

VICINITY MAP SCALE: 1" = 1000'

BENCHMARK/DATUM

COORDINATES AND NORTH SHOWN HEREON REFER TO THE BALTIMORE CITY HORIZONTAL DATUM. BASED ON THE FOLLOWING BALTIMORE CITY CONTROL STATIONS:

STATION	NORTHING	EASTING
22145	7,044.618	-5,980.636
22146	6,947.011	-6,193.947

ELEVATIONS SHOWN HEREON REFER TO THE BALTIMORE CITY VERTICAL DATUM. BASED ON THE FOLLOWING BALTIMORE CITY BENCHMARK

BENCHMARK	ELEVATION
6522	226.262

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SWM-3: STORMWATER MANAGEMENT SPECIFICATIONS REVISED

AS-BUILT

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SED-2: SEDIMENT CONTROL DETAILS

SED-3: SEDIMENT CONTROL SPECIFICATIONS AND NOTES LAP-1: LANDSCAPE PLAN

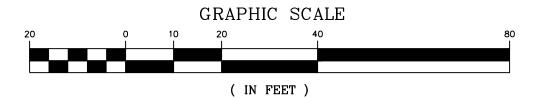
OWNER/DEVELOPER/APPLICANT ST. FRANCIS NEIGHBORHOOD CENTER, INC. 2405 LINDEN AVENUE

ESD #7533

BALTIMORE, MD 21217-4540 SITE PLAN BUILDING PERMIT PLAN

ST. FRANCIS NEIGHBORHOOD CENTER 2401-09 LINDEN AVENUE

WARD 13, SECTION 10, BLOCK 3463-A, LOTS 1, 2, 3, & 4 BALTIMORE CITY, MARYLAND

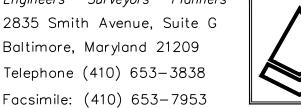


1 inch = 20 ft.



Colbert Matz Rosenfelt

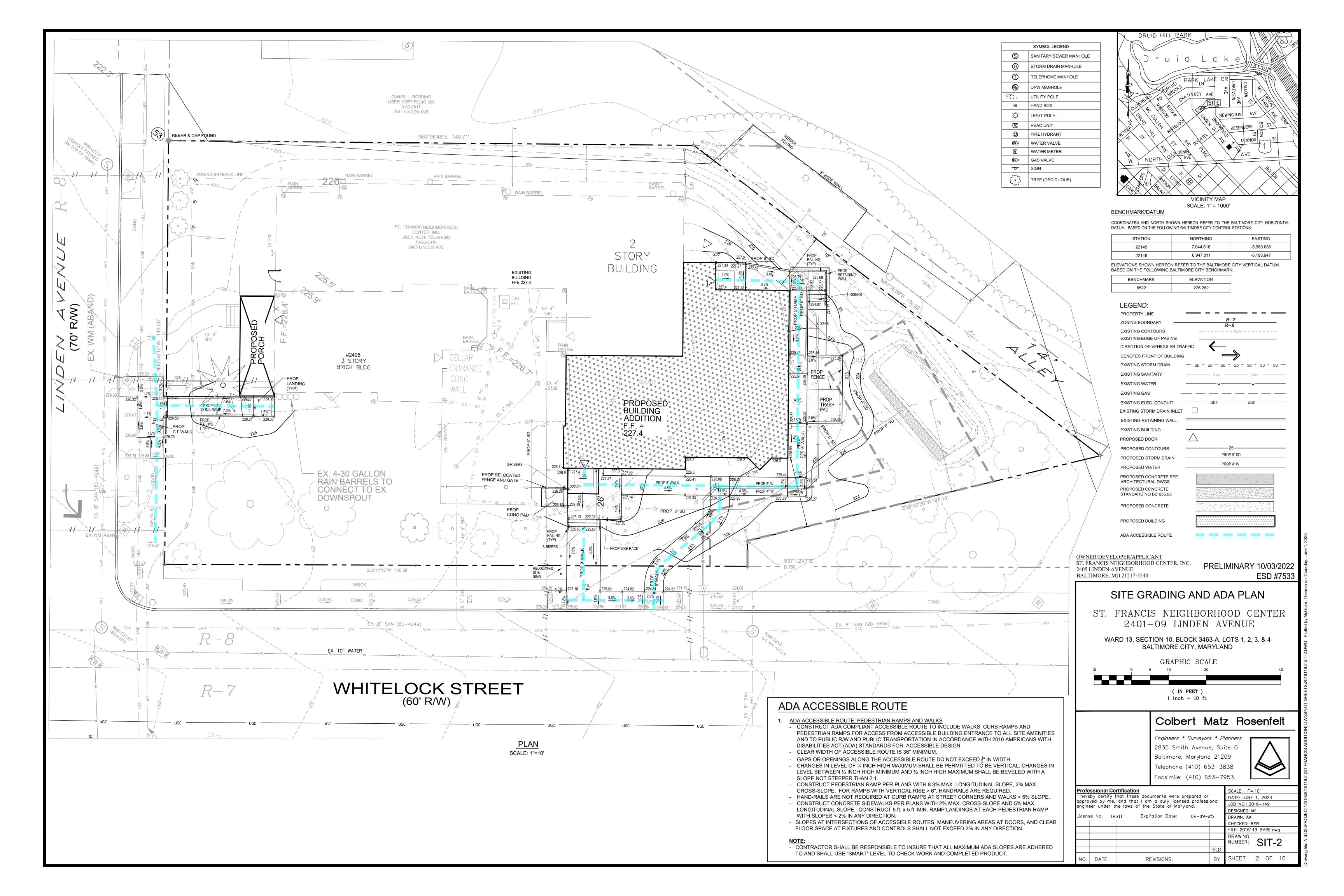
Engineers * Surveyors * Planners 2835 Smith Avenue, Suite G Baltimore, Maryland 21209



BY SHEET 1 OF 10

8/29/2023 Facsimile: (410)	653-7	953
essional Certification		SCALE: 1"= 20'
by certify that these documents were prepared		DATE: JUNE 1, 2023
oved by me, and that I am a duly licensed profe neer under the laws of the State of Maryland.	ssional	JOB NO.: 2016-149
and and the laws of the state of maryland.		DESIGNED: AK
nse No. 12311 Expiration Date: 02-09	9-25	DRAWN: AK
		CHECKED: RSR
		FILE: 2016149 BASE.dwg
		DRAWING
		NUMBER: SIT-1

REVISIONS:

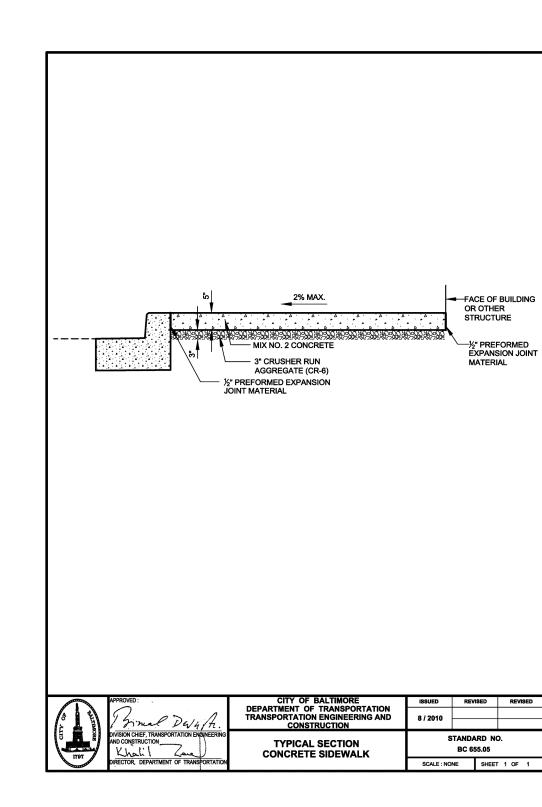


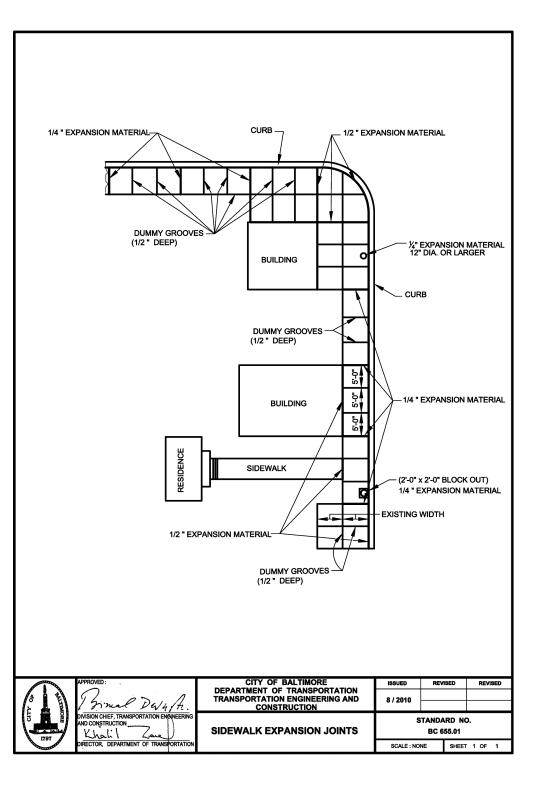
Construction Notes

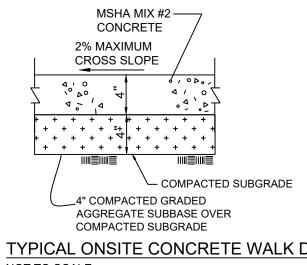
- CONTRACTOR SHALL MEET ALL EXISTING IMPROVEMENTS SMOOTHLY FOR LINE, GRADE AND FINISH. ALL WORK SHOWN ON THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS AND OF THE MARYLAND STATE HIGHWAY ADMINISTRATION AND THE BALTIMORE CITY PLUMBING CODE, UNLESS
- OTHERWISE NOTED. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM SUCH WORK. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE BASE BID.
- CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN ANY SCALED DIMENSIONS AND THE FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN. ALL QUANTITIES SHOWN, INCLUDING EARTH QUANTITIES ON SEDIMENT CONTROL DRAWINGS, ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND MUST BE VERIFIED BEFORE FINALIZING BIDS OR **ORDERING ANY MATERIALS**
- THE LOCATIONS OF EXISTING AND PROPOSED UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE LOCATIONS ARE TAKEN FROM EXISTING RECORDS OR SITE PLANS AND DO NOT REPRESENT FIELD-VERIFIED LOCATIONS. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF 5 WORKING DAYS PRIOR TO DIGGING. THE CONTRACTOR SHALL CONFIRM TO HIS OWN SATISFACTION THE LOCATION OF ALL UTILITIES PRIOR TO PLACEMENT OF ANY MATERIALS. IF ANY CONFLICT IS FOUND BETWEEN UNDERGROUND UTILITIES AND THE PROPOSED LOCATION OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT COLBERT MATZ ROSENFELT, INC., THE OWNER/DEVELOPER AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE OR DISRUPTION OF SERVICE SHALL BE AT THE EXPENSE OF THE CONTRACTOR. RELOCATION OF ANY SUCH DISCOVERED EXISTING UTILITIES, IF NECESSARY, SHALL BE AT THE EXPENSE OF THE OWNER. THE CONTRACTOR SHALL COORDINATE RELOCATION OF THESE FACILITIES, IF NECESSARY.
- CONTRACTOR SHALL PROTECT ALL EXISTING TREES OUTSIDE THE LIMIT OF DISTURBANCE AT ALL TIMES DURING CONSTRUCTION. WHERE REQUIRED BY BALTIMORE CITY, PRIOR TO BEGINNING ANY CONSTRUCTION, 3 FOOT HIGH ORANGE PLASTIC SAFETY NETTING OR WOODEN SNOW FENCE SHALL BE ERECTED AS SHOWN AROUND EACH TREE DESIGNATED FOR PROTECTION.
- THE CONTRACTOR SHALL INSPECT THE SITE TO DETERMINE IF ANY TREES, PAVING, ETC. ARE TO BE REMOVED AS PART OF THIS PROJECT. SAID REMOVAL SHALL BE INCLUDED IN THE BASE BID.
- CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT SCHEDULED FOR REMOVAL OR DEMOLITION. COST OF REPAIR TO ANY DAMAGED EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE BASE BID. THE CONTRACTOR SHALL CLEAR THE PROJECT SITE OF ALL EXISTING TREES, PAVING, STRUCTURES, ETC. WITHIN THE CONSTRUCTION AREA UNLESS OTHERWISE NOTED ON THE PLAN. ALL DEMOLITION/REMOVED MATERIALS SHALL BE DISPOSED OF AT AN APPROVED LOCATION. ANY DAMAGE TO OFFSITE ROADS, RIGHTS OF WAY, OR ADJACENT PROPERTY SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF THE CONTRACTOR
- ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM COLBERT MATZ ROSENFELT, INC. WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY COLBERT MATZ ROSENFELT, INC. OF

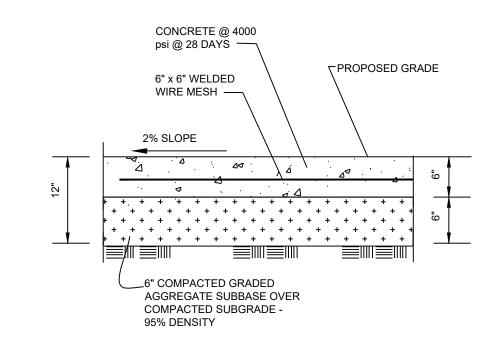
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR THE COMPLETION OF THIS PROJECT,
- SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS.
- SEE MECHANICAL AND ELECTRICAL PLANS FOR DETAILS AND LOCATIONS OF LIGHTING, GAS, ELECTRIC,
- PREFORMED ELASTOMERIC COMPRESSION JOINT MATERIAL SHALL BE INSTALLED AT ALL MEETINGS OF EXISTING AND/OR PROPOSED CONCRETE CONSTRUCTION, INCLUDING CURBS, PAVING AND SIDEWALKS, AND AS NOTED HEREON.
- REFER TO STANDARD NO BC 655.01 FOR LAYOUT OF SIDEWALK EXPANSION JOINTS. SIDEWALK WITHIN PUBLIC RIGHT-OF WAY TO CONFORM TO BALTIMORE CITY DEPARTMENT OF
- TRANSPORTATION STANDARDS. SLOPE, WIDTH, AND LOCATION AS SHOWN ON THESE PLANS. SIDEWALK ONSITE SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN ON THESE PLANS. CROSS-SLOPES OF SIDEWALKS SHALL NOT EXCEED 2%.
- ALL HANDICAPPED RAMPS SHALL BE IN ACCORDANCE WITH THE LATEST ADA REGULATIONS. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 4 FOOT WIDE EARTHEN BENCH BEYOND EDGE OF PAVING OR FACE OF CURB IN ALL FILL AREAS. MAXIMUM SLOPE OF BENCH AWAY FROM PAVING IN ALL FILL AREAS SHALL BE 4 PERCENT. (1/2 IN PER FOOT), UNLESS OTHERWISE
- CONTRACTOR SHALL PLACE A WITNESS POST AT THE TERMINUS OF ALL UTILITY STUBS. 20. CONTRACTOR SHALL PLACE MINIMUM 4 INCHES TOPSOIL IN ALL LANDSCAPE AREAS. TOPSOIL SHALL MEET MDSHA STD. 920.01 AND SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLACEMENT. EARTHWORK
- 21.1. ALL EARTHWORK SHALL BE AS DIRECTED BY GEOTECHNICAL ENGINEER OR AS OUTLINED IN THE GEOTECHNICAL REPORT. IF NO GEOTECHNICAL REPORT IS AVAILABLE AND NO GEOTECHNICAL ENGINEER IS ENGAGED FOR THIS PROJECT, ALL EXCAVATED AREAS SHALL BE BACKFILLED AND COMPACTED TO 90 PERCENT DENSITY AS DETERMINED BY ASTM D-1557 (MODIFIED PROCTOR). ANY AREAS TO BE PAVED WHICH EXHIBIT UNSTABLE SUBGRADE CONDITIONS SHALL BE EXCAVATED TO BEARING SOIL, REFILLED AND COMPACTED. ONLY SUITABLE MATERIAL SHALL BE USED AS FILL AND PLACEMENT OF ALL FILL MATERIAL SHALL BE IN 8 IN THICK LOOSE COURSES AND COMPACTED. COMPACTION UNDER PARKING SURFACE SHALL BE TO A MINIMUM OF 90 PERCENT DENSITY AS DETERMINED BY ASTM D-1557. COMPACTION WITHIN BUILDING AREAS AND UNDER ALL UTILITY STRUCTURES SHALL BE TO A MINIMUM OF 95 PERCENT DENSITY AS DETERMINED BY ASTM D-1557.
- 21.2. ALL 2:1 SLOPES SHOWN ON THESE PLANS, EXCEPTING THOSE ASSOCIATED WITH LANDSCAPE BERMING, SHALL BE OBSERVED BY A GEOTECHNICAL ENGINEER DURING EARTH PLACEMENT.
- THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 4 FEET OF COVER OVER ALL PROPOSED WATER LINES. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY VERTICAL BENDS TO MAINTAIN CLEARANCE AT CROSSINGS BETWEEN OTHER UTILITIES. THE CONTRACTOR IS ADVISED TO REVIEW THE STORM DRAIN AND SEWER PROFILES TO DETERMINE DEPTH OF WATER MAIN AT CROSSINGS.
- ALL PRIVATE UTILITIES AND APPURTENANCES SHALL MEET THE LATEST STANDARDS AND SPECIFICATIONS OF THE BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS AND THE BALTIMORE CITY PLUMBING CODE LINEESS OTHERWISE NOTED
- CONTRACTOR SHALL HAVE THE INSTALLATION OF ALL PRIVATE UTILITIES INSPECTED BY BALTIMORE
- 25. ALL WATER MAINS SHALL BE STERILIZED AND PRESSURE TESTED IN ACCORDANCE WITH THE
- BALTIMORE CITY REQUIREMENTS. 4" FIRE SERVICE TO BE DUCTILE IRON PIPE SHALL BE CLASS 54, THICKNESS 0.35". AWWA C150/A.21.50.98/ TABLE 15 OR LATEST. DUCTILE IRON PIPE FITTINGS SHALL MEET THE LATEST AWWA C110/A.21.10 AND
- C153/A.21.51 (PRESSURE RATING SHALL BE 350 PSI). WATER SERVICE SHALL BE 2" TYPE K COPPER. ALL FIRE LINE PIPING, FITTINGS, AND JOINTS SHALL MEET THE REQUIREMENTS SET FORTH IN NFPA. PIPE SHALL BE UL LISTED, FM APPROVED AND MEET AWWA STANDARDS FOR FIRE PROTECTION USE. FITTINGS SHALL HAVE PRESSURE CLASS RATINGS COMPATIBLE WITH THE PIPE USED.
- THRUST BLOCKS SHALL BE PROVIDED AT ALL CHANGES IN DIRECTION IN ALL WATER LINES 4 INCHES AND LARGER, AND AT ALL TEES, PLUGS, AND BENDS, 4 INCHES AND LARGER.
- ALL VALVES LARGER THAN 2 IN CONTROLLING WATER SUPPLIES SHALL BE INSTALLED IN SECTIONAL VALVE VAULTS IN ACCORDANCE WITH THE BALTIMORE CITY STANDARDS. ROADWAY BOXES ARE NOT
- THE TOPS OF ALL VALVE BOXES, VAULTS, INLETS, MANHOLES AND OTHER PROPOSED UTILITY STRUCTURES SHALL BE SET TO FINISH GRADE.
- BOTTOM OF ALL TRENCHES SHALL BE EXCAVATED FOR PIPE BELLS TO ENSURE LENGTH OF MAIN IS
- SUPPORTED BY TRENCH BOTTOM. CONTRACTOR SHALL MAINTAIN A 12 IN VERTICAL MINIMUM CLEARANCE BETWEEN ALL SEWER AND WATER SERVICES AND STORM DRAINS. UNLESS OTHERWISE NOTED. WHERE MINIMUM CLEARANCE REQUIREMENTS FOR THE SEWER AND WATER MAINS AND SERVICES CANNOT BE MET, 6 IN CONCRETE ENCASEMENT ON SANITARY SEWER SHALL BE PROVIDED FOR A LENGTH OF 10 FT EACH SIDE OF WATER
- CONTRACTOR SHALL PROVIDE A MINIMUM OF 1 FOOT OF PROTECTIVE FILL OVER ALL STORM DRAIN PIPES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL GRADE ALL AREAS WITHIN THE LIMITS OF CONSTRUCTION AND SHALL WARP ALL PAVING AS NECESSARY TO ENSURE POSITIVE DRAINAGE IN THE DIRECTION INDICATED ON THE PLAN. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS BETWEEN CONVENTIONAL AND REVERSE SLOPE CURB SO AS TO CREATE POSITIVE DRAINAGE AT ALL TIMES.
- CONTRACTOR SHALL COORDINATE ANY ADJUSTMENT AND/OR RELOCATION OF SIGNAL, UTILITY AND/OR LIGHT POLES AND/OR STRUCTURES WITH PROPER UTILITY COMPANY. BRACING OF POLES TO BE PROVIDED DURING CONSTRUCTION AS NEEDED. SAID RELOCATION AND/OR POLE BRACING TO BE COORDINATED WITH OWNER OF UTILITY, OWNER'S ENGINEER AND COLBERT MATZ ROSENFELT, INC. ALL SUCH RELOCATION, ADJUSTMENT AND/OR POLE BRACING SHALL BE INCLUDED IN BASE BID.
- CONTRACTOR SHALL PROVIDE FULL TRENCH COMPACTION FOR ALL SITE UTILITIES, UNLESS OTHERWISE
- 37. THE TOP ELEVATION OF ALL EXISTING WATER METERS, VALVES, FIRE HYDRANTS, HANDBOXES, MANHOLES AND OTHER UTILITIES WITHIN THE WORK AREA WHICH ARE INTENDED TO REMAIN SHALL BE ADJUSTED AS NECESSARY TO MATCH PROPOSED GRADE SMOOTHLY AND FLUSH WITH SURFACE SO AS TO NOT CREATE ANY TRIPPING HAZARD OR OTHER IMPEDIMENT TO PEDESTRIAN PASSAGE. CONTRACTOR SHALL COORDINATE ADJUSTMENTS WITH THE OWNER OF EACH EXISTING UTILITY PRIOR TO MAKING ANY ADJUSTMENTS TO THE UTILITY.
- ALL PRIVATE SANITARY SEWER PIPE SHALL BE PVC SDR-26 WITH SDR-35 FITTINGS, OR APPROVED EQUAL, IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS AND THE BALTIMORE CITY PLUMBING CODE, UNLESS OTHERWISE
- ALL PRIVATE STORM DRAIN PIPE SHALL BE HDPE CONFORMING TO AASHTO M-294, TYPE 'S' OR PVC -SDR-26 WITH SDR-35 FITTINGS, AND SHALL BE AS MANUFACTURED BY NYOPLAST, NDS, ADS, OR APPROVED EQUAL. ALL CLEANOUTS IN TRAFFIC AREAS SHALL HAVE REMOVABLE CAST IRON OR BRONZE COVERS.
- PROPOSED FENCE TO BE SPECIFIED BY OWNER AS SHOWN ON ARCHITECTURAL DRAWINGS. ALL SIGNAGE SHALL MEET THE SPECIFICATIONS & STANDARDS OF THE US FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION, AS
- TOPOGRAPHY WITHIN LIMITS OF PROPERTY BOUNDARIES, AND INCLUDING EXISTING SIDEWALK, SHOWN ON THESE PLANS ARE BASED ON SURVEY PREPARED BY COLBERT MATZ ROSENFELT, INC. TOPOGRAPHY OUTSIDE OF PROPERTY LIMITS IS TAKEN FROM GIS, PUBLIC RECORDS AND SITE PLANS AND DOES NOT REPRESENT A FIELD SURVEY.
- GAS AND ELECTRICITY SERVICES SHALL BE COORDINATED WITH LOCAL PROVIDER. ORDERING GAS AND ELECTRICITY SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, ROUTING SHOWN IS PICTORIAL REPRESENTATION ONLY- FINAL ROUTING AND CONNECTION POINTS TO BE DETERMINED BY LOCAL PROVIDER. CONTRACTOR IS RESPONSIBLE TO INSTALL ALL ITEMS REQUIRED BY LOCAL PROVIDER TO PROVIDE SERVICES.



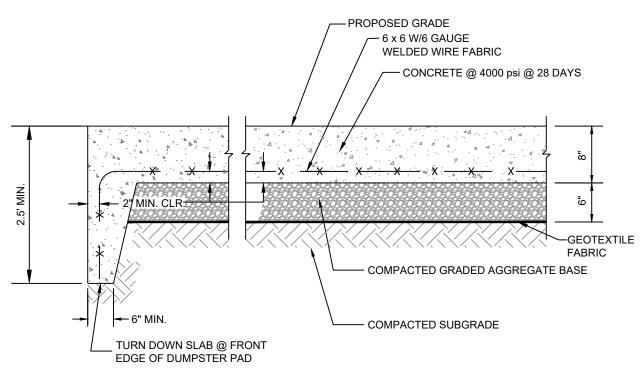




TYPICAL ONSITE CONCRETE WALK DETAIL NOT TO SCALE



HEAVY-DUTY CONCRETE WALK DETAIL NOT TO SCALE



HEAVY-DUTY CONCRETE PAD DETAIL

NOT TO SCALE

Notes for All Concrete Paving

- 1. PAVEMENT SECTION SHALL ADHERE TO GUIDELINES PROVIDED IN GEOTECHNICAL
- REPORT FROM D.W. KOZERA DATED 1/28/2021. 2. COMPACTED SUBGRADE SHALL BE PROOFROLLED AND APPROVED BY GEOTECHNICAL ENGINEER OF RECORD. CONTRACTOR SHOULD EXPECT AN UNDERCUT AND
- REPLACEMENT OF 2-FT. WHERE SITE GRADES REQUIRE LESS THAN 2-FT. OF GRADE
- 3. ALL EXPOSED CONCRETE EDGES, INCLUDING THOSE AT EXPANSION JOINTS, SHALL BE
- 4. CONTRACTION JOINTS SHALL BE SPACED AT 10' O/C MAXIMUM, WITH ONE ADDITIONAL CONTRACTION JOINT ALONG CENTERLINE OF CONCRETE LANE. ALL CONTRACTION JOINTS SHALL BE SAWN WITHIN 24 HOURS OF POUR. ALTERNATE CONTRACTION JOINTS
- SHALL BE SAWN SAME DAY OF POUR. 5. REINFORCING WIRE MESH SHALL CONFORM TO AASHTO M55 AND SHALL BE SUPPLIED IN
- FLAT SHEETS. CURING COMPOUND SHALL BE WHITE PIGMENTED COMPOUND. 6. ALL PAVEMENT SHALL RECEIVE BROOM FINISH. BROOM STROKES SHALL BE

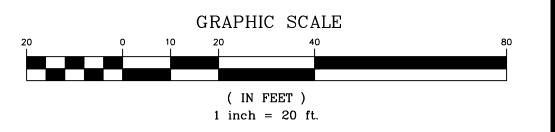
PERPENDICULAR TO DIRECTION OF TRAFFIC FLOW.

OWNER/DEVELOPER/APPLICANT ST. FRANCIS NEIGHBORHOOD CENTER, INC. 2405 LINDEN AVENUE BALTIMORE, MD 21217-4540

ESD #7533

SITE DETAILS AND SPECIFICATIONS ST. FRANCIS NEIGHBORHOOD CENTER 2401-09 LINDEN AVENUE

WARD 13, SECTION 10, BLOCK 3463-A, LOTS 1, 2, 3, & 4 BALTIMORE CITY, MARYLAND



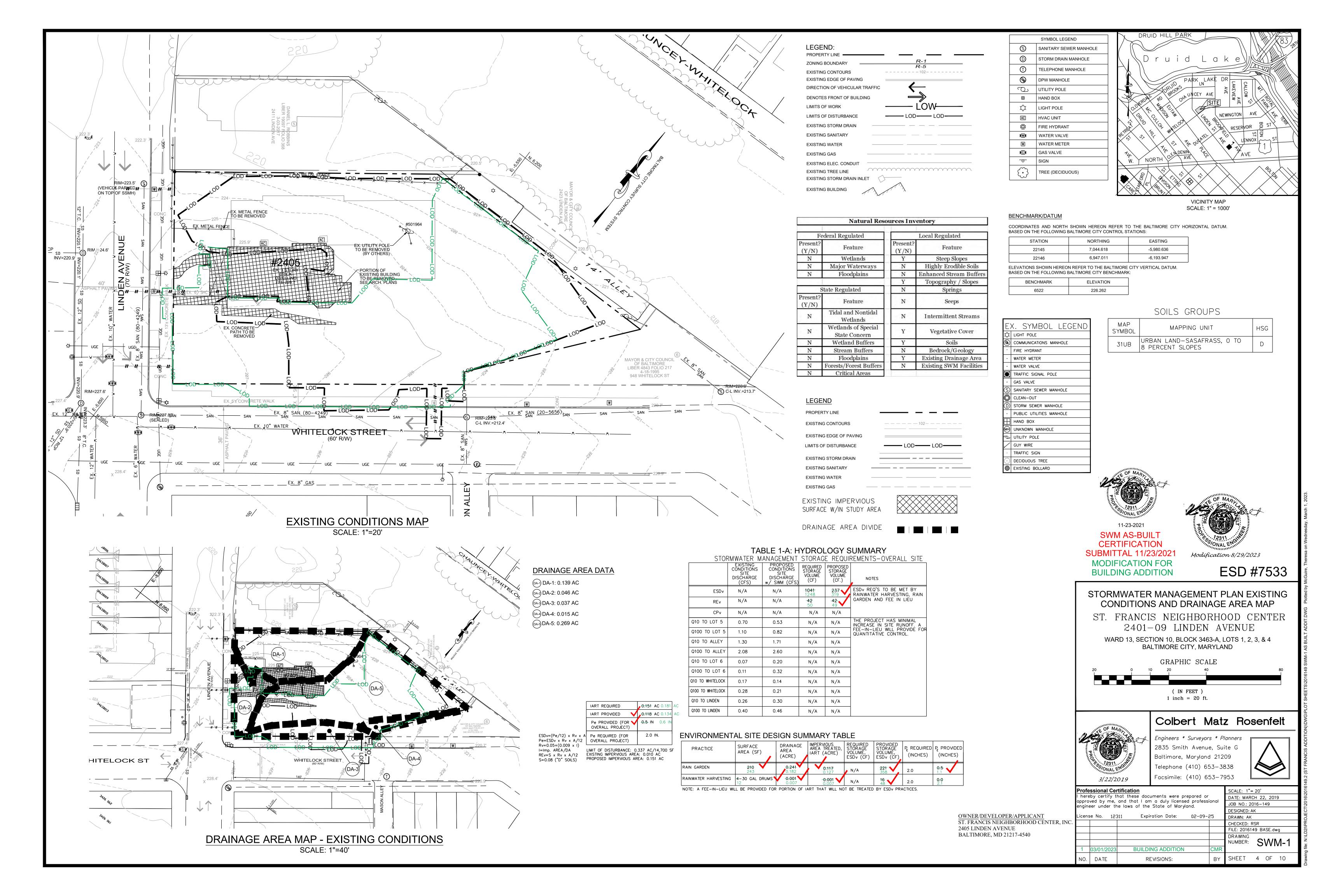


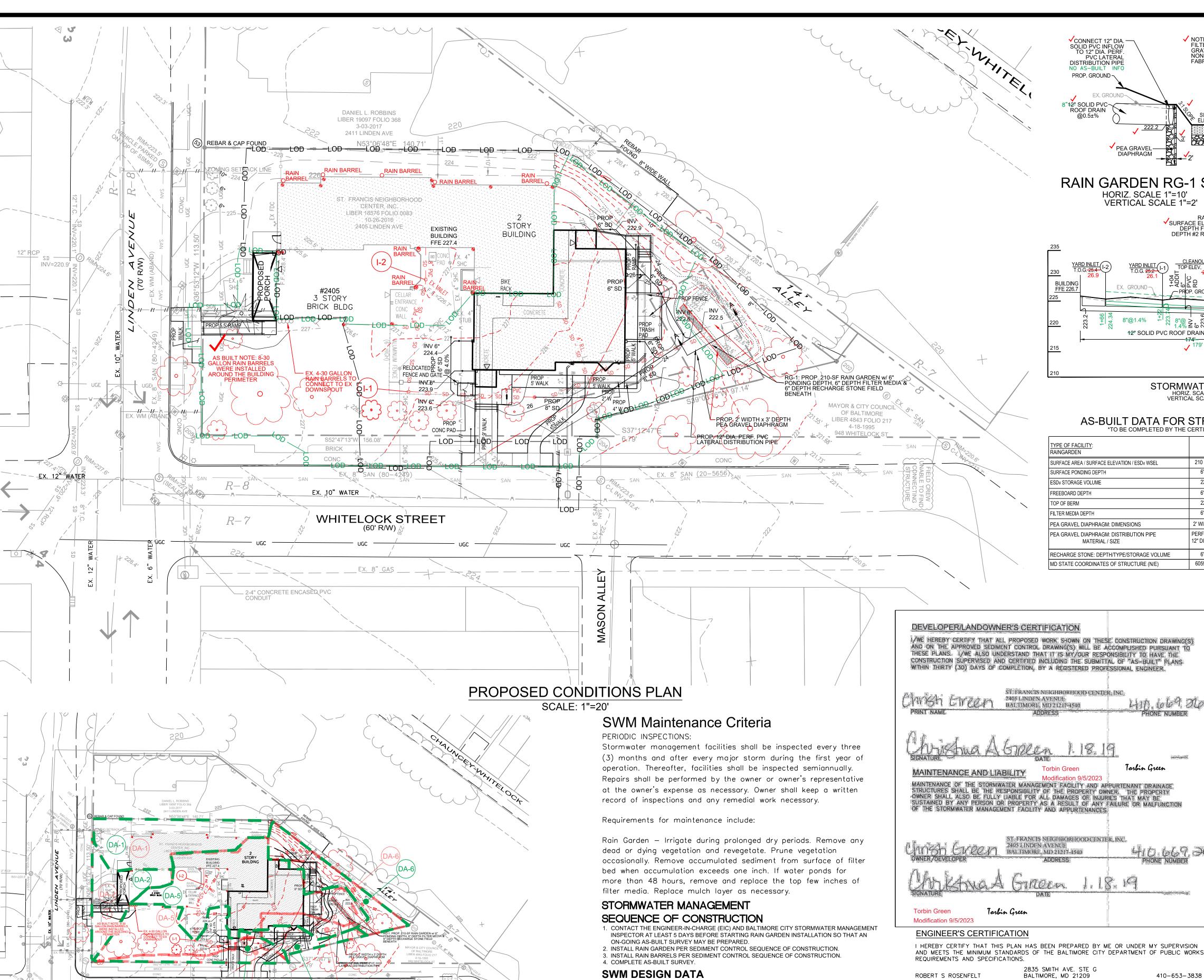
Colbert Matz Rosenfelt

Engineers * Surveyors * Planners 2835 Smith Avenue, Suite G Baltimore, Maryland 21209 Telephone (410) 653-3838



8/29/202	?3	Facsimile:	(410) 65	53-79	953
ofessional Certinereby certify the proved by me, or	ot these docu	SCALE: 1"= 20' DATE: MARCH 1, 2023 JOB NO.: 2016-149			
gineer under the laws of the State of Maryland. ense No. 12311 Expiration Date: 02-09-25					DESIGNED: AK DRAWN: AK
					CHECKED: RSR FILE: 2016149 BASE.dwg
					DRAWING NUMBER: SIT-3
O. DATE	RE	VISIONS:		BY	SHEET 3 OF 10





DRAINAGE AREA DATA

(DA-1) DA-1: 0.095 AC 0.092

(DA-3) DA-3: 0.027 AC 0.101

(DA-4) DA-4: 0.040 AC 0.022

(DA-2) DA-2: 0.052 AC

WHITELOCK STREET (DA-3)

100-YR

(CFS)

STORMWATER MANAGEMENT DISCHARGE SUMMARY

 5&6
 0.61
 1.30
 2.08
 0.81
 1.48
 2.20
 0.81
 1.48
 2.20

 Total
 1.17
 2.49
 3.97
 1.49
 2.89
 4.43
 BASED ON MOD & SWM LOD

(CFS) | (CFS) | (CFS)

2-YR 10-YR 100-YR 2-YR 10-YR

DRAINAGE AREA MAP - PROPOSED CONDITIONS

SCALE: 1"=40'

(CFS) | (CFS) |

LEVEL OF MANAGEMENT PROVIDED BY FACILITIES: ESDV

ADVANCE OF CONSTRUCTION SO THAT HE CAN ARRANGE FOR:

B. INSPECTION OF COMPLETED RAIN GARDEN AND RAIN BARREL

AGENCIES WITHIN 30 DAYS AFTER CONSTRUCTION.

SHALL BE IN ACCORDANCE WITH

CONSTRUCTION & MATERIALS.

PRIOR TO INSTALLATION.

INSTALLATIONS.

DA-5: 0.229 AC TO RAIN GARDEN FOR QUALITY TREATMENT AND TO 14' ALLEY FOR SITE DISCHARGE ANALYSIS

DA-6: 0.060 AC TO 14' ALLEY FOR SITE DISCHARGE ANALYSIS

FACILITIES LOCATED WITHIN THE JONES FALLS WATERSHED.

THESE FACILITIES ARE PRIVATE AND SHALL BE MAINTAINED BY OWNERS.

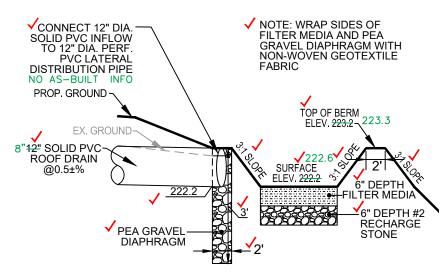
UNLESS OTHERWISE NOTED, ALL CONSTRUCTION AND WORKMANSHIP

MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, 2009, STANDARD SPECIFICATIONS FOR

A REGISTERED PROFESSIONAL ENGINEER MUST BE NOTIFIED SUFFICIENTLY IN

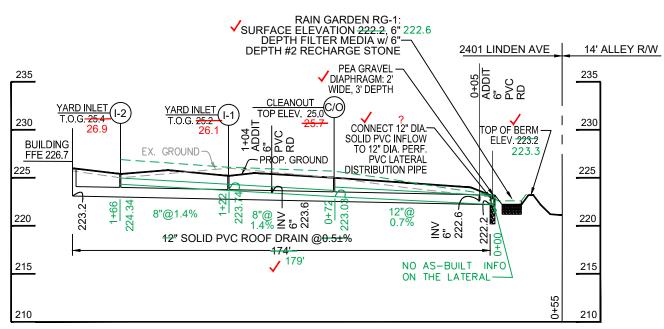
A. INSPECTION OF FILTER MATERIALS, RAIN BARRELS AND FACILITY PIPES

C. COMPLETION OF AS-BUILT SURVEY AND SUBMITTAL TO APPROPRIATE



RAIN GARDEN RG-1 SECTION A-A HORIZ. SCALE 1"=10'

VERTICAL SCALE 1"=2"



STORMWATER PROFILE HORIZ. SCALE 1"=40' VERTICAL SCALE 1"=10

General SWM Plan Notes

- 1. COORDINATES ARE BASED ON THE MARYLAND STATE COORDINATE SYSTEM NAD 27 (OR 83) DATUM PROJECTED BY THE DEPARTMENT OF PUBLIC WORKS OF BALTIMORE CITY, MARYLAND.
- 2. ELEVATIONS ARE BASED ON THE U.S.C. AND G.S. 1929 DATUM PROJECTED BY THE BALTIMORE CITY DEPARTMENT OF PLANNING AND
- 3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS STANDARD DETAILS FOR CONSTRUCTION OF STORM DRAINS, ROADS AND STORMWATER **MANAGEMENT**
- 4. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS, AND ANY DAMAGE TO THEM DUE TO THEIR NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AT THE
- CONTRACTOR'S EXPENSE 5. THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION BEFORE STARTING CONSTRUCTION. NEITHER THE OWNER NOR BALTIMORE CITY
- COMPLETENESS OR THE CORRECTNESS OF THE INFORMATION GIVEN. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO SPECIFICALLY MENTION ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF

DEPARTMENT OF PUBLIC WORKS WARRANT OR GUARANTEE THE

- HIS RESPONSIBILITY TO PERFORM SUCH WORK. 7. THE CONTRACTOR SHALL NOTIFY BGE, (410) 685-0123, FIVE (5) WORKING
- DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. 8. THE CONTRACTOR SHALL NOTIFY THE VERIZON TELEPHONE COMPANY, (410) 224-9497, FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- 9. THE CONTRACTOR SHALL NOTIFY THE BALT, IMORE CITY DEPARTMENT OF PLANNING AND ZONING FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- 10. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" 1-800-257-7777 FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- 11. ALL UTILITY POLES SHALL BE BRACED AS NECESSARY AT CONTRACTOR'S EXPENSE. UTILITY POLES SHALL BE RELOCATED AT THE OWNER'S EXPENSE IN CASES WHERE THEY WILL INTERFERE WITH
- 12. PIPE ELEVATIONS REFER TO INVERTS UNLESS OTHERWISE NOTED. 13. ALL STORM DRAIN PIPES SHALL BE HDPE, N-12, RCCP CL IV OR ACCMP, UNLESS OTHERWISE NOTED.

AS-BUILT DATA FOR STRUCTURE RG-1

TYPE OF FACILITY: RAINGARDEN	DESIGN	AS-BUILT* 243 SF / 222.6 / 223.1
SURFACE AREA / SURFACE ELEVATION / ESDv WSEL	210 SF / 222.2 / 222.8	210 SF / 222.2 / 222.8
SURFACE PONDING DEPTH	6"	6"
ESDv STORAGE VOLUME	221 CF	221 CF 358
FREEBOARD DEPTH	6"	6"
TOP OF BERM	223.2	223.2 223.3
FILTER MEDIA DEPTH	6"	6"
PEA GRAVEL DIAPHRAGM: DIMENSIONS	2' WIDTH x 3' DEPTH	2' WIDTH x 3' DEPTH
PEA GRAVEL DIAPHRAGM: DISTRIBUTION PIPE MATERIAL / SIZE	PERFORATED PVC / 12" DIA.	PERFORATED PVC / 12" DIA.
RECHARGE STONE: DEPTH/TYPE/STORAGE VOLUME	6" / #2 / 42 CF	6" / #2 / 42 CF
MD STATE COORDINATES OF STRUCTURE (N/E)	605947 / 1414037	605947 / 1414037

PHONE NUMBER

410-653-3838

PHONE NUMBER

LICENSE NUMBER

410-653-3838

PHONE NUMBER

LICENSE NUMBER

12311

12311

ADDRESS

SIGNATURE

ROBERT S ROSENFELT

SIGNATURE SIGNATURE

PRINT NAME

AS-BUILT CERTIFICATION

Modification 8/29/2023

9/13/2021

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN

ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS.

2835 SMITH AVE. STE G

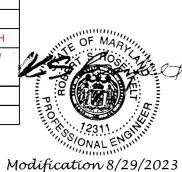
Modification 8/29/2023

11/23/2021

BALTIMORE, MD 21209

AS-BUILT DATA FOR RAINWATER HARVESTING *TO BE COMPLETED BY THE CERTIFYING ENGINEER

TYPE OF FACILITY: RAINWATER HARVESTING	DESIGN	AS-BUILT*
ESDv STORAGE VOLUME	16 CF	32 CF
STORAGE CONTAINER: TYPE / SIZE / #	PLASTIC DRUM / 30 GAL / 4	PLASTIC DRUM / 30 GAL / 8



11-23-2021

SWM AS-BUILT CERTIFICATION SUBMITTAL 11/23/2021 MODIFICATION FOR **BUILDING ADDITION**

SYMBOL LEGEND					
S	SANITARY SEWER MANHOLE				
0	STORM DRAIN MANHOLE				
T	TELEPHONE MANHOLE				
DPW MANHOLE					
Q	UTILITY POLE				
⊞	HAND BOX				
¢	LIGHT POLE				
AC	HVAC UNIT				
母	FIRE HYDRANT				
₩₩	WATER VALVE				
W	WATER METER				
HGH	GAS VALVE				
0	SIGN				
	TREE (DECIDUOUS)				

OWNER/DEVELOPER/APPLICANT ST. FRANCIS NEIGHBORHOOD CENTER, INC. 2405 LINDEN AVENUE BALTIMORE, MD 21217-4540

As-Built Plans and Certifications are required for this Stormwater Management Facility. These must be prepared and sealed by a Maryland REGISTERED PROFESSIONAL ENGINEER. Baltimore City will not perform the INSPECTION or prepare the AS-BUILT Plans or Certification. The STORMWATER MANAGEMENT PERMIT SECURITY will not be released until the As-Built Plans and Certifications are approved by Baltimore City. In order to prepare the required As-Built Plans and Certification, this Stormwater Management Facility must be INSPECTED by the ENGINEER at specific stages during construction as required by the current Baltimore City STORMWATER MANAGEMENT POLICY AND DÉSIGN MANUAL. The Contractor shall notify the Engineer at

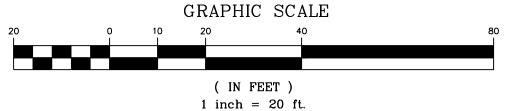
PROPOSED CONCRETE WALK

ESD #7533

STORMWATER MANAGEMENT PLAN PROPOSED CONDITIONS AND DRAINAGE AREA MAP

ST. FRANCIS NEIGHBORHOOD CENTER 2401-09 LINDEN AVENUE

WARD 13, SECTION 10, BLOCK 3463-A, LOTS 1, 2, 3, & 4 BALTIMORE CITY, MARYLAND





Colbert Matz Rosenfelt

Engineers * Surveyors * Planners 2835 Smith Avenue, Suite G Baltimore, Maryland 21209 Telephone (410) 653-3838



rofessional Certification hereby certify that these documents were prepared or oproved by me, and that I am a duly licensed professional regineer under the laws of the State of Maryland. Cense No. 12311 Expiration Date: 02-09-25 Checked: RSR	3/22/19	Facsimile: (410) 6	Facsimile: (410) 653-7953					
CHECKED: RSR FILE: 2016149 BASE.dwg DRAWING NUMBER: SWM-2	hereby certify that these documents were prepared or opproved by me, and that I am a duly licensed professional national magnetic professional JOB NO.: 2016—149							
FILE: 2016149 BASE.dwg DRAWING NUMBER: SWM-2	cense No. 12311 Ex	piration Date: 02-09-1	25					
DRAWING NUMBER: SWM-2								
1 03/01/2023 BOILDING ADDITION CMR	1 02/04/2022 PLUI	DING ADDITION	CMP	DRAWING				
NO. DATE REVISIONS: BY SHEET 5 OF 10	30.0 1,2020			SHEET 5 OF 10				

Construction Specifications

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure constructing each part of the work. After having served their purpose, all shall be cleared. All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill

Material — The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL. and will allow satisfactory performance of all construction operations. During the Consideration may be given to the use of other materials in the embankment if design and construction are placing and compacting of material in required excavations, the water level at supervised by a geotechnical engineer.

Placement — Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction — The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out. Where a minimum required density is specified, it shall not % of maximum dry density with a moisture content within +2% of the optimum. Each layer of fill be less than 95 shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Structure Backfill — Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Pipe Conduits All pipes shall be circular in cross section.

High Density Polethylene (All Pipe and Fittings shall be ADS N-12 Double Wall or approved equal) Materials — Shall conform to the requirements of S.H.A. Spec. Sect. 908.01 as follows: a.) Less than 8" diam. shall conform to AASHTO M252 or PVC conforming to ASTM F758 (Type PS 28), except PVC for observation wells which will have perforations all around. See ASTM D3350. b.) Greater than 8" but less than 12" diam. shall comform to AASHTO M252.

c.) Greater than 12" but less than 21" diam. shall conform to AASHTO D252 or M294. d.) Perforated pipe furnished under AASHTO M294 shall meet the perforation requirements of AASHTO. Any stone or sand which becomes contaminated during the construction process

e.) Fittings shall conform to ASTM F405.

f.) Install in accordance with the manufacturer's recommendations. Joints and connections to anti-seep collars shall be completely watertight.

Bedding — The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

Backfilling shall conform to "Structure Backfill." Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

PVC PIPE: PVC PIPE SHALL BE PVC-1120 OR PVC-1220 CONFORMING TO ASTM D-1785 OR ASTM-D-2241.

Aluminum Coated Steel Pipe, Type 2 Materials — (Aluminum Coated Steel Pipe, Type 2) — This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of

Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or

plastic insulating materials at least 24 mils in thickness. Connections — All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight. All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24 inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, pre-punched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket; and a 12—inch wide hugger type band with o—ring gaskets having a minimum diameter of 1/2 inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 24-inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12 inches on the end of each pipe. Flanged joints with 3/8—inch closed cell gaskets the full width of the flange is also acceptable. Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene

Bedding — The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

Backfilling shall conform to "Structure Backfill". Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the minimum requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

Non-woven fiter fabric shall be Mirafi 140N or approved equivalent. Woven filter fabric shall be Amoco 2006 All materials not otherwise shown or specified shall conform to the applicable requirements of the applicable requirements of the MSHA publication "Standard Specification for Construction and Materials" 1982 as

– fabric laydown: The filter fabric roll shall be cut to the proper width prior to installation. The cut width must include sufficient material to conform to well perimeter irregularities and for an 18" minmum top overlap. Place the fabric roll over the well and unroll a sufficient length to allow placement of the fabric down into the well, stones or other anchoring objects should be placed on the fabric at the edge of the well to keep the lined well open during windy periods when overlaps are required between rolls, the upstream roll shall lap a minimum of 2 feet over The downstream roll in order to provide a shingled effect. The overlap ensures fabric continuity or the fabric continuity or the fabric conforms to the excavation surface during aggregate Placement and compaction.

Overlapping and covering:

amended by the 1988 supplement.

- following aggregate placement, the fabric previously weighted by stones should be folded over the aggregate to form an 18" minimum longitudinal lap. The desired fill soil should be placed over the lap at sufficient intervals to maintain the lap during subsequent Backfiling

Voids behind fabric:

- voids can be created between the fabric and excavation sides and should be avoided, removing boulders or other obstacles from the trench walls is one source of such voids. Natural soils should be placed in these voids at the most convenient time during construction to ensure fabric conformity to the excavation sides. Soil piping, fabric clogging, and possible surface subsidence will be avoided by this remedial process.

Care of Water During Construction

All work on permanent structures shall be carried out in areas free from water The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works.

The contractor shall also furnish, install, operate and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation and other parts of the work free from water as required or directed by the engineer for temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere

in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction

Stone and sand for SWM Facility shall be as shown on these plans and in accordance with the latest MSHA Standards.

