DATE: October 1, 2025

DEPARTMENT OF GENERAL SERVICES
BUREAU OF CAPITAL PROJECT DESIGN MANAGEMENT
1800 HERR STREET
HARRISBURG, PENNSYLVANIA

ADDENDUM NO. 4

on

PROJECT NO. DGS C-0948-0087 PHASE 001
PROJECT TITLE - PA State Museum - Paver Repair/Replacement
PROFESSIONAL:
Chris Dawson Architect LLC
210 North 3rd Street, Suite C
Harrisburg, PA, 17101

If you submitted a bid prior to this Addendum being issued, your bid has been discarded and you must re-submit your bid(s) prior to the bid opening date and time.

ADMINISTRATIVE CHANGES – ALL CONTRACTS

Item 1 – **REVISE** - Construction duration to be extended from 432 to 612 days.

Item 2 – **CLARIFICATION**: The ground floor will be occupied during construction. Ground floor scope is intended to be completed during normal work hours. Contractors shall coordinate work areas and schedules with DGS and PHMC.

Item 3 – **CLARIFICATION**: The bid date is October 7, 2025. The .2 Low Bid opening will be at 2 PM. The .1, .3, and .4 proposals must be received by the Department of General Services in the Lobby of the Arsenal Building, 1800 Herr Street, Harrisburg, PA, prior to 2 PM October 7.

Item 4 – **CLARIFICATION**: Liquidated damages differ by contract see Bid advertisement for specifics.

Item 5 – **CLARIFICATION**: .1 (General) Contractor shall transport salvaged materials to Fort Indiantown Gap. Coordinate final location with BOC and PHMC (Lou McCrory).

Item 6 – **CLARIFICATION**: Consultants to the Professional (including subconsultants and subcontractors) cannot bid on the actual construction project per the General Conditions to the Professional Agreement

Item 7 – **CLARIFICATION**: Scope indicated on the documents as weekend work must be completed between 6pm Friday to 6 am Monday.

Item 8 – **CLARIFICATION**: The contractors shall be responsible for all maintenance and protection of traffic.

Item 9 – **CLARIFICATION**: Per DGS Project Procedure Manual "No substitutions are considered during bidding. Contractors shall bid the documents as provided. Acceptable or equal substitutions may be considered after bid award."

Item 10 – **CLARIFICATION**: Asphalt or tar kettles are permitted on the plaza deck, subject to full compliance with all other provisions of Section 6.42, including fire extinguisher placement and continuous supervision of fired kettles.

SPECIFICATION CHANGES – ALL CONTRACTS

Item 1 – Spec Section 016200 **DELETE** line item 1.7, B, item 1.8, and item 1.13.

Item 2 – Section 033000, 1.2, B, 2: **REVISE** "Slag Cement used as the paver setting bed…" to read "Slag Cement used as the topping slab (paver setting bed) …"

Item 3 – **CLARIFICATION:** CxP is directly contracted with the Department. 019100 1.4.A.7 - testing procedures are executed by contractors; 070800 1.2A - GC is responsible for testing.

Item 4 – Section 033000, 1.2, B, 1: **DELETE** "h. New sump pit (concrete exposure class F2)" and "i. New stair treads (concrete exposure class F3)" from list.

Item 5 – **CLARIFICATION**: refer to spec section 010400, 1.6 for all Lead paint work.

Item 6 – Section 071413 Note 2.1, A, 8 **REVISE** "Tremco; Tremproof 150." to read "Tremco; Tremproof 6100."

Item 7 – Section 040140.61 **CLARIFICATION**: Not to be bid. Stone called out to be reinstalled is expected to not require repair.

Item 8 – Section 071413 **CLARIFICATION**: "Hot Fluid Applied Waterproofing" is also applicable to subgrade application.

Item 9 – Section 010400, 1.20, A **CLARIFICATION** - "The Prime Contractor and its Subcontractors shall perform their work in a manner which shall minimize the possibility of air, water, land and noise pollution, in accordance with the General Conditions of the Construction Contract."

Item 10 – **CLARIFICATION**: all pavers to have square edge profile unless noted otherwise.

Item 11 – **CLARIFICATION**: Paver joint finished per section 321400, 3.4, G & H

Item 12 – **CLARIFICATION**: No hourly Fire Rated Assembly is required for the Emseal Expansion joint material.

Item 13 – **CLARIFICATION**: Refer to specification section 221423, Paragraph 3.1, A, 1 for the sizes of cleanouts required.

Item 14 – **CLARIFICATION**: Storm piping is specified in specification section 221413. PVC piping shall be solid-wall PVC as specified in paragraph 2.4.

Item 15 – Section 030105 3.5, A, 8 **REVISE** sentence "Use appropriate forms and shoring to provide stable formwork as required for retaining flowable concrete mixes that will produce flat and uniform finish surfaces. Consolidate the concrete thoroughly to remove entrapped air." to read "Use appropriate forms and shoring to provide stable formwork as required for retaining flowable concrete mixes that will produce flat and uniform finish surfaces. When filling existing pipe penetrations, block penetration so that concrete does not freefall below. Consolidate the concrete thoroughly to remove entrapped air."

Item 16 – **CLARIFICATION**: Sections 030101 & 030105 to be utilized in filling of existing pipe penetrations.

DRAWING CHANGES – ALL CONTRACTS

Item 1 – Sheet A101 **ADD** drawn region and note south of Museum reading "ADDITIONAL CONTRACTOR LAYDOWN SPACE ALONG NORTH ST.. SPACE IS ONLY AVAILABLE TO CONTRACTORS AFTER CLOSURE OF THE PA STATE MUSEUM".

Item 2 – Sheet A101 **ADD** note to both plaza planter beds, "SPACE AVAILBLE TO USE BY CONTRACTORS, USE AT OWN RISK DURING CONSTRUCTION".

Item 3 – Sheet A101 **ADD** drawn region and note north of museum reading "PHASE 4 PROJECT FENCING TO REMAIN, COORDINATE AS REQUIRED".

Item 4 – Sheet A101 **ADD** note to Forster St. reading "CONTRACTORS TO LEASE PARKING SPOTS AS REQUIRED FOR THE PROJECT ALONG FORSTER ST."

Item 5 – Sheet CS3 **DELETE** note "EXISTING BELL AND ASSOCIATED BASE TO BE RELOCATED PRIOR TO PIPE WORK BELOW. BELL TO BE RELOCATED TO NORTH SIDE OF MUSEUM, REFER TO SPECIFICATIONS".

Item 6 – Sheet AD101 **DELETE** note "EXISTING BELL AND ASSOCIATED BASE TO BE RELOCATED PRIOR TO STORMWATER PIPE WORK BELOW, REFER TO SPECIFICATIONS".

Item 7 – Sheet AD108 **DELETE** note "EXISTING BELL AND ASSOCIATED BASE TO BE RELOCATED PRIOR TO STORMWATER PIPE WORK BELOW, REFER TO SPECIFICATIONS".

Item 8 – Sheet A101 **DELETE** note "EXISTING BELL AND ASSOCIATED BASE, REFER TO SPECIFICATIONS".

Item 9 – Sheet A501 Details 1A & 1B: **CLARIFICATION** - Typical topping slab thickness between 3" & 4" across plaza.

Item 10 – Sheet CS3 Note **REVISE** "COORDINATE PROTECTION REQUIREMENTS WITH SPECIFICATION SECTION 024229." to read "COORDINATE PROTECTION REQUIREMENTS WITH SPECIFICATION SECTION 016200."

Item 11 – Sheet AD111: **CLARIFICATION**:.3 (Plumbing) Contractor is responsible for the temporary protection of the existing to remain ceiling grid.

Item 12 – **CLARIFICATION**: Typical Existing Plaza structural slab elevation 349.47'.

Item 13 – Sheet A113 **CLARIFICATION**: Typical granite accent paver thickness 3-1/4”.

Item 14 – **CLARIFICATION**: There are no structural condition issues warranting shoring at the project – but sometimes shoring becomes necessary due to the means and methods of the demolition and construction.

Item 15 – Sheet AD101 & following Demo Sheets **ADD** Demo Note "D4.13" to read "REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504. CATALOG, CLEAN, STORE AND PREP TO REINSTALL."

Item 16 – Sheet AD106, & AD201 **REVISE** LOCATION OF DEMO NOTE D4.1a WITH DEMO NOTE 4.13 FOR APPROPRIATE AREAS.

Item 17 – Sheet A504 details 1 & 2: **CLARIFICATION**: Granite Coping, & Granite Cladding on front & back of parapet wall are to be reinstalled.

Item 18 – Sheet CS1: **DELETE** Sheet "S512 BOILER ROOM AND SUMP PIT DETAILS" and sheet "S513 COURTYARD REMEDIATION DETAILS" from the sheet index, drawings were removed from project.

Item 19 – Sheet A115: **CLARIFICATION** - Typical flooring is polished concrete, existing conditions to be verified in field, and replaced concrete is to match existing.

Item 20 - A201, A202, & A203 Proposed Elevation Key: **REVISE** “Reinstalled Stone” to “Replaced (new) Stone”

Item 21 – Sheet A901, Finish Schedule: **CLARIFICATION**: ST-04 Basis of Design is Polycor American Black Flamed Finish

Item 22 – Sheet CS4, Drawing Note **REVISE**: Sentence "...SCHEDULE ALL WORK IN SEQUENCE 8, 10, 11, AND 12 WITH CLIENT AGENCY AT LEAST ONE MONTH PRIOR TO WORK STARTING..." to read "...SCHEDULE ALL WORK IN SEQUENCE 1, 3, & 4 WITH CLIENT AGENCY AT LEAST ONE MONTH PRIOR TO WORK STARTING..."

Item 23 – Sheets CS3 & CS4, Sequencing Note 4: **REVISE**: The last sentence "REFER TO SEQUENCES 01, 02, 03, 04, 05, 06, 09, 10, 13 AND 16." to read "REFER TO SEQUENCES 01, 02, & 03."

Item 24 – Sheet AD106, A101, & A111 **ADD** note to plaza garage entry on North st. to read "GARAGE FOB ACCESS AND RED/GREEN LIGHTS MUST BE OPERATIONAL DURING WEEKDAYS (6AM MONDAY - 6PM FRIDAY). COORDINATE REMOVAL AND REINSTALLATION WITH DGS AND SNYDER ELECTRIC"

Item 25 – Sheets A104, A105, A106, A107, A108 General Note: **CLARIFICATION** - "PAVER DIMS. NOTED BELOW ARE NOMINAL."

Item 26 – Sheets A104, A105, & A106: **CLARIFICATION**: Cast Stone Samples to match basis of design SUN Precast Mix # 4322-16

Item 27 – **CLARIFICATION**: Typical Paver setting bed thickness to be between 1/4" and 1/2."

Item 28 – **CLARIFICATION**: Typical width of expansion joint assembly is 6", expected typical height of expansion joint assembly is 6".

Item 29 – Sheet S501, Detail 8 & 11: **CLARIFICATION**: Limestone panels should be set on stone supports. Stone below is to be able to be removed by contractor without impacting the material above.

Item 30 – Sheet S503 Detail 8: **CLARIFICATION**: faux expansion joint is the same product as non-faux.

Item 31 – **CLARIFICATION**: The response time of one hour for leaks is applicable for the entire plaza for the duration of the project.

Item 32 – Sheet S001 Note "I. Design Criteria", C, 1: **CLARIFICATION**: Typical Plaza Live Load: 100 PSF.

Item 33 – Sheet AD203 Demo Note D5.2: **CLARIFICATION**: refer to Spec Section 050170.51 for metal cleaning.

Item 34 – Sheet AD110: **CLARIFICATION**: Note reading "REMOVE STONE PAVERS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL." Pertains to adjacent Demo Note "D3.3" being the floor finish in that area.

Item 35 – Sheet AD204: **CLARIFICATION**: per Section 010400, 1.5, A "There is a possibility that hazardous materials not identified in the contract documents may be discovered on this project. Should it be determined that some or all of the hazardous materials must be removed, the Contractor shall obtain an estimate for said removal from a Subcontractor who is experienced in the field, has insurance and is knowledgeable of the regulations as they apply. The Contractor may provide the estimate itself if it is qualified in the applicable hazardous materials field. The Department shall consider authorizing a Change Order for the removal of the hazardous material to the extent necessary. "There is a possibility that hazardous materials not identified in the contract documents may be discovered on this project. Should it be determined that some or all of the hazardous materials must be removed, the Contractor shall obtain an estimate for said removal from a Subcontractor who is experienced in the field, has insurance and is knowledgeable of the regulations as they apply. The Contractor may provide the estimate itself if it is qualified in the applicable hazardous materials field. The Department shall consider authorizing a Change Order for the removal of the hazardous material to the extent necessary."

Item 36 – Sheets A107 & A108: **CLARIFICATION**: Custom sized pavers are to be cut in field.

Item 37 – Sheet A505 Details 1 & 2: **REVISE** "2" DIAMETER STAINLESS STEEL RAILING..." to read "1 1/2" DIAMETER STAINLESS STEEL RAILING…"

Item 38 – Sheet C-102: **CLARIFICATION**: Soil removed from planters should be refilled with new soil.

Item 39 – Section 221423, 3.1, H & Addenda 3 Drawing Changes Item 1: **CLARIFICATION**: all drains are to be provided by the .3 (Plumbing) Contractor and installed by the .1 (General) Contractor. Layout would be by the .1 contractor. All core drilling and final connections will be made by the .3 (Plumbing) Contractor.

Item 40 – **CLARIFICATION**: per sheet A501 Detail 1A new granite pavers are to be 2" thick.

Item 41 – **CLARIFICATION**: per sheet A501 Detail 1B new cast stone paving unit pavers are to be 2 1/2" thick.

Item 42 – Sheet AD101, Demo Note D2.1 **CLARIFICATION**: Concrete pavers removed do not have and disposal requirements.

Item 43 – Sheet A501 Detail 2 **CLARIFICATION**: Refer to corresponding detail 2 on sheet S501 for Waterproofing installation.

Item 44 – **CLARIFICATION**: walls surrounding ramps on south end of site into the garages beneath plaza and keystone building are to be weekend work.

Item 45 – **CLARIFICATION**: .1 (General) Contractor is responsible for providing dumpsters for all prime contractors.

Item 46 – Sheets CS3 & CS4: **REVISE** Sequencing Note 11 to read "GC TO PROVIDE 8' WIDE MINIMUM FENCED EGRESS PATH FROM LOCATIONS B TO AREA A, or C TO AREA D

THROUGHOUT CONSTRUCTION PHASE.DISRUPTIONS TO KEYSTONE BUILDING EGRESS PATHWAYS TO BE KEPT AT A MINIMUM. .1 CONTRACTOR TO COORDINATE ANY CLOSURE OF THE KEYSTONE BUILDING EGRESS PATHWAYS DURING CONSTRUCTION WITH THE BOC AND CLIENT AGENCY."

Item 47 – Sheet A504 Detail 4: **CLARIFICATION**: When detail applies to sheet A201 Elevation 2 construction is to stop at top of hardscaping.

Item 48 – **CLARIFICATION**: Sheet A116 "missing" interior ceiling repair north of column line "AH" to be handled by separate DGS Phase.

Item 49 – Sheet A116 **ADD** Wall tags in coordination with Sheet A115

Item 50 – Sheet AD111 **ADD** Demo Note "D9.1" & "D9.2" to ceiling areas in Northwest corner of plan.

Item 51 – Sheet A116 **ADD** area to ceiling replacement & repair in Southwest corner near Auditorium.

Item 52 – Sheet AD111 **REVISE** Scope of ceiling demolish to accurately reflect gutter work.

Item 53 – Sheet A106 **REVISE** Scope of ceiling to accurately reflect gutter work.

Item 54 – Sheet DM1.00 **REVISE** Detail 10 Note "REMOVE, CLEAN, AND REPLACE EXIST GUTTER ASSEMBLIES" to read "REMOVE, CLEAN, AND REINSTALL EXIST GUTTER ASSEMBLIES"

Item 55 – Sheet S501 **REVISE** Detail 10 Note "REMOVE, CLEAN, AND REPLACE EXIST GUTTER ASSEMBLIES" to read "REMOVE, CLEAN, AND REINSTALL EXIST GUTTER ASSEMBLIES"

Item 56 – **CLARIFICATION**: refer to Sheet A501 Detail 6 for reinstallation of exterior hard ceiling. Per sheet AD111, Demo Note "D9.2" reads "REMOVE EXISTING EXTERIOR HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE OR STRUCTURE."

Item 57 – Sheet S502 Detail 12 **REVISE** Note "NEW CONC. BEAM. CENTERLINE OF BEAM SHALL ALIGN WITH CENTERLINE OF SUNSHADE STRUCTURE COLUMNS. REFER TO DETAIL 6/S503 FOR CONNECTION TO EXISTING PLANTER WALL." to read "NEW CONC. BEAM. CENTERLINE OF BEAM SHALL ALIGN WITH CENTERLINES OF SUNSHADE STRUCTURE COLUMNS. BEAM IS UNDER BOTH COLUMNS. REFER TO DETAIL 6/S503 FOR CONNECTION TO EXISTING PLANTER WALL."

Item 58 – Sheet DM1.00 Detail 1A: **REVISE** "PATCH AND REPAIR DAMAGE TO EXIST STRUCT. SLAB USING REPAIR MORTAR COMPATIBLE WITH THE NEW WATERPROOFING MEMBRANE" to read "PATCH AND REPAIR EXISTING STRUCT SLAB AS REQUIRED TO BE COMPATIBLE WITH WATERPROOFING MEMBRANE. IF REMEDIATION FOR STRUCTURAL DEFECTS ARE REVEALED DURING DEMOLITION, CONTACT ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS"

Item 59 – **CLARIFICATION**: Slope to drains is to be achieved with the topping slab.

Item 60 – Sheet A502 Detail 6 **REVISE** Note "RECESSED TENT ANCHOR FLUSH WITH PAVERS. 5,000 # WORK LOAD, W/ 6" x 4" DARK BRONZE COVER PLATE. COVER PLATE FINISHED TO MATCH PLAZA EXPANSION JOINTS, REFER TO FINISH SCHED." to read "RING OF NON-CORROSIVE MATERIAL TO ANCHOR TENT STRUCTURE CAPABLE OF WITHSTANDING A 5000 LB LOAD IN ANY DIRECTION. RING MUST HAVE A 6"X4" DARK BRONZE COVER PLATE

TO BE FLUSH WITH ADJACENT PAVERS. COVER PLATE FINISHED TO MATCH PLAZA EXPANSION JOINTS, REFER TO FINISH SCHED'."

Item 61 – Sheet A502 Detail 5 & 9 **REVISE** Existing to be board insulation with note "4" BD. INSULATION"

Item 62 – Sheet S502 Detail 5 **ADD** board insulation to detail to correspond with architectural details.

Item 63 – Sheet S505 Detail 2 Note: **REVISE** "NEW CONC. SLAB WITH 4" X 4" W4 X W4 WELDED WIRE MESH" to read "NEW 4" THICK CONCRETE SLAB, WITH #3 REBAR SPACED 12" ON CENTER EACH WAY."

Item 64 – Sheet A111: **CLARIFICATION**: Sheet A501 Detail 3 to be used as Sim. Details for the two structures outside of the entrance to the Keystone Building

Item 65 – Sheet S501 Detail 5 & A501 Detail 5 **CLARIFICATION**: .1 (General) Contractor is responsible for the installation of 2" waterproofing sleeve, the lowest baseplate, and waterproofing the assembly as detailed. .4 (Electrical) Contractor is responsible for wiring and lighting pole.

Item 66 – Sheet AD106 **ADD** Demo Note "D5.2" for railing to maintenance door on North st.

Item 67 – Sheet A301 Section 5 **ADD** Railing to section with note reading "STAINLESS STEEL RAILING, TO REPLACE IN-KIND, VERIFY DIMENSIONS IN FIELD PRIOR TO DEMOLITION"

SECTION 016200

HISTORICAL AND MUSEUM COMMISSION PROJECTS - SUPPLEMENTAL PROVISIONS

PART 1 – GENERAL

1.1 STIPULATIONS

A. The specifications sections “General Conditions of the Construction Contract”, “Special Conditions”, and “Division 1 - General Requirements” form a part of this Section by this reference thereto, and have the same force and effect as if printed herewith in full.

1.2 WORK IN AND AROUND HISTORICAL SITE AND HISTORICAL BUILDINGS

A. The use of the word “Contractor” in this Section shall mean all Prime Contractors.

B. The Project site is an operating museum that accommodates tours of groups as well as individual visitors. In addition, The Project site and its various buildings may be recognized as one of the most highly visible and historically significant landmarks in the state, and they gain part of their cultural importance from the open spaces, the grounds, and the buildings. The Contractor will be expected to exercise a special degree of care and skill, and it must be sensitive to the problems associated with historical buildings, particularly those containing a public use. The Contractor is entrusted with a property, in some cases an irreplaceable landmark, the value of which is highly regarded by the citizens of the Commonwealth of Pennsylvania. Also, the Contractor shall ensure that its operations and the conduct of its employees are appropriate to the type of work done in a museum environment.

C. The Contractor shall comply with the Secretary of the Interior’s Standards for the Treatment of Historic Properties, as applicable.

D. The Contractor shall provide at least 48 hours notice prior to any excavation on the site. The Commission Archaeologist shall have the right to stop the work for a period of time, not to exceed 5 business days, to perform mitigation archaeology at no additional expense. See item 1.11.

E. Contractor shall notify DGS within 24 hours when any personnel from the level of Foreman and up are removed from this project

F. All finishes and objects within the area of work are to be protected from damage, including floors, walls, ceilings, objects, and artifacts. Finishes and objects within the path of travel for materials are also to be protected from damage.

1.3 REFERENCE

A. The Secretary of the Interior's Standards for Historical Preservation Projects, by reference, shall become part of this specification. https://www.nps.gov/tps/standards/four-treatments/standguide/index.htm

B. "Commission" refers to the Pennsylvania Historical and Museum Commission.

1.4 DAMAGE REPAIR

A. Repair, at no cost to the Commission or the Department, any areas of existing buildings, contents, landscaping, paving or other site features damaged during the work, to the satisfaction of the Commission's Project Manager and the Department. These buildings contain important historical collections and/or finishes. If damage occurs to these collections and/or finishes as a result of the work, the Contractor shall hire a Conservator,

from a list supplied by the Commission, to assess the damage and recommend conservation measures required, at no expense to the Commission or the Department. Upon acceptance by the Commission and the Department of the Conservator's Assessment Report, the Contractor shall arrange for the Conservator to perform those conservation measures on the damaged objects and/or finishes at no additional cost to the Commission or Department.

1.5 SYSTEMS INSTALLATION

A. The Contractor shall review his procedures for systems installation prior to beginning any work at the site or in specific building areas to the approval of the Department and the Commission representative.

1.6 SALVAGE

A. No existing material shall be disposed of without the approval of the Commission's Project Manager. Do not reuse materials scheduled to be removed from the site, except as specifically identified or allowed by the Drawings and Specifications, or as directed by the Commission's Project Manager. Store materials designated by the Commission's Project Manager for salvage by the Commission at a location on site designated by the Commission's Project Manager.

1.7 IDENTIFICATION OF HISTORICAL ELEMENTS

A. Reinstalled limestone and granite elements shown on the drawings shall be tagged and dated in strict accordance with the technical portions of these specifications and drawings.

1.8 PROTECTION METHODS

A. NOT USED

1.9 PRECAUTIONS FOR FURNISHINGS

A. The Contractor is advised that all furnishings contained in museum or historic buildings, such as furniture, site furniture, collections, artifacts, draperies, exhibit materials, fixtures, etc., shall not be moved, relocated or otherwise affected by the Contractor or its workmen. These procedures shall be effected and/or completed by the professional staff of the Commission. The Contractor shall provide its plan and schedule of specific work areas at least five (5) days prior to the actual start of work. It shall be the Commission's responsibility to effect the moving or relocation of the subject items in the defined areas to allow the Contractor's procedure of work. Where removal of furnishings and/or other items noted herein is considered impracticable or a hardship, they shall remain in place or be confined to a specific area which would not impede the Contractor's work. The Contractor shall provide proper protective coverings and attachments for placement by the Commission staff, or the Commission and Department shall direct the Contractor to erect suitable barriers to protect the stored material. The Contractor shall inform its workers of their responsibility for observing and maintaining the complete protection of the stored material.

1.10 FIRE SAFETY PRECAUTIONS

A. The entire job site is considered a non-smoking area and smoking and smoking paraphernalia are not permitted. The Contractors shall strictly prohibit all workers from smoking on the job site.

B. Buildings not already containing an existing heat source that utilizes combustion, which are considered by the Commission to be historic, shall utilize electric resistance units supplied by the Contractor as a temporary heat source.

C. Cutting with torches, welding equipment, or other heat generating equipment, tools, will not be permitted, unless specifically approved by the Commission's Project Manager. If such work is approved, a fire watch and fire extinguisher, with a worker trained in its operation, shall be present during the entire time of any "hot" work.

1.12 PHOTOGRAPHS

A. In addition to the photographic requirements stated in the General Conditions, the following photographic requirements for the Commission shall be part of the work. Submit the required number of photographs per work day to document the following:

1. The existing conditions before work begins. For exterior work, submit a minimum of one (1) photograph of each Elevation.
2. Items uncovered, or exposed, particularly if they are unusual or of potential historical significance.
3. The progress of the Project.
4. Mechanics performing the work.
5. Items as they are being closed up.
6. The completed Project. For exterior work, submit a minimum of one photograph of each elevation.

B. Provide digital photographs, two (2) color prints of each, matte finish, approximately 4" x 6" size, professionally printed on high quality photo paper.

1. Identify photographs with date, time, direction, and Project Name/Number on the back of each print.
2. Place all prints in archival sleeves, comparable to "Vue-All Photo Saver", product number 6028 (available at most photo stores). Place the dates the on the sleeves with a permanent marker.
3. Submit a photo key for each set of photographs. The key should describe each view, the direction of the view, and the names of any individuals in the view.
4. Submit the two (2) sets of photo prints, two (2) copies of the photo key, and two (2) digital disks of photos to the PHMC Project Manager in a three-ring binder upon completion of the Project.

1.13 EXISTING CONDITIONS PHOTOGRAPHS SHOWING SENSITIVE AREAS

A. NOT USED

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION 016200

SECTION 030105 – CONCRETE REPAIR MATERIALS

PART 1 - GENERAL

1.1 STIPULATIONS

A. The specifications sections "General Conditions to the Construction Contract", "Special Conditions", and "Division 01 - General Requirements" form a part of this Section by this reference hereto, and shall have the same force and effect as if printed herewith in full.

1.2 SUMMARY

A. This Section includes the provisions of all labor, materials, supervision, and incidentals required to prepare deteriorated or damaged concrete surfaces and install patching materials to restore original surface condition and integrity.

A. Section includes all labor, materials, services, equipment, and hardware required in conjunction with or related to the forming, delivery, and placement of all concrete work.

B. Related Sections include the following:

1. Division 01 Specification 014000 "Quality Control Testing Services"
2. Division 01 Specification 014010 "Quality Assurance Testing and Inspection Services"
3. Division 03 Specification 030101 "Surface Preparation for Patching."
4. Division 03 Specification 031000 "Concrete Forming and Accessories."
5. Division 03 Specification 032000 "Concrete Reinforcing."
6. Division 03 Specification 033000 "Cast-in-Place Concrete."

C. Contractor shall become fully acquainted with the existing job site conditions and discuss the accessibility of the work areas with the Client Agency.

D. Contractor shall ensure that there is adequate ventilation along protective and filtering barriers in areas where repair work is being performed and that no work results in nauseating, annoying or toxic fumes, odors and construction dust from entering occupied areas, HVAC and related mechanical/ electrical equipment. Provide barricades around the work area with appropriate signage to keep non-construction people from entering work area.

E. Contractor shall provide all traffic cones or barriers to direct traffic during the repair of the facility. This work shall be done in consultation with the Client Agency.

1.3 REFERENCES

A. Applicable Standards:

1. American Concrete Institute (ACI):

a. ACI 301R Specifications for Structural Concrete
b. ACI 305R Hot Weather Concreting
c. ACI 306R Cold Weather Concreting
d. ACI 308R Guide to Curing Concrete

e. ACI 318R Building Code Requirements for Structural Concrete
f. ACI 548.1R Guide for Use of Polymers in Concrete

2. International Concrete Repair Institute (ICRI):

a. ICRI 310.1R Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion
b. ICRI 310.2R Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair
c. ICRI 320.2R Guide for Selecting and Specifying Materials for Repair of Concrete Surfaces

3. American Society for Testing and Materials (ASTM):

a. ASTM C109 Test Method for Compressive Strength of Hydraulic Cement Mortars
b. ASTM C39 Test Method for Compressive Strength of Cylindrical Concrete Specimens
c. ASTM C1583 Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension

1.4 INFORMATION SUBMITTALS

A. Make submittals in accordance with requirements of Division 01 and as specified in this Section.

B. Product Data: Product data sheets, Material Safety Data Sheets/Safety Data Sheets (MSDS/SDS), and installation instructions for each product selected.

C. Material Certificates:

1. Where product data does not indicate material compatibility of independent products that form a system assembly; provide a written statement of material compatibility from the system assembly manufacturer. System assembly shall include:

a. Concrete Repair Materials
b. Epoxy Bonding Agents
c. Epoxy Coatings for Reinforcement
d. Chemical Admixtures

1.5 ACTION SUBMITTALS

A. Proposed Means and Methods:

1. Contractor shall submit procedures to protect fresh resurfacing, patches, and concrete from weather and traffic.

1.6 QUALITY CONTROL

A. Work shall conform to requirements of the American Concrete Institute (ACI) and International Concrete Repair Institute (ICRI) as applicable except where more stringent requirements are shown on Drawings or specified in this Section.

B. Source Limitations: For each independent repair location, use concrete repair materials, epoxy bonding agents, epoxy coatings for reinforcement, galvanic anodes, and repair material admixtures of a single manufacturer.

C. Qualifications

1. Manufacturer's Qualifications: Companies furnishing the repair materials shall have a proven track record of at least five years. Furthermore, they shall have in existence a program of training, certifying, and supporting a nationally organized program of approved contractors. Evidence of this shall be made available to the Engineer/Client Agency upon request.
2. Contractor's Qualifications: Contractor performing the work shall be an approved contractor by the manufacturer furnishing the repair materials and shall have no less than five years of experience in the various types of concrete repair work required in this project. Upon request by the Engineer, a notarized certification from the manufacturer attesting to the training shall be submitted to the Engineer/Client Agency.
3. Applicator’s Qualifications:
   a. Concrete repair work shall only be performed by contractors who have successfully used this process on at least three similar structural repairs of equal scope which have performed successfully for a minimum period of five years.
   b. Only adequately trained and experienced personnel shall be used on the job.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS FOR CEMENTITIOUS REPAIR MORTARS

A. Mortar used for bonding, patching, and resurfacing in exposed or exterior environmental conditions with large cyclic temperature changes shall have the following properties:

1. Repair mortar for unformed vertical and overhead repairs shall be non-sagging.
2. Acceptable structural repair materials shall have minimum 3-day compressive strength (ASTM C 39 or ASTM C 109) of 3,000 psi (20 MPa), and 5,000 psi (35 MPa) at 28 days as certified by manufacturer.
3. Acceptable structural repair materials shall have minimum 28-day direct tensile bond strength (ASTM C 1583) of 250 psi (1.7 MPa) as certified by manufacturer.
4. Coefficient of thermal expansion shall be comparable with that of concrete 5.5 x 10-6 in/in/°F (9.9 x 10-6 mm/mm/°C).
5. Acceptable structural repair materials shall have a maximum 1year drying shrinkage (ASTM C 157) of 0.05%.
6. Sand and aggregate extension used in preparing mortar shall be graded oven dry quartzite furnished in bags.
7. The cured repair mortar material shall match the existing texture and color of existing exposed/cured concrete without giving a blotchy appearance. A test patch shall be applied for approval prior to final acceptance of the mortar. Size of test patch shall be approximately equal to the size of the average mortar patch to be used on the project.

2.2 CONCRETE REPAIR MATERIALS

A. Polymer Modified Mortar for Horizontal Resurfacing:

1. Sika Corporation; MasterEmaco N 300 CI
2. Sika Corporation; SikaQuick Concrete Resurfacer
3. Euclid Chemical Company; Thin-Top Supreme
4. MAPEI Corporation; Planitop 25

B. Polymer Modified Mortar for Vertical Resurfacing:

1. Sika Corporation; MasterEmaco N 427 with diluted MasterEmaco A 660
2. Sika Corporation; SikaQuick Smooth Finish
3. Euclid Chemical Company; Speed Crete PM
4. MAPEI Corporation; Planitop 23

C. Polymer Modified Mortar for Horizontal Repairs:

1. Sika Corporation; MasterEmaco T 310 CI
2. Sika Corporation; SikaRepair 222 with undiluted Latex R
3. Sika Corporation; SikaTop 122 Plus
4. Sika Corporation; Sikacrete 211 SCC Plus
5. Euclid Chemical Company; Duraltop Flowable Mortar
6. MAPEI Corporation; Mapecem 202

D. Non-Polymer Modified Mortar for Horizontal Repairs:

1. Sika Corporation; MasterEmaco T 415 or T 430
2. Sika Corporation; MasterEmaco T 1060 or MasterEmaco T 1061
3. Sika Corporation; SikaRepair 222
4. Euclid Chemical Company; Euco-Speed
5. MAPEI Corporation; Planitop 18 ES

E. Polymer Modified Mortar for Overhead/Vertical Repairs:

1. Sika Corporation; MasterEmaco N 425
2. Sika Corporation; SikaRepair 223 with undiluted Latex R
3. Sika Corporation; SikaTop 123 Plus
4. Euclid Chemical Company; Verticoat
5. Euclid Chemical Company; Verticoat Supreme
6. MAPEI Corporation; Planitop 23

F. Non-Polymer Modified Mortar for Overhead/Vertical Repairs:

1. Sika Corporation; SikaRepair 223 or SikaQuick VOH
2. Sika Corporation; SikaCem 226 CI
3. Euclid Chemical Company; Speed Crete Red Line
4. MAPEI Corporation; Planitop 12 SR

G. Polymer Modified Topping Slab Replacement Materials:
1. Euclid Chemical Company; Concrete-Top Supreme
2. MAPEI Corporation; Mapecem 102

H. Polymer Modified Form and Pour Materials:

1. Sika Corporation; MasterEmaco S 466 CI
2. Sika Corporation; Sikacrete 211 SCC Plus
3. Euclid Chemical Company; Eucocrete or Eucocrete Supreme
4. MAPEI Corporation; Planitop FD with Planicrete AC

I. Non-Polymer Modified Form and Pour Materials:

1. Sika Corporation; MasterEmaco S 440
2. Sika Corporation; MasterEmaco T 1060 EX or MasterEmaco T 1061 EX
3. Sika Corporation; Sikacrete 211 or Sikacrete 321 FS
4. Sika Corporation: Sikacrete 100 CI
5. Euclid Chemical Company; Euco-Speed Extended with Aggregate as Required
6. MAPEI Corporation; Planitop FD

J. Form and Pour Materials Compatible with Galvanic Anodes:

1. Sika Corporation; MasterEmaco S 440
2. Sika Corporation; MasterEmaco T 1060 EX or MasterEmaco T 1061 EX
3. Sika Corporation; Sikacrete 211
4. Euclid Chemical Company; Tamms Form and Pour
5. MAPEI Corporation; Planitop 11

K. Polymer Modified Self-Consolidating Form and Pour Materials:

1. Sika Corporation; MasterEmaco S 440CI
2. Sika Corporation; Sikacrete 211 SCC Plus
3. Sika Corporation; Sikaquick FNP
4. Sika Corporation; Sikacrete 08 SCC with Ferrogard 901
5. Euclid Chemical Company; EucoRepair SCC
6. MAPEI Corporation; Planitop 11 SCC

2.3 INTERIOR GRADE CONCRETE REPAIR MATERIALS

A. Non-Polymer Modified Mortar for Horizontal Repairs:

1. Sika Corporation; MasterEmaco S 440
2. Sika Corporation; SikaRepair 222 or SikaQuick VOH or Sikacrete 100 CI
3. Euclid Chemical Company; Euco-Speed
4. MAPEI Corporation; Planitop 18 TG

B. Non-Polymer Modified Mortar for Overhead/Vertical Repairs:

1. Sika Corporation; MasterEmaco N 424
2. Sika Corporation; SikaRepair 223, or SikaQuick VOH, or SikaCem 226 CI
3. Euclid Chemical Company; Eucopatch or Speed Crete Red Line
4. MAPEI Corporation; Planitop X

C. Non-Polymer Modified Form and Pour Materials:

1. Sika Corporation; MasterEmaco S 440
2. Sika Corporation; Sikacrete 211 or Sikacrete 321 FS or Sikacrete 100 CI
3. Euclid Chemical Company; Euco-Speed Extended with Aggregate as Required
4. MAPEI Corporation; Planitop FD

2.4 ARCHITECTURAL REPAIR MORTAR

A. Architectural Repair Mortar: Extendable repair mortar for final 1/2inch (12mm) lift over structural repair materials to provide an architecturally matching finish.

1. Cathedral Stone Products, Inc.; Jahn Restoration Mortar M90 Series
2. Edison Coating, Inc.; Custom System 45
3. Custom blended repair mortar, tested in accordance with ASTM C 109, and acceptable to the Engineer.

2.5 ACCESSORY PRODUCTS

A. Bonding Agent:

1. Three-component, cementitious, epoxy-modified bonding agent for bonding new concrete to existing concrete.

    a. Sika Corporation; MasterEmaco P 124
    b. Sika Corporation; Armatec 110 EpoCem
    c. Euclid Chemical Company; Duralprep A.C.
    d. MAPEI Corporation; Planibond 3C

2. Two component epoxy bonding agent for bonding new concrete to existing concrete.

    a. Sika Corporation; MasterEmaco ADH 326 or MasterEmaco ADH 327
    b. Sika Corporation; Sikadur 32 Hi-Mod
    c. Euclid Chemical Company; Dural LPL MV
    d. MAPEI Corporation; Planibond EBA

B. Optional Admixtures: Contractor may elect to add the following optional admixtures to modify or enhance specific properties of specified repair materials. Verify compatibility and adequate dosage rate with the repair material manufacturer.

1. Polymer Modification Admixtures:

    a. Sika Corporation; MasterEmaco A660
    b. Sika Corporation; Undiluted Latex R
    c. Sika Corporation; Undiluted Latex R or Sikacem 810
    d. Euclid Chemical Company; Flex-Con or SBR Latex
    e. MAPEI Corporation; Planicrete AC or Planicrete UA

2. Corrosion Inhibitor Admixtures:

    a. Sika Corporation; Ferrogard 901
    b. Euclid Chemical Company; Eucon CIA or BCN
    c. MAPEI Corporation; Polychem CI

3. Retarder Admixtures: Non-chloride based retarder admixture for extending working time for rapid hardening repair materials installed at high temperatures. Verify with the repair material manufacturer that the compressive strength modification based on retarder dosage rate will meet the project minimum requirements.

    a. Sika Corporation; Sikacem Summer Extender
    b. MAPEI Corporation; Polychem R

c. Euclid Chemical Company; EUCON NR

C. Aggregate Extension:

1. Aggregate extension for non-architectural repairs shall be round, washed, surface saturated dry aggregate of the size recommended by the repair mortar manufacturer. Aggregates shall conform to ASTM C33.

2. Aggregate Extension for Architecturally Exposed Aggregate Finish: Repair mortar shall be extended with architectural aggregate of size, shape, and color to match the existing exposed aggregate finish.

2.6 SUBSTITUTIONS

A. Product substitutions may be considered provided complete technical information and job references are furnished to the Client Agency/Engineer and approved prior to commencement of work.

B. Changes in products required to suit temperature, environmental conditions, and local VOC regulations at the time of material application shall be specified as separate line items by the Contractor showing credit or additions to the price for the various tasks.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Application Planning

1. In using the specified products of this Section, follow strictly the Manufacturer's specifications and written instructions for mixing and application.
2. Review all Manufacturer warning labels and Material Safety Data Sheets/Safety Data Sheets (MSDS/SDS).
3. Apply all materials in accordance with applicable safety laws.

3.2 SURFACE PREPARATION

A. Concrete surfaces receiving repair material shall be free of all dust, loose, and unsound materials. Preparation of cavity to receive new repair material shall be in accordance to Section “Surface Preparation for Patching” and manufacturer’s instructions.

B. Concrete Surface Inspection: Ensure compliance with Article 3.2. A, above and that the surface and ambient temperature is at least 45°F (7°C) and rising at the time of application.

3.3 RESURFACING WITH REPAIR MORTAR

A. Bonding Agent

1. The use of bonding agent shall be required for bonding resurfacing patches to the existing concrete substrate.

2. All surfaces receiving mortar shall be SSD (Surface Saturated Dry) for minimum 24 hours prior to material application.
3. Apply bonding agent in strict accordance with manufacturer's recommendations and Article 3.2 – Surface Preparation.
4. If bonding agent dries, cavity shall not be patched until it has been re-cleaned and prepared as indicated in Section "Surface Preparation for Patching." Bonding agent shall not be applied to more cavities than can be patched within fifteen (15) minutes by available manpower or manufacturer's requirements, whichever are most strict.
5. Resurfacing materials shall be placed immediately following bonding agent application in strict accordance with manufacturer's instructions.

B. Mortar Application

1. The use of bonding agent shall be required for bonding resurfacing patches to the existing concrete substrate.
2. Prepare the bonding surface per Specification Section "Surface Preparation for Patching."
3. Apply bonding agent in strict accordance with manufacturer's recommendations.
4. If bonding agent dries, cavity shall not be patched until it has been re-cleaned and prepared as indicated in Section "Surface Preparation for Patching." Bonding agent shall not be applied to more cavities than can be patched within fifteen (15) minutes by available manpower or manufacturer's requirements, whichever are most strict.
5. Resurfacing materials shall be placed immediately following bonding agent application in strict accordance with manufacturer's instructions.
6. Condition polymer modified mortar material to 65°F-80°F (18°C-26°C) unless otherwise recommended by the manufacturer. Materials beyond this range of temperature shall not be used. Contractor shall be responsible for all environmental protective systems necessary to condition materials in compliance with specifications.
7. Mix the two components in a clean container free of contaminants as recommended by the manufacturer.
8. Thoroughly blend components and aggregates with portable mixers to a uniform and homogenous mixture. Small batches of one quart or less may be mixed by spatulas, palette knives or similar devices.
9. Mixing should be accomplished within three (3) minutes when using Jiffy mixer or five minutes when mixed by hand.
10. Apply mortar by means suitable for the consistency of the mortar mix.
11. Consolidate the mortar thoroughly to remove entrapped air.
12. Resurfacing mortar thickness shall not be less than 1/8 inch (3 mm) thick, and not less than the manufacturer's written recommended minimum placement thickness.
13. Finish surface of mortar to match the texture and contours of existing concrete.

3.4 PATCHING WITH REPAIR MORTAR

A. Preparation of Bond Surface

1. Prepare the bonding surface per Specification Section 030101 "Surface Preparation for Patching."
2. Apply a scrub coat of the repair material in strict accordance with the manufacturer's recommendations unless another bonding agent is required. Where alternate bonding agents are required:
    a. Apply bonding agent in strict accordance with manufacturer's recommendations.
    b. All surfaces receiving mortar shall be SSD (Surface Saturated Dry) for minimum 24 hours prior to material application.
    c. If bonding agent dries, cavity shall not be patched until it has been re-cleaned and prepared as indicated in Section "Surface Preparation for Patching." Bonding agent

shall not be applied to more cavities than can be patched within fifteen (15) minutes by available manpower or manufacturer's requirements, whichever are most strict.

3. Patching materials shall be placed immediately following scrub coat application or bonding agent application in strict accordance with manufacturer's instructions.

B. Mortar Application

1. Condition repair mortar material to 65°F-80°F (18°C-26°C) unless otherwise recommended by the manufacturer. Materials beyond this range of temperature shall not be used.
2. Mix the components in a clean container free of contaminants as recommended by the manufacturer.
3. Thoroughly blend components and aggregates with portable mixers to a uniform and homogenous mixture. Small batches of one quart or less may be mixed by spatulas, palette knives or similar devices.
4. Mixing should be accomplished within three (3) minutes when using Jiffy mixer or five (5) minutes when mixed by hand.
5. Apply mortar by means suitable for the consistency of the mortar mix.
6. Use appropriate forms as required for retaining mortar if mixed to a flowable consistency.
7. Consolidate the mortar thoroughly to remove entrapped air.
8. Supplemental wire mesh shall be required for delamination and spall repairs greater than 4 square feet (0.4 square meter) in area and greater than 2-inch (50 mm) depth. Fresh bonding grout is required between successive lifts of patching material.
9. Finish surface of mortar to match the texture and contours of existing concrete.

3.5 FORM AND POUR REPAIR PLACEMENT

A. Concrete Placement

1. Prepare the bonding surface per Specification Section "Surface Preparation for Patching."
2. All surfaces receiving mortar shall be SSD (Surface Saturated Dry) for minimum 24 hours prior to material application.

3. Condition concrete repair material to 65°F-80°F (18°C-26°C) unless otherwise recommended by the manufacturer. Materials beyond this range of temperature shall not be used. Contractor shall be responsible for all environmental protective systems necessary to condition materials in compliance with specifications.
4. Mix the components in a clean container free of contaminants as recommended by the manufacturer.
5. Thoroughly blend components and aggregates with portable mixers to a uniform and homogenous mixture.
6. Mixing should be accomplished within three (3) minutes when using Jiffy mixer or drum mixer. Mixing shall be accomplished within five (5) minutes when mixed by hand.
7. Place concrete by means suitable for the consistency of the mix. Do not free fall drop concrete more than four (4) feet.
8. Use appropriate forms and shoring to provide stable formwork as required for retaining flowable concrete mixes that will produce flat and uniform finish surfaces. When filling existing pipe penetrations, block penetration so that concrete does not freefall below. Consolidate the concrete thoroughly to remove entrapped air.

3.6 CURING

A. Immediately after finishing, keep patch material continually moist for at least 24 hours. Continue curing for first seven (7) days after patch placement. During initial and final curing periods maintain patch material above 50°F. Contractor shall be responsible for providing and maintaining the environmental conditions during this curing period.

B. Prevent rapid drying at end of curing period.

C. Provide additional curing as required by manufacturer's recommendations, if more strict.

3.7 CLEANUP

A. Protect surfaces surrounding the work areas against spillage.

B. Material spillage shall be cleaned before it sets and becomes difficult to remove.

C. Cleanup all portions of the existing structure that are soiled or stained in the process of concrete repair work.

3.8 FIELD QUALITY CONTROL

A. Responsibilities

1. Contractors Responsibility: Contractor is responsible for performing continuous field quality control during the progress of work.

B. Minimum Quality Control Requirements

1. Ensure concrete edges of resurfacing and repairs are saw cut to prevent feather edges. Ensure corners of the repair are not overcut.
2. Review material expiration dates and remove expired materials from the project site.
3. Ensure repair material is placed within the bonding agent open items.
4. Accurately measure and monitor the addition of water and aggregate extension when mixing repair mortar or concrete.
5. Monitor repair material working times and dispose of all materials that have exceeded the manufacturer's published working time.
6. Patched areas shall be sounded by the Contractor after curing. Contractor shall repair all hollowness and unsound locations detected by removing and replacing patch or affected area at no additional cost to Client Agency.
7. If shrinkage cracks appear in patch area after the initial curing period is concluded, the patch in question shall be considered unacceptable, and it shall be removed and replaced by Contractor at no additional cost to Client Agency.

C. Acceptance of Work

1. Acceptance of completed concrete repair will be in accordance to ACI 301.

3.9 FIELD QUALITY CONTROL

A. Responsibilities

1. Contractor Responsibility
    a. Contractor shall retain the Testing Agency under separate contract in accordance with the referenced building code for the project.
    b. Cost associated with retesting shall be paid for by the Contractor.
    c. Testing Agency shall be an agency acceptable to the Client Agency and Engineer.
2. Contractor's Responsibility
    a. It is the Contractor's responsibility to request and schedule all testing required by this Section.
    b. Schedule all testing with the Testing Agency at least three (3) days prior to performing the work.
    c. Notify Client Agency and Engineer of work schedule at least seven (7) days in advance.
    d. If using Client Agency Testing Agency, Contractor shall reimburse the Client Agency for the cost of all retesting.
3. Testing Agency's Responsibility
    a. Testing Agency is responsible for conducting, monitoring, and reporting results of all tests required under this Section.
    b. Testing Agency has authority to reject materials and work not meeting Specifications.

B. Testing

1. Sampling and testing of mortar and aggregate-extended mortars shall be performed by ACI certified Concrete Field Technicians Grade I. Certification shall be no more than three years old.
2. Mortar Compressive Strength:
    a. Mold test cubes per ASTM C-109
    b. Take minimum of 6 cubes 2-inch x 2 inch x 2 inch (50 mm x 50 mm x 50 mm) for each 10 cubic feet (0.3 cubic meters) of mortar placed or fraction of each repair mortar placed in any one day.
    c. Additional cubes shall be taken as directed by Engineer.
    d. Cover and protect molds from contact with water for the first 24-hours after molding.
    e. Follow ACI Specifications for storage and handling of specimens.
        1) Test 3 cubes at 3 days.
        2) Test 3 cubes at 28 days.
3. Aggregate-Extended Mortar Compressive Strength:
    a. Mold test cylinders per ASTM C-31
    b. Take minimum of 4 cylinders 6 inch diameter x 12 inch (150 mm x 300 mm) for each 27 cubic feet (0.75 cubic meters) or fraction of each aggregate-extended repair mortar placed in any one day.
    c. Additional cylinders shall be taken as directed by Engineer.
    d. Cover and protect cylinders from contact with water for the first 24-hours after molding.
    e. Follow ACI Specifications for storage and handling of specimens.
    f. Perform compressive strength tests in accordance with ASTM C-39.
    g. High Early Strength Aggregate-Extended Mortar (f'c acceptance at 24 hours).
        1) Test 1 cylinder at 3 hours either size.
        2) Test 2 cylinders at 24 hours for 6-inch (150 mm) diameter or 3 cylinders for 4-inch (100 mm) diameter.
        3) Test 1 cylinder at 3 days either size.

END OF SECTION 030105

SECTION 033000 – CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 STIPULATIONS

A. The specifications sections "General Conditions to the Construction Contract", "Special Conditions", and "Division 01 - General Requirements" form a part of this Section by this reference hereto, and shall have the same force and effect as if printed herewith in full.

1.2 SUMMARY

A. Section includes all labor, materials, services, equipment, and hardware required in conjunction with or related to the forming, delivery, and pouring of all cast-in-place concrete work.

B. The cast-in-place concrete covered by this specification section includes the following:

1. Structural concrete, including:

a. New planter walls on the plaza (concrete exposure class F1)
b. The North Street ramp structure (including slab on grade where indicated on the structural plans) (concrete exposure class F2)
c. New slab-on-grade planter infill at plaza elevation along North Street (concrete exposure class F1)
d. New Forster Street ramp (slab on grade with perimeter grade beams) (concrete exposure class F3)
e. New light pole foundations (concrete exposure class F2)
f. New flue structure foundations (concrete exposure class F2)
g. New gas meter screen wall (concrete exposure class F2)

2. Slag Cement used as the topping slab (paver setting bed) (concrete exposure class F3).

C. Related Requirements:

1. Specification 014000 “Quality Control Testing Services” for requirements of material testing and inspection.
2. Specification 014010 “Quality Assurance Testing and Inspection Services” for requirements of material testing and inspection.
3. Specification 030101 “Surface Preparation for Patching” for requirements for the surface preparation for concrete repairs.
4. Specification 030105 “Concrete Repair Materials” for requirements for concrete repairs.
5. Specification 031000 “Concrete Forming and Accessories” for forming associated with cast-in-place concrete.
6. Specification 032000 “Concrete Reinforcing” for reinforcement for cast-in-place concrete.

1.3 REFERENCES

A. Reference Standards:

1. Codes and Standards: Comply with provisions of following codes, specifications and standards, except where more stringent requirements are shown or specified:
   a. ACI 117, “Specifications for Tolerances for Concrete Construction and Materials.”
   b. ACI 301, “Specifications for Structural Concrete.”
   c. ACI 305.1, “Specification for Hot Weather Concreting.”
   d. ACI 318, “Building Code Requirements for Structural Concrete.”
   e. ACI 355.4, “Qualification of Post-Installed Adhesive Anchors in Concrete.”
   f. CRSI, “Manual of Standard Practice.”

1.4 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Quality Control: The Contractor is responsible for quality control, including workmanship and materials furnished by subcontractors and suppliers.
2. Document Conflict and Precedence: In case of conflict among documents, including architectural and structural drawings and specifications, notify the Architect/Engineer prior to submitting proposal. In case of conflict between and/or among the structural drawings and specifications, the strictest interpretation shall govern, unless specified otherwise in writing by the Architect/Engineer.
3. Materials and installed work may require testing and retesting, as directed by the governing building code or the Architect/Engineer, at any time during progress of work.
   a. The Contractor shall provide adequate notification to the Client Agency’s Testing Agency of construction operations including the project schedule to allow the Testing Agency to schedule inspections. Failure to notify sufficiently may result in additional costs incurred by the Testing Laboratory that may be back-charged to the Contractor by the Client Agency.
   b. The Contractor shall cooperate with laboratory personnel, provide access to the work, and provide access to manufacturer's operations.
   c. The Contractor shall make adequate arrangement with the Client Agency’s Testing Agency for inspection of material stockpiles and facilities.
   d. The Contractor shall provide to the laboratory certificates and representative samples of materials proposed for use in the work in quantities sufficient for accurate testing as specified.
   e. The Contractor shall furnish casual labor, equipment, and facilities as required for sampling and testing by the laboratory and otherwise facilitate the required inspections and tests.
   f. Inspection or testing by the Client Agency does not relieve the Contractor of his responsibility to perform the Work in accordance with the Contract Documents. Tests not specifically indicated to be done at the Client Agency’s expense, including retesting of rejected materials and installed work, shall be done at the Contractor’s expense. See Specification Sections 0140000 and 014010.
4. Responsibility for Selection and Use of Concrete Admixtures and Chemical Treatments: The Contractor shall be responsible for selecting admixtures and surface treatments that are compatible with the intended use of the concrete including all final surface treatments called for within this or other specifications or on the structural or architectural drawings. The Contractor is responsible for following the manufacturer’s instructions for the use of their product including abiding by any limitations placed by the manufacturer on the use of any of its products.

B. Preinstallation Meetings:

1. Design Mixture Conference: At least 30 days prior to submittal of design concrete mixtures, the Contractor shall hold a meeting or telephone conference to review the detailed requirements for preparing the design concrete mixtures. Participants shall include representatives from the Contractor, Client Agency's Testing Laboratory, Concrete Supplier, Architect, and Engineer.
2. Pre-Concrete Conference:
    a. At least seven days prior to beginning concrete work, the Contractor shall conduct a meeting to review the proposed design mixtures and to discuss required methods and procedures to produce concrete construction of the required quality. Also, review requirements for submittals, status of coordinating work and availability of materials. Establish work progress schedule and procedures for materials inspection, testing, and certifications. The contractor shall send a pre-concrete conference agenda to all attendees seven days prior to the scheduled date of the conference.
    b. The Contractor shall require responsible representatives of every party who is concerned with the concrete work to attend the conference, including but not limited to the following:
        1) Contractor's Superintendent.
        2) Laboratory responsible for the concrete design mix.
        3) Laboratory responsible for field quality control.
        4) Concrete Subcontractor.
        5) Ready-Mix Concrete Producer.
        6) Admixture Supplier.
        7) Concrete Pumping Contractor.
        8) Fiber Reinforcement Representative.
        9) Client Agency's and Architect's/Engineer's Representative.
    c. The pre-concrete conference shall review the following items:
        1) Special inspection and testing and inspecting agency procedures for field quality control.
        2) Construction joints, control joints, isolation joints, and joint-filler strips.
        3) Semirigid joint fillers.
        4) Vapor-retarder installation.
        5) Anchor rod and anchorage device installation tolerances.
        6) Cold and hot weather concreting procedures.
        7) Concrete finishes and finishing.
        8) Curing procedures.
        9) Forms and form-removal limitations.
        10) Shoring and reshoring procedures.
        11) Methods for achieving specified floor and slab flatness and levelness.
        12) Floor and slab flatness and levelness measurements.
        13) Concrete repair procedures.
        14) Concrete protection.
    d. Minutes of the meeting shall be recorded, typed and printed by the Contractor and distributed to all parties concerned within five days of the meeting. One copy of the minutes shall be transmitted to the following for information purposes:
        1) Client Agency's Representative.
        2) Architect.
        3) Engineer-of-Record.
    e. The Engineer shall be present at the conference. The Contractor shall notify the Engineer at least seven days prior to the scheduled date of the conference.

C. Sequencing:

1. Provide for installation of inserts, hangers, metal ties, anchors, bolts, angle guards, dowels, thimbles, slots, nailing strips, blocking, grounds, and other fastening devices required for attachment of work. Properly locate in cooperation with other trades and secure in position before concrete is poured. Do not install sleeves in any concrete slabs, beams, or columns except where shown on the drawings or upon written approval of the Architect/Engineer.

