144) ACCESS POINTS SHALL BE WIRED TO A 24 PORT PATCH PANEL DEDICATED ONLY TO ACCESS POINTS, AND LABELED SEQUENTIALLY AS API, AP2, AP3, ETC.	TELECOM
, LABEL BUTH ENDS OF CABLES WITH LABEL MATCHING RUN OR ACCESS POINT NUMBER ACCORDINGLY. , INSTALL PATCH PANELS AT THE TOP OF THE RACK PROCEEDING DOWNWARDS, WITH 2U CABLE 1ANAGEMENT INSTALLED BETWEEN EACH 48-PORT PATCH PANEL. , ALL FIBER CABLING SHALL BE RUN IN CONDUIT. 1. LABEL ALL FACE PLATES WITH NUMBER CORRESPONDING TO EACH JACK'S CABLE RUN. . VERIFY EXACT PLACEMENT OF RACKS WITH OWNER PRIOR TO INSTALLATION.	TELECOM. OI WITH COVER WIFL ACCESS
3.2 RACKS:	PATCH_CAB
A, RACKS SHALL BE FULL HEIGHT, FOUR POST, OPEN FRAME,	IDF TO RUN [XY] OUTLET. NUM
9.3 EQUIPMENT: A. INSTALL OWNER PROVIDED ACCESS POINT EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES. FIELD VERIFY EXACT MOUNTING LOCATIONS WITH OWNER PRIOR TO INSTALLATION.	OF CAT-6 P AND HOW MA PROVIDE AT

PLUMBING SPECIFICATIONS		PLUMBING FIXTURE SCHEDUL	.E
1. GENERAL	3. EXECUTION	NO. DESCRIPTION W V CW HW EXTIDE ETTINCS	ACCESS
1.1 DESCRIPTION OF WORK:	3.1 PIPING SYSTEMS	WI ACCESSIBLE TANK 3 15 1/2 KOHLER PROVIDE CORRECT	SEAT: KOHLER
A. ALL FIXTURES, EQUIPMENT, ACCESSORIES, MATERIALS, AND LABOR REQUIRED TO PROVIDE COMPLETE, COORDINATED, AND FULLY FUNCTIONAL PLUMBING SYSTEMS GENERALLY AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN	A. VERIFY INVERT ELEVATIONS PRIOR TO EXCAVATION AND ROUGH-INS.	TYPE WATER CLOSET 1.0 1.2 K-5299-0 HANDLE ORIENTATION TANK TYPE A L KOHLER	K-5588 ''' SEAT: KOHLER _
1. SANITARY SEWER 2. FIRE SUPPRESSION	C. VERIFY EXACT LOCATION OF EQUIPMENT AND FIXTURES PRIOR TO ROUGH-IN.	W2 WATER CLOSET 3 1.5 1/2 K-5299-0 W2 ACCESSIBLE TANK KOHLER PROVIDE CORRECT	
1.2 RELATED DOCUMENTS:	D. COORDINATE ROUTING OF WORK WITH OTHER TRADES AND INSTALL TO ALLOW MAXIMUM HEADROOM CLEARANCES, SERVICE ACCESS AND MAINTAIN PROPER	W3 TYPE WATER CLOSET 3 1.5 1/2 K-3519-0 HANDLE ORIENTATION	K-5588
A. THE REQUIREMENTS OF THE CIVIL, ARCHITECTURAL, STRUCTURAL, HVAC, AND FLECTRICAL DRAWINGS AND SPECIFICATIONS SHALL APPLY TO AND BE CONSIDERED	PITCH OF SLOPING LINES.	LI MTD. LAVATORY I.5 I.5 I/2 I/2 COUNTER FOR W/ KOHLER MTD. LAVATORY I.5 I.5 I/2 I/2 INTEGRAL BOWL K-98821-4	696-200IMR 1,3,7
A PART OF THE PLUMBING WORK IN-SO-FAR AS THEY APPLY TO THE PLUMBING WORK AND ARE REQUIRED FOR COORDINATION.	1. DOMESTIC WATER – 1/2" FIBERGLASS W/ ASJ UP TO 1.5"; 1" FIBERGLASS W/ ASJ OVER 1.5" PIPE SIZE. HOT WATER – 1" FIBERGLASS W/ ASJ.	L2 COUNTER HTD. LAVATORY I.5 I.5 I/2 I/2 COUNTER-TOP W/ KOHLER INTEGRAL BOWL K-98821-4	696-200IMR 7