Stone shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and

The stone shall be placed to the required thickness in one operation. The stone shall be delivered and placed in a manner that will insure the stone in place, shall be reasonably homogeneous with the larger stones uniformly distributed and firmly in contact one to another with the smaller stones filling the voids between the larger stones. Filter cloth shall be placed under all stone and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section

Aggregate placement and compaction:

Drainage aggregate shall be placed in lifts and compacted using plate compactors, as a rule of thumb, a maximum loose lift thickness of 12 in. Is recommended. The compaction process ensures fabric conformity to the excavation sides, thereby reducing the potential for soil piping and fabric Contamination:

Care shall be exercised to prevent natural or fill soils from intermixing with the drainage Aggregate. All contaminated aggregate shall be removed and replaced with uncontaminated aggregate. shall be removed and replaced with uncontaminated material meeting these

CARE OF WATER DURING CONSTRUCTION

ALL WORK ON PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DIKES, LEVEES, COFFERDAMS, DRAINAGE CHANNELS, AND STREAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE

THE CONTRACTOR SHALL ALSO FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL NECESSARY PUMPING AND OTHER EQUIPMENT REQUIRED FOR REMOVAL OF WATER FROM THE VARIOUS PARTS OF THE WORK AND FOR MAINTAINING THE EXCAVATIONS, FOUNDATION, AND OTHER PARTS OF THE WORK FREE FROM WATER AS REQUIRED OR DIRECTED BY THE ENGINEER FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE, ALL TEMPORARY PROTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION IN ANY DEGREE WHATSOEVER OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS AND SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. STREAM DIVERSIONS SHALL BE MAINTAINED UNTIL THE FULL FLOW CAN BE PASSED THROUGH THE PERMANENT WORKS. THE REMOVAL OF WATER FROM THE REQUIRED EXCAVATION AND THE FOUNDATION SHALL BE ACCOMPLISHED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND BOTTOM OF REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF MATERIAL IN REQUIRED EXCAVATIONS, THE WATER LEVEL AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER TO SUMPS FROM WHICH THE WATER SHALL BE PUMPED.

EROSION AND SEDIMENT CONTROL

EROSION AND SEDIMENT CONTROL CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED AND WATER AND AIR POLLUTION MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED. CONSTRUCTION PLANS POLLUTION MINIMIZED. CONSTRUCTION PLANS SHALL DETAIL EROSION AND SEDIMENT CONTROL MEASURES TO BE EMPLOYED DURING THE CONSTRUCTION PROCESS.

GEOTEXTILE SPECIFICATIONS

geotextile fabric (if required)	ASTM-D-4833 (puncture strength - 125 lb.) ASTM-D-4632 (Tensile Strength - 300 lb.)	0.08" thick equivalent opening size of #80 sieve	Must maintain 125 gpm per sq. ft. flow rate. Note: a 4" pea gravel layer may be substituted for geotextiles meant to "separate" sand filte layers.			
impermeable liner (if required)	ASTM-D-4833 (thickness) ASTM-D-412 (tensile strength 1,100 lb., elongation 200%) ASTM-D-624 (Tear resistance - 150 lb./in) ASTM-D-471 (water adsorption: +8 to -2% mass)	30 mil thickness	Liner to be ultraviolet resistant. A geotextile fabric should be used to protect the liner from puncture.			
underdrain piping	F 758, Type PS 28 or AASHTO-M- 278	4" - 6" rigid schedule 40 PVC or SDR35	3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes			
concrete (cast-in-place)	MSHA Standards and Specs. Section 902, Mix No. 3, f'c = 3500 psi, normal weight, air-entrained; re-inforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or precast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland			
concrete (pre-cast)	per pre-cast manufacturer	n/a	SEE ABOVE NOTE			
non-rebar steel	ASTM A-36	n/a	structural steel to be hot-dipped galvanized ASTM-A-123			





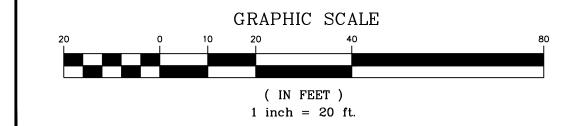
SWM AS-BUILT CERTIFICATION SUBMITTAL 11/23/2021

ESD #7533

STORMWATER MANAGEMENT CONSTRUCTION SPECIFICATIONS

ST. FRANCIS NEIGHBORHOOD CENTER 2401-09 LINDEN AVENUE

WARD 13, SECTION 10, BLOCK 3463-A, LOTS 1, 2, 3, & 4 BALTIMORE CITY, MARYLAND

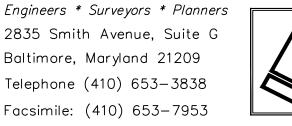


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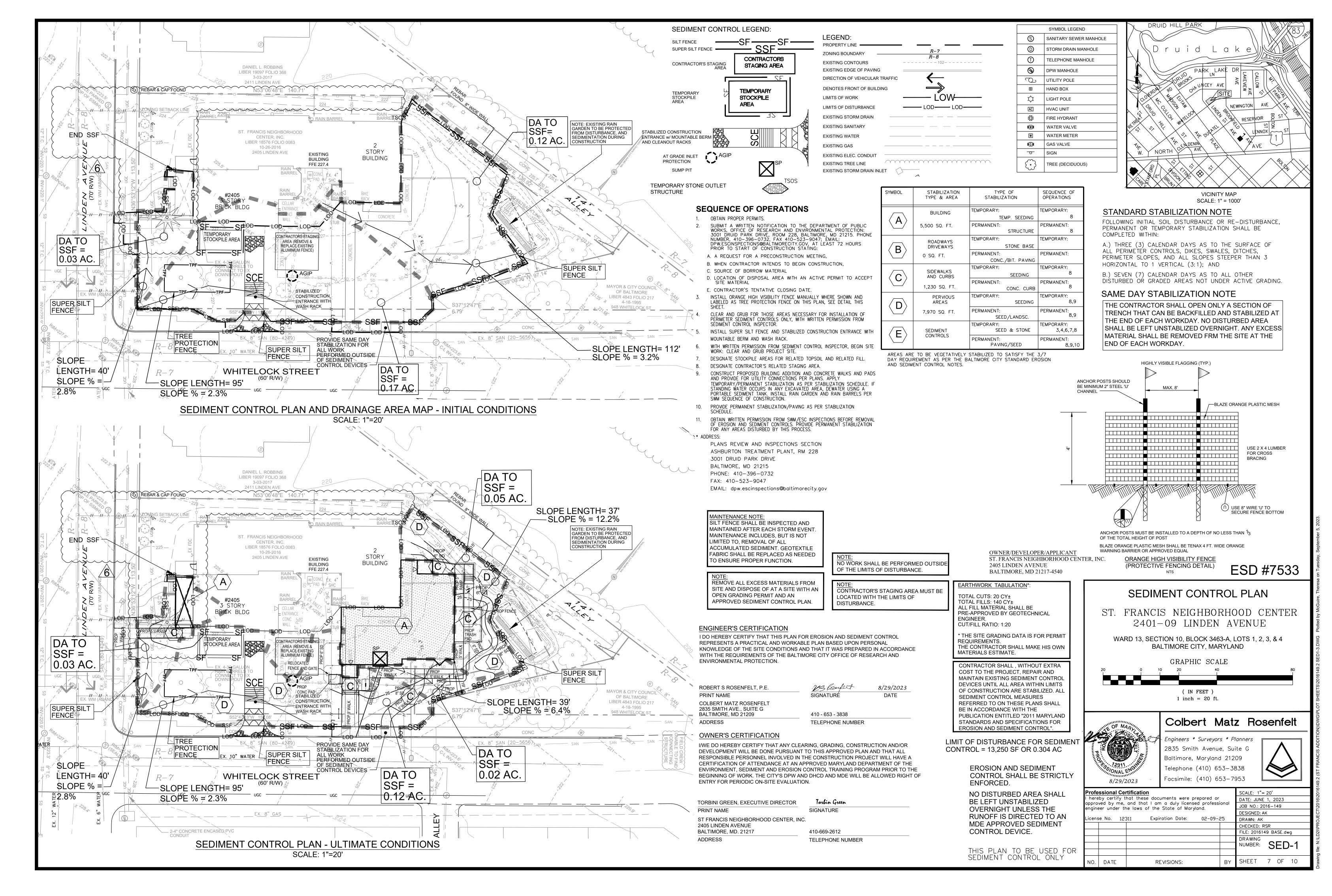


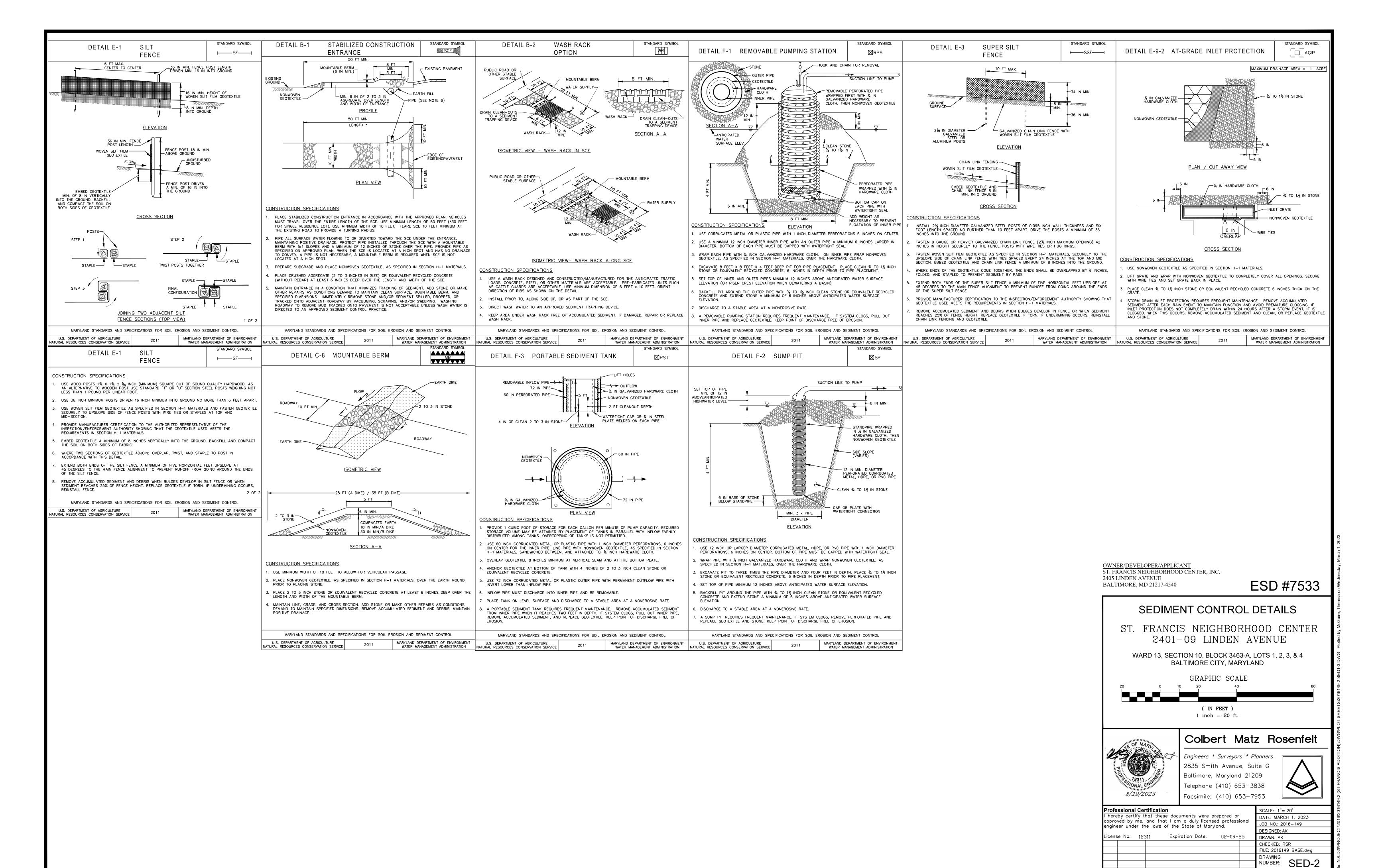
Colbert Matz Rosenfelt

2835 Smith Avenue, Suite G Baltimore, Maryland 21209 Telephone (410) 653-3838



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SHEET 8 OF 10

REVISIONS:

B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

<u>Definition</u>

Using vegetation as cover to protect exposed soil from erosion.

<u>Purpose</u>

To promote the establishment of vegetation on exposed soil.

Conditions Where Practice Applies

On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization: soil preparation, soil amendments and topsoiling; seeding and mulching: temporary stabilization; and permanent stabilization

Effects on Water Quality and Quantity

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation will increase organic matter content and improve the water nolding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

Adequate Vegetative Establishment

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

- Adequate vegetative stabilization requires 95 percent groundcover.
- If an area has less than 40 percent groundcover, restabilize following the original

recommendations for lime, fertilizer, seedbed preparation, and seeding.

- If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates originally specified.
- Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

Establishment of vegetative cover on cut and fill slopes.

To provide timely vegetative cover on cut and fill slopes as work progresses.

Conditions Where Practice Applies

Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

A. Incremental Stabilization - Cut Slopes

- Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work
- Construction sequence example (Refer to Figure B.1): a. Construct and stabilize all temporary swales or dikes that will be used to
- convey runoff around the excavation. Perform Phase 1 excavation, prepare seedbed, and stabilize.
- Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1
- areas as necessary. Perform final phase excavation, prepare seedbed, and stabilize. Overseed

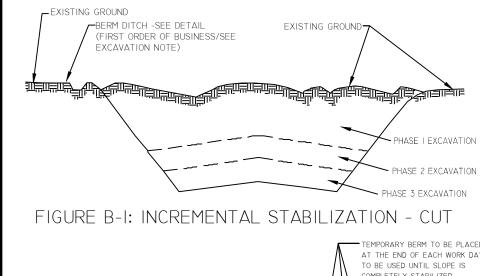
previously seeded areas as necessary. Note: Once excavation has begun the operation should be continuous from grubbing through the

completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

B. Incremental Stabilization - Fill Slopes

- Construct and stabilize fill slopes in increments not to exceed 15 feet in height. repare seedbed and apply seed and mulch on all slopes as the work progresses. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or
- when the grading operation ceases as prescribed in the plans At the end of each day, install temporary water conveyance practice(s), as
- necessary, to intercept surface runoff and convey it down the slope in a non-erosive
- Construction sequence example (Refer to Figure B.2):
- a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area.
- b. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a
- non-erosive manner Place Phase 1 fill, prepare seedbed, and stabilize.
- Place Phase 2 fill, prepare seedbed, and stabilize. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Anv interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.



SEE DETAIL(FIRST

FIGURE B-2: INCREMENTAL STABILIZATION-FILL

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION. TOPSOILING, AND SOIL AMENDMENTS

The process of preparing the soils to sustain adequate vegetative stabilization.

To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies

Where vegetative stabilization is to be established.

A. Soil Preparation

- Temporary Stabilization a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
- b. Apply fertilizer and lime as prescribed on the plans Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or
- other suitable means. Permanent Stabilization
 - a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are: Soil pH between 6.0 and 7.0.
 - Soluble salts less than 500 parts per million (ppm). Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a
 - noderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
 - Soil contains 1.5 percent minimum organic matter by weight. Soil contains sufficient pore space to permit adequate root penetration. b. Application of amendments or topsoil is required if on-site soils do not meet
- the above conditions c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5
- d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
- e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth Soils of concern have low moisture content, low nutrient levels, low pH, materials

- toxic to plants, and/or unacceptable soil gradation. 2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
- 3. Topsoiling is limited to areas having 2:1 or flatter slopes where: a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
- The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients. The original soil to be vegetated contains material toxic to plant growth.
- The soil is so acidic that treatment with limestone is not feasible. Areas having slopes steeper than 2:1 require special consideration and design. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria: Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less
- sticks, roots, trash, or other materials larger than 1½ inches in diameter. b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass. quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as

than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel,

- specified. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval
- authority, may be used in lieu of natural topsoil. Topsoil Application
- a. Erosion and sediment control practices must be maintained when applying b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from
- topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets. c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.
- C. Soil Amendments (Fertilizer and Lime Specifications)
- Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
- Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
- 3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
- Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5
- inches of soil by disking or other suitable means. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

Permanent Seeding Summary

RYEGRASS

1	rdiness Zone (fr ed Mixture (from	,	: 7a			ertilizer Rate 10-20-20)		Lime Rate
Mix	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths (in)	N	P ₂ O ₅	K₂O	
8	TALL FESCUE	100	0/45 4/00		45 lb/ac	90 lb/ac	90 lb/ac	2 tons/ac
9	TALL FESCUE OR	60	2/15-4/30 8/15-11/30	$\frac{1}{4} - \frac{1}{2}$ in	(1.0 lb/1000 sf)	(2 lb/1000 sf)	(2 lb/1000 sf)	(90 lb/1000 sf)
	HARD FESCUE AND ADD	40						
	KENTUCKY BLUEGRASS	40						
	AND PERENNIAL	20						

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

<u>Definition</u>

The application of seed and mulch to establish vegetative cover.

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading. <u>Criteria</u>

- Specifications All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
- Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when
- the ground thaws. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less
- d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.
- a. Dry Seeding: This includes use of conventional drop or broadcast spreaders. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries
- ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.
- Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after
- Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed
- should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P2O5 (phosphorous), 200 pounds per acre; K2O (potassium), 200 pounds per acre. Lime: Use only ground agricultural limestone (up to 3 tons per acre

i. If fertilizer is being applied at the time of seeding, the application rates

- may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding iii. Mix seed and fertilizer on site and seed immediately and without
- v. When hydroseeding do not incorporate seed into the soil.

B. Mulching Mulch Materials (in order of preference)

and fertilizer).

- Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as
- specified in the Maryland Seed Law and not musty, moldy, caked, decayed or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.
- Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the
- uniformly spread slurry. ii. WCFM, including dye, must contain no germination or growth inhibiting
- iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass
- iv. WCFM material must not contain elements or compounds at concentration levels that will be phyto-toxic. WCFM must conform to the following physical requirements: fiber

length of approximately 10 millimeters, diameter approximately 1

- millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum. Application Apply mulch to all seeded areas immediately after seeding. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to
 - achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons
 - of water. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and
 - erosion hazard: i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
 - binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA 70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches

Wood cellulose fiber may be used for anchoring straw. Apply the fiber

mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

<u>Definition</u>

To stabilize disturbed soils with vegetation for up to 6 months.

<u>Criteria</u>

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

- Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates
- must be put on the plan. 2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding. 3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding

Temporary Seeding Summary

	rdiness Zone (fi ed Mixture (fron	Fertilizer Rate	Lime Rate			
Mix	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths (in)	(10-20-20)	
Mix	CEREAL RYE	112	2/15-4/30 8/15-12/15	1.0	436 lb/ac	2 tons/ac
Mix	FOXTAIL MILLET	30	5/1-8/15	0.5	(10 lb/1000 sf)	

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation.

Exposed soils where ground cover is needed for 6 months or more.

<u>Purpose</u>

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Criteria

A. Seed Mixtures

- General Use a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary.
 - The Summary is to be placed on the plan Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA- NRCS Technical Field Office Guide. Section 342 Critical Area Planting
 - For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3

½ pounds per 1000 square feet (150 pounds per acre) at the time of seeding

- in addition to the soil amendments shown in the Permanent Seeding Turfgrass Mixtures a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and
 - Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky
 - Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three
 - Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight. iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square
 - feet. One or more cultivars may be blended Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality. intensively managed turf area. Mixture includes: Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1½ to 3 pounds per 1000 square feet.
 - Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"
 - Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line
- Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove

(Hardiness Zones: 7a, 7b)

c. Ideal Times of Seeding for Turf Grass Mixtures

stones and debris over 1½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty. e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

grasp on the upper 10 percent of the section.

soil scientist prior to its installation.

would cause air drying of the roots.

and the underlying soil surface.

within eight hours.

adequate moisture content

erosion, sedimentation, and changes to drainage patterns.

on the erosion and sediment control plan.

covered with impermeable sheeting.

in accordance with Section B-3 Land Grading.

Access the stockpile area from the upgrade side.

discharging concentrated flow in a non-erosive manner

Conditions Where Practice Applies

Sod Maintenance

<u>Definition</u>

<u>Purpose</u>

<u>Maintenance</u>

mulch and aggregate).

rom the runoff of these areas

Conditions where practice applies

Sod Installation

General Specifications a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be

c. Standard size sections of sod must be strong enough to support their own

Sod must not be harvested or transplanted when moisture content

lightly irrigate the subsoil immediately prior to laying the sod.

(excessively dry or wet) may adversely affect its survival.

weight and retain their size and shape when suspended vertically with a firm

Sod must be harvested, delivered, and installed within a period of 36 hours.

a. During periods of excessively high temperature or in areas having dry subsoil,

more uniform growth and strength. Ensure that sod is not stretched or

Lay the first row of sod in a straight line with subsequent rows placed parallel

to it and tightly wedged against each other. Stagger lateral joints to promote

overlapped and that all joints are butted tight in order to prevent voids which

Wherever possible, lay sod with the long edges parallel to the contour and

with staggering joints. Roll and tamp, peg or otherwise secure the sod to

prevent slippage on slopes. Ensure solid contact exists between sod roots

Water the sod immediately following rolling and tamping until the underside of

Complete the operations of laying, tamping and irrigating for any piece of sod

the new sod pad and soil surface below the sod are thoroughly wet.

a. In the absence of adequate rainfall, water daily during the first week or as

inches. Water sod during the heat of the day to prevent wilting.

grass height of at least 3 inches unless otherwise specified.

A mound or pile of soil protected by appropriately designed erosion and sediment control

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

To provide a designated location for the temporary storage of soil that controls the potential for

1. The stockpile location and all related sediment control practices must be clearly indicated

Runoff from the stockpile area must drain to a suitable sediment control practice.

Where runoff concentrates along the toe of the stockpile fill, an appropriate

erosion/sediment control practice must be used to intercept the discharge.

The stockpile area must continuously meet the requirements for Adequate Vegetative

4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

B-4-7 STANDARDS AND SPECIFICATIONS FOR HEAVY USE AREA PROTECTION

The stabilization of areas frequently and intensively used by surfacing with suitable materials (e.g.

To provide a stable, non-eroding surface for areas frequently used and to improve the water quality

This practice applies to intensively used areas (e.g. equipment and material storage, staging areas,

1. A minimum 4-inch base course of crushed stone or other suitable materials including wood

chips over nonwoven geotextile should be provided as specified in Section H-1 materials.

3. The transport of sediments, nutrients, oils chemicals, particulate matter associated with

reduce the flow length of runoff or erosive velocities need to be considered

2. Select the stabilizing material based on the intended use, desired maintenance frequency, and

vehicular traffic and equipment, and material storage needs to be considered in the selection of

material. Additional control measures may be necessary to control some of these potential

4. Surface erosion can be a problem on large heavy use areas. in these situations, measures to

The heavy use areas must be maintained in a condition that minimizes erosion. This may require

adding suitable material, as specified on the approved plans, to maintain a clean surface.

Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be

maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the

vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for

The footprint of the stockpile must be sized to accommodate the anticipated volume of

Clear water runoff into the stockpile area must be minimized by use of a diversion device

Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as

well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary

8. If the stockpile is located on an impervious surface, a liner should be provided below the

stockpile to facilitate cleanup. Stockpiles containing contaminated material must be

such as an earth dike, temporary swale or diversion fence. Provisions must be made for

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

b. After the first week, sod watering is required as necessary to maintain

often and sufficiently as necessary to maintain moist soil to a depth of 4

c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf

must be removed by the initial cutting or subsequent cuttings. Maintain a

Sod not transplanted within this period must be approved by an agronomist or

- made available to the job foreman and inspector. Sod must be machine cut at a uniform soil thickness of 3/4 inch, plus or minus EROSION MANUAL AND BALTIMORE CITY CODE ARTICLE 7 1/4 inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be
 - 2. SUBMIT A WRITTEN NOTIFICATION TO: THE DEPARTMENT OF PUBLIC WORKS OFFICE OF RESEARCH AND ENVIRONMENTAL PROTECTION: 3001 DRUID PARK DRIVE, ROOM 228, BALTIMORE, MD 21215, PHONE NUMBER, 410-396-0732 FAX, 410-523-9047, dpw.escinspections@baltimorecity.gov AT LEAST 72
 - A. A REQUEST FOR A RECONSTRUCTION MEETING,
 - B. WHEN THE CONTRACTOR INTENDS TO BEGIN CONSTRUCTION,
 - D. LOCATION OF DISPOSAL AREA WITH AN ACTIVE PERMIT FOR THE
 - E. CONTRACTOR'S TENTATIVE CLOSING DATE.
 - 3. INITIAL DISTURBANCE WILL BE LIMITED TO THAT NECESSARY TO GAIN ENTRANCE TO THE SITE AND INSTALL NECESSARY SEDIMENT CONTROLS AS
 - WITHIN THREE CALENDAR DAYS. ALL OTHER INACTIVE DISTURBED AREAS ON
 - 5. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE WHENEVER POSSIBLE AND CONFINED TO AN AREA WHERE IT WILL NOT OBSTRUCT THE
 - 6. PUMPING OF SEDIMENT LADEN WATER WILL NOT BE ALLOWED UNLESS IT IS FILTERED BY WAY OF AN APPROVED SEDIMENT TRAPPING DEVICE.
 - DEVICES IS MANDATORY. 8. ANY SEDIMENT CONTROL DEVICES DISTURBED DURING UTILITY CONSTRUCTION
 - MUST BE RESTORED IMMEDIATELY.
 - TRACKING OF MUD ON TO PUBLIC RIGHT-OF-WAYS. 10. ANY EARTH, GRAVEL, AND/OR OTHER MATERIAL TRACKED, SPILLED OR WASHED ON TO ADJACENT ROADS MUST BE IMMEDIATELY REMOVED AND
 - MATERIAL MUST BE REMOVED BY MEANS OF SHOVELING AND SWEEPING. 11. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 5,000 SQ. FT THE CONTRACTOR SHALL HAVE A BALTIMORE CITY SWM/ESC INSPECTOR INSPECT AND APPROVE THE WORK COMPLETED AT THE STAGES OF
 - A. UPON COMPLETION OF THE INSTALLATION OF THE PERIMETER SEDIMENT CONTROLS;
- 12. THE CONTRACTOR SHALL NOT DEVIATE FROM THE APPROVED SEDIMENT AND EROSION CONTROL PLAN WITHOUT FIRST RECEIVING APPROVAL FROM material and based on a side slope ratio no steeper than 2:1. Benching must be provided THE OFFICE OF RESEARCH AND ENVIRONMENTAL PROTECTION. VARIATIONS TO THE ORIGINAL PLAN MUST BE SUBMITTED IN WRITING WITH ALL PROPOSED MODIFICATIONS STILL BEING HIGHLIGHTED. SUBSTANTIAL CHANGES WILL NECESSITATE AMENDMENT OF THE GRADING / BUILDING PERMIT

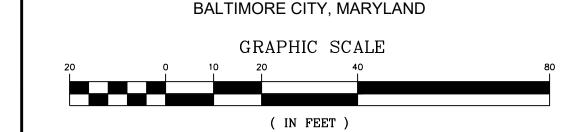
OWNER/DEVELOPER/APPLICANT ST. FRANCIS NEIGHBORHOOD CENTER, INC. 2405 LINDEN AVENUE BALTIMORE, MD 21217-4540

ESD #7533

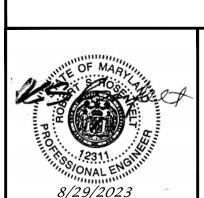
SEDIMENT CONTROL **SPECIFICATIONS AND NOTES**

ST. FRANCIS NEIGHBORHOOD CENTER 2401-09 LINDEN AVENUE

WARD 13, SECTION 10, BLOCK 3463-A, LOTS 1, 2, 3, & 4



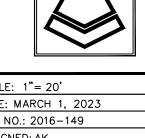
1 inch = 20 ft.



Colbert Matz Rosenfelt

Engineers * Surveyors * Planners 2835 Smith Avenue, Suite G Baltimore, Maryland 21209 Telephone (410) 653-3838

Facsimile: (410) 653-7953

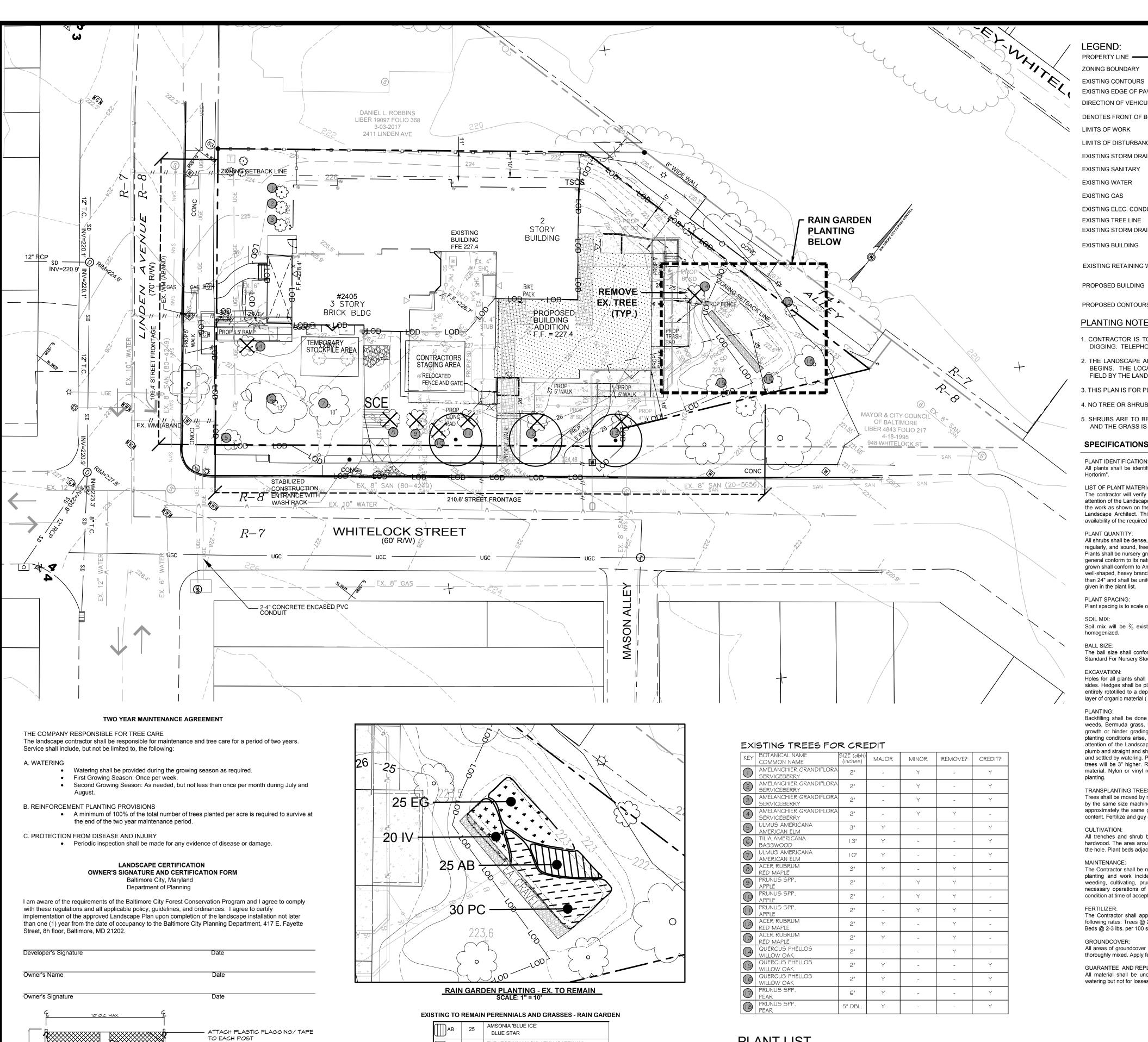


CALE: 1"= 20' rofessional Certification hereby certify that these documents were prepared or ATE: MARCH 1, 2023 approved by me, and that I am a duly licensed professional IOB NO.: 2016-149 engineer under the laws of the State of Maryland. ESIGNED: AK icense No. 12311 Expiration Date: 02-09-25 RAWN: AK HECKED: RSR ILE: 2016149 BASE.dwg RAWING NUMBER: SED-3 SHEET 9 OF 10 REVISIONS:

EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR WILL COMPLY WITH ALL REQUIREMENTS OF SEDIMENT AND EROSION CONTROL AS SET FORTH IN THE MARYLAND SEDIMENT AND

- HOURS PRIOR TO START OF CONSTRUCTION STATING:
- C. SOURCE OF BORROW MATERIAL,
- RECEIPT OF SITE MATERIAL,
- PER THE APPROVED PLANS.
- 4. ALL SEDIMENT CONTROLS AND CRITICAL SLOPES MUST BE STABILIZED THE PROJECT SITE MUST BE STABILIZED WITHIN SEVEN CALENDAR DAYS.
- NORMAL COURSE OF DRAINAGE.
- 7. CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL
- 9. ALL POINTS OF INGRESS AND EGRESS SHALL BE PROTECTED TO MINIMIZE
- DISPOSED OF IN A PROPER MANNER. NO FLUSHING WILL BE PERMITTED. ALL
- CONSTRUCTION SPECIFIED BELOW:
- B. DURING ALL GRADING AND BUILDING OPERATIONS; C. UPON FINAL STABILIZATION OF THE ENTIRE SITE PRIOR TO REMOVAL OF THE SEDIMENT CONTROLS.



Мав	25	AMSONIA 'BLUE ICE' BLUE STAR
EG	25	EUPATORIUM MACULATUM 'GATEWAY' GATEWAY JOE PYE WEED
××× ××× ×××	20	IRIS VERSICOLOR BLUE FLAG IRIS
PC	30	PANICUM VIRGATUM 'CAPE BREEZE' CAPE BREEZE SWITCHGRASS

TENSION WIRE (TYP.)

- EXISTING GRADE

TREE PROTECTION FENCING (TEMPORARY)

THE SAME PURPOSE, IT MAY BE USED IN PLACE OF THE PROTECTIVE FENCING.

NOTE: TEMPORARY PROTECTIVE FENCING IS TO BE PLACED ALONG THE TREE PRESERVATION LIMITS AS

DEPICTED ON THE PLAN. IF SUPER SILT FENCE IS SCHEDULED FOR THE SAME LOCATION, AND WILL SERVE

TENSION WIRE (TYP.)

AT +50 LF. INTERVALS - WIRE MESH FENCE

TREE PROTECTION SIGN (SEE DETAIL THIS SHEET) SIGNS ARE TO BE PLACED

- POSTS SHALL BE MINIMUM 2" STEEL

USE 8" MIRE 'U' TO SECURE FENCE

PLANT LIST

MAJOR TREES						
KEY	QTY	BOTANICAL NAME COMMON NAME	SIZE	COND.	REMARKS	PU
\odot	3	ULMUS AMERICANA 'PRINCETON' PRINCETON ELM	2" - 2 ½" CAL.	B&B	FULL SPECIMEN, HEADED TO 6' HT	3

LEGEND: ZONING BOUNDARY EXISTING CONTOURS EXISTING EDGE OF PAVING DIRECTION OF VEHICULAR TRAFFIC DENOTES FRONT OF BUILDING LIMITS OF WORK LIMITS OF DISTURBANCE EXISTING STORM DRAIN EXISTING SANITARY EXISTING WATER **EXISTING GAS** EXISTING ELEC. CONDUIT .EXISTING TREE LINE EXISTING STORM DRAIN INLET EXISTING BUILDING

EXISTING RETAINING WALL _____TPF____TPF____TPF____

PROPOSED CONTOURS

PLANTING NOTES:

- 1. CONTRACTOR IS TO NOTIFY MISS UTILITY A MINIMUM OF 72 HOURS PRIOR TO DIGGING. TELEPHONE: 1-800-257-7777.
- 2. THE LANDSCAPE ARCHITECT IS TO BE NOTIFIED 48 HOURS BEFORE PLANTING BEGINS. THE LOCATION OF ALL PLANT MATERIAL IS TO BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT.

3. THIS PLAN IS FOR PLANTING ONLY.

- 4. NO TREE OR SHRUB PLANTING PITS ARE TO BE LEFT OPEN OR UNATTENDED.
- 5. SHRUBS ARE TO BE GROUPED INTO MULCHED BEDS. BEDS ARE TO BE EDGED AND THE GRASS IS TO BE KILLED OR REMOVED PRIOR TO MULCHING.

SPECIFICATIONS FOR PLANTING

All plants shall be identified in accordance with the latest edition of Hortus Third, by "The Staff of the

LIST OF PLANT MATERIALS:

The contractor will verify plant quantities prior to bidding and any discrepancies shall be brought to the attention of the Landscape Architect. The Contractor shall furnish and plant all plants required to complete the work as shown on the drawings. Substitutions shall not be made without the written approval of the Landscape Architect. This contract will be based on the bidder having verified, prior to bidding, the availability of the required plant materials as specified on the Plant List.

PLANT QUANTITY: All shrubs shall be dense, heavy to the ground, and well grown, showing evidence of having been sheared

regularly, and sound, free of plant disease or insect eggs, and shall have a healthy, normal root system. Plants shall be nursery grown. Plants shall not be pruned prior to delivery. The shape of the plant shall in general conform to its natural growth proportions unless otherwise specified. All plants including container

PLANTING PROVIDED grown shall conform to American Standard for Nursery Stock (ANSI z60.1, latest edition), and shall have a well-shaped, heavy branch structure for the species. Evergreen trees are to have an internode no greater than 24" and shall be uniformly well-shaped. All plant sizes shall average at least the middle of the range given in the plant list.

PLANT SPACING:

Plant spacing is to scale on the plan or as shown on the plant list.

Soil mix will be $\frac{2}{3}$ existing soil and $\frac{1}{3}$ LEAFGRO or equal organic material, thoroughly mixed and

The ball size shall conform to the American Association of Nurserymen's publication entitled American Standard For Nursery Stock, ANSI z60.1, latest edition.

Holes for all plants shall be 18" larger in diameter than size of ball or container and shall have vertical sides. Hedges shall be planted in a trench 12" wider than ball diameter. Beds for mass planting shall be entirely rototilled to a depth of 8" and shall be 18" beyond the average outside edge of plant balls. A 2" layer of organic material (i.e., LEAFGRO) will be incorporated into plant beds by tilling again.

Backfilling shall be done with soil mix, reasonably free of stones, subsoil, clay, lumps, stumps, roots, weeds, Bermuda grass, litter, toxic substances, or any other material which may be harmful to plant growth or hinder grading, planting, or maintenance operations. Should any unforeseen or unsuitable planting conditions arise, such as faulty soil drainage or chemical residues, they should be called to the attention of the Landscape Architect and Owner for adjustments before planting. The plant shall be set plumb and straight and shall be staked at the time of planting. Backfill shall be well worked about the roots and settled by watering. Plants will be planted higher than surrounding grade. Shrubs will be 1" higher and trees will be 3" higher. Remove rope from around tree trunks and lay back burlap from top of all B&B material. Nylon or vinyl rope and/or burlap will be completely removed from all plant material prior to

TRANSPLANTING TREES BY TREE MACHINES:

Trees shall be moved by machines that provide a minimum of 9" per 1" of tree caliper. Holes are to be dug by the same size machine as the one transporting the plant. The plant material shall be transplanted in approximately the same growing condition as it is presently growing, in terms of soil type and moisture content. Fertilize and guy as described in these plans and specifications.

CULTIVATION:

All trenches and shrub beds shall be cultivated, edged and mulched to a depth of 3" with shredded hardwood. The area around isolated plants shall be mulched to at least 6" greater diameter than that of the hole. Plant beds adjacent to buildings shall be mulched to the building wall.

MAINTENANCE: The Contractor shall be responsible during the contract and up to the time of acceptance for keeping the

planting and work incidental thereto in good condition, by replanting, plant replacement, watering, weeding, cultivating, pruning and spraying, restaking and cleaning up and by performing all other necessary operations of care for promotion of good plant growth so that all work is in satisfactory condition at time of acceptance, at no additional cost to the Owner.

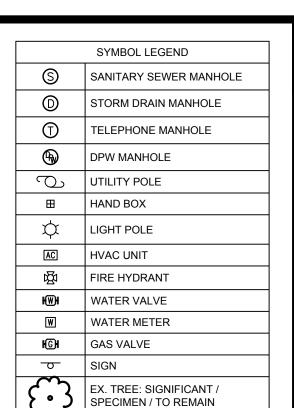
The Contractor shall apply granular fertilizer to the soil mix with 10-6-4 analysis, 50% organic, at the

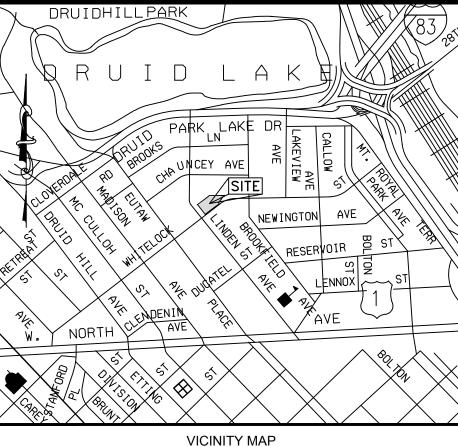
following rates: Trees @ 2-3 lbs. per caliper inch; Shrub Beds @ 3-5 lbs per 100 sq.ft.; and Groundcover Beds @ 2-3 lbs. per 100 sq.ft.

All areas of groundcover shall be rototilled to a depth of 6". Apply 2" of organic material and rototill until thoroughly mixed. Apply fertilizer as stated above.

GUARANTEE AND REPLACEMENT:

All material shall be unconditionally guaranteed for two (2) years. The Contractor is responsible for watering but not for losses or damage caused by mechanical injury or vandalism.





SCALE: 1" = 1000'

10.7 req'd. P.U.'S

BENCHMARK/DATUM

COORDINATES AND NORTH SHOWN HEREON REFER TO THE BALTIMORE CITY HORIZONTAL DATUM. BASED ON THE FOLLOWING BALTIMORE CITY CONTROL STATIONS:

-6,193.947

STATION	NORTHING	EASTING
22145	7.044.618	-5.980.636

6,947.011 ELEVATIONS SHOWN HEREON REFER TO THE BALTIMORE CITY VERTICAL DATUM. BASED ON THE FOLLOWING BALTIMORE CITY BENCHMARK:

BENCHMARK	ELEVATION

PLANTING CALCULATIONS

CON	ELEMENT	RATE	LINEAR FEET	PLANTING UNITS (PU)
F	STREET FRONTAGE & STREETSCAPE	1 PU / 30 LF	320.0 LF	10.7

*PROJECT SITE IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS (AREA IS BELOW 20,000 SF THRESHOLD). IMPACTED SPECIMEN TREES ARE IN POOR CONDITION AND DO NOT REQUIRE MITIGATION.

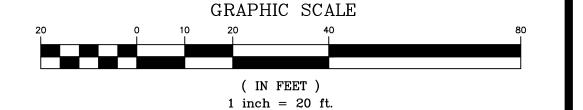
TOTAL REQUIRED

er e	TYPE	RATE	QUANTITY	PLANTING UNITS (PU)
	MAJOR TREE - PROPOSED	1:1	3	3.0
d	MAJOR TREE - EX. TO REMAIN OR BE RELOCATED	1:1	7	7.0
n	MINOR TREE - EX. TO REMAIN	2:1	3	1.5
al	TOTAL PROVIDED		11.5 p	orov'd. P.U.'S

LANDSCAPE PLAN - 1ST AMENDED

ST. FRANCIS NEIGHBORHOOD CENTER 2401-09 LINDEN AVENUE

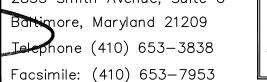
WARD 13, SECTION 10, BLOCK 3463-A, LOTS 1, 2, 3, & 4 BALTIMORE CITY, MARYLAND

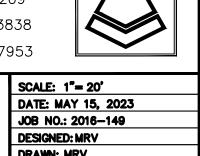




Colbert Matz Rosenfelt

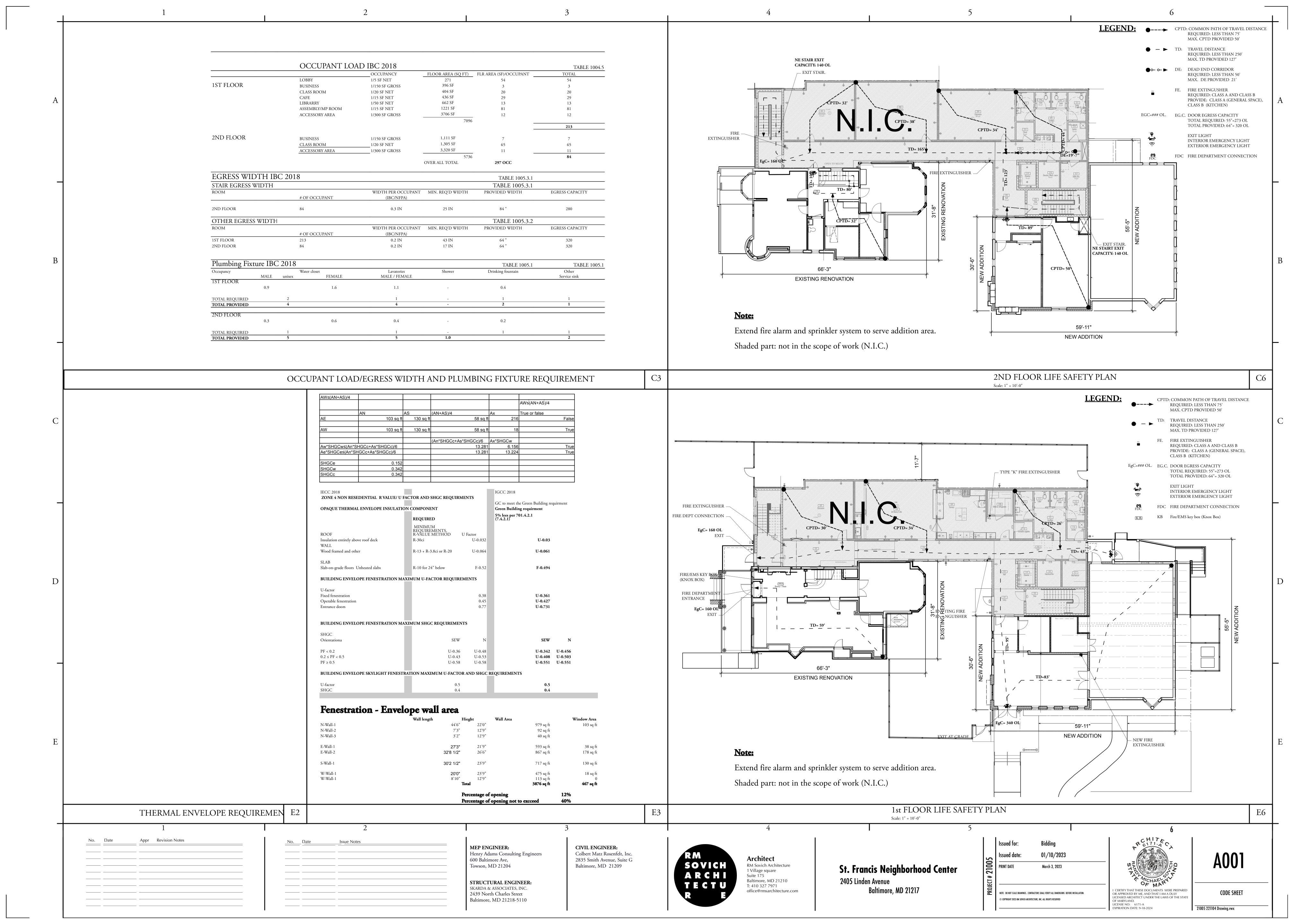
Engineers * Surveyors * Planners 2835 Smith Avenue, Suite G

