MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION STAFF REPORT				
Address:	12450 Old Columbia Pike, Silver Spring	Meeting Date:	6/11/2025	
Resource:	Master Plan Site #34/10 Conley House/Green Ridge	Report Date:	6/4/2025	
Project Contact:	German Pineda Philip Lacy, Architect	Public Notice:	5/18/2025	
Review:	Preliminary Consultation	Staff:	Dan Bruechert	
Proposal:	Building demolition, building construction, association hardscaping	ated grading, tree rer	noval, and	

Preliminary Consultation

STAFF RECOMMENDATION

Staff recommends the applicant make any revisions recommended by the HPC and return for a second Preliminary Consolation.

ARCHITECTURAL DESCRIPTION

SIGNIFICANCE:	Individually Listed Master Plan Site, Conley House/Green Ridge #34/10
STYLE:	Neoclassical
DATE:	c.1902

From *Places from the Past:*

"The large and elegant Conley House is an architectural statement of unusual urbanity and wealth in this community and era. A massive pedimented portico supported by Tuscan columns distinguishes the Neoclassical style residence. The center bay of the five bay front facade has a Palladian-influenced doorway on the first level echoed by a three-part window on the second. Irish immigrant Thomas Y. Conley first established the farm in the 1830s, upon retiring from a Washington, D.C. dry goods store. Conley served in the State House of Delegates in the 1860s. Under the ownership of his grandson Edgar T. Conley, the farm reached its height in the 1920s, encompassing more than 600 acres. Following a stellar military career in which he rose to the rank of major general and received a Silver Star for his actions in the Spanish-American War, Edgar Conley retired to Green Ridge. Family members recall the traditional farming techniques used by Conley who denied use of modern machinery on his farm. The farmstead includes a stone springhouse and a stone gashouse."



Figure 1: The subject property is located within the environmental setting of the Conley House/Green Ridge.

PROPOSAL

The applicant proposes to develop the site including demolishing the existing buildings, constructing a church, and paving and regrading.

APPLICABLE GUIDELINES

Proposed alterations to individual Master Plan Sites are reviewed under Montgomery County Code Chapter 24A (*Chapter 24A*) and the *Secretary of the Interior's Standards for Rehabilitation*. Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features, which convey its historical, cultural, or architectural values.

Montgomery County Code; Chapter 24A-8

- (b) The commission shall instruct the director to issue a permit, or issue a permit subject to such conditions as are found to be necessary to insure conformity with the purposes and requirements of this chapter, if it finds that:
 - (1) The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or
 - (2) The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter; or
 - (3) The proposal would enhance or aid in the protection, preservation and public or private utilization of the historic site or historic resource located within an historic district in a manner compatible with the historical, archeological, architectural or cultural value of the historic site or historic district in which an historic resource is located; or
 - (4) The proposal is necessary in order that unsafe conditions or health hazards be remedied; or

(5) The proposal is necessary in order that the owner of the subject property not be deprived of reasonable use of the property or suffer undue hardship.

Secretary of Interior's Standards for Rehabilitation

- 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
- 3. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
- 9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
- 10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

STAFF DISCUSSION

Background

The applicant purchased the subject property in 2008, when a portion of the Conley Master Plan site was sold by the Conley family, who retain ownership of the property that still contains the Conley House/Green Ridge. The subject property is classified as 'vacant,' though there is one large structure to the rear of the property and smaller vacant structures. Slightly more than half of the subject property has a forest conservation easement on it and is unbuildable (see *Figure 2*, below).

In May of 2022, the Planning Board approved a Preliminary Plan at the subject property, finding the proposal substantially conformed with the Fairlands Master Plan and that there were adequate public facilities to accommodate the proposed 270-seat religious assembly use and associated parking.¹ The Preliminary Plan approval also cited the proposed building was at the "greatest distance feasible from the historic structure" and that due to the site topography the proposed structure is situated at a lower topography than the historic building, further reducing its visual impact.

The applicant proposes to demolish the existing structures on site, regrade and pave a large portion of the buildable area, and construct a church. In 1999, the HPC declined to reduce the environmental setting of the Conley House/Green Ridge Master Plan site when they evaluated a proposal to redevelop the area to the rear of the historic house and the land that now comprises the subject property, and a third lot to the north to create a school campus

Staff requests feedback from the HPC regarding the appropriateness of the applicants' development scheme, the design of the church, and any other recommendations or revisions.

¹ A Preliminary Plan shows how a property will be subdivided and determines whether the existing transportation and school networks can handle the intensity and types of uses proposed. The Planning Board Resolution approving the Preliminary Plan is available here: <u>https://eplans.montgomeryplanning.org/UFS/32035/92677/30-</u> <u>PBRESandMailingList-120210020.pdf/30-PBRESandMailingList-120210020.pdf</u>.



Figure 2: The subject property (outlined in red) is located to the south of the Conley House (circled in yellow).

Building Demolition

Staff has identified four buildings on the site, only one of which appears to be historic. Unfortunately, records for the site identified several outbuildings by name, but did not key their location to the site. The applicant is proposing to demolish these four (4) buildings.

Upon entering the site from Old Columbia Pike, there is a small frame building with vertical composite siding on a poured concrete foundation. This building is inside the forest conservation easement. Plans do not indicate that any work is planned for this building. Based on the design and materials of this building (see the attached photographs), Staff does not find this building is historically significant. The 2023 Forest Conservation Plan Amendment shows the building is to be removed, however, the application materials propose no work for that building at this time. Should the applicant wish to undertake any work on this building, the work would require a HAWP and approval from the Planning Director (or his designated representative), to comply with the requirements of the easement, before beginning that work.

Along the north property boundary there is a small stone building with a front gable roof and asphalt shingles, and a dirt floor. The building was most recently used for storage and has no door. Staff has not identified the purposes of this building but notes it has been maintained evidenced by the exterior and interior repointing and plywood sheathing. This building is not shown on hand drawn 1996 National

Register site plan; but appears to Staff to be historic. The Maryland Inventory of Historic Properties (MIHP) form states that there is a stone springhouse and a stone gashouse on the property. The 2020 NRI/FSD site plan refers to this building as a "well house". The letter accompanying the applicant's Preliminary Consultation submission states that depending on parking allocation, the building "may or may not be kept, or restored on the site." The Forest Conservation Plan Amendment, submitted to the Planning Board in 2023 notes "Ex Bldg. (T.B.R.)" – to be removed. However, it was also made clear at the Planning Board that all alterations to the property require Historic Area Work Permit approval by the HPC; a note on the Forest Conservation Plan Amendment does not supersede or replace the HPC's authority over alterations or demolitions.



Figure 3: Stone building along the existing fence line.

As the burden of persuasion that the proposed work is appropriate is on the applicant, Staff finds that the stone building must be retained as part of any redevelopment scheme. If the applicant can provide additional information to demonstrate this building is not historic, Staff would reevaluate its recommendation. Staff additionally notes that the property boundaries shown on the county's GIS system do not line up with the existing fence line and requests clarification from the applicant as to the accurate location of the property line. The applicant is on notice that the utmost care must be given to the removal of any trees adjacent to the building and that it should be stabilized immediately and prior to the issuance of any other permits for the development of the site.





Figure 4: Undated file photograph showing the Conley House and the small stone structure.



Figure 5: Three of the existing buildings on the subject property are visible in this 1998 aerial.

The third building on site is a large barn-like building located in the approximate location for the proposed church (discussed below). Aerial photographs of the site show that it was constructed sometime between 1951 and 1979. When it was first constructed, this building likely served an agricultural purpose. Staff finds the building has been substantially modified, including an addition to the south side of the building and notes that its construction is outside the period of significance identified in its National Register designation (1910-1946). Staff finds this building does not contribute to the historic

character of the site and would support its demolition as a HAWP.

The final building site is a small, prefabricated shed located to the south of the large barn-like building. This shed has a gambrel roof, and T1-11 siding. Staff finds this building is not historic and was likely installed in the last two decades. Staff would support its removal in a HAWP application.

Staff Requests feedback from the HPC on the following issues:

- Does the HPC concur that demolition of the historic stone building is not permitted?
- Does the HPC concur with Staff's finding that the other three buildings are not historic and may be demolished pending an approved HAWP (and any other required approvals)?
- What other information about the existing buildings does the HPC require to make a final determination?

Church Building Construction

In the approximate location of the large barn-like building, the applicant proposes to construct a church. The proposed church is approximately $69' \times 62'$ (sixty-nine feet wide by sixty-two feet deep) with a $23' \times 92'$ (twenty-three feet wide by ninety-two feet deep) shed roof bump out that includes offices, bathrooms, two sets of stairs, and an elevator. The church has virtually no ornamentation, save the proposed 20' (twenty foot) tall fiberglass steeple in the middle of the roof and a circular metal louver in the gable end of the north elevation. Materials identified on the submitted plans include metal roofing, EIFS walls, fixed aluminum windows, metal exterior doors, and metal louvers. However, the specifications and finishes for these materials were not supplied with the submitted application materials. The height of the church was not provided; however, Staff estimates that the roof ridge will be approximately 30' (thirty feet) with a 20' (twenty foot tall) steeple above the roof ridge, resulting in a building that is approximately 50' (fifty feet) tall.



The applicant selected this location for the proposed church, because it is the only area on site large enough to accommodate a structure of this size. The buildable envelope, restricted by the forest conservation easement, significantly limits where any construction can occur (see *Figure 2*, above). The north corner of the lot is the only flat area on the property and constructing the building anywhere else on the property would require substantially more re-grading on site than what is already proposed. The church will be approximately 250' (two hundred fifty feet) from the southwest corner of the Conley House and more than 350' (three hundred fifty feet) from Old Columbia Pike.

Staff finds the proposed placement of the church will not have a substantial impact on the visual character of the historic Conley House. The Conley House sits on a ridge, that is approximately 15' - 20' (fifteen to twenty feet) higher in elevation than the proposed church; and is nearly 100' (one hundred feet) closer to Old Columbia Pike than the proposed church location; preserving the existing vistas of the Conley House.

Staff finds that it cannot effectively evaluate the appropriateness of the proposed building's size based on the information provided. The submitted materials only show the proposed church building and Conley House in plan, but did not provide materials that allow Staff to compare the massing or height of the proposed construction to the existing historic. Based on Staff's measurements utilizing the county's GIS system, the existing barn-like building has a footprint that is nearly 3000 ft² (three thousand square feet), and the proposed church building's footprint is nearly 6500 ft² (six thousand five hundred square feet). Staff's rough measurements of the Conley House show that the historic house has a footprint of approximately 2500 ft² (two thousand five hundred square feet) including the front porch and rear addition. In most farm settings, the footprint of barns are larger than the farmhouse, even for grand-scale farmhouses like the Conley House. Staff finds that the comparison of the buildings' massing is more important in determining compatibility and that more information is needed. Staff requests feedback from the HPC on the best way to present that information. That information could best be shown 3-D renderings of the proposed site and the Conley House or an elevation from Old Columbia Pike that includes the massing and grade changes proposed.

Next, Staff considers the proposed building's height. It appears that the roof ridge will be approximately 30' (thirty feet) tall with a 20' (twenty foot) tall steeple above, making the total building height 50' (fifty feet) from grade. The primary consideration for the HPC is the overall compatibility of the proposal, however, as with the footprint, the plans submitted are in isolation and do not include sufficient context to make a complete evaluation. Staff notes that the two-and-a-half story Conley House sits on a ridge approximately 15' - 20' (fifteen to twenty feet) above the location of the proposed church, so it is possible the churches' overall height may not visually compete with the historic house. If this property were in a historic district, the HPC would ask for a streetscape study to provide a local context to evaluate the compatibility of a proposal. Here, Staff finds that the site plan that includes topographical lines of both the proposed church property and the Conley House is helpful, however, without building heights, any thorough evaluation of the impact is impossible. Staff finds that the height of both the church and the Conley House from grade need to be included with the next Preliminary Consultation submission.

Staff finds that most of the identified materials do not provide sufficient specifications to provide extensive feedback. However, Staff does not find the use of EIFS to be an appropriate finish for any building with the environmental setting of the Conley House. The material's stucco-like finish is inconsistent with the traditional materials used in constructing this turn of the century house. Staff recommends the applicant consider alternative siding materials like wood, stone, or brick. Staff would consider fiber cement clapboards, as their painted appearance has a finish that is generally consistent with painted wood siding. Staff finds that a metal roof, depending on the details could be appropriate within the site, but that material specifications are necessary to make that determination. Staff recommends a standing seam metal roof with the seams spaced approximately 18"-24" (eighteen to twenty-four inches) with the seams approximately 2" (two inches tall). Additionally, any cap over the roof ridge cannot stand proud of the seams. Staff finds that metal exterior doors could be appropriate, but that the information provided does not provide enough information to evaluate their design, appearance, or finish. Staff finds the single-light aluminum windows are out of character with the site and should be converted to a multilight configuration. Additionally, the treatment of the exterior of the windows needs to be submitted (i.e., is the proposal to have a raw aluminum finish or will they have some type of baked enamel finish?). Finally, Staff cannot evaluate the appropriateness of the fiberglass steeple, because its appearance and finish were not provided. The HPC tends to avoid the use of these substitute materials in master plan sites, but has shown more flexibility for new construction provided the appearance and finish is consistent with a traditional material.

Staff's last consideration with the size, design, and placement of the proposed church building is its visibility; both as it relates to the Conley House and from Old Columbia Pike. The proposed church is 250' (two hundred fifty feet) from the Conley House at a lower elevation and is approximately 350' (three

hundred fifty feet from Old Columbia Pike. Staff finds constructing the church in the proposed location will not impact the relationship between any of the historic buildings, nor will it impact any of the vistas of the historic house from the front. Staff's second concern is the visibility of the proposed church from Old Columbia Pike and how that will impact the overall character of the existing site. Staff notes that the current, largely forested condition of the site is inconsistent with the site's historic agricultural-open setting. Based on Staff's observations on the site, the 350' (three hundred fifty foot) distance from the public right-of-way will sufficiently separate the church building from the overall master plan setting.



Figure 6: The view from Old Columbia Pike towards the proposed church location.

Staff finds the following additional information is necessary for a subsequent Preliminary Consultation review:

• Accurate comparative information that shows the height and massing of the proposed church in relation to the Conley House including information on topography and grade both existing and proposed.

- Detailed exterior material specifications that include dimensions and finish treatment;
- Additional information about the height of the proposed church building and the Conley House.

Staff requests feedback from the HPC regarding:

- The appropriateness of the placement of the proposed church building on site;
- The appropriateness of the church buildings:
 - Size;
 - Design;
 - Materials; and
- Any other revisions or recommendations necessary for a second Preliminary Consultation review.

Paving and Re-Grading

The majority of the remaining buildable area on site will be regraded for parking. A new curb cut is proposed to be installed closer to the northeastern corner of the lot and the existing curb cut will be abandoned. The parking will be edged with concrete curbs and paved in asphalt. Additionally, the applicant proposes to construct a segmented concrete retaining wall along the norther property line.



Figure 7: Proposed site plan submitted with the Forest Conservation Plan Amendment (October 2023).

Staff finds an unfinished concrete retaining wall along the north property is incompatible with the character of the site the wall needs to have a natural stone face to better blend in with the character of the site. Staff recommends the applicant submit detailed specifications showing the treatment of the retaining walls with a second Preliminary Consultation.

Staff finds the regrading of the site is necessary to create a grade that can accommodate the proposed parking but finds that the parking may impact the existing stone building along the north property line (discussed above). Finally, Staff finds the total amount of paving appears to be excessive and

recommends that, at a minimum, the parking area closer to Old Columbia Pike should have a textured surface. A textured surface would help to retain more of the rustic rural character of the master plan site. Staff finds that stamped concrete, exposed aggregate concrete, or gravel would all be appropriate

Staff requests feedback from the HPC regarding:

- Does the HPC concur with Staff's finding that the concrete face of the retaining wall is incompatible with the character of the site?
 - Does the HPC agree with Staff's recommendation that a stone-faced wall is necessary to maintain the historic character?
 - Is there another finish the HPC would prefer?
- Does the HPC find the amount of paving on the site will retain the site's character?
- Any other comments or recommendations on the grading or paving proposed on site.

Other Work Elements

Detailed information about tree removals was not provided in the included materials. A HAWP is necessary to remove all trees larger than 6" d.b.h. (six inches diameter at breast height). The property received an approved Natural Resource Inventory/Forest Stand Delineation that includes an inventory of all trees that exceed 1" d.b.h (one inch diameter at breast height). The NRI/FSD identified 162 (one hundred sixty-two) trees on site. Additionally, the NRI/FSD shows that 22 (twenty-two) trees, at least 3" (three inches) wide need to be planted as mitigation for the lost trees. A notation on the 2023 Forest Conservation Plan Amendment states that the plantings will occur within the conservation easement area, as approve by the forest conservation inspector.

To aid HP Staff and the HPC in reviewing the tree removals proposed, an accounting of only the trees to be removed needs to be submitted as part of the HAWP application. Before any trees can be removed on site, a HAWP application must include the location, species, and size of the trees proposed for removal. Staff also notes that the applicant proposes to remove all of the trees between Old Columbia Pike and the church building, including all of the trees at the entrance. To maintain some of the site's existing character, Staff recommends that some replanting be required along the Old Columbia Pike frontage. Staff encourages the HPC to discuss the appropriate amount of planting in this area to be submitted as part of the HAWP application.

Additionally, no information was provided about any signage on the site. As the church building will be located so far to the rear of the site, Staff presumes some signage will be desired. A HAWP is required for any signage within the Conley House environmental setting. Based on the character of the site, Staff does not find that a large LED or video signage is appropriate for this site and that an externally illuminated sign, constructed of wood is preferable. A HAWP to install signage must include the sign dimensions in both elevation and plan, sign location, materials, and installation method. A county sign permit will also be required prior to sign installation.

Finally, the applicant is required to dedicate a section along Old Columbia Pike to install a multi-modal sidepath. The area master plan calls for a bikepath to be constructed along this road. The applicant has not provided Staff with detail for the construction of this new path, nor does it identify that this section of the property is being dedicated for a future use. Staff requests the applicant provide clarification on this section of the plan and reminds the applicant that a HAWP is required before construction of this path can begin.

STAFF RECOMMENDATION

Staff recommends the applicant make any revisions recommended by the HPC and return for a second Preliminary Consolation.

APPLICATIO HISTORIC AREA WA HISTORIC PRESERVATION 301.563.340	For Staff only: HAWP# Date assigned ORK PERMIT
Name: Iglesia Vida Nueva, Inc. / Pastor German Pined	E-mail: Vanci Pineda@hotmail.com
Address: 1362.4 Northqate Drive	city: Silver Spring Zip: 20906
Daytime Phone: <u>301-873-7092</u>	Tax Account No.: 3637637
AGENT/CONTACT (if applicable):	
Name: Philip Aaron Lacy, Architect	E-mail: philiplacy 95@qmzil.com
Address: 9615 Geena Nicole Dr. Clinton, Md.	City: Clinton Zip: 20735
Daytime Phone: 301-873-5093	Contractor Registration No.: 684-9
LOCATION OF BUILDING/PREMISE: MIHP # of Histori	c Property
Is the Property Located within an Historic District? \underline{X} Is there an Historic Preservation/Land Trust/Environme map of the easement, and documentation from the Ease Are other Planning and/or Hearing Examiner Approvals (Conditional Use, Variance, Record Plat, etc.?) If YES, in supplemental information.	Ves/District Name lo/Individual Site Name_ <u>Conley Hovse/Green</u> Ridge ental Easement on the Property? If YES, include a sement Holder supporting this application. /Reviews Required as part of this Application? clude information on these reviews as
Building Number: 12450 Street:	old Columbia Pike
Town/City: Silver Spring Nearest Cros	s Street: Carters Grove Drive
Lot: Block: Subdivision:	Parcel: <u>355</u>
TYPE OF WORK PROPOSED: See the checklist on Proposed work are submitted with this applicate be accepted for review. Check all that apply: Image: See the checklist on Proposed work are submitted with this applicate be accepted for review. Check all that apply: Image: See the checklist on Proposed work are submitted with this applicate be accepted for review. Check all that apply: Image: See the checklist on Proposed work are submitted with this applicate be accepted for review. Check all that apply: Image: See the checklist on Proposed work are submitted with this applicate be accepted for review. Check all that apply: Image: See the checklist on Proposed work are submitted with this applicate be accepted for review. Check all that apply: Image: See the checklist on Proposed work are submitted with this applicate be accepted for review. Check all that apply: Image: See the checklist on Proposed work are submitted with this applicate be accepted for review. Check all that apply: Image: Sec the checklist on Proposed work are submitted with this apply: Image: Sec the checklist on Proposed work are submitted with this apply: Image: Sec the checklist on Proposed work are submitted with the construction will comply with agencies and hereby acknowledge and accept this to Proposed work are submitted with the construction will comply with agencies and hereby acknowledge and accept this to Proposed work are submitted with the construction will comply with agencies and hereby acknowledge and accept this to Proposed work are submitted with the construction will comply with agencies and hereby acknowledge and accept this to Proposed work are submitted with the	age 4 to verify that all supporting items tion. Incomplete Applications will not Shed/Garage/Accessory Structure Solar Tree removal/planting cape Window/Door Other: oregoing application, that the application is correct h plans reviewed and approved by all necessary be a condition for the issuance of this permit. 2 - 2 - 24
Signature of owner or authorized agent	Date 12

HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFING [Owner, Owner's Agent, Adjacent and Confronting Property Owners]			
Owner's mailing address	Owner's Agent's mailing address		
German Pineda Iglesia Vida Nueva, Inc. 13624 North Gate Drive Silver Spring, MD, 20906	Philip Azron Lacy 9615 Geena Nicole Drive Clinton, MD. 20735		
Adjacent and confronting	Property Owners mailing addresses		
General Conference of Seventh Day Adventists 12501 Old Columbiz Pike Silver Spring, MD. 20904	Robert Kemjokeng & Marie S. 1837 Staley Manor Drive Silver Spring, MD. 20904		
Donald Dyson& Jessica Dyson 1924 Carters Grove Drive Silver Spring, MD. 20904	Jenny Nguyen 1835 Staley Manor Drive Silver Spring, MD. 20904		
Satish Gupta 1922 Carters Grove Drive Silver Spring, MD. 20904	Jeffrey R. Liebenguth & Dayam 1831 Staley Manor Drive Silver Spring, MDr 20904		

Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

The property that the church is proposed is a 3.77 acres lot that includes a significant conservation easement that includes a stream. The surrounding environment is wooded. A parking lot is provided to accommodate the congregation. In addition, a storm water management system is included on site. The building itself is a one story with a basement religious facility totaling 12,487 gross square feet on two levels serving 289 worshipers. The building super structure is a pre-engineered metal building with a concrete and masonry basement level. The building exterior includes a standing seam metal roof with an exterior insulation finish system. The facility contains a sanctuary, fellowship hall, a warming pantry, classrooms, office space, utility areas, stairs and an elevator. Fire and life safety features will also be included.

Description of Work Proposed: Please give an overview of the work undertaken:

The work includes the demolition of existing site structures, the excavation for a basement level, and storm water management devices. Protection of existing site features such as the stream and trees in the conservation easement. The work will continue by installing necessary paving and the building structure.

Work Item 1:	
Description of Current Condition:	Proposed Work:
Work Item 2:	
Description of Current Condition:	Proposed Work:

Work Item 3:	
Description of Current Condition:	Proposed Work:



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5. All tree protection and stress reduction measures are intended to be completed within the limits of

6. Locations of symbols for tree protection signs and tree protection fencing may have been adjusted

7. Additional root pruning may be required by the M-NCPPC inspector if determined necessary to

the property.

for graphic and legibility reasons.

mitigate construction related damage to adjacent save trees.





Figure 1: Conely House from the eastern edge of the subject property.



Figure 2: Existing entrance to the subject property



Figure 3: Non-historic building in the existing forest conservation easement.



Figure 4: Looking up the grade towards the existing large building and gravel parking area.



Figure 5: Looking from the large building towards Old Columbia Pike.



Figure 6: Existing large building on site (constructed after 1951.



Figure 7: Non-historic prefab shed.



Figure 9: Detail showing repointing on historic stone building.

IGLESIA VIDA NUEVA UNIDA INTERNACI 12450 OLD COLUMBIA PIKE

SILVER SPRING, MARYLAND 20904

ARCHITECT:

PHILIP AARON LACY ARCHITECTS, LLC 9615 GEENA NICOLE DRIVE CLINTON, MARYLAND 20735

GENERAL NOTES	ABBREVIATIONS & SYMBOLS			ABBREVIATIONS & SYMBOLS PROJECT DESCRIPTION		PROJECT DESCRIPTION
 All work materials and systems shall be furnished and installed in accordance with the State of Maryand International Building Code (IRG) latest adopted edition. The Contractor shall relevant the drawings and specifications and timing to the attention of the Architect any discrepencies prot to pricing. Indiraction, and installation. The Contractor shall relevantly and the information is the row anarship of guarantee of the convenience of the user of the drawings. There is no warandy or guarantee of the convenience of the user of the drawings. There is no warandy or guarantee of the convenience and confirm such information is the row antisfaction interpret of the user of the drawings. There is no warandy or guarantee of the convenience agencies, and any other applicable values. The Contractor assumes all responsibility once the work connences. The Contractor shall coordinate and schedule work with other trades, stilly comparels, governmet agencies, and any other applicable regulatory agency. The contractor shall coordinate, to chooff and provide all related and other related missione datase shall coordinate, to chooff and provide and other related missione datase shall comply with the executed contract. The schedule shall be updated as to the Owner and Architect for releva and approvid. Completion tode and other related missione datase shall comply with the executed contract. The schedule shall be updated as to the Owner advance of the schedule data and the related of missione datase shall complex and and schedule prove during contractors. The schedule shall be updated as to the owner advance of the trave and approved and specifications. All work is all be provide and and schedule data dore schedule shall be updated as to the Owner advance of the material information share the out of missione datase shall complex and material provide and specifications. The constructor ball contractor shall construction shall be trave and	AB ABOVE AFF ABOVE FINISHED FLOOR ACT ACOUSTICAL CELING TILE ADH ADHESIVE ALUM ALUMINUM ADJ ADJACENT BM BEAM BEL BELOW BLK BLOCKING BD BOARD BLDG BUILDING BRK BRICK BHD BULKHEAD CAB CABNET CPT CARPET CPC CAST IN PLACE CONCRETE CLG CELLING CTR CENTER CT CENTER CT CENTER CT CENTER CT CONSTRUCTION CONC CONCRETE MASONRY UNIT CONF CONFERENCE CONST CONTROL JOINT CONT CONTROL JOINT CONTROL JOINT CONTROL JOINT CONTROL JOINT CONTROL JOINT CONTROL JOINT CONTROL JOINT CONTROL JOIN	FOS FACE OF STUD O FE FINSHED FLOOR O FLASH FLASHING FLOOR DRAIN O FLOUR FLOOR DRAIN O FUUR FUORDESCENT F FURR FURRING F GALV GALVANIZED F GA GAUGE F GC GENERAL CONTRACTOR F GVP GYPSUM F GWB GYPSUM F GWB GYPSUM WALL BOARD F HDW HARDWARE F HT HEIGHT F HM HORIZONTAL F ID INSIDE DIAMETER F INSUL INSULATION S INT INTERIOR S JC JANITOR'S CLOSET S KIT KICK PLATE S IAM LAMINATE S LAM LAMINATE S LAM LAMINATE S LAM LAMINATE S MET MACH MACHINE </td <td>DFF OFFICE DC ON CENTER DPMG OPENING DD OUTSIDE DIAMETER DH OVERHEAD PTD PAINTED PLAS TELASTER PTN PARTITION PLVW DPLYWOOD CC PRECAST CONCRETE PROJECT JUNE REF REFERENCE RESULENT REV REVISION R RISER RD ROOF DRAIN RM ROOM SCHD SCHEDULED SEC SECTION SIM SIMILAR SC SOUND ATTENUATION BLANKET SS SOUND ATTENUATION BLANKET SS SOUND ATTENUATION BLANKET SS SOUND ATTENUATION BLANKET SS STAINLESS STEEL STOR STORAGE SUSP SUSPENSION THK THICK THRES THRESHOLD TOIL TOILET READ TOS TOP OF SLAB TYP TYPICAL JNO UNLESS NOTED OTHERWISE VIFY VERTICAL VIFY VERTICAL VIFY VERTICAL VIFY WELDED WIRE FABRIC WWF WELDED WIRE FABRIC WITH WOOD</td> <td>The project is a one story with a basement religious facility totaling 12.487 G.S.F. on two levels serving 289 worshipers. The building super structure is a pre-engineered astanding seam metal roof with an insulated exterior finish system. The facility contains a sanctuary, fellowship hall, a warming pantry, classrooms, office space, utility areas, stars and an elevator. Fire and life safety features will also be included. BUILDING CODES: 2018 NFPA 101 Life Safety Code 2018 International Building Code (IBC) 2015 International Building Code (IBC) 2015 International Building Code (IBC) 2015 International Building Code (IBC) 2016 International Building Code (IBC) 2016 International Building Code (IBC) 2018 INFPA 101 Life Safety Code 2018 UILDING AREA: 62.43 SSEMBLY (CHURCH) CONSTRUCTION TYPE: IIB 9.500 S0. FT. ALLOWED BUILDING AREA: 62.43 SQL FT. PER FLOOR (TOTAL G.S.F. = 12.487) BUILDING AREA: 62.439 WORSHIPERS BUILDING AREA: 62.439 WORSHIPERS BUILDING HEIGHT: 55 FEET ALLOWED (32 FT. AT ROOF RIDGE) FIRE ALARM: YES NUMBER OF EXITS: 2 EXT ACCESS TRAVEL DISTANCE: 200 FEET PRIMARY STRUCTURAL FRAME: 0 HOURS BEARING WALLS INTERIOR: 0 HOURS BEARING WALLS INTERIOR: 0 HOURS FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS: 0 HOURS ROOF CONSTRUCTION AN</td>	DFF OFFICE DC ON CENTER DPMG OPENING DD OUTSIDE DIAMETER DH OVERHEAD PTD PAINTED PLAS TELASTER PTN PARTITION PLVW DPLYWOOD CC PRECAST CONCRETE PROJECT JUNE REF REFERENCE RESULENT REV REVISION R RISER RD ROOF DRAIN RM ROOM SCHD SCHEDULED SEC SECTION SIM SIMILAR SC SOUND ATTENUATION BLANKET SS SOUND ATTENUATION BLANKET SS SOUND ATTENUATION BLANKET SS SOUND ATTENUATION BLANKET SS STAINLESS STEEL STOR STORAGE SUSP SUSPENSION THK THICK THRES THRESHOLD TOIL TOILET READ TOS TOP OF SLAB TYP TYPICAL JNO UNLESS NOTED OTHERWISE VIFY VERTICAL VIFY VERTICAL VIFY VERTICAL VIFY WELDED WIRE FABRIC WWF WELDED WIRE FABRIC WITH WOOD	The project is a one story with a basement religious facility totaling 12.487 G.S.F. on two levels serving 289 worshipers. 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AT ROOF RIDGE) FIRE ALARM: YES NUMBER OF EXITS: 2 EXT ACCESS TRAVEL DISTANCE: 200 FEET PRIMARY STRUCTURAL FRAME: 0 HOURS BEARING WALLS INTERIOR: 0 HOURS BEARING WALLS INTERIOR: 0 HOURS FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS: 0 HOURS ROOF CONSTRUCTION AN		

STRUCTURAL ENGINEER:

MGV CONSULTING STRUCTURAL ENGINEERS, INC. 6239 EXECUTIVE BOULEVARD NORTH BETHESDA, MARYLAND 20852

MEP ENGINEER:		ie ie ie ie ie ie ie ie ie ie ie ie ie i
CHARLES FORD & ASSO 13100 COLLINGWOOD T SILVER SPRING, MARYI	OCIATES, LLC FERRACE _AND 20904	nternacional PIKE VD 20904 V SHEET
LIST C	OF DRAWINGS	TION
ARCHITECTURAL: ARCHITECTURAL: A000 COVER & INFORMA A100 BASEMENT FLOOR A101 FIRST FLOOR PLAN A102 ROOF PLAN & DET A103 TOILET ROOM & UT A104 ELEVATOR & STAIN A105 BUILDING ELEVATOR A105 BUILDING ELEVATOR A106 NOT USED A107 BASEMENT CEILIN A108 FIRST FLOOR CEIL A109 DOOR SCHEDULE A110 FINISH SCHEDULE A111 PULPIT STAGE & D A112 WALL SECTIONS A113 MISCELLANEOUS I	ATION SHEET R PLAN N AILS TILITY PLANS R PLANS IONS IG PLAN ING PLAN & DETAILS & PARTITION DETAILS DETAILS	Project Title: Iglesia Vida Nueva Uni 12450 OLD COLUN SILVER SPRING, MAR COVER & INFORMA
STRUCTURAL. S001 STRUCTURAL NOT S002 FOUNDATION AND	ES BASEMENT ELOOR PLAN	German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md, 20904
S002 FOUNDATION AND S003 FIRST FLOOR FRAI S004 NOT USED S005 TYPICAL SECTION S006 TYPICAL SECTION S007 TYPICAL SECTION S008 SECTIONS S009 SECTIONS	MING PLAN S S S	Silver Spring, Md. 20904 Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648 Mechanical & Electrical Engineer:
MECHANICAL, PLUMBING A	AND ELECTRICAL:	Design America Engineering, Inc. 14080 Red River Drive Centreville, Virginia 20121 Phone 571-220-3239
M100 BASEMENT MECHA M101 FIRST FLOOR MEC	ANICAL PLAN CHANICAL PLAN	Architect:
P000 PLUMBING NOTES P001 BASEMENT PLUME P002 FIRST FLOOR PLU	BING PLAN MBING PLAN	9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093
E000 ELECTRICAL NOTE E100 BASEMENT POWE E101 FIRST FLOOR POW E102 BASEMENT LIGHTI E103 FIRST FLOOR LIGH	ES R PLAN VER PLAN NG PLAN ITING PLAN	
		Date: JULY 5, 2022 Scale: 1/4" = 1'-0"
FA100 BASEMENT FIRE A FA101 FIRST FLOOR FIRE	LARM PLAN E ALARM PLAN	Drawn:AuthorChecked:CheckerFile No.C:UsersIphiliDocumentsUglesia VNUIUglesia VNUI.rdDrawing No.
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OCCUPANT LOAD BASEMENT LEVEL				
ROOM NAME	SQ. FOOTAGE	SQ. FOOTAGE PER PERSON	TOTAL	
STAIR 1 B01	171 S.F.	-	-	
CORRIDOR B02	516 S.F.	-	-	
CLASSROOM B03	245 S.F.	20 SQ. FT. PER PERSON	12 PEOPLE	
STORAGE B04	50 S.F.	300 G.S.F. PER PERSON	0 PEOPLE	
CLASSROOM B05	249 S.F.	20 SQ. FT. PER PERSON	12 PEOPLE	
STORAGE B06	42 S.F.	300 G.S.F. PER PERSON	0 PEOPLE	
JANITOR'S CLOSET B07	12 S.F.	300 G.S.F. PER PERSON	0 PEOPLE	
MEN'S TOILET B08	145 S.F.	50 G.S.F. PER PERSON	2 PEOPLE	
WOMEN'S TOILET B09	145 S.F.	50 G.S.F. PER PERSON	2 PEOPLE	
STAIR 2 B10	171 S.F.	-	-	
FELLOWSHIP HALL B11	2,338 S.F.	15 SQ. FT. PER PERSON	155 PEOPLE	
MECHANICAL ROOM B12	174 S.F.	300 G.S.F. PER PERSON	0 PEOPLE	
ELECTRICAL ROOM B13	72 S.F.	300 G.S.F. PER PERSON	0 PEOPLE	
WARMING PANTRY B14	242 S.F.	300 G.S.F. PER PERSON		
STORAGE B15	150 S.F.	300 G.S.F. PER PERSON	0 PEOPLE	
CLASSROOM B16	243 S.F.	20 SQ. FT. PER PERSON	12 PEOPLE	
CLASSROOM B17	252 S.F.	20 SQ. FT. PER PERSON	12 PEOPLE	
STAGE B18	299 S.F.	15 SQ. FT. PER PERSON	20 PEOPLE	

OCCUPANT LOAD FIRST FLOC				
ROOM NAME	SQ. FOOTAGE	SQ. FOOTAGE PER PEF		
STAIR 1 101	171 S.F.	-		
CORRIDOR 102	435 S.F.	-		
PASTOR'S STUDY 103	232 S.F.	100 G.S.F. PER PERSON		
CLOSET 104	48 S.F.	300 G.S.F. PER PERSON		
TOILET ROOM 105	29 S.F.	50 G.S.F. PER PERSON		
FIRST LADY STUDY 106	170 S.F.	100 G.S.F. PER PERSON		
GENERAL OFFICE 107	141 S.F.	100 G.S.F. PER PERSON		
MEN'S TOILET 108	145 S.F.	50 G.S.F. PER PERSON		
WOMEN'S TOILET 109	145 S.F.	50 G.S.F. PER PERSON		
STAIR 2 110	171 S.F.	-		
CORRIDOR 111	229 S.F.	-		
ENTRANCE FOYER 112	269 S.F.	5 SQ. FT. PER PERSON		
AUDIO VISUAL RM. 113	74 S.F.	100 G.S.F. PER PERSON		
CRY ROOM 114	120 S.F.	100 G.S.F. PER PERSON		
SANCTUARY 115	2,449 S.F.	7 SQ. FT. PER PERSON		
CHANGING ROOM 116	64 S.F.	50 G.S.F. PER PERSON		
CHANGING ROOM 117	68 S.F.	50 G.S.F. PER PERSON		
PULPIT STAGE 118	472 S.F.	15 SQ. FT. PER PERSON		
BAPTISTERY 119	131 S.F.	15 SQ. FT. PER PERSON		

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BASEMENT FLOOR PLAN

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

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- <u>4</u> - <u>3</u>		Project Title: Iglesia Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904 BASEMENT FLOOR PLAN
-2		German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648 Mechanical & Electrical Engineer: Design America Engineering Inc.
		14080RedRiverDrive Centreville, Virginia 20121 Phone: 571-220-3239Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093Date: JULY 5, 2022Date: Scale: $1/8'' = 1'-0''$ Drawn: Checked: MULTAChecked: MULTAChecked: MULTADrawing No.
	"I hereby certify that these documents were prepared by or approved by me and that I am a duly licensed architect under the laws of the State of Maryland. License No. 6849 expiration date 11-18-25"	A100 of

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Revisions: Date:		
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Project Title: Iglesia Vida Nueva Unida Internacional	12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904	FIRST FLOOR PLAN
German Pir 13624 North Silver Sprin Phone: 301 Structrual E MGV Const 6239 Execu North Bethe	neda: Contracto n Gate Drive g, Md. 20904 -873-7092 Engineer: ul. Struct. Engin Itive Boulevard esda, Md. 20886	r eers
Mechanical Design Ame 14080 Re Centreville, Phone: 57 Architect: Philip Aaro 9615 Geen Clinton, Ma	& Electrical Engerica Engineerir ed River Driv Virginia 207 1-220-3239 n Lacy, Architec a Nicole Drive aryland 20735	gineer: ng Inc. ve I21
Date: JUL Scale: 1/0 Drawn:	Y 5, 2022 8" = 1'-0" Author	
Checked: File No. Drawing No	Checker C:USersIphiliDocumentsItglesi WUI.rd	a VNUIVglesia
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"I hereby certify that these documents were prepared or approved by me and that I am a duly licensed architect under the laws of the State of Maryland. License No. 6849 expiration date 11-18-25"

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ROOF PLAN

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

	Revisions: Date:						
 [r Certifica	BAL BEGISTA					
	ARCHIN	STURM 6849-R	C. C. HOLAND				
	Project Title: Iglesia Vida Nueva Unida Internacional	12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904	ROOF PLAN & DETAILS				
	German Pir 13624 Nortl Silver Sprin Phone: 301 Structrual E MGV Const 6239 Exect	neda: Contractor h Gate Drive g, Md. 20904 -873-7092 Engineer: ul. Struct. Engin utive Boulevard	eers				
	North Bethe Phone: 301 Mechanical Design Ame 14080 Re Centreville, Phone: 57	esda, Md. 20886 -816-0648 & Electrical Engerica Engineerin ed River Driv Virginia 20 71-220-3239	gineer: g Inc. /e 121				
	Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093						
	Date: JULY 5, 2022 Scale: 1/8" = 1'-0" Drawn: Author						
	Checked: File No.	Checker C:Users\philiiDocuments\Iglesia VNUI.rvt	a VNUI\Iglesia				
	Drawing No	A102					
		of27					





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Certificat						
STURAL REGISTOR						
Project Title: Iglesia Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904 ELEVATOR & STAIR PLANS ELEVATOR & STAIR PLANS						
German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648						
Mechanical & Electrical Engineer: Design America Engineering Inc. 14080 Red River Drive Centreville, Virginia 20121 Phone: 571-220-3239						
Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093						
Date:JULY5, 2022Scale:As indicatedDrawn:AuthorChecked:CheckerFile No.C:Users/phil/Documents/lg/esia VWU//lg/esia						
Drawing No. A104						





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

BUILDING SECTION

A	iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
ROOF 16'-0" Level 2 14'-0"	Project Title: Iglesia Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904 BUILBING SECTION
	German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: $301-873-7092$ Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: $301-816-0648$ Mechanical & Electrical Engineer: Design America Engineering Inc. 14080 Red River Drive Centreville, Virginia 20121 Phone: $571-220-3239$ Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: $301-873-5093$ Date:JULY 5, 2022Scale: $1/4'' = 1'-0''$
-15' - 8" - "I hereby certify that these documents were prepared or approved by me and that I am a duly licensed architect under the laws of the State of Maryland. License No. 6849 expiration date 11-18-25"	Drawn: PAL Checked: PAL File No. C:Users/philfiDocuments/lg/es/a VVU/l/g/es/a VVU/I.vr/ Drawing No. A106 of

BASEMENT CEILING PLAN

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

1 A106

	Date:								
	Revisions:								
	Certificat								
	Project Title: Iglesia Vida Nueva Unida Internacional	12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904	BASEMENT CEILING PLAN						
	German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648								
	Mechanical & Electrical Engine Design America Engineering I 14080 Red River Drive Centreville, Virginia 20121 Phone: 571-220-3239 Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093								
	Date: JUL Scale: 1/ Drawn: Checked: File No.	Y 5, 2022 '8" = 1'-0" Author Checker C:IUsersIphiliDocumentsUglesie	a VNUIIIglesia						
1	Drawing No	o. A107 of							

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1 A106

FIRST FLOOR CEILING PLAN

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

	Date:
	Revisions:
	Certificat
	Project Title: Iglesia Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904 FIRST FLOOR CEILING PLAN
	German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648 Mechanical & Electrical Engineer: Design America Engineering Inc. 14080 Red River Drive Centreville, Virginia 20121 Phone: 571-220-3239
	Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093
	Date:JULY5, 2022Scale:1/8" = 1'-0"Drawn:AuthorChecked:CheckerFile No.C:UsersubilitDocumentsUglesia VNU/UglesiaDrawing No.
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"I hereby certify that these drawings were prepared or approve by me and that I am a duly licensed architect under the laws o State of Maryland. License No. 6849 expiration date 11-18-29

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BASEMENT										
	SIZE	MATERIAI	TYPF	HFAD	JAMR	THRESHOLD	FRAMF	RATING		REMARKS
B01	3'-0"x7'-0"x1 3/4"	METAI	 	7	8		1	1 HR. 'B' I ABFI	HW-4	
B02	3'-0"x7'-0"x1 3/4"	WOOD	 B	1	2		1		HW-4	
B03	3'-0"x7'-0"x1 3/4"	WOOD	C	1	2		1		HW-7	
B04	PR 3'-0"x7'-0"x1 3/4"	WOOD	<u>А</u>	1	2		2		HW-8	
B05	3'-0"x7'-0"x1 3/4"	WOOD	C	1	2		1		HW-7	
B06	PR. 3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		2		HW-8	
B07	2'x8"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-6	
B08	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-5	
B09	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-5	
B10	3'-0"x7'-0"x1 3/4"	METAL	В	7	8		1	1 HR. 'B' LABEL	HW-4	
B11	3'-0"x7'-0"x1 3/4"	WOOD	В	1	2		1		HW-4	
B12	PR. 3'-0"x7'-0"x1 3/4"	METAL	A	1	2		1		HW-8	
 B13	3'-0"x7'-0"x1 3/4"	METAL	A	1	2		1		HW-6	
B14	3'-0"x7'-0"x1 3/4"	WOOD	В	1	2		1		HW-7	
B15	PR. 3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-8	
B16	3'-0"x7'-0"x1 3/4"	WOOD	С	1	2		1		HW-7	
B17	3'-0"x7'-0"x1 3/4"	WOOD	C	1	2		1		HW-7	
B18	PR. 3'-0"x7'-0"x1 3/4"	WOOD	B	5	6		2		HW-9	
FIRST FLC	DOR									
101	3'-0"x7'-0"x1 3/4"	METAL	В	7	8		1	1 HR. 'B' LABEL	HW-4	
101A	3'-0"x7'-0"x1 3/4"	METAL	Α	9	10		3		HW-2	
102	3'-0"x7'-0"x1 3/4"	WOOD	В	3	4		1		HW-10	
103	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-11	
104	2'x8"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-6	
105	2'x8"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-12	
106	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-11	
107	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-11	
108	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-5	
109	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-5	
110	3'-0"x7'-0"x1 3/4"	METAL	В	7	8		1	1 HR. 'B' LABEL	HW-4	
110A	3'-0"x7'-0"x1 3/4"	METAL	A	9	10		3		HW-2	
111	3'-0"x7'-0"x1 3/4"	WOOD	В	3	4		1		HW-10	
112A	3'-0"x7'-0"x1 3/4"	METAL	D				4		HW-1	
112B	3'-0"x7'-0"x1 3/4"	METAL	D				4		HW-1	
113	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-11	
114	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-7	
115	PR. 3'-0"x7'-0"x1 3/4"	WOOD	В	1	2		2		HW-3	
116	3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-12	
117	3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-12	
118	3'-0"x7'-0"x1 3/4"	METAL	Α	9	10		3		HW-2	
119	3'-0"x7'-0"x1 3/4"	WOOD	B	3	4		1		HW-11	

-

HW-1

OFFSET PIVOTS OVERHEAD CLOSERS EXIT DEVICES CYLINDERS WEATHER SEAL DOOR SWEEPS THRESHOLD FLOOR STOPS

(1)

HW-2

HINGES EXIT DEVICE CLOSER-PUSH SIDE MOUNTING KICK PLATE SILENCERS WEATHER SEAL DOOR SWEEPS THRESHOLD FLOOR STOP

HW-3

HINGES EXIT DEVICES CYLINDER OVERHEAD CLOSERS OVERHEAD STOP PULL BAR KICK PLATE SILENCERS WALL STOPS

HW-4

2

HINGES EXIT DEVICE CLOSER-PUSH SIDE MOUNTING KICK PLATE SILENCERS

HW-5

HINGES CLOSER-PULL SIDE MOUNTING PUSH PLATE PULL PLATE KICK PLATE SILENCERS WALL STOP

HW-6

HINGES LOCKSET-STOREROOM FUNCTION OVERHEAD CLOSER SILENCERS FLOOR STOP

(6)

HINGES LOCKSET-CLASSROOM FUNCTION CLOSER WALL STOP SILENCERS

HW-8

HINGES LOCKET-STOREROOM FUNCTION FLUSH BOLTS OVERHEAD STOPS DUST-PROOF STRIKE SILENCERS

HW-9

HINGES OVERHEAD CLOSERS LOCKSET-CLASSROOM FUNCTION DUMMY TRIM FLUSH BOLTS OVERHEAD STOPS SILENCERS FLOOR STOPS

HW-10

HINGES EXIT DEVICE CLOSER-PUSH SIDE MOUNTING KICK PLATE SILENCERS WALL STOP

HW-11

HINGES LOCKSET-OFFICE FUNCTION CLOSER-PULL SIDE MOUNTING WALL STOP SILENCERS

HW-12

HINGES LATCHSET-PRIVACY FUNCTION SILENCERS WALL STOP

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FINISH S ROOM NO. ROOM NAME BASE WALLS FLOOR BASEMENT B01 STAIR 1 CONC. NONE CONC. B02 CORRIDOR VINYL VINYL PTD. GY B03 CLASSROOM CARPET PTD. GY VINYL B04 STORAGE CARPET PTD. GY VINYL B05 CLASSROOM CARPET PTD. GY VINYL B06 STORAGE CARPET VINYL PTD. GY B07 JANITOR CLOSET CER. TILE CER. TILE PTD. G B08 CER. TILE | CER. TILE | PTD. GY MEN CER. TILE CER. TILE PTD. GY B09 WOMEN B10 STAIR 2 CONC. CONC/ M/ NONE FELLOWSHIP HALL VINYL PTD. GY B11 VINYL B12 MECH. ROOM CONC. NONE PTD. GY ELECT. ROOM CONC. PTD. GY B13 NONE WARMING PANTRY Q. TILE B14 PTD. GY Q. TILE B15 STORAGE PTD. GY VINYL VINYL B16 CLASSROOM CARPET PTD. GY VINYL B17 CLASSROOM CARPET VINYL PTD. GY B18 STAGE WOOD NONE PTD. GY B19 CONTROL ROOM CONC. MAS/GYF NONE FIRST FLOOR STAIR 1 CONC. MAS/GYP 101 NONE 102 CORRIDOR VINYL VINYL PTD. GY 103 PASTOR STUDY CARPET VINYL PTD. GY 104 CLOSET CARPET VINYL PTD. GY CER. TILE | PTD. GY CER. TILE 105 TOILET 106 1st. LADY STUDY CARPET VINYL PTD. GY GENERAL OFFICE | CARPET PTD. GY 107 VINYL 108 MEN CER. TILE | CER. TILE | PTD. GY CER. TILE CER. TILE PTD. GY 109 WOMEN 110 STAIR 2 CONC. NONE MAS/GYP CORRIDOR STN. TILE STN. TILE PTD. GY 111 ENTRANCE FOYER STN. TILE STN. TILE PTD. GY 112 113 A/V ROOM CARPET VINYL PTD. GY PTD. GY 114 CRY ROOM CARPET VINYL PTD. GY 115 SANCTUARY CARPET VINYL CER. TILE | CER. TILE | PTD. GY 116 CHANGE ROOM CHANGE ROOM CER. TILE | CER. TILE | PTD. GY 117 118 PULPIT STAGE CARPET VINYL PTD. GY BAPTISTERY CER. TILE | CER. TILE | PTD. GY 119

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;	CEILING	CEILING HT.	REMARKS			
/ MAS.	METAL	13'-8" +/-	PROVIDE CONC. HARDNER & SEALER			
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YP. BD.	ACOUST.	10'-0"				
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IAS/PTD	METAL	13'-8" +/-	PROVIDE CONC. HARDNER & SEALER			
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YP. BD.	NONE	13'-8" +/-	PROVIDE CONC. HARDNER & SEALER			
YP. BD.	ACOUST.	10'-0"	PROVIDE MOIST. RES. ACOUST. TILE			
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P B/ PTD	PTD.GYP.BD.	9'-6"	PROVIDE CONC. HARDNER & SEALER			
P B/ PTD	PTD.GYP.BD.	9'-6"	PROVIDE CONC. HARDNER & SEALER			
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YP. BD.	PTD.GYP.BD.	14'-0"				
YP. BD.	ACOUST.	8'-0"	PROVIDE NON-SLIP CERAMIC TILE			
YP. BD.	ACOUST.	8'-0"	PROVIDE NON-SLIP CERAMIC TILE			
YP. BD.	PTD.GYP.BD.	13'-5"				
YP. BD.	ACOUST.	9'-6"	PROVIDE NON-SLIP CERAMIC TILE			

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of

TREATED WD.-BLOCKING SECURE TRIM TO RAKE FLACHING -2" EFIS TREATED WOOD — NAILERS

Date:	
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Project Title: Iglesia Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904	WALL SECTIONS
German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engine 6239 Executive Boulevard North Bethesda, Md. 20886	eers
Phone: 301-816-0648 Mechanical & Electrical Eng Design America Engineerin 14080 Red River Driv Centreville, Virginia 20 Phone: 571-220-3239	gineer: Ig Inc. e 121
Architect: Philip Aaron Lacy, Architec 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093	sts
Date: JULY 5, 2022	
Drawn: Author	
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of	

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RAMP DETAILS

RAMP PLAN

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

LOUVER ELEVATION

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

RAMP SECTION

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

HEAD DETAIL

51	RUCTURAL NOTES		5.	PROVIDE A BEARINGS
DESIGN	I LOADS		6.	PROVIDE 1 UNLESS NO
1· LIVI ROC	E LOADS DF DR	= 30 PSF = 100 PSF	7.	IN BEARIN OPENINGS
2· 5N0	DW LOADS		8.	ALL PORT SOLID MAS
GRC SNC	DUND SNOW LOAD DW EXPOSURE FACTOR	PG =30 PSF CE = 1·0	9.	PROVIDE F
SNC FLA	DW IMPORTANCE FACTOR T ROOF SNOW LOAD	I = 1·0 PF = 21 PSF	10.	PROVIDE I
3. LATI	ERAL LOADS		77.	ALL MORT
WIND LO	ADS PER IBC 2018	11E MADU	12.	GROUT SH
2· NO/ 3· WIN	MINAL DESIGN WIND SPEED MINAL DESIGN WIND SPEED ID LOAD IMPORTANCE FACTOR	ПЗ МРН 89 МРН 1·0	<i>13</i> .	PROVIDE N VERTICAL
4∙ RISH 5∙ WIN 6∙ INTI	K CATEGORY D EXPOSURE CATEGORY ERNAL PRESSURE COEFFICIENT	 В ±0·18	STRUC [*] 1·	TURAL 51 SHALL BE
7. MIN THE	• & MAX• DESIGN WIND PRESSURE FOR MAIN WIND FORCE-RESISTING SYSTEM	18 PSF & 21 PSF		STRUCTUR
3· MIN CLAI 9· LAT	• & MAX• WIND PRESSURE FOR COMPONENTS & DDING MATERIALS ERAL RESISTING SYSTEM IS INCLUDING THE	26 PSF & 30 PSF	2.	ALL STRU CONFORM
EXIS SEISMIC I	TING BUILDING LOADS PER IBC 2018		3.	ALL WELD FOR ARC CERTIFIED
1∙ SEIS 2∙ RISH	SMIC IMPORTANCE FACTOR K CATEGORY	IE = 1·0 II	4.	SHOP AND ACCORDAN
3∙ MAI 4∙ SITE	PPED SPECTRAL RESPONSE ACCELERATIONS: E CLASS:	5s = 0.725 & 51 = 0.055 D	5.	ESTABLISH
5. MAI 5. SEIS	SPED SPECTRAL RESPONSE COEFFICIENTS: SMIC DESIGN CATEGORY	5ds = 0.133 & 5dl = 0.088 B	<i>6</i> ∙	NO HOLES
о внэ 8. Пес	IC SEISINIC-FURCE-RESISTAINCE SYSTEM	WALLS 0.114	7.	THE OWNE
9. DE9 9. SEIS 10. RES	IGN BASE SHEAR 5MIC RESPONSE COEFFICIENTS PONSE MODIFICATION FACTORS	Cs = 0.08 R = 2.5		CONNECTIC
1. ANA	ALYSIS PROCEDURE USED	EQUIVALENT LATERAL FORCE PROCEDURE	8.	NO FIELD STRUCTUR
501L Bi 1.	EARING 2,000 PSF, SHALL BE VERIFIED IN THE FIELD; FOI	R MORE INFORMATION SEE GEOTECHICAL REPORT BY	9.	PROVIDE S
	F&H CONSULTANTS DATED OCTOBER 12, 2020.		10.	ALL STEEL
CONCR 1.	ETE ALL CONCRETE CONSTRUCTION SHALL CONFORM "	TO THE ACL CODE 318-2011.	77.	SUBMIT FO PROFESSIO
2.	28-DAY CONCRETE STRENGTH SHALL BE AS FOLL	OWS: STONE CONCRETE: COURSE AGGREGATE SHALL		REVIEW OF
	CONFORM TO ASTM C33, F'c = 4,500 PSI		72·	ALL BEAM
3.	ALL CONCRETE EXPOSED TO THE WEATHER SHALL	- BE AIR ENTRAINED WITH 6%+ 1%·	73.	THEIR WOR
-OUND 1.	ATION ALL FOOTING SHALL BE PROJECT AT LEAST 1'- O" CONTROLLED FILL HAVING A BEARING VALUE AT L	' INTO UNDISTURBED NATURAL SOIL OR THE COMPACTED LEAST EQUAL TO THAT SPECIFIED ABOVE:	STEEL 1· ALL SPE	JOISTS MATERIALS
2.	BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A	AT LEAST 2' - 6" BELOW FINISHED GRADE.	2· PR(OVIDE EXTEN
з.	WALL FOOTINGS SHALL BE 12" DEEP AND PROJEC	T 6" BEYOND EACH OF WALL, UNLESS NOTED	з• 5НС	ORT SPAN JO
4.	ELEVATION OF BOTTOMS FOOTING HAVE BEEN ESTA CONSTRUED AS WAIVING ANY OF THE MINIMUM	ABLISHED FROM AVAILABLE INFORMATION AND SHALL BE REQUIREMENTS STATED:	SHA 4. ALL	ALL BEAR 2
5.	ALL MASONRY WALLS FOOTING IN CONTROLLED F CONTINUOUS TOP AND BOTTOM BARS, UNLESS NO	FILL ARE TO BE REINFORCED WITH 3 # 5 LONGITUDINAL DTED:	АТ 5- WH	END OF RC
6·	ALL DISTURBED EARTH UNDER FOOTING SHALL BE	E REPLACED WITH CONCRETE F'C=2000 PSI	OF	THE INTER
7. 8.	ALL BEAKING SIKATA SHALL BE ADEQUATELY DRI	AINED BEFORE FOUNDATION CONCRETE IS PLACED.	6. LON BEI	97 97 97 97 97 97 97 97 97 97 97 97 97 9
g.	DO NOT PLACE CONCRETE OVER FROZEN SOIL	LOFE OF 2.1 (2 MONIZONTIL TO ONE VENTICIL) TO H FOUTING	7. "SP RV	" DESIGNATE
10.	THE OWNER SHALL RETAIN THE SERVICES OF A SO AND VERIFY THE REQUIRED SOIL BEARING PRESS	OIL CONSULTANT APPROVED BY THE ARCHITECT TO CHECK SURE OF EACH FOOTING:	DRI FLOOR	AWINGS FOR
REINFO	RCEMENT STEEL	TM- A615 GRADE 60.	1.	3" NORMAL STANDARD
,. 2∙	WELDED WIRE MESH TO CONFORM TO ASTM-A185	······································	2.	TOTAL THICH
з.	FABRICATE AND PROVIDE STANDARD SUPPORTING STANDARD PRACTICE FOR DETAILING REINFORCED	ACCESSORIES IN ACCORDANCE WITH THE ACI MANUAL OF CONCRETE STRUCTURES ACI 315-LATEST ADDITION:	PREFAL 1.	BRICATED PREFABRIC
4.	ALL CONTINUOUS REINFORCING SHALL BE SPLICEI OTHERWISE:) WITH TYPE " В " SPLICE STAGGERED, UNLESS NOTED		STRUCTUR
5.	IN THE GARAGE SLABS, ALL REINFORCING BARS L	OCATED IN THE TOP 2" OF THE SLABS.		SHALL BE VERIFY TH
6.	SUBMIT FOR APPROVAL SHOP DRAWING SHOWING FOR EXTENT OF THE CONCRETE POUR:	ALL REINFORCING STEEL AND LOCATIONS OF COLD JOINTS		MANUFACT THE CONT
CONCRI 1.	ETE PROTECTION FOR REINFORCEMENT	Г ЕАКТН - З"		BE CERTIFI ALL STRUG ALL COLD-
,. 2.	FORMED CONCRETE EXPOSED TO EARTH - 2" FOR	BARS LARGER THAN #5. 1 1/2" FOR #5 AND SMALLER BARS		EDITION O ALL WELD
2 3.	BEAMS, COLUMNS AND TOP REINFORCING IN THE	GARAGE SLAB - 1 1/2".		SOCIETY C REACTIONS
4.	INTERIOR SLABS - 3/4".		2.	BUILDING
5.	INTERIOR FACES OF WALLS - 1", EXTERIOR FACES	EXPOSED TO WEATHER - 1 1/2"		MECHANICI COORDINA
6.	SLABS ON GROUND, UNLESS OTHERWISE NOTED,	TO HAVE REINFORCEMENT AT MID-DEPTH.	з.	FOUNDATI INADEQUA
SLAB C 1.	N GRADE EXCEPT WHERE OTHERWISE NOTED, SHALL BE 4" W·W·F·	OR 6" THICK (SEE PLAN), REINFORCED WITH 4 X 4 - $W2.9$ X $W2.9$	STEEL	BUILDING
2.	LAP MESH 6" IN EACH DIRECTION.		1. 2.	STEEL STA
3.	FOR ALL EXTERIOR SLABS ON GRADE AIR ENTRAII ENTRAINING AGENT SHALL BE USED	NED CEMENT WITH ENTRAINED AIR OF 6% OR EQUIVALENT, AIR	ζ.	THE BUILD
4.	PROVIDE CONTROL JOINTS AT 20'-O" O.C. EACH U	JAY IN ALL SLABS ON GRADE.	LINTEL	5 PROVIDE
5.	INTERIOR SLAB SHALL BE LAID ON A LAYER OF 6	MIL· POLYETHYLENE OVER A 4" LAYER OF WASHED GRAVEL·	1-	RECESSES A· ONE
6.	SEE SOIL CONSULTING RECOMMENDATIONS FOR P	REPARATION OF SUB-GRADE.		B· ONE REINFORCE
ИАЅОЛ 1.	IRY SOLID CONCRETE MASONRY SHALL BE GRADE NI UNLESS OTHERWISE NOTED.	IN ACCORDANCE WITH ASTM C-145 AND MAY BE 75% SOLID,	2.	שיי טיכ UP TO FOR ALL (
2.	HOLLOW CONCRETE MASONRY UNITS SHALL BE G	RADE NI CONFORMING TO ASTM C-90.	_	THICKNESS A· L3
3.	CONCRETE MASONRY UNITS SHALL BE WITH LIGH	T CONCRETE.		Β· L4" C· W8) ΤΙΔΑ
4.	ALL MORTAR SHALL BE TYPE "S" CONFORMING TO	O ASTM C-270 FOR ABOVE GRADE CONSTRUCTION. USE TYPE		IMM

"M" FOR BELOW GRADE.

A MINIMUM OF 3 COURSES OF SOLID BRICK OR ONE COURSE 100% SOLID BLOCK UNDER WALL S ENDS OF ALL JOISTS AND SLABS THE FULL WIDTH OF THE WALL, UNLESS NOTED.

100% SOLID MASONRY DOWN TO FOOTINGS UNDER ALL BEAMS AND LINTELS BEARING ON MASONRY, JOTED

NG WALLS, PROVIDE SOLID BRICK OR 100% SOLID CONCRETE BLOCK EXTENDING 8" BEYOND WALL 5 THE FULL WALL THICKNESS DOWN TO THE FLOOR, UNLESS NOTED.

TIONS OF BEARING WALLS HAVING A HORIZONTAL CROSS SECTION OF 4 SQ. FT. OR LESS SHALL BE OF SONRY DOWN TO FOOTINGS

HORIZONTAL MASONRY REINFORCING AT 16" O.C. IN ALL MASONRY WALLS UNLESS NOTED.

VERTICAL CONTROL JOINTS IN ALL MASONRY WALLS @ 30'-O" O.C., UNLESS NOTED.