1.3 JOB CONDITIONS:	2. SEAL VAPOR BARRIERS. SECURE WITH ADHESIVE AND SEAL JOINTS WITH SEALANT.	L3 ACCESSIBLE WALL HUNG LAVATORY 1.5 1.5 1/2 1/2 KOHLER K-1999-SS4 K-400T20-4AKA	SIOUX CHIEF 696-2001MR
A. DUE TO THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS AND ACCESSORIES WHICH MAY BE REQUIRED TO PROVIDE A COMPLETE INSTALLATION OF THE WORK DESCRIBED AND INDICATED.	 PROVIDE GALVANIZED STEEL SADDLE AT HANGERS SURROUNDING INSULATED PIPE. DO NOT COMPRESS INSULATION EXCEPT IN AREAS OF STRUCTURAL 	L4 ACCESSIBLE COUNT. MTD. LAVATORY I.5 I.5 I/2 I/2 COUNTER-TOP W/ INTEGRAL BOWL KOHLER K-400T20-4AKA	SIOUX CHIEF 696-200IMR
B. PROVIDE FITTINGS, OFFSETS, TRANSITIONS, AND ACCESSORIES REQUIRED TO	INTERFERENCE. 5. INSTALL PRE-FITTED PLASTIC ELBOWS OR APPLY CANVAS JACKET IN THREE	SI ACCESSIBLE DOUBLE BOWL S/S SINK I.5 I.5 I/2 I/2 KOHLER K-25940 KOHLER K-23164 W.	/ DISPOSAL DS EE SPEC BELOW 1.3.7
C. PROVIDE SERVICE ACCESS FOR EQUIPMENT, CONTROL COMPONENTS, VALVES,	 6. INSULATE FITTINGS, VALVES AND EQUIPMENT BODIES. 	S2ACCESSIBLE SINGLE BOWL S/S SINKI.5I.7I/2I/2KOHLER K-333IKOHLER K-23164	١,3,٦
AND SPECIALTIES. D. PROVIDE ACCESS PANELS FOR VALVES. ACCESS DOORS. ETC. CONCEALED BEHIND	F. PROVIDE SLEEVES FOR PIPING PENETRATING WALLS. INSULATION SHALL BE CONTINUOUS THROUGH SLEEVES.	SHI ACCESSIBLE SHOWER 2 1.5 1/2 I/2 FREEDOM SHOWERS APEXST6238LDCOL OR APEXST6238LDCOL R KOHLER K-22I79-G	1,2,7
FINISHED SURFACES.	G. FIRESTOP PIPING PASSING THROUGH FIRE RATED WALLS OR CEILINGS.	TS TUB/SHOWER 2 1.5 1/2 1/2 TOR KOHLER TS TUB/SHOWER 2 1.5 1/2 1/2 TOR KOHLER	2,1
A. WORK SHALL CONFORM WITH VIRGINIA UNIFORM STATEWIDE BUILDING CODE,	I. WELDING SHALL BE DONE BY CERTIFIED WELDERS FOR THE APPROPRIATE	EWC ACCESSIBLE ELEC. I.5 I.5 I/2 ELKAY WATER COOLER I.5 I.7 I/2 LZSTL8WSLK	1,2
NFPA, AND LOCAL ORDINANCES.	SYSTEM BEING WELDED. J. MAKE CONNECTIONS OF DISSIMILAR METALLIC PIPING WITH DIELECTRIC UNIONS.	MB MOP BASIN 3 1.5 1/2 1/2 FIAT MSB-2424 FIAT 830-AA, 832-AA 889C	2
A. COMPLY WITH MANUFACTURER'S REQUIREMENTS AND NOTES AND DETAILS	K. PROVIDE CHROME PLATED ESCUTCHEON FOR EXPOSED PIPING PENETRATING A	WM WASHING 2 1/2 1/2 1/2 SIOUX CHIEF W	/ BUILT-IN SHOCK 2 RRESTERS, SIT WM 2
1.6 MATERIALS AND EQUIPMENT:	L. PROVIDE SHUT OFF VALVES AT EQUIPMENT CONNECTIONS. PROVIDE STOPS FOR	MACHINE Machine Geo-2313WR FILIHI ELEC ILATER HEATER 3/4 3/4 A.O. SMITH 240V, IPH, 4.5kW	3" DEEP DRAIN PAN
A. EQUIPMENT PROVIDED FOR THIS PROJECT SHALL BE EQUIVALENT TO PRODUCTS SPECIFIED.	ALL PLUMBING EQUIPMENT AND FIXTURES. M. HANGERS SUPPORTING COPPER PIPING SHALL BE COPPER PLATED OR PLASTIC	EWITH EULO: WATER HEATER STINING HPTS-50 50 GALLON EUULO ELEC: WATER HEATER STINING RHEEM 240V, IPH, 4.5kW	
