

INTRODUCED: December 15, 2025

AN ORDINANCE No. 2025-273

To authorize the special use of the properties known as 1201 West Franklin Street and 1205 West Franklin Street for the purpose of signage, upon certain terms and conditions.

Patron – Mayor Avula (By Request)

Approved as to form and legality
by the City Attorney

PUBLIC HEARING: JAN 12 2026 AT 6 P.M.

WHEREAS, the owner of the properties known as 1201 West Franklin Street and 1205 West Franklin Street, which are situated in a R-6 Single-Family Attached Residential District, desires to use such properties for the purpose of signage, which use, among other things, is not currently allowed by section 30-506, concerning signs permitted in the R-1, R-2, R-3, R-4, R-5, R-5A, R-6, R-7, and R-8 districts, of the Code of the City of Richmond (2020), as amended; and

WHEREAS, in accordance with section 17.11 of the Charter of the City of Richmond (2020), as amended, it has been made to appear that, if granted subject to the terms and conditions set forth in this ordinance, the special use granted by this ordinance will not be detrimental to the safety, health, morals and general welfare of the community involved, will not tend to create

AYES: 8 NOES: 0 ABSTAIN: _____

ADOPTED: JAN 12 2026 REJECTED: STRICKEN:

congestion in streets, roads, alleys and other public ways and places in the area involved, will not create hazards from fire, panic or other dangers, will not tend to overcrowding of land and cause an undue concentration of population, will not adversely affect or interfere with public or private schools, parks, playgrounds, water supplies, sewage disposal, transportation or other public requirements, conveniences and improvements, and will not interfere with adequate light and air; and

WHEREAS, (i) the City Planning Commission has conducted a public hearing to investigate the circumstances and conditions upon which the Council is empowered to authorize such use, (ii) the City Planning Commission has reported to the Council the results of such public hearing and investigation and its recommendations with respect thereto, and (iii) the Council has conducted a public hearing on this ordinance at which the person in interest and all other persons have had an opportunity to be heard;

NOW, THEREFORE,

THE CITY OF RICHMOND HEREBY ORDAINS:

§ 1. **Finding.** Pursuant to section 30-1050.1 of the Code of the City of Richmond (2020), as amended, the Council hereby finds that the special use set forth in and subject to the terms and conditions of this ordinance will not (i) be detrimental to the safety, health, morals and general welfare of the community involved, (ii) tend to create congestion in streets, roads, alleys and other public ways and places in the area involved, (iii) create hazards from fire, panic or other dangers, (iv) tend to overcrowding of land and cause an undue concentration of population, (v) adversely affect or interfere with public or private schools, parks, playgrounds, water supplies, sewage disposal, transportation or other public requirements, conveniences and improvements, or (vi) interfere with adequate light and air.

§ 2. Grant of Special Use Permit.

(a) Subject to the terms and conditions set forth in this ordinance, the properties known as 1201 West Franklin Street and 1205 West Franklin Street and identified as Tax Parcel Nos. W000-0613/014 and W000-0613/011, respectively, in the 2025 records of the City Assessor, being more particularly shown on a survey entitled “Topographic Survey for a Portion of Parcels W0000531001, W0000613014 & W0000613011, City of Richmond, VA,” prepared by Nyfeler Survey, and dated November 16, 2023, and provided as an inset on sheet C2.01 of the plans entitled “St. James’s Episcopal Church, Accessible Ramp and Road Improvements Permit Set,” prepared by Glavé & Holmes Architecture, and dated May 31, 2024, a copy of which is attached to and made a part of this ordinance, hereinafter referred to as “the Property,” is hereby permitted to be used for the purpose of signage, hereinafter referred to as “the Special Use,” substantially as shown on the plans entitled “St James’s Episcopal Church, Accessible Ramp and Road Improvements Permit Set,” prepared by Glavé & Holmes Architecture, and dated May 31, 2024, hereinafter referred to as “the Plans,” copies of which are attached to and made a part of this ordinance.

(b) The adoption of this ordinance shall constitute the issuance of a special use permit for the Property. The special use permit shall inure to the benefit of the owner or owners of the fee simple title to the Property as of the date on which this ordinance is adopted and their successors in fee simple title, all of which are hereinafter referred to as “the Owner.” The conditions contained in this ordinance shall be binding on the Owner.

§ 3. Special Terms and Conditions. This special use permit is conditioned on the following special terms and conditions:

(a) The Special Use of the Property shall be as signage, substantially as shown on the Plans.

(b) No parking shall be required for the Special Use.

(c) The height of the Special Use shall not exceed nine feet, two and three-quarters inches, substantially as shown on the Plans.

(d) All building materials, elevations, and site improvements shall be substantially as shown on the Plans, subject to the issuance of a Certificate of Appropriateness by the Commission of Architectural Review.

(e) All mechanical equipment serving the Property shall be located or screened so as not to be visible from any public right-of-way.

§ 4. **Supplemental Terms and Conditions.** This special use permit is conditioned on the following supplemental terms and conditions:

(a) All required final grading and drainage plans, together with all easements made necessary by such plans, must be approved by the Director of Public Utilities prior to the issuance of the building permit.

(b) Storm or surface water shall not be allowed to accumulate on the land. The Owner, at its sole cost and expense, shall provide and maintain at all times adequate facilities for the drainage of storm or surface water from the Property so as not to adversely affect or damage any other property or public streets and the use thereof.

(c) Facilities for the collection of refuse shall be provided in accordance with the requirements of the Director of Public Works. Such facilities shall be located or screened so as not to be visible from adjacent properties and public streets.

(d) Any encroachments existing, proposed on the Plans or contemplated in the future shall require separate authorization and shall be subject to the applicable provisions of the Code of the City of Richmond (2020), as amended, and all future amendments to such laws.

(e) The Owner shall make improvements within the right-of-way, substantially as shown on Sheet C4.01 of the Plans, which improvements may be completed in one or more phases as approved by the Director of Public Works. All improvements and work within the public right-of-way shall be (i) completed in accordance with the requirements of the Director of Public Works, (ii) considered completed only upon written confirmation by the Director of Public Works or the designee thereof that such improvements and work are in accordance with such requirements, and (iii) transferred to the City, following the written confirmation by the Director of Public Works or the designee thereof, pursuant to a transfer of interest document approved as to form by the City Attorney and accepted by the Chief Administrative Officer or the designee thereof on behalf of the City. The Chief Administrative Officer or the designee thereof, for and on behalf of the City, is hereby authorized to accept, in the manner for which this subsection provides, all improvements and work required by and meeting the requirements of this subsection. The final certificate of occupancy shall not be issued for the Property until all requirements of this subsection are fully satisfied.

(f) In all other respects, the use of the Property shall be in accordance with the applicable underlying zoning regulations.

§ 5. **General Terms and Conditions.** This special use permit is conditioned on the following general terms and conditions:

(a) No permit implementing this special use permit shall be approved until satisfactory evidence has been presented to the Zoning Administrator that any delinquent real estate taxes applicable to the Property have been paid.

(b) The Owner shall be bound by, shall observe and shall comply with all other laws, ordinances, rules and regulations applicable to the Property, except as otherwise expressly provided in this ordinance.

(c) Words and phrases used in this ordinance shall be interpreted to have the meanings ascribed to them by section 30-1220 of the Code of the City of Richmond (2020), as amended, unless the context clearly indicates that a different meaning is intended.

(d) Notwithstanding any other provision of law, this special use permit is being approved due, in part, to the mitigating effects of each and every condition attached hereto; consequently, if any portion of this ordinance is determined to be invalid for any reason by a final, non-appealable order of any Virginia or federal court of competent jurisdiction, the invalidity shall cause the entire ordinance to be void and of no further effect from the effective date of such order.

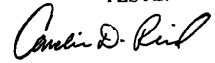
(e) The privileges granted by this ordinance may be revoked pursuant to the provisions of sections 30-1050.7 through 30-1050.11 of the Code of the City of Richmond (2020), as amended, and all future amendments to such laws. Failure to comply with the terms and conditions of this ordinance shall constitute a violation of section 30-1080 of the Code of the City of Richmond (2020), as amended, and all future amendments to such law, or any other applicable laws or regulations.

(f) When the privileges granted by this ordinance terminate and the special use permit granted hereby becomes null and void, whether as a result of the Owner relinquishing this special use permit in a writing addressed to the Director of Planning and Development Review or otherwise, use of the Property shall be governed thereafter by the zoning regulations prescribed for the district in which the Property is then situated.

§ 6. **Implementation.** The Commissioner of Buildings is authorized to issue a building permit substantially in accordance with the Plans for the Special Use subject to the terms and conditions set forth in this ordinance. An application for the building permit shall be made within 1,096 calendar days following the date on which this ordinance becomes effective. If either the application for the building permit is not made within the time period stated in the previous sentence or the building permit terminates under any provision of the Virginia Statewide Building Code, this ordinance and the special use permit granted hereby shall terminate and become null and void.

§ 7. **Effective Date.** This ordinance shall be in force and effect upon adoption.

A TRUE COPY:
TESTE:


Carolin D. Reed
City Clerk

City of Richmond

Intracity Correspondence

O&R Transmittal

DATE: October 20, 2025

TO: The Honorable Members of City Council

THROUGH: The Honorable Dr. Danny Avula, Mayor (by request)
(This in no way reflects a recommendation on behalf of the Mayor)

THROUGH: Odie Donald II, Chief Administrative Officer

THROUGH: Sharon L. Ebert, DCAO for Economic Development and Planning

FROM: Kevin J. Vonck, Director of Planning & Development Review

RE: To authorize the special use of the properties known as 1201 and 1205 West Franklin Street for the purpose of signage, upon certain terms and conditions.

ORD. OR RES. No. _____

PURPOSE: The applicant is requesting authorization for additional signage in a R-6 Single-Family Attached Residential District. Underlying feature requirements cannot be met. A Special Use Permit is therefore necessary to proceed with this request.

BACKGROUND: The property is located in the Fan neighborhood on the corner of West Franklin Street and Birch Street. The City's Richmond 300 Master Plan designates a future land use for the subject property as Neighborhood Mixed Use, which is defined as existing or new highly walkable urban neighborhoods that are predominantly residential with a small, but critical, percentage of parcels providing retail, office, personal service, and institutional uses.

Intensity: Building heights are generally two to four stories. Buildings taller than four stories may be found along major streets. Parcels are generally between 1,500 and 5,000 sq. ft.

Primary Uses: Single-family houses, accessory dwelling units, duplexes, small multi-family buildings (typically 3-10 units), and open space.

Secondary Uses: Large multifamily buildings (10+units), retail/office/personal service, institutional, cultural, and government.

COMMUNITY ENGAGEMENT: The Fan District and Historic Monument Avenue Civic Associations were notified of the application; additional community notification will take place after introduction.

STRATEGIC INITIATIVES AND OTHER GOVERNMENTAL: Richmond 300 Master Plan

FISCAL IMPACT: \$400 application fee.

DESIRED EFFECTIVE DATE: Upon adoption

REQUESTED INTRODUCTION DATE: December 8, 2025

CITY COUNCIL PUBLIC HEARING DATE: January 12, 2026

REQUESTED AGENDA: Consent

RECOMMENDED COUNCIL COMMITTEE: Planning Commission January 6, 2026

AFFECTED AGENCIES: Office of Chief Administrative Officer

Law Department (for review of draft ordinance)

RELATIONSHIP TO EXISTING ORD. OR RES.: None

ATTACHMENTS: Draft Ordinance, Authorization from Property Owner, Applicant's Report, Plans, Survey

STAFF:

Alyson Oliver, Program and Operations Supervisor, Land Use Administration (Room 511) 646-3709

Shaianna Trump, Planner Associate, Land Use Administration (Room 511) 646-7319



CITY OF RICHMOND, VA
Department of Planning and Development Review
Land Use Administration Division
900 East Broad Street, City Hall - Room 511, Richmond, Virginia 23219

AUTHORIZATION FROM PROPERTY OWNER

TO BE COMPLETED BY THE APPLICANT

Applicant must complete ALL items

HOME/SITE ADDRESS: 1201-1205 W. FRANKLIN ST. APARTMENT NO/SUITE

APPLICANT'S NAME: EDMUND MCELROY EMAIL ADDRESS: [REDACTED]

BUSINESS NAME (IF APPLICABLE): ST. JAMES'S EPISCOPAL CHURCH

SUBJECT PROPERTY OR PROPERTIES: CHURCH

APPLICATION REQUESTED

- ☐ Plan of Development (New or Amendment)
- ☐ Wireless Plan of Development (New or Amendment)
- ☒ Special Use Permit (New or Amendment)
- ☐ Rezoning or Conditional Rezoning
- ☒ Certificate of Appropriateness (Conceptual, Administrative Approval, Final)
- ☐ Community Unit Plan (Final, Preliminary, and/or Amendment)
- ☐ Subdivision (Preliminary or Final Plat Correction or Extension)

TO BE COMPLETED BY THE AUTHORIZED OWNER

Owner must complete ALL items

Signing this affidavit acknowledges that you, as the owner or lessee of the property, authorize the above applicant to submit the above selected application/s on your behalf.

PROPERTY OWNER: WILLIAM BAXTER, Junior Warden

PROPERTY OWNER ADDRESS: 1201-1205 W. FRANKLIN ST. RICHMOND, VA, 23220

PROPERTY OWNER EMAIL ADDRESS: [REDACTED]

PROPERTY OWNER PHONE NUMBER: (804) 317-7318

Property Owner Signature: William H. Baxter Jr., Junior Warden

The names, addresses, telephone numbers and signatures of all owners of the property are required. Please attach additional sheets as needed. If a legal representative signs for a property owner, please attach an executed power of attorney.

January 16, 2025

City of Richmond Department of Planning & Development Review
ATTN: Matthew Ebinger, Planning Supervisor
900 E Broad St.
Richmond, VA 23219

Re: St. James's Episcopal Church Ramp and Road Project
Signage Special Use Permit

Dear Matthew,

On Behalf of St. James's Episcopal Church -

A Special Use Permit is requested for St. James's Episcopal Church at 1205 West Franklin Street, Richmond, VA.

*Per Richmond Code of Ordinances **Section 30-630.9.B** "Fences and walls located within required front yards shall not exceed four feet in height."*

St. James's Episcopal Church has received a building permit to construct an ADA accessible ramp for it's aging congregation on the northwest corner of the West Franklin street church entry portico. As a part of this project, a new sign has been designed to replace an existing sign that existed in the footprint of the new ADA ramp. Because of the location of the new ramp, the church signage has moved forward toward West Franklin Street, and is integrated into the masonry ramp wall. At the location of the sign, the height of the wall is approximately 10'-8". At all other ramp wall locations, the masonry wall heights do not exceed the 4' maximum.

The interpretation of the owner and design team is that this is a wall-mounted sign because the signage wall is an extension of the ramp wall which connects to the existing church and is an extension of it. Following the footprint of the ADA ramp, the signage does not pose any additional risks for overcrowding or congestion of the W Franklin Street sidewalk. The height of the masonry wall and the wall mounted signage also do not create any potential hazards from fire or other dangers. The ramp itself increases accessibility to the church, and the signage is integrated into a necessary feature of this ramp. The ramp and signage wall have been delicately designed to support the architectural elements of the historic church through material and form.

*If the department does not agree with our interpretation of this being a wall-mounted sign, and instead interprets this as a free-standing signage element, St. James's would like for this application to then be considered as a special use request to permit a free-standing sign, which deviates from the requirements laid out in **Section 30-506.4** for R-6 zoning. "Freestanding sign limitations. Freestanding signs shall not exceed a height of eight feet and shall not be located within five feet of any street line or within 15 feet of any other property line"*

As mentioned above, the height of the designed signage wall is 10'-8". The signage has been designed as an integrated element of the new ADA ramp while also supporting the architectural character of the historic

church. The design team believes this is an appropriate height and scale of signage. Given the proportions and monumentality of the historic church portico, the proposed signage does not obscure or take away from the church's important architectural features (per City of Richmond Urban Design Guidelines, Page 27). The location of the sign was dictated by the new ADA ramp, as described above, therefore moving the signage to a distance of 3'-8" from the property line along W Franklin Street. The signage does, however, still maintain the minimum 5' distance from W Franklin Street.

Signage drawings have been previously provided as a part of the permitting process.

Sincerely,

Daniel Murrow, Project Architect, Glavé & Holmes on behalf of St. James's Episcopal Church

E

Legend

Exist.	Prop.		Exist.	Prop.	
		PROPERTY LINE			CONCRETE
		PROJECT LIMIT LINE			HEAVY DUTY PAVEMENT
		RIGHT-OF-WAY/PROPERTY LINE			BUILDINGS
		EASEMENT			RIPRAP
		BUILDING SETBACK			CONSTRUCTION ENTRANCE
		BASELINE			
		CONSTRUCTION LAYOUT			TOP OF CURB ELEVATION
		ZONING LINE			BOTTOM OF CURB ELEVATION
		TOWN LINE			FLOW LINE ELEVATION
					EDGE OF PAVEMENT ELEVATION
		LIMIT OF DISTURBANCE			SPOT ELEVATION
		WETLAND LINE WITH FLAG			TOP & BOTTOM OF WALL ELEVATION
		FLOODPLAIN			BORING LOCATION
		BORDERING LAND SUBJECT TO FLOODING			TEST PIT LOCATION
		WETLAND BUFFER ZONE			MONITORING WELL
		RMA - RESOURCE MANAGEMENT AREA			
		RPA - RESOURCE PROTECTION AREA			
					UNDERDRAIN
					DRAINAGE LINE
					ROOF DRAIN
					SEWER LINE
		GRAVEL ROAD			OVERHEAD WIRE
		EDGE OF PAVEMENT			WATER LINE
		ASPHALT CONCRETE CURB AND MEDIAN			FIRE PROTECTION LINE

C

B

A

Abbreviations

General	
ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJU T
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EXIST	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL
Utility	
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
DI	DRAIN INLET
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
ES	END SECTION
EW	END WALL
FES	FLARED END SECTION
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
FM	FORCE MAIN
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
PIV	POST INDICATOR VALVE
RCP	REINFORCED CONCRETE PIPE
RIM=	RIM ELEVATION
R=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE

Notes

- General**
- THE MISS UTILITY LAW REQUIRES FOR THE CONTRACTOR TO CALL 811 AT LEAST 3 WORKING DAYS IN ADVANCE OF THE PLANNED WORK TO ALLOW TIME FOR MARKING, THAT THE MARKS BE RESPECTED AND PROTECTED, AND THAT EXCAVATION BE COMPLETED CAREFULLY.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
 - ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
 - AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC) SHALL FOLLOW DETAIL PROVIDED BY VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK FOR SITE SPECIFIC SEEDING MIXTURES IN ACCORDANCE WITH STANDARD & SPECIFICATION 3.32.
 - WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
 - WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
 - UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
 - TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
 - AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
 - IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, CHEMICAL, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
 - CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
 - DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
 - CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
 - THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND FALLS WITHIN THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSM). GENERAL CONSTRUCTION PERMIT (GCP) PROGRAM AS ADMINISTERED BY THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) UNDER THE JURISDICTION OF THE EPA. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL FILE A GCP NOTICE OF INTENT WITH THE DEQ AND PREPARE A STORMWATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE VSM REGULATIONS.

Utilities

- THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVES HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
- SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
- RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
 - PAVEMENTS AND CONCRETE SURFACES: FLUSH
 - ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
 - LANDSCAPE, TOPSOIL AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
- THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
- CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
- UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
 - STORM DRAINAGE PIPES SHALL PVC.
- CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SIEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
- CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
- ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4 MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.
- LOCATION OF FITTINGS SHOWN HEREON ARE APPROXIMATE ONLY. CONTRACTOR SHALL DETERMINE ALL FITTING REQUIREMENTS AND LOCATIONS FROM ACTUAL FIELD CONDITIONS.
- PIPE LENGTHS SHOWN HEREON ARE FROM CENTERLINE TO CENTERLINE OF STRUCTURE AND ARE APPROXIMATE. CONTRACTOR SHALL DETERMINE ACTUAL PIPE LENGTHS FROM FIELD CONDITIONS.
- INVERTS CONTROL ELEVATIONS AT ALL STRUCTURES, SLOPES AND LENGTHS ARE APPROXIMATE ONLY.
- RIM ELEVATIONS SHOWN HEREON ARE APPROXIMATE ONLY. CONTRACTOR SHALL SET ALL STRUCTURES FLUSH WITH FINAL GRADE.

Layout and Materials

- DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
- CURB RADII ARE FIVE FEET TO FACE OF CURB UNLESS OTHERWISE NOTED.
- CURBING SHALL BE GRANITE WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
- SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
- PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
- PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
- SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS MANUFACTURER'S LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
- CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.

Demolition

- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
- EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
- CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
- THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
- UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

Erosion Control

- PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
- CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES, AND REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND OR DIRECT DEPOSIT.
- CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED OR OTHERWISE STABILIZED TO PREVENT EROSION.
- UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

Existing Conditions Information

- BASE PLAN: THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BY WYSELLER ASSOCIATES, BETWEEN 6/7/2023 AND 11/7/2023. UTILITIES SHOWN ARE FROM FIELD LOCATED EVIDENCE OF SURFACE UTILITIES, CITY OF RICHMOND MAPPING, AND INFRAMAP PAINT MARKINGS.
- TOPOGRAPHY: ELEVATIONS ARE BASED ON NAVD83.

Document Use

- THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.

Stone and Brick Material Specifications:

SUBMITTALS

- PRODUCT DATA
 - GRANITE FOR DRY-LAID PAVERS
 - GRANITE FOR WALL CAPS
 - GRANITE CURB
 - BRICK PAVERS
 - POLYMERIC SAND
 - MORTAR
- SUBMIT TWO REPRESENTATIVE SAMPLES OF EACH MATERIAL SPECIFIED INDICATING VISUAL CHARACTERISTICS AND FINISH. INCLUDE RANGE SAMPLES IF VARIATION OF FINISH IS ANTICIPATED.
 - FULL SIZE UNITS OF EACH TYPE OF UNIT PAVES INDICATED.
 - JOINT MATERIALS AND AVAILABLE COLOR SELECTION.
 - MORTAR
 - MATERIAL SAMPLE OF GRANITE WALL CAP

QUALITY ASSURANCE

- SOURCE LIMITATIONS: OBTAIN PAVER AND WALL CAP STONE FROM ONE SOURCE WITH RESOURCES TO PROVIDE MATERIALS AND PRODUCTS OF CONSISTENT QUALITY IN APPEARANCE AND PHYSICAL PROPERTIES.
- PAVING MOCK-UP: BUILD MOCK-UP TO VERIFY SELECTIONS MADE UNDER SAMPLE SUBMITTALS AND TO DEMONSTRATE AESTHETIC EFFECTS AND SET QUALITY STANDARDS FOR MATERIALS AND EXECUTION.
 - CONSTRUCT A TEN (10) FOOT BY TEN (10) FOOT AREA OF EACH UNIT PAVING TYPE FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT, ARCHITECT, AND OWNER. THIS MAY BE AN IN-PLACE MOCKUP THAT IS INCORPORATED INTO THE FINAL PAVING LAYOUT.
 - INCLUDE GEOTEXTILES, JOINT MATERIAL AND EDGE TREATMENTS.
 - CONSTRUCT AS MANY MOCK-UPS AS NECESSARY TO ACHIEVE AN ACCEPTED MOCK-UP.
 - MOCK-UPS WHICH ARE PARTIALLY CONSTRUCTED OR FINISHED INCORRECTLY WILL BE REJECTED.
 - REMOVE REJECTED MOCK-UPS IMMEDIATELY FROM THE SITE.
 - PLACE ACCEPTED SAMPLES IN A LOCATION WHERE SAMPLES CAN BE REFERENCED. APPROVED MOCK-UPS MAY BECOME PART OF THE COMPLETED WORK IF UNDISTURBED AT TIME OF SUBSTANTIAL COMPLETION.
 - THE ACCEPTED MOCK-UP AREAS WILL BECOME THE PROJECT STANDARD FOR TOLERANCES AND APPEARANCES BY WHICH THE WORK WILL BE JUDGED.
- DO NOT CHANGE SOURCE OR BRANDS OF UNIT PAVERS, MORTAR, OR JOINT SAND MATERIALS DURING THE COURSE OF THE WORK.

MATERIALS

- GRANITE:
 - CONTRACTOR TO MATCH GRANITE OF EXISTING STEP TREADS FOR PAVERS AND WALL CAPS. PROVIDE MULTIPLE OPTIONS FOR A/E REVIEW AS NEEDED TO MATCH THE EXISTING GRANITE TREADS. ONE OF THESE OPTIONS WILL BE SELECTED FOR CONSTRUCTION.
 - CLAY BRICK PAVERS
 - 4"x8"
 - COLOR: AUTUMN RED
 - FINISH: WIRE CUT
 - GRANITE CURB
 - 6'-8" x 16" DEEP GRANITE CURB SEGMENTS TO MATCH EXISTING GRANITE CURB. ACTUAL SIZE TO BE DETERMINED AFTER MEASURING EXISTING CURB ON-SITE.
 - COLOR: TO MATCH EXISTING GRANITE CURB.
 - FINISH: TO MATCH EXISTING GRANITE CURB.
 - MAY BE FROM DIFFERENT MANUFACTURER THAN PAVERS / CAPS.
 - GRANITE PAVERS.
 - 2.5" THICK.
 - COLOR: TO MATCH EXISTING GRANITE STEP TREADS.
 - FINISH: TEXTURED NON-SLIP
 - PROVIDE VARIOUS SIZES FROM A SINGLE MANUFACTURER.
 - MUST BE FROM SAME MANUFACTURER AS WALL CAP
 - GRANITE WALL CAPS
 - SIZED PER ARCHITECTURAL WALL CAP DETAIL.
 - COLOR: TO MATCH EXISTING GRANITE STEPS.
 - FINISH: TO MATCH EXISTING GRANITE STEPS.
 - PROVIDE VARIOUS SIZES FROM A SINGLE MANUFACTURER.
 - MUST BE FROM SAME MANUFACTURER AS GRANITE PAVERS

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PROJECT TITLE

ST JAMES'S RAMP AND ROAD PROJECT

St. James's Episcopal Church

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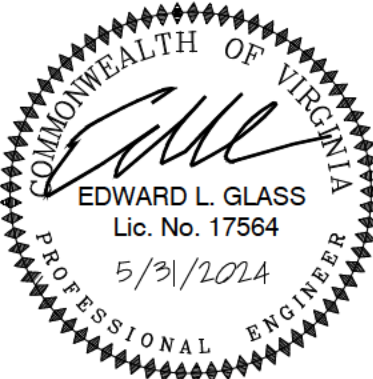
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PROJECT NUMBER

GGHA#: 23028

DATE

MAY 31, 2024

DRAWN BY: JRD CHECKED BY: ELG

REVISIONS

NO.	DATE	DESCRIPTION
2	7/24/2024	REVISION 2
4	9/5/2024	CITY COMMENTS
5	9/23/2024	CITY COMMENTS
6	9/23/2024	RFI003
7	9/27/2024	CITY COMMENTS

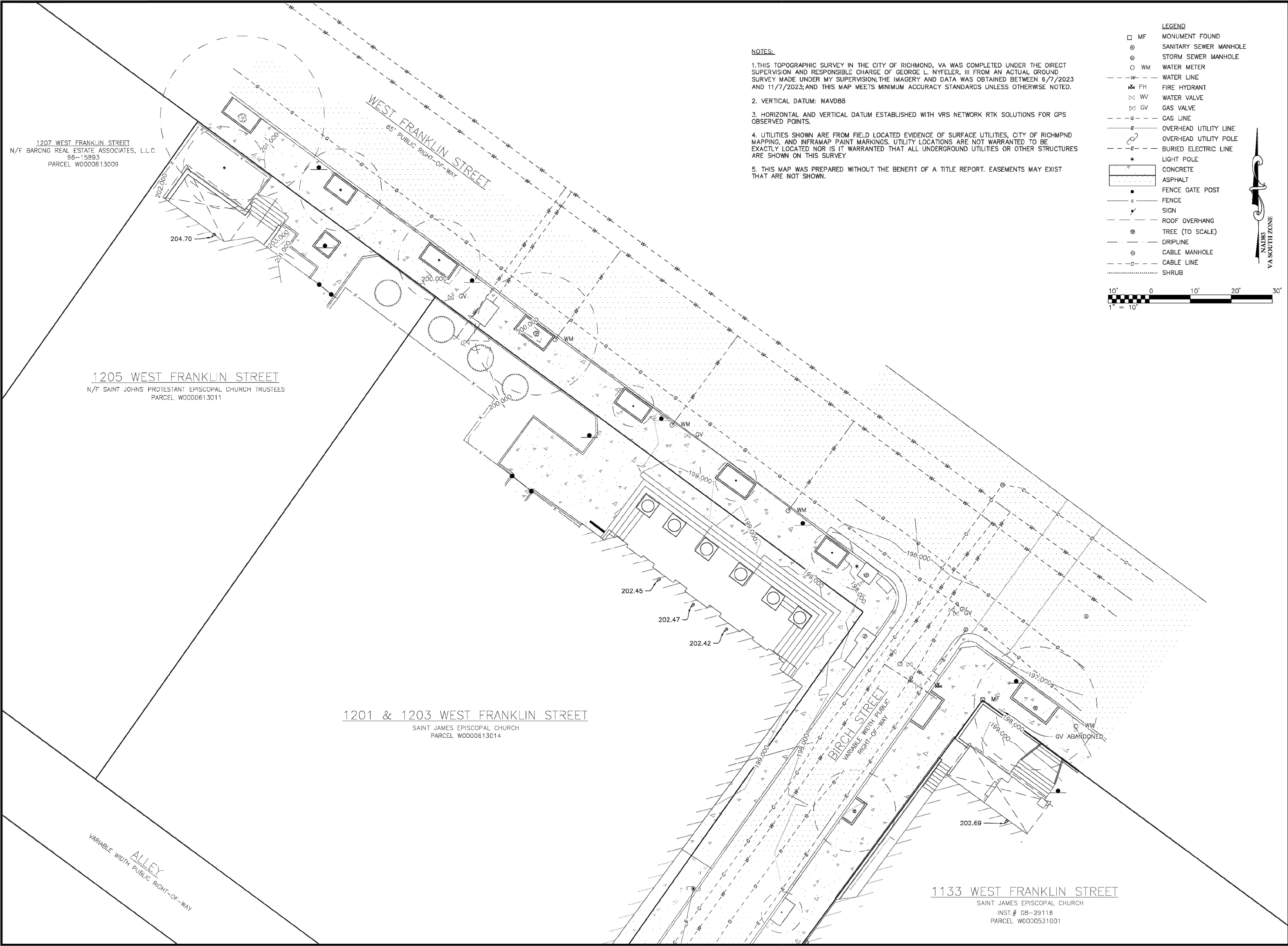
SHEET TITLE

NOTES AND LEGENDS

SHEET NUMBER

C0.01

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NOTES:
1. THIS TOPOGRAPHIC SURVEY IN THE CITY OF RICHMOND, VA WAS COMPLETED UNDER THE DIRECT SUPERVISION AND RESPONSIBLE CHARGE OF GEORGE L. NYFELER, III FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THE IMAGERY AND DATA WAS OBTAINED BETWEEN 6/7/2023 AND 11/7/2023; AND THIS MAP MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. VERTICAL DATUM: NAVD83
3. HORIZONTAL AND VERTICAL DATUM ESTABLISHED WITH VRS NETWORK RTK SOLUTIONS FOR GPS OBSERVED POINTS.
4. UTILITIES SHOWN ARE FROM FIELD LOCATED EVIDENCE OF SURFACE UTILITIES, CITY OF RICHMOND MAPING, AND INFRAMAP PAINT MARKINGS. UTILITY LOCATIONS ARE NOT WARRANTED TO BE EXACTLY LOCATED NOR IS IT WARRANTED THAT ALL UNDERGROUND UTILITIES OR OTHER STRUCTURES ARE SHOWN ON THIS SURVEY.
5. THIS MAP WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS MAY EXIST THAT ARE NOT SHOWN.

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LEGEND

MONUMENT FOUND

SANITARY SEWER MANHOLE

STORM SEWER MANHOLE

WATER METER

WATER LINE

FIRE HYDRANT

WATER VALVE

GAS VALVE

GAS LINE

OVERHEAD UTILITY LINE

OVERHEAD UTILITY POLE

BURIED ELECTRIC LINE

LIGHT POLE

CONCRETE

ASPHALT

FENCE GATE POST

FENCE

SIGN

ROOF OVERHANG

TREE (TO SCALE)

DRIP LINE

CABLE MANHOLE

CABLE LINE

SHRUB

10' 0' 10'

1" = 10'

VA SOUTH ZONE

COMMONWEALTH OF VIRGINIA

GEORGE L. NYFELER III

Lic. No. 20068

11/16/2023

LAND SURVEYOR

NYFELER

SURVEY

619 W CARY STREET, RICHMOND, VA 23220

804-277-4231 nyfeltersurvey.com

DATE: 11/16/2023

JOIN NUMBER: 23053

SCALE: 1"=10'

DRAWN BY: JRD

TOPOGRAPHIC SURVEY FOR
A PORTION OF PARCELS
W0000531001, W0000613014
& W0000613011
CITY OF RICHMOND, VA

SHEET NO.: 1 OF 1

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PROJECT TITLE

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SEAL

COMMONWEALTH OF VIRGINIA

EDWARD L. GLASS

Lic. No. 17564

5/19/2024

PROFESSIONAL ENGINEER

PROJECT NUMBER

G&HA#: 23028

DATE

MAY 31, 2024

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6	9/23/2024	RFI003
7	9/27/2024	CITY COMMENTS

SHEET TITLE

EXISTING
CONDITIONS PLAN

SHEET NUMBER

C2.01

Saved Friday, September 27, 2024 5:08:11 PM DNEVTON Plotted Friday, September 27, 2024 5:09:41 PM David Newton

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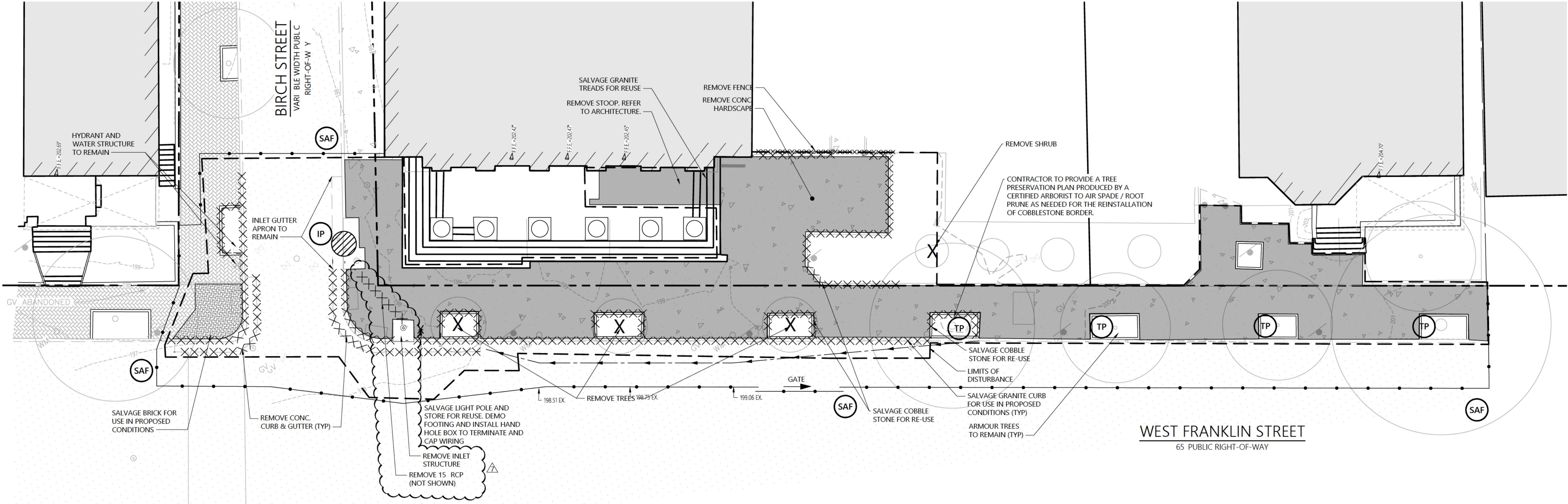
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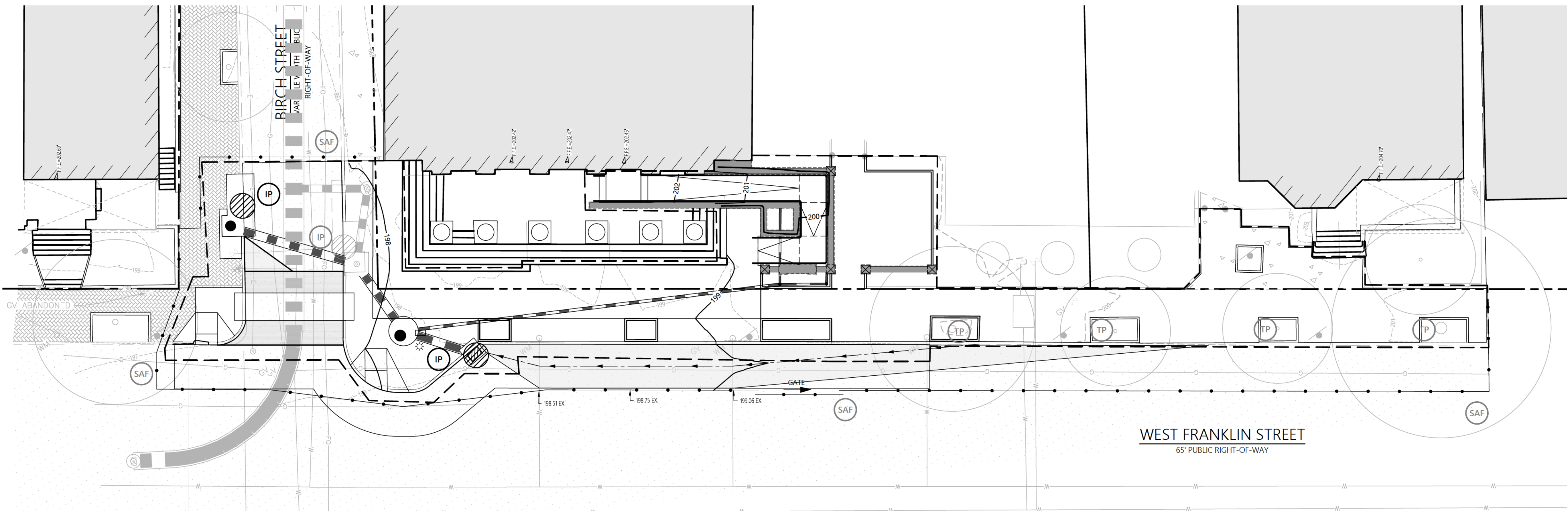
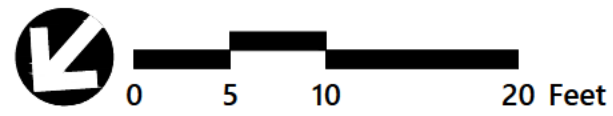
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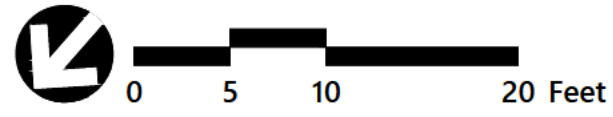
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DEMOLITION AND EROSION & SEDIMENT CONTROL PH1 PLAN



EROSION & SEDIMENT CONTROL PH2 PLAN



Legend

- SAF SAFETY FENCE
- IP STORM DRAIN INLET PROTECTION
- TP TREE PROTECTION
- LIMITS OF DISTURBANCE - 5,580 SF
- LINEAR DEMOTION
- SPECIALTY DEMOLITION
- HARDSCAPE DEMOLITION

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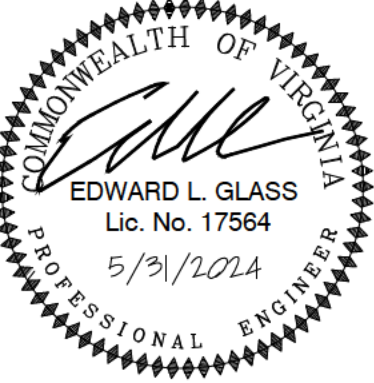
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7	9/27/2024	CITY COMMENTS

SHEET TITLE

DEMOLITION AND
EROSION & SEDIMENT
CONTROL PLAN

SHEET NUMBER

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PROJECT TITLE

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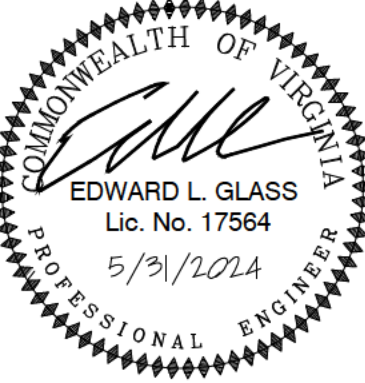
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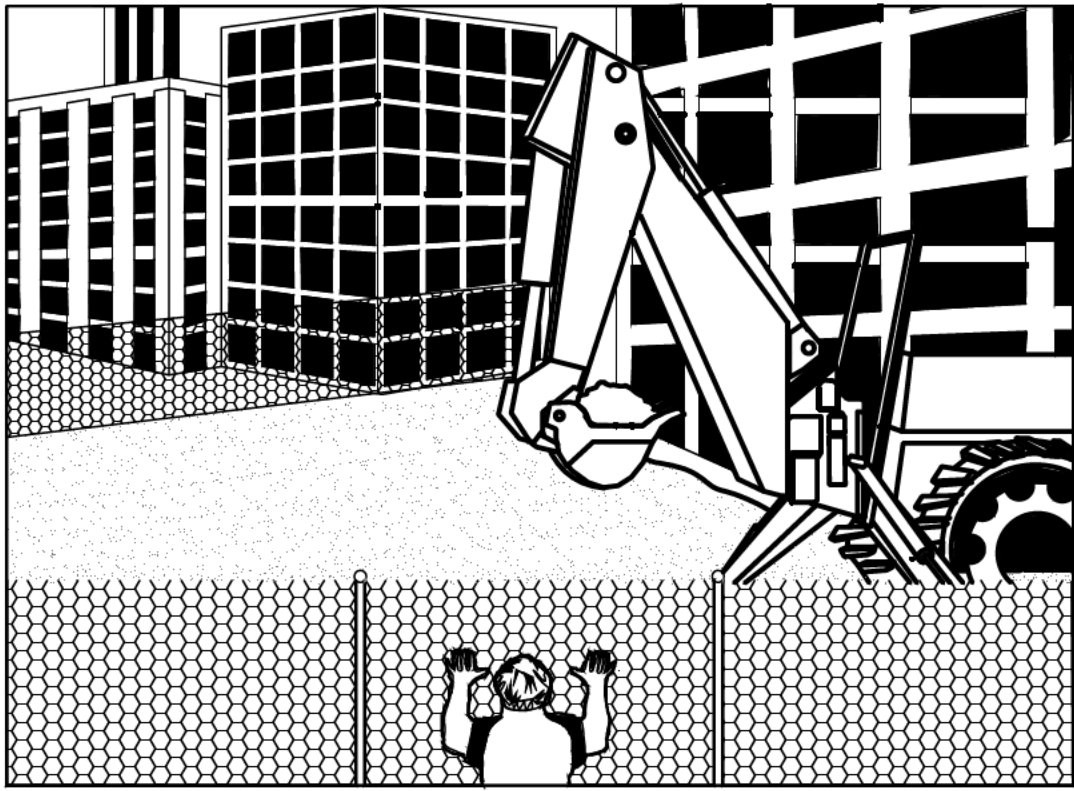
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SHEET TITLE