1.5 SUBMITTALS

A. Product Data: Submit manufacturer's product data with application and installation instructions for proprietary materials and items, including patching compounds, epoxies, grouts, joint systems, curing compounds, dry-shake finish materials, hardeners, sealers, joint fillers, and others as requested by Architect/Engineer.

B. Shop Drawings:

1. Construction Joints: Submit drawings of proposed construction joint locations in concrete for slab-on-grade, mat foundations, structural floors, roofs and walls. Submit any additional or changed reinforcing that is required at construction joints that differs from that shown on the drawings.
2. Openings, Sleeves, and Cores: Submit drawings of all openings to be formed, sleeved, cored, or sawcut in cast-in-place elements. Drawings shall indicate size and location of openings, sleeves, or cores.
3. Penetrations in Beams and Joists: Submit drawings locating all horizontal and vertical penetrations in beams and joists. Drawings shall indicate location, size, orientation, and type of penetrations.
4. Embedded Items: Submit drawings showing all items to be embedded in concrete elements, including plates, angles, bolts, and any non-structural items, such as conduit. Drawings shall indicate location, size, orientation, and type of embedded item.

C. Certificates:

1. Material and Mill Certificates:

a. Provide material and mill certificates as specified herein and in the Testing Laboratory section of the Specifications. The Manufacturer and Contractor shall sign the material and mill certificates certifying that each material item complies with specified requirements.

D. Concrete Materials:

1. Cementitious Materials:

a. Provide cementitious material types and certificates showing compliance with the respective ASTMs.

1) Portland Cement: ASTM C150/C150M
2) Blended Hydraulic Cement: ASTM C595/C595M, excluding Type IS(>70) and Type IT(S>70)
3) Hydraulic Cement: ASTM C1157/C1157M
4) Fly Ash or Natural Pozzolan: ASTM C618/C618M
5) Slag Cement: ASTM C989/C989M
6) Silica Fume: ASTM C1240/C1240M

7) Ground Glass Pozzolan: ASTM C1866/C1866M

2. Aggregates:

   a. Provide types, sizes, pit or quarry locations, producers' names, aggregate supplier statement of compliance with ASTM C33/C33M.
   b. Provide expansion data from ASTM C1260 or ASTM C1293 for all concrete designated C1, C2 or W1.

3. Admixtures:

   a. Provide types, brand names, producers' names, manufacturer's technical data sheets, compatibility with other admixtures, and certificates showing compliance with the respective ASTMs.
   b. Provide certification from admixture manufacturers that chloride ion content complies with specified requirements.

4. Design Mixtures:

   a. Submit for each concrete mixture as specified in Section 2.6.
   b. Submit shrinkage test results for all concrete identified on the drawings requiring shrinkage limits.

E. Field Quality Control Submittals:

1. Surveys: Submit report certifying that all anchor rods and reinforcing dowels into columns above are in their proper location prior to placing of concrete.

F. Special Procedure Submittals:

1. Hot Weather Concrete: Submit proposed methods of protecting concrete during hot weather conditions.
2. Cold Weather Concrete: Submit proposed methods employed for cold weather placement, temperature measuring methods and protection activities.

G. Qualification Statements: Submit certifications for adhesive anchor installers.

H. Environmental Product Declarations (EPD):

1. For all concrete mixtures submit one of the following that applies to the product:
   a. Product-specific Type III EPD with internal or external review that conform to ISO 14025, and EN 15804 or ISO 21930 and has at least a cradle to gate scope.
   b. Industry Wide Type III EPD. A letter from the product manufacturer, on manufacturer's letterhead, stating that the manufacturer, and proposed batch plants, participated in the NRMCA Industry-Wide Environmental Product Declaration.
   c. A letter from the product manufacturer, on manufacturer's letterhead, stating that the product does not have a product specific EPD nor was a participant in an industry wide EPD.
2. Submit required EPDs at time of bid.
3. Concrete mixes will be evaluated with consideration to their EPDs. Reference maximum cement content, where listed, per the "Classes of Concrete Matrix" in the structural drawings.
4. Upon project completion submit the volume of each concrete mix design used on the project.

I. Minutes of Preinstallation Meetings: Submit for review.

1.6 QUALITY CONTROL

A. Testing Laboratory Requirements: The Client Agency's Testing Laboratory shall:

1. Concrete Design Mixtures: Review the submitted design mixtures for conformance to the specifications and for suitability for use in the project.
2. Preinstallation Meetings: Attend the preinstallation meetings referenced above.
3. Review adhesive anchor installer qualifications by certification. Obtain qualification certificates.

B. Qualifications:

1. Concrete Supplier: The concrete supplier shall have a minimum of five years of experience in manufacturing ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment. The supplier must be certified according to the National Ready Mixed Concrete Association's Certification of Ready Mixed Concrete Production Facilities. Quality Control personnel with responsibility for concrete mixtures shall document qualifications demonstrating knowledge and experience with concrete technology and development of performance-based concrete mixtures certified as an NRMCA Concrete Technologist Level 2. Documentation that the concrete supplier participated in supplying data to the NRMCA Cradle-to-Gate Life Cycle Assessment of Ready-Mixed Concrete shall be submitted.
2. Concrete Contractor: The concrete contractor shall have a minimum of five years of experience with installation of concrete similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful service performance. At least one person on the finishing crew must be certified as an ACI Flatwork Finisher.
3. Adhesive Anchor Installers: The individuals performing the installation of adhesive anchors that are horizontally or upwardly inclined shall be certified in accordance with the ACI/CRSI Adhesive Anchor Installer Certification program.
4. Testing Agency: Independent testing agency shall meet the requirements of ASTM C1077 for testing indicated and employing an ACI-certified Concrete Quality Control Technical Manager. Personnel conducting field tests for acceptance shall be certified as ACI Concrete Field Testing Technician Grade I, or equivalent. Personnel conducting laboratory tests for acceptance shall be certified as ACI Concrete Strength Testing Technician or ACI Concrete Laboratory Testing Technician Level I, or equivalent. Test results for the purpose of acceptance shall be certified by a registered design professional employed with the Testing Agency.

C. Survey for Anchor Rods and Reinforcing Steel Dowels: The Contractor shall use a qualified licensed professional engineer or licensed land surveyor to lay out the proper location of all embedded anchor rods and reinforcing steel dowels for columns above before they are encased in concrete. The surveyed locations of such elements shall be submitted to the Architect/Engineer for record, if requested.

D. Manufacturer Representative Presence:

1. Post-installed anchors: The manufacturer's representative for each post-installed anchor product (adhesive, expansion, undercut, screw, or insert anchor) shall be present during the first day's installation of the product to provide instruction for the correct installation of each type of any to be installed in accordance with the manufacturer's recommendation and the current ICC-ES Evaluation Report.

2. Fiber-reinforced concrete: The manufacturer's representative for each fiber type shall be present during the first pour in which the fiber is used to verify whether the dosage rate, placing, and finishing method is in accordance with the specifications and the manufacturer's instruction.

PART 2 - PRODUCTS

2.1 CONCRETE MATERIALS

A. Refer to the Section 1.2B of this specification for classes and strengths of concrete required.

B. Hydraulic Cement:

1. Use ASTM C 150, ASTM C 1157, or ASTM C 595 (excluding Type IS) unless otherwise specified. Do not use Type III cement in slabs-on-grade unless approved in advance by the Engineer.
2. Use one brand of cement, for each class of concrete, throughout the project, unless approved otherwise by the Architect/Engineer and the Client Agency's Testing Laboratory. Submit mill certificates certifying conformance to this specification for each brand and type of cement.
3. Testing of cement in lieu of mill certificate submittal will be required if:
   a. The cement has been in storage at the mixing site for over 30 days.
   b. It is suspected by the Client Agency, Architect, Engineer, or Client Agency's Testing Laboratory that the cement has been damaged in storage or in transit or is in any way defective.

C. Fly Ash: ASTM C 618, Class C or F.

D. Silica Fume: ASTM C 1240, Amorphous Silica.

E. Slag Cement: ASTM C 989, Grade 100 or 120 or ASTM C 595, Type IS or Type S.

F. Normal weight Aggregates: ASTM C 33, and as herein specified. Submit material certificates from aggregate supplier or test results from an independent testing agency certifying conformance to this specification for each source of aggregate.

G. Water: Comply with the requirements of ASTM C 1602.

H. Cementitious materials, aggregate, and water must be extracted or recovered as well as manufactured within 500 miles of the project site.

2.2 ADMIXTURES

A. Air-Entraining Admixture: ASTM C 260.

1. Subject to compliance with requirements, provide one of the following products and manufacturers:

   a. GCP Applied Technologies; Darex or Daravair series.
   b. Master Builder Solutions; MasterAir VR 10, MasterAir AE 90, MasterAir AE 200.
   c. Sika Corporation; Sika AER.
   d. The Euclid Chemical Company; Air Mix, AEA-92, Eucon Air 30 or Eucon Air 40.

B. Water-Reducing Admixture: ASTM C 494, Type A. See maximum permissible chloride ion content in concrete specified below.

1. Subject to compliance with requirements, provide one of the following products and manufacturers:

a. Master Builder Solutions; MasterPozzolith Series or MasterGlenium Series.
b. Sika Corporation; Plastocrete 161.
c. The Euclid Chemical Company; Eucon WR-75, Eucon WR-91, Eucon NW or Eucon LW.
d. GCP Applied Technologies; WRDA series, Zyla Series.

C. Mid-Range Water-Reducing Admixture: ASTM C 494, Type A and Type F. See maximum permissible chloride ion content in concrete specified below.

1. Subject to compliance with requirements, provide one of the following products and manufacturers:

a. Master Builders Solutions; MasterPolyheed Series or MasterGlenium Series.
b. The Euclid Chemical Company; Eucon MR, Eucon X-15 or Eucon X-20.
c. Sika Corporation; SikaPlast-300 GP.
d. GCP Applied Technologies; Daracem or Mira series.

D. High-Range Water-Reducing Admixture (Superplasticizer): ASTM C 494, Type F or Type G. See maximum permissible chloride ion content in concrete specified below.

1. Subject to compliance with requirements, provide one of the following products and manufacturers:

a. GCP Applied Technologies; ADVA or Daracem Series.
b. Master Builders Solutions; MasterRheobuild 1000 or MasterGlenium Series.
c. Sika Corporation; Sikament.
d. The Euclid Chemical Company; Eucon 37/1037, Plastol series, Eucon SP or Eucon RD2.

E. Water-Reducing, Accelerator Admixture (Non-Corrosive, Non-Chloride): ASTM C 494, Type C or E. See maximum permissible chloride ion content in concrete specified below.

1. Subject to compliance with requirements, provide one of the following products and manufacturers:
a. GCP Applied Technologies; Polarset, Lubricon NCA, Daraset 400, or DCI.
b. Master Builders Solutions; MasterSet FP 20 or MasterSet AC 534.
c. The Euclid Chemical Company; Accelguard 80/90, Accelguard NCA, or Accelguard AcN.
d. Sika Corporation; Plastocrete 161FL.

F. Water-Reducing, Retarding Admixture: ASTM C 494, Type D. See maximum permissible chloride ion content in concrete specified below.

1. Subject to compliance with requirements, provide one of the following products and manufacturers:
a. GCP Applied Technologies; Daratard series, or Zyla R.
b. Master Builders Solutions; MasterPozzolith R series, or MasterSet DELVO series.
c. Sika Corporation; Plastiment.
d. The Euclid Chemical Company; Eucon Retarder series.

G. Corrosion Inhibitor: Amine-Carboxylate or Amine-Ester type (ASTM C494 Type S or ASTM C1582):

1. Products: Subject to compliance with requirements, provide the following at dosage rates per manufacturer's recommendation:
   a. CORTEC Corporation; MCI 2005 or MCI 2005NS.
   b. BASF Corporation; MasterLife CI 222.

H. Calcium Chloride: Calcium chloride is not permitted.

I. Certification: Written conformance to all the above-mentioned requirements and the chloride ion content of the admixture as tested by an accredited laboratory will be required from the admixture manufacturer at the time of design mixture review by the Engineer.

2.3 VAPOR RETARDERS

A. Provide vapor retarder cover chosen from products specified below over prepared base material where indicated. Vapor retarders shall be a complete system, including all materials and accessories as recommended by the manufacturer for specific installation and assembly.

1. Plastic Vapor Retarder under slabs-on-grade: Provide a flexible, preformed sheet membrane conforming to ASTM E 1745 with the following properties:
   a. Class A material.
   b. Minimum of 15 mils thick.
   c. Maximum water vapor permeance rating of 0.01 perms after mandatory conditioning as tested by ASTM E 96 or ASTM F 1249.
   d. Manufacturer's recommended penetration boots, joint tape and mastic.
   e. Acceptable products include the following:
      1) Stego Industries, LLC; Stego Wrap Vapor Barrier (15 mil).
      2) Epro Waterproofing Systems; Ecoshield-E (15 mil).
      3) Raven Industries; VAPORBLOCK VBLP15 (15 mil).
      4) W.R. Meadows, Inc; Perminator (15 mil)
      5) Tex-Trude, LP, Xtreme (15 mil)

2. Bituminous Vapor Retarders: Provide a pre-molded membrane consisting of reinforced core and carrier sheet with fortified bitumen layers, protective weather coating, and plastic anti-stick sheet conforming to ASTM E 1993 with the following properties:
   a. Maximum water vapor permeance rating of 0.002 perms after mandatory conditioning as tested by ASTM E 1745.
   b. Manufacturer's recommended tape and mastic.

3. Tape for Plastic Vapor Retarders: High-density polyethylene tape with pressure sensitive adhesive having a minimum width of 3.75" having a maximum water vapor transmission rate of 0.3 perms.

2.4 CURING MATERIALS

A. Liquid Membrane-Forming Curing and Curing and Sealing Compounds:

1. Water-Based Dissipating Resin Type Curing Compound: Curing Compound shall be a dissipating resin type, which chemically breaks down after approximately four weeks. Membrane forming compound shall meet ASTM C 309, Types 1 or 1D, Class B with a VOC content less than 350 grams per liter.

a. Products: Subject to compliance with requirements, provide one of the following:
   1) The Euclid Chemical Company; Kurez DR VOX.
   2) L&M Construction Chemicals; L&M Cure R.
   3) Dayton-Superior Company; Clear Resin Cure J11W.
   4) W.R. Meadows, Inc; 1100-Clear.
   5) US Mix Co.; US Spec Maxcure Resin Clear.
   6) SpecChem LLC; SpecRez.
b. Submit manufacturer's certification that product conforms to the requirements specified and is compatible with any covering or surface treatments to be applied. Submit any instructions that must be followed prior to any subsequent surface treatments and floor coverings.

B. Evaporation Control: Monomolecular film forming compound applied to exposed concrete slab surfaces for temporary protection from rapid moisture loss in hot, dry, or windy weather conditions.

1. Products: Subject to compliance with requirements, provide one of the following:
   a. The Euclid Chemical Company; Eucobar.
   b. L&M Construction Chemicals; E-Con.
   c. Master Builders SolutionsBASF Corporation; MasterKure ER 50.
   d. Dayton-Superior Corporation; Aqua Film (J74).
   e. Sika Corporation; SikaFilm.
   f. W.R. Meadows, Inc; Sealtight Evapre.
   g. US Mix Co.; US Spec Monofilm ER.
   h. SpecChem LLC; SpecFilm RTU.
2. Submit manufacturer's certification that product conforms to the requirements specified and is compatible with all coverings and surface treatments to be applied. Submit any instructions that must be followed prior to any subsequent surface treatments.

C. Absorptive Cover: Burlap cloth made from jute or kenaf, weighing approximately nine ounces per square yard, complying with AASHTO M 182, Class 2.

D. Moisture-Retaining Cover: One of the following, complying with ANSI/ASTM C 171:
1. Waterproof paper.
2. Polyethylene film.
3. Polyethylene-coated burlap.
4. Polyethylene-coated natural cellulose fabric such as Greenstreak Group, Inc.; Aquacure.
5. Cover for Industrial Slab: Provide a low permeance moisture-retaining cover that allows a moisture loss of no more than one pound per square yard in 72 hours when tested in accordance with ATSM C 156 for industrial slabs. The material shall be non-staining and meet with requirements of ASTM C 171.

2.5 RELATED MATERIALS

A. Post-Installed Anchors:

1. Qualified Products:
   a. Mechanical Anchors: Only anchors having passed Acceptance Criteria 193 for use in cracked concrete and resisting wind and seismic loads shall be approved for use. Reports from the following organizations are acceptable:
      1) ICC Evaluation Service Report.
      2) IAPMO Uniform Evaluation Services.
   b. Adhesive Anchoring Systems: Only adhesive anchor systems that comply with the latest revision of ICC-ES Acceptance Criteria 308 for use in cracked concrete and

resisting wind and seismic loads shall be approved for use. Reports from the following organizations are acceptable:
1) ICC Evaluation Service Report.
2) IAPMO Uniform Evaluation Services.

2. Alternate Anchor Approval: Install only anchors identified on the drawings by manufacturer and product. Substitutions using products approved by this Specification may be permitted provided complete design calculations are signed and sealed by a registered professional engineer licensed in the state where the project is located and furnished to the Engineer for review and approval prior to commencement of work. The Contractor shall request design criteria for all conditions where a product substitution is considered. Failure to obtain approval for an anchor substitution may result in the request by the Engineer to remove installed anchors and replace with the product specified on the drawings at the Contractor's expense.
3. Installation: All installation of post-installed anchors shall be in accordance with the Manufacturer's Printed Installation Instructions (MPII).
4. Interior Use: All anchors for use in interior conditioned environments free of potential moisture shall be manufactured from carbon steel zinc plated in accordance with Federal Specification QQ-Z-325C, Type II, Class 3.
5. Exterior or Exposed Use: All anchors for use in exposed or potentially wet environments or for attachment of exterior cladding materials shall be galvanized or stainless steel. Galvanized anchors shall conform to ASTM A 153. Stainless steel anchors shall be manufactured from 300 series stainless steel.
6. Nuts and Washers: Nuts and washers shall be furnished from the manufacturer and used with the anchors.
7. Anchor Types:
   a. Expansion and Undercut Anchors in Concrete:
      1) Type: All expansion and undercut anchors in concrete shall be wedge type expansion, sleeve type expansion, or undercut type anchors.
      2) Acceptable Products and Manufacturers – Normalweight and Sand-Lightweight Concrete Not on Corrugated Steel Deck:
         a) Hilti, Inc.; Kwik Bolt TZ2 (ESR-4266).
         b) Hilti, Inc.; HDA Undercut Anchor (ESR-1546).
         c) Hilti, Inc.; HSL-4 Heavy Duty Sleeve Anchor (ESR-4386).
         d) Simpson Strong-Tie Co., Inc.; Strong-Bolt 2 Wedge Anchor (ESR-3037).
         e) USP Structural Connectors; DUC Undercut Anchor (ESR-1970).
         f) Dewalt; Power Stud+ SD1 Expansion Anchor (ESR-2818).
         g) Dewalt; Power Stud+ SD2 Anchor (ESR-2502).
         h) Dewalt; CCU+ Undercut Anchor (ESR-4810).
         i) Dewalt; Power-Bolt+ Sleeve Anchor (ESR-3260)
         j) MKT Metall-Kunststoff-Technik; SRS TZ Anchor (ESR-2461).
      3) Acceptable Products and Manufacturers – Normalweight and Sand-Lightweight Concrete on Corrugated Steel Deck:
         a) Hilti, Inc.; Kwik Bolt TZ2 (ESR-4266).
         b) Simpson Strong-Tie Co., Inc.; Strong-Bolt 2 Wedge-Anchor (ESR-3037).
         c) Dewalt; Power Stud+ SD1 Expansion Anchor (ESR-2818).
         d) Dewalt; Power Stud+ SD2 Anchor (ESR-2502).
   b. Screw and Insert Anchors in Concrete:
      a) Hilti, Inc.; KWIK HUS-EZ Anchor (ESR-3027).
      b) Simpson Strong-Tie Co., Inc.; Titen HD (ESR-2713).
      c) Dewalt; Snake+ Anchor (ESR-2272).
      d) Dewalt; Screw-Bolt+ (ESR-3889).
   c. Adhesive Anchoring Systems in Concrete:
      1) Chemical anchoring of anchors, rods, or reinforcing steel is not allowed for fire-rated assemblies, unless specified provided for in the drawings.

2) Consult with the manufacturer for the minimum temperature of the concrete substrate allowed.
3) Only personnel trained to install adhesive anchors and certified in accordance with the ACI/CRSI Adhesive Anchor Installer Certification Program shall install adhesive anchors, including reinforcing steel.
4) All anchors installed horizontally or upwardly inclined require continuous inspection.
5) All adhesive anchors shall be installed in concrete having a minimum age of 21 days at the time of anchor installation.
6) Acceptable Products and Manufacturers:
   a) Hilti, Inc.; HIT-HY 200 V3 (ESR-4868).
   b) Hilti, Inc.: HIT-RE 500 V3 (ESR-3814)
   c) ITW Red Head; EPCON G5 (ESR-1137).
   d) ITW Red Head; EPCON S7 (ESR-2308).
   e) Dewalt; PE 1000+ (ESR-2583).
   f) Dewalt; Pure110+ (ESR-3298).
   g) Dewalt; AC200+ (ESR-4027).
   h) Simpson Strong-Tie; SET-XP Adhesive (ESR-2508).
   i) Simpson Strong-Tie; SET-3G Adhesive (ESR-4057).
   j) Simpson Strong-Tie; AT-XP (IAPMO ER-263).
7) These products may not be used in concrete cast over corrugated deck.
8) Threaded Rods Chemically Anchored in Concrete:
   a) Type: Threaded rods installed in holes using a chemical anchoring process shall have a 45º chiseled end on the embedded end.
   b) Interior Application: Meet the requirements of ASTM A 307, A 36 or A 193, grade B7.
   c) Exterior Application: Meet the requirements of ASTM A 153 galvanized steel, or F 593, Group 1 or 2, condition CW stainless steel.
9) Steel Reinforcing Bars:
   a) Reinforcing steel installed shall comply with ASTM A 615 or ASTM A706 unless noted otherwise in the structural drawings. The embedded portions of reinforcing bars must be straight, and free of mill scale, rust, mud, oil and other coatings that may impair the bond with the adhesive.
   b) Reinforcing bars must not be bent after installation except as permitted in the structural drawings. Heating of reinforcing bars to facilitate field bending is not permitted.

B. Bonding Compound: Polyvinyl acetate or acrylic base, for use in cosmetic and/or nonstructural repairs.

1. Products: Subject to compliance with requirements, provide one of the following:
   a. Acrylic or Styrene Butadiene:
      1) Dayton-Superior Corporation; Acrylic Bonding Agent J40.
      2) The Euclid Chemical Company; SBR Latex, Akkro-7T.
      3) GCP Applied Technologies; Daraweld C.
      4) BASF Corporation: MasterEmaco A 400
      5) Sika Corporation; SikaLatex.
      6) W.R. Meadows, Inc; Acry-Lok.
      7) US Mix Co.; US Spec Acrylcoat.
      8) SpecChem, LLC; Strong Bond Acrylic Bonder.
   b. Polyvinyl Acetate (Interior Use Only):
      1) The Euclid Chemical Company; Tammsweld.
      2) L&M Construction Chemicals; Primer One.
      3) Dayton-Superior Corporation; PVA Bonding Agent J41.
      4) SpecChem, LLC; SpecWeld.

5) W.R. Meadows, Inc; Intralok.

2. Products for Epoxying Steel Plates to Concrete: Conform to ASTM C 881-13, Type IV, Grade 3, Class A, B, & C except gel times.
   a. Sika Corporation; Sikadur 31 Hi-Mod Gel.
   b. Dayton-Superior Corporation, Inc; Sure Anchor J50 or Sure Bond J58
   c. BASF Corporation; MasterEmaco ADH 1420.
   d. Unitex; Pro-Poxy 300.
   e. The Euclid Chemical Company; Duralcrete Gel.
   f. SpecChem, LLC; SpecPoxy 3000.

C. Anchor Rods:

1. All anchor rods shall conform to the ASTM designation and shall be of the yield strength as specified below as appropriate for the types and at the locations as specified on the drawings:
   a. ASTM F 1554, Grade 55 (1/4 inch to 4 inches in diameter), complying with Supplementary Requirement S1 of ASTM F 1554.
2. Anchor rods used with galvanized baseplates shall be galvanized.
3. Nuts: All nuts with anchor rods shall be heavy hex head conforming to ASTM A 563.
4. Washers: Unless noted otherwise on the drawings, washer size and thickness for all anchor rods shall conform to Table 14-2 of AISC “Steel Construction Manual” with holes 1/16” greater than the anchor rod diameter. Washers shall conform to ASTM A 36 steel.

D. Reglets: Where resilient or elastomeric sheet flashing or bituminous membrane is terminated in reglets, provide reglets of not less than 26 gauge galvanized sheet steel. Fill reglet or cover face opening to prevent intrusion of concrete or debris.

2.6 PROPORTIONING AND DESIGN OF CONCRETE MIXTURES

A. The Contractor shall submit design concrete mixtures for each class of concrete indicated on the structural drawings and in the Specifications for approval by the Engineer and Client Agency's Testing Laboratory at least 15 working days prior to the start of construction. If required, the Contractor shall engage the services of an independent Testing Laboratory to assist in preparing the design mixtures. The Contractor shall not begin work with a particular mixture until that design mixture has been approved.

B. The Contractor, acting in conjunction with his Concrete Supplier and his Testing Laboratory, shall submit in writing, with his design mixtures, the method used to select mixture proportions. Either of the following methods, as outlined in ACI 301, may be used:
1. Field Experience Method.
2. Laboratory Trial Mixture Method.

C. Required types of concrete and compressive strengths shall be as indicated on the Structural Drawings.

D. All design mixtures shall state the following information:
1. Design mixture number or code designation by which the Contractor shall order the concrete from the Supplier.
2. Identify design mixture usage (i.e., columns, shear walls, footings, slab-on-grade, etc.).
3. Wet and dry unit weights.
4. Compressive strength and associated age (28-day, 56-day, etc.).
5. Aggregate type, source, size, gradation, fineness modulus.
6. Cement type and brand.
7. Fly ash or other pozzolan type and brand (if any).

8. Admixtures including air entrainment, water reducers, high-range water reducers, accelerators, and retarders.
9. Design slump or slump/flow.
10. Proportions of each material used.
11. Water/cementitious ratio and maximum allowable water content.
12. Method by which the concrete is intended to be placed (bucket, chute, or pump).
13. Required average strength qualification calculations per ACI 301 4.2.3.3a and 4.2.3.3b. Submit separate qualification calculations for each production facility that will supply concrete to the project.
14. Documentation of Average Strength (Trial Mixture Data or Field Test Data) per ACI 301: When field test data is used to qualify average strength, submit separate documentation for each production facility that will supply concrete to the project.
15. Field test data submitted for qualification of average strength under ACI 301 shall include copies of the Concrete Testing Agency's reports from which the data was compiled.

E. Supplementary Cementitious Materials: Fly ash and/or ground granulated blast-furnace slag replacement of Portland cement shall be within percentage replacement levels listed on the drawings unless noted otherwise. Every effort should be made to reduce the amount of cement to the minimum practical amount, and still achieve performance requirements contained in the Contract Documents.

1. Cement replacement shall not exceed a percentage level that has been shown by experience on other projects to exhibit satisfactory performance using materials from identical sources as proposed for this project. As an alternate, trial concrete batches can be performed to identify design mixtures that maximize cement replacement while meeting strength requirements per ACI 301 and finishability criteria.
2. The use of fly ash or slag in architecturally exposed structural concrete shall be coordinated with the Architect, Engineer, and Contractor.
3. Overall replacement percentages with combined fly ash and slag shall not exceed the maximum identified with slag or be less than the minimum identified with fly ash for each type of element. In addition, the replacement percentage of fly ash within the combined mixture shall not exceed the maximum identified with fly ash alone.
4. Replacement percentages exceeding the maximum may be permitted at the discretion of the Architect, Engineer of Record, and Contractor.
5. For concrete identified on the drawings as being subject to Exposure Class F3, the maximum amount of supplementary cementitious materials shall not exceed the limits noted in Table 4.2.2.7.b.2 “Maximum cementitious materials requirements for concrete exposed to deicing chemicals” of ACI 301.
6. Except for Mass Concrete, the Contractor may submit for approval a revised design mixture with lower supplementary cementitious material percentages than herein specified should finishability or other issues arise due to changing weather conditions.

F. Aggregate: Comply with the following special requirements:

1. For slabs and other designated concrete, combined aggregate gradation shall be 8% - 18% for large top size aggregates (1 1/2 inches) or 8% - 22% for smaller top size aggregates (1 inch or 3/4 inch) retained on each sieve below the top size and above the No. 100. Deviations from this gradation may be allowed upon the approval of the Engineer subject to the following limitations:
    a. The percent retained on two adjacent sieves shall be not less than 5%.
    b. The percent retained on three adjacent sieves shall be not less than 8%.
    c. If the percent retained on two adjacent sieves is less than 8%, the total percent retained on either of those sieves and the adjacent outside sieve shall be not less than 13%.

G. Admixtures:

1. Admixtures to be used in concrete shall be subject to the approval of the Engineer and Client Agency's Testing Laboratory and shall be used for the purpose intended by the manufacturer to produce concrete to meet the specified requirements.
2. Quantities of admixtures to be used shall be in strict accordance with the manufacturer's instructions.
3. Air Content Requirements: For concrete subject to Exposure Class F1, F2 or F3 as noted on the drawings, use air-entrainment admixtures to provide concrete such that the air content at the point of placement shall conform to the requirements of ACI 301 Table 4.2.2.7.b "For Exposure Category F: Freezing and thawing exposures" within plus or minus 1.5%. Required air content levels may be reduced by 1.0 percent for concrete strengths above 5,000 PSI.
   a. Interior steel troweled surfaces shall not have more than 3% total air content.
   b. Surfaces scheduled to receive hardeners shall not have more than 3% total air content.
   c. Air-entraining admixtures are not permitted in industrial slabs.

H. Adjustments of Concrete Mixtures: Design mixture adjustments may be requested by the Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant. Such adjustments shall be provided at no additional cost to the Client Agency. Any adjustments in approved design mixtures including changes in admixtures shall be submitted in writing to the Engineer and Client Agency's Testing Laboratory for approval prior to field use.

I. Chloride Ion Content:

1. Unless noted otherwise, the maximum water soluble chloride ion concentration in hardened concrete measured at ages from 28 to 42 days contributed from all ingredients including water, aggregates, cementitious materials, and admixtures shall not exceed the limits specified in ACI 318-14 Table 19.3.2.1 "Requirements for concrete by exposure class" depending on to which Corrosion Exposure Class (C0, C1 or C2) the concrete is subject as noted on the drawings. Water-soluble chloride ion tests shall conform to ASTM C 1218. One test shall be run for each class of concrete before the design mixture submittal and each time a change is made to the design mixture (such as change in aggregate type or source).
2. The chloride ion content in all concrete used for prestressed or post-tensioned concrete shall not exceed 0.06 percent by mass of cementitious materials. For the purpose of determining chloride ion content in all concrete used for prestressed or post-tensioned concrete, mass of supplementary cementitious material shall not exceed the mass of the portland cement.
3. The Concrete Supplier shall certify that the chloride ion content in all concrete design mixtures used on the project does not exceed the limits stated above.

2.7 CONCRETE MIXING

A. Ready-Mix Concrete: Comply with requirements of ANSI/ASTM C 94 and Specification Sections 0140000 and 014010.

2.8 SOURCE QUALITY CONTROL

A. Source Inspection: Refer to Specification Sections 0140000 and 014010 for inspection requirements associated with cast-in-place concrete.

PART 3 - EXECUTION

3.1 SLUMP LIMIT

A. The slump, as measured in the field where concrete cylinders are taken, shall be within plus or minus 1-1/2 inches of the design slump noted in the approved Design Mixture submittal. Self-Consolidating Concrete shall have a slump/flow of plus or minus two inches of the design slump/flow noted on the approved Design Mixture submittal. Water may be added to the concrete in the field only to the extent that the prescribed water/cementitious ratio noted in the approved Design Mixture submittal is not exceeded. The responsibility for adding water to trucks at the job site shall rest only with the Contractor's designated representative. The Contractor is responsible that all concrete placed in the field is in conformance with the Contract Documents.

3.2 VAPOR RETARDER INSTALLATION

A. Install and repair damaged vapor retarder in accordance with ASTM E 1643 and manufacturer's instructions.

B. Lap all seams per manufacturer's instruction (6" minimum lap) and seal all joints in the field with the specified pressure sensitive tape. Heat-welded joints done in a shop prior to delivery is an acceptable method to minimize the number of field joints.

C. Seal all pipe penetrations through the vapor retarder with a boot made from the vapor retarder material and tape or mastic.

3.3 JOINTS IN CONCRETE

A. Construction Joints: Locate and install construction joints as indicated on the drawings or if not shown on drawings, located so as not to impair strength and appearance of the structure, as acceptable to Architect/Engineer.

1. Keyways: Provide keyways with a depth of one tenth of the member thickness (1 1/2" minimum or as shown on the drawings) in construction joints only where shown on the drawings.
2. Joint Construction: Place construction joints in the center one third of suspended spans and grade beams and as shown on the drawings for slabs-on-grade and walls unless shown otherwise. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise shown on the drawings. Dowels that cross construction joints shall be supported during concreting operations so as to remain parallel with the slab or wall surface and at right angles to the joint. Submit all construction joint locations as a shop drawing submittal.
3. Isolation Joints in Slabs-on-Grade: Construct isolation joints (without dowels) in slabs-on-grade at points of contact between slabs-on-grade and vertical surfaces only where specifically detailed on the drawings. Install joint-filler strips at joints where indicated. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated on the drawings. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together. Provide construction joints with dowels at all locations unless isolation joints are detailed.

B. Contraction Joints in Slabs-on-Grade: Install contraction joints at locations and spacings as indicated on the drawings or if not shown on drawings, located so as not to impair strength and

appearance of the structure, as acceptable to Architect/Engineer. Maximum joint spacing shall be per the drawings and be perpendicular to the slab surface. Use one of the two following methods (sawed or formed) to create the joints. Do not use the formed joint in areas subject to vehicular traffic or in industrial slabs.

1. Sawed Joints:
   a. Primary Method: Early-Entry, dry-cut method, using Soff-Cut saws. Finisher must have documented successful experience in the use of this method prior to this project. Install cuts within one to four hours, depending on air temperature, after final finish as soon as the concrete surface is firm enough to not be torn or damaged by the blade at each saw cut location. Use 1/8 inch thick blade, cutting to a depth of one quarter of the slab thickness but not less than one inch. Cut to a depth of one third of the slab thickness for slabs reinforced with steel fibers or synthetic fibers.
   b. Optional Method (where Soff-Cut System method equipment is not available, subject to limitations): This method may not be used when there is no dowel passing through the contraction joint. Use a conventional saw to cut joints within four to 12 hours after finishing as soon as the concrete has hardened sufficiently to prevent aggregates from being dislodged by the saw. Complete cutting before shrinkage stresses become sufficient to produce cracking. Use 1/8 inch thick blade, cutting to a depth of one quarter of the slab thickness but not less than one inch. Cut to a depth of one third of the slab thickness for slabs reinforced with steel fibers.
2. Formed Joints: Form contraction joints by inserting premolded plastic hardboard or fiberboard strip into fresh concrete until top surface of strip is flush with slab surface. The depth is to be one quarter of the slab thickness, but not less than one inch. Tool slab edges round on each side of insert. After concrete has cured, remove inserts and clean groove of loose debris.
3. The Contractor shall protect the joints from damage caused by wheeled traffic or other sources during construction until a joint-filler material (if specified) has been installed.

3.4 INSTALLATION OF EMBEDDED ITEMS

A. General: Set and build into work anchorage devices and other embedded items required for other work that is attached to, or supported by, cast-in-place concrete. Use setting drawings, diagrams, instructions and directions provided by suppliers of items to be attached thereto unless directed otherwise by these specifications. Install reglets to receive top edge of foundation sheet waterproofing where specified by the Architect, and to receive thru-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, relieving angles and other conditions.

B. Edge Forms and Screed Strips for Slabs: Set edge forms or bulkheads and intermediate screed strips for slabs to obtain required elevations and contours in finished slab surface. Provide and secure units sufficiently strong to support types of screed strips by use of strike-off templates or accepted compacting type screeds.

C. Do not install sleeves in any concrete member except where shown on the structural drawings or approved by the Architect and Engineer.

D. Securely fasten embedded plates, angles, anchor rods and other items to be built into the concrete to the formwork or hold in place with templates. Insertion of these items into concrete after concrete placement is prohibited.

3.5 CONCRETE PLACEMENT

A. Pre-placement Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast-in. Notify other crafts to permit installation of their work; cooperate with other trades in setting such work. Moisten wood forms immediately before placing concrete where form coatings are not used.

B. Concrete Batch Trip Tickets: The Contractor shall collect and retain concrete batch trip tickets. Compressive strength, slump, air content, and temperature tests shall be identified by reference to a particular trip ticket. Tickets shall contain the information specified in ASTM C 94. Each ticket shall also show the amount of water that may be added in the field for the entire batch that will not exceed the specified water cement ratio for the design mixture. The Contractor and Testing Laboratory shall immediately notify the Architect/Engineer and each other of tickets not meeting the criteria specified.

C. Causes for Rejection of Concrete: The Contractor shall reject concrete delivered to the site for any of the following reasons:

1. Wrong class of concrete (incorrect design mixture number).
2. Environmental condition limits shall be as follows unless appropriate provisions in concrete practices have been made for cold or hot weather:
    a. Cold Weather: Air temperature must be 40°F and rising or the average daily temperature cannot have been lower than 40°F for three consecutive days unless the temperature rose about 50°F for at least one-half of any of those 24 hour periods.
    b. Hot Weather: Environmental conditions must be such that cause an evaporation rate from the concrete surface of 0.2 pounds per square foot per hour or less as determined by the figure “NRMCA Nomograph for Estimating Evaporation Rate on the Basis of Menzel Formula” in Appendix A of ACI 305.1.
    c. Concrete may be placed at other environmental condition ranges only with the approval of the job inspector for the Testing Laboratory or other duly appointed representative.
3. Concrete with temperatures exceeding 95°F.
4. Air contents outside the limits specified in the design mixtures.
5. Slumps outside the limits specified.
6. Water added to the mix that exceeds the maximum allowed water-to-cementitious material ratio.
7. Excessive Age: Concrete shall be discharged within 90 minutes of plant departure or before it begins to set if sooner than 90 minutes and it shall be discharged before the drum has revolved 300 revolutions, unless approved by the Testing Laboratory job inspector or other duly appointed representative.

D. Coordinate the installation of joint materials and vapor retarders with placement of forms and reinforcing steel.

E. Comply with ACI 301 and as herein specified:

1. Concrete Temperature: The maximum acceptable concrete temperature at the truck discharge point shall be 95°F.
2. Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete that has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete as nearly as practicable to its final location to avoid segregation. Spread concrete using short-handled, square-ended shovels, or come-alongs.

3. Placing Concrete in Forms: Deposit concrete in forms in horizontal layers not deeper than 24" and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.
4. Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping. Use internal vibrators of the largest size and power that can properly be used in the work.
5. Do not vibrate Self-Consolidating Concrete.
6. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine. Place vibrators to penetrate rapidly placed layer and at least 6" into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.
7. Placing Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed. Place concrete for beams, girders, brackets, column capitals, haunches, and drop panels at the same time as concrete for slabs. Do not place concrete over columns and walls until concrete in columns and walls is no longer plastic and has been in place at least one hour.
8. Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners of forms, eliminating air and stone pockets that may cause honeycombing, pitting, or planes of weakness.
9. Bring slab surfaces to correct level with straightedge and strikeoff. Use highway straightedges, bull floats, or darbies to smooth surface free of humps or hollows before excess moisture or bleedwater appears on the surface. Do not disturb slab surfaces prior to beginning finishing operations.
10. Maintain reinforcing in proper position during concrete placement operations.
11. Protect adjacent finish materials against damage and spatter during concrete placement.
12. Placing Concrete by Pump: If concrete is placed by using a pump, the grout used for pump priming must not become a part of the completed structure unless an engineered grout design mix and grout location are approved in advance by the Engineer.

3.6 FINISH OF FORMED SURFACES

A. General: Formed surfaces shall have the finishes as described below and as shown on the drawings after formwork is removed and repairs made.

B. Classifications and Finish Requirements:

1. Surface Finish 1.0 (SF-1.0):
    a. No formwork facing material is specified.
    b. Patch voids larger than 1-1/2 inch wide or 1/2 inch deep.
    c. Remove projections larger than 1.0 inch.
    d. Provide surface tolerance Class D as specified in ACI 117.
    e. Tie holes need not be patched.

C. Related Unformed Surfaces: At tops of walls, horizontal offsets and similar unformed surfaces occurring adjacent to formed surfaces, strike-off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.7 MONOLITHIC SLAB FINISHES

A. Place, consolidate, strike off, and level concrete, eliminating high spots and low spots, before proceeding with any other finish operation. Do not add water to the surface of the concrete during finishing operation.

B. Scratch Finish: Apply scratch finish to monolithic slab surfaces that are to receive concrete floor topping or mortar setting beds for tile, portland cement terrazzo and other bonded applied cementitious finish flooring material, and as otherwise indicated. After placing slabs, plane surface to tolerance specified below. Slope surfaces uniformly to drains where required. After leveling, roughen surface before final set, with stiff brushes, brooms, or rakes.

C. Float Finish: Apply float finish to monolithic slab surfaces to receive trowel finish and other finishes as hereinafter specified, and slab surfaces which are to be covered with membrane or elastic waterproofing, membrane or elastic roofing, or sand-bed terrazzo, and as otherwise indicated. After screeding, consolidating and leveling concrete slabs, do not work surface until ready for floating. Begin floating, using a hand float, a bladed power float equipped with float shoes, or a powered disk float, when the bleed water sheen has disappeared and the concrete surface has stiffened sufficiently to permit the operation. Check and level surface plane to a tolerance as specified below. Cut down high spots and fill low spots. Uniformly slope surfaces to drains. Immediately after leveling, refloat surface to a uniform, smooth, granular texture.

3.8 CONCRETE FINISH MEASUREMENT AND TOLERANCES

A. Testing Procedure: ASTM E 1155.

B. Tolerance on Floor Elevations: Construction tolerance on absolute floor elevation from the specified elevation as shown on the drawings shall be as specified below, taken from ACI 117:
1. Slab-on-Grade Construction: ±3/4".
2. Top Surfaces of Formed Slabs Measured Prior to Removal of Supporting Shores: ±3/4".
3. Top Surfaces of All Other Slabs: ±3/4".

C. Random Traffic Floor Finish Tolerances:

1. Specified overall values for flatness (SOF_F) and levelness (SOF_L) shall conform to the values listed below for the floor surface classification noted for each slab category noted.
   a. Conventional:
      1) SOF_F: 20.
      2) SOF_L: 15.
   b. Moderately Flat:
      1) SOF_F: 25.
      2) SOF_L: 20.
   c. Flat:
      1) SOF_F: 35.
      2) SOF_L: 25.
   d. Very Flat:
      1) SOF_F: 45.
      2) SOF_L: 35.
   e. Super Flat:
      1) SOF_F: 60.
      2) SOF_L: 40.
2. Minimum local values for flatness (MLF_F) and levelness (MLF_L) shall equal 3/5 of the SOF_F and SOF_L values, respectively, unless noted otherwise. The MLF_F and MLF_L values shall apply to the minimum areas bounded by the column lines and half-column lines, or the

minimum areas bounded by the construction and contraction joints, whichever are the smaller areas.

3. The SOF_L and MFL_L tolerance values shall apply only to level slabs-on-ground or to level, uncambered suspended slabs that are shored such that it cannot deflect from the time the floor is placed to the time it is measured.
4. Slabs specified to slope shall have a tolerance from the specified slope of 3/8" in 10 feet at any point.

D. Construction Requirements to Achieve Specified Floor Finish Tolerances:

1. Forms shall be properly leveled, in good condition, and securely anchored including special attention to ends and transitions.
2. Bearing surfaces for straightedges such as form edges or previously poured slabs shall be kept clean of laitance, sand, gravel, or other foreign elements.
3. Screeds shall be maintained in good condition with true round rolling wheels and level cutting edges. The use of optical sighting equipment such as lasers is recommended for checking levelness and straightness. The Contractor shall promptly adjust or replace equipment when test results indicate substandard work.
4. Highway straightedges are recommended for use in lieu of bullfloats for all slab placement and finishing operations. If mineral, non-oxidizing metallic, or metallic floor hardeners are used, the slab shall be wood bullfloated immediately after the straightedge.

E. Contractor Responsibility for Concrete Floor Finish Requirements: Floor finish requirements shown below (flatness and levelness tolerances) are minimum requirements that apply unless stricter requirements are contained in instructions for installation of applied floor products in which case the Contractor is responsible for attaining the values prescribed by the manufacturer of such products.

F. Concrete Floor Finish Tolerance for Slab-on-Grade Construction:

1. Concrete Placement: Concrete shall be placed and screeded to predetermined marks set to elevations prescribed on the drawings.
2. Finish Tolerances of Random Traffic Floor Surfaces:
    a. Slabs in nonpublic areas, mechanical rooms, surfaces to received raised computer flooring, surfaces to have thick-set tile or a topping, and parking structures: Conventional.

G. Concrete Floor Finish Tolerance for Shored, Cast-in-Place Suspended Slab Construction:

1. Concrete Placement: Formwork shall be set and securely braced so that soffits are positioned to allow scheduled concrete member sizes and thicknesses within tolerances specified in ACI 117. Concrete shall be placed and screeded to predetermined marks on the form surface conforming to elevations prescribed on the drawings.
2. Camber: Formwork camber, as indicated on the drawings, shall be set to provide a uniform, smooth soffit profile in each direction. Minimum slab thickness, as specified on the drawings, shall be maintained throughout the slab surface to a tolerance as specified in ACI 117. Tolerance on camber shall be ±1/4". Levelness F-Number tolerances specified below do not apply to areas of the floor where camber or intentional slope is shown.
3. Finish Tolerances of Random Traffic Floor Surfaces:
    a. Slabs in Nonpublic Areas, Mechanical Rooms, Surfaces to Received Raised Computer Flooring, Surfaces to Have Thick-Set Tile or a Topping, and Parking Structures: Conventional.
    b. Carpeted Areas: Moderately Flat.
    c. Exposed Slabs in Public Spaces, Slabs to Receive Thin-Set Flooring: Flat.
    d. Movie or Television studios: Super Flat.

4. Extra Concrete: The contractor shall include in his bid any additional concrete required to achieve the specified slab surface finish tolerance.

H. Remedial Measures for Slab Finish Construction Not Meeting Specified Tolerances:

1. Application of Remedial Measures. Remedial measures specified herein are required whenever either or both of the following occur:
   a. The composite overall values of F_F or F_L of the entire floor installation measure less than specified values.
   b. Any individual test section measures less than the specified absolute minimum F_F or F_L value.
2. Modification of Existing Surface:
   a. If, in the opinion of the Architect/Engineer or Client Agency's Representative, all or any portion of the substandard work can be repaired without sacrifice to the appearance or serviceability of the area, then the Contractor shall immediately undertake the approved repair method.
   b. The Contractor shall submit for review and approval a detailed work plan of the proposed repair showing areas to be repaired, method of repair, and time to affect the repair.
   c. Repair method(s), at the sole discretion of the Architect/Engineer or Client Agency's Representative, may include grinding (floor stoning), planing, retopping with self-leveling underlayment compound or repair topping, or any combination of the above.
   d. The Architect/Engineer or Client Agency's Representative maintains the right to require a test repair section using the approved method of repair for review and approval to demonstrate a satisfactory end product. If, in the opinion of the Architect/Engineer or Client Agency's Representative, the repair is not satisfactory an alternate method of repair shall be submitted or the defective area shall be replaced.
   e. The judgment of the Architect/Engineer or Client Agency's Representative on the appropriateness of a repair method and its ability to achieve the desired end product shall be final.
   f. All repair work shall be performed at no additional cost to the Client Agency and with no extension to the construction schedule.
3. Removal and Replacement:
   a. If, in the opinion of the Architect/Engineer or Client Agency's Representative, all or any portion of the substandard work cannot be satisfactorily repaired without sacrifice to the appearance or serviceability of the area, then the Contractor shall immediately commence to remove and replace the defective work.
   b. Replacement section boundaries shall be made to coincide with the test section boundaries as previously defined.
   c. Sections requiring replacement shall be removed by sawcutting along the section boundary lines to provide a neat clean joint between new replacement floor and existing floor.
   d. The new section shall be reinforced the same as the removed section and doweled into the existing floor as required by the Engineer. No existing removed reinforcing steel may be used. All reinforcing steel shall be new steel.
   e. Replacement sections may be retested for compliance at the discretion of the Architect/Engineer or Client Agency's Representative.
   f. The judgment of the Architect/Engineer or Client Agency's Representative on the need for replacement shall be final.
   g. All replacement work shall be performed at no additional cost to the Client Agency and with no extension to the construction schedule.

3.9 CONCRETE CURING AND PROTECTION

A. General:

1. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Maintain concrete with minimal moisture loss at a relatively constant temperature for the period necessary for hydration of the cement and hardening of concrete. Limit moisture loss to a maximum of 0.05 pounds per square foot per hour for concrete containing silica fume and 0.2 pounds per square foot per hour for all other concrete before and during finishing operations. If using an evaporation retarder, apply in accordance with manufacturer's instructions after screeding and bull floating, but before power floating and troweling.
2. Curing shall commence as soon as free water has disappeared from the concrete surface after placing and finishing. The curing period shall be seven days for all concrete except high early strength concrete that shall be cured for three days minimum.
3. Curing shall be in accordance with ACI 301 procedures. Avoid rapid drying at the end of the curing period.

B. Curing Formed Surfaces: Where wooden forms are used, cure formed concrete surfaces, including undersides of beams, supported slabs and other similar surfaces by moist curing with forms in place for full curing period or until forms are removed. When forms are removed, continue curing by one or a combination of the methods specified below, as applicable:

1. Columns and Shear Walls Not Exposed to View: Moist cure in forms or by one or a combination of Methods 1, 2, or 3 specified below. Use a high–solids, liquid membrane-forming curing and sealing compound conforming to ASTM C 1315, Type I, Class A or B for Method 3.
2. Sides and Soffits of Beams and Pan-Joist Ribs, Soffits of Slabs: Moist cure in forms or by one or a combination of Methods 1, 2, or 3 specified below. Use a liquid membrane-forming dissipating resin curing compound conforming to ASTM C 309, Type 1, class A or B for Method 3.

C. Curing Unformed Surfaces: Cure unformed surfaces, such as slabs, floor topping, and other flat surfaces by one or a combination of the methods specified below, as applicable. The Contractor shall choose a curing method that is compatible with the requirements for subsequent material usage on the concrete surface.

1. Floors that are to Receive Subsequent Cementitious Toppings, Sealers, Hardeners, Ceramic Tile, Acrylic Terrazzo, Vinyl Composition Tile, Sheet Vinyl, Linoleum, Vinyl-Backed Carpet, Rubber, Athletic Flooring, Synthetic Turf, Wood, Epoxy Overlay or Adhesive, or Other Coating or Finishing Products: Cure using Methods 2 or 3 as specified below. Use a water-based dissipating resin type curing compound conforming to ASTM C 309, Type 1, class A or B for Method 3.
2. Mat Foundations: Cure using Methods 1 or 2 as specified below for seven days. The temperature of applied water shall be within 35°F of concrete surface temperature, but not less than 50°F.
3. All Other Surfaces: Cure using Methods 1, 2, or 3 as specified below. Use a water-based dissipating resin type curing compound conforming to ASTM C 309, Type 1, class A or B for Method 3.

D. Curing Methods:

1. Method 1 – Moisture Curing: Provide moisture curing by one of the following methods:
   a. Keep concrete surface continuously wet by covering with water.
   b. Continuous water-fog spray.

c. Covering concrete surface with specified absorptive cover, thoroughly saturating cover with water, and keeping continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4" lap over adjacent absorptive covers.

2. Method 2 – Moisture-Retaining Cover Curing: Provide moisture-retaining cover curing as follows:
   a. Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3" and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape. Water may be added to concrete surface to prevent drying before the cover is installed, but the surface shall not be flooded with water if a non-absorptive cover is used.
3. Method 3 – Curing or Curing and Sealing Compound: Provide curing, liquid membrane-forming curing, or curing and sealing compound as follows:
   a. Apply specified compound to concrete slabs as soon as final finishing operations are complete (within two hours and after surface water sheen has disappeared). Apply uniformly in continuous operation by power-spray or roller in accordance with manufacturer's directions. Do not allow to puddle. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period. Apply second coat for sealing two to three hours after the first coat was applied.
   b. Do not use membrane-forming curing and sealing compounds on surfaces which are to be covered with coating material applied directly to concrete, liquid floor hardener, waterproofing, dampproofing, membrane roofing, flooring (such as ceramic or quarry tile, glued-down carpet, vinyl composition tile, linoleum, sheet vinyl, rubber, athletic flooring, synthetic turf, or wood), paint, or other coatings and finish materials. Dissipating resin type cures are acceptable in these locations.

3.10 HOT WEATHER CONCRETING

A. Definition:

1. Conditions warranting hot weather concreting practices are defined as any combination of high air temperature, low relative humidity, and wind velocity tending to impair the quality of fresh or hardened concrete or otherwise result in abnormal properties. Monitor the conditions on-site at an elevation two feet above the top surface of the planned concrete pour from one hour prior to placement and every 30 minutes thereafter until accepted curing procedures have been applied. If conditions cause an evaporation rate of 0.2 pounds per square foot per hour or greater as calculated by one of the accepted methods, then precautions shall be taken to prevent plastic shrinkage cracks from occurring. Accepted methods for determining evaporation rate include:

   a. The figure “NRMCA Nomograph for Estimating Evaporation Rate on the Basis of Menzel Formula” in Appendix A of ACI 305.1
   b. Electronic instruments that gauge evaporation rate using the Menzel Formula.

B. Specification: Follow hot weather concreting practices specified below when required to limit the concrete temperature at the truck discharge point to the stated maximum acceptable temperature.

C. Records: Under hot weather conditions, the Contractor shall keep records of outside air temperature, concrete temperature at truck discharge and general weather conditions.

D. Hot Weather Concreting Requirements: The following items, all or in part as required, shall be followed to limit the concrete temperature to the stated maximum acceptable temperature and to minimize the possibility of plastic shrinkage cracks from developing.

1. Design the concrete mixtures specifically for hot weather conditions replacing some cement with fly ash or other pozzolan and using a water reducing retarding admixture (ASTM C 494 Type D).
2. Use the largest size and amount of coarse aggregate compatible with the job.
3. Use sunshades and/or windbreaks.
4. Delay construction of indoor slabs-on-grade until the walls and roof are constructed.
5. Cool and shade aggregate stockpiles.
6. Use ice as part of the mixing water or cool the water with liquid nitrogen. Do not place concrete that contains unmelted ice.
7. Limit the number of revolutions at mixing speed to 125 maximum.
8. Reduce time between mixing and placing as much as possible.
9. Do not add water to ready-mixed concrete at the job site unless it is part of the amount required initially for the specified water-cement ratio and the specified slump.
10. Schedule concrete placement for early morning, late afternoon, or night.
11. Have all forms, equipment, and workers ready to receive and handle concrete.
12. Maintain one standby vibrator for every three vibrators used.
13. Keep all equipment and material cool by spraying with water including exteriors of forms, reinforcing steel, subgrade, chutes, conveyors, pump lines, tremies, and buggies.
14. Protect slab concrete at all stages against undue evaporation by applying a fog spray or mist above the surface or applying a monomolecular film. Where high temperatures and/or placing conditions dictate, use water-reducing retarding admixture (Type D) in lieu of the water-reducing admixture (Type A) as directed by the Client Agency's Testing Laboratory.
15. Provide continuous curing, preferably with water, during the first 24 hours using wet burlap, cotton mats, continuous spray mist, or by applying a curing compound meeting ASTM C 1315. Continue curing for three days minimum.
16. Cover reinforcing steel with water soaked burlap so that steel temperature will not exceed ambient air temperature immediately before placement of concrete.
17. As soon as possible, loosen forms and run water down the inside. When forms are removed, provide a wet cover to newly exposed surfaces.

3.11 COLD WEATHER CONCRETING

A. Definition:

1. Concrete shall not be placed when the outside air temperature is 40°F or less unless cold weather concreting practices are followed as specified below.
2. Cold weather concreting practices should also be followed whenever the average daily air temperature is expected to be less than 40°F for more than three successive days. The average daily air temperature is the average of the highest and lowest temperature occurring during the period from midnight to midnight. The requirement for adhering to these cold-weather concreting practices may be terminated when the air temperature is above 50º F for more than half of any 24 hour duration.
3. Cold-weather concreting practices invoked shall keep the temperature of the concrete immediately after placing within the following temperature ranges:
   a. 55º to 75º F for sections less than 12 inches in the least dimension.
   b. 50º to 70º F for sections 12 to 36 inches in the least dimension.
   c. 45º to 65º F for sections 36 to 72 inches in the least dimension.
   d. 40º to 60º F for sections greater than 72 inches in the least dimension.
4. Concrete Protection: Protect the concrete immediately after placing and during the defined protection period such that the concrete does not freeze nor fall below the temperature levels stated in the above paragraph. For concrete not loaded during construction, the protection period shall be for a minimum of three days if cold-weather conditions persist. The time may be reduced to a minimum of two days if Type III cement or an accelerating admixture is used or if an additional 100 pounds of cement per cubic yard is added to the concrete mix. Concrete fully loaded during construction shall be protected during cold

weather conditions for whatever time is required to obtain the required strength as determined by nondestructive strength tests (Windsor probe, Swiss Hammer Test) on the in-place concrete. Protect concrete surfaces from freezing for the first 24 hours even if cold-weather conditions do not officially exist due to high volatility in ambient temperatures.