TAR JOINTS IN MASONRY WALLS (HORIZONTAL & VERTICAL) SHALL BE FILLED 100% WITH MORTAR. HALL BE SAND AND CEMENT, 8 BAGS OF CEMENT PER CUBIC YARD

MASONRY TIES BETWEEN 4" BRICK VENEER WALL AND THE STEEL STUD WALL. SPACE TIES @ 16" AND 24" HORIZONTAL

TEEL

IN ACCORDANCE WITH THE LATEST AISC SPECS. FOR "DESIGN, FABRICATION AND ERECTION OF RAL STEEL FOR BUILDINGS."

ICTURAL STEEL SHALL CONFORM TO ASTM A992 GRADE 50. STRUCTURAL TUBING SHALL TO ASTM ASOO GRADE B AND STEEL PIPE COLUMNS SHALL CONFORM TO ASTM ASOI.

DING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARD CODE AND GAS WELDING IN BUILDING CONSTRUCTION, LATEST CODE, AND SHALL BE PERFORMED BY WELDERS ONLY

D FIELD CONNECTIONS SHALL BE WELDED OR MADE WITH 3/4" STEEL HIGH STRENGTH BOLTS IN NCE WITH ASTM -A325 OR A490.

H SPECIAL PROCEDURES FOR WELDS LARGER THAN 3/8" TO PREVENT LAMELLAR TEARING.

SHALL BE LOCATED IN FLANGES OF BEAMS UNLESS APPROVED BY THE ENGINEER.

ER SHALL RETAIN THE SERVICES OF A QUALIFIED INSPECTOR TO INSPECT ERECTED STEEL AND INNS.

CUTTING OF THE STEEL MEMBERS SHALL BE PERMITTED WITHOUT PRIOR AUTHORIZATION OF THE RAL ENGINEER

STEEL SCREEN ANGLES ALONG EDGE OF CONCRETE SLAB WHERE REQUIRED.

. TO BE PERMANENTLY EXPOSED TO WEATHER OR SOIL SHALL BE HOT DIP GALVANIZED.

OR APPROVAL ALL STEEL SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A ONAL ENGINEER REGISTERED IN THE BUILDING'S JURISDICTION. ALLOW TWO WEEKS FOR THE F STRUCTURAL SHOP DRAWINGS

1 CONNECTION SHALL BE DESIGNED FOR THE MAXIMUM SHEAR CAPACITY.

L ERECTION SHALL BE COMPLETED, INCLUDING ALL BRACING BEFORE OTHER TRADES START DRK.

6, DESIGN, FABRICATION AND ERECTION SHALL BE IN CONFORMANCE WITH THE AISC AND SJI SPECIFICATIONS

NSIONS FOR CEILING WHERE REQUIRED.

TOISTS SHALL BEAR 4" ON MASONRY OR CONCRETE AND BE EMBEDDED IN MORTAR AND 2 1/2" ON STEEL AND BE SECURED WITH TWO 1/8"WELDS EACH 1" LONG AT EACH BEARING.

SHALL BE WELDED TO JOIST CHORDS AND WELDED TO BEAMS OR ANCHORED TO WALL OWS.

NG IS INTERRUPTED BY DUCTS, LIGHT FIXTURES, ETC., PROVIDE THE BRIDGING ON EACH SIDE RUPTION

DISTS SHALL BEAR 6" ON MASONRY OR CONCRETE AND BE EMBEDDED IN MORTAR AND SHALL TEEL AND BE SECURED WITH $\frac{1}{8}$ " WELDS EACH 2" LONG AT EACH BEARING.

TES JOISTS WITH SPECIAL LOADING OR DEFLECTION CRITERIA AND SHALL BE DESIGNED IUFACTURER. SEE LOADING DESIGNS ON PLANS. SUBMIT CALCULATIONS ALONG WITH SHOP R APPROVAL

IER STEEL JOISTS

WEIGHT CONCRETE SLAB SHALL BE POURED OVER GALVANIZED 26 GAGE METAL CENTERING, CONFORM, SLABFORM OR EQUAL, REINFORCED WITH 6" X 6"- W2.0 X W2.0 W.W.F.

KNESS OF SLAB SHALL BE 3" MINIMUM INCLUDING METAL CENTERING

BUILDING

CATED BUILDING FRAMES SHALL CONSIST OF RIGID FRAMES WITH PURLINS TO SUPPORT THE ROOF LS COVERING. THE MANUFACTURER SHALL DESIGN, DETAIL, AND FABRICATE THE COMPLETE RAL FRAMING SYSTEM INCLUDING COLUMN BASE, COLUMNS, GIRTS, METAL DECKS AND OTHER RAL COMPONENTS. DESIGN LOADS SHALL BE PER THE STANDARD BUILDING CODE 1996 EDITION. OADS SHALL INCLUDE, WIND LOADS AND OTHER APPLICABLE LOADS. THE STRUCTURAL SUPPORT DESIGNED FOR THE MINIMUM LOADS INDICATED ON THE DRAWINGS. THE BUILDING SUPPLIER SHALL HE LOADS. SEE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND PLUMBING DRAWINGS. TURER SHALL SUBMIT SHOP DRAWINGS AND DESIGN ANALYSIS OF ALL STRUCTURAL ELEMENTS TO TRACTING OFFICER FOR REVIEW BEFORE FABRICATION. SHOP DRAWINGS AND DESIGN ANALYSIS SHALL FIED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MARYLAND ICTURAL MILL SECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF AISC FORMED STEEL STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST OF "AISC" SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS". DING SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN WELDING CODE FOR BUILDING CONSTRUCTION BY CERTIFIED WELDERS ONLY. THE BASE PLATE, ANCHOR BOLTS, IS AND MOMENTS RESULTING FROM ALL APPLIED LOADS.

SHALL BE DESIGNED TO ACCOMMODATE FEATURES AS DESCRIBE IN ARCHITECTURAL. STRUCTURAL, CAL, AND ELECTRICAL DRAWINGS OF THE CONTRACT DOCUMENTS, AND CONTRACTOR SHALL TE ALL ROOF OPENING WITH ARCHITECT AND MECHANICAL DRAWINGS.

TONS HAVE BEEN DESIGNED FOR LOADS SHOWN IN SCHEDULE SHOULD FOUNDATIONS AS SHOWN BE ATE IN CONSIDERATION OF BUILDING MANUFACTURERS REQUIREMENTS: CONTRACTOR SHALL SUBMIT REACTIONS TO THE CONTRACTING OFFICER FOR REDESIGN OF FOOTINGS.

AND HANDRAILS

AIRS AND HANDRAILS SHALL BE DESIGNED AND DETAILED BY SUPPLIER

CHOP DRAWINGS CALCULATION SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN DING'S JURISDICTION

UNLESS NOTED OTHERWISE, PRE-CAST LIGHTWEIGHT CONCRETE LINTELS FOR ALL OPENINGS AND IN CONCRETE MASONRY UNIT WALLS:

E 4" X 8" LINTEL FOR EACH 4" OF WALL THICKNESS. E 6" X 8" LINTEL FOR EACH 6" OF WALL THICKNESS.

E EACH LINTEL UNIT WITH ONE # 4 BAR TOP AND ONE # 4 BAR BOTTOM, WITH # 2 TIE BARS SPACED AT CONCRETE LINTEL UNITS SHALL HAVE 8" MINIMUM BEARING AT ENDS AND MAY BE USED FOR OPENING. ウ 6'-0"・

OPENINGS AND RECESSES IN BRICK WALLS, PROVIDE ONE STEEL ANGLE FOR EACH 4" OF WALL S AS FOLLOWS:

1/2" X 3 1/2" X 1/4" FOR OPENINGS UP TO 4'-0". " X 3 1/2" X 1/4" FOR OPENINGS 4'-1" TO 5'-11"

X 18 WITH SUSPENDED 1/4" PLATE SAME WIDTH AS WALL FOR OPENINGS GREATER THAN 6'-O", LESS N &'-O", UNLESS NOTED PROVIDE 6" MINIMUM BEARING AT EACH END

SHEATHING, SHORING AND BRACING

1. SHALL BE DESIGNED, SIGNED AND SEALED BY A PROFESSIONAL JURISDICTION AND SUBMITTED TO THE ENGINEER OF RECORD CALCULATION MUST SHOW INSTALLATION DETAILS AND SEQUEN

SHOP DRAWINGS & RFI's

1. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON SUBMITTED BY THE CONTRACTOR AND REVIEWED BY THE ENGIN SUBMIT THE SHOP DRAWINGS, MGV WILL NOT BE RESPONSIBL DESIGN OF THE PROJECT.

- 2. THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS BEFORE CORRECTIONS AS HE DEEMS NECESSARY AND SHALL CERTIFY O
- 3. REPRODUCTION OF STRUCTURAL DRAWINGS FOR USE AS SHOP
- 4. ALLOW TWO WEEKS FOR THE REVIEW OF STRUCTURAL SHOP DR
- 5. ALLOW FIVE WORKING DAYS FOR THE REVIEW OF STRUCTURAL

TESTING AND INSPECTION

1. INSPECTION FOR ALL STRUCTURAL PORTIONS OF THE PROJECT APPLICABLE BUILDING CODE.

- 2. THE OWNER'S TESTING AGENCY SHALL PERFORM ALL INSPECTI 3. ALL CONCRETE WORK SHOWN ON THESE DRAWINGS AND SPECI INSPECTED IN ACCORDANCE WITH ACI-318 (LATEST EDITION). CYLINDER TESTS, AND OTHER DATA SHALL BE SENT TO THE AR
- 4. ALL FIELD AND LAB TESTING OF CONCRETE SHALL CONFORM APPLICABLE SPECIFICATIONS

GENERAL

1. ALL DETAIL, SECTION, AND NOTES SHOWN ON DRAWINGS ARE SIMILAR SITUATIONS ELSEWHERE UNLESS NOTED.

- 2. DO NOT SCALE DRAWINGS.
- 3. REFER TO ARCHITECTURAL, MECHANICAL DRAWINGS FOR LOCAT DRIPS, REVEALS, FINISHES, DEPRESSIONS, DOOR AND OTHER SL SHOWN ON STRUCTURAL DRAWINGS.
- 4. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIR
- 5. ALL HANGERS FOR MECHANICAL PIPING, DUCTWORK, AND EQUI STRUCTURAL MEMBERS. THE HANGERS SHALL BE LOCATED SUC LOAD OF MORE THAN 3 PSF. SUBMIT SHOP DRAWINGS FOR HA
- 6. PROVIDE ALL CLIPS, INSERTS, TIES, ANCHOR STRAPS, HANGERS
- 7. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO ST SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- 8. NO PART OF THE BUILDING SHALL BE USED AS A STAGING ARE LOADED AREA) THAT EXCEEDS 75% OF THE DESIGN LIVE LOAD.
- 9. ALL FORMWORK AND SHORING DESIGN IS THE RESPONSIBILITY
- 10. SEE ARCHITECTURAL DRAWINGS FOR INSULATION VALUE AND

ABBREVIATIONS

A·B·	=	ANCHOR BOLT	L
ADD'L	=	ADDITIONAL	
ARCH	=	ARCHITECTURAL	Г
RAL.	=	RALANCE	
DAL.	_	PEAM	⊣
BIN	_	BERINI	\geq
BUTT	=	BUTTOM	
<i>c</i> . <i>j</i> .	=	CONTROL JOINT	
С	=	CENTER LINE	
C·C·	=	CENTER TO CENTER	
CL·	=	CLEAR	
COL·	=	COLUMN	
CONC	=	CONCRETE	
CONT	=	CONTINUOUS	
DET.	_	DETAIL	
DET	_	DETRIC	
	-		
DWG	=	DRAWING	
DWLS	=	DOWELS	
EA·	=	EACH	
E·F·	=	EACH FACE	
E·J·	=	EXPANSION JOINT	
EL·	=	ELEVATION	
E.D.S.	=	EDGE OF STRUCTURAL SLAB	
E.U.I.	-	EACH WAY	
EW.	-	ERICA WRIT	
EXP.	-	EXPANSION	
FIN·	=	FINISHED	
FL·	=	FLOOR	
F·F·	=	FAR FACE	
H·	=	HORIZONTAL	
H·D·G·	=	HOT DIP GALVANIZED	
JT.	=	JOINT	
LLH	=	LONG LEG HORIZONTAL	
	=	LONG LEG VERTICAL	
111	_		
LW	-		
MAX	=	MAXIMUM	
MECH	=	MECHANICAL	
MIN·	=	MINIMUM	
N·F·	=	NEAR FACE	
NO·	=	NUMBER	
NTS.	=	NOT TO SCALE	
0.0.	=	ON CENTER	
OPNG.	_	OPENIING	
Dr NO.	_	DRECACT CONCRETE	
p.c.	-	PRECAST CONCRETE	
<i>P</i> .J. <i>F</i> .	=	PREMOLDED JOINT FILLER	
PL·	=	PLATE	
R	=	RADIUS	
REINF	=	REINFORCEMENT	
REQ'D•	=	REQUIRED	
SCHED	=	SCHEDULE	
SECT.	=	SECTION	
SIM	=	SIMILAR	
5.0.6.	_	SLAP ON GRADE	
500	_	CTAINU TEE ETTTI	
5.5.	-	STAINLESS STEEL	
51.	=	SIEEL	
57D.	=	STANDARD	
STIFF	=	STIFFENER	
5 <i>•W</i> •	=	SHORT WAY	
SYM·	=	SYMMETRICAL	
T. & B.	=	TOP AND BOTTOM	
T.D.D.	=	TOP OF STEEL DECK	
T. n. r.	=	TOP OF FOOTING	
TOCI	_	TAD AT STRUCTURAL SLAP	
1.0.36	-	TOP OF JIKULIUKAL JLAB	
1.0.57.	=	IUP OF STEEL	
τ.ο.ω.	=	TOP OF STRUCTURAL WALL	
тур.	=	TYPICAL	
υ.ο.ν.	=	UNLESS OTHERWISE NOTED	
V·	=	VERTICAL	
V·I·F·	=	VERIFY IN FIELD	
W.D.	=	WORKING POINT	
11.1.1.1	_	WEINED HIDE MECH	
w·w·///·	-	WELVEV WIRE MESH	

COFESSIONAL ENGINEER REGISTERED IN THE PROJECT R OF RECORD FOR APPROVAL· SHOP DRAWINGS AND AND SEQUENCE OF OPERATION·	Date: 10/25/2023
SHOWN ON THE CONTRACT DOCUMENTS MUST BE Y THE ENGINEER: IF CONTRACTOR OR OWNER FAILS TO RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND	
NGS BEFORE SUBMITTING TO ENGINEER, MAKE ALL L CERTIFY ON EACH DRAWING AS FOLLOWS: SE AS SHOP DRAWINGS SHALL NOT BE PERMITTED:	Xoq
AL SHOP DRAWINGS.	
TRUCTURAL RFI'S AND RESPOND.	
HE PROJECT SHALL BE PROVED AS REQUIRED BY THE	Lpdated f
LL INSPECTIONS AND TESTING.	
5 AND SPECIFIED IN THE SPECIFICATIONS SHALL BE EDITION)∙ COPIES OF FIELD REPORTS, CONCRETE MIXES,	Certification:
T TO THE ARCHITECT, ENGINEER, AND OWNER	
WINGS ARE INTENDED TO BE TYDICAL AND SUALL ADDLY TO	O STO CONTRACTOR
	I hereby certify that these documents were prepared or approved by me, & that I am a duly licensed professional engineer under the Laws of the state of Maryland. License No. 18370, Exp. date: 08-12-2025
FOR LOCATIONS AND DIMENSIONS OF OPENINGS, SLEEVES, ID OTHER SUCH PROJECT REQUIREMENTS NOT	anal and a second se
MERTING TO PROPERLY CONSTRUCT THE BUILDING	
OCATED SUCH THAT DO NOT PRODUCE EQUIVALENT UNIFORM NGS FOR HANGER TYPE AND LAYOUT FOR APPROVAL	D D D D
PS, HANGERS, BOLTS AND OTHER FASTENERS AS REQUIRED PRIOR TO STARTING CONSTRUCTION AND ANY DISCREPANCY	Inter PIKE AND 20
TAGING AREA RESULTING IN A LOAD (UNDER THE LIMITED	×L≻ da
LIVE LOAD.	AR AR
PONSIBILITY OF THE CONTRACTOR.	
SVMPALS	Ueva NLD C NLD C
NEW CMU WALL	da N 1450 C ER SP
NEW FOOTING	SILVIE SILVIE
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July 4"@12" WELD SYMBOL	German Pineda: Contractor
SECTION NUMBER 55 55 55 55 55 55 55 55 55 55 55 55 55	13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092
SHOWN ON SHEET NUMBER	Structrual Engineer:
EL: 0'-0" ELEVATION DATUM	MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886
55	Mechanical & Electrical Engineer:
DETAIL INDICATION	Charles Ford & Associates 13100 Collingwood Terrace Silver Spring, Maryland 20904 Phone: 202-436-0812
	Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735
	Phone: 301-873-5093
	Date: MARCH 22, 2021
	Scale: AS SHOWN
	Drawn: GG
	Checked: MV
	File No.
	Drawing No.
	S-001
	of

- 2· COLUMN SCHEDULE SEE S-004·

1. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ELEVATIONS & INFORMATION NOT SHOWN.

3. CENTER OF FOOTING IS THE SAME AS CENTER OF PIER, FOR CONCRETE PIER DIMENSIONS SEE S-007.

Date:	10/25/2023						
:suoisi Next Certification	Updated for planter box						
I hereby certify that thes by me, & that I am a dul Laws of the state of Ma License No. 18370, Ex	e documents were prepa y licensed professional e ryland. p. date: 08-12-2025	red or approved ngineer under the					
Project Title: Iglesic Vida Nueva Unida Internacional	12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904	FOUNDATION & BASEMENT FLOOR PLAN					
German Pir 13624 North Silver Spring Phone: 301 Structrual E MGV Consu 6239 Execu North Bethe Phone: 301	neda: Contrac n Gate Drive g, Md. 20904 -873-7092 Ingineer: ul. Struct. Eng tive Bouleva esda, Md. 208	pineers d 886					
Phone: 301-816-0648 Mechanical & Electrical Engineer: Charles Ford & Associates 13100 Collingwood Terrace Silver Spring, Maryland 20904 Phone: 202-436-0812							
Philip Aaron 9615 Geen Clinton, Ma Phone: 301	n Lacy, Archit a Nicole Drive ryland 20735 -873-5093	ects e					
Date: MAF Scale: <i>AS</i> Drawn:	RCH 22, 2021 SHOWN GG						
Checked: File No. Drawing No	<i>MV</i>						
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	8'	4'	0	8'	16'
1/8"=1'-(0"				
			<u>GRAPH</u>	IC SCALE	

	LOAD	COLUMN	A-2	A-3	A-4	A-5	<i>B</i> -5	D-5	F-5	6-5	F-4	<i>G</i> -4	F-3	6-3	F-2	<i>G</i> -2	E-2	C-2	G-1	E·9-1	COLUMN LOF	AD
	ONICH VERT.	LOAD, K	21.8	47·2	51.1	25·8	0.5	0.6	30.9	5.3	60.7	10.6	56.3	9.8	31.0	9.5	0.5	0.5	6.2	6.7	VERT· LOAD, K	ILDING
	UPLIFT	T LOAD, K	-7.5	-12.0	-16.7	-8.3			-10·9	-3.8	-21.6	-5.0	-19.9	-7.7	-13·3	-7.1			-4.9	-5.0	UPLIFT LOAD, K	RED BU
FROM	HORIZ	2. LOAD, K	±12·5	±27·8	±26·4	±14·0	±7·1	±8·4	±14·2	±1·3	±26·5	±2·2	±24·5	±2·0	±16·2	±2·3	±7·8	±7·8	±3·6	±4·2	HORIZ· LOAD, K	: FROM VGINEE
LOADS	HORIZ LOAD,	:• BRACING K	±3·5	±8·1	±8.8	±4·2			±4·2		±8·8		±8·1		±8·6						HORIZ· BRACING LOAD, K	LOADS PRE-EI
	PIER SIZE	E &	20"x20"	32"x26"	32"x26"	26"x20"	18"x20"	18"x27"	24"x20"	16"x20"	24"x32"	16"x16"	24"x32"	16"x16"	24"x20"	16"x16"	34"x20"	12"x20"	16"x20"	16"x20"	PIER SIZE &	2
	VERT· REI	EINF	8-#6	8-#6	8-#6	8-#6	6-#6	6-#6, SEE 1/5-009	8-#6	6-#6	8-#6	4-#6	8-#6	4-#6	8-#6	4-#6	8-#6	6-#6	6-#6	6-#6	VERT· REINF	F.
	VERT· LOA WEIGHT OI BEAM REA	AD + PF PIER + ACTION, K	27.0	60.0	65.0	35.0	6.0	74.0	39.0	11.0	72.0	17.0	69.0	16.0	39.0	16.0	70.0	13.0	12.0	13.0	VERT· LOAD + WEIGHT OF PIER + BEAM REACTION, K	
	SI.	IZE (FT·)	6'-0"x6'-0"	6'-0"x6'-0"	6'-0"x6'-0"	5'-0"x5'-0"	4'-0"x4'-0"	6'-5"x6'-5"	5'-0"x5'-0"	4'-0"x4'-0"	6'-5"x6'-5"	4'-0"x4'-0"	6'-0"x6'-0"	4'-0"x4'-0"	5'-0"x5'-0"	4'-0"x4'-0"	6'-0"x6'-0"	4'-0"x4'-0"	4'-0"x4'-0"	4'-0"x4'-0"	SIZE (FT·)	9N
	F0011	HICKNESS IN·)	16"	14"	14"	12"	12"	16"	12"	12"	16"	12"	14"	12"	12"	12"	14"	12"	12"	12"	THICKNESS (IN·)	FOOTI
	REI BO	TINF: DTTOM-E:W:	6-#5	6-#5	6-#5	5-#5	4-#5	7-#5	5-#5	4-#5	7-#5	4-#5	6-#5	4-#5	5-#5	4-#5	6-#5	4-#5	4-#5	4-#5	REINF· BOTTOM-E·W·	

COLUMN SCHEDULE AT LOCATIONS OF PRE-ENGINEERED BUILDING

Date:		10/25/2023			
Sevisions: Certifi	cation	Updated for planter box			
I hereby certit by me, & that Laws of the License No.	fy that these t I am a duly state of Mar 18370, Exp	e document: licensed pr yland. 0. date: 08-1	s were profession	epared o al engine	r approved er under the
Project Title:	Iglesic Vida Nueva Unida Internacional	12450 OLD COLUMBIA PIKE	SILVER SPRING, MARYLAND 20904		COLUMN SCHEDULE
Germa 13624 Silver Phone	an Pin North Spring e: 301-	eda: C Gate g, Md. 873-7	Contra Drive 209 092	actor e 04	
Struct MGV 6239 North Phone	rual Er Consu Execu Bethe 2: 301-	nginee I. Stru tive Bo sda, M 816-0	er: ict. E oulev 1d. 20 648	ngine 'ard 0886	eers
Mecha Charle 13100 Silver Phone	anical es Ford Collin Spring e: 202-	& Elec d & As gwoo g, Mar 436-0	ctrica ssocia d Ter ylanc 812	l Eng ates race d 209	gineer: 904
Archit Philip 9615 Clintc Phone	tect: Aaron Geena on, Mai e: 301-	n Lacy a Nico ryland -873-5	, Arc le Dr 2073 5093	hitec ive 35	ts
Date: Scale:	MAR AS S	СН 22 SHON	2, 202 /N	21	
Drawn Check File No Drawir	n: wed: p. ng No.	G	6G 1V		
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COLUMN SCHEDULE @ BASEMENT

FLC	NUMBER DORS	7	2	3	4	
1ST	FLOOR					
BAS	SEMENT	115 ^к	<i>נווב_א58</i> ק	м12x58 105 К	к 75 75	
Т. (Н	OTAL LOAD KIPS)	115 ^к	85 ^K	105 ^K	75 ^ĸ	
Ві	ASE PLATE	16"x1"x16"	16"x1"x16"	16"x1"x16"	16"x1"x16"	
ELEU PLA FINIS	/• BOT• OF BASE TE 7" BELOW SH SLAB U•N•O•					
IER	SIZE					
<i>۵</i>	REINF					
(1)	SIZE (FT·)	8'-0"x8'-0"	7'-6"x7'-6"	8'-0"x8'-0"	7'-6"x7'-6"	
DTIN	THICKNESS (IN·)	20"	18"	20"	18"	
FO	REINF· BOTTOM-E·W·	8-#6	8-#6	8-#6	8-#6	

PICAL DETAILS

10/25/2023 ä Updated for Certification: certify that these documents were prepared or approved I hereby certify that these documents were prepared or approved by me, & that I am a duly licensed professional engineer under the Laws of the state of Maryland. License No. 18370, Exp. date: 08-12-2025 Vida Nueva Unida Internacional 0 OLD COLUMBIA PIKE SPRING, MARYLAND 2090 ECTIONS 1245(VER S C Iglesi S Ē German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648 Mechanical & Electrical Engineer: Charles Ford & Associates 13100 Collingwood Terrace Silver Spring, Maryland 20904 Phone: 202-436-0812 Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093 Date: MARCH 22, 2021 Scale: AS SHOWN GG Drawn: MV Checked: File No. Drawing No. S-008

SECTIONS

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MECHANICAL NOTES AND SPECIFICATIONS

- PROVIDE COMPLETE AND PROPERLY FUNCTIONING HVAC SYSTEMS FOR THIS PROJECT. VISIT THE PROJECT SITE. EXAMINE THESE PLANS AND ALL DRAWINGS RELATING TO THE AREA OF WORK. AND REPORT ANY DISCREPANCIES OR OMISSIONS IN THIS PLAN SET TO THE ENGINEER FOR RESOLUTION AND CLARIFICATION PRIOR TO SUBMISSION OF BIDS. BY SUBMITTING A BID ON THIS PROJECT, THE CONTRACTOR ACCEPTS THESE DOCUMENTS AS AN ADEQUATE DEFINITION OF THE SCOPE OF WORK. CLAIMS FOR ADDITIONAL COSTS TO ACHIEVE THE INTENDED SCOPE OF WORK WILL NOT BE ACCEPTED.
- ALL WORK SHOWN ON THESE DOCUMENTS IS NEW UNLESS SPECIFICALLY IDENTIFIED AS EXISTING OR PROVIDED BY OTHERS.
- INSTALL ALL WORK ON THIS PROJECT IN ACCORDANCE WITH MECHANICAL CODE WITH ALL LOCAL REQUIREMENTS AND AMENDMENTS.
- OBTAIN AND PAY FOR ALL PERMITS ASSOCIATED WITH THIS PROJECT AND ARRANGE ALL REQUIRED INSPECTIONS BY THE APPROPRIATE LOCAL AUTHORITIES
- THE CONTRACTOR MUST NOTIFY THE BUILDING OWNER IMMEDIATELY OF ANY DAMAGE OR THE DISCOVERY OF ANY EXISTING DAMAGE. THE PROTECTION OF ALL DRAINS IS REQUIRED TO PREVENT CLOGGING AND THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANING OF ALL DRAINS WHICH HAVE BECOME CLOGGED DURING CONSTRUCTION.
- HVAC UNITS WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED TO PREVENT DUST, DEBRIS OR ODORS FROM ENTERING. SEAL ALL DUCT AND EQUIPMENT OPENINGS WITH PLASTIC. PROVIDE NEW FILTERS FOR ALL HVAC EQUIPMENT PRIOR TO COMPLETION OF PROJECT.
- THOROUGHLY CLEAN THE WORK AREA DAILY OR AS DIRECTED BY THE GENERAL CONTRACTOR OR OWNER. REMOVE ALL TRASH AND DEBRIS FROM THE PROJECT REMOVED FROM THE WORK AREA WHICH IS NOT REUSED BY THE OWNER UNLESS DIRECTED OTHERWISE BY THE OWNER'S REPRESENTATIVE
- 8. A PRELIMINARY INSPECTION OF THE HVAC WORK IN PROGRESS SHALL BE SCHEDULED THROUGH THE BUILDING OWNER PRIOR TO THE INSTALLATION OR RE-INSTALLATION OF THE CEILING GRID.
- 9. SYMBOLS SHOWN ON SCHEDULES INDICATE THE TYPE OF EQUIPMENT ONLY. REVIEW DRAWINGS TO DETERMINE THE EXACT QUANTITIES REQUIRED FOR EACH EQUIPMENT TYPE.
- 10. THESE DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO DEPICT THE GENERAL LOCATION OF HVAC SYSTEM COMPONENTS. DO NOT SCALE MECHANICAL DRAWINGS. CONSULT ARCHITECTURAL PLANS FOR PROPER DIMENSIONS AND LOCATION OF EQUIPMENT.
- I. PROVIDE ALL SUPPORT STEEL, HANGERS, VIBRATION ISOLATION AND ACCESSORIES REQUIRED TO INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DO NOT SUPPORT CEILINGS, LIGHTING FIXTURES, OR ANY OTHER DEVICES FROM DUCTWORK OR PIPING. UNLESS OTHERWISE NOTED, DO NOT ALLOW DUCTS, PIPES, OR CONDUITS TO DIRECTLY CONTACT THE BUILDING STRUCTURE.
- 12. CONNECT ALL MECHANICAL EQUIPMENT TO DUCTWORK USING RUBBERIZED-CANVAS FLEXIBLE CONNECTIONS. INSTALL ALL MECHANICAL EQUIPMENT WITH VIBRATION ISOLATION DEVICES.
- 13. ANY EQUIPMENT WHICH WILL REQUIRE PERIODIC INSPECTION OR SERVICE, IF LOCATED ABOVE OR BEHIND INACCESSIBLE CONSTRUCTION. SHALL BE PROVIDED WITH AN ACCESS DOOR OF SUFFICIENT SIZE TO PERMIT THE REQUIRED SERVICE. COORDINATE ACCESS PANEL LOCATIONS WITH ASSOCIATED EQUIPMENT LOCATIONS.
- 14. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND/OR RECOMMENDATIONS.
- 15. PROVIDE EQUIPMENT SUITABLE FOR THE INTENDED PURPOSE. ALL MANUFACTURERS SHALL HAVE HAD SIMILAR PRODUCTS IN SATISFACTORY SERVICE FOR A MINIMUM OF 3 YEARS.
- 6. UNOBSTRUCTED ACCESS IS REQUIRED ON ALL SIDES OF ELECTRIC EQUIPMENT. LOCATE ALL SUCH EQUIPMENT WITH ADEQUATE CLEARANCE FOR MAINTENANCE AND TO MEET THE NATIONAL ELECTRICAL CODE'S REQUIRED CLEARANCES.
- 17. PROVIDE ALL NEW EQUIPMENT/MATERIALS WITH A WARRANTY FOR A MINIMUM OF ONE YEAR FROM THE DATE OF LANDLORD/OWNER ACCEPTANCE.
- DUCTWORK:

OF AIR LÉAKAGE.