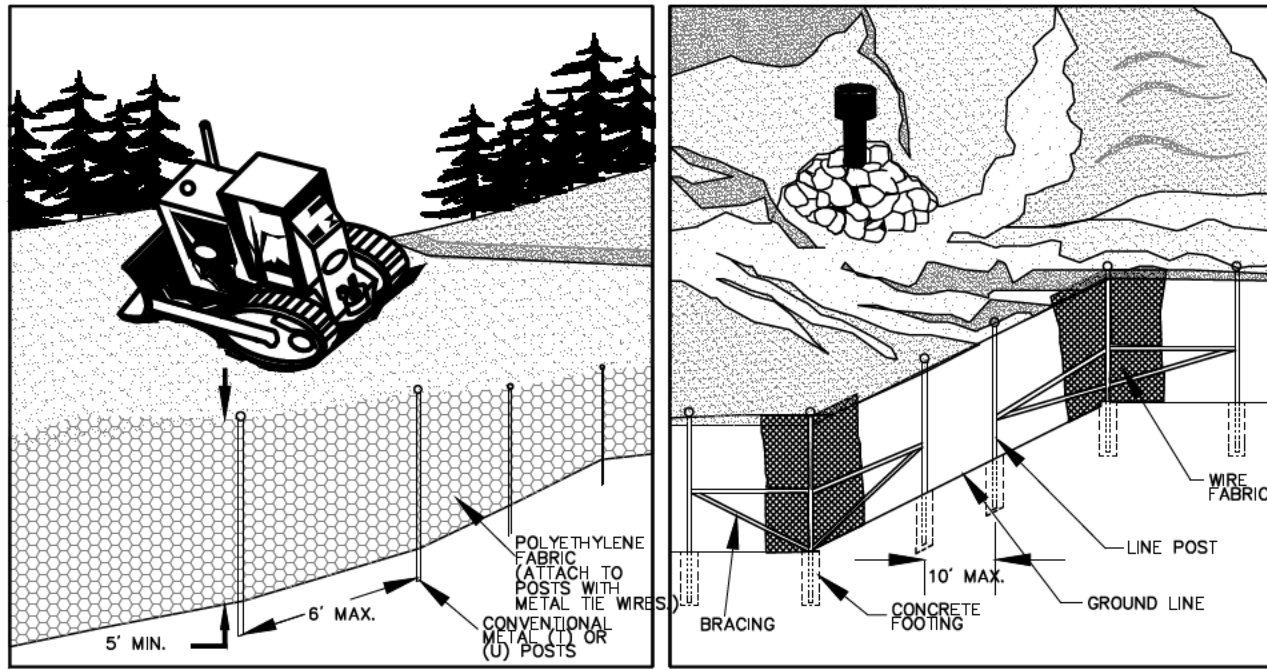
EROSION & SEDIMENT
CONTROL DETAILS

SHEET NUMBER

C3.11



Perspective View

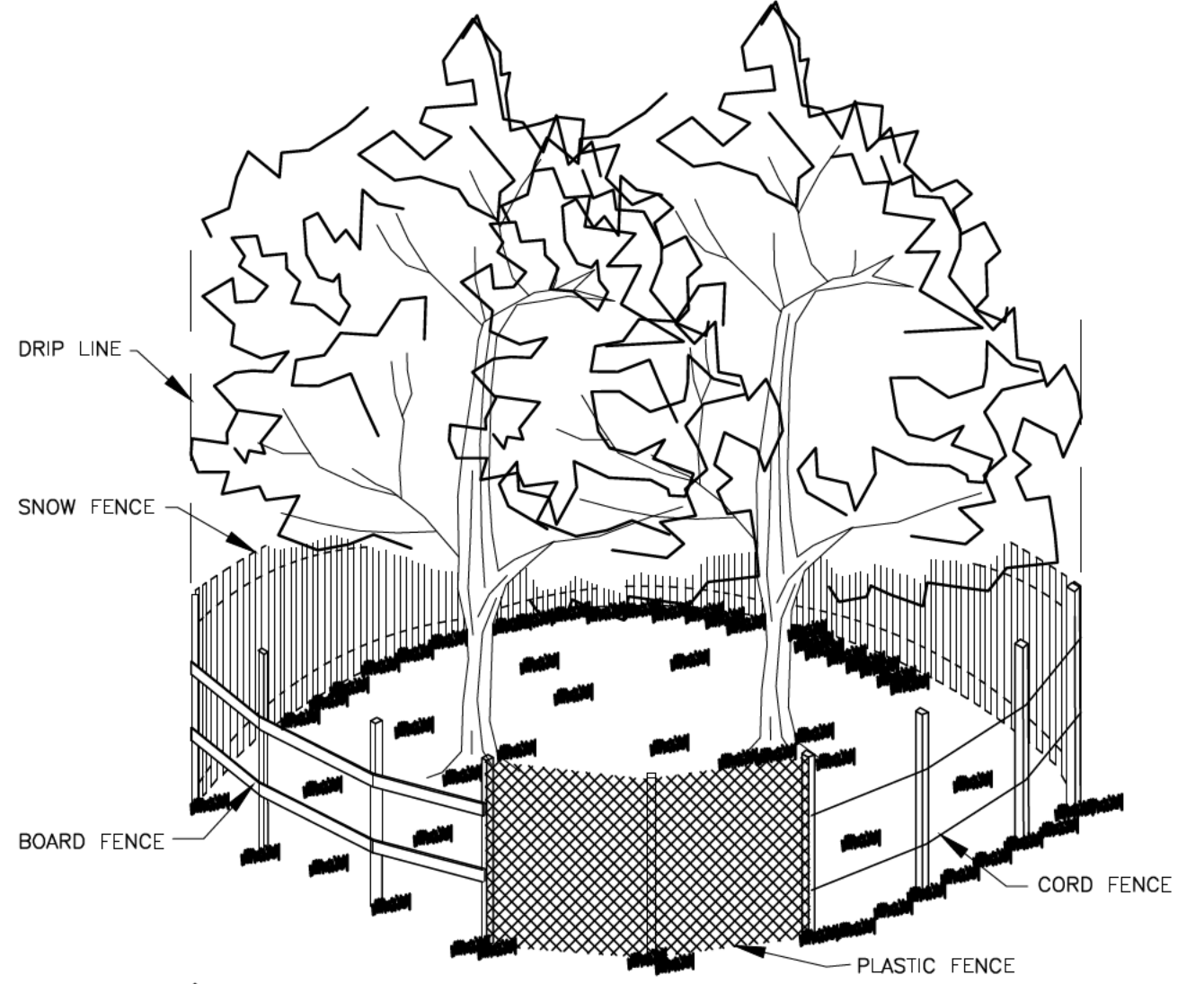


Perspective View
Plastic Fence

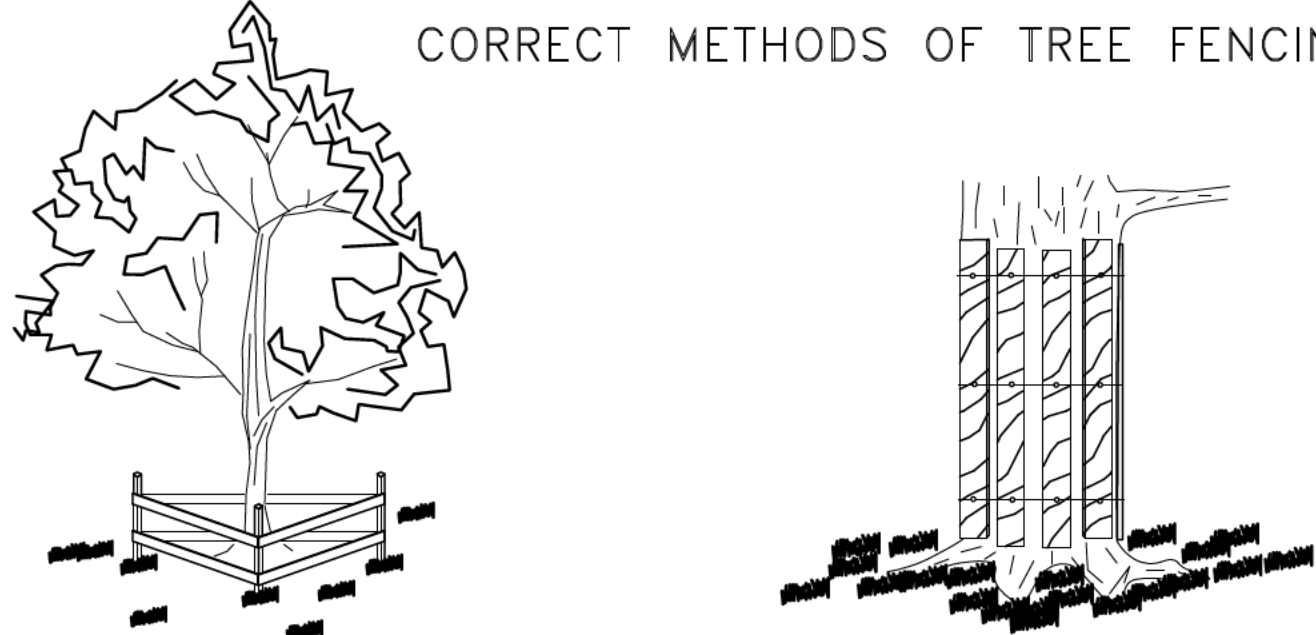
Perspective View
Metal Fence

Safety Fence

N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.01-1 6/08



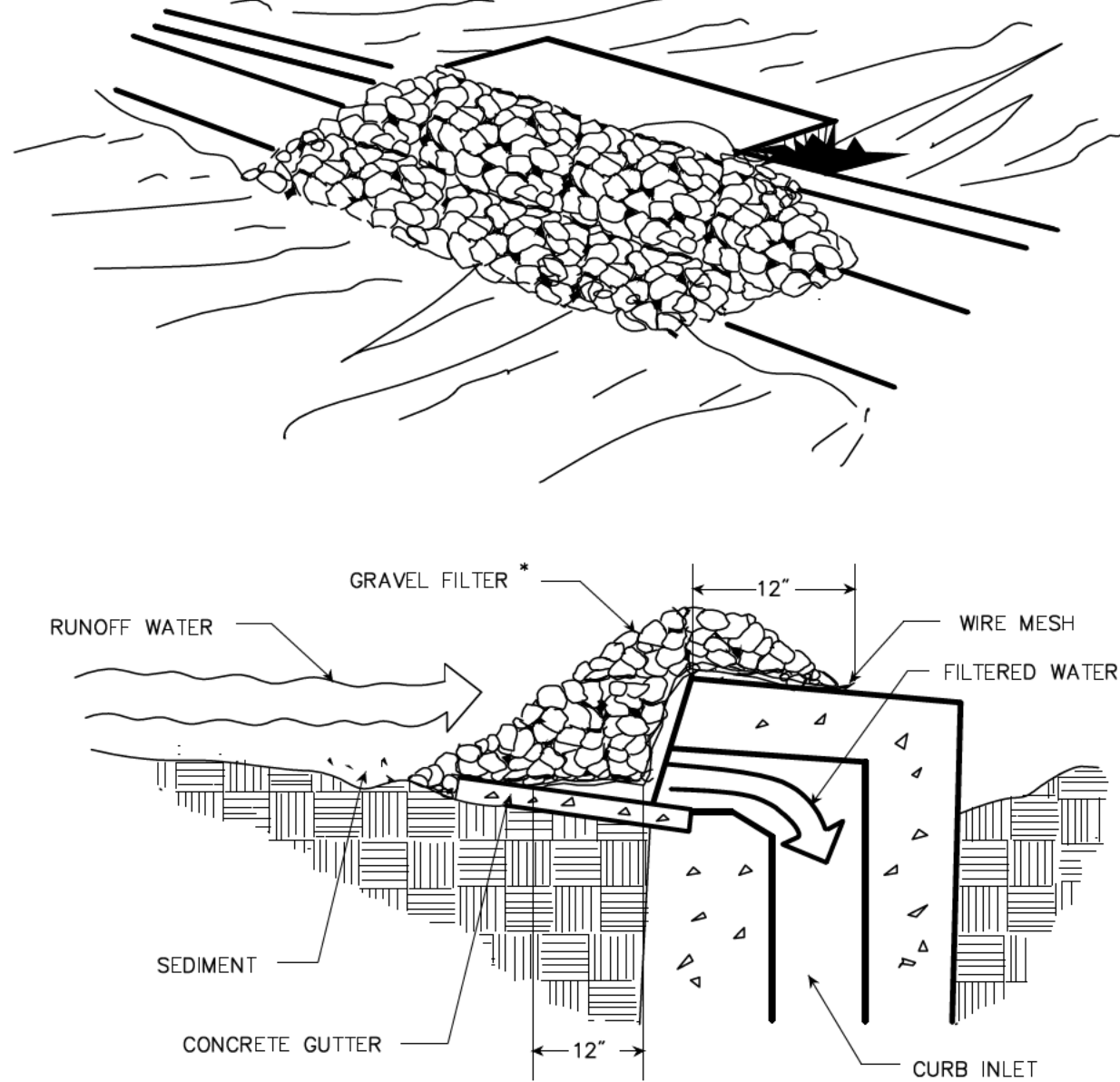
CORRECT METHODS OF TREE FENCING



TRIANGULAR BOARD FENCE CORRECT TRUNK ARMORING

Fencing and Armoring

N.T.S. Source: Virginia Erosion and Sediment Control Handbook PL 3.38.2 6/08



Specific Application

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.

Gravel Curb Inlet Sediment Filter

N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.07-6 6/08

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9VAC25-840-40 MINIMUM STANDARDS (EFFECTIVE 11/17/16)

A VESCP MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENIED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENIED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

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

3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENIED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GRASS COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPOLE/LOE DISTURBANCE TAKES PLACE.

5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

a. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.

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

7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SOIL STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

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

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

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

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

14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

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

a. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.

b. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

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

d. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.

e. RE-STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.

f. APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLETED WITH.

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

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

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

a. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

b. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:

(1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS 100 TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION, OR

(2) (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS; AND

(b) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND

(c) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.

c. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:

(1) IMPROVE THE CHANNELS TO A CONDITION WHERE A 10-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR THE BANKS; OR

(2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE 10-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;

(3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A 10-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL, OR

(4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.

d. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.

e. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING MAINTENANCE CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.

f. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.

g. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.

h. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.

i. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.

j. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.

k. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

l. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS. THE PRACTICES ARE DESIGNED TO:

(i) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (ii) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE-YEAR, 24-HOUR STORM; AND (iii) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS FORMULATED PURSUANT TO § 62-144.15-54 OR § 62-144.15-55 OF THE ACT.

m. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62-144.15-52 OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62-144.15-24.1 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDING REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES (i) ARE IN ACCORDANCE WITH PROVISIONS FOR TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA IN 9VAC25-80-47 OR GRANDFATHERING IN 9VAC25-80-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION, IN WHICH CASE THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62-144.15-52 OF THE ACT SHALL APPLY, OR (ii) ARE EXEMPT PURSUANT TO § 62-144.15-34 C 7 OF THE ACT.

n. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-80.66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF THIS SUBSECTION IS.

STATUTORY AUTHORITY

§ 62-144.15-52 OF THE CODE OF VIRGINIA

HISTORICAL NOTES

FORMER 9VAC25-30-40, DERIVED FROM VSMS 02.00 § 4. EFF. SEPTEMBER 13, 1990, AMENDED, VIRGINIA REGISTER VOLUME 11, ISSUE 11, EFF. MARCH 22, 1995; VOLUME 29, ISSUE 4, EFF. NOVEMBER 2, 2012, AMENDED AND RENUMBERED, VIRGINIA REGISTER VOLUME 30, ISSUE 2, EFF. OCTOBER 23, 2013, AMENDED, VIRGINIA REGISTER VOLUME 31, ISSUE 24, EFF. AUGUST 26, 2015; VOLUME 33, ISSUE 4, EFF. NOVEMBER 17, 2015.

TEMPORARY SEEDED BED PREPARATION

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- RIP THE ENTIRE AREA TO SIX INCHES DEEP.
- REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE ADDENDUM BELOW).
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDED BED IS PREPARED FOUR TO SIX INCHES DEEP.
- SEED ON A FRESHLY PREPARED SEEDED BED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULT PACK AFTER SEEDING.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN 80% DAMAGED, RE-ESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- CONSULT SPECIFIC ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

PERMANENT SEEDED BED PREPARATION

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONED, IF AVAILABLE.
- RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
- REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY ALL AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE TABLES 3.32-B & 3.32-C THIS SHEET).
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM 4 TO 6 INCHES DEEP SEEDED BED IS PREPARED.
- SEED ON A FRESHLY PREPARED SEED BED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULT PACK AFTER SEEDING.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDING WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 80% DAMAGED, RE-ESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDING WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 80% DAMAGED, RE-ESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- SEE LANDSCAPING PLANS FOR ADDITIONAL PERMANENT SEEDING, MULCHING, AND FERTILIZING RATES. ALL AREAS NOT DESIGNATED TO RECEIVE PLANTS SHALL BE SEEDED PER THE LANDSCAPING PLANS.

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF CONSTRUCTION OF AN ACCESSIBLE RAMP INTO THE EXISTING BUILDING AND A SPEED TABLE CROSSWALK ON THE FRONT OF THE BUILDING. THE EXISTING CONCRETE WALK WILL CONVERT TO GRANITE AND BRICK. THE DISTURBED AREA IS 5,400 SQ. FT.

EXISTING SITE CONDITIONS

THE EXISTING SITE CONSISTS OF A MIXTURE OF CONCRETE AND ASPHALT WITH TREE WELLS THROUGHOUT.

SOILS

PER WEB SOIL SURVEY, THE SITE CONSISTS OF TYPE 37B TURBULENT-URBAN LAND COMPLEX, 2%-6% SLOPES. HYDROLOGIC SOIL GROUP IS B.

ADJACENT PROPERTY

THE PROPERTY'S FRONT W. FRANKLIN ST. TO THE NORTHEAST AND BIRCH ST. TO THE SOUTHEAST. THE SOUTHWEST IS AN ALLEY AND THE NORTHWEST NEIGHBORS OTHER EXISTING BUILDINGS.

OFF-SITE AREAS

NO OFF-SITE AREAS ARE INCLUDED WITHIN THE SCOPE OF THIS PROJECT. REMOVAL OF EXCAVATION AND SPILL MATERIAL, OR IMPORT OF MATERIAL, TO, OR FROM, OFF-SITE FACILITIES ARE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR TO VERIFY ANY OFF-SITE FACILITY HAS AN ACTIVE LAND DISTURBANCE PERMIT.

CRITICAL AREAS

THERE ARE NO CRITICAL AREAS, WATERS, OR WETLANDS ON-SITE.

STORMWATER RUNOFF CONSIDERATIONS

REFER TO COMBINED SEWER SYSTEM

COMBINED SEWER SYSTEM

IMPERIOUS AND PERVIOUS AREAS ARE EQUAL IN BOTH PRE-DEVELOPMENT AND POST-DEVELOPMENT CONDITIONS.

MANAGEMENT STRATEGIES

- SITE MUST BE STABILIZED AT THE END OF EACH DAY.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED UNTIL THEY ARE NO LONGER REQUIRED TO COMPLY WITH THE CONTRACT DOCUMENTS OR STATE LAW.
- CONTRACTOR SHALL INSPECT DAILY AND CLEAN-UP ANY SEDIMENTS TRACKED OUTSIDE THE LIMITS OF DISTURBANCE IMMEDIATELY.

PERMANENT STABILIZATION

POST CONSTRUCTION, THE ENTIRE SITE WILL BE PERMANENTLY STABILIZED USING HARDSCAPE AND LANDSCAPING.

STRUCTURAL PRACTICES

3.01 SAFETY FENCE:

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

3.07 STORM DRAIN INLET PROTECTION:

- INSPECT STRUCTURE AFTER EACH RUNOFF-PRODUCING STORM EVENT AND REPAIR AS NECESSARY.
- REMOVE SEDIMENT AND RESTORE TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO 1/2 OF THE ORIGINAL DEPTH OF INLET PROTECTION. DEPOSIT SEDIMENT IN SUITABLE AREA AND STABILIZE.
- REMOVE STRUCTURE AND STABILIZE FORMER LOCATION WHEN DRAINAGE AREA IS PERMANENTLY AND PROPERLY STABILIZED.

3.38 TREE PROTECTION:

THE FOLLOWING MAINTENANCE GUIDELINES SHOULD BE FOLLOWED IF DAMAGE TO PROTECTED TREES OR TREE PROTECTION FENCING IS DAMAGED.

- IF THE SOIL HAS BECOME COMPACTED OVER THE ROOT ZONE OF ANY TREE, THE GROUND SHALL BE AERATED BY PUNCHING HOLES WITH AN IRON BAR. THE BAR SHALL BE DRIVEN 1 FT DEEP AND THEN MOVED BACK AND FORTH UNTIL THE SOIL IS LOOSENEED. THIS PROCEDURE SHALL BE REPEATED EVERY 18 INCHES UNTIL ALL OF THE COMPACTED SOIL BENEATH THE CROWN OF THE TREE HAS BEEN LOOSENEED.
- THE FOLLOWING REPAIR METHODS SHALL BE USED:
- ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM OF ANY TREE RETAINED ON THE SITE SHALL BE REPAIRED IMMEDIATELY.
- WHENEVER MAJOR ROOT OR BARK DAMAGE OCCURS, REMOVE SOME FOLIAGE TO REDUCE THE DEMAND FOR WATER AND NUTRIENTS.
- DAMAGED ROOTS SHALL IMMEDIATELY BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA. CUT SURFACES SHALL BE PAINTED WITH APPROVED TREE PAINT, AND MOIST PEAT MOSS, BURLAP, OR TOP-SOIL SHALL BE SPREAD OVER THE EXPOSED AREA.
- TO TREAT BARK DAMAGE, CAREFULLY CUT AWAY ALL LOOSENEED BARK BACK INTO THE UNDAUNAGED AREA, TAPER THE CUT AT THE TOP AND BOTTOM, AND PROVIDE DRAINAGE AT THE BASE OF THE WOUND (PLATE 3.38-B).
- ALL TREE LIMBS DAMAGED DURING CONSTRUCTION OR REMOVED FOR ANY OTHER REASON SHALL BE CUT OFF ABOVE THE COLLAR AT THE PRECEDING BRANCH JUNCTION (PLATE 3.38-B).
- CARE FOR SERIOUS INJURIES SHALL BE PRESCRIBED BY A FORESTER OR A TREE SPECIALIST.
- THE FOLLOWING FERTILIZATION METHODS SHALL BE USED:

- BROADLEAF TREES THAT HAVE BEEN STRESSED OR DAMAGED SHALL RECEIVE A HEAVY APPLICATION OF FERTILIZER TO AID THEIR RECOVERY.
- TREES SHALL BE FERTILIZED IN THE LATE FALL (AFTER OCTOBER 1) OR THE EARLY SPRING (FROM THE TIME FROST IS OUT OF THE GROUND UNTIL MAY 1). FALL APPLICATIONS ARE PREFERRED, AS THE NUTRIENTS WILL BE MADE AVAILABLE OVER A LONGER PERIOD OF TIME.
- FERTILIZER SHALL BE APPLIED TO THE SOIL OVER THE FEEDER ROOTS (SEE PLATES 3.38-9). IN NO CASE SHOULD IT BE APPLIED CLOSER THAN 3 FT TO THE TRUNK.
- FERTILIZER SHALL BE APPLIED USING APPROVED FERTILIZATION METHODS AND EQUIPMENT.
- FORMULATIONS AND APPLICATION RATES SHALL CONFORM TO THE GUIDELINES GIVEN IN TABLE 3.38-A.
- MAINTAIN A GROUND COVER OF ORGANIC MULCH AROUND TREES THAT IS ADEQUATE TO PREVENT EROSION, PROTECT ROOTS AND HOLD WATER.

SEQUENCE OF CONSTRUCTION

- SCHEDULE PRE-CONSTRUCTION CONFERENCE WITH ENGINEER AND ENVIRONMENTAL INSPECTOR AT LEAST 72 HOURS BEFORE BEGINNING CONSTRUCTION.
- INSTALL CHAINLINK PERIMETER SAFETY FENCE WITH GATES AS SHOWN. SAFETY FENCE WITH WEIGHTED ANCHORS IS PREFERRED FOR HARDSCAPE SURFACES. INSTALL SIGNAGE TO ROUTE PEDESTRIANS AROUND SITE.
- INSTALL INLET PROTECTION AS SHOWN.
- INSTALL TREE PROTECTION AND ARMOUR AS SHOWN.
- AFTER EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE, AND WITH PERMISSION OF THE INSPECTOR, BEGIN SITE DEMOLITION.
- BEGIN SITE CONSTRUCTION.
- ENSURE ALL RUNOFF FROM SITE IS DIRECTED TO AN EROSION AND SEDIMENT CONTROL DEVICE DOWNSTREAM.
- PREVENT SEDIMENT CONTAMINATION OF THE STORM DRAIN SYSTEM. INSTALL ADDITIONAL EASC MEASURES AS NEEDED.
- ONCE CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED, AND ONLY WITH THE APPROVAL OF THE ENVIRONMENTAL INSPECTOR, REMOVE EASC MEASURES. STABILIZE EASC MEASURE AREAS AS NEEDED.

CITY OF RICHMOND STANDARD EROSION & SEDIMENT CONTROL NOTES

- PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENIED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENIED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
- EXCESS EXCAVATION DISPOSED OFF THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED SO THAT THE SEDIMENT CARRYING RUNOFF FROM THE SITE WILL NOT ENTER STORM DRAINAGE FACILITIES.
- EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED UNTIL THE DISTURBED AREA IS STABILIZED.
- PROPERTIES ADJOINING THE SITE SHALL BE KEPT CLEAN OF MUD OR SILT CARRIED FROM THE SITE BY VEHICULAR TRAFFIC OR RUNOFF.
- THE DISPOSAL OF WASTE MATERIALS REMOVED FROM EROSION AND SEDIMENT CONTROL FACILITIES AND THE DISPOSAL OF THESE FACILITIES SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

GENERAL EROSION AND SEDIMENT CONTROL NOTES (FROM VAESCH TABLE 6-1)

- ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 9VAC25-840.
- ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

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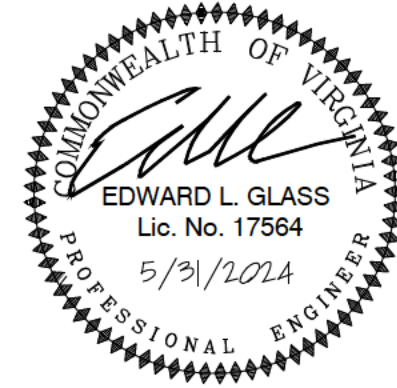
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DRAWN BY: JRD CHECKED BY: ELG

REVISIONS

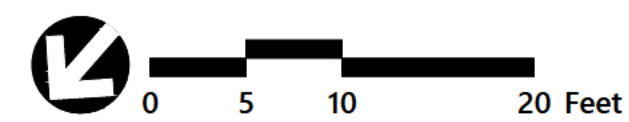
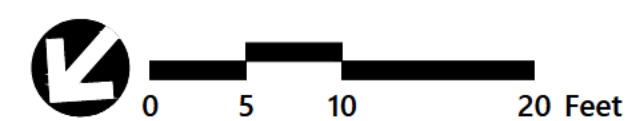
NO.	DATE	DESCRIPTION
2	7/24/2024	REVISION 2
4	9/5/2024	CITY COMMENTS
5	9/23/2024	CITY COMMENTS
6	9/23/2024	RFI003
7	9/27/2024	CITY COMMENTS

SHEET TITLE

EROSION & SEDIMENT CONTROL NOTES

SHEET NUMBER

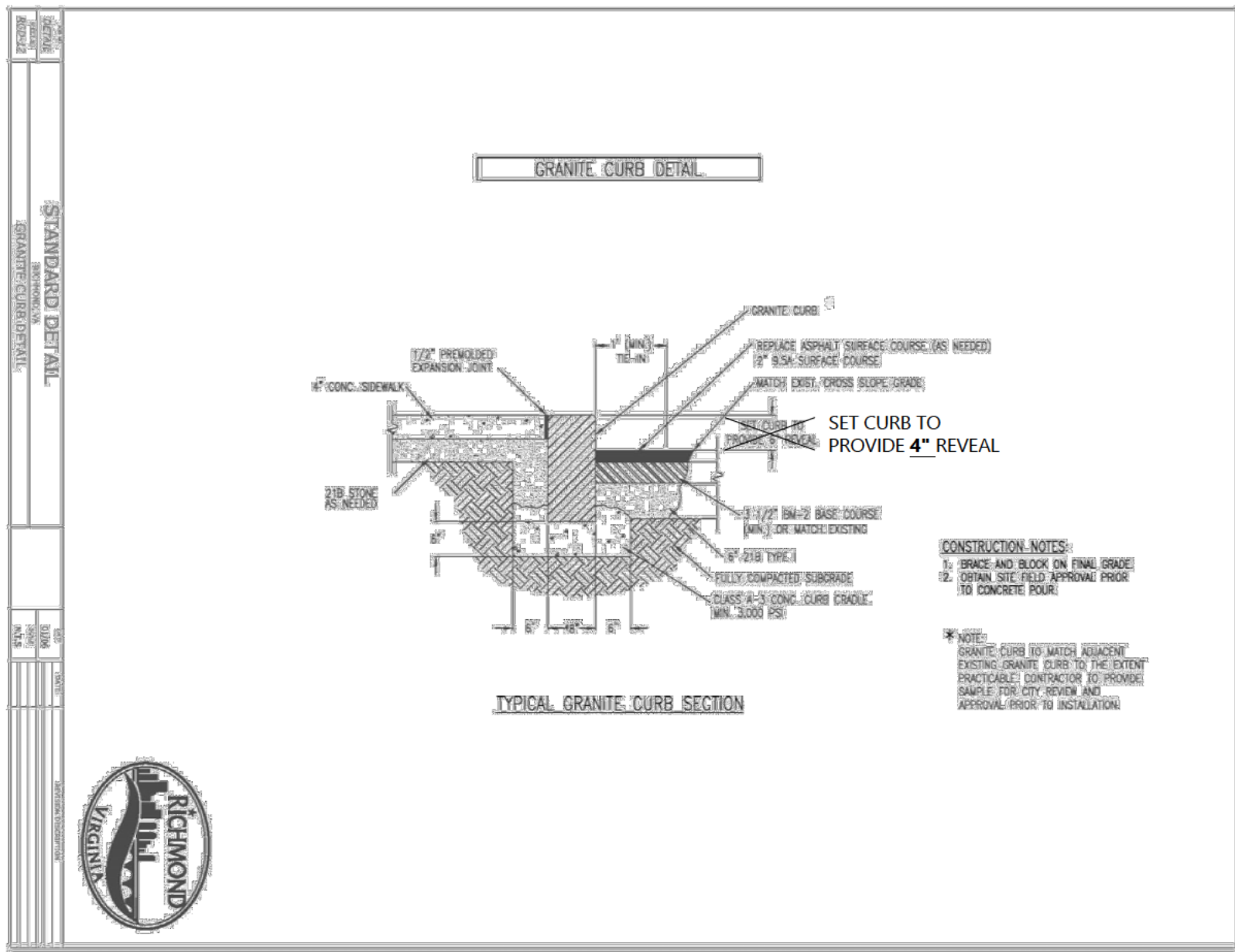
C3.12



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NOTE:
PERFORATED UNDERDRAIN TO BE SURROUNDED WITH 4" OF
WASHED #57 STONE ON ALL SIDES THEN WRAPPED IN
NONWOVEN FILTER FABRIC

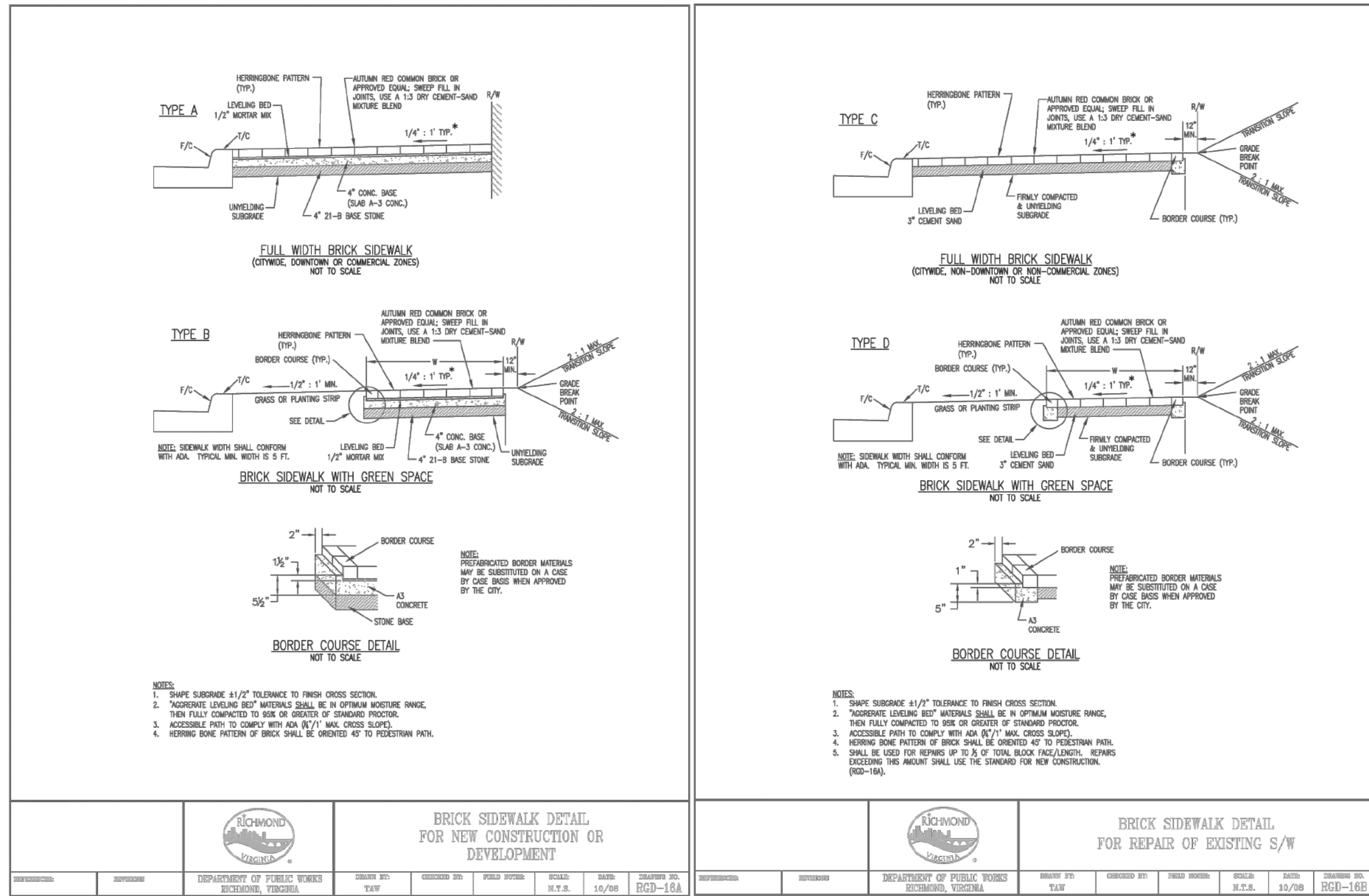
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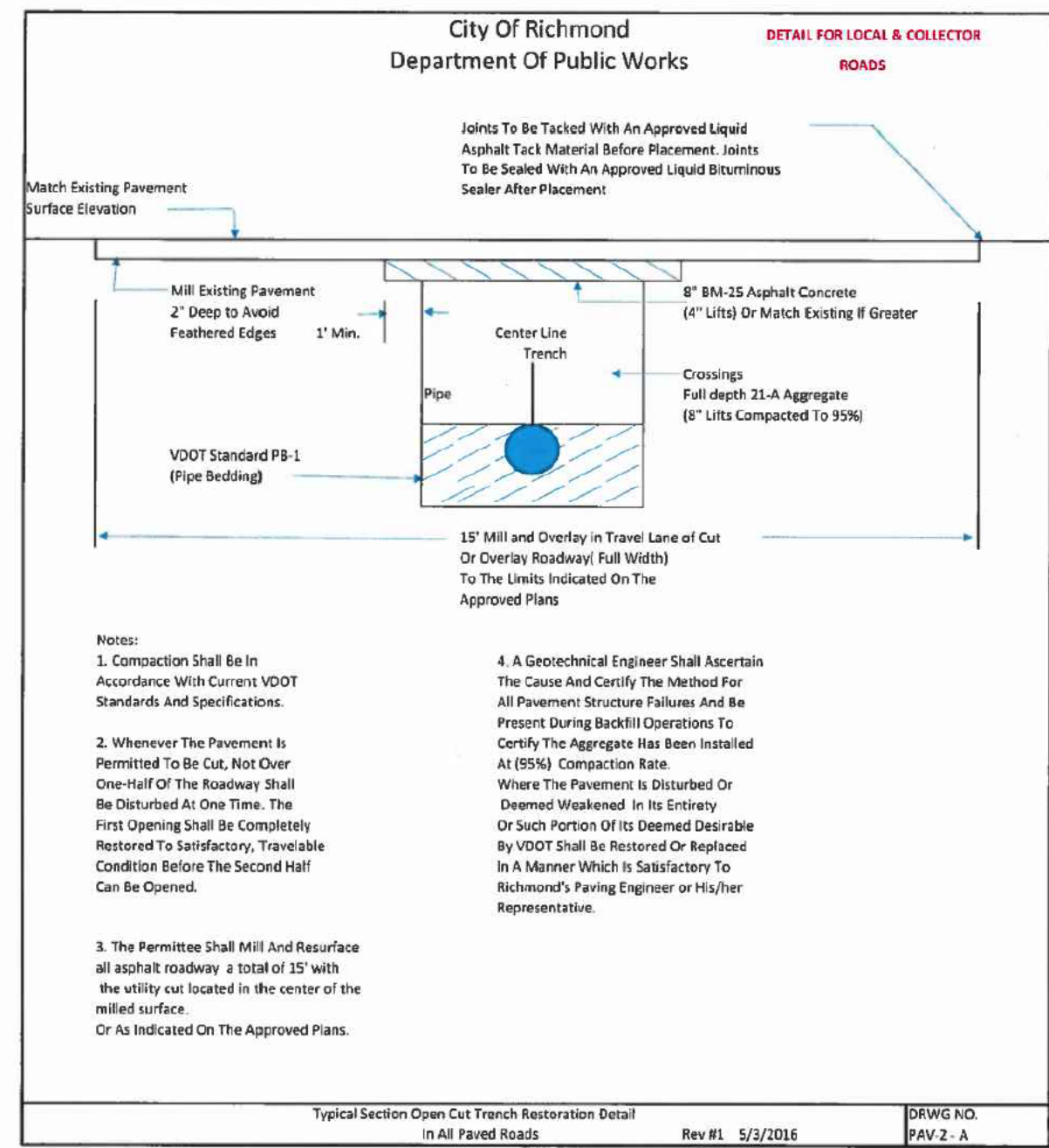
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1 GRANITE CURB DETAIL
NTS

2 BRICK SIDEWALK
NTS



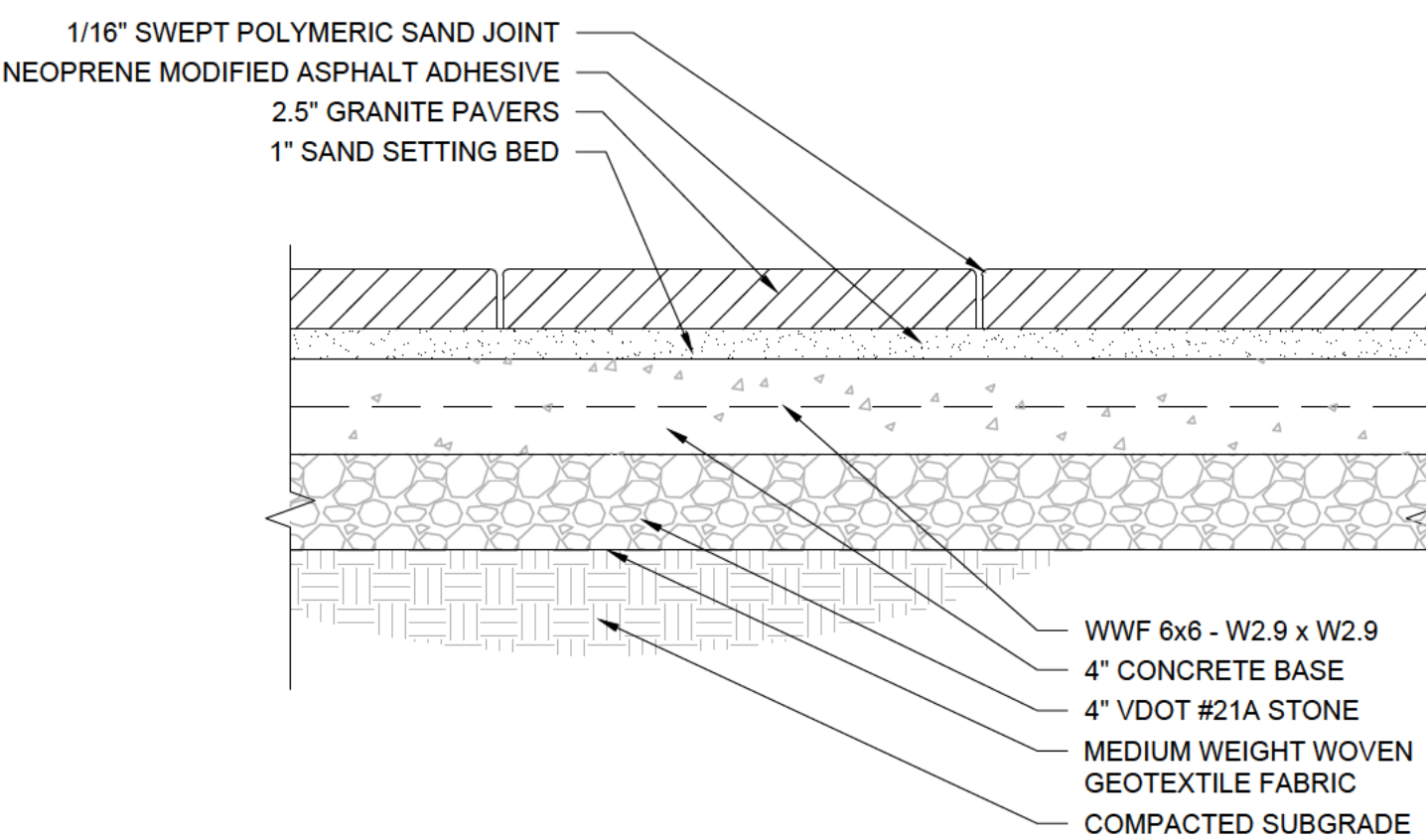
3 TRENCH RESTORATION DETAIL
NTS



VDOT DETAIL REFERENCE
2016 ROAD AND BRIDGE STANDARDS
1. DI-2A

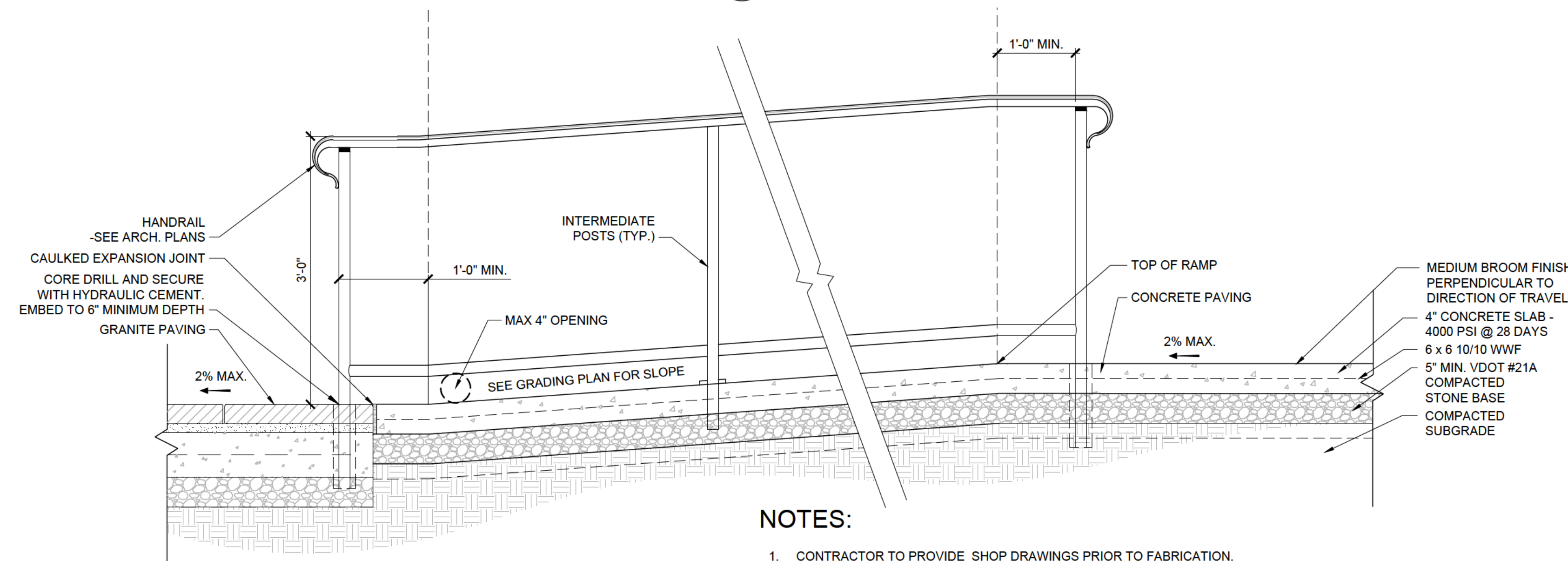
C

4 GRANITE PAVERS
1 1/2" = 1'-0"



B

5 BRICK RAMP
1 1/2" = 1'-0"

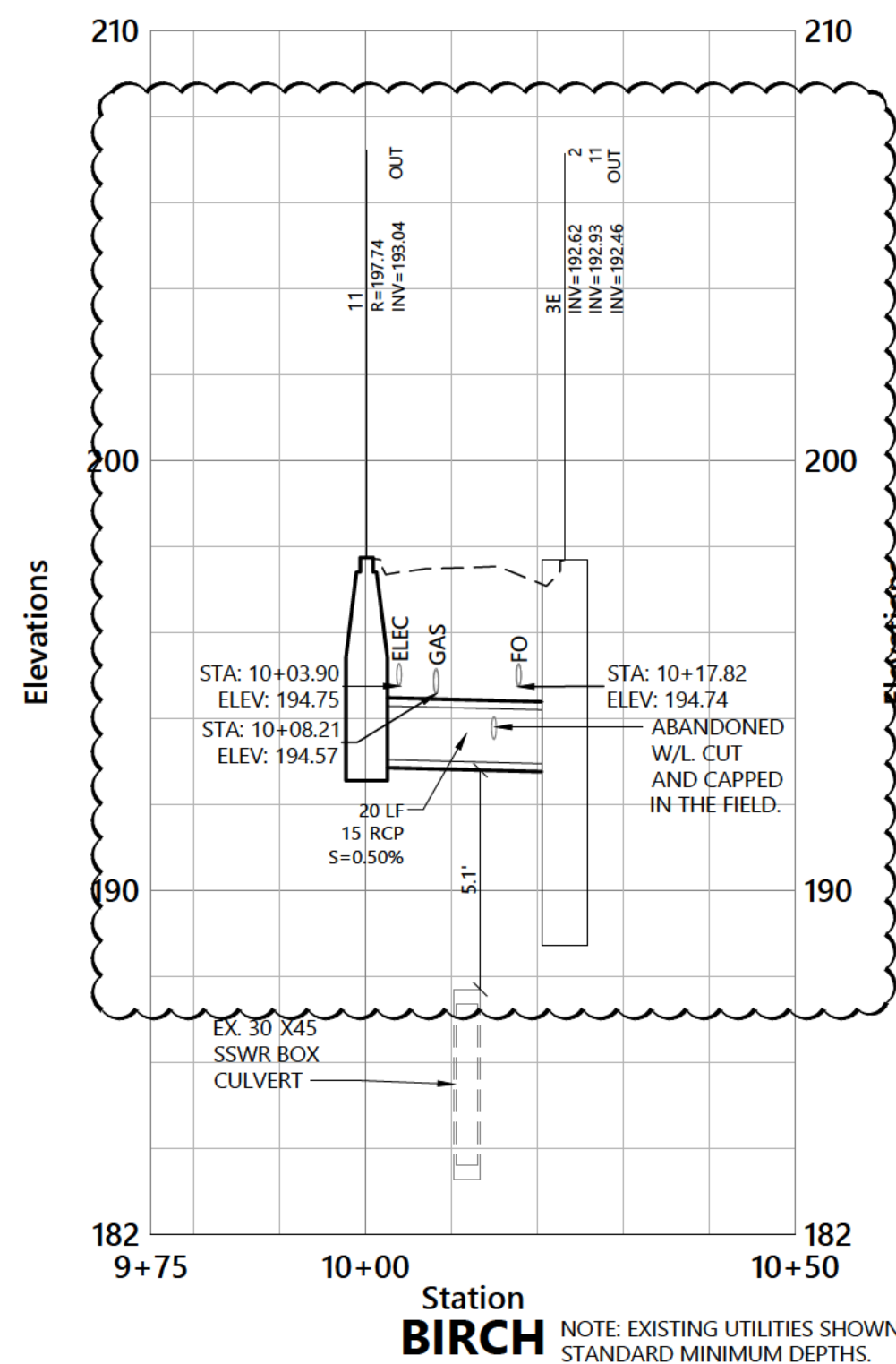
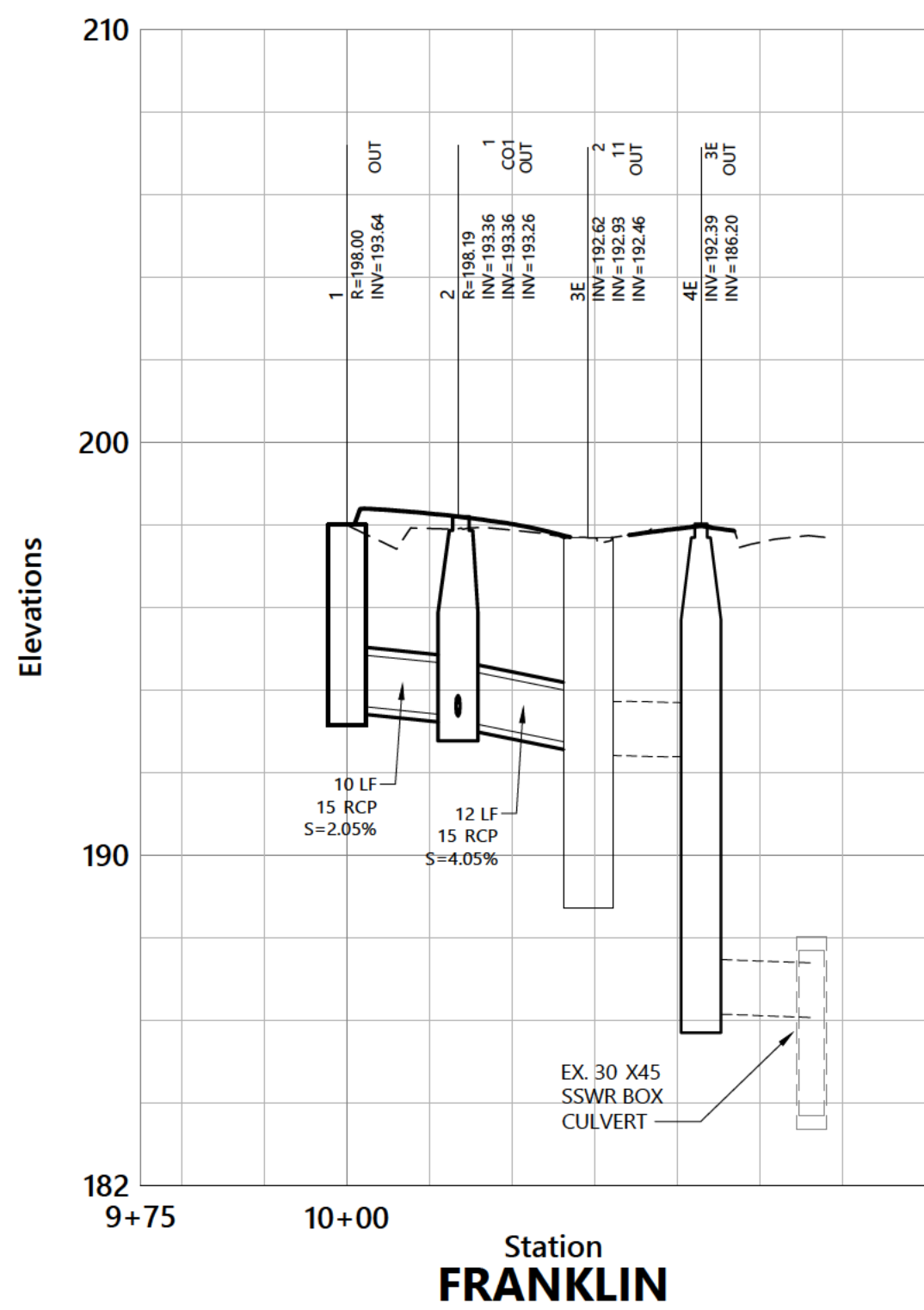
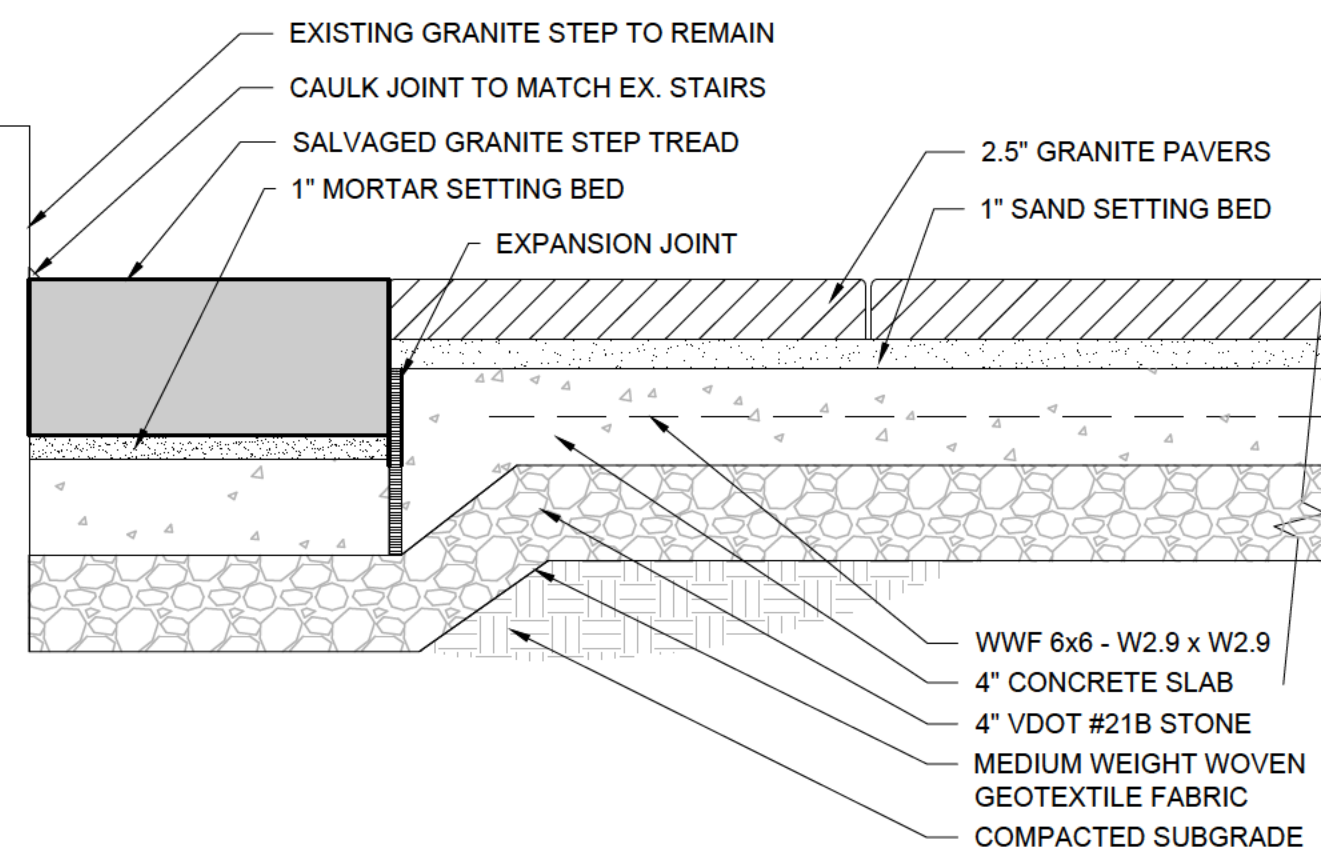


NOTES:

1. CONTRACTOR TO PROVIDE SHOP DRAWINGS PRIOR TO FABRICATION.
2. CONTRACTOR RESPONSIBLE FOR CODE COMPLIANT HANDRA.
3. FULLY WELD ALL JOINTS. DO NOT LEAVE OPENINGS IN JOINTS WHERE RUST MAY DEVELOP.
4. ALL WELDS ARE TO BE GROUND SMOOTH.
5. LENGTHS OF RAMP RUNS VARY. SEE PLAN.
6. RAMP RUNS NOT TO EXCEED A VERTICAL RISE OF 30'.
7. HANDRAILS AND GUARDS SHALL BE DESIGNED TO RESIST A LINEAR LOAD OF 50 POUNDS PER LINEAR FOOT IN ACCORDANCE WITH SECTION 4.5.1 OF ASCE.
8. CONCENTRATED LOAD OF HANDRAILS AND GUARDS SHALL ALSO BE DESIGNED TO RESIST A CONCENTRATED LOAD OF 200 POUNDS IN ACCORDANCE WITH SECTION 4.5.1 OF ASCE.