5. Protection Deficiency: If the temperature requirements during any portion of the protection period are not met but the concrete surface did not freeze, the protection period shall be extended until twice the deficiency expressed in degree-hours is made up. Deficiency degree-hours are defined as the average deficiency in temperature below the required value times the number of hours the deficiency persisted. Make-up degree hours are the average increase in temperature above the minimum value times the hours required to make up twice the deficiency degree-hours. Contact the Architect/Engineer if the concrete surface was allowed to freeze during the protection period.
6. Protection Removal: As the protection is being removed the decrease in temperature measured at the surface of the concrete in a 24 hour period shall not exceed the following:
   a. 50º F for sections less than 12 inches in the least dimension.
   b. 40º F for sections 12 to 36 inches in the least dimension.
   c. 30º F for sections 36 to 72 inches in the least dimension.
   d. 20º F for sections greater than 72 inches in the least dimension.
7. The maximum concrete temperature heated by artificial means at point of placement shall not exceed 90°F.

B. Records: Under cold weather conditions, the Contractor shall keep records of outside air temperature, concrete temperature as placed and general weather conditions. The temperature record shall be taken no less than two times per 24 hour duration.

C. Cold Weather Concreting Requirements: The following items, all or in part as required, should be followed to assure acceptable concrete in cold weather conditions:

1. Design the concrete mixture to obtain high early strength by using higher cement content, a high early strength cement (Type III), or a specified non-chloride accelerator (ASTM C 494 Type C or E).
2. Protect the concrete during curing period using insulating blankets, insulated forms, enclosures, and/or heaters.
3. Concrete cured in heated enclosures shall have heaters vented to prevent exposure of concrete and workmen to noxious gases.
4. Frozen subgrade shall be thawed prior to concrete placement and snow and ice shall be removed from forms.
5. Temperature of embedments in concrete must be heated to above 32°F prior to placing concrete
6. Heat the mixing water and then blend hot and cold water to obtain concrete no more than 10°F above the required temperature.
7. Heat the aggregates by circulating steam in pipes placed in the storage bins for air temperatures consistently below 32°F. When either water or aggregate is heated to over 140°F, combine them in the mixer first to obtain a maximum temperature of the mixture not to exceed 140°F in order to prevent flash set of the concrete.
8. Uniformly thaw aggregates far in advance of batching to prevent moisture variations in the stockpile.
9. Cover warmed stockpiles with tarps to retain heat.
10. Place air entraining admixture in the batch after the water temperature has been reduced by mixing with cooler solid materials.
11. Use wind screens to protect concrete from rapid cooling.
12. Place vertical pump lines inside the building, if possible, for concrete being pumped.
13. Maintain artificial heat as low as possible to reduce temperature stresses during cooling.
14. Avoid water curing of concrete except for parking garage structures. Apply the required curing compound to unformed surfaces as soon as possible to prevent drying of concrete from heated enclosures.

15. Delay form stripping as long as possible to help prevent drying from heated enclosures and to reduce damage to formed surfaces caused by premature stripping.
16. Provide triple thickness of insulating materials at corners and edges vulnerable to freezing.
17. Wrap protruding reinforcing bars with insulation to avoid heat drain from the warm concrete.
18. Gradually reduce the heat at the end of the heating period to reduce likelihood of thermal shock.

3.12 MISCELLANEOUS CONCRETE ITEMS

A. Filling-In: Fill-in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place, and cure concrete as herein specified, to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete work.

B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

C. Equipment Bases and Foundations: Provide machine and equipment bases and foundations, as shown on drawings. Set anchor rods for machines and equipment to template at correct elevations, complying with certified diagrams or templates of manufacturer furnishing machines and equipment.

D. Steel Pan Stairs: Provide concrete fill for steel pan stair treads and landings and associated items. Cast-in safety inserts and accessories as shown on drawings. Screed, tamp and finish concrete surfaces as scheduled.

E. Adhesive Anchors: All drilled holes for adhesive anchors shall be within six degrees of perpendicular to the surface of the concrete member.

3.13 INVESTIGATION OF LOW CONCRETE STRENGTH TEST RESULTS

A. Contractor Responsibility for Low Strength Concrete:

1. If the average of any three consecutive strength tests falls below the required f’c for a class of concrete but no individual strength test is more than 500 PSI below the required f’c, the Contractor shall immediately notify the Engineer by telephone or email and take immediate steps to increase the average of subsequent strength tests.
2. If any individual strength test falls more than 500 PSI below the required f'c, the Contractor shall immediately notify the Engineer by telephone or e-mail and take immediate steps to assure that the load-carrying capacity of the structure is not jeopardized.

B. Additional Field Tests to Confirm Low Concrete Strengths:

1. The cost of all investigations of low-strength concrete, as defined by any individual strength test being more than 500 PSI below the required f’c, shall be borne by the Contractor.
2. Code-Prescribed Acceptance: The only accepted field-test methods of determining actual in-situ concrete strength is by the way of core tests as prescribed by ACI 318.
3. Non-Destructive Tests: If any individual strength test falls more than 500 PSI below the required f'c, the Engineer may request that non-destructive field tests be performed on the concrete in question using Swiss Hammer, Windsor Probe, or other appropriate methods as approved by the Engineer. Report the comparative test results of the suspect concrete under consideration with identical tests done on concrete of known strength and of the

same class. The Engineer considers these test results as only approximate indicators of strength and may not necessarily, by themselves, resolve the low concrete strength issue. These test results will be considered as additional information by which to make an informed judgment. The Engineer reserves the right to accept the concrete based on the results of these approximate tests or order that core tests be taken as prescribed below. At the Contractor's option, the approximate non-destructive field-tests may be waived and core tests immediately initiated.

4. Core Tests: If, in the opinion of the Engineer, the likelihood of low-strength concrete is confirmed and it has been determined that the load-carrying capacity of the structure is significantly reduced as a result, the Engineer may request that core tests be taken from the area in question as directed by the Engineer. There shall be a minimum of three cores taken for each strength test more than 500 PSI below the required f'c in accordance with ASTM C 42. If concrete in the structure will be dry under service conditions, cores shall be air dried (temperature 60° to 80°F, relative humidity less than 60 percent) for seven days before test and shall be tested dry. If concrete in the structure will be more than superficially wet under service conditions, cores shall be immersed in water for at least 40 hours and tested wet. The Contractor shall fill all holes made by drilling cores with an approved drypack concrete.
5. Acceptance Criteria for Core Test: Concrete in an area represented by core tests shall be considered adequate if the average of three cores is equal to at least 85% of the required f'c and no single core is less than 75% of the required f'c. If approved by the Engineer, locations of erratic core strengths may be retested to check testing accuracy.
6. Load Test: If the concrete strength is not considered adequate based on core tests and the structural adequacy remains in doubt, the Engineer may order a load test as specified in ACI 318 be conducted for the questionable portion of the structure.
7. Strengthening or Demolition of the Structure: If the structural adequacy of the affected portion of the structure remains in doubt following the load test, the Engineer may order the structure to be strengthened by an appropriate means or demolished and rebuilt at the Contractor's expense.
8. If compressive strength of in situ concrete is accepted, either without additional testing or on the basis of testing other than original cylinder compressive strength tests, the Contractor shall compensate the Department for the Contractor's failure to meet specified strength requirements by paying to the Department one hundred dollars ($100) per cubic yard for each one hundred pounds per square inch (100psi) below the specified compressive strength. The original laboratory cured 28-day cylinder compressive strength test results only shall be used to determine the difference between specified and furnished strengths.

3.14 CONCRETE SURFACE REPAIRS

A. Defective Areas:

1. Formed Surfaces: Concrete surfaces requiring repairs shall include all cracks in excess of 1/32" in width and any other defects that affect the durability or structural integrity of the concrete. Voids, including honeycombing and rock pockets, and tie holes shall be repaired as required by the specified Surface Finish.
2. Unformed Surfaces: Concrete surfaces requiring repair shall include all surface defects such as crazing, cracks in excess of 1/32" in width or cracks that penetrate to reinforcement or through the member, popouts, spalling, and honeycombs.

B. Classification:

1. Structural Concrete Repair: Major defective areas in concrete members that are load carrying (such as shear walls, beams, joists and slabs), are highly stressed, and are vital to the structural integrity of the structure shall require structural repairs. Structural concrete

repairs shall be made using a two-part epoxy bonder, epoxy mortar, or specified polymer repair mortar. The Engineer shall determine the locations of required structural concrete repairs.

2. Cosmetic Concrete Repair: Defective areas in concrete members that are non-load carrying and minor defective areas in load carrying concrete members shall require cosmetic concrete repair when exposed to view and not covered up by architectural finishes. Cosmetic concrete repairs may be made using a polymer repair mortar and compatible bonding agent. The Architect/Engineer shall determine the locations of required cosmetic concrete repairs. Stains and other discolorations that cannot be removed by cleaning and are exposed to view will require cosmetic repair. Cosmetic concrete repair in exposed-to-view surfaces will require Architect's approval prior to patching operation.
3. Slab Repairs: High and low areas in concrete slabs shall be repaired by removing and replacing defective slab areas unless an alternate method, such as grinding and/or filling with self-leveling underlayment compound or repair mortar is approved by the Architect/Engineer. Repair of slab spalls and other surface defects shall be made using epoxy products as specified above and as determined by the Engineer. The high strength flowing repair mortar may be used for areas greater than one inch in depth.

3.15 FIELD QUALITY CONTROL

A. Field Testing and Inspection: Refer to Specification Sections 0140000 and 01401 for testing and inspection requirements associated with cast-in-place concrete.

B. Field Testing: The following tests shall be completed by the Testing Laboratory:

1. During Concrete Placement:
   a. Record the amount of water added and note if it exceeds the amount allowed to be added shown in the approved design mixture.
   b. Mold concrete test cylinders as specified below in “Concrete Test Cylinders” Paragraph below.
   c. Perform tests to determine slump, concrete temperature, unit weight, and air entrainment as specified below.
   d. Record information for concrete test reports as specified below.
   e. Pick up and transport to Laboratory cylinders cast the previous day.
2. After Concrete Placement:
   a. In-situ Concrete Strength Verification for Form Stripping: The Testing Laboratory shall perform the tests necessary to determine the concrete strength prior to form stripping:
      1) If concrete strength for form stripping is to be determined using field-cured cylinders, the cylinder shall be broken at the time of form removal as directed by the Contractor.
   b. Investigation of Low Strength Concrete Test Results:
      1) Cost of Investigations for Low Strength Concrete: The Contractor shall reimburse the Client Agency for the costs of investigations of low strength concrete.
      2) Scope of Investigations: See above for the investigations that may be required by the Engineer. The Testing Laboratory will conduct these investigations if required.
   c. Post-Installed Anchors in Concrete:
      1) Verify maximum anchor tightening torque for all applicable post-installed anchors.
      2) Verify that all drilled holes for adhesive anchors are within six degrees of perpendicular to the surface of the concrete member.

3) Provide pull tests on individual anchors as specified in the ICC Evaluation Services Report, on the drawings, or as directed by the Engineer-of-Record.

d. Floor Flatness and Levelness Measuring: Perform tests as defined below.

e. Testing of Non-Shrink Grout for Base Plates, Bearing Plates, and Precast Wall Panels:

1) Compressive Strength Tests: Compressive strength of grout shall be determined by testing grout cubes according to the requirements of ASTM C 109 – Modified. Test one set of three cubes at one day, and one set of three cubes at 28 days.

2) Frequency of Testing: One set of cubes (six cubes) shall be made for every ten base plates and bearing plates or fraction thereof but not less than one set for each day's operation. One set of cubes shall be made for each day's operation of grouting wall panels.

3. Standards for Concrete Tests:

a. Concrete Test Cylinders: Mold and test concrete cylinders as described below:

1) Cylinder Molding and Testing: Cylinders for strength tests shall be molded and Laboratory cured in accordance with ASTM C 31 and tested in accordance with ASTM C 39. Cylinders may be either 6” in diameter by 12” or 4” in diameter by 8”, however, the diameter of the cylinder shall be at least three times the nominal maximum size of the coarse aggregate in the mix tested. All of the cylinders for each class of concrete shall be of the same dimension for all sets of that class.

2) Field Samples: Field samples for strength tests shall be taken in accordance with ASTM C 172 at the point of placement.

3) Quantity of Cylinders: Each set of test cylinders shall consist of a minimum of four standard test cylinders. If concrete strength for form stripping is to be determined using field-cured cylinders, one additional cylinder per set will be required for formed slab and pan-formed beam floors for the purpose of evaluating the concrete strength at the time of form stripping. This cylinder shall be stored on the floor where form removal is to occur under the same exposure conditions as the floor concrete. The cylinder shall be cured under field conditions in accordance with ASTM C 31. Field-cured test cylinders shall be molded at the same time and from the same samples as laboratory-cured test specimens. The Contractor shall reimburse the Client Agency for the cost of making and testing these cylinders.

4) Frequency of Testing: A set of test cylinders shall be made according to the following minimum frequency guidelines:

a) One set for each class of concrete taken not less than once a day.

b) Mat Foundation: One set for each 150 cubic yards or fraction thereof.

c) Spread Footings: One set for each 50 cubic yards or fraction thereof.

d) Basement Walls: One set for each 150 cubic yards.

e) Floors: One set for each 150 cubic yards or fraction thereof but not less than one set for each 5,000 square foot of floor area.

f) All Other Concrete: A minimum of one set for each 150 cubic yards or fraction thereof but not less than one set for each 5,000 square foot of area for walls.

g) No more than one set of cylinders at a time shall be made from any single truck.

h) If the total volume of concrete is such that the frequency of testing as specified above would provide less than five strength tests for a given class of concrete, tests shall be made from at least five randomly selected batches or from each batch if fewer than five batches are used.

i) The above frequencies assume that one batch plant will be used for each pour. If more than one batch plant is used, the frequencies cited above shall apply for each plant used.

5) The cylinders shall be numbered, dated, and the point of concrete placement in the building recorded.
6) For concrete specified on the drawings to reach the required strength at 28 days, break one cylinder of the set at seven days, two 6" by 12" cylinders or three 4" by 8" cylinders at 28 days, and keep one in reserve for testing at the Engineer's direction.
7) Cylinder Storage Box: The Contractor shall be responsible for providing a protected concrete cylinder wooden storage box at a point on the job site mutually agreeable with the Testing Laboratory for the purpose of storing concrete cylinders until they are transported to the Laboratory. The box shall be constructed and equipped to maintain the environment specified for initial curing in ASTM C 31.
8) Transporting Cylinders: The Testing Laboratory shall be responsible for transporting the cylinders to the Laboratory in a protected environment such that no damage or ill effect will occur to the concrete cylinders including loss of moisture, freezing temperatures or jarring.
9) Information on Concrete Test Reports: The Testing Laboratory shall make and distribute concrete test reports after each job cylinder is broken. Such reports shall contain the following information:
   a) Truck number and ticket number.
   b) Concrete Batch Plant.
   c) Design mixture number.
   d) Accurate location of pour in the structure.
   e) Strength requirement.
   f) Date cylinders made and broken.
   g) Technician making cylinders.
   h) Concrete temperature at placing.
   i) Air temperature at point of placement in the structure.
   j) Amount of water added to the truck at the batch plant and at the site and whether or not it exceeds the amount allowed by the design mixture.
   k) Slump.
   l) Unit weight.
   m) Air content.
   n) Cylinder compressive strengths with type of failure if concrete does not meet Specification requirements. Seven day breaks are to be flagged if they are less than 60% of the required 28 day strength. 28 day breaks are to be brought to the attention of the Architect and Engineer in writing if either cylinder fails to meet specification requirements.

b. Slump Tests: Slump Tests (ASTM C 143) shall be completed at the beginning of concrete placement for each batch plant and for each set of test cylinders made. The slump test shall be made from concrete taken from the end of the concrete truck chute. The concrete shall be considered acceptable if the slump is within the slump tolerance noted in the approved design mixture submittal for that class of concrete.
c. Air Entrainment: Air entrainment tests (ASTM C 231 or C 173, C 173 only for lightweight concrete) shall be made at the same time slump tests are made as cited above. Samples for air entrainment tests shall be taken **at the point of placement**.
d. Concrete Temperature: Concrete temperature at placement shall be measured (ASTM C 1064) at the same time slump tests are made as cited above.
e. Testing of Concrete Floor Slabs for Acceptability to Receive an Adhesive-Applied, Low-Permeable Floor Covering:
   1) The following tests shall be performed by the Testing Laboratory as a part of quality assurance testing to insure that the proper moisture condition and alkalinity of the substrate has been achieved prior to installing adhesive-applied, low-permeability floor coverings such as vinyl composition tile (VCT), linoleum, sheet vinyl, vinyl-backed carpet, rubber, athletic flooring, synthetic

turf, wood, acrylic terrazzo, thin-set tile, epoxy overlays and adhesives, waterproofing, et.al.

2) Moisture Vapor Emission Rate: Perform testing according to ASTM F 1869 to determine if the moisture emission rate from the floor is below the flooring manufacturer's maximum recommended value but not greater than five pounds per 1,000 square feet per 24 hours.

3) Relative Humidity Determination Test: As an alternate to the Moisture Vapor Emission Rate Test, and if agreed to by the Contractor, Architect and Client Agency, perform testing according to ASTM F 2170 to determine if the relative humidity of the concrete slab is below the flooring manufacturer's maximum recommended value but not greater than 75%.

4) Alkalinity Testing: Perform testing in accordance with ASTM F 710, Paragraph 5.3, to determine if the pH level of the concrete slab surface is below the flooring manufacturer's maximum recommended value but not greater than 10. Perform one test per 1,000 square feet with a minimum of three tests within the total area being tested.

4. Evaluation and Acceptance of Concrete:
   a. Strength Test: A strength test shall be defined as the average strength of two six inch cylinder breaks or three four inch cylinder breaks from each set of cylinders tested at the time indicated above.
   b. Quality Control Charts and Logs: The Testing Laboratory shall keep the following quality control logs and charts for each class of concrete containing more than 2,000 cubic yards. The records shall be kept for each batch plant and submitted on a weekly basis with cylinder test reports:
      1) Number of strength tests made to date.
      2) Strength test results containing the average of all strength tests to date, the high test result, the low test result, the standard deviation, and the coefficient of variation.
      3) Number of tests under specified strength.
      4) A histogram plotting the number of strength test cylinders versus compressive strength.
      5) Quality control chart plotting compressive strength test results for each test.
      6) Quality control chart plotting moving average for strength where each point plotted is the average strength of three previous test results.
      7) Quality control chart plotting moving average for range where each point plotted is the average of 10 previous ranges.
   c. Acceptance Criteria: The strength level of an individual class of concrete shall be considered satisfactory if both of the following requirements are met:
      1) The average of all sets of three consecutive strength tests equal or exceed the required f'c.
      2) No individual strength test falls below the required f'c by more than the greater of 10% of f'c or 500 PSI.
   d. If either of the above Acceptance Criteria requirements is not met, the Testing Laboratory shall immediately notify the Engineer by telephone. Steps shall immediately be taken to increase the average of subsequent strength tests.
5. Testing Reports: Compressive strength, slump, air, and temperature tests shall be identified by reference to a particular trip ticket.

C. Field Inspection: The scope of the work to be performed by the inspector on the jobsite shall be as follows:

1. Before Concrete Placement:
   a. Inspect concrete formwork per Specification 031000 "Concrete Forming and Accessories."
   b. Inspect concrete reinforcing per Specification 032000 "Concrete Reinforcing."

c. Inspect bolts and rods to be embedded in concrete for proper grade, size, length, and embedment.
d. For slabs-on-grade, verify that the moisture retarder is provided, is lapped properly, and is not torn or punctured.
e. Verify that there is no standing water in pour area and that all debris has been removed from the area and from the formwork.
f. Verify that openings and sleeves in slabs or walls are correct size and location. Verify that the openings are shown on the structural drawings and notify the Engineer immediately of any openings in the field that are not shown on the drawings.
g. Verify that horizontal and vertical sleeves through girders, beams, or joists have been approved by the Engineer and that approved reinforcement is provided.
h. Verify the tops of previously poured columns and/or walls are 1/2 inch below the deck soffit.

2. During Concrete Placement: Provide continuous monitoring to:
   a. Upon arrival of concrete, inspect the concrete to verify that the proper concrete mix number, type of concrete, concrete strength is being placed at the proper location. Verify that the mix meets the project specifications and is not over 90 minutes old at the time of placement. Report concrete not meeting the specified requirements and immediately notify the Contractor, Batch Plant Inspector, Architect, Engineer, and Client Agency.
   b. Inspect plastic concrete upon arrival at the jobsite to verify proper batching. Observe mix consistency and adding of water as required to achieve target slumps in design mixtures.
   c. Verify that the Contractor is following appropriate Hot Weather or Cold Weather concreting practices consistent with any extreme environmental conditions at the point of placement in the structure.
   d. Verify that concrete deposited is uniform and that vertical drop does not exceed six feet and is not permitted to drop freely over reinforcement causing segregation.
   e. Verify that the formwork has remained stable during the concreting operation.
   f. Verify that there are no cold joints.
   g. Verify that the concrete is properly vibrated.
   h. Inspect bolts embedded in concrete during concrete placement for verification that they have been properly installed to the specified embedment.
   i. Verify that the finishing of the concrete surface is done according to specifications.

   The Testing Laboratory shall report any irregularities that occur in the concrete at the job site or test results to the Contractor, Architect, Client Agency, and Engineer.

3. After Concrete Placement:
   a. Verify that the curing process is according to Specifications and that any curing compound used is applied in accordance with the manufacturer's recommendations.
   b. Verify that sawcut control joints in slab-on-grades are cut within 12 hours of placement.
   c. Post-Installed Anchors in Concrete: Provide inspection of post-installed anchor installations at the frequency noted in the specifications and in accordance with the published, currently valid, Evaluation Service Report (ESR) for each anchor product. Post-installed anchors include anchors and reinforcing steel. Inspection of post-installed anchors shall include but not be limited to the following:
      1) Periodic Inspection: Verify initial installation of post-installed anchors in concrete for each individual installer with each individual anchor product in accordance with the requirements stated below for each type of anchor. Periodically inspect anchor installation after the initial verification.
      2) Continuous Inspection: Verify each installation of post-installed anchors in concrete in accordance with the requirements stated below for each type of anchor.

3) All Post-Installed Anchors: Verify that the anchor is installed in accordance with manufacturer's printed installation instructions as well as the following design requirements.
   a) Concrete type, concrete strength and concrete thickness are in accordance with design drawings.
   b) Anchor manufacturer and product, including material, is in accordance with design drawings or approved substitution.
   c) Anchor diameter, length and installed embedment depth.
   d) Drill bit type and diameter.
   e) Anchor edge distance and spacing.
   f) Hole diameter and depth.
   g) Hole cleaning procedure and cleanliness.
   h) Anchor maximum tightening torque.
4) Adhesive Anchors: In addition to the requirements for All Post-Installed Anchors, verify adhesive identification and expiration date.
   a) The installation of all adhesive anchors shall be continuously inspected when anchors are subject to sustained tension loads, such as anchors for shelf angles, or when anchors are installed in an upwardly inclined condition.

END OF SECTION 033000

SECTION 071413 - HOT FLUID-APPLIED WATERPROOFING

PART 1 - GENERAL

1.1 STIPULATIONS

A. The specifications sections "General Conditions to the Construction Contract", "Special Conditions", and "Division 01 - General Requirements" form a part of this Section by this reference hereto, and shall have the same force and effect as if printed herewith in full.

1.2 SUMMARY

A. This Section includes the following:
   1. Reinforced waterproofing membrane.

B. Related Sections include the following:

   1. Section 070800 "Commissioning of Thermal and Moisture Protection"
   2. Section 079200 "Joint Sealants"
   3. Section 079513 "Expansion Joints"
   4. Section 321400 "Unit Pavers"
   5. Section 321416 "Cast Stone Masonry Pavers"

1.3 PERFORMANCE REQUIREMENTS

A. Provide waterproofing that prevents the passage of water and complies with physical requirements in CAN/CGSB-37.50, "Hot Applied, Rubberized Asphalt for Roofing and Waterproofing."

1.4 SUBMITTALS

A. Product Data: Include manufacturer's written instructions for evaluating, preparing, and treating substrate, technical data, and tested physical and performance properties.

B. Shop Drawings: Show locations and extent of waterproofing. Include details for substrate joints and cracks, sheet flashings, penetrations, inside and outside corners, tie- ins to adjoining waterproofing, and other termination conditions.

   1. Include Setting Drawings showing layout, sizes, sections, profiles, and joint details of concrete pavers with paver support assemblies.

C. Samples: For the following products:

   1. 12-by-12-inch (300-by-300-mm) square of flashing sheet.
   2. 12-by-12-inch (300-by-300-mm) square of insulation.
   3. 4-by-4-inch (100-by-100-mm) square of drainage panel.

D. Installer Certificates: Signed by manufacturers certifying that installers comply with requirements.

E. Product Test Reports: From a qualified independent testing agency indicating and interpreting test results of waterproofing for compliance with requirements, based on comprehensive testing of current waterproofing formulations.

F. Sample Warranty: Copy of special waterproofing manufacturer's and Installer's warranty stating obligations, remedies, limitations, and exclusions before starting waterproofing.

1.5 QUALITY CONTROL

A. Installer Qualifications: A qualified installer who is authorized, approved, or licensed to install waterproofing manufacturer's products; and who is eligible to receive waterproofing warranty specified.

B. Source Limitations: Obtain waterproofing materials, sheet flashings, protection course, and drainage panels through one source from a single manufacturer.

C. Mockups: Apply waterproofing to 100 sq. ft. (9.3 sq. m) of deck to demonstrate surface preparation, crack and joint treatment, corner treatment, thickness, texture, and execution quality.

1. If Architect determines mockups do not comply with requirements, reapply waterproofing until mockups are approved.
2. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

D. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Specification Section 010400 “Coordination and Control” Review requirements for waterproofing, including surface preparation specified under other Sections, substrate condition and pretreatment, minimum curing period, forecasted weather conditions, special details and sheet flashings, installation procedures, testing and inspection procedures, and protection and repairs.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver liquid materials to Project site in original containers with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by waterproofing manufacturer.

C. Remove and replace liquid materials that cannot be applied within their stated shelf life.

D. Protect stored materials from direct sunlight.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Apply waterproofing within the range of ambient and substrate temperatures recommended by waterproofing manufacturer. Do not apply waterproofing to a damp or wet substrate, or when temperature is below 0 deg F (minus 18 deg C).

1. Do not apply waterproofing in snow, rain, fog, or mist.

B. Maintain adequate ventilation during application and curing of waterproofing materials.

1.8 WARRANTY

A. Special Manufacturer's Warranty: Written warranty, signed by waterproofing manufacturer agreeing to repair or replace waterproofing and sheet flashings that do not comply with requirements or that do not remain watertight within specified warranty period.

1. Warranty does not include failure of waterproofing due to failure of substrate prepared and treated according to requirements or formation of new joints and cracks in substrate that exceed 1/8 inch (3 mm) in width.
2. Warranty insulation will retain 80 percent of original published thermal value.
3. Warranty pavers will not dish or warp and will not crack, split, or disintegrate in freeze-thaw conditions.
4. Warranty includes removing and reinstalling protection board, drainage panels, insulation, pedestals, and pavers on plaza decks.
5. Warranty Period: 20 years after date of Substantial Completion.

B. Special Installer's Warranty: Written waterproofing Installer's warranty, signed by Installer, covering Work of this Section, for warranty period of two years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, provide one of the following products:

1. American Hydrotech, Inc.; Monolithic Membrane 6125 - FR.
2. American Permaquik Inc.; Permaquik 6100.
3. Barrett Company; Ram-Tough 250.
4. Carlisle Corporation, Carlisle Coatings & Waterproofing Div.; CCW-500.
5. T. C. Miradri; Miraseal 9100.
6. Monsey Bakor; Elasto-Seal 790-11.
7. Protecto Wrap Co.; HM625B.
8. Tremco; Tremproof 6100.

2.2 MEMBRANE

A. Single-component; 100 percent solids; hot fluid-applied, rubberized asphalt with the following properties measured per applicable test methods in CAN/CGSB-37.50:

1. Flash Point: Not less than 260 deg C or not less than 25 deg C above manufacturer's maximum recommended application temperature.
2. Cone Penetration: 110 maximum at 25 deg C, and 200 maximum at 50 deg C.
3. Flow: 3 mm maximum at 60 deg C.
4. Toughness: Not less than 5.5 J
5. Ratio of Toughness to Peak Load: Not less than 0.040.

6. Adhesion Rating: Pass.
7. Water-Vapor Permeance: 1.7 ng/Pa x s x sq. m.
8. Water Absorption: 0.35-g maximum mass gain, or 0.18-g maximum mass loss.
9. Pinholing: Not more than one pinhole.
10. Low-Temperature Flexibility: No cracking.
11. Crack Bridging Capability: No cracking, splitting, or loss of adhesion.
12. Heat Stability: Comply with requirements for penetration, flow, low-temperature flexibility, and viscosity when heated for five hours at manufacturer's recommended application temperature.
13. Viscosity Test: 2 to 15 seconds.

2.3 AUXILIARY MATERIALS

A. Primer: ASTM D 41, asphaltic primer.

B. Elastomeric Flashing Sheet: 50-mil- (1.3-mm) minimum, nonstaining, uncured sheet neoprene with manufacturer's recommended contact adhesives and predrilled metal termination bars and anchors, with the following physical properties as measured per standard test methods referenced:

1. Tensile Strength: 1400 psi (9.6 MPa) minimum; ASTM D 412, Die C.
2. Elongation: 300 percent minimum; ASTM D 412.
3. Tear Resistance: 125 psi (860 kPa) minimum; ASTM D 624, Die C.
4. Brittleness: Does not break at minus 30 deg F (34 deg C); ASTM D 2137.

C. Modified-Bituminous Flashing Sheet: SBS-modified bituminous sheet, 160-mil- (4-mm-) thick, woven or nonwoven polyester or glass-fiber reinforced; suitable for application method specified; granular surfaced.

D. Sealants and Accessories: Waterproofing manufacturer's recommended sealants and accessories.

E. Reinforcing Fabric: Manufacturer's recommended spun-bonded polyester fabric.

F. Separator Sheet: ASTM D 4397, polyethylene sheet, minimum 4 mils (0.10 mm) thick.

G. Protection Course: Semirigid sheets of fiberglass or mineral-reinforced-asphaltic core, pressure laminated between two asphalt-saturated fibrous liners and as follows:

1. Thickness: 1/8 inch (3 mm), nominal, for vertical applications; 1/4 inch (6 mm), nominal, elsewhere.
2. Adhesive: Rubber-based solvent type recommended by waterproofing manufacturer for type of protection course.

2.4 MOLDED-SHEET DRAINAGE PANELS

A. Molded-Sheet Drainage Panel: Prefabricated, composite drainage panels, manufactured with a permeable geotextile facing laminated to a molded-plastic-sheet drainage core.

1. Drainage Core: Three-dimensional, nonbiodegradable, molded-plastic-sheet material designed to effectively drain water under backfill pressure; complying with the following properties determined according to tests indicated:

a. Compressive Strength: 10,000 lbf/sf. ft. (479 kPa), minimum; ASTM D 1621.
b. Flow Rate: 2.8 gpm per ft. (35 L/min. per m), minimum, at hydraulic gradient of 1.0 and compressive stress of 25 psi (172 kPa); ASTM D 4716.

2. Geotextile: Nonwoven needle-punched geotextile, manufactured for subsurface drainage, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with the following properties determined according to AASHTO M 288:
   a. Survivability: Class 2.
   b. Apparent Opening Size: No. 70 (0.21-mm) sieve, maximum.
   c. Permittivity: 0.1 per second, minimum.
3. Geotextile: Woven geotextile fabric, manufactured for subsurface drainage, made from polyolefins or polyesters; with elongation less than 50 percent; complying with the following properties determined according to AASHTO M 288:
   a. Survivability: Class 2.
   b. Apparent Opening Size: No. 70 (0.21-mm) sieve, maximum.
   c. Permittivity: 0.1 per second, minimum.

2.5 INSULATION

A. Refer to Specification Section 072100 “Thermal Insulation.”

B. Insulation Drainage Panels: Extruded-polystyrene board insulation complying with ASTM C 578; of type, density, and compressive strength indicated below; fabricated with rabbeted edges and with one side having ribbed drainage channels.
   1. Type VII, 2.2-lb/cu. ft. (35-kg/cu. m) minimum density and 60-psi (414-kPa) minimum compressive strength.

C. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

   1. Diversifoam Products.
   2. Dow Chemical Company (The).
   3. Owens Corning.
   4. T. Clear Corporation.
   5. Tenneco Building Products.

2.6 PLAZA DECK PAVERS

A. Plaza Deck Pavers: As specified in Specification Section 321400 “Unit Paving” and Section 321416 “Cast Stone Masonry Pavers”

B. Setting Bed: Provide mortar setting-bed materials specified in Specification Section 321400.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance.

1. Verify that concrete has cured and aged for minimum time period recommended by waterproofing manufacturer.
2. Verify that substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
3. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean and prepare substrate according to manufacturer's written instructions. Provide clean, dust-free, and dry substrate for waterproofing application.

B. Mask off adjoining surfaces not receiving waterproofing to prevent spillage and overspray affecting other construction.

C. Close off deck drains and other deck penetrations to prevent spillage and migration of waterproofing fluids.

D. Remove grease, oil, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete.

1. Abrasive blast clean concrete surfaces uniformly to expose top surface of fine aggregate according to ASTM D 4259 with a self-contained, recirculating, blast-cleaning apparatus. Remove material to provide a sound surface free of laitance, glaze, efflorescence, curing compounds, concrete hardeners, or form- release agents. Remove remaining loose material and clean surfaces according to ASTM D 4258.

E. Remove fins, ridges, and other projections and fill honeycomb, aggregate pockets, and other voids.

3.3 JOINTS, CRACKS, AND TERMINATIONS

A. Prepare and treat substrates to receive waterproofing membrane, including joints and cracks, deck drains, corners, and penetrations according to CAN/CGSB-37.51, "Application of Rubberized Asphalt, Hot-Applied, for Roofing and Waterproofing," and waterproofing system manufacturer's written instructions.

1. Rout and fill joints and cracks in substrate. Before filling, remove dust and dirt according to ASTM D 4258.
2. Adhere elastomeric flashing sheet to substrate in a layer of hot, rubberized asphalt. Extend elastomeric flashing sheet a minimum of 6 inches (150 mm) on each side of joints and cracks and beyond deck drains, corners, and penetrations.

3. Embed reinforcing fabric into a layer of hot, rubberized asphalt. Extend reinforcing fabric a minimum of 6 inches (150 mm) on each side of joints and cracks and beyond deck drains, corners, and penetrations.

B. At expansion joints and discontinuous deck-to-wall or deck-to-deck joints, bridge joints with elastomeric flashing sheet extended a minimum of 6 inches (150 mm) on each side of joints and adhere to substrates in a layer of hot, rubberized asphalt.

3.4 FLASHING INSTALLATION

A. Install flashing sheets at terminations of waterproofing membrane according to CAN/CGSB-37.51, "Application of Rubberized Asphalt, Hot-Applied, for Roofing and Waterproofing," and waterproofing system manufacturer's written instructions.

B. Prime substrate with asphalt primer.

C. Install elastomeric flashing sheet and adhere to deck and wall substrates in a layer of hot, rubberized asphalt.

D. Extend flashing sheet up walls or parapets a minimum of 8 inches (200 mm) above plaza deck pavers and 6 inches (150 mm) onto deck to be waterproofed.

E. Install termination bars and mechanically fasten to top of flashing sheet at terminations and perimeter of waterproofing membrane.

3.5 MEMBRANE APPLICATION

A. Apply rubberized asphalt according to CAN/CGSB-37.51, "Application of Rubberized Asphalt, Hot-Applied, for Roofing and Waterproofing," and manufacturer's written instructions.

B. Heat rubberized asphalt in an oil- or air-jacketed melter with mechanical agitator specifically designed for heating rubberized-asphalt waterproofing.

C. Start application with manufacturer's technical representative present.

D. Apply primer, at manufacturer's recommended rate, over prepared substrate and allow to dry.

E. Reinforced Membrane: Apply waterproofing to substrates and adjoining surfaces indicated. Spread hot fluid-applied, rubberized asphalt to a thickness of 90 mils (2.3 mm); embed reinforcing fabric, overlapping sheets 2 inches (50 mm); and spread another 125-mil- (3.2-mm-) thick layer to provide a uniform, reinforced, seamless membrane 215 mils (5.5 mm) thick.

F. Apply waterproofing over prepared joints and up wall terminations and vertical surfaces to heights indicated or required by manufacturer.

G. Cover waterproofing with separator sheet with overlapped joints while rubberized asphalt is still hot and before membrane is subject to traffic.

1. Install protection course with overlapped joints over separator sheet..

3.6 MOLDED-SHEET DRAINAGE PANEL INSTALLATION

A. Place and secure molded-sheet drainage panels to substrate according to manufacturer's written instructions. Use adhesives that do not penetrate waterproofing. Lap edges and ends of geotextile to maintain continuity. Protect installed molded-sheet drainage panels during subsequent construction.

3.7 INSULATION INSTALLATION

A. Install insulation drainage panels over waterproofed surfaces. Cut and fit to within 3/4 inch (19 mm) of projections and penetrations.

B. On horizontal surfaces, loosely lay insulation units according to manufacturer's instructions. Stagger end joints and tightly abut insulation units.

3.8 PLAZA DECK PAVER INSTALLATION

A. Setting Bed: Install setting bed in locations and of thickness indicated to comply with requirements in Specification 321400 and 321416

3.9 FIELD QUALITY CONTROL

A. Flood Testing: Refer to Specification Section 070800

3.10 CURING, PROTECTING, AND CLEANING

A. Cure waterproofing according to manufacturer's written recommendations, taking care to prevent contamination and damage during application stages and curing.

1. Do not permit foot or vehicular traffic on unprotected membrane.

B. Protect waterproofing from damage and wear during remainder of construction period.

C. Protect installed insulation drainage panels from damage due to ultraviolet light, harmful weather exposures, physical abuse, and other causes. Provide temporary coverings where insulation will be subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

D. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction

END OF SECTION 071413

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES

HARRISBURG, PENNSYLVANIA

JOSH SHAPIRO, GOVERNOR

REGINALD B. McNEIL II, ACTING
SECRETARY OF GENERAL SERVICES

PROJECT NO. D.G.S. 948-87 PHASE 1.0
PLAZA PAVER REPAIR / REPLACEMENT
PA STATE MUSEUM, THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PENNSYLVANIA

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HISTORIC RESEARCH & PRESERVATION CONSULTANT

HISTORIC PRESERVATION CONSULTING, LLC
MECHANICSBURG, PA 17055
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SUSTAINABILITY & PLUMBING CONSULTANT

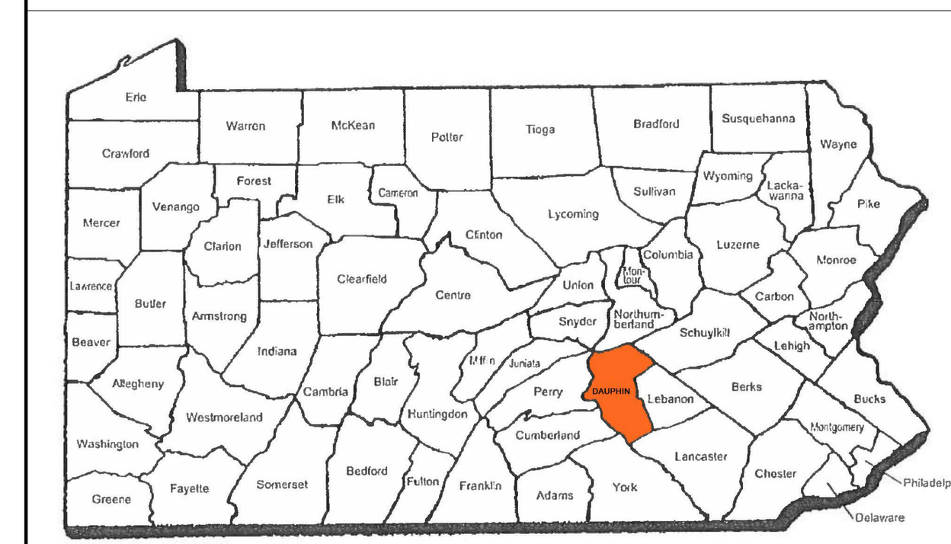
KRUG RESOURCES GROUP
WEST CHESTER, PA 19380
PHONE: (610) 299-3353

PAVER REPAIR / REPLACEMENT CONTRACT NO. DGS C-0948-0087-PHASE 1.0 SHEET INDEX

CODE APPROVALS

AGENCY / DESCRIPTION	DATE
PA DEPARTMENT OF LABOR & INDUSTRY UCC PERMIT	07/30/2024

PROJECT LOCATION MAP



VICINITY MAP

CAMPUS / KEY PLAN

DRAWINGS LISTED IN INDEX:

APPROVED: ____________ DATE

PROFESSIONAL'S SIGNATURE

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. **DGS 948-87 PHASE 1**

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

COVER SHEET

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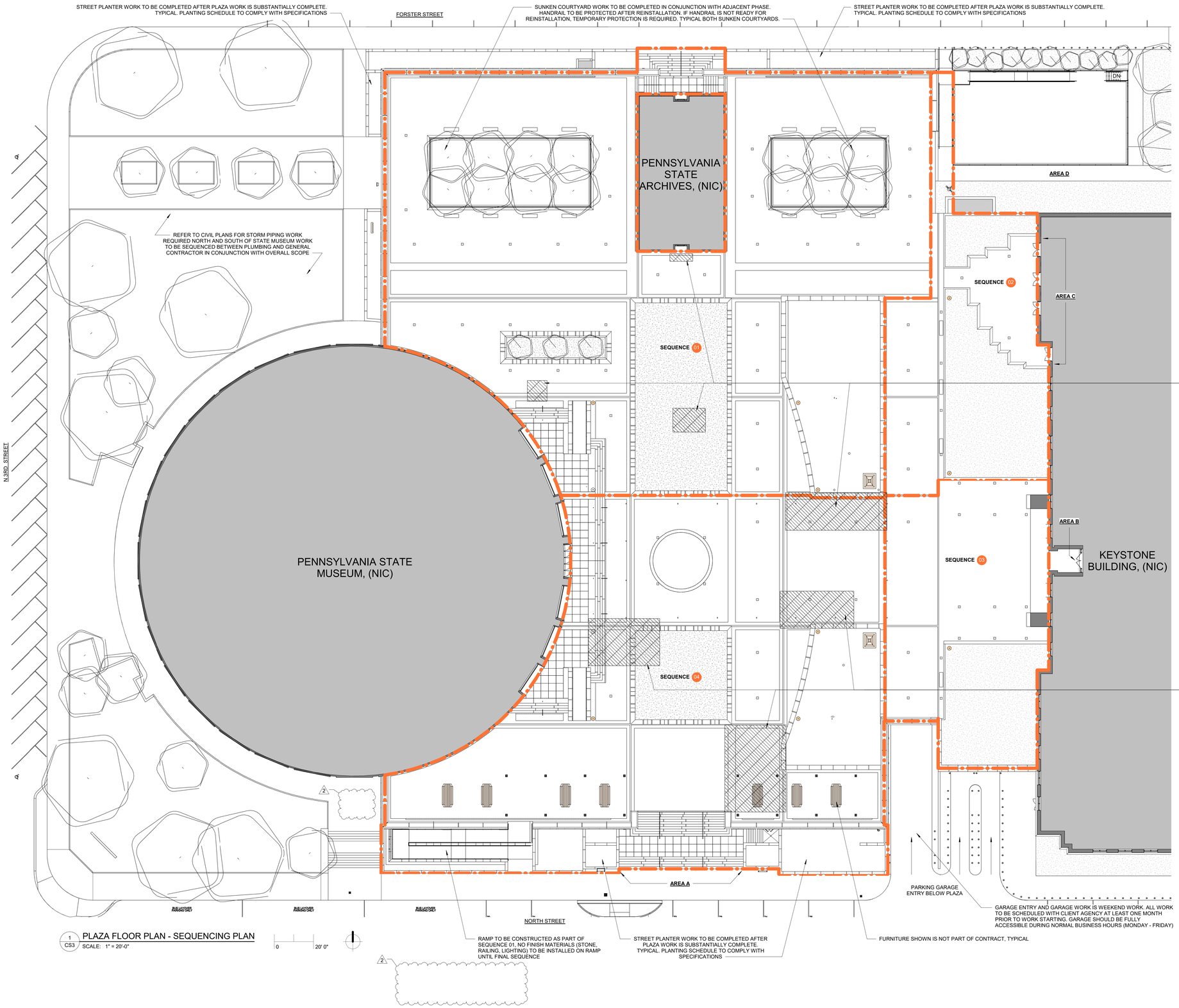

1 CS3 PLAZA FLOOR PLAN - SEQUENCING PLAN
SCALE: 1" = 20'-0"

0 20' 0"

SEQUENCING NOTES

1. .1 CONTRACTOR TO COMPLETE ALL TEMPORARY PROTECTION PRIOR TO ANY WORK COMMENCING.

2. PRIOR TO WORK STARTING ON NEXT SEQUENCE, A FULL LEAK TEST SHOULD BE CONDUCTED FOR ENTIRETY OF FINISHED SEQUENCE AREA. SIGN OFF WILL BE REQUIRED FROM CLIENT AGENCY, ARCHITECT AND COMMISSIONING AGENT.

3. EXISTING GRANITE TO BE REMOVED AND STORED AS PART OF SEQUENCE 01. EXISTING HANDRAILS TO BE REMOVED. REFER TO DEMOLITION DRAWINGS.

4. WHERE SEQUENCE WORK IS ADJACENT TO EXTERIOR WALL, WATERPROOFING IS TO BE PROPERLY TURNED DOWN AND TERMINATED AS REQUIRED BY DETAILS. TEMPORARY PROTECTION REQUIRED FOR WATERPROOFING IF STONE IS NOT READY TO BE REINSTALLED. REFER TO SEQUENCES 01, 02 AND 03.

5. BELOW PLAZA WORK SEQUENCE TO BE COMPLETED IN CONJUNCTION WITH PLAZA DRAIN REMOVAL AND REPLACEMENT. .1 AND .3 CONTRACTOR TO COORDINATE

6. STONE BENCH INSTALLATION TO BE COMPLETED WITH APPLICABLE SEQUENCE.

7. PLANTING TO BE DONE IN APPROPRIATE SEASON PER SPECIFICATIONS. PLANTING ALLOWED TO BE OUT OF SEQUENCE IF REQUIRED.

8. NO WORK ALLOWED ON FINISHED CONSTRUCTION UNLESS APPROVED BY ARCHITECT OR CLIENT AGENCY.

9. 1.1 AND 1.3 CONTRACTORS ARE RESPONSIBLE FOR DOCUMENTING ALL EXISTING LEAKS PRIOR TO ANY CONSTRUCTION STARTING.

10. 1.1 AND 1.3 CONTRACTORS SHOULD BOTH HAVE PERSONNEL AVAILABLE TO RESPOND TO LEAKS WITHIN ONE HOUR. RESPONSE SHOULD BE PROVIDED 24/7.

11. GC TO PROVIDE 8' WIDE MINIMUM FENCED EGRESS PATH FROM LOCATIONS B TO AREA A, or C TO AREA D THROUGHOUT CONSTRUCTION PHASE. DISRUPTIONS TO KEYSTONE BUILDING EGRESS PATHWAYS TO BE KEPT AT A MINIMUM. .1 CONTRACTOR TO COORDINATE ANY CLOSURE OF THE KEYSTONE BUILDING EGRESS PATHWAYS DURING CONSTRUCTION WITH THE BOC AND CLIENT AGENCY.

1	Addenda 3	09/15/2025		
2	Addenda 4	09/29/2025		

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER D. DAWSON RA-017137-X

09/06/2024

PROFESSIONAL'S SIGNATURE DATE

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

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PLAZA SEQUENCING PLAN

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

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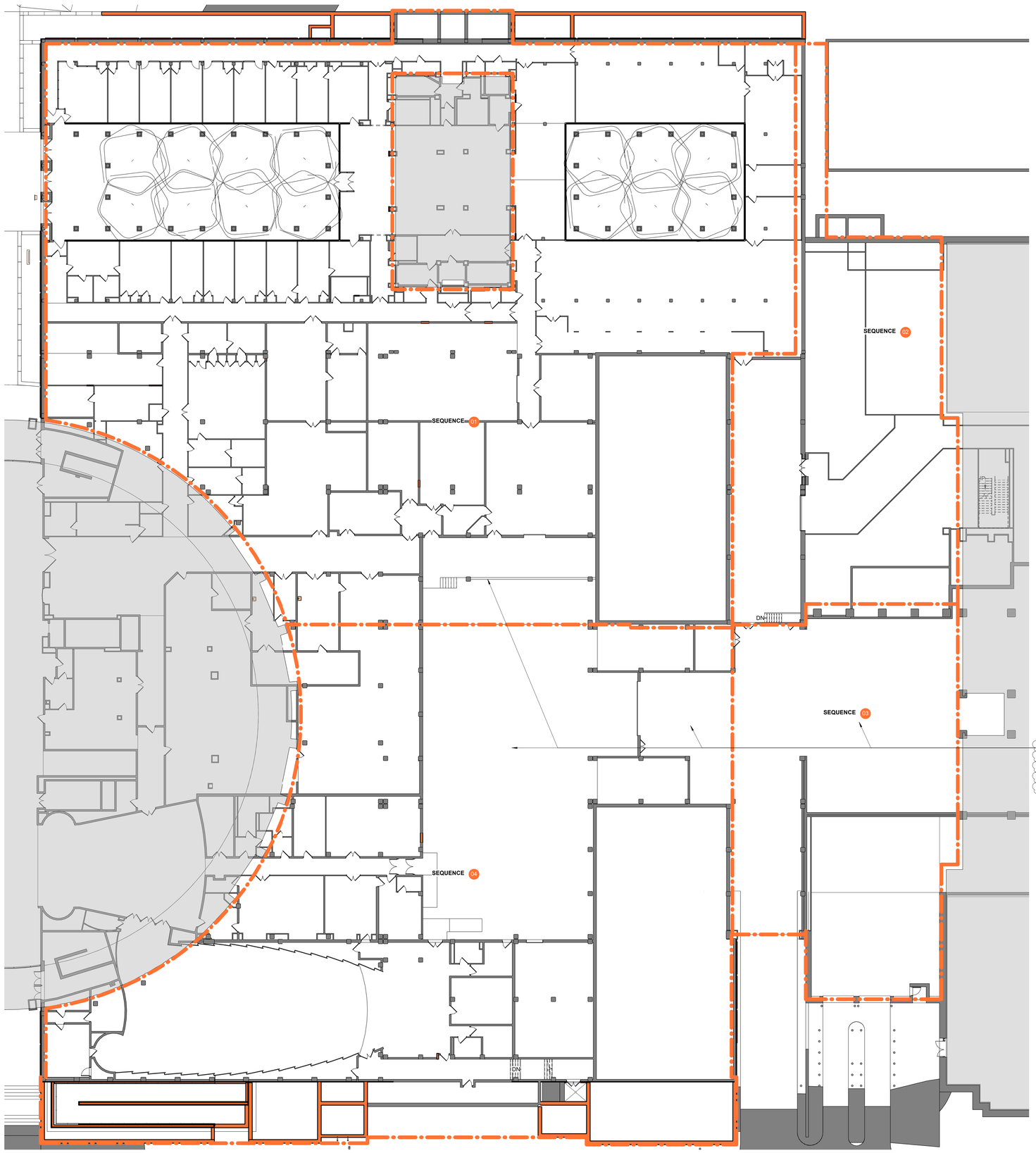

1 CS4 GROUND FLOOR PLAN - SEQUENCING PLAN
SCALE: 1/16" = 1'-0"

0 16' 0"

SEQUENCING NOTES

1. .1 CONTRACTOR TO COMPLETE ALL TEMPORARY PROTECTION PRIOR TO ANY WORK COMMENCING.

2. PRIOR TO WORK STARTING ON NEXT SEQUENCE, A FULL LEAK TEST SHOULD BE CONDUCTED FOR ENTIRETY OF FINISHED SEQUENCE AREA. SIGN OFF WILL BE REQUIRED FROM CLIENT AGENCY, ARCHITECT AND COMMISSIONING AGENT.

3. EXISTING GRANITE TO BE REMOVED AND STORED AS PART OF SEQUENCE 01. EXISTING HANDRAILS TO BE REMOVED. REFER TO DEMOLITION DRAWINGS.

2 4. WHERE SEQUENCE WORK IS ADJACENT TO EXTERIOR WALL, WATERPROOFING IS TO BE PROPERLY TURNED DOWN AND TERMINATED AS REQUIRED BY DETAILS. TEMPORARY PROTECTION REQUIRED FOR WATERPROOFING IF STONE IS NOT READY TO BE REINSTALLED. REFER TO SEQUENCES 01, 02 AND 03.

5. BELOW PLAZA WORK SEQUENCE TO BE COMPLETED IN CONJUNCTION WITH PLAZA DRAIN REMOVAL AND REPLACEMENT. .1 AND .3 CONTRACTOR TO COORDINATE

6. STONE BENCH INSTALLATION TO BE COMPLETED WITH APPLICABLE SEQUENCE.

7. PLANTING TO BE DONE IN APPROPRIATE SEASON PER SPECIFICATIONS. PLANTING ALLOWED TO BE OUT OF SEQUENCE IF REQUIRED.

8. NO WORK ALLOWED ON FINISHED CONSTRUCTION UNLESS APPROVED BY ARCHITECT OR CLIENT AGENCY.

9. 1.1 AND 1.3 CONTRACTORS ARE RESPONSIBLE FOR DOCUMENTING ALL EXISTING LEAKS PRIOR TO ANY CONSTRUCTION STARTING.

10. 1.1 AND 1.3 CONTRACTORS SHOULD BOTH HAVE PERSONNEL AVAILABLE TO RESPOND TO LEAKS WITHIN ONE HOUR. RESPONSE SHOULD BE PROVIDED 24/7.

2 11. GC TO PROVIDE 8' WIDE MINIMUM FENCED EGRESS PATH FROM LOCATIONS B TO AREA A, or C TO AREA D THROUGHOUT CONSTRUCTION PHASE. DISRUPTIONS TO KEYSTONE BUILDING EGRESS PATHWAYS TO BE KEPT AT A MINIMUM. .1 CONTRACTOR TO COORDINATE ANY CLOSURE OF THE KEYSTONE BUILDING EGRESS PATHWAYS DURING CONSTRUCTION WITH THE BOC AND CLIENT AGENCY.