- 18. FABRICATE DUCTWORK FROM GALVANIZED SHEET STEEL WITH G60 COATING IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS AND THE PRESSURE CLASSES SPECIFIED BELOW: PRESSURE CLASS ("W.G.") /SEAL CLASS EXPOSED ROUND SPIRAL DUCT 2.0 / B DUCTWORK RESTROOM EXHAUST 2.0 / B CONSTANT VOLUME SYSTEM SUPPLY AIR DUCT 2.0 / B CONSTANT VOLUME RETURN AIR DUCT 2.0 / B
- 19. SEAL AND/OR REPAIR ANY DUCTWORK WITH VISUAL OR AUDIBLE SIGNS
- 20. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
- 21. USE THERMAFLEX G-KM (U.L. 181 CLASS 1) FACTORY-INSULATED TWO PLY BONDED ALUMINUM FLEXIBLE DUCTWORK. THE INSULATION SHALL INCLUDE A VAPOR BARRIER JACKET. LIMIT FLEXIBLE DUCT TO A MAXIMUM LENGTH OF 14 FEET.
- a. SIZE FLEXIBLE DUCTWORK TO MATCH THE NECK SIZE OF THE DEVICE IT SUPPLIES UNLESS OTHERWISE SCHEDULED. b. USE RIGID SPIRAL DUCT TO MAINTAIN FLEXIBLE DUCT LENGTHS
- UNDER 14 FEET (ROUND DUCT SIZE SHALL MATCH FLEXIBLE DUCT c. CONNECT FLEXIBLE, OR RIGID ROUND DUCTWORK, TO THE LOW
- PRESSURE DUCT USING SPIN-IN COLLARS OR "AIR-TITE" ADHESIVE BACKED FITTINGS SECURED TO THE MAIN DUCT WITH SHEET METAL SCREWS. AT CONNECTIONS TO AIR DEVICES OR RIGID DUCT WORK, MECHANICALLY FASTEN AND SEAL SEASON. FLEXIBLE DUCT AIRTIGHT. d. SEAL INSULATION JACKET USING INSULATION TAPE OR CEMENT TO
- MAINTAIN THE VAPOR BARRIER. e. DO NOT ROUTE FLEXIBLE DUCT THROUGH SLAB TO SLAB PARTITIONS.
- PROVIDE ROUND RIGID DUCT WHERE FLEXIBLE DUCTS ARE SHOWN TO PASS THAN 16 GAGE. THROUGH SLAB TO SLAB PARTITIONS. f. PROVIDE TRANSITIONS AND ACCESSORIES TO CONNECT FLEXIBLE DUCT
- TO RIGID DUCT. 22. INSTALL DUCTWORK TIGHT TO THE UNDERSIDE OF THE BUILDING
- STRUCTURE. ADJUST THE DUCT ELEVATION TO MAINTAIN DUCT TIGHT TO BOTTOM OF STRUCTURE WHERE STRUCTURE ELEVATIONS CHANGE.
- 23. PROVIDE ALL NECESSARY TRANSITIONS IN DUCTWORK FOR CONNECTION TO EQUIPMENT AND ACCESSORIES. REDUCE DUCTWORK SIZES ONLY AT THE CONNECTION POINT TO EQUIPMENT.
- 24. SUSPEND DUCTWORK FROM THE BUILDING STRUCTURE IN ACCORDANCE WITH THE SMACNA DUCT CONSTRUCTION STANDARDS. SECURELY ATTACH DUCTWORK SUPPORTS TO THE BUILDING STRUCTURE.
- 25. COORDINATE THE INSTALLATION OF THE DUCTWORK SYSTEM WITH THE BUILDING STRUCTURE AND THE WORK OF ALL OTHER CONTRACTORS. ADJUST DUCTWORK SIZES, LOCATION AND CONFIGURATION, INCLUDING DIFFUSER PLENUMS, AS REQUIRED TO COORDINATE WITH WORK OF THIS AND ALL OTHER TRADES. WHERE NECESSARY TO AVOID OBSTRUCTIONS, RE-SIZE. OFFSET. RAISE. OR LOWER THE DUCTWORK. DO NOT EXCEED THE DESIGN VELOCITIES IN ANY DUCT SECTIONS REQUIRING SIZING REVISIONS. INDICATE ALL COORDINATION ISSUES ON THE SHOP DRAWINGS.
- 26. PROVIDE TURNING VANES IN ALL 90° RECTANGULAR ELBOWS AND

- SPLITTER VANES IN ALL 90° RECTANGULAR RADIUS ELBOWS.
- 27. ELBOWS CONSTRUCTED USNG A SHARP 90° ANGLE ON THE INSIDE OF THE ELBOW AND RADIUS BEND ON THE OUTSIDE OF THE ELBOW (HARD
- RADIUS HEEL OR "SLED-BOOT" FITTING) WILL NOT BE ACCEPTED. 28. INSTALL VOLUME DAMPERS IN ALL BRANCH DUCTWORK CONNECTIONS AT
- TAKE-OFF FROM MAIN TRUNK DUCT LEADING TO DIFFUSERS. INTAKE SOURCE. 29. PROVIDE THE AIR DISTRIBUTION DEVICES WITH APPROPRIATE FRAMES
- FOR INSTALLATION IN THE SELECTED CEILING CONSTRUCTION. COORDINATE COLOR SELECTION WITH THE ARCHITECT AND MAINTAIN A NC LEVEL OF 25 OR LESS IN ALL AIR DISTRIBUTION DEVICE SELECTIONS. INSULATION:
- 30. INSULATE ALL CONCEALED SUPPLY AND RETURN AIR DUCTS WITH MINIMUM R-6 INSULATION WITH INTEGRAL VAPOR BARRIER WRAP. 31. INSULATE EXPOSED SPIRAL DUCT WITH 1" INTERNAL SOUND LINING.
- 32. INSTALL ALL INSULATION IN ACCORDANCE WITH ASTM E84. PROVIDE INSULATION WITH A FLAME SPREAD RATING OF LESS THAN 25 AND A SMOKE DEVELOPED RATING OF LESS THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84.
- 33. MAINTAIN VAPOR BARRIER ON ALL INSULATION APPLIED TO ALL EQUIPMENT, PIPING, OR DUCTWORK WHICH CONVEYS LIQUID OR AIR AT A TEMPERATURE OF LESS THAN 70 DEGREES F.
- 34. INSULATE ALL REFRIGERANT PIPING WITH 0.75" THICK CLOSED-CELL ELASTOMERIC PIPE INSULATION.
- 35. INCLUDE THE SERVICES OF A CERTIFIED INDEPENDENT BALANCING CONTRACTOR IN THE SCOPE OF THIS CONTRACT TO PERFORM ALL SYSTEM BALANCING PROCEDURES IN ACCORDANCE WITH NEBB AND AABC REQUIREMENTS.
- 36. PROVIDE ALL NECESSARY ACCESSORIES FOR DUCTWORK TO ALLOW PROPER AIR BALANCING, BALANCE AIR SYSTEMS TO QUANTITIES INDICATED ON THE PLANS UNDER THE SUPERVISION OF A REGISTERED ENGINEER. SUBMIT BALANCING REPORTS ON NEBB OR AABC FORMS APPROVED AND STAMPED BY THE REGISTERED ENGINEER WHO SUPERVISED THE TESTING.
- 37. PERFORM A PRELIMINARY AIR SYSTEM BALANCE ON ALL DEVICES IN AREAS WHERE FINAL CLOSE-IN WOULD MAKE BALANCING MECHANISMS INACCESSIBLE. PRELIMINARY AIR BALANCING IS REQUIRED TO PREVENT THE GENERATION OF OBJECTIONABLE NOISE AT THE AIR DEVICES. SCHEDULE THE WORK SUCH THAT THE FAN SYSTEMS ARE FULLY OPERATIONAL FOR THE PRELIMINARY AIR BALANCE PRIOR TO APPLICATION OF THE FINAL FINISHES. PERFORM THE FINAL BALANCING AT THE AIR DEVICE WITH AN INTEGRAL OPPOSED BLADE DAMPER OR OTHER APPROVED BALANCING MECHANISM. ELIMINATE ANY OBJECTIONABLE NOISE CREATED BY THE BALANCING MECHANISM.
- 38. PERFORM A FINAL SYSTEM BALANCE ONLY WHEN THE SYSTEM IS COMPLETE AND CAPABLE OF OPERATING IN ACCORDANCE WITH THE DESIGN CONTROL SEQUENCES. COORDINATE THE SCHEDULE FOR THE SYSTEM BALANCE WITH ALL APPROPRIATE TRADES TO IDENTIFY AND CORRECT ANY DEFICIENCIES WHICH COULD RESULT IN AN INCOMPLETE BALANCE REPORT. INCOMPLETE BALANCE REPORTS WILL NOT BE ACCEPTED FOR REVIEW. BALANCING WILL ONLY BE CONSIDERED TO BE COMPLETE UPON RECEIPT OF AN APPROVED BALANCE REPORT FROM THE ENGINEER.
- 39. FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND DESIGN SERVICES REQUIRED TO PROVIDE A COMPLETE CONTROL SYSTEM. THIS WORK SHALL INCLUDE WORK REQUIRED BY ELECTRICAL CONTRACTOR AS WELL. PROVIDE INITIAL SETUP AND PROGRAMMING OF ALL CONTROLS.
- 40. MOTORIZED DAMPERS/FANS SHALL BE CLOSED/OFF DURING UNOCCUPIED HOURS.
- **COORDINATION**

CONTROLS:

- A. COORDINATE THE WORK OF THIS SECTION WITH THE WORK OF OTHER SECTIONS IN AMPLE TIME FOR PROPER INSTALLATION AND CONNECTION, AND FOR THE PROVISION OF ALL OPENINGS REQUIRED IN FLOORS AND WALLS.
- B. VERIFY AND BECOME THOROUGHLY FAMILIAR WITH THE BUILDING SYSTEMS IN ORDER TO PROVIDE FOR PROPER DUCTWORK AND CEILING INTERCONNECTIONS WHERE APPLICABLE.
- C. VERIFY THE HEIGHT OF NEW DUCTWORK TO ASCERTAIN THAT IT DOES NOT CONFLICT WITH THE INSTALLATION OF LIGHT FIXTURES. CEILING SYSTEMS OR OTHER NEW TENANT CONSTRUCTION. PROMPTLY NOTIFY THE ARCHITECT, IN WRITING, OF ANY POTENTIAL CONFLICTS.
- D. CAREFULLY CHECK THE DOCUMENTS OF OTHER SECTIONS TO ASCERTAIN THE REQUIREMENTS OF ANY MATERIALS OR EQUIPMENT BEING FURNISHED OR FURNISHED AND INSTALLED BY THAT SECTION AND PROVIDE THE PROPER INSTALLATION OR CONNECTIONS INCLUDING CONTROLS.
- E. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF SUPPLY AND RETURN AIR DEVICES AND THERMOSTATS. REFER TO THE ARCHITECTURAL DRAWINGS FOR EQUIPMENT FINISHES AND MATERIALS NOT SPECIFIED HEREIN.
- F. PROVIDE REQUIRED SUPPORTS AND HANGERS FOR DUCTWORK, PIPING AND EQUIPMENT, SUCH THAT LOADING WILL NOT EXCEED ALLOWABLE LOADING OF STRUCTURE. SUBMITTAL OF A BID SHALL BE DEEMED A REPRESENTATION THAT THE CONTRACTOR SUBMITTING SUCH BID HAS ASCERTAINED ALLOWABLE LOADINGS AND HAS INCLUDED IN HIS ESTIMATES, THE COSTS ASSOCIATED IN FURNISHING REQUIRED SUPPORTS. ALL DUCTWORK, PIPING AND EQUIPMENT SUPPORTS SHALL BE INDEPENDENT OF THE CEILING SUPPORT SYSTEM.
- G. SCHEDULE ALL WORK CONNECTING WITH EXISTING SYSTEMS TO ENSURE A MINIMUM OF SERVICE INTERRUPTION. ALL INTERRUPTIONS OF SERVICES (POWER, WATER, HVAC, ETC.) AND ALL WORK IN OCCUPIED TENANT SPACES (E.G. PLUMBING OR ELECTRICAL WORK IN AN OCCUPIED TENANT'S SPACE BELOW A SPACE UNDER CONSTRUCTION) MUST BE SCHEDULED THROUGH THE BUILDING MANAGER.
- H. FURNISH ACCESS DOORS TO THE GENERAL CONTRACTOR, FOR INSTALLATION BY THE APPROPRIATE TRADES, IN LOCATIONS WHERE ACCESS IS REQUIRED TO MECHANICAL AND PLUMBING EQUIPMENT WHICH WOULD BE OTHERWISE INACCESSIBLE. CARE SHOULD BE TAKEN IN LOCATING MECHANICAL AND PLUMBING SYSTEMS TO MINIMIZE THE NUMBER OF ACCESS DOORS REQUIRED. FINAL LOCATIONS OF ACCESS DOORS IN FINISHED AREAS SHALL BE APPROVED BY THE ARCHITECT. ACCESS DOORS SHALL BE AS SPECIFIED BY THE ARCHITECT. WHERE NO ARCHITECTURAL ACCESS DOOR SPECIFICATIONS EXISTS, THEN ACCESS DOORS SHALL BE AS FOLLOWS: DRYWALL PARTITIONS -INRYCO/MILCON STYLE DW ; DRYWALL CEILINGS - INRYCO/MILCON STYLE DW OR STYLE WB-PL DIRECTED BY ARCHITECT; PLASTER WALLS OR CEILINGS -INRYCO/MILCON STYLE WB-PL.

SUBMITTALS AND APPROVALS

- A. APPROVALS FOR EQUIPMENT WILL NOT BE GIVEN UPON SUBMISSION OF MANUFACTURERS' NAMES. APPROVALS FOR EQUIPMENT WILL BE GIVEN ONLY AFTER RECEIPT OF COMPLETE AND SATISFACTORY SUBMITTALS. APPROVALS FOR EQUIPMENT WILL BE GRANTED IF SUCH EQUIPMENT CONFORMS TO THE PERFORMANCE REQUIREMENTS, SPACE CONDITIONS, WEIGHT REQUIREMENTS AND QUALITY REQUIREMENTS.
- B. NOTIFY THE ARCHITECT, IN WRITING, WITHIN 5 DAYS OF AWARD OF

MECHANICAL MANUFACTURER EQUIVALENT						
ROOFTOP UNIT	– DAIKIN – TRANE – CARRIER					
DIFFUSER & GRILLE	– METAL–AIRE – TITUS – KRUEGER – SHOEMAKER					
NOTES: COORDINATE SPACE AND CLEARANCE REQUIREMENTS WITH SCHEDULED UNIT BEFORE PURCHASING APPROVED SUBSTITUTION UNIT.						

MECHANICAL DETAILS

M100

M200

M300

M400

M500

M600

SHEET INDEX:
MECHANICAL COVER SHEET
MECHANICAL BASEMENT FLOOR PLAN
MECHANICAL FIRST FLOOR PLAN
MECHANICAL SCHEDULES
MECHANICAL CALCULATIONS

r	

TYPE/CF	• SUPPLY AIR GRILLE	AMPERE
	• RETURN AIR GRILLE	ABOVE FINISHED GRADE ADDENDUM
	M • EXHAUST AIR GRILLE • TOILET EXHAUST FAN (TEF) OR EXHAUST FAN (EF)	AIR HANDLER UNIT APPROXIMATE(LY) ARCHITECT(URAL) AUTOMATIC AUXILIARY
$\overline{\mathbb{O}}$	THERMOSTAT	BUILDING
SD	SMOKE DETECTOR	BOTTOM OF DUCT BOTTOM OF PIPE
╞╧	↓ • MANUAL DAMPER	CAPACITY
Щ	• DUCT TAKE-OFF	CARBON DIOXIDE CENTER
¢	• WALL CAP	CIRCLE CONDENSATE DRAIN CONDENSING LINIT
	 MECHANICAL EQUIPMENT WITH CLEARANCES, SEE SCHEDULES 	CONSTRUCTION CONTINUATION COOLING CUBIC FOOT PER MINU
	TRANSITION RECTANGULAR TO ROUND DUCT	DAMPER
	• TURNINGVANE, 90 DEGREE ELBOW	DEGREE FAHRENHEIT DEMOLISH(ITION) DIAMETER DIRECT EXPANSION
fr [_]	RADIUS ELBOW	DIVISION DOWN
##/##	 SIZE OF RECTANGULAR DUCT WHERE FIRST NUMBER INDICATES WIDTH AND SECOND NUMBER INDICATES VERTICAL DIMENSION 	DOUBLE DRAWING(S) DRY BULB DUCTLESS SPLIT
##Ø	DIAMETER OF ROUND DUCT	EASI ENTERING AIR TEMPERA EFFICIENCY ELECTRIC(AL)
—_CD—_	CONDENSATE PIPING	ELEVATION ENERGY EFFICIENCY RA
<u>s</u> () -	- • UNDER CUT DOOR,'S' DONATE SIZE	ENGINEER ENTERING
	POINT OF REMOVAL	EQUIPMENT ETCETERA EXHAUST FAN
\bullet	CONNECT TO EXISTING	EXISTING EXPOSED EXHALIST
NO MA	TE: NOT ALL SYMBOLS ON THIS LIST Y BE APPLICABLE TO THIS PROJECT.	EXHAUST AIR EXTERNAL EXTERNAL STATIC PRES
	DRAFTING SYMBOLS	FARENHEIT
	PLAN/DETAIL DESIGNATION	
	CALE: SCALE VIEW NUMBER	
	MARYLAND CODF	S:

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE MARYLAND STATE CODES (AS STATED BELOW) OR ALL THE APPLICABLE CODES IN FORCE BY LOCAL AUTHORITIES HAVING JURISDICTION.

_	2018	MARYLAND BUILDING CODE.
_	2018	MARYLAND ENERGY CONSERVATION CODE.
—	2018	MARYLAND PLUMBING CODE.
—	2012	MARYLAND PROPERTY MAINTENANCE CODE.
—	2017	NATIONAL ELECTRICAL CODE NFPA70.
—	2012	MARYLAND GREEN CONSTRUCTION CODE.
—	2018	MARYLAND MECHANICAL CODE.
—	2015	MARYLAND EXISTING BUILDING CODE.
—	2012	MARYLAND ACCESSIBLY CODE.
—	2010	ADA STANDARD.

	AIR DISTRIBUTION DEVICE SCHEDULE											
MARK.	SERVICE	TYPE	NECK	MAX. NC	MAKE/MODEL							
A -	SUPPLY	PERFORATED FACE CEILING DIFFUSER- ALUMINUM FLUSH FACE	SEE PLAN	24X24	TITUS MODEL TMS							
B -	SUPPLY	LONG THROW, HIGH CAPACITY GRILLE WITH ROTATING DRUM	SEE PLAN	24X8	TITUS MODEL DL							
C -	SUPPLY	ROUND DIFFUSER WITH TOW DISCHARGE PATTERNS	SEE PLAN	I	TITUS MODEL TMR							
$\left\langle \begin{array}{c} D \\ - \end{array} \right\rangle$	RETURN	RETURN AIR GRILLE – ALUMINUM	SEE PLAN	24X24	TITUS MODEL PAR							
E -	RETURN	SIDE WALL RETURN GRILLE	SEE PLAN	36X34	TITUS MODEL 350FL							

(N)	=	NEW

- (R) = REMOVE
- (E) = EXISTING
- (ER) = EXISTING RELOCATE
- (RR) = REMOVE AND RELOCATE

	_A(AMP)	FINISH(ED)	_FIN.('D)	OUTSIDE AIR	_OA
?	_AFF.	FINISH FLOOR	_F.F.		
	_AFG.	FLEXIBLE	_FLEX.	PARTIAL	_PART.
	_ADD.	FLOOR	_FL.	PHASE	_PH
	_ADJ.	FOOT/FEET	_FT.	POLYVINYL CHLORIDE	
	_A/C			POUND(S)	_LBS
	_AHU	GALLONS PER MINUTE	_GPM	POUNDS PER SQUARE INCH	_PSI
	_APPROX.		_GALV.	PRESSURE DRUP	_PD.
	_ARCH('L).	GAS HEATER	_G.H.		
	_AUTO		_GA.	QUANTITI	
	_AUX.			RADIUS	R
		GYPSUM BOARD	CYP	REFRIGERATION	
			_011.	RECESSED	REC.
	_BLDG.	HEATER	HTR	REINFORCE(ING)(ED)(MENT)	
		HORSEPOWER	<u>_</u> н.р.	RETURN AIR	
	BUL	HEATING. VENTILATION & AIF	RHVAC	RELOCATED	RE.
	_010.	CONDITIÓNING	-	ROOF TOP UNIT	RTU
	CAP			R00M	_RM.
	CO2				
	_CTR.	HOT WATER	_H.W	SANITARY_SEWER	_S.S.
	_CIR.	HOI WAIER REIURN	_H.W.R.	SCHEDULE	_SCH.
	_CD.		_н∠.	SEASUNAL ENERGY EFFICIEN	ICY_SEEF
	_C.U.				SECT
	_CONST.		INFO	SECTION	SENS
				SMOKE DETECTOR	_5LN3.
F	_CLG.	INSULATION	INSUL.	SOUTH	_0. <i>D</i> . S.
· L		INTERIOR	INT.	SPECIFICATION(S)	SPEC.('
	DMPR.		_	SQUARE	_SQ.
	DegF.	KILOWATT	_KW		_
	DEMO.				
	DIA.	LEAVING AIR TEMPERATURE	LAI.	SQUARE FEET	_SF
	_DX.		_LVG.	STAINLESS STEEL	_55.
	_DIV.	LONG RADIUS FLBOW	_L. IRF	SQUARE FEET	_3F _CD
	_DN.			SUCTION	
					_3001. SA.
		MANUFACTURE(R)	MFR.		
	_D.D.	MAKEUP AIR	MA.	TEMPERATURE	_TEMP.
	_0.0.	MAXIMUM	_MAX.	TOP OF STEEL	_T.0.S.
	E.	1,000 BTU/HR	_MBH.	TYPICAL	_TYP.
TURE	E_EAT.	MAXIMUM OVERCURRENT	_MOCP		
	_EFF.	PROTECTION			_U.G.
	_ELEC.		MECH.		5_0.L.
	_EL.		MIN	UNIT HEATER	ΠН
10_	_EER.	MIXED AIR TEMPERATURE	_WIIN. MAT	UNLESS NOTED OTHERWISE	_U.N.O
	_ENGR.		MISC		UTIL.
		MOTORIZED VOLUME DAMPER			_
		MULTIPLE	MULT.	MANUAL VOLUME DAMPER	_VD
	LQT I. FTC	MANUAL VOLUME DAMPER	_VD.	VOLTAGE	_V.
	E.F.			VOLUME	_VOL.
	EXIST.				WC
	_EXP.		_N/A	WATER GAUGE	_w.g.
	_EXH.	INUISE CRITERIA	_NC.	WEST	_WFST
	_EA.				W.B.
				with	
UKI	<u>-</u>	NOT IN CONTRACT		WITHOUT	/
	F	NOT TO SCALF	N.T.S		
			NO./#		

FLEXIBLE DUCT SCHEDULE										
AIRFLOW (CFM)	NECK SIZE (IN.)									
0 TO 100	6									
101 TO 200	8									
201 TO 275	10									
276 TO 375	12									
376 TO 475	14									
476 TO 600	16									

M100

MECHANICAL GENERAL SHEET NOTES:

A. THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATION OF WORK. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND MAKE ADJUSTMENTS AS NECESSARY TO COMPLETE THE WORK. B. CONTRACTOR SHALL THOROUGHLY EXAMINE PREMISES AND OBSERVE ALL CONDITIONS AND CIRCUMSTANCES UNDER WHICH THE WORK SHALL BE PERFORMED. NO ALLOWANCES WILL BE MADE FOR ERRORS OR NEGLIGENCE IN THIS RESPECT. C. PRIOR TO START MECHANICAL WORK AND ANY DUCT FABRICATION, CONTRACTOR SHALL COORDINATE WITH OWNER/ARCHITECT FOR CEILING HEIGHT AND MAKE SURE HAVE ENOUGH SPACE TO RUN THE DUCTS ABOVE THE CEILING.

(-) <u>MECHANICAL KEYED NOTES:</u>

PROVIDE AND INSTALL NEW AHU-1,2 AT THIS LOCATION. REFER TO SCHEDULE AND DETAIL FOR MORE INFORMATION. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS. PROVIDE AND INSTALL EXHAUST FAN AT THIS LOCATION. REFER TO SCHEDULE AND DETAILS. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS. PROVIDE AND INSTALL NEW THERMOSTAT WITH CLEAR LOCKABALE COVER TO CONTROL AHU 1,2 AT THIS LOCATION. COORDINATE EXACT LOCATION WITH OWNER/ARCH.

Project Title: Iglesic Vida Nueva Unida International 12450 OLD COLUMBIA PIKE 312450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904 MECHANICAL BASEMENT FLOOR PLAN	
German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648 Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093	
Date: MARCH 22, 2021 Scale: Drawn: Checked: File No. Drawing No.	

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MECHANICAL GENERAL SHEET NOTES:

A. THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATION OF WORK. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND MAKE ADJUSTMENTS AS NECESSARY TO COMPLETE THE WORK.

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(-) MECHANICAL KEYED NOTES:

PROVIDE AND INSTALL NEW ROOF TOP UNIT AT THIS LOCATION. REFER TO SCHEDULE AND DETAIL FOR MORE INFORMATION. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS. PROVIDE NEW CONDENSING UNIT AT THIS LOCATION. REFER TO SCHEDULE AND DETAIL FOR MORE

PROVIDE AND INSTALL EXHAUST FAN AT THIS LOCATION. REFER TO SCHEDULE AND DETAILS. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS. . PROVIDE AND INSTALL NEW THERMOSTAT TO CONTROL AHU 1,2 AT THIS LOCATION. COORDINATE EXACT

5. PROVIDE AND INSTALL SMOKE DETECTORS.

. PROVIDE AND INSTALL NEW CASSETTE UNIT. REFER TO EQUIPMENT SCHEDULE FOR MORE INFORMATION. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.