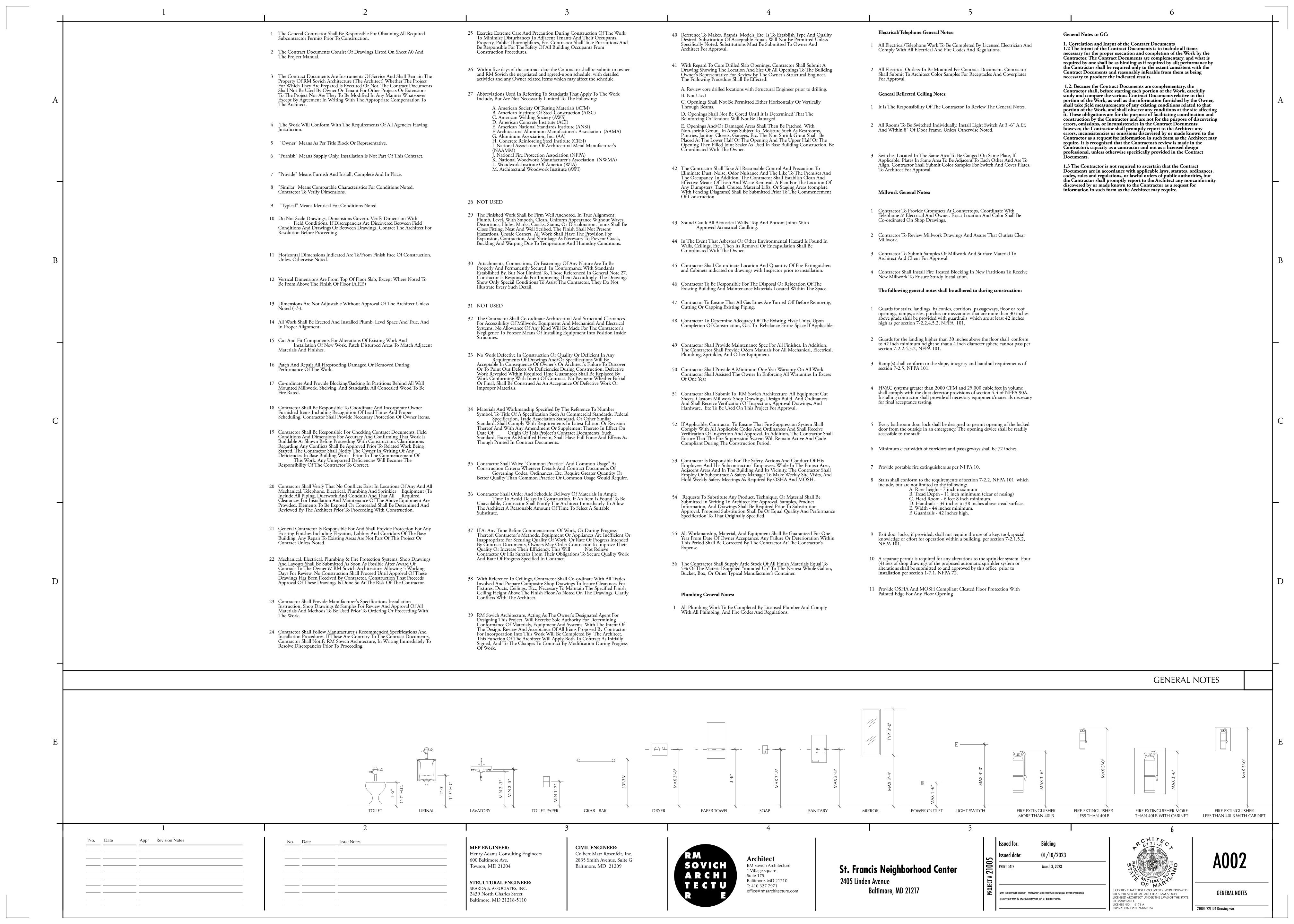


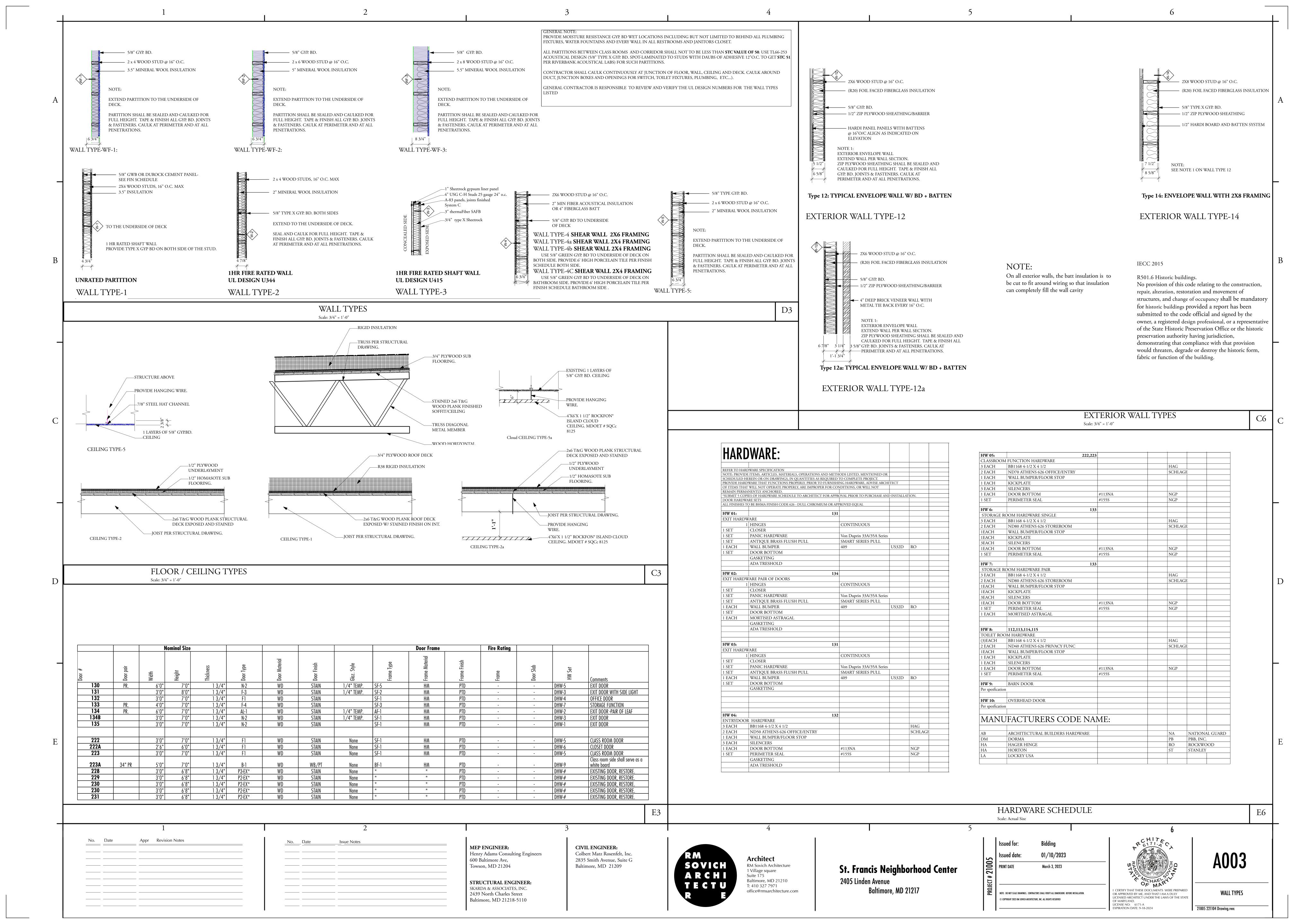


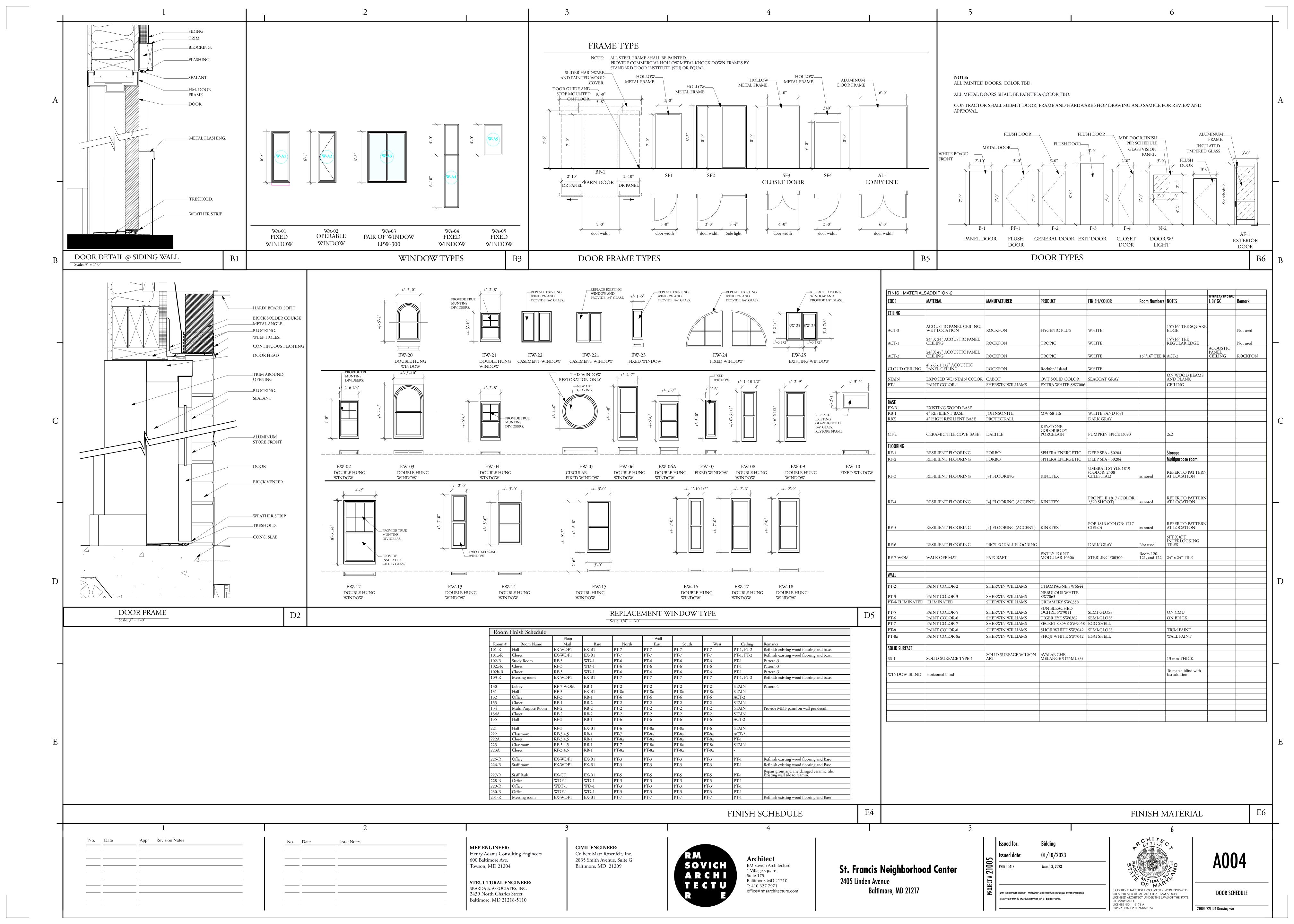
HUMAN & ROHDE, INC. Landscape Architects 512 Virginia Ave. Towson, Maryland 21286 (410) 825-3885 Phone (410) 825-3887 Fax DRAWN: MRV CHECKED: DML **DRAWING** NUMBER: | _1 BY SHEET 1 OF 1 **REVISIONS:**

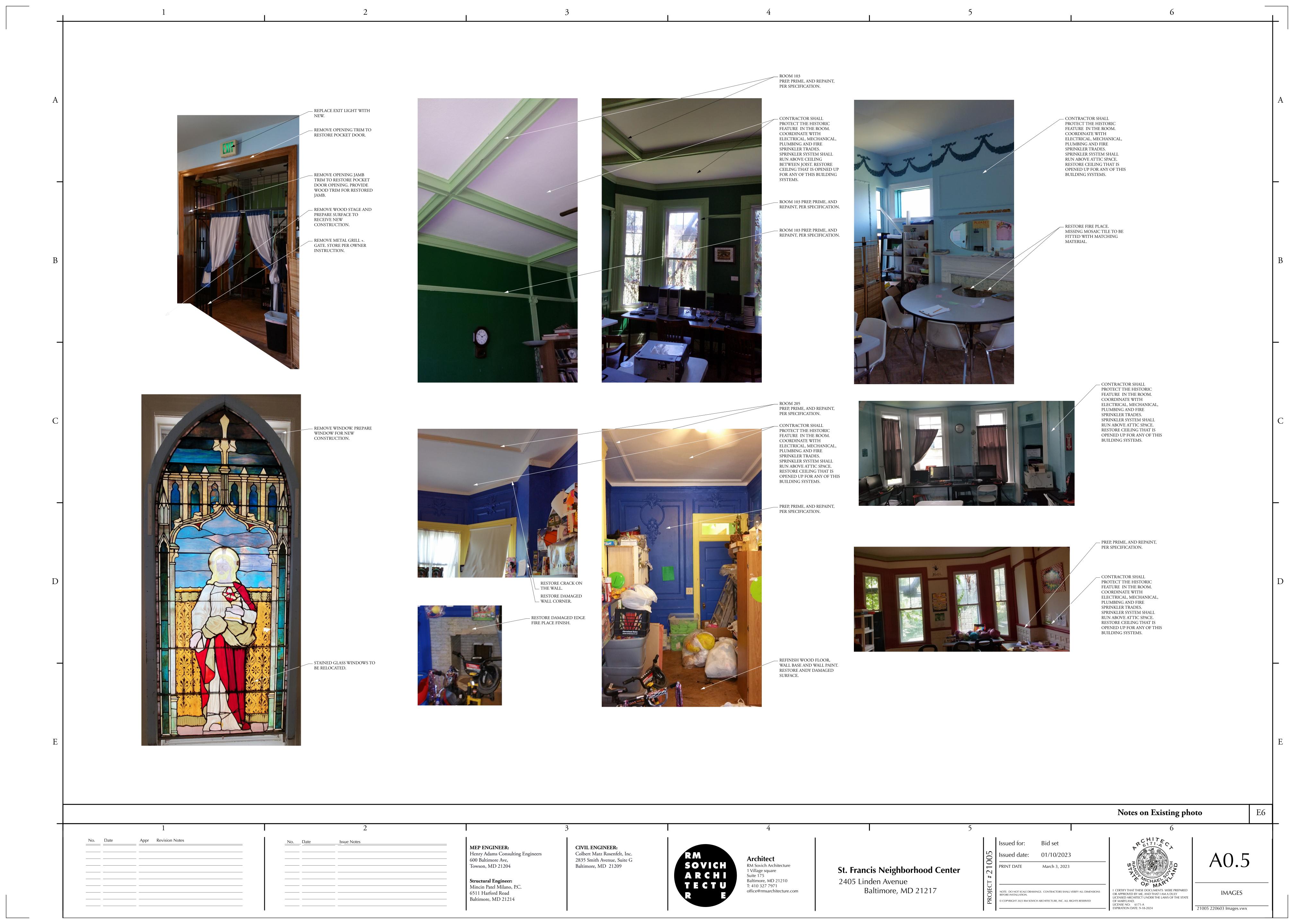
OWNER/DEVELOPER/APPLICANT ST. FRANCIS NEIGHBORHOOD CENTER, INC. 2405 LINDEN AVENUE BALTIMORE, MD 21217-4540