7 CONCRETE RAMP
1" = 1'-0"

6 FLUSH GRANITE TREAD
1 1/2" = 1'-0"



Vert. 0 2 4 8 Feet
Horiz. 0 10 20 40 Feet

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PROJECT TITLE

ST JAMES'S RAMP AND ROAD PROJECT

St. James's Episcopal
Church

1205 W Franklin Street
Richmond VA 23220

CONSULTANTS

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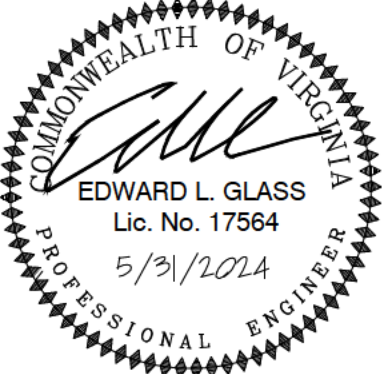
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RFI#07



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PROJECT NUMBER
G&HA#: 23028

DATE

MAY 31, 2024

DRAWN BY: JRD CHECKED BY: ELG

REVISIONS

NO.	DATE	DESCRIPTION
4	9/5/2024	CITY COMMENTS
5	9/23/2024	CITY COMMENTS
6	9/23/2024	RFI003
7	9/27/2024	CITY COMMENTS
8	11/8/2024	RFI006 GRADES CONFLICT

SHEET TITLE

SITE DETAILS

SHEET NUMBER

C4.11

NOTES:

1. SPEED TABLE CONCRETE TO BE PIGMENTED BRICK RED TO MATCH PROPOSED BRICK PAVEMENT. PIGMENT SHALL BE MANUFACTURED BY SOLOMON COLORS OR APPROVED ALTERNATIVE AND INCORPORATED INTO CONCRETE MIX PER MANUFACTURER'S SPECIFICATIONS.

2. CONTRACTOR SHALL SUBMIT PIGMENTED CONCRETE SAMPLE WITH BRICK SAMPLE FOR OWNER AND A/E REVIEW PRIOR TO POUR.

3. CONTRACTOR TO SUBMIT PROPOSED CONCRETE STAMP FOR OWNER AND A/E REVIEW PRIOR TO POUR.

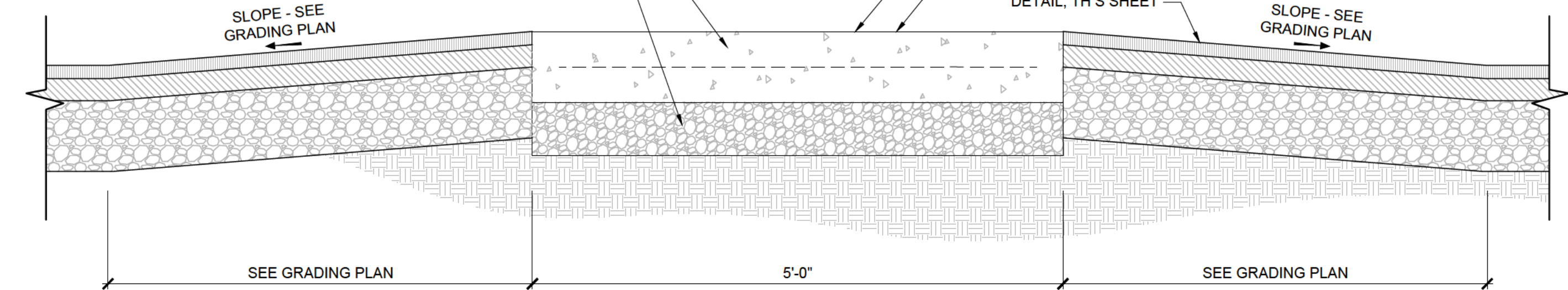
4. HERRINGBONE PATTERN TO BE INSTALLED PERPENDICULAR TO PATH OF TRAVEL AS SHOWN IN PLAN DRAWING.

8" STAMPED AND PIGMENTED REINF. CONCRETE, 4000 PSI WWF 6X6 W2.9 X W2.9 6" COMPACTED AGGREGATE BASE, VDOT #21A ON COMPACTED SUBGRADE

HERRINGBONE STAMPED FINISH WITH SAILOR COURSE BORDER

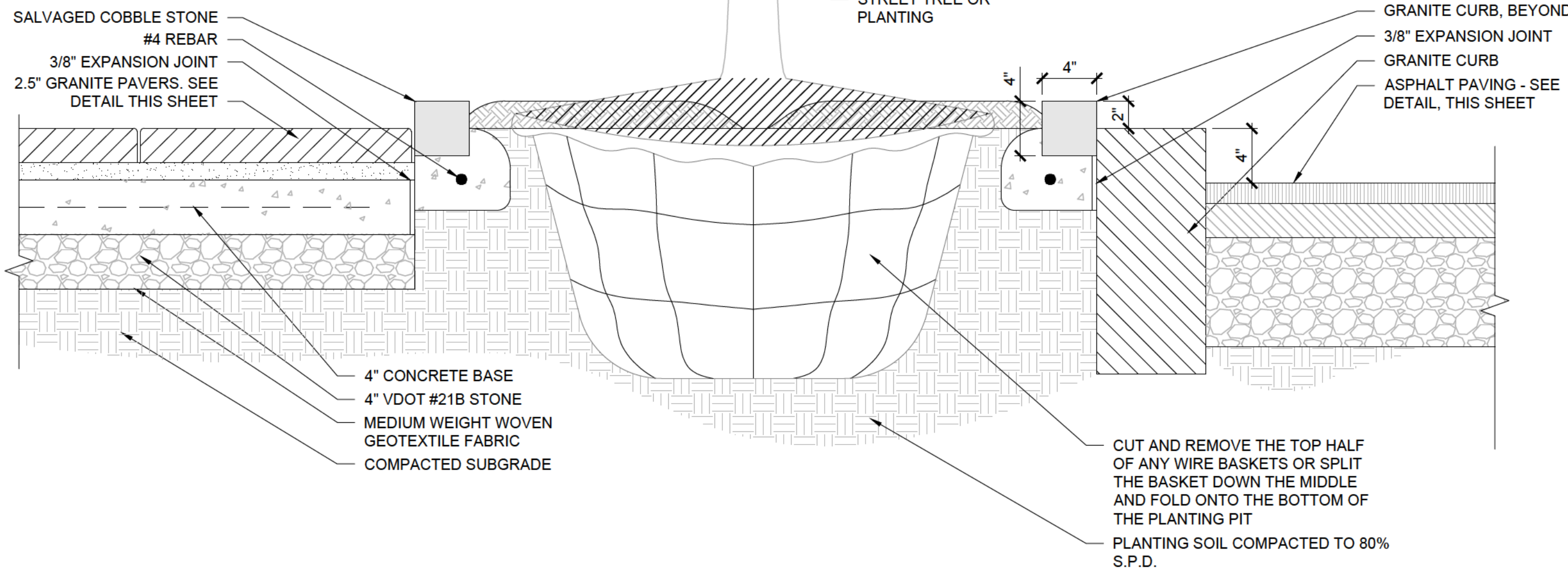
SURFACE APPLIED MATTE SEALER WITH ANTI-SLIP GRIT

ASPHALT PAVING, SEE DETAIL, TH S SHEET



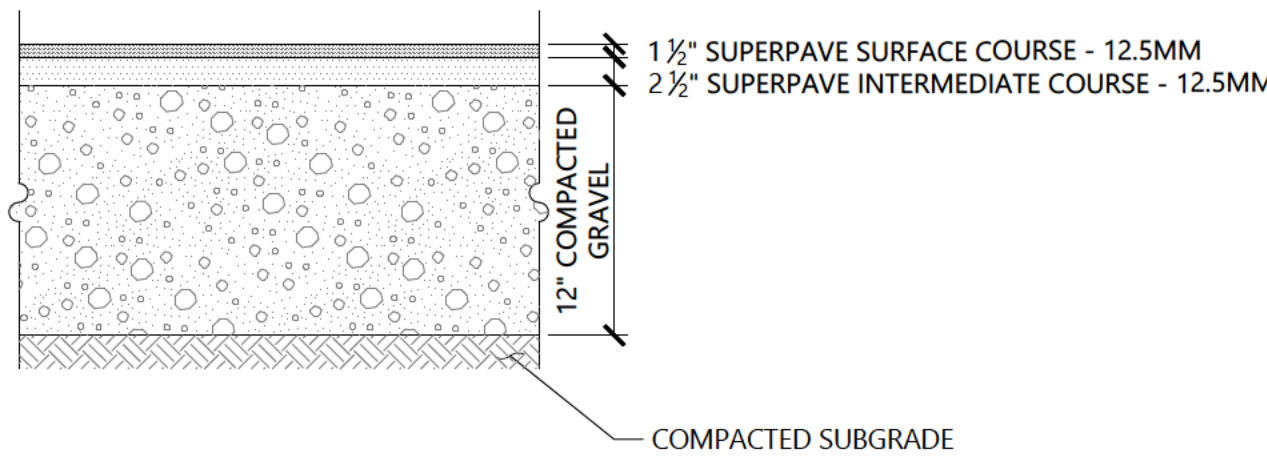
1 STAMPED CONCRETE SPEED TABLE
1" = 1'-0"

2 COBBLESTONE EDGE
1 1/2" = 1'-0"

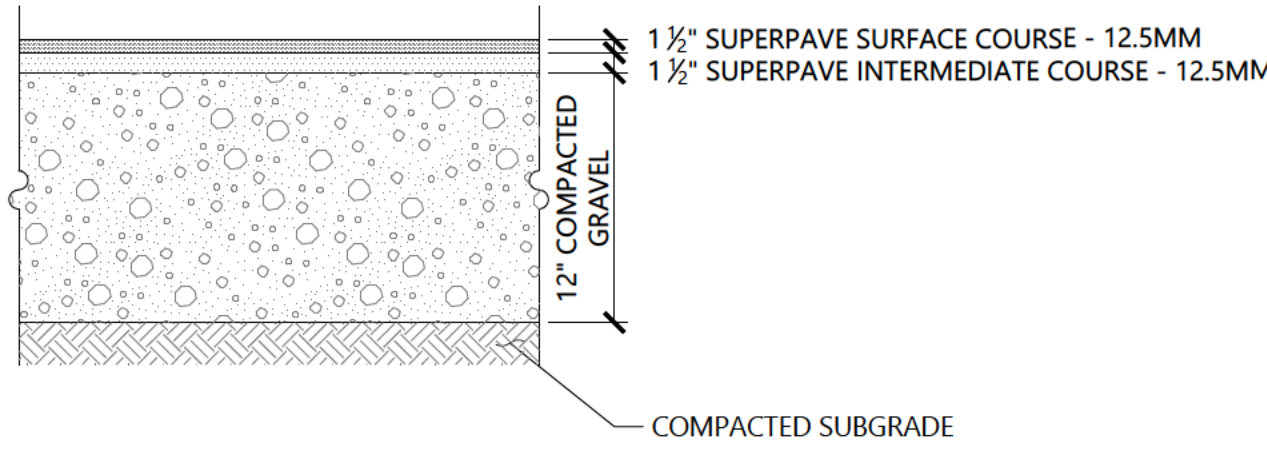


2016 VDOT ROAD AND BRIDGE STANDARD DETAILS REFER TO THE CURRENT REVISION OF THE STANDARDS FOR THE FOLLOWING:

- DI-2A, PG. 104.03-104.04
- DI-3B, PG. 104.09-104.10
- ST-1, PG. 106.09
- CG-12, PG. 204.01-204.05



HEAVY DUTY FLEXIBLE PAVEMENT



STANDARD DUTY FLEXIBLE PAVEMENT

NOTES

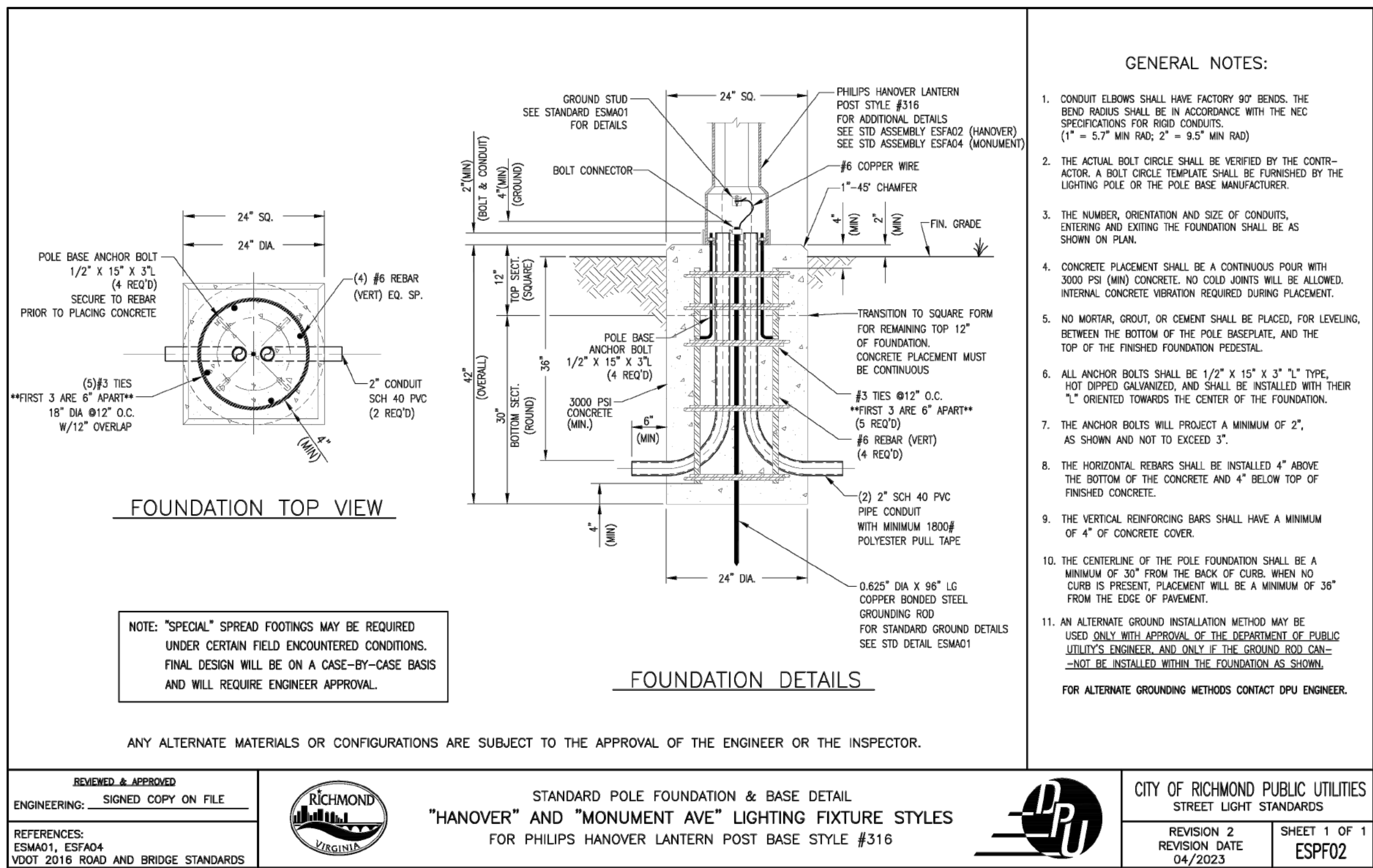
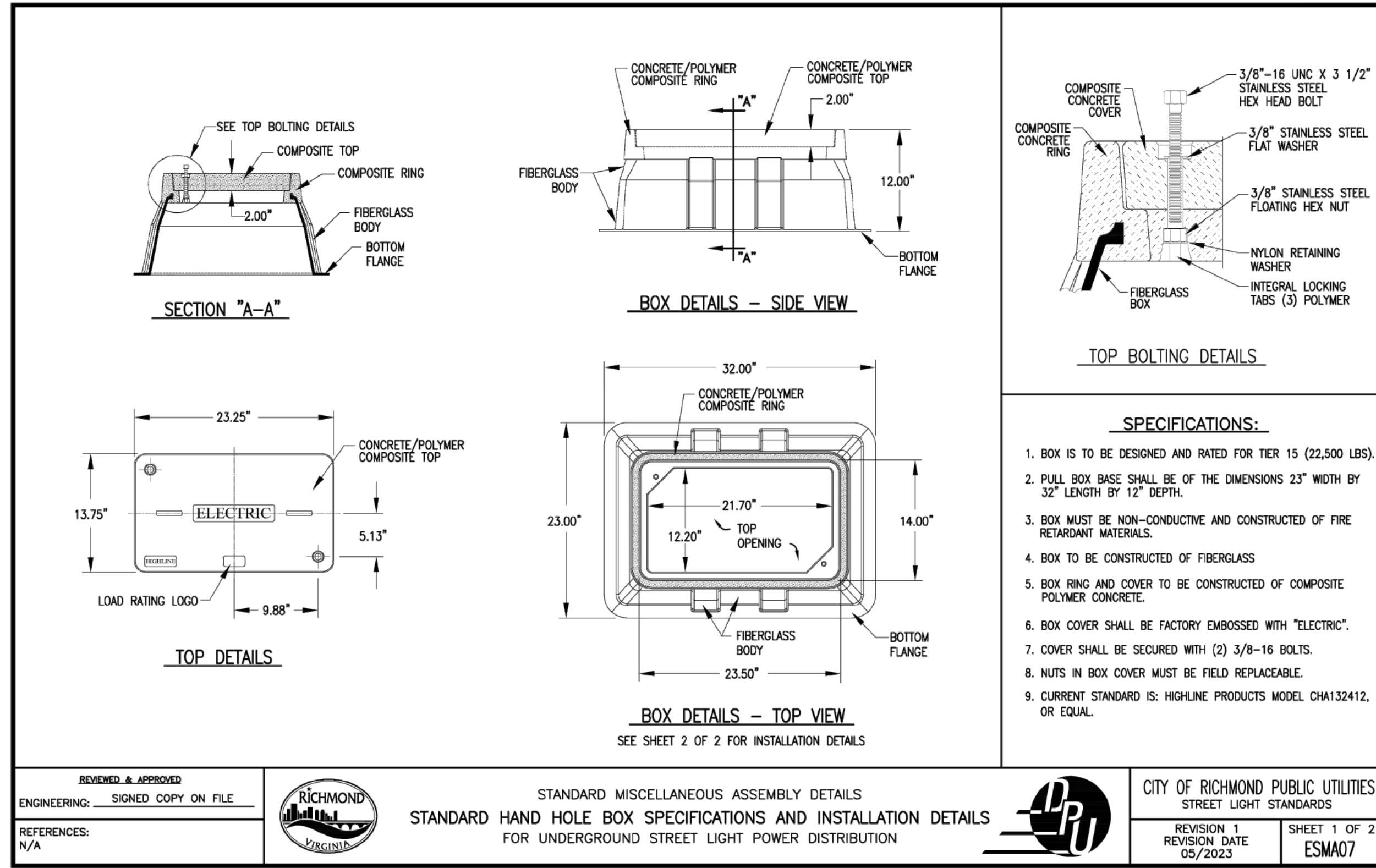
PAVEMENT SECTIONS ARE SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.

3 ASPHALT PAVNG
N.T.S.

Source: VHB

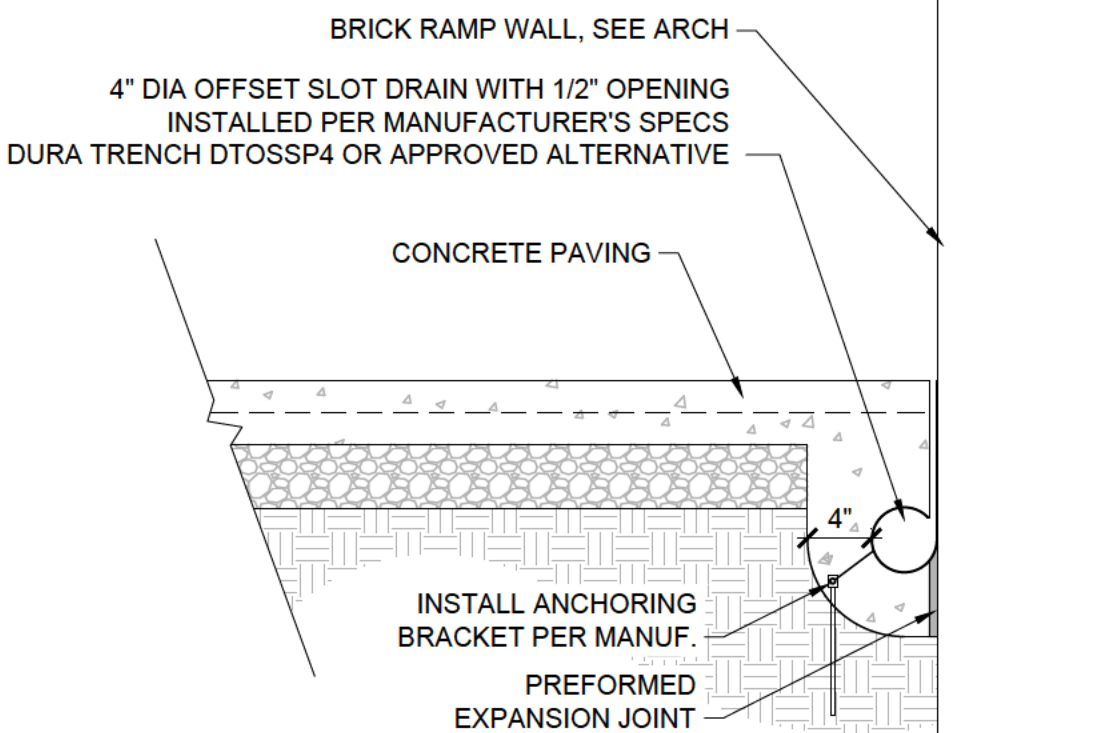
6/23
LD.430

4 HAND HOLE BOX
N.T.S.



5 LIGHT POLE FOOTING
N.T.S.

6 SLOT DRAIN
1" = 1'-0"



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PROJECT NUMBER
G&HA#: 23028

DATE

MAY 31, 2024

DRAWN BY: JRD CHECKED BY: ELG

REVISIONS

NO.	DATE	DESCRIPTION
2	7/24/2024	REVISION 2
4	9/5/2024	CITY COMMENTS
5	9/23/2024	CITY COMMENTS
6	9/23/2024	RFI003
7	9/27/2024	CITY COMMENTS

SHEET TITLE

SITE DETAILS

SHEET NUMBER

C4.12

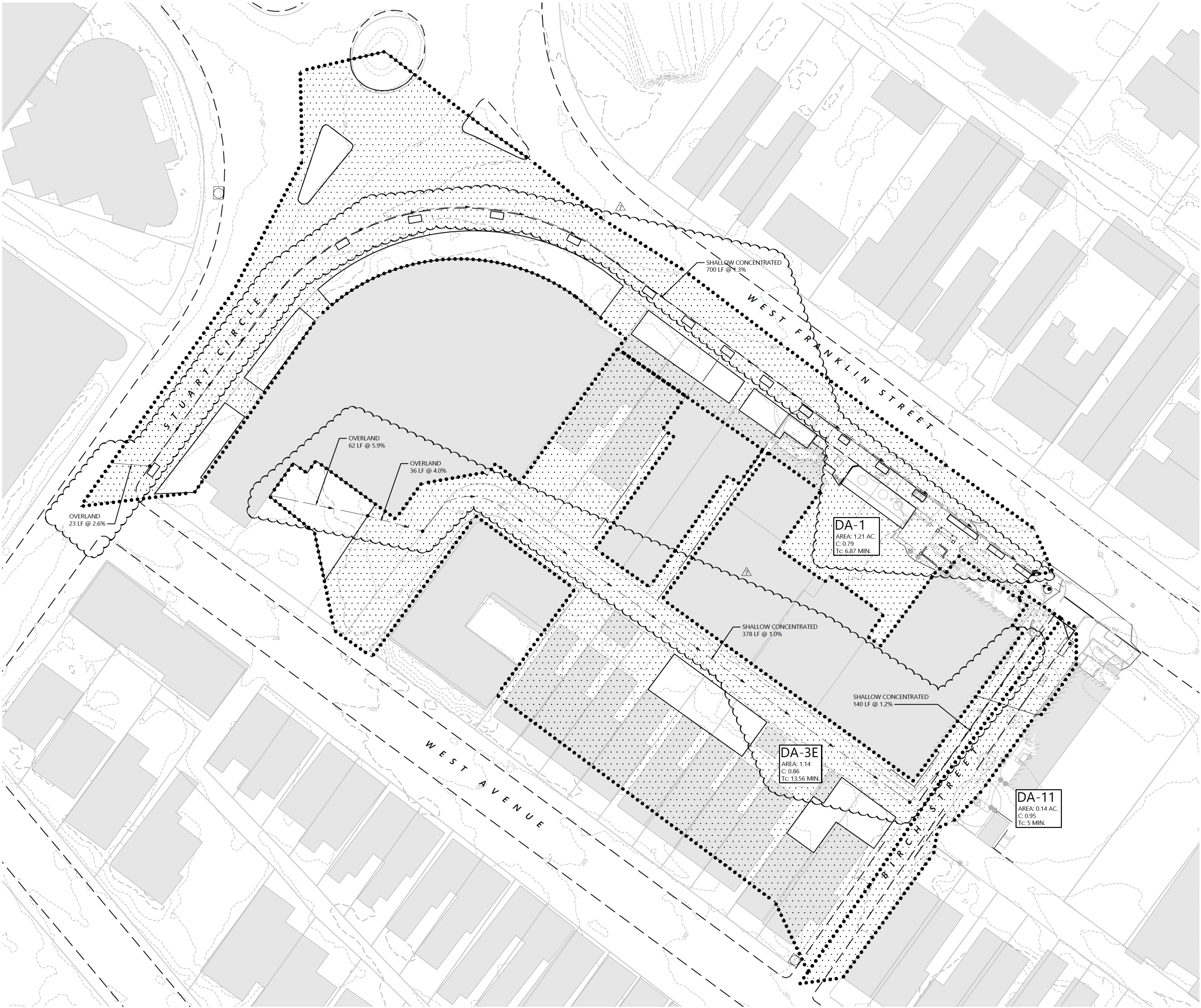
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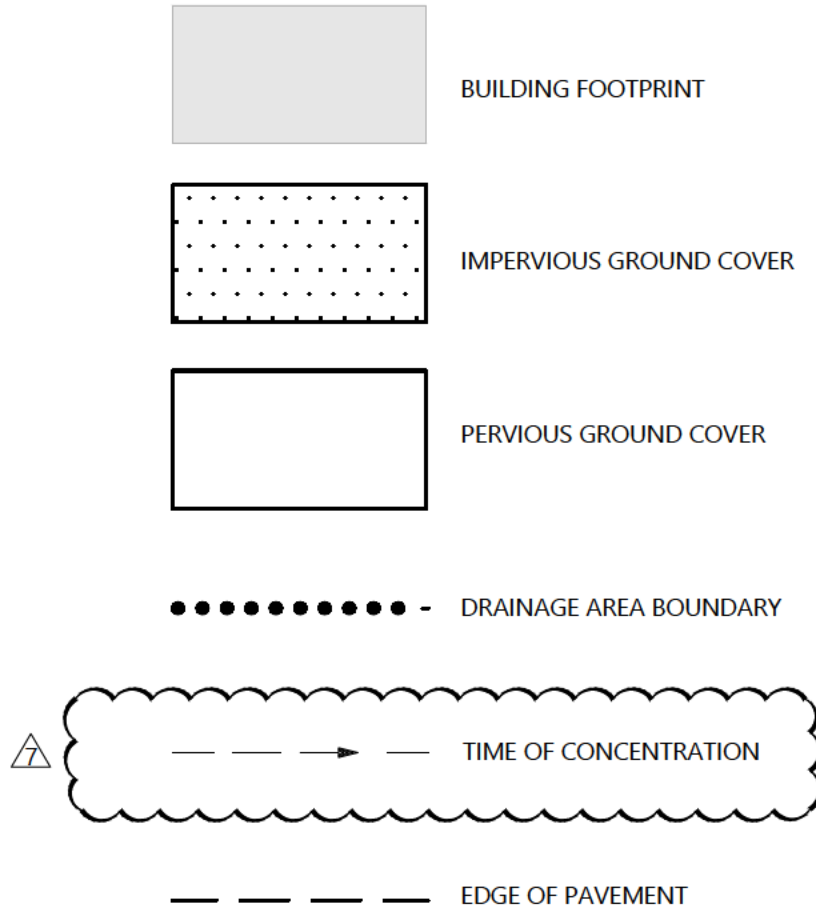
A



Narrative

A VDOT DI-3A IS THE EXISTING PRIMARY CATCHMENT FOR THE SOUTH SIDE OF W. FRANKLIN ST. PROPOSED INLET #1 REPLACES THE DI-3A WITH A DI-2A TO INCREASE THE TOTAL DRAINAGE OPENING FROM 1.15 SQ. FT. TO 3.08 SQ. FT. RESPECTIVELY. THE CONSTRUCTION OF A SPEED TABLE ACROSS BIRCH ST. BLOCKS THE FLOW OF WATER ON THE EAST SIDE OF BIRCH ST. PROPOSED INLET #11 IS A DI-3B INLET TO CAPTURE THE WATER AND DISCHARGES TO THE EXISTING TRAP INLET ON THE WEST SIDE OF BIRCH ST.

Legend



Curb Inlet Length Calculation

Project Description	
Solve For	Curb Opening Length
Input Data	
Discharge	0.93 cfs
Slope	0.012 ft/ft
Gutter Width	2.00 ft
Gutter Cross Slope	0.083 ft/ft
Road Cross Slope	0.025 ft/ft
Roughness Coefficient	0.013
Efficiency	100.00 %
Local Depression	0.0 in
Local Depression Width	0.0 in
Results	
Curb Opening Length	9.5 ft
Intercepted Flow	0.93 cfs
Bypass Flow	0.00 cfs
Spread	3.9 ft
Depth	2.5 in
Flow Area	0.3 ft²
Gutter Depression	1.4 in
Total Depression	1.4 in
Velocity	3.09 ft/s
Equivalent Cross Slope	0.080 ft/ft
Length Factor	1.000
Total Interception Length	9.5 ft

Curb Inlet Length Calc.mtl
9/4/2024

Bentley Systems, Inc. - Hwaest Methods Solution Center
27 Siemon Company Drive Suite 200 W
Watertown, CT 06095 USA +1-203-755-1986

FlowMaster
10/05/03/20
Page 1 of 1

Inlet DA-11 Sizing Calculations

FROM POINT	TO POINT	T _c (MINUTES)	RAINFALL (IN/HR)	RUNOFF (CFS)	LINE	INVERT IN	INVERT OUT	LENGTH (FEET)	SLOPE	DIAM. (INCHES)	MANNING'S N COEFF.	CAPACITY (CFS)	VELOCITY (FPS)	FLOW TIME (MINUTES)
1	2	6.87	6.39	6.66	1-2	193.64	193.36	13.57	2.03%	15	0.013	9.20	8.19	0.03
2	3E	6.90	6.39	6.66	2-3E	193.26	192.62	14.90	4.30%	15	0.013	13.39	10.92	0.02
3E	4E	13.56	5.00	6.79	3E-4E	192.46	192.39	13.88	0.50%	15	0.013	4.57	3.73	0.06
4E	5E	13.62	4.99	13.03	4E-5E	186.20	186.10	13.37	0.75%	15	0.013	5.59	4.57	0.05
11	3E	5.00	6.97	0.93	11-3E	190.72	190.49	23.54	1.00%	15	0.013	6.46	3.75	0.10

Storm Sewer, 10 yr.

INLET	OUTLET WATER SURFACE ELEV.	D _o	Q _o	L _o	S _o	H _i	JUNCTION LOSS										FINAL H	INLET WATER SURFACE ELEV.	RIM ELEV.
							V _o	H _o	Q _i	V _i	QV _{loss}	V _i ² /2g	H _i	ANGLE	H _h	H _t			
4E	187.10	15"	13.03	13.37	4.07	0.54	4.57	0.08	6.79	3.73	25.34	0.22	0.08	90	0.15	0.31	0.85	187.95	198.02
3E	193.39	15"	6.79	13.88	1.11	0.15	3.73	0.05	6.66	10.92	72.74	1.85	0.65	43	0.85	1.56	1.71	195.10	197.03
2	195.10	15"	6.66	14.90	1.06	0.16	10.92	0.46	6.66	8.19	54.54	1.04	0.36	37	0.43	1.26	1.42	196.52	198.19
1	196.52	15"	6.66	13.57	1.06	0.14	8.19	0.31								0.31	0.46	196.97	197.33
11	195.10	15"	0.93	23.54	0.02	0.00	3.75	0.07								0.07	0.07	195.17	197.07

Hydraulic Grade Line, 10 yr.

Time of Concentration									
DA	Flow Type	Length	Upper Elev.	Lower Elev.	Slope	Coefficient	Velocity	T _c	Notes
3E	Sheet	62	207.51	203.88	0.059	0.30	-	7.28	
	Sheet	36	203.88	202.44	0.040	0.90	-	2.08	
	SC	378	202.44	198.76	0.010	20.33	2.01	3.14	
	SC	140	198.76	197.14	0.012	20.33	2.19	1.07	
1	Sheet	23	207.82	207.22	0.026	0.90	-	1.87	
	SC	700	207.22	198	0.013	20.33	2.33	5.00	

Time of Concentration

Post-Development Drainage Areas								
Drainage Area	Impervious (SF)	T _u (SF)				Total Area (SF)	Area (AC)	Weighted C
		A	B	C	D			
DA1	42,192	0	0	0	10537	52,729	1.21	0.79
DA3E	44,051	0	0	0	5791	49,842	1.14	0.86
DA11	5,923	0	0	0	0	5,923	0.14	0.95
Total Onsite	92,166	0	0	0	16,328	108,494	2.491	0.83
Total	92,166	0	0	0	16,328	108,494	2.491	0.83

Drainage Areas

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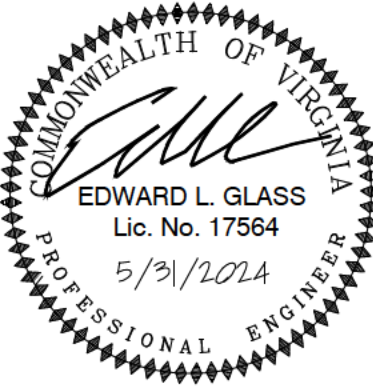
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By
Taylor & Parrish
Dated: October 1, 2024



SEAL



PROJECT NUMBER
G&HA#: 23028

DATE

MAY 31, 2024

DRAWN BY: JRD CHECKED BY: ELG

REVISIONS

NO.	DATE	DESCRIPTION
2	7/24/2024	REVISION 2
4	9/5/2024	CITY COMMENTS
5	9/23/2024	CITY COMMENTS
6	9/23/2024	RFI003
7	9/27/2024	CITY COMMENTS

SHEET TITLE

STORM DRAIN MAP
AND CALCULATIONS

SHEET NUMBER

C5.01

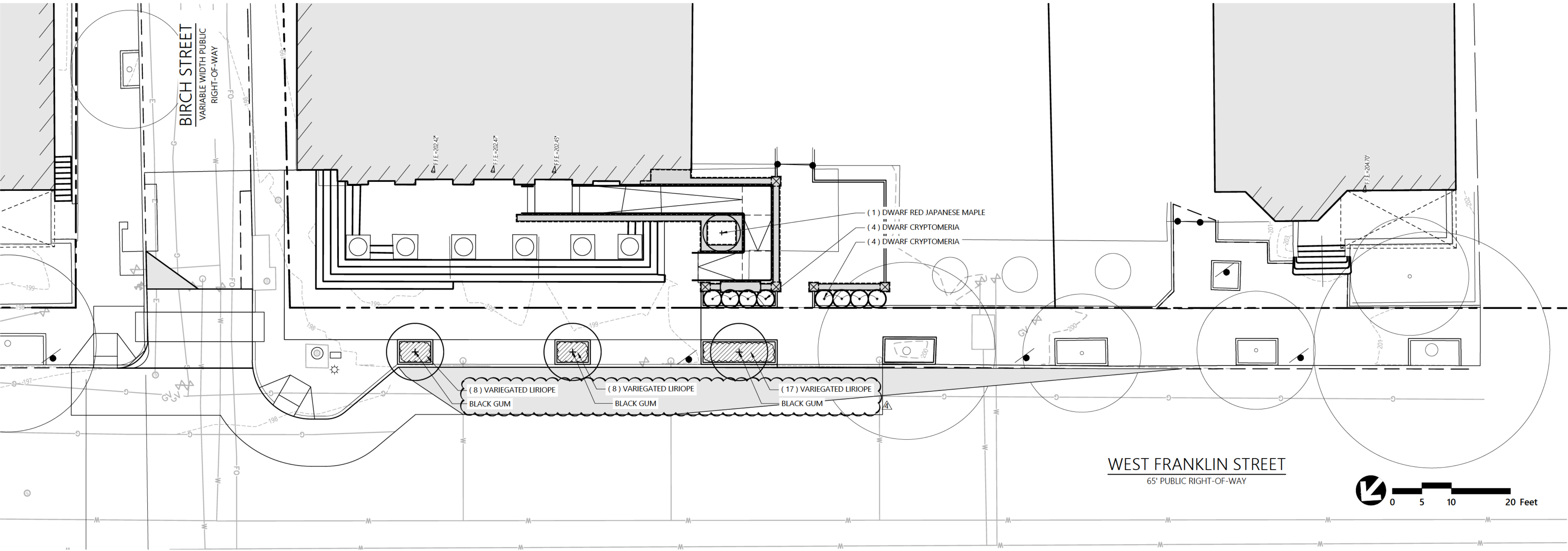
E

D

C

B

A



Notes

- CONTRACTOR SHALL VERIFY PLANT MATERIAL QUANTITIES SHOWN ON PLAN WITH TOTALS IN PLANTING SCHEDULE. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO FINAL BIDDING. UNIT PRICES SHALL BE SUBMITTED AS PART OF FINAL BID.
- ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE FULL YEAR TO BE IN A HEALTHY GROWING CONDITION. PLANT MATERIALS WHICH DO NOT FULFILL THIS GUARANTEE SHALL BE REPLACED AT NO COST TO THE OWNER. REPLACEMENT SHALL BE GUARANTEED THROUGHOUT THE ORIGINAL GUARANTEE PERIOD. PLANTS THAT DIE SHALL BE REPLACED IMMEDIATELY.
- THERE IS NO IRRIGATION ON THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR WATERING ALL PLANT MATERIAL DURING INSTALLATION AND UNTIL FINAL INSPECTION AND ACCEPTANCE BY OWNER.
- CONTRACTOR RESPONSIBLE FOR CONTACTING MISS UTILITY PRIOR TO BEGINNING OF CONSTRUCTION FOR LOCATION OF ALL UTILITY LINES. TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS. NOTIFY LANDSCAPE ARCHITECT IF ANY CONFLICTS OCCUR.
- THE LANDSCAPE ARCHITECT IS THE OWNERS REPRESENTATIVE AND SHALL BE THE APPROVING AUTHORITY FOR INFORMATION PROVIDED IN THESE PLANS AND SPECIFICATIONS.
- ALL PLANT MATERIALS, TOPSOIL, MULCH, FERTILIZERS, SOIL AMENITIES, PLANTING SUPPLIES AND METHODS SHALL BE SUBJECT TO LANDSCAPE ARCHITECTS APPROVAL. REJECTED MATERIALS SHALL BE REMOVED FROM THE SITE WITHOUT DELAY.
- ALL PLANT MATERIALS AND PLANTING METHODS SHALL CONFORM TO A.A.N. STANDARDS.
- CONTRACTOR SHALL LAYOUT AND MARK LOCATION FOR ALL PLANT MATERIAL, PLANTING, AND IMPROVEMENTS SHOWN AND REQUEST IN FIELD APPROVAL FROM LANDSCAPE ARCHITECT.
- BEDS TO CONTAIN SHRUBS OR GROUND COVER SHALL BE TILLED TO A DEPTH OF 6" AND THE SOIL CONDITIONED BY ADDING CLEAN, WELL ROTTED MANURE. IF EXISTING SOIL IS CONSIDERED TO BE UNUSABLE BY OWNER, BEDS SHALL BE TREATED TO ELIMINATE WEEDS AND WEED SEEDS.
- ALL PLANTING BED AREAS SHALL BE COVERED WITH A 3" MINIMUM LAYER OF MEDIUM TEXTURE TRIPLE SHREDDED HARDWOOD MULCH UNLESS OTHERWISE NOTED. EVERGREEN GROVE SHALL BE COVERED WITH A 3" MINIMUM LAYER OF PINE STRAW.
- ALL SUBSTITUTIONS OF PLANT MATERIAL SHALL BE REQUESTED IN WRITING TO THE LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE OWNER.
- ALL PLANTING OPERATIONS SHALL BE UNDER THE SUPERVISION OF AN EXPERIENCED PLANTSMAN.
- LANDSCAPE ARCHITECT RESERVES THE RIGHT TO SELECT PLANT MATERIALS IN THE NURSERY.
- FOR TREES BALLED IN WIRE BASKETS, CUT AND REMOVE TOP AND SIDES OF BASKET AFTER INSTALLATION.
- LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS AND MATERIALS THAT ARE IN AN UNHEALTHY OR UNSIGHTLY CONDITION, AS WELL AS PLANTS AND MATERIALS THAT DO NOT CONFORM TO A.A.N. STANDARDS. SEE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1-(CURRENT EDITION).
- SOIL SHALL BE FREE OF ALL WEEDS.
- PLANT SIZES, QUANTITIES, AND SPECIES WILL BE CHECKED BY LANDSCAPE ARCHITECT FOR COMPLIANCE WITH PLANT SCHEDULE AS APPROVED BY THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DELAY IN ISSUANCE OF CERTIFICATE OF OCCUPANCY BY THE LANDSCAPE ARCHITECT RESULTING FROM UNAUTHORIZED SUBSTITUTIONS OR DOWNSIZING.
- UPON COMPLETION OF LANDSCAPE INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR WHO WILL VERIFY COMPLETENESS, INCLUDING THE REPLACEMENT OF ALL DEAD PLANT MATERIAL, AND SCHEDULE A FINAL INSPECTION FOR ACCEPTANCE BY OWNER
- THE ONE YEAR GUARANTEE PERIOD SHALL BEGIN UPON THE OWNER'S APPROVAL AND ACCEPTANCE OF THE PLANTING INSTALLATION. THE OWNER SHALL ASSUME RESPONSIBILITY FOR MAINTENANCE INCLUDING WATERING, WEEDING, PEST CONTROL, AND FERTILIZATION.
- CONTRACTOR SHALL REMOVE STAKING FROM TREES AT THE END OF THE ONE YEAR WARRANTY PERIOD.
- CONTRACTOR TO PROVIDE MAINTENANCE & WATERING SCHEDULE SPECIFICATIONS BOOKLET FOR ALL INSTALLED PLANTS.
- ALL SUBSTITUTES TO BE APPROVED BY LANDSCAPE ARCHITECT. ONLY NATIVE SPECIES WILL BE CONSIDERED.
- FILL RAISED PLANTER WITH AMENDED TOPSOIL.
- AMEND SHRUB PLANTING BEDS PER SOIL PROFILE REBUILDING BELOW.
- TREE PITTS WITH EXISTING TREES SHALL NOT BE TILLED TO PREVENT ROOT DAMAGE.