									7	rri zon	E MINI SP		STEMS]
TAG FC-1 FC-2 FC-3	MODEL SLZ-KF09NA-N SLZ-KF09NA-N SLZ-KF09NA-N	DESIGN AI MAX/MIN G 335/2 G 335/2 G 335/2	SUPPLY FAN IRFLOW I (CFM) II 207 207 207	OUT ESP N WG - - -	TDOOR AIR CFM 30 20 20	F EFF MERV - - -	FILTERS TYPE - - - -	TOTAL CAP MBH 9 9 9 9 9	DX 0 SENS CAP MBH 17.95 17.95 17.95	COOLING EAT DB/V DEG F 11.88 11.88 11.88	VB LAT DB/WB DEG F 80/67 80/67 80/67	- TYPE HEATIN HEATIN HEATIN	HOT GAS REHI TOTAL CA MBH G 11 G 11 G 11	EAT (HGRH) P) / HP HEATING EAT DEG F 70 70 70 70	G (HTG) LAT DEG F 110.2 110.2 110.2	CAP MBH 19.93 19.93 19.93	EL TYPE - - -	ECTRIC HEA CAP KW - - -	T (208/230 EAT DEG F - - -) LAT DEG F - - -	V 208 208 208 208	ELECTR PH 1 1 1 1	HZ 60 60 60)8/230) MCA A 0.25 0.25 0.25	MOP A - - -	NOTES 1,2,3,4,5 1,2,3,4,5 1,2,3,4,5
NOTES 1. 2. 3. 4. 5.	BASIS OF DESIG PROVIDE SINGL PROVIDE FACTO PROVIDE WIRED PROVIDE WATE LOCATED AT A	N IS TRANE; PRE E POINT POWER DRY STARTUP & 1 D WALL CONTRO R LEVEL DETECTI POINT HIGHER T	APPROVED ALTEI LYEAR WARRANT LLER ON DEVICE (UL 50 HAN THE PRIMAF	RNATES BY DES TY LABOR 08) THAT WILL S RY DRAIN LINE C	ERTAIRE, MI SHUT OFF EC CONNECTION	CSUBISH QUIPMEN I AND BE	I, DAIKIN, LG NT IN THE EVE ELOW THE OV	& SEMCO MEETING AI NT THAT THE PRIMAR ERFLOW RIM OF SUCH	LL REQUIREN RY DRAIN IS B H PAN.	IENTS WILL BE CO	ONSIDERED FOR SUB	STITUTION	PRIMARY DRAIN.														
	<u>SP</u>	LIT SYSTE		OOR COI	NDENS	ING	UNIT					Ē	EXHAUS	ΓFAN	N SCHE	EDULE	Ē							SE(NCE	OF OI
TAG	MODEL C,	OOLING AP @ 95 MBH	PE COMPRESSOR	TYPE	TRICAL V PH	HZ	MCA MC	P NOTES		UNIT	SERVICE	CFM	SP (IWC) TY	PE FRPI	M VOLTAGE	PHASE	HZ HP	(WATTS)	REMARK	s	A. PI	ROVIDE	STAND ALC	NE OR	APPLICATI	ON SPEC	
HP-1 NOTES			ALTERNATES BY DESE	SCROLL 2	208 1		<u> 23 35</u>) <u>1,2,3,4,5,6</u> ,7,8		TEF-1 T	0 5 RESTROO	M 140	0.020 CEIL	.ING 140	00 115	1	60	(47)	GREENHE SP-A19	CK 90	B. <u>Al</u>	IENCE OF	- OPERATIO	DNS. (AHU— [^]	<u>1, AHU-2</u>	<u>& RTU–</u>	<u>-1)</u>
2 P 3 R	EQUIREMENTS WILL E ROVIDE FACTORY STA	BE CONSIDERED FOR S ARTUP & 1 YEAR WAR	SUBSTITUTION RANTY LABOR	URFR						EF-1	JANITORIAL CL	OSET 60	0.200 CEIL	ING 900	0 115	1	60	(54)	GREENHE SP-B8	CK 0	1.	UNIT SH PROGRA	ALL CONSI MMABLE TH	ST OF S	SUPPLY A TAT.	IR FAN, I	FILTERS, DX
4 P 5 P 6 H	ROVIDE LOW AMBIEN ROVIDE 5 YEAR COMI	NT COOLING TO 0 DEC PRESSOR PARTS ONLY H FC-1,2,3; 19 SEER	G F (EXTENDED WARRAN	TY						NOTES: 1. FAN	SHALL BE OPERATE	D FROM LIGH	IT SWITCH OF THE	ROOM OF	SERVICE.						2.	PROVIDE PART OF (ADJUST	THE PRC ABLE).	GRAMMA	ABLE THEF	OPERATE RMOSTAT.	OVERRIDE S
7 H 8 P	IEATING CAPACITIES I ROVIDE VARIABLE SP	PROVIDED AT 43 DEG EED SCROLL COMPRE	F WB SSOR & (1) CENTRAL C	CONTROLLER FOR AI	LL INDOOR AND	OUTDOOR	R UNITS			4. PRO\	/IDE FAN WITH SPEE	D CONTROLL	ER MOUNTED ON I	TAN HOUSIN	NG & GRAVIT	/ BACK-DRA	FT DAMPER				3.	OCCUPIE OCCUPA UNIT SH PROGRA RUN CC TEMPER SET PO	D MODE: NCY AND S ALL OPEN M FOR EAI NTINUOUSI ATURE SEN	BASED (SHUT D(AND TH RLY WAF _Y AND \SOR. TI	ON THE S OWN THE IEN THE RM-UP OI THE INTEI HE UNIT S	SYSTEMS UNITS AT UNIT SHA R COOL I RNAL FAC SHALL CY	HOURS OF C THE END C LL START). T DOWN. ON A TORY CONTR CLE THE HE
				SF	PLIT S	YST	EM HE			Г SCHE	DULE										4.	UNOCCU OCCUPIE FALLS E	PIED MODE ED. THE UI BELOW 60	E: THE UNITS SH. DEGREE	UNITS INT ALL STOP F (ADJU	ERNAL OA HEATING STABLE),	A DAMPERS /COOLING AI THE UNIT S
SYSTEM	TONNAGE	PPLY OUTSIDE AIR AIR	SENSIBLE COO (MBH)	LING (DB/WB) LAT 3) (DB/	(F) TC VB)	DTAL COOLING (MBH)	HEATING TYP	PE	HEATING CAPACIT MBH(OUTPUT)	Y REFRIGERANT TYP	E EER	BASIS OF DESIGN INDOOR UNIT		OUTDOOR U	NIT					5	F (ADJU AND TH	STABLE), 1 EN SHUTD(THE UNIT	T SHALL	START AN	ID COOL THE
AHU-1 & COND-1	6.0 TON 210	0 CFM 375 CFN	M 54.96	80/67.	0 56.9/5	6.08	74.29	HEAT PUMP / ELEC 25	TRIC HEAT	36.12	R-410A	12.7	TWE07243BAA**, 208V/3PH/60H 73 MCA/80 MOC	A1 TV Z Z CP. 2	WA07243DAA* 208V/3PH/60 26 MCA/35 M	*ASO1 DHZ OCP.					C. <u>R</u> I 1.	ESTROON EXHAUS	T TO THE	LOCAL F	REMOTE A	<u>3, 4 &</u> TH LIGHT	<u>5 AND EF</u>
AHU-2 & COND-2	15.0 TON 400	0 CFM 735 CFN	M 129.76	80/67.	.0 55.50/5	5.99	188.56	HEAT PUMP / ELEC 30	CTRIC HEAT	111.09	R-410A	11.9	TWE18043BAA**, 208V/3PH/60H 96 MCA/100 MO	A1 T Z CP. 66	TWA18043DAA* 208V/3PH/60 6.3 MCA/90 1	**AS01 DHZ MOCP.											
NOTES:																					M	IECH	IANIC	;AL (PLIAN	
1. 4 9 2. F 7 3. E 4. H	ALL COOLING CA 95°F AMBIENT OU PROVIDE SYSTEM 70°F AND COOLII TEMPERATURE R/ ESP IS EXCLUSIN HEATING AND CC	PACITIES ARE BAUTDOOR ENTERIN S WITH PROGRANG AT 78°F. AUX ANGE FALLS BEL Æ OF FILTERS,	ASED ON 80°F D IG AIR TEMP, 45° MMABLE THERMO X. HEAT TEMP. M OW 35°F (ADJ.) WET COIL, AND (ARE MINIMUM REC	B, 63°F WB IND F SUCTION TEM STATS. TEMPER/ IUST DISPLAY C THE AUXILIARY CASING LOSS. QUIRED TO MEE	DOOR ENTER MP. ATURE SET I DN THE SCR HEAT TURNS	ING AIR POINT HE EEN. WH S ON.	TEMP AND EATING AT IEN THE	 FURNISH AIR HAND MORE TH/ ASHRAE UNITS SH THE ELEC LOAD. THI AND HEAT 	UNIT WITH L DLERS SHALL AN 2 PERCE 193. REFER IALL MEET EI CTRIC RESIST E AUX. HEAT T PUMP IN I	OW AMBIENT CC HAVE A MANUF INT OF THE DES TO SUBMITTED I NERGY STAR. ANCE SHALL TU MODE IS NORM DEFROST MODE.	ONTROLS. ACTURER'S DESIGNA IGN AIR FLOW RATE DOCUMENT FROM UN RN ON, ONLY WHEN MAL WHEN: THE TEM	TION FOR AN WHEN TESTE IT MANUFACT THE HEAT P PERATURE OU	AIR LEAKAGE OF 1 D IN ACCORDANCE URER. UMP CAN'T HANDLE ITSIDE IS BELOW F	NO WITH E THE REEZING							Project Energy (Project T Location Climate J Project T	t Information Code: Title: 1: Zone: Type:	on	2' IC S 4 N	018 IECC 3LESIA VIDA ilver Spring, a Iew Construc	NUEVA IN Maryland tion	TERNATIONAL
																					Construc 12450 SPRIN SLIVEI MARY	ction Site: OLD CULUN IG R SPRING, AND MD (/IBIA PIKE SLIV MARYLAND 20 20904	/ER 904	Owner/Ager	nt:	
						SC	HEDUI	E OF RO	OFTO	P UNIT		· · · · · ·									Additio Credits: Enhar	onal Efficie 1.0 Require Inced Interior	ncy Package d 1.0 Proposed Lighting Contro	∋(S) ols, 1.0 cred	lit		
MARK S		INAL TON	SA(CFM) 0	SUPPLY FAN A(CFM) E	SP W.G	AT (DB, AT (DB,	/wB) /wB) 1	DX COOLING SEC TOTAL SENSIBLE MBH) (MBH)		HEATING R OUTPUT CAF (MBH)	S SECTION PACITY EAT/LAT	VOLTA	ELECTRICAL GE MCA	МОСР	BASI	S OF DESIGN	N NOTE	S			Mecha Quantit <u>y</u> 1	nical Syste y System T RTU-1 (∍ms List ype & Descrir Single Zone):	otion			
RTU-1 FIRS	T FLOOR	20	6400	575	1.25	30.0/67. 57.34/5	.0 °F 5.46 °F 2	48.02 167.52	11.50/9.7	243.74	70/102.07	208/3/	60 257	300	WSH2	40E3RPD	1,	2, 3				No mi Cooling: Propc Fan Sys	nimum efficienc 1 each - Single sed Efficiency : tem: Unspecific	 a) Fuffiace, if y requiremeters Package D = 12.00 EEF >d 	ant applies X Unit, Capac R, Required Ef	ity = 243 kBtu ity = 248 kBtu iciency: 10.00	ı/h, Air-Cooled Con) EER + 11.6 IEER
NOTES: 1. 2. 3. 4.	PROVIDE AND I LOW AMBIENT (MOTORIZED OU PROVIDE AND I	NSTALL ADJUSTA COOLING DOWN TSIDE AIR DAMP NSTALL RETURN	ABLE PROGRAMMA TO 0 DEG F WIT ER AND SUPPLY AI	ABLE THERMOS	TAT WITH HE LE PROTECT ECTOR WITH SCHE	AUTO-S	L AUTO CHAN HIGH HEAD SHUTDOWN OF	NGEOVER AND NIGHT PRESSURE CUTOUT. UNIT UPON DETECT	SETBACK.	E.											1	HP-1 (FC Split Sys Heating Propo Cooling Propo Fan Sys SYSTEM HVAC S Split Sys Heating Propo Cooling Propo SYSTEI HVAC S Split Sy Heating Propo Cooling Propo	2-1,2,3) (Multipl tem Heat Pump Mode: Capacity sed Efficiency = Mode: Capacity sed Efficiency = tem: Unspecifie A COMPLIANCI ystem 1 (Single stem Heat Pump Mode: Capacity sed Efficiency = Mode: Capacity sed Efficiency = tem: Unspecifie A COMPLIANC	e-Zone): - = 11 kBtu/r = 11.00 HSF - = 9 kBtu/h, = 0.00 SEEF d E FAILS: PF > Zone): p / = 36 kBtu/l = 0.00 COP / = 74 kBtu/l = 11.90 EEF d E FAILS: PI > Zone): p y = 111 kBtu = 0.00 COP y = 188 kBtu = 11.90 EEI	¹ , ² F, Required E ² F, Required Eff ² ROPOSED EF ¹ h, ¹ , Required Effi ¹ h, ² , Required Effi ¹ u/h, ² , Required Effi ¹ u/h, Air Econc ² R, Required Effi ¹ u/h, Air Econc ² R, Required Effi	fficiency = 8.2 ficiency: 14.00 FICIENCY FA ciency = 3.30 hizer ficiency: 11.00 FICIENCY FA ciency = 3.20 mizer ficiency: 10.60	20 HSPF) SEER \ILS TO MEET COI COP) EER + 12.0 IEER \ILS TO MEET CO COP 0 COP 0 EER + 11.6 IEEF
LV-1		,2 (AIR INTAKE)	6000 6	SIZE FREE W x H (SQ 0"x36" 9.41	1	0.061	FAUE VELOO (FPM) 568	GREENHFCK	X APPROVED UAL ESD-635	1,2.3.4												Fan Sys SYSTEN	em: Unspecifie I COMPLIANCI	d E FAILS: PF	ROPOSED EFI	FICIENCY FA	ILS TO MEET CO
NOTES: 1. LOUVER S 2. LOUVER S 3. LOUVER C 4. PROVIDE	SHALL BE WEATH SHALL BE INSTAI COLOR SHALL M LOUVER WITH B	IER PROOF AND LLED AS HIGH A ATCH THE EXIST IRD OR INSECT	DRAINABLE. AS POSSIBLE. ING LOUVERS LO SCREEN.	DCATED ON BU	I ILDING EXTE	RIOR WA	ALL.			.,,,,,,,																	

NOTES	
1,2,3,4	

ERTIFICATE

PERATION

DLLERS AS REQUIRED TO PERFORM THE FOLLOWING

COOLING COIL, GAS HEAT, AND A 7-DAY

DURING UNOCCUPIED HOURS. THE SWITCH SHALL BE SWITCH ALLOWS THE UNIT TO OPERATE FOR TWO HOURS

DCCUPANCY, START THE UNITS AT THE BEGINNING OF OF OCCUPANCY (NOTE: OUTSIDE AIR DAMPER WITHIN THE THE UNIT SHALL START EARLIER AS DETERMINED BY THE A SYSTEM STARTUP, THE UNIT FAN SHALL START AND COLS SHALL BE ENABLED. BASED ON THE SPACE ATING /COOLING TO MAINTAIN THE SPACE TEMPERATURE

SHALL REMAINED CLOSED WHEN THE BUILDING IS NOT ND THE FAN SHALL STOP. IF THE SPACE TEMPERATURE HALL START AND HEAT UNIT THE SPACE TEMPERATURE IF THE SPACE TEMPERATURE RISES ABOVE 85 DEGREE E SPACE TEMPERATURE TO 80 DEGREE F (ADJUSTABLE)

ALL RTU'S SHALL SHUT DOWN AND AN ALARM SHALL

OR OCCUPANCY SENSOR.

Designer/Contractor:

idenser, Air Economizer

DE REQUIREMENTS.

DE REQUIREMENTS.

DE REQUIREMENTS.

Revisions: Date:					
PROF I CER DOCU OR AF A DUL ENGIN THE S LICEN DATE	ESSION TIFY TH MENTS PROVE Y LICEI NEER UI STATE C ISE# 47 08/06/2	AL CEI WERE D BY M NSED P NDER T DF MAR' 2084 EX 2025	RTIF PRE IE, T ROF HE YLA (PIR	FICAT EPAR HAT ESS LAWS ND ATIO	FION: ED I AM IONAL S OF N
Project Title:	Iglesic Vida Nueva Unida International	12450 OLD COLUMBIA PIKE			MECHANICAL SCHEDULES
Germ 1362 Silve Phon Struc MGV	han Pin 4 North r Spring e: 301- ctrual Ei Consu	eda: Co Gate E J, Md. 1 873-70 ngineer I. Struc	ontra Drive 2090 92 :: ::	actor e 04 ngine	ers
Arch Phon Philip 9615 Clint Phor	nitect: p Aaron 5 Geena on, Mar ne: 301-	a Lacy, a Nicole ryland 2 -873-50	Arcl 2073 093	hitect ive 35	ts
	MAR	CH 22,	202	21	
Date: Scale Draw Chec File N	e: n: ked: lo.				

Air Handler Description: Supply Air Fan:	AHU-1 Constant Volume - Sum of Draw-Thru with program estimated	Peaks horsepower of 0.20 HP	
Fan Input: Sensible Heat Ratio:	0% motor and fan efficiency with 0	in. water across the fan	curs 1 time(s) in the huilding
	2pm in August	This system out	surs i time(s) in the building
Outdoor Conditions: Indoor Conditions:	Clg: 93° DB, 75° WB, 101.95 grain Clg: 75° DB, 50% RH, Htg: 75° DB	s, Htg: 10° DB	
Summer: Ventilation controls	outside air, Winter: Ventilation	n controls outside air.	
Zone Space sensible loss:	19,641 Btuh		
Infiltration sensible loss:	0 Btuh	0 CFM	
Outside Air sensible loss:	26,185 Btuh	375 CFM	
Supply Duct sensible loss:	0 Btuh		
Return Duct sensible loss:	0 Btuh		
Return Plenum sensible loss Total System sensible loss:	: 0 Btuh		45 826 Btub
Heating Supply Air: 10 641 /	(005 × 1 08 × 0) -	2 100 CEM	10,020 Blain
Winter Vent Outside Air (17.	(.995 X 1.08 X 9) = 9% of supply) =	2,100 CFM 375 CFM	
Zone space sensible gain:	27.164 Btuh		
Infiltration sensible gain:	0 Btuh		
Draw-thru fan sensible gain:	500 Btuh		
Supply duct sensible gain:	0 Btuh		
Reserve sensible gain:	18,282 Btuh		
Total sensible gain on supply	y side of coil:		45,946 Btuh
Cooling Supply Air: 45,946 /	(.995 X 1.1 X 20) =	2,100 CFM	
Summer Vent Outside Air (1	7.9% of supply) =	375 CFM	
Return duct sensible gain:	0 Btuh		
Return plenum sensible gain	: 0 Btuh		
Outside air sensible gain:	7,385 Btuh	375 CFM	
Blow-thru fan sensible gain:	0 Btuh		
I otal sensible gain on return	side of coil:		7,385 Btuh
l otal sensible gain on air na	ndling system:		53,332 Btun
Zone space latent gain:	5,175 Btuh		
Infiltration latent gain:	0 Btuh		
Outside air latent gain:	9,514 Btuh		
Total latent gain on air hand	ing system: tent gain:		14,689 Btuh 68 021 Btuh
Chock Figuros			
Total Air Handler Supply Air	(based on a 20° TD).	2 100 CEM	
Total Air Handler Vent. Air (17.86% of Supply):	375 CFM	
Total Conditioned Air Space		2,777 Sq.ft	
Supply Air Per Unit Area:		0.7561 CFM/Sq.ft	
Area Per Cooling Capacity:		489.9 Sq.ft/Ton	
Cooling Capacity Per Area:		0.0020 Tons/Sq.ft	
Heating Capacity Per Area:		16.50 Btuh/Sq.ft	
Total Heating Required With	Outside Air:	45,826 Btuh	
Total Cooling Required With	Outside Air:	5.67 Tons	

А	В	С	D	E	F	G	Н		J	K	L
Room Number	Description	Area	Area	Area	Occupant	Occupancy	Occupant	Occupant	Breathing Zone	Zone Air	Zone Outdoo
		(ft²)	Outdoor	Outdoor	Load	C x F/1000	Outdoor	Outdoor	Outdoor Air	Distribution	Air
		(Az)	Air	Air	Rate per	(Pz)	Air Rate	Air	(Vbz = RpPz +	Effectiveness	(Voz = Vbz / E
			Rate	(RaAz)	IMC Table		per IMC	(RpPz)	RaAz)	(Ez)	
			per IMC		403.3		Table				
CLASSROOM 1	CLASSROOM	238	0.12	29	35	9	10	90	119	0.8	149
CLASSROOM 2	CLASSROOM	290	0.12	35	35	11	10	110	145	0.8	182
A/V ROOM	STORAGE	74	0.12	9	0	0	0	0	9	0.8	12
CRY ROOM	WAITING RM	120	0.06	7	50	6	7.5	45	52	0.8	65
CORRIDOR 1	CORRIDOR	482	0.06	29	0	0	0	0	29	0.8	37
CORRIDOR 2	CORRIDOR	880	0.06	53	0	0	0	0	53	0.8	67
Totals		2084		162		0		245	407	0.8	512
IMC 2018 SECTIO	ON 403 VERIFICATION F	ATE PROC	EDURE		Pe	rcentage o	f Outdoor	Air	1	Total Requir	ed Outdoor /

Air Handlor #4	FC-1 - Total Load Su	mmarv	
Air Handler Description: Supply Air Fan: Fan Input: Sensible Heat Ratio:	FC-1 Constant Volume - Proportior Draw-Thru with program estimated 0% motor and fan efficiency with 0 1.00	horsepower of 0.03 HP in. water across the fan This system occur	rs 1 time(s) in the building
Air System Peak Time: Outdoor Conditions: Indoor Conditions:	2pm in August. Clg: 93° DB, 75° WB, 101.95 grain Clg: 75° DB, 50% RH, Htg: 75° DB	s, Htg: 10° DB	
Summer: Ventilation control	ols outside air, Winter: Ventilatior	n controls outside air.	
Zone Space sensible loss: Infiltration sensible loss: Outside Air sensible loss: Supply Duct sensible loss: Return Duct sensible loss: Return Plenum sensible los	2,101 Btuh 0 Btuh 2,095 Btuh 0 Btuh 0 Btuh ss: 0 Btuh	0 CFM 30 CFM	4 106 Ptub
Heating Supply Air: 2,101 / Winter Vent Outside Air (1)	' (.995 X 1.08 X 7) = 0.0% of supply) =	300 CFM 30 CFM	4,190 Dan
Zone space sensible gain: Infiltration sensible gain: Draw-thru fan sensible gain Supply duct sensible gain: Reserve sensible gain: Total sensible gain on supo	2,496 Btuh 0 Btuh n: 71 Btuh 0 Btuh 3,657 Btuh		6.224 Btuh
Cooling Supply Air: 6,224 / Summer Vent Outside Air	(.995 X 1.1 X 19) = (10.0% of supply) =	299 CFM 30 CFM	-,
Return duct sensible gain: Return plenum sensible ga Outside air sensible gain: Blow-thru fan sensible gair Total sensible gain on retu Total sensible gain on air b	0 Btuh in: 0 Btuh 591 Btuh n: 0 Btuh rn side of coil: aandling system:	30 CFM	591 Btuh 6.815 Btuh
Zone space latent gain: Infiltration latent gain: Outside air latent gain: Total latent gain:	0 Btuh 0 Btuh 761 Btuh		761 Phub
Total system sensible and	latent gain:		7,576 Btuh
Check Figures			
Total Air Handler Supply A Total Air Handler Vent. Air	ir (based on a 19° TD): (10.02% of Supply):	299 CFM 30 CFM	
Total Conditioned Air Spac Supply Air Per Unit Area: Area Per Cooling Capacity Cooling Capacity Per Area Heating Capacity Per Area	e: : :	231 Sq.ft 1.2959 CFM/Sq.ft 365.9 Sq.ft/Ton 0.0027 Tons/Sq.ft 18.16 Btuh/Sq.ft	
Total Heating Required Wi Total Cooling Required Wi	th Outside Air: th Outside Air:	4,196 Btuh 0.63 Tons	

hit Designation: FC-1	Unit Total Supply Air:	300	Uni	it Total R	equired Out	tdoor Air: 30	CFM	U	nit Total Provideo	l Outdoor Air: 3	30 CFM
A	В	С	D	Е	F	G	Н	I	J	К	L
Room Number	Description	Area (ft²) (Az)	Area Outdoor Air Rate per IMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per IMC Table 403.3 (People/ 1000 ft2)	Occupancy C x F/1000 (Pz)	Occupant Outdoor Air Rate per IMC Table 403.3 (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz / Ez
PASTOR STUDY	OFFICE	231	0.06	14	5	2	5	10	24	0.8	30
Totals		231		14		2		10	24	0.8	30
IMC 2018 SECTION	ON 403 VERIFICATION R	ATE PROC	CEDURE		Pe	ercentage o	f Outdoor	Air	l	Total Require	ed Outdoor Ai
						10	%				30

Air Handler Description:	AHU-2 Constant Volume - Proportio	on borsepower of 0.38 HP	
Fan Input: Sensible Heat Ratio:	0% motor and fan efficiency with 0 0.76	in. water across the fan This system occ	urs 1 time(s) in the building
Air System Peak Time: Outdoor Conditions: Indoor Conditions:	5pm in August. Clg: 92° DB, 75° WB, 104.46 grains Clg: 75° DB, 50% RH, Htg: 75° DB	s, Htg: 10° DB	
Because of the diversity in zo the total system peak time, h	one, plenum and ventilation loads, t ence the air system CFM was com	he zone sensible peak time in Augu outed using a zone sensible load of	ust at 9pm is different from f 50,693.
Summer: Ventilation controls	outside air, Winter: Ventilation	controls outside air.	
Zone Space sensible loss: Infiltration sensible loss: Outside Air sensible loss: Supply Duct sensible loss: Return Duct sensible loss: Return Plenum sensible loss:	7,652 Btuh 0 Btuh 51,322 Btuh 0 Btuh 0 Btuh 0 Btuh 0 Btuh	0 CFM 735 CFM	58 072 Ptub
Heating Supply Air: 7,652 / (. Winter Vent Outside Air (18 4	995 X 1.08 X 2) =	4,000 CFM 735 CFM	30,973 Diun
Zone space sensible gain: Infiltration sensible gain: Draw-thru fan sensible gain: Supply duct sensible gain: Reserve sensible gain: Total sensible gain on supply	50,473 Btuh 0 Btuh 953 Btuh 0 Btuh 35,871 Btuh v side of coil:		87,297 Btuh
Cooling Supply Air: 87,517 / Summer Vent Outside Air (18	(.995 X 1.1 X 20) = 3.4% of supply) =	3,999 CFM 735 CFM	
Return duct sensible gain: Return plenum sensible gain: Outside air sensible gain: Blow-thru fan sensible gain on return Total sensible gain on return	0 Btuh 0 Btuh 13,671 Btuh 0 Btuh side of coil:	735 CFM	13,671 Btuh
Zone space latent gain: Infiltration latent gain: Outside air latent gain: Total latent gain on air handli	27,675 Btuh 0 Btuh 19,457 Btuh ng system:		47,132 Btuh
Total system sensible and lat	ent gain:		148,100 Btuh
Check Figures Total Air Handler Supply Air Total Air Handler Vent. Air (1	(based on a 20° TD): 8.38% of Supply):	3,999 CFM 735 CFM	
Total Conditioned Air Space: Supply Air Per Unit Area: Area Per Cooling Capacity: Cooling Capacity Per Area: Heating Capacity Per Area:		3,505 Sq.ft 1.1410 CFM/Sq.ft 284.0 Sq.ft/Ton 0.0035 Tons/Sq.ft 16.83 Btuh/Sq.ft	
Total Heating Required With Total Cooling Required With	Outside Air: Outside Air:	58,973 Btuh 12.34 Tons	

Air Handler #3 - RTU-1 - Total Load Summary Air Handler Description: AHU-3 Constant Volume - Proportion Supply Air Fan: Draw Thru with program estimated borsepower of 0.60 HP		Date:
Sapping All Path. Draw-Third with program estimated horsepower of 0.00 HP Fan Input: 0% motor and fan efficiency with 0 in. water across the fan Sensible Heat Ratio: 0.69 Air System Peak Time: 4pm in August. Outdrage Conditioner: Circ 02° DB, 75° WB, 101.05 grains, Mtg. 10° DB, 75° WB, 101.05 grains, Mtg. 10° DB, 75° WB, 101.05 grains, Mtg. 10° DB, 75° WB, 100.05 grains, Mtg. 10° DB, 75° WB, 7	e(s) in the building	
Outdoor Condutions: Cig. 95 DB, 75 WB, 101.95 grains, Hg. 10 DB Indoor Conditions: Cig. 75° DB, 50% RH, Htg: 75° DB Summer: Ventilation controls outside air, Winter: Ventilation controls outside air. Zone Space sensible loss: 16.454 Btub		
Infiltration sensible loss: 0 Btuh 0 CFM Outside Air sensible loss: 40,150 Btuh 575 CFM Supply Duct sensible loss: 0 Btuh Return Duct sensible loss: 0 Btuh		
Return Plenum sensible loss: 0 Btuh Total System sensible loss: 0 Heating Supply Air: 16,454 / (.995 X 1.08 X 2) = 6,400 CFM Winter Vent Outside Air (9 0% of supply) = 575 CFM	56,604 Btuh	
Zone space sensible gain: 100,382 Btuh Infiltration sensible gain: 0 Btuh Draw-thru fan sensible gain: 1,525 Btuh		evision
Supply duct sensible gain. 0 Buth Reserve sensible gain. 38,127 Btuh Total sensible gain on supply side of coil: 6,399 CFM Cooling Supply Air: 140,034 / (.995 X 1.1 X 20) = 6,399 CFM	140,034 Btuh	PROFESSIONAL CERTIFICATION:
Summer Vent Outside Air (9.0% of supply) = 575 CFM Return duct sensible gain: 0 Btuh Return plenum sensible gain: 0 Btuh Outside air sensible gain: 11,324 Btuh 575 CFM		I CERTIFY THAT THESE
Blow-thru fan sensible gain: 0 Btuh Total sensible gain on return side of coil: 0 Btuh Total sensible gain on air handling system: 0 Btuh Zone space latent gain: 63 000 Btuh	11,324 Btuh 151,359 Btuh	OR APPROVED BY ME, THAT I AM A DULY LICENSED PROFESSIONAL
Infiltration latent gain: 0 Btuh Outside air latent gain: 14,589 Btuh Total latent gain on air handling system: Total system sensible and latent gain:	77,589 Btuh 228,947 Btuh	THE STATE OF MARYLAND LICENSE# 47084 EXPIRATION
Check Figures Total Air Handler Supply Air (based on a 20° TD): 6,399 CFM Total Air Handler Vent. Air (8.99% of Supply): 575 CFM		DATE 08/06/2025
Total Conditioned Air Space:3,428 Sq.ftSupply Air Per Unit Area:1.8668 CFM/Sq.ftArea Per Cooling Capacity:179.7 Sq.ft/TonCooling Capacity Per Area:0.0056 Tons/Sq.ftHosting Capacity Per Area:16 ET Btub/Sq.ft		
Total Heating Required With Outside Air: 56,604 Btuh Total Cooling Required With Outside Air: 19.08 Tons		ona
		904 NS
		terr KE D 20
U-1 Unit Total Supply Air: 6400 Unit Total Required Outdoor Air: 2036 CFM Unit	Total Provided Outdoor Air: 2040 CFM	A PI ULA PI
B C D E F G H I r Description Area (ft²) Area Outdoor Area Outdoor Occupant Load Occupant C x F/1000 Occupant Outdoor Occupant Outdoor	J K L Breathing Zone Zone Air Zone Outdoor Outdoor Air Distribution Air Air Dear Effective Control (1997)	nida ARYI A LCI
(Az) Air Air Rate per (Pz) Air Rate Air Rate (RaAz) IMC Table per IMC (RpPz) per IMC 403.3 Table Table (People/ 403.3	(Vbz = RpPz + Effectiveness) (Voz = Vbz / Ez) RaAz) (Ez)	
ATING SANCTUARY 2390 0.06 143 120 287 5 1435 SE OFFICE 590 0.06 35 5 3 5 15	1578 0.8 1973 50 0.8 63	LD CAL
DM CHANGE RM 84 0 <th< td=""><td>0 0.8 0 7 0.8 9 1635 0.8 2036</td><td></td></th<>	0 0.8 0 7 0.8 9 1635 0.8 2036	
403 VERIFICATION RATE PROCEDURE Percentage of Outdoor Air 32%	Total Required Outdoor Air	/ida 1245 VER ECH
		SIL SIL
Air Handler #6 - FC-3 - Total Load Summary Air Handler Description: Supply Air Fan: Supply Air Fan: FC-3 Constant Volume - Proportion Draw-Thru with program estimated horsepower of 0.02 HP		ject Ti
Fan Input: 0% motor and fan efficiency with 0 in. water across the fan Sensible Heat Ratio: 0.91 Air System Peak Time: 2pm in August. Outdoor Conditions: Clg: 02° DR, 75° WR, 101.05 grains, Htg: 10° DR	e(s) in the building	
Indoor Conditions: Clg: 75° DB, 50% RH, Htg: 75° DB Summer: Ventilation controls outside air, Winter: Ventilation controls outside air. Zone Space sensible loss: 1.234 Btub		German Pineda: Contractor 13624 North Gate Drive
Infiltration sensible loss: 0 Btuh 0 CFM Outside Air sensible loss: 1,397 Btuh 20 CFM Supply Duct sensible loss: 0 Btuh Return Duct sensible loss: 0 Btuh		Silver Spring, Md. 20904 Phone: 301-873-7092
Return Plenum sensible loss: 0 Btuh Total System sensible loss: 200 CFM Heating Supply Air: 1,234 / (.995 X 1.08 X 6) = 200 CFM Winter Vent Outside Air (10 0% of supply) = 20 CFM	2,631 Btuh	Structrual Engineer: MGV Consul. Struct. Engineers
Zone space sensible gain: 1,956 Btuh Infiltration sensible gain: 0 Btuh Draw-thru fan sensible gain: 48 Btuh		6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301 816 0648
Supply duct sensible gain: 0 Bitm Reserve sensible gain: 2,365 Btuh Total sensible gain on supply side of coil: 200 CFM Cooling Supply Air: 4,368 / (.995 X 1.1 X 20) = 200 CFM	4,368 Btuh	
Summer vent Outside Air (10.0% of supply) = 20 CFM Return duct sensible gain: 0 Btuh Return plenum sensible gain: 0 Btuh Outside air sensible gain: 394 Btuh 20 CFM		
Blow-thru fan sensible gain: 0 Btuh Total sensible gain on return side of coil: 0 Total sensible gain on air handling system: 0 Zone space latent gain: 450 Btuh	394 Btuh 4,762 Btuh	
Infiltration latent gain: 0 Btuh Outside air latent gain: 507 Btuh Total latent gain on air handling system: Total system sensible and latent gain:	957 Btuh 5,720 Btuh	Architect: Philip Aaron Lacy, Architects
Check Figures Total Air Handler Supply Air (based on a 20° TD): 200 CFM Total Air Handler Vent. Air (10.02% of Supply): 20 CFM		9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093
I otal Conditioned Air Space: 140 Sq.ft Supply Air Per Unit Area: 1.4257 CFM/Sq.ft Area Per Cooling Capacity: 293.7 Sq.ft/Ton Cooling Capacity Per Area: 0.0034 Tons/Sq.ft Heating Capacity Per Area: 18 79 Btult/Sq ft		
Total Heating Required With Outside Air:2,631 BtuhTotal Cooling Required With Outside Air:0.48 Tons		
		Date: MARCH 22, 2021
C-3 Unit Total Supply Air: 200 Unit Total Required Outdoor Air: 17 CFM Un	Total Provided Outdoor Air: 20 CFM	Scale:
B C D E F G H I er Description Area (ft²) Area Outdoor Area Outdoor Occupant Load Occupant C x F/1000 Occupant Outdoor Occupant Outdoor Occupant Outdoor	J K L reathing Zone Zone Air Zone Outdoor Outdoor Air Distribution Air Vitra = PAPA + Effectivenesse (Visa + Visa + Effectivenesse (Visa	Drawn:
(Az) Air Air Rate per (Pz) Air Rate Air Rate (RaAz) IMC Table per IMC (RpPz) per IMC 403.3 Table Table (People/ 403.3	voz = kprz + Effectiveness (Voz = Vbz / Ez) RaAz) (Ez)	File No.
403.3 (Ra) 1000 ft2) (Rp) FICE 140 0.06 8 5 1 5 5 140 8 1 5 5 5 5 5	13 0.8 17 13 0.8 17	Drawing No.
SECTION 403 VERIFICATION RATE PROCEDURE Percentage of Outdoor Air	Total Required Outdoor Air Design America Engineering, Inc	
9%	MEP Consulting Engineers 14080 Red River Drive Centerville VA 20121	M500
	Sam: 571-220-3239 DAENG2000@GMAIL.COM www.daeng2000.com	

Α	В	С	D	E	F	G	Н		J	K	L
Room Number	Description	Area (ft²) (Az)	Area Outdoor Air Rate per IMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per IMC Table 403.3 (People/ 1000 ft2)	Occupancy C x F/1000 (Pz)	Occupant Outdoor Air Rate per IMC Table 403.3 (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdo Air (Voz = Vbz /
CLASSROOM 3	CLASSROOM	244	0.12	29	35	9	10	90	119	0.8	149
CLASSROOM 4	CLASSROOM	234	0.12	28	35	9	10	90	118	0.8	148
Fellowship Hall	FELLOWSHIP HALL	2640	0.06	158	120	317	5	1585	1743	0.8	2179
WARMING PANTRY	PANTRY	247	0.06	15	5	2	5	10	25	0.8	32
STORAGE	STORAGE	140	0	0	0	0	0	0	0	0.8	0
Totals		3505		230		337		1775	2005	0.8	2508
IMC 2018 SECTIO	DN 403 VERIFICATION RA	ATE PROG	CEDURE		Pe	rcentage o	fOutdoor	Air]	Total Require	ed Outdoor

wer of 0.03 HP across the fan This system occ 0° DB 6 outside air. 0 CFM 20 CFM 350 CFM 20 CFM	curs 1 time(s) in the building 2,833 Btuh
^{across the fan} This system occ ^{0°} DB ³ outside air. 0 CFM 20 CFM 350 CFM 20 CFM	curs 1 time(s) in the building 2,833 Btuh
^{20°} DB s outside air. 0 CFM 20 CFM 350 CFM 20 CFM	2,833 Btuh
0° DB s outside air. 0 CFM 20 CFM 350 CFM 20 CFM	2,833 Btuh
3° DB 5 outside air. 0 CFM 20 CFM 350 CFM 20 CFM	2,833 Btuh
outside air. 0 CFM 20 CFM 350 CFM 20 CFM	2,833 Btuh
outside air. 0 CFM 20 CFM 350 CFM 20 CFM	2,833 Btuh
0 CFM 20 CFM 350 CFM 20 CFM	2,833 Btuh
0 CFM 20 CFM 350 CFM 20 CFM	2,833 Btuh
20 CFM 350 CFM 20 CFM	2,833 Btuh
350 CFM 20 CFM	2,833 Btuh
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350 CFM 20 CFM	2,833 Btuh
350 CFM 20 CFM	2,833 Btuh
350 CFM 20 CFM	
20 CFM	
20 01	
	7.040 01 1
	7,640 Btun
349 CFM	
20 CFM	
20 CEM	
20 01 10	
	394 Btub
	8 033 Btuh
	0,000 21411
	957 Btuh
	8,991 Btuh
349 CFM	
20 CFM	
170 Sa.ft	
2.0534 CFM/Sg.ft	
226.9 Sg ft/Ton	
0.0044 Tons/Sg ft	
16.66 Btuh/Sa.ft	
2,833 Btuh	
0.75 Ions	
	349 CFM 20 CFM 20 CFM 349 CFM 20 CFM 170 Sq.ft 2.0534 CFM/Sq.ft 226.9 Sq.ft/Ton 0.0044 Tons/Sq.ft 16.66 Btuh/Sq.ft 2,833 Btuh 0.75 Tons