1	Addenda 3	09/15/2025	
2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER A. DAWSON No. RA-013317K

09/06/2024
PROFESSIONAL'S SIGNATURE DATE

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GROUND FLOOR SEQUENCING PLAN

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

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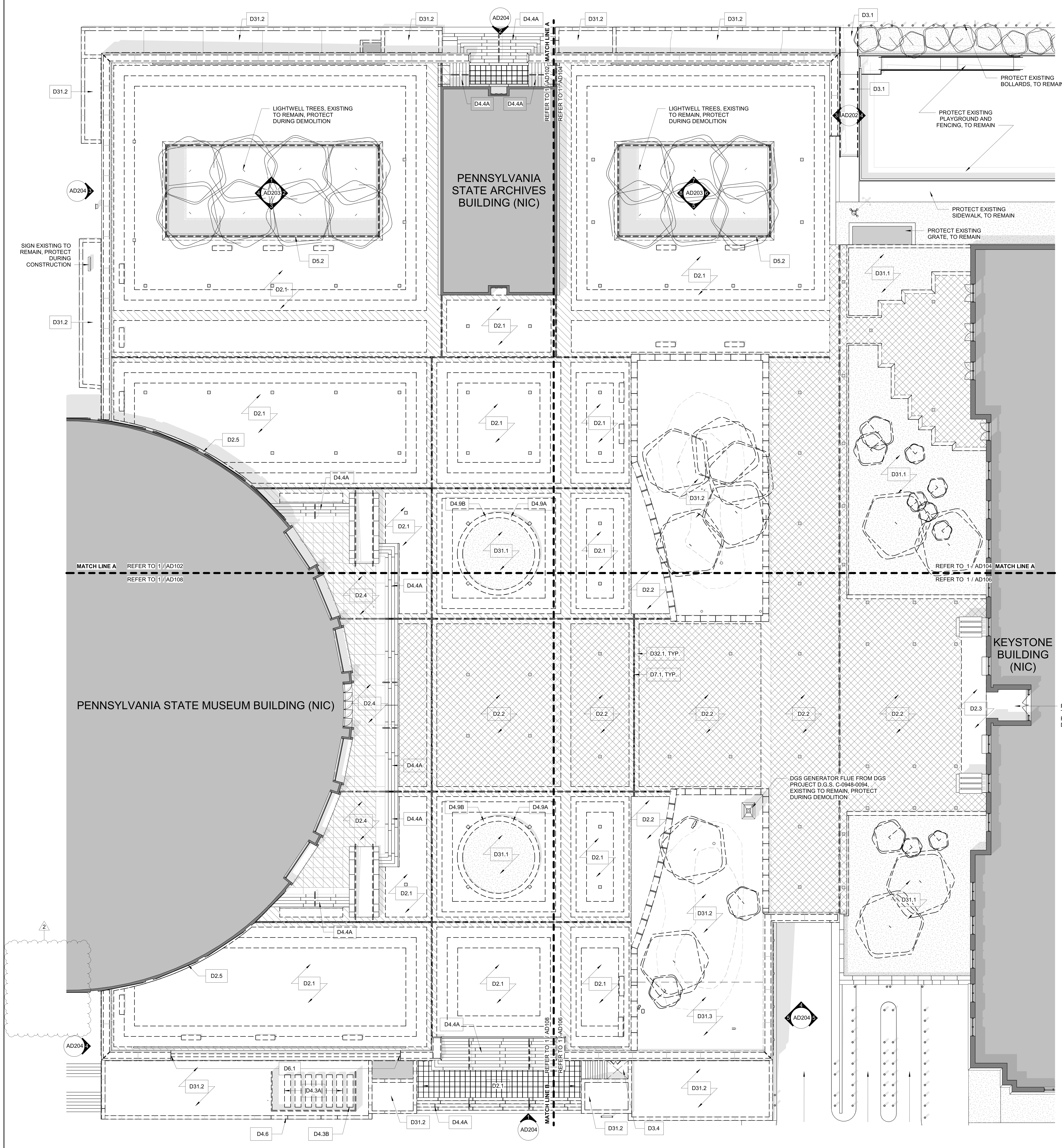


1 / AD101 DEMOLITION PLAZA FLOOR PLAN
SCALE: 1/16" = 1'-0"

GENERAL DEMOLITION NOTES

1. SELECTIVE DEMOLITION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED ON THESE DRAWINGS. INCLUDE ALL THAT IS NECESSARY TO COMPLETE THE SCOPE OF WORK AS INDICATED ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. SEE ALL DRAWINGS TO COORDINATE ANY ADDITIONAL WALL OR FLOOR DEMOLITION.

2. NOT USED

3. NOTES ARE ORGANIZED UNDER THE MOST APPLICABLE SPECIFICATION SECTION.

4. COORDINATE DEMOLITION WITH DIMENSIONS OF NEW CONSTRUCTION.

5. CONTRACTOR TO INFORM ARCHITECT OF CONDITIONS INCONSISTENT WITH WHAT IS SHOWN ON DRAWINGS.

6. ======= INDICATES CONCRETE, MASONRY, OR STUD WALLS WITH FINISHES TO BE DEMOLISHED. PATCH ADJACENT SURFACES WITH MATERIALS TO MATCH EXISTING AND MINIMIZE INCONSISTENCIES.

7. NOT USED

8. PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION. PREPARE THESE AREAS FOR NEW FINISH - SEE FINISH SCHEDULE.

9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION ASSOCIATED WITH MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

10. REMOVE ALL FASTENERS, SUPPORTS, ETC. ASSOCIATED WITH DEMOLISHED ITEMS.

11. DEMOLITION CALLOUTS REFLECT MAJOR DEMOLITION ACTIVITIES. REFER TO ARCHITECTURAL AND WATERPROOFING DETAILS FOR MISC. CUTS, SCORES, AND CHAMFERS REQUIRED AT EXISTING STRUCTURE.

12. INTERNAL GUTTER SYSTEM LOCATED UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING DEMOLITION.

DEMO NOTE KEY

DIV 2: DEMOLITION - PHASE 1.1 CONTRACTOR

- D2.1 REMOVE CONCRETE PAVER, SETTING BED, MEMBRANE, SLOPED LIGHT WEIGHT CONCRETE, AND MEMBRANE. AT COMPLETION OF DEMOLITION STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.2 REMOVE WHITE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK (IDENTIFIED BY DIAGONAL CROSS HATCH). REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.3 REMOVE DARK GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.4 REMOVE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.5 REMOVE GRANITE STONE ANGLE AT WALL BASE, CATALOG, CLEAN, STORE, AND PREP FOR INSTALLATION, COORD. WITH WATERPROOFING DETAIL 7 / DM1.00.

DIV 3: CONCRETE - PHASE 1.1 CONTRACTOR

- D3.1 REMOVE REINFORCED CONCRETE RAMP.
- D3.2 NOT USED
- D3.3 REMOVE FLOOR AND ASSOCIATED FINISHES AS NECESSARY TO ACCESS STORMWATER DRAIN BELOW, REPLACE TO MATCH EXISTING (BASE BID 1 IDENTIFIED BY HATCH) (BASE BID 2 IDENTIFIED BY HATCH) (BASE BID 3 IDENTIFIED BY HATCH)
- D3.4 REMOVE CONCRETE SLAB, REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM3.00

DIV 4: MASONRY - PHASE 1.1 CONTRACTOR

- D4.1A REMOVE LIMESTONE PANEL. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.1B REMOVE LIMESTONE PANEL. (IDENTIFIED BY HATCH)REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.2A REMOVE GRANITE PLANTER WALLS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 1 / DM2.00 AND 5 / DM2.00
- D4.2B REMOVE GRANITE PLANTER WALLS (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.2C REMOVE GRANITE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. COORD. SUBWALL REMOVAL W/ EXTENT OF NEW WORK (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.3A REMOVE EXISTING LIMESTONE BLOCKS AND ASSOC. BASE STONE. CATALOG, CLEAN, STORE AND PREP TO REINSTALL REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00. IF BLOCK OR SUPPPORT IS UNSALVAGABLE, CONTACT ARCHITECT AND ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS.
- D4.3B STONE BLOCK TO BE SALVAGED AND RETURNED TO CLIENT AGENCY. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.4A REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). CATALOG, CLEAN, STORE AND PREP FOR REINSTALLATION / RELOCATION. REFER TO /A113 FOR RELOCATION DETAILS. WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00.
- D4.4B REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). (IDENTIFIED BY HATCH). WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00
- D4.5A REMOVE EXISTING LIMESTONE COPING. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.5B REMOVE EXISTING LIMESTONE COPING (IDENTIFIED BY HATCH) WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.6 REMOVE LIMESTONE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. SALVAGE LIMESTONE FOR REUSE. COORD. EXTENT W/ NEW WORK
- D4.7 CMU WALL CONSTRUCTION TO BE REMOVED AS REQ'D, TO ACCESS & REMOVE STORMWATER PIPING & CONNECTIONS OR TO INSTALL ACCESS PANEL
- D4.8 BRICK INFILL WITHIN CMU WALL CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS
- D4.9A REMOVE GRANITE PLANTER COPING AND CLADDING. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00. RETURN TO CLIENT AGENCY.
- D4.9B REMOVE PLANTER CONCRETE SUB WALLS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00
- D4.10 REMOVE GRANITE PAVER, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL 4 / DM1.00
- D4.11 REMOVE GRANITE CURB, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO DEMOLITION DETAIL ON 6 / DM1.00
- D4.12 REMOVE CONCRETE MASONRY WALLS SURROUNDING THE PLANTER. REFER TO WATERPROOFING DEMOLITION DETAIL 5 / DM2.00
- D4.13 REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504 . CATALOG, CLEAN, STORE AND PREP TO REINSTALL.

DIV 5: METALS - PHASE 1.1 CONTRACTOR

- D5.1 REMOVE EXISTING HANDRAIL AND RELATED ACCESSORIES INCLUDING SLEEVES.
- D5.2 REMOVE EXISTING METAL HANDRAIL. CATALOG, CLEAN, MODIFY (REFER TO DETAIL DWG 6 / A501). STORE. AND PREP TO REINSTALL

DIV 6: WOOD, PLASTICS, AND COMPOSITES - PHASE 1.1 CONTRACTOR

- D6.1 REMOVE EXISTING TEMPORARY WD./MTL. RAILING
- D6.2 REMOVE TEMPORARY WOOD WALLS
- D6.3 REMOVE TEMPORARY WOOD BRACING. COORDINATE WITH REMOVAL OF STONE SOFFIT

DIV 7: THERMAL AND MOISTURE PROTECTION - PHASE 1.1 CONTRACTOR

- D7.1 REMOVE EXISTING EXPANSION JOINT AND ASSOCIATED COMPONENTS (IDENTIFIED BY LINE) REFER TO WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00, AND 3 / DM2.00

DIV 9: FINISHES - PHASE 1.1 CONTRACTOR

- D9.1 REMOVE EXISTING HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE.
- D9.2 REMOVE EXISTING CEILING TILE AS REQUIRED FOR NEW STORM WATER PIPING SCOPE, STORE FOR LATER REINSTALLATION. GRID EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION
- D9.3 DRYWALL PARTITION CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS.
- D9.4 REMOVE EXISTING EXTERIOR HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE OR STRUCTURE.

DIV 10: SPECIALTIES - PHASE 1.1 CONTRACTOR

- D10.1 REMOVE EXISTING PLAQUE. TURN OVER TO CLIENT AGENCY.

DIV 12: FURNISHINGS - PHASE 1.1 CONTRACTOR

- D12.1 NOT USED
- D12.2 NOT USED
- D12.3 REMOVE STONE BENCHES. CATALOG, CLEAN, AND STORE, UNTIL READY FOR REINSTALLATION.

DIV 22: PLUMBING - PHASE 1.3 CONTRACTOR

- D22.1 REMOVE EXISTING DRAIN COVERS AND ASSEMBLY. COORD. DRAIN DEMO W/ PLUMBING DWGS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00 AND 7 / DM2.00

DIV 31: EARTHWORK - PHASE 1.1 CONTRACTOR

- D31.1 REMOVE SOIL AND PLANTINGS. COORD. W/ CIVIL AND LANDSCAPE DWGS
- D31.2 REMOVE SOIL AND PLANTINGS TO DEPTH COORD. W/ CIVIL DWGS.
- D31.3 REMOVE SOIL AND PLANTINGS AS REQ'D. FOR INSTALLATION OF SLAB ON GRADE AND COLUMN FOUNDATIONS

DIV 32: EXTERIOR IMPROVEMENTS - PHASE 1.1 CONTRACTOR

- D32.1 REMOVE GRANITE ACCENT PAVER. CLEAN. STORE. AND PREP TO REINSTALL / RELOCATION . REFER TO A113 FOR RELOCATION DETAILS. (IDENTIFIED BY DIAGONAL HATCH). WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00

1	Addenda 3	09/15/2025		
2	Addenda 4	09/29/2025		

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER D. DAWSON No. RA-015137-X

09/06/2024

PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING: 0 1

IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

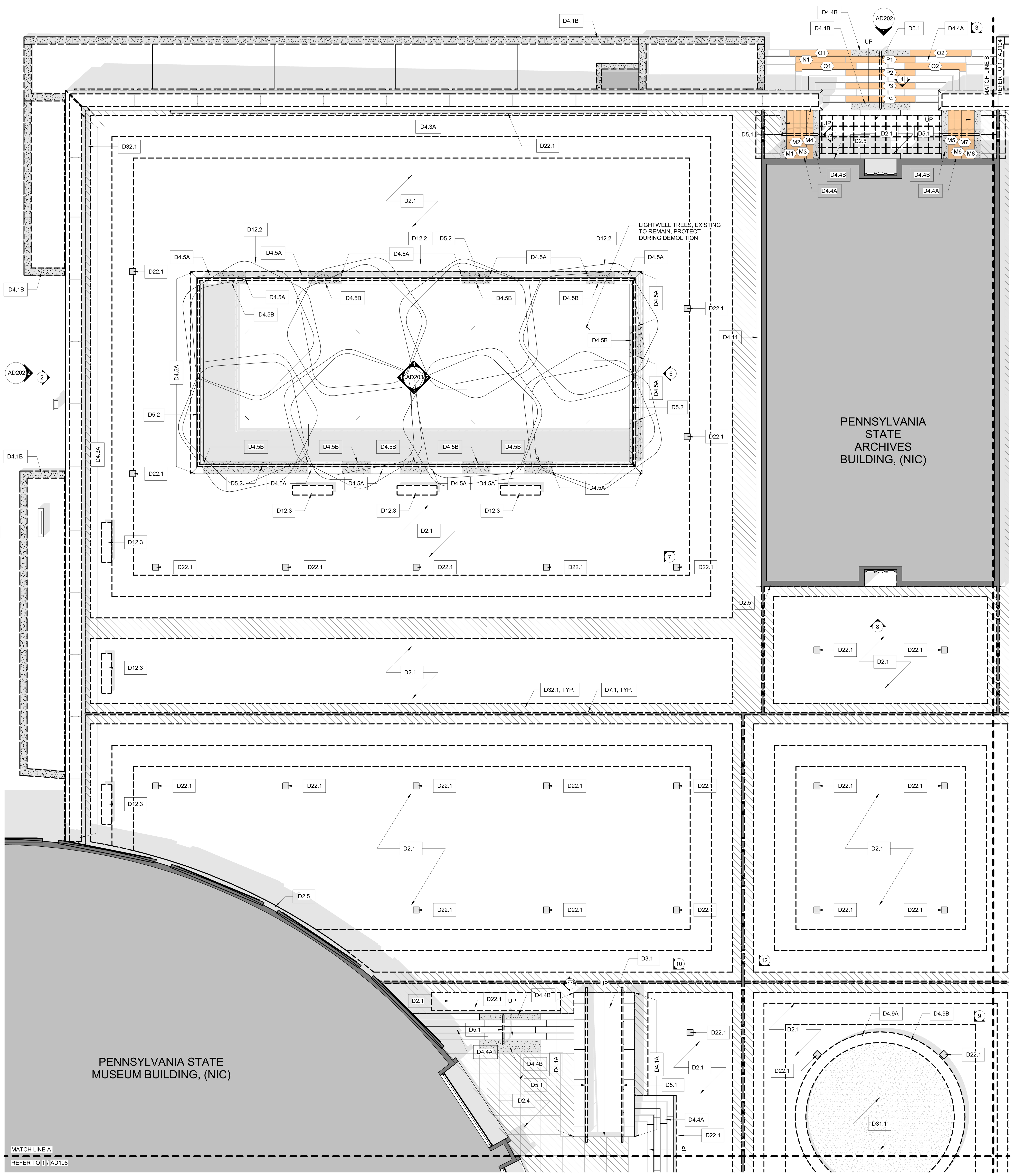
D.G.S. PROJECT No. **DGS 948-87 PHASE 1**

PLAZA PAVER REPAIR / REPLACMENT PA STATE MUSEUM, THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

DEMOLITION - PLAZA FLOOR PLAN

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	AD101
CHECKED BY: WE	SCALE: PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



1 / AD102 DEMOLITION - PLAZA FLOOR PLAN - ENLARGED AREA A
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. SELECTIVE DEMOLITION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED ON THESE DRAWINGS. INCLUDE ALL THAT IS NECESSARY TO COMPLETE THE SCOPE OF WORK AS INDICATED ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. SEE ALL DRAWINGS TO COORDINATE ANY ADDITIONAL WALL OR FLOOR DEMOLITION.

2. NOT USED

3. NOTES ARE ORGANIZED UNDER THE MOST APPLICABLE SPECIFICATION SECTION.

4. COORDINATE DEMOLITION WITH DIMENSIONS OF NEW CONSTRUCTION.

5. CONTRACTOR TO INFORM ARCHITECT OF CONDITIONS INCONSISTENT WITH WHAT IS SHOWN ON DRAWINGS.

6. ======= INDICATES CONCRETE, MASONRY, OR STUD WALLS WITH FINISHES TO BE DEMOLISHED. PATCH ADJACENT SURFACES WITH MATERIALS TO MATCH EXISTING AND MINIMIZE INCONSISTENCIES.

7. NOT USED

8. PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION. PREPARE THESE AREAS FOR NEW FINISH - SEE FINISH SCHEDULE.

9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION ASSOCIATED WITH MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

10. REMOVE ALL FASTENERS, SUPPORTS, ETC. ASSOCIATED WITH DEMOLISHED ITEMS.

11. DEMOLITION CALLOUTS REFLECT MAJOR DEMOLITION ACTIVITIES. REFER TO ARCHITECTURAL AND WATERPROOFING DETAILS FOR MISC. CUTS, SCORES, AND CHAMFERS REQUIRED AT EXISTING STRUCTURE.

12. INTERNAL GUTTER SYSTEM LOCATED UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING DEMOLITION.

DEMO NOTE KEY

DIV 2: DEMOLITION - PHASE 1.1 CONTRACTOR

- D2.1 REMOVE CONCRETE PAVER, SETTING BED, MEMBRANE, SLOPED LIGHT WEIGHT CONCRETE, AND MEMBRANE. AT COMPLETION OF DEMOLITION STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.2 REMOVE WHITE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK (IDENTIFIED BY DIAGONAL CROSS HATCH). REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.3 REMOVE DARK GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.4 REMOVE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.5 REMOVE GRANITE STONE ANGLE AT WALL BASE, CATALOG, CLEAN, STORE, AND PREP FOR INSTALLATION, COORD. WITH WATERPROOFING DETAIL 7 / DM1.00.

DIV 3: CONCRETE - PHASE 1.1 CONTRACTOR

- D3.1 REMOVE REINFORCED CONCRETE RAMP.
- D3.2 NOT USED
- D3.3 REMOVE FLOOR AND ASSOCIATED FINISHES AS NECESSARY TO ACCESS STORMWATER DRAIN BELOW, REPLACE TO MATCH EXISTING (BASE BID 1 IDENTIFIED BY HATCH) (BASE BID 2 IDENTIFIED BY HATCH) (BASE BID 3 IDENTIFIED BY HATCH)
- D3.4 REMOVE CONCRETE SLAB, REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM3.00

DIV 4: MASONRY - PHASE 1.1 CONTRACTOR

- D4.1A REMOVE LIMESTONE PANEL. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.1B REMOVE LIMESTONE PANEL. (IDENTIFIED BY HATCH)REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.2A REMOVE GRANITE PLANTER WALLS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 1 / DM2.00 AND 5 / DM2.00
- D4.2B REMOVE GRANITE PLANTER WALLS (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.2C REMOVE GRANITE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. COORD. SUBWALL REMOVAL W/ EXTENT OF NEW WORK (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.3A REMOVE EXISTING LIMESTONE BLOCKS AND ASSOC. BASE STONE. CATALOG, CLEAN, STORE AND PREP TO REINSTALL REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00. IF BLOCK OR SUPPPORT IS UNSALVAGABLE, CONTACT ARCHITECT AND ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS.
- D4.3B STONE BLOCK TO BE SALVAGED AND RETURNED TO CLIENT AGENCY. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.4A REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). CATALOG, CLEAN, STORE AND PREP FOR REINSTALLATION / RELOCATION. REFER TO /A113 FOR RELOCATION DETAILS. WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00.
- D4.4B REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). (IDENTIFIED BY HATCH). WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00
- D4.5A REMOVE EXISTING LIMESTONE COPING. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.5B REMOVE EXISTING LIMESTONE COPING (IDENTIFIED BY HATCH) WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.6 REMOVE LIMESTONE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. SALVAGE LIMESTONE FOR REUSE. COORD. EXTENT W/ NEW WORK
- D4.7 CMU WALL CONSTRUCTION TO BE REMOVED AS REQ'D, TO ACCESS & REMOVE STORMWATER PIPING & CONNECTIONS OR TO INSTALL ACCESS PANEL
- D4.8 BRICK INFILL WITHIN CMU WALL CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS
- D4.9A REMOVE GRANITE PLANTER COPING AND CLADDING. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00. RETURN TO CLIENT AGENCY.
- D4.9B REMOVE PLANTER CONCRETE SUB WALLS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00
- D4.10 REMOVE GRANITE PAVER, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL 4 / DM1.00
- D4.11 REMOVE GRANITE CURB, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO DEMOLITION DETAIL ON 6 / DM1.00
- D4.12 REMOVE CONCRETE MASONRY WALLS SURROUNDING THE PLANTER. REFER TO WATERPROOFING DEMOLITION DETAIL 5 / DM2.00
- D4.13 REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504 . CATALOG, CLEAN, STORE AND PREP TO REINSTALL.

DIV 5: METALS - PHASE 1.1 CONTRACTOR

- D5.1 REMOVE EXISTING HANDRAIL AND RELATED ACCESSORIES INCLUDING SLEEVES.
- D5.2 REMOVE EXISTING METAL HANDRAIL. CATALOG, CLEAN, MODIFY (REFER TO DETAIL DWG 6 / A501). STORE. AND PREP TO REINSTALL

DIV 6: WOOD, PLASTICS, AND COMPOSITES - PHASE 1.1 CONTRACTOR

- D6.1 REMOVE EXISTING TEMPORARY WD./MTL. RAILING
- D6.2 REMOVE TEMPORARY WOOD WALLS
- D6.3 REMOVE TEMPORARY WOOD BRACING. COORDINATE WITH REMOVAL OF STONE SOFFIT

DIV 7: THERMAL AND MOISTURE PROTECTION - PHASE 1.1 CONTRACTOR

- D7.1 REMOVE EXISTING EXPANSION JOINT AND ASSOCIATED COMPONENTS (IDENTIFIED BY LINE) REFER TO WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00, AND 3 / DM2.00

DIV 9: FINISHES - PHASE 1.1 CONTRACTOR

- D9.1 REMOVE EXISTING HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE.
- D9.2 REMOVE EXISTING CEILING TILE AS REQUIRED FOR NEW STORM WATER PIPING SCOPE, STORE FOR LATER REINSTALLATION. GRID EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION
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DIV 10: SPECIALTIES - PHASE 1.1 CONTRACTOR

- D10.1 REMOVE EXISTING PLAQUE. TURN OVER TO CLIENT AGENCY.

DIV 12: FURNISHINGS - PHASE 1.1 CONTRACTOR

- D12.1 NOT USED
- D12.2 NOT USED
- D12.3 REMOVE STONE BENCHES. CATALOG, CLEAN, AND STORE, UNTIL READY FOR REINSTALLATION.

DIV 22: PLUMBING - PHASE 1.3 CONTRACTOR

- D22.1 REMOVE EXISTING DRAIN COVERS AND ASSEMBLY. COORD. DRAIN DEMO W/ PLUMBING DWGS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00 AND 7 / DM2.00

DIV 31: EARTHWORK - PHASE 1.1 CONTRACTOR

- D31.1 REMOVE SOIL AND PLANTINGS. COORD. W/ CIVIL AND LANDSCAPE DWGS
- D31.2 REMOVE SOIL AND PLANTINGS TO DEPTH COORD. W/ CIVIL DWGS.
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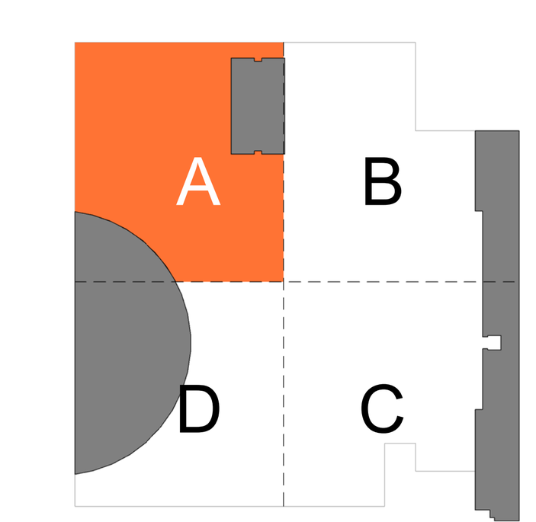
DIV 32: EXTERIOR IMPROVEMENTS - PHASE 1.1 CONTRACTOR

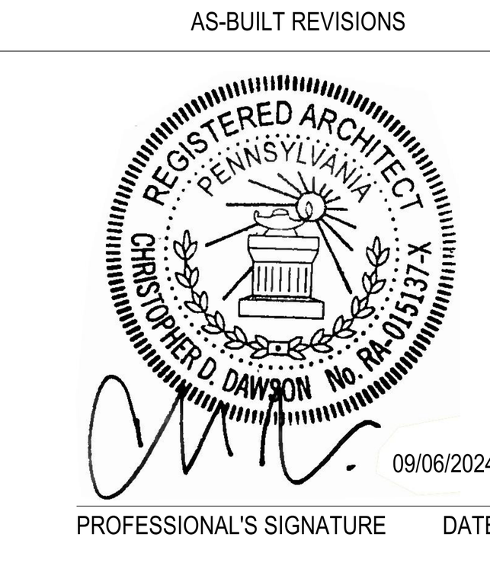
- D32.1 REMOVE GRANITE ACCENT PAVER. CLEAN. STORE. AND PREP TO REINSTALL / RELOCATION . REFER TO A113 FOR RELOCATION DETAILS. (IDENTIFIED BY DIAGONAL HATCH). WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00



KEY PLAN

1	Addenda 3	09/15/2025
2	Addenda 4	09/29/2025

AS-BUILT REVISIONS



09/06/2024
PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. **DGS 948-87 PHASE 1**

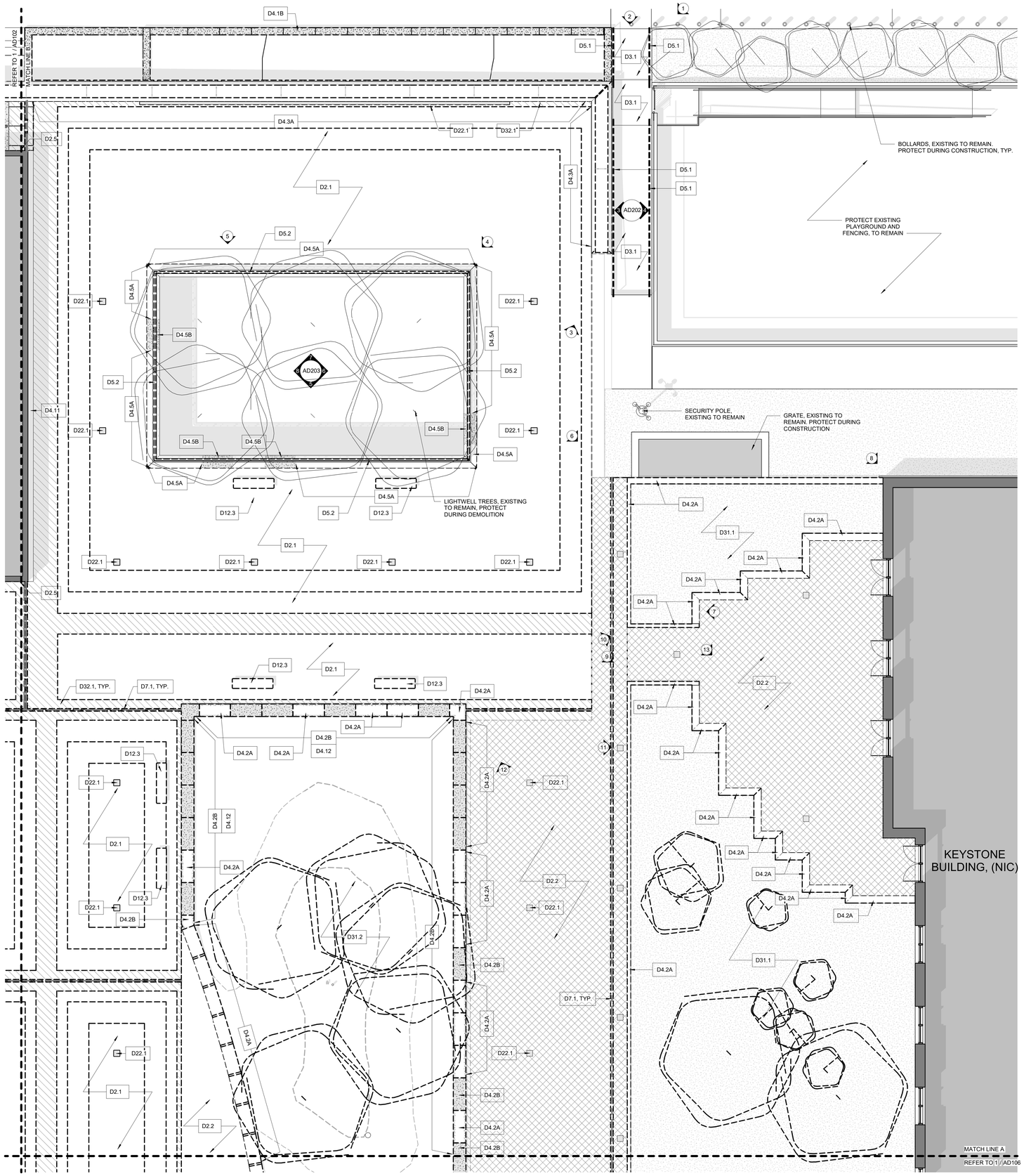
PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

DEMOLITION - PLAZA FLOOR PLAN - ENLARGED AREA A

VERIFY SCALE
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	AD102
CHECKED BY: WE	SCALE: PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



1 AD104 DEMOLITION - PLAZA FLOOR PLAN - ENLARGED AREA B

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

0 8' 0"

GENERAL DEMOLITION NOTES

1. SELECTIVE DEMOLITION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED ON THESE DRAWINGS. INCLUDE ALL THAT IS NECESSARY TO COMPLETE THE SCOPE OF WORK AS INDICATED ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. SEE ALL DRAWINGS TO COORDINATE ANY ADDITIONAL WALL OR FLOOR DEMOLITION.

2. NOT USED

3. NOTES ARE ORGANIZED UNDER THE MOST APPLICABLE SPECIFICATION SECTION.

4. COORDINATE DEMOLITION WITH DIMENSIONS OF NEW CONSTRUCTION.

5. CONTRACTOR TO INFORM ARCHITECT OF CONDITIONS INCONSISTENT WITH WHAT IS SHOWN ON DRAWINGS.

6. ======= INDICATES CONCRETE, MASONRY, OR STUD WALLS WITH FINISHES TO BE DEMOLISHED. PATCH ADJACENT SURFACES WITH MATERIALS TO MATCH EXISTING AND MINIMIZE INCONSISTENCIES.

7. NOT USED

8. PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION. PREPARE THESE AREAS FOR NEW FINISH - SEE FINISH SCHEDULE.

9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION ASSOCIATED WITH MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

10. REMOVE ALL FASTENERS, SUPPORTS, ETC. ASSOCIATED WITH DEMOLISHED ITEMS.

11. DEMOLITION CALLOUTS REFLECT MAJOR DEMOLITION ACTIVITIES. REFER TO ARCHITECTURAL AND WATERPROOFING DETAILS FOR MISC. CUTS, SCORES, AND CHAMFERS REQUIRED AT EXISTING STRUCTURE.

12. INTERNAL GUTTER SYSTEM LOCATED UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING DEMOLITION.

DEMO NOTE KEY

DIV 2: DEMOLITION - PHASE 1.1 CONTRACTOR

- D2.1 REMOVE CONCRETE PAVER, SETTING BED, MEMBRANE, SLOPED LIGHT WEIGHT CONCRETE, AND MEMBRANE. AT COMPLETION OF DEMOLITION STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.2 REMOVE WHITE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK (IDENTIFIED BY DIAGONAL CROSS HATCH ( )). REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.3 REMOVE DARK GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.4 REMOVE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.5 REMOVE GRANITE STONE ANGLE AT WALL BASE, CATALOG, CLEAN, STORE, AND PREP FOR INSTALLATION, COORD. WITH WATERPROOFING DETAIL 7 / DM1.00.

DIV 3: CONCRETE - PHASE 1.1 CONTRACTOR

- D3.1 REMOVE REINFORCED CONCRETE RAMP.
- D3.2 NOT USED
- D3.3 REMOVE FLOOR AND ASSOCIATED FINISHES AS NECESSARY TO ACCESS STORMWATER DRAIN BELOW, REPLACE TO MATCH EXISTING (BASE BID 1 IDENTIFIED BY HATCH ( ) (BASE BID 2 IDENTIFIED BY HATCH ( ) (BASE BID 3 IDENTIFIED BY HATCH ( )
- D3.4 REMOVE CONCRETE SLAB, REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM3.00

DIV 4: MASONRY - PHASE 1.1 CONTRACTOR

- D4.1A REMOVE LIMESTONE PANEL. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.1B REMOVE LIMESTONE PANEL. (IDENTIFIED BY HATCH ( )REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.2A REMOVE GRANITE PLANTER WALLS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 1 / DM2.00 AND 5 / DM2.00
- D4.2B REMOVE GRANITE PLANTER WALLS (IDENTIFIED BY HATCH ( ) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.2C REMOVE GRANITE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. COORD. SUBWALL REMOVAL W/ EXTENT OF NEW WORK (IDENTIFIED BY HATCH ( )) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.3A REMOVE EXISTING LIMESTONE BLOCKS AND ASSOC. BASE STONE. CATALOG, CLEAN, STORE AND PREP TO REINSTALL REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00. IF BLOCK OR SUPPPORT IS UNSALVAGABLE, CONTACT ARCHITECT AND ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS.
- D4.3B STONE BLOCK TO BE SALVAGED AND RETURNED TO CLIENT AGENCY. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.4A REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). CATALOG, CLEAN, STORE AND PREP FOR REINSTALLATION / RELOCATION. REFER TO /A113 FOR RELOCATION DETAILS. WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00.
- D4.4B REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). (IDENTIFIED BY HATCH ( )). WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00
- D4.5A REMOVE EXISTING LIMESTONE COPING. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.5B REMOVE EXISTING LIMESTONE COPING (IDENTIFIED BY HATCH ( ) WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.6 REMOVE LIMESTONE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. SALVAGE LIMESTONE FOR REUSE. COORD. EXTENT W/ NEW WORK
- D4.7 CMU WALL CONSTRUCTION TO BE REMOVED AS REQ'D. TO ACCESS & REMOVE STORMWATER PIPING & CONNECTIONS OR TO INSTALL ACCESS PANEL
- D4.8 BRICK INFILL WITHIN CMU WALL CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS
- D4.9A REMOVE GRANITE PLANTER COPING AND CLADDING. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00. RETURN TO CLIENT AGENCY.
- D4.9B REMOVE PLANTER CONCRETE SUB WALLS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00
- D4.10 REMOVE GRANITE PAVER, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL 4 / DM1.00
- D4.11 REMOVE GRANITE CURB, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO DEMOLITION DETAIL ON 6 / DM1.00
- D4.12 REMOVE CONCRETE MASONRY WALLS SURROUNDING THE PLANTER. REFER TO WATERPROOFING DEMOLITION DETAIL 5 / DM2.00
- D4.13 REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504 . CATALOG, CLEAN, STORE AND PREP TO REINSTALL.

DIV 5: METALS - PHASE 1.1 CONTRACTOR

- D5.1 REMOVE EXISTING HANDRAIL AND RELATED ACCESSORIES INCLUDING SLEEVES.
- D5.2 REMOVE EXISTING METAL HANDRAIL. CATALOG, CLEAN, MODIFY (REFER TO DETAIL DWG 6 / A501). STORE. AND PREP TO REINSTALL

DIV 6: WOOD, PLASTICS, AND COMPOSITES - PHASE 1.1 CONTRACTOR

- D6.1 REMOVE EXISTING TEMPORARY WD./MTL. RAILING
- D6.2 REMOVE TEMPORARY WOOD WALLS
- D6.3 REMOVE TEMPORARY WOOD BRACING. COORDINATE WITH REMOVAL OF STONE SOFFIT

DIV 7: THERMAL AND MOISTURE PROTECTION - PHASE 1.1 CONTRACTOR

- D7.1 REMOVE EXISTING EXPANSION JOINT AND ASSOCIATED COMPONENTS ((IDENTIFIED BY LINE ———) REFER TO WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00, AND 3 / DM2.00

DIV 9: FINISHES - PHASE 1.1 CONTRACTOR

- D9.1 REMOVE EXISTING HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE.
- D9.2 REMOVE EXISTING CEILING TILE AS REQUIRED FOR NEW STORM WATER PIPING SCOPE, STORE FOR LATER REINSTALLATION. GRID EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION
- D9.3 DRYWALL PARTITION CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS.
- D9.4 REMOVE EXISTING EXTERIOR HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE OR STRUCTURE.

DIV 10: SPECIALTIES - PHASE 1.1 CONTRACTOR

- D10.1 REMOVE EXISTING PLAQUE. TURN OVER TO CLIENT AGENCY.

DIV 12: FURNISHINGS - PHASE 1.1 CONTRACTOR

- D12.1 NOT USED
- D12.2 NOT USED
- D12.3 REMOVE STONE BENCHES. CATALOG, CLEAN, AND STORE, UNTIL READY FOR REINSTALLATION.

DIV 22: PLUMBING - PHASE 1.3 CONTRACTOR

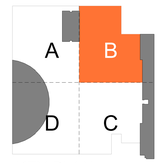
- D22.1 REMOVE EXISTING DRAIN COVERS AND ASSEMBLY. COORD. DRAIN DEMO W/ PLUMBING DWGS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00 AND 7 / DM2.00

DIV 31: EARTHWORK - PHASE 1.1 CONTRACTOR

- D31.1 REMOVE SOIL AND PLANTINGS. COORD. W/ CIVIL AND LANDSCAPE DWGS
- D31.2 REMOVE SOIL AND PLANTINGS TO DEPTH COORD. W/ CIVIL DWGS.
- D31.3 REMOVE SOIL AND PLANTINGS AS REQ'D. FOR INSTALLATION OF SLAB ON GRADE AND COLUMN FOUNDATIONS

DIV 32: EXTERIOR IMPROVEMENTS - PHASE 1.1 CONTRACTOR

- D32.1 REMOVE GRANITE ACCENT PAVER. CLEAN. STORE. AND PREP TO REINSTALL / RELOCATION . REFER TO A113 FOR RELOCATION DETAILS. (IDENTIFIED BY DIAGONAL HATCH ( ) . WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00



KEY PLAN

1	Addenda 3	09/15/2025	
2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

REGISTERED ARCHITECT COMMONWEALTH OF PENNSYLVANIA CHRISTOPHER D. DAWSON RA-015317X

09/06/2024

PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS 948-87 PHASE 1

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

DEMOLITION - PLAZA FLOOR PLAN - ENLARGED AREA B

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:

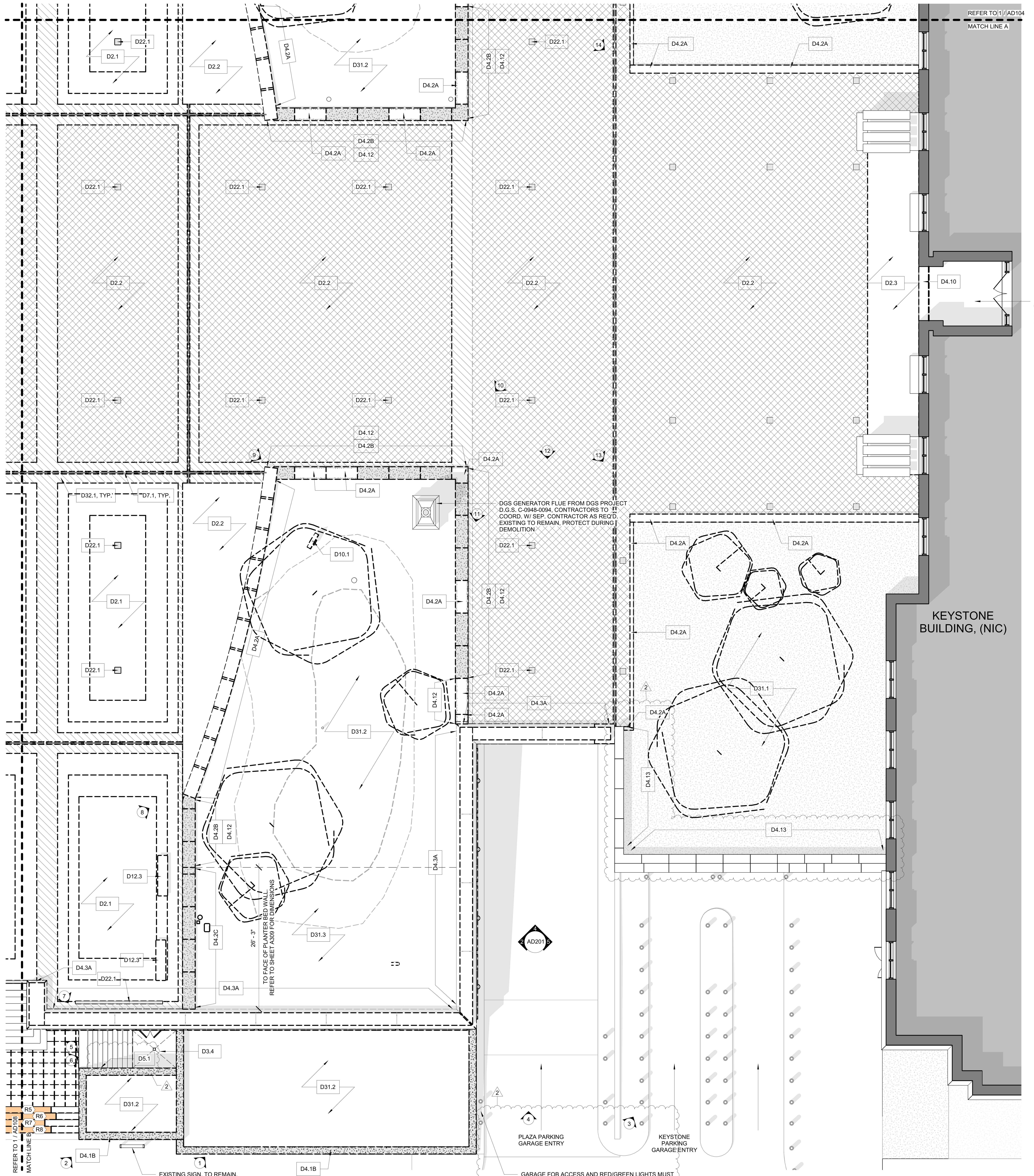
0 1

IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	AD104
CHECKED BY	SCALE	
WE	PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



1 / AD106 DEMOLITION - PLAZA FLOOR PLAN - ENLARGED AREA C

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

0 8' 0"

GENERAL DEMOLITION NOTES

1. SELECTIVE DEMOLITION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED ON THESE DRAWINGS. INCLUDE ALL THAT IS NECESSARY TO COMPLETE THE SCOPE OF WORK AS INDICATED ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. SEE ALL DRAWINGS TO COORDINATE ANY ADDITIONAL WALL OR FLOOR DEMOLITION.

2. NOT USED

3. NOTES ARE ORGANIZED UNDER THE MOST APPLICABLE SPECIFICATION SECTION.

4. COORDINATE DEMOLITION WITH DIMENSIONS OF NEW CONSTRUCTION.

5. CONTRACTOR TO INFORM ARCHITECT OF CONDITIONS INCONSISTENT WITH WHAT IS SHOWN ON DRAWINGS.

6. ======= INDICATES CONCRETE, MASONRY, OR STUD WALLS WITH FINISHES TO BE DEMOLISHED. PATCH ADJACENT SURFACES WITH MATERIALS TO MATCH EXISTING AND MINIMIZE INCONSISTENCIES.

7. NOT USED

8. PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION. PREPARE THESE AREAS FOR NEW FINISH - SEE FINISH SCHEDULE.

9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION ASSOCIATED WITH MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

10. REMOVE ALL FASTENERS, SUPPORTS, ETC. ASSOCIATED WITH DEMOLISHED ITEMS.

11. DEMOLITION CALLOUTS REFLECT MAJOR DEMOLITION ACTIVITIES. REFER TO ARCHITECTURAL AND WATERPROOFING DETAILS FOR MISC. CUTS, SCORES, AND CHAMFERS REQUIRED AT EXISTING STRUCTURE.

12. INTERNAL GUTTER SYSTEM LOCATED UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING DEMOLITION.

DEMO NOTE KEY

DIV 2: DEMOLITION - PHASE 1.1 CONTRACTOR

D2.1	REMOVE CONCRETE PAVER, SETTING BED, MEMBRANE, SLOPED LIGHT WEIGHT CONCRETE, AND MEMBRANE. AT COMPLETION OF DEMOLITION STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
D2.2	REMOVE WHITE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK (IDENTIFIED BY DIAGONAL CROSS HATCH). REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
D2.3	REMOVE DARK GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
D2.4	REMOVE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
D2.5	REMOVE GRANITE STONE ANGLE AT WALL BASE, CATALOG, CLEAN, STORE, AND PREP FOR INSTALLATION, COORD. WITH WATERPROOFING DETAIL 7 / DM1.00.

DIV 3: CONCRETE - PHASE 1.1 CONTRACTOR

D3.1	REMOVE REINFORCED CONCRETE RAMP.
D3.2	NOT USED
D3.3	REMOVE FLOOR AND ASSOCIATED FINISHES AS NECESSARY TO ACCESS STORMWATER DRAIN BELOW, REPLACE TO MATCH EXISTING (BASE BID 1 IDENTIFIED BY HATCH) (BASE BID 2 IDENTIFIED BY HATCH) (BASE BID 3 IDENTIFIED BY HATCH)
D3.4	REMOVE CONCRETE SLAB, REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM3.00

DIV 4: MASONRY - PHASE 1.1 CONTRACTOR

D4.1A	REMOVE LIMESTONE PANEL. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
D4.1B	REMOVE LIMESTONE PANEL. (IDENTIFIED BY HATCH)REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
D4.2A	REMOVE GRANITE PLANTER WALLS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 1 / DM2.00 AND 5 / DM2.00
D4.2B	REMOVE GRANITE PLANTER WALLS (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
D4.2C	REMOVE GRANITE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. COORD. SUBWALL REMOVAL W/ EXTENT OF NEW WORK (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
D4.3A	REMOVE EXISTING LIMESTONE BLOCKS AND ASSOC. BASE STONE. CATALOG, CLEAN, STORE AND PREP TO REINSTALL REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00. IF BLOCK OR SUPPPORT IS UNSALVAGABLE, CONTACT ARCHITECT AND ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS.
D4.3B	STONE BLOCK TO BE SALVAGED AND RETURNED TO CLIENT AGENCY. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
D4.4A	REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). CATALOG, CLEAN, STORE AND PREP FOR REINSTALLATION / RELOCATION. REFER TO /A113 FOR RELOCATION DETAILS. WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00.
D4.4B	REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). (IDENTIFIED BY HATCH). WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00
D4.5A	REMOVE EXISTING LIMESTONE COPING. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
D4.5B	REMOVE EXISTING LIMESTONE COPING (IDENTIFIED BY HATCH) WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
D4.6	REMOVE LIMESTONE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. SALVAGE LIMESTONE FOR REUSE. COORD. EXTENT W/ NEW WORK
D4.7	CMU WALL CONSTRUCTION TO BE REMOVED AS REQ'D, TO ACCESS & REMOVE STORMWATER PIPING & CONNECTIONS OR TO INSTALL ACCESS PANEL
D4.8	BRICK INFILL WITHIN CMU WALL CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS
D4.9A	REMOVE GRANITE PLANTER COPING AND CLADDING. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00. RETURN TO CLIENT AGENCY.
D4.9B	REMOVE PLANTER CONCRETE SUB WALLS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00
D4.10	REMOVE GRANITE PAVER, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL 4 / DM1.00
D4.11	REMOVE GRANITE CURB, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO DEMOLITION DETAIL ON 6 / DM1.00
D4.12	REMOVE CONCRETE MASONRY WALLS SURROUNDING THE PLANTER. REFER TO WATERPROOFING DEMOLITION DETAIL 5 / DM2.00
D4.13	REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504 . CATALOG, CLEAN, STORE AND PREP TO REINSTALL.

DIV 5: METALS - PHASE 1.1 CONTRACTOR

D5.1	REMOVE EXISTING HANDRAIL AND RELATED ACCESSORIES INCLUDING SLEEVES.
D5.2	REMOVE EXISTING METAL HANDRAIL. CATALOG, CLEAN, MODIFY (REFER TO DETAIL DWG 6 / A501). STORE. AND PREP TO REINSTALL

DIV 6: WOOD, PLASTICS, AND COMPOSITES - PHASE 1.1 CONTRACTOR

D6.1	REMOVE EXISTING TEMPORARY WD./MTL. RAILING
D6.2	REMOVE TEMPORARY WOOD WALLS
D6.3	REMOVE TEMPORARY WOOD BRACING. COORDINATE WITH REMOVAL OF STONE SOFFIT

DIV 7: THERMAL AND MOISTURE PROTECTION - PHASE 1.1 CONTRACTOR

D7.1	REMOVE EXISTING EXPANSION JOINT AND ASSOCIATED COMPONENTS (IDENTIFIED BY LINE) REFER TO WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00, AND 3 / DM2.00

DIV 9: FINISHES - PHASE 1.1 CONTRACTOR

D9.1	REMOVE EXISTING HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE.
D9.2	REMOVE EXISTING CEILING TILE AS REQUIRED FOR NEW STORM WATER PIPING SCOPE, STORE FOR LATER REINSTALLATION. GRID EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION
D9.3	DRYWALL PARTITION CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS.
D9.4	REMOVE EXISTING EXTERIOR HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE OR STRUCTURE.

DIV 10: SPECIALTIES - PHASE 1.1 CONTRACTOR

D10.1	REMOVE EXISTING PLAQUE. TURN OVER TO CLIENT AGENCY.

DIV 12: FURNISHINGS - PHASE 1.1 CONTRACTOR

D12.1	NOT USED
D12.2	NOT USED
D12.3	REMOVE STONE BENCHES. CATALOG, CLEAN, AND STORE, UNTIL READY FOR REINSTALLATION.

DIV 22: PLUMBING - PHASE 1.3 CONTRACTOR

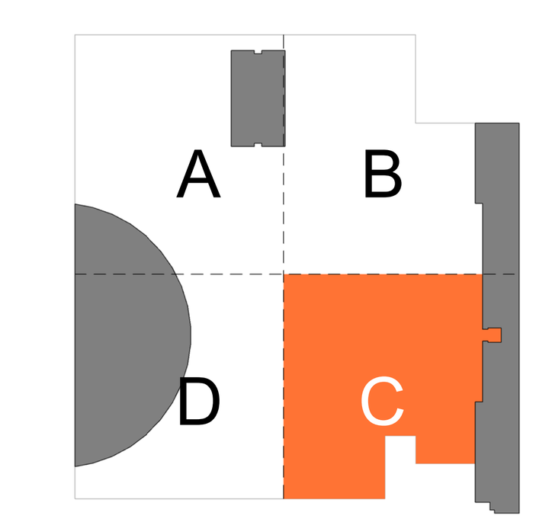
D22.1	REMOVE EXISTING DRAIN COVERS AND ASSEMBLY. COORD. DRAIN DEMO W/ PLUMBING DWGS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00 AND 7 / DM2.00

DIV 31: EARTHWORK - PHASE 1.1 CONTRACTOR

D31.1	REMOVE SOIL AND PLANTINGS. COORD. W/ CIVIL AND LANDSCAPE DWGS
D31.2	REMOVE SOIL AND PLANTINGS TO DEPTH COORD. W/ CIVIL DWGS.
D31.3	REMOVE SOIL AND PLANTINGS AS REQ'D. FOR INSTALLATION OF SLAB ON GRADE AND COLUMN FOUNDATIONS

DIV 32: EXTERIOR IMPROVEMENTS - PHASE 1.1 CONTRACTOR

D32.1	REMOVE GRANITE ACCENT PAVER. CLEAN. STORE. AND PREP TO REINSTALL / RELOCATION . REFER TO A113 FOR RELOCATION DETAILS. (IDENTIFIED BY DIAGONAL HATCH). WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00



KEY PLAN

1	Addenda 3	09/15/2025
2	Addenda 4	09/29/2025

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER D. DAWSON No. RA-015137-X

09/06/2024

PROFESSIONAL'S SIGNATURE DATE

CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. **DGS 948-87 PHASE 1**

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

DEMOLITION - PLAZA FLOOR PLAN - ENLARGED AREA C

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:

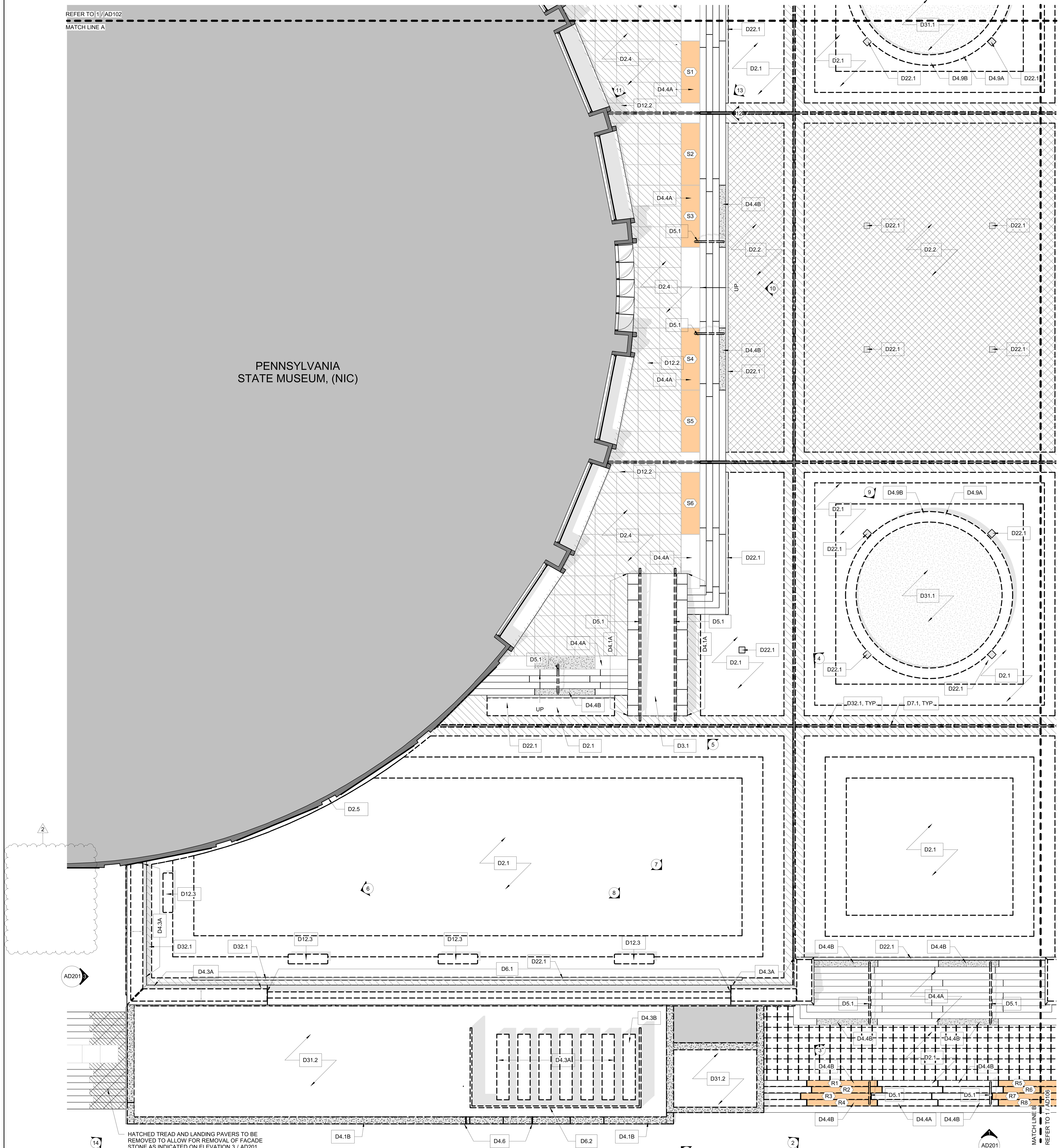
0 1

IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	AD106
CHECKED BY	SCALE	
WE	PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



1 AD108 DEMOLITION - PLAZA FLOOR PLAN - ENLARGED AREA D
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. SELECTIVE DEMOLITION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED ON THESE DRAWINGS. INCLUDE ALL THAT IS NECESSARY TO COMPLETE THE SCOPE OF WORK AS INDICATED ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. SEE ALL DRAWINGS TO COORDINATE ANY ADDITIONAL WALL OR FLOOR DEMOLITION.

2. NOT USED

3. NOTES ARE ORGANIZED UNDER THE MOST APPLICABLE SPECIFICATION SECTION.

4. COORDINATE DEMOLITION WITH DIMENSIONS OF NEW CONSTRUCTION.

5. CONTRACTOR TO INFORM ARCHITECT OF CONDITIONS INCONSISTENT WITH WHAT IS SHOWN ON DRAWINGS.

6. ======= INDICATES CONCRETE, MASONRY, OR STUD WALLS WITH FINISHES TO BE DEMOLISHED. PATCH ADJACENT SURFACES WITH MATERIALS TO MATCH EXISTING AND MINIMIZE INCONSISTENCIES.