Soil Profile Rebuilding

- PURPOSE AND DESCRIPTION**
 - Purpose**

Soil Profile Rebuilding is an appropriate soil restoration technique for sites where topsoil has been completely or partially removed and subsoil layers have been compacted (graded and/or trafficked by equipment). It may also be used with some modifications if topsoil is present. This is not an appropriate technique in sites with surface compaction only (6 inches or less), although this situation is rare on construction sites. This technique is not appropriate within the root zones of trees that are to be protected. Soil Profile Rebuilding can improve physical and biological characteristics of soil to allow for revegetation. Soil chemical problems, soil contamination from heavy metals, pathogens, or excessive debris or gravel shall be addressed separately.
 - Description of Procedure**

The procedure includes a subsoling procedure, addition of organic matter in the form of compost, replacement or addition of topsoil, and subsequent planting with woody plants. The soil preparation portion of Soil Profile Rebuilding puts the components in place for restoration to characteristics similar to undisturbed soils, however, the complete restoration process requires root activity and occurs over many years. This technique may be appropriate for restoration of disturbed soils as defined by SITES™.
 - Expected Outcomes**

Soil Profile Rebuilding may improve vegetation establishment, increase tree growth rates, increase soil permeability, enhance formation of aggregates in the subsoil, and enhance long-term soil carbon storage.
- PROCEDURE**
 - Location**

Profile Rebuilding shall occur on all soil areas that are to be vegetated that have been disturbed by trafficking or grading during construction or prior to construction. Soil areas that are not to be treated should be protected by permanent fencing during the construction period and all access to these areas prohibited. A soil map delineating protected areas and areas to be treated shall be approved by the owner, arborist, or landscape architect before grading or construction begins.
 - Sequencing**

Profile Rebuilding shall occur after site disturbance is complete, including all vehicle and equipment trafficking, but before replacement of topsoil. Once profile rebuilding is complete, all traffic and equipment or materials storage on treated areas is prohibited with the exception of foot traffic for the purposes of planting or mulching. If topsoil is already present and is 4 inches or greater in depth, use the "modifications for pre-existing topsoil."
 - Remove foreign materials**

Remove all foreign materials resulting from construction operations, including oil drippings, stone, gravel, and other construction materials from the existing soil surface.
 - Application of Compost**

Spread mature, stable compost (see Section 3. Definitions for definition of compost) to a 4 inch depth over compacted subsoil.
 - Subsoiling**

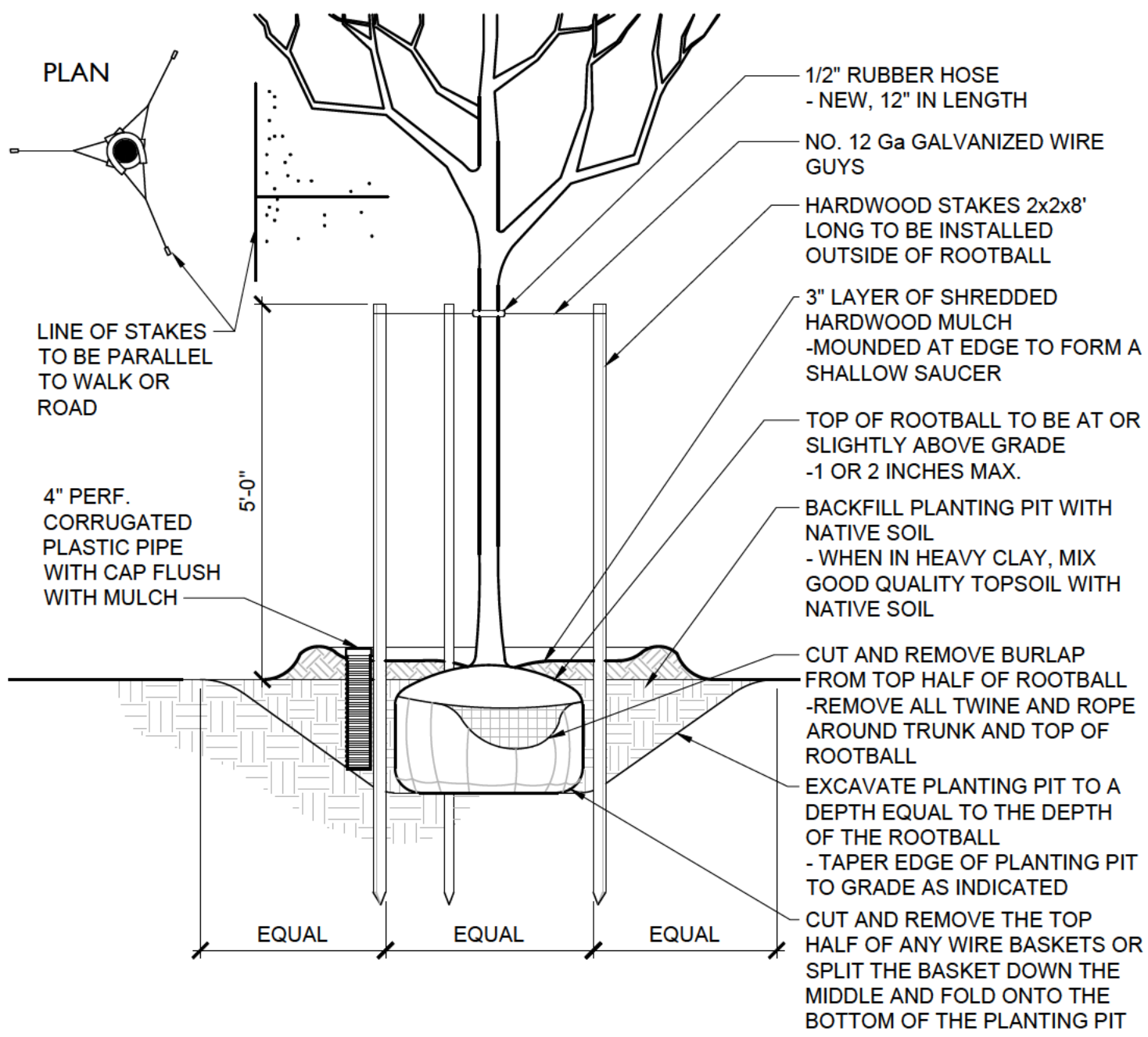
Subsoiling may be performed when soil is neither wet nor dry. If a shovel cannot be forced into the soil, it is too dry. If the surface is sticky or muddy, it is too wet. Use a backhoe rearbucket or similar equipment with a tined bucket to break up the compacted soil and incorporate the compost. Work backwards away from excavated soils so that treated soil is not trafficked by the equipment. Insert the bucket into the subsoil to a depth of 24 inches and raise a bucket of soil at least 24 inches above the soil surface. Tip the bucket and allow soil to fall. Repeat this procedure until no clumps of compacted soil larger than 12 inches in diameter remain. The tines of the bucket can be used to break apart larger clumps if necessary. 50% of the soil shall be in clumps 6 inches or smaller. No clumps shall be greater than 18" in diameter. The subsoiling is not intended to homogenize the compost and soil, but rather loosen the soil to a 24-inch depth and create veins of compost down to that depth as well. To ensure that subsoiling reached the appropriate depth, a push tube soil sampler shall be used to verify compost is present at 24 inch depth.
 - Replacement of topsoil**
 - Standard procedure**

Stockpiled topsoil, or additional topsoil if none is available from the site, shall be returned to the site to a 4 inch minimum depth (see Section 3.3 Definitions for definition of topsoil). If soil was severely disturbed (see definitions), a 6-8 inch minimum shall be replaced.
 - Modification if significant topsoil is already present before Profile Rebuilding is initiated**

Case 1:
At least four inches of topsoil is present on the site after construction activities are completed AND soil is not severely disturbed (see Section 3.3 Definitions for description of severely disturbed).
Case 2:
Less than 4 inches of topsoil is present on site after construction activities were completed but before Profile Rebuilding is initiated, OR soil is severely disturbed (see Section 3.3 Definitions for description of severely disturbed).
For Case 1: A minimum of 3 inches additional topsoil shall be placed over the subsoiled layer before tilling.
For Case 2: Follow Section 2.6.1 Standard procedure, as if no topsoil had been present.

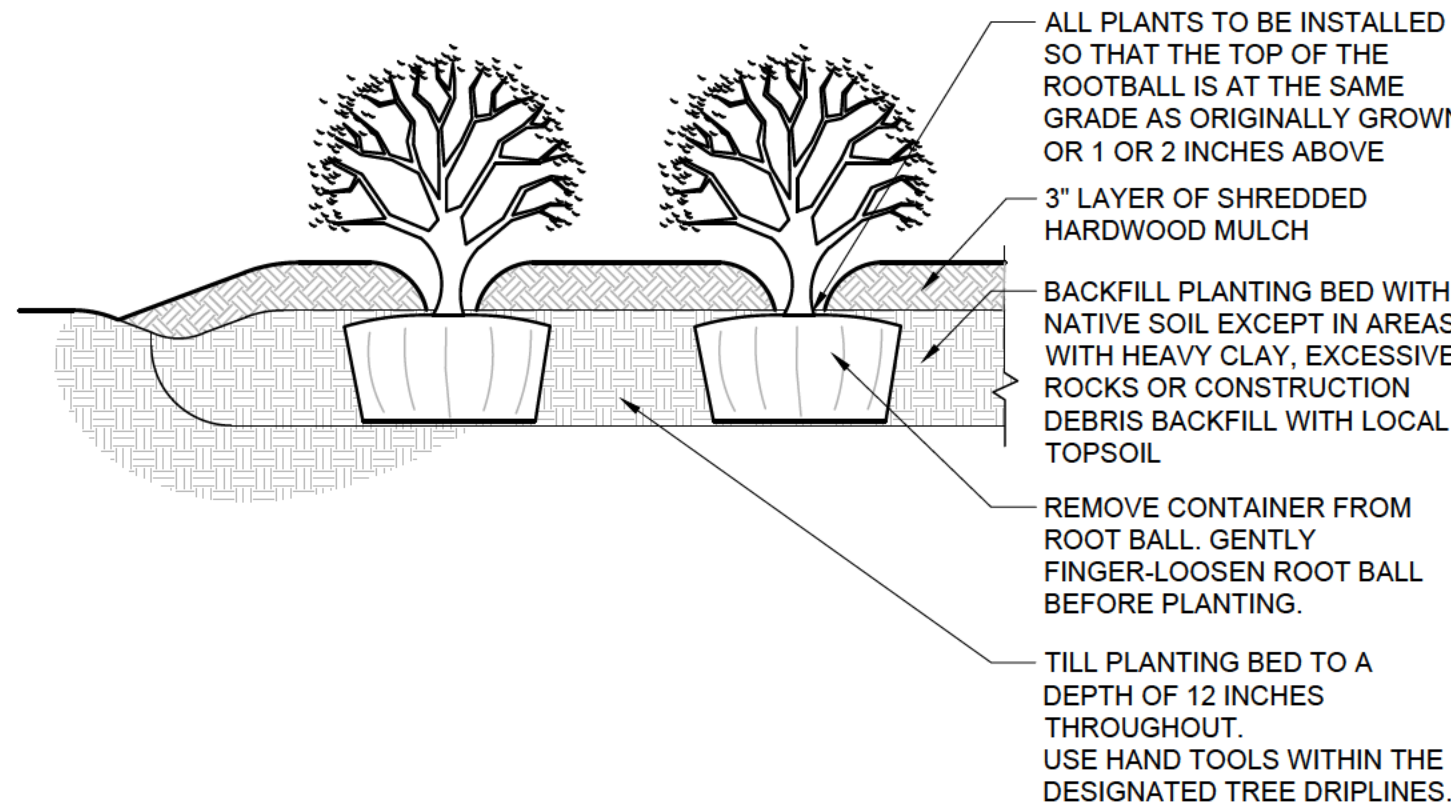
PLANT SCHEDULE

TREES	QTY	BOTANICAL	COMMON	SIZE	SPACING
1		ACER PALMATUM 'CRIMSON QUEEN'	DWF RED JAPANESE MAPLE	10 GAL	SHOWN
3		NYSSA SYLVATICA	BLACK GUM	2" CAL	SHOWN
SHRUBS	QTY	BOTANICAL	COMMON	SIZE	SPACING
8		CRYPTOMERIA JAPONICA 'NANA'	DWF CRYPTOMERIA	7 GAL	36" o.c.
PERENNIALS					
33		LIRIOPE MUSCARI 'VARIEGATA'	VARIEGATED LIRIOPE	1 GAL	18" o.c.
MULCH					
175		MULCH SF			



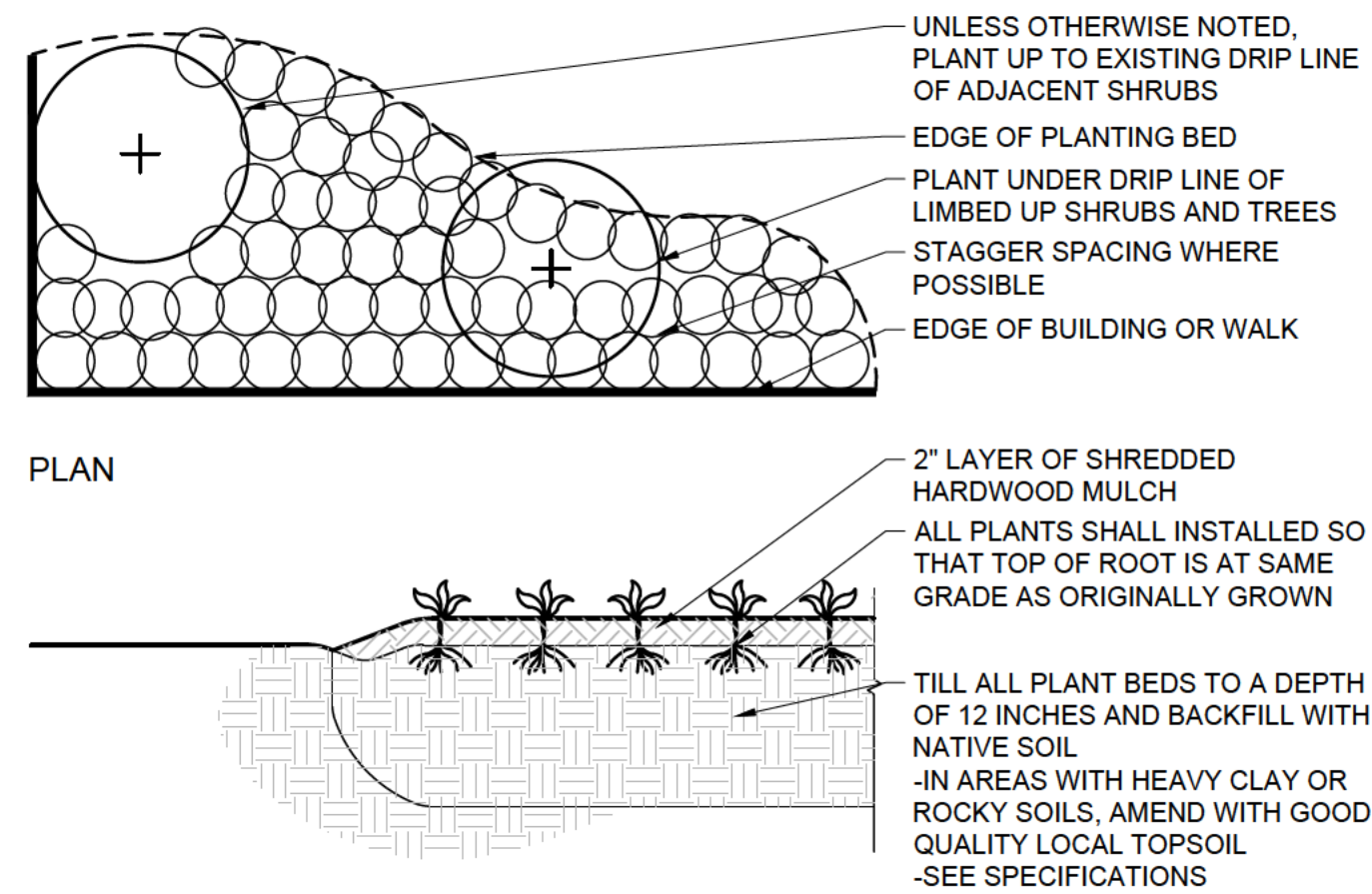
DECIDUOUS TREE STAKING DETAIL

NOT TO SCALE



SHRUB PLANTING DETAIL

NOT TO SCALE



GROUNDCOVER PLANTING BED DETAIL

NOT TO SCALE

GLAVÉ & HOLMES ARCHITECTURE

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PROJECT TITLE

ST JAMES'S RAMP AND ROAD PROJECT

St. James's Episcopal Church

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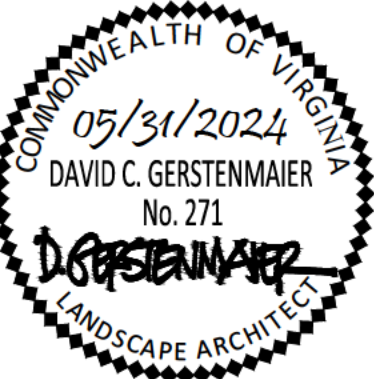
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PROJECT NUMBER
G&HA#: 23028

DATE

MAY 31, 2024

DRAWN BY: JRD CHECKED BY: ELG

REVISIONS

NO.	DATE	DESCRIPTION
1	6/26/2024	REVISION 1 - MATERIAL SPECIFICATIONS
2	7/24/2024	REVISION 2
4	9/5/2024	CITY COMMENTS

SHEET TITLE

LANDSCAPE PLAN

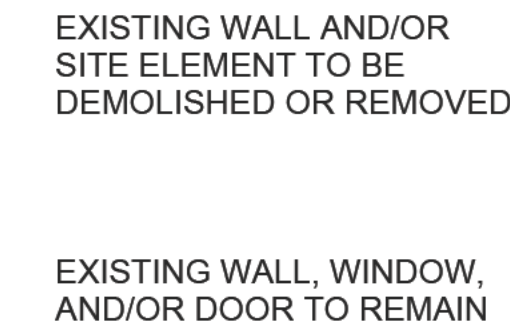
SHEET NUMBER

L1.01

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A

GENERAL DEMOLITION NOTES



1. THE OWNER RESERVES THE RIGHT TO KEEP ANY MATERIALS THAT ARE DESIGNATED FOR REMOVAL. COORDINATE REMOVALS WITH OWNER. CAREFULLY REMOVE ITEMS IDENTIFIED TO BE KEPT BY OWNER AND STORE AT THE LOCATION DESIGNATED BY OWNER.
2. WHEN ENCOUNTER ANY PREVIOUSLY INSTALLED, UNREFERENCED, OR UNDOCUMENTED FINISHES BENEATH FINISHES SCHEDULED FOR DEMOLITIONS, MINIMIZE DAMAGE TO THE UNDERLYING FINISH AND NOTIFY THE ARCHITECT OF RECORD FOR ADDITIONAL DIRECTION. COORDINATE DEMOLITION WITH NEW CONSTRUCTION AND/OR FRAMED OPENINGS AND ADJACENT FINISHES IN EXISTING WALLS, PARTITIONS, FLOORS, AND CEILINGS SHALL HAVE CLEAN SAW CUT EDGES AND PREPARED TO RECEIVE NEW WORK. SALVAGED MASONRY SHALL BE KEPT-IN TO MATCH EXISTING.

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COMMONWEALTH OF VIRGINIA
05/31/2024
H. Randolph Holmes Jr.
Cert. No. 5954
ARCHITECT

DATE
MAY 31, 2024

REVISIONS		
NO	DATE	DESCRIPTION
4	9/05/2024	CITY COMMENTS

AD1.01

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$$\frac{3}{16}'' = 1'-0''$$

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E

D

C

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CONSTRUCTION NOTES

1. INVESTIGATE AND VERIFY LOCATION OF STRUCTURAL, MECHANICAL AND ELECTRICAL ELEMENTS AND OTHER EXISTING CONDITIONS PRIOR TO THE BEGINNING OF WORK.
2. COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL REQUIRED ROUGH-INS AND/OR TRENCHING REQUIRED FOR ELECTRICAL RUNS.
3. SURFACES (FLOORS, WALLS, CEILINGS, ETC.) DAMAGED OR EXPOSED DURING WORK SHALL BE REPAIRED, PATCHED, AND FINISHED AS REQUIRED TO MATCH ADJACENT MATERIALS.
4. CROSS SLOPE OF RAMP RUNS SHALL NOT BE STEEPER THAN 1:48.

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PROJECT TITLE

ST JAMES'S RAMP
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MAY 31, 2024

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CHECKED BY:

REVISIONS

NO	DATE	DESCRIPTION
2	7/24/2024	REVISION 2
4	9/05/2024	CITY COMMENTS
5	9/23/2024	FRANKLIN ST CURB CUT
7	9/27/2024	CITY COMMENTS

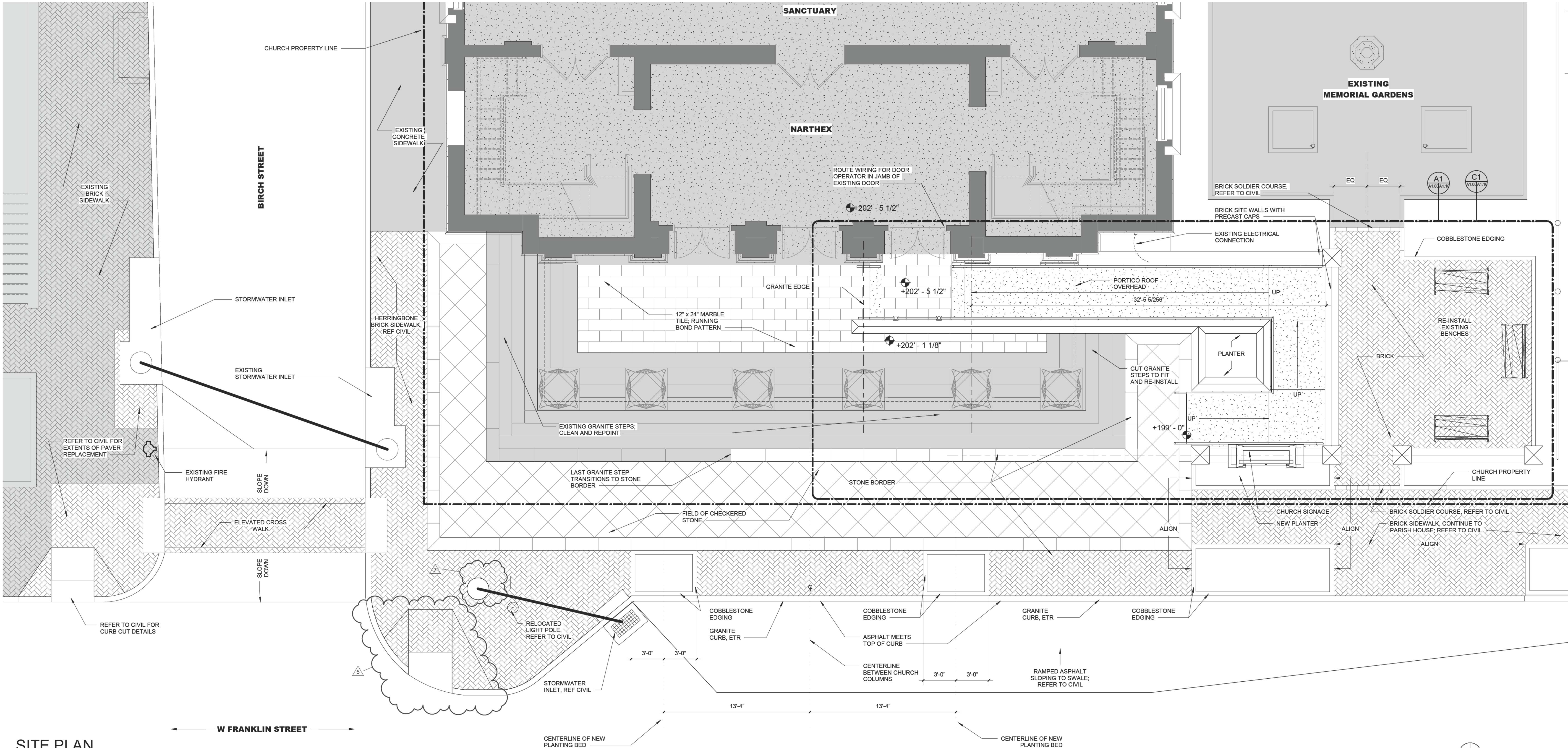
SHEET TITLE

ARCHITECTURAL
SITE PLAN

SHEET NUMBER

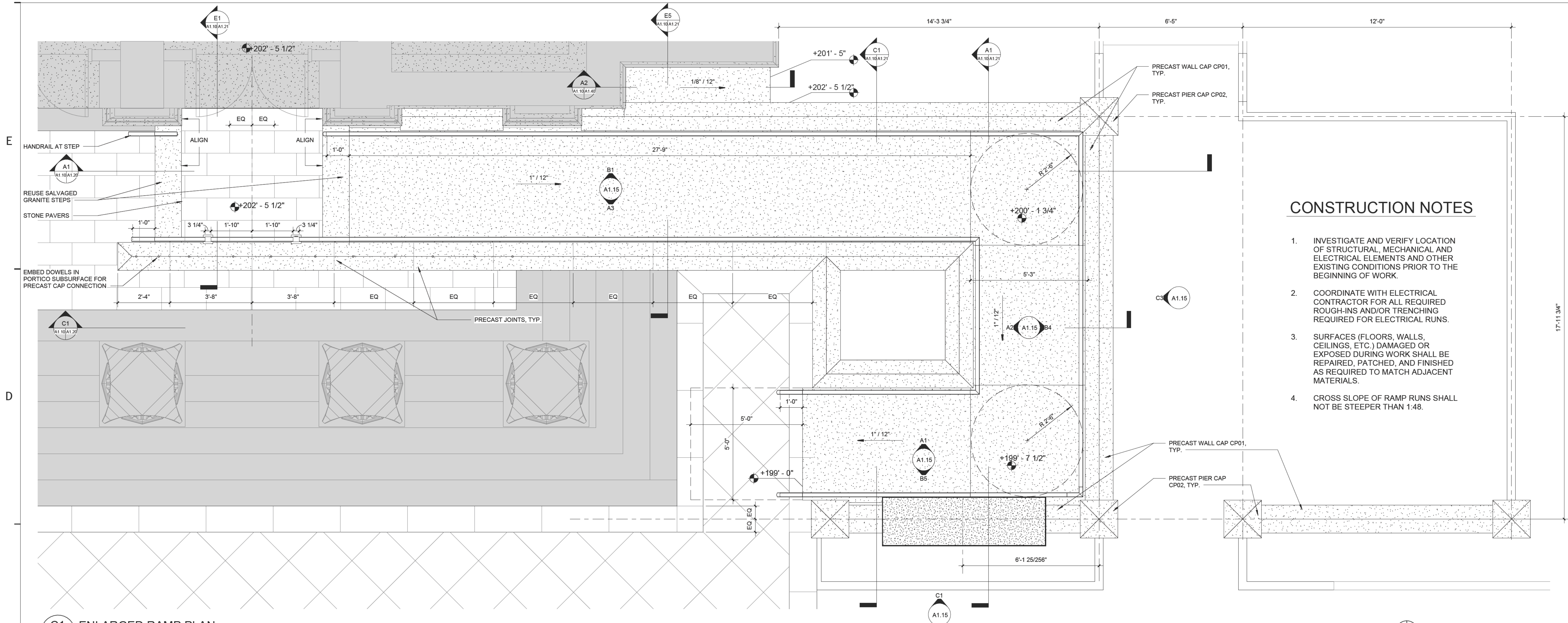
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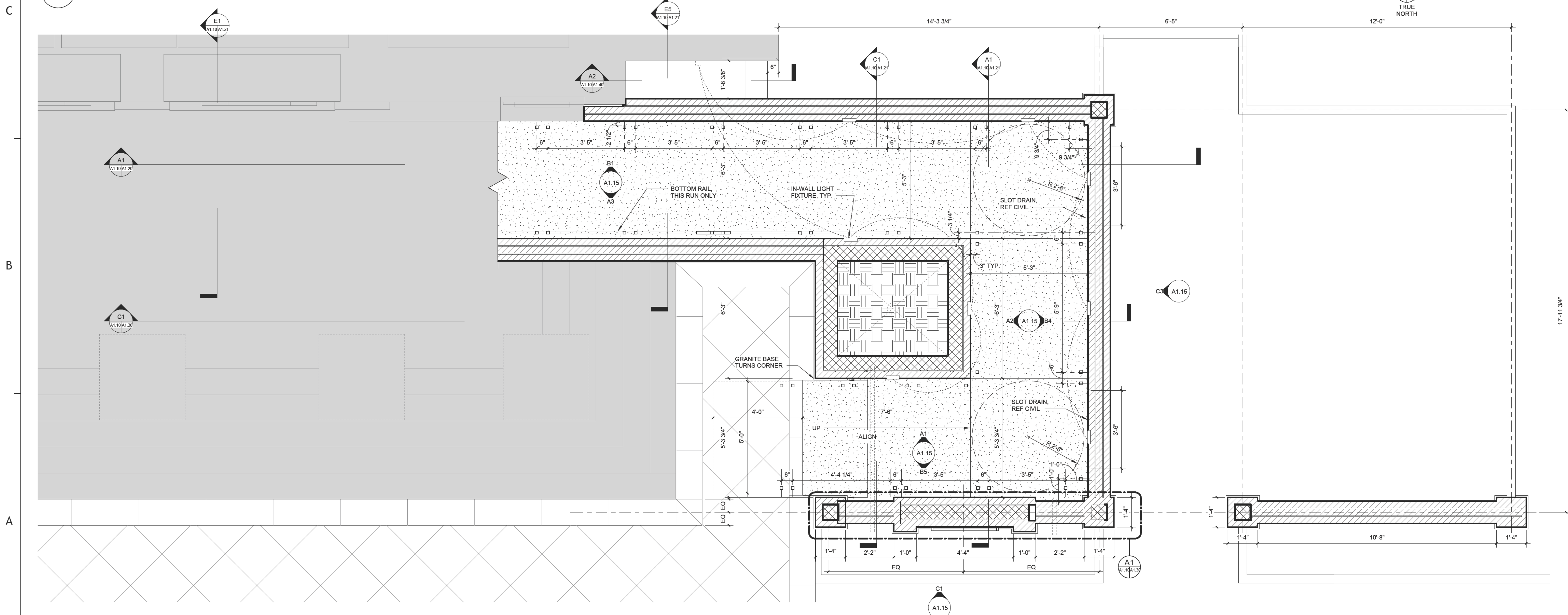


SITE PLAN

1/4" = 1'-0"



C1 ENLARGED RAMP PLAN
A1.00/A1.10 1/2" = 1'-0"



A1 ENLARGED RAMP PLAN - 2' ABOVE GRADE
A1.00/A1.10 1/2" = 1'-0"



PROJECT TITLE

ST JAMES'S RAMP
AND ROAD PROJECT

St. James's Episcopal
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MAY 31, 2024

DRAWN BY: DM CHECKED BY: RH

REVISIONS

NO	DATE	DESCRIPTION
2	7/24/2024	REVISION 2
3	7/31/2024	REV 3- MATERIAL UPDATES
4	9/05/2024	CITY COMMENTS

SHEET TITLE

ELEVATIONS

SHEET NUMBER

A1.15

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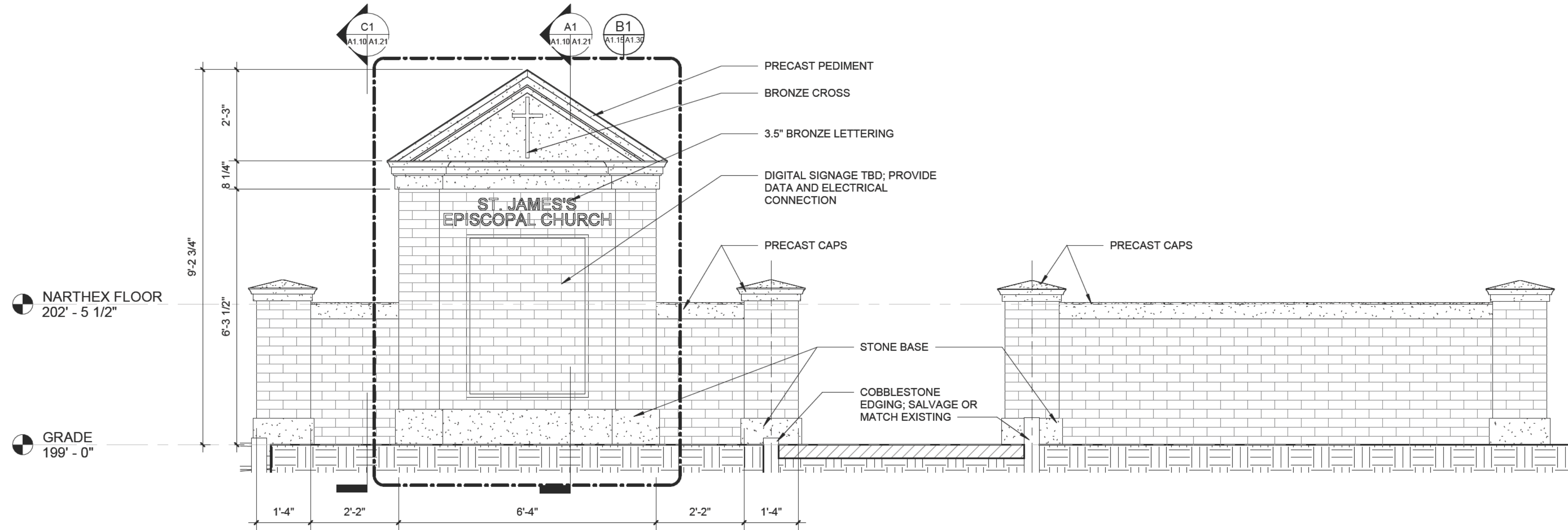
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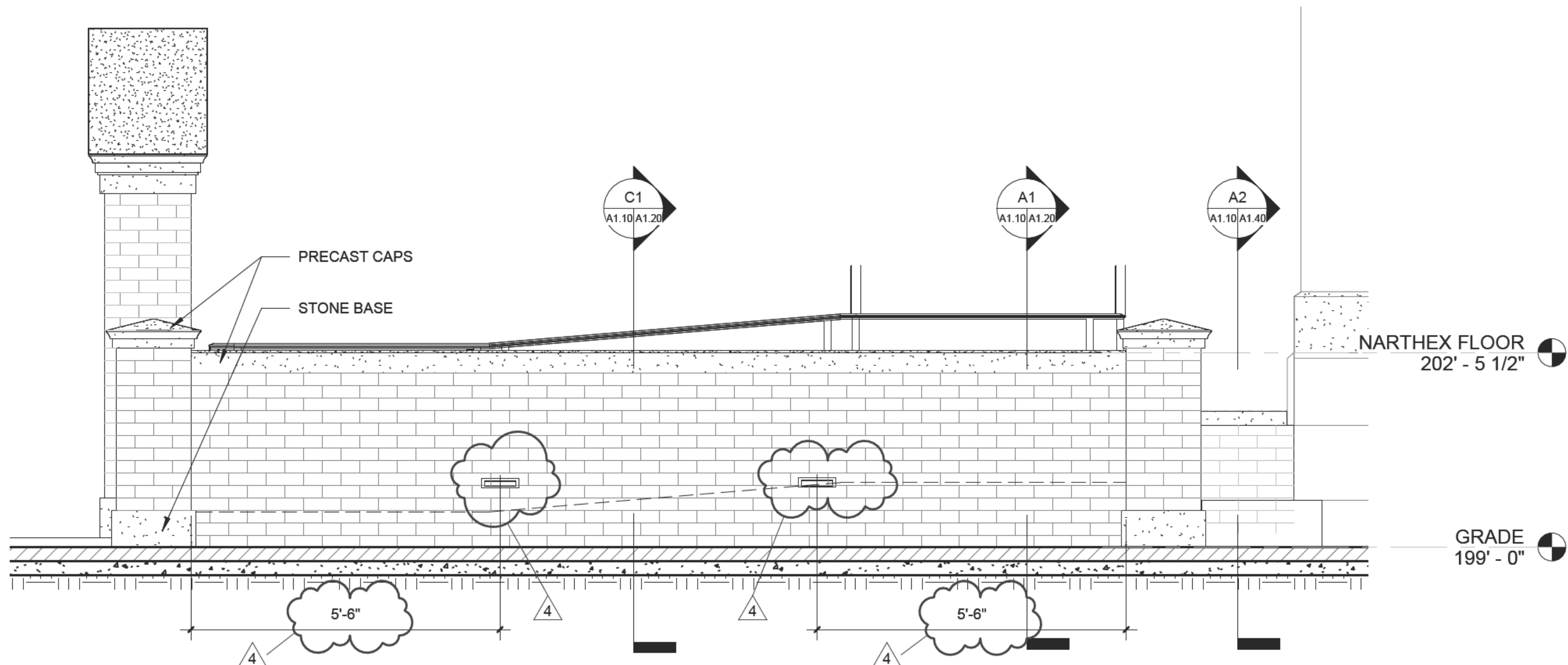
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B

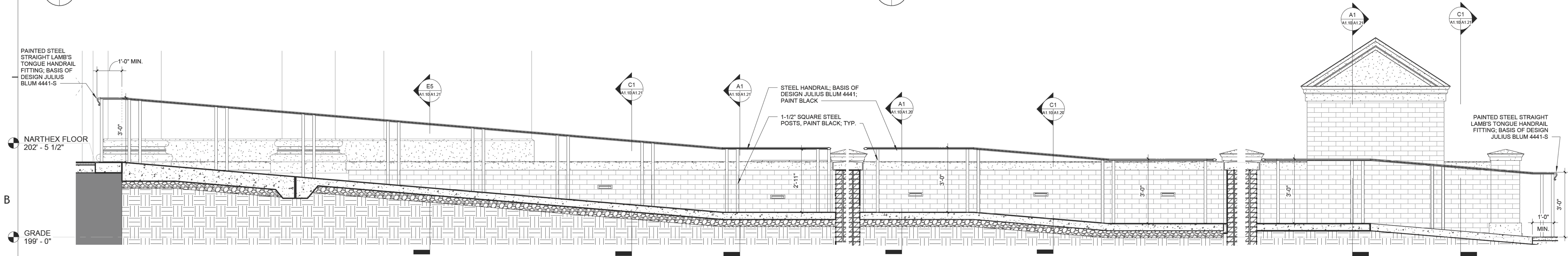
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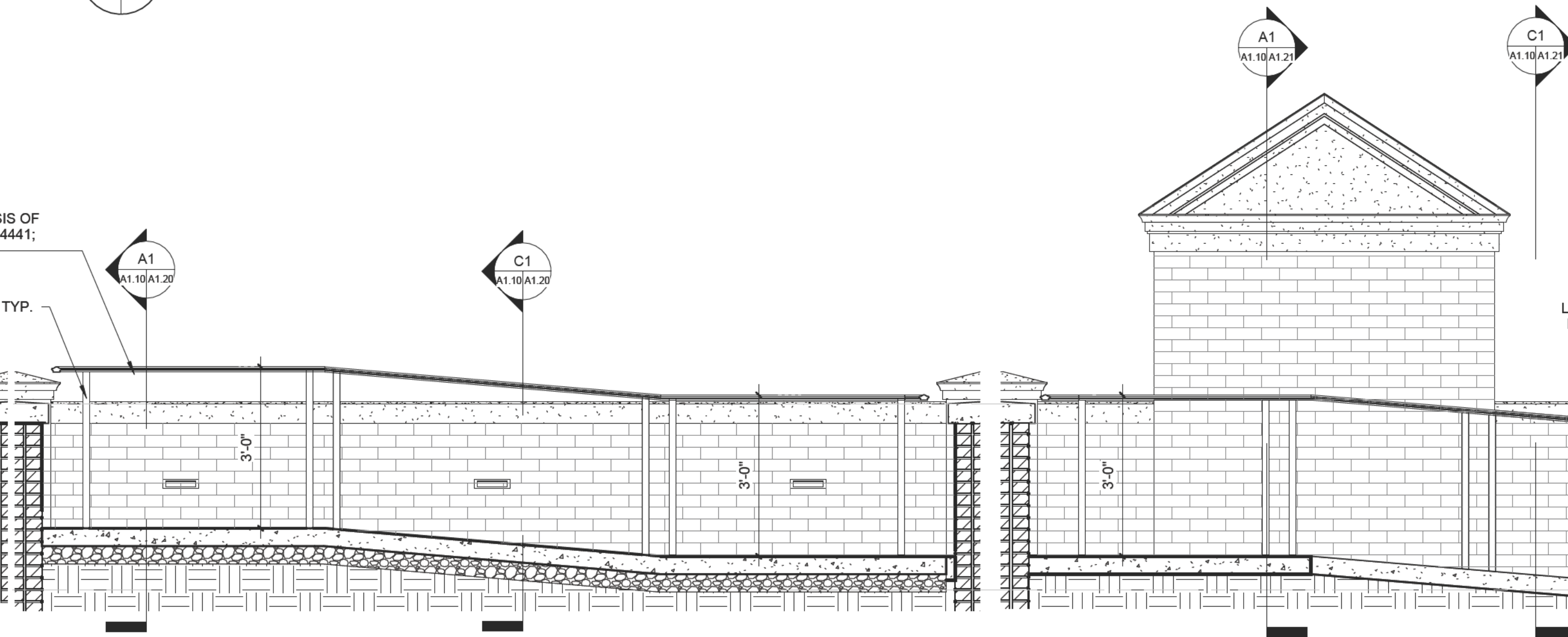
C1 SIGNAGE ELEVATION
A1.10/A1.15 1/2" = 1'-0"



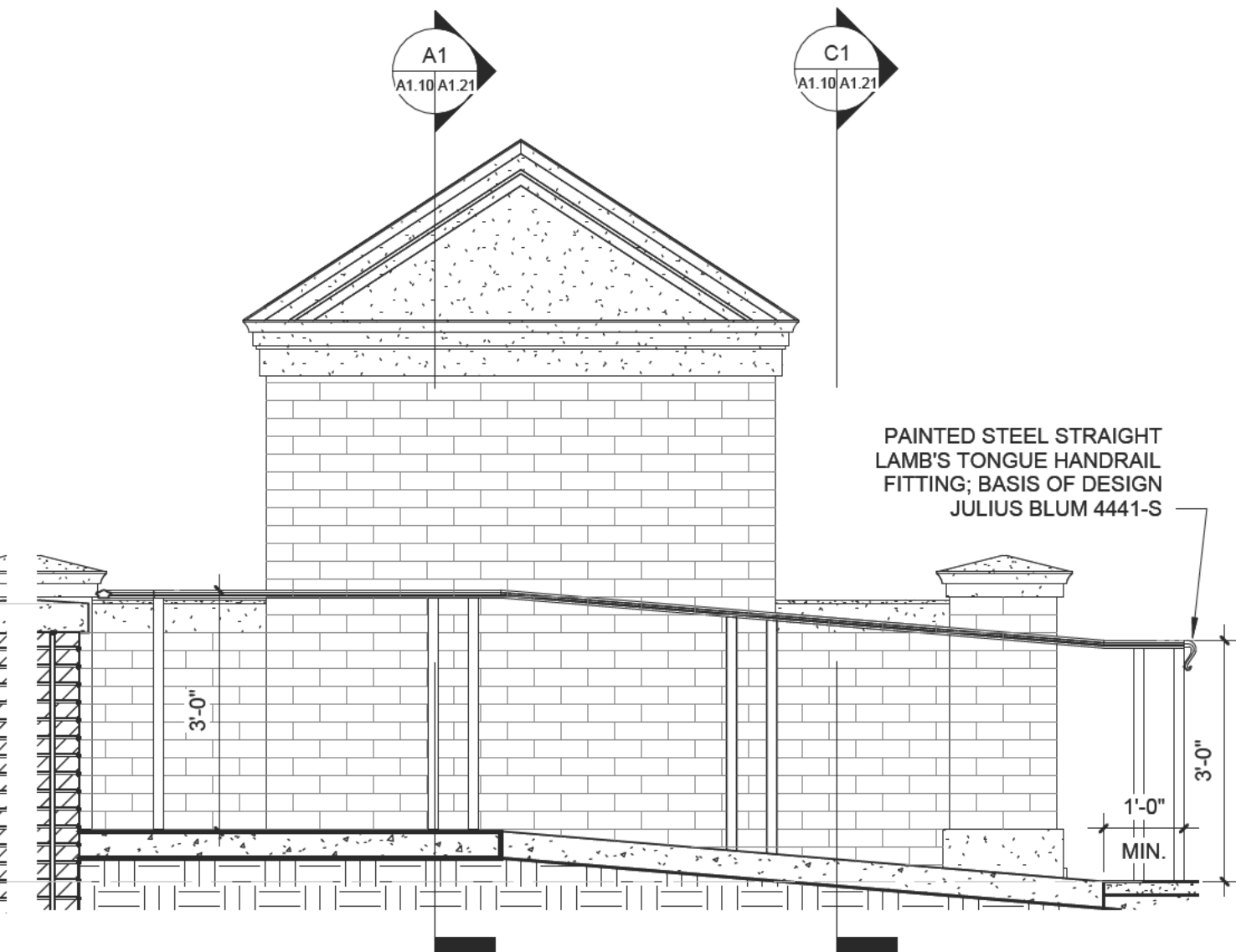
C3 OUTER RAMP WALL - WEST ELEVATION
A1.10/A1.15 1/2" = 1'-0"



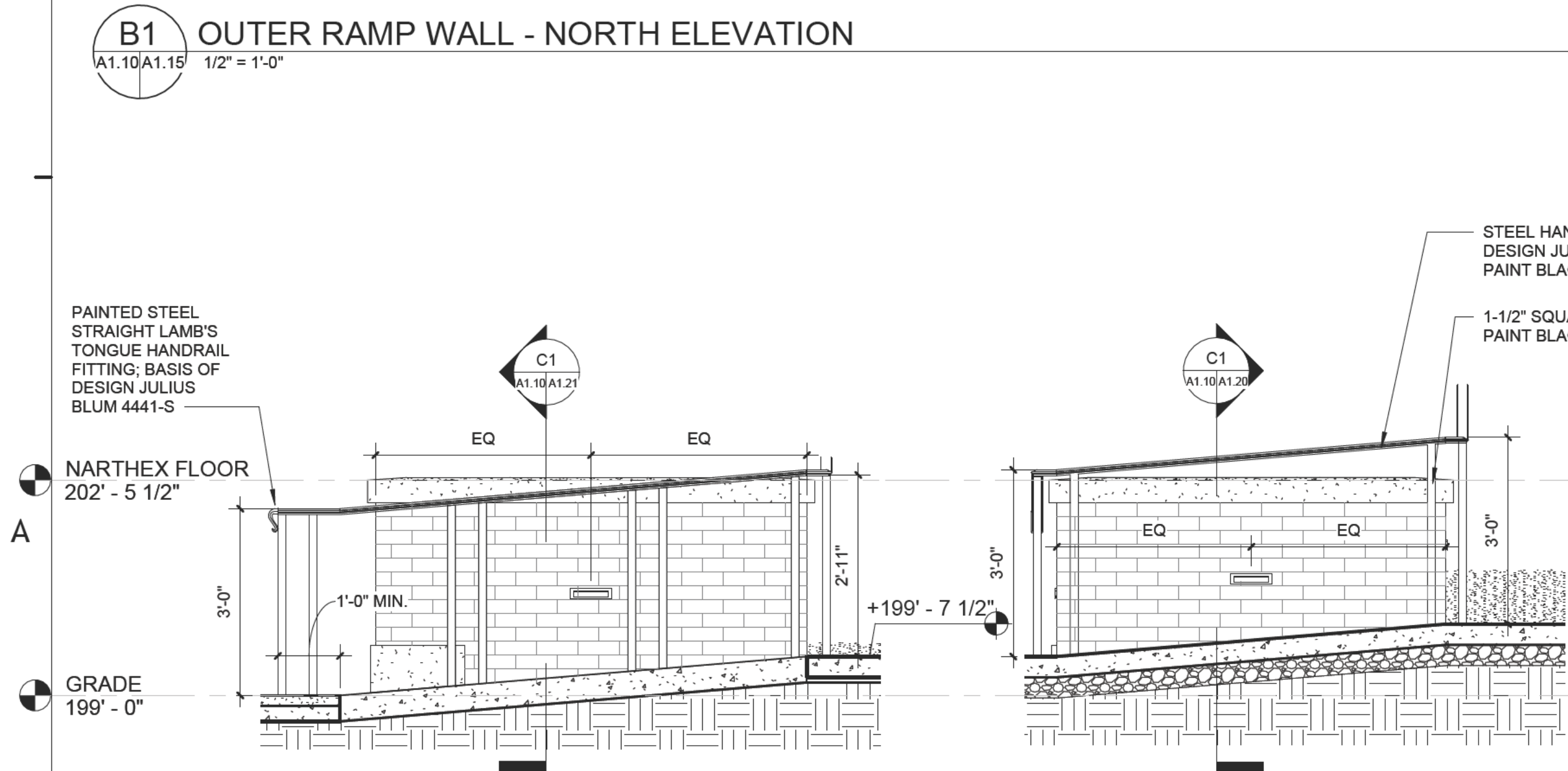
B1 OUTER RAMP WALL - NORTH ELEVATION
A1.10/A1.15 1/2" = 1'-0"