В	С	П	F	F	G	н			ĸ	
Description	Area (ft²) (Az)	Area Outdoor Air Rate per IMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per IMC Table 403.3 (People/ 1000 ft2)	Occupancy C x F/1000 (Pz)	Occupant Outdoor Air Rate per IMC Table 403.3 (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz / Ez
OFFICE	170	0.06	10	5	1	5	5	15	0.8	19
	170		10		1		5	15	0.8	19
DN 403 VERIFICATION R	170 ATE PROC	CEDURE	10	Pe	1 ercentage o	fOutdoor	5 Air	15	0.8	ed Outdoor
	B Description OFFICE ON 403 VERIFICATION R/	B C Description Area (ft²) (Az) OFFICE 170 170 DN 403 VERIFICATION RATE PROC	B C D Description Area (ft²) Area Outdoor (Az) Air Rate per IMC Table 403.3 (Ra) OFFICE 170 OFFICE 170 0.06 170	B C D E Description Area (ft²) Area Outdoor Area Outdoor (Az) Air Rate per IMC Table 403.3 (Ra) (RaAz) OFFICE 170 0.06 10 170 10 10	BCDEFDescriptionArea (ft²)Area OutdoorArea OutdoorArea OutdoorOccupant Load Rate per IMC Table 403.3 (Ra)Outdoor Air Air (RaAz)Occupant IMC Table 403.3 (People/ 1000 ft2)OFFICE1700.06105OFFICE17010105DN 403 VERIFICATION RATE PROCEDUREPeople/10010	B C D E F G Description Area (ft?) Area (ft?) Area Outdoor Area Outdoor Occupant Load Air (RaAz) Occupant Load Rate per (RaAz) Occupant C x F/1000 (Pz) OFFICE 170 0.06 10 5 1 OFFICE 170 0.06 10 5 1 ON 403 VERIFICATION RATE PROCEDURE Percentage o Percentage o	B C D E F G H Description Area (ft²) Area (ft²) Area Outdoor Area Outdoor Occupant Load Occupanty C x F/1000 Occupanty Outdoor (Az) Air (Az) Air Rate per IMC Table Air (RaAz) Air IMC Table Occupanty (P2) Outdoor 000 ft2) Table 403.3 (Ra) (People/ 1000 ft2) Air (Rp) Air Air Rate per IMC Table 00FFICE 170 0.06 10 5 1 5 00FFICE 170 10 1 1 0	B C D E F G H I Description Area (ft²) Area (ft²) Area Outdoor Area Outdoor Occupant Outdoor Occupant Load Rate per IMC Table 403.3 (Ra) Occupant C x F/1000 Occupant Outdoor Occupant Outdoor Outdoor Air (RaAz) Air Rate per IMC Table 403.3 (Ra) Image: Company Air (RaAz) Occupant (Pz) Outdoor Outdoor OFFICE 170 0.06 10 5 1 5 OFFICE 170 0.06 10 5 1 5 ON 403 VERIFICATION RATE PROCEDURE Percentage of Outdoor Air	B C D E F G H I J Description Area (ft ²) Area (ft ²) Area (ft ²) Area (ft ²) Area Outdoor Occupant Outdoor Occupant Load Rate per (RAZ) Occupant (Pz) Occupant Air Rate per IMC Table Occupant Outdoor Occupant Outdoor Occupant Outdoor Occupant Outdoor Occupant Outdoor Outdoor Outdoor Outdoor Outdoor Outdoor Air (Vbz = RpPz + RaAz) Marea Area Area Area (RaAz) IMC Table Air Rate (People/ Air Rate 403.3 Air (Rp) Air Air (RpPz) Air (Rp2) Air (ND Air (RD) Air (Rp2) Air	B C D E F G H I J K Description Area (ft²) Area (ft²) Area (ft²) Area (ft²) Area (ft²) Area (ft²) Area (ft²) Occupant (ft²) Occupant (Load (Rate per per IMC Table Occupant (Pz) Occupant (Pz) Occupant (Pz) Occupant (Pz) Occupant (Pz) Outdoor (Pz) Outdoor (Pz) Air (Rp) Air (Rp2) Outdoor (Vbz = RpPz + RaAz) Zone Air Distribution Effectiveness (Ez) OFFICE 170 0.06 10 5 1 5 15 0.8 OFFICE 170 0.06 10 5 1 5 15 0.8

Air	Handler #3 - R	TU-1 - Total	Load Sum	mary		
Air Ha Suppl Fan Ir Sensi	andler Description: Al ly Air Fan: Di nput: 0º ible Heat Ratio: 0.	н∪-3 Constant Volur raw-Thru with progra % motor and fan effic 69	ne - Proportion m estimated horse iency with 0 in. wa	epower of 0.60 HP ater across the fan This system	occurs 1 time(s) in the building	
Air Sy Outdo Indoor	ystem Peak Time: 4p oor Conditions: Cl or Conditions: Cl	om in August. lg: 93° DB, 75° WB, 7 lg: 75° DB, 50% RH,	01.95 grains, Htg Htg: 75° DB	ј: 10° DB		
Zone Infiltra Outsio	Space sensible loss: ation sensible loss: de Air sensible loss:	16,454 Bt 0 Bt 40,150 Bt	uh uh uh	0 CFM 575 CFM		
Return Return Total	n Duct sensible loss: n Duct sensible loss: n Plenum sensible loss: System sensible loss:	0 Bi 0 Bi 0 Bi	un uh uh		56,604 Btuh	
Heatir Winte Zone	ng Supply Air: 16,454 / (. er Vent Outside Air (9.0% space sensible gain:	995 X 1.08 X 2) = of supply) = 100,382 Bt	uh	6,400 CFM 575 CFM		
Draw- Suppl Reser Total	-thru fan sensible gain: ly duct sensible gain: rve sensible gain: sensible gain on supply s	0 B 1,525 Bt 0 Bt 38,127 Bt side of coil:	uh uh uh		140,034 Btuh	
Coolir Sumn Return	ng Supply Air: 140,034 / (mer Vent Outside Air (9.0'	(.995 X 1.1 X 20) = % of supply) = 0 Bf	uh	6,399 CFM 575 CFM	,	
Return Outsid Blow-1 Total	n plenum sensible gain: de air sensible gain: thru fan sensible gain: sensible gain on return s	0 B1 0 B1 11,324 Bt 0 B1 ide of coil:	uh uh uh	575 CFM	11,324 Btuh	
Total Zone Infiltra Outsid	sensible gain on air hand space latent gain: ation latent gain: de air latent gain:	lling system: 63,000 Bt 0 Bt 14 580 Pt	uh uh uh		151,359 Btuh	
Total Total	latent gain on air handlin system sensible and late	g system: nt gain:			77,589 Btuh 228,947 Btuh	
Total Total Suppl	Air Handler Supply Air (b Air Handler Vent. Air (8.9 Conditioned Air Space: Iv Air Per Unit Area:	based on a 20° TD): 99% of Supply):		6,399 CFM 575 CFM 3,428 Sq.ft 1,8668 CFM/Sq.ft		
Area I Coolir Heatir	Per Cooling Capacity: ng Capacity Per Area: ng Capacity Per Area:	X.1.1		179.7 Sq.ft/Ton 0.0056 Tons/Sq.ft 16.51 Btuh/Sq.ft		
Total Total	Heating Required With C Cooling Required With O	Dutside Air: Dutside Air:		56,604 Btuh 19.08 Tons		
on: RTU-1	Unit Total Supply Air:	6400 Unit	Total Required O	utdoor Air: 2036 CFM	Unit Total Provided Outdo	Air: 2040 CFM
A Number	B Description	C D Area Area (ft²) Outdoor	E F Area Occupa Outdoor Load	G H Int Occupancy Occupant C x F/1000 Outdoor	I J Occupant Breathing Zone Zon Outdoor Outdoor Air Distr	L Air Zone Outdoor ution Air
		(Az) Air Rate per IMC Table	Air Rate pe (RaAz) IMC Tab 403.3 (People	er (Pz) Air Rate per IMC Table e/ 403.3	Air (Vbz = RpPz + Effec (RpPz) RaAz)	eness (Voz = Vbz / Ez) ?)
SEATING	SANCTUARY OFFICE	403.3 (Ra) 2390 0.06 590 0.06	1000 ft: 143 120 35 5	2) (Rp) 287 5 3 5	1435 1578 15 50	8 <u>1973</u> 863
E ROOM IDOR 3 tals	CHANGE RM CORRIDOR	84 0 118 0.06 3182 0.06	0 0 7 0 185	0 0 0 0 290 0	0 0 0 7 1450 1635	3 0 3 9 8 2036
CTION 403 VEF	RIFICATION RATE PRO	CEDURE		Percentage of Outdoor	Air Tota	lequired Outdoor Air
				32%		2036
Air	Handler #6 E	C-3 - Total L	nad Summ	arv		
Air Air Ha Suppl Fan Ir	rander Description: FC andler Description: FC ly Air Fan: Di nput: 09	C-3 - I OTAI L C-3 Constant Volume raw-Thru with progra % motor and fan effic 21	- Proportion m estimated horse iency with 0 in. wa	epower of 0.02 HP ater across the fan		
Sensil Air Sy Outdo Indoor	IDIE Heat Ratio:0.ystem Peak Time:2ppoor Conditions:Clor Conditions:Cl	91 om in August. lg: 93° DB, 75° WB, 7 lg: 75° DB, 50% RH	l01.95 grains, Htg Htg: 75° DB	This system j: 10° DB	occurs 1 time(s) in the building	
Sumn	ner: Ventilation controls c Space sensible loss:	outside air, Winte 1,234 Bt	יוש. אסיס אסיס r: Ventilation cont uh	rols outside air.		
Infiltra Outsio Suppl Return	ation sensible loss: de Air sensible loss: ly Duct sensible loss: m Duct sensible loss:	0 Bt 1,397 Bt 0 Bt	uh uh uh	0 CFM		
Return Total Heatin Winte	n Pienum sensible loss: System sensible loss: ng Supply Air: 1,234 / (.99 er Vent Outside Air (10.00	0 Bt	uh	20 CFM		
VVINTE Zone Infiltra	space sensible gain: ation sensible gain:	0 Bi 0 Bi 95 X 1.08 X 6) =	uh uh	20 CFM	2,631 Btuh	
DidW-	-thru fan sensible gain:	0 Bi 0 Bi 0 Bi 95 X 1.08 X 6) = % of supply) = 1,956 Bt 0 Bi 48 Bi	uh uh uh uh uh	20 CFM 200 CFM 20 CFM	2,631 Btuh	
Suppl Reser Total	-thru fan sensible gain: ly duct sensible gain: rve sensible gain: sensible gain on supply s	0 Bi 0 Bi 0 Bi 95 X 1.08 X 6) = % of supply) = 1,956 Bi 48 Bi 0 Bi 2,365 Bi side of coil: 95 X 1 1 X 200 =	uh uh uh uh uh uh	20 CFM 200 CFM 20 CFM	2,631 Btuh 4,368 Btuh	
Suppl Suppl Reser Total Coolir Sumn Return Return	-thru fan sensible gain: ly duct sensible gain: rve sensible gain sensible gain on supply s ng Supply Air: 4,368 / (.99 mer Vent Outside Air (10.0 n duct sensible gain: n plenum sensible gain:	0 Bi 0 Bi 0 Bi 0 Bi 0 Bi 1,956 Bt 0 Bi 2,365 Bi 2,365 Bi side of coil: 95 X 1.1 X 20) = 0% of supply) = 0 Bi 0 Bi	uh uh uh uh uh uh	20 CFM 200 CFM 20 CFM 200 CFM 200 CFM	2,631 Btuh 4,368 Btuh	
Staw- Suppl Reser Total Coolir Sumn Return Return Outsid Blow- Total	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply s ng Supply Air: 4,368 / (.99 mer Vent Outside Air (10.0 m duct sensible gain: n plenum sensible gain: de air sensible gain: sensible gain on return s sensible gain on return s	0 Bi 0 Bi 0 Bi 0 Bi 0 Bi 1,956 Bt 0 Bi 2,365 Bi 2,365 Bi side of coil: 95 X 1.1 X 20) = 0% of supply) = 0 Bi 0 Bi 394 Bi 0	uh uh uh uh uh uh uh uh	20 CFM 200 CFM 20 CFM 200 CFM 20 CFM 20 CFM	2,631 Btuh 4,368 Btuh 394 Btuh 4.762 Btuh	
Staw- Suppl Reser Total Coolir Sumn Return Outsid Blow- Total Total Zone Infiltra Outsid	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply s ensible gain on supply s ng Supply Air: 4,368 / (.99 mer Vent Outside Air (10.4 n duct sensible gain: n plenum sensible gain: de air sensible gain: thru fan sensible gain: sensible gain on return s sensible gain on air hanc space latent gain: ation latent gain: de air latent gain:	0 Bi 0 Bi 0 Bi 0 Bi 0 Bi 1,956 Bi 0 Bi 2,365 Bi 2,365 Bi 0 Bi 2,365 Bi 0 Bi 2,365 Bi 0 Bi 2,365 Bi 0 Bi	uh uh uh uh uh uh uh uh uh uh	20 CFM 200 CFM 20 CFM 200 CFM 20 CFM 20 CFM	2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh	
Stavp Suppl Reser Total Coolir Sumn Return Outsic Blow-1 Total Total Zone Infiltra Outsic Total Total Total Chee	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply si ensible gain on supply si ng Supply Air: 4,368 / (.99 mer Vent Outside Air (10.1 n duct sensible gain: n plenum sensible gain: de air sensible gain: sensible gain on return s sensible gain on return s sensible gain on return s sensible gain on air hand space latent gain: de air latent gain: latent gain on air handlin system sensible and late	0 Bi 0 Bi 0 Bi 0 Bi 0 Bi 1,956 Bt 0 Bi 2,365 Bi 2,365 Bi 2,365 Bi 95 X 1.1 X 20) = 0% of supply) = 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 395 Bi 0 Bi 395 Bi 0 Bi 396 Bi 0 Bi 397 Bi 0 Bi 397 Bi 0 Bi	uh uh uh uh uh uh uh uh uh	20 CFM 200 CFM 20 CFM 200 CFM 20 CFM 20 CFM	2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh	
Staw- Suppl Reser Total Coolir Sumn Return Outsid Blow- Total Total Total Total Total Total Total Total Total Total	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply sensible gain on supply sensible gain on supply sensible gain: ng Supply Air: 4,368 / (.99 mer Vent Outside Air (10.1 m duct sensible gain: n plenum sensible gain: de air sensible gain: -thru fan sensible gain: sensible gain on return sensible gain on return sensible gain on return sensible gain: sensible gain on air hand space latent gain: latent gain on air handlin system sensible and late ck Figures Air Handler Supply Air (b Air Handler Vent. Air (10 Conditioned Air Space: ly Air Par Unit Area:	0 Bi 0 Bi 0 Bi 0 Bi 0 Bi 1,956 Bt 0 Bi 2,365 Bi 2,365 Bi 2,365 Bi 394 Bi 0 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Di 0 Di	uh uh uh uh uh uh uh uh uh	200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 140 Sq.ft 14257 CFM/Sq.ft	2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh	
Sigup Suppl Reser Total Coolir Sumn Return Outsic Blow-1 Total Total Zone Infiltra Outsic Total Total Total Total Total Total Total Total Total Total Total Total Total Chec	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply sensible gain on supply sensible gain on supply sensible gain: ng Supply Air: 4,368 / (.99 mer Vent Outside Air (10.07 n duct sensible gain: n plenum sensible gain: de air sensible gain: -thru fan sensible gain: -thru fa	0 Bi 0 Bi 0 Bi 0 Bi 0 Bi 1,956 Bt 0 Bi 2,365 Bi 2,365 Bi 2,365 Bi 395 X 1.1 X 20) = 0% of supply) = 0 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 507 Bi g system: nt gain: assed on a 20° TD): .02% of Supply):	uh uh uh uh uh uh uh uh uh	200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 140 Sq.ft 1.4257 CFM/Sq.ft 293.7 Sq.ft/Ton 0.0034 Tons/Sq.ft 18.79 Btuh/Sq.ft	2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh	
Stavpl Suppl Reser Total Coolir Sumn Return Outsic Blow- Total	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply s ensible gain on supply s ng Supply Air: 4,368 / (.99 mer Vent Outside Air (10.4 n duct sensible gain: n plenum sensible gain: de air sensible gain: thru fan sensible gain: sensible gain on return s sensible gain on return s sensible gain on return s sensible gain on air handlin system sensible and late ck Figures Air Handler Supply Air (b Air Handler Supply Air (b Air Handler Supply Air (10 Conditioned Air Space: ly Air Per Unit Area: Per Cooling Capacity: ng Capacity Per Area: ng Capacity Per Area: Heating Required With C Cooling Required With C	0 Bi 0 Bi 0 Bi 0 Bi 0 Bi 1,956 Bt 0 Bi 2,365 Bi 2,365 Bi 2,365 Bi 0 Bi 2,365 Bi 0 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 395 X 1.1 X 20) = 0 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 395 X 1.1 X 20) = 0 Bi 0 Bi 394 Bi 0 Bi 0 Bi 394 Bi 0 Bi	uh uh uh uh uh uh uh uh uh	20 CFM 200 CFM 20 CFM 20 CFM 20 CFM 20 CFM 20 CFM 20 CFM 140 Sq.ft 1.4257 CFM/Sq.ft 293.7 Sq.ft/Ton 0.0034 Tons/Sq.ft 18.79 Btuh/Sq.ft 2,631 Btuh 0.48 Tons	2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh	
Siguppi Reser Total Coolir Summ Return Outsid Blow-1 Total	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply s ensible gain on supply s mer Vent Outside Air (10.4 n duct sensible gain: n plenum sensible gain: de air sensible gain: sensible gain on return s sensible gain on return s sensible gain on return s sensible gain on air hand space latent gain: de air latent gain: latent gain on air handlin system sensible and late ck Figures Air Handler Supply Air (b Air Handler Vent. Air (10 Conditioned Air Space: ly Air Per Unit Area: Per Cooling Capacity: ng Capacity Per Area: ng Capacity Per Area: Heating Required With C Cooling Required With C	0 Bi 0 Bi 0 Bi 0 Bi 0 Bi 1,956 Bt 0 Bi 2,365 Bi 2,365 Bi 2,365 Bi 0 Bi 2,365 Bi 0 Bi 0 Bi 394 Bi 0 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0	uh uh uh uh uh uh uh uh uh uh	20 CFM 200 CFM 20 CFM 200 CFM 20 CFM 20 CFM 20 CFM 140 Sq.ft 1.4257 CFM/Sq.ft 293.7 Sq.ft/Ton 0.0034 Tons/Sq.ft 18.79 Btuh/Sq.ft 2,631 Btuh 0.48 Tons	2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh	
Suppl Reser Total Coolir Sumn Return Outsic Blow-1 Total	-thru fan sensible gain: ly duct sensible gain: sensible gain on supply s ng Supply Air: 4,368 / (.9) mer Vent Outside Air (10.0) n duct sensible gain: n plenum sensible gain: de air sensible gain: -thru fan sensible gain: sensible gain on return s sensible gain on return s sensible gain on air hand space latent gain: ation latent gain: latent gain on air handlin system sensible and late ck Figures Air Handler Supply Air (b Air Handler Supply Air (10 Conditioned Air Space: ly Air Per Unit Area: Per Cooling Capacity: ng Capacity Per Area: ng Capacity Per Area: Heating Required With C Cooling Required With O	0 Bi 0 Bi 0 Bi 0 Bi 0 Bi 1,956 Bt 0 Bi 2,365 Bi 2,365 Bi 95 X 1.1 X 20) = 0% of supply) = 0 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 394 Bi 0 Bi 507 Bi 9 system: 450 Bi 0 Bi 507 Bi 9 system: int gain: based on a 20° TD): .02% of Supply): 0 0 0 0 0 0 0 0 0 0 0 0 0	uh uh uh uh uh uh uh uh uh uh uh	20 CFM 200 CFM 20 CFM 20 CFM 20 CFM 20 CFM 20 CFM 20 CFM 140 Sq.ft 1.4257 CFM/Sq.ft 293.7 Sq.ft/Ton 0.0034 Tons/Sq.ft 18.79 Btuh/Sq.ft 2,631 Btuh 0.48 Tons	2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh	⁻ Air: 20 CFM
Suppl Reser Total Coolir Sumn Return Outsic Blow-1 Total Total Total Total Total Total Total Total Suppl Area I Coolir Heatir Total Suppl Area I Coolir Heatir Total Suppl Area I Coolir Heatir	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply s ensible gain on supply s ng Supply Air: 4,368 / (.99 mer Vent Outside Air (10.4 n duct sensible gain: n plenum sensible gain: de air sensible gain on return s sensible gain on return s sensible gain on return s sensible gain on return s sensible gain on air handlin system sensible and late ck Figures Air Handler Supply Air (b Air Handler Supply Air (b Air Handler Supply Air (10 Conditioned Air Space: ly Air Per Unit Area: Per Cooling Capacity: ng Capacity Per Area: ng Capacity Per Area: Heating Required With C Cooling Required With C Cooling Required With C	0 Bi 0 0 Bi 0 0 0 Bi 0 0 0 0 Bi 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	uh uh uh uh uh uh uh uh uh uh uh uh uh u	200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 20 CFM 10 CFM 2,631 Btuh 0.48 Tons	2,631 Btuh 4,368 Btuh 3,94 Btuh 4,762 Btuh 5,720 Btuh 5,720 Btuh 5,720 Btuh 5,720 Btuh 5,720 Btuh	r Air: 20 CFM
Suppl Reser Total Coolir Sumn Return Return Return Outsid Blow-1 Total Total Total Total Total Total Coolir Heatir Total Total Area 1 Coolir Heatir Total Area 1 Coolir Heatir	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply s ensible gain on supply s mer Vent Outside Air (10.4 n duct sensible gain: n plenum sensible gain: de air sensible gain on return s sensible gain on return s sensible gain on return s sensible gain on air hand space latent gain: de air latent gain: latent gain on air handlin system sensible and late ck Figures Air Handler Supply Air (10 Conditioned Air Space: ly Air Per Unit Area: Per Cooling Capacity: ng Capacity Per Area: ng Capacity Per Area: Heating Required With C Cooling Required With C Cooling Required With C	0 Bi 0 95 X 1.08 X 6) = % of supply) = 1,956 Bt 0 Bi 2,365 Bt 95 X 1.1 X 20) = 0% of supply) = 0 Bi 394 Bi 0 Bi 0 Bi 394 Bi 0 Bi <tr< td=""><td>uh uh uh uh uh uh uh uh uh uh uh uh uh u</td><td>200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 20 CFM 140 Sq.ft 1.4257 CFM/Sq.ft 293.7 Sq.ft/Ton 0.0034 Tons/Sq.ft 2,631 Btuh 0.48 Tons</td><td>2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh 5,720 Btuh Value 0ccupant Doccupant Occupant Outdoor Outdoor Vir (Vbz = RpPz + (RpPz) (RpPz) (Reference) (Reference)</td><td>r Air: 20 CFM L Air tion ness)</td></tr<>	uh uh uh uh uh uh uh uh uh uh uh uh uh u	200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 20 CFM 140 Sq.ft 1.4257 CFM/Sq.ft 293.7 Sq.ft/Ton 0.0034 Tons/Sq.ft 2,631 Btuh 0.48 Tons	2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh 5,720 Btuh Value 0ccupant Doccupant Occupant Outdoor Outdoor Vir (Vbz = RpPz + (RpPz) (RpPz) (Reference) (Reference)	r Air: 20 CFM L Air tion ness)
Suppl Reser Total Coolir Summ Return Return Outsid Blow-1 Total Area I Coolir Heatir Total	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply s ng Supply Air: 4,368 / (.99 mer Vent Outside Air (10.1 n duct sensible gain: n plenum sensible gain: de air sensible gain on return s sensible gain on return s sensible gain on return s sensible gain on return s space latent gain: de air latent gain: de air latent gain: latent gain on air handlin system sensible and late ck Figures Air Handler Supply Air (10. Conditioned Air Space: ly Air Per Unit Area: Meacing Required With C Cooling Required With C	$\begin{array}{c c} 0 & Bi \\ 0 &$	uh uh uh uh uh uh uh uh uh uh uh uh uh u	200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 20 CFM 20 CFM 20 CFM 20 CFM 20 CFM 20 CFM 140 Sq.ft 1.4257 CFM/Sq.ft 293.7 Sq.ft/Ton 0.0034 Tons/Sq.ft 18.79 Btuh/Sq.ft 2,631 Btuh 0.48 Tons	2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 3957 Btuh 5 1 J Occupant Breathing Zone Outdoor Air Unit Total Provided Outd	r Air: 20 CFM L Air ition ness) L Zone Outdoor Air (Voz = Vbz / Ez)) 17
Suppl Reser Total Coolir Sumn Return Outsid Blow-1 Total Tot	-thru fan sensible gain: ly duct sensible gain: rve sensible gain on supply s mer Vent Outside Air (10.4 n duct sensible gain: n plenum sensible gain: de air sensible gain on return s sensible gain on return s sensible gain on return s sensible gain on return s space latent gain: de air latent gain: latent gain on air handlin system sensible and late ck Figures Air Handler Supply Air (10.7 Conditioned Air Space: ly Air Per Unit Area: Per Cooling Capacity: ng Capacity Per Area: Heating Required With C Cooling Required With C Mith Total Supply Air: B Description	$\begin{array}{c c} 0 & \text{Bi} \\ 2,365 & \text{Bi} \\ 0 & \text{Bi} \\ 0 & \text{Bi} \\ 394 & \text{Bi} \\ 0 & \text$	uh uh uh uh uh uh uh uh uh uh uh uh uh u	200 CFM 200 CFM 200 CFM 200 CFM 200 CFM 20 CFM 20 CFM 20 CFM 20 CFM 20 CFM 140 Sq.ft 1.4257 CFM/Sq.ft 293.7 Sq.ft/Ton 0.0034 Tons/Sq.ft 18.79 Btuh/Sq.ft 2,631 Btuh 0.48 Tons	2,631 Btuh 4,368 Btuh 394 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh 20ccupant Breathing Zone Outdoor Outdoor Air Vir (NpPz) 5 13 5 13	r Air: 20 CFM L Air Ition Iness (Voz = Vbz / Ez) 17 17 17