7. NOT USED

8. PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION. PREPARE THESE AREAS FOR NEW FINISH - SEE FINISH SCHEDULE.

9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION ASSOCIATED WITH MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

10. REMOVE ALL FASTENERS, SUPPORTS, ETC. ASSOCIATED WITH DEMOLISHED ITEMS.

11. DEMOLITION CALLOUTS REFLECT MAJOR DEMOLITION ACTIVITIES. REFER TO ARCHITECTURAL AND WATERPROOFING DETAILS FOR MISC. CUTS, SCORES, AND CHAMFERS REQUIRED AT EXISTING STRUCTURE.

12. INTERNAL GUTTER SYSTEM LOCATED UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING DEMOLITION.

DEMO NOTE KEY

DIV 2: DEMOLITION - PHASE 1.1 CONTRACTOR

- D2.1 REMOVE CONCRETE PAVER, SETTING BED, MEMBRANE, SLOPED LIGHT WEIGHT CONCRETE, AND MEMBRANE. AT COMPLETION OF DEMOLITION STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.2 REMOVE WHITE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK (IDENTIFIED BY DIAGONAL CROSS HATCH). REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.3 REMOVE DARK GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.4 REMOVE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.5 REMOVE GRANITE STONE ANGLE AT WALL BASE, CATALOG, CLEAN, STORE, AND PREP FOR INSTALLATION, COORD. WITH WATERPROOFING DETAIL 7 / DM1.00.

DIV 3: CONCRETE - PHASE 1.1 CONTRACTOR

- D3.1 REMOVE REINFORCED CONCRETE RAMP.
- D3.2 NOT USED
- D3.3 REMOVE FLOOR AND ASSOCIATED FINISHES AS NECESSARY TO ACCESS STORMWATER DRAIN BELOW, REPLACE TO MATCH EXISTING
(BASE BID 1 IDENTIFIED BY HATCH)
(BASE BID 2 IDENTIFIED BY HATCH)
(BASE BID 3 IDENTIFIED BY HATCH)
- D3.4 REMOVE CONCRETE SLAB, REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM3.00

DIV 4: MASONRY - PHASE 1.1 CONTRACTOR

- D4.1A REMOVE LIMESTONE PANEL. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.1B REMOVE LIMESTONE PANEL. (IDENTIFIED BY HATCH)REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.2A REMOVE GRANITE PLANTER WALLS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 1 / DM2.00 AND 5 / DM2.00
- D4.2B REMOVE GRANITE PLANTER WALLS (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.2C REMOVE GRANITE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. COORD. SUBWALL REMOVAL W/ EXTENT OF NEW WORK (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.3A REMOVE EXISTING LIMESTONE BLOCKS AND ASSOC. BASE STONE. CATALOG, CLEAN, STORE AND PREP TO REINSTALL REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00. IF BLOCK OR SUPPPORT IS UNSALVAGABLE, CONTACT ARCHITECT AND ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS.
- D4.3B STONE BLOCK TO BE SALVAGED AND RETURNED TO CLIENT AGENCY. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.4A REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). CATALOG, CLEAN, STORE AND PREP FOR REINSTALLATION / RELOCATION. REFER TO /A113 FOR RELOCATION DETAILS. WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00.
- D4.4B REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). (IDENTIFIED BY HATCH). WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00
- D4.5A REMOVE EXISTING LIMESTONE COPING. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.5B REMOVE EXISTING LIMESTONE COPING (IDENTIFIED BY HATCH) WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.6 REMOVE LIMESTONE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. SALVAGE LIMESTONE FOR REUSE. COORD. EXTENT W/ NEW WORK
- D4.7 CMU WALL CONSTRUCTION TO BE REMOVED AS REQ'D, TO ACCESS & REMOVE STORMWATER PIPING & CONNECTIONS OR TO INSTALL ACCESS PANEL
- D4.8 BRICK INFILL WITHIN CMU WALL CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS
- D4.9A REMOVE GRANITE PLANTER COPING AND CLADDING. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00. RETURN TO CLIENT AGENCY.
- D4.9B REMOVE PLANTER CONCRETE SUB WALLS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00
- D4.10 REMOVE GRANITE PAVER, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL 4 / DM1.00
- D4.11 REMOVE GRANITE CURB, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO DEMOLITION DETAIL ON 6 / DM1.00
- D4.12 REMOVE CONCRETE MASONRY WALLS SURROUNDING THE PLANTER. REFER TO WATERPROOFING DEMOLITION DETAIL 5 / DM2.00
- D4.13 REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504 . CATALOG, CLEAN, STORE AND PREP TO REINSTALL.

DIV 5: METALS - PHASE 1.1 CONTRACTOR

- D5.1 REMOVE EXISTING HANDRAIL AND RELATED ACCESSORIES INCLUDING SLEEVES.
- D5.2 REMOVE EXISTING METAL HANDRAIL. CATALOG, CLEAN, MODIFY (REFER TO DETAIL DWG 6 / A501). STORE. AND PREP TO REINSTALL

DIV 6: WOOD, PLASTICS, AND COMPOSITES - PHASE 1.1 CONTRACTOR

- D6.1 REMOVE EXISTING TEMPORARY WD./MTL. RAILING
- D6.2 REMOVE TEMPORARY WOOD WALLS
- D6.3 REMOVE TEMPORARY WOOD BRACING. COORDINATE WITH REMOVAL OF STONE SOFFIT

DIV 7: THERMAL AND MOISTURE PROTECTION - PHASE 1.1 CONTRACTOR

- D7.1 REMOVE EXISTING EXPANSION JOINT AND ASSOCIATED COMPONENTS (IDENTIFIED BY LINE) REFER TO WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00, AND 3 / DM2.00

DIV 9: FINISHES - PHASE 1.1 CONTRACTOR

- D9.1 REMOVE EXISTING HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE.
- D9.2 REMOVE EXISTING CEILING TILE AS REQUIRED FOR NEW STORM WATER PIPING SCOPE, STORE FOR LATER REINSTALLATION. GRID EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION
- D9.3 DRYWALL PARTITION CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS.
- D9.4 REMOVE EXISTING EXTERIOR HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE OR STRUCTURE.

DIV 10: SPECIALTIES - PHASE 1.1 CONTRACTOR

- D10.1 REMOVE EXISTING PLAQUE. TURN OVER TO CLIENT AGENCY.

DIV 12: FURNISHINGS - PHASE 1.1 CONTRACTOR

- D12.1 NOT USED
- D12.2 NOT USED
- D12.3 REMOVE STONE BENCHES. CATALOG, CLEAN, AND STORE, UNTIL READY FOR REINSTALLATION.

DIV 22: PLUMBING - PHASE 1.3 CONTRACTOR

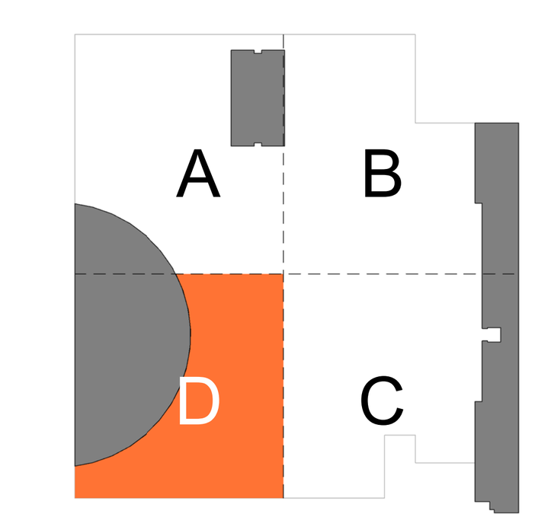
- D22.1 REMOVE EXISTING DRAIN COVERS AND ASSEMBLY. COORD. DRAIN DEMO W/ PLUMBING DWGS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00 AND 7 / DM2.00

DIV 31: EARTHWORK - PHASE 1.1 CONTRACTOR

- D31.1 REMOVE SOIL AND PLANTINGS. COORD. W/ CIVIL AND LANDSCAPE DWGS
- D31.2 REMOVE SOIL AND PLANTINGS TO DEPTH COORD. W/ CIVIL DWGS.
- D31.3 REMOVE SOIL AND PLANTINGS AS REQ'D. FOR INSTALLATION OF SLAB ON GRADE AND COLUMN FOUNDATIONS

DIV 32: EXTERIOR IMPROVEMENTS - PHASE 1.1 CONTRACTOR

- D32.1 REMOVE GRANITE ACCENT PAVER. CLEAN. STORE. AND PREP TO REINSTALL / RELOCATION . REFER TO A113 FOR RELOCATION DETAILS. (IDENTIFIED BY DIAGONAL HATCH). WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00



KEY PLAN

1	Addenda 3	09/15/2025		
2	Addenda 4	09/29/2025		

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER D. DAWSON No. RA-015137-X
09/06/2024
PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. **DGS 948-87 PHASE 1**

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

DEMOLITION - PLAZA FLOOR PLAN - ENLARGED AREA D

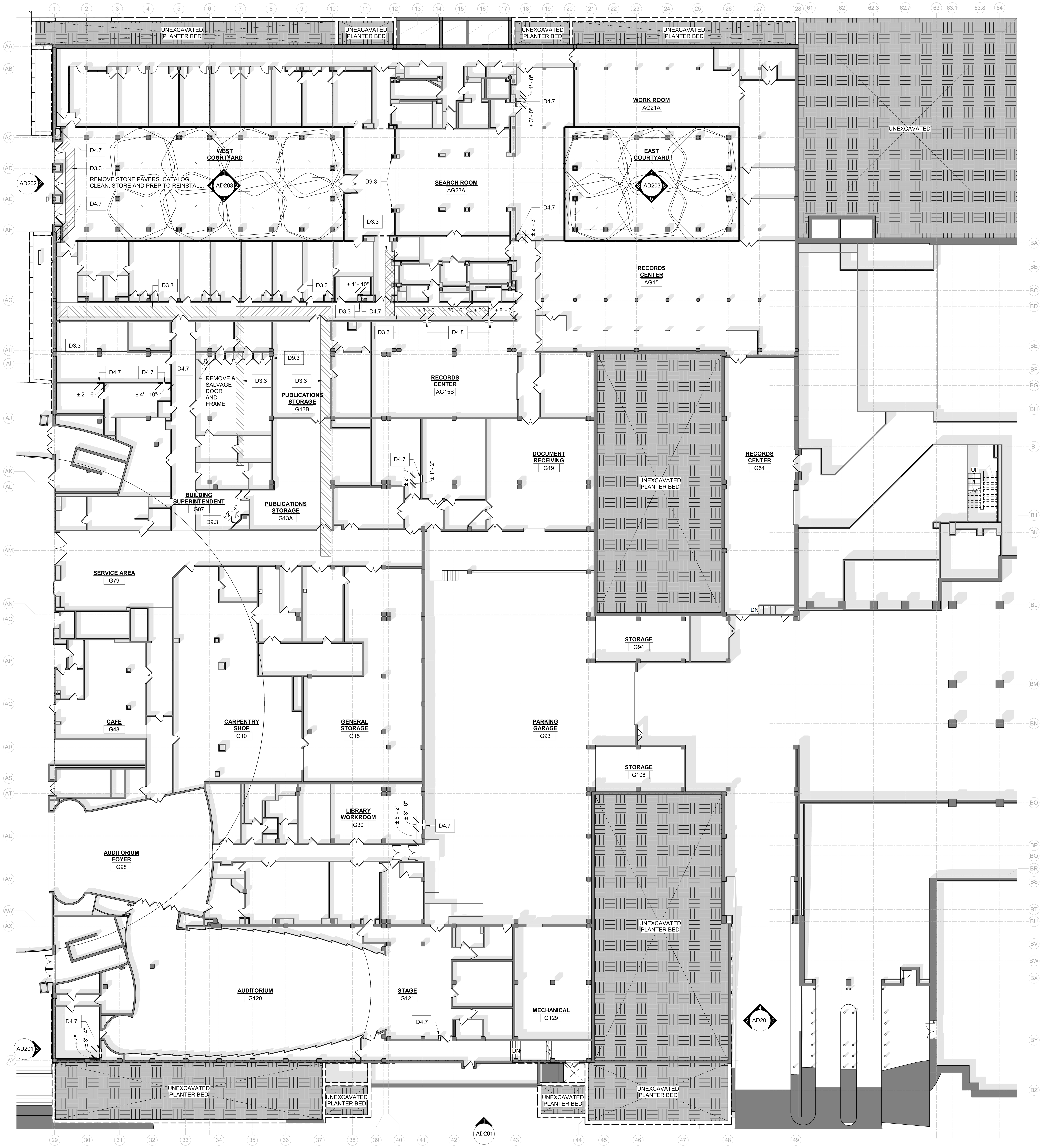
VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	AD108
CHECKED BY	SCALE	
WE	PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



1 AD110 DEMOLITION GROUND FLOOR PLAN
SCALE: 1/16" = 1'-0"

GENERAL DEMOLITION NOTES

1. SELECTIVE DEMOLITION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED ON THESE DRAWINGS. INCLUDE ALL THAT IS NECESSARY TO COMPLETE THE SCOPE OF WORK AS INDICATED ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. SEE ALL DRAWINGS TO COORDINATE ANY ADDITIONAL WALL OR FLOOR DEMOLITION.

2. NOT USED

3. NOTES ARE ORGANIZED UNDER THE MOST APPLICABLE SPECIFICATION SECTION.

4. COORDINATE DEMOLITION WITH DIMENSIONS OF NEW CONSTRUCTION.

5. CONTRACTOR TO INFORM ARCHITECT OF CONDITIONS INCONSISTENT WITH WHAT IS SHOWN ON DRAWINGS.

6. ======= INDICATES CONCRETE, MASONRY, OR STUD WALLS WITH FINISHES TO BE DEMOLISHED. PATCH ADJACENT SURFACES WITH MATERIALS TO MATCH EXISTING AND MINIMIZE INCONSISTENCIES.

7. NOT USED

8. PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION. PREPARE THESE AREAS FOR NEW FINISH - SEE FINISH SCHEDULE.

9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION ASSOCIATED WITH MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

10. REMOVE ALL FASTENERS, SUPPORTS, ETC. ASSOCIATED WITH DEMOLISHED ITEMS.

11. DEMOLITION CALLOUTS REFLECT MAJOR DEMOLITION ACTIVITIES. REFER TO ARCHITECTURAL AND WATERPROOFING DETAILS FOR MISC. CUTS, SCORES, AND CHAMFERS REQUIRED AT EXISTING STRUCTURE.

12. INTERNAL GUTTER SYSTEM LOCATED UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING DEMOLITION.

DEMO NOTE KEY

DIV 2: DEMOLITION - PHASE 1.1 CONTRACTOR

- D2.1 REMOVE CONCRETE PAVER, SETTING BED, MEMBRANE, SLOPED LIGHT WEIGHT CONCRETE, AND MEMBRANE. AT COMPLETION OF DEMOLITION STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.2 REMOVE WHITE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK (IDENTIFIED BY DIAGONAL CROSS HATCH). REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.3 REMOVE DARK GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.4 REMOVE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.5 REMOVE GRANITE STONE ANGLE AT WALL BASE, CATALOG, CLEAN, STORE, AND PREP FOR INSTALLATION, COORD. WITH WATERPROOFING DETAIL 7 / DM1.00.

DIV 3: CONCRETE - PHASE 1.1 CONTRACTOR

- D3.1 REMOVE REINFORCED CONCRETE RAMP.
- D3.2 NOT USED
- D3.3 REMOVE FLOOR AND ASSOCIATED FINISHES AS NECESSARY TO ACCESS STORMWATER DRAIN BELOW, REPLACE TO MATCH EXISTING
  (BASE BID 1 IDENTIFIED BY HATCH)
  (BASE BID 2 IDENTIFIED BY HATCH)
  (BASE BID 3 IDENTIFIED BY HATCH)
- D3.4 REMOVE CONCRETE SLAB, REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM3.00

DIV 4: MASONRY - PHASE 1.1 CONTRACTOR

- D4.1A REMOVE LIMESTONE PANEL. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.1B REMOVE LIMESTONE PANEL. (IDENTIFIED BY HATCH)REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.2A REMOVE GRANITE PLANTER WALLS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 1 / DM2.00 AND 5 / DM2.00
- D4.2B REMOVE GRANITE PLANTER WALLS (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.2C REMOVE GRANITE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. COORD. SUBWALL REMOVAL W/ EXTENT OF NEW WORK (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.3A REMOVE EXISTING LIMESTONE BLOCKS AND ASSOC. BASE STONE. CATALOG, CLEAN, STORE AND PREP TO REINSTALL REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00. IF BLOCK OR SUPPPORT IS UNSALVAGABLE, CONTACT ARCHITECT AND ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS.
- D4.3B STONE BLOCK TO BE SALVAGED AND RETURNED TO CLIENT AGENCY. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.4A REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). CATALOG, CLEAN, STORE AND PREP FOR REINSTALLATION / RELOCATION. REFER TO /A113 FOR RELOCATION DETAILS. WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00.
- D4.4B REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). (IDENTIFIED BY HATCH). WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00
- D4.5A REMOVE EXISTING LIMESTONE COPING. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.5B REMOVE EXISTING LIMESTONE COPING (IDENTIFIED BY HATCH) WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.6 REMOVE LIMESTONE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. SALVAGE LIMESTONE FOR REUSE. COORD. EXTENT W/ NEW WORK
- D4.7 CMU WALL CONSTRUCTION TO BE REMOVED AS REQ'D, TO ACCESS & REMOVE STORMWATER PIPING & CONNECTIONS OR TO INSTALL ACCESS PANEL
- D4.8 BRICK INFILL WITHIN CMU WALL CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS
- D4.9A REMOVE GRANITE PLANTER COPING AND CLADDING. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00. RETURN TO CLIENT AGENCY.
- D4.9B REMOVE PLANTER CONCRETE SUB WALLS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00
- D4.10 REMOVE GRANITE PAVER, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL 4 / DM1.00
- D4.11 REMOVE GRANITE CURB, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO DEMOLITION DETAIL ON 6 / DM1.00
- D4.12 REMOVE CONCRETE MASONRY WALLS SURROUNDING THE PLANTER. REFER TO WATERPROOFING DEMOLITION DETAIL 5 / DM2.00
- D4.13 REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504 . CATALOG, CLEAN, STORE AND PREP TO REINSTALL.

DIV 5: METALS - PHASE 1.1 CONTRACTOR

- D5.1 REMOVE EXISTING HANDRAIL AND RELATED ACCESSORIES INCLUDING SLEEVES.
- D5.2 REMOVE EXISTING METAL HANDRAIL. CATALOG, CLEAN, MODIFY (REFER TO DETAIL DWG 6 / A501). STORE. AND PREP TO REINSTALL

DIV 6: WOOD, PLASTICS, AND COMPOSITES - PHASE 1.1 CONTRACTOR

- D6.1 REMOVE EXISTING TEMPORARY WD./MTL. RAILING
- D6.2 REMOVE TEMPORARY WOOD WALLS
- D6.3 REMOVE TEMPORARY WOOD BRACING. COORDINATE WITH REMOVAL OF STONE SOFFIT

2

DIV 7: THERMAL AND MOISTURE PROTECTION - PHASE 1.1 CONTRACTOR

- D7.1 REMOVE EXISTING EXPANSION JOINT AND ASSOCIATED COMPONENTS (IDENTIFIED BY LINE ▬ ▬ ▬ ▬ ▬) REFER TO WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00, AND 3 / DM2.00

DIV 9: FINISHES - PHASE 1.1 CONTRACTOR

- D9.1 REMOVE EXISTING HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE.
- D9.2 REMOVE EXISTING CEILING TILE AS REQUIRED FOR NEW STORM WATER PIPING SCOPE, STORE FOR LATER REINSTALLATION. GRID EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION
- D9.3 DRYWALL PARTITION CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS.
- D9.4 REMOVE EXISTING EXTERIOR HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE OR STRUCTURE.

DIV 10: SPECIALTIES - PHASE 1.1 CONTRACTOR

- D10.1 REMOVE EXISTING PLAQUE. TURN OVER TO CLIENT AGENCY.

DIV 12: FURNISHINGS - PHASE 1.1 CONTRACTOR

- D12.1 NOT USED
- D12.2 NOT USED
- D12.3 REMOVE STONE BENCHES. CATALOG, CLEAN, AND STORE, UNTIL READY FOR REINSTALLATION.

DIV 22: PLUMBING - PHASE 1.3 CONTRACTOR

- D22.1 REMOVE EXISTING DRAIN COVERS AND ASSEMBLY. COORD. DRAIN DEMO W/ PLUMBING DWGS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00 AND 7 / DM2.00

DIV 31: EARTHWORK - PHASE 1.1 CONTRACTOR

- D31.1 REMOVE SOIL AND PLANTINGS. COORD. W/ CIVIL AND LANDSCAPE DWGS
- D31.2 REMOVE SOIL AND PLANTINGS TO DEPTH COORD. W/ CIVIL DWGS.
- D31.3 REMOVE SOIL AND PLANTINGS AS REQ'D. FOR INSTALLATION OF SLAB ON GRADE AND COLUMN FOUNDATIONS

DIV 32: EXTERIOR IMPROVEMENTS - PHASE 1.1 CONTRACTOR

- D32.1 REMOVE GRANITE ACCENT PAVER. CLEAN. STORE. AND PREP TO REINSTALL / RELOCATION . REFER TO A113 FOR RELOCATION DETAILS. (IDENTIFIED BY DIAGONAL HATCH). WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00

2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

09/06/2024
PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. **DGS 948-87 PHASE 1**

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

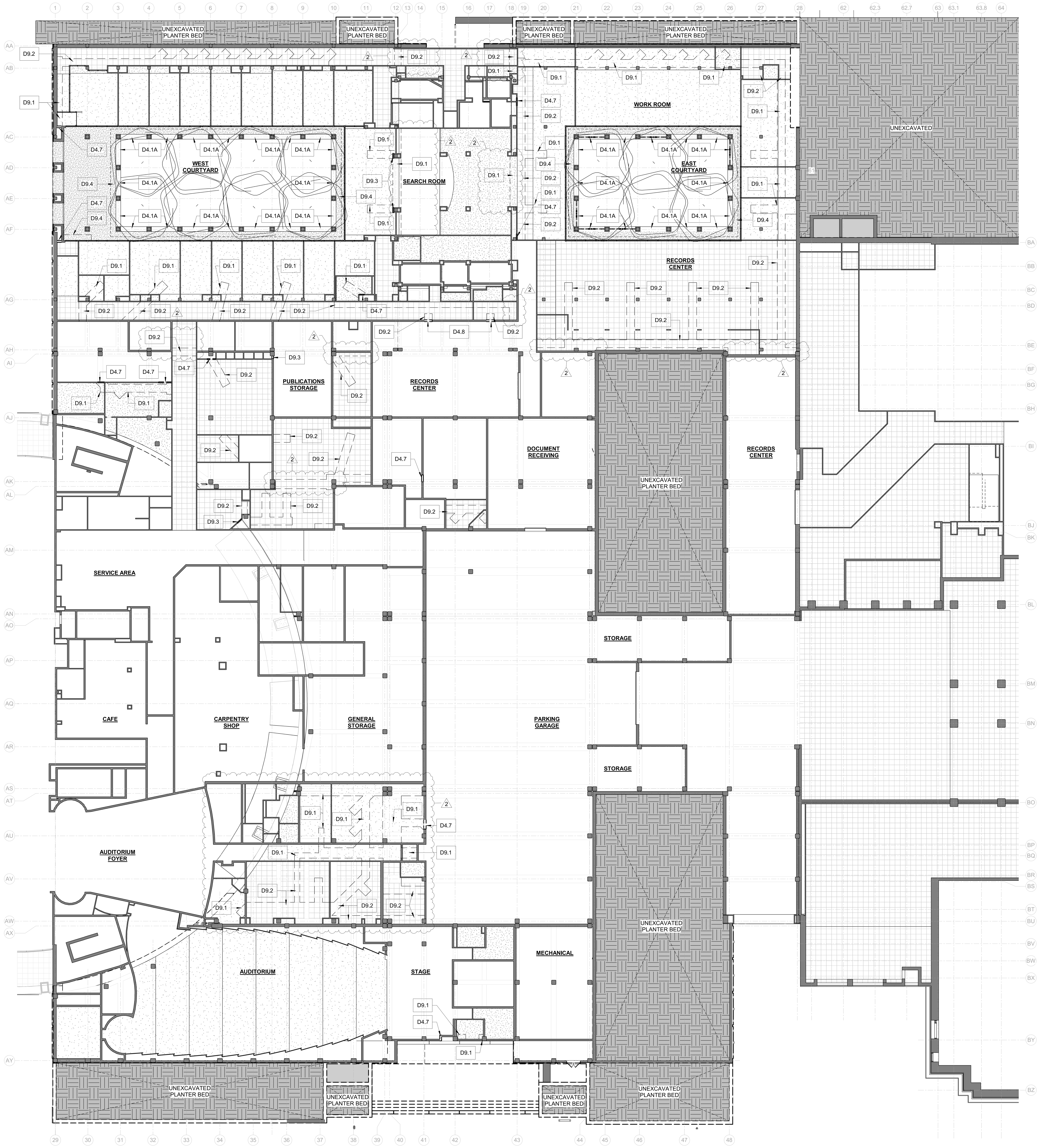
DEMOLITION - GROUND FLOOR PLAN

VERIFY SCALE
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY	DATE	DRAWING NO.
WA	07.29.25	AD110
CHECKED BY	SCALE	
WE	PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



1 AD111 DEMOLITION - GROUND FLOOR RCP
SCALE: 1/16" = 1'-0"

GENERAL DEMOLITION NOTES

1. SELECTIVE DEMOLITION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED ON THESE DRAWINGS. INCLUDE ALL THAT IS NECESSARY TO COMPLETE THE SCOPE OF WORK AS INDICATED ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. SEE ALL DRAWINGS TO COORDINATE ANY ADDITIONAL WALL OR FLOOR DEMOLITION.

2. NOT USED

3. NOTES ARE ORGANIZED UNDER THE MOST APPLICABLE SPECIFICATION SECTION.

4. COORDINATE DEMOLITION WITH DIMENSIONS OF NEW CONSTRUCTION.

5. CONTRACTOR TO INFORM ARCHITECT OF CONDITIONS INCONSISTENT WITH WHAT IS SHOWN ON DRAWINGS.

6. ======= INDICATES CONCRETE, MASONRY, OR STUD WALLS WITH FINISHES TO BE DEMOLISHED. PATCH ADJACENT SURFACES WITH MATERIALS TO MATCH EXISTING AND MINIMIZE INCONSISTENCIES.

7. NOT USED

8. PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION. PREPARE THESE AREAS FOR NEW FINISH - SEE FINISH SCHEDULE.

9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION ASSOCIATED WITH MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

10. REMOVE ALL FASTENERS, SUPPORTS, ETC. ASSOCIATED WITH DEMOLISHED ITEMS.

11. DEMOLITION CALLOUTS REFLECT MAJOR DEMOLITION ACTIVITIES. REFER TO ARCHITECTURAL AND WATERPROOFING DETAILS FOR MISC. CUTS, SCORES, AND CHAMFERS REQUIRED AT EXISTING STRUCTURE.

12. INTERNAL GUTTER SYSTEM LOCATED UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING DEMOLITION.

DEMO NOTE KEY

DIV 2: DEMOLITION - PHASE 1.1 CONTRACTOR

D2.1	REMOVE CONCRETE PAVER, SETTING BED, MEMBRANE, SLOPED LIGHT WEIGHT CONCRETE, AND MEMBRANE. AT COMPLETION OF DEMOLITION STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
D2.2	REMOVE WHITE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK (IDENTIFIED BY DIAGONAL CROSS HATCH). REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
D2.3	REMOVE DARK GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
D2.4	REMOVE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
D2.5	REMOVE GRANITE STONE ANGLE AT WALL BASE, CATALOG, CLEAN, STORE, AND PREP FOR INSTALLATION, COORD. WITH WATERPROOFING DETAIL 7 / DM1.00.

DIV 3: CONCRETE - PHASE 1.1 CONTRACTOR

D3.1	REMOVE REINFORCED CONCRETE RAMP.
D3.2	NOT USED
D3.3	REMOVE FLOOR AND ASSOCIATED FINISHES AS NECESSARY TO ACCESS STORMWATER DRAIN BELOW, REPLACE TO MATCH EXISTING (BASE BID 1 IDENTIFIED BY HATCH) (BASE BID 2 IDENTIFIED BY HATCH) (BASE BID 3 IDENTIFIED BY HATCH)
D3.4	REMOVE CONCRETE SLAB, REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM3.00

DIV 4: MASONRY - PHASE 1.1 CONTRACTOR

D4.1A	REMOVE LIMESTONE PANEL. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
D4.1B	REMOVE LIMESTONE PANEL. (IDENTIFIED BY HATCH)REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
D4.2A	REMOVE GRANITE PLANTER WALLS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 1 / DM2.00 AND 5 / DM2.00
D4.2B	REMOVE GRANITE PLANTER WALLS (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
D4.2C	REMOVE GRANITE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. COORD. SUBWALL REMOVAL W/ EXTENT OF NEW WORK (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
D4.3A	REMOVE EXISTING LIMESTONE BLOCKS AND ASSOC. BASE STONE. CATALOG, CLEAN, STORE AND PREP TO REINSTALL REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00. IF BLOCK OR SUPPPORT IS UNSALVAGABLE, CONTACT ARCHITECT AND ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS.
D4.3B	STONE BLOCK TO BE SALVAGED AND RETURNED TO CLIENT AGENCY. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
D4.4A	REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). CATALOG, CLEAN, STORE AND PREP FOR REINSTALLATION / RELOCATION. REFER TO /A113 FOR RELOCATION DETAILS. WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00.
D4.4B	REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). (IDENTIFIED BY HATCH). WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00
D4.5A	REMOVE EXISTING LIMESTONE COPING. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
D4.5B	REMOVE EXISTING LIMESTONE COPING (IDENTIFIED BY HATCH) WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
D4.6	REMOVE LIMESTONE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. SALVAGE LIMESTONE FOR REUSE. COORD. EXTENT W/ NEW WORK
D4.7	CMU WALL CONSTRUCTION TO BE REMOVED AS REQ'D, TO ACCESS & REMOVE STORMWATER PIPING & CONNECTIONS OR TO INSTALL ACCESS PANEL
D4.8	BRICK INFILL WITHIN CMU WALL CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS
D4.9A	REMOVE GRANITE PLANTER COPING AND CLADDING. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00. RETURN TO CLIENT AGENCY.
D4.9B	REMOVE PLANTER CONCRETE SUB WALLS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00
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D4.12	REMOVE CONCRETE MASONRY WALLS SURROUNDING THE PLANTER. REFER TO WATERPROOFING DEMOLITION DETAIL 5 / DM2.00
D4.13	REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504 . CATALOG, CLEAN, STORE AND PREP TO REINSTALL.

DIV 5: METALS - PHASE 1.1 CONTRACTOR

D5.1	REMOVE EXISTING HANDRAIL AND RELATED ACCESSORIES INCLUDING SLEEVES.
D5.2	REMOVE EXISTING METAL HANDRAIL. CATALOG, CLEAN, MODIFY (REFER TO DETAIL DWG 6 / A501). STORE. AND PREP TO REINSTALL

DIV 6: WOOD, PLASTICS, AND COMPOSITES - PHASE 1.1 CONTRACTOR

D6.1	REMOVE EXISTING TEMPORARY WD./MTL. RAILING
D6.2	REMOVE TEMPORARY WOOD WALLS
D6.3	REMOVE TEMPORARY WOOD BRACING. COORDINATE WITH REMOVAL OF STONE SOFFIT

2

DIV 7: THERMAL AND MOISTURE PROTECTION - PHASE 1.1 CONTRACTOR

D7.1	REMOVE EXISTING EXPANSION JOINT AND ASSOCIATED COMPONENTS (IDENTIFIED BY LINE) REFER TO WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00, AND 3 / DM2.00

DIV 9: FINISHES - PHASE 1.1 CONTRACTOR

D9.1	REMOVE EXISTING HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE.
D9.2	REMOVE EXISTING CEILING TILE AS REQUIRED FOR NEW STORM WATER PIPING SCOPE, STORE FOR LATER REINSTALLATION. GRID EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION
D9.3	DRYWALL PARTITION CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS.
D9.4	REMOVE EXISTING EXTERIOR HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE OR STRUCTURE.

DIV 10: SPECIALTIES - PHASE 1.1 CONTRACTOR

D10.1	REMOVE EXISTING PLAQUE. TURN OVER TO CLIENT AGENCY.

DIV 12: FURNISHINGS - PHASE 1.1 CONTRACTOR

D12.1	NOT USED
D12.2	NOT USED
D12.3	REMOVE STONE BENCHES. CATALOG, CLEAN, AND STORE, UNTIL READY FOR REINSTALLATION.

DIV 22: PLUMBING - PHASE 1.3 CONTRACTOR

D22.1	REMOVE EXISTING DRAIN COVERS AND ASSEMBLY. COORD. DRAIN DEMO W/ PLUMBING DWGS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00 AND 7 / DM2.00

DIV 31: EARTHWORK - PHASE 1.1 CONTRACTOR

D31.1	REMOVE SOIL AND PLANTINGS. COORD. W/ CIVIL AND LANDSCAPE DWGS
D31.2	REMOVE SOIL AND PLANTINGS TO DEPTH COORD. W/ CIVIL DWGS.
D31.3	REMOVE SOIL AND PLANTINGS AS REQ'D. FOR INSTALLATION OF SLAB ON GRADE AND COLUMN FOUNDATIONS

DIV 32: EXTERIOR IMPROVEMENTS - PHASE 1.1 CONTRACTOR

D32.1	REMOVE GRANITE ACCENT PAVER. CLEAN. STORE. AND PREP TO REINSTALL / RELOCATION . REFER TO A113 FOR RELOCATION DETAILS. (IDENTIFIED BY DIAGONAL HATCH). WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00

CEILING DEMOLITION KEY

- 2 x 2 ACOUSTICAL TILE CEILING SYSTEM, EXISTING TO REMAIN
- PLASTER BOARD, EXISTING TO REMAIN
- ACOUSTIC PLASTER BOARD, EXISTING TO REMAIN
- EXTERIOR PLASTER BOARD, EXISTING TO REMAIN

2	Addenda 4	09/29/2025

AS-BUILT REVISIONS

09/06/2024
PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. **DGS 948-87 PHASE 1**

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

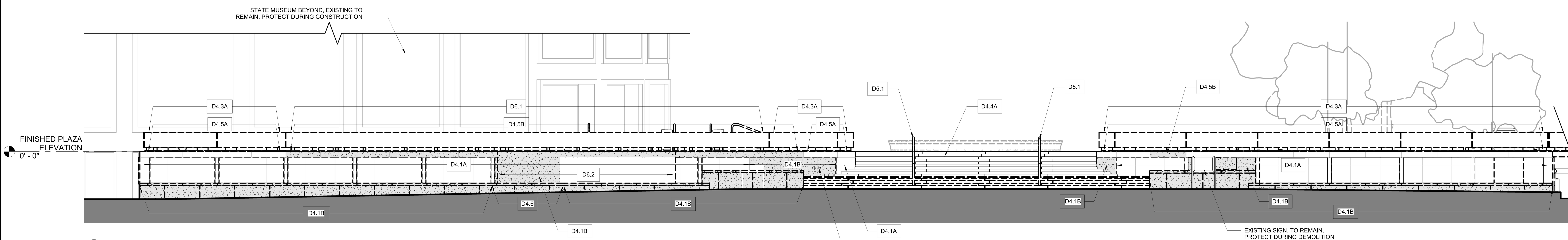
DEMOLITION - GROUND FLOOR RCP

VERIFY SCALE
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

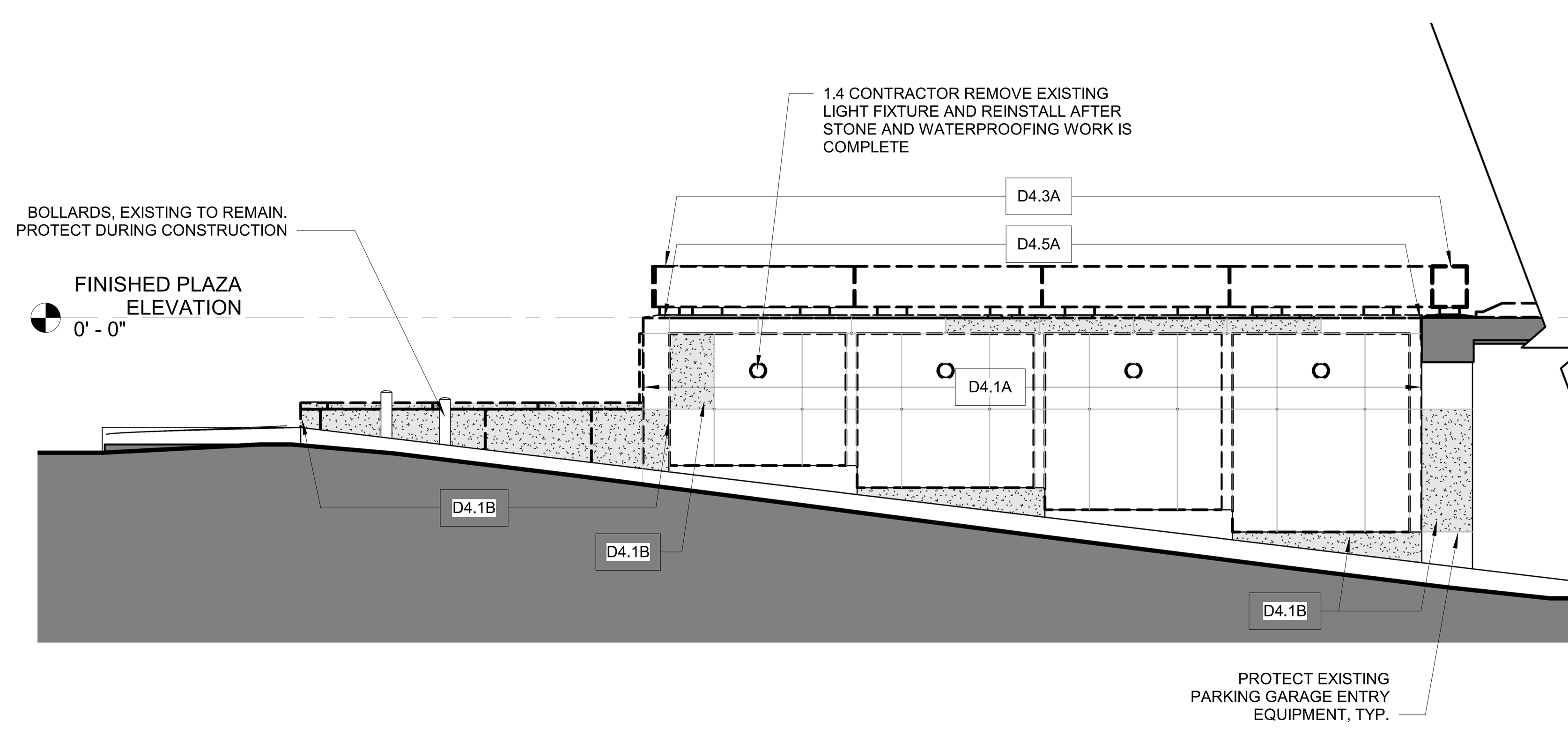
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	AD111
CHECKED BY	SCALE	
WE	PER DWG	

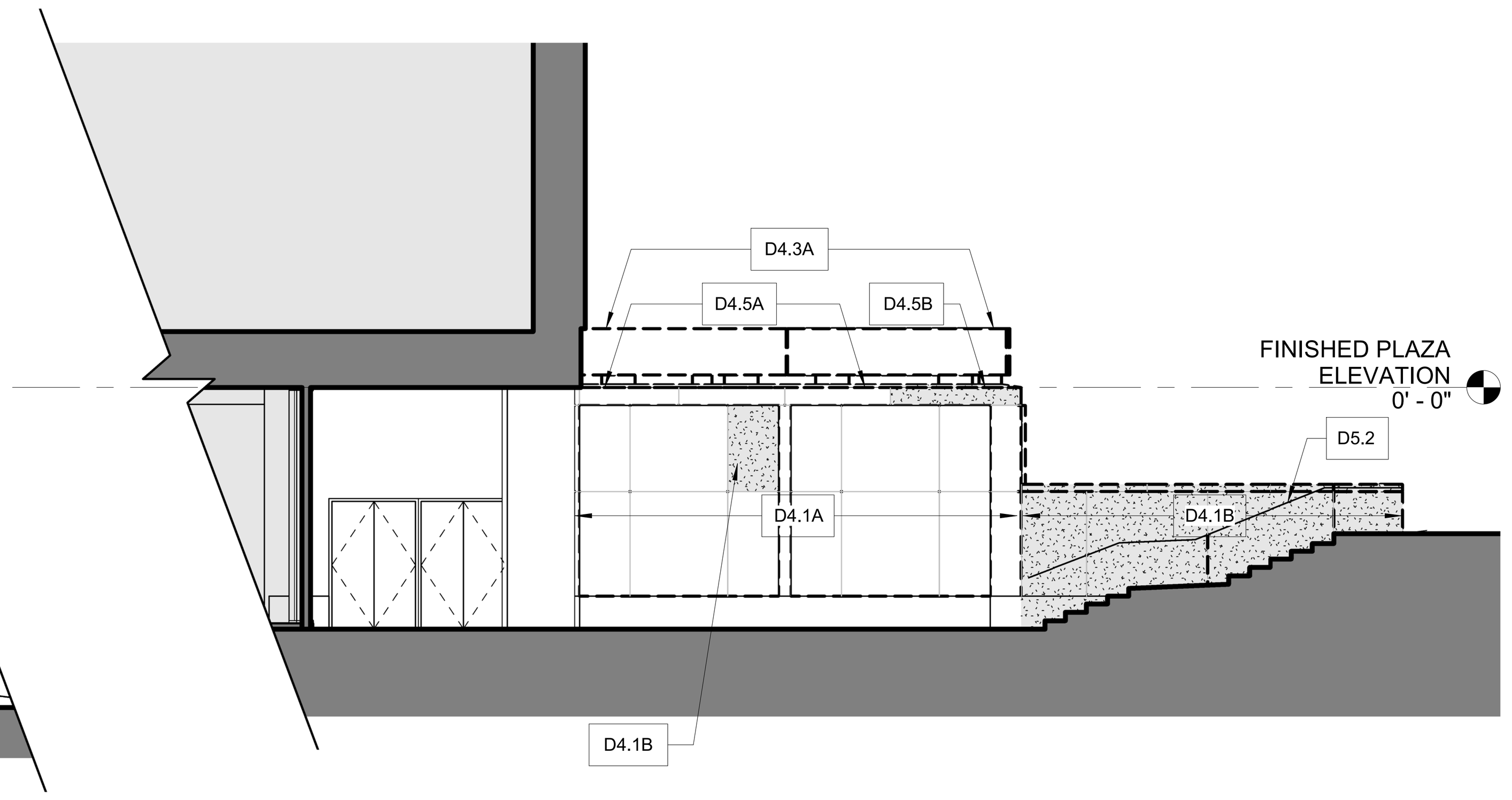
DRAWING SET IS INTENDED FOR COLOR PRINTING



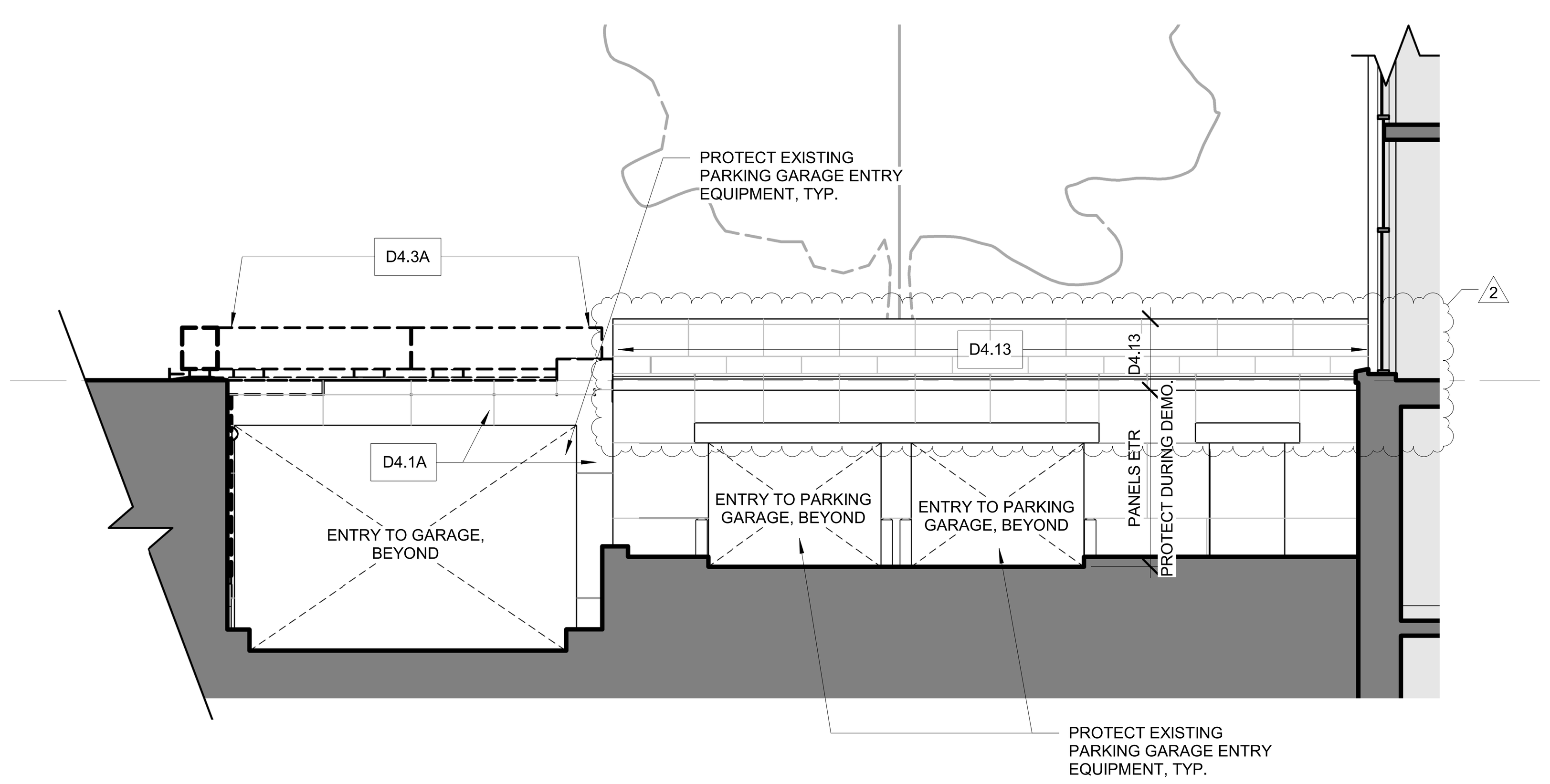
1 / AD201 **DEMOLITION - SOUTH ELEVATION A**
SCALE: 1/8" = 1'-0" — 0 — 8' 0"



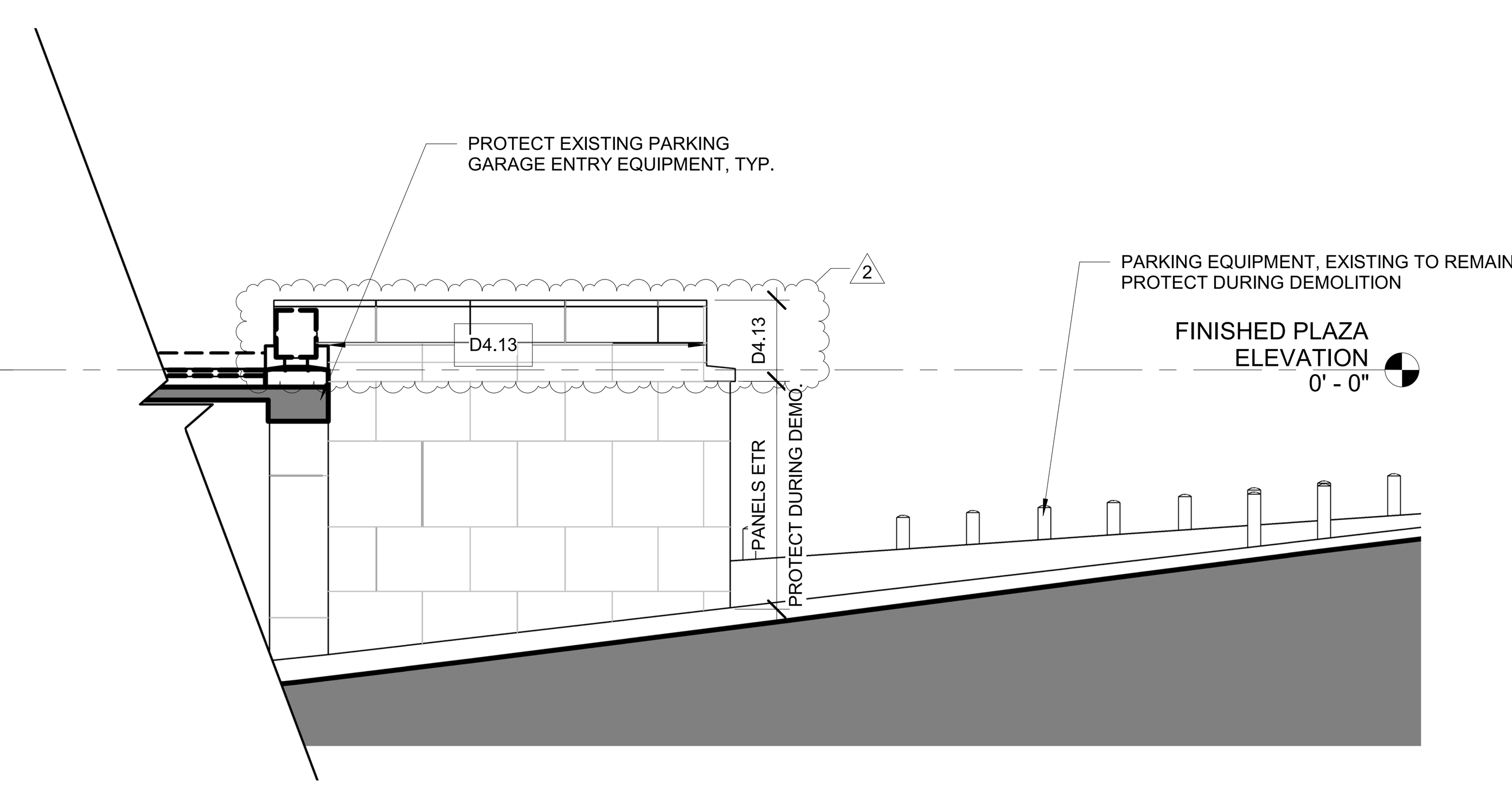
2 / AD201 **DEMOLITION - EAST ELEVATION A**
SCALE: 1/8" = 1'-0" — 0 — 8' 0"



3 / AD201 **DEMOLITION - WEST ELEVATION B**
SCALE: 1/8" = 1'-0" — 0 — 8' 0"



4 / AD201 **DEMOLITION - SOUTH ELEVATION B**
SCALE: 1/8" = 1'-0" — 0 — 8' 0"



5 / AD201 **DEMOLITION - WEST ELEVATION D**
SCALE: 1/8" = 1'-0" — 0 — 8' 0"

DEMO NOTE KEY

DIV 2: DEMOLITION - PHASE 1.1 CONTRACTOR

- D2.1 — REMOVE CONCRETE PAVER, SETTING BED, MEMBRANE, SLOPED LIGHT WEIGHT CONCRETE, AND MEMBRANE. AT COMPLETION OF DEMOLITION STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.2 — REMOVE WHITE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK (IDENTIFIED BY DIAGONAL CROSS HATCH). REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.3 — REMOVE DARK GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.4 — REMOVE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.5 — REMOVE GRANITE STONE ANGLE AT WALL BASE, CATALOG, CLEAN, STORE, AND PREP FOR INSTALLATION, COORD. WITH WATERPROOFING DETAIL 7 / DM1.00.

DIV 3: CONCRETE - PHASE 1.1 CONTRACTOR

- D3.1 — REMOVE REINFORCED CONCRETE RAMP.
- D3.2 — NOT USED
- D3.3 — REMOVE FLOOR AND ASSOCIATED FINISHES AS NECESSARY TO ACCESS STORMWATER DRAIN BELOW, REPLACE TO MATCH EXISTING
  (BASE BID 1 IDENTIFIED BY HATCH)
  (BASE BID 2 IDENTIFIED BY HATCH)
  (BASE BID 3 IDENTIFIED BY HATCH)
- D3.4 — REMOVE CONCRETE SLAB, REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM3.00

DIV 4: MASONRY - PHASE 1.1 CONTRACTOR

- D4.1A — REMOVE LIMESTONE PANEL. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.1B — REMOVE LIMESTONE PANEL. (IDENTIFIED BY HATCH)REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.2A — REMOVE GRANITE PLANTER WALLS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 1 / DM2.00 AND 5 / DM2.00
- D4.2B — REMOVE GRANITE PLANTER WALLS (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.2C — REMOVE GRANITE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. COORD. SUBWALL REMOVAL W/ EXTENT OF NEW WORK (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.3A — REMOVE EXISTING LIMESTONE BLOCKS AND ASSOC. BASE STONE. CATALOG, CLEAN, STORE AND PREP TO REINSTALL REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00. IF BLOCK OR SUPPPORT IS UNSALVAGABLE, CONTACT ARCHITECT AND ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS.
- D4.3B — STONE BLOCK TO BE SALVAGED AND RETURNED TO CLIENT AGENCY. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.4A — REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). CATALOG, CLEAN, STORE AND PREP FOR REINSTALLATION / RELOCATION. REFER TO /A113 FOR RELOCATION DETAILS. WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00.
- D4.4B — REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). (IDENTIFIED BY HATCH). WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00
- D4.5A — REMOVE EXISTING LIMESTONE COPING. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.5B — REMOVE EXISTING LIMESTONE COPING (IDENTIFIED BY HATCH) WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.6 — REMOVE LIMESTONE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. SALVAGE LIMESTONE FOR REUSE. COORD. EXTENT W/ NEW WORK
- D4.7 — CMU WALL CONSTRUCTION TO BE REMOVED AS REQ'D, TO ACCESS & REMOVE STORMWATER PIPING & CONNECTIONS OR TO INSTALL ACCESS PANEL
- D4.8 — BRICK INFILL WITHIN CMU WALL CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS
- D4.9A — REMOVE GRANITE PLANTER COPING AND CLADDING. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00. RETURN TO CLIENT AGENCY.
- D4.9B — REMOVE PLANTER CONCRETE SUB WALLS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00
- D4.10 — REMOVE GRANITE PAVER, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL 4 / DM1.00
- D4.11 — REMOVE GRANITE CURB, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO DEMOLITION DETAIL ON 6 / DM1.00
- D4.12 — REMOVE CONCRETE MASONRY WALLS SURROUNDING THE PLANTER. REFER TO WATERPROOFING DEMOLITION DETAIL 5 / DM2.00
- D4.13 — REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504 . CATALOG, CLEAN, STORE AND PREP TO REINSTALL.

DIV 5: METALS - PHASE 1.1 CONTRACTOR

- D5.1 — REMOVE EXISTING HANDRAIL AND RELATED ACCESSORIES INCLUDING SLEEVES.
- D5.2 — REMOVE EXISTING METAL HANDRAIL. CATALOG, CLEAN, MODIFY (REFER TO DETAIL DWG 6 / A501). STORE. AND PREP TO REINSTALL

DIV 6: WOOD, PLASTICS, AND COMPOSITES - PHASE 1.1 CONTRACTOR

- D6.1 — REMOVE EXISTING TEMPORARY WD./MTL. RAILING
- D6.2 — REMOVE TEMPORARY WOOD WALLS
- D6.3 — REMOVE TEMPORARY WOOD BRACING. COORDINATE WITH REMOVAL OF STONE SOFFIT

DIV 7: THERMAL AND MOISTURE PROTECTION - PHASE 1.1 CONTRACTOR

- D7.1 — REMOVE EXISTING EXPANSION JOINT AND ASSOCIATED COMPONENTS (IDENTIFIED BY LINE) REFER TO WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00, AND 3 / DM2.00

DIV 9: FINISHES - PHASE 1.1 CONTRACTOR

- D9.1 — REMOVE EXISTING HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE.
- D9.2 — REMOVE EXISTING CEILING TILE AS REQUIRED FOR NEW STORM WATER PIPING SCOPE, STORE FOR LATER REINSTALLATION. GRID EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION
- D9.3 — DRYWALL PARTITION CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS.
- D9.4 — REMOVE EXISTING EXTERIOR HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE OR STRUCTURE.

DIV 10: SPECIALTIES - PHASE 1.1 CONTRACTOR

- D10.1 — REMOVE EXISTING PLAQUE. TURN OVER TO CLIENT AGENCY.

DIV 12: FURNISHINGS - PHASE 1.1 CONTRACTOR

- D12.1 — NOT USED
- D12.2 — NOT USED
- D12.3 — REMOVE STONE BENCHES. CATALOG, CLEAN, AND STORE, UNTIL READY FOR REINSTALLATION.