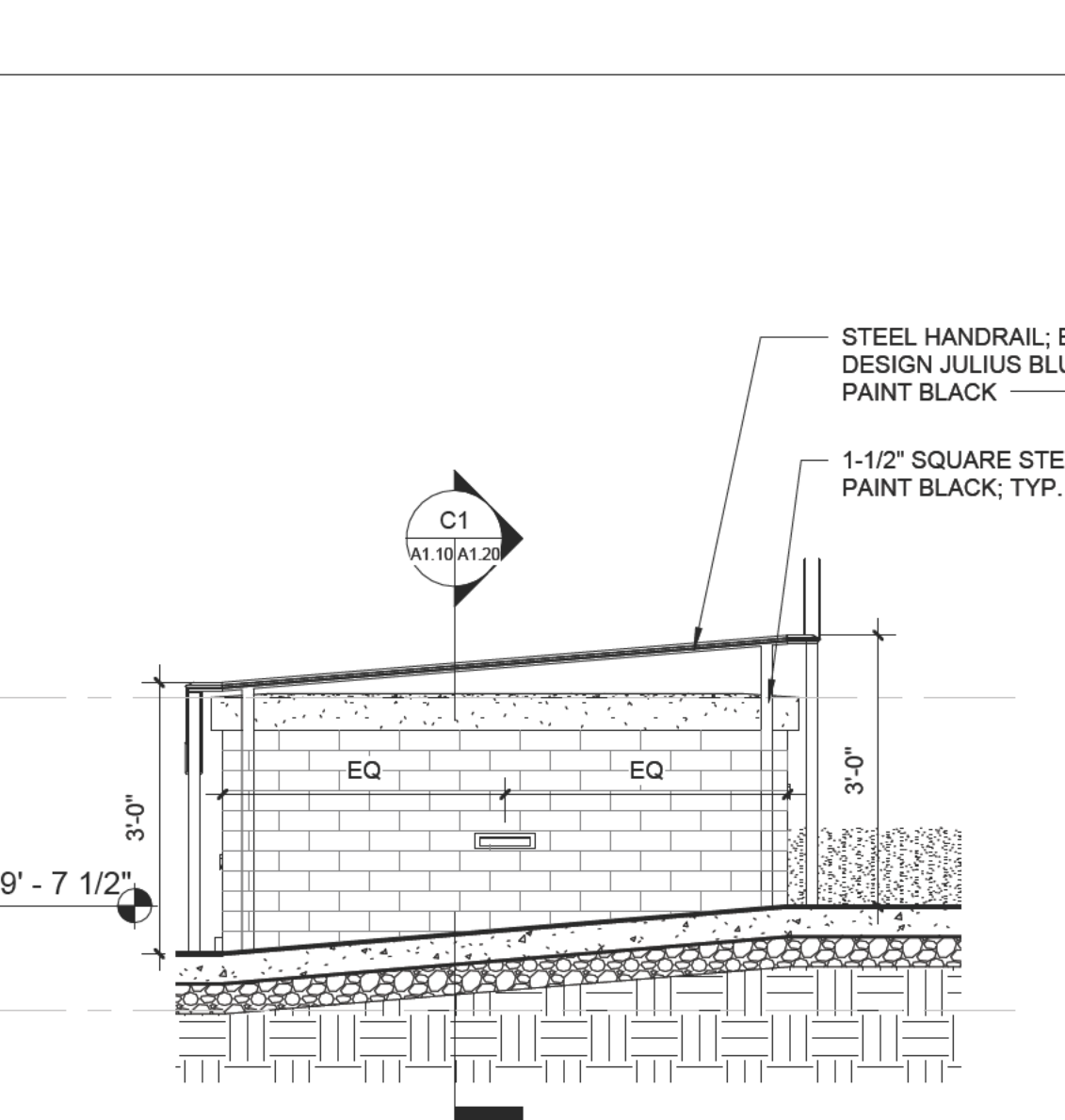
B4 OUTER RAMP WALL - EAST ELEVATION
A1.10/A1.15 1/2" = 1'-0"



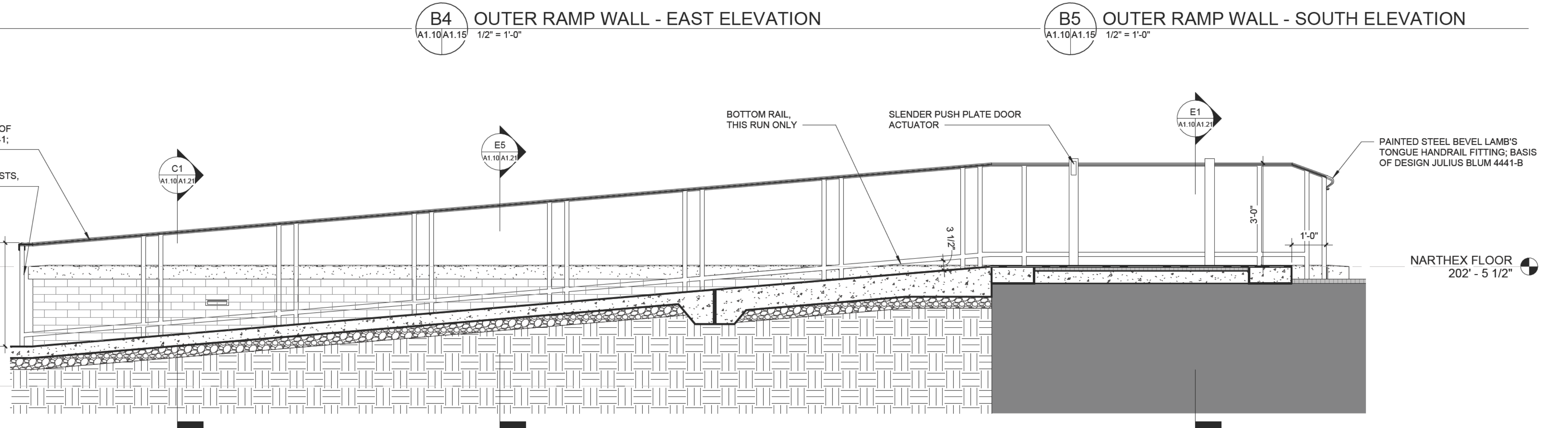
B5 OUTER RAMP WALL - SOUTH ELEVATION
A1.10/A1.15 1/2" = 1'-0"



A1 INNER RAMP WALL - NORTH ELEVATION
A1.10/A1.15 1/2" = 1'-0"



A2 INNER RAMP WALL - WEST ELEVATION
A1.10/A1.15 1/2" = 1'-0"



A3 INNER RAMP WALL - SOUTH ELEVATION
A1.10/A1.15 1/2" = 1'-0"

1

2

3

4

5

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PROJECT TITLE

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REVISIONS

NO	DATE	DESCRIPTION
2	7/24/2024	REVISION 2
3	7/31/2024	REV 3: MATERIAL UPDATES

SHEET TITLE

RAMP SECTIONS

SHEET NUMBER

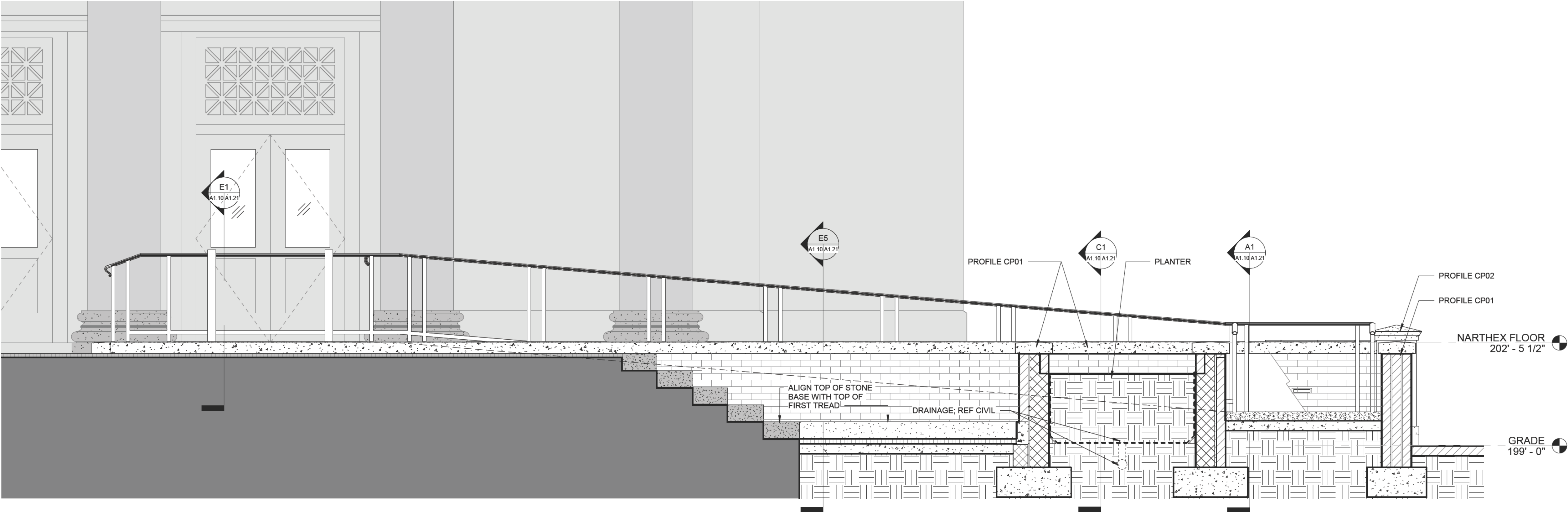
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E

D

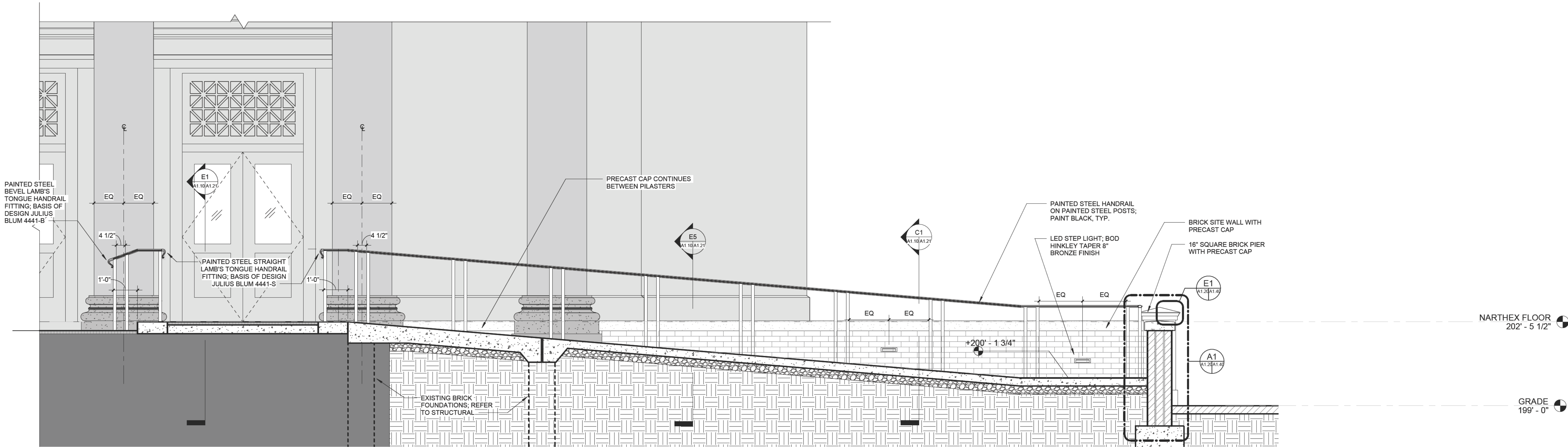
C



C1 NORTH ELEVATION & SECTION
A1.10/A1.20 1/2" = 1'-0"

B

A



A1 LONGITUDINAL RAMP SECTION
A1.10/A1.20 1/2" = 1'-0"

1

2

3

4

5

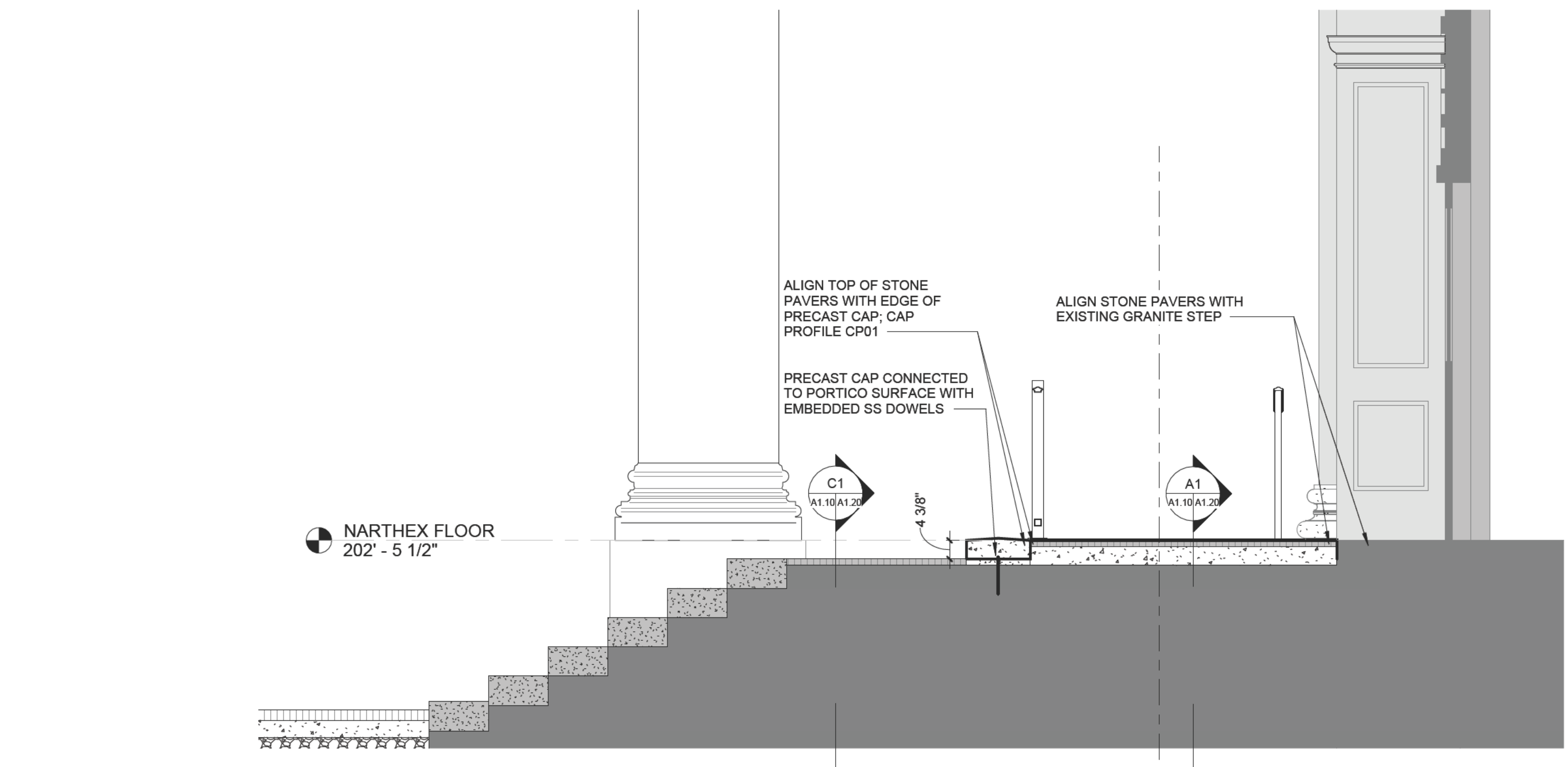
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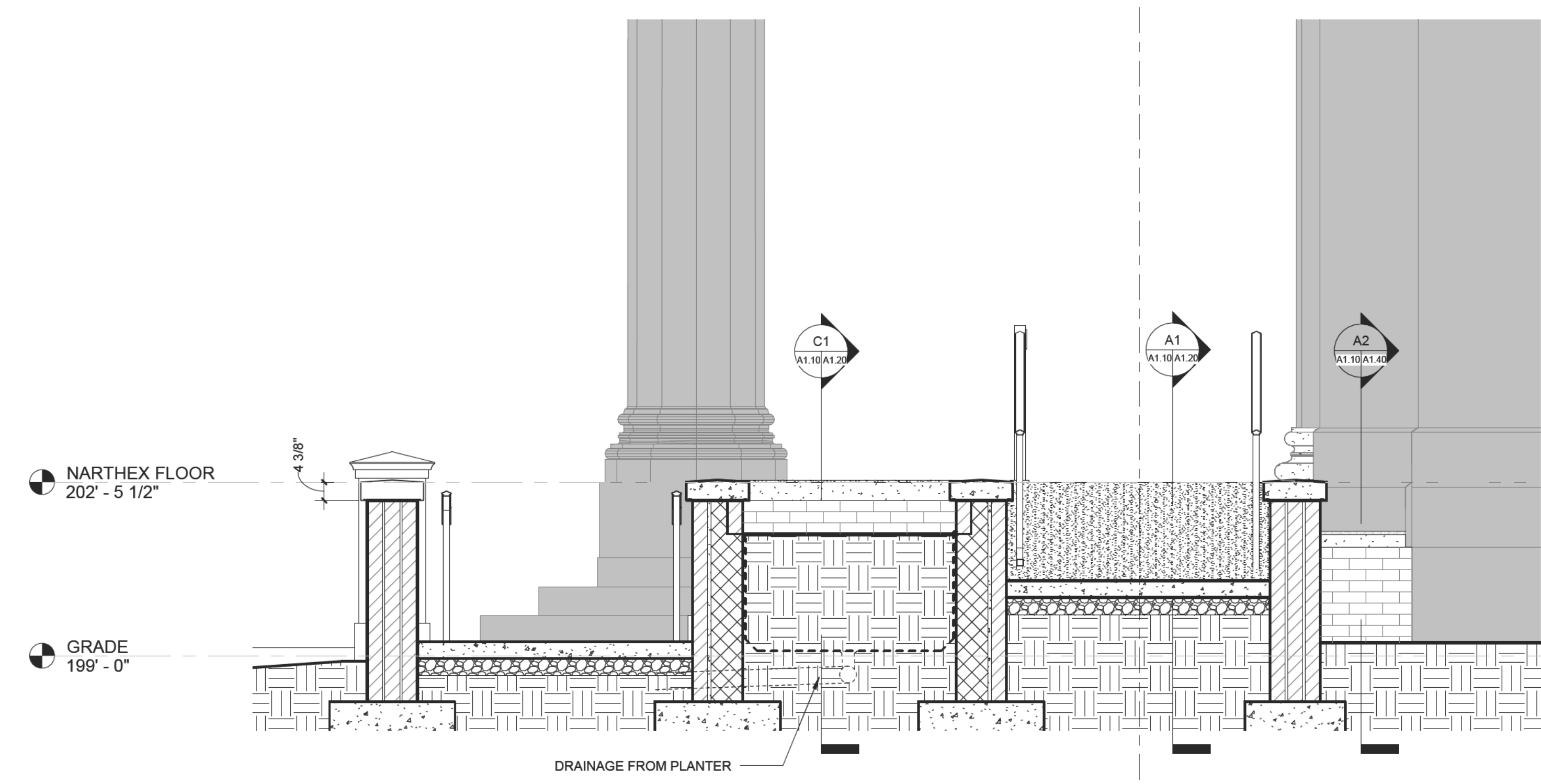
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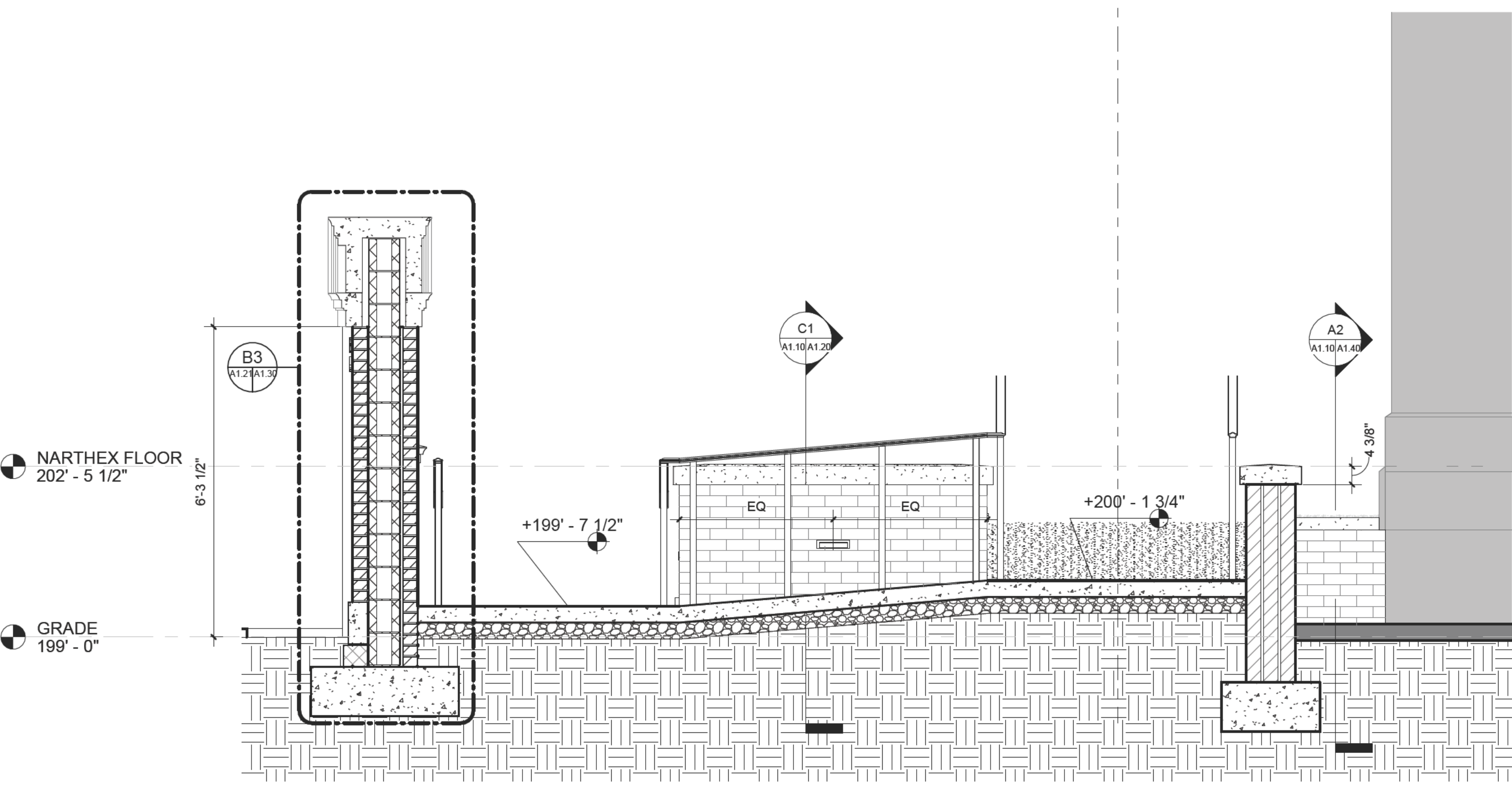
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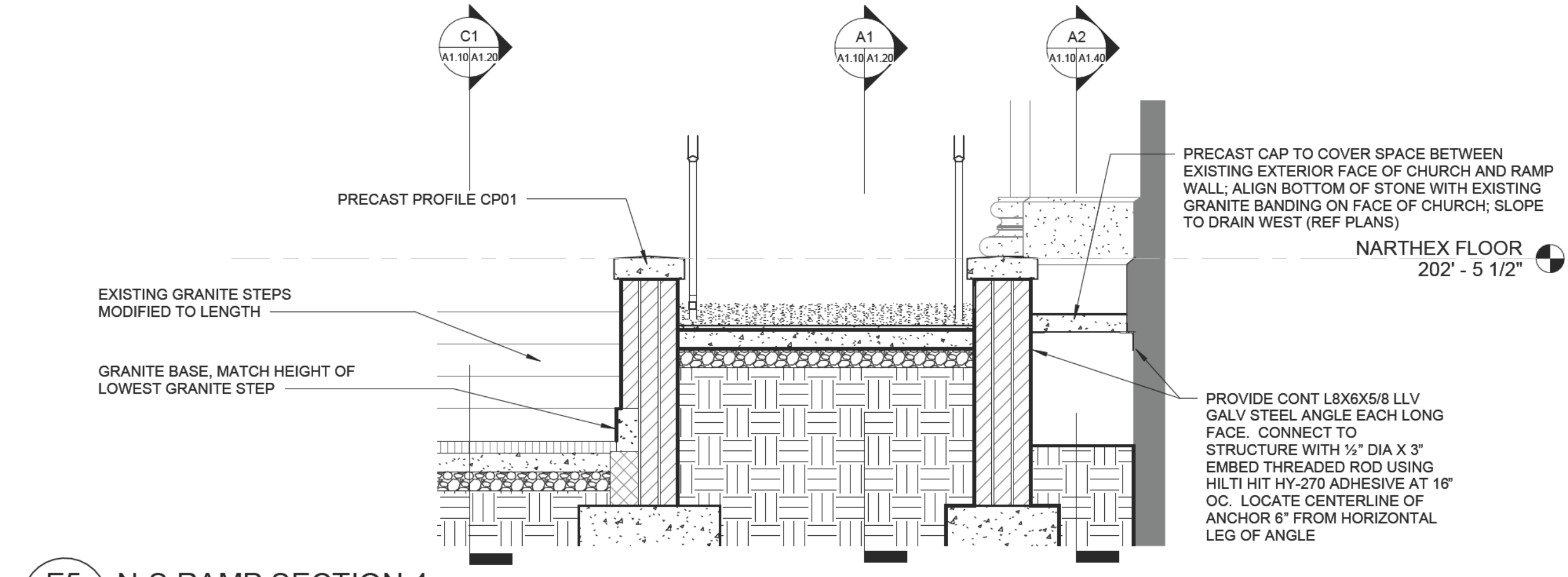
E1 N-S RAMP SECTION 3
A1.10/A1.21 1/2" = 1'-0"



C1 N-S RAMP SECTION 2
A1.10/A1.21 1/2" = 1'-0"



A1 N-S RAMP SECTION 1
A1.10/A1.21 1/2" = 1'-0"



E5 N-S RAMP SECTION 4
A1.10/A1.21 1/2" = 1'-0"

PROJECT TITLE
ST JAMES'S RAMP
AND ROAD PROJECT

St. James's Episcopal Church
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PROJECT NUMBER
G&HA#: 23028

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REVISIONS		
NO	DATE	DESCRIPTION
3	7/31/2024	REV 3: MATERIAL UPDATES

SHEET TITLE
RAMP SECTIONS

SHEET NUMBER
A1.21

PROJECT TITLE

ST JAMES'S RAMP
AND ROAD PROJECT

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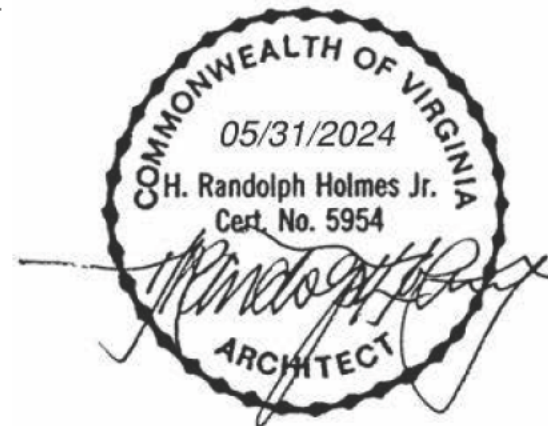
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REVISIONS

NO	DATE	DESCRIPTION
8	10/15/2024	DIGITAL DISPLAY COORD

SHEET TITLE

SIGNAGE DETAILS

SHEET NUMBER

A1.30

E

D

C

B

A

BRUSHED BRONZE CROSS:
- PIN MOUNTED WITH 304 SS THREADED STUDS
- BRONZE OXIDIZED FINISH TO MATCH LETTERING

3" BRUSHED BRONZE LETTERING:
- PIN MOUNTED WITH 304 SS THREADED STUDS
- BASIS OF DESIGN: GROPEN PRISMATIC ARIAL
- BRONZE OXIDIZED FINISH
- CONTRACTOR TO PROVIDE FINISH SAMPLES
FOR REVIEW WITH ARCHITECT.

CENTER LETTERING ON
(3) COURSES OF BRICK

DIGITAL SIGNAGE WITH 3" BRONZE FRAME,
1" CLEAR FOR VENTILATION

D1 ENLARGED PEDIMENT ELEVATION
A1.30/A1.30' 6" = 1'-0"

CAP PROFILE CP012

CAP PROFILE CP01

NARTHEX FLOOR 202.46'

PORTRICO FLOOR 202.10'

PRECAST CAP SITS ON
PORTRICO FLOOR, REF
C1.A1.20; VIF

GRADE 199.08'

B1 ENLARGED ELEVATION - BRICK SIGNAGE WALL
A1.10/A1.30' 1 1/2" = 1'-0"

C1
A1.10/A1.31'

A1
A1.10/A1.31'

A1 PLAN DETAIL - BRICK SIGNAGE WALL
A1.10/A1.30' 1 1/2" = 1'-0"

BRICK WALL WITH 8"
CMU BACKUP

1" STONE BASE BELOW

BRUSHED BRONZE CROSS;
REFER TO ELEVATION

DAMP PROOFING

FLEXIBLE FLASHING AND WEEPS AT 24" O.C.
(EACH SIDE)

SS METAL DRIP EDGE (EACH SIDE)

3" BRUSHED BRONZE LETTERING

DAMP PROOFING

COORDINATE ELECTRICAL
CONDUIT WITH INFORMATION
PANEL BEFORE FILLING CMU SOLID

DIGITAL DISPLAY

FLEXIBLE FLASHING AND WEEPS AT 24" O.C.
(EACH SIDE)

SS METAL DRIP EDGE (EACH SIDE)

GRANITE BASE W/ SEALER;
EXTEND BELOW GRADE

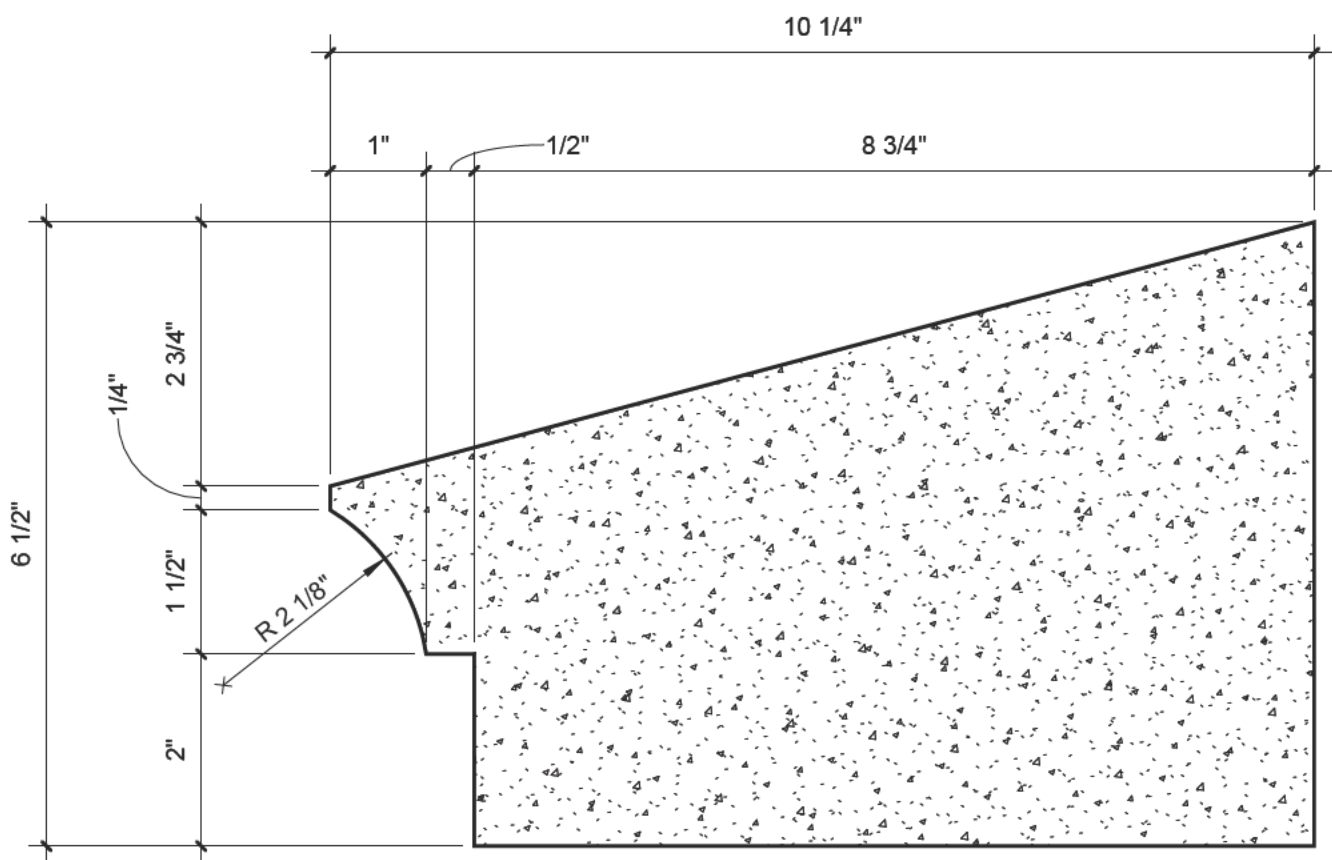
B3 WALL SECTION - BRICK SIGNAGE WALL
A1.21/A1.30' 1 1/2" = 1'-0"

TRIPLE WYTHE BRICK

BRICK PIER WITH 8" CMU
BACKUP

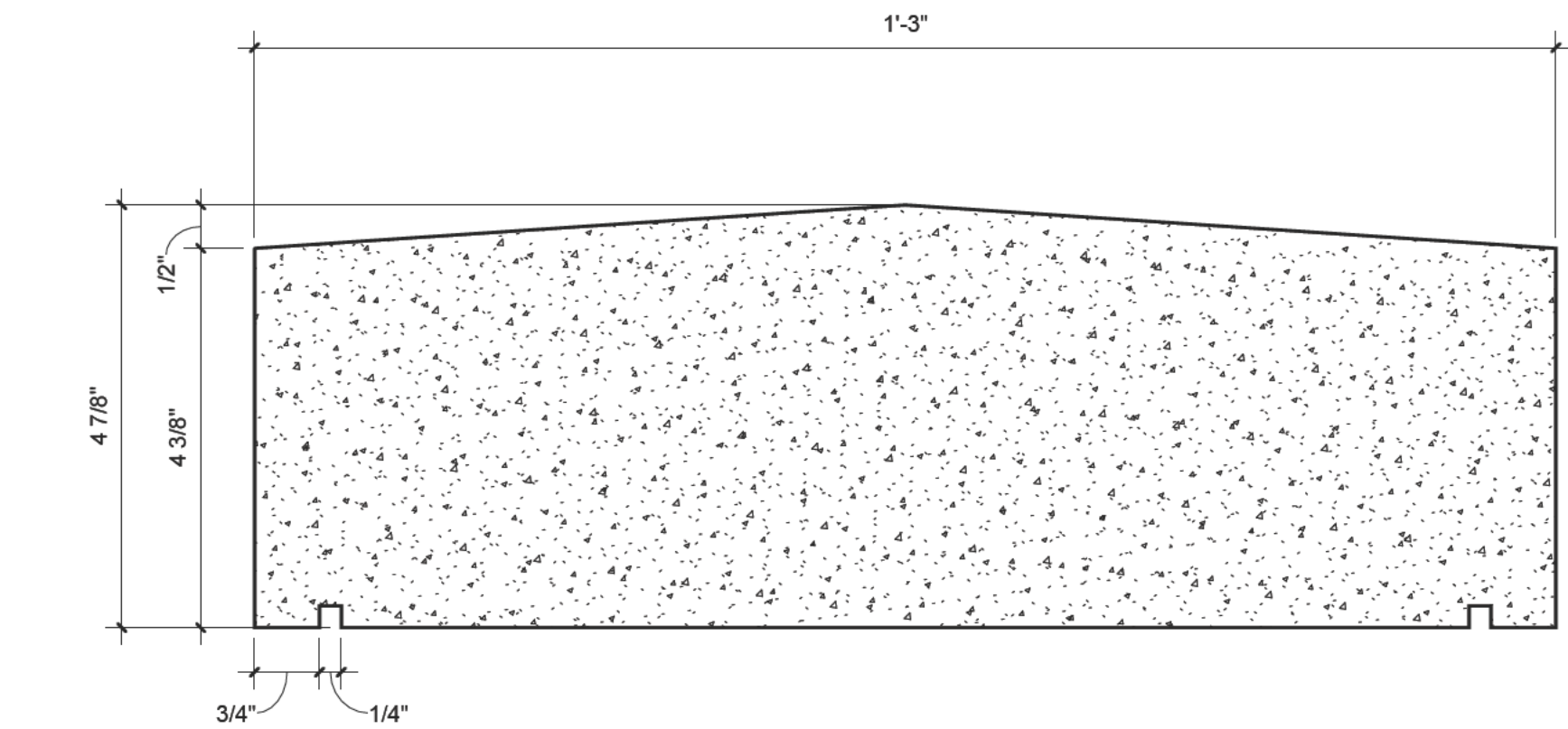
A5 PEDIMENT PRECAST SECTION PROFILE
A1.30/A1.30' 6" = 1'-0"

E



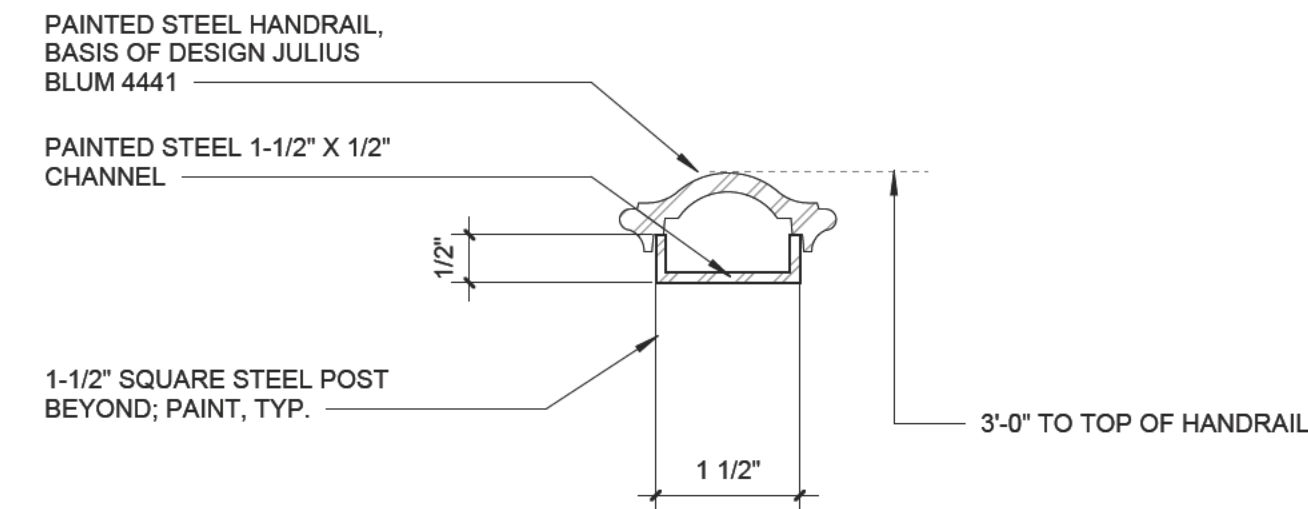
E1 PRECAST PROFILE CP02

D



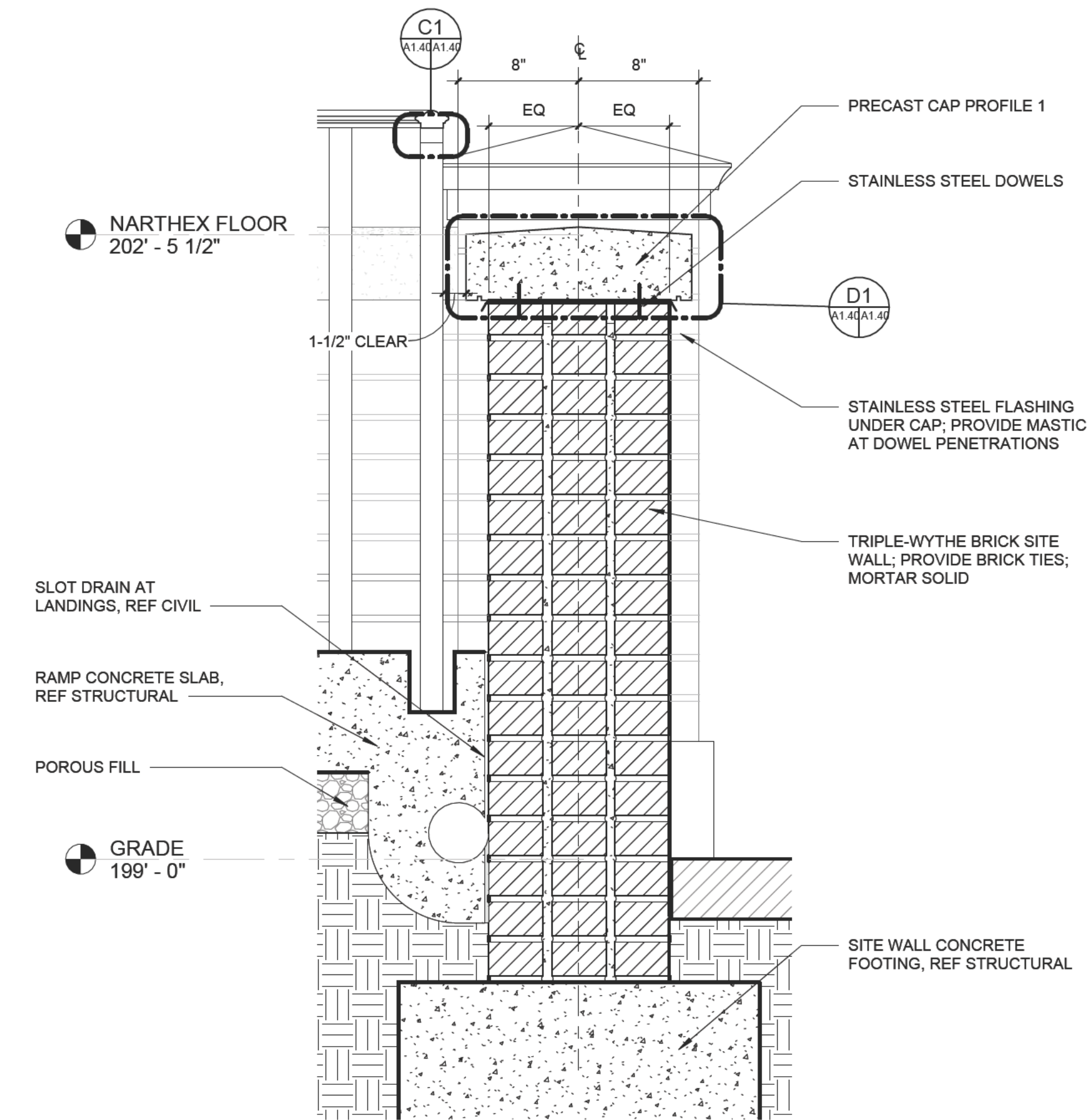
D1 PRECAST PROFILE CP01

C



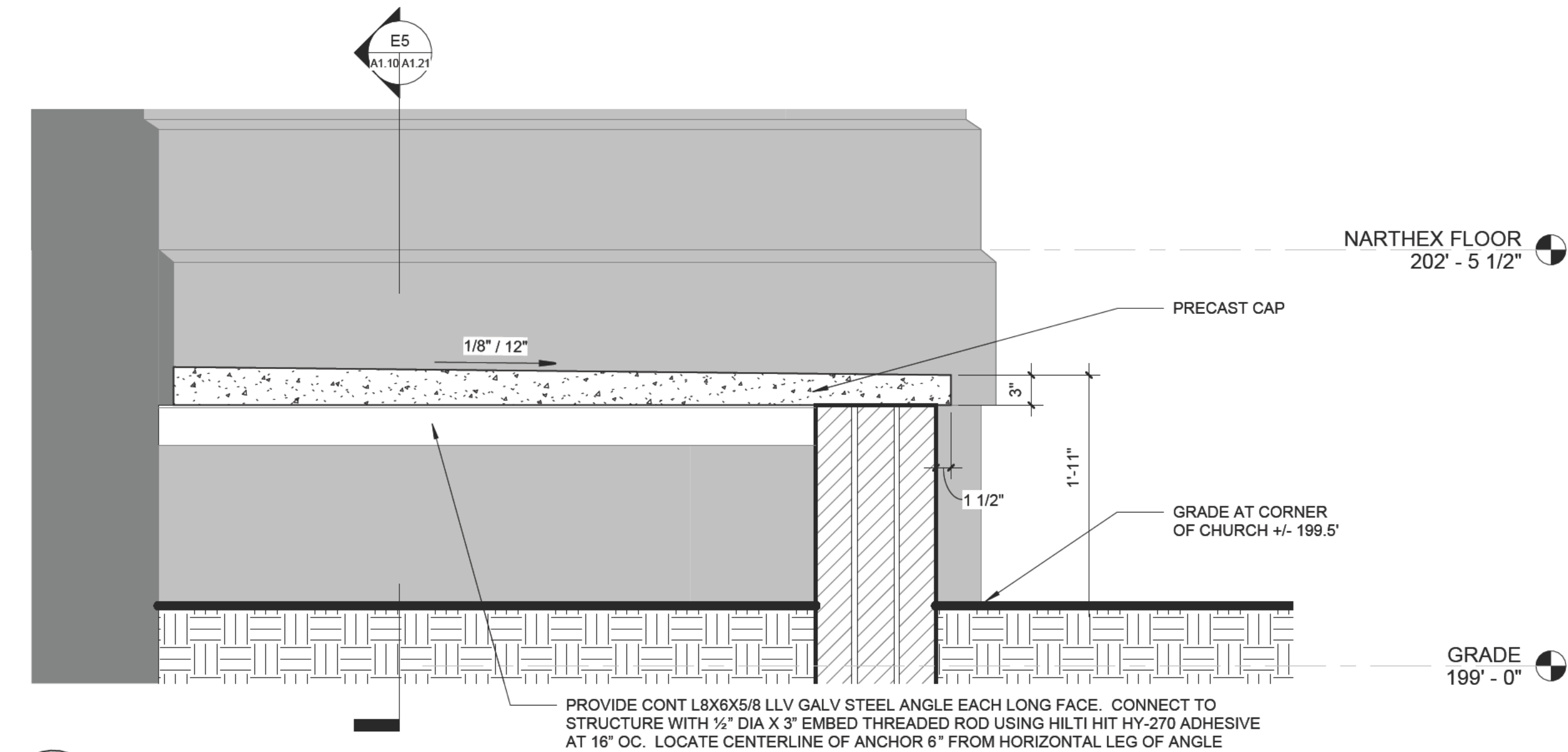
C1 SECTION DETAIL - HANDRAIL

B



A1 SECTION DETAIL - RAMP SITE WALL

A



A2 SECTION DETAIL AT CORNER OF CHURCH

2

3

4

5

GLAVÉ & HOLMES

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PROJECT TITLE

ST JAMES'S RAMP AND ROAD PROJECT

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REVISIONS

NO	DATE	DESCRIPTION
3	7/31/2024	REV 3- MATERIAL UPDATES

SHEET TITLE

SECTION DETAILS

SHEET NUMBER

A1.40

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DIVISION 1:

SECTION 01100 - SUMMARY

1.1 ACCESS TO SITE

- A) CONTRACTOR SHALL HAVE LIMITED USE OF PROJECT SITE FOR CONSTRUCTION OPERATIONS DURING CONSTRUCTION PERIOD AS INDICATED ON DRAWINGS BY THE CONTRACT LIMITS. DO NOT DISTURB PORTIONS OF PROJECT SITE BEYOND AREAS IN WHICH THE WORK IS INDICATED. CONTRACTOR SHALL NOT UNDER THE OWNER'S DAILY OPERATIONS. COORDINATE ACTIVITIES WITH OWNER. KEEP STREETS, LOADING AREAS, AND ENTRANCES SERVING PREMISES TO OWNER AND ADJACENT AREAS AVAILABLE TO ADJACENT AREAS AT ALL TIMES. DO NOT USE THESE AREAS FOR PARKING OR STORAGE OF MATERIALS. SCHEDULE DELIVERIES TO MINIMIZE USE OF STREETS AND ENTRANCES BY CONSTRUCTION OPERATIONS.
- B) MAINTAIN PORTIONS OF EXISTING GROUNDS, LANDSCAPING, AND HARDSCAPING AFFECTED BY CONSTRUCTION OPERATIONS THROUGHOUT CONSTRUCTION PERIOD. REPAIR DAMAGE CAUSED BY CONSTRUCTION OPERATIONS.
- 1.2 COORDINATION WITH OCCUPANTS
- A) OWNER WILL OCCUPY SITE, EXISTING AND ADJACENT BUILDING(S) DURING ENTIRE CONSTRUCTION PERIOD. WITH THE EXCEPTION OF AREAS UNDER CONSTRUCTION, COOPERATE WITH OWNER DURING CONSTRUCTION OPERATIONS TO MINIMIZE CONFLICTS AND FACILITATE OWNER USAGE. PERFORM THE WORK SO AS NOT TO INTERFERE WITH OWNER'S DAY-TO-DAY OPERATIONS.
- B) MAINTAIN EXISTING EXITS UNLESS OTHERWISE INDICATED. MAINTAIN ACCESS TO EXISTING WALKWAYS, STREET, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT WALKWAYS, STREET, OR OTHER OCCUPIED OR USED FACILITIES WITHOUT WRITTEN PERMISSION FROM OWNER AND APPROVAL OF AUTHORITIES HAVING JURISDICTION. NOTIFY OWNER NOT LESS THAN 72 HOURS IN ADVANCE OF ACTIVITIES THAT WILL AFFECT OWNER'S OCCUPANCY.
- C) OWNER RESERVES THE RIGHT TO OCCUPY AND TO PLACE AND INSTALL EQUIPMENT IN COMPLETED PORTIONS OF THE WORK, PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK. PROVIDED SUCH OCCUPANCY DOES NOT INTERFERE WITH COMPLETION OF THE WORK. SUCH PLACEMENT OF EQUIPMENT AND LIMITED OCCUPANCY SHALL NOT CONSTITUTE ACCEPTANCE OF THE TOTAL WORK.