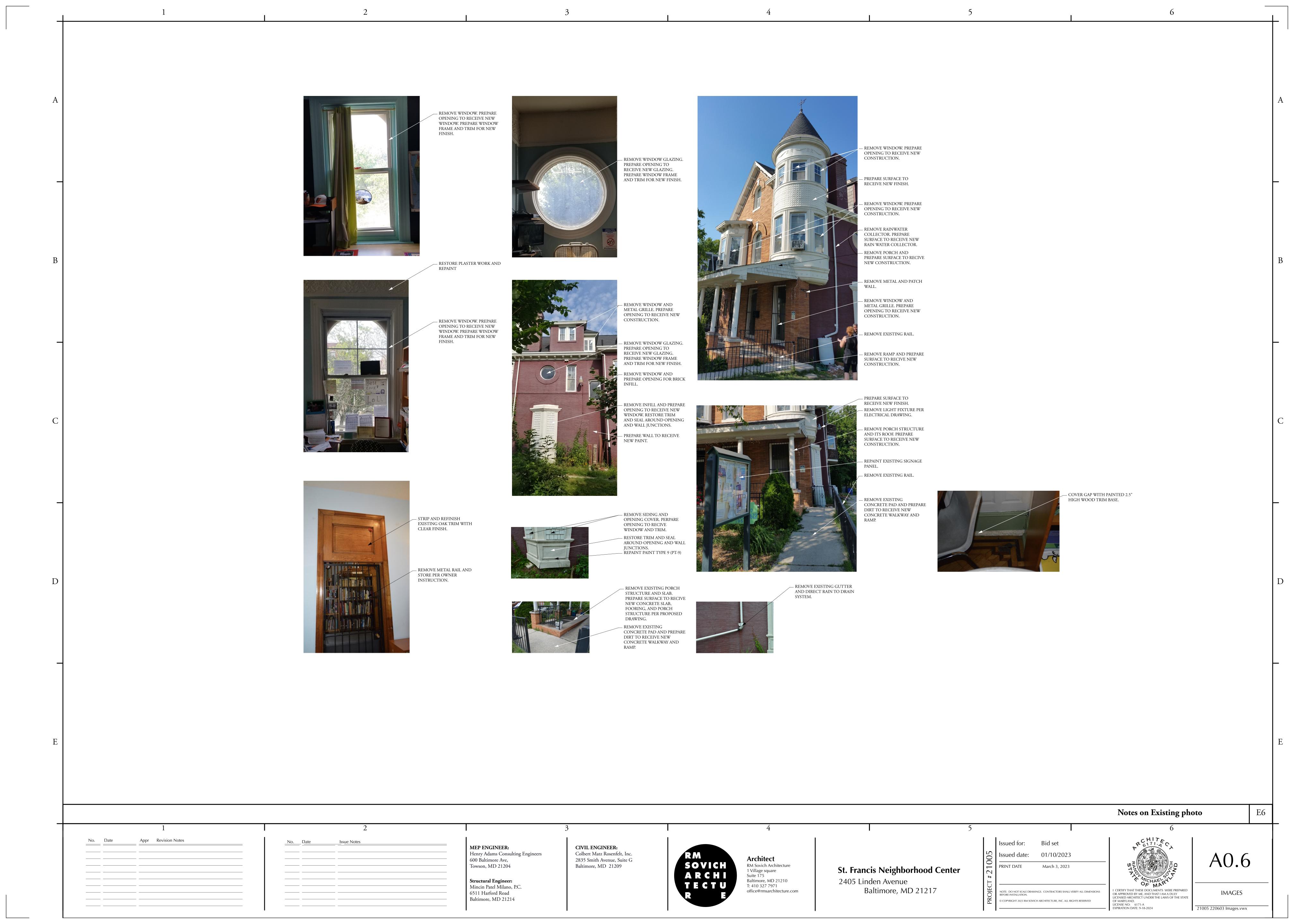


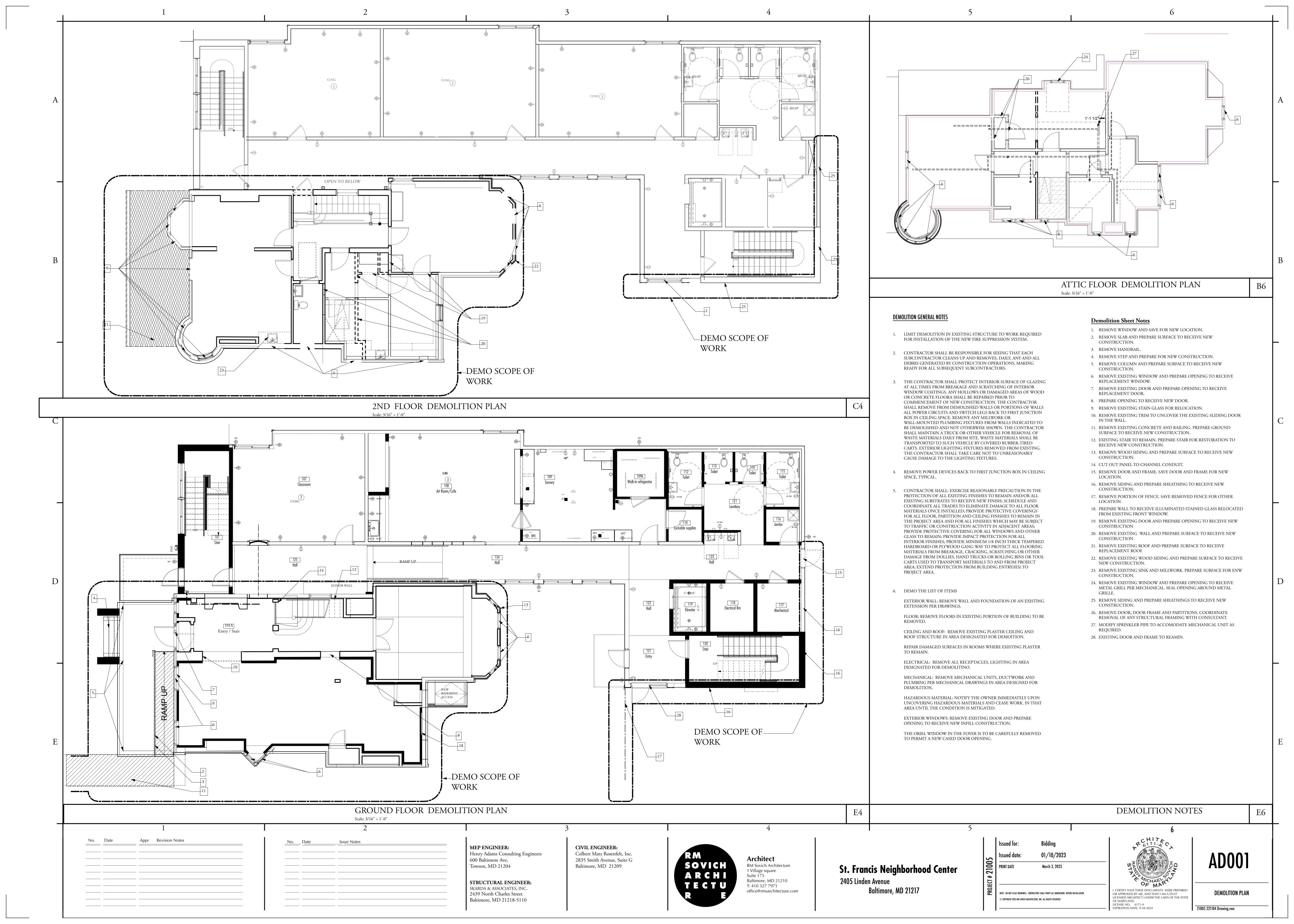


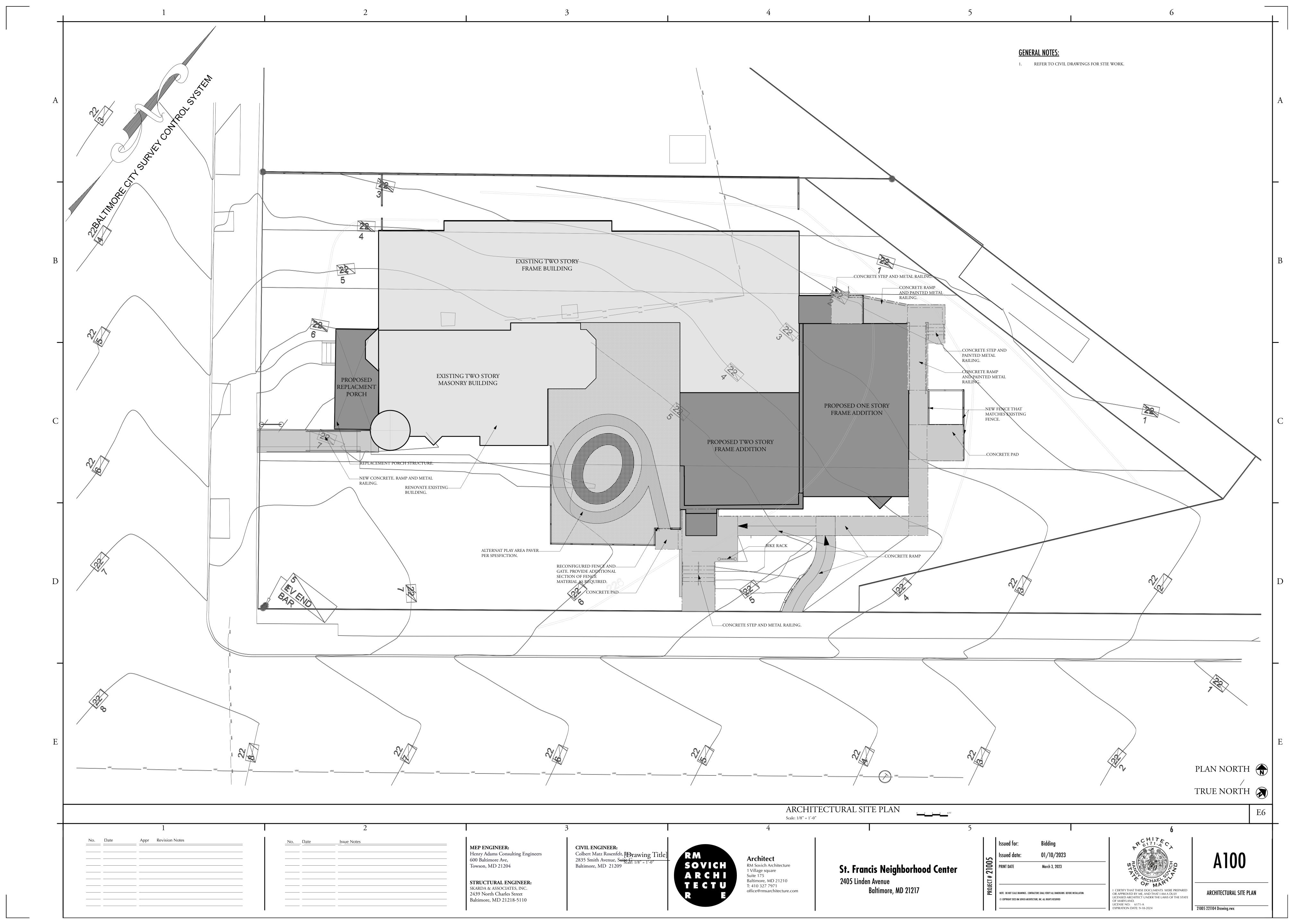


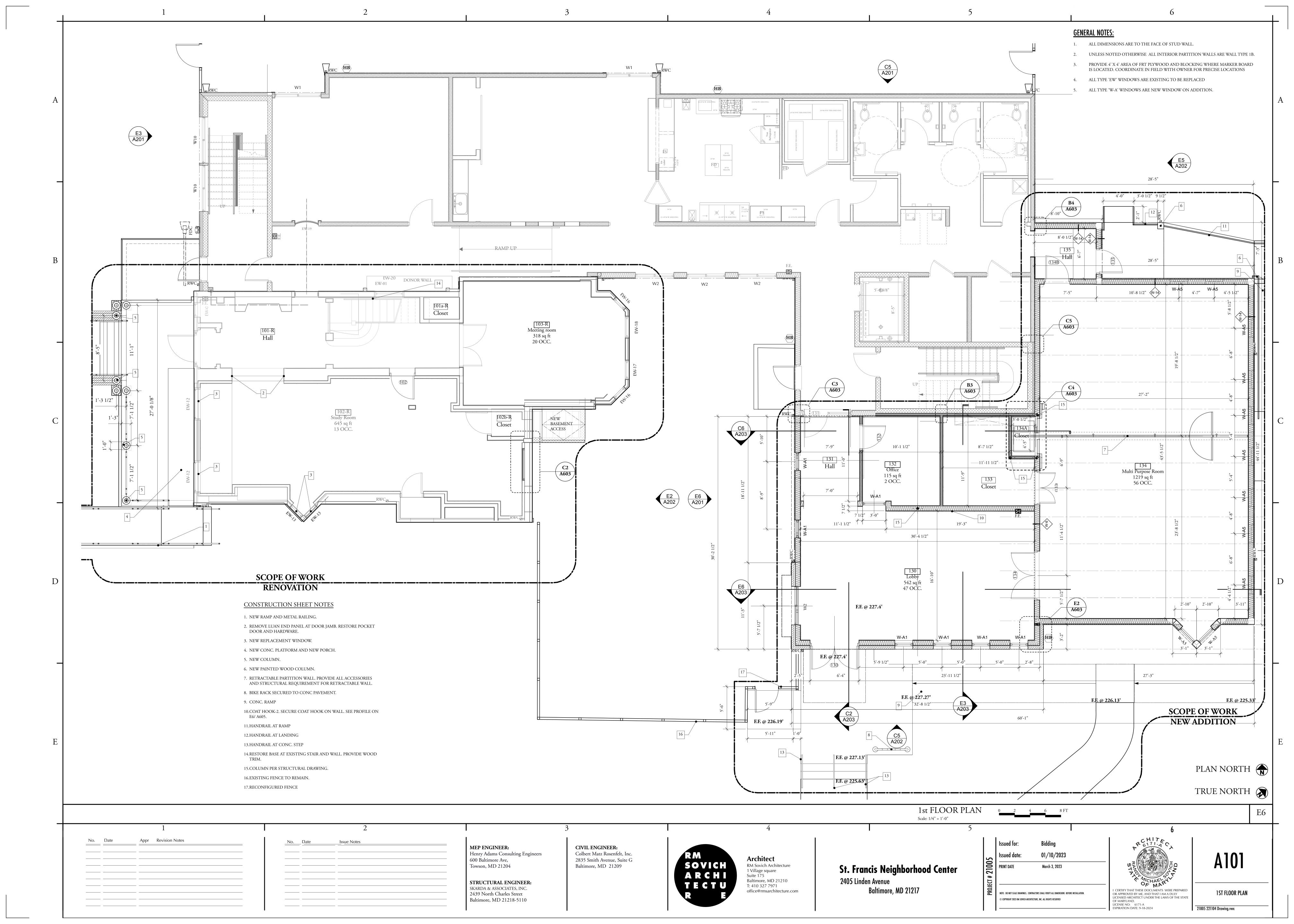


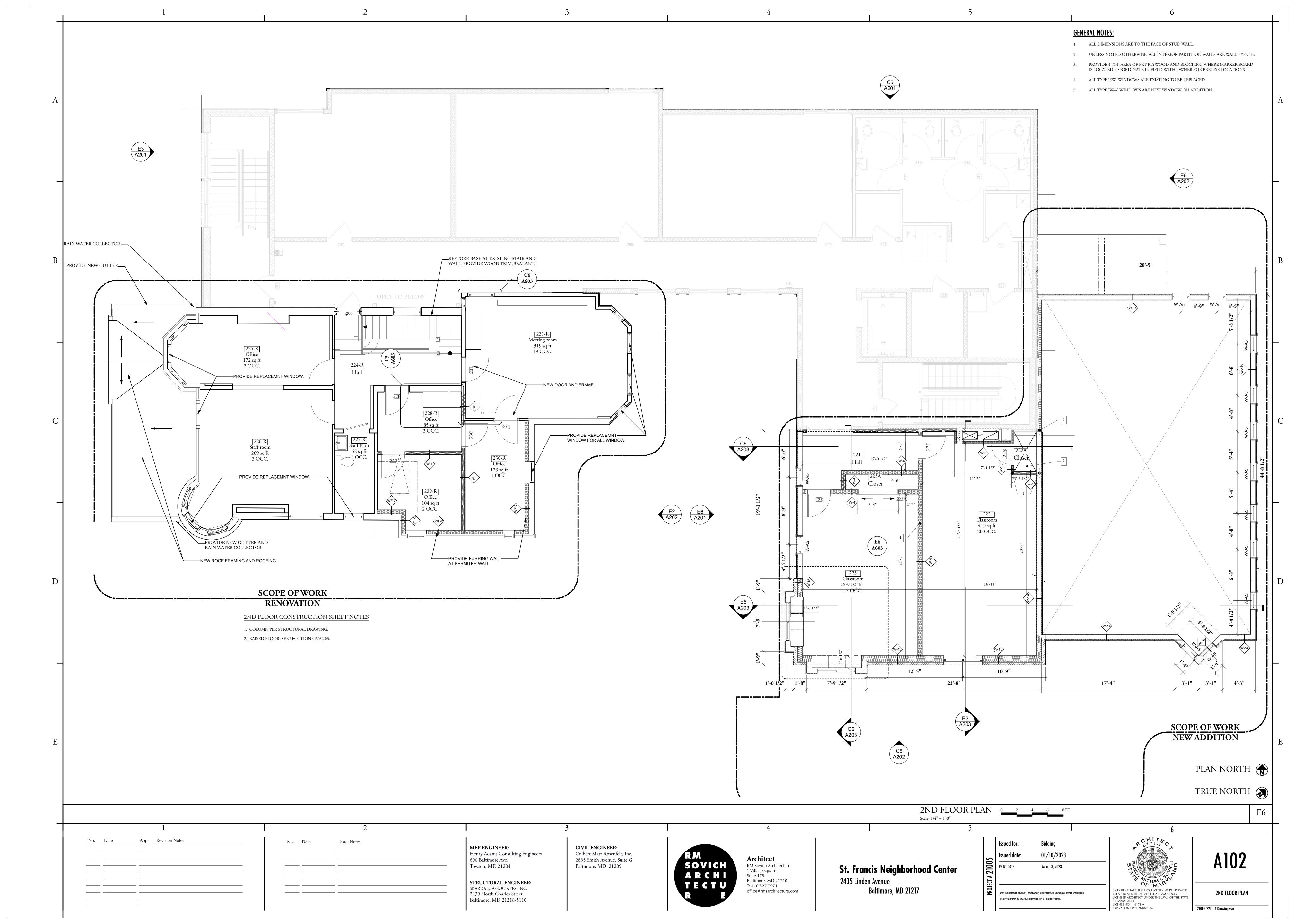


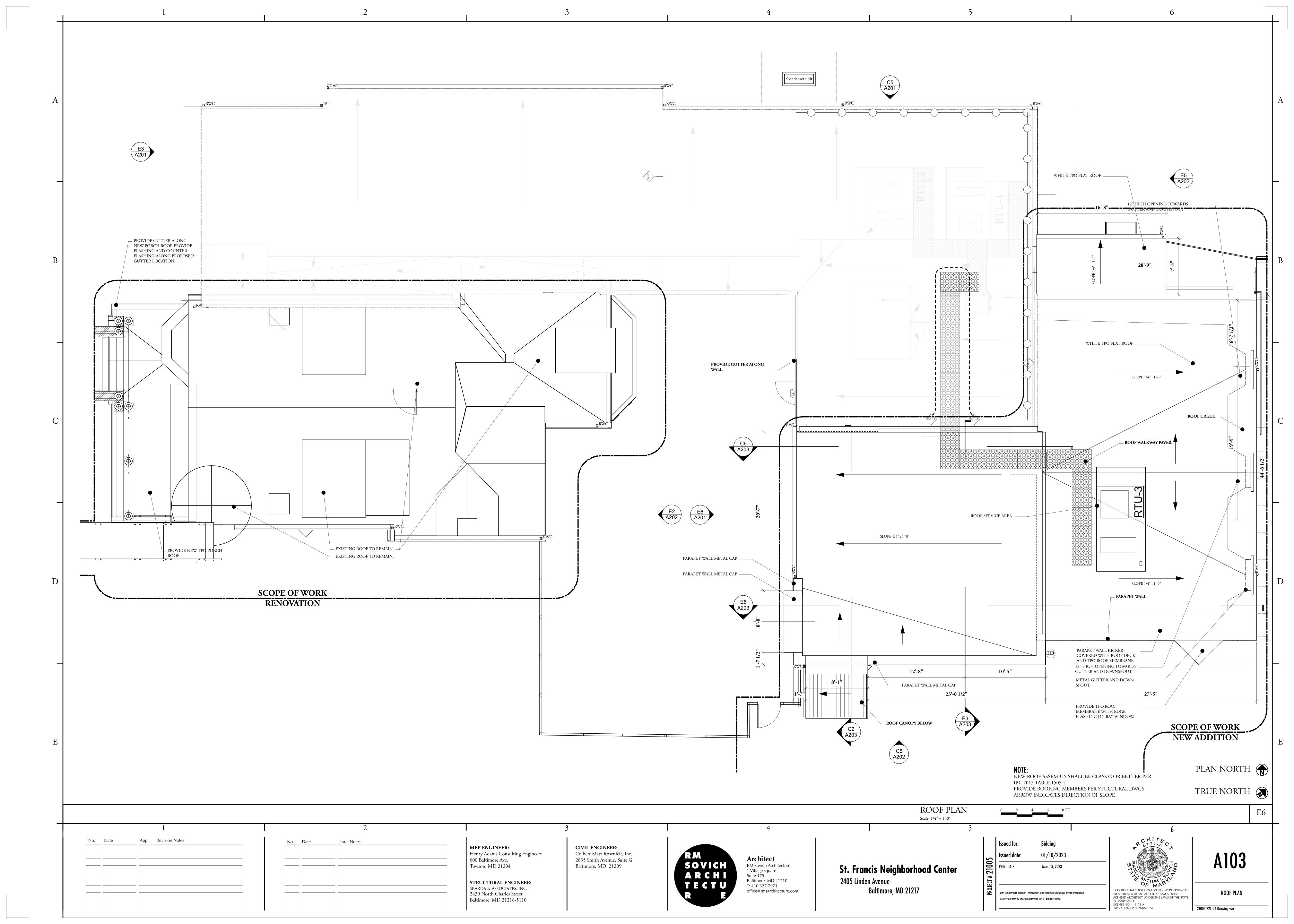


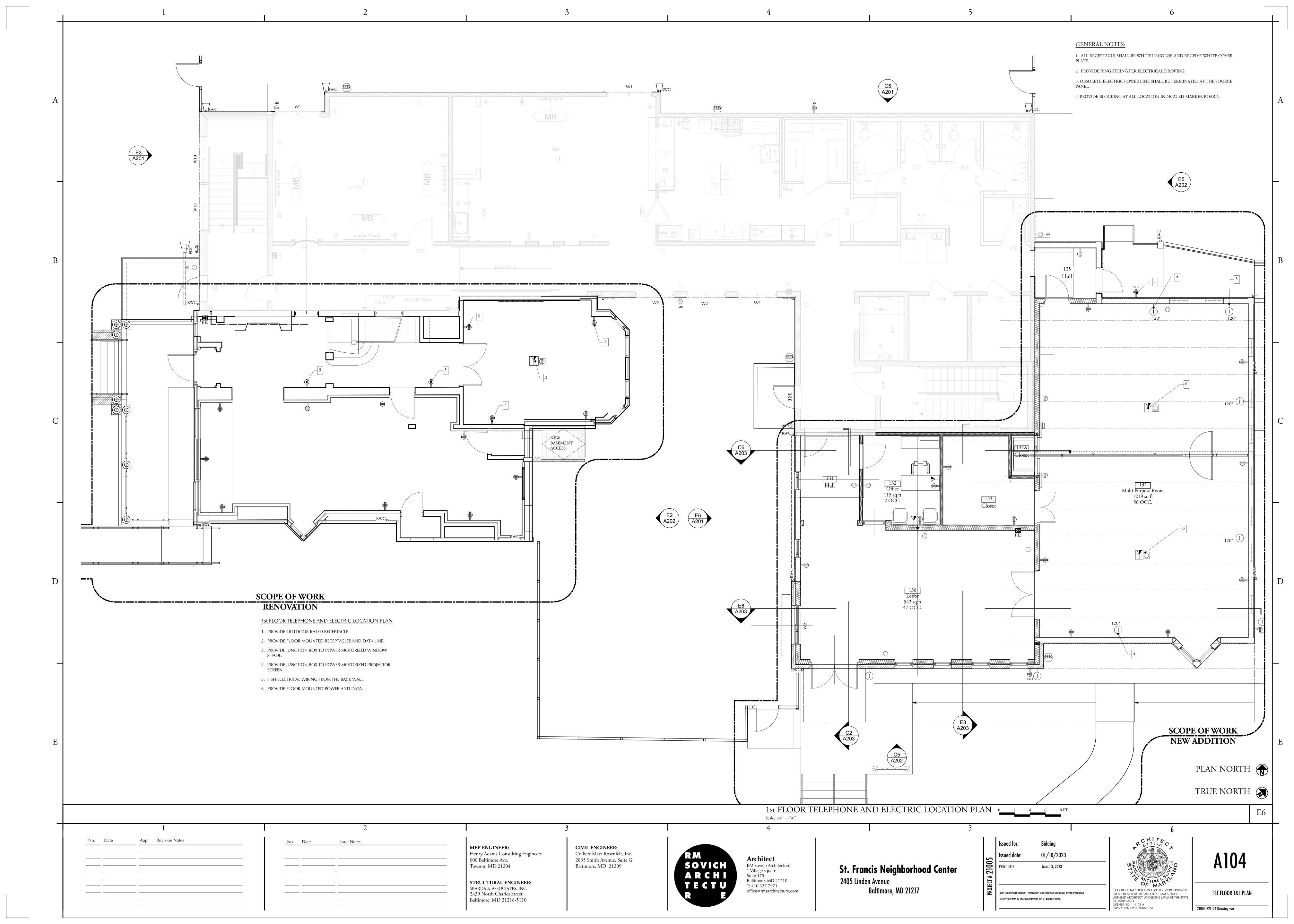


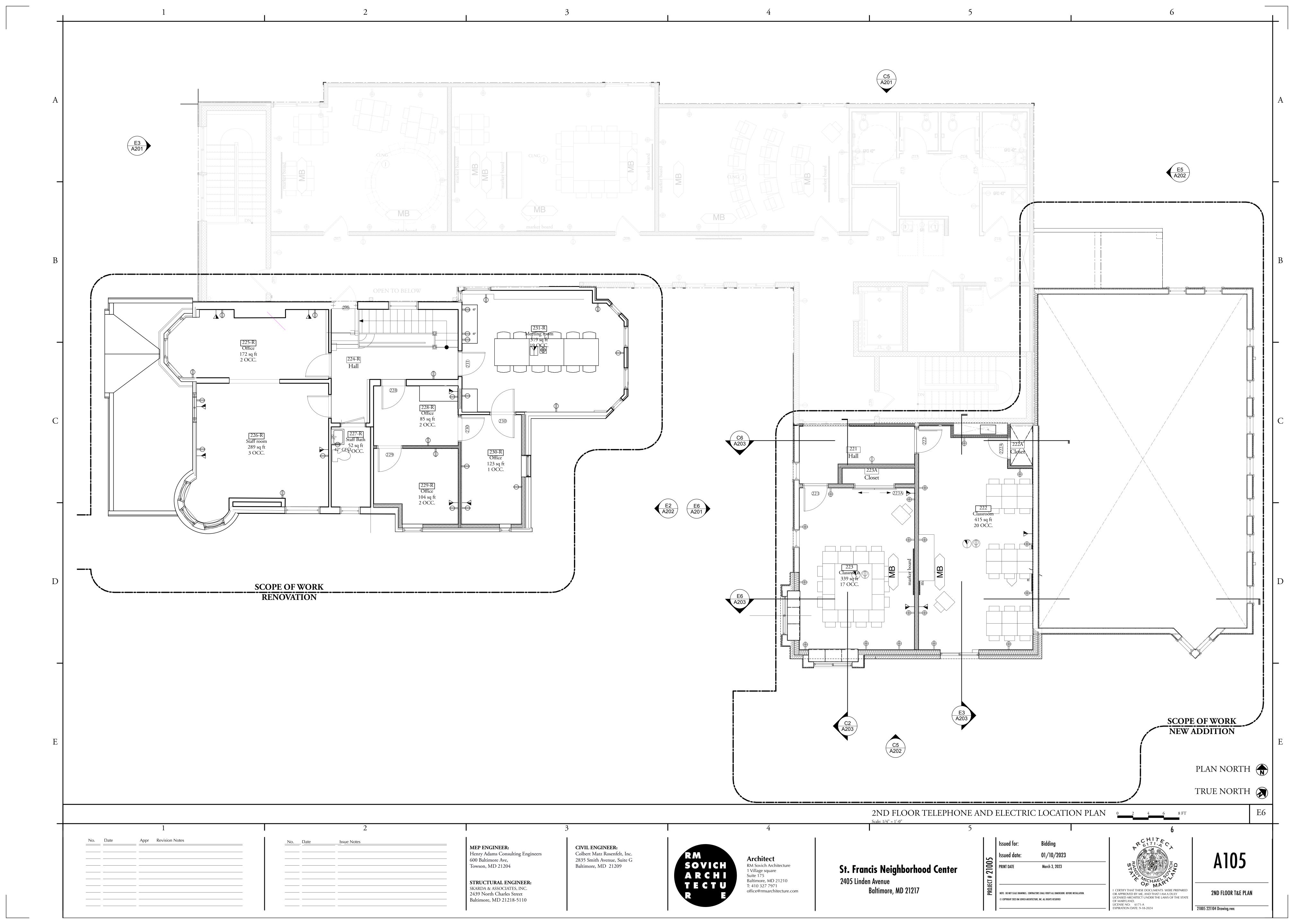


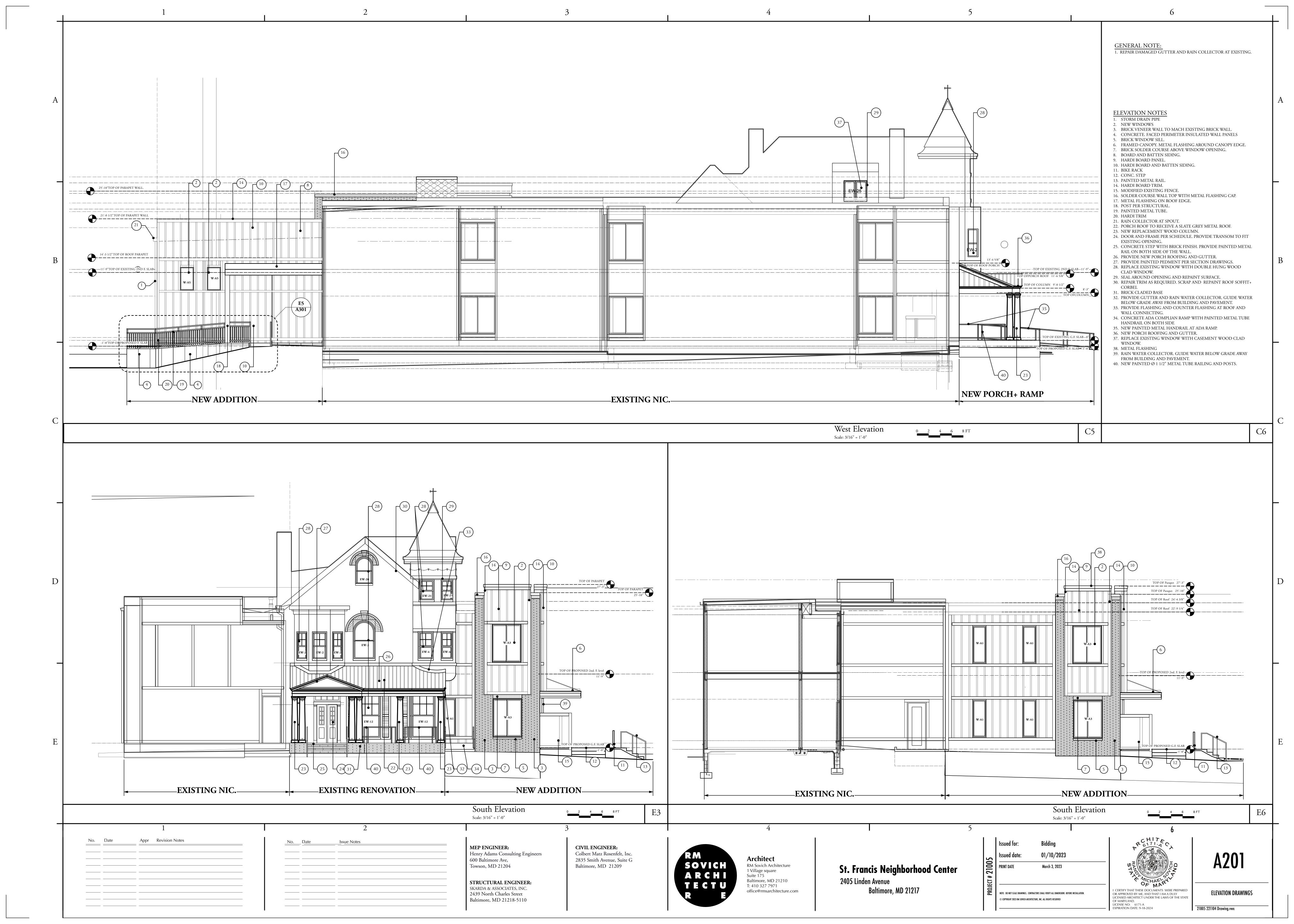


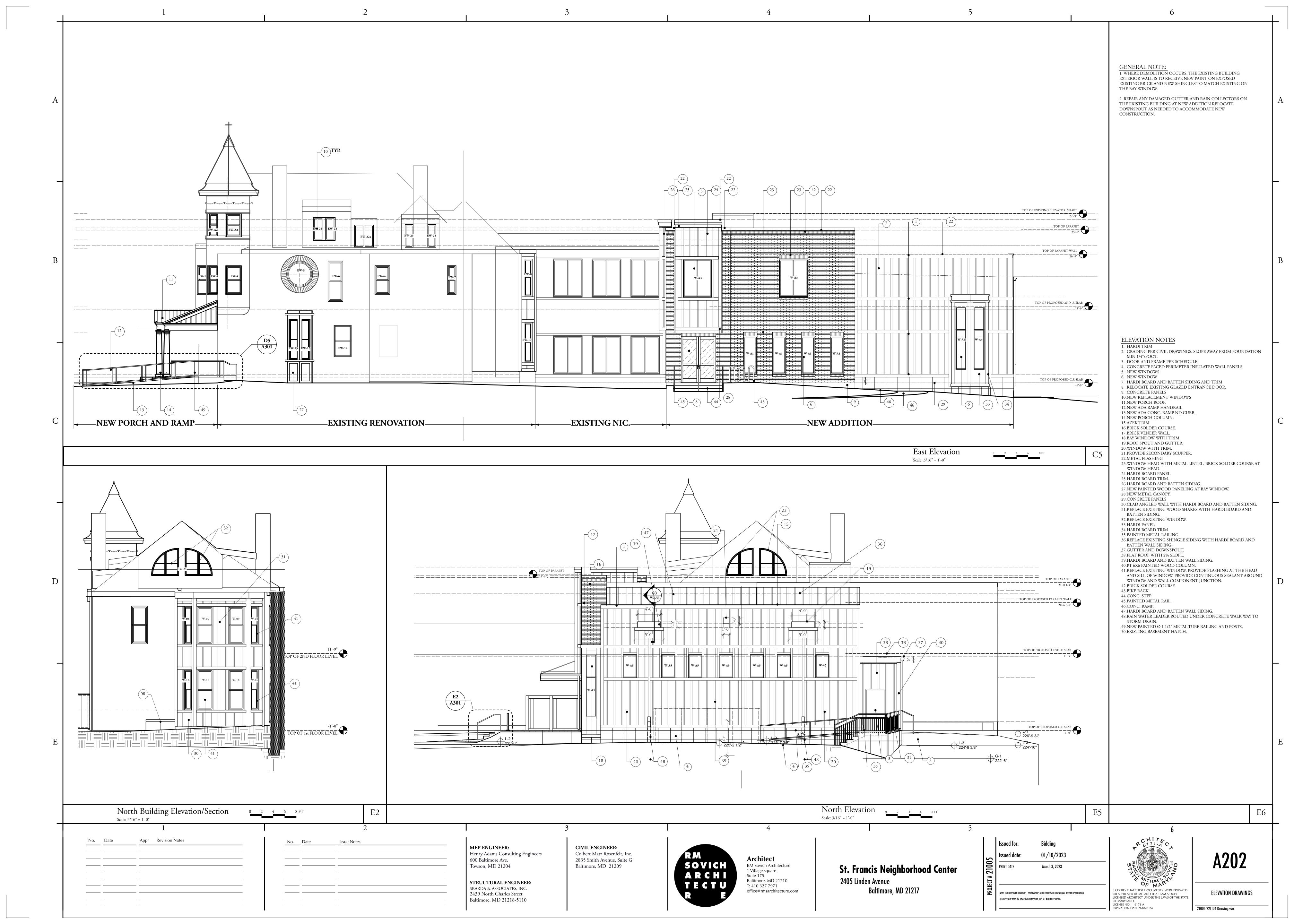




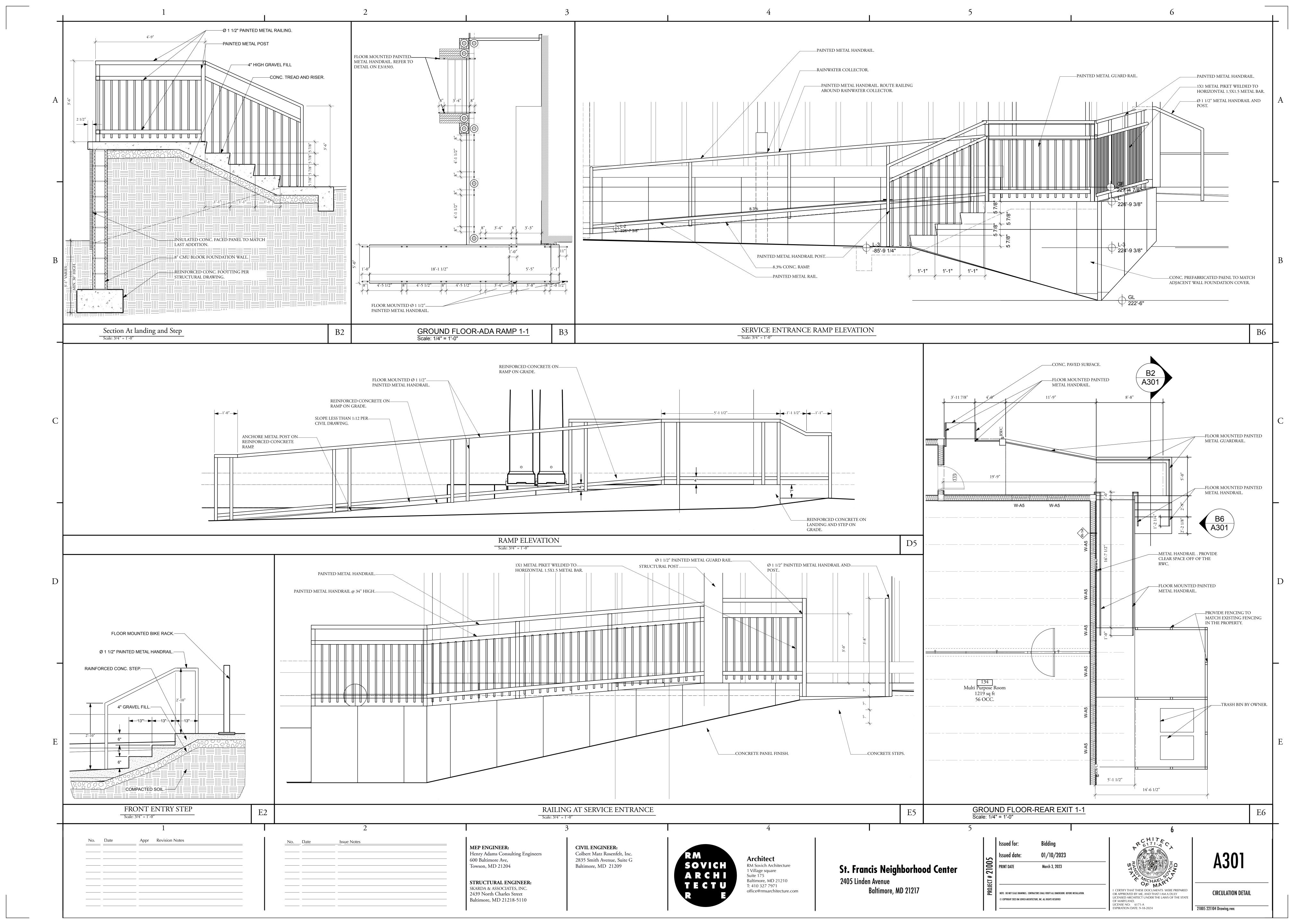


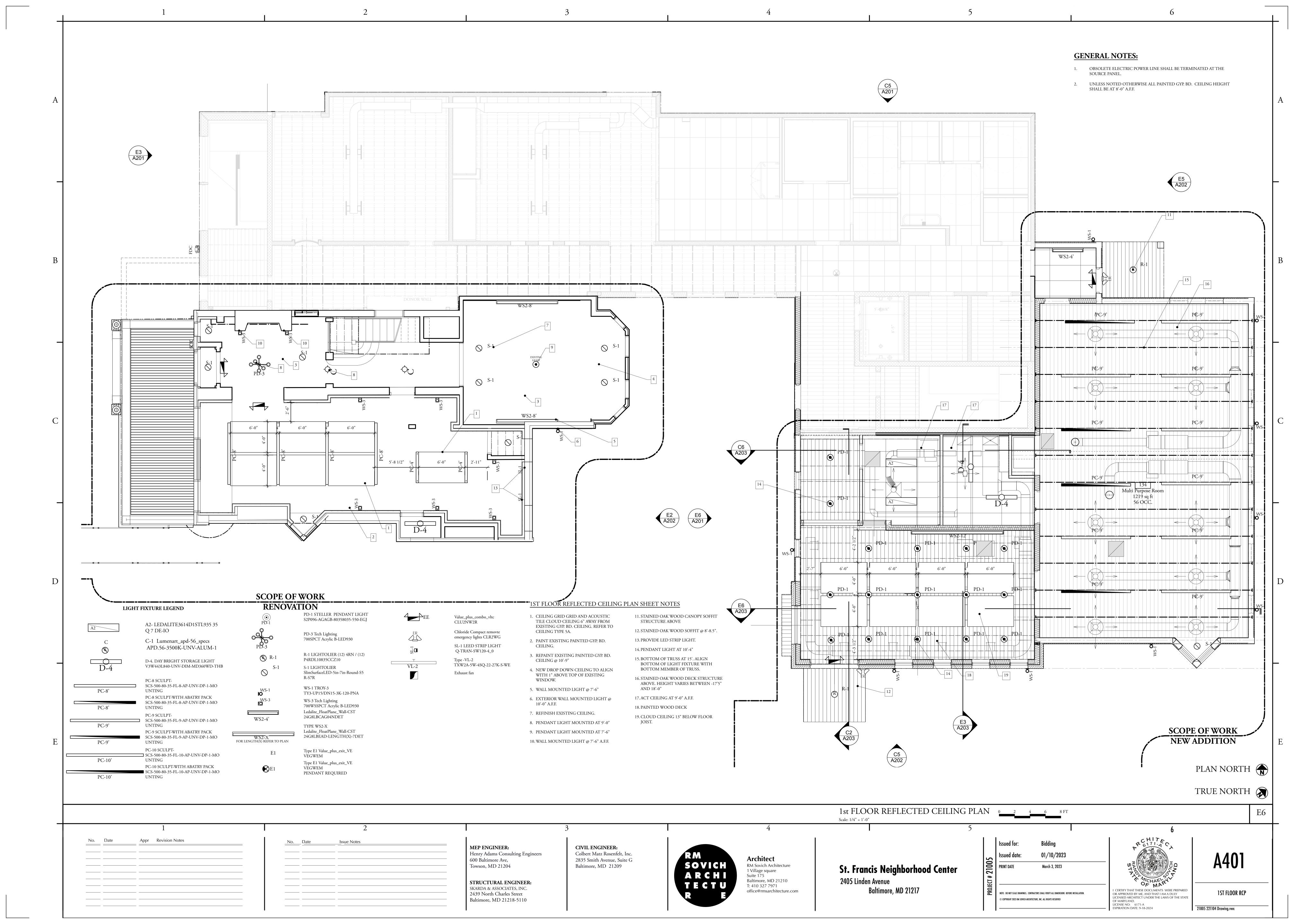


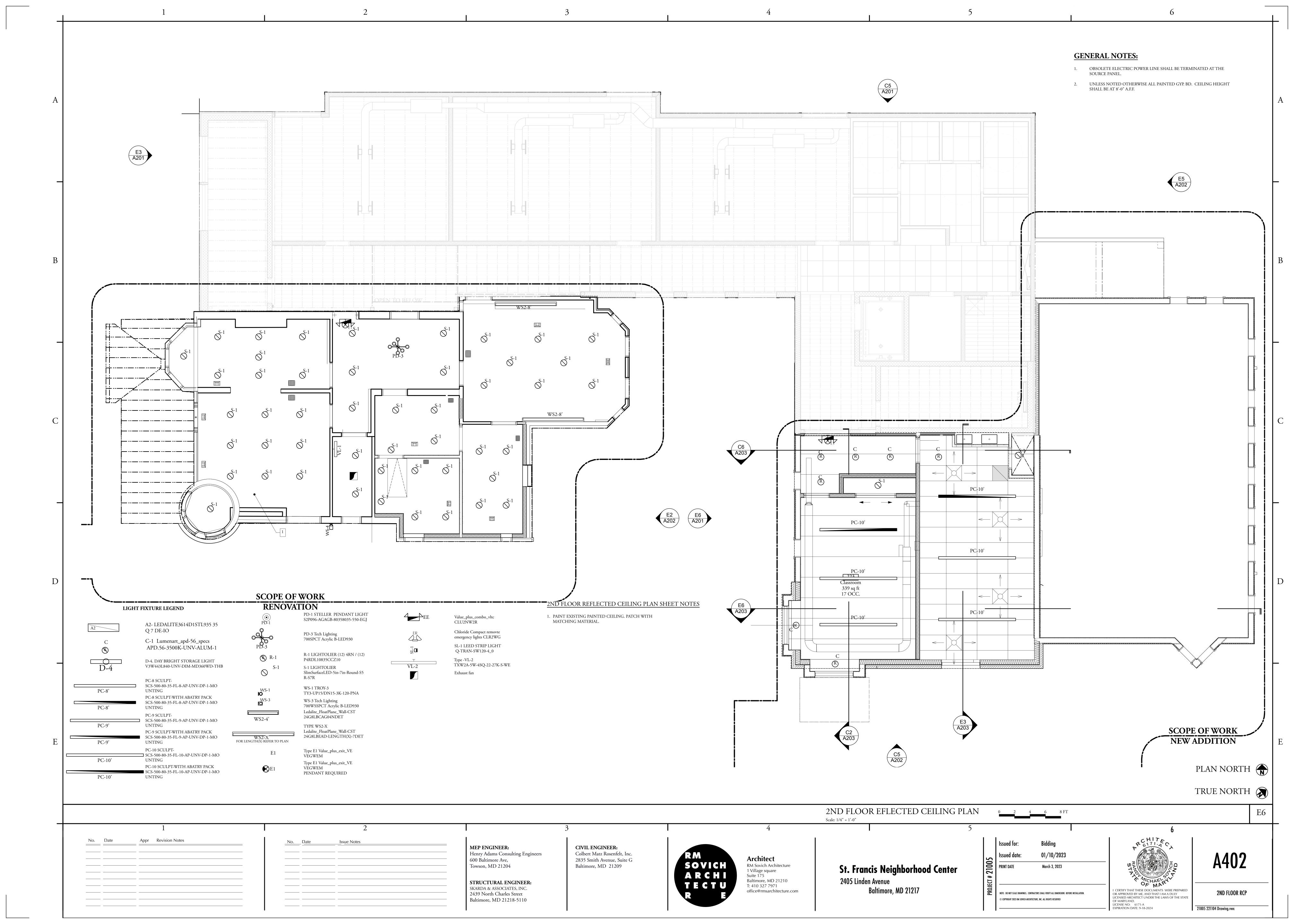


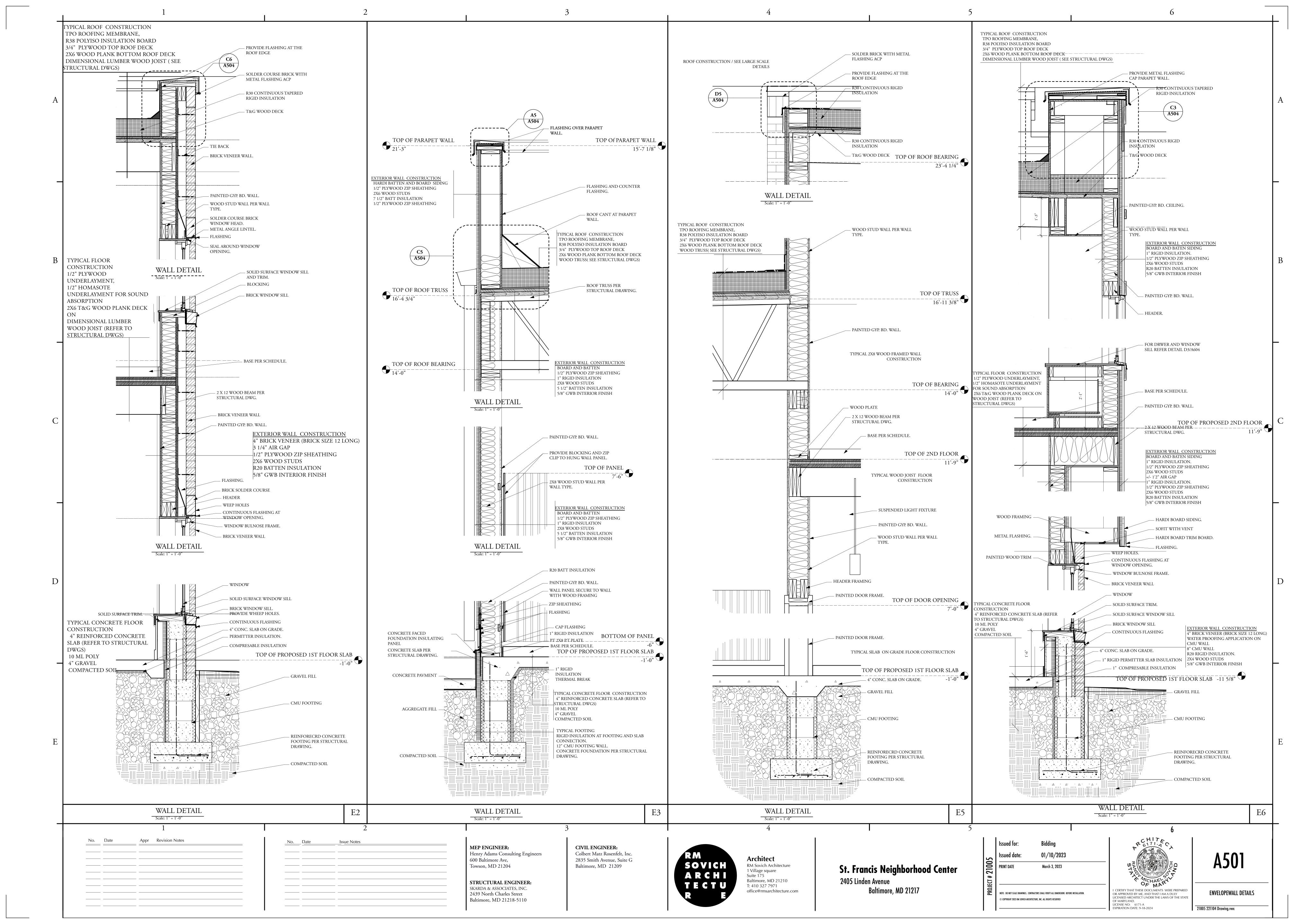


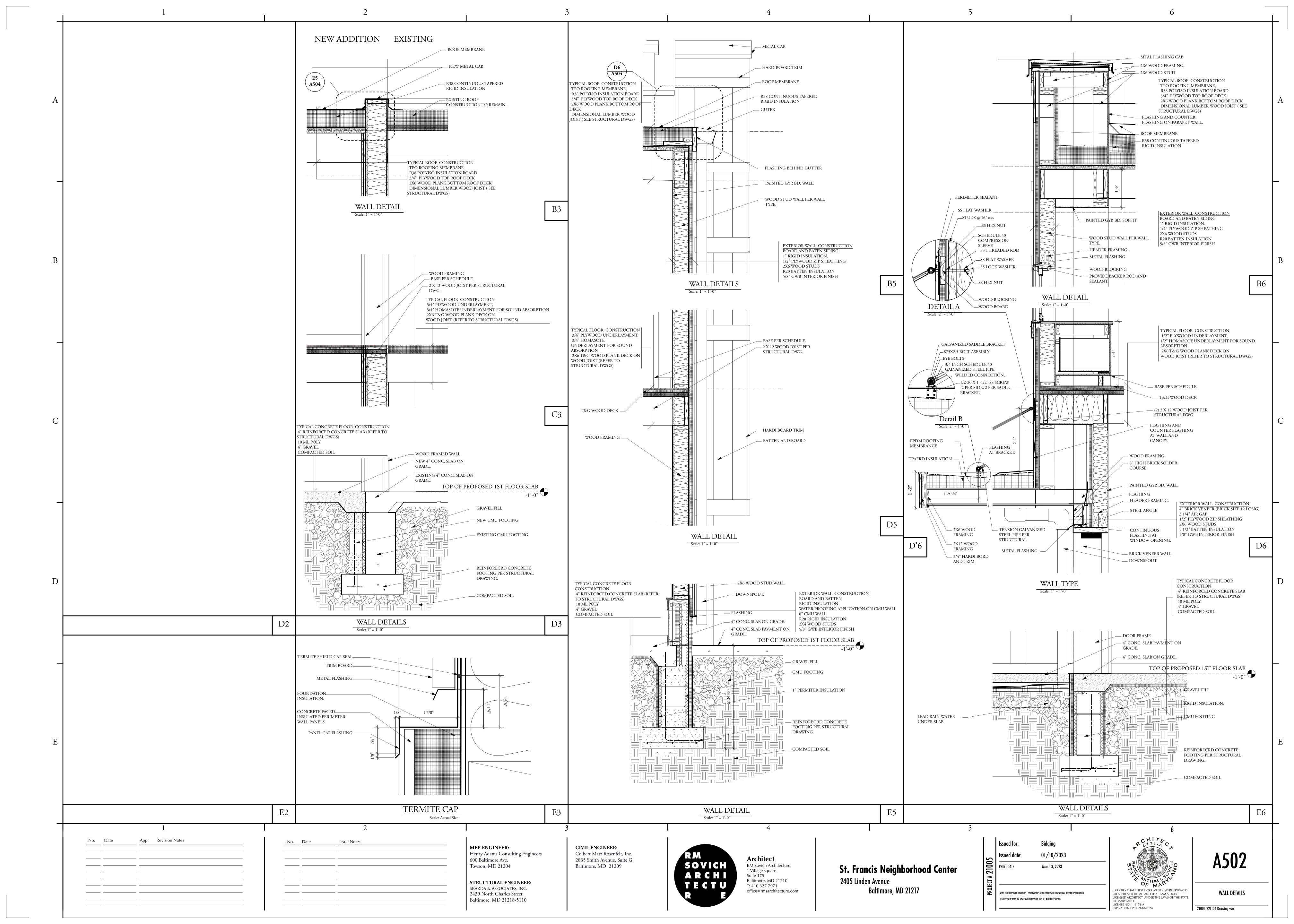


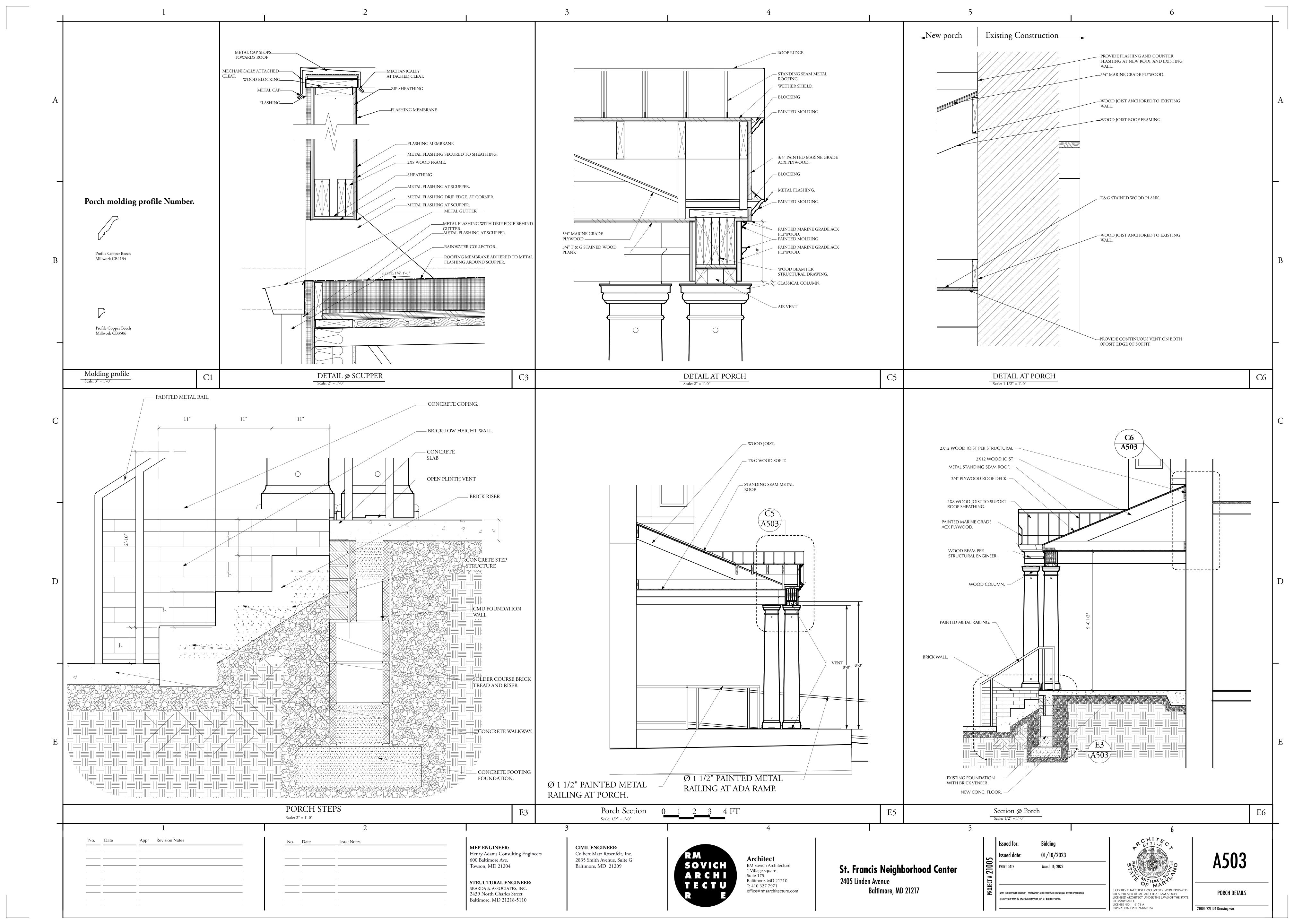


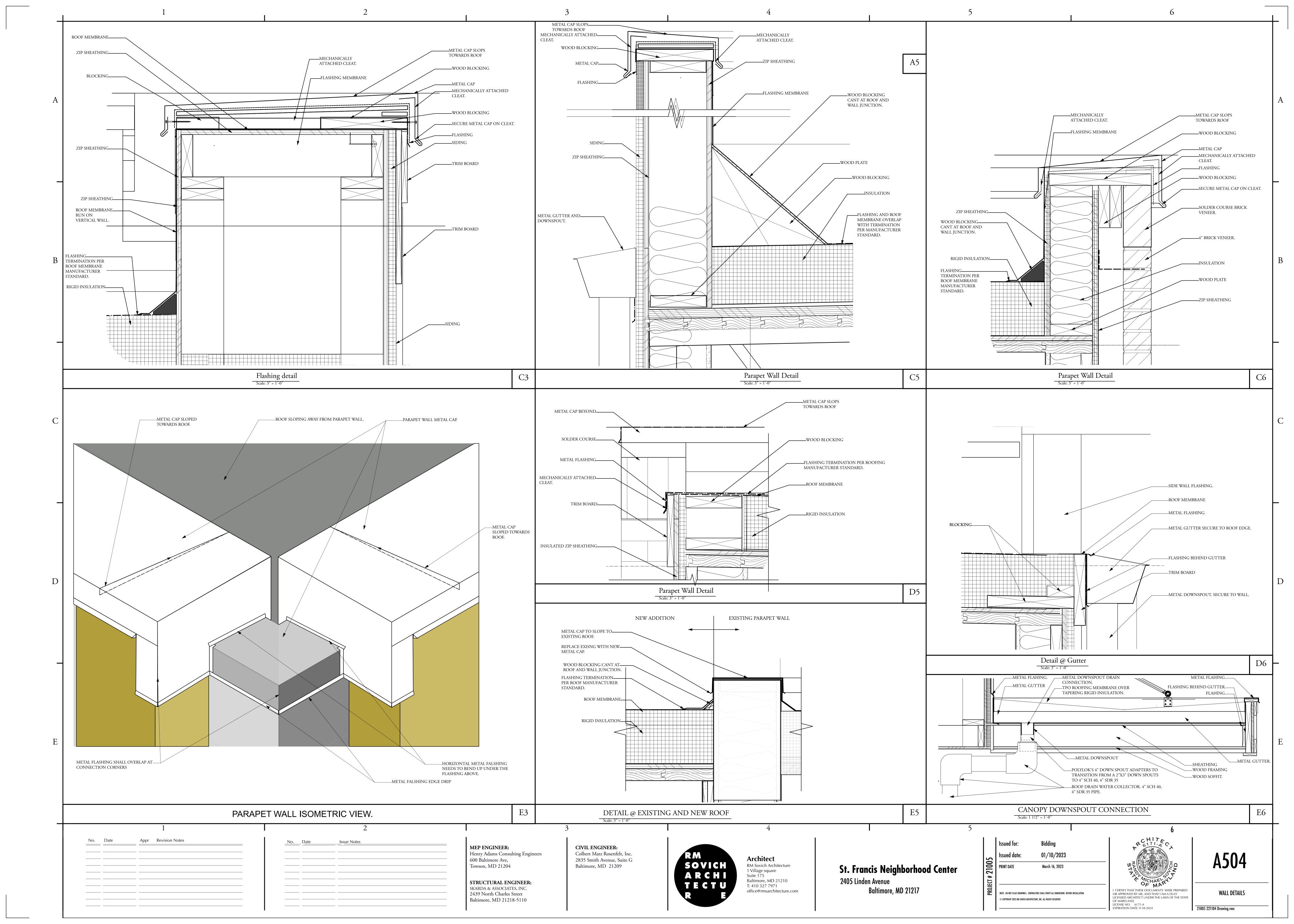


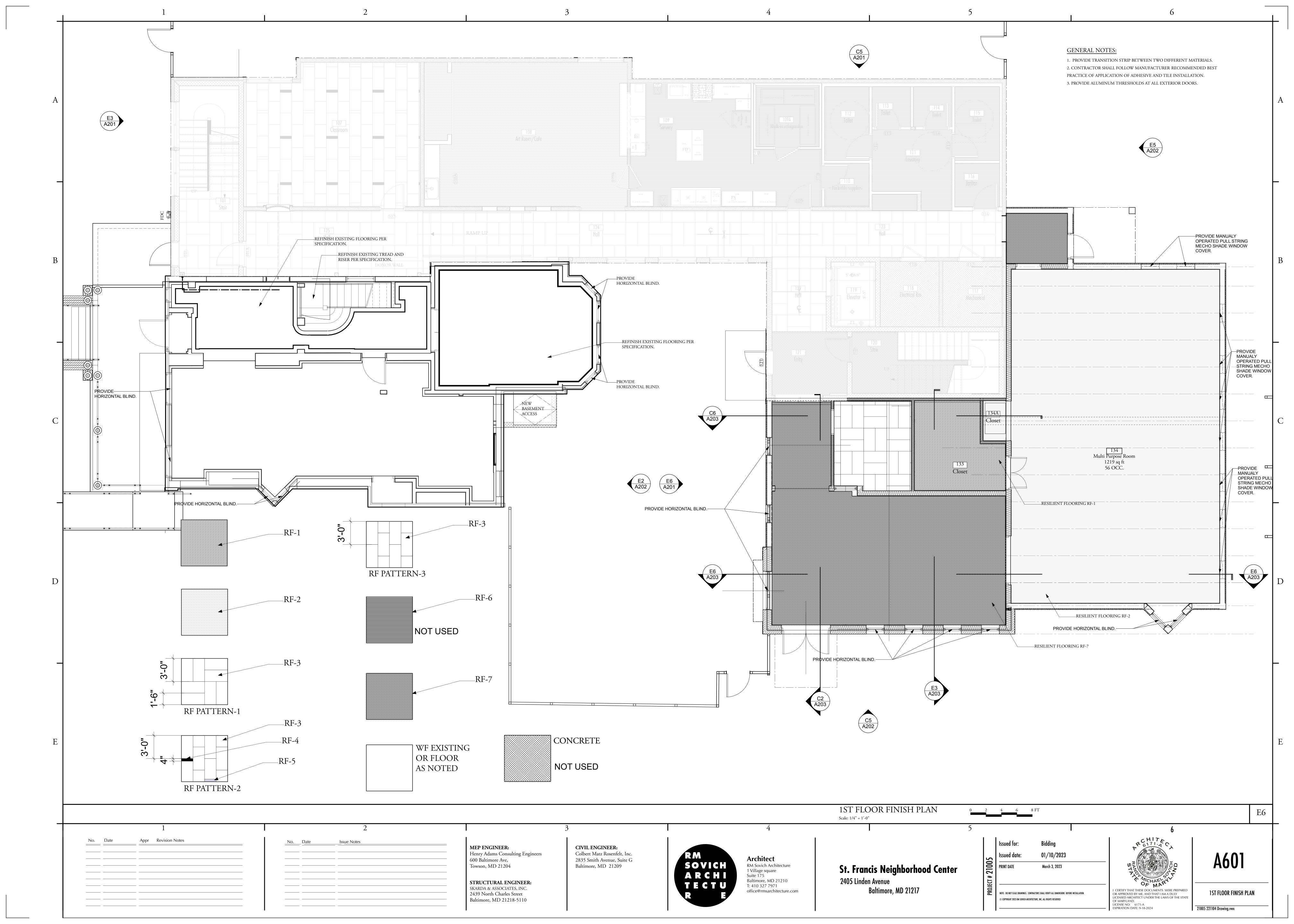


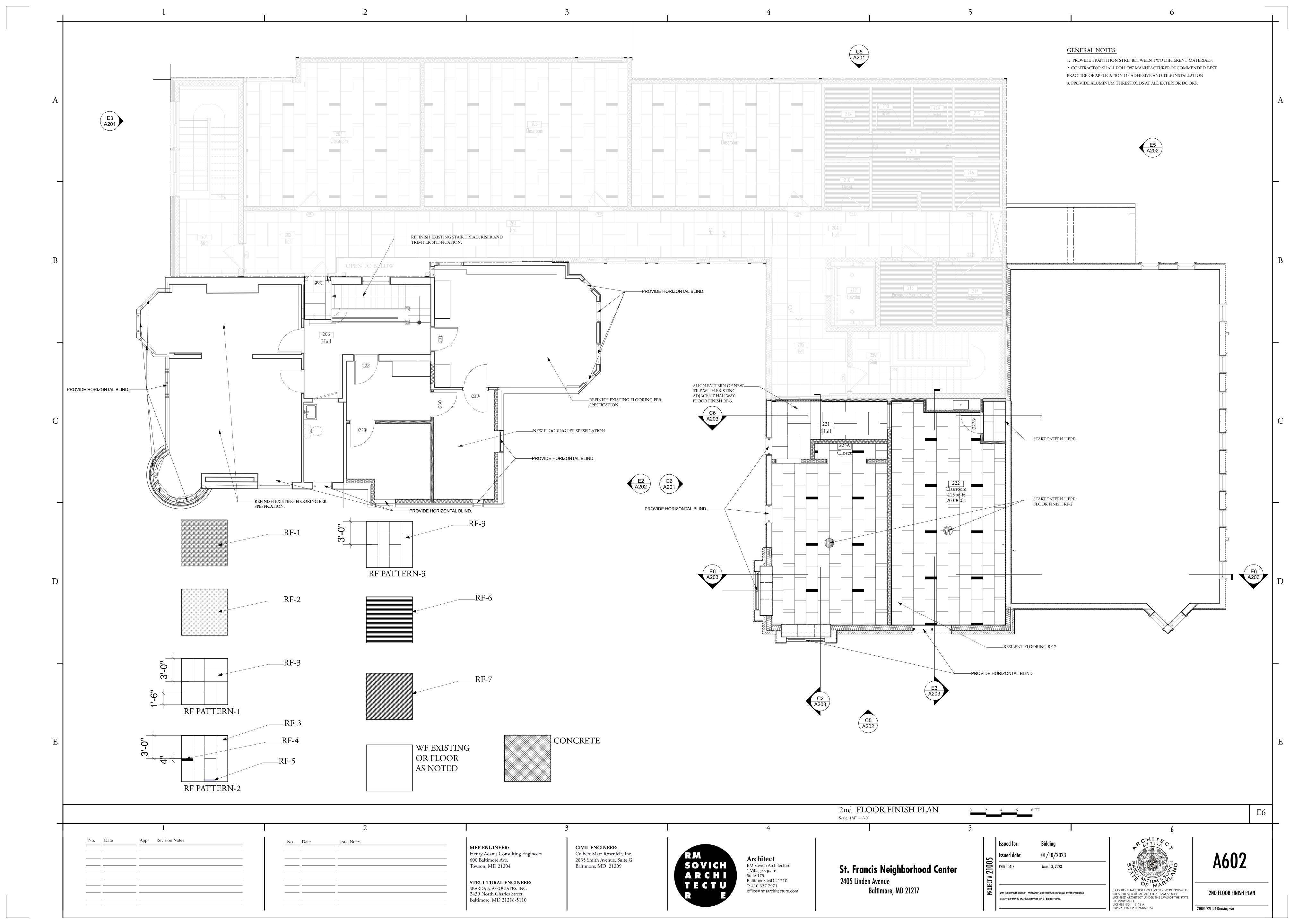


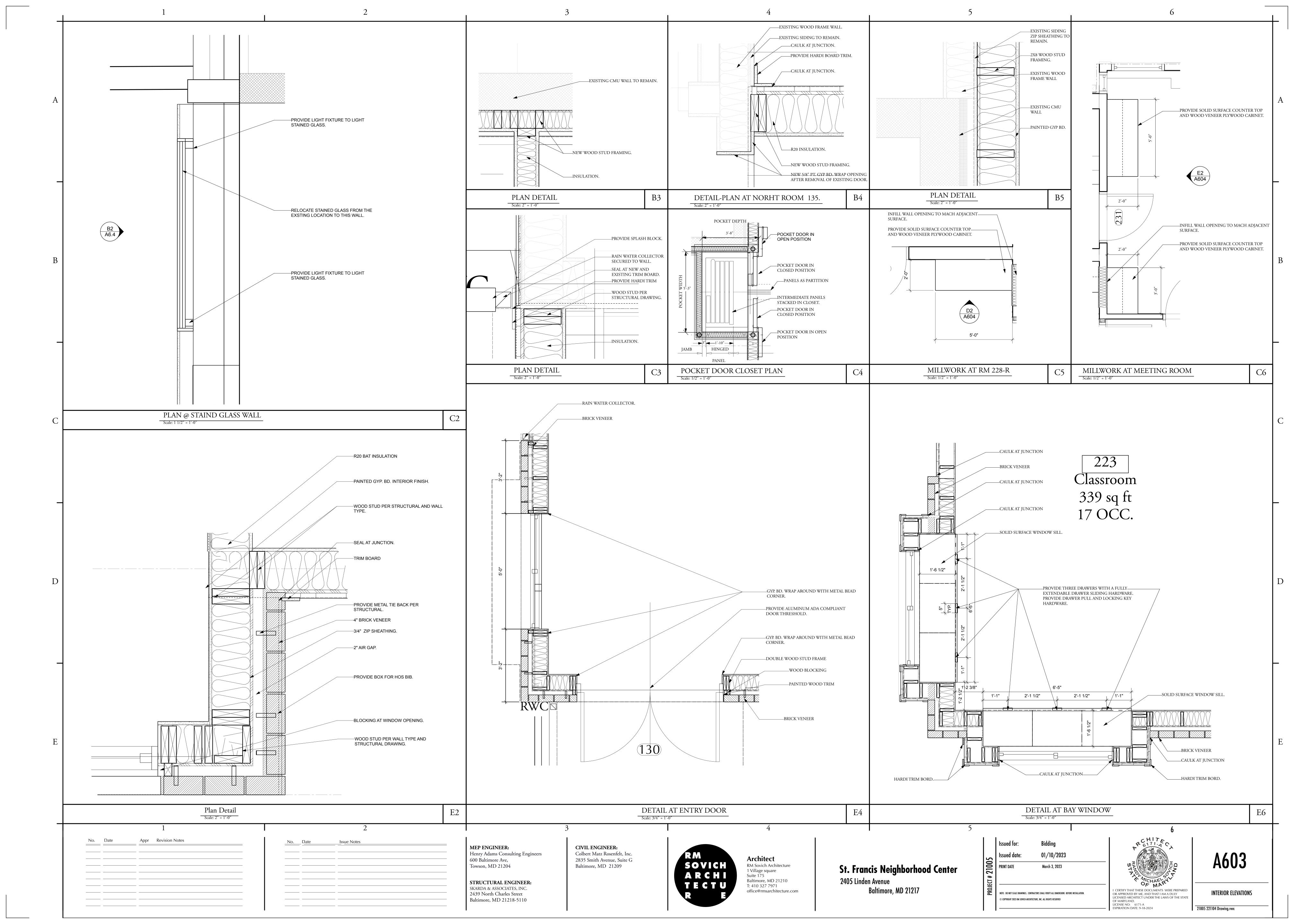


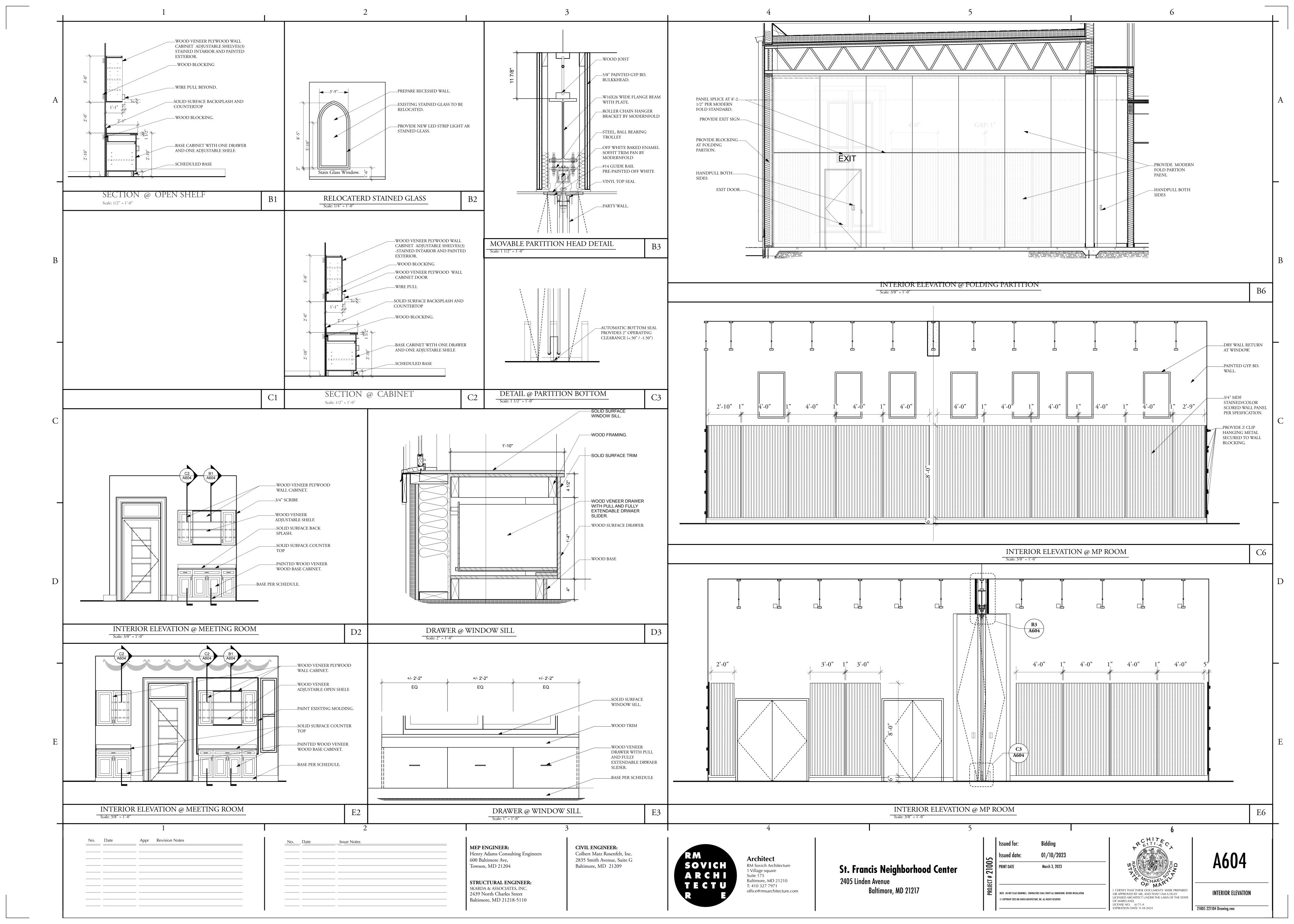


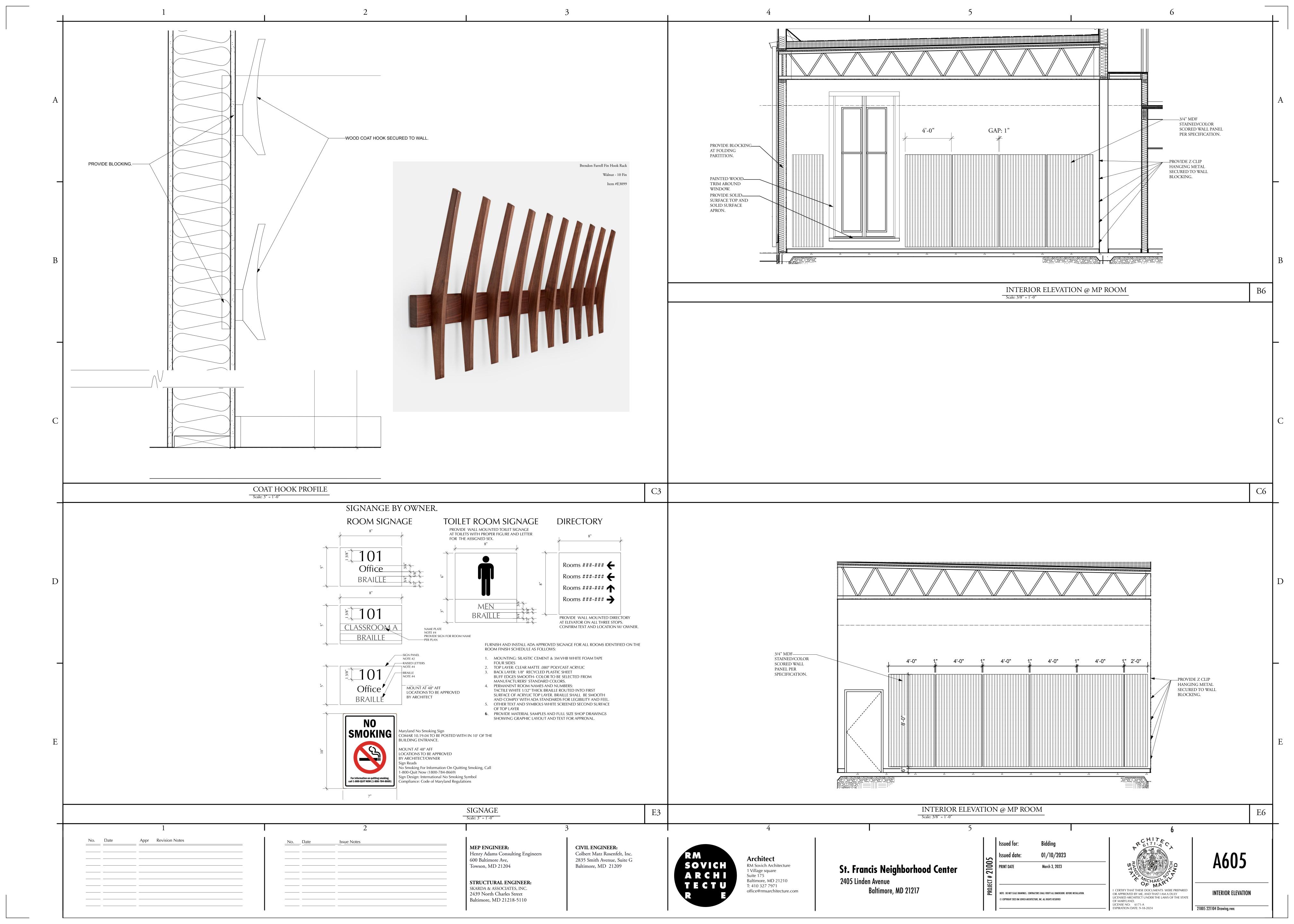












General Notes

DESIGN LOADS

A. THE STRUCTURE WAS DESIGNED FOR THE LIVE LOADS SHOWN BELOW AND DEAD LOADS AS REQUIRED BY CONSTRUCTION IN ACCORDANCE WITH IBC 2018. LOADS DUE TO SNOW LOAD BUILD-UP WERE CONSIDERED IN DESIGN OF STRUCTURAL COMPONENTS ADJACENT TO PARAPETS, HIGH BUILDING WALLS ETC. INCREASE IN THESE LOADINGS, DUE TO CHANGE IN FUNCTION, CONSTRUCTION MATERIALS, ETC., TO HAVE WRITTEN APPROVAL FROM THE DESIGNING STRUCTURAL ENGINEER.

B. THE BASIC STABILITY OF THE STRUCTURE IS DEPENDENT UPON THE DIAPHRAGM ACTION OF FLOORS, WALLS, AND ROOF ACTING TOGETHER. PROVIDE GUYS, BRACES, STRUTS, ETC., TO ACCOMMODATE LIVE, DEAD, AND WIND LOADS UNTIL FINAL CONNECTIONS BETWEEN THESE ELEMENTS ARE MADE.

. MECHANICAL UNITS WITH WEIGHTS SHOWN IN PLAN AND SUPPORTED BY THE STRUCTURE WERE CONSIDERED IN THE DESIGN OF THE STRUCTURE. ADDITIONAL MECHANICAL EQUIPMENT NOT SHOWN ON STRUCTURAL DRAWINGS AND HAVING A WEIGHT IN EXCESS OF 400 POUNDS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

D. LIVE LOADS SHOWN BELOW ARE IN POUNDS PER SQUARE FOOT (PSF).

PARTITIONS CORRIDORS ABOVE FIRST FLOOR 80 PSF LOBBIES & FIRST FLOOR CORRIDORS 100 PSF STAIRS AND EXIT WAYS 100 PSF SCHOOLS: CLASSROOMS 40 PSF

30.0 PSF

DEAD LOADS: FL00R 20.0 PSF

ROOF SNOW LOADS:

DESIGN UNIFORM ROOF SNOW LOAD 20.0 PSF FLAT ROOF SNOW LOAD PF = 17.5 PSF PS = 17.5 PSF BALANCED SNOW LOAD GROUND SNOW LOAD PG = 25.0 PSF IMPORTANCE FACTOR I = 1.00 SNOW EXPOSURE FACTOR CE = 1.00 CT = 1.00 THERMAL FACTOR SLOPED-ROOF FACTOR CS = 1.00

PD = 22.6 PSF

BUILDING FRAME SYSTEMS

LIGHT FRAME (WOOD) WALLS WITH

WIDTH OF SNOW DRIFT **W** = 6 FT EARTHQUAKE DESIGN DATA: RISK CATEGORY = II

IMPORTANCE FACTOR I = 1.00 MAPPED SPECTRAL RESPONSE ACCELERATIONS SS = 14.10 S1 = 4.30SITE CLASS = D

SPECTRAL RESPONSE COEF. SDS = 0.150 SD1 = 0.069

DRIFT SURCHARGE LOAD

SEISMIC DESIGN CATEGORY BASIC STRUCTURAL SYSTEM SEISMIC RESISTING SYSTEM

STRUCTURAL WOOD SHEAR PANELS DESIGN BASE SHEAR V = 0.021W SEISMIC RESPONSE COEF. CS = 0.021

RESPONSE MODIFICATION FACTOR R = 7 ANALYSIS PROCEDURE

EQUIVALENT LATERAL-FORCE ANALYSIS WIND DESIGN DATA: 110 MPH ULTIMATE DESIGN WIND SPEED NOMINAL DESIGN WIND SPEED 85.21 MPH

RISK CATEGORY MEAN ROOF HT (H) 26.5 FT EXPOSURE CATEGORY ENCLOSURE CLASSIF. ENCLOSED BUILDING

INTERNAL PRESSURE COEF. ·/-Ø.18 DIRECTIONALITY (KD) 0.85

COMPONENT AND CLADDING NOMINAL WIND PRESSURES ROOF SURFACE PRESSURE (PSF)

AREA 10 SF 20 SF 50 SF 100 SF 200 SF

NEGATIVE ZONE 1 -20.1 -18.8 -17.0 -15.7 -14.4 NEGATIVE ZONE 1' -11.5 -11.5 -11.5 -10.0 NEGATIVE ZONE 2 -26.5 -24.8 -22.5 -20.8 -19.1 NEGATIVE ZONE 3 -26.5 -24.8 -22.5 -20.8 -19.1

POSITIVE ZONE 1 & 1' 10.0 10.0 10.0 10.0 10.0 POSITIVE ZONES 2 & 3 11.5 11.0 10.4 10.0 10.0 SOLID PARAPET PRESSURE (PSF)

AREA 10 SF 20 SF 50 SF 100 SF 200 SF ZONE 2 : 30.6 28.6 26.0 24.0 22.0

ZONE 3 : 30.6 28.6 26.0 24.0 22.0

INTERIOR ZONE : -18.1 -17.2 -16.0 -15.0 -14.1 CORNER ZONE : -20.7 -19.3 -17.5 -16.1 -14.7

WALL SURFACE PRESSURE (PSF)

AREA 10 SF 100 SF 200 SF 500 SF NEGATIVE ZONE 4 -12.5 -10.8 -10.3 -10.0 NEGATIVE ZONE 5 -15.4 -12.0 -11.0 -10.0

POSITIVE ZONE 4 & 5 11.5 10.0 10.0 10.0

A. EXPOSE EXISTING FRAMING AND NOTIFY ARCHITECT PRIOR TO INSTALLATION OF NEW FRAMING.

B. CONTRACTOR MUST FIELD CHECK AND VERIFY DIMENSIONS AND ELEVATIONS OF EXISTING WORK PRIOR TO FABRICATION OF NEW MATERIALS.

. USE NON-DESTRUCTIVE TESTING METHODS TO DETERMINE LOCATION OF REIN-FORCING. DO NOT CUT EXISTING REINFORCING. ADJUST LOCATIONS OF NEW HOLES TO MISS REINFORCING.

. RELOCATE EXISTING HVAC, ELECTRIC, AND PLUMBING (MEP) TO ALLOW INSTALLATION OF NEW FRAMING.

SUBMITTALS

A. BEFORE SUBMISSION OF SHOP DRAWINGS, CONTRACTOR SHALL HAVE DETERMINED AND VERIFIED QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS, AND SIMILAR DATA WITH RESPECT THERETO AND REVIEWED OR COORDINATED EACH SHOP DRAWING WITH OTHER SHOP DRAWINGS AND SAMPLES AND WITH THE

B. AFTER CHECKING AND VERIFYING COMPLIANCE WITH CONTRACT DOCUMENTS AND ACTUAL FIELD CONDITIONS, CONTRACTOR SHALL SUBMIT, FOR REVIEW, SHOP DRAWINGS REFERENCED IN THE INDIVIDUAL MATERIALS SECTIONS. CONTRACTOR SHALL STAMP OR PROVIDE A SIMILAR WRITTEN INDICATION THAT CONTRACTOR HAS REVIEWED THE SUBMISSION AND IS SATISFIED THAT MATERIALS SHOWN ARE IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.

REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.

C. A REVIEW PERIOD OF 5 WORKING DAYS WILL BE REQUIRED FOR SHOP DRAWING REVIEW, OF EACH UNIT TYPE. SHOP DRAWING SUBMISSION OF MULTIPLE COMPONENT TYPES WILL REQUIRE ADDITIONAL REVIEW TIME. SHOP DRAWINGS WILL BE FORWARDED TO THE ARCHITECT OR CLIENT FOR THEIR REVIEW BEFORE RETURNING TO THE CONTRACTOR.

DEMOLITION

A. DEMOLITION INCLUDES CONTROLLED DESTRUCTION OF STRUCTURES AND THE REMOVAL AND DISPOSAL OF DEMOLISHED MATERIALS AS SHOWN ON THE DRAWINGS AND INCLUDED IN THESE NOTES.

B. PERFORM DEMOLITION IN SECTIONS SMALL ENOUGH TO PREVENT DAMAGE OF MATERIALS AND FACILITIES AND FOR EMBANKMENTS TO REMAIN IN PLACE.

. PROVIDE ADEQUATE SHORING, BRACING, AND PROTECTION TO PREVENT MOVEMENT, SETTLEMENT, COLLAPSE, OR DAMAGE TO EXISTING MATERIALS AND FACILITIES AND FOR EMBANKMENTS TO REMAIN. SUBMIT COMPLETE DETAILS OF SHORING PROCEDURES SIGNED BY A PROFESSIONAL ENGINEER (REGISTERED IN THE JURISDICTION WHERE THE PROJECT IS LOCATED) PRIOR TO BEGINNING

. PROMPTLY REPAIR DAMAGES CAUSED BY THE DEMOLITION TO ADJACENT

FACILITIES, MATERIALS, OR EMBANKMENTS AT NO COST TO THE OWNER. . PROMPTLY REMOVE FROM SITE AND PROPERLY DISPOSE OF DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM THE DEMOLITION.

MOISTURE BARRIER.

FOUNDATIONS

A. A SOIL BEARING CAPACITY OF 2,000 PSF WAS USED FOR FOOTING DESIGN. ENGAGE THE SERVICES OF A GEOTECHNICAL ENGINEER TO VERIFY EXCAVATIONS AND SOIL BEARING CAPACITY. IF SOIL OF THIS CAPACITY IS NOT ENCOUNTERED AT ELEVATIONS INDICATED, CONTACT THE STRUCTURAL ENGINEER OF RECORD (SOR).