DIV 22: PLUMBING - PHASE 1.3 CONTRACTOR

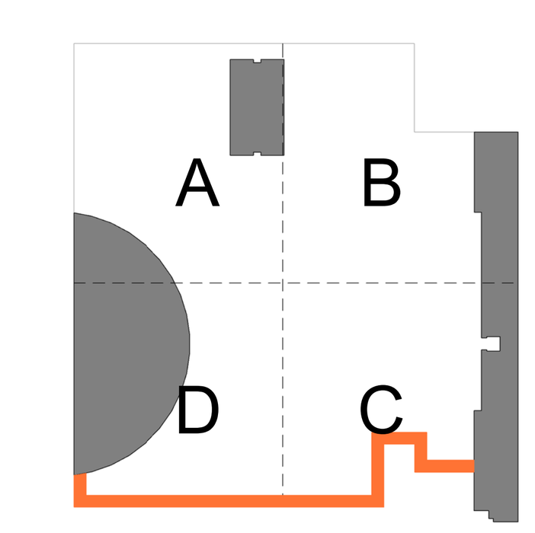
- D22.1 — REMOVE EXISTING DRAIN COVERS AND ASSEMBLY. COORD. DRAIN DEMO W/ PLUMBING DWGS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00 AND 7 / DM2.00

DIV 31: EARTHWORK - PHASE 1.1 CONTRACTOR

- D31.1 — REMOVE SOIL AND PLANTINGS. COORD. W/ CIVIL AND LANDSCAPE DWGS
- D31.2 — REMOVE SOIL AND PLANTINGS TO DEPTH COORD. W/ CIVIL DWGS.
- D31.3 — REMOVE SOIL AND PLANTINGS AS REQ'D. FOR INSTALLATION OF SLAB ON GRADE AND COLUMN FOUNDATIONS

DIV 32: EXTERIOR IMPROVEMENTS - PHASE 1.1 CONTRACTOR

- D32.1 — REMOVE GRANITE ACCENT PAVER. CLEAN. STORE. AND PREP TO REINSTALL / RELOCATION . REFER TO A113 FOR RELOCATION DETAILS. (IDENTIFIED BY DIAGONAL HATCH). WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00



KEY PLAN

GENERAL DEMOLITION NOTES

1. SELECTIVE DEMOLITION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED ON THESE DRAWINGS. INCLUDE ALL THAT IS NECESSARY TO COMPLETE THE SCOPE OF WORK AS INDICATED ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. SEE ALL DRAWINGS TO COORDINATE ANY ADDITIONAL WALL OR FLOOR DEMOLITION.

2. NOT USED

3. NOTES ARE ORGANIZED UNDER THE MOST APPLICABLE SPECIFICATION SECTION.

4. COORDINATE DEMOLITION WITH DIMENSIONS OF NEW CONSTRUCTION.

5. CONTRACTOR TO INFORM ARCHITECT OF CONDITIONS INCONSISTENT WITH WHAT IS SHOWN ON DRAWINGS.

6. ======= INDICATES CONCRETE, MASONRY, OR STUD WALLS WITH FINISHES TO BE DEMOLISHED. PATCH ADJACENT SURFACES WITH MATERIALS TO MATCH EXISTING AND MINIMIZE INCONSISTENCIES.

7. NOT USED

8. PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION. PREPARE THESE AREAS FOR NEW FINISH - SEE FINISH SCHEDULE.

9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION ASSOCIATED WITH MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

10. REMOVE ALL FASTENERS, SUPPORTS, ETC. ASSOCIATED WITH DEMOLISHED ITEMS.

11. DEMOLITION CALLOUTS REFLECT MAJOR DEMOLITION ACTIVITIES. REFER TO ARCHITECTURAL AND WATERPROOFING DETAILS FOR MISC. CUTS, SCORES, AND CHAMFERS REQUIRED AT EXISTING STRUCTURE.

12. INTERNAL GUTTER SYSTEM LOCATED UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING DEMOLITION.

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 — 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

2	Addenda 4	09/29/2025

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER D. DAWSON No. RA-015137-X

09/06/2024
PROFESSIONAL'S SIGNATURE — DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

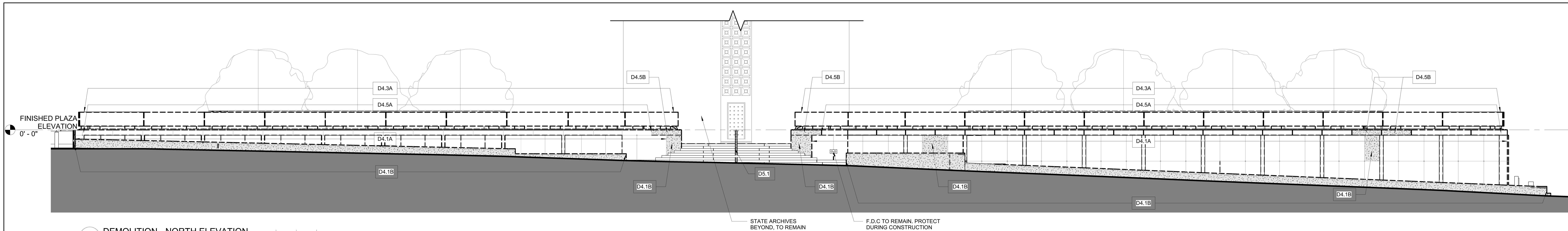
D.G.S. PROJECT No. **DGS 948-87 PHASE 1**

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

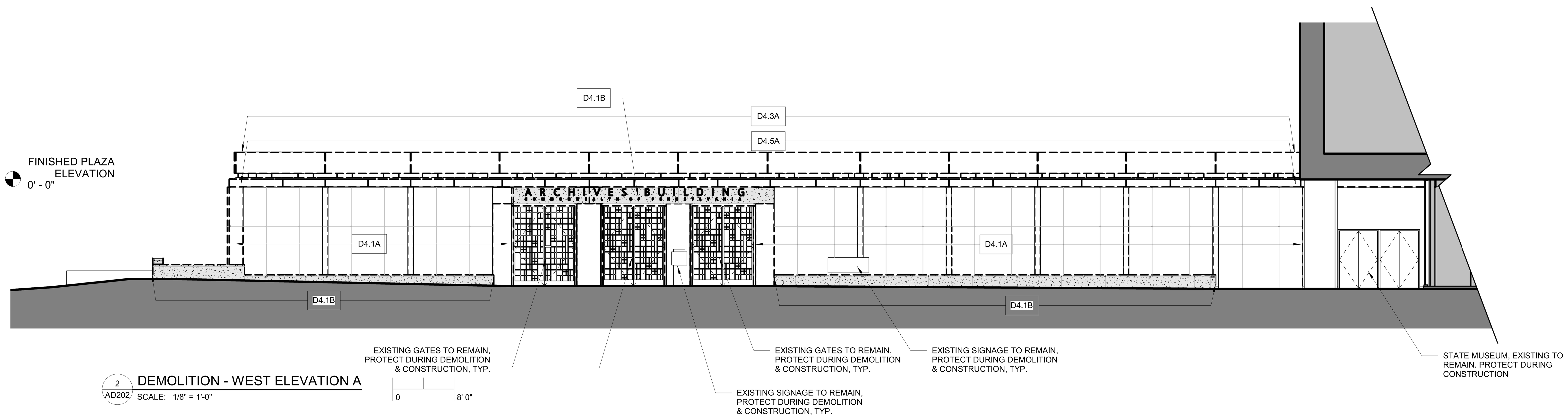
DEMOLITION - EXTERIOR ELEVATIONS

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	AD201
CHECKED BY	SCALE	
WE	PER DWG	

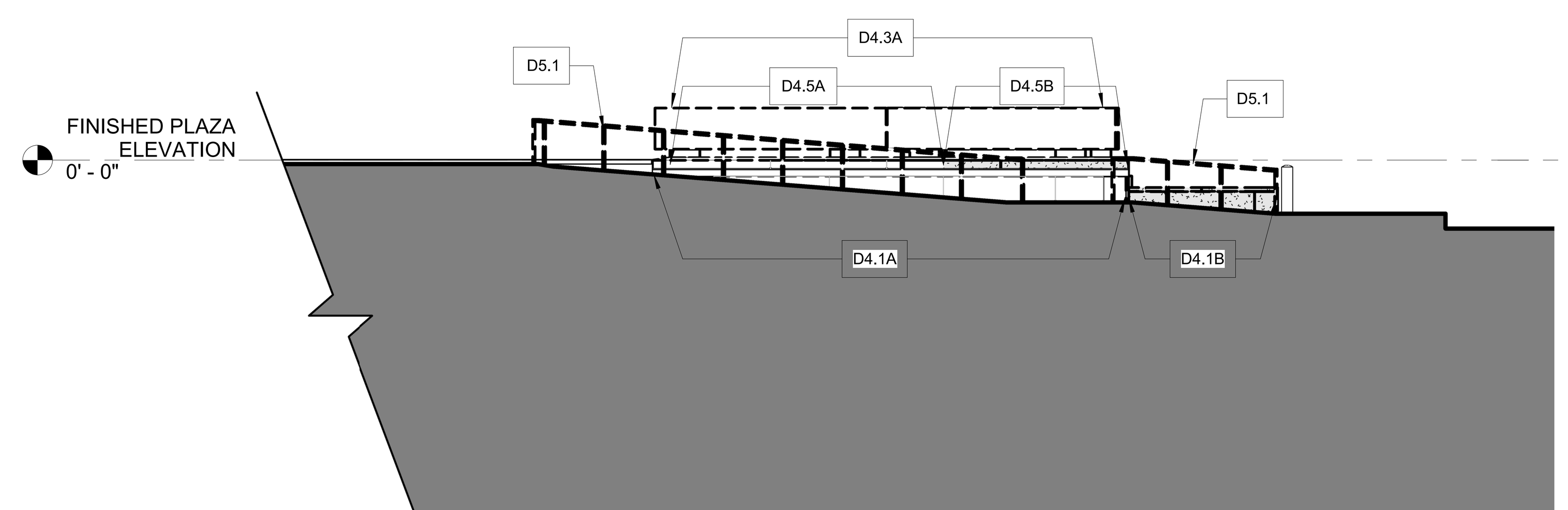
DRAWING SET IS INTENDED FOR COLOR PRINTING



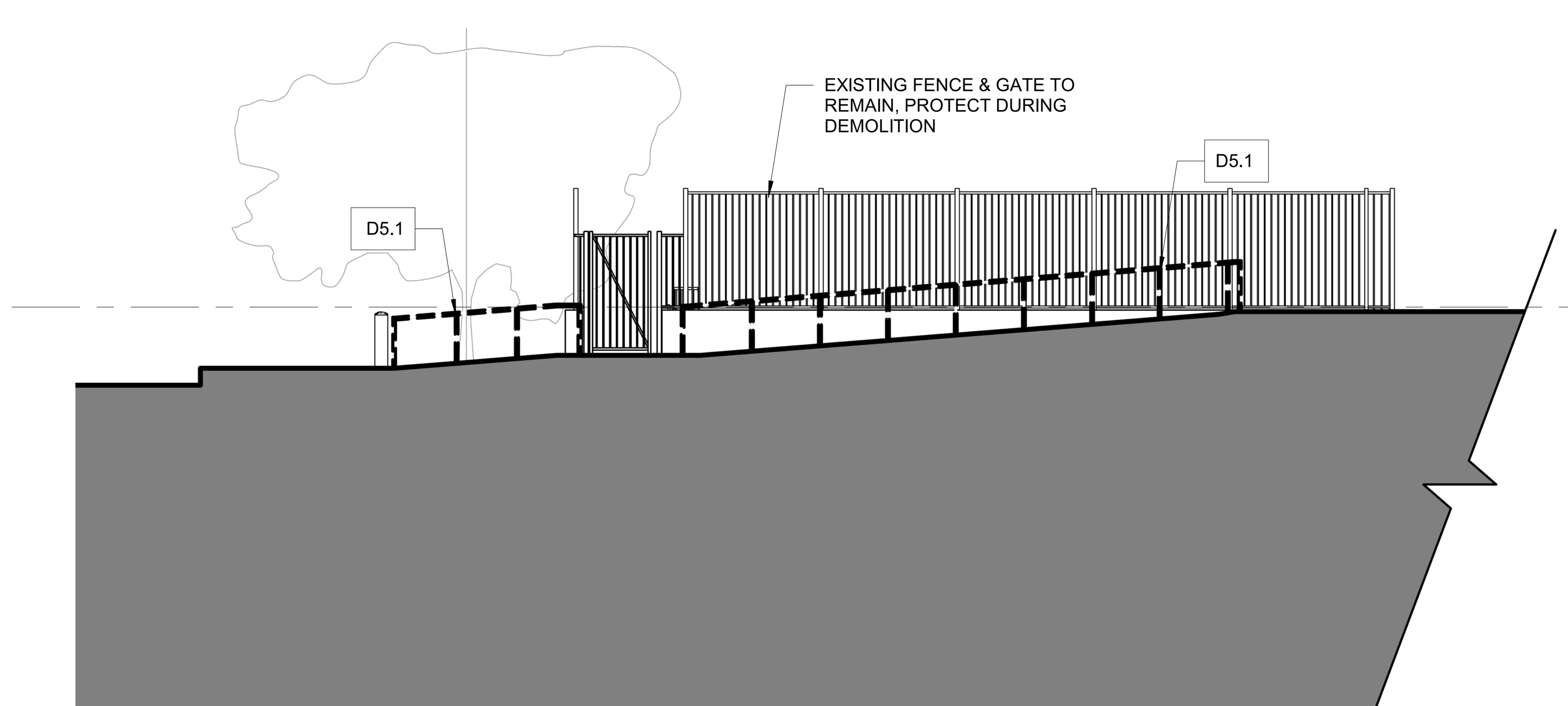
1 AD202 DEMOLITION - NORTH ELEVATION
SCALE: 1/8" = 1'-0"
0 8' 0"



2 AD202 DEMOLITION - WEST ELEVATION A
SCALE: 1/8" = 1'-0"
0 8' 0"



3 AD202 DEMOLITION - EAST ELEVATION B
SCALE: 1/8" = 1'-0"
0 8' 0"



4 AD202 DEMOLITION - WEST ELEVATION C
SCALE: 1/8" = 1'-0"
0 8' 0"

GENERAL DEMOLITION NOTES

1. SELECTIVE DEMOLITION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED ON THESE DRAWINGS. INCLUDE ALL THAT IS NECESSARY TO COMPLETE THE SCOPE OF WORK AS INDICATED ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. SEE ALL DRAWINGS TO COORDINATE ANY ADDITIONAL WALL OR FLOOR DEMOLITION.

2. NOT USED

3. NOTES ARE ORGANIZED UNDER THE MOST APPLICABLE SPECIFICATION SECTION.

4. COORDINATE DEMOLITION WITH DIMENSIONS OF NEW CONSTRUCTION.

5. CONTRACTOR TO INFORM ARCHITECT OF CONDITIONS INCONSISTENT WITH WHAT IS SHOWN ON DRAWINGS.

6. ======= INDICATES CONCRETE, MASONRY, OR STUD WALLS WITH FINISHES TO BE DEMOLISHED. PATCH ADJACENT SURFACES WITH MATERIALS TO MATCH EXISTING AND MINIMIZE INCONSISTENCIES.

7. NOT USED

8. PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION. PREPARE THESE AREAS FOR NEW FINISH - SEE FINISH SCHEDULE.

9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION ASSOCIATED WITH MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

10. REMOVE ALL FASTENERS, SUPPORTS, ETC. ASSOCIATED WITH DEMOLISHED ITEMS.

11. DEMOLITION CALLOUTS REFLECT MAJOR DEMOLITION ACTIVITIES. REFER TO ARCHITECTURAL AND WATERPROOFING DETAILS FOR MISC. CUTS, SCORES, AND CHAMFERS REQUIRED AT EXISTING STRUCTURE.

12. INTERNAL GUTTER SYSTEM LOCATED UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING DEMOLITION.

DEMO NOTE KEY

DIV 2: DEMOLITION - PHASE 1.1 CONTRACTOR

- D2.1 REMOVE CONCRETE PAVER, SETTING BED, MEMBRANE, SLOPED LIGHT WEIGHT CONCRETE, AND MEMBRANE. AT COMPLETION OF DEMOLITION STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.2 REMOVE WHITE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK (IDENTIFIED BY DIAGONAL CROSS HATCH). REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.3 REMOVE DARK GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.4 REMOVE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.5 REMOVE GRANITE STONE ANGLE AT WALL BASE, CATALOG, CLEAN, STORE, AND PREP FOR INSTALLATION, COORD. WITH WATERPROOFING DETAIL 7 / DM1.00.

DIV 3: CONCRETE - PHASE 1.1 CONTRACTOR

- D3.1 REMOVE REINFORCED CONCRETE RAMP.
- D3.2 NOT USED
- D3.3 REMOVE FLOOR AND ASSOCIATED FINISHES AS NECESSARY TO ACCESS STORMWATER DRAIN BELOW, REPLACE TO MATCH EXISTING
(BASE BID 1 IDENTIFIED BY HATCH)
(BASE BID 2 IDENTIFIED BY HATCH)
(BASE BID 3 IDENTIFIED BY HATCH)
- D3.4 REMOVE CONCRETE SLAB, REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM3.00

DIV 4: MASONRY - PHASE 1.1 CONTRACTOR

- D4.1A REMOVE LIMESTONE PANEL. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.1B REMOVE LIMESTONE PANEL. (IDENTIFIED BY HATCH)REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.2A REMOVE GRANITE PLANTER WALLS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 1 / DM2.00 AND 5 / DM2.00
- D4.2B REMOVE GRANITE PLANTER WALLS (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.2C REMOVE GRANITE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. COORD. SUBWALL REMOVAL W/ EXTENT OF NEW WORK (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.3A REMOVE EXISTING LIMESTONE BLOCKS AND ASSOC. BASE STONE. CATALOG, CLEAN, STORE AND PREP TO REINSTALL REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00. IF BLOCK OR SUPPPORT IS UNSALVAGABLE, CONTACT ARCHITECT AND ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS.
- D4.3B STONE BLOCK TO BE SALVAGED AND RETURNED TO CLIENT AGENCY. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.4A REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). CATALOG, CLEAN, STORE AND PREP FOR REINSTALLATION / RELOCATION. REFER TO /A113 FOR RELOCATION DETAILS. WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00.
- D4.4B REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). (IDENTIFIED BY HATCH). WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00
- D4.5A REMOVE EXISTING LIMESTONE COPING. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.5B REMOVE EXISTING LIMESTONE COPING (IDENTIFIED BY HATCH) WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.6 REMOVE LIMESTONE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. SALVAGE LIMESTONE FOR REUSE. COORD. EXTENT W/ NEW WORK
- D4.7 CMU WALL CONSTRUCTION TO BE REMOVED AS REQ'D, TO ACCESS & REMOVE STORMWATER PIPING & CONNECTIONS OR TO INSTALL ACCESS PANEL
- D4.8 BRICK INFILL WITHIN CMU WALL CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS
- D4.9A REMOVE GRANITE PLANTER COPING AND CLADDING. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00. RETURN TO CLIENT AGENCY.
- D4.9B REMOVE PLANTER CONCRETE SUB WALLS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00
- D4.10 REMOVE GRANITE PAVER, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL 4 / DM1.00
- D4.11 REMOVE GRANITE CURB, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO DEMOLITION DETAIL ON 6 / DM1.00
- D4.12 REMOVE CONCRETE MASONRY WALLS SURROUNDING THE PLANTER. REFER TO WATERPROOFING DEMOLITION DETAIL 5 / DM2.00
- D4.13 REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504 . CATALOG, CLEAN, STORE AND PREP TO REINSTALL.

DIV 5: METALS - PHASE 1.1 CONTRACTOR

- D5.1 REMOVE EXISTING HANDRAIL AND RELATED ACCESSORIES INCLUDING SLEEVES.
- D5.2 REMOVE EXISTING METAL HANDRAIL. CATALOG, CLEAN, MODIFY (REFER TO DETAIL DWG 6 / A501). STORE. AND PREP TO REINSTALL

DIV 6: WOOD, PLASTICS, AND COMPOSITES - PHASE 1.1 CONTRACTOR

- D6.1 REMOVE EXISTING TEMPORARY WD./MTL. RAILING
- D6.2 REMOVE TEMPORARY WOOD WALLS
- D6.3 REMOVE TEMPORARY WOOD BRACING. COORDINATE WITH REMOVAL OF STONE SOFFIT

2

DIV 7: THERMAL AND MOISTURE PROTECTION - PHASE 1.1 CONTRACTOR

- D7.1 REMOVE EXISTING EXPANSION JOINT AND ASSOCIATED COMPONENTS (IDENTIFIED BY LINE) REFER TO WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00, AND 3 / DM2.00

DIV 9: FINISHES - PHASE 1.1 CONTRACTOR

- D9.1 REMOVE EXISTING HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE.
- D9.2 REMOVE EXISTING CEILING TILE AS REQUIRED FOR NEW STORM WATER PIPING SCOPE, STORE FOR LATER REINSTALLATION. GRID EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION
- D9.3 DRYWALL PARTITION CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS.
- D9.4 REMOVE EXISTING EXTERIOR HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE OR STRUCTURE.

DIV 10: SPECIALTIES - PHASE 1.1 CONTRACTOR

- D10.1 REMOVE EXISTING PLAQUE. TURN OVER TO CLIENT AGENCY.

DIV 12: FURNISHINGS - PHASE 1.1 CONTRACTOR

- D12.1 NOT USED
- D12.2 NOT USED
- D12.3 REMOVE STONE BENCHES. CATALOG, CLEAN, AND STORE, UNTIL READY FOR REINSTALLATION.

DIV 22: PLUMBING - PHASE 1.3 CONTRACTOR

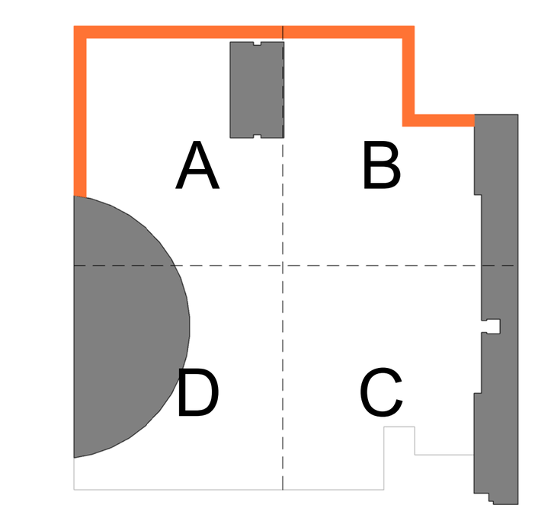
- D22.1 REMOVE EXISTING DRAIN COVERS AND ASSEMBLY. COORD. DRAIN DEMO W/ PLUMBING DWGS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00 AND 7 / DM2.00

DIV 31: EARTHWORK - PHASE 1.1 CONTRACTOR

- D31.1 REMOVE SOIL AND PLANTINGS. COORD. W/ CIVIL AND LANDSCAPE DWGS
- D31.2 REMOVE SOIL AND PLANTINGS TO DEPTH COORD. W/ CIVIL DWGS.
- D31.3 REMOVE SOIL AND PLANTINGS AS REQ'D. FOR INSTALLATION OF SLAB ON GRADE AND COLUMN FOUNDATIONS

DIV 32: EXTERIOR IMPROVEMENTS - PHASE 1.1 CONTRACTOR

- D32.1 REMOVE GRANITE ACCENT PAVER. CLEAN. STORE. AND PREP TO REINSTALL / RELOCATION . REFER TO A113 FOR RELOCATION DETAILS. (IDENTIFIED BY DIAGONAL HATCH). WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00



KEY PLAN

2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER D. DAWSON No. RA-015137-X

09/06/2024
PROFESSIONAL'S SIGNATURE DATE

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

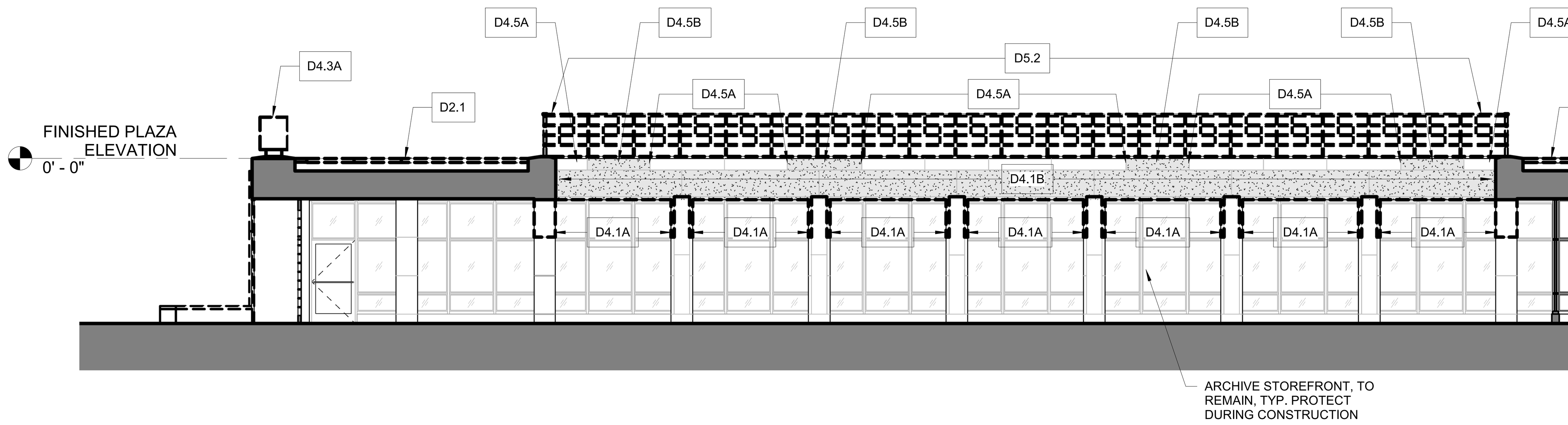
D.G.S. PROJECT No. **DGS 948-87 PHASE 1**

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

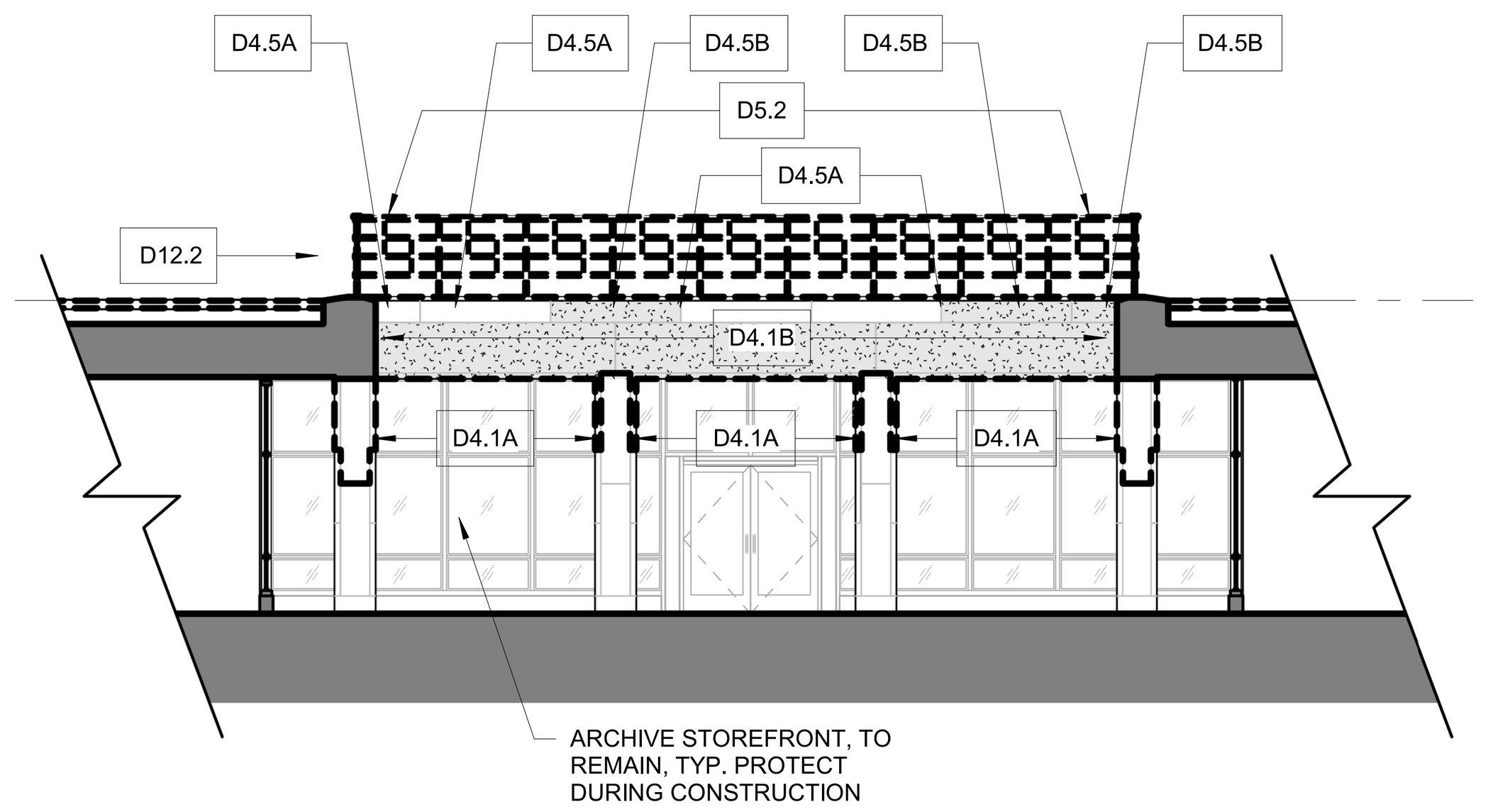
DEMOLITION - EXTERIOR ELEVATIONS

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	AD202
CHECKED BY	SCALE	
WE	PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



1 / AD203 **DEMOLITION - SOUTH ELEVATION COURTYARD A**
SCALE: 1/8" = 1'-0"   0   8' 0"



2 / AD203 **DEMOLITION - WEST ELEVATION COURTYARD A**
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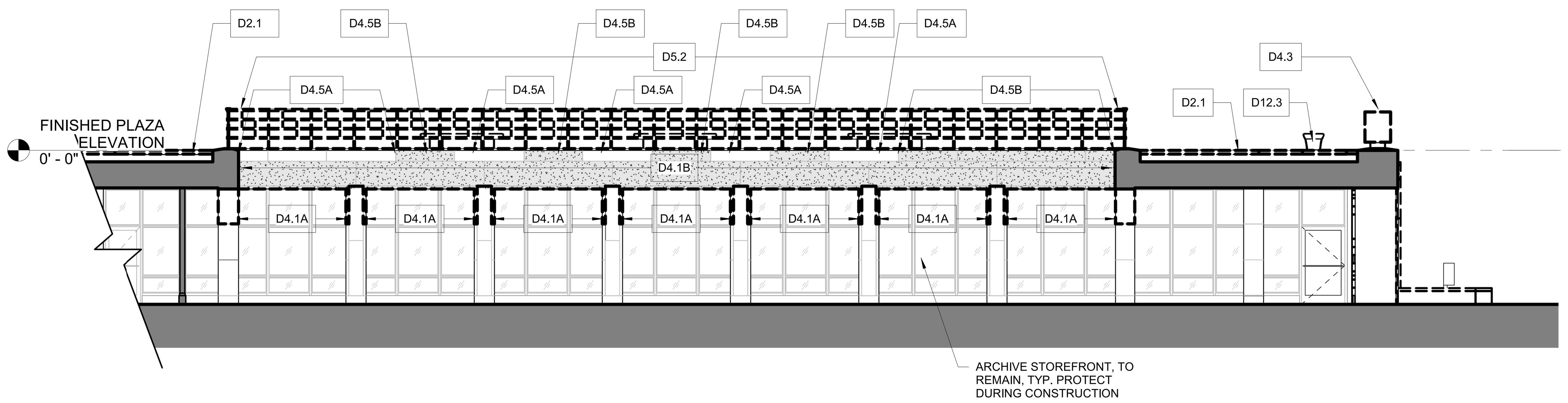
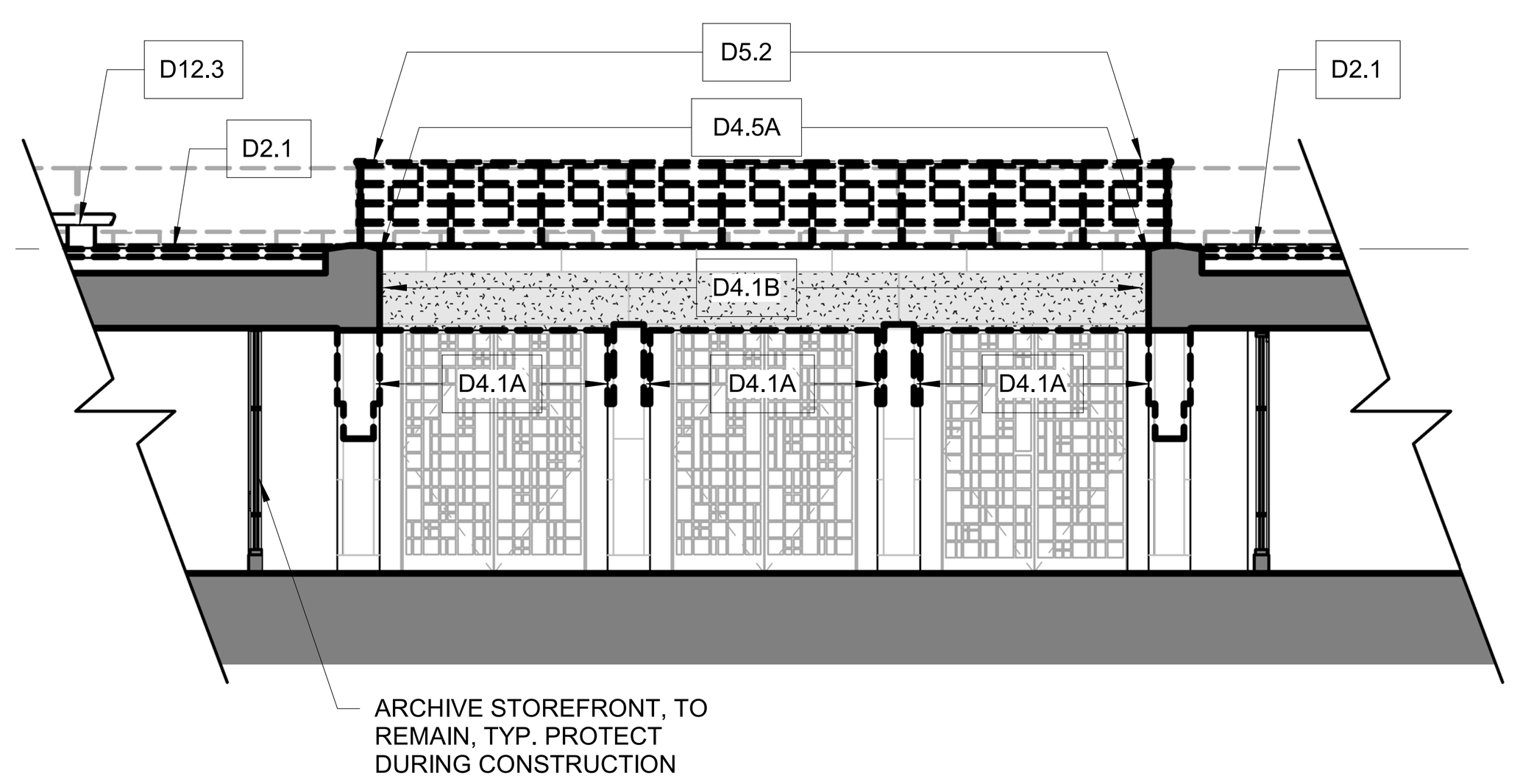
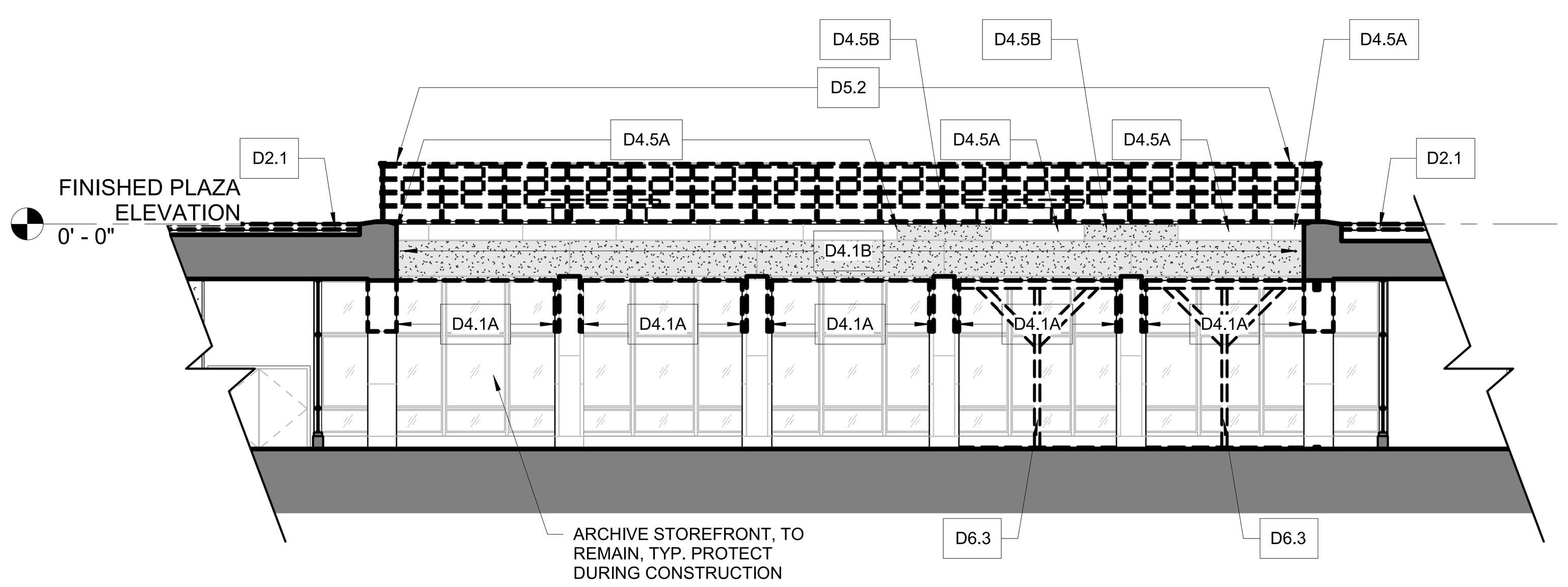


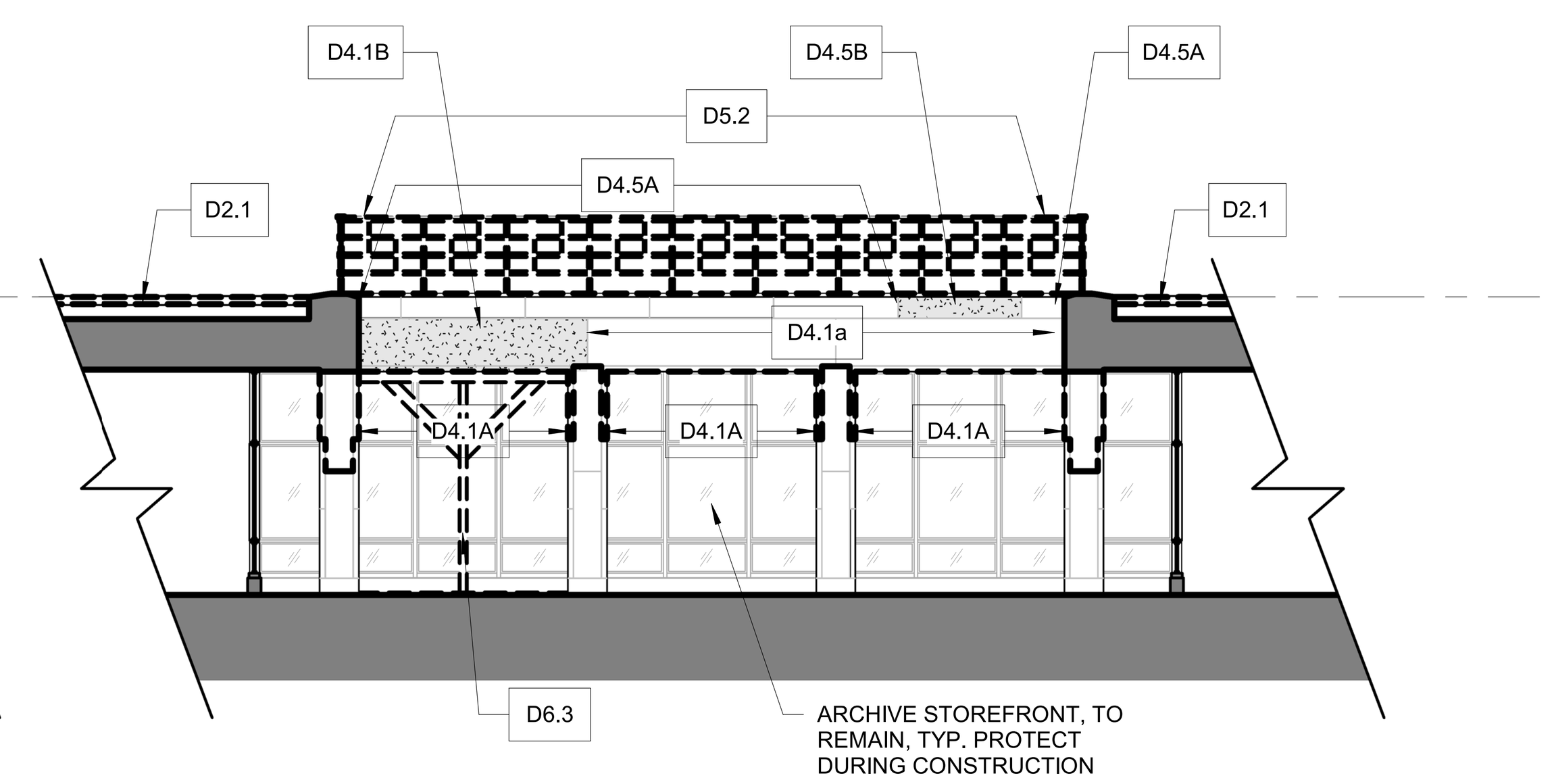
3 / AD203 **DEMOLITION - NORTH ELEVATION COURTYARD A**
SCALE: 1/8" = 1'-0"   0   8' 0"



4 / AD203 **DEMOLITION - EAST ELEVATION COURTYARD A**
SCALE: 1/8" = 1'-0"   0   8' 0"



5 / AD203 **DEMOLITION - NORTH ELEVATION COURTYARD B**
SCALE: 1/8" = 1'-0"   0   8' 0"



6 / AD203 **DEMOLITION - WEST ELEVATION COURTYARD B**
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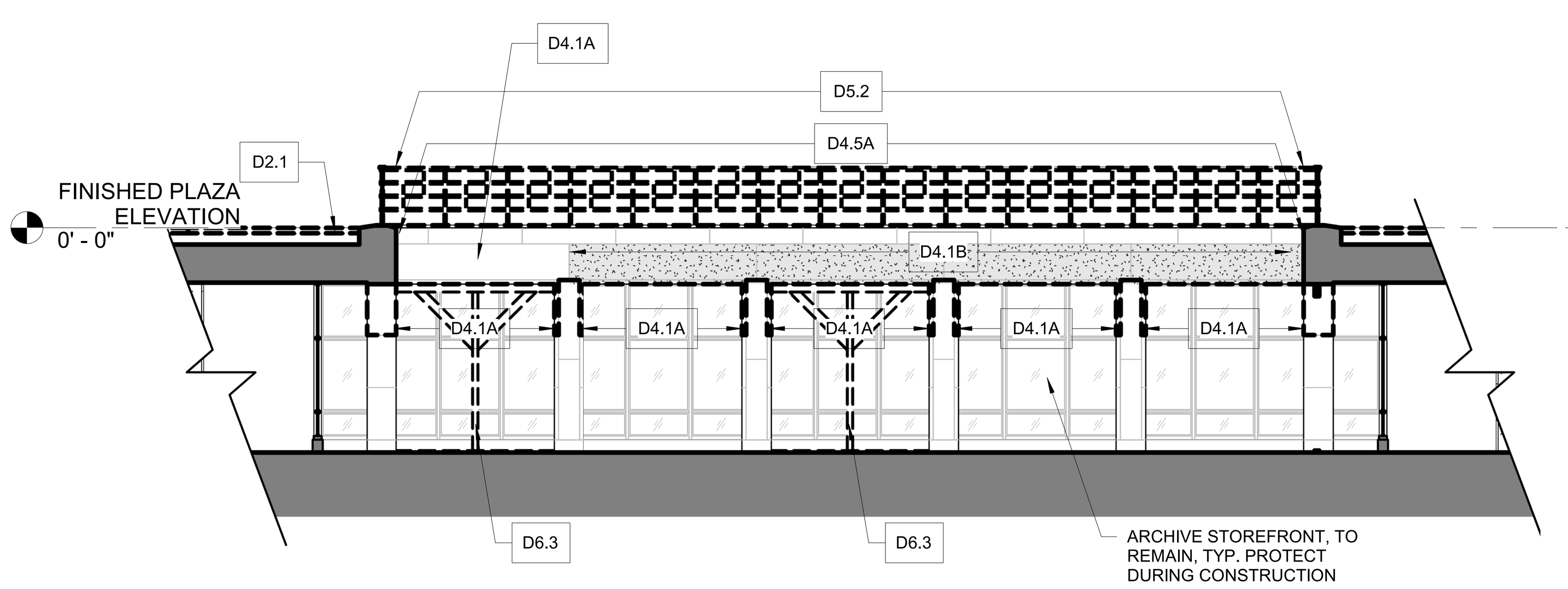
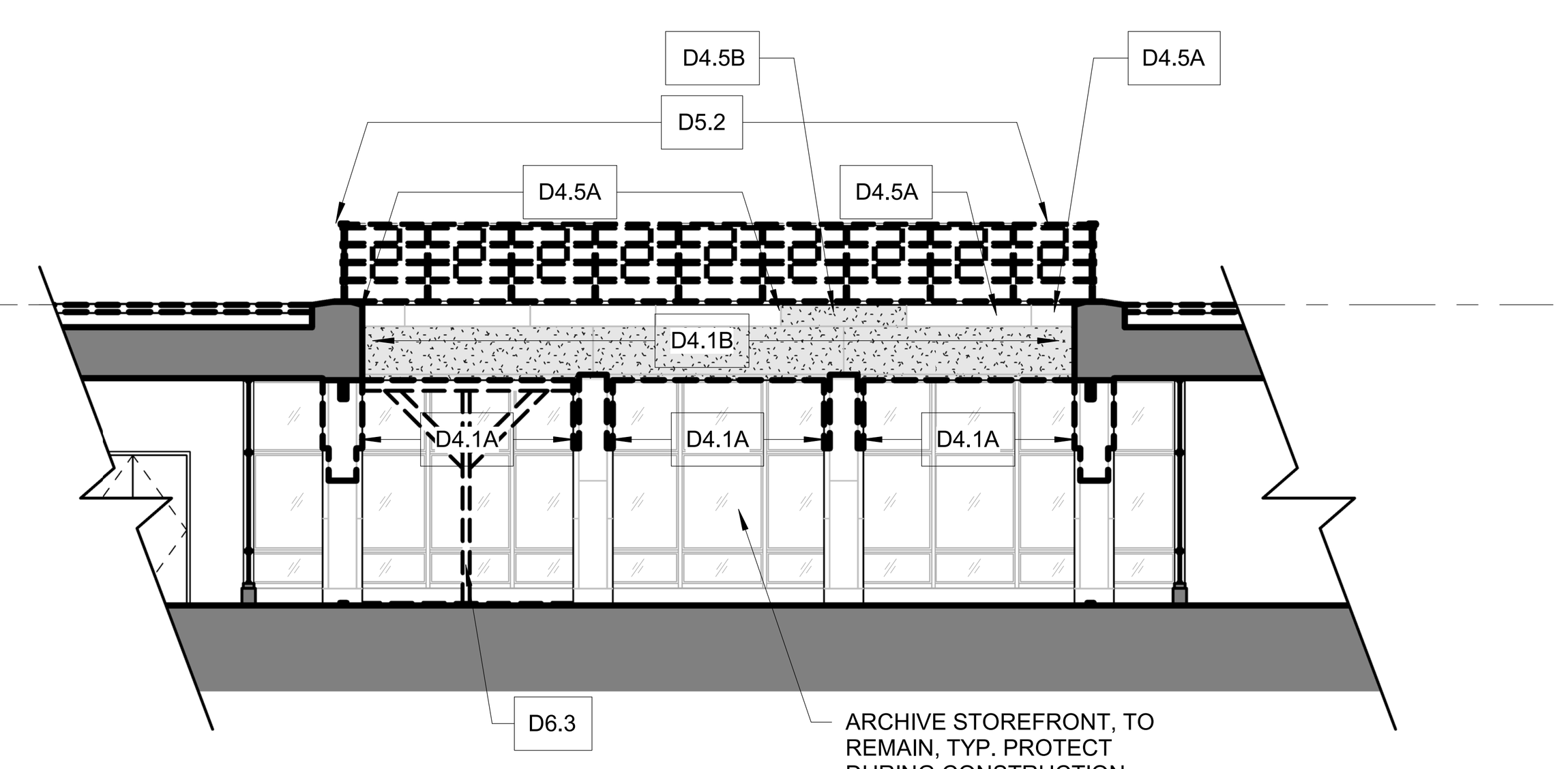


7 / AD203 **DEMOLITION - SOUTH ELEVATION COURTYARD B**
SCALE: 1/8" = 1'-0"   0   8' 0"



8 / AD203 **DEMOLITION - EAST ELEVATION COURTYARD B**
SCALE: 1/8" = 1'-0"   0   8' 0"

GENERAL DEMOLITION NOTES

1. SELECTIVE DEMOLITION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED ON THESE DRAWINGS. INCLUDE ALL THAT IS NECESSARY TO COMPLETE THE SCOPE OF WORK AS INDICATED ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. SEE ALL DRAWINGS TO COORDINATE ANY ADDITIONAL WALL OR FLOOR DEMOLITION.

2. NOT USED

3. NOTES ARE ORGANIZED UNDER THE MOST APPLICABLE SPECIFICATION SECTION.

4. COORDINATE DEMOLITION WITH DIMENSIONS OF NEW CONSTRUCTION.

5. CONTRACTOR TO INFORM ARCHITECT OF CONDITIONS INCONSISTENT WITH WHAT IS SHOWN ON DRAWINGS.

6. ======= INDICATES CONCRETE, MASONRY, OR STUD WALLS WITH FINISHES TO BE DEMOLISHED. PATCH ADJACENT SURFACES WITH MATERIALS TO MATCH EXISTING AND MINIMIZE INCONSISTENCIES.

7. NOT USED

8. PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION. PREPARE THESE AREAS FOR NEW FINISH - SEE FINISH SCHEDULE.

9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION ASSOCIATED WITH MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

10. REMOVE ALL FASTENERS, SUPPORTS, ETC. ASSOCIATED WITH DEMOLISHED ITEMS.

11. DEMOLITION CALLOUTS REFLECT MAJOR DEMOLITION ACTIVITIES. REFER TO ARCHITECTURAL AND WATERPROOFING DETAILS FOR MISC. CUTS, SCORES, AND CHAMFERS REQUIRED AT EXISTING STRUCTURE.

12. INTERNAL GUTTER SYSTEM LOCATED UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING DEMOLITION.

DEMO NOTE KEY

DIV 2: DEMOLITION - PHASE 1.1 CONTRACTOR

- D2.1 REMOVE CONCRETE PAVER, SETTING BED, MEMBRANE, SLOPED LIGHT WEIGHT CONCRETE, AND MEMBRANE. AT COMPLETION OF DEMOLITION STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.2 REMOVE WHITE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK (IDENTIFIED BY DIAGONAL CROSS HATCH). REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.3 REMOVE DARK GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE PEDESTALS, RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1B / DM1.00 AND 3 / DM1.00
- D2.4 REMOVE GRANITE PAVERS. CATALOG, CLEAN, AND STORE UNTIL READY FOR REINSTALLATION. REMOVE RIGID INSULATION, AND SLOPED CONCRETE TOPPING SLAB. AT COMPLETION OF DEMOLITION, STRUCTURAL DECK SHOULD BE BARE AND READY TO RECEIVE NEW WORK. REFER TO WATERPROOFING DEMOLITION DETAILS ON 1A / DM1.00
- D2.5 REMOVE GRANITE STONE ANGLE AT WALL BASE, CATALOG, CLEAN, STORE, AND PREP FOR INSTALLATION, COORD. WITH WATERPROOFING DETAIL 7 / DM1.00.

DIV 3: CONCRETE - PHASE 1.1 CONTRACTOR

- D3.1 REMOVE REINFORCED CONCRETE RAMP.
- D3.2 NOT USED
- D3.3 REMOVE FLOOR AND ASSOCIATED FINISHES AS NECESSARY TO ACCESS STORMWATER DRAIN BELOW, REPLACE TO MATCH EXISTING (BASE BID 1 IDENTIFIED BY HATCH) (BASE BID 2 IDENTIFIED BY HATCH) (BASE BID 3 IDENTIFIED BY HATCH)
- D3.4 REMOVE CONCRETE SLAB, REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM3.00

DIV 4: MASONRY - PHASE 1.1 CONTRACTOR

- D4.1A REMOVE LIMESTONE PANEL. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.1B REMOVE LIMESTONE PANEL. (IDENTIFIED BY HATCH)REFER TO WATERPROOFING DEMOLITION DETAIL ON 5 / DM1.00, 2 / DM1.00, AND 27 / DM2.00.
- D4.2A REMOVE GRANITE PLANTER WALLS. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL ON 1 / DM2.00 AND 5 / DM2.00
- D4.2B REMOVE GRANITE PLANTER WALLS (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.2C REMOVE GRANITE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. COORD. SUBWALL REMOVAL W/ EXTENT OF NEW WORK (IDENTIFIED BY HATCH) REFER TO WATERPROOFING DEMOLITION DETAILS ON 1 / DM2.00 AND 5 / DM2.00
- D4.3A REMOVE EXISTING LIMESTONE BLOCKS AND ASSOC. BASE STONE. CATALOG, CLEAN, STORE AND PREP TO REINSTALL REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00. IF BLOCK OR SUPPPORT IS UNSALVAGABLE, CONTACT ARCHITECT AND ENGINEER FOR REVIEW AND REPAIR SPECIFICATIONS.
- D4.3B STONE BLOCK TO BE SALVAGED AND RETURNED TO CLIENT AGENCY. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.4A REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). CATALOG, CLEAN, STORE AND PREP FOR REINSTALLATION / RELOCATION. REFER TO /A113 FOR RELOCATION DETAILS. WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00.
- D4.4B REMOVE GRANITE STAIR PAVERS (RISERS & TREADS). (IDENTIFIED BY HATCH). WATERPROOFING DEMOLITION DETAILS ON 7 / DM2.00
- D4.5A REMOVE EXISTING LIMESTONE COPING. CATALOG, CLEAN, STORE AND PREP TO REINSTALL. WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.5B REMOVE EXISTING LIMESTONE COPING (IDENTIFIED BY HATCH) WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00
- D4.6 REMOVE LIMESTONE PLANTER WALLS, INCLUDING CONCRETE SUB WALLS. SALVAGE LIMESTONE FOR REUSE. COORD. EXTENT W/ NEW WORK
- D4.7 CMU WALL CONSTRUCTION TO BE REMOVED AS REQ'D, TO ACCESS & REMOVE STORMWATER PIPING & CONNECTIONS OR TO INSTALL ACCESS PANEL
- D4.8 BRICK INFILL WITHIN CMU WALL CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS
- D4.9A REMOVE GRANITE PLANTER COPING AND CLADDING. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00. RETURN TO CLIENT AGENCY.
- D4.9B REMOVE PLANTER CONCRETE SUB WALLS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 4 / DM2.00
- D4.10 REMOVE GRANITE PAVER, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO WATERPROOFING DEMOLITION DETAIL 4 / DM1.00
- D4.11 REMOVE GRANITE CURB, CATALOG, CLEAN, STORE, AND PREP TO REINSTALL. REFER TO DEMOLITION DETAIL ON 6 / DM1.00
- D4.12 REMOVE CONCRETE MASONRY WALLS SURROUNDING THE PLANTER. REFER TO WATERPROOFING DEMOLITION DETAIL 5 / DM2.00
- D4.13 REMOVE GRANITE COPING AND GRANITE PANELS ON BOTH SIDES OF PARAPET DOWN TO HEIGHT NOTATED ON ELEVATIONS OR LOCATION SHOWN ON PROPOSED DETAIL 1 / A504, & 2 / A504 . CATALOG, CLEAN, STORE AND PREP TO REINSTALL.