1.3 WORK RESTRICTIONS

- A) COMPLY WITH RESTRICTIONS ON CONSTRUCTION OPERATIONS. COMPLY WITH LIMITATIONS ON USE OF PUBLIC STREETS, WORK ON PUBLIC STREETS, RIGHTS OF WAY AND WITH OTHER REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- B) COORDINATE LIMITATIONS TO ON-SITE WORK HOURS IN AND AROUND THE EXISTING BUILDING WITH OWNER AND THEIR ON-SITE ACTIVITIES, UNLESS OTHERWISE INDICATED.
- C) DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER PROVIDING TEMPORARY UTILITY SERVICES ACCORDING TO THE REQUIREMENTS INDICATED. NOTIFY OWNER NOT LESS THAN TWO DAYS IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS. OBTAIN OWNER'S WRITTEN PERMISSION BEFORE PROCEEDING WITH UTILITY INTERRUPTIONS.
- D) COORDINATE OPERATIONS THAT MAY RESULT IN HIGH LEVELS OF NOISE AND VIBRATION, ODORS, OR OTHER DISRUPTION TO OWNER OCCUPANCY WITH OWNER. NOTIFY OWNER NOT LESS THAN TWO DAYS IN ADVANCE OF PROPOSED DISRUPTIVE OPERATIONS. OBTAIN OWNER'S WRITTEN PERMISSION BEFORE PROCEEDING WITH DISRUPTIVE OPERATIONS.
- E) USE OF TOBACCO PRODUCTS AND OTHER CONTROLLED SUBSTANCES ON PROJECT SITE IS NOT PERMITTED.

1.4 SPECIFICATION AND DRAWING CONVENTIONS

- A) SPECIFICATION CONTENT: THE SPECIFICATIONS USE CERTAIN CONVENTIONS FOR THE STYLE OF LANGUAGE AND THE INTENDED MEANING OF THE TERMS, WORDS, AND PHRASES WHEN USED IN PARTICULAR SITUATIONS. THESE CONVENTIONS ARE AS FOLLOWS:
- IMPERATIVE MOOD AND STREAMLINED LANGUAGE ARE GENERALLY USED IN THE SPECIFICATIONS. THE WORDS "SHALL," "SHALL BE," OR "SHALL COMPLY WITH," DEPENDING ON THE CONTEXT, ARE IMPLIED WHERE A COLOR () IS USED WITHIN A SENTENCE OR PHRASE.
 - SPECIFICATION REQUIREMENTS ARE TO BE PERFORMED BY CONTRACTOR UNLESS SPECIFICALLY STATED OTHERWISE.
- B) DRAWING COORDINATION: REQUIREMENTS FOR MATERIALS AND PRODUCTS IDENTIFIED ON DRAWINGS ARE DESCRIBED IN DETAIL IN THE SPECIFICATIONS. ONE OR MORE OF THE FOLLOWING ARE USED ON DRAWINGS TO IDENTIFY MATERIALS AND PRODUCTS:
- TERMINOLOGY: MATERIALS AND PRODUCTS ARE IDENTIFIED BY THE TYPICAL GENERIC TERMS USED IN THE INDIVIDUAL SPECIFICATIONS SECTIONS.
 - ABBREVIATIONS: MATERIALS AND PRODUCTS ARE IDENTIFIED BY ABBREVIATIONS SCHEDULED ON DRAWINGS.

END OF SECTION 01100

SECTION 012500 - SUBSTITUTION PROCEDURES

2.1.1 SUBSTITUTIONS

- A) SUBSTITUTIONS FOR CAUSE: SUBMIT REQUESTS FOR SUBSTITUTION IMMEDIATELY ON DISCOVERY OF NEED FOR CHANGE, BUT NOT LATER THAN 15 DAYS PRIOR TO TIME REQUIRED FOR PREPARATION AND REVIEW OF RELATED SUBMITTALS.
- 1) CONDITIONS: ARCHITECT WILL CONSIDER CONTRACTOR'S REQUEST FOR SUBSTITUTION WHEN THE FOLLOWING CONDITIONS ARE SATISFIED:
- REQUESTED SUBSTITUTION IS CONSISTENT WITH THE CONTRACT DOCUMENTS AND WILL PRODUCE IDENTICAL RESULTS.
 - REQUESTED SUBSTITUTION WILL NOT ADVERSELY AFFECT CONTRACTOR'S CONSTRUCTION SCHEDULE.
 - REQUESTED SUBSTITUTION HAS RECEIVED NECESSARY APPROVALS OF AUTHORITIES HAVING JURISDICTION.
 - REQUESTED SUBSTITUTION IS COMPATIBLE WITH OTHER PORTIONS OF THE WORK.
 - REQUESTED SUBSTITUTION HAS BEEN COORDINATED WITH OTHER PORTIONS OF THE WORK.
 - REQUESTED SUBSTITUTION PROVIDES SPECIFIED WARRANTY.
- g) IF REQUESTED SUBSTITUTION INVOLVES MORE THAN ONE CONTRACTOR, REQUESTED SUBSTITUTION HAS BEEN COORDINATED WITH OTHER PORTIONS OF THE WORK, IS UNIFORM AND CONSISTENT, IS COMPATIBLE WITH OTHER PRODUCTS, AND IS ACCEPTABLE TO ALL CONTRACTORS INVOLVED.
- B) SUBSTITUTIONS FOR CONVENIENCE NOT ALLOWED.

END OF SECTION 012500

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

1.1 REQUESTS FOR INFORMATION (RFIs)

- A) IMMEDIATELY ON DISCOVERY OF THE NEED FOR ADDITIONAL INFORMATION OR INTERPRETATION OF THE CONTRACT DOCUMENTS, CONTRACTOR SHALL PREPARE AND SUBMIT AN RFI IN A FORM ACCEPTABLE TO ARCHITECT.
- 1) ARCHITECT WILL RETURN RFI SUBMITTED TO ARCHITECT BY OTHER ENTITIES CONTROLLED BY CONTRACTOR WITH NO RESPONSE.
- 2) CONTENT OF THE RFI: PROJECT IDENTIFICATION: SEQUENTIAL RFI NUMBER, INCLUDE A DETAILED, LEGIBLE DESCRIPTION OF ITEM NEEDING INFORMATION OR INTERPRETATION. INCLUDE SKETCHES, MEASUREMENTS, PHOTOS, PRODUCT DATA, SHOP DRAWINGS, COORDINATION DRAWINGS, AND OTHER INFORMATION NECESSARY TO FULLY DESCRIBE THE ITEM NEEDING INTERPRETATION. CONTRACTOR'S SUGGESTED RESOLUTION WITH ANY IMPACTS TO THE CONTRACT TIME OR THE CONTRACT SUM.
- 3) ARCHITECT WILL REVIEW EACH RFI, DETERMINE ACTION REQUIRED AND RESPOND, ALD SEVEN BUSINESS DAYS FOR ARCHITECT'S RESPONSE FOR EACH RFI. RFIs RECEIVED BY ARCHITECT AFTER 1:00 P.M. WILL BE CONSIDERED AS RECEIVED THE FOLLOWING WORKING DAY.
- 4) THE FOLLOWING RFI WILL BE RETURNED WITHOUT ACTION: REQUESTS FOR APPROVAL OF SUBMITTALS, REQUESTS FOR APPROVAL OF SUBSTITUTIONS, REQUESTS FOR COORDINATION INFORMATION ALREADY INDICATED IN THE CONTRACT DOCUMENTS, REQUESTS FOR ADJUSTMENTS IN THE CONTRACT TIME OR THE CONTRACT SUM, REQUESTS FOR INTERPRETATION OF ARCHITECT'S ACTIONS ON SUBMITTALS, INCOMPLETE RFIs OR INACURATELY PREPARED RFIs.
- 5) ARCHITECT'S ACTION ON RFIs THAT MAY RESULT IN A CHANGE TO THE CONTRACT TIME OR THE CONTRACT SUM MAY BE ELIGIBLE FOR CONTRACTOR TO SUBMIT A CHANGE PROPOSAL. IF CONTRACTOR BELIEVES THE RFI RESPONSE WARRANTS CHANGE IN THE CONTRACT TIME OR THE CONTRACT SUM, NOTIFY ARCHITECT IN WRITING WITHIN 10 CALENDAR DAYS OF RECEIPT OF THE RFI RESPONSE.

1.3 PROJECT WEB SITE

- A) PROJECT MANAGEMENT SOFTWARE: USE ARCHITECT'S PROJECT WEB SITE (INFORMA INFO EXCHANGE "NIX") FOR PURPOSES OF MANAGING PROJECT COMMUNICATION AND DOCUMENTATION UNTIL FINAL COMPLETION. CONTRACTOR, SUBCONTRACTORS AND OTHER PARTIES GRANTED ACCESS BY ARCHITECT TO PROJECT WEB SITE SHALL EXECUTE A DATA LICENSING AGREEMENT ACCEPTABLE TO OWNER AND ARCHITECT.

1.4 PROJECT MEETINGS

- A) CONTRACTOR WILL CONDUCT ONE TO TWO PROGRESS MEETINGS EACH MONTH DURING CONSTRUCTION. CONTRACTOR WILL NOTIFY REQUIRED ATTENDEES, PREPARE THE MEETING AGENDA AND RECORD AND DISTRIBUTE MEETING MINUTES.

1.5 COORDINATION

- A) COORDINATION: COORDINATE CONSTRUCTION OPERATIONS INCLUDED IN DIFFERENT SECTIONS OF THE SPECIFICATIONS TO ENSURE EFFICIENT AND ORDERLY INSTALLATION OF EACH PART OF THE WORK. COORDINATE CONSTRUCTION OPERATIONS INCLUDED IN DIFFERENT SECTIONS THAT DEPEND ON EACH OTHER FOR PROPER INSTALLATION, CONNECTION, AND OPERATION.
- SCHEDULE CONSTRUCTION OPERATIONS IN SEQUENCE REQUIRED TO OBTAIN THE BEST RESULTS, WHERE INSTALLATION OF ONE PART OF THE WORK DEPENDS ON INSTALLATION OF OTHER COMPONENTS, BEFORE OR AFTER ITS OWN INSTALLATION.
 - COORDINATE INSTALLATION OF DIFFERENT COMPONENTS TO ENSURE MAXIMUM PERFORMANCE AND ACCESSIBILITY FOR REQUIRED MAINTENANCE, SERVICE, AND REPAIR.

END OF SECTION 013100

SECTION 013223 - PHOTOGRAPHIC DOCUMENTATION

3.1 CONSTRUCTION PHOTOGRAPHS

- A) PRECONSTRUCTION PHOTOGRAPHS: BEFORE COMMENCEMENT OF EXCAVATION, COMMENCEMENT OF DEMOLITION AND STARTING CONSTRUCTION, TAKE PHOTOGRAPHS OF PROJECT SITE AND SURROUNDING PROPERTIES, INCLUDING EXISTING ITEMS TO REMAIN DURING CONSTRUCTION, FROM DIFFERENT Vantage POINTS. MAINTAIN KEY PLAN THAT IDENTIFIES EACH PHOTOGRAPHIC LOCATION. TAKE 20 MINIMUM PHOTOGRAPHS TO SHOW EXISTING CONDITIONS ADJACENT TO PROPERTY BEFORE STARTING THE WORK. TAKE PHOTOGRAPHS OF EXISTING BUILDINGS OTHER ON ADJOINING PROPERTY TO ACCURATELY RECORD PHYSICAL CONDITIONS AT START OF CONSTRUCTION.
- B) PERIODIC CONSTRUCTION PHOTOGRAPHS: TAKE 10 MINIMUM PHOTOGRAPHS WEEKLY, WITH TIMING EACH MONTH ADJUSTED TO COINCIDE WITH THE CUTOFF DATE ASSOCIATED WITH EACH APPLICATION FOR PAYMENT.

END OF SECTION 012500

SECTION 013300 - SUBMITTAL PROCEDURES

1.1 ACTION SUBMITTALS

- A) SUBMITTAL SCHEDULE: SUBMIT A SCHEDULE OF SUBMITTALS, ARRANGED IN CHRONOLOGICAL ORDER BY DATES REQUIRED BY CONSTRUCTION SCHEDULE. INCLUDE TIME REQUIRED FOR REVIEW, ORDERING, MANUFACTURING, FABRICATION, AND DELIVERY WHEN ESTABLISHING DATES. INCLUDE ADDITIONAL TIME REQUIRED FOR MAKING CORRECTIONS OR REVISIONS TO SUBMITTALS NOTED BY ARCHITECT AND ADDITIONAL TIME FOR HANDLING AND REWORKING SUBMITTALS REQUIRED BY THESE CORRECTIONS.

1.2 REQUIRED SUBMITTALS

- A) SHOP DRAWINGS
- 042000 - UNIT MASONRY - MASONRY UNITS: SHOW SIZES, PROFILES, COURSING AND LOCATIONS OF SPECIAL SHAPES.
 - 043000 - EXTERIOR STONE CLADDING - SHOW FABRICATION AND INSTALLATION DETAILS FOR STONE CLADDING SHAPES, INCLUDING DIMENSIONS AND PROFILES OF STONE UNITS.
 - 053700 - DECORATIVE METAL RAILINGS - INCLUDE PLANS, ELEVATIONS, SECTIONS AND ATTACHMENT DETAILS.
 - 076200 - SHEET METAL FLASHING AND TRIM - INCLUDE PLANS, ELEVATIONS, SECTIONS, AND ATTACHMENT DETAILS. PROVIDE DETAILS FOR FORMING, PROFILES AND SUPPORTS/FASTENERS.

- 081700 - DOOR HARDWARE - ELECTRICAL WIRING DIAGRAM
- PRODUCT DATA - FOR EACH TYPE OF PRODUCT
- 042000 - UNIT MASONRY
- 044200 - EXTERIOR STONE CLADDING
- 053700 - DECORATIVE METAL HANDRAILS
- 076200 - JOINT SEALANTS
- 081700 - DOOR HARDWARE
- SAMPLES
- 042000 - UNIT MASONRY - BRICK AND MORTAR
- 044200 - EXTERIOR STONE CLADDING - STONE INCLUDING PROFILES AND MORTAR
- 053700 - FOR EACH TYPE OF EXPOSED FINISH AND PROFILES
- 076200 - JOINT SEALANTS
- 090113 - EXTERIOR PAINTING
- DELEGATED DESIGN
- 1) FOR INSTALLED PRODUCTS INDICATED TO COMPLY WITH PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA, INCLUDING ANALYSIS AND ANALYSIS BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
- 044200 - EXTERIOR STONE CLADDING
- 053700 - DECORATIVE METAL HANDRAILS

1.3 SUBMITTAL PROCEDURES

A. GENERAL SUBMITTAL PROCEDURE REQUIREMENTS

- SUBMIT ELECTRONIC SUBMITTALS VIA WEB-BASED PROJECT MANAGEMENT SOFTWARE WEBSITE AS PDF ELECTRONIC FILES
- ARCHITECT WILL RETURN ANNOTATED FILE, ANNOTATE AND RETAIN ONE COPY OF FILE AS AN ELECTRONIC PROJECT RECORD DOCUMENT FILE.

1.4 REVIEW AND ACTION

- A) CONTRACTORS REVIEW - REVIEW EACH SUBMITTAL AND CHECK FOR COORDINATION WITH OTHER WORK OF THE CONTRACT AND FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. NOTE CORRECTIONS AND FIELD DIMENSIONS. MARK WITH APPROVAL STAMPS BEFORE SUBMITTING TO ARCHITECT.
- B) ARCHITECT RESERVES THE RIGHT TO WITHHOLD ACTION ON A SUBMITTAL REQUIRING COORDINATION WITH OTHER SUBMITTALS UNTIL RELATED SUBMITTALS ARE RECEIVED.
- C) PROCESSING TIME: REVIEW TIME COMMENCES ON ARCHITECT'S RECEIPT OF SUBMITTAL. ALLOW 15 BUSINESS DAYS FOR INITIAL REVIEW OF EACH SUBMITTAL. ALLOW ADDITIONAL TIME IF COORDINATION WITH SUBSEQUENT SUBMITTALS IS REQUIRED. ALLOW 15 BUSINESS DAYS FOR REVIEW OF EACH RESUBMITTAL.
- D) MAKE ALL SUBMITTALS ELECTRONICALLY VIA WEB-BASED PROJECT MANAGEMENT SOFTWARE (INFORMA INFO EXCHANGE "NIX") UNLESS OTHERWISE AGREED TO WITH OWNER AND ARCHITECT. ASSEMBLE A COMPLETE PDF SUBMITTAL INCLUDING BUT NOT LIMITED TO PRODUCT DATA AND SHOP DRAWINGS.
- E) PROJECT IDENTIFICATION INFORMATION: CONTRACTOR'S REVIEW STAMP AND A UNIQUE, CONSECUTIVE SUBMITTAL NUMBER. ARCHITECT WILL NOT REVIEW INCOMPLETE SUBMITTALS AND THOSE THAT DO NOT BEAR CONTRACTOR'S APPROVAL STAMP AND WILL RETURN THEM WITHOUT ACTION. IDENTIFY ALL OPTIONS REQUIRING SELECTION BY ARCHITECT.

1.5 SUBMITTAL REQUIREMENTS

- PRODUCT DATA: COLLECT INFORMATION INTO A SINGLE SUBMITTAL FOR EACH ELEMENT OF CONSTRUCTION AND TYPE OF PRODUCT OR EQUIPMENT.
- SHOP DRAWINGS: PREPARE PROJECT-SPECIFIC INFORMATION, DRAWN ACCORDING TO SCALE, DO NOT BASE SHOP DRAWINGS ON REPRODUCTIONS OF THE CONTRACT DOCUMENTS OR STANDARD PRINTED DATA.
- SAMPLES: SUBMIT SAMPLES FOR REVIEW OF TYPE, COLOR, PATTERN, AND TEXTURE FOR A CHECK OF THESE CHARACTERISTICS WITH OTHER MATERIALS.

END OF SECTION 013300

SECTION 015000 - TEMPORARY FACILITIES

1.1 INFORMATION SUBMITTALS

- A) SITE UTILIZATION PLAN: SHOW TEMPORARY UTILITIES, TEMPORARY UTILITY LINES AND CONNECTIONS, STAGING AREAS, CONSTRUCTION SITE ENTRANCES, VEHICLE CIRCULATION, AND PARKING AREAS FOR CONSTRUCTION PERSONNEL. REVIEW WITH OWNER.

1.2 TEMPORARY FACILITIES

- A) FIELD OFFICE: COORDINATE WITH OWNER ON USE OF ON-SITE ROOM FOR FIELD OFFICE OR LOCATION OF GC TRAILER. ALL TEMPORARY FACILITIES ARE REQUIRED TO BE REMOVED.
- B) INSTALL TEMPORARY SERVICE OR CONNECT TO EXISTING SERVICE AND ARRANGE WITH UTILITY COMPANY AND OWNER FOR ANY SERVICE INTERRUPTIONS.

1.3 SUPPORT FACILITIES INSTALLATION

- A) PARKING: COORDINATE WITH OWNER ON USE OF OWNER'S EXISTING PARKING FOR CONSTRUCTION PERSONNEL.
- B) STORAGE AND STAGING: COORDINATE WITH OWNER ON LOCATION AND USE OF DESIGNATED AREAS ON PROJECT SITE.
- C) SANITARY FACILITIES: PROVIDE TEMPORARY TOILETS, WASH FACILITIES, AND DRINKING WATER FOR USE OF CONSTRUCTION PERSONNEL. COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION FOR TYPE, NUMBER, LOCATION, OPERATION, AND MAINTENANCE OF FIXTURES AND FACILITIES. COORDINATE WITH OWNER ON USE OF EXISTING TOILET FACILITIES OR LOCATION OF TEMPORARY SANITARY FACILITIES LOCATION.
- D) PROVIDE POWER AND LIGHTING NEEDED FOR CONSTRUCTION OPERATIONS ON SITE.

1.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A) PROTECTION OF EXISTING FACILITIES: PROTECT EXISTING VEGETATION, EQUIPMENT, STRUCTURES, UTILITIES AND OTHER IMPROVEMENTS AT PROJECT SITE AND ON ADJACENT PROPERTIES, EXCEPT THOSE INDICATED TO BE REMOVED OR ALTERED. REPAIR DAMAGE TO EXISTING FACILITIES.
- B) ENVIRONMENTAL PROTECTION: PROVIDE PROTECTION, OPERATE TEMPORARY FACILITIES, AND CONDUCT CONSTRUCTION AS REQUIRED TO COMPLY WITH ENVIRONMENTAL REGULATIONS AND THAT MINIMIZE POSSIBLE AIR, WATERWAY, AND SUBSOIL CONTAMINATION OR POLLUTION OR OTHER UNDESIRABLE EFFECTS.
- C) TEMPORARY EROSION AND SEDIMENTATION CONTROL: COMPLY WITH REQUIREMENTS OF EPA CONSTRUCTION GENERAL PERMIT OR AUTHORITIES HAVING JURISDICTION, WHICHEVER IS MORE STRINGENT AND REQUIREMENTS SPECIFIED ON CIVIL DRAWINGS.
- D) STORMWATER CONTROL: COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. PROVIDE BARRIERS IN AND AROUND EXCAVATION AND UPGRADE CONSTRUCTION TO PREVENT FLOODING BY RUNOFF OF STORMWATER FROM HEAVY RAINS.
- E) SITE ENCLOSURE FENCE: BEFORE CONSTRUCTION OPERATIONS BEGIN, FURNISH AND INSTALL SITE ENCLOSURE FENCE IN A MANNER THAT WILL PREVENT PEOPLE FROM EASILY ENTERING SITE EXCEPT BY ENTRANCE GATES. COORDINATE WITH OWNER ON LIMITS OF EXTERIORS.

1.5 OPERATION AND REMOVAL

- A) MAINTENANCE MAINTAIN FACILITIES IN GOOD OPERATING CONDITION UNTIL REMOVAL.
- B) TERMINATION AND REMOVAL: REMOVE EACH TEMPORARY FACILITY WHEN NEED FOR ITS SERVICE HAS ENDED. WHEN IT HAS BEEN REPAIRED BY AUTHORIZED USE OF A PERMANENT FACILITY, OR NO LATER THAN SUBSTANTIAL COMPLETION, COMPLETE THE NECESSARY RESTORATION CONSTRUCTION THAT MAY HAVE BEEN DELAYED BECAUSE OF INTERFERENCE WITH TEMPORARY FACILITY. REPAIR DAMAGED WORK, CLEAN EXPOSED SURFACES, AND REPLACE CONSTRUCTION THAT CANNOT BE SATISFACTORILY REPAIRED.

END OF SECTION 015000

SECTION 073000 - EXCAVATION

1.1 PREINSTALLATION MEETINGS

- A) CUTTING AND PATCHING CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.
- 1) PRIOR TO COMMENCING WORK REQUIRING CUTTING AND PATCHING, REVIEW EXTENT OF CUTTING AND PATCHING ANTICIPATED AND EXAMINE PROCEDURES FOR ENSURING SATISFACTORY RESULT FROM CUTTING AND PATCHING WORK.

1.2 LAYOUT CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.

- 1) PRIOR TO ESTABLISHING LAYOUT OF WORK, REVIEW BENCHMARK, CONTROL POINT, AND LAYOUT AND DIMENSION REQUIREMENTS.

1.3 EXAMINATION

- A) EXAMINATION AND ACCEPTANCE OF CONDITIONS: BEFORE PROCEEDING WITH EACH COMPONENT OF THE WORK, EXAMINE SUBSTRATES, AREAS AND CONDITIONS, WITH INSTALLER OR APPLICATOR PRESENT WHERE INDICATED, FOR COMPLIANCE WITH CONTRACT REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE. RECORD OBSERVATIONS.
- EXAMINE ROUGH-INING FOR ELECTRICAL SYSTEMS TO VERIFY ACTUAL LOCATIONS OF CONNECTIONS BEFORE EQUIPMENT AND FIXTURE INSTALLATION.
 - EXAMINE WALLS AND FLOORS FOR SUITABLE CONDITIONS WHERE PRODUCTS AND SYSTEMS ARE TO BE INSTALLED.
 - VERIFY COMPATIBILITY WITH AND SUITABILITY OF SUBSTRATES, INCLUDING COMPATIBILITY WITH EXISTING FINISHES OR PRIMERS.

- B) PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. PROCEEDING WITH THE WORK INDICATES ACCEPTANCE OF SURFACES AND CONDITIONS.

3.2 PREPARATION

- A) FIELD MEASUREMENTS: TAKE FIELD MEASUREMENTS AS REQUIRED TO FIT THE WORK PROPERLY. RECHECK MEASUREMENTS BEFORE INSTALLING EACH COMPONENT. TAKE MEASUREMENTS TO VERIFY THAT THE WORK FITS TO OTHER CONSTRUCTION, VERIFY DIMENSIONS OF OTHER CONSTRUCTION BY FIELD MEASUREMENTS BEFORE FABRICATION. COORDINATE FABRICATION SCHEDULE WITH CONSTRUCTION PROGRAM TO AVOID DELAYING THE WORK.
- B) SPACE REQUIREMENTS: VERIFY SPACE REQUIREMENTS AND DIMENSIONS OF ITEMS SHOWN DIAGRAMMATICALLY ON DRAWINGS.
- C) REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS: IMMEDIATELY ON DISCOVERY OF THE NEED FOR CLARIFICATION OF THE CONTRACT DOCUMENTS OR FIELD CONDITIONS, CONTRACTOR SHALL PREPARE AND SUBMIT AN RFI TO THE CONTRACTOR. SUBMIT A REQUEST FOR INFORMATION TO ARCHITECT ACCORDING TO REQUIREMENTS IN SECTION 013100 "PROJECT MANAGEMENT AND COORDINATION."

3.3 CONSTRUCTION LAYOUT

- A) VERIFICATION: BEFORE PROCEEDING TO LAY OUT THE WORK, VERIFY LAYOUT INFORMATION SHOWN ON DRAWINGS AND EXISTING BENCHMARKS. IF DISCREPANCIES ARE DISCOVERED, NOTIFY ARCHITECT PROMPTLY.

3.4 INSTALLATION

- A) GENERAL: LOCATE THE WORK AND COMPONENTS OF THE WORK ACCURATELY, IN CORRECT ALIGNMENT AND ELEVATION, AS INDICATED.
- MAKE VERTICAL WORK PLUMB AND MAKE HORIZONTAL WORK LEVEL.
 - WHERE SPACE IS LIMITED, INSTALL COMPONENTS TO MAXIMIZE SPACE AVAILABLE FOR MAINTENANCE AND EASE OF REMOVAL FOR REPLACEMENT.
 - CONCEAL CONDUITS AND WIRING IN FINISHED AREAS UNLESS OTHERWISE INDICATED.
- B) COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLING PRODUCTS IN APPLICATIONS INDICATED.
- C) INSTALL PRODUCTS AT THE TIME AND UNDER CONDITIONS THAT WILL ENSURE THE BEST POSSIBLE RESULTS. MAINTAIN CONDITIONS REQUIRED FOR PRODUCT PERFORMANCE UNTIL SUBSTANTIAL COMPLETION.
- D) CONDUCT CONSTRUCTION OPERATIONS SO NO PART OF THE WORK IS SUBJECTED TO DAMAGING OPERATIONS OR LOADING IN EXCESS OF THAT EXPECTED DURING NORMAL CONDITIONS OF OCCUPANCY.
- E) SEQUENCE THE WORK AND ALLOW ADEQUATE CLEARANCES TO ACCOMMODATE MOVEMENT OF CONSTRUCTION ITEMS ON SITE AND PLACEMENT IN PERMANENT LOCATIONS.

- F) TOOLS AND EQUIPMENT: DO NOT USE TOOLS OR EQUIPMENT THAT PRODUCE HARMFUL NOISE LEVELS.

- G) TEMPLATES: OBTAIN AND DISTRIBUTE TO THE PARTIES INVOLVED TEMPLATES FOR WORK SPECIFIED TO BE FACTORY PREPARED AND FIELD INSTALLED. CHECK SHOP DRAWINGS OF THE WORK TO CONFIRM THAT ADEQUATE REMAINING PRINGS WITH SAME OR COMPATIBLE PIPING MATERIAL.

- H) ATTACHMENT: PROVIDE BLOCKING AND ATTACHMENT PLATES AND ANCHORS AND FASTENERS OF ADEQUATE SIZE AND NUMBER TO SECURELY ANCHOR EACH COMPONENT IN PLACE, ACCURATELY LOCATED AND ADJURED WITH OTHER PORTIONS OF THE WORK, WHERE SIZE AND TYPE OF ATTACHMENTS ARE NOT INDICATED. VERIFY SIZE AND TYPE REQUIRED TO OBTAIN THE BEST FIT CONDITION.

- I) MOUNTING HEIGHTS: WHERE MOUNTING HEIGHTS ARE NOT INDICATED, MOUNT COMPONENTS AT HEIGHTS DIRECTED BY ARCHITECT.

- J) ALLOW FOR BUILDING MOVEMENT, INCLUDING THERMAL EXPANSION AND CONTRACTION.

- K) COORDINATE INSTALLATION OF ANCHORAGES, FURNISH SETTING DRAWINGS, TEMPLATES, AND DIRECTIONS FOR INSTALLING ANCHORAGES, INCLUDING ELEVATES, CONCRETE INSERTS, ANCHOR BOLTS, AND ITEMS WITH INTEGRAL ANCHORS, THAT ARE TO BE EMBEDDED IN CONCRETE OR MASONRY. DELIVER SUCH ITEMS TO PROJECT SITE IN TIME FOR INSTALLATION.

- L) JOINTS: MAKE JOINTS OF UNIFORM WIDTH, WHERE JOINT LOCATIONS IN EXPOSED WORK ARE NOT INDICATED, ARRANGE JOINTS FOR THE BEST VISUAL EFFECT. FIT EXPOSED CONNECTIONS TOGETHER TO FORM HORIZONTAL JOINTS.
- M) HAZARDOUS MATERIALS: USE PRODUCTS, CLEANERS, AND INSTALLATION MATERIALS THAT ARE NOT CONSIDERED HAZARDOUS.

3.5 CUTTING AND PATCHING

- A) CUTTING AND PATCHING, GENERAL: EMPLOY SKILLED WORKERS TO PERFORM CUTTING AND PATCHING. PROCEED WITH CUTTING AND PATCHING AT THE EARLIEST FEASIBLE TIME AND COMPLETE WITHOUT DELAY.

- CUT IN-PLACE CONSTRUCTION TO PROVIDE FOR INSTALLATION OF OTHER COMPONENTS OR PERFORMANCE OF OTHER CONSTRUCTION, AND SUBSEQUENTLY PATCH AS REQUIRED TO RESTORE SURFACES TO THEIR ORIGINAL CONDITION.
- EXISTING WARRANTIES: REMOVE, REPLACE, PATCH, AND REPAIR MATERIALS AND SURFACES CUT OR DAMAGED UNDER NORMAL USE, TEXTURE, AND APPEARANCE. REMOVE IN PLACE FLOOR AND WALL COVERINGS AND REPAIR WITH NEW MATERIALS, IF NECESSARY, TO ACHIEVE UNIFORM COLOR AND APPEARANCE.

- C) TEMPORARY SUPPORT: PROVIDE TEMPORARY SUPPORT OF WORK TO BE CUT.

- D) PROTECTION: PROTECT IN-PLACE CONSTRUCTION DURING CUTTING AND PATCHING TO PREVENT DAMAGE. PROVIDE PROTECTION FROM ADVERSE WEATHER CONDITIONS FOR PORTIONS OF PROJECT THAT MIGHT BE EXPOSED DURING CUTTING AND PATCHING.

- E) ADJACENT OCCUPIED AREAS: AVOID INTERFERENCE WITH USE OF ADJOINING AREAS OR INTERRUPTION OF FREE PASSAGE TO ADJOINING AREAS.

- F) EXISTING UTILITY SERVICES AND ELECTRICAL SYSTEMS: WHERE EXISTING SERVICES/SYSTEMS ARE REQUIRED TO BE REMOVED, RELOCATED, OR ABANDONED, BYPASS SUCH SERVICES/SYSTEMS BEFORE CUTTING TO MINIMIZE INTERFERENCE WITH OTHER SERVICES/SYSTEMS.
- G) CUTTING: CUT IN-PLACE CONSTRUCTION BY SAWING, DRILLING, BREAKING, CHIPPING, GRINDING, AND SIMILAR OPERATIONS, INCLUDING EXCAVATION, USING METHODS LEAST LIKELY TO DAMAGE ELEMENTS RETAINED OR ADJACENT SURFACES. TEMPORARILY COVER OPENINGS WHEN NOT IN USE.

- H) FINISHED SURFACES: CUT OR DRILL FROM THE EXPOSED OR FINISHED SIDE INTO CONCEALED SURFACES.
- I) CONCRETE AND MASONRY: CUT USING A CUTTING MACHINE, SUCH AS AN ABRASIVE SAW OR A DIAMOND-CORE TYPE OF PRODUCT OR EQUIPMENT.
- J) MECHANICAL AND ELECTRICAL SERVICES: CUT OFF PIPE OR CONDUIT IN WALLS OR PARTITIONS TO BE REMOVED. CAP VALVE, OR PLUG AND SEAL REMAINING PORTION OF PIPE OR CONDUIT TO PREVENT ENTRANCE OF WATER OR OTHER FOREIGN MATTER AFTER CUTTING.

- K) PROCEED WITH PATCHING AFTER CONSTRUCTION OPERATIONS REQUIRING CUTTING ARE COMPLETE.

- L) PATCHING: PATCH CONSTRUCTION BY FILLING, REPAIRING, REFINISHING, CLOSING UP, AND SIMILAR OPERATIONS FOLLOWING PERFORMANCE OF OTHER WORK. PATCH WITH DURABLE SEAMS THAT ARE AS INVISIBLE AS PRACTICABLE. PROVIDE MATERIALS AND COMPLY WITH INSTALLATION REQUIREMENTS SPECIFIED IN OTHER SECTIONS, WHERE APPLICABLE.

- M) INSPECTION: WHERE FEASIBLE, TEST AND INSPECT PATCHED AREAS AFTER COMPLETION TO DEMONSTRATE PHYSICAL INTEGRITY OF INSTALLATION.
- N) EXPOSED FINISHES: RESTORE EXPOSED FINISHES OF PATCHED AREAS AND EXTEND FINISH RESTORATION INTO REPAIRED ADJOINING CONSTRUCTION IN A MANNER THAT WILL MINIMIZE EVIDENCE OF PATCHING AND REFINISHING.

- O) FLOORS AND WALLS: WHERE WALLS OR PARTITIONS THAT ARE REMOVED EXTEND ONE FINISHED AREA INTO ANOTHER, PATCH AND REPAIR FLOOR AND WALL SURFACES IN THE NEW SPACE. PROVIDE AN EVEN SURFACE TO FORM FINISH, COLOR, TEXTURE, AND APPEARANCE. REMOVE IN-PLACE FLOOR AND WALL COVERINGS AND REPAIR WITH NEW MATERIALS, IF NECESSARY, TO ACHIEVE UNIFORM COLOR AND APPEARANCE.
- P) CEILINGS: PATCH, REPAIR, OR REHANG IN-PLACE CEILINGS AS NECESSARY TO PROVIDE AN EVEN-PLANE SURFACE OF UNIFORM APPEARANCE.

- Q) EXTERIOR BUILDING ENCLOSURE: PATCH COMPONENTS IN A MANNER THAT RESTORES ENCLOSURE TO A WEATHERTIGHT CONDITION AND ENSURES THERMAL AND MOISTURE INTEGRITY OF BUILDING ENCLOSURE.

- R) CLEANING: CLEAN AREAS AND SPACES WHERE CUTTING AND PATCHING ARE PERFORMED. REMOVE PAINT, MORTAR, OILS, PUTTY, AND SIMILAR MATERIALS FROM ADJACENT FINISHED SURFACES.

3.6 PROGRESS CLEANING

- A) GENERAL: CLEAN PROJECT SITE AND WORK AREAS DAILY, INCLUDING COMMON AREAS. ENFORCE REQUIREMENTS STRICTLY. DISPOSE OF MATERIALS LAWFULLY.
- B) PROVIDE WITH REQUIREMENTS IN NFPA 241 FOR REMOVAL OF COMBUSTIBLE WASTE MATERIALS AND DEBRIS.
- C) DO NOT HOLD WASTE MATERIALS MORE THAN SEVEN DAYS DURING NORMAL WEATHER OR THREE DAYS IF THE TEMPERATURE IS EXPECTED TO RISE ABOVE 90 DEG F.

- D) CONTAINERIZE HAZARDOUS AND UNSANITARY WASTE MATERIALS SEPARATELY FROM OTHER WASTE. MARK CONTAINERS WITH APPROPRIATELY AND DISPOSE OF LEGALLY, ACCORDING TO REGULATIONS.
- E) SITE: MAINTAIN PROJECT SITE FREE OF WASTE MATERIALS AND DEBRIS.

- F) WORK AREAS: CLEAN AREAS WHERE WORK IS IN PROGRESS TO THE LEVEL OF CLEANLINESS NECESSARY FOR PROPER EXECUTION OF THE WORK.
- 1) REMOVE LIQUID SPILLS PROMPTLY.
- 2) WHERE DUST WOULD IMPAIR PROPER EXECUTION OF THE WORK, BROOM CLEAN OR VACUUM THE ENTIRE WORK AREA, AS APPROPRIATE.

- G) INSTALLED WORK: KEEP INSTALLED WORK CLEAN. CLEAN INSTALLED SURFACES ACCORDING TO WRITTEN INSTRUCTIONS OF MANUFACTURER OR FABRICATOR OF PRODUCT INSTALLED. USING ONLY CLEANING MATERIALS SPECIFICALLY RECOMMENDED. IF SPECIFIC CLEANING MATERIALS ARE NOT RECOMMENDED, USE CLEANING MATERIALS THAT ARE NOT HAZARDOUS TO HEALTH OR PROPERTY AND THAT WILL NOT DAMAGE EXPOSED SURFACES.

- H) CONCEALED SPACES: REMOVE DEBRIS FROM CONCEALED SPACES BEFORE ENCLOSING THE SPACE.
- I) EXPOSED SURFACES IN FINISHED AREAS: CLEAN EXPOSED SURFACES AND PROTECT AS NECESSARY TO ENSURE FREEDOM FROM DAMAGE AND DETERIORATION AT TIME OF SUBSTANTIAL COMPLETION.

- J) WASTE DISPOSAL: DO NOT BURY OR BURN WASTE MATERIALS ON-SITE. DO NOT WASH WASTE MATERIALS DOWN SEWERS OR INTO WATERWAYS.
- K) DURING HANDLING AND INSTALLATION, CLEAN AND PROTECT CONSTRUCTION IN PROGRESS AND ADJOINING MATERIALS ALREADY IN PLACE. APPLY PROTECTIVE COVERING WHERE REQUIRED TO ENSURE PROTECTION FROM DAMAGE OR DETERIORATION AT SUBSTANTIAL COMPLETION.

- L) CLEAN AND PROVIDE MAINTENANCE ON COMPLETED CONSTRUCTION AS FREQUENTLY AS NECESSARY THROUGH THE REMAINDER OF THE CONSTRUCTION PERIOD. ADJUST AND LUBRICATE OPERABLE COMPONENTS TO ENSURE OPERABILITY WITHOUT DAMAGING EFFECTS.

3.7 PROTECTION OF INSTALLED CONSTRUCTION

- A) CUTTING AND PATCHING: PROTECT AND MAINTAIN CONDITIONS THAT ENSURE INSTALLED WORK IS WITHOUT DAMAGE OR DETERIORATION AT TIME OF SUBSTANTIAL COMPLETION.
- B) COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR TEMPERATURE AND RELATIVE HUMIDITY.

END OF SECTION 073000

SECTION 074119 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

3.1 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A) PROCEDURES: SEPARATE RECYCLABLE WASTE FROM OTHER WASTE MATERIALS, TRASH, AND DEBRIS. SEPARATE RECYCLABLE WASTE BY TYPE AT PROJECT SITE TO THE MAXIMUM EXTENT PRACTICAL, ACCORDING TO OWNERS' APPROVED CONSTRUCTION WASTE MANAGEMENT PLAN.

3.2 DISPOSAL OF WASTE

- A) GENERAL: EXCEPT FOR ITEMS OR MATERIALS TO BE SALVAGED, RECYCLED, OR OTHERWISE REUSED, REMOVE WASTE MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN A LANDFILL OR INCINERATOR ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
- EXCEPT AS OTHERWISE SPECIFIED, DO NOT ALLOW WASTE MATERIALS THAT ARE TO BE DISPOSED OF ACCUMULATE ON-SITE.
 - REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
 - BURNING: DO NOT BURN WASTE MATERIALS.

END OF SECTION 074119

SECTION 074119 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

3.1 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A) PROCEDURES: SEPARATE RECYCLABLE WASTE FROM OTHER WASTE MATERIALS, TRASH, AND DEBRIS. SEPARATE RECYCLABLE WASTE BY TYPE AT PROJECT SITE TO THE MAXIMUM EXTENT PRACTICAL, ACCORDING TO OWNERS' APPROVED CONSTRUCTION WASTE MANAGEMENT PLAN.

3.2 DISPOSAL OF WASTE

- A) GENERAL: EXCEPT FOR ITEMS OR MATERIALS TO BE SALVAGED, RECYCLED, OR OTHERWISE REUSED, REMOVE WASTE MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN A LANDFILL OR INCINERATOR ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
- EXCEPT AS OTHERWISE SPECIFIED, DO NOT ALLOW WASTE MATERIALS THAT ARE TO BE DISPOSED OF ACCUMULATE ON-SITE.
 - REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
 - BURNING: DO NOT BURN WASTE MATERIALS.

END OF SECTION 074119

SECTION 071700 - CLOSETOUT PROCEDURES

1.1 SUBSTANTIAL COMPLETION PROCEDURES

- A) CONTRACTOR'S LIST OF INCOMPLETE ITEMS: PREPARE AND SUBMIT A LIST OF ITEMS TO BE COMPLETED AND REMAINING CONTRACTOR'S PUNCH LIST, INDICATING THE VALUE OF EACH ITEM ON THE LIST AND REASONS WHY THE WORK IS INCOMPLETE.
- B) SUBMITTALS PRIOR TO SUBSTANTIAL COMPLETION: COMPLETE THE FOLLOWING A MINIMUM OF 10 DAYS PRIOR TO REQUESTING INSPECTION FOR DETERMINING DATE OF SUBSTANTIAL COMPLETION. LIST ITEMS BELOW THAT ARE INCOMPLETE AT TIME OF REQUEST.

- C) CERTIFICATES OF RELEASE: OBTAIN AND SUBMIT RELEASES FROM AUTHORITIES HAVING JURISDICTION PERMITTING OWNER UNRESTRICTED USE OF THE WORK AND ACCESS TO SERVICES AND UTILITIES, INCLUDING SUBURBANY FORMS, INSURANCE OPERATING CERTIFICATES, AND SIMILAR RELEASES.
- D) SUBMIT CLOSETOUT SUBMITTALS SPECIFIED IN OTHER DIVISION BY SECTIONS, INCLUDING PROJECT RECORD DOCUMENTS AND SIMILAR FINAL RECORD INFORMATION.

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- 5) CONCEAL FASTENERS AND EXPANSION PROVISIONS WHERE POSSIBLE. DO NOT USE EXPOSED FASTENERS ON FACES EXPOSED TO VIEW.
- B) FABRICATION TOLERANCES:
- 1) FABRICATE SHEET METAL FLASHING AND TRIM THAT IS CAPABLE OF INSTALLATION TO A TOLERANCE OF 1/4 INCH IN 20 FEET ON SLOPE AND LOCATION LINES INDICATED ON DRAWINGS AND WITHIN 1/8-INCH OFFSET OF ADJOINING FACES AND OF ALIGNMENT OF MATCHING PROFILES.
- 2) FABRICATE SHEET METAL FLASHING AND TRIM THAT IS CAPABLE OF INSTALLATION TO TOLERANCES SPECIFIED.
- C) EXPANSION PROVISIONS: FORM METAL FOR THERMAL EXPANSION OF EXPOSED FLASHING AND TRIM.
- 1) FORM EXPANSION JOINTS OF INTERMESHING HOOKED FLANGES, NOT LESS THAN 1 INCH DEEP, FILLED WITH BUTYL SEALANT CONCEALED WITHIN JOINTS.
- 2) USE LAPPED EXPANSION JOINTS ONLY WHERE INDICATED ON DRAWINGS.
- D) SEALANT JOINTS: WHERE MOVABLE, NONEXPANSION-TYPE JOINTS ARE REQUIRED, FORM METAL IN ACCORDANCE WITH CITED SHEET METAL STANDARD TO PROVIDE FOR PROPER INSTALLATION OF ELASTOMERIC SEALANT.
- E) FABRICATE CLEATS AND ATTACHMENT DEVICES FROM SAME MATERIAL AS ACCESSORY BEING ANCHORED OR FROM COMPATIBLE, NONCORROSIVE METAL.
- F) FABRICATE CLEATS AND ATTACHMENT DEVICES OF SIZES AS RECOMMENDED BY CITED SHEET METAL STANDARD FOR APPLICATION, BUT NOT LESS THAN THICKNESS OF METAL BEING SECURED.
- G) SEAMS:
- 1) FABRICATE NONMOVING SEAMS WITH FLAT-LOCK SEAMS. FORM SEAMS AND SEAL WITH ELASTOMERIC SEALANT UNLESS OTHERWISE RECOMMENDED BY SEALANT MANUFACTURER FOR INTENDED USE. RIVET JOINTS WHERE NECESSARY FOR STRENGTH.

2.5 WALL SHEET METAL FABRICATIONS

- A) OPENING FLASHINGS IN FRAME CONSTRUCTION: FABRICATE HEAD, SILL, JAMB, AND SIMILAR FLASHINGS TO EXTEND 4 INCHES BEYOND WALL OPENINGS. FORM HEAD AND SILL FLASHING WITH 2-INCH- HIGH, END DAMS. FABRICATE FROM THE FOLLOWING MATERIALS:

- 1) STAINLESS STEEL: 0.0156 INCH THICK.