B. INSTALL FOOTING BOTTOMS 1'-0" MINIMUM BELOW EXISTING GRADE OR COMPACTED FILL, WHICHEVER IS HIGHER.

C. INSTALL EXTERIOR FOOTING BOTTOMS 2'-6" MINIMUM BELOW FINISH GRADE. D. BASEMENT AND FOUNDATION WALLS ARE DEPENDENT UPON THE COMPLETED INSTALLATION OF FLOORS AND ROOFS FOR THEIR STABILITY. DO NOT PLACE BACKFILL UNTIL THESE ELEMENTS ARE COMPLETELY INSTALLED, OR PROVIDE

SHORING AND BRACING. . COMPACT FILL AND BACKFILL TO 95% OF ASTM D-698. PERFORM FILL AND BACKFILL OPERATIONS UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL

. PRIOR TO POURING CONCRETE, ENGAGE THE SERVICES OF A PROFESSIONAL GEOTECHNICAL ENGINEER (REGISTERED IN THE JURISDICTION WHERE THE PROJECT IS LOCATED), TO PERFORM TESTS, BORINGS, ETC., REQUIRED TO CERTIFY THAT THE SOIL BEARING CAPACITY MEETS OR EXCEEDS THAT SHOWN IN THE GENERAL NOTES ABOVE. GEOTECHNICAL ENGINEER SHALL VERIFY SUBGRADE CAPACITIES PRIOR TO INSTALLATION OF DRAINAGE FILL AND

. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF: 3,000 PSI . EXTERIOR CONCRETE TO BE AIR-ENTRAINED AND SHALL HAVE A 28 DAY

COMPRESSIVE STRENGTH OF: 3,500 PSI.

. WATER CEMENT RATIO NOT TO EXCEED 0.54 FOR 3,000 PSI CONCRETE AND 0.45 FOR AIR ENTRAINED CONCRETE.

. INSTALL WELDED WIRE REINFORCEMENT 2" BELOW UPPER SURFACE OF CONCRETE

M. REINFORCING FOR FOOTINGS AND OTHER CONCRETE USING EARTH FORMS SHALL HAVE 3" CONCRETE COVER. REINFORCING FOR CONCRETE EXPOSED TO GROUND OR WEATHER AFTER REMOVAL OF FORMS SHALL HAVE 2" CONCRETE COVER. REINFORCING SHALL HAVE 3/4" CONCRETE COVER FOR SLABS AND WALLS AND 1 1/2" COVER FOR BEAMS, GIRDERS, AND COLUMNS.

N. LAP CONTINUOUS FOOTING REINFORCING 44 BAR DIAMETERS AT SPLICES. O. USE SPLIT WOOD FORMS AT CONSTRUCTION JOINTS IN UNEXPOSED SLABS SUPPORTED ON METAL DECK, AND ALLOW REINFORCEMENT TO EXTEND THRU FORM INTO NEXT ADJACENT POUR AT MID-HEIGHT OF SLAB.

P. USE A WATER REDUCING ADMIXTURE IN ALL CONCRETE

O. USE A MINIMUM OF 5 1/2 BAGS OF CEMENT AND A MAXIMUM OF 6 1/2 GALLONS OF WATER PER BAG FOR EACH CUBIC YARD OF CONCRETE.

R. SLUMP - ACI (211.1), EXCEPT THAT SLABS-ON-GRADE AND THIN-FRAMED SLABS SHALL HAVE A MAXIMUM SLUMP OF 4". SHOULD EXTRA WATER BE REQUIRED BEFORE DEPOSITING CONCRETE, AND WATER/CEMENT RATIO OF ACCEPTED MIX DESIGN HAS NOT BEEN EXCEEDED, GENERAL CONTRACTOR'S SUPERINTENDENT SHALL HAVE SOLE AUTHORITY TO AUTHORIZE ADDITION OF WATER. ANY ADDITIONAL WATER ADDED TO MIX AFTER LEAVING BATCH PLANT SHALL BE INDICATED ON THE TRUCK TICKET AND SIGNED BY PERSON

RESPONSIBLE. SUBMIT COPY OF TRUCK TICKET FOR REVIEW. S. AIR ENTRAIN EXTERIOR EXPOSED CONCRETE 5% +/- 1%.

. NO CALCIUM CHLORIDE WILL BE PERMITTED IN CONCRETE. I. ENGAGE THE SERVICES OF A TESTING AGENCY APPROVED BY THE ARCHITECT TO PERFORM TESTS OF CONCRETE. TAKE A MINIMUM OF 5 CYLINDERS FOR EACH CLASS OF CONCRETE POURED IN ANY ONE DAY. PERFORM 1 SLUMP TEST PER

TRUCK LOAD OF CONCRETE. . PROVIDE TWO COMPRESSION TESTS AT 7 DAYS, TWO AT 28 DAYS, AND RETAIN ONE TEST FOR ADDITIONAL TESTING AS NEEDED. COMPRESSIVE STRENGTH OF CONCRETE AT 7 DAYS TO ACHIEVE AT LEAST 65% OF MINIMUM DESIGN

STRENGTH. '. ANCHORS AND FASTENERS SHALL HAVE CAPACITIES SHOWN ON DRAWINGS. . SUBMIT CAPACITIES OF ANCHORS AND POWER ACTUATE FASTENERS FOR REVIEW

PRIOR TO USE.

. UNLESS GOVERNED BY BUILDING CODE OR LOCAL AMENDMENTS: MANUFACTURE AND INSTALL MASONRY IN ACCORDANCE WITH (ACI 530/ASCE 5/TMS 402), (ACI 530.1/ASCE 6/TMS 602). WHEN THERE IS A CONFLICT, THE MOST STRINGENT IS TO APPLY.

: BRICK: 3,000 PSI COMPRESSIVE STRENGTH - ASTM C-216, BLOCK: CONCRETE MASONRY UNITS: 1,900 PSI COMPRESSIVE STRENGTH (AVERAGE OF THREE UNITS). ASTM C-90 WITH MINIMUM DENSITY OF 125 LBS. PER CU. FT. FOR NORMAL WEIGHT AND 100 LBS. PER CU. FT. FOR LIGHT WEIGHT UNITS.

DESIGNED f'm: 1,500 PSI. AT 28 DAYS.). BLOCK USED IN EXTERIOR WALLS, INTERIOR BEARING WALLS, AND WALLS WITH VERTICAL STEEL REINFORCING SHALL BE MANUFACTURED AND LAID SUCH THAT WEBS ARE IN COMPLETE ALIGNMENT.

. MORTAR: ASTM C-270, TYPE S. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS TO BE 1,800 PSI. GROUT FOR WALL FILL: ASTM C-476, 3,000 PSI MINIMUM AT 28 DAYS WITH 65% OF STRENGTH AT 7 DAYS. USE FINE AGGREGATE SIZE #1 IN ACCORDANCE WITH ASTM C-404. MIX TO A SLUMP OF 8 TO 11 INCHES UTILIZING WATER

REDUCING ADMIXTURES. FLY ASH AND BLAST-FURNACE SLAG (UP TO 25%) MAY BE USED. HOWEVER, FLY ASH AND BLAST-FURNACE SLAG CAN PRODUCE SLOWER INITIAL STRENGTH GAIN, WHICH NEEDS TO BE CONSIDERED IN COLD WEATHER. . GROUT FOR BOLT EMBEDS AND UNDER BEAM OR BASE PLATES: ASTM C-1107,

5,000 PSI, NON-SHRINK. I. REINFORCING: ASTM A-615, GRADE 60.

. SINGLE WYTHE 6" THICK OR MORE CONSTRUCTED WITH BRICK, BLOCK, OR ANY COMBINATION THEREOF (EXCEPT 4" VENEERS SEPARATED BY AIR SPACE) SHALL HAVE GALVANIZED LADDER TYPE HORIZONTAL JOINT REINFORCING AT 16" O/C MAXIMUM WITH PREFABRICATED CORNER AND "T" PIECES UNLESS NOTED. PARAPET WALLS SHALL HAVE HORIZONTAL JOINT REINFORCING AT 8" O/C. LAP SPLICES 6" MIN. PROVIDE AN ADDITIONAL ROW ABOVE AND BELOW OPENINGS AND EXTEND 2'-0" BEYOND JAMBS. STOP HORIZONTAL JOINT REINFORCING EACH SIDE OF CONTROL AND EXPANSION JOINTS.

Baltimore, MD 21218-5110

P. LAP SPLICES IN REINFORCING 48 BAR DIAMETER MINIMUM. UNLESS NOTED OTHERWISE, VERTICAL REINFORCING TO BE FULL HEIGHT OF WALL AND DOWELED INTO FOOTINGS.

O. SHORE REINFORCED WALLS UNTIL CONCRETE SLABS ARE POURED AND CURED. R. (SEE MASONRY INSPECTION NOTES 4.2).

S. SUBMIT MATERIAL CERTIFICATION FOR:

1. BRICK UNITS

2. BLOCK UNITS MORTAR

4. GROUT

5. HORIZONTAL JOINT REINFORCING



MASONRY INSPECTIONS

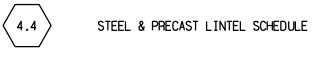
A. ENGAGE THE SERVICES OF A QUALIFIED INDEPENDENT TESTING AND INSPECTION AGENCY TO INSPECT MASONRY MATERIALS AND CONSTRUCTION DURING ERECTION.

B. LEVEL OF QUALITY ASSURANCE, PER BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530/ASCE 5/TMS 402), (ACI 530.1/ASCE 6/TMS 602), SHALL BE:

TABLE 1.14.1 - LEVEL 1

MINIMUM TESTS AND SUBMITTALS CERTIFICATES FOR MATERIALS USED IN MASONRY CONSTRUCTION INDICATING COMPLIANCE WITH CONTRACT DOCUMENTS.

MINIMUM INSPECTION VERIFY COMPLIANCE WITH APPROVED SUBMITTALS.



A. PROVIDE AND INSTALL LINTELS FOR OPENINGS IN MASONRY WALLS (NOT TO BE LIMITED TO OPENINGS SHOWN ON STRUCTURAL PLANS). UTILIZE LINTEL SIZES AS INDICATED ON THE SCHEDULE BELOW, UNLESS NOTED OTHERWISE ON PLAN. (COORDINATE OPENINGS FOR MECHANICAL TRADES, ARCHITECTURAL OPENINGS IN NONBEARING WALLS, ETC.)

B. WELD MULTIPLE ANGLE LINTELS AT ENDS AND 1/3 POINTS OF SPAN.

C. SHORE LINTELS TO PREVENT ROTATION DURING CONSTRUCTION. D. LINTELS TO HAVE MINIMUM 8" BEARING ON SOLID MASONRY FOR A MINIMUM

16" DEEP EACH END, UNLESS NOTED OTHERWISE.

MARK	MATERIALS	REMARKS
L-1	1-L4x3½x546 LLV FOR EACH 4" WALL THICKNESS FOR OPENINGS UP TO 6'-0"	FOR CAVITY WALLS, REPLACE 1-L4x3½x5/6 LLV WITH 1-L5x5x3/8
L-2	1-L6x3½x5/16 LLV FOR EACH 4" WALL THICKNESS FOR OPENINGS UP TO 6'-1" TO 10'-0"	FOR CAVITY WALLS, REPLACE 1-L6x3½x5/6 LLV WITH 1-L5x5x¾8
P-1	1-4x8 PRECAST MASONRY LINTEL EACH 4" WALL THICKNESS OR 1-6x8 EACH 6" WALL THICKNESS WITH 1-#4 BOTTOM BAR	FOR OPENINGS UP TO 2'-8"
P-2	1-4X8 PRECAST MASONRY LINTEL EACH 4" WALL THICKNESS OR 1-6x8 EACH 6" WALL THICKNESS WITH 1-#3 TOP AND 1-#4 BOTTOM BAR	FOR OPENINGS UP TO 3'-0" TO 6'-0"
P-3	1-4X8 PRECAST MASONRY LINTEL EACH 4" WALL THICKNESS OR 1-6x8 EACH 6" WALL THICKNESS WITH 1-#3 TOP AND 1-#5 BOTTOM BAR	FOR OPENINGS UP TO 6'-1" TO 10'-0"



STRUCTURAL STEEL

. UNLESS GOVERNED BY BUILDING CODE OR LOCAL AMENDMENTS: FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH AISC MANUAL OF STEEL CONSTRUCTION, FOURTEENTH EDITION, AND OSHA STEEL ERECTION STANDARDS UNLESS NOTED ON DRAWINGS OR SPECIFICATIONS. WHEN THERE IS A CONFLICT, THE MOST STRINGENT IS TO APPLY.

B. SUBMIT COMPLETE SHOP AND ERECTION DRAWINGS FOR REVIEW PRIOR TO FABRICATION. REPRINTS OF CONTRACT DOCUMENTS ARE NOT ACCEPTABLE. C. STEEL - ASTM A-36 FOR ANGLES, CHANNELS, AND MISCELLANEOUS SHAPES.

- ASTM A-992 (50 KSI) FOR WF SHAPES. D. STRUCTURAL TUBES (RECTANGULAR AND ROUND) - ASTM A-500, GRADE B. E. STRUCTURAL PIPES - ASTM A-501, OR ASTM A-53, TYPE E, GRADE B. F. SUPPLY STEEL LINTELS REQUIRED FOR WALL SUPPORT. LINTELS WILL BE INSTALLED UNDER MASONRY DIVISION.

G. COLUMN BASE ANCHOR RODS - ASTM F-1554, GRADE 36

AMERICAN WOOD COUNCIL (AWC).

SHOP COAT.

REVIEW PRIOR TO USE.

B. PLYWOOD: APA - THE ENGINEERED WOOD ASSOCIATION GRADE TRADE MARKED MEETING THE REQUIREMENTS OF THE LATEST EDITION, PER CODE, OF U.S. PRODUCT STANDARD PS-1.

WOOD FRAMING

AFTER BUILDING IS COMPLETED WITH TWO ADDITIONAL COATS OF RUST

INHIBITIVE PAINT AFTER ERECTION. PAINT SHALL BE COMPATIBLE WITH

J. ENGAGE THE SERVICES OF A QUALIFIED INSPECTION AND TESTING AGENCY TO

. ANCHORS AND FASTENERS SHALL HAVE CAPACITIES SHOWN ON DRAWINGS.

W. SUBMIT CAPACITIES OF ALL ANCHORS AND POWER ACTUATED FASTENERS FOR

A. WOOD FRAMING AND FASTENERS - COMPLY WITH THE RECOMMENDATIONS OF THE

INSPECT STRUCTURAL STEEL PLACEMENT AND CONNECTIONS.

. PANEL THICKNESS AND IDENTIFICATION INDEX SHALL BE AT LEAST EQUAL TO THAT SHOWN ON THE DRAWINGS. INSTALL AND CONNECT IN ACCORDANCE WITH THE RECOMMENDATIONS OF APA - THE ENGINEERED WOOD ASSOCIATION.

D. ATTACH PLYWOOD FLOOR SHEATHING USING GLUE AND NAILS. E. NAILS AS OUTLINED IN GENERAL NOTES AND DRAWINGS ARE FOR COMMON NAIL TYPE AND SIZES AND ARE AS FOLLOWS: 8D (0.134 DIA.) 2.5 INCHES 10D (0.148) 3 INCHES

12D (0.148) 3-1/4 INCHES 16D (0.165) 3-1/2 INCHES. . UNLESS OTHERWISE NOTED ON DRAWINGS, ATTACH PLYWOOD TO FRAMING WITH MIN. 8d NAILS AT 6" O/C ON EDGES OF SHEET AND 12" O/C ON EACH

INTERIOR SUPPORT. G. STRUCTURAL LUMBER (2"-4" THICK, EXCEPT NONBEARING STUDS AND PLATES) - SPRUCE-PINE-FIR NO. 1/NO. 2 OR BETTER WITH 19% MAXIMUM MOISTURE CONTENT IN USE AND SHALL HAVE THE FOLLOWING MINIMUM UNFACTORED PROPERTIES:

E = 1,400,000 PSI fe = 425 PSI fb = 875 PSI ft = 450 PSI

fc (PARALLEL TO GRAIN) = 1,150 PSI fv = 135 PSI H. PRESSURE TREATED LUMBER - SOUTHERN PINE #2 WITH THE FOLLOWING RETENTION LEVELS: FOR ABOVE GROUND USE - Ø.4 PCF FOR PROCESSES USING

ACO AND CBA-A, Ø.2 FOR PROCESS USING CA-B. INSTALL DOUBLE JOISTS UNDER PARTITIONS PARALLEL TO FRAMING.

J. ATTACH MULTIPLE MEMBERS TOGETHER AS FOLLOWS: 2-2X: 2 ROWS 16d NAILS @ 16" 0/C TOP LOADED WITH 3-2X: 2 ROWS 16d NAILS @ 16" O/C SIDE LOADED 3-2X6 AND 3-2X8: 2 ROWS- 16d NAILS @ 12" O/C SIDE LOADED 3-2X10 AND 3-2X12: 3 ROWS- 16d NAILS @ 12" O/C

4-2X12: 2 ROWS - 1/2" BOLTS @ 24" O/C K. PROVIDE FLUSH FRAMED JOISTS AND HEADERS WITH A PREFABRICATED GALVANIZED (SADDLE TYPE) METAL CONNECTOR UNLESS NOTED OTHERWISE. HANGERS SHALL BE 18 GAGE MINIMUM THICK AND HAVE CAPACITY TO RESIST 400* MINIMUM FOR EACH 2X MEMBER IN SHEAR FOR SPECIES OF WOOD USED.

BRIDGING FOR WOOD JOISTS (ROOF AND FLOOR) TO BE DIAGONAL WOOD SPACED AS FOLLOWS:

SPANS OVER 8'-0" - ONE ROW SPANS OVER 15'-0" - TWO ROWS

W. PROVIDE STUD BEARING WALLS WITH 2 CONTINUOUS TOP PLATES AND 1 CONTINUOUS BOTTOM PLATE PLUS A MINIMUM OF ONE ROW OF HORIZONTAL BRIDGING AT MID HEIGHT OF WALL, UNLESS NOTED OTHERWISE.

N. EXPOSED STRUCTURAL FRAMING MEMBERS IN ABOVE GROUND USE AND WOOD PLATES IN CONTACT WITH SLABS ON GRADE TO BE PRESSURE TREATED LUMBER. TREAT WOOD WITH A WATERBORNE PRESERVATIVE MATERIAL WITH ONE OF THE FOLLOWING: ALKALINE COPPER QUAT (ACQ) TYPES B OR D, OR COPPER AZOLE (CBA-A, CA-B).

O. STEEL MATERIALS IN CONTACT WITH PRESSURE TREATED LUMBER TO BE HOT DIPPED GALVANIZED. MINIMUM GALVANIZED COATING FOR PREFABRICATED METAL CONNECTORS TO BE G-185 PER ASTM A-653. CONNECTORS HOT DIPPED GALVANIZED AFTER FABRICATION TO BE IN ACCORDANCE WITH ASTM A-123. FASTENERS HOT DIPPED GALVANIZED AFTER FABRICATION TO BE IN ACCORDANCE WITH ASTM A-153. MECHANICALLY GALVANIZED FASTENERS TO BE IN ACCORDANCE WITH ASTM B-695, CLASS 55.

P. PROVIDE SOLID (CONTINUOUS) BRIDGING AT BEARING POINTS. D. CONNECT ROOF JOISTS AT EACH BEARING POINT WITH PREFABRICATED GALVANIZED METAL CONNECTORS UNLESS OTHERWISE NOTED. EACH CONNECTOR SHALL BE 18 GAGE MINIMUM THICK AND SHALL HAVE THE MINIMUM UPLIFT AND SHEAR CAPACITY NOT LESS THAN 350# UPLIFT AND 130# SHEAR (EQUIVALENT TO 2 - H2.5A SIMPSON, INC. ANCHORS) FOR THE SPECIES OF WOOD USED.

FASTENERS AT 2'-0" MAXIMUM O/C, STAGGERED. MINIMUM CAPACITY OF EACH

MARK	MATERIALS	REMARKS
WL-1	2 - 2 X 8 FOR 4" STUD WALL 3 - 2 X 6 FOR 6" STUD WALL	FOR OPNGS. UP TO 4'-6"
WL-2	2 - 2 X 10 FOR 4" STUD WALL 3 - 2 X 8 FOR 6" STUD WALL	FOR OPNGS. UP TO 5'-6"
WL-3	2 - 2 X 12 FOR 4" STUD WALL 3 - 2 X 10 FOR 6" STUD WALL	FOR OPNGS. UP TO 7'-0"
WL-4	3 - 2 X 12 FOR 6" STUD WALL	FOR OPNGS. UP TO 9'-8"

CONSTRUCTION (AITC) 112.

HEAVY TIMBER DECKING

WOOD DECK SHALL BE NOMINAL 2x6 TONGUE AND GROOVE DECKING. DECK LUMBER SHALL BE DOUG FIR #1 HAVING A MINIMUM FB = 1000 PSI, MINIMUM E = 1700 KSI AND A MAXIMUM MOISTURE CONTENT OF 15% IN USE.

DECK SHALL BE LAID (THREE SPAN CONTINUOUS, ETC.) DECK GRADING, INSTALLATION, AND CONNECTIONS SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER

CUT DECK ENDS SQUARE AND FIT TIGHT TOGETHER. PROTECT DECKING FROM DAMAGE AND FROM THE ELEMENTS UNTIL THE BUILDING I

ATTACH DECK TO SUPPORTS WITH 2-16d NAILS EACH NOMINAL 2X AND 2-20d NAILS EACH NOMINAL 3X.



PREFABRICATED WOOD TRUSSES

A. DESIGN AND INSTALL TRUSSES, BRACING, AND CONNECTORS FOR TRUSSES IN STRICT ACCORDANCE WITH APPLICABLE BUILDING CODE REQUIREMENTS AS WELL AS THE STRUCTURAL BUILDING COMPONENTS ASSOCIATION (SBCA) AND BY THE TRUSS PLATE INSTITUTE (TPI), UNLESS NOTED OTHERWISE ON THE DRAWINGS. B. DESIGN TRUSSES TO RESIST LOADS SHOWN ON THE DRAWINGS. ONLY THE OUTLINES OF THE TRUSSES HAVE BEEN SHOWN. WEB CONFIGURATION SHALL BE

THE RESPONSIBILITY OF THE MANUFACTURER.

C. TRUSSES TO BE DESIGNED FOR DEFLECTIONS AS FOLLOWS: ROOF: LIVE LOAD L/240, L/360 WITH PLASTER OR STUCCO CEILINGS. TOTAL LOAD - L/240 D. PROVIDE TRUSSES WITH CAMBER IN ACCORDANCE WITH "DESIGN SPECIFICA-

TIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES, "LATEST EDITION

PER CODE, TPI-85P AND PCT-85. . INSTALL BRACING OF WOOD TRUSSES IN ACCORDANCE WITH MANUFACTURERS DESIGN, SBCA, AND TPI, UNLESS NOTED OTHERWISE. THE MINIMUM BRACING ELEMENTS NOTED BELOW ARE TO REMAIN IN PLACE IN THE FINISHED

1. CONTINUOUS LATERAL BRACING REQUIRED BY TRUSS DESIGN INCLUDING DIAGONAL BRACING AT ENDS OF THE BUILDING AND AT 16'-0" MAXIMUM

INTERVALS IN THE LENGTH OF THE BUILDING. 2. WEB MEMBER PLANE BRACING.

TRUSS MANUFACTURER.

3. BOTTOM CHORD PLANE BRACING. F. TRUSS SUPPLIER SHALL TAKE SPECIAL CARE TO DESIGN AND SUPPLY LATERAL BRACING FOR COMPRESSION MEMBERS OF TRUSSES SHIPPED IN MULTIPLE

PIECES AND FIELD CONNECTED. G. LUMBER SHALL CONFORM TO THE RECOMMENDATIONS OF THE "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION, "LATEST EDITION PER CODE, AS PUBLISHED BY THE AMERICAN WOOD COUNCIL. EACH PIECE SHALL BE GRADE

1. SUBMIT WRITTEN COPIES OF LOAD TEST DATA FOR ALLOWABLE LOADS ON CONNECTORS TO BE USED WITH FIRST SUBMISSION OF SHOP DRAWINGS. . TRUSS MANUFACTURER SHALL COORDINATE PLATE MATERIAL WITH ANY SPECIFIED TREATMENT PROCESS.

. CONNECT ROOF TRUSSES AT EACH BEARING POINT WITH PREFABRICATED GALVANIZED METAL CONNECTORS AT EACH TRUSS, UNLESS OTHERWISE NOTED. EACH CONNECTOR SHALL BE 18 GAGE MINIMUM THICK AND SHALL HAVE THE UPLIFT AND SHEAR CAPACITY AS REQUIRED BY THE TRUSS MANUFACTURER, BUT SHALL NOT BE LESS THAN 350# UPLIFT AND 130# SHEAR (EQUIVALENT TO 2 H2.5A SIMPSON ANCHORS) FOR THE SPECIES OF WOOD USED.

TRUSS-TO-TRUSS AND TRUSS-TO-HEADER CONNECTIONS SHALL BE DESIGNED BY

Issued for: BID SET

DRAWINGS OF TRUSSES. SHOP DRAWINGS SHALL INCLUDE MEMBER STRESSES, MEMBER GRADES AND SIZES, SIZE AND LOCATION OF CONNECTOR PLATES, SIZE AND LOCATION OF PERMANENT TRUSS BRIDGING AND MEMBER BRACING, DATA

RELATIVE TO PREFABRICATED HANGERS FOR TRUSS-TO-TRUSS AND TRUSS-TO-HEADER CONNECTIONS, DESIGN COMPUTATIONS, AND ERECTION PLANS. REPRINTS OF CONTRACT DRAWINGS ARE NOT ACCEPTABLE. DESIGN COMPU-TATIONS AND SHOP DRAWINGS SHALL BE SIGNED BY A PROFESSIONAL ENGINEER (REGISTERED IN THE JURISDICTION WHERE THE PROJECT IS LOCATED). ONLY SHOP DRAWINGS BEARING THE STAMP OF THE ARCHITECT SHALL BE USED FOR

. SUBMIT TO THE ARCHITECT, PRIOR TO FABRICATION, COMPLETE SHOP

FABRICATION AND ERECTION M. THE BASIC STABILITY OF THE STRUCTURE IS DEPENDENT UPON THE DIAPHRAGM ACTION OF FLOORS, WALLS, AND ROOF ACTING TOGETHER. CONTRACTOR TO PROVIDE GUYS, BRACES, STRUTS, ETC., TO ACCOMMODATE LIVE, DEAD, AND WIND LOADS UNTIL FINAL CONNECTIONS BETWEEN THESE ELEMENTS ARE MADE. PERMANENT BRIDGING REQUIRED BY TRUSS DESIGN SHALL BE SIZED AND SUPPLIED BY TRUSS MANUFACTURER. SPECIAL CARE SHALL BE TAKEN TO SIZE AND SUPPLY LATERAL BRACING REQUIRED FOR COMPRESSION MEMBERS OF TRUSSES SHIPPED IN TWO PIECES AND FIELD CONNECTED.

N. BRIDGING, MEMBER BRACING, ETC., SHALL BE BY MANUFACTURERS DESIGN AND SHALL BE INSTALLED BY CONTRACTOR IN STRICT ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.

). ENGAGE THE SERVICES OF AN INDEPENDENT INSPECTION AGENCY TO VISUALLY INSPECT TRUSSES BEFORE AND AFTER ERECTION. INSPECTION AGENCY SHALL CERTIFY THAT THE TRUSSES, CONNECTIONS, AND BRACING HAVE BEEN INSTALLED IN COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.



LAMINATED VENEER LUMBER

A. LVL SHALL BE OF WIDTH, DEPTH, AND OF MULTIPLES AS SHOWN ON PLANS. B. EACH LVL BEAM SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

E = 1,900,000 PSI fb = 2,600 PSI

fc (PARALLEL TO GRAIN) = 2,500 PSI fe = 750 PSI

ft = 1,550 PSI

fv = 285 PSI . WRAP EACH LVL BEAM WITH A WATERPROOF COVERING UNTIL AREA WHERE BEAM IS PLACED IS PROTECTED FROM THE ELEMENTS.

). ATTACH MULTIPLE MEMBERS TOGETHER AS FOLLOWS:

TOP & SIDE LOADED: 2- LVL UP TO 12" DEEP- 2 ROWS 16d NAILS @ 12" OC 2- LVL 14" TO 18" DEEP- 3 ROWS 16d NAILS @ 12" OC TOP LOADED: 3- LVL MEMBERS- 2 ROWS 1/2" BOLTS @ 24" O/C SIDE LOADED: 3- LVL MEMBERS- 2 ROWS 1/2" BOLTS @ 16" O/C TOP LOADED OR LOADED FROM BOTH SIDES: 4 LVL-2 ROWS 1/2" BOLTS @ 24" OC

E. HOLES, NOTCHES, ETC., SHALL BE APPROVED BY THE LVL MANUFACTURER.

PERFORMANCE RATED WOOD "I" JOISTS

A. THE WOOD "I" JOISTS ARE TO BE DESIGNED AND MANUFACTURED TO FIT DIMENSIONS SHOWN ON THE DRAWINGS. THE WOOD "I" JOISTS ARE TO BE DESIGNED TO SUPPORT THE LOADINGS AS SHOWN ON THE DRAWINGS AND A MINIMUM DEFLECTION CRITERIA AS FOLLOWS:

FLOORS: LIVE LOAD DEFLECTION OF L/480. B. USE MATERIALS, METHOD OF MANUFACTURE, AND INSTALLATION PROCEDURES DESCRIBED IN THE MANUFACTURER'S CATALOG, EXCEPT AS MODIFIED IN THESE

ROOFS: TOTAL LOAD DEFLECTION OF L/240.

SPECIFICATIONS OR ON THE DRAWINGS.

C. USE BRIDGING, MEMBER BRACING, END BLOCKING, ETC., AS REQUIRED BY MANUFACTURER'S DESIGN. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. . THE BASIC STABILITY OF THE STRUCTURE IS DEPENDENT UPON THE DIAPHRAGM

ACTION OF FLOORS, WALLS, AND ROOF ACTING TOGETHER. PROVIDE GUYS, BRACES, STRUTS, ETC., TO ACCOMMODATE LIVE, DEAD, AND WIND LOADS UNTIL FINAL CONNECTIONS BETWEEN THESE ELEMENTS ARE MADE. PERMANENT BRIDGING REQUIRED BY DESIGN SHALL BE SIZED AND SUPPLIED BY JOIST MANUFACTURER. . SUBMIT TO ARCHITECT, PRIOR TO FABRICATION, MANUFACTURER'S PRODUCT

OF CONTRACT DRAWINGS ARE NOT ACCEPTABLE. SHOP DRAWINGS SHALL INCLUDE SIZE AND LOCATION OF PERMANENT BRIDGING AND ERECTION PLAN. ONLY SHOP DRAWINGS BEARING THE STAMP OF THE ARCHITECT SHALL BE USED FOR FABRICATION AND ERECTION.

. SUBMIT WRITTEN CERTIFICATION FROM MANUFACTURER THAT MEMBERS AS

FABRICATED AND ERECTED MEET WITH THE REQUIREMENTS OF DRAWINGS AND

CATALOG AND COMPLETE SHOP DRAWINGS OF FABRICATED MEMBERS. REPRINTS

SPECIFICATIONS BEFORE FINAL PAYMENT. G. STORE JOISTS FREE FROM THE GROUND IN WATERPROOF ENCLOSURE AND PROTECT FROM WEATHER UNTIL BUILDING IS ENCLOSED AND WATERTIGHT.

S001

No. Date Appr Revision Notes

STRUCTURAL ENGINEER: SKARDA & ASSOCIATES, INC. 2439 North Charles Street

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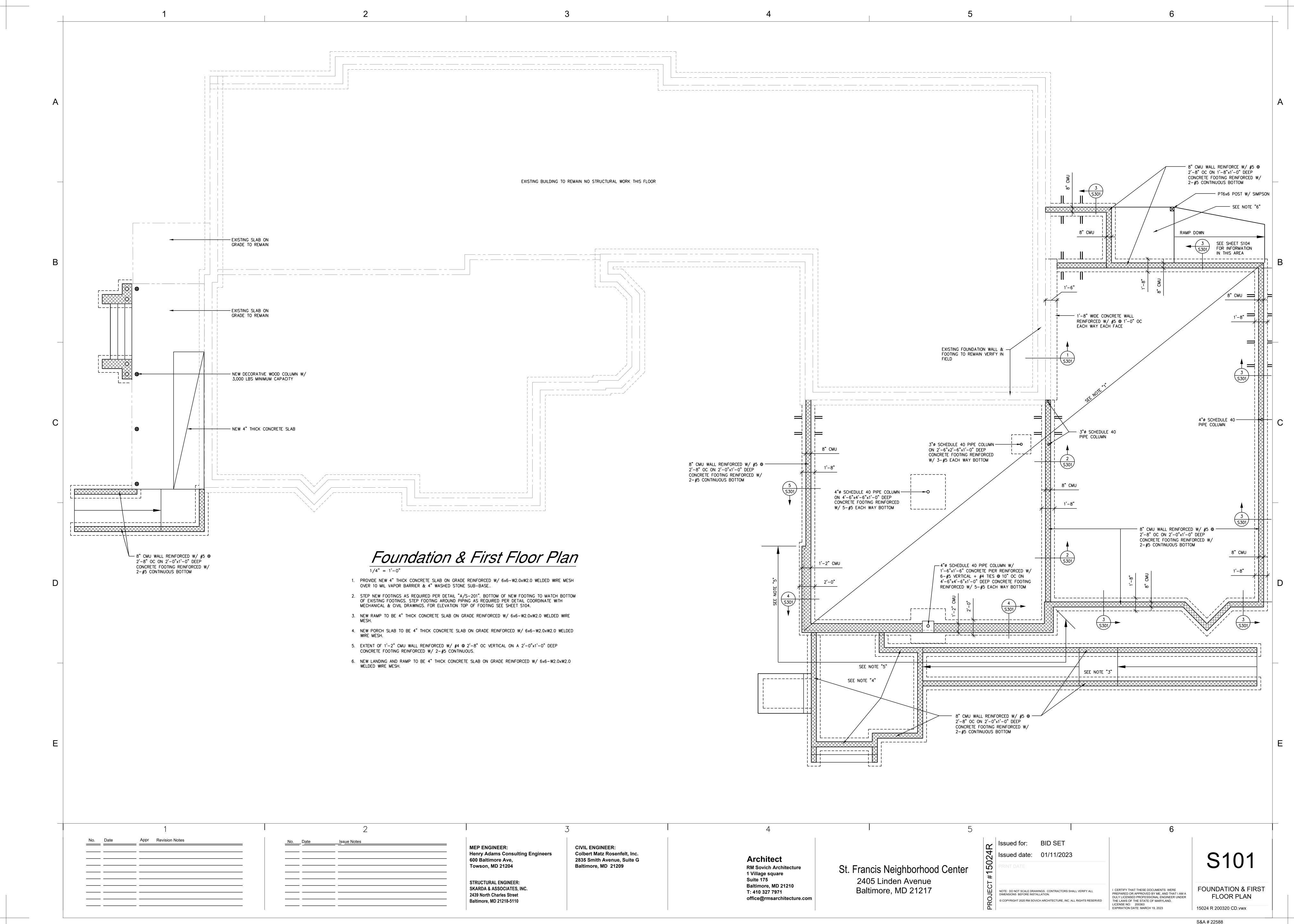
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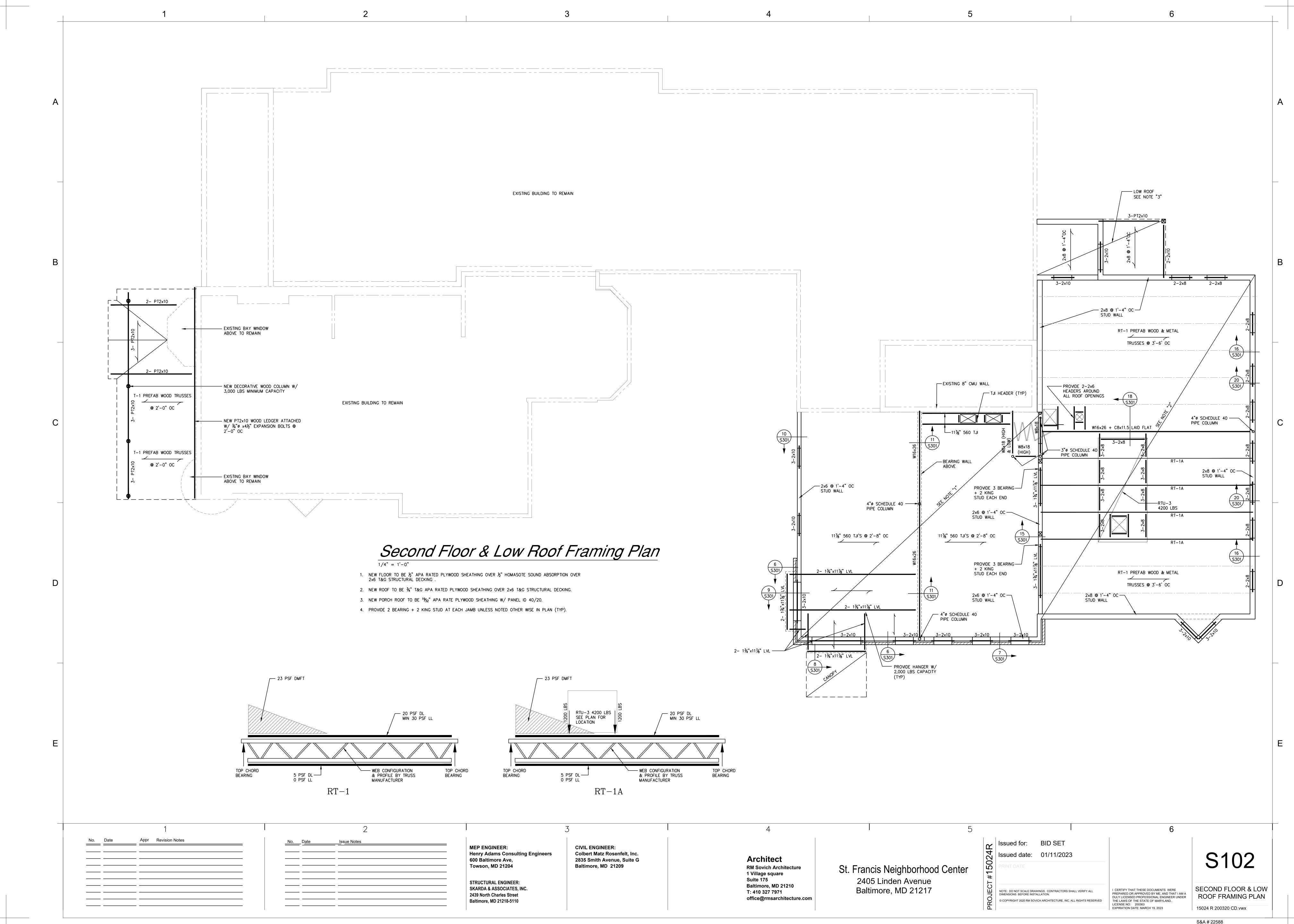
CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A THE LAWS OF THE STATE OF MARYLAND. LICENSE NO: 200363 **EXPIRATION DATE: MARCH 19. 2023**

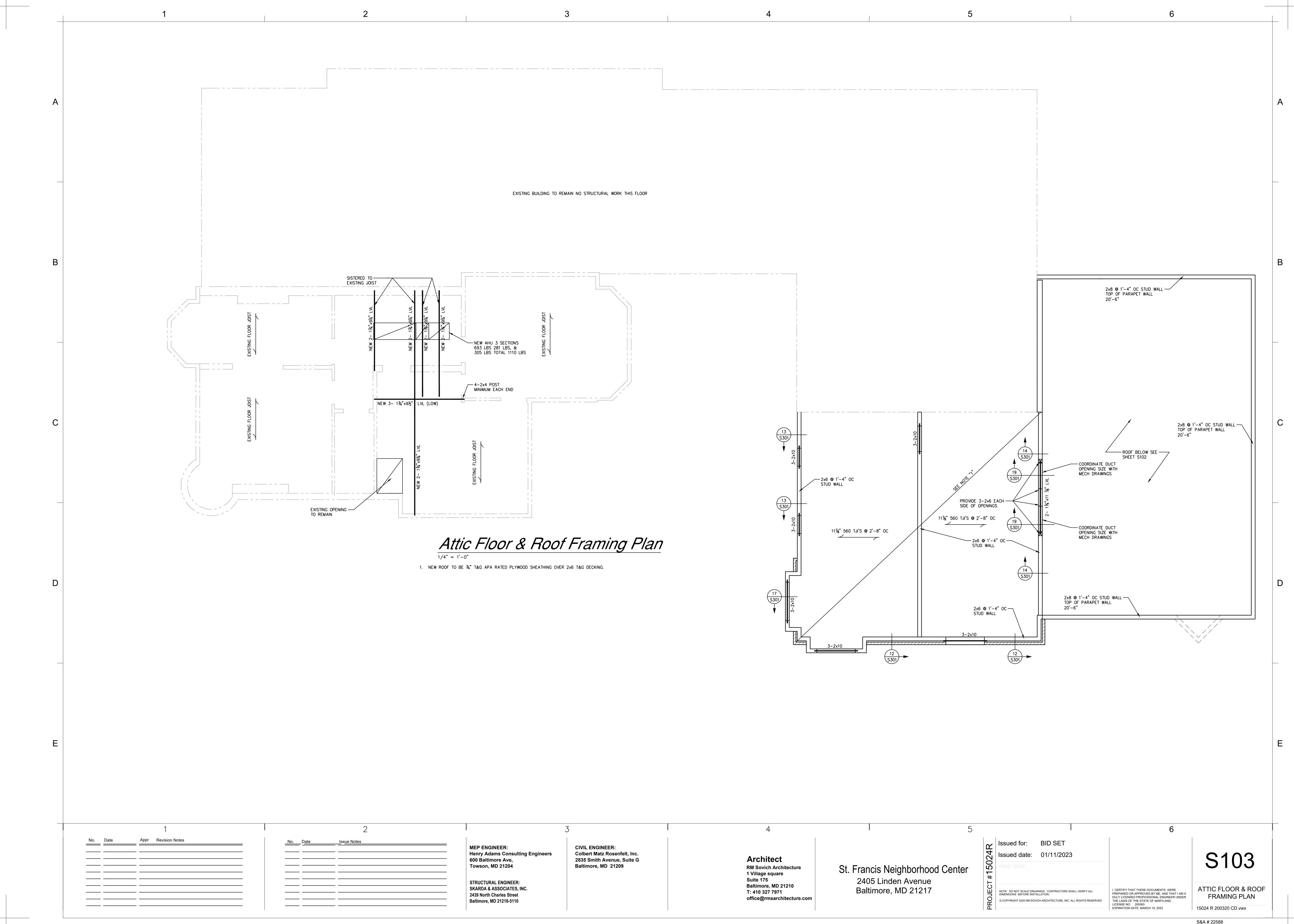
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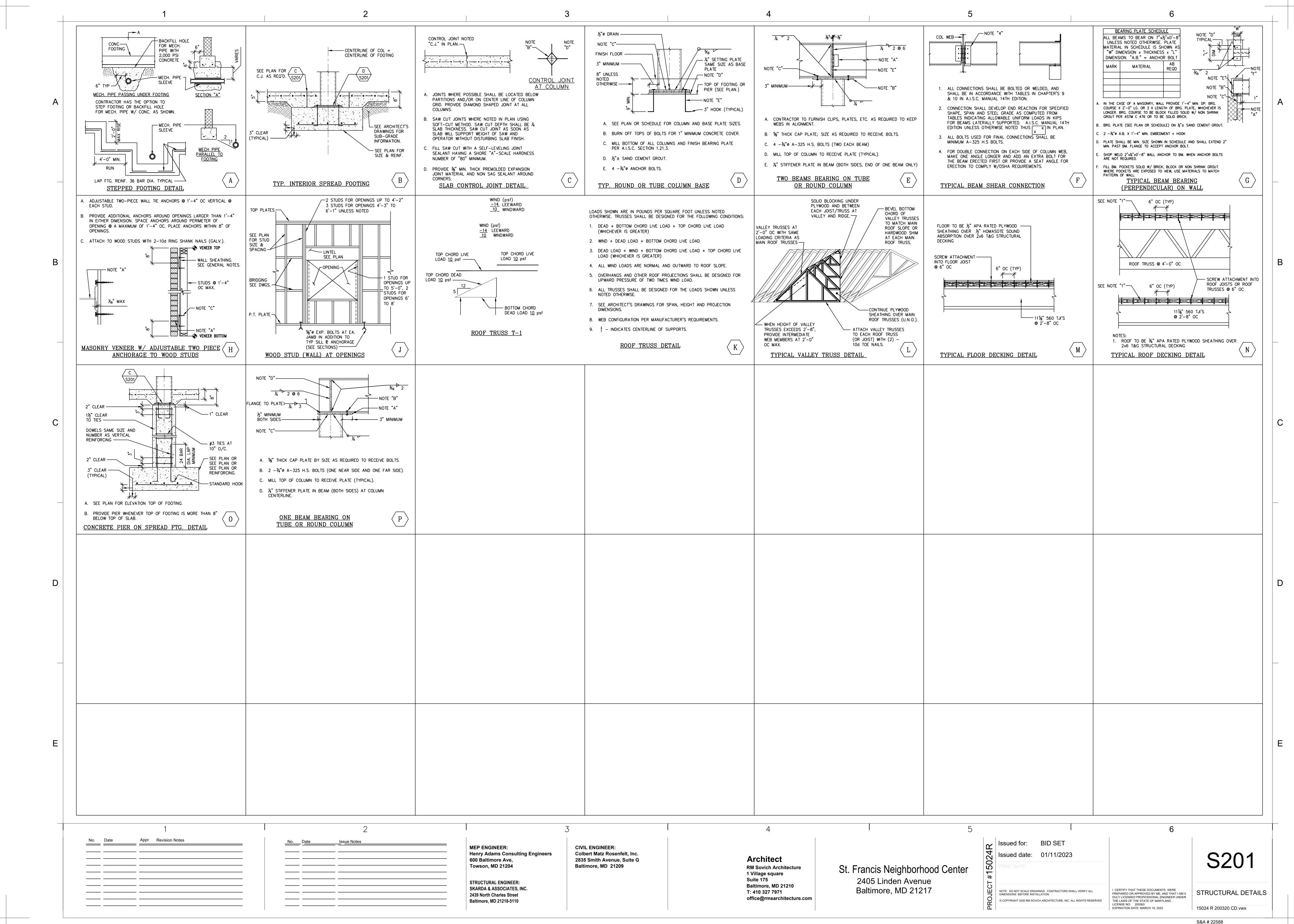
GENERAL NOTES