B. CONTRACTOR SHALL GUARANTEE EQUIVALENCE AND IS RESPONSIBLE FOR	COVERED. HANGERS SUPPORTING INSULATED PIPING SHALL BE SIZED TO SURROUND INSULATION AND STEEL SADDLE.	Image: Line of the second s	
SUBSTITUTED PRODUCT INTO THE PROJECT.	N. PROVIDE VACUUM BREAKERS AT WALL HYDRANTS.	WH WALL HIDRANT C-634 BXI	2
C. MATERIALS AND EQUIPMENT OF THE SAME TYPE AND USE SHALL BE FROM A SINGLE MANUFACTURER.	O. TEST PIPING SYSTEMS AS FOLLOWS: 1. WATER PIPING – TEST AT PRESSURE NOT LESS THAN WORKING PRESSURE OF THE SYSTEM. MAINTAIN SUCH PRESSURE FOR MINIMUM OF 1 HOUR.	WCO WALL CLEANOUT X 8480R	6
D. PROTECT STORED MATERIALS AND EQUIPMENT FROM WEATHER.	 SANITARY, STORM AND VENT PIPING - W/ 10 FT. HEAD OF WATER, MAINTAINING SUCH PRESSURE FOR MINIMUM OF 1 HOUR. TESTS SHALL SHOW NO SUBSTANTIAL LOSS IN PRESSURF 	FCO FLOOR CLEANOUT X 6000	6
A. OWNER WILL PAY FOR ALL WATER, AND SEWER UTILITY CONNECTION FEES.	 4. PIPING RUN IN CONCEALED AREAS SHALL BE LEAK TESTED PRIOR TO BEING CONCEALED. 	COTG CLEANOUT TO GRADE 4 WADE 6000-Z-5	5
B. COORDINATE CONNECTIONS WITH SITE UTILITY DRAWINGS. WORK TO LOCATIONS AND INVERTS INDICATED ON SITE DRAWINGS. PROVIDE TRANSITIONS IN SIZE AND	3.2 PLUMBING FIXTURES	FD FLOOR DRAIN X X WADE IIOXSTD6-21	PRIMER 6
MATERIAL AT POINT OF CONNECTION.	A. PROVIDE CHROME PLATED STOPS FOR FIXTURES.	TV TEMPERING VALVE 1/2 1/2 POWERS LFe480	4
A. SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR FIXTURES AND EQUIPMENT	C. PROVIDE REMOVABLE CHROME PLATED BASKET STRAINER FOR SINKS.	RIM REFRIGERATOR 3/8 SIOUX CHIEF ICE MAKER BOX 3/8 696-1010MR	W/ BACKFLOW PREVENTER 2
SPECIFIED HEREIN AND ON THE DRAWINGS. SHOP DRAWINGS AND PRODUCT DATA SHALL BE IDENTIFIED PER INDICATIONS ON DRAWINGS, SHALL BE MARKED TO INDICATED SPECIFIC ITEM BE PROPOSED, AND SHALL BE ORGANIZED IN AN	D. CAULK BETWEEN FIXTURE AND FINISHED SURFACES WITH WHITE SILICONE CAULKING.	DW DISHWASHER I I/2 PROVIDE PLUMBING CONNECTIONS	
ORDERLY MANNER. SUBMIT SHOP DRAWINGS ELECTRONICALLY IN PDF FORMAT.	E. PROVIDE BOLT CAPS FOR WATER CLOSETS AND URINALS.	DS DISPOSAL GE 6FC52SV	9
INSTALLED IN THIS PROJECT. INCLUDE COPIES OF SPECIFIC EQUIPMENT WARRANTIES IN MANUAL.	UNLESS OTHERWISE NOTED ON DRAWINGS.	NOTES:	·
C. UPON COMPLETION OF THE INSTALLATION, AND PRIOR TO ACCEPTANCE BY THE OWNER, CONTRACTOR SHALL FURNISH TWO COPIES OF AS-BUILT	SPRINKLER SYSTEM SPECS	I. INSTALL FIXTURES IN ACCORDANCE 2. PROVIDE PROPER ACCESS WITH APPLICABLE STANDARDS. WALL THICKNESS & CONST	SORIES FOR RUCTION.