2.6 TOP OF WALL METAL FABRICATIONS

- A) BASE FLASHING: FABRICATE FROM THE FOLLOWING MATERIALS:

- 1) STAINLESS STEEL: 0.0148 INCH THICK.

- B) COUNTERFLASHING: FABRICATE FROM THE FOLLOWING MATERIALS:

- 1) STAINLESS STEEL: 0.0148 INCH THICK.

- C) TERMINATION BAR: STAINLESS STEEL.

3.1 EXAMINATION

- A) EXAMINE SUBSTRATES, AREAS, AND CONDITIONS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES, SUBSTRATE, AND OTHER CONDITIONS AFFECTING PERFORMANCE OF THE WORK.

- 1) VERIFY COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES OF SUBSTRATES.
- 2) VERIFY THAT SUBSTRATE IS SOUND, DRY, SMOOTH, CLEAN, SLOPED FOR DRAINAGE, AND SECURELY ANCHORED.
- 3) VERIFY THAT AIR- OR WATER-RESISTANT BARRIERS HAVE BEEN INSTALLED OVER SHEATHING OR BACKING SUBSTRATE TO PREVENT AIR INFILTRATION OR WATER PENETRATION.

- B) PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3.2 INSTALLATION, GENERAL

- A) INSTALL SHEET METAL FLASHING AND TRIM TO COMPLY WITH DETAILS INDICATED AND RECOMMENDATIONS OF CITED SHEET METAL STANDARD THAT APPLY TO INSTALLATION CHARACTERISTICS REQUIRED UNLESS OTHERWISE INDICATED ON DRAWINGS.

- 1) INSTALL FASTENERS, SOLDER, PROTECTIVE COATINGS, SEPARATORS, SEALANTS, AND OTHER MISCELLANEOUS ITEMS AS REQUIRED TO COMPLETE SHEET METAL FLASHING AND TRIM SYSTEM.
- 2) INSTALL SHEET METAL FLASHING AND TRIM TRUE TO LINE, LEVELS, AND SLOPES: PROVIDE UNIFORM, NEAT SEAMS WITH MINIMUM EXPOSURE OF SOLDER.
- 3) ANCHOR SHEET METAL FLASHING AND TRIM AND OTHER COMPONENTS OF THE WORK SECURELY IN PLACE, WITH PROVISIONS FOR THERMAL AND STRUCTURAL MOVEMENT.
- 4) INSTALL SHEET METAL FLASHING AND TRIM TO FIT SUBSTRATES AND TO RESULT IN WATERTIGHT PERFORMANCE.
- 5) INSTALL CONTINUOUS CLEATS WITH FASTENERS SPACED NOT MORE THAN 12 INCHES APART. ATTACH EACH CLEAT WITH AT LEAST TWO FASTENERS. BEND TABS OVER FASTENERS.
- 7) INSTALL EXPOSED SHEET METAL FLASHING AND TRIM WITH LIMITED OIL-CANNING, AND FREE OF BUCKLING AND TUCK MARKS.
- 8) DO NOT FIELD CUT SHEET METAL FLASHING AND TRIM BY TORCH.

- B) METAL PROTECTION: WHERE DISSIMILAR METALS CONTACT EACH OTHER, OR WHERE METAL CONTACTS PRESSURE-TREATED WOOD OR OTHER CORROSIVE SUBSTRATES, PROTECT AGAINST GALVANIC ACTION OR CORROSION BY PAINTING CONTACT SURFACES WITH BITUMINOUS COATING OR BY OTHER PERMANENT SEPARATION AS RECOMMENDED BY SHEET METAL MANUFACTURER OR CITED SHEET METAL STANDARD.

- 1) COAT CONCEALED SIDE OF STAINLESS STEEL SHEET METAL FLASHING AND TRIM WITH BITUMINOUS COATING WHERE FLASHING AND TRIM CONTACT WOOD, FERROUS METAL, OR CEMENTITIOUS CONSTRUCTION.
- 2) UNDERLAYMENT: WHERE INSTALLING SHEET METAL FLASHING AND TRIM DIRECTLY ON CEMENTITIOUS OR WOOD SUBSTRATES, INSTALL UNDERLAYMENT AND COVER WITH SLIP SHEET.

- C) EXPANSION PROVISIONS: PROVIDE FOR THERMAL EXPANSION OF EXPOSED FLASHING AND TRIM.

- 1) SPACE MOVEMENT JOINTS AT MAXIMUM OF 10 FEET WITH NO JOINTS WITHIN 24 INCHES OF CORNER OR INTERSECTION.
- 2) FORM EXPANSION JOINTS OF INTERMESHING HOOKED FLANGES, NOT LESS THAN 1 INCH DEEP, FILLED WITH SEALANT CONCEALED WITHIN JOINTS.

- D) FASTENERS: USE FASTENER SIZES THAT PENETRATE SUBSTRATE NOT LESS THAN RECOMMENDED BY FASTENER MANUFACTURER TO ACHIEVE MAXIMUM PULL-OUT RESISTANCE.

- E) CONCEAL FASTENERS AND EXPANSION PROVISIONS WHERE POSSIBLE IN EXPOSED WORK AND LOCATE TO MINIMIZE POSSIBILITY OF LEAKAGE. COVER AND SEAL FASTENERS AND ANCHORS AS REQUIRED FOR A TIGHT INSTALLATION.

- F) SEAL JOINTS AS REQUIRED FOR WATERTIGHT CONSTRUCTION.

- 1) USE SEALANT-FILLED JOINTS UNLESS OTHERWISE INDICATED.

- a) EMBED HOOKED FLANGES OF JOINT MEMBERS NOT LESS THAN 1 INCH INTO SEALANT.
- b) FORM JOINTS TO COMPLETELY CONCEAL SEALANT.
- c) WHEN AMBIENT TEMPERATURE AT TIME OF INSTALLATION IS BETWEEN 40 AND 70 DEG F, SET JOINT MEMBERS FOR 50 PERCENT MOVEMENT EACH WAY.
- d) ADJUST SETTING PROPORTIONATELY FOR INSTALLATION AT HIGHER AMBIENT TEMPERATURES.
- e) DO NOT INSTALL SEALANT-TYPE JOINTS AT TEMPERATURES BELOW 40 DEG F.

- 2) PREPARE JOINTS AND APPLY SEALANTS TO COMPLY WITH REQUIREMENTS IN SECTION 079200 "JOINT SEALANTS."

- C) SOLDERED JOINTS: CLEAN SURFACES TO BE SOLDERED, REMOVING OILS AND FOREIGN MATTER.

- 1) PRETIN EDGES OF SHEETS WITH SOLDER TO WIDTH OF 1-1/2 INCHES; HOWEVER, REDUCE PRETINNING WHERE PRETINNED SURFACE WOULD SHOW IN COMPLETED WORK.
- 2) DO NOT USE TORCHES FOR SOLDERING.
- 3) HEAT SURFACES TO RECEIVE SOLDER, AND FLOW SOLDER INTO JOINT.

- a) FILL JOINT COMPLETELY.
- b) COMPLETELY REMOVE FLUX AND SPATTER FROM EXPOSED SURFACES.

3.3 INSTALLATION OF TOP OF WALL FLASHINGS

- A) INSTALL SHEET METAL FLASHING AND TRIM TO COMPLY WITH PERFORMANCE REQUIREMENTS. SHEET METAL MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS, AND CITED SHEET METAL STANDARD.

- 1) PROVIDE CONCEALED FASTENERS WHERE POSSIBLE, AND SET UNITS TRUE TO LINE, LEVELS, AND SLOPES.
- 2) INSTALL WORK WITH LAPS, JOINTS, AND SEAMS THAT ARE PERMANENTLY WATERTIGHT AND WEATHER RESISTANT.

- B) TOP OF WALL FLASHING.

- 1) ANCHOR TO RESIST UPLIFT AND OUTWARD FORCES IN ACCORDANCE WITH RECOMMENDATIONS IN CITED SHEET METAL STANDARD UNLESS OTHERWISE INDICATED.

3.4 INSTALLATION OF WALL FLASHINGS

- A) INSTALL SHEET METAL FLASHING TO INTERCEPT AND EXCLUDE PENETRATING MOISTURE IN ACCORDANCE WITH CITED SHEET METAL STANDARD UNLESS OTHERWISE INDICATED AND AS INDICATED ON DRAWINGS.

3.5 INSTALLATION TOLERANCES

- A) INSTALLATION TOLERANCES: SHIM AND ALIGN SHEET METAL FLASHING AND TRIM WITHIN INSTALLED TOLERANCE OF 1/4 INCH IN 20 FEET ON SLOPE AND LOCATION LINES INDICATED ON DRAWINGS AND WITHIN 1/8-INCH OFFSET OF ADJOINING FACES AND OF ALIGNMENT OF MATCHING PROFILES.

3.6 CLEANING

- A) CLEAN EXPOSED METAL SURFACES OF SUBSTANCES THAT INTERFERE WITH UNIFORM OXIDATION AND WEATHERING.
- B) CLEAN AND NEUTRALIZE FLUX MATERIALS. CLEAN OFF EXCESS SOLDER.
- C) CLEAN OFF EXCESS SEALANTS.

3.7 PROTECTION

- A) REMOVE TEMPORARY PROTECTIVE COVERINGS AND STRIPPABLE FILMS AS SHEET METAL FLASHING AND TRIM ARE INSTALLED UNLESS OTHERWISE INDICATED IN MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
- B) ON COMPLETION OF SHEET METAL FLASHING AND TRIM INSTALLATION, REMOVE UNUSED MATERIALS AND CLEAN FINISHED SURFACES AS RECOMMENDED IN WRITING BY SHEET METAL FLASHING AND TRIM MANUFACTURER.

- C) MAINTAIN SHEET METAL FLASHING AND TRIM IN CLEAN CONDITION DURING CONSTRUCTION.

- D) REPLACE SHEET METAL FLASHING AND TRIM THAT HAVE BEEN DAMAGED OR THAT HAVE DETERIORATED BEYOND SUCCESSFUL REPAIR BY FINISH TOUCH-UP OR SIMILAR MINOR REPAIR PROCEDURES, AS DETERMINED BY ARCHITECT.

END OF SECTION 076200

SECTION 079200 - JOINT SEALANTS

1.1 WARRANTY

- A) SPECIAL INSTALLER'S WARRANTY: INSTALLER AGREES TO REPAIR OR REPLACE JOINT SEALANTS THAT DO NOT COMPLY WITH PERFORMANCE AND OTHER REQUIREMENTS SPECIFIED IN THIS SECTION WITHIN SPECIFIED WARRANTY PERIOD.

- 1) WARRANTY PERIOD: TWO YEARS FROM DATE OF SUBSTANTIAL COMPLETION.

- B) SPECIAL MANUFACTURER'S WARRANTY: MANUFACTURER AGREES TO FURNISH JOINT SEALANTS TO REPAIR OR REPLACE THOSE JOINT SEALANTS THAT DO NOT COMPLY WITH PERFORMANCE AND OTHER REQUIREMENTS SPECIFIED IN THIS SECTION WITHIN SPECIFIED WARRANTY PERIOD.

- 1) WARRANTY PERIOD: FIVE YEARS FROM DATE OF SUBSTANTIAL COMPLETION.

2.1 JOINT SEALANTS, GENERAL

- A) COLORS OF EXPOSED JOINT SEALANTS: WHITE OR AS INDICATED BY MANUFACTURER'S DESIGNATIONS.

2.2 SILICONE JOINT SEALANTS

- A) SILICONE, S. NS, 100/50: NT; SINGLE-COMPONENT, NONSAG, PLUS 100 PERCENT AND MINUS 50 PERCENT MOVEMENT CAPABILITY, NONTRAFFIC-USE, NEUTRAL-CURING SILICONE JOINT SEALANT, ASTM C 920, TYPE G, GRADE NS, CLASS 100/50, USE NT.

- 1) MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:

- a) BASIS OF DESIGN: PECORA #BNT580FTS
- b) DOW CORNING CORP. 750
- c) SIKA CORP. SIKASIL-C990
- d) TREMCO INCORPORATED - SPECTRUM 800

- 2) APPLICATIONS: USE FOR EXTERIOR JOINTS IN VERTICAL SURFACES AND HORIZONTAL NON-TRAFFIC SURFACES

- 3) COLOR: AS SELECTED BY ARCHITECT FOR FULL RANGE PER APPLICATION LOCATION.

2.3 URETHANE JOINT SEALANTS

- A) URETHANE, S. P, 25, T: SINGLE-COMPONENT, POURABLE, PLUS 25 PERCENT AND MINUS 25 PERCENT MOVEMENT CAPABILITY, TRAFFIC- AND NONTRAFFIC-USE, URETHANE JOINT SEALANT, ASTM C 920, TYPE G, GRADE P, CLASS 25, USES T.

- 1) MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:

- a) PECORA CORP. - N2R201
- b) SIKA CORPORATION - SIKAFLEX - 1C5L
- c) TREMCO INCORPORATED - VULKEM 25

- 2) APPLICATIONS: USE FOR EXTERIOR JOINTS IN HORIZONTAL WALKING SURFACES

- 3) COLOR: AS SELECTED BY ARCHITECT FOR FULL RANGE PER APPLICATION LOCATION.

2.4 JOINT-SEALANT BACKING

- A) CYLINDRICAL SEALANT BACKINGS: ASTM C 1330, TYPE C (CLOSED-CELL MATERIAL WITH A SURFACE SKIN) AND OF SIZE AND DENSITY TO CONTROL SEALANT DEPTH AND OTHERWISE CONTRIBUTE TO PRODUCING OPTIMUM SEAL PERFORMANCE.

- B) BOND-BREAKER TAPE: POLYETHYLENE TAPE OR OTHER PLASTIC TAPE RECOMMENDED BY SEALANT MANUFACTURER.

3.1 PREPARATION

- A) SURFACE CLEANING OF JOINTS: CLEAN OUT JOINTS IMMEDIATELY BEFORE INSTALLING JOINT SEALANTS TO COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE FOLLOWING REQUIREMENTS:

- 1) CLEAN NONPOROUS JOINT SUBSTRATE SURFACES WITH CHEMICAL CLEANERS OR OTHER MEANS THAT DO NOT STAIN, HARM SUBSTRATES, OR LEAVE RESIDUES CAPABLE OF INTERFERING WITH ADHESION.

- B) JOINT PRIMING: PRIME JOINT SUBSTRATES WHERE RECOMMENDED BY JOINT-SEALANT MANUFACTURER OR AS INDICATED BY PRECONSTRUCTION JOINT-SEALANT SUBSTRATE TESTS OR PRIOR EXPERIENCE.

- C) MASKING TAPE: USE MASKING TAPE WHERE REQUIRED TO PREVENT CONTACT OF SEALANT OR PRIMER WITH ADJOINING SURFACES.

3.2 INSTALLATION OF JOINT SEALANTS

- A) GENERAL: COMPLY WITH ASTM C 1193 AND JOINT-SEALANT MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PRODUCTS AND APPLICATIONS INDICATED, UNLESS MORE STRINGENT REQUIREMENTS APPLY.

- B) INSTALL SEALANT BACKINGS OF KND INDICATED TO SUPPORT SEALANTS DURING APPLICATION AND AT POSITION REQUIRED TO PRODUCE CROSS-SECTIONAL SHAPES AND DEPTHS OF INSTALLED SEALANTS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY.

- C) INSTALL BOND-BREAKER TAPE BEHIND SEALANTS WHERE SEALANT BACKINGS ARE NOT USED BETWEEN SEALANTS AND BACKS OF JOINTS.

- D) INSTALL SEALANTS USING PROVEN TECHNIQUES THAT COMPLY WITH THE FOLLOWING AND AT THE SAME TIME BACKINGS ARE INSTALLED:

- 1) PLACE SEALANTS SO THEY DIRECTLY CONTACT AND FULLY WET JOINT SUBSTRATES.
- 2) COMPLETELY FILL RECESSES IN EACH JOINT CONFIGURATION.

- 3) PRODUCE UNIFORM, CROSS-SECTIONAL SHAPES AND DEPTHS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY.

- E) TOOLING OF NONSAG SEALANTS: IMMEDIATELY AFTER SEALANT APPLICATION AND BEFORE SKINNING OR CURING BEGINS, TOOL SEALANTS TO FORM SMOOTH, UNIFORM BEADS OF CONFIGURATION INDICATED. USE TOOLING AGENTS THAT ARE APPROVED IN WRITING BY SEALANT MANUFACTURER AND THAT DO NOT DISCOLOR SEALANTS OR ADJACENT SURFACES.

- 1) PROVIDE CONCAVE JOINT PROFILE PER FIGURE 8A IN ASTM C 1193 UNLESS OTHERWISE INDICATED.

END OF SECTION 079200

DIVISION 8

SECTION 087100 - DOOR HARDWARE

1.1 COORDINATION

- A) ELECTRICAL SYSTEM ROUGH-IN: COORDINATE LAYOUT AND INSTALLATION OF ELECTRIFIED DOOR HARDWARE WITH CONNECTIONS TO POWER SUPPLIES.

- B) EXISTING OPENINGS: WHERE HARDWARE COMPONENTS ARE SCHEDULED FOR APPLICATION TO EXISTING CONSTRUCTION OR WHERE MODIFICATIONS TO EXISTING DOOR HARDWARE ARE REQUIRED, FIELD-VERIFY EXISTING CONDITIONS AND COORDINATE INSTALLATION OF DOOR HARDWARE TO SUIT OPENING CONDITIONS AND TO PROVIDE PROPER DOOR OPERATION.

1.2 WARRANTY

- A) SPECIAL WARRANTY: MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF DOOR HARDWARE THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.

- 1) WARRANTY PERIOD: THREE YEARS FROM DATE OF SUBSTANTIAL COMPLETION UNLESS OTHERWISE INDICATED BELOW.

- a) MANUAL CLOSERS: 10 YEARS FROM DATE OF SUBSTANTIAL COMPLETION.

2.1 PERFORMANCE REQUIREMENTS

- A) ELECTRIFIED DOOR HARDWARE: LISTED AND LABELED AS DEFINED IN NFPA 70, BY A QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND APPLICATION.

- B) MEANS OF EGRESS DOORS: LATCHES DO NOT REQUIRE MORE THAN 15 LBF TO RELEASE THE LATCH. LOCKS DO NOT REQUIRE USE OF A KEY, TOOL, OR SPECIAL KNOWLEDGE FOR OPERATION.

- C) ACCESSIBILITY REQUIREMENTS: FOR DOOR HARDWARE ON DOORS IN AN ACCESSIBLE ROUTE, COMPLY WITH ICC A117.1.

- 1) PROVIDE OPERATING DEVICES THAT DO NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST AND THAT OPERATE WITH A FORCE OF NOT MORE THAN 5 LBF.

- 2) BEVEL RAISED THRESHOLDS WITH A SLOPE OF NOT MORE THAN 1:2. PROVIDE THRESHOLDS NOT MORE THAN 1/2 INCH (13 MM) HIGH.

- 3) ADJUST DOOR CLOSER SWEEP PERIODS SO THAT, FROM AN OPEN POSITION OF 90 DEGREES, THE DOOR WILL TAKE AT LEAST 5 SECONDS TO MOVE TO A POSITION OF 12 DEGREES FROM THE LATCH.

2.2 SCHEDULED DOOR HARDWARE

- A) PROVIDE PRODUCTS FOR EACH DOOR THAT COMPLY WITH REQUIREMENTS INDICATED IN DOOR HARDWARE SCHEDULE:

- 1) DOOR HARDWARE AS INDICATED BELOW:

- a) EXISTING DOORS - PROVIDE THE FOLLOWING:
- (i) 1 ADA THUMB TURN
- (ii) 1 STORE/ROOM MORTISE LOCK
- (iii) 2 MORTISE CYLINDERS
- (iv) 1 ELECTRIC STRIKE
- (v) 2 LEVER
- (vi) 2 DOOR CLOSERS (EA DOOR)
- (vii) WEATHERSTRIPPING/DOOR SWEEP (EA DOOR)
- (viii) 2 AUTOMATIC OPERATOR
- (ix) POWER TRANSFER/POWER SUPPLY WIRE HARNESS
- (x) 2 SLIM ACTUATOR - EXTERIOR POST MOUNTED AND INTERIOR WALL MOUNTED
- (xi) 1 KEY SWITCH
- b) ALL OTHER EXISTING HARDWARE TO REMAIN

2.8 2.10 FINISHES

- A) PROVIDE FINISHES COMPLYING WITH BHMA A156.18 AS INDICATED IN DOOR HARDWARE SCHEDULE.

- B) PROVIDE FINISH TO MATCH EXISTING. PROVIDE SAMPLES FOR OWNER'S REVIEW AND FINAL CONFIRMATION.

3.1 INSTALLATION

- A) EXISTING DOOR:
- 1) KEEP EXISTING LOCK AND HARDWARE. PREP DOOR AND FRAME FOR NEW HARDWARE.

- B) MOUNTING HEIGHTS: MOUNT DOOR HARDWARE UNITS AT HEIGHTS TO COMPLY WITH THE FOLLOWING UNLESS OTHERWISE INDICATED OR REQUIRED TO COMPLY WITH GOVERNING REGULATIONS.

- 1) WOOD DOORS: DH'S RECOMMENDED LOCATIONS FOR ARCHITECTURAL HARDWARE FOR WOOD FLUSH DOORS.

- C) INSTALL EACH DOOR HARDWARE ITEM TO COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, WHERE CUTTING AND FITTING ARE REQUIRED TO INSTALL DOOR HARDWARE ONTO OR INTO SURFACES THAT ARE LATER TO BE PAINTED OR FINISHED IN ANOTHER WAY. COORDINATE REMOVAL, STORAGE, AND REINSTALLATION OF SURFACE PROTECTIVE TRIM UNITS WITH FINISHING WORK. DO NOT INSTALL SURFACE-MOUNTED ITEMS UNTIL FINISHES HAVE BEEN COMPLETED ON SUBSTRATES INVOLVED.

- D) WIRING: COORDINATE WITH ELECTRICIAN ON REQUIREMENTS.

- E) DOOR CLOSERS: MOUNT CLOSERS ON INSIDE OF EXTERIOR DOORS.

- F) PERIMETER GASKETING: APPLY TO HEAD AND JAMB, FORMING SEAL BETWEEN DOOR AND FRAME.

- 1) DO NOT NOTCH PERIMETER GASKETING TO INSTALL OTHER SURFACE-APPLIED HARDWARE.

- G) DOOR BOTTOMS: APPLY TO BOTTOM OF DOOR, FORMING SEAL WITH THRESHOLD WHEN DOOR IS CLOSED.

3.2 ADJUSTING

- A) ADJUST AND CHECK EACH OPERATING ITEM OF DOOR HARDWARE AND EACH DOOR TO ENSURE PROPER OPERATION OR FUNCTION OF EVERY UNIT. REPLACE UNITS THAT CANNOT BE ADJUSTED TO OPERATE AS INTENDED. ADJUST DOOR CONTROL DEVICES TO COMPENSATE FOR FINAL OPERATION OF HEATING AND VENTILATING EQUIPMENT AND TO COMPLY WITH REFERENCED ACCESSIBILITY REQUIREMENTS.

END OF SECTION 087100

DIVISION 9

SECTION 09B113 - EXTERIOR PAINTING

2.1 MANUFACTURERS

- A) MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING:

- B) BENJAMIN MOORE & CO.

2.2 PAINT, GENERAL

- A) MPI STANDARDS: PRODUCTS SHALL COMPLY WITH MPI STANDARDS INDICATED AND SHALL BE LISTED IN ITS 'MPI APPROVED PRODUCTS LISTS.'

- B) MATERIAL COMPATIBILITY:

- 1) MATERIALS FOR USE WITHIN EACH PAINT SYSTEM SHALL BE COMPATIBLE WITH ONE ANOTHER AND SUBSTRATES INDICATED, UNDER CONDITIONS OF SERVICE AND APPLICATION AS DEMONSTRATED BY MANUFACTURER, BASED ON TESTING AND FIELD EXPERIENCE.

- 2) FOR EACH COAT IN A PAINT SYSTEM, PRODUCTS SHALL BE RECOMMENDED IN WRITING BY TOPCOAT MANUFACTURERS FOR USE IN PAINT SYSTEM AND ON SUBSTRATE INDICATED.

- C) COLORS: AS INDICATED ON DRAWINGS.

3.1 EXAMINATION

- A) EXAMINE SUBSTRATES AND CONDITIONS, WITH APPLICATOR PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR MAXIMUM MOISTURE CONTENT AND OTHER CONDITIONS AFFECTING PERFORMANCE OF THE WORK.

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RECEIVED
By
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Dated: September 5, 2024

SEAL



PROJECT NUMBER
G&H#: 23028

DATE

MAY 31, 2024

DRAWN BY:

CHECKED BY:

REVISIONS

NO	DATE	DESCRIPTION
1	6/28/2024	REV 1 - MATERIAL SPECIFICATIONS

SHEET TITLE

SPECIFICATIONS

SHEET NUMBER

A10.03

GENERAL STRUCTURAL NOTES

GENERAL/BUILDING CODE

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

- A. NEW CONSTRUCTION - PART I OF VUSBC - "VIRGINIA CONSTRUCTION CODE"
- B. RENOVATION/ ALTERATION - PART II OF THE VUSBC - "VIRGINIA EXISTING BUILDING CODE"
1. CLASSIFICATION OF WORK FOR THIS PROJECT = ALTERATION-LEVEL 2

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

GBC-3: TEMPORARY BRACING, GUY WIRES, SHORING, ETC., SHALL BE USED AS NECESSARY TO RESIST ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED DURING CONSTRUCTION.

GBC-4: THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. THE ERECTION PROCEDURE AND SEQUENCE INCLUDING THE DESIGN ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC., IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

GBC-5: STRUCTURAL DRAWINGS DO NOT SHOW ALL OPENINGS. COORDINATE WITH ALL OTHER DISCIPLINES.

GBC-6: REFER TO ARCHITECTURAL DRAWINGS FOR WATERPROOFING DETAILS.

GBC-7: THE ENGINEER SHALL NOT HAVE THE AUTHORITY OR RESPONSIBILITY TO SUPERVISE OR DIRECT THE CONSTRUCTION WORK.

GBC-8: ALL SECTIONS AND DETAILS, WHETHER EXPLICITLY CUT ON PLAN OR NOT, SHALL BE CONSIDERED TYPICAL AND SHALL APPLY AT SIMILAR CONDITIONS.

GBC-9: ADDITIONS AND ALTERATIONS TO THE EXISTING BUILDING DO NOT INCREASE THE DEMAND/CAPACITY RATIO OF ANY EXISTING STRUCTURAL LATERAL FORCE RESISTING ELEMENT BY MORE THAN 10%; THEREFORE, AN ENGINEERING EVALUATION AND ANALYSIS OF THE ALTERED EXISTING STRUCTURE IS NOT REQUIRED.

EXISTING CONSTRUCTION

EC-1: INFORMATION REGARDING STRUCTURAL MEMBERS INDICATED TO BE EXISTING WAS OBTAINED DURING LIMITED FIELD OBSERVATIONS AND FROM LIMITED AVAILABLE EXISTING DRAWINGS. ACTUAL CONDITIONS MAY DIFFER FROM THAT WHICH IS INDICATED. IF THE CONTRACTOR UNCOVERS EXISTING CONDITIONS THAT DIFFER FROM THAT WHICH IS INDICATED ON PLAN, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD OF THE DISCREPANCY IN ORDER THAT THE CONDITION MAY BE RESOLVED.

EC-2: FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO THE CONSTRUCTION AND FABRICATION OF ANY NEW STRUCTURAL MEMBERS.

EC-3: EXISTING CONSTRUCTION IS DENOTED USING SLANTED LETTERING, PHANTOM LINETYPE (DASH DOUBLE DOT), AND HALFTONE.

SPECIAL INSPECTIONS

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

- A. CONCRETE REINFORCING
- B. CAST-IN-PLACE CONCRETE
- C. UNIT MASONRY
- D. POST-INSTALLED ANCHORS

SHOP DRAWING SUBMITTALS

SDS-1: THE CONTRACTOR SHALL COORDINATE THE ARCHITECTURAL, CIVIL, PLUMBING, AND ELECTRICAL REQUIREMENTS WITH THE STRUCTURAL DRAWINGS, INCLUDING THE LOCATION OF MISCELLANEOUS ITEMS AFFECTING THE STRUCTURAL WORK.

SDS-2: PROVIDE (1) ELECTRONIC PDF COPY OF ALL STRUCTURAL SUBMITTALS.

SDS-3: SHOP DRAWINGS ARE TO BE REVIEWED BY THE CONTRACTOR AND SUBCONTRACTOR PRIOR TO BEING SUBMITTED FOR APPROVAL. SUBMITTED SHEETS SHALL CONTAIN THE CONTRACTOR'S SIGNED AND DATED REVIEW STAMP.

SDS-4: THE FOLLOWING ARE THE REQUIRED STRUCTURAL SHOP DRAWING SUBMITTALS: CONCRETE REINFORCING, MASONRY REINFORCING, AND CONCRETE MIX DESIGN.

DESIGN LOADS AND PARAMETERS

DL-1: BUILDING RISK CATEGORY (TABLE 1604.5) = CATEGORY II

DL-2: LIVE LOADS (REFER TO FRAMING PLANS FOR MORE SPECIFIC LOADS)

FLOOR/RAMP	100 PSF
STAIRS	100 PSF

FLOOR LIVE LOAD REDUCTION NOT USED

DL-3: SNOW LOADS

P_s=20 PSF (GROUND SNOW)
C_s=1.0 (SNOW EXPOSURE FACTOR)
C_e=1.2 (THERMAL FACTOR)
μ=1.0 (SNOW LOAD IMPORTANCE FACTOR; ASCE 7-16 TABLE 1.5-2)
P_s (SNOW LOAD FOR LOW-SLOPE ROOF)=0.7X(I)_sX(C)_sX(C)_e(P_f)= 0.7X1.0X1.2X1.0X20 = 16.8 PSF
MINIMUM P_s (LOW-SLOPE ROOF WHERE P_s≤ 20.0 PSF) = P_{min} = (P_f)X(I)_s = 20.0X1.0 = 20.0 PSF (USE 20 PSF MINIMUM)

DL-4: WIND LOADS

V=115 MPH (BUILDING RISK CATEGORY: II) (BASIC WIND SPEED: 3-SECOND GUST)
V_{ref} = 89 MPH
EXPOSURE B
K_d=0.85 (WIND DIRECTIONALITY FACTOR)
K_e=1.0 (TOPOGRAPHIC FACTOR)
K_z=1.0 (GROUND ELEVATION FACTOR)

WIND LOAD DETERMINATION BY: ASCE 7-16, CHAPTERS 26, 27, 29, 30 (DIRECTIONAL PROCEDURE)

DL-5: SEISMIC LOADS

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

S_s=24.1%G
S₁=5.8%G
F_a=1.6
F_v=2.40
S_{ms}=(F_a)X(S_s)=(1.6)X(24.1) = 38.56%G
S_{m1}=(F_a)X(S₁)=(2.4)X(5.8) = 13.44%G
S_{ms1}=(S_{ms})X(S_{m1}) = 25.7%G
S_{ms1}=(2/3)(S_{ms}) = 8.96%G

SEISMIC DESIGN CATEGORY = B

BASIC STRUCTURAL SYSTEM: BEARING WALL SYSTEMS

SEISMIC FORCE: RESISTING SYSTEM: INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
R_s (RESPONSE MODIFICATION FACTOR) = 3.5
Q_s (SYSTEM OVERSTRENGTH FACTOR) = 2.5
C_d (DEFLECTION AMPLIFICATION FACTOR) = 2.25

ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE METHOD
STRUCTURAL HEIGHT, h_s = 3.0 FT
SEISMIC RESPONSE COEFFICIENT, C_s = 7.3%G

DL-6: EARTH PRESSURES (EQUIVALENT FLUID PRESSURES)

ACTIVE (CANTILEVERED WALLS) 45 PCF (ASSUMED)
PASSIVE 250 PCF (ASSUMED)
FRICTION COEFFICIENT FOR SLIDING 0.35 (ASSUMED)

DESIGN LOADS AND PARAMETERS (CONT.)

DL-7: ICE LOADS

ICE DENSITY= 56 pcf (ASCE 7-16, SECTION 10.4)
1=1.5' (NOMINAL ICE THICKNESS AT 30' HT, ASCE 7-16 Fig 10.4-2)
CONCURRENT TEMPERATURE = 15 DEGREES F
GUST SPEED = 30 MPH
μ=1.0 (ICE LOAD IMPORTANCE FACTOR, ASCE 7-16, TABLE 1.5-2)
Z=30' (HT ABOVE GROUND)
I_e=(Z/33)^{1/10} (HT FACTOR, ASCE 7-16 EQ 10.4-4) = (30/33)^{1/10} = 0.99
K_{zt}=1.0 (TOPOGRAPHIC FACTOR, ASCE 7-16 CH. 26)
I_e=(I_e)(I_t)(K_{zt})^{1/20} (DESIGN ICE THICKNESS, ASCE 7-16 EQ 10.4-5) = (1.5') (1.0) (0.99) (1.0)^{1/20} = 1.49"
WEIGHT OF ICE = 1.49'/12 X 56 PCF = 6.95 PSF SURFACE AREA

DL-8: RAIN LOADS

1=3.25 in/hr (VUSBC 2018 FIGURE 1611.1)
A=2,500 SF (WORST CASE AREA PER SECONDARY DRAIN, 4" DIA OUTLET PIPE MIN)
Q=0.0104 (A) (I) (FLOW RATE 7-16 EQ C8.3-1) = 0.0104 (2,500 SF)(3.25 in/hr) = 84.5 GAL/MIN
q_s=1.0" (ASCE 7-16, TABLE C8.3-1)
q_s=2" (DEPTH OF WATER UP TO SECONDARY DRAINAGE INLET)
R=5.2(4+q_s) (VUSBC 2018 EQ 16-36, DESIGN RAIN LOAD) = 5.2(2'+1.0") = 15.6 PSF

FOUNDATIONS

F-1: FOUNDATIONS FOR THIS STRUCTURE ARE SPREAD FOOTINGS BEARING ON EITHER VIRGIN SOIL OR CONTROLLED COMPACTED FILL WITH AN ASSUMED SOIL BEARING CAPACITY OF 2000 PSF.

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

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

F-4: STEPS IN WALL FOOTINGS SHALL HAVE A MINIMUM SPACING OF DOUBLE THE CHANGE IN ELEVATION.

CONCRETE

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

PROJECT LOCATION	EXPOSURE CLASS	CONC WT	MIN F _c (PSI)	MAX W/C/M RATIO	AIR CONTENT
EXT FDNS	F2	NW	4500	0.45	6.0% ± 1.5%
RAMP & PAVING	C2	NW	5000	0.40	6.0% ± 1.5%

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

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

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

C-4: REFER TO ARCHITECTURAL DRAWINGS FOR FINISHES.

STRUCTURAL MASONRY

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

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

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

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

M-4: AT HOLLOW WALLS THAT CHANGE IN THICKNESS OR NUMBER OF WYTHES, PROVIDE A COURSE OF SOLID MASONRY OR GROUT FILLED UNITS BELOW THE TRANSITION.

M-5: ALL BLOCK CONTAINING VERTICAL REINFORCING SHALL HAVE TWO CELLS PER 16" BLOCK. CELLS SHALL ALIGN VERTICALLY AND BE GROUTED SOLID AT ALL REINFORCING LOCATIONS. BARS SHALL BE HELD IN PLACE BY REBAR POSITIONERS OR OTHER SUITABLE DEVICES AND SHALL BE CENTERED IN CMU UNO.

M-6: MASONRY JOINT REINFORCING SHALL BE PROVIDED IN ALL WALLS AT 16" OC MAXIMUM VERTICAL SPACING UNLESS INDICATED TO BE CLOSER TOGETHER ON SECTIONS AND DETAILS OF THE DRAWINGS. JOINT REINFORCING SHALL MEET ASTM A615 AND BE HOT-DIP GALVANIZED AT EXTERIOR WALLS. MINIMUM WIRE DIAMETER FOR SIDE RODS AND CROSS RODS SHALL BE 0.148 INCHES UNLESS INDICATED TO BE GREATER IN SECTIONS AND DETAILS OF THE DRAWINGS. PROVIDE PREFABRICATED CORNER AND TEE UNITS FOR WALL INTERSECTIONS. LAP REINFORCING A MINIMUM OF 6 INCHES AT SPLICES.

M-7: IN VERTICALLY REINFORCED WALLS, USE LADDER TYPE (NOT TRUSS TYPE) REINFORCING IN HORIZONTAL MORTAR JOINTS.

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

POST-INSTALLED ANCHORS

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

PA-2: THE ANCHOR MANUFACTURER'S REPRESENTATIVE SHALL BE PRESENT DURING THE INITIAL INSTALLATION OF EACH TYPE OF ANCHOR TO REVIEW AND APPROVE OF THE CONTRACTOR'S INSTALLATION PROCEDURES. THE OWNER'S TESTING AGENCY SHALL ALSO OBSERVE THE INITIAL INSTALLATION OF EACH ANCHOR TYPE, AND PROVIDE THE INSPECTION OF ANCHORS DURING INSTALLATION TO VERIFY CONFORMANCE WITH THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS. SUBMIT REPORT FROM MANUFACTURER'S REPRESENTATIVE FOR DUNBAR INSPECTION OF ALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR APPROVED EQUIVALENT. SUBMIT CREDENTIALS OF CERTIFIED INSTALLERS. CONTINUOUS INSPECTION IS REQUIRED FOR ALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS. REMOVE AND REPLACE MISPLACED OR MALFUNCTIONING ANCHORS. FILL EMPTY ANCHOR HOLES AND PATCH FAILED ANCHOR LOCATIONS WITH HIGH-STRENGTH, NONMETALLIC GROUT.

PA-3: CHEMICAL ADHESIVE ANCHORING SYSTEMS USED IN SOLID OR GROUTED MASONRY GENERICALLY REFERRED TO AS ADHESIVE ANCHORING SYSTEMS SHALL BE ONE OF:

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

PA-4: CHEMICAL ADHESIVE ANCHOR SYSTEMS FOR USE WITH REINF STEEL IN CONCRETE SHALL BE ONE OF:

- SET-3G BY SIMPSON STRONG-TIE
- HIT-RE 500-V3 BY HILTI
- HIT-HY 200 BY HILTI

UNLESS NOTED OTHERWISE, REINFORCING STEEL USED WITH THESE SYSTEMS SHALL BE ASTM A615 GRADE 60.

ABBREVIATIONS

AFF = ABOVE FINISHED FLOOR
ARCH = ARCHITECTURAL
BLDG = BUILDING
BOT = BOTTOM
BRG = BEARING
CIP = CAST-IN-PLACE
CJ = CONTROL JOINT
CL = CENTERLINE
CLR = CLEAR
CLSM = CONTROLLED LOW-STRENGTH MATERIAL
CMU = CONCRETE MASONRY UNIT
COL = COLUMN
CONC = CONCRETE
CONN = CONNECTION
CONT = CONTINUOUS
COORD = COORDINATE
DET = DETAIL
DIM = DIMENSION
DL = DEAD LOAD
DN = DOWN
DWGS = DRAWINGS
EA = EACH
EL = ELEVATION
EOS = EDGE OF SLAB
EQ = EQUAL
EX = EXISTING
EXT = EXTERIOR
FFE = FINISHED FLOOR ELEVATION
FLR = FLOOR
FTG = FOOTING
GC = GENERAL CONTRACTOR
HK = HOOK
HORIZ = HORIZONTAL
HS = HIGH STRENGTH
HT = HEIGHT
INT = INTERIOR
JT = JOINT
LBS = POUNDS
LL = LIVE LOAD
MAS = MASONRY
MAX = MAXIMUM
MECH = MECHANICAL
MFR = MANUFACTURER
MSC = MISCELLANEOUS
MIN = MINIMUM
NO. = NUMBER
NTS = NOT TO SCALE
NW = NORMAL WEIGHT
OC = ON CENTER
PLF = POUNDS PER LINEAR FOOT
PSF = POUNDS PER SQUARE FOOT
PSI = POUNDS PER SQUARE INCH
REF = REFERENCE
REINF = REINFORCING
REQD = REQUIRED
SECT = SECTION
SIM = SIMILAR
SOG = SLAB-ON-GROUND
SPA = SPACE
STD = STANDARD
TOC = TOP OF CONCRETE
TYP = TYPICAL
UNO = UNLESS NOTED OTHERWISE
VERT = VERTICAL
WWF = WELDED WIRE FABRIC

CAST-IN-PLACE CONCRETE

QUALITY ASSURANCE

- A. MANUFACTURER QUALIFICATIONS: A FIRM EMPLOYED IN MANUFACTURING READY-MIXED CONCRETE PRODUCTS AND THAT COMPLIES WITH ASTM C 94/C 94M REQUIREMENTS FOR PRODUCTION FACILITIES AND EQUIPMENT.
1. MANUFACTURER CERTIFIED ACCORDING TO NRMCA'S "CERTIFICATION OF READY MIXED CONCRETE PRODUCTION FACILITIES."
- B. TESTING AGENCY QUALIFICATIONS: AN INDEPENDENT AGENCY, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, QUALIFIED ACCORDING TO ASTM C 1077 AND ASTM E 329 FOR TESTING INDICATED.
1. PERSONNEL CONDUCTING FIELD TESTS SHALL BE QUALIFIED AS ACI CONCRETE FIELD TESTING TECHNICIAN, GRADE 1, ACCORDING TO ACI CP-1 OR AN EQUIVALENT CERTIFICATION PROGRAM.
2. PERSONNEL PERFORMING LABORATORY TESTS SHALL BE AC-CERTIFIED CONCRETE STRENGTH TESTING TECHNICIAN AND CONCRETE LABORATORY TESTING TECHNICIAN, GRADE 1, ACCORDING TO ASTM C 1077 AND ASTM E 329. SHALL BE AN ACI-CERTIFIED CONCRETE LABORATORY TESTING TECHNICIAN, GRADE II.
- C. SOURCE LIMITATIONS: OBTAIN EACH TYPE OR CLASS OF CEMENTITIOUS MATERIAL OF THE SAME BRAND FROM THE SAME MANUFACTURER'S PLANT. OBTAIN AGGREGATE FROM SINGLE SOURCE, AND OBTAIN ADMXTURES THROUGH SINGLE SOURCE FROM A SINGLE MANUFACTURER.
- D. ACI PUBLICATIONS: COMPLY WITH THE FOLLOWING UNLESS MODIFIED BY REQUIREMENTS IN THE CONTRACT DOCUMENTS.
1. ACI 301
2. ACI 117
- E. CONCRETE TESTING SERVICES: ENGAGE A QUALIFIED INDEPENDENT TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS AND PREPARE REPORTS. ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
- F. PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.
1. BEFORE SUBMITTING DESIGN MIXTURES, REVIEW CONCRETE DESIGN MIXTURES AND EXAMINE QUALITY OF CONCRETE MATERIALS. REQUIRE REPRESENTATIVES OF EACH MATERIAL SUPPLIER TO BE PRESENT AT THE PRE-INSTALLATION CONFERENCE TO ATTEND, INCLUDING THE FOLLOWING:
- a. CONTRACTOR'S SUPERINTENDENT
- b. INDEPENDENT TESTING AGENCY RESPONSIBLE FOR CONCRETE DESIGN MIXTURES.
- c. READY-MIX CONCRETE MANUFACTURER.
- d. CONCRETE SUBCONTRACTOR.
2. REVIEW SPECIAL INSPECTION AND TESTING AND INSPECTING AGENCY PROCEDURES FOR FIELD QUALITY CONTROL, CONCRETE FINISHES AND FINISHES, COLD- AND HOT-WEATHER CONCRETING PROCEDURES, CURING PROCEDURES, CONSTRUCTION CONTROL AND ISOLATION JOINTS, BOND-BREAK MATERIALS, STEEL REINFORCEMENT INSTALLATION, FLOOR AND SLAB FLATNESS AND LEVELNESS MEASUREMENT, CONCRETE REPAIR PROCEDURES, AND CONCRETE PROTECTION.
- G. SHOP DRAWINGS:
1. PROVIDE DESIGN MIXTURES FOR EACH CONCRETE MIX. INDICATE AMOUNT OF WATER TO BE WITHHELD FOR LATER ADDITION AT PROJECT SITE. INDICATE WHERE EACH MIX SHALL BE USED.
2. PROVIDE STEEL REINFORCEMENT SHOP DRAWINGS. INCLUDE PLACING DRAWINGS THAT DETAIL FABRICATION, BEND, AND PLACEMENT. INDICATE BAR SIZES, LENGTH, MATERIAL, GRADE, BAR SCHEDULE, STIRRUP SPACING, BENT BAR DIAGRAMS, SPLICES AND LAPS, MECHANICAL CONNECTIONS, AND STIRRUP AND TIE SPACING.

FIELD QUALITY CONTROL

- A. TESTING AND SPECIAL INSPECTIONS: OWNER WILL ENGAGE A SPECIAL INSPECTOR AND QUALIFIED TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS.
- B. INSPECTIONS:
1. STEEL REINFORCEMENT PLACEMENT.
2. VERIFICATION OF USE OF REQUIRED DESIGN MIXTURE.
3. CONCRETE PLACEMENT, INCLUDING CONVEYING AND DEPOSITING.
4. CURING PROCEDURES AND MAINTENANCE OF CURING TEMPERATURE.
5. POST-INSTALLED ANCHOR INSTALLATION.
- C. CONCRETE TESTS: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172/C 172M, AS MODIFIED IN THESE SPECIFICATIONS, SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:
1. TESTING FREQUENCY: OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF.
2. SLUMP: ASTM C 143/C 143M. ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
3. AIR CONTENT: ASTM C 231/C 231M, PRESSURE METHOD, FOR NORMAL-WEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
4. CONCRETE TEMPERATURE: ASTM C 1064/C 1064M. ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEG F AND BELOW OR 80 DEG F AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE.
5. COMPRESSION TEST SPECIMENS: ASTM C 311/C 311M. SAMPLES SHALL BE TAKEN FROM CONCRETE PUMP DISCHARGE HOSE WHEN CONCRETE IS TRANSPORTED BY CONCRETE TRUCK.
- a. CAST AND LABORATORY CURE ONE SET OF SIX 4 X 8 CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.
6. COMPRESSIVE STRENGTH TESTS: ASTM C 39/C 39M.
- a. 4 X 8 SPECIMENS: TEST TWO LABORATORY-CURED SPECIMENS AT 7 DAYS AND ONE SET OF THREE SPECIMENS AT 28 DAYS. TEST ONE SPECIMEN AT 56 DAYS IF REQUIRED.
- b. A COMPRESSIVE STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM A SET OF SPECIMENS OBTAINED FROM SAME COMPOSITE SAMPLE AND TESTED AT AGE INDICATED.
7. WHEN STRENGTH OF FIELD-CURED CYLINDERS IS LESS THAN 85 PERCENT OF COMPANION LABORATORY-CURED CYLINDERS, CONTRACTOR SHALL EVALUATE OPERATIONS AND PROVIDE CORRECTIVE PROCEDURES FOR PROTECTING AND CURING IN-PLACE CONCRETE.
8. STRENGTH OF EACH CONCRETE MIXTURE WILL BE SATISFACTORY IF EVERY AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI.
9. TEST RESULTS SHALL BE REPORTED IN WRITING TO ARCHITECT, CONCRETE MANUFACTURER, AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AND INSPECTING AGENCY, LOCATION OF CONCRETE BATCH IN WORK, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIXTURE PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7- AND 28-DAY TESTS.
10. NONDESTRUCTIVE TESTING: IMPACT HAMMER, SONOSCOPE, OR OTHER NONDESTRUCTIVE DEVICE MAY BE PERMITTED BY ARCHITECT BUT WILL NOT BE USED AS SOLE BASIS FOR APPROVAL OR REJECTION OF CONCRETE.
11. ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAINMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY ARCHITECT. TESTING AND INSPECTING AGENCY MAY CONDUOT TESTS TO DETERMINE ADEQUACY OF CONCRETE BY CORED CYLINDERS COMPLYING WITH ASTM C 42/C 42M OR BY OTHER METHODS AS DIRECTED BY ARCHITECT.
12. ADDITIONAL TESTING AND INSPECTING: AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS.
13. CORRECT DEFICIENCIES IN THE WORK THAT TEST REPORTS AND INSPECTIONS INDICATE DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.