DIV 5: METALS - PHASE 1.1 CONTRACTOR

- D5.1 REMOVE EXISTING HANDRAIL AND RELATED ACCESSORIES INCLUDING SLEEVES.
- D5.2 REMOVE EXISTING METAL HANDRAIL. CATALOG, CLEAN, MODIFY (REFER TO DETAIL DWG 6 / A501). STORE. AND PREP TO REINSTALL

DIV 6: WOOD, PLASTICS, AND COMPOSITES - PHASE 1.1 CONTRACTOR

- D6.1 REMOVE EXISTING TEMPORARY WD./MTL. RAILING
- D6.2 REMOVE TEMPORARY WOOD WALLS
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2

DIV 7: THERMAL AND MOISTURE PROTECTION - PHASE 1.1 CONTRACTOR

- D7.1 REMOVE EXISTING EXPANSION JOINT AND ASSOCIATED COMPONENTS (IDENTIFIED BY LINE ▬ ▬ ▬ ▬ ▬) REFER TO WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00, AND 3 / DM2.00

DIV 9: FINISHES - PHASE 1.1 CONTRACTOR

- D9.1 REMOVE EXISTING HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE.
- D9.2 REMOVE EXISTING CEILING TILE AS REQUIRED FOR NEW STORM WATER PIPING SCOPE, STORE FOR LATER REINSTALLATION. GRID EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION
- D9.3 DRYWALL PARTITION CONSTRUCTION TO BE REMOVED FROM FLOOR TO CEILING AS REQ'D TO ACCESS AND REMOVE STORMWATER PIPING AND CONNECTIONS.
- D9.4 REMOVE EXISTING EXTERIOR HARD CEILING SYSTEM AS REQUIRED FOR NEW STORM WATER PIPING SCOPE OR STRUCTURE.

DIV 10: SPECIALTIES - PHASE 1.1 CONTRACTOR

- D10.1 REMOVE EXISTING PLAQUE. TURN OVER TO CLIENT AGENCY.

DIV 12: FURNISHINGS - PHASE 1.1 CONTRACTOR

- D12.1 NOT USED
- D12.2 NOT USED
- D12.3 REMOVE STONE BENCHES. CATALOG, CLEAN, AND STORE, UNTIL READY FOR REINSTALLATION.

DIV 22: PLUMBING - PHASE 1.3 CONTRACTOR

- D22.1 REMOVE EXISTING DRAIN COVERS AND ASSEMBLY. COORD. DRAIN DEMO W/ PLUMBING DWGS. REFER TO WATERPROOFING DEMOLITION DETAILS ON 2 / DM1.00 AND 7 / DM2.00

DIV 31: EARTHWORK - PHASE 1.1 CONTRACTOR

- D31.1 REMOVE SOIL AND PLANTINGS. COORD. W/ CIVIL AND LANDSCAPE DWGS
- D31.2 REMOVE SOIL AND PLANTINGS TO DEPTH COORD. W/ CIVIL DWGS.
- D31.3 REMOVE SOIL AND PLANTINGS AS REQ'D. FOR INSTALLATION OF SLAB ON GRADE AND COLUMN FOUNDATIONS

DIV 32: EXTERIOR IMPROVEMENTS - PHASE 1.1 CONTRACTOR

- D32.1 REMOVE GRANITE ACCENT PAVER. CLEAN. STORE. AND PREP TO REINSTALL / RELOCATION . REFER TO A113 FOR RELOCATION DETAILS. (IDENTIFIED BY DIAGONAL HATCH). WATERPROOFING DEMOLITION DETAILS ON 10 / DM1.00

VERIFY SCALE

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0 ▬▬▬ 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

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2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER D. DAWSON No. RA-015137-X

09/06/2024

PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

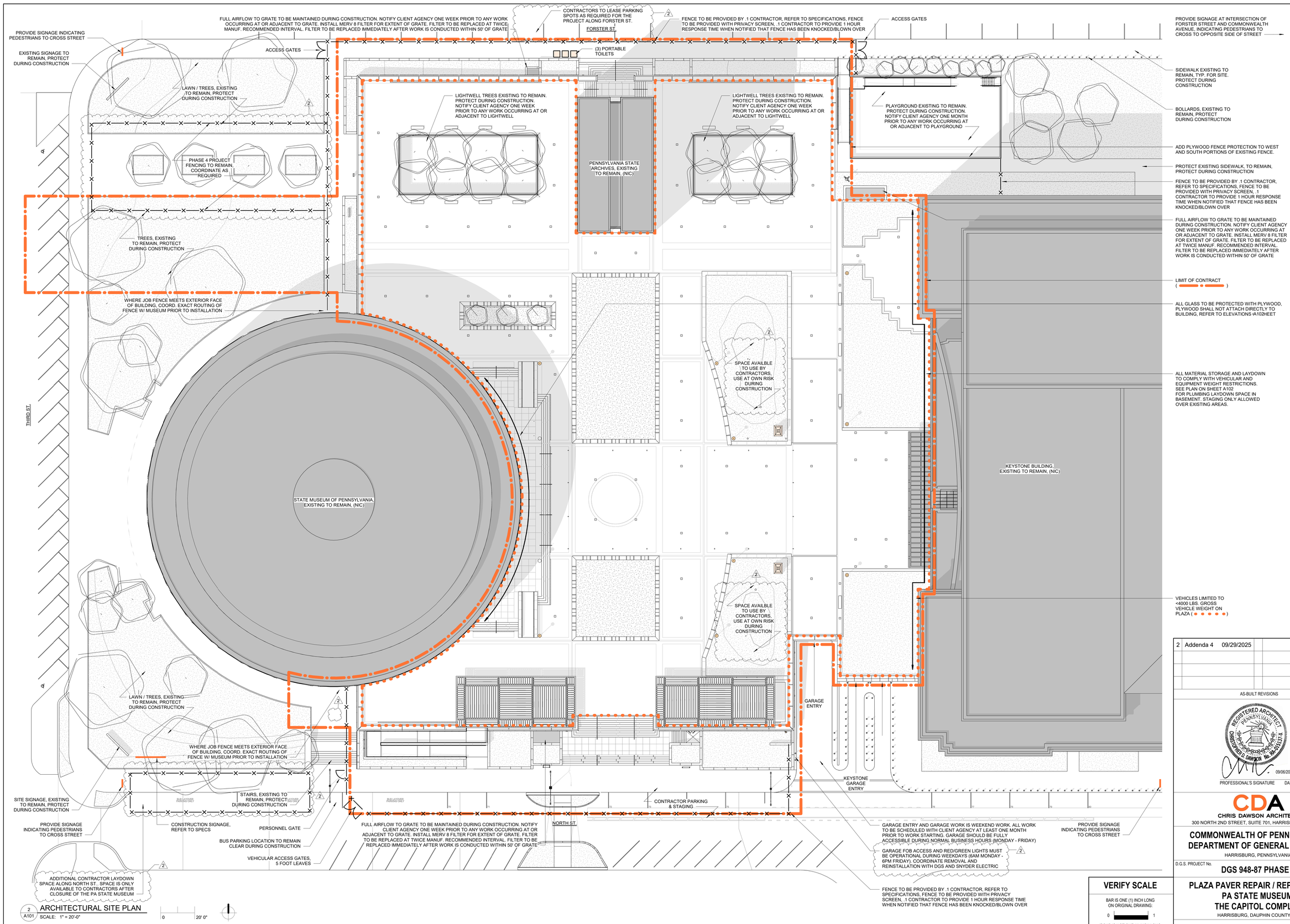
D.G.S. PROJECT No. **DGS 948-87 PHASE 1**

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

DEMOLITION - COURTYARD ELEVATIONS

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	AD203
CHECKED BY	SCALE	
WE	PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



2 A101 ARCHITECTURAL SITE PLAN
SCALE: 1" = 20'-0"
0 20' 0"

2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

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09/06/2024
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PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

ARCHITECTURAL SITE PLAN

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DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	A101
CHECKED BY	SCALE	
WE	PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING

1 A111 PROPOSED PLAZA FLOOR PLAN - ENLARGED AREA C
SCALE: 1/8" = 1'-0"

GENERAL PLAN NOTES

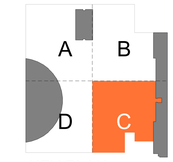
1. DIMENSIONS ARE FROM FACE OF FINISH, FACE OF MASONRY, OR CENTERLINE OF COLUMN

2. DIMENSIONS SHOWN ARE TO BE VERIFIED IN FIELD. PAVER DIMENSIONS ARE TO MATCH EXISTING. NOTIFY ARCHITECT IF DIMENSIONS VARY.

3. REFER TO SHEET SS10 FOR TYPICAL WATERPROOFING DETAILS.

PROPOSED PLAN KEY

- LOCATION OF EXPANSION JOINTS, REFER TO DETAILS 10 / S501 AND 10 / A501, TYP.
- (SB) LOCATION OF STONE BENCHES, REFER TO DETAIL 3 / S503 AND 3 / A503, TYP.
- LOCATION OF AREA DRAINS, REFER TO DETAILS 2 / S503 AND 2 / A503, TYP. REFER TO PLUMBING DWGS.
- LOCATION OF TRENCH DRAINS, REFER TO DETAILS 2 / S501, 1 / S510 AND 2 / A501, TYP. REFER TO PLUMBING DWGS.
- (TA) LOCATION OF TENT ANCHORS, REFER TO DETAILS 6 / S502 AND 6 / A502, TYP.
- (LP) LOCATION OF LIGHT POLES, REFER TO DETAILS 5 / S501, 7 / S504, 5 / A501, AND 7 / A504, TYP.
- MN LOCATION OF REPLACED PLANTER STONE, REFER TO DETAILS 5 / S502, 5 / A502. REFER TO SHEET A509 FOR TYP. STONE DIMS.



KEY PLAN

2	Addenda 4	09/29/2025	

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COMMONWEALTH OF PENNSYLVANIA
CHRISTOPHER D. DAWSON
RA-005137-X

09/06/2024
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PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

PLAZA FLOOR PLAN - ENLARGED AREA C

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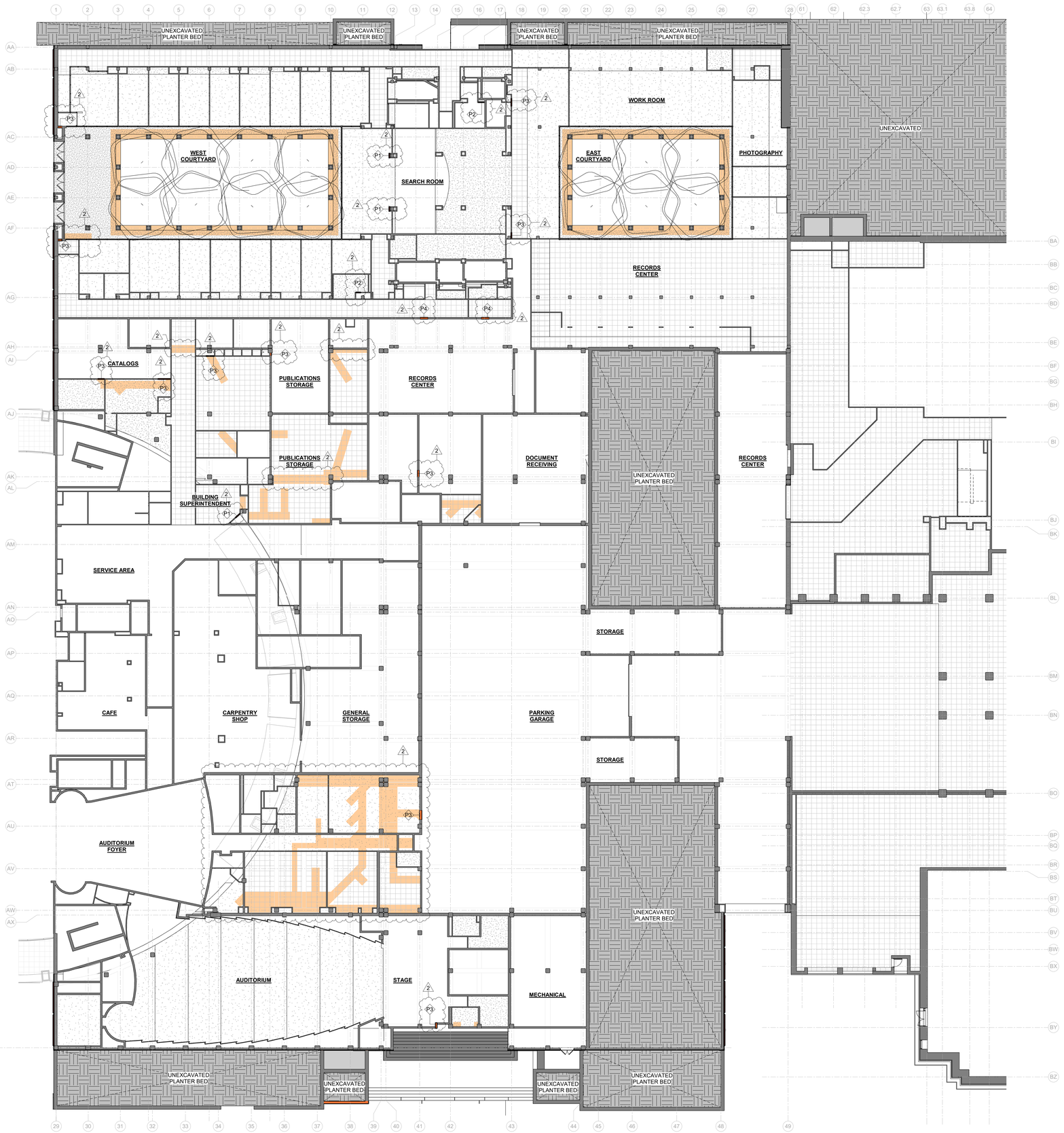
IF BAR IS NOT ONE (1) INCH LONG,
ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	A111
CHECKED BY	SCALE	
WE	PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



1 / A116 PROPOSED GROUND FLOOR RCP

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

0 16' 0"

GENERAL CEILING NOTES

1. REMOVE CEILINGS AS REQUIRED TO REPLACE PLAZA STORM WATER PIPING AND INSTALL SNOWMELT SYSTEM MANIFOLDS. ACT AND GYPSUM BOARD ARE INDICATED FOR CONTRACTOR INFORMATION. ACT SHOULD BE REMOVED AND REINSTALLED, GRID TO BE EXISTING TO REMAIN. GYPSUM BOARD CEILING TO BE PATCHED WHERE INDICATED . PAINT CEILING OF ENTIRE ROOM.

2. INTERNAL GUTTER SYSTEM UNDER PLAZA EXPANSION JOINTS IS EXISTING TO REMAIN. PROTECT INTERNAL GUTTER SYSTEM DURING CONSTRUCTION.

CEILING FINISH KEY

- 2 x 2 WHITE ACOUSTICAL TILE CEILING SYSTEM, EXISTING TO REMAIN
- WHITE PLASTER BOARD, EXISTING TO REMAIN
- WHITE ACOUSTIC PLASTER BOARD, EXISTING TO REMAIN
- EXTERIOR PLASTER BOARD, EXISTING TO REMAIN
- CEILING REPLACEMENT OR REPAIR, MATERIALS & FINISHES TO MATCH EXISTING CEILING

2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER D. DAWSON RA-015137

09/06/2024

PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS 948-87 PHASE 1

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

GROUND FLOOR RCP

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:

0 1

IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

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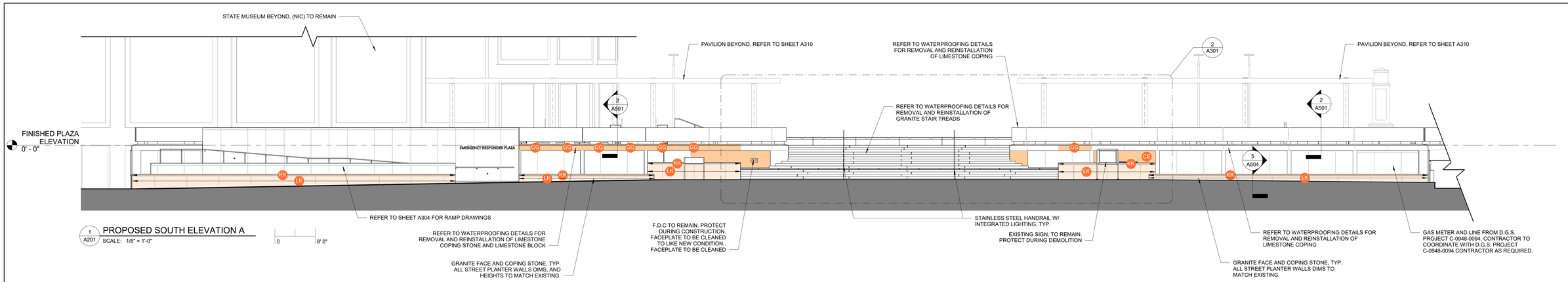
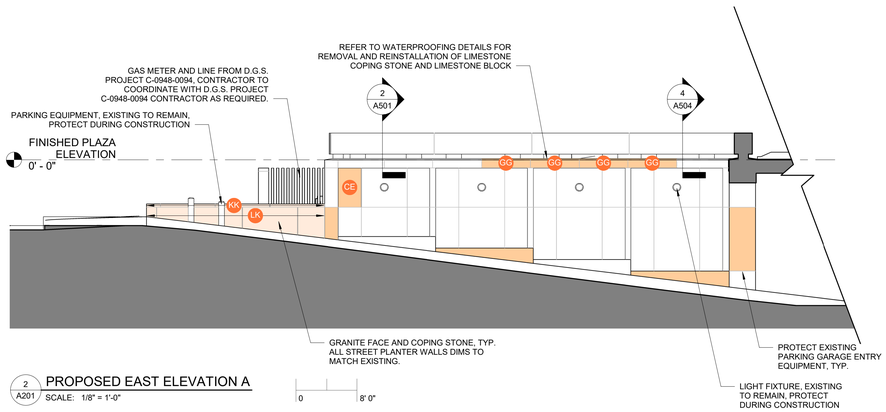
DS	07.29.25	A116
CHECKED BY	SCALE	
WE	PER DWG	

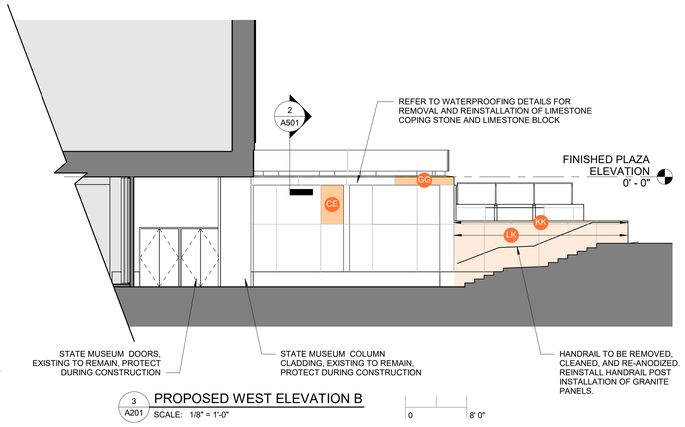
DRAWING SET IS INTENDED FOR COLOR PRINTING



1 A201 PROPOSED SOUTH ELEVATION A
SCALE: 1/8" = 1'-0"
0 8' 0"



2 A201 PROPOSED EAST ELEVATION A
SCALE: 1/8" = 1'-0"
0 8' 0"

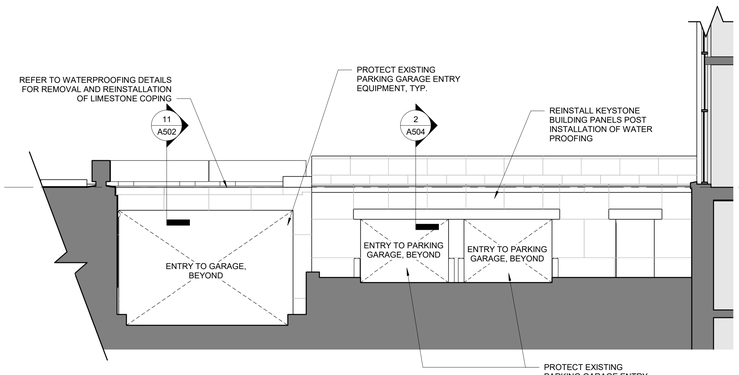


3 A201 PROPOSED WEST ELEVATION B
SCALE: 1/8" = 1'-0"
0 8' 0"

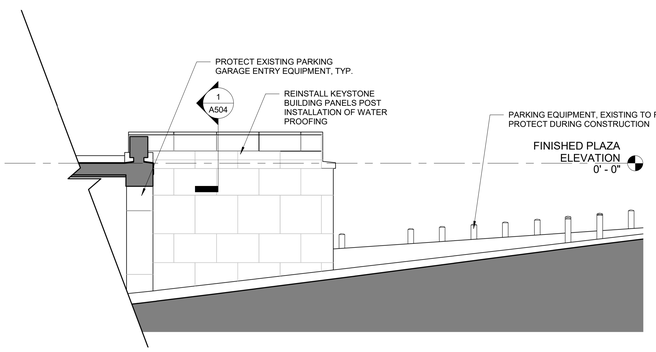
2 PROPOSED ELEVATION KEY

AA — AREAS OF REPLACED (NEW) STONE, REFER TO SHEET A508 FOR GENERAL DIMENSIONS. DIMENSIONS SHOWN ARE TO BE VERIFIED IN FIELD. PANEL DIMENSIONS ARE TO MATCH EXISTING. NOTIFY ARCHITECT IF DIMS VARY.

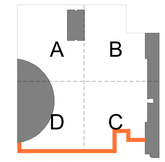
AA — AREAS OF NEW STONE, REFER TO SHEET A509 FOR GENERAL DIMENSIONS. DIMENSIONS SHOWN ARE TO BE VERIFIED IN FIELD. PANEL DIMENSIONS ARE TO MATCH EXISTING. NOTIFY ARCHITECT IF DIMS VARY.



4 A201 PROPOSED SOUTH ELEVATION B
SCALE: 1/8" = 1'-0"
0 8' 0"



5 A201 PROPOSED WEST ELEVATION D
SCALE: 1/8" = 1'-0"
0 8' 0"



KEY PLAN

2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER DAWSON RA-010317-X

09/06/2024
PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS 948-87 PHASE 1

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

PLAZA - EXTERIOR ELEVATIONS

DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	A201
CHECKED BY	SCALE	
WE	PER DWG	

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
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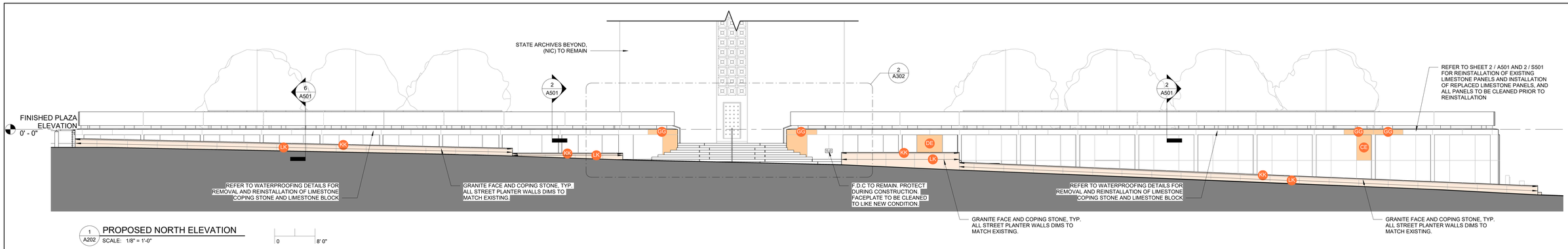
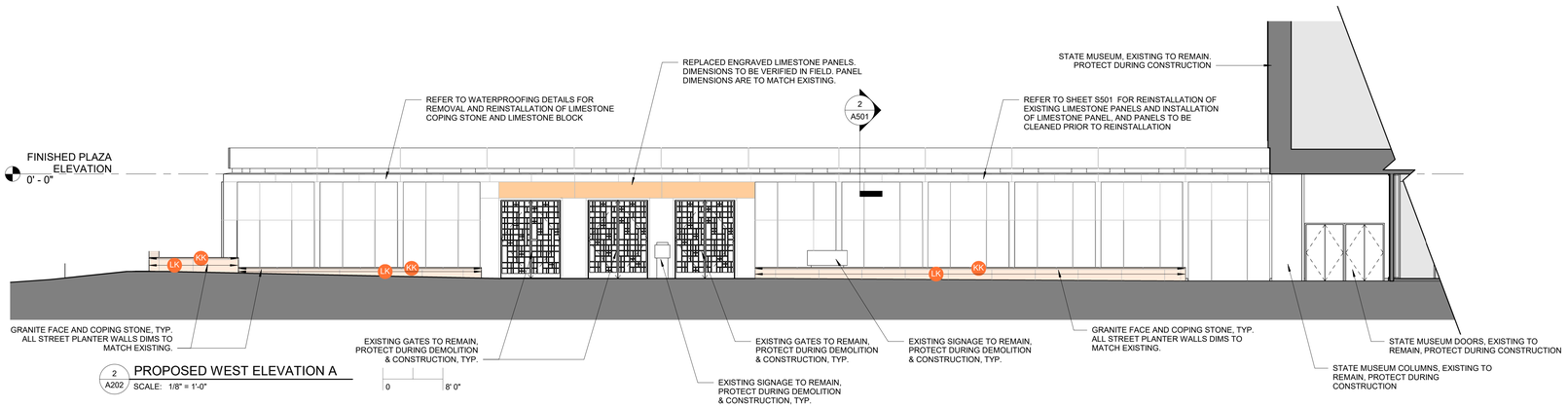
DRAWING SET IS INTENDED FOR COLOR PRINTING



1 A202 PROPOSED NORTH ELEVATION
SCALE: 1/8" = 1'-0"
0 8' 0"

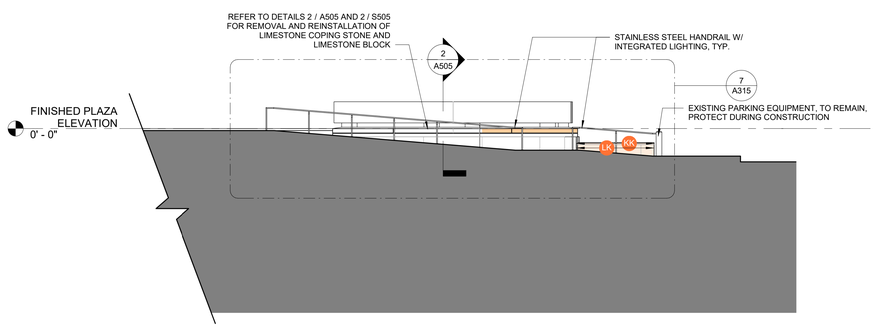


2 A202 PROPOSED WEST ELEVATION A
SCALE: 1/8" = 1'-0"
0 8' 0"

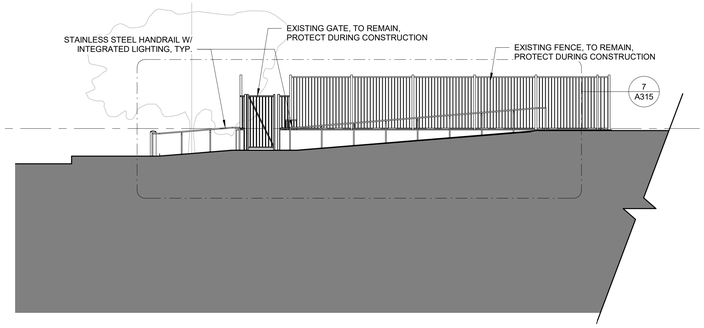
2 PROPOSED ELEVATION KEY

AA AREAS OF REPLACED (NEW) STONE, REFER TO SHEET A508 FOR GENERAL DIMENSIONS. DIMENSIONS SHOWN ARE TO BE VERIFIED IN FIELD. PANEL DIMENSIONS ARE TO MATCH EXISTING. NOTIFY ARCHITECT IF DIMS VARY.

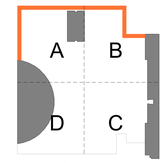
AA AREAS OF NEW STONE, REFER TO SHEET A509 FOR GENERAL DIMENSIONS. DIMENSIONS SHOWN ARE TO BE VERIFIED IN FIELD. PANEL DIMENSIONS ARE TO MATCH EXISTING. NOTIFY ARCHITECT IF DIMS VARY.



3 A202 PROPOSED EAST ELEVATION B
SCALE: 1/8" = 1'-0"
0 8' 0"



4 A202 PROPOSED WEST ELEVATION C
SCALE: 1/8" = 1'-0"
0 8' 0"



KEY PLAN

2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER D. DAWSON RA-015371X

09/06/2024

PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS 948-87 PHASE 1

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

PLAZA - EXTERIOR ELEVATIONS

DRAWN BY: DS	DATE: 07.29.25	DRAWING NO. A202
CHECKED BY: WE	SCALE: PER DWG	

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
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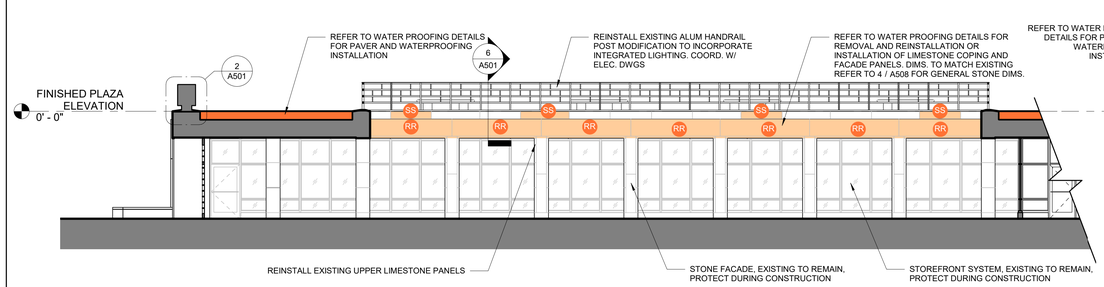
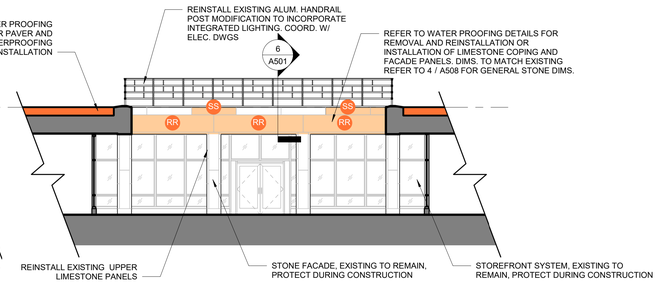


1 A203 PROPSOED SOUTH ELEVATION COURTYARD A

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

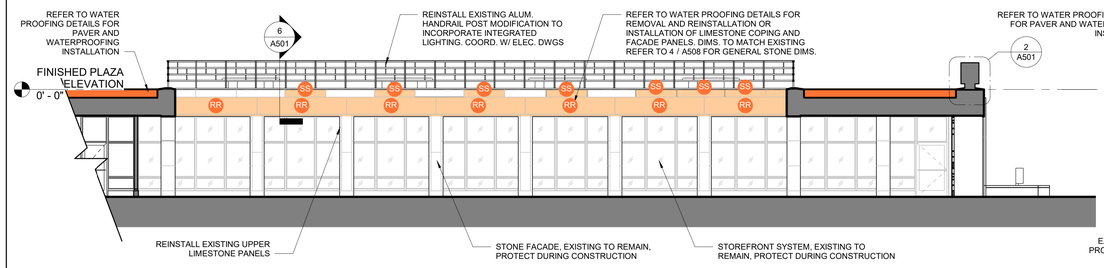
0 8' 0"



2 A203 PROPSOED WEST ELEVATION COURTYARD A

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

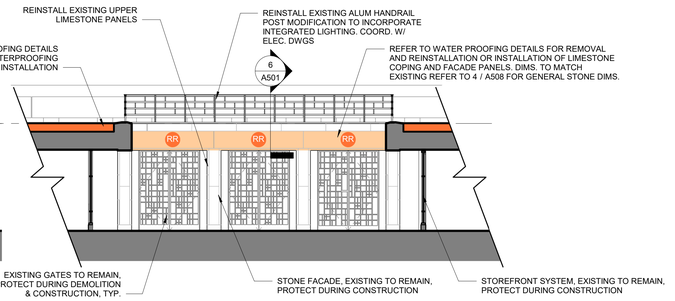
0 8' 0"



3 A203 PROPSOED NORTH ELEVATION COURTYARD A

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

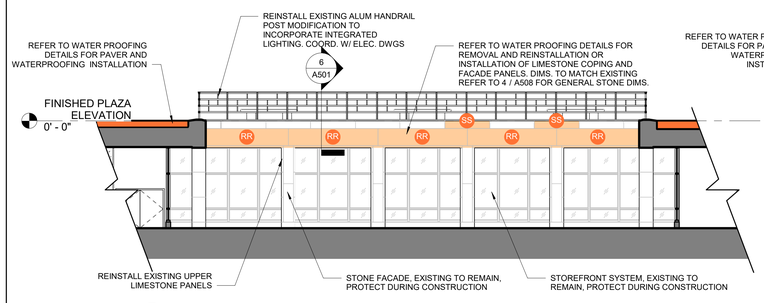
0 8' 0"



4 A203 PROPOSED EAST ELEVATION COURTYARD A

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

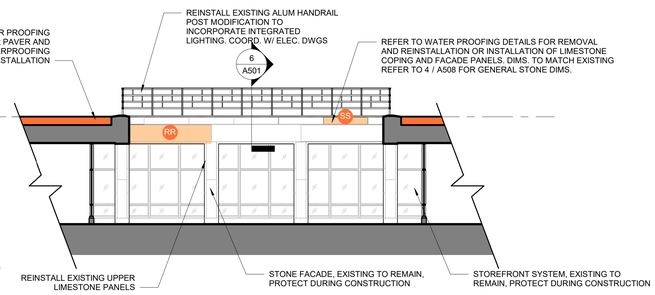
0 8' 0"



5 A203 PROPOSED NORTH ELEVATION COURTYARD B

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

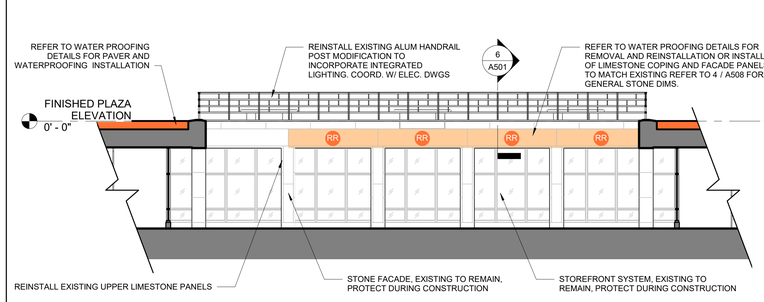
0 8' 0"



6 A203 PROPOSED WEST ELEVATION COURTYARD B

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

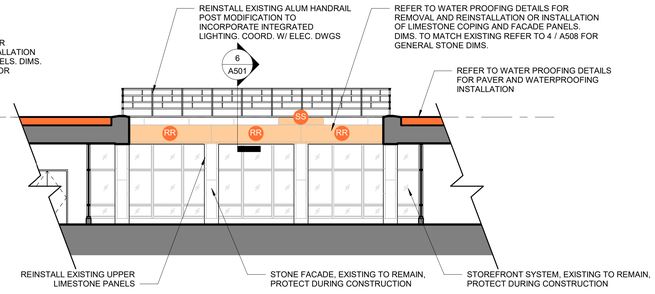
0 8' 0"



7 A203 PROPOSED SOUTH ELEVATION COURTYARD B

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

0 8' 0"



8 A203 PROPOSED EAST ELEVATION COURTYARD B

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

0 8' 0"

2

PROPOSED ELEVATION KEY

AA — AREAS OF REPLACED (NEW) STONE, REFER TO SHEET A508 FOR GENERAL DIMENSIONS. DIMENSIONS SHOWN ARE TO BE VERIFIED IN FIELD. PANEL DIMENSIONS ARE TO MATCH EXISTING. NOTIFY ARCHITECT IF DIMS VARY.

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2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER J. DAWSON No. RA-013137X

09/06/2024

PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS 948-87 PHASE 1

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

COURTYARD - EXTERIOR ELEVATIONS

VERIFY SCALE

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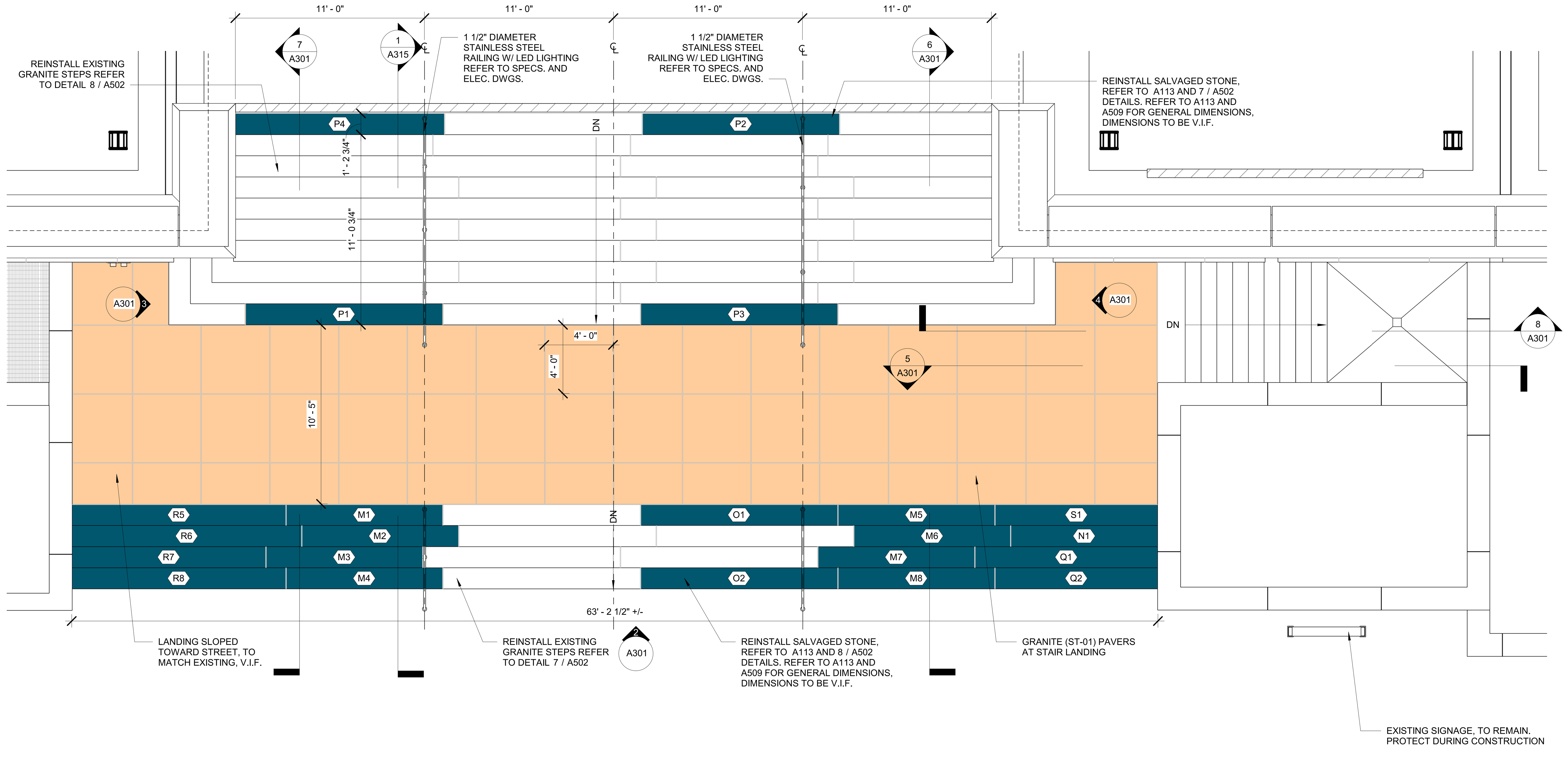
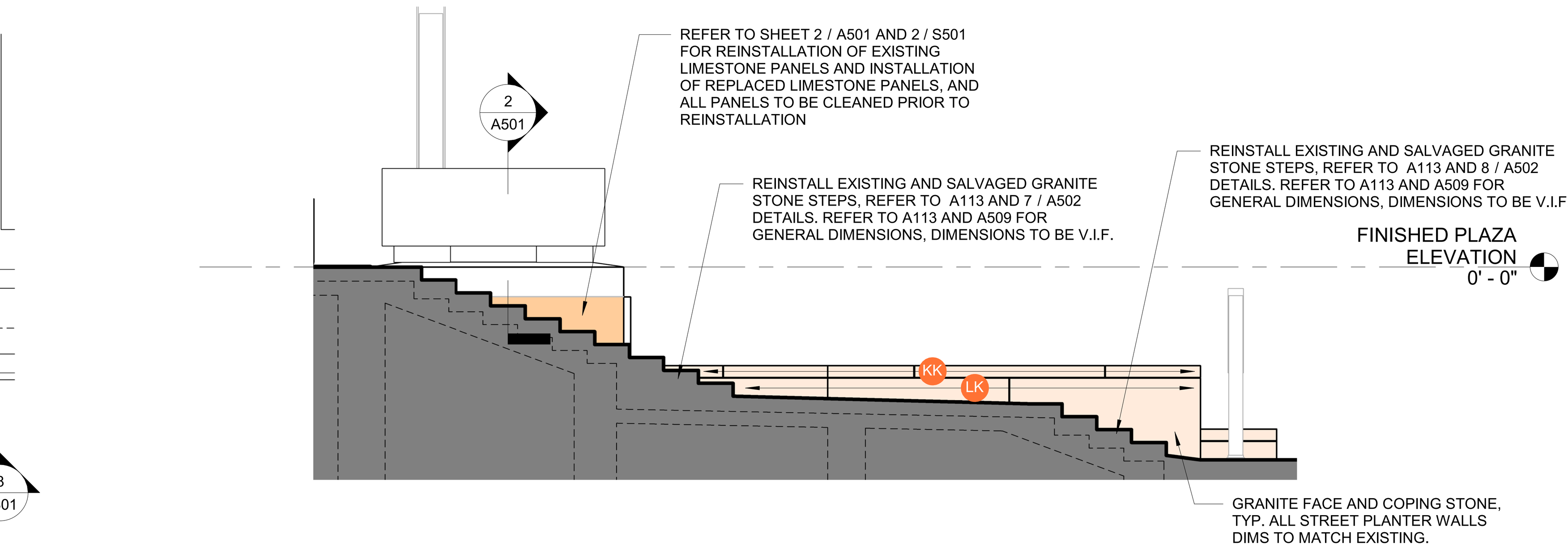
DRAWN BY	DATE	DRAWING NO.
DS	07.29.25	A203
CHECKED BY	SCALE	
WE	PER DWG	

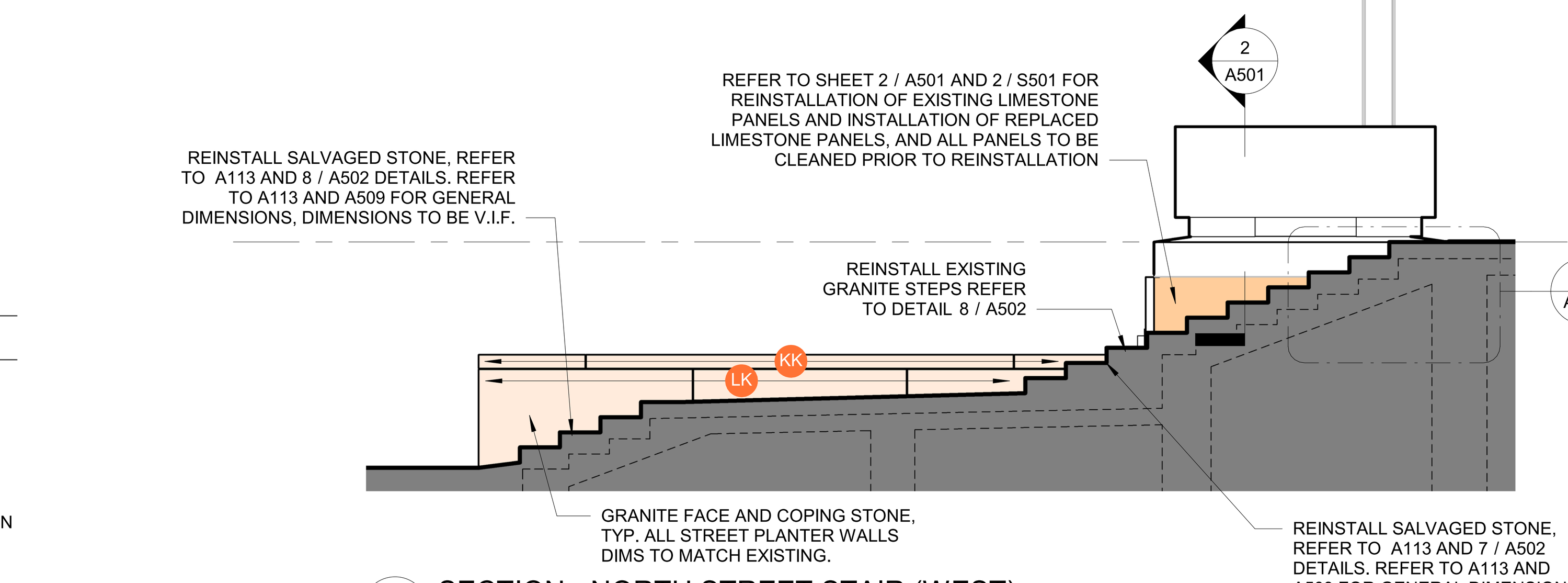
DRAWING SET IS INTENDED FOR COLOR PRINTING



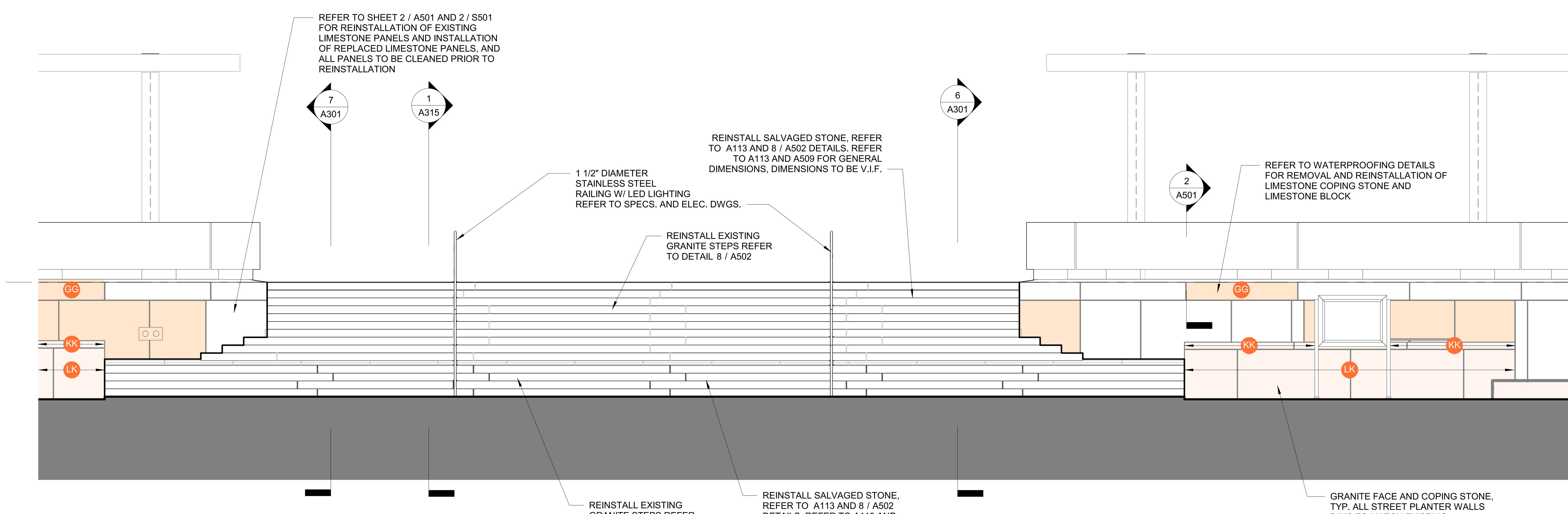
1 A301 ENLARGED PLAN - NORTH STREET STAIR
SCALE: 1/4" = 1'-0" 0 4' 0"



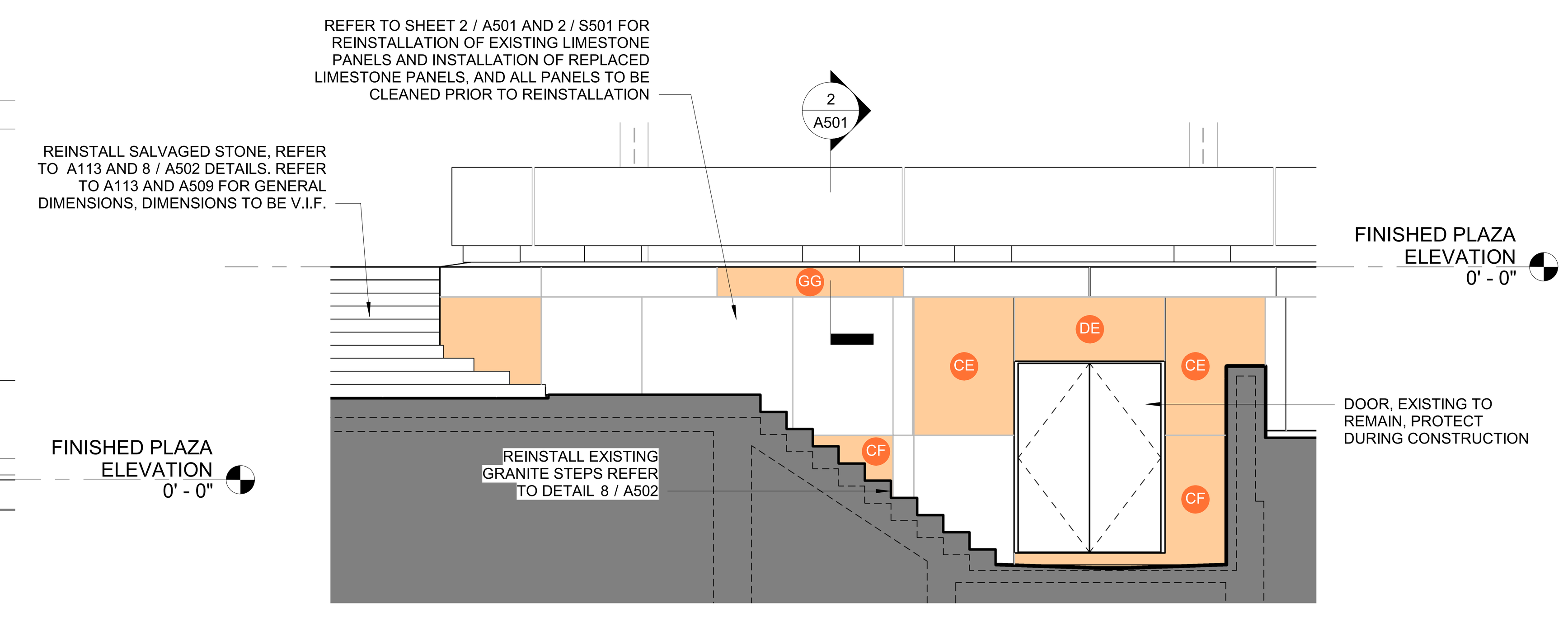
6 A301 SECTION - NORTH STREET STAIR (EAST)
SCALE: 1/4" = 1'-0" 0 4' 0"



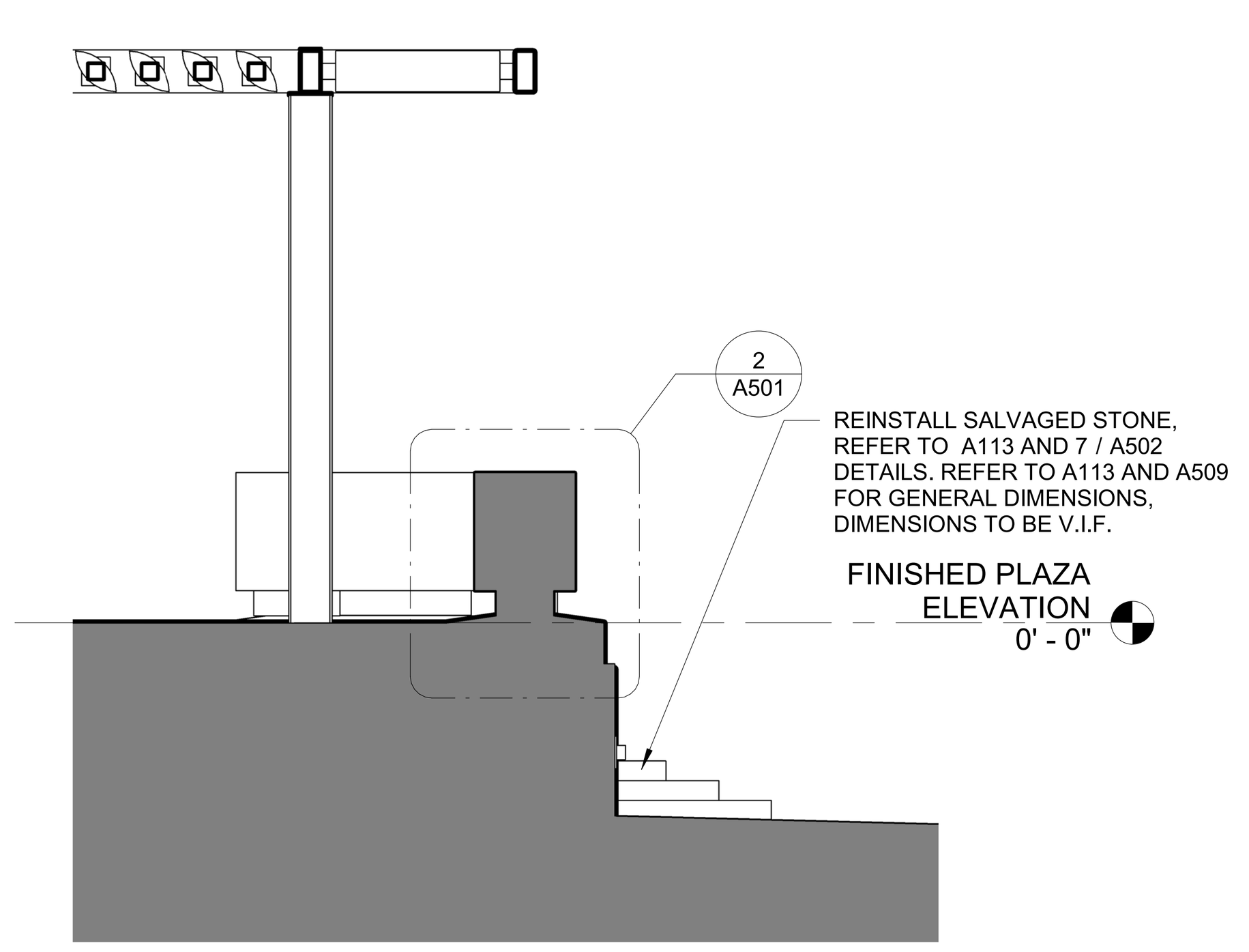
7 A301 SECTION - NORTH STREET STAIR (WEST)
SCALE: 1/4" = 1'-0" 0 4' 0"



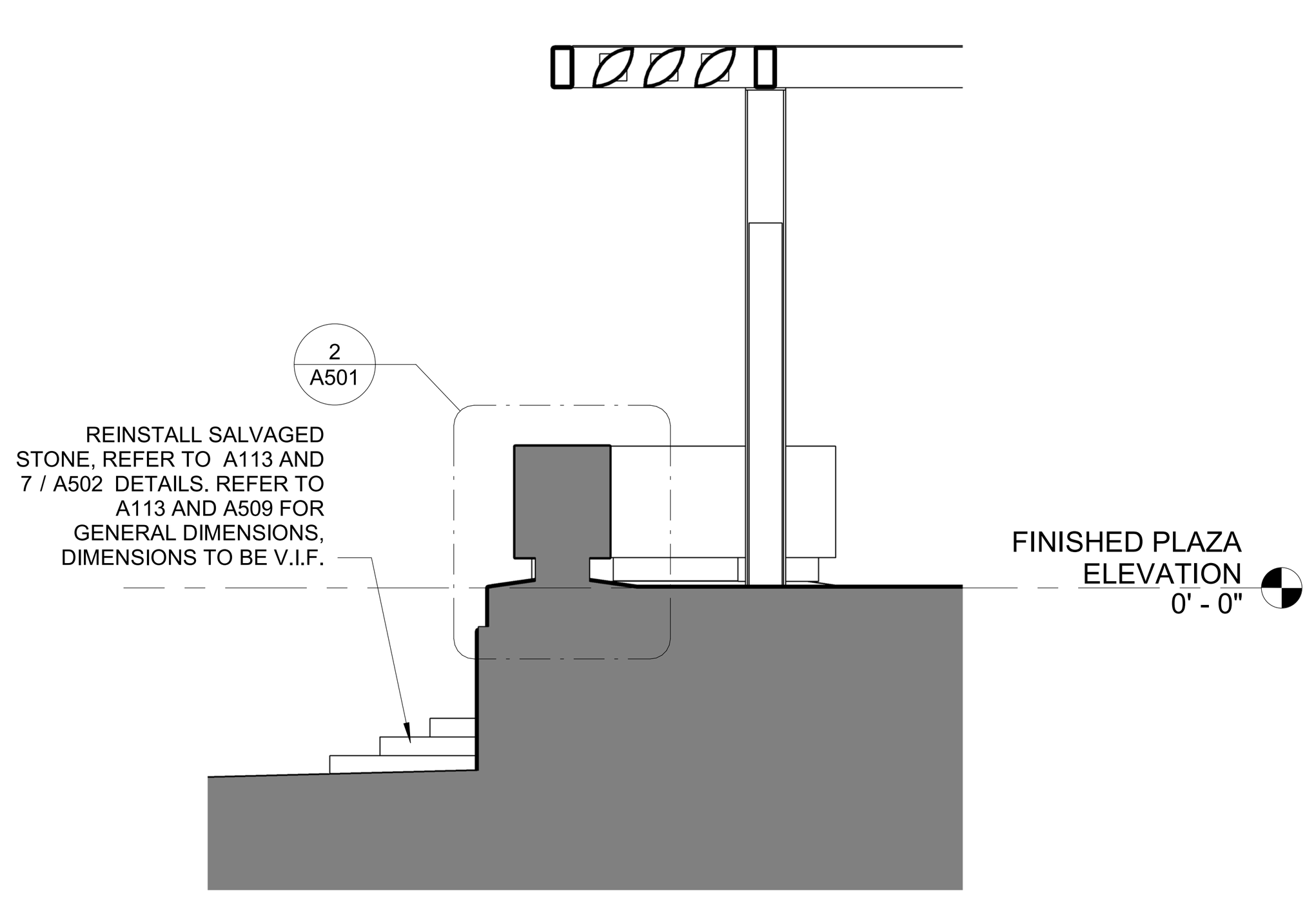
2 A301 SOUTH ELEVATION - NORTH STREET STAIR
SCALE: 1/4" = 1'-0" 0 4' 0"



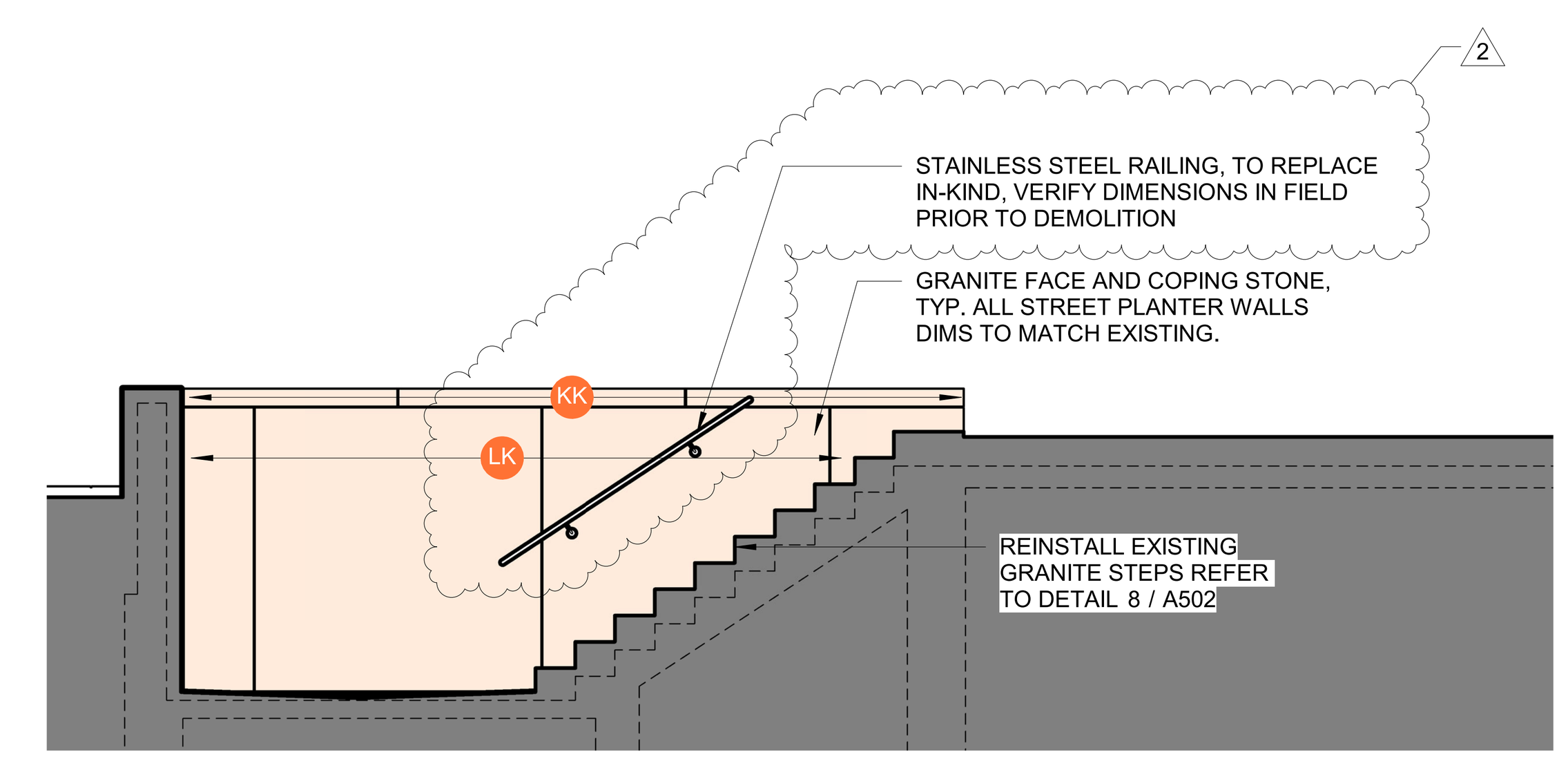
8 A301 SECTION - NORTH STREET STAIR
SCALE: 1/4" = 1'-0" 0 4' 0"



3 A301 WEST ELEVATION - NORTH STREET STAIR
SCALE: 1/4" = 1'-0" 0 4' 0"



4 A301 EAST ELEVATION - NORTH STREET STAIR
SCALE: 1/4" = 1'-0" 0 4' 0"



5 A301 SECTION - NORTH STREET STAIR
SCALE: 1/4" = 1'-0" 0 4' 0"

2	Addenda 4	09/29/2025

AS-BUILT REVISIONS

PROFESSIONAL'S SIGNATURE 09/06/2024 DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. DGS 948-87 PHASE 1

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING.