DOCUMENTATION. ALL CHANGES TO THE BIDDING DOCUMENTS SHALL BE NEATLY AND CLEARLY IDENTIFIED ON THE AS-BUILT DOCUMENTATION.		3. PROVIDE PIPE INSULATION KIT. TRUEBRO MODEL 105W OR EQUAL. 4. PROVIDE TEMPERING VALY AS INDICATED ON PLAN OF AS INDICATED ON PLAN OF	VE AT FIXTURES DR RISERS.
1.9 PROJECT CLOSEOUT:	ACCORDANCE WITH THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE, THE NATIONAL FIRE CODES, AND LOCAL ORDINANCES AND REGULATIONS.	5. MOUNT IN 16" ROUND CONCRETE RING: 6. SIZE TO MATCH SEWER SE FLUSH W/ PAVEMENT OR GRADE. 8. W/ WALL CARRIER WADE S	ERVED. 520 SERIES.
B. TOUCH-UP SHOP APPLIED FINISHES TO RESTORE DAMAGED OR SOILED AREAS.	2. PROVIDE A DRY TYPE SYSTEM WHERE PIPING AND/OR HEADS MUST BE	9. DISPOSER ON APARTMENT SINKS ONLY.	
C. INSTRUCT OWNER'S REPRESENTATIVE IN OPERATION AND MAINTENANCE OF EQUIPMENT UTILIZING OPERATION AND MAINTENANCE MANUAL.	ALLOWING FOR SOMEONE ELSE TO PROVIDE MEANS TO KEEP PIPING FROM FREEZING IS NOT ACCEPTABLE. IT IS THE SPRINKLER CONTRACTORS		
2 PRODUCTS	WILL NOT FREEZE.		
2.1 PIPING SYSTEMS:	3. PROVIDE CALCULATIONS, PLANS, AND EQUIPMENT CUTS AS REQUIRED BY NFPA AND BY THE AUTHORITY HAVING JURISDICTION. SUBMIT TO OWNER'S REPRESENTATIVE FOR COORDINATION. MAKE REQUIRED		
A. DOMESTIC WATER PIPING - CPVC OR PEX. UNDERSLAB WATER - PEX W/ NO JOINTS.	ADJUSTMENTS, SUBMIT TO AUTHORITY HAVING JURISDICTION, AND OBTAIN STAMPED AND APPROVED DRAWINGS. SUBMIT APPROVED DRAWINGS TO OWNER'S REPRESENTATIVE FOR EINAL COORDINATION		
B. WATER SERVICE - DUCTILE IRON.	4. PIPING AND EQUIPMENT GENERALLY SHALL BE PER APPLICABLE CODES		
FITTINGS. SCHEDULE 40 PVC TO BE SOLID CORE TYPE.	A. SPRINKLER HEADS IN FINISHED AREAS SHALL BE SEMI-RECESSED, WHITE FINISH.		
D. VENT PIPING - SCHEDULE 40 PVC W/ SOLVENT WELD FITTINGS. SCHEDULE 40 PVC TO BE SOLID CORE TYPE.	B. AIR COMPRESSORS FOR A DRY SYSTEM SHALL BE BASE MOUNTED TYPE WITH A MINIMUM IO GALLON STORAGE TANK. UNIT SHALL BE INSTALLED ON SPRING TYPE VIBRATION ISOLATOPS AND CONNECTED		
A. REFER TO FIXTURE SCHEDULE AND EQUIPMENT LIST ON DRAWINGS FOR	TO SPRINKLER PIPING WITH FLEXIBLE CONNECTORS.		
MANUFACTURER'S AND MODEL NUMBERS.	5. SPRINKLER SYSTEM INSTALLER SHALL NOTE THAT THE BUILDING HAS A MANUAL FIRE ALARM SYSTEM. PROVIDE ALL ALARM DEVICES, FLOW SWITCHES, AND TAMPER SWITCHES REQUIRED. CONNECTIONS BETWEEN		
	THESE DEVICES AND THE FIRE ALARM SYSTEM WILL BE BY THE FIRE ALARM SYSTEM INSTALLER. COORDINATE EXACT REQUIREMENTS OF ALARM DEVICES FOR CONNECTION TO THE FIRE ALARM SYSTEM		
	6. COORDINATE ROUTING OF PIPING WITH BUILDING STRUCTURE AND WITH		
	WILL ALLOW FOR INSTALLATION OF DUCTS, LIGHTS, AND EQUIPMENT.		