QUALITY ASSURANCE NOTES

UNIT MASONRY

QUALITY ASSURANCE

- A. TESTING AGENCY QUALIFICATIONS: QUALIFIED ACCORDING TO ASTM C 1093 FOR TESTING INDICATED.
- B. SOURCE LIMITATIONS FOR MASONRY UNITS: OBTAIN EXPOSED MASONRY UNITS OF A UNIFORM TEXTURE AND COLOR, OR A UNIFORM BLEND WITHIN THE RANGES ACCEPTED FOR THESE CHARACTERISTICS, THROUGH ONE SOURCE FROM A SINGLE MANUFACTURER, FOR EACH PRODUCT OBTAINED.
- C. SOURCE LIMITATIONS FOR MORTAR MATERIALS: OBTAIN MORTAR INGREDIENTS OF A UNIFORM QUALITY, INCLUDING COLOR FOR EXPOSED MASONRY, FROM A SINGLE MANUFACTURER FOR EACH CEMENTITIOUS COMPONENT AND FROM ONE SOURCE OR PRODUCER FOR EACH AGGREGATE.
- D. PRECONSTRUCTION TESTING SERVICES: OWNER WILL ENGAGE A QUALIFIED INDEPENDENT TESTING AGENCY TO PERFORM PRECONSTRUCTION TESTING INDICATED BELOW. RETESTING OF MATERIALS THAT FAIL TO COMPLY WITH SPECIFIED REQUIREMENTS SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
1. CLAY MASONRY UNIT TEST: FOR EACH TYPE OF UNIT REQUIRED, PER ASTM C 67.
2. CONCRETE MASONRY UNIT TEST: FOR EACH TYPE OF UNIT REQUIRED, PER ASTM C 140.
- E. SHOP DRAWINGS: SHOW MASONRY UNIT SIZES, PROFILES, COURSING, AND LOCATION OF SPECIAL SHAPES. PROVIDE REINFORCING STEEL DETAILS INCLUDING BENDING, LAP LENGTHS, AND PLACEMENT OF REINFORCEMENT BARS. ALL SHALL COMPLY WITH ACI 315.

FIELD QUALITY CONTROL

- A. TESTING AND INSPECTING: OWNER WILL ENGAGE SPECIAL INSPECTORS TO PERFORM TESTS AND INSPECTIONS AND PREPARE REPORTS. ALLOW INSPECTORS ACCESS TO SCAFFOLDING AND WORK AREAS AS NEEDED TO PERFORM TESTS AND INSPECTIONS. RETESTING OF MATERIALS THAT FAIL TO COMPLY WITH SPECIFIED REQUIREMENTS SHALL BE DONE AT CONTRACTOR'S EXPENSE.
- B. INSPECTIONS: SPECIAL INSPECTIONS ACCORDING TO TMS 402/ACI 530/ASCE 5.
1. BEGIN MASONRY CONSTRUCTION ONLY AFTER INSPECTORS HAVE VERIFIED PROPORTIONS OF SITE-PREPARED MORTAR.
2. PLACE GROUT ONLY AFTER INSPECTORS HAVE VERIFIED COMPLIANCE OF GROUT SPACES AND OF GRADES, SIZES, AND LOCATIONS OF REINFORCEMENT.
- C. THE OWNER'S INDEPENDENT TESTING/INSPECTION AGENCY SHALL INSPECT THE MASONRY CONSTRUCTION DURING VARIOUS WORK STAGES FOR COMPLIANCE WITH PROJECT DRAWINGS AND SPECIFICATIONS, AND KEEP RECORDS WHICH COVER THE FOLLOWING:
1. QUALITY AND TESTING OF MASONRY UNITS.
2. PROPORTIONING, MIXING AND CONSISTENCY OF MORTAR AND GROUT. LAYING, MORTARING, AND GROUTING OF MASONRY UNITS AND ELEMENTS.
3. CONDITION, GRADE, SIZE, SPACING AND PLACEMENT OF REINFORCEMENT.
4. ANY SIGNIFICANT OR UNUSUAL CONSTRUCTION LOADS ON MASONRY STRUCTURAL ELEMENTS.
5. GENERAL PROGRESS OF WORK.
6. WHEN AMBIENT TEMPERATURE FALLS BELOW 40 DEG F OR RISES ABOVE 100 DEG F, A COMPLETE RECORD OF WEATHER CONDITIONS AND OF PRECONDITIONING AND PROTECTION GIVEN TO MASONRY MATERIALS AND PROTECTION AND CURING OF COMPLETED WORK SHALL BE MAINTAINED.
7. INSPECTION RECORDS SHALL BE FURNISHED TO BUILDING OFFICIAL, OWNER AND ARCHITECT/ENGINEER DURING PROGRESS OF THE WORK.
8. THE INSPECTOR SHALL NOT SUPERVISE THE CONSTRUCTION; HOWEVER, THEY SHALL VISIT THE PROJECT WITH THE FREQUENCY NECESSARY TO OBSERVE THE VARIOUS STAGES OF WORK AND LONG ENOUGH AT EACH VISIT TO ASCERTAIN THAT IT IS BEING DONE IN COMPLIANCE WITH THE CONTRACT DOCUMENTS AND CODE REQUIREMENTS. THE INSPECTOR SHALL BE PRESENT AS FREQUENTLY AS HE DEEMS NECESSARY TO JUDGE WHETHER THE QUALITY OF THE WORK COMPLIES WITH THE CONTRACT DOCUMENTS; TO SEE THAT MASONRY MATERIALS ARE OF THE CORRECT QUALITY AND PROPERLY INSTALLED, AND, TO SEE THAT TESTS FOR QUALITY CONTROL ARE BEING MADE AS SPECIFIED.
- D. EVALUATION OF QUALITY CONTROL TESTS AND INSPECTIONS: IN ABSENCE OF OTHER INDICATIONS OF NONCOMPLIANCE WITH REQUIREMENTS, MASONRY WILL BE CONSIDERED SATISFACTORY IF RESULTS FROM CONSTRUCTION QUALITY CONTROL TESTS AND INSPECTIONS COMPLY WITH MINIMUM REQUIREMENTS INDICATED.
- E. TESTING FREQUENCY: ONE SET OF TESTS FOR EACH 5,000 SQ. FT. OF WALL AREA OR PORTION THEREOF.

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PROJECT TITLE

ST. JAMES'S RAMP AND ROAD PROJECT

St. James's Episcopal Church

1205 W FRANKLIN STREET, RICHMOND, VA 23220

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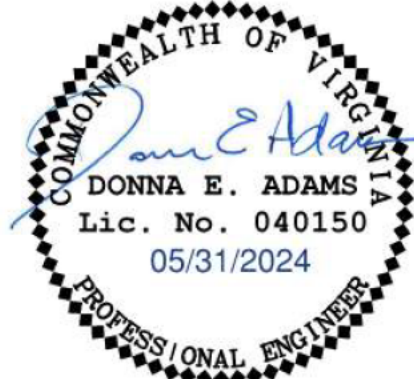
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PROJECT NUMBER

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SHEET TITLE

GENERAL STRUCTURAL NOTES & QUALITY ASSURANCE NOTES

SHEET NUMBER

S0.01

ST. JAMES'S RAMP
AND ROAD PROJECT

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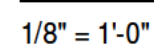
MAY 31, 2024

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2	07/24/2024	Revision 2

EXISTING BASEMENT AND NEW RAMP PLANS

S1.01

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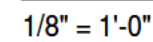


FD-1: TYPICAL SLAB-ON-GROUND SHALL BE 4" NORMAL WEIGHT CONCRETE WITH 6X6-W1.4XW1.4 WWF AT MID-DEPTH, OVER 4" POROUS FILL

FD-2: TOP OF FOOTING ELEVATIONS INDICATED THUS 0'-0" RELATIVE TO TYPICAL FIRST FLOOR ELEVATION XXX'-X".

FD-3: FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO THE CONSTRUCTION OF ANY NEW STRUCTURAL MEMBERS.

FD-4: ALL INFORMATION INDICATED AS EXISTING DETERMINED FROM DRAWINGS NOLAND & BASKERVILL ARCHITECTS DATED JULY 1911.

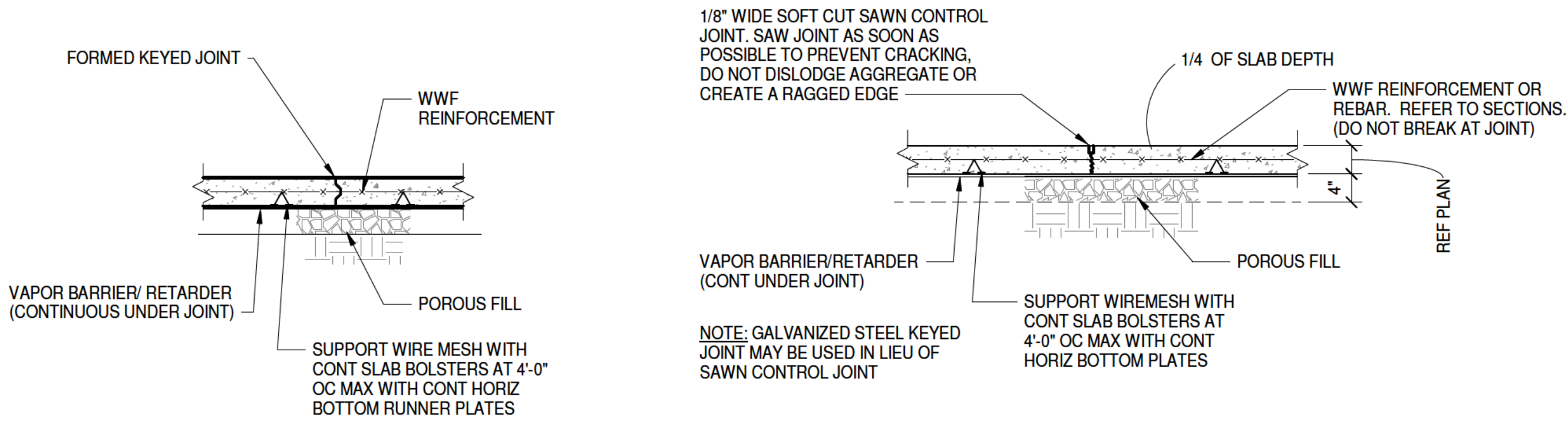


EF-1: EXISTING NARTHEX FIRST FLOOR ELEVATION = 202'-4"±.

EF-2: FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO THE CONSTRUCTION AND FABRICATION OF ANY NEW STRUCTURAL MEMBERS.

EF-3: PROVIDE (2) #5X1'-6" WHERE INDICATED. POST-INSTALL 6" INTO EXISTING MASONRY WALL. CENTER IN FOOTING.

EF-4: BOTTOM OF NEW FOOTING ELEVATION INDICATED THUS -X'-XX" RELATIVE TO EXISTING PORTICO FINISH FLOOR ELEVATION OF 201'-11 5/8".

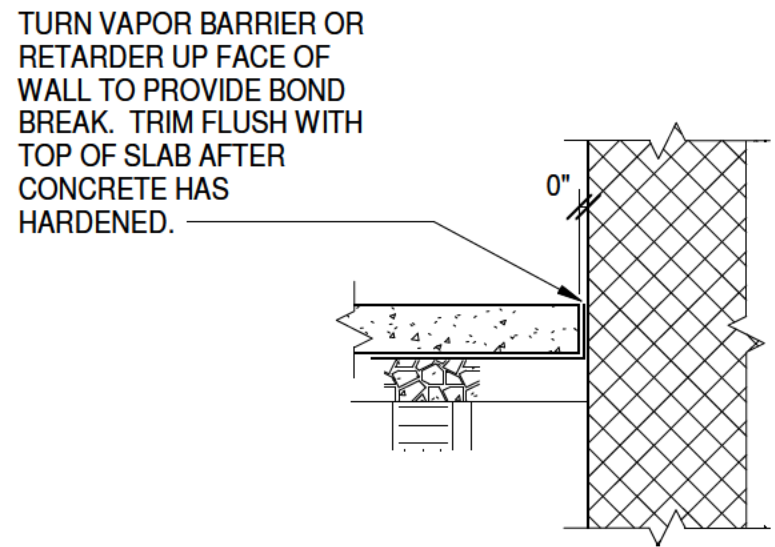


TYPICAL SLAB-ON-GROUND CONSTRUCTION JOINT DETAIL
3/4"=1'-0"

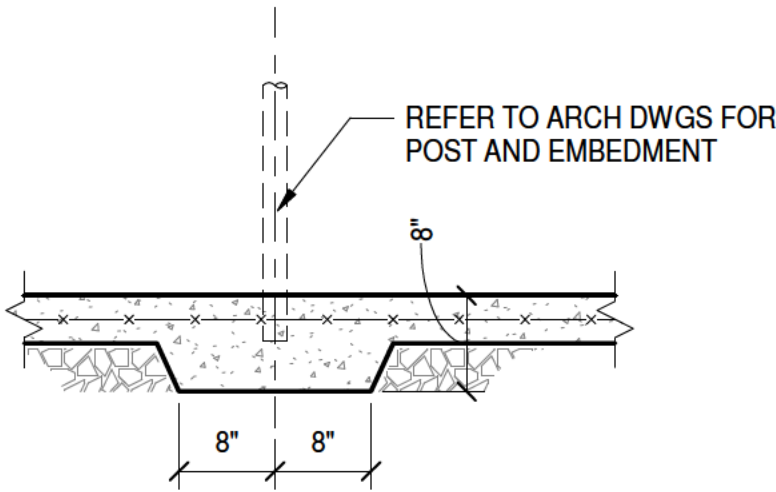
TYPICAL SLAB-ON-GROUND AND CONTROL JOINT DETAIL
3/4"=1'-0"

JOINT PLACEMENT GUIDELINE

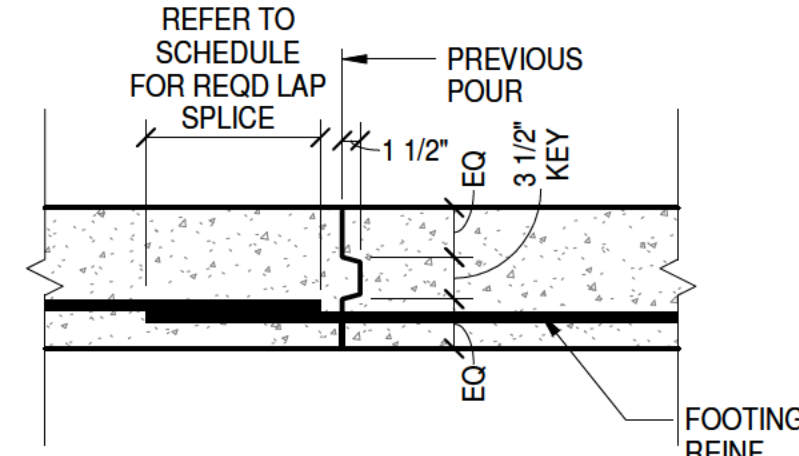
- A. LOCATE CONTROL JOINTS AND/ OR CONSTRUCTION JOINTS AT
1. RE-ENTRANT CORNERS OF SLAB
2. AT CORNERS OF INTERIOR MASONRY WALLS WITH FOOTINGS
B. SPACE JOINTS NO MORE THAN THE FOLLOWING:
1. 12 FEET APART
C. SUBDIVIDE SLAB AREAS TO LIMIT LENGTH TO WIDTH RATIO OF SLAB AREA TO 2 TO 1 MAXIMUM. PROVIDE SQUARE SLAB AREAS WHERE PRACTICAL.
D. IN ADDITION TO GUIDELINES ABOVE, COORDINATE CONTROL JOINT LOCATIONS WITH ARCHITECTURAL DRAWINGS.



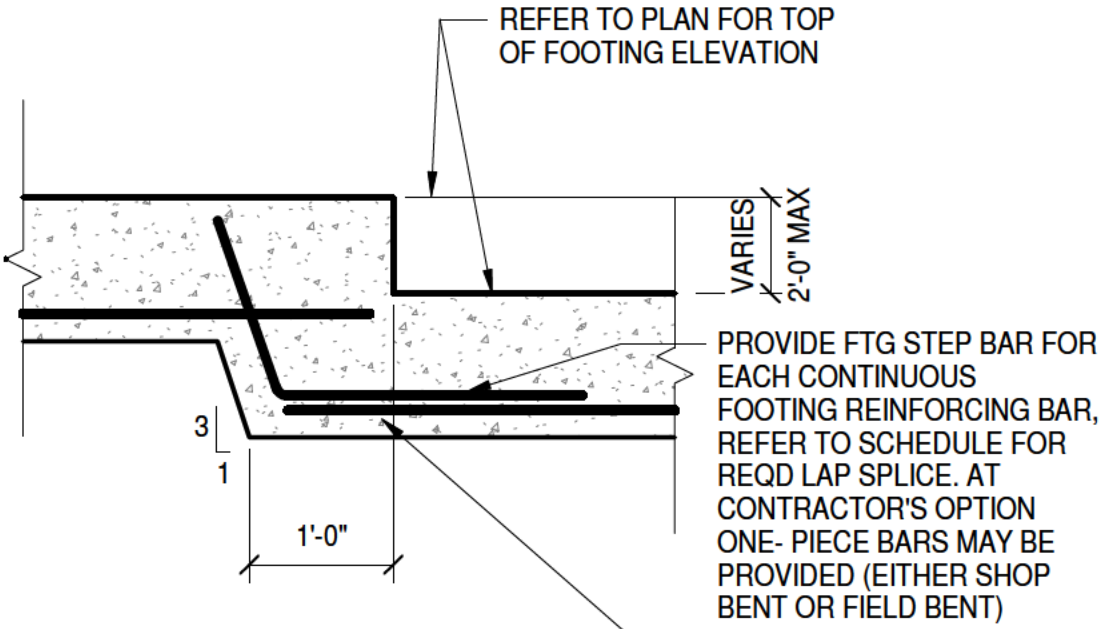
TYPICAL BOND BREAK AT SLAB-ON-GROUND
3/4"=1'-0"



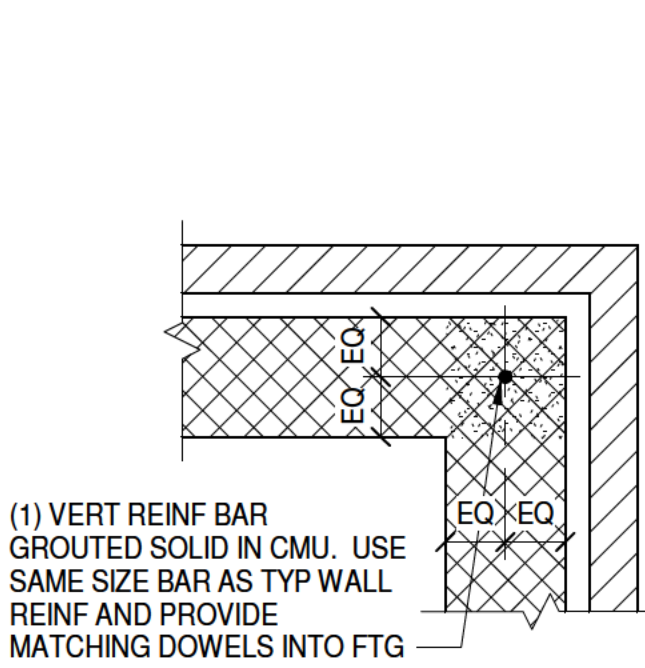
TYPICAL SLAB-ON-GROUND DETAIL AT EMBEDDED HANDRAIL POST
3/4"=1'-0"



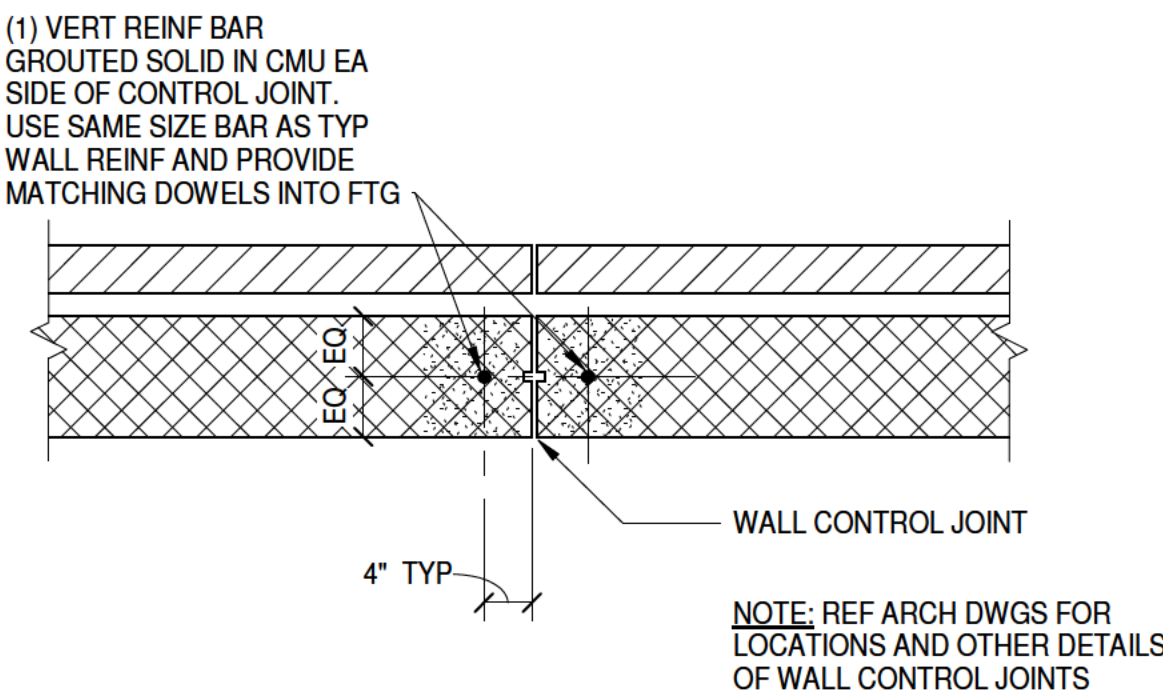
CONTINUOUS WALL FOOTING CONSTRUCTION JOINT (ELEVATION VIEW)
NO SCALE



FOOTING STEP DETAIL
NO SCALE



TYPICAL DETAIL AT CORNER OF EXTERIOR WALL
3/4" = 1'-0"



TYPICAL DETAIL AT CONTROL JOINT THROUGH CMU AT EXTERIOR WALL
3/4" = 1'-0"

TYPICAL WALL REINFORCING PLAN DETAILS

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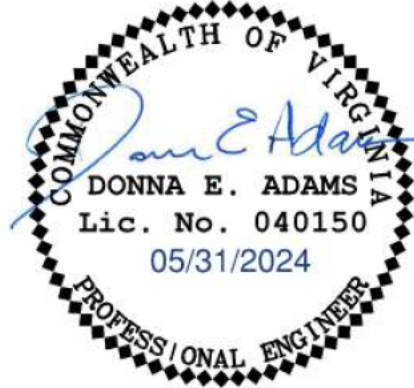
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SHEET TITLE

TYPICAL DETAILS

SHEET NUMBER

S2.01

PROJECT TITLE

ST. JAMES'S RAMP
AND ROAD PROJECT

St. James's Episcopal Church

1205 W FRANKLIN
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SHEET TITLE

RAMP FOUNDATION
AND FLOOR
SECTIONS

SHEET NUMBER

S2.02

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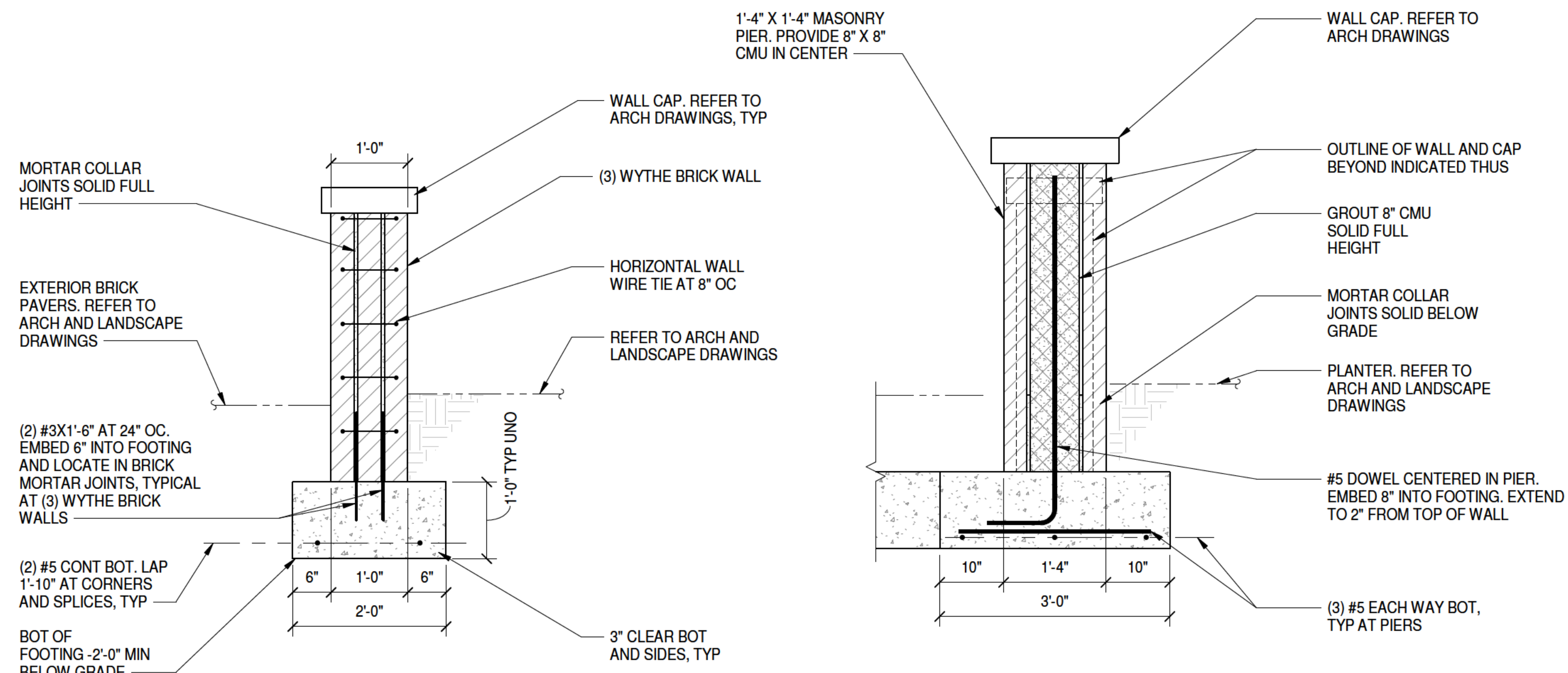
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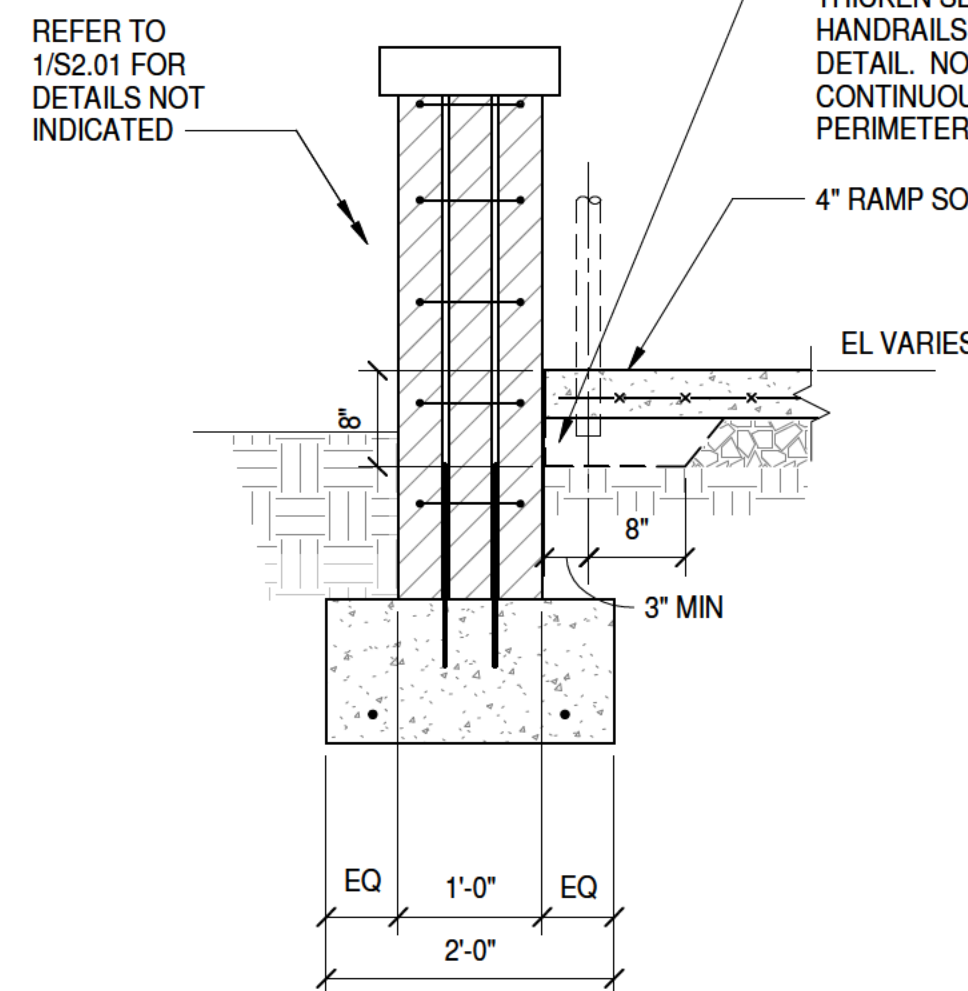
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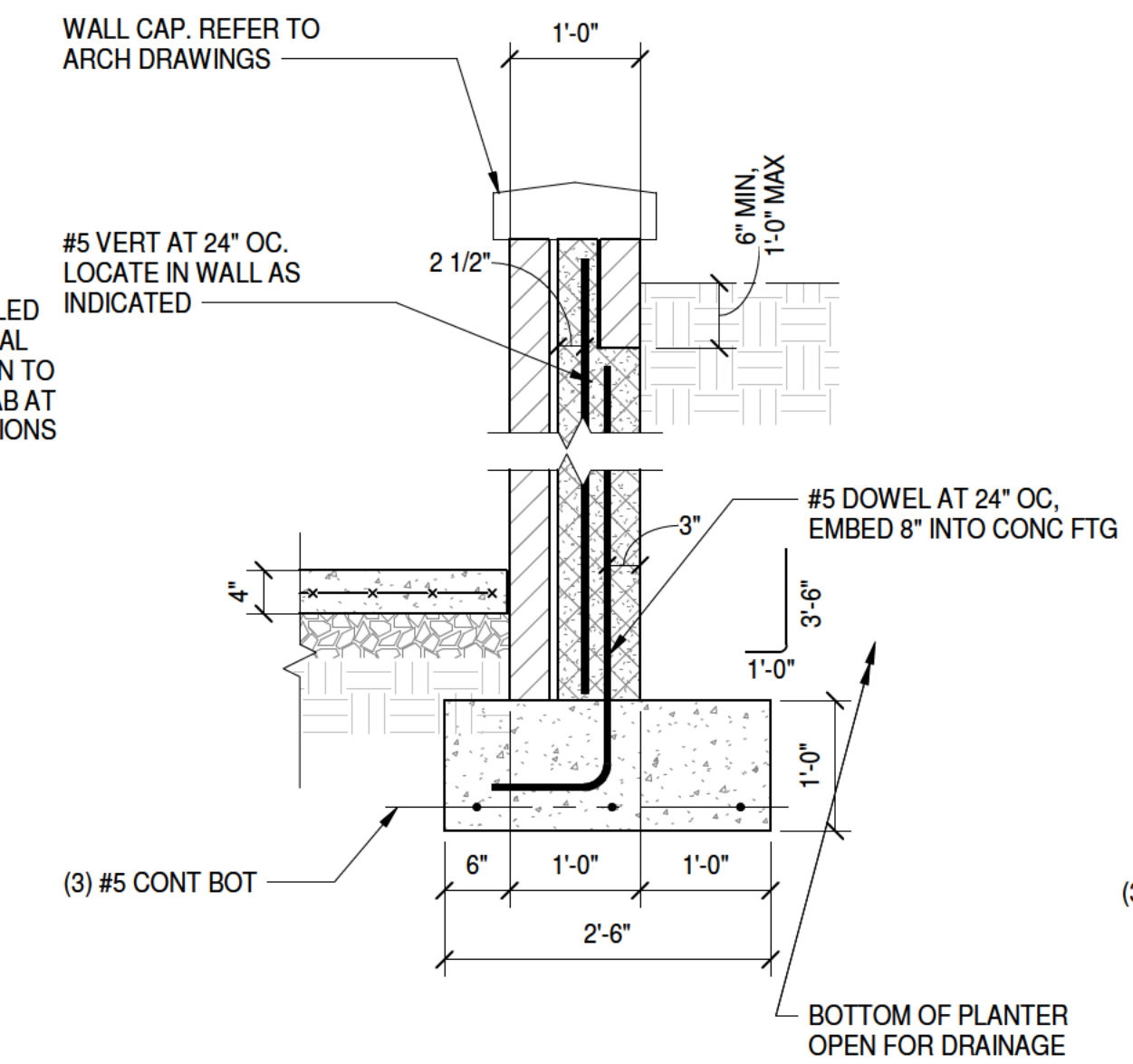
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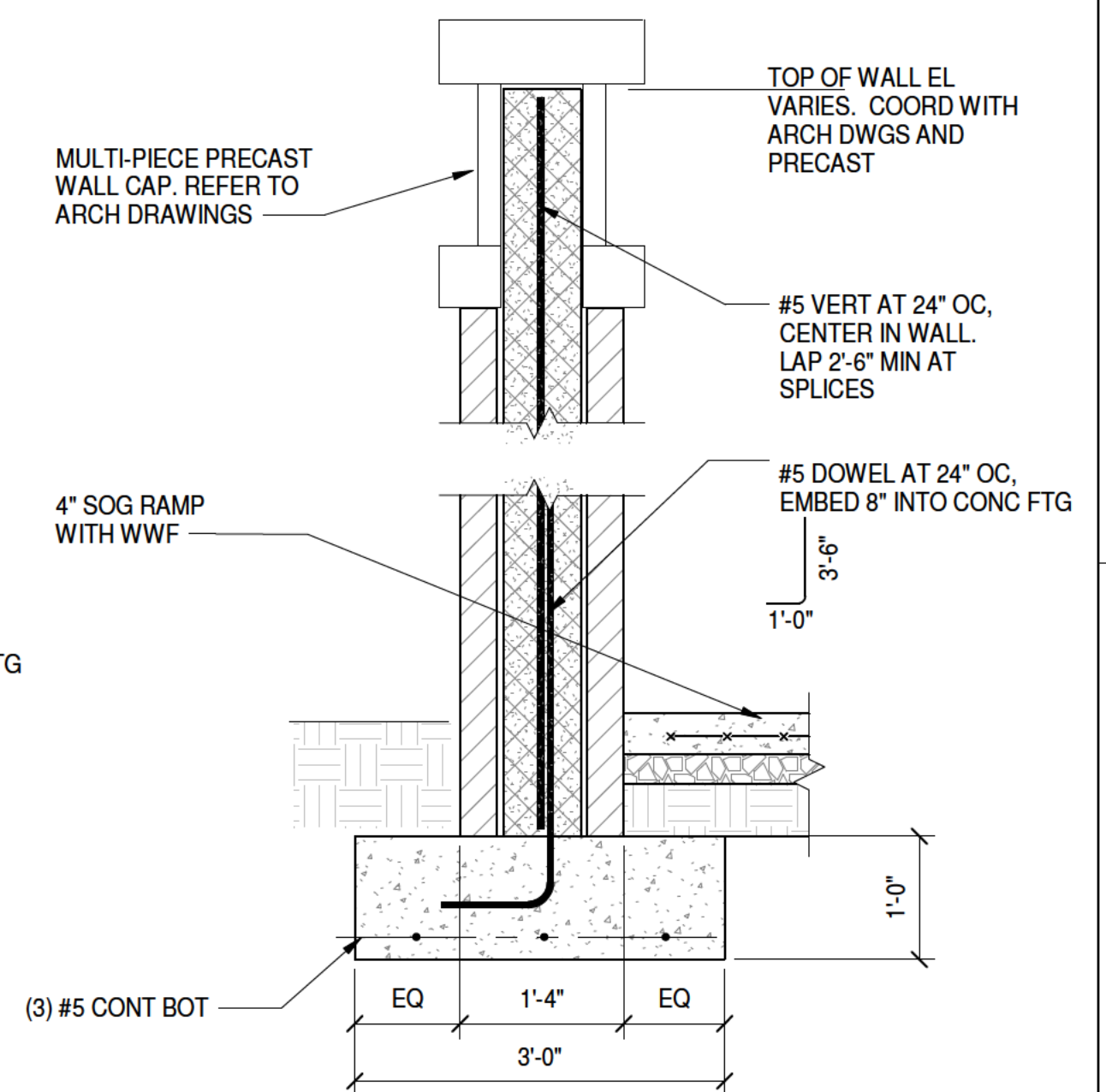
TYPICAL PIER SECTION



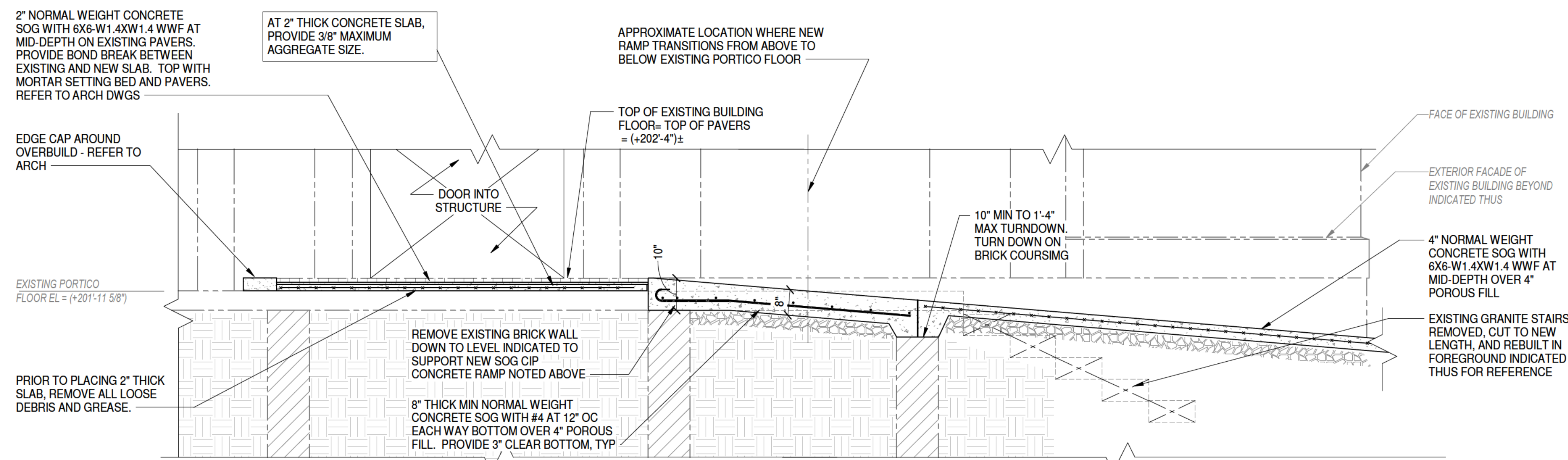
SECTION 3
3/4" = 1'-0"



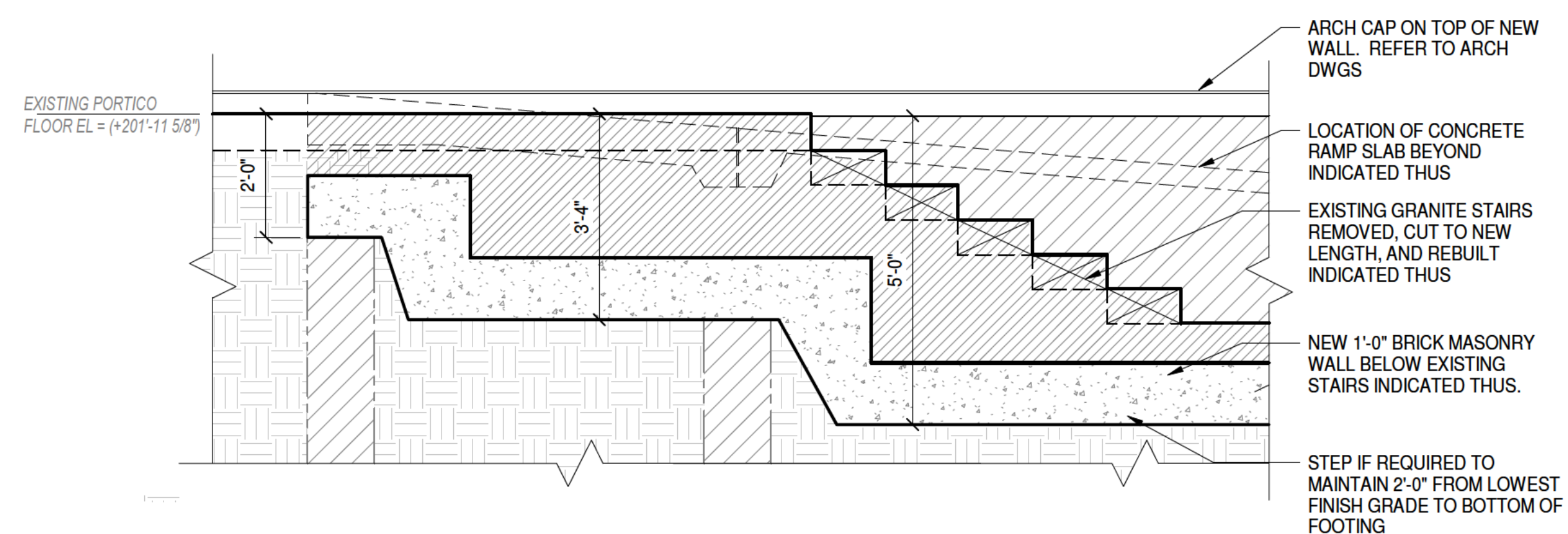
TYPICAL PLANTER WALL SECTION



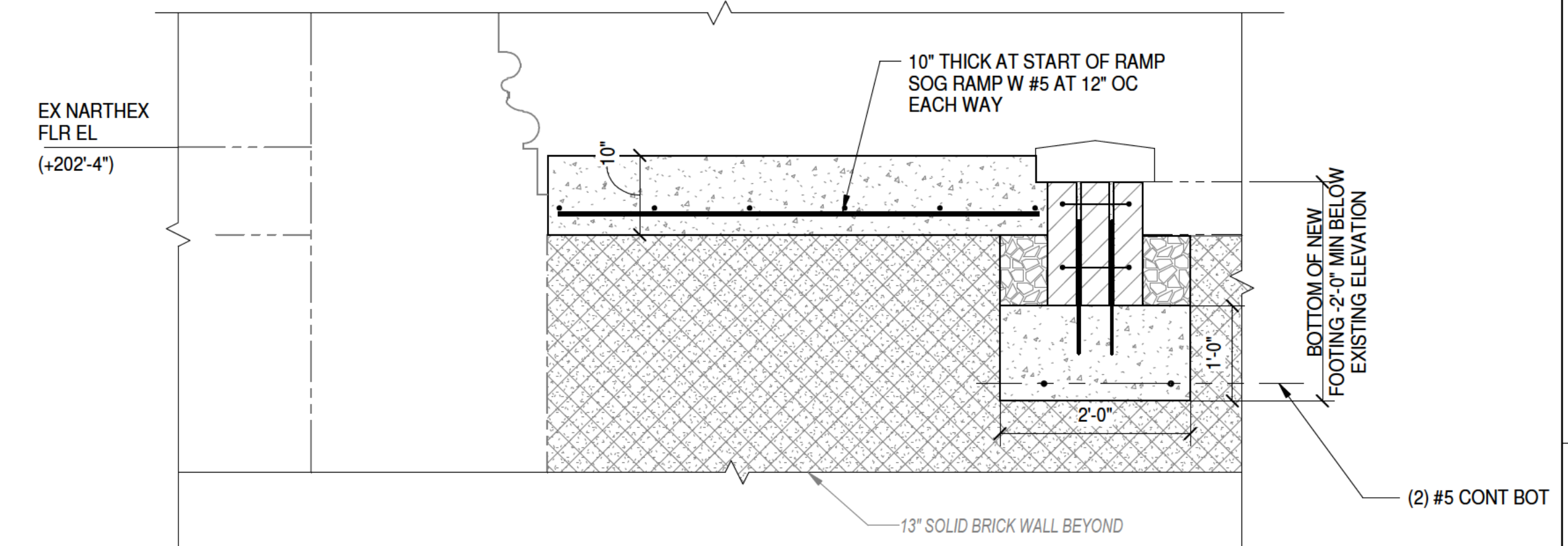
SECTION 5
3/4" = 1'-0"



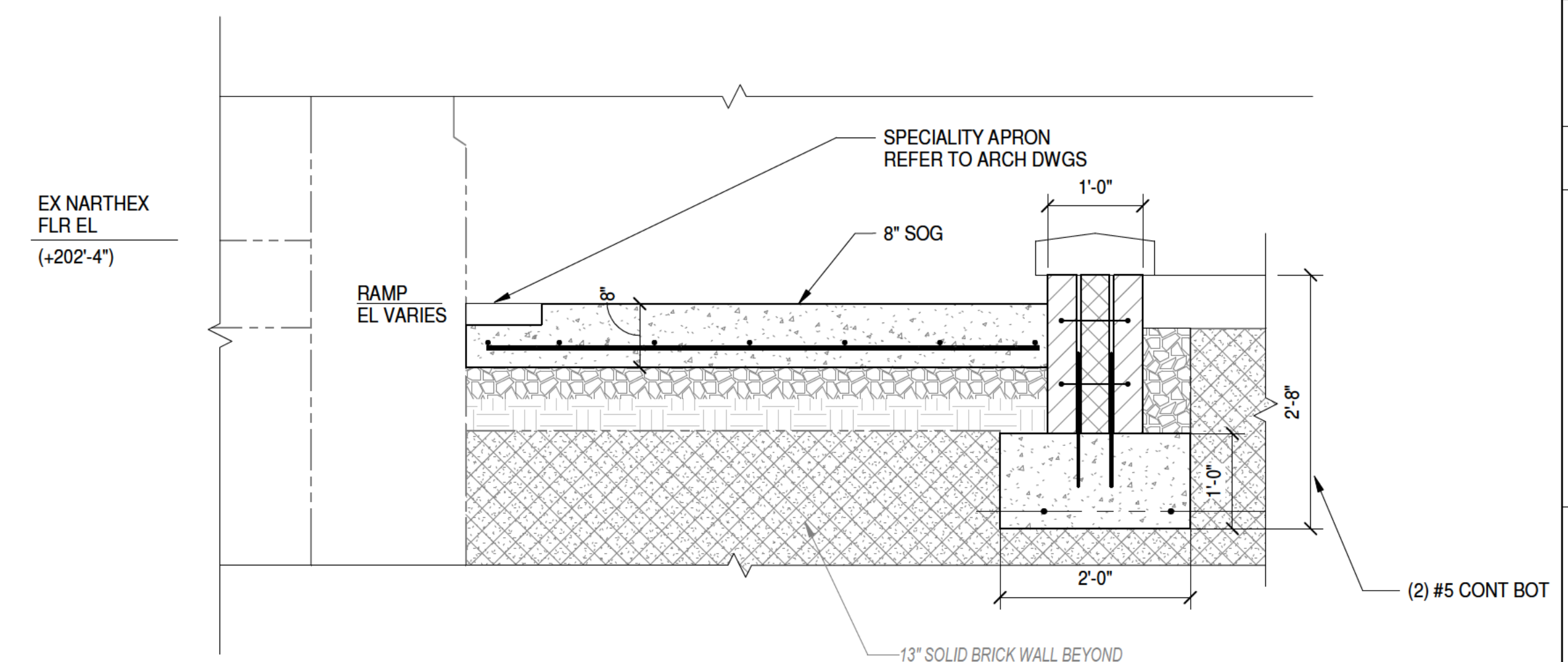
SECTION 6
1/2" = 1'-0"



SECTION 7
1/2" = 1'-0"



SECTION 8
3/4" = 1'-0"



SECTION 9
3/4" = 1'-0"