0 1

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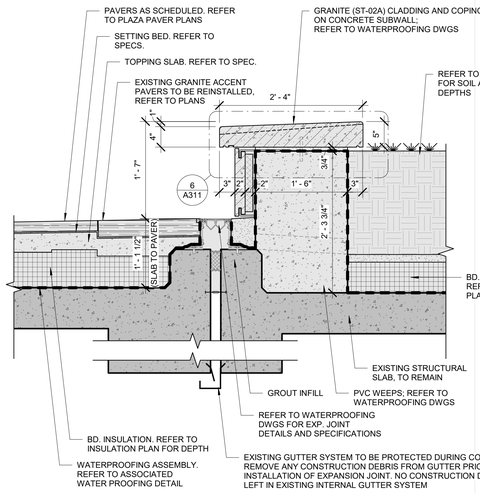
PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

NORTH STREET STAIR - DETAIL DRAWINGS

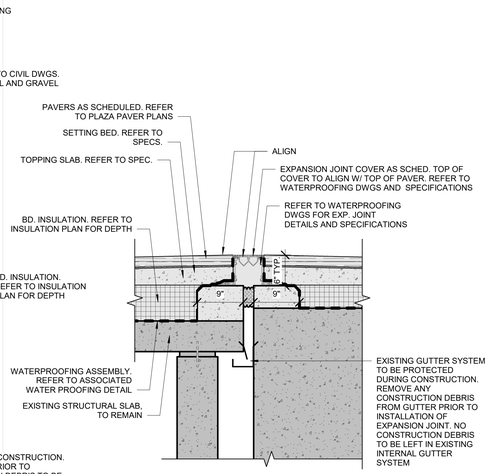
DRAWN BY	DATE	DRAWING NO.
JW	07.29.25	A301
CHECKED BY	SCALE	
WE	PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



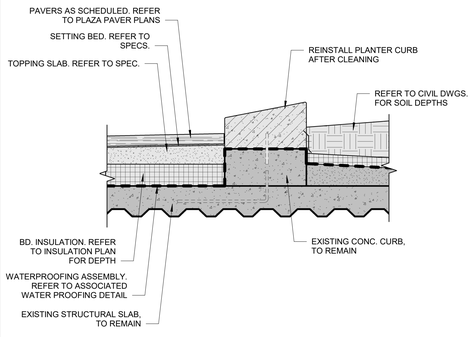
SEE DETAIL 4/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

4 A502 PLANTER LAWNS TYPICAL DETAIL
SCALE: 1" = 1'-0"



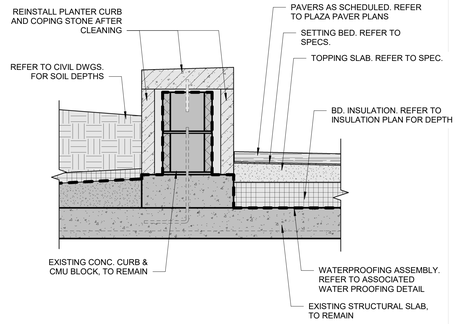
SEE DETAIL 3/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

3 A502 KEYSTONE EXPANSION JOINT DETAIL A
SCALE: 1" = 1'-0"



SEE DETAIL 2/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

2 A502 KEYSTONE CURB TERMINATION DETAIL
SCALE: 1" = 1'-0"



SEE DETAIL 1/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

1 A502 KEYSTONE KNEE WALL TERMINATION DETAIL
SCALE: 1" = 1'-0"

SEE DETAIL 8/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

8 A502 CAST IN-PLACE CONCRETE STAIR DETAIL
SCALE: 1" = 1'-0"

SEE DETAIL 8/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

7 A502 LIGHT WEIGHT CONCRETE FILL STAIR DETAIL
SCALE: 1" = 1'-0"

SEE DETAIL 6/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

6 A502 TYPICAL TENT ANCHOR DETAIL
SCALE: 1 1/2" = 1'-0"

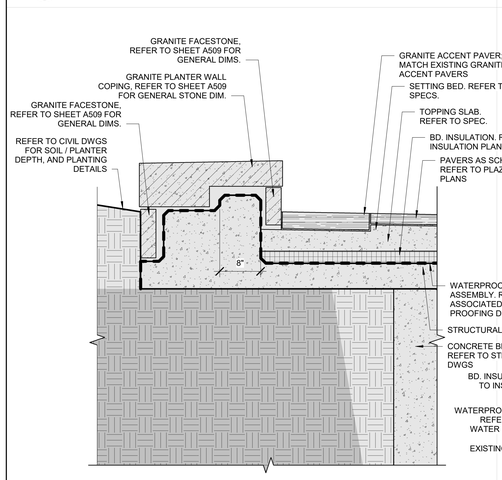
SEE DETAIL 5/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

5 A502 UNEXCAVATED PLANTER BASE DETAIL
SCALE: 1" = 1'-0"

EXISTING VS PROPOSED KEY

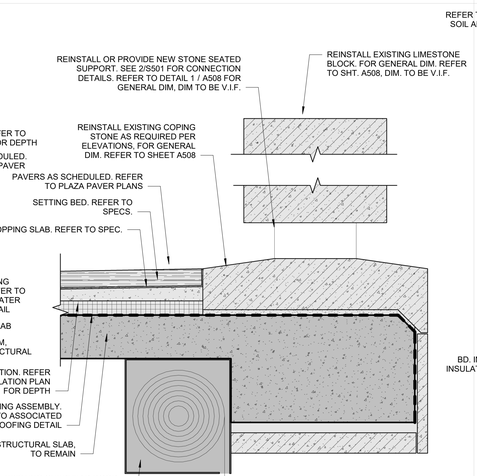
AREAS OF WORK

EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION



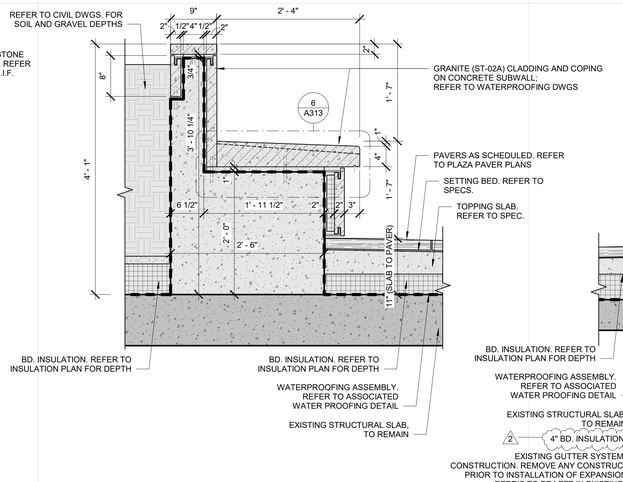
SEE DETAIL 12/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

12 A502 SLAB ON GRADE PLANTER WALL DETAIL
SCALE: 1" = 1'-0"



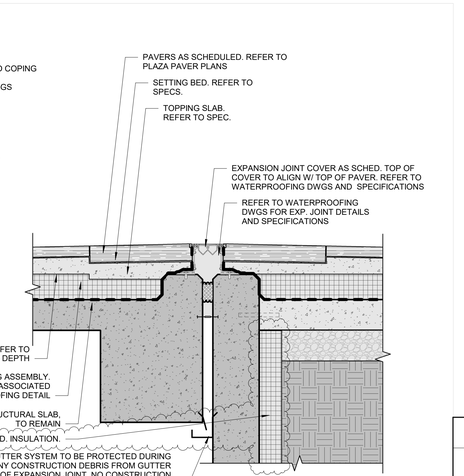
SEE DETAIL 11/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

11 A502 PARAPET GARAGE ENTRY DETAIL
SCALE: 1" = 1'-0"



SEE DETAIL 10/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

10 A502 PLANTER WEST BASE DETAIL
SCALE: 1" = 1'-0"



SEE DETAIL 9/S502 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

9 A502 SLAB ON GRADE PAVER DETAIL
SCALE: 1" = 1'-0"

2	Addenda 4	09/29/2025

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER G. DAWSON No. RA-013737X

09/06/2024
PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS 948-87 PHASE 1

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

PAVER DETAILS CONTINUED

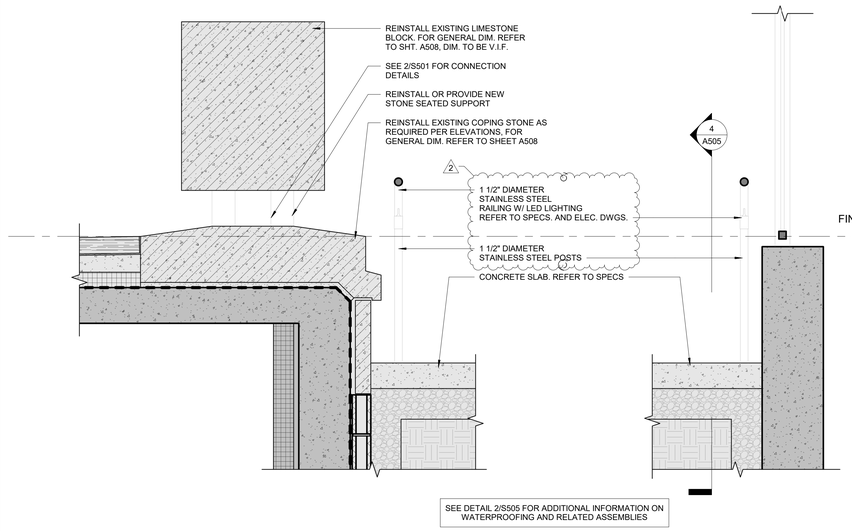
VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY	DATE	DRAWING NO.
JW / DS / JB	07.29.25	A502
CHECKED BY	SCALE	
WE	PER DWG	

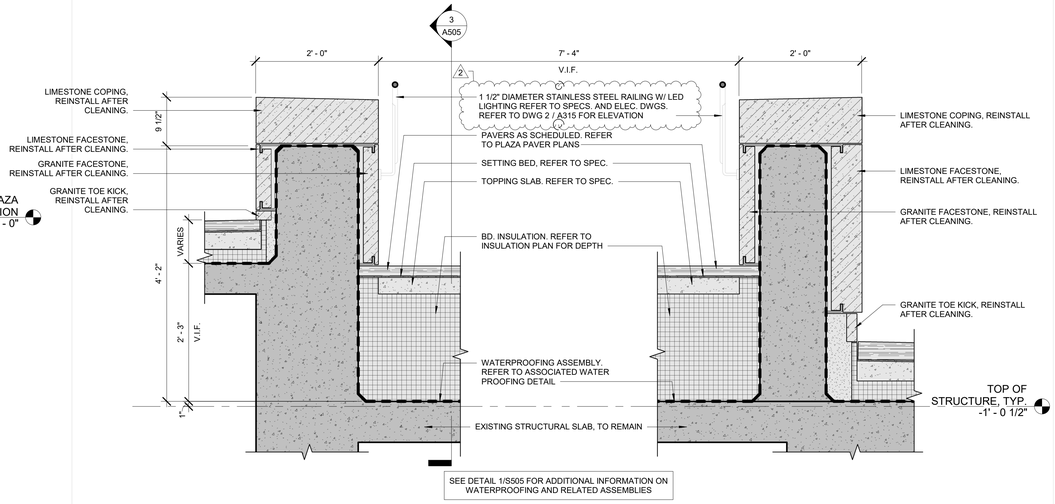
DRAWING SET IS INTENDED FOR COLOR PRINTING



SEE DETAIL 2/S505 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

2 A505 FORSTER STREET RAMP WALL DETAIL

SCALE: 1" = 1'-0"



SEE DETAIL 1/S505 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

1 A505 MUSEUM RAMP WALL DETAIL

SCALE: 1" = 1'-0"

SEE DETAIL 4/S505 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

4 A505 FORSTER STREET RAMP DETAIL

SCALE: 1" = 1'-0"

SEE DETAIL 3/S505 FOR ADDITIONAL INFORMATION ON WATERPROOFING AND RELATED ASSEMBLIES

3 A505 MUSEUM RAMP DETAIL

SCALE: 1" = 1'-0"

EXISTING VS PROPOSED KEY

- AREAS OF WORK
- EXISTING TO REMAIN, PROTECT DURING CONSTRUCTION

2	Addenda 4	09/29/2025	

AS-BUILT REVISIONS

REGISTERED ARCHITECT PENNSYLVANIA CHRISTOPHER DAWSON RA-013317-X

09/06/2024

PROFESSIONAL'S SIGNATURE DATE

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS 948-87 PHASE 1

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

FORSTER STREET & MUSEUM RAMP DETAILS

VERIFY SCALE

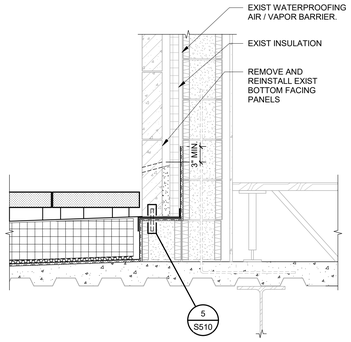
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1

IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

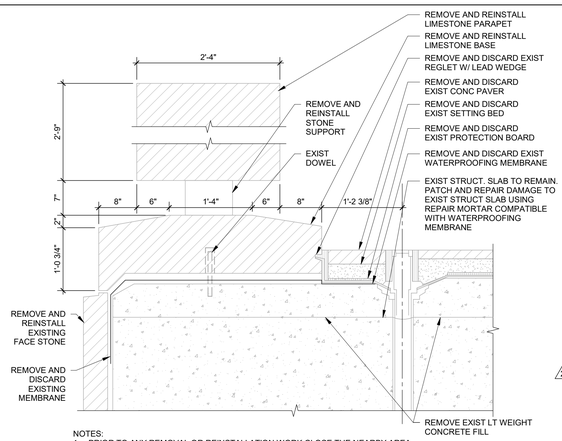
DRAWN BY JW / DS	DATE 07.29.25	DRAWING NO. A505
CHECKED BY WE	SCALE PER DWG	

DRAWING SET IS INTENDED FOR COLOR PRINTING



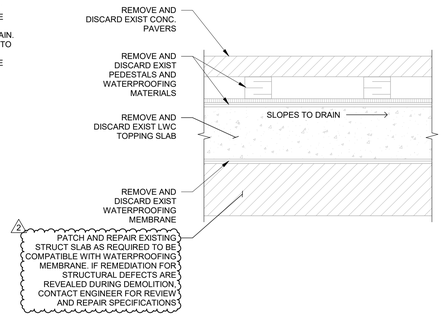
NOTES:
1. DRAWING REFERENCED IN ARCHITECTURAL DEMO NOTE D2.2, AND D2.3.

3 KEYSTONE BLDG TERMINATION DETAIL
1" = 1'-0"



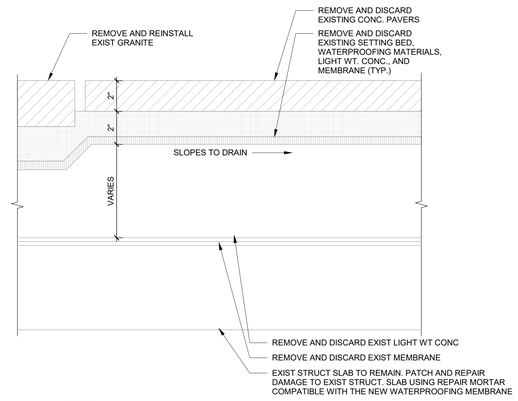
NOTES:
1. PRIOR TO ANY REMOVAL OR REINSTALLATION WORK CLOSE THE NEARBY AREA.
2. CONTRACTOR SHOULD NOTIFY ENGINEER AND PROVIDE PHOTOGRAPHIC DOCUMENTATION IF REMOVAL AND REINSTALLATION PROCESS RESULTS IN DISTRESS IN THE PARAPET, SEATED SUPPORT, OR FACE STONE.
3. LOCATE ALL THE NON STRUCTURAL COMPONENTS (IF ANY) BEFORE THE REMOVAL AND CONSULT THE CONCERNED ENGINEER.
4. DRAWING REFERENCED IN ARCHITECTURAL DEMO NOTE D4.1A, D4.1B, D4.3A, D4.3B, D4.5A, D4.5B, AND D22.1.

2 EXISTING PARAPET DETAIL
1" = 1'-0"



NOTES:
1. DRAWING REFERENCED IN ARCHITECTURAL DEMO NOTE D2.2, AND D2.3.

1B EXISTING PLAZA ASSEMBLY WITH PEDESTALS
1" = 1'-0"



NOTES:
1. DRAWING REFERENCED IN ARCHITECTURAL DEMO NOTE D2.1, AND D2.4.

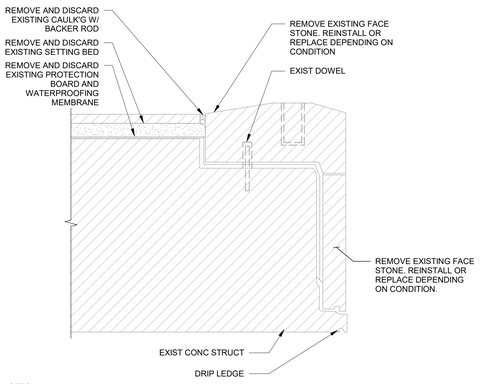
1A EXISTING PLAZA ASSEMBLY
3" = 1'-0"

NOTES:
1. DRAWING REFERENCED IN ARCHITECTURAL DEMO NOTE D2.5.

7 EXISTING ARCHIVE BUILDING TERMINATION SECTION
3/4" = 1'-0"

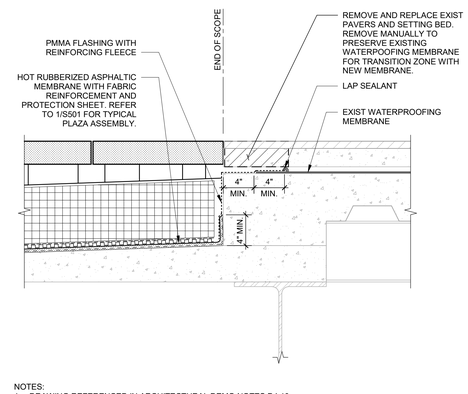
NOTES:
1. DRAWING REFERENCED IN ARCHITECTURAL DEMO NOTE D4.11.

6 EXISTING ARCHIVE BUILDING TERMINATION SECTION
3/4" = 1'-0"



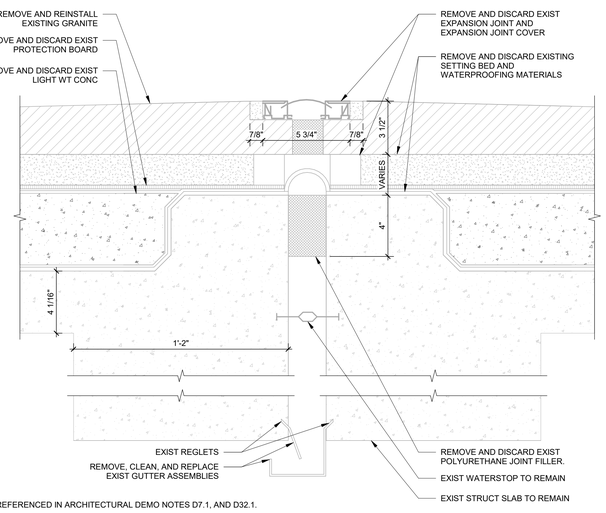
NOTES:
1. DRAWING REFERENCED IN ARCHITECTURAL DEMO NOTES D4.1A, AND D4.1B.

5 EXISTING COURTYARD SECTION
1" = 1'-0"



NOTES:
1. DRAWING REFERENCED IN ARCHITECTURAL DEMO NOTES D4.10.

4 KEYSTONE BUILDING TERMINATION DETAIL
1 1/2" = 1'-0"



NOTES:
1. DRAWING REFERENCED IN ARCHITECTURAL DEMO NOTES D7.1, AND D32.1.

10 EXISTING EXPANSION JOINT DETAIL
3" = 1'-0"

2	Addenda 4 09/29/2025		

AS-BUILT REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL CHRISTOPHER P. PINTO ENGINEER PE077959 COMMONWEALTH OF PENNSYLVANIA

PROFESSIONAL'S SIGNATURE DATE

walter p moore
Walter P Moore and Associates, Inc.
180 Maiden Lane, Suite 3201
New York, New York 10038
212.602.1670

CDA
CHRIS DAWSON ARCHITECT
300 NORTH 2ND STREET, SUITE 701, HARRISBURG, PA 17101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS 948-87 PHASE 1

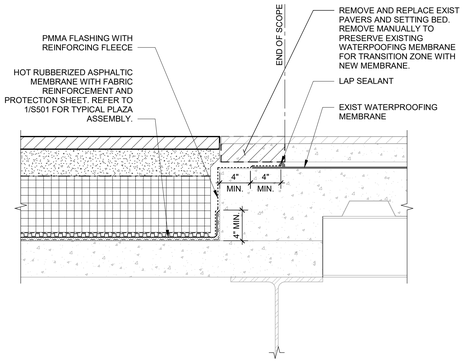
PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

DEMOLITION DETAILS

VERIFY SCALE
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

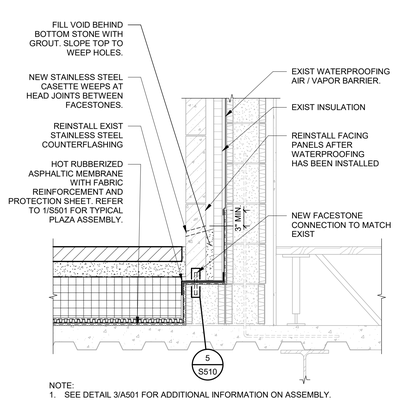
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY	DATE	DRAWING NO.
AN	09.29.25	DM1.00
CHECKED BY	SCALE	
CCP & CHP	PER DWG	



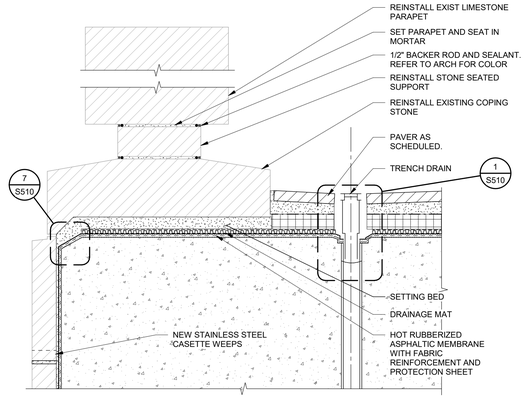
NOTE:
1. SEE DETAIL 4/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

4 KEYSTONE BUILDING TERMINATION DETAIL
NO SCALE



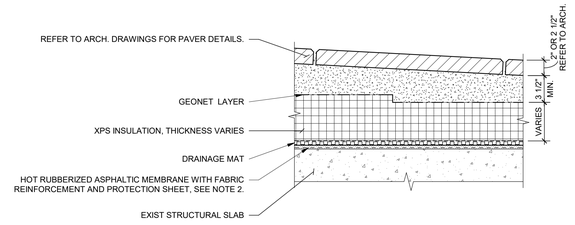
NOTE:
1. SEE DETAIL 3/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

3 KEYSTONE BLDG TERMINATION DETAIL
1" = 1'-0"



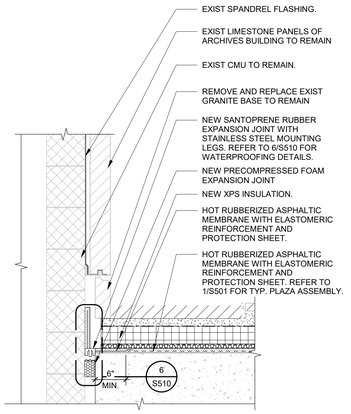
NOTES:
1. PRIOR TO ANY REMOVAL OR REINSTALLATION WORK CLOSE THE NEARBY AREA.
2. SEE DETAIL 2/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

2 PARAPET TYPICAL DETAIL
NO SCALE



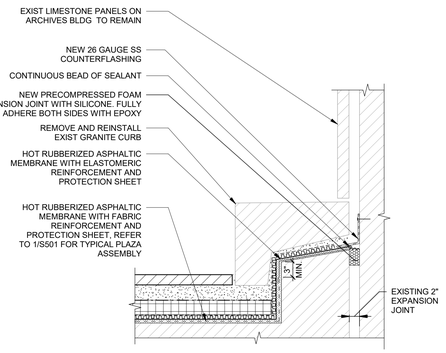
NOTES:
1. TYPE IV RIGID EXTRUDED INSULATION MUST BE 60 PSI (414 kPa) (COMPRESSIVE STRENGTH) BOARD MINIMUM.
2. REFER TO APPLICABLE HYDROTECH MM6125-FR ROOFING OR WATERPROOFING GUIDELINE DETAILS FOR PROPER MEMBRANE/FLASHING DETAILS AND ALTERNATIVES.
3. SEE DETAIL 1A/A501 OR 1B/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

1 PLAZA WATERPROOFING TYPICAL DETAIL
NO SCALE



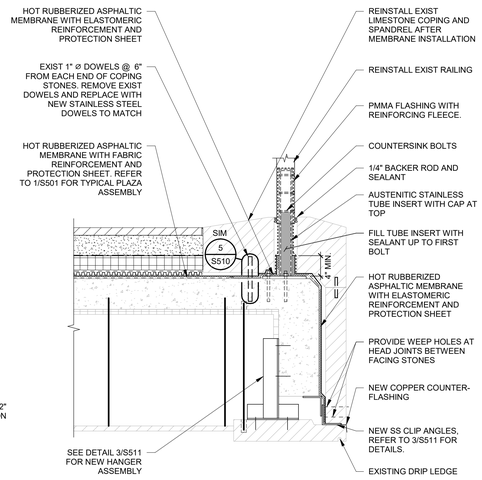
NOTE:
1. SEE DETAIL 8/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

8 ARCHIVES BUILDING TERMINATION DETAIL
NO SCALE



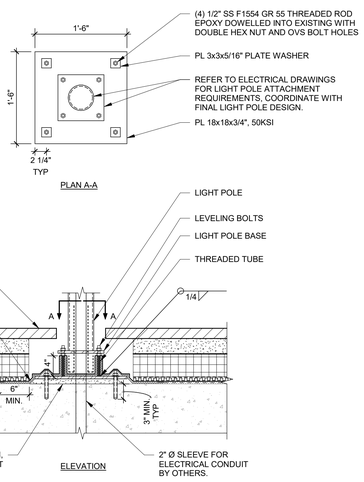
NOTE:
1. SEE DETAIL 7/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

7 ARCHIVES BUILDING TERMINATION DETAIL
NO SCALE



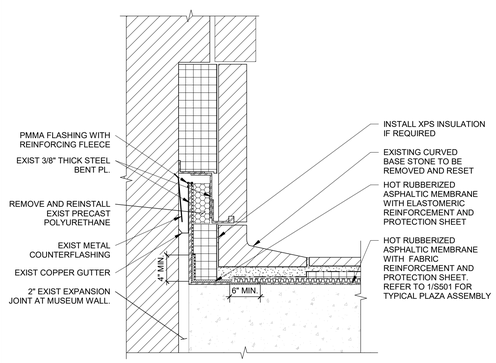
NOTES:
1. FOR LIMESTONE ANCHORAGE DETAILS, REFER TO SHEET S511.
2. SEE DETAIL 6/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

6 COURTYARD CURB TYPICAL DETAIL
NO SCALE



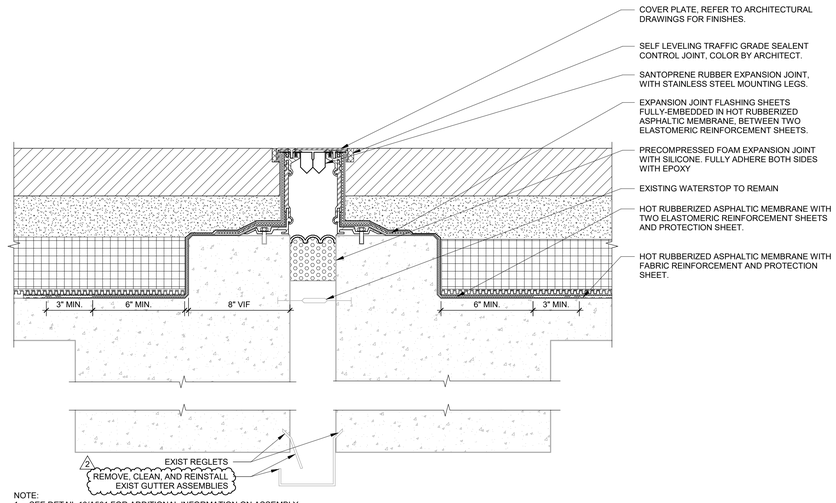
NOTE:
1. SEE DETAIL 5/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

5 LIGHT POLE BASE DETAIL
1" = 1'-0"



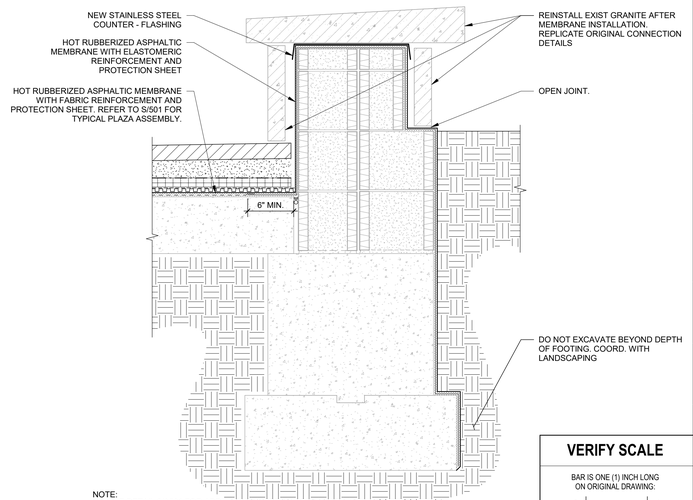
NOTE:
1. SEE DETAIL 11/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

11 MUSEUM BUILDING TERMINATION DETAIL
NO SCALE



NOTE:
1. SEE DETAIL 10/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

10 EXPANSION JOINT TYPICAL DETAIL
NO SCALE



NOTE:
1. SEE DETAIL 9/A501 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

9 CURVED PLANTER BENCH TERMINATION DETAIL
1 1/2" = 1'-0"

2	Addenda 4 09/29/2025		

AS-BUILT REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL CHRISTOPHER P. PINTO ENGINEER E077959 ENGINEER

PROFESSIONAL'S SIGNATURE DATE

walter p moore

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS 948-87 PHASE 1

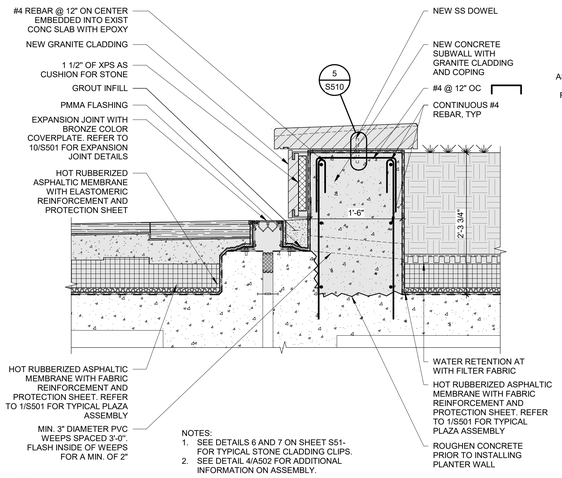
PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

WATERPROOFING DETAILS

VERIFY SCALE
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

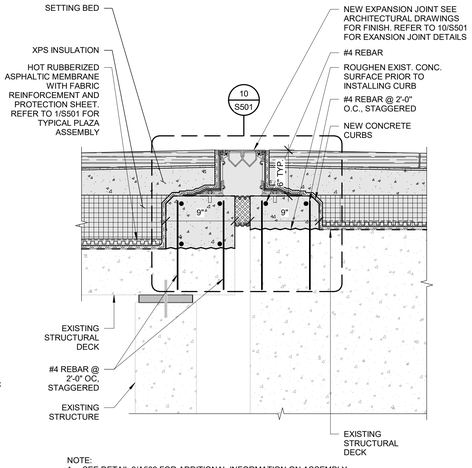
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

DRAWN BY	DATE	DRAWING NO.
DCB	09.29.25	S501
CHECKED BY	SCALE	
CHP	PER DWG	



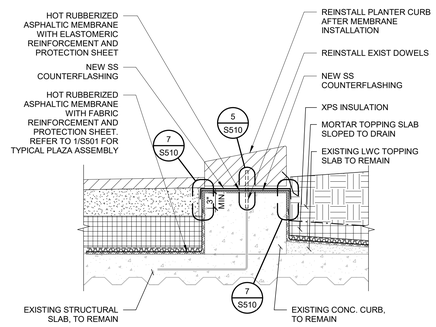
NOTES:
1. SEE DETAILS 6 AND 7 ON SHEET S51- FOR TYPICAL STONE CLADDING CLIPS.
2. SEE DETAIL 4/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

4 PLANTER LAWNS TYPICAL DETAIL
NO SCALE



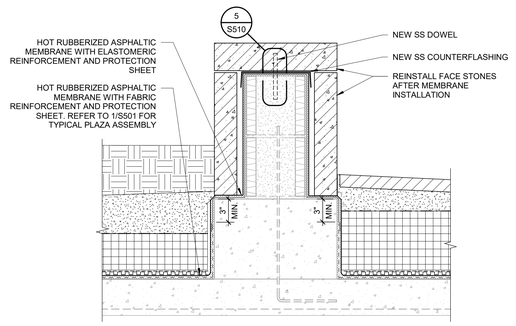
NOTE:
1. SEE DETAIL 3/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

3 KEYSTONE EXPANSION JOINT DETAIL
1 1/2" = 1'-0"



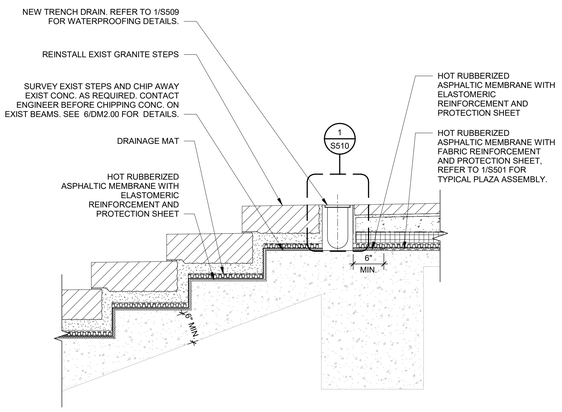
NOTE:
1. SEE DETAIL 2/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

2 KEYSTONE CURB TERMINATION DETAIL
1" = 1'-0"



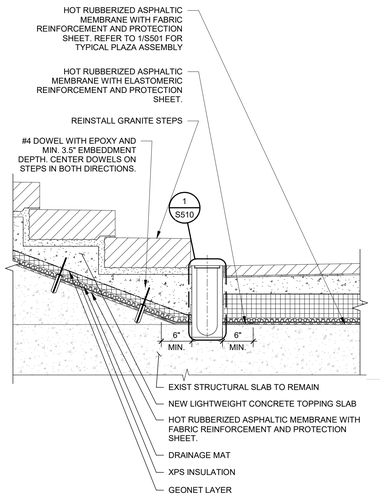
NOTE:
1. SEE DETAIL 1/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

1 KEYSTONE KNEE WALL TERMINATION DETAIL
1 1/2" = 1'-0"



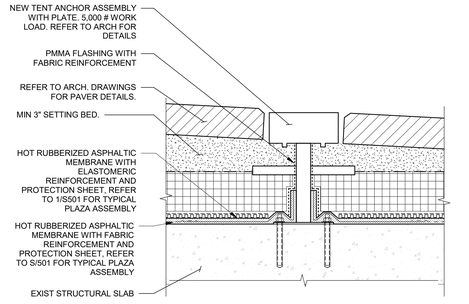
NOTE:
1. SEE DETAIL 8/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

8 STAIR POURED IN-PLACE CONCRETE DETAIL
1" = 1'-0"



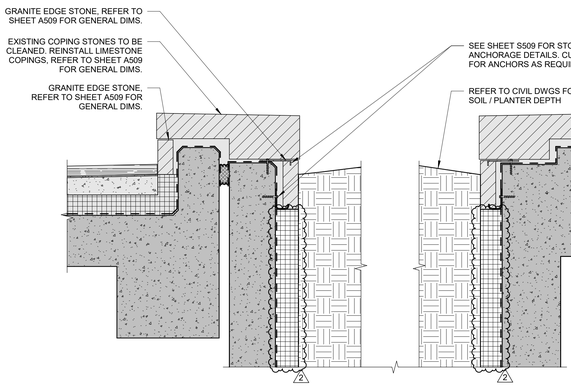
NOTE:
1. SEE DETAIL 7/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

7 STAIR LIGHT WEIGHT CONCRETE FILL DETAIL
1" = 1'-0"



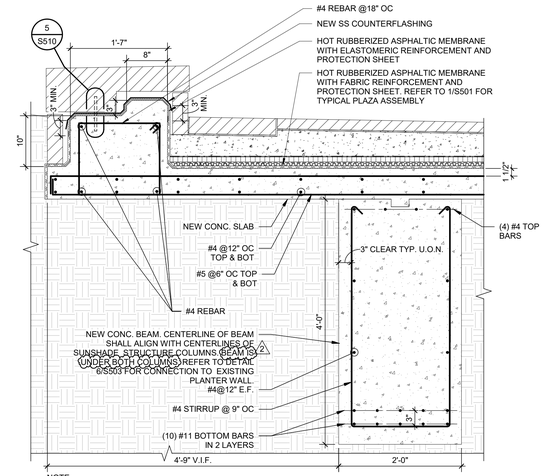
NOTE:
1. SEE DETAIL 6/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

6 TYPICAL TENT ANCHOR DETAIL
3" = 1'-0"



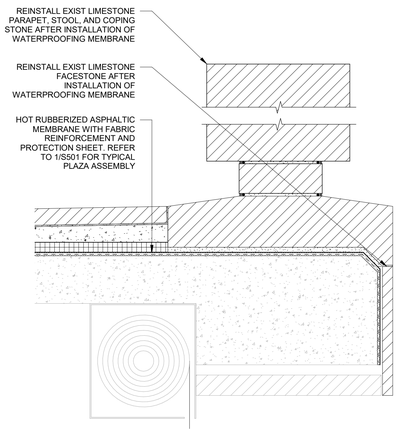
NOTE:
1. SEE DETAIL 5/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

5 UNEXCAVATED PLANTER BASE DETAIL
NO SCALE



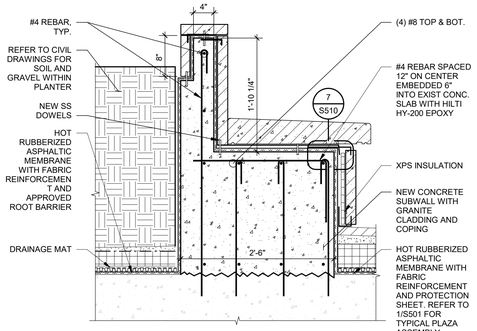
NOTE:
1. SEE DETAIL 12/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

12 SLAB ON GRADE PLANTER WALL DETAIL
1" = 1'-0"



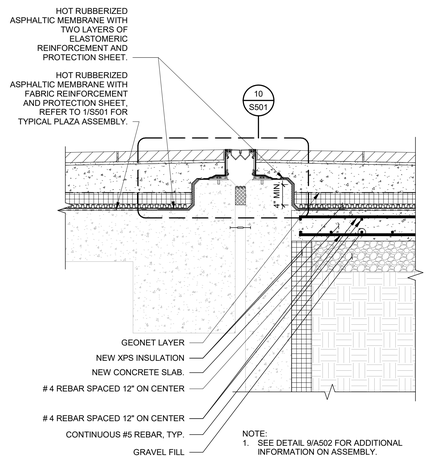
NOTES:
1. PRIOR TO ANY REMOVAL OR REINSTALLATION WORK CLOSE THE NEARBY AREA.
2. SEE DETAIL 11/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

11 PARAPET GARAGE ENTRY DETAIL
1" = 1'-0"



NOTE:
1. SEE DETAIL 10/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

10 LINEAR PLANTER DETAIL
1" = 1'-0"



NOTE:
1. SEE DETAIL 9/A502 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

9 SLAB ON GRADE PAVER DETAIL
1" = 1'-0"

2	Addendum 4 09/29/2025		

AS-BUILT REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER P. PINTO
ENGINEER
PE077959
09/29/25

PROFESSIONAL'S SIGNATURE DATE

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DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS 948-87 PHASE 1

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

WATERPROOFING DETAILS

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:

0 1

IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL

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DCB	09.29.25	S502
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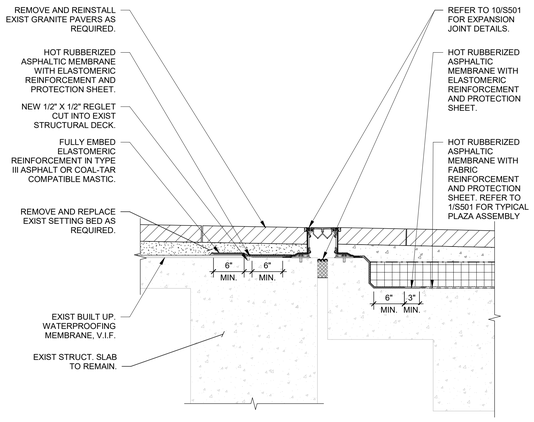
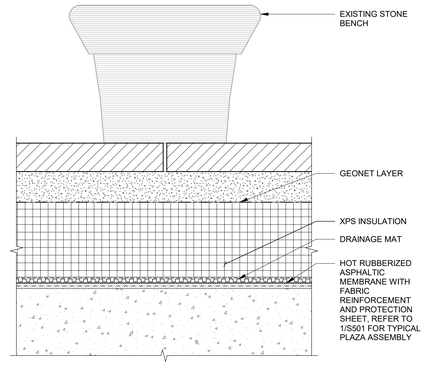
CHP	PER DWG	



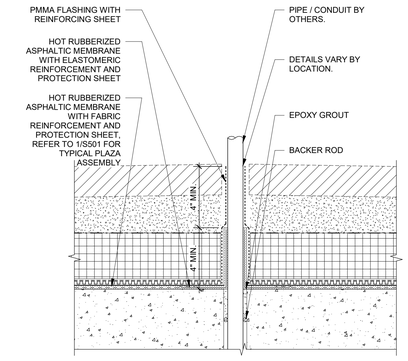
NOTE:
1. SEE DETAIL 4/A503 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

4 MUSEUM THRESHOLD DETAIL
1" = 1'-0"



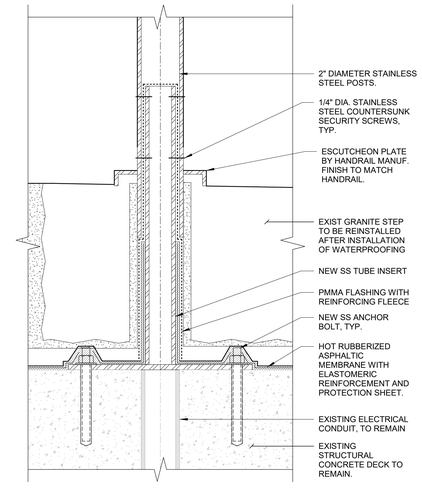
NOTE:
1. SEE DETAIL 3/A503 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

3 STONE BENCH REINSTALLATION DETAIL
1 1/2" = 1'-0"



NOTE:
1. SEE DETAIL 2/A503 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

2 TYPICAL PENETRATION DETAIL
3" = 1'-0"

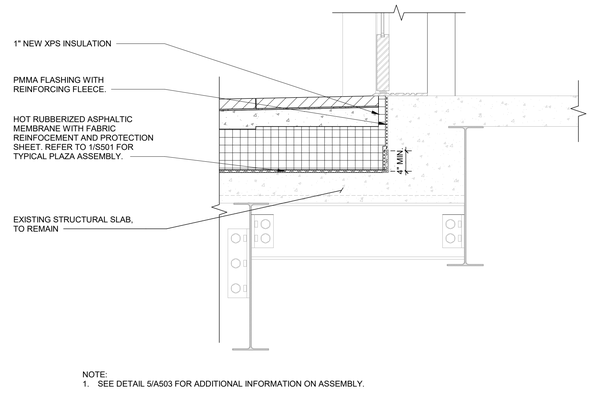


NOTE:
1. SEE DETAIL 1/A503 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

1 HANDRAIL BASE DETAIL
6" = 1'-0"

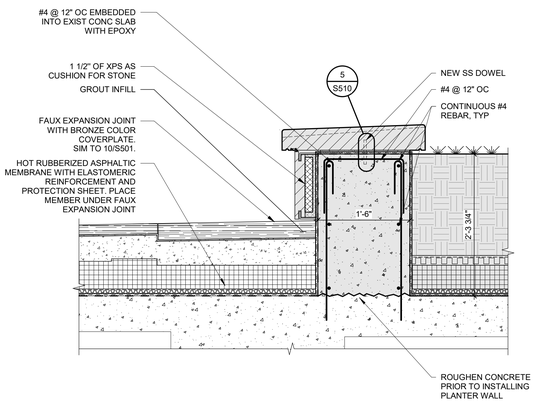
7 NORTH STREET SLAB ON GRADE DETAIL
3/8" = 1'-0"

6 NEW BEAM CONNECTION TO EXISTING PLANTER WALL
3/4" = 1'-0"

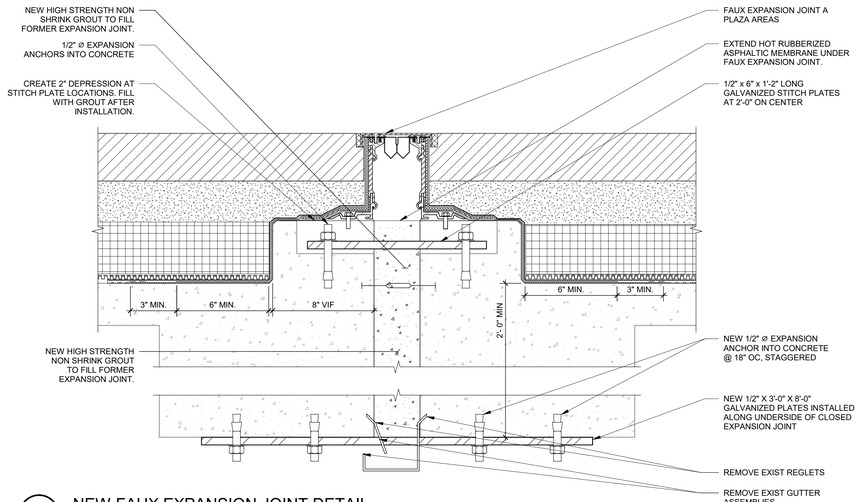


NOTE:
1. SEE DETAIL 5/A503 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

5 KEYSTONE THRESHOLD DETAIL
1" = 1'-0"



9 FALSE EXPANSION JOINT AT PLANTER LAWN
1" = 1'-0"



8 NEW FAUX EXPANSION JOINT DETAIL
3" = 1'-0"

2	Addenda 4 09/29/2025	

AS-BUILT REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER P. PINTO
ENGINEER
PE077958
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PROFESSIONAL'S SIGNATURE DATE

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HARRISBURG, PENNSYLVANIA

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DGS 948-87 PHASE 1

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PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

WATERPROOFING DETAILS

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0 1

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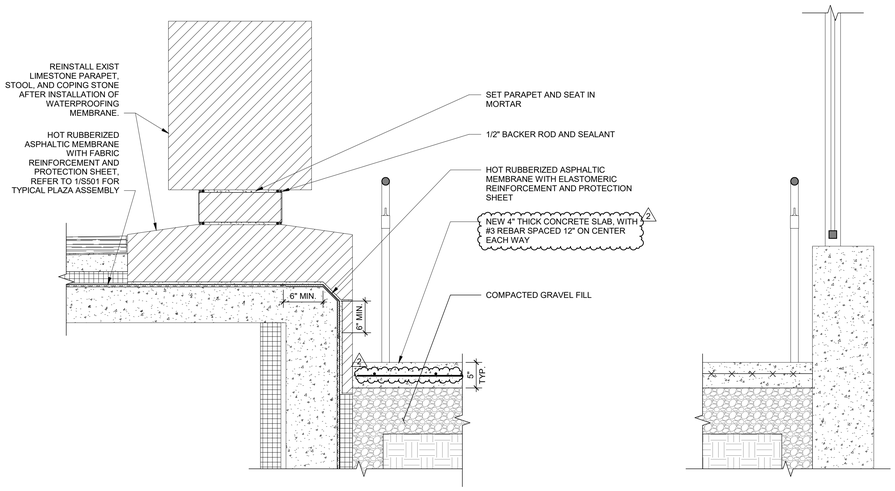
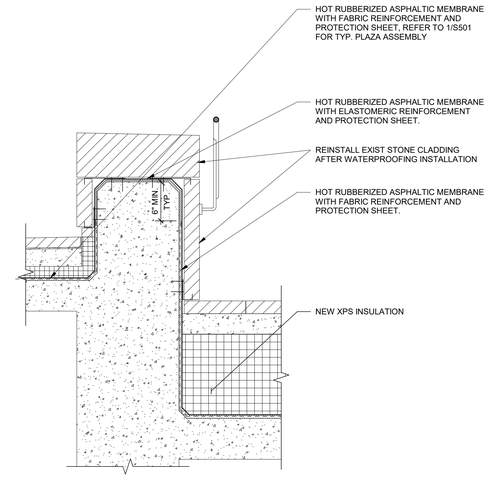


NOTES:
1. PRIOR TO ANY REMOVAL OR REINSTALLATION WORK CLOSE THE NEARBY AREA.
2. SEE DETAIL 2/A505 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

2 FORSTER STREET RAMP WALL DETAIL

1" = 1'-0"



NOTES:
1. SEE DETAIL 1/A505 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

1 MUSEUM RAMP WALL DETAIL

NO SCALE

NOTES:
1. SEE DETAIL 4/A505 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

4 FORSTER STREET RAMP DETAIL

NO SCALE

NOTES:
1. SEE DETAIL 3/A505 FOR ADDITIONAL INFORMATION ON ASSEMBLY.

3 MUSEUM RAMP WALL DETAIL

1" = 1'-0"

2	Addenda 4 09/29/2025		

AS-BUILT REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL CHRISTOPHER P. PINTO ENGINEER PE077959 SEAL

PROFESSIONAL'S SIGNATURE DATE

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D.G.S. PROJECT No.
DGS 948-87 PHASE 1

PLAZA PAVER REPAIR / REPLACMENT
PA STATE MUSEUM,
THE CAPITOL COMPLEX
HARRISBURG, DAUPHIN COUNTY, PA

FORESTER STREET & MUSEUM RAMP DETAILS

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