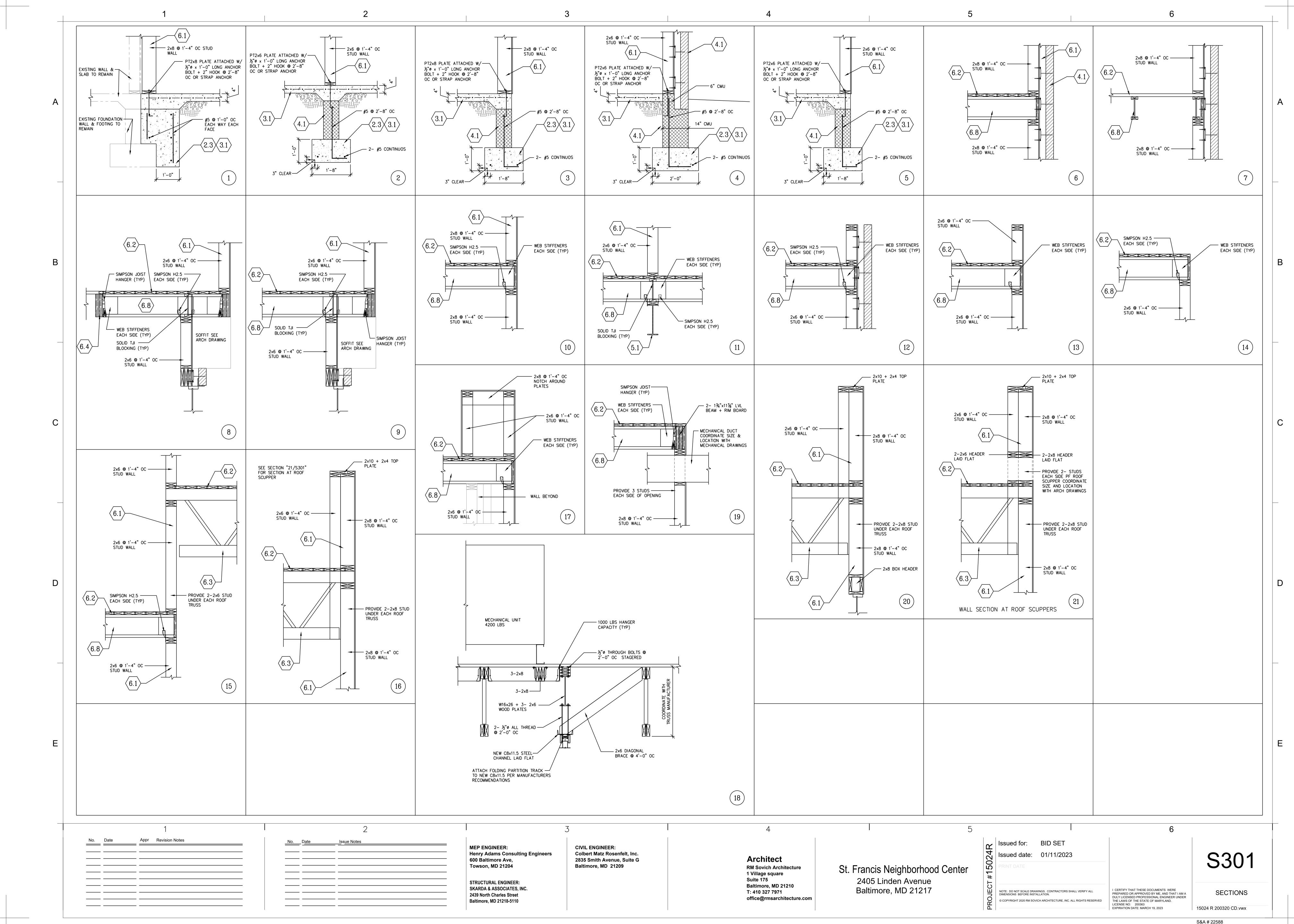




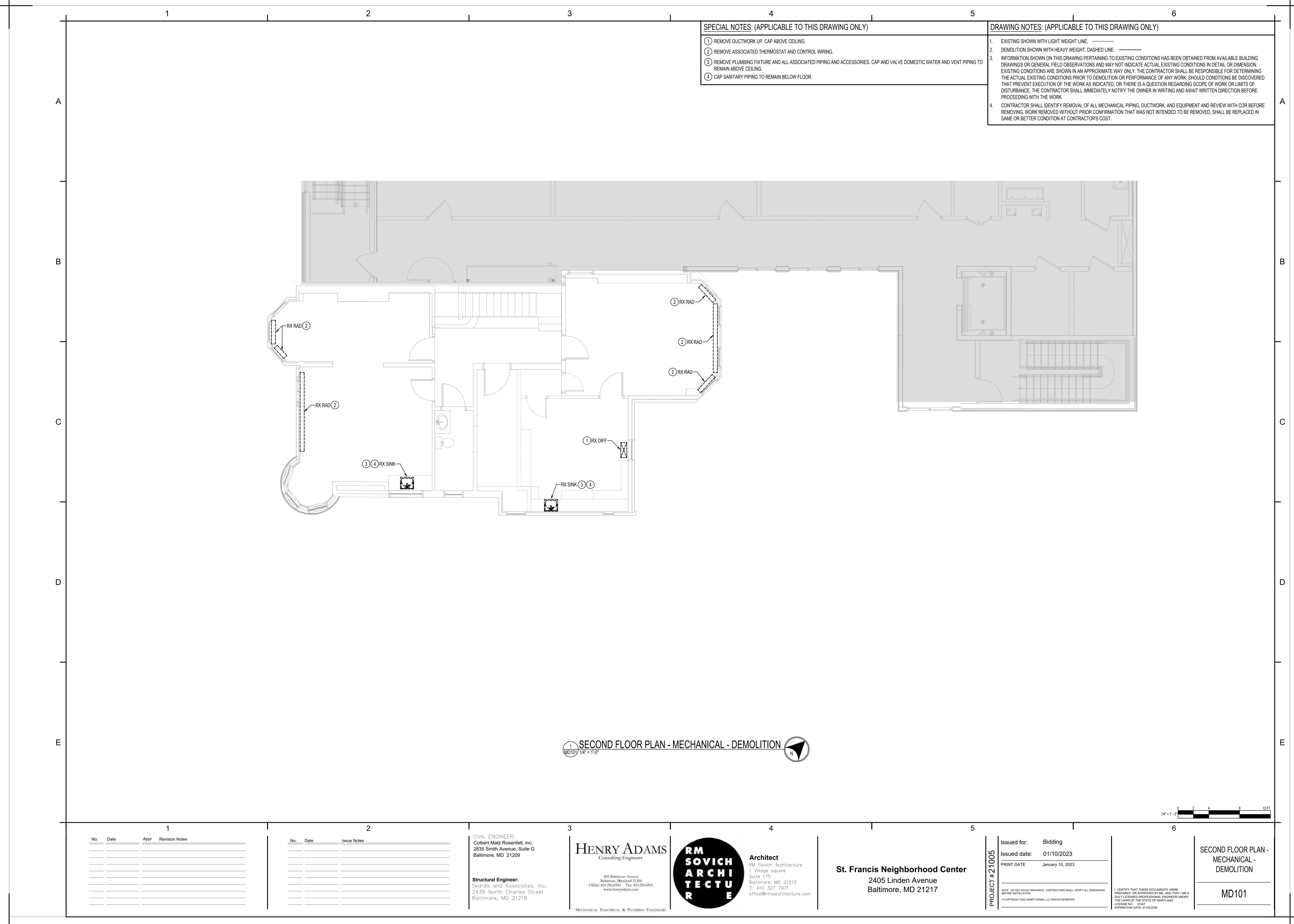


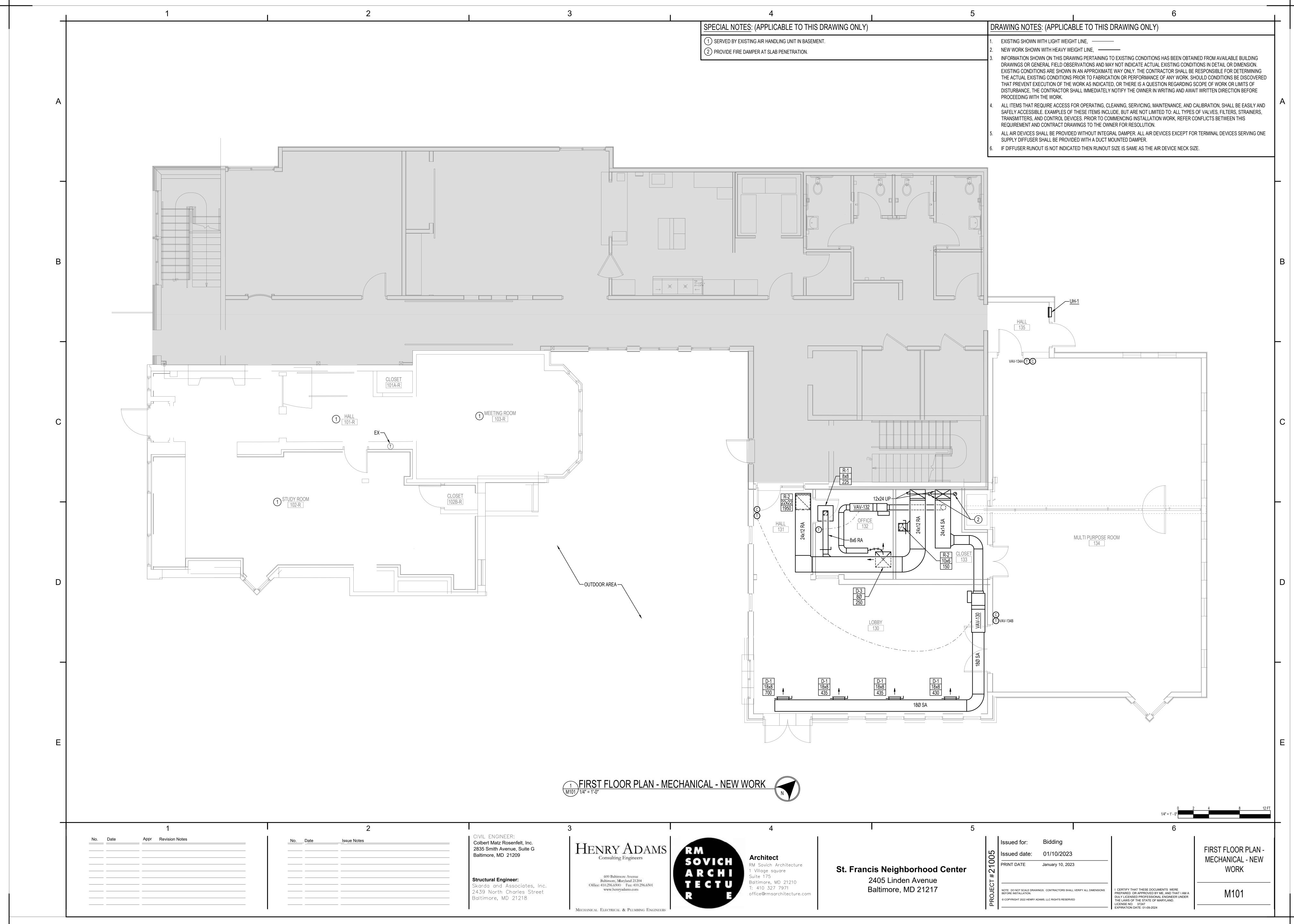
Foundation & First Floor Plan _______ 1. FOR INFORMATION NOT SHOWN SEE SHEET S101. 2. STEP NEW FOOTINGS AS REQUIRED PER DETAIL "A/S-201". BOTTOM OF NEW FOOTING TO MATCH BOTTOM OF EXISTING FOOTINGS. STEP FOOTING AROUND PIPING AS REQUIRED PER DETAIL COORDINATE WITH MECHANICAL & CIVIL DRAWINGS. 3. NEW RAMP TO BE 4" THICK CONCRETE SLAB ON GRADE REINFORCED W/ 6x6-W2.0xW2.0 WELDED WIRE 4. NEW PORCH SLAB TO BE 4" THICK CONCRETE SLAB ON GRADE REINFORCED W/ 6x6-W2.0xW2.0 WELDED 5. NEW LANDING AND RAMP TO BE 4" THICK CONCRETE SLAB ON GRADE REINFORCED W/ 6x6-W2.0xW2.0 WELDED WIRE MESH W/ 8" WIDE x 2'-6" MINIMUM DEEP CONCRETE TURNDOWN REINFORCED W/ 1-#5 CONTINUOUS BOTTOM EXTEND MESH FROM SLAB TO BOTTOM OF TURNDOWN. - 8" CMU WALL REINFORCED W/ #4 @ 2'-8" OC IN —— STEP FOOTING AS REQUIRED — GROUT FILLED CELLS ON 2'-0"x1'-0" DEEP CONCRETE BOTTOM OF NEW FOOTING FOOTIGN REINFORCED W/ 2-#5 CONTINUOUS BOTTOM TO MATCH BOTTOM OF EXISTING VERIFY LOCATION ____221.40' SEE SHEET S101 FOR — FOUNDATION INFORMATION FOR THIS AREA RAMP DOWN ╶╌╙╌╌╌╌╌┆╞╣└╌╌╌╌╌╄╙╌╌┰╌┟╌╌╌╌╌┸┸╌╌╌╌╞╌╌╌╌╌╌┼┦ 224.06' - 8" WIDE x 2'-6" MINIMUM STEP FOOTING AS REQUIRED -DEEP CONCRETE TURNDOWN BOTTOM OF NEW FOOTING REINFORCED W/ 1-#5 TO MATCH BOTTOM OF 8" CMU ➡ BOTTOM EXTEND MESH INTO EXISTING VERIFY LOCATION IN FIELD 220.06'i 8" WIDE \times 2'-6" MINIMUM EXIST PIPE INVERT— DEEP CONCRETE TURNDOWN — EXIST PIPE INVERT REINFORCED W/ 1-#5 $ELEV = 220.30' \pm$ $ELEV = 220.30' \pm$ BOTTOM EXTEND MESH INTO EXISTING FOUNDATION WALL & FOOTING TO REMAIN VERIFY IN FIELD -STEP FOOTING AS REQUIRED BOTTOM OF NEW FOOTING TO MATCH BOTTOM OF EXISTING VERIFY LOCATION IN FIELD r-----L______ 224.73' 224.73' 224.73' 222.73' L______ ______ APPROXIMATE LOCATION OF RELOCATED WATER LINES SEE SITE DRAWINGS FOR Appr Revision Notes **MEP ENGINEER: CIVIL ENGINEER:** Henry Adams Consulting Engineers Colbert Matz Rosenfelt, Inc. S104 **Architect** 600 Baltimore Ave, 2835 Smith Avenue, Suite G Towson, MD 21204 Baltimore, MD 21209 St. Francis Neighborhood Center **RM Sovich Architecture** 1 Village square Suite 175 2405 Linden Avenue Baltimore, MD 21217 STRUCTURAL ENGINEER: Baltimore, MD 21210 SKARDA & ASSOCIATES, INC. **FOUNDATION & FIRST** I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A NOTE: DO NOT SCALE DRAWINGS. CONTRACTORS SHALL VERIFY ALL DIMENSIONS BEFORE INSTALLATION. T: 410 327 7971 2439 North Charles Street FLOOR ENLARGE PLAN office@rmsarchitecture.com Baltimore, MD 21218-5110 © COPYRIGHT 2020 RM SOVICH ARCHITECTURE, INC. ALL RIGHTS RESERVED THE LAWS OF THE STATE OF MARYLAND. LICENSE NO: 200363 EXPIRATION DATE: MARCH 19, 2023 15024 R 200320 CD.vwx S&A # 22588

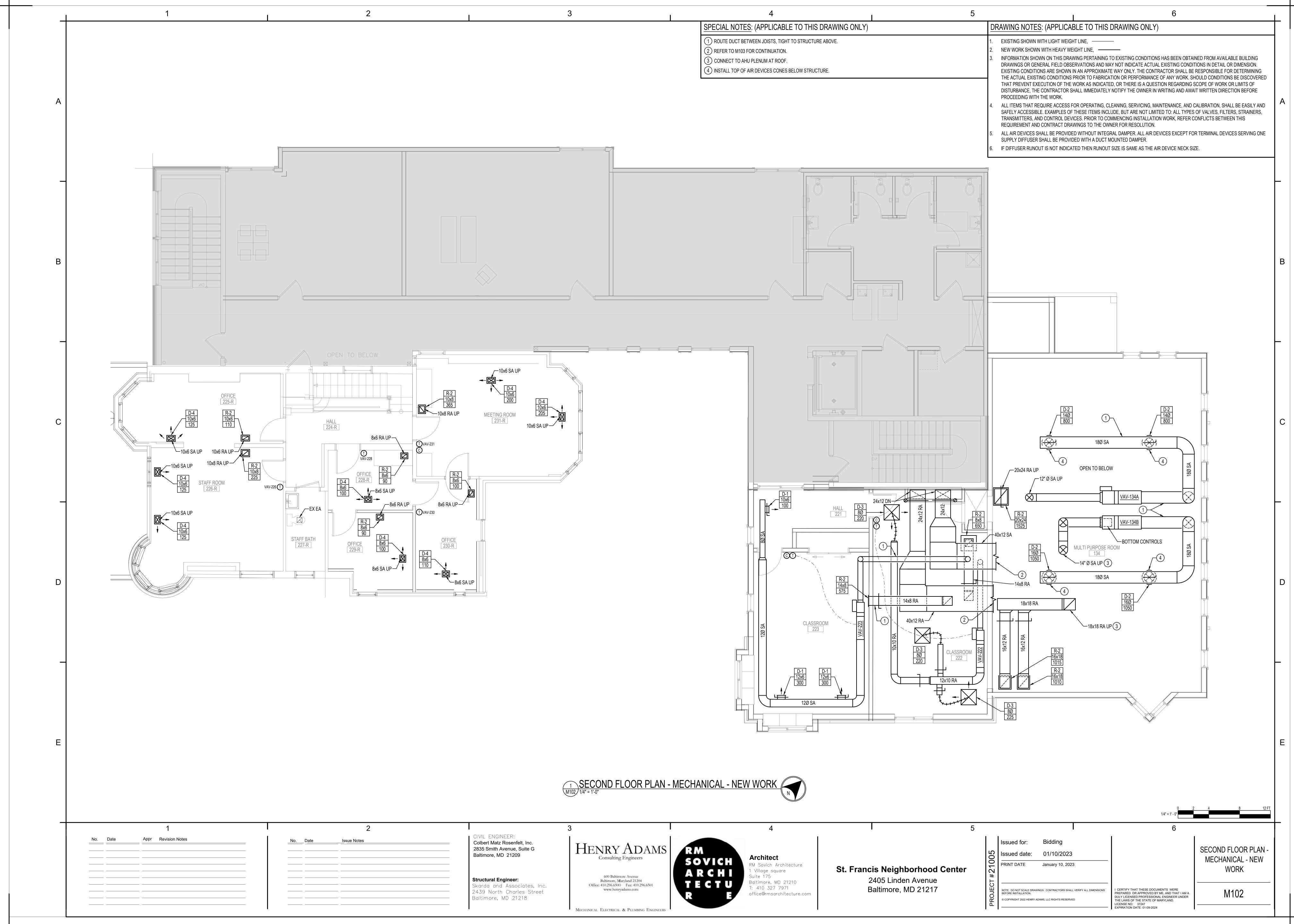


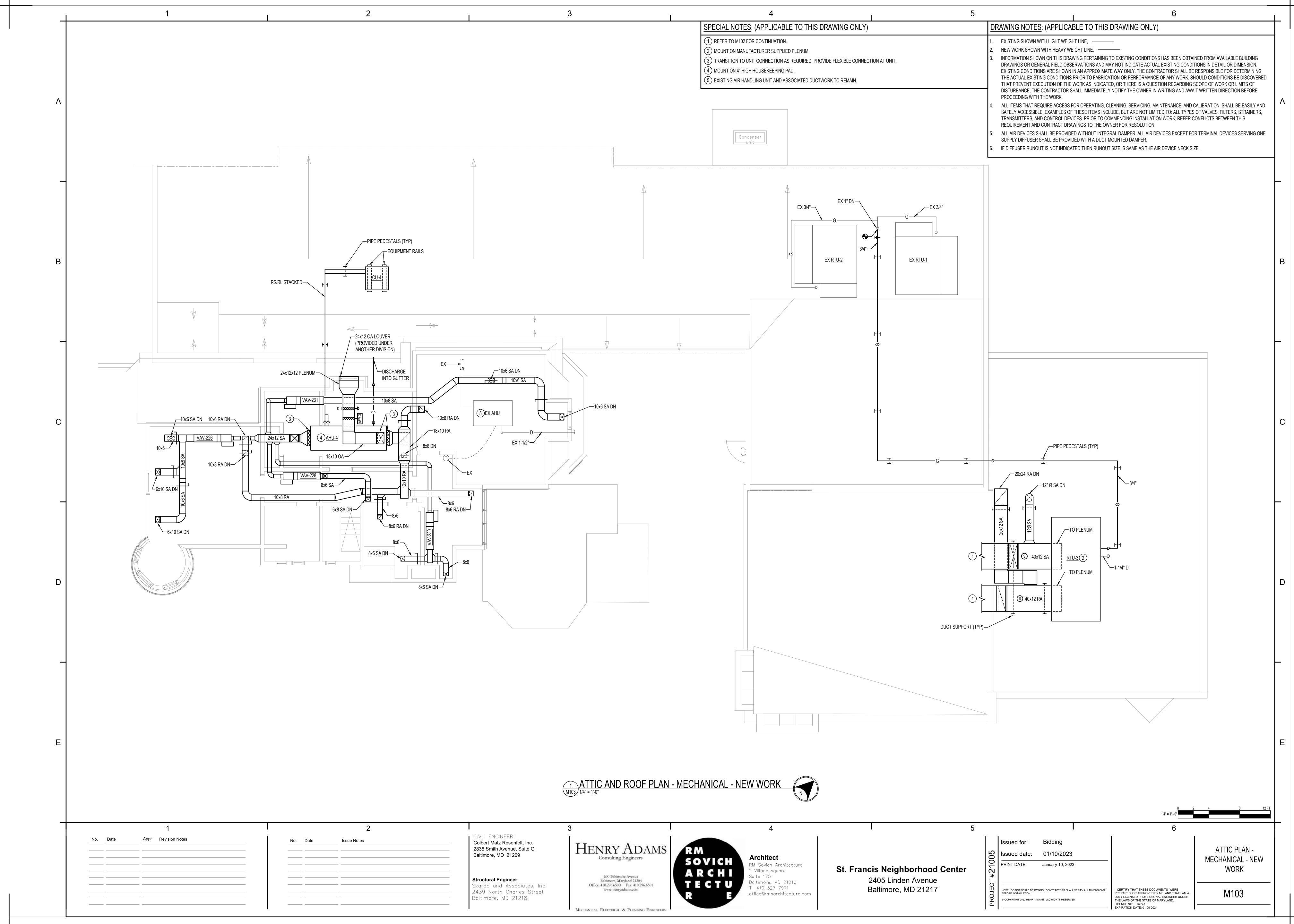


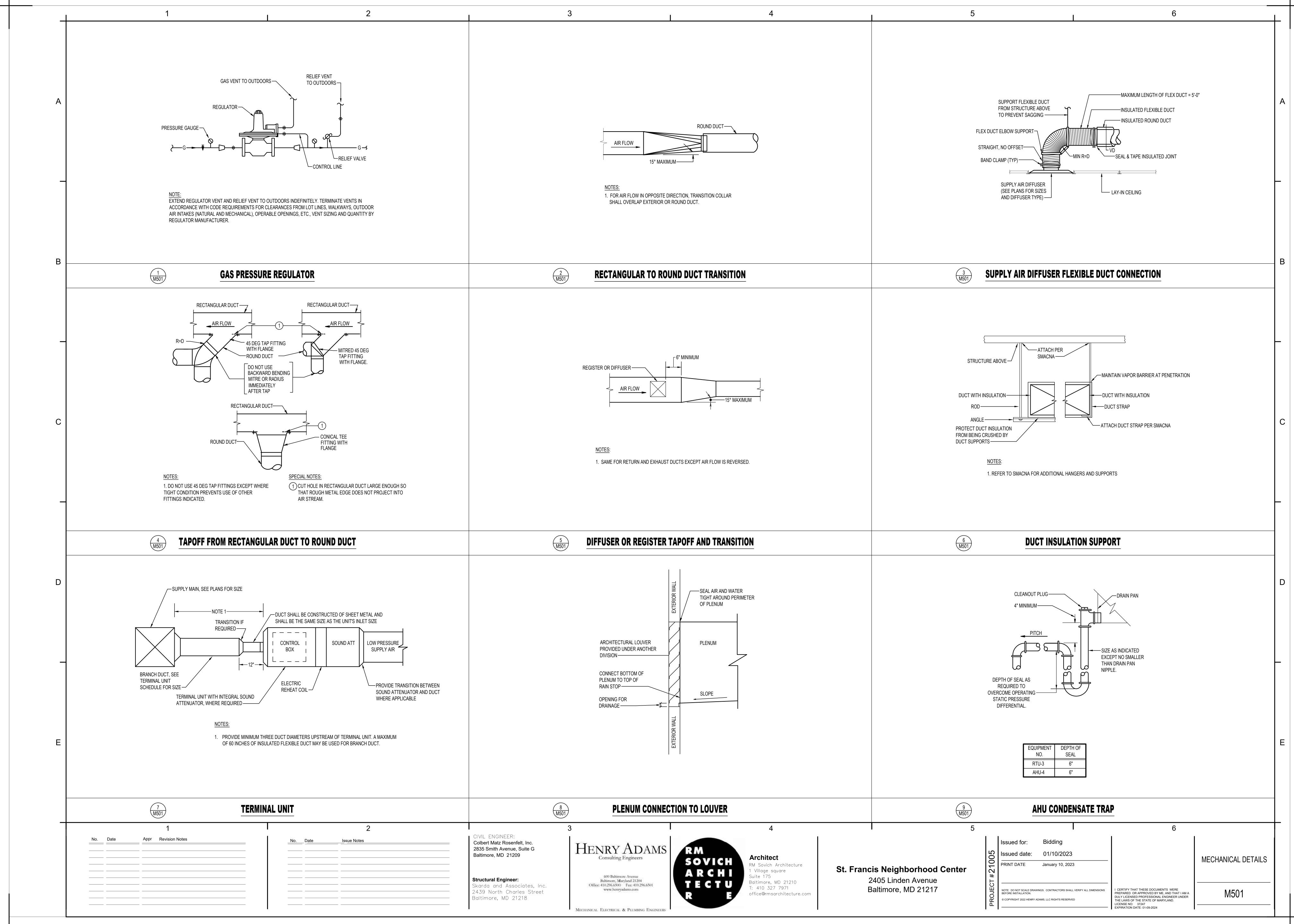
	3	4	5	6
	GENERAL NOTES: (APPLICABLE TO ALL MECHANICAL SCHEDULES) 1. UNIT NUMBERS ARE INDICATED WHERE ALL UNITS ARE LISTED AND NUMBERED	MECHANICAL ABBREVIATIONS (APPLICABLE TO ALL MECHANICAL DRAWINGS)	GENERAL MECHAI (APPLICABLE TO ALL MECHA	
	 INDIVIDUALLY. UNIT TYPES ARE DESCRIBED IN THE SPECIFICATIONS. TEMPERATURE VALUES ARE LISTED IN DEGREES FAHRENHEIT. AIR PRESSURE VALUES ARE LISTED IN INCHES OF WATER COLUMN. DUCT SIZES ARE LISTED IN SINGLE-NUMBER INCHES OF NOMINAL DIAMETER OR MULTIPLE NUMBER INCHES OF INDICATED PARAMETER. CONNECTION SIZES ARE BRANCH SIZES FROM 	AFM AIR FLOW MONITORING STATION AHU AIR HANDLING UNIT BHP BRAKE HORSEPOWER CFM CUBIC FEET PER MINUTE	 COORDINATE ALL MECHANICAL AND PLUMBING WORK WITH WORK OF OTHER TRADES S THE LOCATION OF EXISTING UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. DETEIN WORK. REPAIR ALL DAMAGES OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESS. RUN ALL DRAIN PIPING WITH 2 PERCENT MINIMUM GRADE UNLESS OTHERWISE NOTED. INSTALL PIPING AND DUCTWORK SO THAT ALL VALVES AND DAMPERS ARE ACCESSIBLE. 	RMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING SERVE ANY AND ALL UTILITIES.
A AIR HANDLING UNITS	MAINS TO UNIT INLETS.	CO2 CARBON DIOXIDE SENSOR COR CONTRACTING OFFICER REPRESENTATIVE CS CURRENT SWITCH CU CONDENSING UNIT CW COLD WATER D DIFFUSER/DEPTH/DAMPER/DRAIN	 UNLESS OTHERWISE NOTED, ROUTE ALL PIPING AND DUCTWORK OVERHEAD, TIGHT TO MAINTAIN MINIMUM 6'-8" CLEARANCE TO UNDERSIDE OF PIPES, DUCTS, CONDUITS, SUSF CERTAIN ITEMS SUCH AS ACCESS DOORS, CLEANOUTS, RISE AND DROPS IN DUCTWORK LOCATION REQUIREMENT AND SHALL NOT BE INTERPRETED AS THE EXTENT OF THE RETHESE ITEMS AS REQUIRED ELSEWHERE IN THE CONTRACT DOCUMENTS. WHERE THE INSTALLATION OF NEW SERVICES OR THE EXTENSION OF EXISTING SERVICES. 	PENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS. K AND PIPING, ETC., ARE INDICATED ON THE DRAWINGS FOR CLARITY OR A SPECIFIC QUIREMENTS FOR THESE ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SES REQUIRES CUTTING OF EXISTING FLOORS, WALLS, PARTITIONS, ETC., CHECK
UNIT LOCATION SERVICE OA MAX SA RA ESP TSP TYPE BHP TYPE BHP TYPE BHP TYPE SERVICE TOTAL SENS BHP MBH MBH SENS BHP MBH MBH SENS SENS	NOTES HEATING HEATIN	DIFF DIFFUSER DN DOWN DPS DIFFERENTIAL PRESSURE SWITCH DX DIRECT EXPANSION EAT ENTERING AIR TEMPERATURE EDB ENTERING DRY BULB	FOR THE PRESENCE OF EXISTING MECHANICAL, PLUMBING AND ELECTRICAL SERVICES PRECAUTIONS TO PREVENT DAMAGE TO THE SERVICES OR INJURY TO PERSONNEL DUE CUTTING OPERATION. SCHEDULE SERVICE OUTAGES IN ADVANCE WITH THE OWNER. 9. CONTRACTOR SHALL BE RESPONSIBLE FOR RESEARCHING ALL SYSTEMS THAT A PARTIC THIS INFORMATION IN THE OUTAGE PLAN AND SUBMIT TO THE OWNER FOR APPROVAL. 10. EXCEPT AS OTHERWISE NOTED, LOCATE ALL ROOM THERMOSTATS ABOVE FINISHED FL AND THERMOSTAT ARE ADJACENT TO EACH OTHER, LIGHT SWITCH SHALL BE CLOSEST	TO CONTACT WITH SAME. TEMPORARILY DISCONNECT SERVICES DURING THE CULAR OUTAGE WILL AFFECT AS WELL AS LOCATING ALL SHUTOFF POINTS. INCLUDE OOR ON SAME HORIZONTAL CENTERLINE AS LIGHT SWITCH. WHERE LIGHT SWITCH
 COIL SIZE IS DETERMINED BY AHU SIZE. PROVIDE 4-INCH THICK MERV RATING FILTERS. ELECTRICAL PANEL SHALL BE RATED FOR A MINIMUM OF 65 KAIC RATING. TOTAL STATIC PRESSURE INCLUDES 0.5 IN W.C. PRESSURE DROP FOR DIRTY FILTERS. TOTAL STATIC PRESSURE INCLUDES 0.57 IN W.C. PRESSURE DROP FOR DIRTY FILTERS. RTU-3 SHALL HAVE A GAS FURNACE. 		EQUIP EQUIPMENT ESP EXTERNAL STATIC PRESSURE ESS EMERGENCY SHUTDOWN SWITCH EWB ENTERING WET BULB EX EXISTING F FAHRENHEIT/FREEZESTAT	 ENGINEER OF ROOMS WHERE THE ABOVE LOCATION CANNOT BE MAINTAINED OR WHEF IN CORRIDORS WHERE CEILING SPEAKERS AND AIR DIFFUSERS ARE INDICATED BETWEE BETWEEN THE SAME FIXTURE. RECYCLE MERCURY SWITCH THERMOSTATS THAT ARE REMOVED. DELIVER RECYCLED 	RE THERE IS A QUESTION ON LOCATION. EN THE SAME LIGHTING FIXTURES, RELOCATE BOTH DEVICES TO QUARTER POINTS
7. AHU-4 SHALL HAVE AN ELECTRIC HEATING COIL. ONIT TYPE LOCATION CF	UNIT HEATERS FM APPROX SIZE EAT ELECTRICAL BASIS OF DESIGN NOTES 00 16 20 6 70 1.5 120 1 BERKO FRC	FC FLEXIBLE CONNECTION FS FLOW SWITCH FT FEET G GRILLE H HUMUDITY SENSOR	AIR DEVICE TAG —AIR DEVICE TAG —AIR DEVICE DESIGNATION,	MECHANICAL LEGEND (APPLICABLE TO ALL MECHANICAL DRAWINGS) SYMBOL DESCRIPTION
UNIT MAX MIN HEA	SINGLE DUCT AIR TERMINAL UNITS	HC HEATING COIL HOA HAND-OFF-AUTOMATIC SWITCH HP HORSEPOWER HW HOT WATER IN INCHES	NECK SIZE D-1 SEE SPECIFICATIONS AIRFLOW (CFM) 100	DUCT/PIPE CAP CONNECT TO EXISTING END OF DEMOLITION SUPPLY AIR DUCT
VAV-134B 2100 945 9 VAV-130 2000 1100 1 VAV-132 250 75 VAV-222 600 330 3 VAV-223 700 315 3	800 14 55 83 7 SCR B TITUS DESV 945 14 55 82 8 SCR B TITUS DESV 100 14 55 81 9 SCR B TITUS DESV 75 8 55 76 0.5 SCR B TITUS DESV 330 10 55 84 3 SCR B TITUS DESV 315 10 55 90 3.5 SCR B TITUS DESV	LAT LEAVING AIR TEMPERATURE LDB LEAVING DRY BULB LWB LEAVING WET BULB M MECHANICAL MAX MAXIMUM		RETURN AIR DUCT EXHAUST/RELIEF AIR DUCT VOLUME DAMPER TEMPERATURE SENSOR (ADJUSTABLE)
VAV-228 100 50		MBH THOUSAND BTU PER HOUR MD MECHANICAL DEMOLITION MIN MINIMUM N NORTH NO NUMBER		D DROP IN DUCTWORK RISE IN DUCTWORK FLEXIBLE CONNECTION SPSS STATIC PRESSURE SENSING STATION
U)		OA OUTDOOR AIR ODP OPEN DRIP PROOF PD PRESSURE DIFFERENTIAL SENSOR PH PHASE PRESS PRESSURE		——RL —— REFRIGERANT LIQUID ——RS —— REFRIGERANT SUCTION ——G —— GAS
NO.	AIR COOLED CONDENSING UNIT SERVICE COOLING CAPCITY (NOTE 2) TOTAL REFG CHARGE ELECTRICAL BASIS OF DESIGN NOTES FLOOR WEST 56 95 35 208 3 DAIKIN DX16TC0601	R REGISTER/RADIUS/REFRIGERANT RA RETURN AIR RAD RADIATOR REFG REFRIGERANT RHC REHEAT COIL RL REFRIGERANT LIQUID RS REFRIGERANT SUCTION		CONDENSATE DRAIN CONDENSATE DRAIN CONDENSATE DRAIN CARBON DIOXIDE SENSOR AFMS To AIRFLOW MONITORING STATION SHUTOFF VALVE
 R-410A REFRIGERANT. COOLING DESIGNED AT 95 DEG TOTAL POUNDS OF REFRIGERA 	REES F AMBIENT. INT IS BASED ON EQUIPMENT AND PIPING LAYOUT SHOWN ON DRAWINGS. CONTRACTOR SHALL BE ONAL MATERIALS, SENSORS, CONDENSATE PIPING, ETC. DUE TO ANY DEVIATION OR ALTERNATE	RTU ROOFTOP UNIT RX REMOVE EXISTING S SECONDS/SWITCH SA SUPPLY AIR SCR SILICON CONTROLLED RECTIFIER SD SMOKE DETECTOR		TWO WAY AUTOMATIC CONTROL VALVE MOTOR OPERATED DAMPER SINGLE DUCT AIR TERMINAL UNIT WITH INTEGRAL SOUND ATTENUATOR (IF REQUIRED) DUCT MOUNTED SMOKE DETECTOR
D		SENS SENSIBLE SPSS STATIC PRESSURE SENSING STATION T TEMPERATURE/ THERMOSTAT/ TRANSFER TSP TOTAL STATIC PRESSURE V VOLTS/VALVE		FIRE DAMPER AD[_] ACCESS DOOR PLAN/SECTION DESIGNATION TOP - PLAN/SECTION REFERENCE
		VAV VARIABLE AIR VOLUME VD VOLUME DAMPER VR VOLUME REGULATOR VSD VARIABLE SPEED DRIVE WC WATER COLUMN		BOTTOM - REFERENCED DRAWING
E				E
	•			
1 No. Date Appr Revision Notes No. Date Appr Revision Notes Baltimore, MD 21209	HENRY ADAMS Consulting Engineers RM SOVICH RM	chitect Sovich Architecture illage square St. Francis Neigh	Issued for: Bidding Solution Issued date: 01/10/2023 Issued date: January 10, 2023 Is	6 MECHANICAL COVER SHEET
Structural Engineer: Skarda and Associates 2439 North Charles S Baltimore, MD 21218	Suit Baltimore, Maryland 21204 S, Inc. Office: 410.296.6500 Fax: 410.296.6501 www.henryadams.com	illage square te 175 timore, MD 21210 410 327 7971 ce@rmsarchitecture.com	en Avenue #	ENSIONS I 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: 37247 EXPIRATION DATE: 01-09-2024

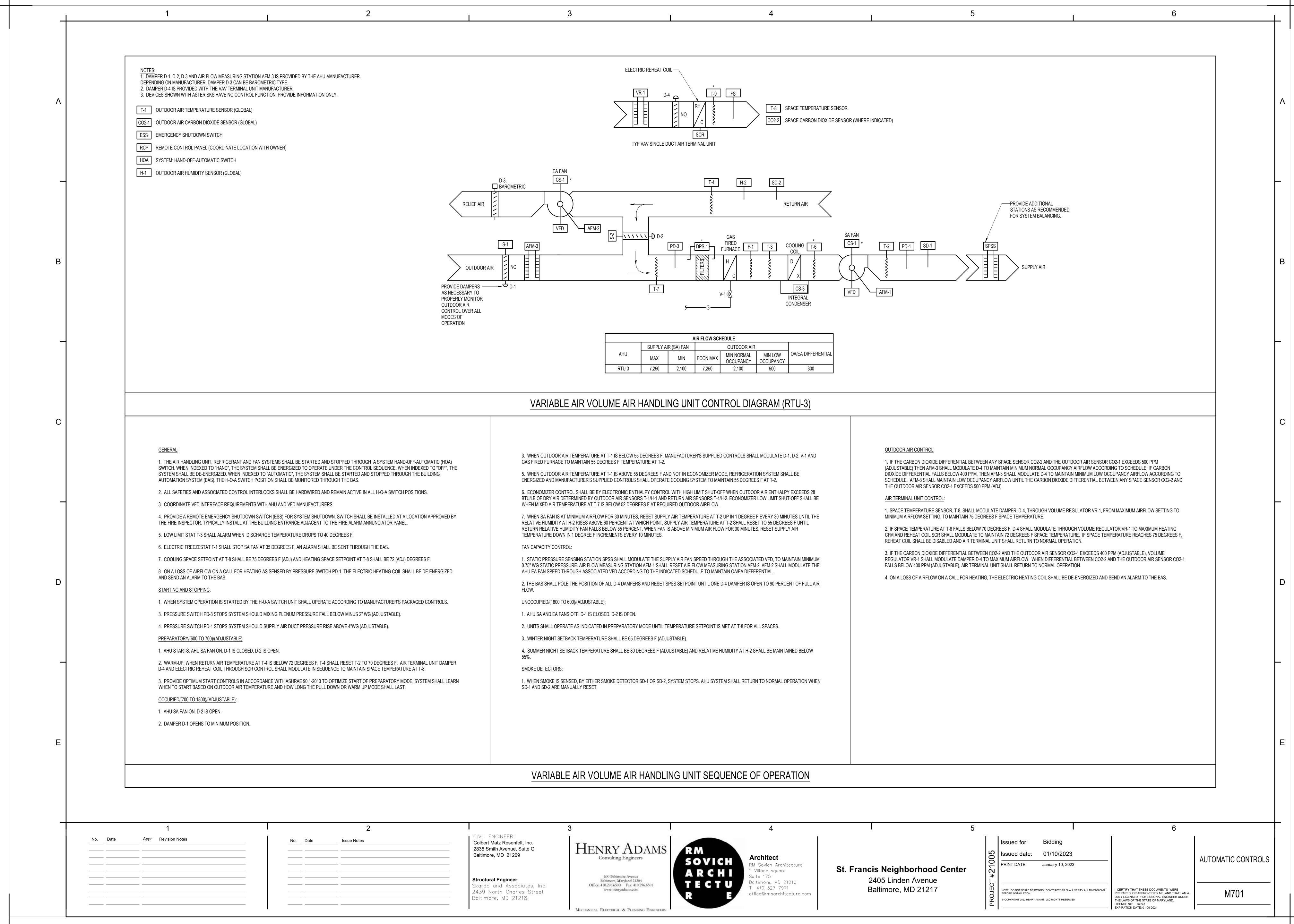


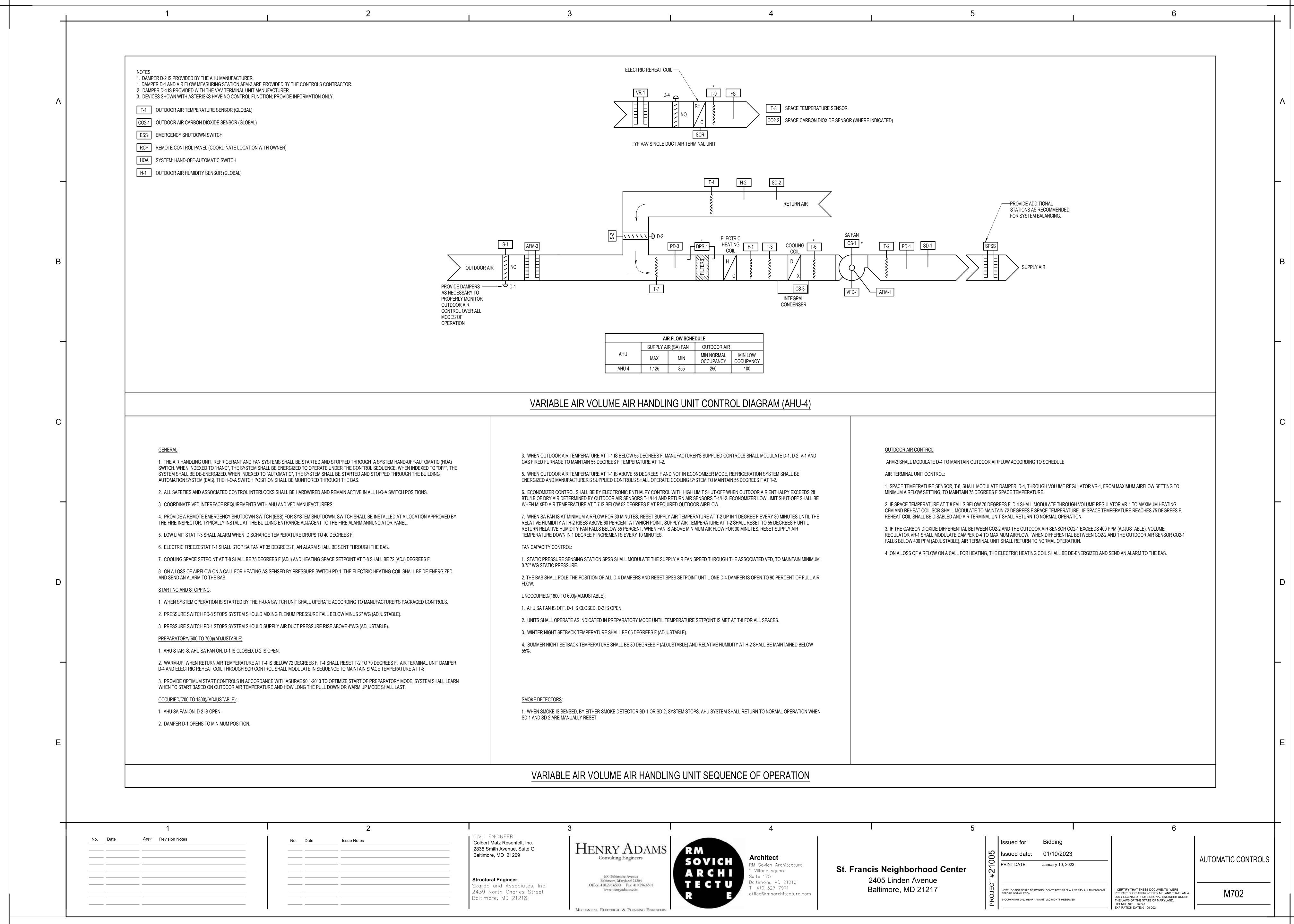












۸		ı	RICAL ABBREVIATIONS		NON FLICED
A ACCU	AMPERE AIR COOLED CONDENSING UNIT	GND GRC	GROUND GALVANIZED RIGID STEEL	NF NFPA	NON-FUSED NATIONAL FIRE PROTECTION
ACCU	AIR COOLED CONDENSING UNIT	GW	GROUND WIRE	NI 1 /\	ASSOCIATION
ADA	AMERICANS WITH DISABILITIES	• • • • • • • • • • • • • • • • • • •		NFSS	NON-FUSED SAFETY SWITCH
	ACT	HD	HEAVY DUTY	NM	NON-METALLIC
AF	AMPERE FRAME, AMPERE FUSE	HDPE	HIGH-DENSITY POLYETHYLENE	NO	NORMALLY OPEN
AFCI	ARC FAULT CIRCUIT INTERRUPTER	HOA	HAND-OFF-AUTOMATIC	NTS	NOT TO SCALE
AFF	ABOVE FINISHED FLOOR	HP	HORSEPOWER	0.00	
AFG	ABOVE FINISHED GRADE	HPU	HEAT PUMP UNIT	OCP	OVERCURRENT PROTECTION
AHU	AIR HANDLING UNIT	HV	HIGH VOLTAGE	OH	OVERHEAD ELECTRIC
AIC AL	AMPERE INTERRUPTING CAPACITY ALUMINUM	HVAC	HEATING VENTILATING AIR CONDITIONING	OHE OSHA	OVERHEAD ELECTRIC OCCUPATIONAL SAFETY AND
ANSI	AMERICAN NATIONAL STANDARDS	HZ	HERTZ	USITA	HEALTH ADMINISTRATION
7 11 101	INSTITUTE	'	1121112		TIE/LETT/ABIMINIOTTO CTON
ASHRAE	AMERICAN SOCIETY OF HEATING,	IBC	INTERNATIONAL BUILDING CODE	Р	POLE(1P, 2P, 3P)
	REFRIGERATING, AND	ICCB	INSULATED CASE CIRCUIT	PA	PUBLIC ADDRESS
	AIR-CONDITIONING ENGINEERS		BREAKER	PEPCO	POTOMAC ELECTRIC POWER
ASME	AMERICAN SOCIETY OF	IEBC	INTERNATIONAL EXISTING	55	COMPANY
A CTN A	MECHANICAL ENGINEERS	IECC	BUILDING CODE	PF DU	POWER FACTOR
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	IECC	INTERNATIONAL ENERGY CONSERVATION CODE	PH PIR	PHASE PASSIVE INFRARED
ASYM	ASYMMETRICAL	IEEE	INSTITUTE OF ELECTRICAL AND	PT PT	POTENTIAL TRANSFORMER
ASTIVI AT	AMPERE TRIP	'	ELECTRONICS ENGINEERS	PVC	POLYVINYL CHLORIDE
ATS	AUTOMATIC TRANSFER SWITCH	IG	ISOLATED GROUND	'``	. JET THE OHLONIDE
AUX	AUXILIARY	IGCC	INTERNATIONAL GREEN	QTY	QUANTITY
AWG	AMERICAN WIRE GAUGE		CONSTRUCTION CODE		
		IMC	INTERMEDIATE METALLIC CONDUIT	R	RACEWAY
BAS	BUILDING AUTOMATION SYSTEM	IN . 	INCH	REC	RECEPTACLE
BF BOE	BALLAST FACTOR	IT	INFORMATION TECHNOLOGY	RGS	RIGID GALVANIZED STEEL
BGE BOD	BALTIMORE GAS & ELECTRIC	חו	II INICTION DOV	RLA	RATED LOAD AMPERES
BOD BS	BASIS OF DESIGN BRANCH SELECTOR	JB	JUNCTION BOX	RM pmg	ROOM POOT MEAN SOUARE
טט	DIVAINOLI SELECTUR	К	ONE THOUSAND, KELVIN	RMS RNC	ROOT MEAN SQUARE RIGID NONMETALLIC CONDUIT
С	CONDUIT	KAIC	THOUSAND AMPERE	RTU	ROOF TOP UNIT
CB	CIRCUIT BREAKER		INTERRUPTING CAPACITY	RX	REMOVE EXISTING
CCT	CORRELATED COLOR	KCMIL	THOUSAND CIRCULAR MILS		
	TEMPERATURE	ΚV	KILOVOLTS	SCTE	SOCIETY OF CABLE
CCTV	CLOSED CIRCUIT TELEVISION	KVA	KILOVOLT-AMPERES		TELECOMMUNICATIONS
CH	CHILLER	KW	KILOWATTS		ENGINEERS
CKT	CIRCUIT		LOAD SENTER	SE	SERVICE ENTRANCE
CMS	COMBINATION MOTOR STARTER	LC	LOAD CENTER	SF	SQUARE FEET
COMM CRI	COMMUNICATION COLOR RENDERING INDEX	LED LF	LIGHT EMITTING DIODE LINEAR FEET	SN SPD	SOLID NEUTRAL SURGE PROTECTION DEVICE
CT	CURRENT TRANSFORMER	LFMC	LIQUID TIGHT FLEXIBLE METALLIC	SS	SAFETY SWITCH
CU	COPPER	LI WIO	CONDUIT	ST	SINGLE-THROW
CX	CONNECT TO EXISTING	LFNC	LIQUID TIGHT FLEXIBLE	SW	SWITCH
			NON-METALLIC CONDUIT	SWBD	SWITCHBOARD
DOAS	DEDICATED OUTDOOR AIR SYSTEM	LRA	LOCKED ROTOR AMPS	SWGR	SWITCHGEAR
DS	DISCONNECT SWITCH	LS	LIMIT SWITCH, LONG TIME-SHORT	SYM	SYMMETRICAL
DWC	DRINKING WATER COOLER		TIME		
DWG	DRAWING	LSI	LONG TIME-SHORT	T	TRANSFORMER
_	EMEDOENOV	1.010	TIME-INSTANTANEOUS	TA	TRIP AMPERES
EDU	EMERGENCY ELECTRIC BASEBOARD HEATER	LSIG	LONG TIME-SHORT TIME-INSTANTANEOUS GROUND	TECH	TECHNOLOGY TELECOMMUNICATIONS CROUND
EBH EBU	EMERGENCY BATTERY UNIT		FAULT	TGB	TELECOMMUNICATIONS GROUND BAR
ECB	ENCLOSED CIRCUIT BREAKER	LTG	LIGHTING	THD	TOTAL HARMONIC DISTORTION
EF	EXHAUST FAN	LTS	LIGHTS	TIA	TELECOMMUNICATIONS INDUSTRY
EMT	ELECTRICAL METALLIC TUBING	LV	LOW VOLTAGE		ASSOCIATION
ENCL	ENCLOSURE			TMGB	TELECOMMUNICATIONS MAIN
ENT	ELECTRICAL NONMETALLIC	MAX	MAXIMUM		GROUND BAR
	TUBING	MC	METAL CLAD, METER CENTER	TTB	TELEPHONE TERMINAL BOARD
EQUIP	EQUIPMENT	MCA	MINIMUM CIRCUIT AMPACITY	TV	TELEVISION
ETR	EXISTING TO REMAIN	MCB MCC	MAIN CIRCUIT BREAKER	TVSS	TRANSIENT VOLTAGE SURGE
EWH	ELECTRIC WATER HEATER	MCC MCCB	MOTOR CONTROL CENTER MOLDED CASE CIRCUIT BREAKER	TVD	SUPPRESSION
EX	EXISTING	MCCB	MOTOR CIRCUIT PROTECTOR	TYP	TYPICAL
F	FUSED, FUSIBLE, FAHRENHEIT	MDP	MAIN DISTRIBUTION PANEL	UG	UNDERGROUND
FA	FIRE ALARM	MGB	MAIN GROUND BAR	UGE	UNDERGROUND ELECTRIC
FAAP	FIRE ALARM ANNUNCIATOR PANEL	MH	MANHOLE, METAL HALIDE,	UH	UNIT HEATER
FACP	FIRE ALARM CONTROL PANEL		MOUNTING HEIGHT	UL	UNDERWRITERS LABORATORY
FCU	FAN COIL UNIT	MIN	MINIMUM	UON	UNLESS OTHERWISE NOTED
FDR	FEEDER	MLO	MAIN LUGS ONLY	UTP	UNSHIELDED TWISTED PAIR
FLA	FULL LOAD AMPERAGE	MMS	MANUAL MOTOR STARTER	.,	VOLTO
FMC	FLEXIBLE METAL CONDUIT	MOCP	MAXIMUM OVERCURRENT	V	VOLTS AMPERES
FP FSS	FAN POWERED, FIRE PUMP	MOD	PROTECTION MOTOR OPERATED DAMPER	VA VED	VOLT-AMPERES
FSS FT	FUSED SAFETY SWITCH FEET	MOD MTD	MOTOR OPERATED DAMPER MOUNTED	VFD VRF	VARIABLE FREQUENCY DRIVE VARIABLE REFRIGERANT FLOW
FVNR	FULL VOLTAGE NON-REVERSING	MV	MEDIUM VOLTAGE	VRF VSD	VARIABLE REFRIGERANT FLOW VARIABLE SPEED DRIVE
	SEE TOE. OF HOW REVERSING				THE THE PERSON OF THE PERSON O
G	GROUND	N	NEUTRAL	W	WIRE, WATTS
GB	GROUND BAR	NAC	NOTIFICATION APPLIANCE CIRCUIT	W/	WITH
GD	GENERAL DUTY	NC	NORMALLY CLOSED	WP	WEATHERPROOF
GFCI	GROUND FAULT CIRCUIT	NEC	NATIONAL ELECTRICAL CODE	WR	WEATHER RESISTANT
0555	INTERRUPTER	NECA	NATIONAL ELECTRICAL		TRANSFORME
GFEP	GROUND FAULT EQUIPMENT	NIE NA A	CONTRACTORS ASSOCIATION	XFMR	TRANSFORMER
GFI	PROTECTOR GROUND FAULT INTERRUPTER	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	Y	WYE
	ONOUND I MULI IIVI ENNUT I EK	Ī	NOT A TOUCKS ASSOCIATION	I '	V V I L

GENERAL ELECTRICAL NOTES

- PROVIDE LABOR, MATERIALS, TOOLS, EQUIPMENT, COORDINATION, DELEGATED DESIGN AND INCIDENTALS NECESSARY TO PROVIDE A COMPLETE AND OPERABLE SYSTEM. PERFORM WORK AS REQUIRED BY APPLICABLE CODES, REGULATIONS AND LAWS OF LOCAL, STATE AND FEDERAL GOVERNMENTS AND OTHER AUTHORITIES WITH LAWFUL
- MATERIAL AND EQUIPMENT SHALL BE LISTED AND LABELED BY NATIONALLY RECOGNIZED TESTING LABORATORIES FOR INTENDED SERVICE.
- GIVE NOTICES, FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY FEES AND BACK CHARGES, AND OBTAIN NECESSARY APPROVALS FROM AUTHORITIES THAT HAVE JURISDICTION.
- MAINTAIN RECORD DRAWINGS ON SITE. RECORD SET SHALL BE COMPLETE, CURRENT, AND AVAILABLE UPON REQUEST.
- 6. SUBMIT FOR APPROVAL, SHOP DRAWINGS FOR EQUIPMENT AND MATERIALS USED ON PROJECT. OBTAIN APPROVAL BY ENGINEER PRIOR TO PURCHASE OF EQUIPMENT AND
- REPAIR OR REPLACE DAMAGE TO FACILITIES AND EQUIPMENT AT NO ADDITIONAL EXPENSE TO OWNER.
- B. PATCH AND REPAIR DISTURBED AREAS TO MATCH ADJACENT SURFACES AND FINISHES. PROVIDE TEMPORARY POWER AND LIGHTING FOR OTHER TRADES AS REQUIRED TO COMPLETE PROJECT IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- 10. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS. PROVIDE COMPONENTS INDICATED ON RISER DIAGRAMS WHETHER OR NOT INDICATED ON PLANS, AND VICE VERSA.
- 11. LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND REQUIRE COORDINATION WITH OTHER TRADES. ROUTING OF CONDUIT IS DIAGRAMMATIC IN NATURE AND NOT
- INTENDED TO SHOW REQUIRED OFFSETS AND DETAILS. OBTAIN DRAWINGS AND SPECIFICATIONS FROM OTHER TRADES AND COORDINATE WITH OTHER TRADES.
- 12. COORDINATE ELECTRICAL INSTALLATION WITH FIELD CONDITIONS. LOCATIONS SHOWN ARE DIAGRAMMATIC AND MAY REQUIRE ADJUSTMENT IN FIELD.
- 13. COORDINATE LOCATIONS OF ELECTRICAL DEVICES WITH ARCHITECTURAL ELEVATIONS, CASEWORK DETAILS, AND KITCHEN EQUIPMENT DRAWINGS PRIOR TO INSTALLATION.
- 14. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS.
- 15. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATED WALLS REQUIRING SPECIAL CONSTRUCTION. 16. PERMANENTLY LABEL NEW ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, DEVICE DESIGNATION AND SUPPLY CIRCUIT DESIGNATION.
- 17. CORE DRILL CONCRETE WALLS AND FLOORS TO PROVIDE OPENINGS FOR CONDUIT INSTALLATION. MAXIMUM CORE DRILL SIZE SHALL BE 5-INCH DIAMETER. SPACE CORE DRILL LOCATIONS A MINIMUM OF 6" FROM EACH OTHER, MEASURED FROM CORE DRILL OPENINGS. PROPERLY SEAL OPENINGS ACCORDING TO LOCATION AND APPLICATION.
- PROVIDE EACH CIRCUIT WITH A DEDICATED NEUTRAL UNLESS NOTED OTHERWISE.
- 19. CONDUIT HOMERUNS SHOWN ON DRAWINGS WITH MORE THAN 3 CURRENT CARRYING CONDUCTORS ARE SHOWN DIAGRAMMATICALLY. DO NOT INSTALL MORE THAN 3 CURRENT CARRYING CONDUCTORS IN A SINGLE RACEWAY UNLESS INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 20. PROVIDE FIRESTOPPING FOR ELECTRICAL PENETRATIONS IN FIRE RATED ASSEMBLIES.
- 21. INSTALL ELECTRICAL WORK IN A NEAT AND WORKMANLIKE MANNER, RECTILINEAR TO BUILDING STRUCTURE. INSTALL RACEWAYS TIGHT TO STRUCTURAL CEILING AND AS HIGH AS POSSIBLE WITHIN CEILING SPACES TO MAINTAIN MAXIMUM AMOUNT OF CLEAR SPACE BELOW RACEWAY.
- 22. INSTALL RACEWAYS CONCEALED IN BUILDING FINISHES FOR ALL EXTERIOR MOUNTED DEVICES. DO NOT ROUTE EXPOSED ON BUILDING EXTERIOR.
- 23. INSTALL RACEWAYS CONCEALED IN WALLS, UNDER FLOORS, ABOVE CEILINGS, ETC., EXCEPT AS FOLLOWS:
- A. WHERE SUSPENDED CEILINGS ARE NOT PROVIDED.
- B. IN VERTICAL SHAFTS, ELECTRICAL CLOSETS, ETC., MECHANICAL AND ELECTRICAL EQUIPMENT SPACES WHERE CONCEALMENT IS NOT PRACTICAL.
- C. AT SURFACE-MOUNT PANELBOARDS IN OTHERWISE FINISHED SPACES LIMITED TO VERTICAL RUNS ABOVE AND BELOW PANEL.