	1. DO NOT INSTALL PIPING BENEATH AIR HANDLING DEVICES OR IN MANNER THAT WILL INTERFERE WITH ANY TYPE OF ACCESS PANEL. INSTALL PIPING AT LEAST 2" ABOVE LIGHT FIXTURES TO ALLOW FOR FUTURE RELOCATION OF LIGHT FIXTURES WITHOUT REVISION TO PIPING ELEVATIONS.		
	8. IN SPECIFIC AREAS WHERE ARCHITECT HAS INDICATED SPRINKLER HEADS,		

DRAWINGS, NOTIFY ARCHITECT IF SPRINKLER HEAD LOCATIONS SHOWN DO NOT SATISFY COVERAGE REQUIREMENTS OF NFPA-13.

9. INSTALL HEADS IN THE CENTER OF CEILING TILES IN SMALLER ROOMS AND CENTERED ONE WAY IN CEILING TILES IN LARGE OPEN AREAS.

	LEGEND	
	SOIL OR WASTE PIPING	
—w—	WATER SERVICE PIPING	
	VENT PIPING	
	COLD WATER PIPING	7
	HOT WATER PIPING	
	HOT WATER RECIRC. PIPING	
—s—	SPRINKLER PIPING	U U
	BALL OR GATE VALVE	
	CHECK VALVE	
44 4	RPZ BACKFLOW PREVENTER	N S S
	PRESSURE REDUCING VALVE	
—ka—	GLOBE BALANCING VALVE	
	DROP IN PIPING	
$\left(\begin{array}{c} W \\ I \end{array} \right)$	RISER MARK - SEE DIAGRAM	
3	NOTE REFERENCE	L Ľ
AB	BREVIATIONS	
AFF	ABOVE FINISHED FLOOR	
AFG	ABOVE FINISHED GRADE	
WC <i>0</i>	WALL CLEANOUT	
FCO	FLOOR CLEANOUT	MEI
COTG	CLEANOUT TO GRADE	Engineering, Inc.
VTR	VENT THRU ROOF	Mechanical - Electrical - Industrial Consultants
WΗ	WALL HYDRANT	1592 CF Pours Drive
EWH	ELECTRIC WATER HEATER	(540) 432-6272
CW	COLD WATER	MEIengineeringinc.com
ΗW	HOT WATER	
ΤW	TEMPERED WATER	
HWR	HOT WATER RECIRC.	
DN	DOWN	SANDERS
WC	WATER CLOSET	16125 RACCOON FORD RD
LAV	LAVATORY	540-829-2590
FD	FLOOR DRAIN	
DFU	DRAINAGE FIXTURE UNIT	
SFU	SUPPLY FIXTURE UNIT	S
		MEN

ENCOMPASS COMMUNITY SUP MADISON ROAD APART 454 NORTH MADISON ROAD ORANGE, VIRGINIA 22960 WEALTH (O WESLEY FRANKLIN SIEVER Lic. No. 0402 043863 9/24/24 TONAL -----**REVISIONS:** DRAWN: WLA MDI CHECKED: SCALE: DATE: PROJECT #: 1/8" = 1'-0" 09-24-24 23003 PLUMBING SPECS., AND SCHEDULES

P0.1



















	SANITA	ARY RIS	$SER \left(\frac{SR}{2} \right)$)			
LOCATE SANITARY VENTS IN SCREENED AREA WHERE POSSIBLE, COORIDNATE WITH HVAC EQUIPMENT (TYP.)	S 4 3" 3"			R (S) 28 3"VTR 3"-() 3"-()	S 26 3″√T 3″	R 25 3"VT	-R (
	3" 3"	3" 3"	3" 3"	3" 3"	3" 3"	3" 3"	
	3" 3"	3" 3"	3" 3"	3" 3"	3" 3"	3" 3"	
	WC0 3"	WCO K 3"	WCO N 3"	WCO K 3"	WC0 K 3"		WC
2"]	3" 3"	3" 3"	3" 3"	3"	3" 3"	3" 3"	3"
2" 2" <u>2"HD</u> <u>4"FD</u> <u>FCO</u>	Jwco	,uco	1wco	l wco	1 wco	1 wco	1 wo
$ \begin{array}{c} 3^{"} & 2^{"} \\ 3^{"} & 4^{"} \end{array} \begin{array}{c} 2^{"} \\ 4^{"} \end{array} \begin{array}{c} 4^{"} \\ 4^{"} \end{array} \end{array}$	3"	3"	3"	3" 6"	3"	3"	3"