Air Handler #3 - F	RTU-1 - Total	Load Summ	ary							
ir Handler Description: / upply Air Fan: [an Input: (ensible Heat Ratio: /	AHU-3 Constant Volu Draw-Thru with progr 0% motor and fan effi 0.69	me - Proportion am estimated horsepo ciency with 0 in. wate	ower of 0.60 HF r across the far This	P n s system oc	ccurs 1 time	e(s) in the buil	lding			
ir System Peak Time: 2 utdoor Conditions: (idoor Conditions: (ummer: Ventilation controls	4pm in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH outside air, Wint	101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation control:	0° DB s outside air.							
one Space sensible loss: filtration sensible loss: uutside Air sensible loss: upply Duct sensible loss:	16,454 E 0 E 40,150 E 0 E	tuh tuh tuh tuh	0 CFM 575 CFM	1						
eturn Plenum sensible loss: otal System sensible loss:	0 E 0 E	tuh	6 400 CEM	4		56,604 Btuh	n l			
inter Vent Outside Air (9.0% one space sensible gain:	.995 X 1.08 X 2) = % of supply) = 100,382 E	tuh	6,400 CFM 575 CFM	n 1						
filtration sensible gain: raw-thru fan sensible gain: upply duct sensible gain: eserve sensible gain on supply	0 E 1,525 E 0 E 38,127 E	tuh tuh tuh tuh				140.034 Btub				
ooling Supply Air: 140,034 / ummer Vent Outside Air (9.	(.995 X 1.1 X 20) = 0% of supply) =	tub	6,399 CFM 575 CFM	1		140,034 Bluii				
eturn plenum sensible gain: utside air sensible gain: low-thru fan sensible gain: otal sensible gain on return	0 E 0 E 11,324 E 0 E side of coil:	tuh tuh tuh	575 CFM	1		11.324 Btuh				
otal sensible gain on air han one space latent gain: filtration latent gain:	idling system: 63,000 E 0 E	tuh				151,359 Btuh				
utside air latent gain: otal latent gain on air handli otal system sensible and lat	14,589 E ng system: ent gain:	tuh				77,589 Btuh 228,947 Btuh				
otal Air Handler Supply Air (otal Air Handler Vent. Air (8 otal Conditioned Air Space	based on a 20° TD): .99% of Supply):		6,399 CFM 575 CFM 3,428 Sa.ft							
upply Air Per Unit Area: rea Per Cooling Capacity: ooling Capacity Per Area: leating Capacity Per Area:			1.8668 CFM/S 179.7 Sq.ft/T 0.0056 Tons/S 16.51 Btub/S	Sq.ft Ton /Sq.ft Sq.ft						
otal Heating Required With otal Cooling Required With	Outside Air: Outside Air:		56,604 Btuh 19.08 Tons							
Unit Total Supply Air	6400 Un	t Total Required Outd	oor Air: 2036 (CFM	l Jnit '	Total Provideo	d Outdoor A	r: 2040 CFM	M	
B Description	C D Area Area	E F Area Occupant	G Occupancy O	H H CCupant O	I Deccupant B	J Breathing Zone	K Zone Ai	r Zone Ou	L Outdoor	
	(ft²) Outdoo (Az) Air Rate	Outdoor Load Air Rate per (RaAz) IMC Table	C x F/1000 C (Pz) A F	Outdoor (Air Rate per IMC	Outdoor Air (RpPz)	Outdoor Air (Vbz = RpPz + RaAz)	Distributi Effectiven (Ez)	on Air ess (Voz = V	Air = Vbz / Ez)	
	Table 403.3 (Ra)	403.3 (People/ 1000 ft2)		403.3 (Rp)						
	1 0000 0.00	143 120	287	E	1425	1578				
G SANCTUARY OFFICE CHANGE RM	2390 0.06 590 0.06 84 0	35 5 0 0	3	5	1435 15 0	50 0	0.8 0.8 0.8	197 63 0	1973 63 0	
G SANCTUARY OFFICE CHANGE RM CORRIDOR	2330 0.06 590 0.06 84 0 118 0.06 3182	35 5 0 0 7 0 185	3 0 0 290	5 5 0 0	1435 15 0 0 1450	50 0 7 1635	0.8 0.8 0.8 0.8 0.8 0.8	197 63 0 9 203	1973 63 0 9 2036	
G SANCTUARY OFFICE CHANGE RM CORRIDOR	2390 0.06 590 0.06 84 0 118 0.06 3182 0	35 5 0 0 7 0 185	3 0 290	5 0 0 Dutdoor Ai	1433 15 0 0 1450 ir	50 0 7 1635	0.8 0.8 0.8 0.8 0.8 0.8	197 63 0 9 203 quired Outdo	1973 63 0 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR	2390 0.06 590 0.06 84 0 118 0.06 3182	35 5 0 0 7 0 185	3 0 290 rcentage of C 32%	5 0 0 Dutdoor Ai	1433 15 0 1450 1450	50 0 7 1635	0.8 0.8 0.8 0.8 0.8 Total Rec	197 63 0 9 203 quired Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PRO	2330 0.06 590 0.06 84 0 118 0.06 3182	35 5 0 0 7 0 185 Pe	3 0 290 rcentage of C 32%	5 0 0 Dutdoor Ai	1433 15 0 1450 1450	50 0 7 1635	0.8 0.8 0.8 0.8 0.8 Total Rec	197 63 0 9 203 quired Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PRO VERIFICATION RATE PRO I Handler Description: Fupply Air Fan: I an Input: C	2390 0.06 590 0.06 84 0 118 0.06 3182 0	35 5 0 0 7 0 185 Pe Oad Summal e - Proportion Im estimated horsepc ciency with 0 in. wate	3 0 290 rcentage of C 32%	5 0 0 0 0 0 0 0 0 0 0 0 0 0	1433 15 0 1450 1450	50 0 7 1635	0.8 0.8 0.8 0.8 Total Rec	197 63 0 9 203 quired Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PRO VERIFICATION RATE PRO VERIFICATION RATE PRO IT Handler Description: Full upply Air Fan: Consistent of the second an Input: Consistent of the second of the se	2390 0.06 590 0.06 84 0 118 0.06 3182 0	35 5 0 0 7 0 185 Pe Oad Summal Pe e - Proportion mestimated horsepo ciency with 0 in. wate 101.95 grains, Htg: 1	3 0 290 rccentage of C 32% y wer of 0.02 HF r across the far This 0° DB	5 0 <t< td=""><td>1435 15 0 1450 ir</td><td>50 0 7 1635 e(s) in the buil</td><td>0.8 0.8 0.8 0.8 Total Rec</td><td>197 63 0 9 203 quired Outdo 2036</td><td>1973 63 0 9 2036 tdoor Air</td></t<>	1435 15 0 1450 ir	50 0 7 1635 e(s) in the buil	0.8 0.8 0.8 0.8 Total Rec	197 63 0 9 203 quired Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PRO VERIFICATION RATE PRO VERIFICATION RATE PRO VERIFICATION RATE PRO CORRIDOR CO	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 - Total L CC-3 Constant Volum Draw-Thru with progr Oraw-Thru with progr 0% motor and fan effi 0.91 2pm in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH outside air, Wint	35 5 0 0 7 0 185 Pe ocad Summal Pe e - Proportion mestimated horsepo im estimated horsepo in. wate 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tub	3 0 290 rcentage of C 32% y wer of 0.02 HF r across the far This 0° DB s outside air.	5 0 0 <td>1435 15 0 1450 ir ccurs 1 time</td> <td>50 0 7 1635</td> <td>0.8 0.8 0.8 0.8 Total Rec</td> <td>197 63 0 9 203 quired Outdo 2036</td> <td>1973 63 0 9 2036 tdoor Air</td>	1435 15 0 1450 ir ccurs 1 time	50 0 7 1635	0.8 0.8 0.8 0.8 Total Rec	197 63 0 9 203 quired Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PR(VERIFICATION RATE PR(VERIFICATION RATE PR(VERIFICATION RATE PR(CORRIDOR CO	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 - Total L CC-3 Constant Volum Draw-Thru with progr Ym in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH outside air, Wind 1,234 E 0 E 1,397 E 0 E	35 5 0 0 7 0 185 Pe Ocad Summal Pe e - Proportion mestimated horsepo im estimated horsepo ciency with 0 in. wate 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tuh tuh tuh	3 0 290 rcentage of C 32% y wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM	5 0 <t< td=""><td>1435 15 0 1450 ir ccurs 1 time</td><td>50 0 7 1635</td><td>0.8 0.8 0.8 0.8 Total Rec</td><td>197 63 0 9 203 quired Outdo 2036</td><td>1973 63 0 9 2036 tdoor Air</td></t<>	1435 15 0 1450 ir ccurs 1 time	50 0 7 1635	0.8 0.8 0.8 0.8 Total Rec	197 63 0 9 203 quired Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PR VERIFICATION RATE PR VERIFICATION RATE PR VERIFICATION RATE PR CORRIDOR VERIFICATION RATE PR CORRIDOR CORRIDOR VERIFICATION RATE PR CORRIDOR CO	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 Constant Volum Craw-Thru with progr 0% motor and fan effi 0.91 Cpm in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH outside air, Wint 1,234 E 0 E 1,397 E 0 E 0 E 0 E 0 E 0 E 0 E 0 E 0 E 0 E 0	35 5 0 0 7 0 185 Pe Oad Summal e - Proportion mestimated horsepo ciency with 0 in. wate 101.95 grains, Htg: 1 Htg: 75° DB Per: Ventilation controls tuh tuh tuh tuh tuh tuh	3 0 290 rcentage of C 32% y wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM	5 0 <t< td=""><td>1435 15 0 1450 ir </td><td>50 0 7 1635 e(s) in the buil 2,631 Btuh</td><td>0.8 0.8 0.8 0.8 Total Rec</td><td>197 63 0 9 203 quire d Outdo 2036</td><td>1973 63 0 9 2036 tdoor Air</td></t<>	1435 15 0 1450 ir 	50 0 7 1635 e(s) in the buil 2,631 Btuh	0.8 0.8 0.8 0.8 Total Rec	197 63 0 9 203 quire d Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PR(VERIFICATION RATE PR(VER	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CCEDURE CC-3 Constant Volum Draw-Thru with progr Draw-Thru with progr 0% motor and fan eff 0.91 2pm in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH outside air, Wind 1,397 E 0 E 0 995 X 1.08 X 6) = % of supply) = 1,956 E	35 5 0 0 7 0 185 Pe Oad Summal e - Proportion mestimated horsepc ciency with 0 in. wate 101.95 grains, Htg: 1 Htg: 75° DB Per: Ventilation controls tuh tuh tuh tuh tuh tuh	3 0 290 crcentage of C 32% y wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM	5 0	1433 15 0 1450 ir 	50 0 7 1635 e(s) in the buil 2,631 Btuh	0.8 0.8 0.8 0.8 Total Rec	197 63 0 9 203 quire d Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PR(VERIFICATION RATE PR(VER	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE DCEDURE CC-3 - Total L DCEDURE C-3 Constant Volum Draw-Thru with progr % motor and fan eff 0.91 2pm in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH outside air, Wint 1,234 E 0 E 0.95 X 1.08 X 6) = % of supply) = 1,956 E 0 E 0 F <td>35 5 0 0 7 0 185 Pe Oad Summal e - Proportion Im estimated horsepo ciency with 0 in. wate 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tuh tuh</td> <td>3 0 290 Freentage of C 32% Fy over of 0.02 HF r across the far This 0° DB s outside air. 0° DB s outside air. 0 CFM 200 CFM 20 CFM 20</td> <td>5 0 </td> <td>1433 15 0 1450 ir </td> <td>e(s) in the buil 2,631 Btuh</td> <td>0.8 0.8 0.8 0.8 Total Rec</td> <td>197 63 0 9 203 quire d Outdo 2036</td> <td>1973 63 0 9 2036 tdoor Air</td>	35 5 0 0 7 0 185 Pe Oad Summal e - Proportion Im estimated horsepo ciency with 0 in. wate 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tuh	3 0 290 Freentage of C 32% Fy over of 0.02 HF r across the far This 0° DB s outside air. 0° DB s outside air. 0 CFM 200 CFM 20	5 0	1433 15 0 1450 ir 	e(s) in the buil 2,631 Btuh	0.8 0.8 0.8 0.8 Total Rec	197 63 0 9 203 quire d Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PR(VERIFICATION SENSIBLE OSS: UNITOR VERIFICATION SENSIBLE OSS: VIDE SUPPLY AIX 1,234 / (.3 //inter VERIFICATION SENSIBLE OSS: VIDE SENSIBLE GAIN: VERIFICATION SENSIBLE GAIN: VERIFI	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 - Total L DCEDURE CC-3 Constant Volum Draw-Thru with progr 00m in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH Outside air, Wind 1,234 E 0 E 0 E 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 905 X 1.08 X 6) = 0 E 0 905 X 1.08 X 6) = 0 E 0 905 X 1.1 X 20) = 0.0% of supply) =	35 5 0 0 7 0 185 Pe Ocad Summal e - Proportion Preside an estimated horsepone Preside 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls Pe tuh tuh tu	3 0 0 290 rrcentage of C 32% y wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM 200 CFM 200 CFM	5 0 0 0 1 0 1 0 1 0	1433 15 0 1450 ir 	50 0 7 1635 e(s) in the buil 2,631 Btuh 4,368 Btuh	0.8 0.8 0.8 0.8 Total Red	197 63 0 9 203 quire d Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PR(VERIFICATION RATE PR(VER	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 - Total L CCEDURE CC-3 Constant Volum Draw-Thru with progr 00m in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH Outside air, Wint 1,234 E 0 E 0 1,397 E 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 995 X 1.08 X 6) = 0 E 0 905 X 1.08 X 6) = 0 E 0 905 X 1.1 X 20) = 0 E 0 90% of supply) = 0 E 0 90% of supply) = 0 E 0 90% of supply) = 0 E 0 90% of supply 0 E <td>35 5 0 0 7 0 185 </td> <td>3 0 0 290 rrcentage of C 32% y wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM 200 CFM 200 CFM 200 CFM</td> <td>5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1 0</td> <td>1433 15 0 1450 ir </td> <td>50 0 7 1635 e(s) in the buil 2,631 Btuh 4,368 Btuh</td> <td>0.8 0.8 0.8 0.8 0.8 Total Red</td> <td>197 63 0 9 203 quire d Outdo 2036</td> <td>1973 63 0 9 2036 tdoor Air</td>	35 5 0 0 7 0 185	3 0 0 290 rrcentage of C 32% y wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM 200 CFM 200 CFM 200 CFM	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1 0	1433 15 0 1450 ir 	50 0 7 1635 e(s) in the buil 2,631 Btuh 4,368 Btuh	0.8 0.8 0.8 0.8 0.8 Total Red	197 63 0 9 203 quire d Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PR(VERIFICATION SENSIBLE OSS: UNIME: VERIFICATION: (UNIME: VERIFICATION: (VERIFICATION SENSIBLE OSS: VISION SUPPLY AI: 1,234 / (VISION SUPLY AI	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CEDURE COEDURE CEDURE COEDURE COEDURE COEDURE COEDURE COEDURE COEDURE COE COE <td>35 5 0 0 7 0 185 Pe Pee Ocad Summai e - Proportion Immestimated horsepo ciency with 0 in. water 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tuh tuh tuh tuh tuh tuh tuh tuh tuh tuh</td> <td>3 0 0 290 rrcentage of C 32% y wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM 200 CFM 20 CFM 200 CFM</td> <td>5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0</td> <td>1433 15 0 1450 ir </td> <td>50 0 7 1635 e(s) in the buil 2,631 Btuh 4,368 Btuh 394 Btuh</td> <td>0.8 0.8 0.8 0.8 0.8 0.8 Total Red </td> <td>197 63 0 9 203 quire d Outdo 2036</td> <td>1973 63 0 9 2036 tdoor Air</td>	35 5 0 0 7 0 185 Pe Pee Ocad Summai e - Proportion Immestimated horsepo ciency with 0 in. water 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tuh	3 0 0 290 rrcentage of C 32% y wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM 200 CFM 20 CFM 200 CFM	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0	1433 15 0 1450 ir 	50 0 7 1635 e(s) in the buil 2,631 Btuh 4,368 Btuh 394 Btuh	0.8 0.8 0.8 0.8 0.8 0.8 Total Red	197 63 0 9 203 quire d Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PRO VERIFICATION RATE PRO VER	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 - Total L CC-3 Constant Volum Draw-Thru with progr 000 motor and fan effi 0.91 2pm in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH outside air, Wint 1,234 E 0 E 1,397 E 0 E 0 S	35 5 0 0 7 0 185 Pe Ocad Summai e - Proportion Preside an estimated horsept Pe 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation control: tuh tuh	3 0 0 290 rrcentage of C 32% y wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM 20 CFM 20 CFM 20 CFM	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 1 1 1	1433 15 0 1450 ir 	e(s) in the buil 2,631 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh	0.8 0.8 0.8 0.8 0.8 0.8 Total Red	197 63 0 9 203 quire d Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR CORRIDOR VERIFICATION RATE PRO VERIFICATION RATE PRO VERIFICATION RATE PRO I' Handler Description: ir Handler Description: in upply Air Fan: an Input: (censible Heat Ratio: '' utdoor Conditions: '' utdoor Space sensible loss: '' utdoor Space sensible loss: '' utdoor Space sensible gain: '' utdoor Syst	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 - Total L CCEDURE CCEDURE CC-3 - Total L CCEDURE COEDURE COEDURE COE COE COE COE COE COE COE COE COE	35 5 0 0 7 0 185	3 0 0 290 rrcentage of C 32% 7 32% 7 32% 7 32% 8 0.02 HF r across the far This 0° DB 0 CFM 200 CFM 200 CFM 200 CFM 20 CFM 200 CFM 20 CFM 200 CFM 20 CFM	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 1 1 1	1433 15 0 1450 ir 	50 0 7 1635 (s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh	0.8 0.8 0.8 0.8 0.8 0.8 Total Red	197 63 0 9 203 quire d Outdo 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PRO VERIFICATION SENSIBLE ISS: VISION SUBJEVENTION SENSIBLE ISS: VISION POLOT SENSIBLE ISS: VISION SUBJEVENTION SENSIBLE ISS: VISION POLOT SENSIBLE ISS: VISION SUBJEVENTION SENSIBLE ISS: VISION SUBJEVENTIONES ISS VISION SUBJEVENTIONES ISS VISION SUBJEVENTIONES ISS VISION SUBJEVENTION SENSIBLE ISS: VISION SU	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 - Total L CC-3 Constant Volum Crast Constant Volum Traw-Thru with progr Or Education of the progr Or ave-Thru with progr Ow motor and fan effi 0.91 0.91 Clg: 93° DB, 75° WB, Outside air, Wint 1,234 E 0.05 Or Education of the progr Or Education of the progr OW of supply) = OF Education of the progr OF Education of the progr <td>35 5 0 0 7 0 185 Pe Ocad Summai e - Proportion Preside an estimated horsept Pereside 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls Pereside tuh tuh <td< td=""><td>3 0 0 290 rrcentage of C 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 200 CFM 200 CFM 200 CFM 200 CFM 20 CFM</td><td>Sq.ft</td><td>1433 15 0 1450 ir </td><td>50 0 7 1635 2,631 Btuh 2,631 Btuh 4,368 Btuh 4,368 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh</td><td>0.8 0.8 0.8 0.8 0.8 0.8 Total Re</td><td>197 63 0 9 203 2036</td><td>1973 63 0 9 2036 tdoor Air</td></td<></td>	35 5 0 0 7 0 185 Pe Ocad Summai e - Proportion Preside an estimated horsept Pereside 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls Pereside tuh tuh tuh tuh <td< td=""><td>3 0 0 290 rrcentage of C 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 200 CFM 200 CFM 200 CFM 200 CFM 20 CFM</td><td>Sq.ft</td><td>1433 15 0 1450 ir </td><td>50 0 7 1635 2,631 Btuh 2,631 Btuh 4,368 Btuh 4,368 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh</td><td>0.8 0.8 0.8 0.8 0.8 0.8 Total Re</td><td>197 63 0 9 203 2036</td><td>1973 63 0 9 2036 tdoor Air</td></td<>	3 0 0 290 rrcentage of C 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 32% 7 200 CFM 200 CFM 200 CFM 200 CFM 20 CFM	Sq.ft	1433 15 0 1450 ir 	50 0 7 1635 2,631 Btuh 2,631 Btuh 4,368 Btuh 4,368 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh	0.8 0.8 0.8 0.8 0.8 0.8 Total Re	197 63 0 9 203 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PRO VERIFICATION RATE PRO Verification Rate provide a strain a str	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 - Total L DCEDURE CC-3 Constant Volum Total L CC-3 Constant Volum Total L CC-3 Constant Volum Total L Common colspan="2">Common colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2" Colspan="2" Colspan="2" Colspan="2" Colspan="2" <td colsp<="" td=""><td>35 5 0 0 7 0 185 Pe Ocad Summai e - Proportion Preside an estimated horsept Pereside 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls Pereside tuh tuh <td< td=""><td>3 0 290 rrcentage of C 32% 7 7 wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM</td><td>5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0</td><td>1433 15 0 1450</td><td>50 0 7 1635 (s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh</td><td>0.8 0.8 0.8 0.8 0.8 0.8 Total Re </td><td>197 63 0 9 203 2036</td><td>1973 63 0 9 2036 tdoor Air</td></td<></td></td>	<td>35 5 0 0 7 0 185 Pe Ocad Summai e - Proportion Preside an estimated horsept Pereside 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls Pereside tuh tuh <td< td=""><td>3 0 290 rrcentage of C 32% 7 7 wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM</td><td>5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0</td><td>1433 15 0 1450</td><td>50 0 7 1635 (s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh</td><td>0.8 0.8 0.8 0.8 0.8 0.8 Total Re </td><td>197 63 0 9 203 2036</td><td>1973 63 0 9 2036 tdoor Air</td></td<></td>	35 5 0 0 7 0 185 Pe Ocad Summai e - Proportion Preside an estimated horsept Pereside 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls Pereside tuh tuh tuh tuh <td< td=""><td>3 0 290 rrcentage of C 32% 7 7 wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM</td><td>5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0</td><td>1433 15 0 1450</td><td>50 0 7 1635 (s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh</td><td>0.8 0.8 0.8 0.8 0.8 0.8 Total Re </td><td>197 63 0 9 203 2036</td><td>1973 63 0 9 2036 tdoor Air</td></td<>	3 0 290 rrcentage of C 32% 7 7 wer of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 20 CFM 200 CFM	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	1433 15 0 1450	50 0 7 1635 (s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh	0.8 0.8 0.8 0.8 0.8 0.8 Total Re	197 63 0 9 203 2036	1973 63 0 9 2036 tdoor Air
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PR(VERIFICATION SENSIBLE JOSS: UNMER' VENTOLISIDE JOSS: UN	2.390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CEOURE CEDURE CC-3 - Total L CCEDURE CEDURE CEDESTON <td< td=""><td>35 5 0 0 7 0 185 Pe Oad Summai e - Proportion mestimated horsepciency with 0 in. water 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tuh tuh tuh</td><td>3 0 0 290 32% 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7</td><td>5 0 0 0</td><td>1433 15 0 1450</td><td>50 0 7 1635 (s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 4,762 Btuh 957 Btuh</td><td>0.8 0.8 0.8 0.8 0.8 0.8</td><td>197 63 0 9 203 2036</td><td>1973 63 0 9 2036 tdoor Air</td></td<>	35 5 0 0 7 0 185 Pe Oad Summai e - Proportion mestimated horsepciency with 0 in. water 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tuh tuh tuh	3 0 0 290 32% 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	5 0 0 0	1433 15 0 1450	50 0 7 1635 (s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 4,762 Btuh 957 Btuh	0.8 0.8 0.8 0.8 0.8 0.8	197 63 0 9 203 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR CORRIDOR VERIFICATION RATE PRO VERIFICATION RATE PRO VERIFICATION RATE PRO In Input: (ensible Description: ir Handler Description: (ir System Peak Time: (ir System Peak Time: (it door Conditions: (it door Supply Air: 1,234 / (.!//inter Vent Outside Air (10.Cone space sensible loss: (att mote sensible gain: (it at sensible gain: (it at sensible gain: (at sensible gain: (2.390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CEDURE CEDURE C-3 Constant Volum Draw-Thru with progr D'% motor and fan efficient 0.91 2pm in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH outside air, Wint 1,234 E 0 E 0 E 0.91 1,397 E 0 E 0 E 0.93° DB, 75° WB, Clg: 75° DB, 50% RH 0 E outside air, Wint 1,234 E 0 E 0 E 0 B 507 E 0 B 0 E 0 B 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D	35 5 0 0 7 0 185	3 0 0 290 32% 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	5 0 0 0	1433 15 0 1450 ir	50 0 7 1635 (s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 5,720 Btuh	0.8 0.8 0.8 0.8 Total Re	197 63 0 9 203 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PRO VERIFICATION SENSIBLE GAIN: VISION SUPPLY AI: 1,234 / (.10,0000) VISION SUPPLY AI: 1,234 / (.10,0000) VISION SUPPLY AI: 1,234 / (.10,00000) VISION SUPPLY AI: 1,234 / (.10,00000) VISION SUPPLY AI: 1,234 / (.10,000000) VISION SUPPLY AI: 1,234 / (.10,00000000) VISION SUPPLY AI: 1,234 / (.10,00000000000000000000000000000000000	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 Constant Volum CC-3 Constant Volum Draw-Thru with progr Draw-Thru with progr 0% Draw-Thru with progr 0% Outside air, Wind 1,234 E 0 E 0 E 0.91 1,234 E 0 E 0 E 0.925 X 1.08 X 6) = 0 E 0 B 0 E 0 B 0 E 0 B 0 E 0 B 0 E 0 B 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E 0 D 0 E	35 5 0 0 7 0 185 Pe Ocad Summai e - Proportion Preside an estimated horsept Preside 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls Pe tuh tuh tuh <td>3 0 290 rcentage of C 32% rcentage of C rcentage of C rcentage of C rcentage of C rcentage of C rcentage of C rcentage of C rcentage of C</td> <td>5 0 0</td> <td>1433 1 0 1 0 1 1450 1</td> <td>50 0 7 1635 e(s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh</td> <td>d Outdoor A</td> <td>197 63 0 9 203 2036</td> <td>1973 63 0 9 2036 tdoor Air</td>	3 0 290 rcentage of C 32% rcentage of C rcentage of C rcentage of C rcentage of C rcentage of C rcentage of C rcentage of C rcentage of C	5 0 0	1433 1 0 1 0 1 1450 1	50 0 7 1635 e(s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh	d Outdoor A	197 63 0 9 203 2036	1973 63 0 9 2036 tdoor Air	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PR In Handler Description: ir Handler Description: ir Handler Description: ir Handler Description: ir System Peak Time: is System Peak Time: in Opply Air Fan: an Input: (door Conditions: (door Conditions: (door Conditions: (door Conditions: (ummer: Ventilation controls one Space sensible loss: eturn Duct sensible loss: eturn Duct sensible loss: eturn Duct sensible gain: inter Vent Outside Air (10.0 one space sensible gain: otal sensible gain on supply ooling Supply Air: 1,234 / (.1 (inter Vent Outside Air (10.0 one space latent gain: upply duct sensible gain: otal sensible gain on return otal sensible gain on return otal sensible gain on air handli <td>2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 - Total L DCEDURE CC-3 Constant Volum Draw-Thru with progr Or and fan effi Draw-Thru with progr Or and fan effi D.93° DB, 75° WB, Or and fan effi D.93° DB, 75° WB, Outside air, Wint 1,234 E O E ON of supply) = O E O E O E O E O E O E O E O E O E O E O E O E O E O E O E O E <td colspan="2</td><td>35 5 0 0 7 0 185 Pe Oad Summal e - Proportion am estimated horsepciency with 0 in. water 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tuh tuh</td><td>3 0 0 0 290 0 rcentage of C 32% 7/ over of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 200 CFM <tr< td=""><td>5 0 0 0</td><td>Lange Lange Lange</td><td>e(s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh 957 Btuh 5,720 Btuh</td><td>d Outdoor A</td><td>197 63 0 9 2036</td><td>1973 63 0 9 2036 tdoor Air </td></tr<></td></td>	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE CC-3 - Total L DCEDURE CC-3 Constant Volum Draw-Thru with progr Or and fan effi Draw-Thru with progr Or and fan effi D.93° DB, 75° WB, Or and fan effi D.93° DB, 75° WB, Outside air, Wint 1,234 E O E ON of supply) = O E O E O E O E O E O E O E O E O E O E O E O E O E O E O E O E <td colspan="2</td> <td>35 5 0 0 7 0 185 Pe Oad Summal e - Proportion am estimated horsepciency with 0 in. water 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tuh tuh</td> <td>3 0 0 0 290 0 rcentage of C 32% 7/ over of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 200 CFM <tr< td=""><td>5 0 0 0</td><td>Lange Lange Lange</td><td>e(s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh 957 Btuh 5,720 Btuh</td><td>d Outdoor A</td><td>197 63 0 9 2036</td><td>1973 63 0 9 2036 tdoor Air </td></tr<></td>	35 5 0 0 7 0 185 Pe Oad Summal e - Proportion am estimated horsepciency with 0 in. water 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls tuh	3 0 0 0 290 0 rcentage of C 32% 7/ over of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 200 CFM <tr< td=""><td>5 0 0 0</td><td>Lange Lange Lange</td><td>e(s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh 957 Btuh 5,720 Btuh</td><td>d Outdoor A</td><td>197 63 0 9 2036</td><td>1973 63 0 9 2036 tdoor Air </td></tr<>	5 0 0 0	Lange	e(s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh 957 Btuh 5,720 Btuh	d Outdoor A	197 63 0 9 2036	1973 63 0 9 2036 tdoor Air 	
G SANCTUARY OFFICE CHANGE RM CORIDOR VERIFICATION RATE PR VERIFICATION RATE PR Verification Rate ratio ir Handler Description: ir John Peak Time: in Input: outdoor Conditions: outdoor Space sensible loss: eturn Duct sensible loss: eturn Duct sensible gain: otal sensible gain: otal sensible gain otal sensible gain otal sensible gain on return otal sensible gain on air handli otal	2390 0.06 590 0.06 84 0 118 0.06 3182 0 DCEDURE 0 C-3 Constant Volum 0.91 Cray Constant Volum 1,234 E 0.91 0.91 2pm in August. 0.8 Clg: 93° DB, 75° WB, 0.8 0.91 1,234 E 0.92 0.8 0.93° DB, 75° WB, 0.8 0.91 1,234 E 0.92 0.8 0.93° DB, 75° WB, 0.8 0.91 1,234 E 0.92 0.8 0.93 Charles and the outside air, Wint 1,234 E 0.91 0.8 0.92 1,956 E 0.95 X 1.08 X 6) = 0.95 X 1.1 X 20) = 0.0% of supply) = 0 E 0.95 X 1.1 X 20 = 0 E 0.95 X 1.1 X 20 = 0 E 0.95 X 1.1 X 20 = 0 E 0.02% of Supply): 0 E <	35 5 0 0 7 0 185 Pe Oad Summal e - Proportion Pe an estimated horsepciency with 0 in. water 101.95 grains, Htg: 1 Htg: 75° DB Per: Ventilation controls tuh tuh	3 0 0 0 290 0 rrcentage of C 32% 7/ over of 0.02 HF r across the far This 0° DB s outside air. 0 CFM 200 CFM <t< td=""><td>Sq.ft Ton Sq.ft N A B A A B A B A B A A B A B A B A B B B B</td><td>1433 1 0 0 0 1450 ir 1450 ir </td><td>t Total Provide 0 7 1635 0 7 1635 2,631 Btuh 4,368 Btuh 4,368 Btuh 957 Btuh 5,720 Btuh 5,720 Btuh 957 Btuh 5,720 Btuh</td><td>duing</td><td>197 63 0 9 2036</td><td>1973 63 0 9 2036 tdoor Air 1 1 1 1 1 1 1 1 1 1 1 1 1</td></t<>	Sq.ft Ton Sq.ft N A B A A B A B A B A A B A B A B A B B B B	1433 1 0 0 0 1450 ir 1450 ir	t Total Provide 0 7 1635 0 7 1635 2,631 Btuh 4,368 Btuh 4,368 Btuh 957 Btuh 5,720 Btuh 5,720 Btuh 957 Btuh 5,720 Btuh	duing	197 63 0 9 2036	1973 63 0 9 2036 tdoor Air 1 1 1 1 1 1 1 1 1 1 1 1 1	
G SANCTUARY OFFICE CHANGE RM CORRIDOR VERIFICATION RATE PR VERIFICATION SESSIBLE ADD VERIFICATION SESSIBLE ADD	2390 0.06 84 0 118 0.06 3182 0 DCEDURE 0 C-3 - Total L C-3 Constant Volum Draw-Thru with progr Draw-Thru with progr 0.91 2pm in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH outside air, Wint 1,234 E 0 E 0,91 2pm in August. Clg: 93° DB, 75° WB, Clg: 75° DB, 50% RH outside air, Wint 1,234 E 0 E 0 E 0 B	35 5 0 0 7 0 185 Pe Pe Pe 0 0 0 185 0 185 0 0 0 185 0 185 0 185 0 185 0 185 0 0 0 185 0 0 0 185 0 0 0 0 101.95 grains, Htg: 1 Htg: 75° DB er: Ventilation controls 101 tuh tuh tuh tuh tuh tuh tuh tuh tuh 100	3 0 0 290 ircentage of C 32% 7/ ircentage of C 32% 0 32% 0 1 0 200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 200 <	5 0 0 0	1433 15 0 1450 ir ir	50 0 7 1635 e(s) in the buil 2,631 Btuh 4,368 Btuh 4,368 Btuh 394 Btuh 4,762 Btuh 957 Btuh 5,720 Btuh 5,720 Btuh	0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	197 63 0 9 2036	1973 63 0 9 2036 tdoor Air 1 1 1 1 1 1 1 1 1 1 1 1 1	

Air						
A te Lis	Handler #3 - R	TU-1 - Total	Load Summ	nary		
Suppl Fan Ir Sensi	andler Description: Al- ly Air Fan: Dr nput: 0% ible Heat Ratio: 0.6	HU-3 Constant Volum aw-Thru with prograr % motor and fan effici 69	ne - Proportion n estimated horsep ency with 0 in. wate	ower of 0.60 HP er across the fan This system	occurs 1 time(s) in the building.	
Air Sy Outdo Indoo	ystem Peak Time: 4p por Conditions: Cl or Conditions: Cl or Conditions: Cl	om in August. g: 93° DB, 75° WB, 1 g: 75° DB, 50% RH, I	01.95 grains, Htg: 1 Htg: 75° DB	10° DB		
Zone Infiltra Outsid	Space sensible loss: ation sensible loss: de Air sensible loss:	16,454 Btt 16,454 Btt 0 Btt 40,150 Btt	r: venulation contro ih ih ih	0 CFM 575 CFM		
Suppl Return Return Total	ly Duct sensible loss: n Duct sensible loss: n Plenum sensible loss: System sensible loss:	0 Bti 0 Bti 0 Bti	սի սի սի		56,604 Btuh	
Heatir Winte Zone	ng Supply Air: 16,454 / (.9 er Vent Outside Air (9.0% space sensible gain:	995 X 1.08 X 2) = of supply) = 100,382 Btt	ıh	6,400 CFM 575 CFM		
Infiltra Draw- Suppl Reser	ation sensible gain: -thru fan sensible gain: ly duct sensible gain: rve sensible gain:	0 Bt 1,525 Bt 0 Bt 38,127 Bt	սի սի սի			
Total Coolir Sumn	sensible gain on supply s ng Supply Air: 140,034 / (ner Vent Outside Air (9.09	side of coil: .995 X 1.1 X 20) = % of supply) =		6,399 CFM 575 CFM	140,034 Btuh	
Return Return Outsid Blow-	n duct sensible gain: n plenum sensible gain: de air sensible gain: thru fan sensible gain:	0 Bt 0 Bt 11,324 Bt 0 Bt	uh uh uh uh	575 CFM		
Total Total Zone	sensible gain on return si sensible gain on air hand space latent gain:	ide of coil: lling system: 63,000 Bto	Jh		11,324 Btuh 151,359 Btuh	
Infiltra Outsio Total Total	de air latent gain: de air latent gain: latent gain on air handling system sensible and later	0 Bti 14,589 Bti g system: nt gain:	ιh		77,589 Btuh 228,947 Btuh	
Chec Total Total	ck Figures Air Handler Supply Air (ba Air Handler Vent. Air (8.9	ased on a 20° TD): 9% of Supply):		6,399 CFM 575 CFM		
Total Suppl Area Coolir	Conditioned Air Space: ly Air Per Unit Area: Per Cooling Capacity: ng Capacity Per Area:			3,428 Sq.ft 1.8668 CFM/Sq.ft 179.7 Sq.ft/Ton 0.0056 Tons/Sq.ft		
Heatir Total Total	ng Capacity Per Area: Heating Required With O Cooling Required With O	utside Air: utside Air:		16.51 Btuh/Sq.ft 56,604 Btuh 19.08 Tons		
RTU-1	Unit Total Supply Air:	6400 Unit	Total Required Outo	door Air: 2036 CFM	Unit Total Provided Outd	Air: 2040 CFM
nber	Description	Area Area (ft²) Outdoor (Az) Air Rate	Area Occupant Outdoor Load Air Rate per (RaAz) IMC Table	Occupancy Occupant C x F/1000 Outdoor (Pz) Air Rate per IMC	Occupant Breathing Zone Zo Outdoor Outdoor Air Dis Air (Vbz = RpPz + Effect (RpPz) RaAz) Effect	Air Zone Outdoor ution Air eness (Voz = Vbz / Ez) z)
		per IMC Table 403.3 (Ba)	403.3 (People/ 1000 ft2)	Table 403.3 (Rp)		
EATING AGE DOM	SANCTUARY OFFICE CHANGE RM	2390 0.06 590 0.06 84 0	143 120 35 5 0 0	287 5 3 5 0 0	1435 1578 15 50 0 0	8 1973 8 63 8 0
R 3		118 0.06 3182	7 0 185	0 0 290	0 7 1450 1635	8 9 8 2036
			Pe	ercentage of Outdoor 32%	Air Tota	Required Outdoor Air 2036
				·	· · ·	
Air Air Ha	Handler #6 - F(C-3 - Total Lo	oad Summa	ry		
Suppl Fan Ir Sensi	ly Air Fan: Dr nput: 0% ible Heat Ratio: 0.9	aw-Thru with program 6 motor and fan effici 91	n estimated horsep			
Air Sy Outdo Indoo	ystem Peak Time: 2p por Conditions: Cl r Conditions: Cl	• ·	ency with 0 in. wate	ower of 0.02 HP er across the fan This system	occurs 1 time(s) in the building	
Sumn		om in August. g: 93° DB, 75° WB, 1 g: 75° DB, 50% RH, 1	01.95 grains, Htg: 1 Htg: 75° DB	ower of 0.02 HP er across the fan This system 10° DB	occurs 1 time(s) in the building	
Zone Infiltra	ner: Ventilation controls o Space sensible loss: ation sensible loss:	om in August. g: 93° DB, 75° WB, 1 g: 75° DB, 50% RH, l utside air, Winte 1,234 Bto 0 Bto	01.95 grains, Htg: 1 Htg: 75° DB r: Ventilation contro Jh	ower of 0.02 HP er across the fan This system 10° DB Is outside air. 0 CFM	occurs 1 time(s) in the building	
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1" MIN. OVERLAP ↓(4 SIDES) HORIZONTAL INSTALLATION SHOWN, VERTICAL INSTALLATION SIMILAR.