E. WHERE SPECIFICALLY INDICATED ON DRAWINGS.

JURISDICTION.

- D. WHERE REQUIRED FOR EQUIPMENT CONNECTIONS.
- CONDUCTORS AND MAKING FINAL CONNECTIONS. LACK OF COORDINATION SHALL NOT JUSTIFY CHANGE ORDERS. 25. WHERE SUBMITTED EQUIPMENT REQUIRES REVISION TO OVERCURRENT PROTECTION, CONDUIT, AND WIRING, COORDINATE AND MAKE CHANGE TO PROVIDE A COMPLETE INSTALLATION IN ACCORDANCE WITH APPLICABLE CODES.

24. OWNER-FURNISHED EQUIPMENT: VERIFY AND COORDINATE ELECTRICAL ROUGH-IN REQUIREMENTS FOR OWNER-FURNISHED EQUIPMENT WITH OWNER PRIOR TO PULLING

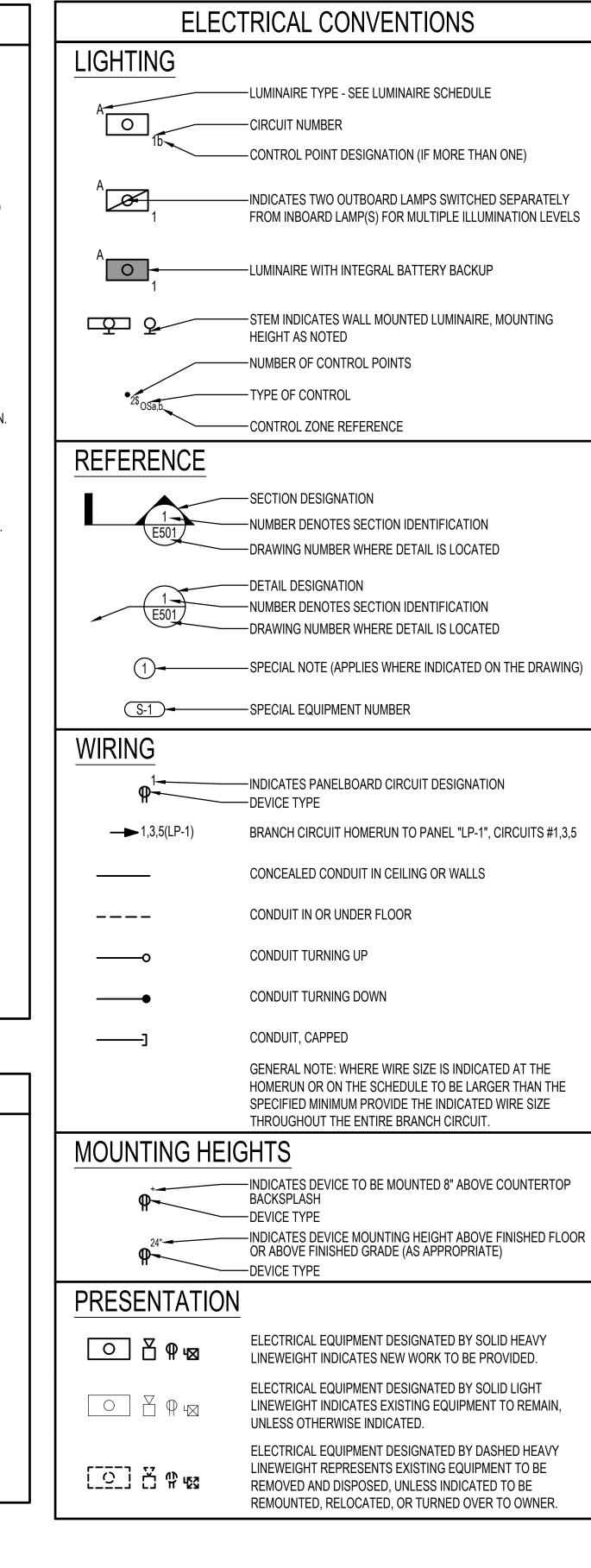
- 26. PRIOR TO SUBMITTING BID, VISIT SITE AND BECOME THOROUGHLY FAMILIAR WITH EXISTING CONDITIONS AND PROPOSED CONSTRUCTION.
- 27. COORDINATE WORK WITH PHASES INDICATED ON DRAWINGS OF OTHER TRADES.
- 28. PROVIDE NECESSARY SUPPORTING STRUT CHANNEL AND ALL MISCELLANEOUS HARDWARE FOR MOUNTING ELECTRICAL EQUIPMENT. MAINTAIN NEC WORKING CLEARANCES. COORDINATE EXACT LOCATION IN FIELD. DO NOT MOUNT ON EQUIPMENT ACCESS PANELS OR IN EQUIPMENT MANUFACTURER'S RECOMMENDED MAINTENANCE CLEARANCES.

GENERAL ELECTRICAL DEMOLITION/RENOVATION NOTES

- THE FACILITY WILL REMAIN OCCUPIED DURING RENOVATIONS.
- MINIMIZE OUTAGES. COORDINATE OUTAGES WITH OWNER. IDENTIFY NONFUNCTIONING EQUIPMENT AND DEVICES TO REMAIN AFTER DEMOLITION. NOTIFY OWNER IN WRITING PRIOR TO DEMOLITION. UPON COMPLETION OF WORK,
- ENSURE THAT EXISTING EQUIPMENT AND DEVICES OPERATE PROPERLY.
- EXISTING CONDITIONS REFLECT GENERAL OBSERVATIONS AND ARE NOT INTENDED TO INDICATE DETAILS OR DIMENSIONS. NO ATTEMPT HAS BEEN MADE TO SHOW ALL ELECTRICAL EQUIPMENT. VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT IN WRITING IF CONDITIONS ARE DISCOVERED THAT PREVENT EXECUTION OF WORK.
- PROTECT REMAINING ELECTRICAL SYSTEMS AND COMPONENTS FROM DAMAGE. REMOVE PROTECTIVE MATERIALS UPON COMPLETION OF WORK.
- IN AREAS NOTED TO REMOVE ELECTRICAL WORK, REMOVE CONDUITS AND ASSOCIATED SUPPORTS BACK TO POINT OF CONCEALMENT AND REMOVE WIRING BACK TO REMAINING ACTIVE DEVICES OR SOURCE.
- DISPOSE OF LIGHTING BALLASTS AND CAPACITORS CONTAINING PCB'S, AS DEFINED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA), IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, FEDERAL AND EPA REGULATIONS.
- UPDATE PANELBOARD DIRECTORIES TO INCLUDE MODIFICATIONS BY THIS PROJECT. TRACE CIRCUITS TO IDENTIFY UNLABELED LOADS.
- 9. PROVIDE BLANK COVER PLATES FOR DEVICES REMOVED WHEN A REPLACEMENT DEVICE IS NOT INDICATED.
- 10. PRIOR TO SUBMITTING BID, VISIT SITE AND IDENTIFY EXISTING CONDITIONS AND CHALLENGES THAT WILL AFFECT DEMOLITION AND CONSTRUCTION. REPORT DISCREPANCIES TO OWNER DURING BID PROCESS. ADDITIONAL COMPENSATION WILL NOT BE GRANTED FOR WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS.
- 11. WHERE CIRCUITS ARE REMOVED BACK TO PANELS, ASSOCIATED CIRCUIT BREAKERS WILL BE UTILIZED FOR NEW CIRCUITING.

INTERNATIONAL GREEN CONSTRUCTION CODE ELECTRICAL COMPLIANCE NOTES

- IGCC.1 VOLTAGE DROP IN FEEDERS SHALL NOT EXCEED 1.5 PERCENT AT DESIGN LOAD TO SATISFY IGCC 608.8.1.2.
- IGCC.2 VOLTAGE DROP IN BRANCH CIRCUITS SHALL NOT EXCEED 1.5 PERCENT AT DESIGN LOAD TO SATISFY IGCC 608.8.1.3. IGCC.4 PROVIDE PLUG LOAD CONTROL OF RECEPTACLES IN CLASSROOMS AND SIMILAR SPACES TO SATISFY IGCC 608.6. MARK
- CONTROLLED RECEPTACLES TO DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLES.
- IGCC.5 PROVIDE LIGHTING CONTROLS TO SATISFY IGCC 608.
- IGCC.6 PROVIDE ELECTRICAL DISTRIBUTION SYSTEM TO FACILITATE THE COLLECTION OF DATA FOR EACH ENERGY USE TYPE TO SAFTISFY IGCC 603.2
- IGCC.7 PROVIDE ELECTRICAL DISTRIBUTION SYSTEM WITH THE CAPABILITY TO BE METERED TO SATISFY IGCC 603.3
- IGCC.8 PROVIDE ELECTRICAL DISTRIBUTION SYSTEM WITH THE CAPABILITY TO ACCOMMODATE THE FUTURE INSTALLATION OF SUB-METERS TO
 - SATISFY IGCC 603.4.1.

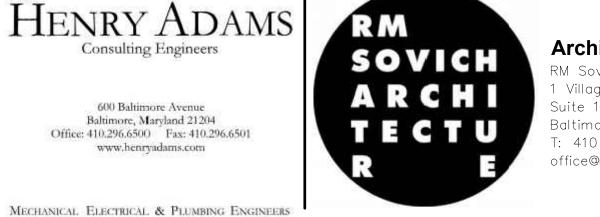


SYMBOL	DESCRIPTION	MOUNTI HEIGH
	LUMINAIRE	
	EMERGENCY LUMINAIRE, BATTERY POWERED - SEE SCHEDULE FOR TYPE	
	COMBINATION ILLUMINATED EXIT SIGN AND BATTERY POWERED	
<u> </u>	EMERGENCY LUMINAIRE ILLUMINATED EXIT SIGN, SINGLE FACE, ARROW INDICATES DIRECTIONAL CHEVRON, CEILING/WALL MOUNT	/ 90'
₫ H ₫	ILLUMINATED EXIT SIGN, DOUBLE FACE, ARROW INDICATES DIRECTIONAL CHEVRON, CEILING/WALL MOUNT	/ 90'
LCP	LIGHTING CONTROL RELAY PANEL	72" TO TO
LC	LIGHTING CONTACTOR	
TC	TIME CLOCK	72" TO TO
•\$	SINGLE POLE TOGGLE SWITCH	46"
•\$3	THREE-WAY TOGGLE SWITCH	46"
• *sos	OCCUPANCY SENSOR SWITCH	46"
•\$LV1	LOW VOLTAGE SWITCH FOR ONE ZONE, ON/OFF CONTROL	46"
•\$ LV1D	LOW VOLTAGE SWITCH FOR ONE ZONE, ON/OFF AND UP/DOWN DIMMING	46"
•\$LV2D	LOW VOLTAGE SWITCH FOR TWO ZONES, ON/OFF AND UP/DOWN DIMMING	46"
© ©	OCCUPANCY SENSOR, CEILING/WALL MOUNT SUBSCRIPTS: DT: DUAL TECHNOLOGY (DEFAULT IF NO SUBSCRIPT INDICATED) U: ULTRASONIC P: PASSIVE INFRARED	/ 92"
<u>©</u>	OUTDOOR PHOTOCELL	
®	INDOOR PHOTOSENSOR, CEILING MOUNTED	
♦	OCCUPANCY SENSOR - POWER PACK	ABOVE CEILIN
Q Q (SIMPLEX) Q Q Q (DUPLEX) Q QUAD)	RECEPTACLE - NEMA CONFIGURATION 5-20R. SHADING INDICATES CONNECTED TO EMERGENCY/STANDBY POWER CIRCUIT SUBSCRIPTS: GFI: WITH 5mA GROUND FAULT INTERRUPTER C: CONTROLLED SPD: INTEGRAL SURGE PROTECTION AND INDICATOR LIGHT TR: TAMPER-RESISTANT EXP: EXPLOSION PROOF USB: WITH USB CHARGING RECEPTACLES WP: WEATHER-RESISTANT RECEPTACLE WITH WEATHERPROOF WHILE-IN-USE COVER	18"
(DUPLEX) (DUPLEX) (QUAD)	COMBINATION DUPLEX OR QUAD RECEPTACLE AND COMBINATION TELEPHONE/DATA OUTLET, FLOOR MOUNTED SUBSCRIPTS: F: FLUSH MOUNTED T: TOMBSTONE MOUNTED P: POKE-THRU MOUNTED	
Φ Q	JUNCTION BOX, CEILING AND WALL MOUNTED	/ AS NOTE
נים	SAFETY SWITCH	60" TO T
	PANELBOARD, SURFACE AND FLUSH MOUNTED	78" TO T
• _{\$M}	FRACTIONAL HORSEPOWER MANUAL MOTOR SWITCH	46"
•\$ MHOA	FRACTIONAL HORSEPOWER MANUAL MOTOR SWITCH WITH HAND-OFF-AUTOMATIC SWITCH	46"
⊘	MOTOR	
∇	TELEPHONE OUTLET, WALL MOUNTED SUBSCRIPTS: W: WITH WALL TELEPHONE MOUNTING LUGS (MOUNT AT 52")	18"
T	WALL BOX WITH PULL STRING FOR TELEPHONE/DATA OUTLET	18"
•	GROUNDING SYSTEM - GROUND ROD	
	MOLDED CASE CIRCUIT BREAKER (600V AND BELOW)	
	CURRENT LIMITING FUSE (600V AND BELOW)	
/	DISCONNECT SWITCH (600V AND BELOW)	
	, ,	

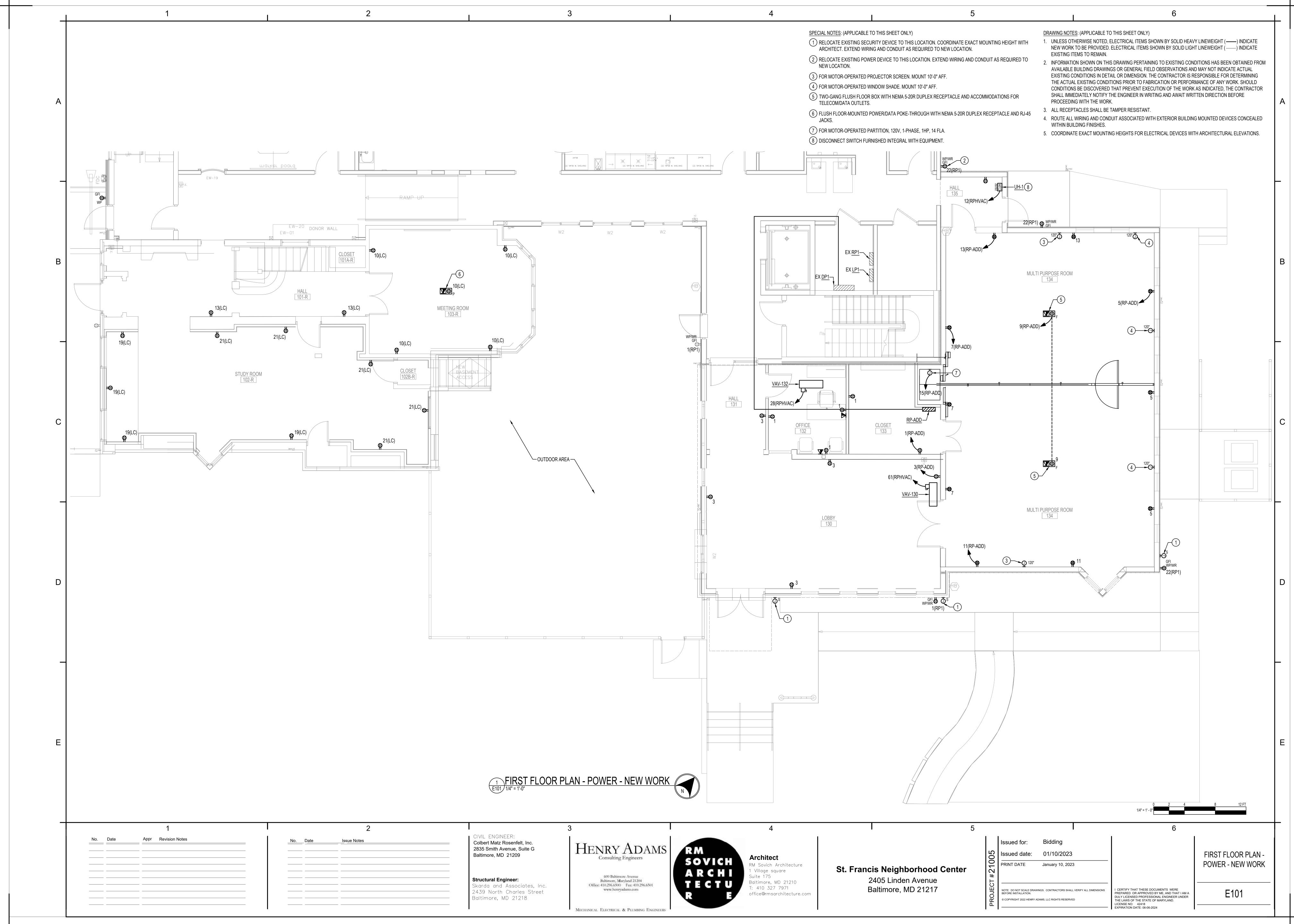
ELECTRICAL LEGEND

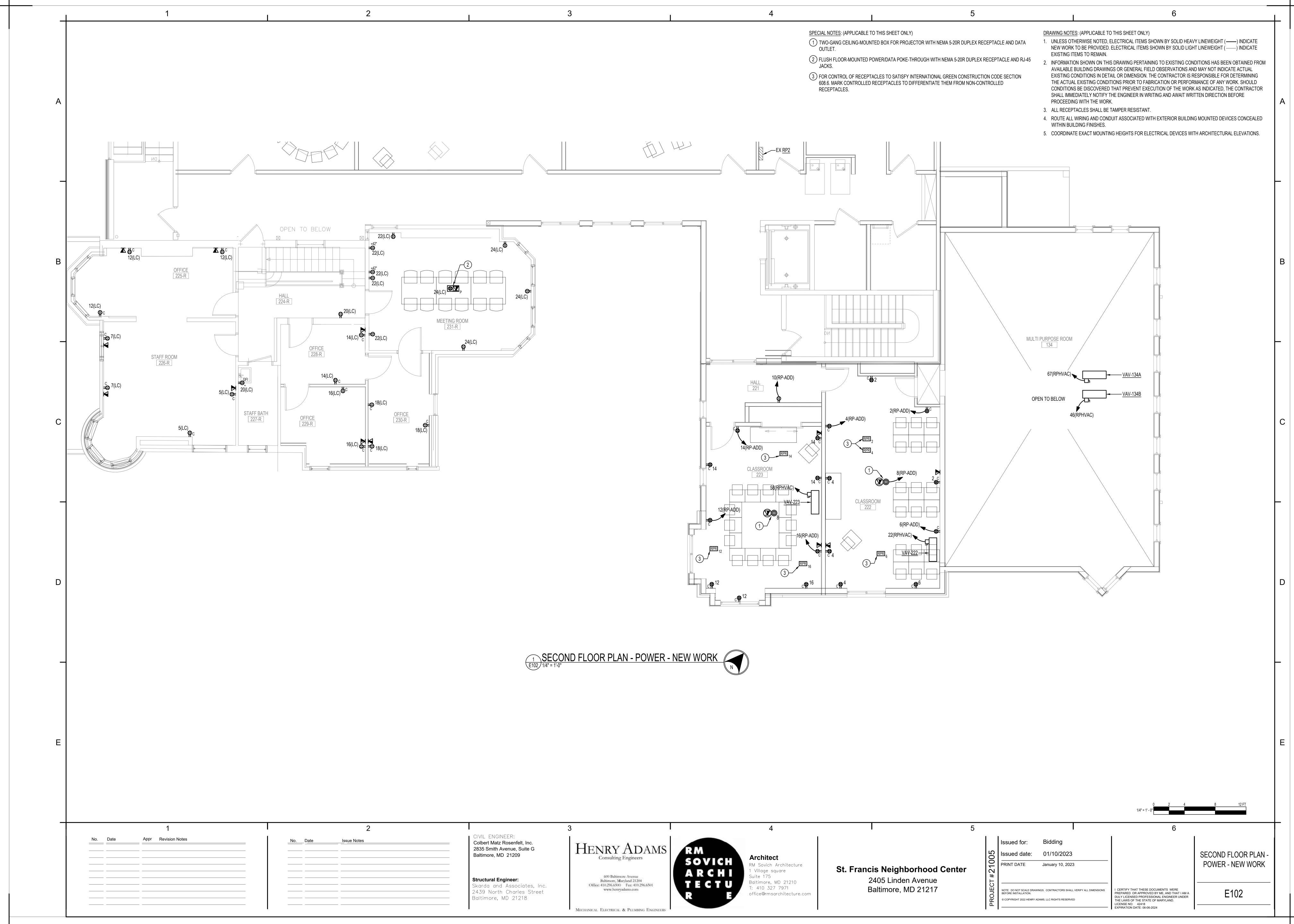
- 1. THE MOUNTING HEIGHTS GIVEN ON THIS SHEET IN THE ELECTRICAL LEGEND ARE GENERAL AND SHALL BE USED ONLY WHEN MOUNTING HEIGHTS CANNOT BE ESTABLISHED BY REFERENCE TO DETAILS, ELEVATIONS, AND NOTES
- 2. ALL MOUNTING HEIGHTS, UNLESS OTHERWISE NOTED, SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE CENTERLINE OF THE OUTLET OR DEVICE.
- 3. HEIGHTS OF ALL ITEMS NOT COVERED BY THE ELECTRICAL LEGEND AND NOT SHOWN ON THE DRAWINGS SHALL BE AS DIRECTED BY THE ARCHITECT OR ENGINEER.
- WHERE PLACING ANY ITEM AT THE HEIGHTS LISTED OR NOTED WILL CAUSE INTERFERENCE WITH THE WORK OF OTHER TRADES, OR IS NOT PHYSICALLY POSSIBLE OR DESIRABLE FOR ONE REASON OR ANOTHER, THE ITEM SHALL BE INSTALLED AT A LOCATION APPROVED BY THE ARCHITECT OR ENGINEER.

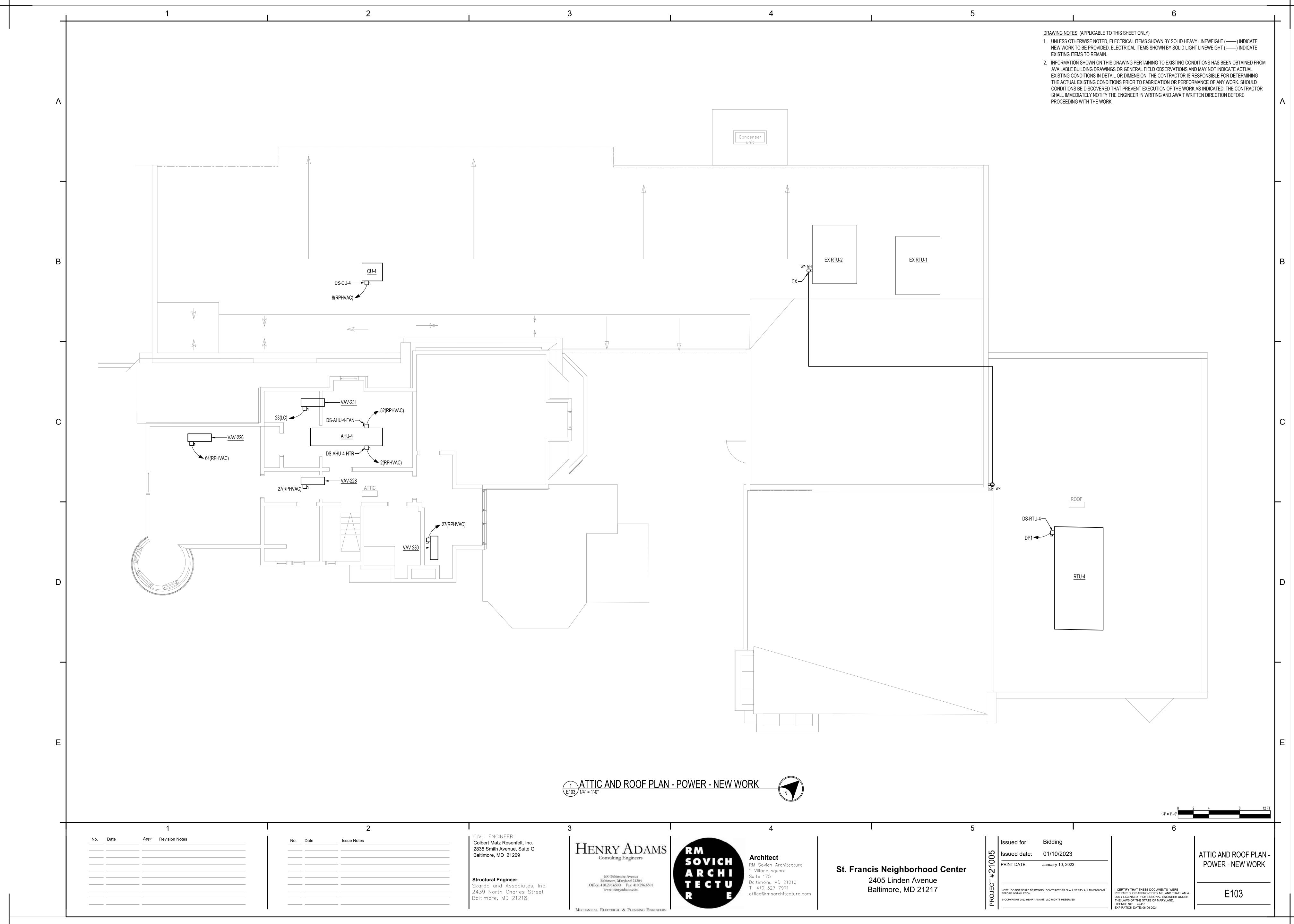
CIVIL ENGINEER: Colbert Matz Rosenfelt, Inc. Issued for: Henry Adams 2835 Smith Avenue, Suite G **ELECTRICAL COVER** 01/10/2023 Issued date: Baltimore, MD 21209 **Architect** Consulting Engineers SHEET RM Sovich Architecture PRINT DATE January 10, 2023 St. Francis Neighborhood Center Village square Suite 175 600 Baltimore Avenue 2405 Linden Avenue **Structural Engineer:** Baltimore, Maryland 21204 Baltimore, MD 21210 Skarda and Associates, Inc. Office: 410.296.6500 Fax: 410.296.6501 410 327 7971 Baltimore, MD 21217 www.henryadams.com CERTIFY THAT THESE DOCUMENTS WERE NOTE: DO NOT SCALE DRAWINGS. CONTRACTORS SHALL VERIFY ALL DIMENSIONS 2439 North Charles Street office@rmsarchitecture.com REPARED OR APPROVED BY ME. AND THAT I AM A Baltimore, MD 21218 OULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

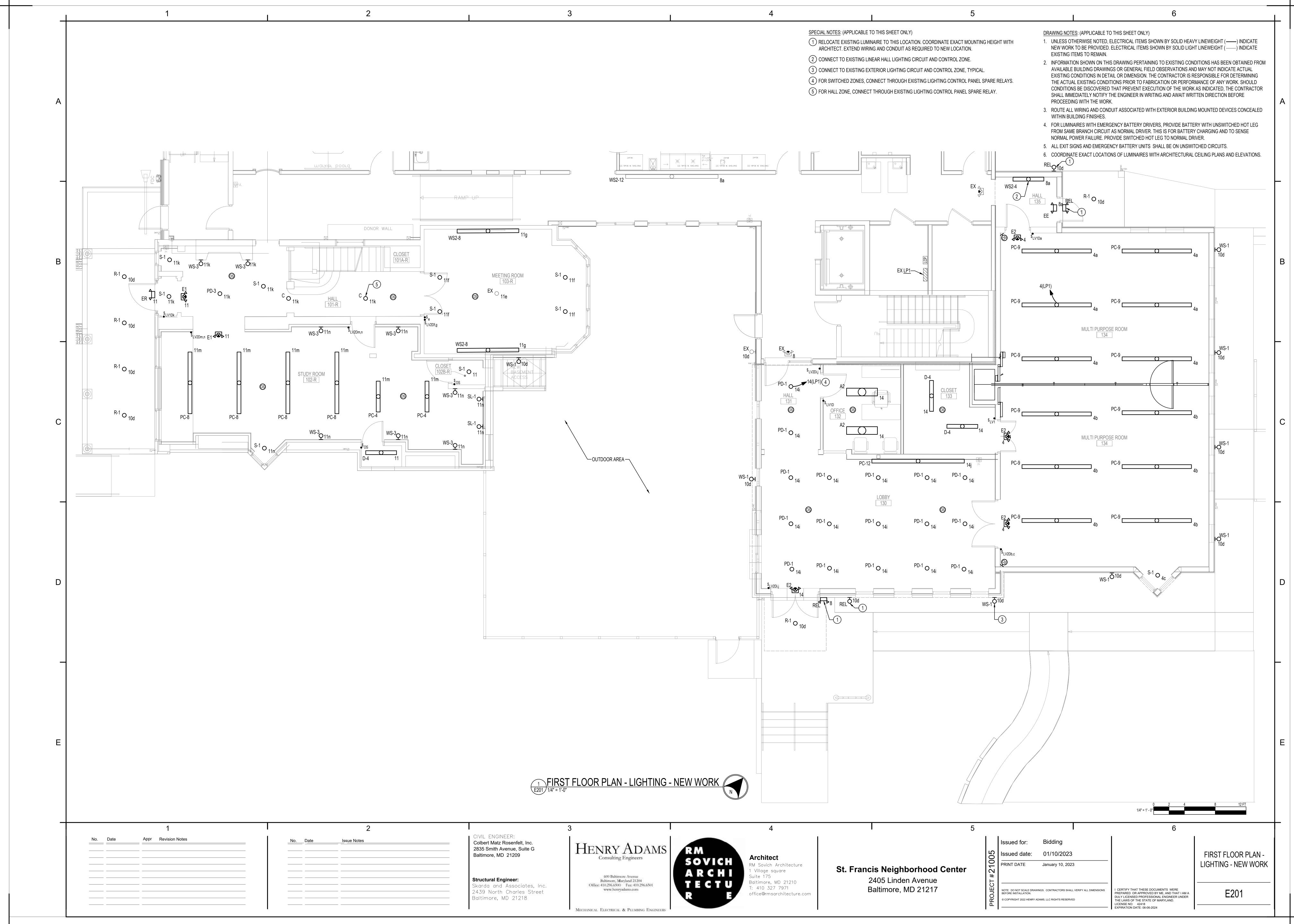


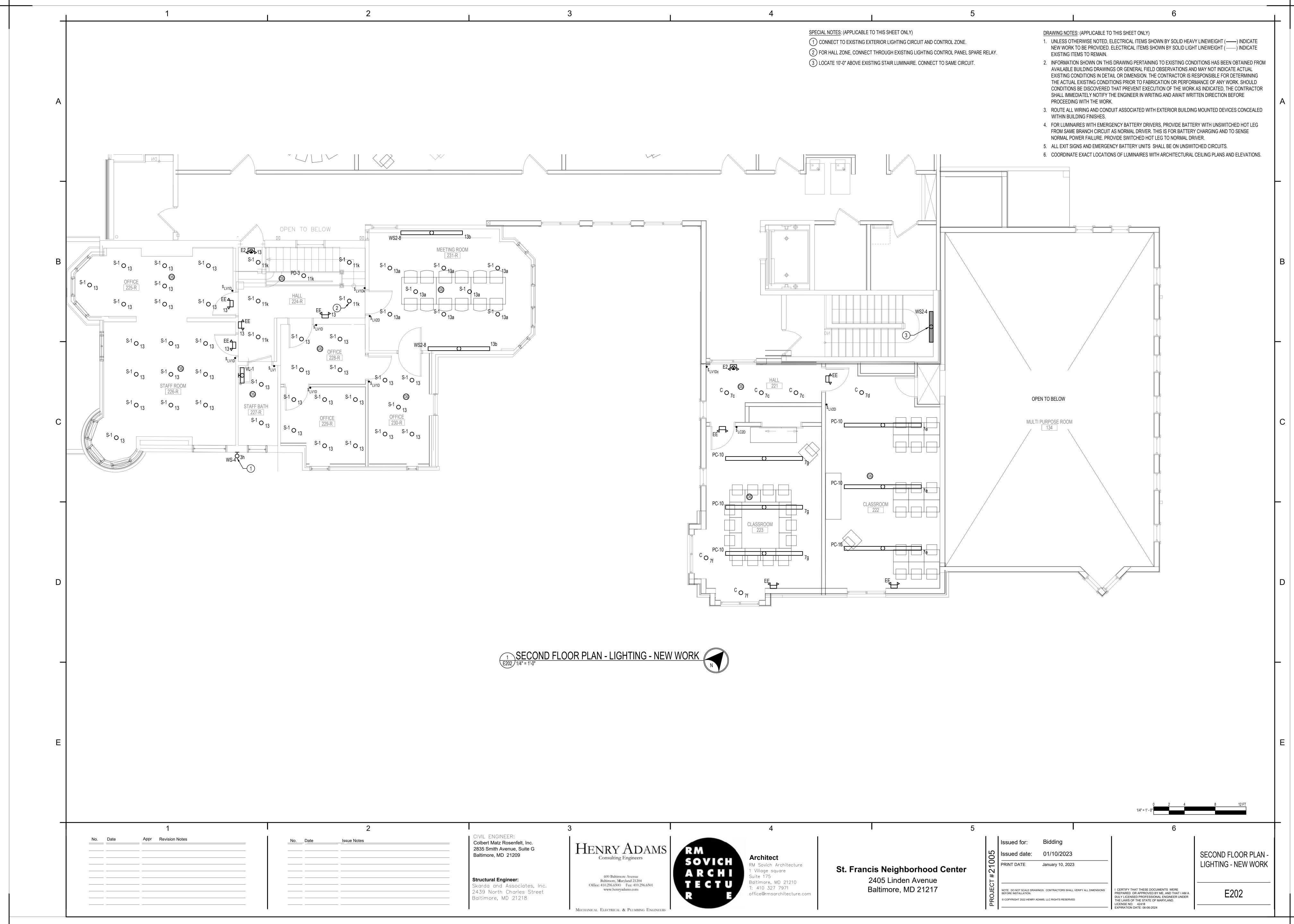
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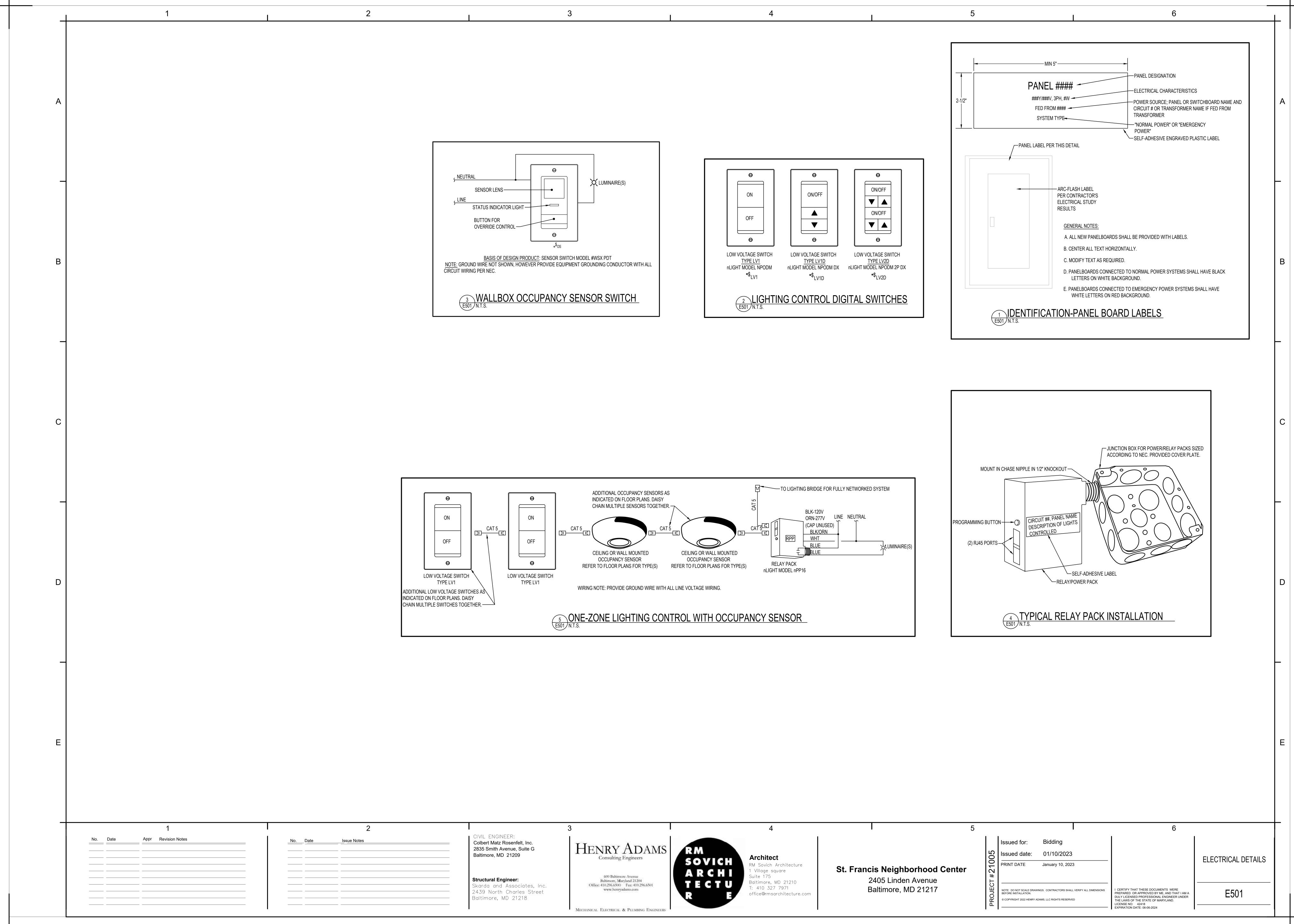


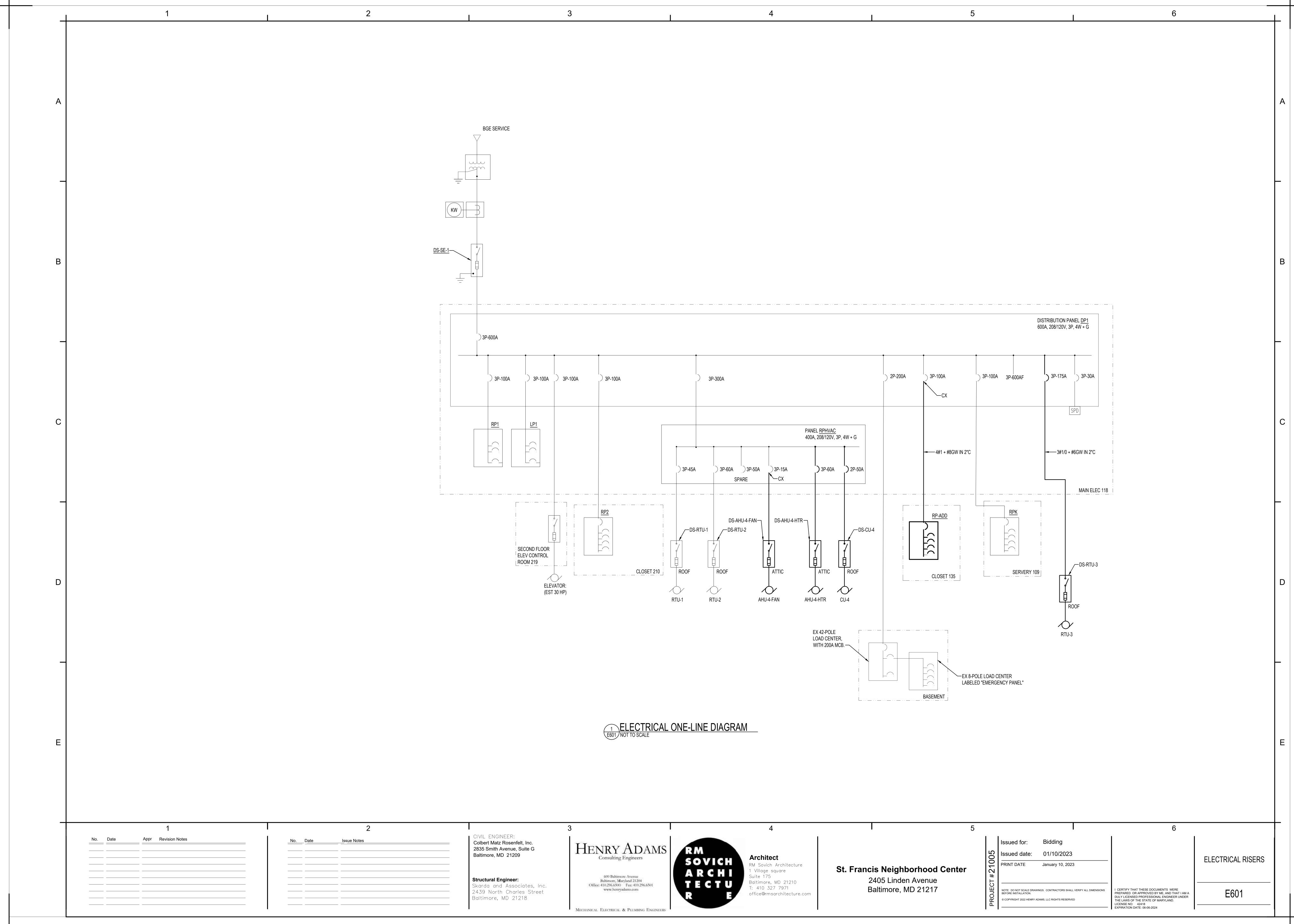












LINE VOLTAGE LOW VOLTAGE CONTROL DEVICES SWITCHING/DIMMING MISCELLANEOUS TYPICAL SPACE TYPE BATHROOM CLASSROOM OFFICE/STAFF MEETING MULTI-PURPOSE STUDY - - - - - - DUSK DAWN - - LIGHTS SHALL DIM TO 50% 1 HOUR AFTER CLOSING TIME PORCH/EXTERIOR SPECIAL NOTES: (APPLY TO THIS DRAWING ONLY) 1) COORDINATE EXACT TIMES WITH OWNER.

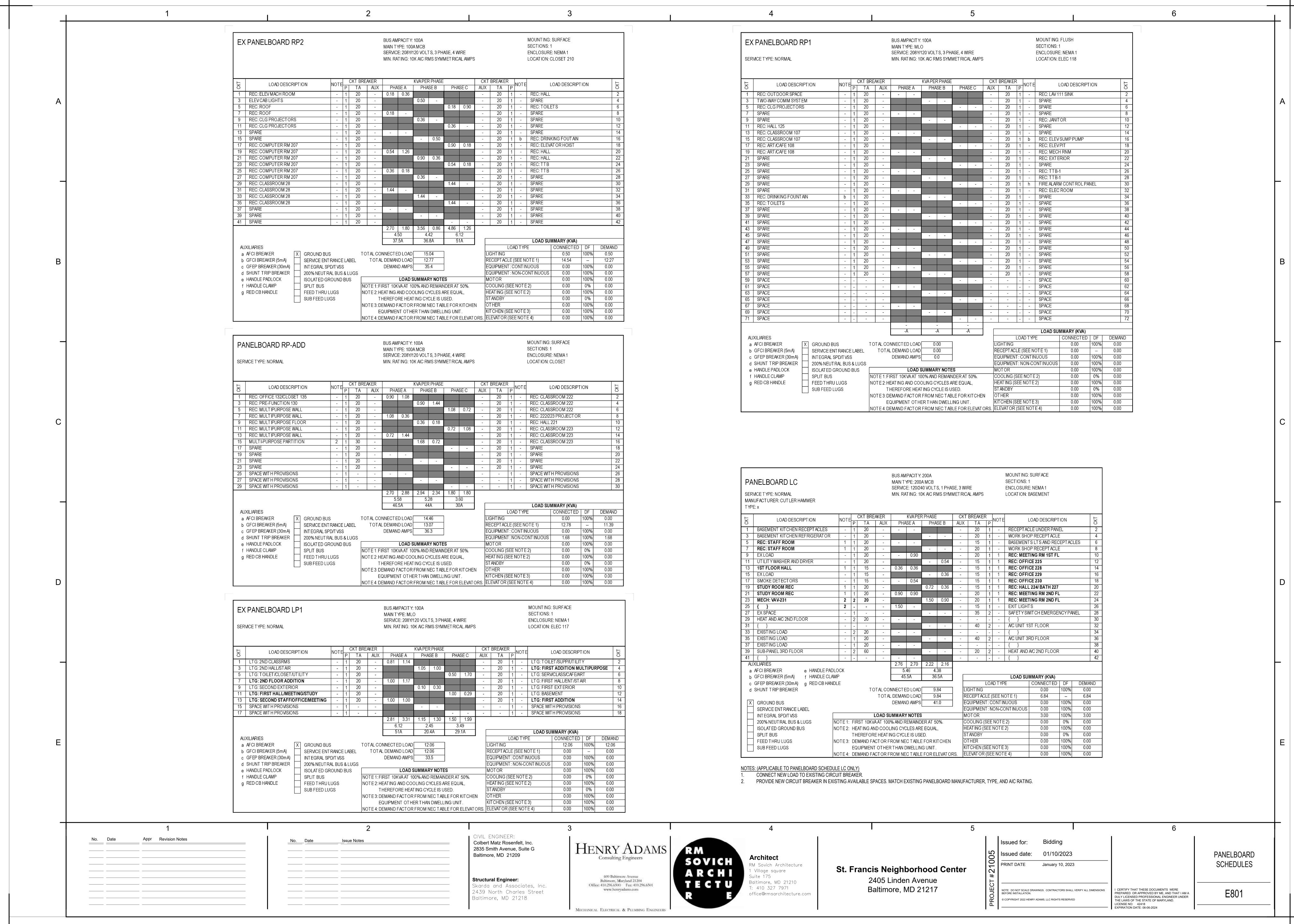
2 LIGHTS TO 100% "ON" UPON MOTION AFTER NORMAL BUSINESS HOURS.