INSULATED PIPE SUPPORT

Nominal steel pipe size (In.)	Rod Diameter	Maximum Spacing (Steel)	Copper tube O.D. (Inches)	Maximum Spacing (Copper)
Up to 1-1/4"	3/8"	8'	5/8	6'
1-1/2" to 2-1/2"	3/8"	10'	7/8 to 1-1/8	8'
3" to 3-1/2"	1/2"	12'	1-3/8 to 2-1/8	10'
4" to 6"	5/8"	14'	2-5/8 to 5-1/8	12'
8" to 12"	3/4"	16'	6-1/8 to 8-1/8	14'
14" to 24'	3/4"	20'		

PIPE HANGER SCHEDULE $\mathbf{4}_{\mathsf{N.T.S.}}^{\mathsf{PIP}}$

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Project Title:	Iglesic Vida Nueva Unida International	12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904		MECHANICAL DETAILS
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 B. PROVET AND RETAIL CLAMPORT SCALE ON A CONCENTION OF THE ROOM O	D. IN GENERAL, DRAWINGS FOR THE WORK ARE DIAGRAMMATIC AND SHOW	5. ALL HOT AND COLD WATE INSULATED.	R SUPPLY PIPIN
 Media Construction and the society of websit consists and community of the society of t	ACCESSORY EQUIPMENT. THE CONTRACTOR SHALL FURNISH ALL ITEMS NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE WORK, WHETHER CALLED FOR OR NOT. THE CONTRACTOR SHALL VERIFY ALL NECESSARY DIMENSIONS BEFORE INSTALLING ANY OF THE	6. PROVIDE AND INSTALL CL EACH CHANGE IN DIRECTION DEGREES, EVERY 50 FEET	EAN-OUTS IN DR DN OF PIPING GR , AND AS SHOWN
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Sender Schedulet 2 hours stretcher per will switch Cast reads and process and	2. SOIL, WASTE AND VENT: ABOVE GRADE SHALL BE SERVICE WEIGHT CAST IDON DELL AND	PLUMBIN	<u>ig lege</u>
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A. INSTALL FIGURES LEVEL, FLOWID AND FARALLEL TO WALLS. ALL FD FLOOR DRAIN EXPOSED METAL PARTS SHALL BE CHROME PLATED AND SHOW NO FD FLOOR DRAIN TRAP. FILTURES DESIGNATED FOR USE B PHYSICALLY HANDICAPPED PEOPLE GAL GALLONS SHALL BE IN ACCORDANCE WITH ANSI A 117.1. GPM GALLONS PER I C. INSTALL DIELECTRIC CONNECTION BETWEEN DISSIMILAR METALS, PIPE TO PIPE, PIPE TO EQUIPMENT, PIPE TO SUPPORT. HB HOSE BIBB 5. FURNISH AND INSTALL JOSAM 75000 SERIES SHOCK ARRESTERS AT THE ENDS OF ALL HOT AND COLD WATER BRANCHES TO FIXTURES. SIZES SHALL BE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.1 OSD OPEN SITE DRA SAN SANITARY TYP TYPICAL V VENT VIR VENT VIR VENT VIR VENT	A INSTALL ENTURES LEVEL DILING AND DARALLEL TO WALLS ALL		DOWN
PROVIDE ACCESS PANELS TO ALL CONCEALED SUPPLY STOPS AND TRAP. FL FIRE LINE B. FIXTURES DESIGNATED FOR USE B PHYSICALLY HANDICAPPED PEOPLE SHALL BE IN ACCORDANCE WITH ANSI A 117.1. GPH GALLONS PER I C. INSTALL DIELECTRIC CONNECTION BETWEEN DISSIMILAR METALS, PIPE TO PIPE, PIPE TO EQUIPMENT, PIPE TO SUPPORT. HB HOSE BIBB 5. FURNISH AND INSTALL JOSAM 75000 SERIES SHOCK ARRESTERS AT THE ENDS OF ALL HOT AND COLD WATER BRANCHES TO FIXTURES. SIZES SHALL BE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.1 LAV LAVATORY SAN SANITARY TYP TYPICAL V VENT VTR VENT VTR VENT VTR VENT	A. INSTALL FIXTURES LEVEL, PLUMB AND PARALLEL TO WALLS. ALL EXPOSED METAL PARTS SHALL BE CHROME PLATED AND SHOW NO TOOL MARKS. GROUT BETWEEN WALL HUNG FIXTURES AND WALL	FD	FLOOR DRAIN
B. FIXTURES DESIGNATED FOR USE B PHYSICALLY HANDICAPPED PEOPLE SHALL BE IN ACCORDANCE WITH ANSI A 117.1. C. INSTALL DIELECTRIC CONNECTION BETWEEN DISSIMILAR METALS, PIPE TO PIPE, PIPE TO EQUIPMENT, PIPE TO SUPPORT. 5. FURNISH AND INSTALL JOSAM 75000 SERIES SHOCK ARRESTERS AT THE ENDS OF ALL HOT AND COLD WATER BRANCHES TO FIXTURES. SIZES SHALL BE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.1 OSD OPEN SITE DRA SAN SANITARY TYP TYPICAL V VENT VTR VENT THRU ROO WC WATER CLOSET	PROVIDE ACCESS PANELS TO ALL CONCEALED SUPPLY STOPS AND TRAP.	FL GAL	FIRE LINE GALLONS
C. INSTALL DELECTRIC CONNECTION BETWEEN DISSIMILAR METALS, PIPE TO PIPE, PIPE TO EQUIPMENT, PIPE TO SUPPORT. 5. FURNISH AND INSTALL JOSAM 75000 SERIES SHOCK ARRESTERS AT THE ENDS OF ALL HOT AND COLD WATER BRANCHES TO FIXTURES. SIZES SHALL BE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.1 OSD OPEN SITE DRA SAN SANITARY TYP TYPICAL V VENT VTR VENT THRU ROO WC WATER CLOSET	B. FIXTURES DESIGNATED FOR USE B PHYSICALLY HANDICAPPED PEOPLE	GPH	GALLONS PER H
PIPE, PIPE TO EQUIPMENT, PIPE TO SUPPORT. 5. FURNISH AND INSTALL JOSAM 75000 SERIES SHOCK ARRESTERS AT THE ENDS OF ALL HOT AND COLD WATER BRANCHES TO FIXTURES. SIZES SHALL BE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.1 OSD OPEN SITE DRA SAN SANITARY TYP TYPICAL V VENT VTR VENT THRU ROO WC WATER CLOSET	C. INSTALL DIELECTRIC CONNECTION BETWEEN DISSIMILAR METALS. PIPE TO	GPM HB	GALLONS PER M
 D. FURNISH AND INSTALL JUSAM /SUDU SERIES SHOCK ARRESIERS AT THE ENDS OF ALL HOT AND COLD WATER BRANCHES TO FIXTURES. SIZES SHALL BE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.1 DOEN SITE DRA SAN SANITARY TYP TYPICAL V VENT VTR VENT THRU ROO WC WATER CLOSET 	PIPE, PIPE TO EQUIPMENT, PIPE TO SUPPORT.	HW	HOT WATER
INSTITUTE STANDARD P.D.1 POUND PER SC OSD OPEN SITE DRA SAN SANITARY TYP TYPICAL V VENT VTR VENT THRU ROO WC WATER CLOSET	5. FURNISH AND INSTALL JUSAM 75000 SERIES SHOCK ARRESTERS AT THE ENDS OF ALL HOT AND COLD WATER BRANCHES TO FIXTURES.	LAV	
SAN SANITARY TYP TYPICAL V VENT VTR VENT THRU ROO WC WATER CLOSET	INSTITUTE STANDARD P.D.1		OPEN SITE DRA
TYPTYPICALVVENTVTRVENT THRU ROUWCWATER CLOSET		SAN	SANITARY
V VENT VTR VENT THRU ROG WC WATER CLOSET		TYP	TYPICAL
WC WATER CLOSET		V V	
		WC	WATER CLOSET
		L	

Date:
Revisions
PROFESSIONAL CERTIFICATION: I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME. THAT LAM
A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE# 47084 EXPIRATION
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Project Titl Igles PLL
German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092
Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard
North Bethesda, Md. 20886 Phone: 301-816-0648
Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive
Clinton, Maryland 20735 Phone: 301-873-5093
Date: MARCH 22, 2021
Scale:
Checked:
File No.
שוש וועשוט.
P200

PLUMBING NUMBERED NOTES:

 $\langle 1 \rangle$ coordinate with electrical contractor for power requirement.

	Date:
	I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE# 47084 EXPIRATION DATE 08/06/2025
	va Unida International columbia PikE iG, MARYLAND 20904 R PLAN - FIRST FLOOR
	Project Title: Iglesic Vida Nuev 12450 OLD SILVER SPRIN PLUMBING FLOO
	German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648
	Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093
	Date: MARCH 22, 2021 Scale: Drawn: Checked:
Design America Engineering, Inc MEP Consulting Engineers 14080 Red River Drive Centerville, VA 20121 Sam: 571-220-3239 DAENG2000@GMAIL.COM www.daeng2000.com	File No. Drawing No. P300

MECHANICAL EQUIPMENT LOADS

<u>KEYED NOTES</u> 1 LIFT DISCONNECT SWITCH/STARTER 100A/3P/240 COORDINATE WITH EQUIPMENT SUPPLIER FOR EX

	Date:
	Signal Signal Signal Signal <td< th=""></td<>
10V. FSS-100AMP.	professional Engineer under the laws of the state of Maryland. License No. 47084, expiration date 08/06/2025 PIKE BIKE BIKE BIKE BIKE BIKE BIKE BIKE B
SE DISC.SWITCH NEMA NOTES 50 60 1 8KW 30 100 3R 90 100 3R	Vida Nueva Unida I 12450 old columbia I LVER SPRING, MARYLAI BASEMENT POWER P
T <u>USE DISC.SWITCH NEMA</u> 30 30 1	German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904
	Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648
	Design America Engineering, Inc MEP Consulting Engineers 14080 Red River Drive Centerville, VA 20121 ALFONS : 703-909-6974 DAENG2000@GMAIL.COM www.daeng2000.com
	Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093
	Date: APRIL 21, 2022 Scale: 3/16" = 1'-0" Drawn: Author UB Checked: Checker SO
	File No. C:Users/philiDocuments/Uglesia VNU/Vglesia VNUI.rvt Drawing No. E100 of

(1) DUCT SMOKE DETECTOR IN SUPPLY AND RETURN DUCTS.

MECHANICAL EQUIPMENT LOADS

PH	FLA	MCA	MOCP	FUSE	DISC.SWITCH	NEMA
3	21	26	35	35	60	3R
3	53	66	90	90	100	3R
3	206	257	300	300	400	3R
1	19	23	35	35	60	3R
1	0.2	0.25	(FED F	ROM HP1)	1
1	(47 W/	ATTS)				
		TTO				

Date:	
Revisions:	
Certification:	
PROFESSIONAL CERTIFICATION: I hereby certify that these documents of PREPARED or APPROVED by me, and that I am a duly licensed professional Engineer under the laws of the state of Maryland. License No. 47084, expiration date 08/	vere /06/2025
Project Tite: Iglesic Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904	FIRST FLOOR POWER PLAN
German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092	
MGV Consul. Struct. Engine 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648	ers
Design America Engineering, In MEP Consulting Engineers 14080 Red River Drive Centerville, VA 20121 ALFONS : 703-909-6974 DAENG2000@GMAIL.COM www.daeng2000.com	c c
Architect: Philip Aaron Lacy, Architect 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093	ts
Date: APRIL 21, 2022 Scale: 3/16" = 1'-0"	
Checked: Checker SO File No.	VNUNglesia
Drawing No. E101	
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Date:
Revisions:
Certification: PROFESSIONAL CERTIFICATION: I hereby certify that these documents were PREPARED or APPROVED by me, and that I am a duly licensed professional Engineer under the laws of the state of Maryland. License No. 47084, expiration date 08/06/202
Project Title: Project Title: Iglesic Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904 FIRST FLOOR LIGHTING PLAN
German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092 Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648
Design America Engineering, Inc MEP Consulting Engineers 14080 Red River Drive Centerville, VA 20121 ALFONS : 703-909-6974 DAENG2000@GMAIL.COM www.daeng2000.com
Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093
Date: APRIL 21, 2022 Scale: 3/16" = 1'-0" Drawn: Author UB Checked: Checked: Checker SO File No.
Drawing No.

CHE	DULE					
P PE	NDANT	R RECESSED S SURFACE U UNIVERSAL W WALL				
IOUNTING	LOCATION	REMARKS	COUNT	LUMENS	L/W	HIGH EFFICACY Y,N
R	AS SHOWN	2'x4' LENSED LED	82	4306	137	Y
S	AS SHOWN	1"x4' LENSED LED	2	3027	133	Y
S	AS SHOWN	LED LENSED STRIP WITH BUILT-IN OCCUPANCY SENSOR AND BATTERY	5	2027	145	Y
R	AS SHOWN	6" SHALLOW DOWN LIGHT IC RATED, AIR TIGHT	13	1720	103	
Ρ	SANCTUARY	PENDANT DECORATIVE LED 12' ① CHAIN-UPLIGHT/DOWN LIGHT	14	29517	1301	Y
R	AS SHOWN	DIRECTIONAL STAGE LED	6	9300	179	Y
S	AS SHOWN	LED WALL SCONCE	2	1410	108	Y
S	EXTERIOR	WITH BUILT-IN BATTERY AND PHOTO CELL	4	780	65	Y
S	EXTERIOR	LED SECURITY FLOOD LIGHT WITH PHOTO CELL AND CUT OFF SHIELD MOUNT@14'AFF	12	6611	95	Y
POLE	EXTERIOR	POLE MOUNTED LED 25 FT 4" SQUARE POLE	12	24100	140	
R	STAGE	6" ADJUSTABLE DOWN LIHGHT IC RATED AIR TIGHT	16	3886	92	Y
S	STAIRCASE	1'X4' WITH BUILT-IN BATTERY,OCCUPANCY SENSOR AND 50% STEP DIMMING	8	5092	137	Y
S	AS SHOWN	EMERGENCY WALL PACK	13	_	-	
S	AS SHOWN	EMERGENCY EXIT LIGHT	2	_	-	
S	AS SHOWN	EMERGENCY WALL PACK AND EXIT LIGHT	23	_	_	
EN CROS	SS					

MAIN DISTRIBUTION PANELBOARD SCHEDULE

'MDP'

MAIN BUS: <u>800A,208Y/120V,3P</u> MAIN CKT. BRK.: <u>800A MCB</u> NEUTRAL: <u>SOLID</u> AIC SYM: <u>42 KAIC</u> LUGS: <u>STANDARD</u> LOCATION: ELECT. ROOM STATUS: <u>NEW</u> ENCLOSURE NEMA TYPE: <u>1</u> MOUNTING: <u>FLOOR</u> FED FROM: <u>NEW UTILITY</u>

СКТ. #	CKT. BRK.	LOAD (KVA)	LOAD DESCRIPTION	FEEDER	СКТ. #	CKT. BRK.	LOAD (KVA)	LOAD DESCRIPTION	FEEDER
1	3/200	42	PANEL 'A'	4#3/0+6G IN 2-1/2" C	2	80/3	20.9	AHU1	3#4, 1#8GND., 1 1/4"C
3					4		-		
5	v		V	v	6	V	-	v	v
7	3/200	19	PANEL 'B'	4#3/0+6G IN 2-1/2" C	8	100/3	28	AHU2	3#3, 1#6GND., 1 1/4"C
9					10		-		
11	v		V	v	12	*	-	v	v
13	3/30	4	ELEVATOR	3#10, 1#10, GROUND, 1"C	14	35/3	7.6	CU1	3#8, 1#10GND., 1"C
15					16		-		
17	Y		V		18	*	-	v	v
19	3/300	74	RTU #1	3#350 MCM, 1#2GND., 3"C	20	90/3	19	CU2	3#3, 1#6GND., 1 1/4"C
21		-			22		-		
23	Y	-	,	v	24		-	v	v
25			SPACE		26	35/3	7	HP1	3#10, 1#10, GND, 1"C
27					28		-		
29					30	v	-	v	v
31		-			32			SPACE	
33		-			34		-		
35					36		-		
37		-			38	-	-		
39		-			40				
41	-	-	,	-	42			V V	
		150					82,500		

MAXIMUM DEMAND LOAD = 222 KVA OR 617 AMPS @ 208Y/120V, 3Ø, 4W

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				Date
				Succession of the second se
				Revision in the second s
	FLC	OR PANEL SCHEDUL	E	Certification:
BUS: 225A,208Y/120V,3Ø,4W		'A'	LOCATION: ELECT. ROOM	PROFESSIONAL CERTIFICATION:
NEUTRAL: <u>100% RATED</u>		STATUS: <u>NEW</u> Enclosure nema type: 1	MOUNTING: <u>SURFACE</u> FED FROM: MDP PANEL	I hereby certify that these documents w PREPARED or APPROVED by me, and that I am a duly licensed
				professional Engineer under the laws of the state of Maryland. License No. 47084, expiration date 08/0
LOAD DESCRIPTION LIGHTS - CLASSROOM 1,2,STORAGE,STAGE,KITCHEN	CONDT. WIRE COND <	POLE # ABC # POLE Output for the second	WIRE CONDT. LOAD DESCRIPTION 1080 #12 3/4" RECEPTS CHOIR RM./MECH. RM./TOILET/TRUSTEES RM.	
LIGHTS - FELLOWSHIP LIGHTS - CLASSROOM 3,4,TOILETS,CORR.,STAIRCASES FACP	750 20 950 20 200 20	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	720 RECEPTS SANCTUARY/OUTDOOR GFI/WP 1080 RECEPTS OUTDOOR GFI/WP 900 RECEPTS PULPIT/PIANO	0 U a
SECURITY PANEL TEL. BD.	200 20 200 20 ▼ 500	1 9 50 60 10 1 20 1 11 50 60 12 1 20	1260 RECEPTS FELLOWSHIP HALL/ELEC. RM./MECH. RM. 900 RECEPTS CLASSR00M 4	904 Jaci
SPACE	20 20 20 20 20 20	1 13 50 14 1 20 1 15 50 60 16 1 20 1 17 50 60 18 1 20	900 RECEPTS CLASSR00M 3 1080 RECEPTS CLASSR00M 1, FELLOW SHIP 1260 RECEPTS CLASSR00M 2. FELLOW SHIP	D 20
	20 20 20	1 19 50 50 20 1 20 1 21 50 60 22 1 20	1260 RECEPTACLE - STAGE 1260 RECEPTACLES STORAGE BASEMENT	LAN P I AN P I AN P
ELEV. MACHINE ROOM LTG. RECEPTACL F	20 20 20 1/2" #12 1	1 23 50 60 24 1 20 1 25 50 60 26 1 20 1 27 50 60 28 1 20	1200 EWC 1800 RECEPTACLES - TOILETS BASE 1500 RECEPTACLES - CORRIDOR-BASE	In dary
ELEV.CAB LTS DIS.	1/2" #12 .5 20 3/4" 8 4000 50	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1500 RECEPTACLE - KITCHEN 1800 RECEPTACLE - KITCHEN	
REFRIGERATOR - KITCHEN	- 4000 - 12 1000 20 1000 20 20	- 33 - - 34 20 1 35 - - - 36 20 1 37 - - - - 38 20	1200 RECEPTACLE - KITCHEN 1200 RECEPTACLE - KITCHEN 1200 RECEPTACLE - KITCHEN	
REFRIGERATOR - KITCHEN	1000 20 ▼ 1000 20	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	800 DISPOSAL 1000 V Y RECEPTACLE FELLOWSHIP	da D ER S ER S
	15500		25,840	
		OR <u>115AMPS</u> @ 208Y/120V, 3Ø, 4W		
LIGHTING 2.7 * 1.25 = 3.37 KVA RECEPTACLES 31 * 1 = 31 KVA HWH 8 * 1 = 8.0 KVA				
TOTAL 41.7 KVA 42.4 KVA 116 AMP 118 AMF				German Pineda: Contractor 13624 North Gate Drive
	FLO	OR PANEL SCHEDUL	E	Silver Spring, Md. 20904 Phone: 301-873-7092
BUS: 225A,208Y/120V,3Ø,4W		'B'	LOCATION: BAPTISTERY	Structrual Engineer: MGV Consul. Struct. Engine
NEUTRAL: <u>100% RATED</u>		STATUS: <u>NEW</u>	MOUNTING: <u>RECESSED</u>	6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648
AIC SYM: 22 KAIC				
LOAD DESCRIPTION LIGHTS - OFFICES,TOILETS,CORR.	CONDT. WIRE COAD C.B. (AMPS) (VA) TRIP FR 3/4" #12 1111 20 100	POLE ABC POLE C.D. (AMPS) R. # POLE FR. TRI 0 1 1 0 2 1 100 20	WIRE CONDT LOAD DESCRIPTION 1000 #12 3/4"	Design America Engineering, Inc
	330 20 ▼ 1309 20 1 6 866 20	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1440 RECEPTS A/V ROOM 1440 RECEPTS A/V ROOM 900 RECEPTS - CRY ROOM SANCTUARY	MEP Consulting Engineers 14080 Red River Drive Centerville, VA 20121
SPACE	20 20 20	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	800 RECEPTS SANCTUARY 800 RECEPTS SANCTUARY	DAENG2000@GMAIL.COM www.daeng2000.com
	20 20 20 20	1 13 50 14 1 20 1 15 50 60 16 1 20 1 17 50 60 16 1 20	1440 RECEPTS PULPIT 600 RECEPTS BAPTISTERY 500 RECEPTS CHANGE ROOM	Architect: Philip Aaron Lacy, Architect 9615 Geena Nicole Drive
	20 20 20	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Stock Reception 500 BAPTISTERY WATER PUMP 800 RECEPTS PASTOR	Clinton, Maryland 20735 Phone: 301-873-5093
		23	1000 RECEPTS PASTOR TOILET 800 RECEPTS FIRST LADY	
		21 00 00 28 29 00 00 30 31 00 00 32	Image: Non-State Recepts General OFFICE 1000 RECEPTS TOILETS 500 RECEPTS EXTERIOR	
		33 50 60 34 35 50 60 36	SPACE	Date: APRIL 21, 2022 Scale: 3/16" = 1'-0"
		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Drawn: Author UB
,	3616	CONNECTED LOAD	14320	Checked: Checker SO
		TOTAL COMPUTED LOAD = 17936 VA OR 50 AMPS @ 208Y/120V, 3Ø, 4W		File No. C:Users/phil/Documents/Iglesia V
LIGHTING $3.6 * 1.25 = 4.5 \text{ KVA}$ RECEPTACLES $14.32 * 1 = 14.32 \text{ KVA}$ TOTAL 17.03 KVA				E104
50 AMP 52 AMP				of

65

IOMINAL AMPERE RATING	FEEDER 1 & MODI	ſAG F.	LOAD DESCRIPTION	MINIMUM RACEWA SIZE (INCH
		-	3-12 AWG; 1-12 AWG GND.	3/4"
20	(20*)	Y	3-12 AWG; 1-12 AWG N; 1-12 AWG GND.	
		K	CHANGE NEUTRAL TO 1-8 AWG	3/4"
		G	ADD 1-12 AWG IG	
		- -	3-10 AWG; 1-10 AWG GND.	- 3/4"
30	30*		3-10 AWG; $1-10$ AWG N; $1-10$ AWG GND.	-
		n G	ADD 1-10 AWG IG	1"
		_	3-8 AWG: 1-10 AWG GND.	
	\frown	Y	3-8 AWG; 1-8 AWG N; 1-10 AWG GND.	- 1"
40	(40*)	K	CHANGE NEUTRAL TO 1-4 AWG	
		G	ADD 1-10 AWG IG	
		-	3-6 AWG; 1-10 AWG GND.	4 ¹⁰
55		Y	3-6 AWG; 1-6 AWG N; 1-10 AWG GND.	
55	<u></u>	К	CHANGE NEUTRAL TO 1-4 AWG	1.25"
		G	ADD 1-10 AWG IG	1.25
		_	3-4 AWG; 1-8 AWG GND.	1.25"
70	70*	Y	3-4 AWG; 1-4 AWG N; 1-8 AWG GND.	1.25
70		K	CHANGE NEUTRAL TO 1-1/0 AWG	1 5"
		G	ADD 1-8 AWG IG	1.5
		-	3-2 AWG; 1-6 AWG GND.	1 5"
100	(100*)	Y	3-2 AWG; 1-2 AWG N; 1-6 AWG GND.	1.5
100		K	CHANGE NEUTRAL TO 1-3/0 AWG	
		G	ADD 1-6 AWG IG	Ζ
		-	3-1 AWG; 1-6 AWG GND.	2"
130	(130*)	Y	3-1 AWG; 1-1 AWG N; 1-6 AWG GND.	۷
100		К	CHANGE NEUTRAL TO 250 KCM	25"
		G	ADD 1-6 AWG IG	2.0
		_	3-1/0 AWG; 1-6 AWG GND.	2"
150	(150*)	Y	3-1/0 AWG; 1-1/0 AWG N; 1-6 AWG GND.	2
100		К	CHANGE NEUTRAL TO 2-1/0 AWG	2.5"
		G	ADD 1-6 AWG IG	2.0
		-	3-2/0 AWG; 1-4 AWG GND.	- 2"
175	(175*)	Y	3-2/0 AWG; 1-2/0 AWG N; 1-4 AWG GND.	
		K	CHANGE NEUTRAL TO 2-2/0 AWG	2.5"
		G	ADD 1-4 AWG IG	
		-	3-3/0 AWG; 1-4 AWG GND.	2"
200	(200*)	Y	3-3/0 AWG; 1-3/0 AWG N; 1-4 AWG GND.	
		K	CHANGE NEUTRAL TO 2-3/0 AWG	2.5"
		6		
		- _	3-4/0 AWG; $1-2$ AWG GND.	2.5"
225	225*	Ϋ́	3-4/0 AWG; $1-4/0$ AWG N; $1-2$ AWG GND.	
		ĸ	ADD 1 4 AWC IC	2.5"
		6		
			3-250 KCMIL, $1-2$ AWG GND.	2"
250	250*		3-250 RCMIL, $1-250$ RCMIL II, $1-2$ AWG GND.	
		C C		2.5"
		0	3_350 KCMU: 1_1 AWC CND	
		Y	3-350 KCMIL, 1-350 KCMIL N· 1-1 ΔWG GND	- 3"
300	(300*)	K	CHANGE NEUTRAL TO 2-350 KCMI	
		G	ADD 1-1 AWG IG	- 3"
		_	3-500 KCMII: $1-1/0$ AWG GND.	
		Y	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND.	4"
380	(380*)	К	CHANGE NEUTRAL TO 2-500 KCMIL	
		G	ADD 1-1/0 AWG IG	4"
		_	3-600 KCMIL; 1-1/0 AWG GND.	
466		Y	3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND.	1 4"
420	(420*)	К	CHANGE NEUTRAL TO 2-600 KCMIL	. 39
		G	ADD 1-1/0 AWG IG	4″
500	(500*)	Y	(2 SETS OF) 3-250 KCMIL; 1-250 KCMIL N; 1-2 AWG GND.	(2)-3"
600	(600*)	Y	(2 SETS OF) 3-350 KCMIL; 1-350 KCMIL N; 1-1 AWG GND.	(2)-3.5"
800	(800*)	Y	(2 SETS OF) 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND.	(2)-4"
1000	(1000*)	Y	(3 SETS OF) 3-500 KCMIL; 1-500 KCMIL N; 1-2/0 AWG GND.	(3)-3.5"
1200	(1200*)	Y	(3 SETS OF) 3-600 KCMIL; 1-600 KCMIL N; 1-3/0 AWG GND.	(3)-4"
1600	(1600*)	Y	(4 SETS OF) 3-600 KCMIL; 1-600 KCMIL N; 1-4/0 AWG GND.	(3)-4"
				·

Y – THREE PHASE FOUR WIRE FEEDER. K – THREE PHASE FEEDER WITH OVERSIZED NEUTRAL – DOUBLE 200% NEUTRAL. G – THREE PHASE FEEDER WITH ISOLATED GROUND. VD – FEEDER SIZED FOR VOLTAGE DROP.

NOTES:

1. ALL AMPACITIES ARE BASED ON 75° C TEMPERATURE RATING OF COPPER CONDUCTOR AS LISTED IN THE NATIONAL ELECTRIC CODE.

2. FEEDERS MAY HAVE A COMBINATION OF OVERSIZED NEUTRAL AND ISOLATED GROUND (DESIGNATION K AND G). REFER TO RISER FOR FEEDER DESIGNATIONS.

Revisions: Date:	
Certification: PROFESSIONAL CERTIFICATION: I hereby certify that these documents PREPARED or APPROVED by me, and that I am a duly licensed professional Engineer under the laws of the state of Maryland. License No. 47084, expiration date 08	were 3/06/2025
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