	1			LUMINAIRE	SCHE	DULE									,	
							LAMP				DRIVER / BALLAST				INPUT	
TYPE	MOUNTING	LUMINAIRE DESCRIPTION	MANUFACTURER CAT	CATALOG NUMBER	TYPE	CRI	ССТ	QTY	WATTS / LAMP	LUMENS / LAMP	TYPE	QTY	BALLAST FACTOR	VOLTAGE	WATTS	NOTES
A2	RECESSED	12" X 48" X 5-1/2" RECESSED LED WITH COLD ROLLED STEEL HOUSING, CURVED ACRYLIC LENS, BATWING DISTRIBUTUTION, AND 0-10V DIMMING	LEDALITE	36-14-D1-ST-L-935-35-Q7-D-E-IO	LED	90	3500	1	33.7	3733	0-10V DIMMING	1	1	120	33.7	-
C-1	PENDANT	3-1/8" X 3-1/8" LED PENDANT WITH CNC ALUMINUM HOUSING, OPAL ACRYLIC LENS, AND 0-10V DMMING	LUMEN ART	APD.56-3500K-UNV-ALUM1R	LED	ı	3500	1	9	1040	0-10V DIMMING	1	1	120	9	-
D-4	SURFACE	5-7/8" X 48" X 3-1/8" SEALED INDUSTRIAL LED , WITH POLYESTER HOUSING, ACRYLIC LENS, AND FURNISHED OCCUPANCY SENSOR	DAY-BRITE	V3W-4-43L-835-UNV-DIM-MD360WD- THB	LED	80	3500	1	23	3368	0-10V DIMMING	1	1	120	23	-
E-1	SURFACE	12" X 2" X 7-1/4" THERMOPLASTIC LED EXIT SIGN, WITH GREEN LETTERING, AND BATTERY BACKUP	CHLORIDE	VEGWEM	LED	ı	-	1	3.96	-	-	1	1	120	3.96	-
E-2	SURFACE	21" X 2-9/16" X 12-1/2" THERMOPLASTIC LED EBU EXIT SIGN COMBO, WITH GREEN LETTERING, AND BATTERY BACKUP	CHLORIDE	VLTCG3R	LED	-	6000	2	1	200	-	1	1	120	2	-
EE	SURFACE	THERMOPLASTIC LED EBU WITH BATTERY BACKUP	CHLORIDE	CLU2-N-W-2R	LED	-	5000	2	2.2	-	-	1	1	120	4.4	-
ER	SURFACE	WET LOCATION LED EBU WITH BATTERY BACKUP	CHLORIDE	CLR-2-W-G	LED	-	-	2	2.2	-	-	1	1	120	4.4	_
PC-8	SURFACE	96" LINEAR LED WITH EXTRUDED ALUMINUM HOUSING, ACRYLIC LENS, AIRCRAFT CABLING, AND 0-10V DIMMING	AXIS	SCS-500-80-35-FL-8-AP-UNV-DP-1	LED	80	3500	1	44.4	4000	0-10V DIMMING	1	1	120	44.4	-
PC-8	SURFACE	96" LINEAR LED WITH EXTRUDED ALUMINUM HOUSING, ACRYLIC LENS, AIRCRAFT CABLING, BATTERY PACK, AND 0- 10V DIMMING	AXIS	SCS-500-80-35-FL-8-AP-UNV-DP-1- B2	LED	80	3500	1	44.4	4000	0-10V DIMMING	1	1	120	44.4	-
PC-9	SURFACE	108" LINEAR LED WITH EXTRUDED ALUMINUM HOUSING, ACRYLIC LENS, AIRCRAFT CABLING, AND 0-10V DIMMING	AXIS	SCS-500-80-35-FL-8-AP-UNV-DP-1	LED	80	3500	1	50	4500	0-10V DIMMING	1	1	120	50	-
PC-9	SURFACE	108" LINEAR LED WITH EXTRUDED ALUMINUM HOUSING, ACRYLIC LENS, AIRCRAFT CABLING, BATTERY PACK, AND 0- 10V DIMMING	AXIS	SCS-500-80-35-FL-8-AP-UNV-DP-1- B2	LED	80	3500	1	50	4500	0-10V DIMMING	1	1	120	50	-
PC-10	SURFACE	96" LINEAR LED WITH EXTRUDED ALUMINUM HOUSING, ACRYLIC LENS, AIRCRAFT CABLING, AND 0-10V DIMMING	AXIS	SCS-500-80-35-FL-8-AP-UNV-DP-1	LED	80	3500	1	55.5	5000	0-10V DIMMING	1	1	120	55.5	-
PC-10	SURFACE	120" LINEAR LED WITH EXTRUDED ALUMINUM HOUSING, ACRYLIC LENS, AIRCRAFT CABLING, BATTERY PACK, AND 0- 10V DIMMING	AXIS	SCS-500-80-35-FL-8-AP-UNV-DP-1- B2	LED	80	3500	1	55.5	5000	0-10V DIMMING	1	1	120	55.5	-
PD-1	PENDANT	10" DIAMETER LED PENDANT WITH ALUMINUM HOUAING, POWDER COAT FINISH, AND 0-10V DIMMING	STELLR	S2-P096-AG-AG-B-8035-8035-550- EGJ	LED	80+	3500	1	26.4	2410	0-10V DIMMING	1	1	120	26.4	-
PD-3	PENDANT	26.7" DIAMETER LED CHANDELIER WITH ALUMINUM HOUSING, AND 0-10V DIMMING	TECH LIGHTING	700SPCT-ACRYLIC-B-LED930	LED	90	3000	1	46.6	2771	0-10V DIMMING	1	1	120	46.6	-
R-1	RECESSED	4" DIAMETER LED DOWNLIGHT, WITH STEEL HOUSING, AND 0- 10V DIMMING	LIGHTOLIER	4-R-N-P4R-DL-10-835-CC-Z10-U	LED	80	3500	1	11	1000	0-10V DIMMING	1	1	120	11	-
S-1	SURFACE	7" DIAMETER SURFACE MOUNT LED DOWNLIGHT WITH PLASTIC FLANGE, HIGH TRANSMITTANCE LENS, AND 0-10V DIMMING	PHILIPS	S7R-8-35K-10-AL-Z10U	LED	80	3500	1	14.4	1139	0-10V DIMMING	1	1	120	14.4	-
SL-1	SURFACE	144" LED STRIP LIGHTING	Q-TRAN	SW120/4.0-PL-30-CL-12	LED	94	3500	1	48	4620	0-10V DIMMING	1	1	120	48	-
VL-2	WALL	4.62" X 0.37" X 1.24" WALL MOUNT LED WITH 0-10V DIMMING	EDGE LIGHTING	TXW2A-5W-4SQ-22-27K-S-WE	LED	85+	2700	1	9.17	495	0-10V DIMMING	1	1	120	9.17	-
WS-1	WALL	11.8" X 4.3" DIAMETER CYLINDER LED WITH ALUMINUM HOUSING, GLASS LENS, AND 0-10V DIMMING	ECLIPSE LIGHTING	TY3-UP15/DN15-3K-120-PNA	LED	80	3000	1	30	2446	0-10V DIMMING	1	1	120	30	-
WS2-4	WALL	48" X 1-7/16" X 5-11/16" LINEAR WALL LED COLD-ROLLED STEEL HOUSING, POWDER COAT FINISH, 0-10V DIMMING, AND BATTERY PACK	LEDALITE	24-G8-L-B-G-A-G-04-N-D-E-T	LED	80	3500	1	16.4	2200	0-10V DIMMING	1	1	120	16.4	-
WS2-8	WALL	96" X 1-7/16" X 5-11/16" LINEAR WALL LED COLD-ROLLED STEEL HOUSING, POWDER COAT FINISH, AND 0-10V DIMMING	LEDALITE	24-G8-L-B-E-A-D-08-P-D-E-T	LED	80	3500	1	48	6200	0-10V DIMMING	1	1	120	48	-
WS2-12	WALL	144" X 1-7/16" X 5-11/16" LINEAR WALL LED COLD-ROLLED STEEL HOUSING, POWDER COAT FINISH, AND 0-10V DIMMING	LEDALITE	24-G8-L-B-E-A-D-12-P-D-E-T	LED	80	3500	1	72	9300	0-10V DIMMING	1	1	120	97.5	-
WS-3	WALL	5.6" DIAMETER LED WALL SCONCE WITH ALUMINUM HOUSING, AND 0-10V DIMMING	TECH LIGHTING	700WSSPCT ACRYLIC B-LED930	LED	90	3000	1	9	606	0-10V DIMMING	1	1	120	9	-

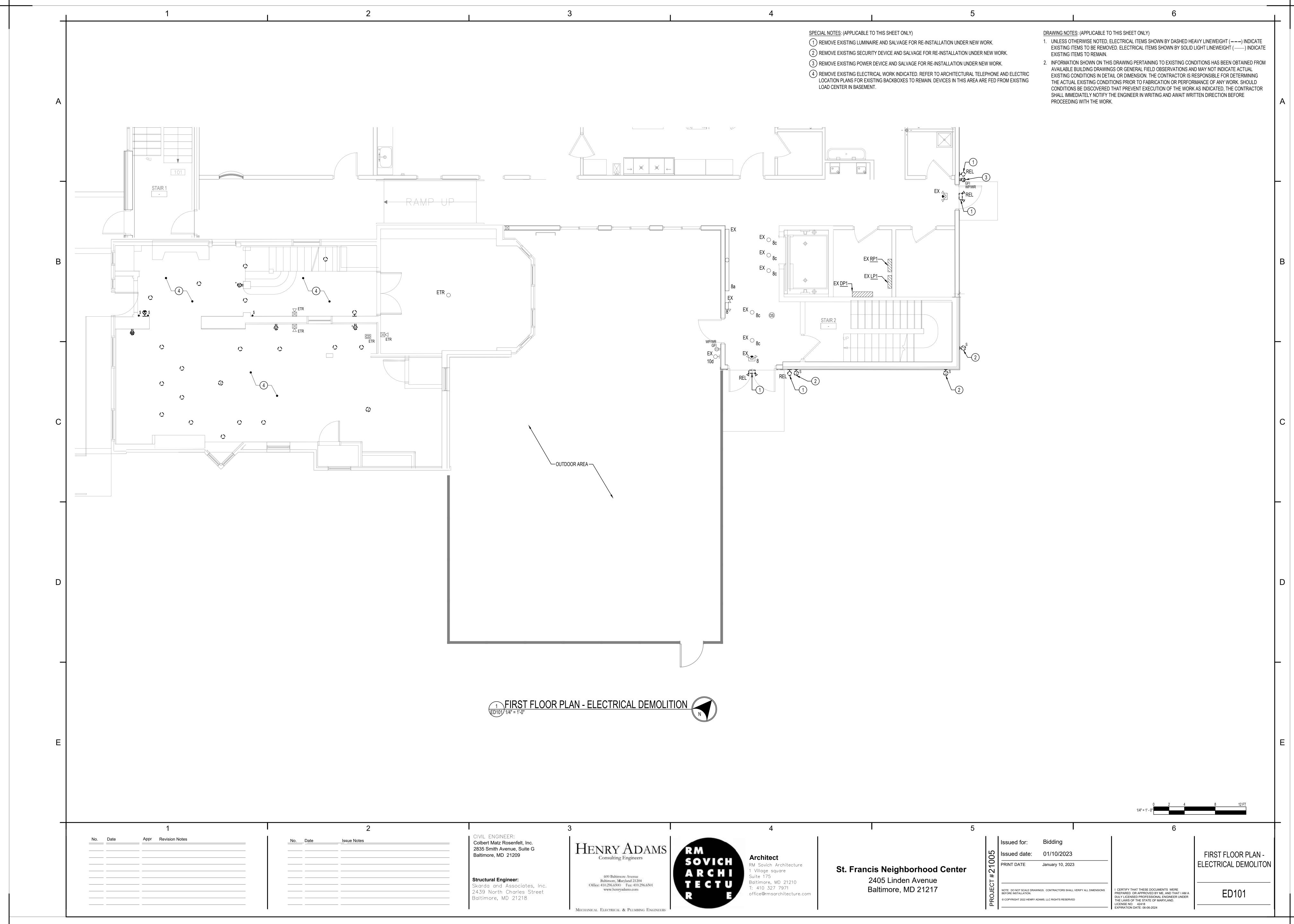
NOTES: (APPLICABLE TO LUMINAIRE SCHEDULE ONLY)

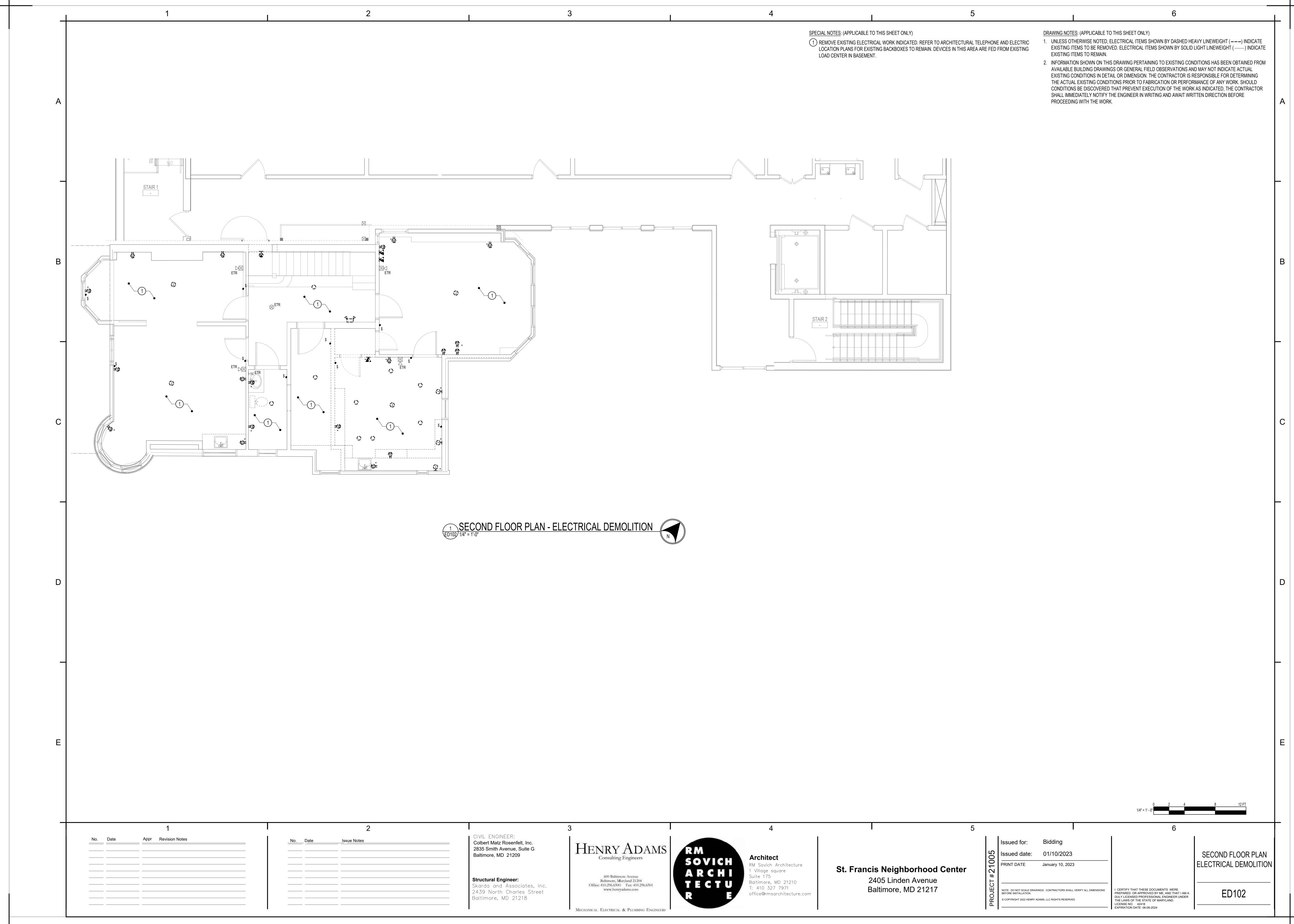
- 1. LAMP TYPES ARE INDICATED BY INDUSTRY GENERIC DESIGNATIONS; SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
- 2. CATALOG NUMBERS FOR LUMINAIRES INDICATE THE TYPE AND QUALITY OF THE LUMINAIRE TO BE PROVIDED BY THE CONTRACTOR AND ARE GENERAL IN NATURE. THE CATALOG NUMBERS ARE NOT INTENDED TO INDICATE AN ACTUAL ORDER MODEL NUMBER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE LUMINAIRES WITH THE TYPE OF LAMP, BALLAST, LENS OR DIFFUSER, AND CONSTRUCTION FEATURES AS INDICATED IN THE SPECIFICATIONS.
- 3. WHERE A LUMINAIRE IS NOTED AS "NO EQUAL," SUBSTITUTIONS WILL NOT BE ACCEPTED. EQUIVALENT LUMINAIRES WILL BE ACCEPTED PROVIDED THEY ARE PROVEN TO BE EQUAL TO, OR BETTER THAN, THE SPECIFIED LUMINAIRE IN ALL RESPECTS. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CONSTRUCTION FEATURES, APPEARANCE, AND PERFORMANCE. SUBMIT THE FOLLOWING FOR EACH PROPOSED SUBSTITUTION:
- A. SAMPLE OF PROPOSED EQUIVALENT LUMINAIRE FOR TABLE-TOP EVALUATION. SAMPLE SHALL BE AN EXACT MATCH TO THE PROPOSED SUBSTITUTION INCLUDING ALL FEATURES, FINISHES, LAMPING, OPTIONS, ACCESSORIES, MOUNTING BRACKETS, ETC. SAMPLE SHALL INCLUDE 120V CORD AND NEMA 5-20P PLUG FOR OPERATIONAL TEST DURING TABLE-TOP EVALUATION.
- B. POINT-BY-POINT LIGHT LEVEL CALCULATIONS IN 3-DIMENSIONAL LIGHTING CALCULATION SOFTWARE TO ILLUSTRATE GUARANTEED ILLUMINATION LEVELS. EACH SPACE AFFECTED BY A SUBSTITUTION SHALL BE MODELED AND CALCULATED USING INDUSTRY STANDARD VALUES FOR REFLECTANCES. LIGHT
- LOSS FACTOR, ETC. ENGINEER WILL COMPARE TO BASIS OF DESIGN LUMINAIRE AND ENGINEER'S CALCULATIONS TO APPROVE OR REJECT SUBSTITUTE LUMINAIRE. PROVIDE IES FILE TO ENGINEER FOR PROPOSED SUBSTITUTE ALONG WITH CALCULATION RESULTS. C. POINT-BY-POINT COMPARATIVE DATA IN SIDE-BY-SIDE FORMAT COMPARING FEATURES OF SUBSTITUTE LUMINAIRE TO BASIS-OF-DESIGN LUMINAIRE.
- D. ALL REQUIREMENTS OF DIVISION 1 SECTION "SUBSTITUTION PROCEDURES."
- 4. COORDINATE CONTROL COMPATIBILITY BETWEEN BALLAST/DRIVER TYPES FOR ALL DIMMED LUMINAIRES WITH MANUFACTURER AND MODEL OF DIMMING CONTROL DEVICES.
- 5. PROVIDE EXIT SIGNS WITH SINGLE FACE OR DOUBLE FACE AND WITH OR WITHOUT CHEVRONS AS INDICATED ON THE DRAWINGS. PROVIDE RED OR GREEN LETTERING AS REQUIRED BY AHJ.
- 6. ALL MOUNTING HEIGHTS SHALL BE AS INDICATED ON THE DRAWINGS OR AS DIRECTED BY THE ARCHITECT OR ENGINEER. MOUNTING HEIGHTS OF WALL MOUNTED LUMINAIRES SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE CENTERLINE OF THE LUMINAIRE. MOUNTING HEIGHTS OF CEILING SUSPENDED LUMINAIRES SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE BOTTOM OF THE LUMINAIRE.

CIVIL ENGINEER: Colbert Matz Rosenfelt, Inc. Issued for: HENRY ADAMS 2835 Smith Avenue, Suite G 01/10/2023 Issued date: Baltimore, MD 21209 **Architect** LUMINAIRE SCHEDULE RM Sovich Architecture PRINT DATE January 10, 2023 St. Francis Neighborhood Center 1 Village square Suite 175 600 Baltimore Avenue 2405 Linden Avenue Structural Engineer: Baltimore, Maryland 21204 Baltimore, MD 21210 Office: 410.296.6500 Fax: 410.296.6501 Skarda and Associates, Inc. 410 327 7971 Baltimore, MD 21217 CERTIFY THAT THESE DOCUMENTS WERE www.henryadams.com NOTE: DO NOT SCALE DRAWINGS. CONTRACTORS SHALL VERIFY ALL DIMENSIONS 2439 North Charles Street REPARED OR APPROVED BY ME, AND THAT I AM A office@rmsarchitecture.com DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. Baltimore, MD 21218 © COPYRIGHT 2022 HENRY ADAMS, LLC RIGHTS RESERVED LICENSE NO: 42418 EXPIRATION DATE: 06-06-2024 MECHANICAL ELECTRICAL & PLUMBING ENGINEERS



1	2	3	4		5	6
	DESIGNATION VOLTAGE VAV-134A 208 VAV-134B 208	3 7 3P-30A 25 DS-VAV-134A - 3 8 3P-30A 30 DS-VAV-134B -		EX PANELBOARD RPHVAC SERVICE TYPE: NORMAL MANUFACT URER: SQUARE-D TYPE: NQ	BUS AMPACITY: 400A MAIN TYPE: MLO SERVICE: 208Y/120 VOLTS, 3 PHASE, 4 WIRE MIN. RATING: 22K AIC RMS SYMMET RICAL AMPS	MOUNTING: SURFACE SECTIONS: 1 ENCLOSURE: NEMA 1 LOCATION: ELEC ROOM
A	VAV-130 208 VAV-132 208 VAV-222 208 VAV-223 208 VAV-226 208	3 9 3P-60A 35 DS-VAV-130 - 1 0.5 2P-30A 15 DS-VAV-132 - 1 3 2P-30A 20 DS-VAV-222 - 3 3.5 3P-30A 15 DS-VAV-223 - 3 4 3P-30A 15 DS-VAV-226 -		LOAD DESCRIPTION NOTE CKT BRE P TA	AUX PHASE A PHASE B PHASE C AUX - 3.60 5.33 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AKER NOTE LOAD DESCRIPTION S 30 3 1 MECH: AHU-4-HTR 2 1 { } 4 1 { } 6
	VAV-228 208 VAV-230 208 VAV-231 20	1 0.5 2P-30A 15 DS-VAV-228 - 1 2.5 2P-30A 15 DS-VAV-230 - 1 3 2P-30A 20 DS-VAV-231 - RMINAL UNIT CONNECTION SCHEDULE ONLY) DORDINATE EXACT EQUIPMENT FUSE SIZE WITH EQUIPMENT NAMEPLATE DATA.		7 EX RTU-2 - 3 60 9 { } 11 { } 13 EX VAC-107 - 1 20 15 EX VAC-108 - 1 20	- 5.00 3.00 - 5.00 3.00 - 5.00 1.50 - 5.00 -	50 2 1 MECH: CU-4 8 1 { } 10 20 1 1 MECH: UH-1 (HALL 294) 12 20 1 - EX VAC-207 14 15 2 - EX SPARE 16
	2. DISCONNECTS SHALL BE	HEAVY SUTY TYPE WITH GROUND LUG AND CLASS RK FUSE REJECTION KIT.		17 EX SPACE - 1 - 19 EX VAC-109 - 1 20 21 EX VAC-111 - 1 20 23 EX CONTROL PANEL VAV RM 117 - 1 20 25 EX VAV-124 - 1 20 27 MECH: VAV-228/VAV-230 3 2 20	- 1.50 - 1.50 - 2	{ }
	MECHANICAL EQU	IPMENT ELECTRICAL CONNECTION SCHEDULE		29 { } 3	- 2.00 - 2.00 2.00 2.00 2.00 2.00 2.00 2.00 - 2.	2 { } 30 20 1 - EX VAC-211 32 20 1 - EX SPARE 34 20 1 - EX GAS BOOSTER CONTROLLER 36 20 3 - EX GAS BOOSTER GPB-1 38
В	UH-1 1.5 - 15.63 20 12.5 120 1	D (kVA) WRING & CONDUIT DISCONNECTING MEANS CONTROL MEANS 2.7 3#12 + #12GW IN 3/4"C DS-AHU-4-FAN - - 5.98 3#4 + #10GW IN 1-1/4"C DS-AHU-4-HTR - - 1.5 2#12 + #12GW IN 3/4"C INTEGRAL - - .99 3#8 + #10GW IN 1"C DS-CU-4 - -	NOTES	39 EX EF-1 - 1 15 41 EX ACCU-1 - 2 15 43 { } 45 EX UH-4 - 2 20 47 { } 49 EX UH-2 ATTIC - 2 20	- 1.25 0.50 - 2.00 2.67 - 3	{ } 40 { } 42 20 1 - EX FIRE/SMOKE DAMPERS 44 30 3 1 MECH: VAV-134B 46 1 { } 48 1 { } 50
	NOTES: (APPLICABLE TO MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE ONLY) 1. REVIEW EQUIPMENT SUBMITTALS FROM OTHER TRADES PRIOR TO ORDERING OR INSTALLING COMPONENTS OF THE ELECTRICAL CONNECTIONS AS NECESSARY TO MATCH NAMEPLATE DATE.	ASSOCIATED ELECTRICAL WORK. ELECTRICAL CONTRACTOR SHALL MODIFY ATA OF APPROVED EQUIPMENT AND PROVIDE A CODE COMPLIANT	VIDE IN SPACE IN EX DP1	51 { } 53 EX LOAD - 1 20 55 EX SPARE - 3 20 57 { } 59 { }	- 0.50 0.90	15 3 2 MECH: AHU-4-FAN 52 2 { } 54 2 { } 56 15 3 2 MECH: VAV-223 58 2 { } 60
	INSTALLATION, INCLUDING BUT NOT LIMITED TO CIRCUIT BREAKERS, WIRE, CONDUITS, CONNENCT BE AWARDED FOR FAILURE TO COORDINATE WITH OTHER TRADES' EQUIPMENT SUBMITT 2. PROVIDE NECESSARY SUPPORTING STRUT CHANNEL AND ALL MISCELLANEOUS HARDWARE FOR CLEARANCES. FIELD COORDINATE EXACT LOCATIONS. DO NOT MOUNT ON EQUIPMENT ACCESSMENT MAINTENANCE CLEARANCES. COORDINATE EXACT LOCATION OF SAFETY SWITCHES WITH ME	ALS. FOR MOUNTING ELECTRICAL EQUIPMENT. MAINTAIN NEC WORKING SS PANELS OR IN EQUIPMENT MANUFACTURERS' RECOMMENDED		61 MECH: VAV-130 3 3 35 63 { } 3 65 { } 3 67 MECH: VAV-134A 3 3 25 69 { } 3 71 { } 3	- 3.00 1.33 - 3.00 1.33	2 { } 62 15 3 2 MECH: VAV-226 64 2 { } 66 2 { } 68 - 1 - EX SPACE 70 - 1 - EX SPACE 72
				AUXILIARIES a AFCI BREAKER X GROUND BUS TO b GFCI BREAKER (5mA) SERVICE ENTRANCE LABEL	18.78 15.18 21.54 16.43 19.71 17.45 33.96 37.97 37.16 283A 316.4A 309.7A DTAL CONNECTED LOAD 109.09 TOTAL DEMAND LOAD 109.09 RECER	PTACLE (SEE NOT E 1) 0.00 0.00
	DISCONNECT SWITCH SCHE DESIGNATION AMP POLES VOLT FUSE FURTHER RATING AMPS CL			c GFEP BREAKER (30mA) INTEGRAL SPD/TVSS d SHUNT TRIP BREAKER 200% NEUTRAL BUS & LUGS e HANDLE PADLOCK ISOLATED GROUND BUS f HANDLE CLAMP SPLIT BUS	DEMAND AMPS 302.8 EQUIP EQUIP LOAD SUMMARY NOTES MOTO DTE 1: FIRST 10KVA AT 100% AND REMAINDER AT 50%. COOL	MENT: CONTINUOUS 0.00 100% 0.00 MENT: NON-CONTINUOUS 0.00 100% 0.00 PR 109.09 100% 109.09 NG (SEE NOTE 2) 0.00 0% 0.00 NG (SEE NOTE 2) 0.00 100% 0.00
	DS-AHU-4-FAN 30 3 208 15 R DS-AHU-4-HTR 60 3 208 60 R	K5 1 - K5 1 - K5 3R -		NOTES: (APPLICABLE TO PANELBOARD SCHEDULE RPHVAC ONLY)	OTE 3: DEMAND FACT OR FROM NEC TABLE FOR KITCHEN EQUIPMENT OTHER THAN DWELLING UNIT. KITCH OTE 4: DEMAND FACT OR FROM NEC TABLE FOR ELEVATORS. ELEVA	R 0.00 100% 0.00 EN (SEE NOTE 3) 0.00 100% 0.00 TOR (SEE NOTE 4) 0.00 100% 0.00
	NOTES: (APPLICABLE TO DISCONNECT SWITCH SCHEDULE ONLY) 1. PROVIDE FUSE AND COORDINATE EXACT EQUIPMENT FUSE SIZE CONSTRUCTION. 2. ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE WITH	GROUND LUG.		CONNECT NEW LOAD TO EXISTING SPARE CIRCUIT BREAKE	N SAME LOCATION. MATCH EXISTING PANELBOARD MANUFACTUREF ER PACES. MATCH EXISTING PANELBOARD MANUFACTURER, TYPE, AN	
	 PROVIDE ALL FUSIBLE DISCONNECT SWITCHES WITH CLASS R FI LABEL DISCONNECT SWITCHES WITH THE DESIGNATION IDENTIF PANELBOARD FROM WHICH IT IS FED, INCLUDING VOLTAGE AND 	IED IN THIS SCHEDULE AND THE CIRCUIT NUMBER AND				
D						
E						
4		2	A			<u>e</u>
No. Date Appr Revision Notes	No. Date Issue Notes Colbert 2835 Sr Baltimor	INGINEER: Matz Rosenfelt, Inc. nith Avenue, Suite G re, MD 21209 HENRY ADAMS Consulting Engineers	Architect		Issued for: Bidding Issued date: 01/10/2023	6 _ ELECTRICAL SCHED
	Skarda 2439 N	600 Baltimore Avenue	RM Sovich Architecture 1 Village square Suite 175 Baltimore, MD 21210 T: 410 327 7971 office@rmsarchitecture.com	St. Francis Neighborhood Center 2405 Linden Avenue Baltimore, MD 21217	PRINT DATE January 10, 2023 # HOTE: DO NOT SCALE DRAWINGS. CONTRACTORS SHALL VERIFY ALL DIMENSION BEFORE INSTALLATION. © COPYRIGHT 2022 HENRY ADAMS, LLC RIGHTS RESERVED	_
		Mechanical Electrical & Plumbing Engineers			LL OPTRIGHT 2022 HENRY ADAMS, LLC RIGHTS RESERVED	THE LAWS OF THE STATE OF MARYLAND. LICENSE NO: 42418 EXPIRATION DATE: 06-06-2024





		FIRE	ALARM ABBREVIATIONS		
A ACU ADA AFF AFG	AMPERE AIR CONDITIONING UNIT AMERICANS WITH DISABILITIES ACT ABOVE FINISHED FLOOR ABOVE FINISHED GRADE	GFCI GFEP GFI GND GW	GROUND FAULT CIRCUIT INTERRUPTER GROUND FAULT EQUIPMENT PROTECTOR GROUND FAULT INTERRUPTER GROUND GROUND WIRE	OCP OSHA	OVERCURRENT PROTECTION OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
AHJ AHU AIC ANSI ASHRAE ASME	AUTHORITY HAVING JURISDICTION AIR HANDLING UNIT AMPERE INTERRUPTING CAPACITY AMERICAN NATIONAL STANDARDS INSTITUTE AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR—CONDITIONING ENGINEERS AMERICAN SOCIETY OF MECHANICAL ENGINEERS	HP HVAC HVI HZ	HORSEPOWER HEATING VENTILATING AIR CONDITIONING HEARING AND VISUALLY IMPAIRED HERTZ	P PA PH PIR PVC	POLE(1P, 2P, 3P) PUBLIC ADDRESS PHASE PASSIVE INFRARED POLYVINYL CHLORIDE
ASTM ATS AUX A/V AWG	AMERICAN SOCIETY FOR TESTING AND MATERIALS AUTOMATIC TRANSFER SWITCH AUXILIARY AUDIBLE/VISUAL AMERICAN WIRE GAUGE	IBC IDC IEBC IECC	INTERNATIONAL BUILDING CODE INITIATING DEVICE CIRCUIT INTERNATIONAL EXISTING BUILDING CODE INTERNATIONAL ENERGY CONSERVATION CODE	R RA RGS RM RMS RNC	RACEWAY RETURN AIR RIGID GALVANIZED STEEL ROOM ROOT MEAN SQUARE RIGID NONMETALLIC CONDUIT
C CB CCC CD CKT CO	CONDUIT CIRCUIT BREAKER CARROLL COMMUNITY COLLEGE CANDELA CIRCUIT CARBON MONOXIDE	IEEE IMC IN JB	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS INTERMEDIATE METALLIC CONDUIT INCH JUNCTION BOX	RTU RX SA SF SLC	ROOF TOP UNIT REMOVE EXISTING SUPPLY AIR SQUARE FEET SIGNALING LINE CIRCUIT
COMM CU CX DACT	COMMUNICATION COPPER CONNECT TO EXISTING DIGITAL ALARM COMMUNICATOR TRANSMITTER	LC LCD LED LF LFMC	LOAD CENTER LIQUID CRYSTAL DISPLAY LIGHT EMITTING DIODE LINEAR FEET LIQUID TIGHT FLEXIBLE METALLIC CONDUIT LIQUID TIGHT FLEXIBLE NON—METALLIC	SPD SS SW SWBD	SURGE PROTECTION DEVICE SAFETY SWITCH SWITCH SWITCHBOARD TECHNOLOGY
E EMT ENCL EOL EQUIP ETR EVACS	EMERGENCY ELECTRICAL METALLIC TUBING ENCLOSUE END OF LINE RESISTOR EQUIPMENT EXISTING TO REMAIN EMERGENCY VOICE AND ALARM COMMUNICATION SYSTEM	LV MAX MC MCA MCB MDP MIN	CONDUIT LOW VOLTAGE MAXIMUM METAL CLAD, METER CENTER MINIMUM CIRCUIT AMPACITY MAIN CIRCUIT BREAKER MAIN DISTRIBUTION PANEL MINIMUM	TYP UG UGE UH UL UON	TYPICAL UNDERGROUND UNDERGROUND ELECTRIC UNIT HEATER UNDERWRITERS LABORATORY UNLESS OTHERWISE NOTED
FA FAAP FACP FAID FEO	EXISTING FUSED, FUSIBLE, FAHRENHEIT FIRE ALARM FIRE ALARM ANNUNCIATOR PANEL FIRE ALARM CONTROL PANEL FIRE ALARM INITIATING DEVICE FIREFIGHTERS' EMERGENCY OPERATION	MOCP MTD N NAC NC NCP NEC	MAXIMUM OVERCURRENT PROTECTION MOUNTED NEUTRAL NOTIFICATION APPLIANCE CIRCUIT NORMALLY CLOSED NETWORK CONTROL PANEL NATIONAL ELECTRICAL CODE	V VA W W/ WP	VOLTS VOLT—AMPERES WIRE, WATTS WITH WEATHERPROOF
FLA FMC FP FSS FT	FULL LOAD AMPERAGE FLEXIBLE METAL CONDUIT FAN POWERED, FIRE PUMP FUSED SAFETY SWITCH FEET GROUND	NECA NEMA NF NFPA NM NO NTS	NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NON-FUSED NATIONAL FIRE PROTECTION ASSOCIATION NON-METALLIC NORMALLY OPEN NOT TO SCALE	XFMR	TRANSFORMER

- 1. VERIFY THAT EXISTING FIRE ALARM SYSTEM IS OPERATIONAL BEFORE MAKING CHANGES OR CONNECTIONS.
- 2. DO NOT INTERRUPT EXISTING FIRE ALARM SYSTEM WITHOUT OWNER'S WRITTEN PERMISSION.
- 4. FOR NEW DEVICES THAT RECEIVE POWER FROM AN EXISTING CONTROL UNIT'S INITIATING DEVICE CIRCUIT OR SIGNALING LINE CIRCUIT, PROVIDE DEVICES THAT ARE LISTED FOR USE WITH THE EXISTING CONTROL UNIT.
- 5. DRAWINGS ARE CONCEPTUAL, INTENDED TO SHOW GENERAL SYSTEM CONFIGURATION AND PERFORMANCE. PREPARE SHOP DRAWINGS AND PROVIDE CONDUITS, WIRING, SYSTEM COMPONENTS AND EQUIPMENT FOR A COMPLETE AND OPERATIONAL SYSTEM IN COMPLIANCE WITH NFPA 70, NFPA 72, NFPA 90A, NFPA 101 IBC, THE AUTHORITY HAVING JURISDICTION AND THE CONTRACT DOCUMENTS.
- 6. CONNECT NEW FIRE ALARM DEVICES TO RESPECTIVE EXISTING FLOOR INITIATING AND SIGNALING CIRCUITS.
- 7. EXISTING FIRE ALARM SYSTEM IS A NOTIFIER NFW 100X / XR ANALOG ADDRESSABLE FIRE ALARM CONTROL PANEL WITH VOICE EVACUATION.
- 8. COORDINATE FIRE ALARM WORK WITH LOCAL FIRE MARSHAL, FIRE ALARM PLANS REVIEW, AND FIRE DEPARTMENT INSPECTORS.

3. ENGAGE A MANUFACTURER'S AUTHORIZED SERVICE COMPANY TO PERFORM MODIFICATIONS TO THE FIRE ALARM SYSTEM.

- 9. OBTAIN AND PAY FOR PERMITS REQUIRED FOR INSTALLATION OF FIRE ALARM SYSTEM. PROVIDE SHOP DRAWING SUBMITTAL DOCUMENTS TO AUTHORITY HAVING JURISDICTION TO OBTAIN PERMIT. SUBMITTAL SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
- A. SCALED FLOOR PLANS WITH ROOM NAMES AND NUMBERS WHICH INDICATE USE OF ALL ROOMS.
- B. FIRE ALARM DEVICE AND CABLE SYMBOL LEGEND.C. FLOOR PLAN LAYOUT SHOWING LOCATIONS OF ALL DEVICES AND CONTROL EQUIPMENT, INCLUDING MOUNTING HEIGHTS OF ALARM INITIATING DEVICES AND
- NOTIFICATION DEVICES.

 D. FIRE ALARM CONTROL PANEL AND ANNUNCIATOR LOCATION.
- E. POWER CONNECTION.
- F. BATTERY CALCULATIONS.
- G. VOLTAGE DROP CALCULATIONS FOR NOTIFICATION APPLIANCE CIRCUITS.
- H. SIZE, TYPE, AND NUMBER OF CONDUCTORS.
- I. MANUFACTURER'S TECHNICAL DATA SHEETS INCLUDING MODEL NUMBERS AND LISTING INFORMATION FOR EQUIPMENT, DEVICES, AND MATERIALS.
- J. DETAILS OF CEILING HEIGHT AND CONSTRUCTION.
- K. INTERFACE OF FIRE SAFETY CONTROL FUNCTIONS.
- L. FIRE ALARM SYSTEM RISER.M. SEQUENCE OF OPERATIONS INPUT/OUTPUT MATRIX.
- N. DEVICE TO DEVICE WIRING.
- O. LOUDNESS AND CANDELA SETTINGS FOR EVERY NOTIFICATION APPLIANCE.
- 10. INCREASE BATTERY CAPACITY OF FIRE ALARM SYSTEM TO ACCOMMODATE ADDITIONAL LOAD.
- 11. FIRE ALARM BRANCH CIRCUIT IDENTIFICATION MUST COMPLY WITH NFPA 70 AND NFPA 72:
- PROVIDE APPROVED RED CIRCUIT BREAKER LOCKOUT DEVICE FOR EACH CIRCUIT BREAKER SERVING A FIRE ALARM CIRCUIT.

 PROVIDE APPROVED RED CIRCUIT BREAKER LOCKOUT DEVICE FOR EACH CIRCUIT BREAKER SERVING A FIRE ALARM CIRCUIT.

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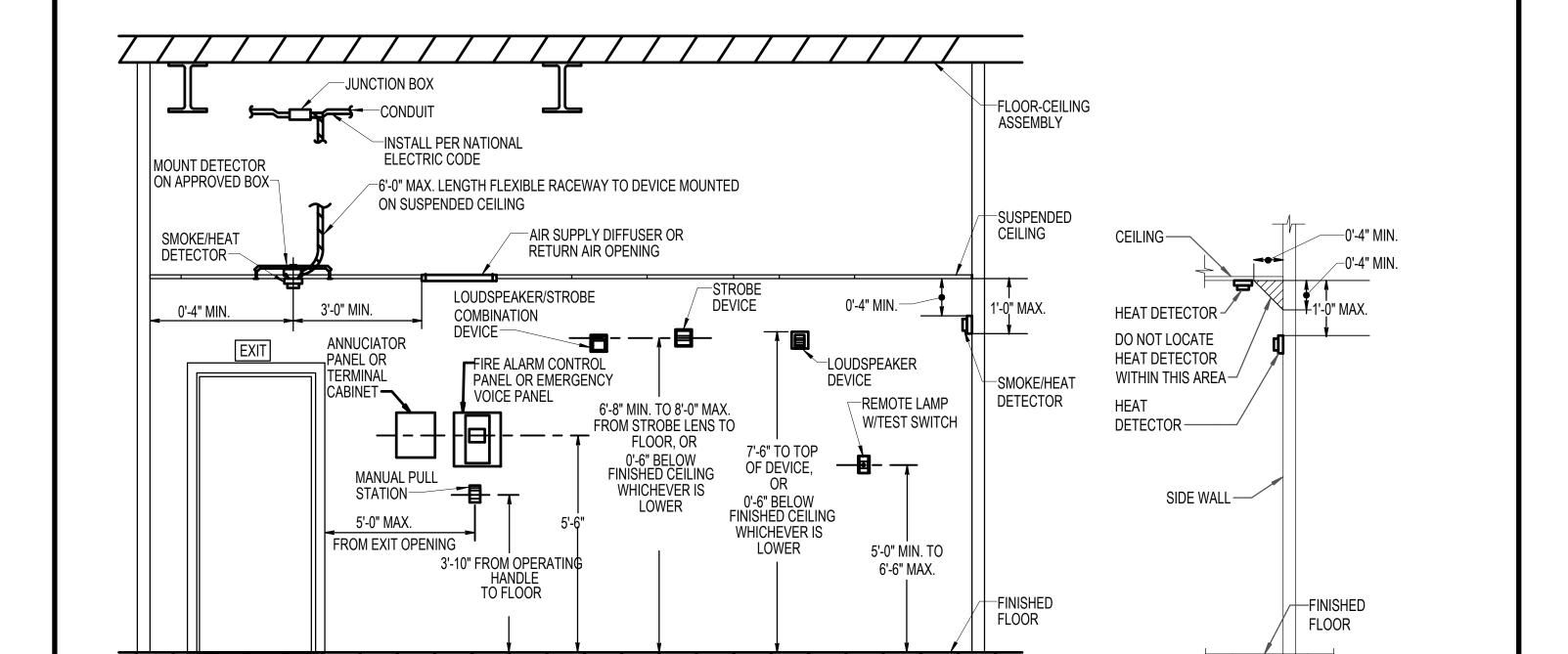
 PROVIDE ALARM CIRCUIT BREAKER LOCKOUT DEVICE FOR EACH CIRCUIT BREAKER SERVING A FIRE ALARM CIRCUIT BREAKER SE
- IDENTIFY EACH FIRE ALARM CIRCUIT WITH A RED PHENOLIC NAMEPLATE WITH WHITE LETTERING. NAMEPLATE SHALL READ "FIRE ALARM CIRCUIT". FASTEN NAMEPLATE IN PANELBOARD ADJACENT TO CIRCUIT BREAKER.
- 12. IDENTIFY POWER SOURCE AND LOCATION OF BRANCH CIRCUIT DISCONNECT SERVING FIRE ALARM EQUIPMENT. FASTEN PHENOLIC NAMEPLATE TO FIRE ALARM SYSTEM PANEL(S) INDICATING LOCATION OF DEDICATED BRANCH CIRCUIT DISCONNECTING MEANS. NAMEPLATE SHALL READ "THIS PANEL FED FROM PANEL _____, CIRCUIT NO. _____, LOCATED IN _____."
- 13. IDENTIFY EACH FIRE ALARM DEVICE AND EQUIPMENT ENCLOSURE. DEVICE LABELS SHALL INDICATE ADDRESS AND ZONE.
- 14. IDENTIFY FIRE ALARM CIRCUITS AT TERMINAL AND JUNCTION LOCATIONS WITH PERMANENT LABELS. PAINT FIRE ALARM CIRCUIT JUNCTION BOX COVERS RED AND LABEL COVER "FIRE ALARM". MARK CONDUITS CARRYING FIRE ALARM SYSTEM CIRCUITS WITH RED STRIPE EVERY 10 FEET.
- 15. PERFORM RE-ACCEPTANCE TESTING IN ACCORDANCE WITH NFPA 72 TO VERIFY PROPER OPERATION OF ADDED OR REPLACED DEVICES INCLUDING BUT NOT LIMITED TO INITIATING DEVICES, NOTIFICATION APPLIANCES, EMERGENCY CONTROL FUNCTION DEVICES AND CONTROL EQUIPMENT.

	FIRE ALARM LEGEND	
SYMBOL	DESCRIPTION	MOUNTING HEIGHT
<u>s</u>	FIRE ALARM SYSTEM - SMOKE DETECTOR - AREA, CEILING/WALL MOUNT SUBSCRIPTS: P: PHOTOELECTRIC TYPE (DEFAULT IF NO SUBSCRIPT INDICATED)	/ SEE DETAIL
0	FIRE ALARM SYSTEM - SMOKE DETECTOR, DUCT DETECTOR WITH SAMPLING TUBE. SUBSCRIPT IDENTIFIES EQUIPMENT TO BE CONTROLLED FOR SHUTDOWN	
⊕ #	FIRE ALARM SYSTEM - SMOKE DAMPER WITH DUCT SMOKE DETECTOR WITH 120V POWER CONNECTION TO DAMPER	
(FIRE ALARM SYSTEM - HEAT DETECTOR, CEILING/WALL MOUNT SUBSCRIPTS: F: FIXED TEMPERATURE (DEFAULT IF NO SUBSCRIPT INDICATED)	/ SEE DETAIL
© ©	CARBON MONOXIDE DETECTOR, CEILING/WALL MOUNT	/ SEE DETAIL
F	FIRE ALARM SYSTEM - MANUAL PULL STATION	46"
AM	FIRE ALARM SYSTEM - ADDRESSABLE MODULE	
⊗ ¥	FIRE ALARM SYSTEM - STROBE, CEILING/WALL MOUNT SUBSCRIPTS: WP: WEATHERPROOF	/ 86"
8 8	FIRE ALARM SYSTEM - LOUDSPEAKER STROBE, CEILING/WALL MOUNT SUBSCRIPTS: WP: WEATHERPROOF	/ 86"
8 2	FIRE ALARM SYSTEM - LOUDSPEAKER, CEILING/WALL MOUNT SUBSCRIPTS: WP: WEATHERPROOF	/ 86"
FACP	FIRE ALARM SYSTEM - FIRE ALARM CONTROL PANEL	78" TO TOP
FAAP	FIRE ALARM SYSTEM - FIRE ALARM SYSTEM ANNUNCIATOR PANEL	78" TO TOP
AR	AREA OF REFUGE CALL STATION	

NOTES: (APPLICABLE TO FIRE ALARM LEGEND ONLY)

- 1. THE MOUNTING HEIGHTS GIVEN ON THIS SHEET IN THE ELECTRICAL LEGEND ARE GENERAL AND SHALL BE USED ONLY WHEN MOUNTING HEIGHTS CANNOT BE ESTABLISHED BY REFERENCE TO DETAILS, ELEVATIONS, AND NOTES ON THE DRAWINGS.
- 2. ALL MOUNTING HEIGHTS, UNLESS OTHERWISE NOTED, SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE CENTERLINE OF THE OUTLET OR DEVICE.
- CENTERLINE OF THE OUTLET OR DEVICE.
- 3. HEIGHTS OF ALL ITEMS NOT COVERED BY THE ELECTRICAL LEGEND AND NOT SHOWN ON THE DRAWINGS SHALL BE AS DIRECTED BY THE ARCHITECT OR ENGINEER.

 WHERE PLACING ANY ITEM AT THE HEIGHTS LISTED OR NOTED WILL CAUSE INTERFERENCE WITH THE WORK OF OTHER TRADES, OR IS NOT PHYSICALLY POSSIBLE OR DESIRABLE FOR ONE REASON OR ANOTHER, THE ITEM



HEAT DETECTOR MOUNTING PLACEMENT REQUIREMENTS

FIRE ALARM CONVENTIONS

FIRE ALARM

CANDELA RATING

DEVICE TYPE

SHALL BE INSTALLED AT A LOCATION APPROVED BY THE ARCHITECT OR ENGINEER.

CARBON MONOXIDE DETECTION AND WARNING

- a. OCCUPANT NOTIFICATION SHALL BE IN ACCORDANCE WITH 2015 NFPA 720 ARTICLE 5.8.6.2.2.
- b. CARBON MONOXIDE ALARM SIGNALS SHALL BE TRANSMITTED TO A CONSTANTLY ATTENDED OFF-PREMISES SUPERVISING STATION.
- c. SELECTIVE PUBLIC MODE OCCUPANT NOTIFICATION WILL BE LIMITED TO THE NOTIFICATION ZONE ENCOMPASSING THE AREA WHERE THE CARBON MONOXIDE SIGNAL WAS INITIATED.
- I. VISUAL NOTIFICATION SHALL BE BY BLUE FLASHING LIGHT TO ALERT OCCUPANTS OF THE
- PRESENCE OF CARBON MONOXIDE.

 e. AUDIBLE NOTIFICATION SHALL BE BY FIRE ALARM SYSTEM HORN. HORN SHALL PRODUCE A FOUR-PULSE TEMPORAL PATTERN TO ALERT OCCUPANTS OF THE PRESENCE OF CARBON

1	2		3	4	5		6	
No. Date Appr Revision Notes	No. Date Issue Notes	CIVIL ENGINEER: Colbert Matz Rosenfelt, Inc. 2835 Smith Avenue, Suite G Baltimore, MD 21209	HENRY ADAMS Consulting Engineers	Architect SOVICH ARCHI A R C H I Sovich Architecture 1 Village square Suite 175	St. Francis Neighborhood Center	Issued for: Bidding Issued date: 01/10/2023 PRINT DATE January 10, 2023		FIRE ALARM COVER SHEET
		Structural Engineer: Skarda and Associates, Inc. 2439 North Charles Street Baltimore, MD 21218	600 Baltimore Avenue Baltimore, Maryland 21204 Office: 410.296.6500 Fax: 410.296.6501 www.henryadams.com Mechanical Electrical & Plumbing Engineers	Suite 1/5 Baltimore, MD 21210 T: 410 327 7971 office@rmsarchitecture.com	2405 Linden Avenue Baltimore, MD 21217	NOTE: DO NOT SCALE DRAWINGS. CONTRACTORS SHALL VERIFY ALL DIMENSIONS BEFORE INSTALLATION. © COPYRIGHT 2022 HENRY ADAMS, LLC RIGHTS RESERVED	I 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: 42174 EXPIRATION DATE: 12-12-2023	FA001

NOTE: MOUNT FIRE ALARM DEVICES ON APPROVED BOXES.

FA-001 NOT TO SCALE

