

GENERAL STRUCTURAL NOTES

PART 1 – GENERAL REQUIREMENTS AND DESIGN CRITERIA

1.1 GENERAL DESCRIPTION OF THE WORK

- A. THESE S–SERIES DRAWINGS INCLUDE ONLY STRUCTURAL REQUIREMENTS FOR THE PLAZA REPAIRS. SEE R–SERIES DRAWINGS FOR BUILDING ENVELOPE, WATERPROOFING, AND FLASHING.
- B. REFER TO THE PROJECT MANUAL FOR GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, FOR GENERAL REQUIREMENTS, AND FOR DETAILED REQUIREMENTS FOR MATERIALS AND WORKMANSHIP.
- C. THE CONTRACTOR IS RESPONSIBLE FOR DISCOVERING AND REPAIRING ALL DETERIORATED CONCRETE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
- D. THE STRUCTURAL SCOPE INCLUDES, BUT IS NOT LIMITED TO:
 - 1. PLAZA DECK CONCRETE REPAIRS
 - 2. STAIR AND STAIR WALL REPLACEMENT
 - 3. STAIR TOPPING SLAB REPLACEMENT
 - 4. NEW SLAB–ON–GRADE.

1.2 GENERAL

- A. DETAILS, SECTIONS AND NOTES CONTAINED IN THE STRUCTURAL CONTRACT DOCUMENTS SHALL BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS EVEN IF NOT EXPLICITLY REFERENCED, UNLESS OTHERWISE NOTED (UON).
- B. DEFICIENT WORK AND/OR WORK NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL COMPENSATE THE CLIENT FOR SERVICES ARISING FROM DEFICIENT WORK.
- C. COST OF INVESTIGATION AND/OR REDESIGN INCURRED BY THE ENGINEER DUE TO CONTRACTOR ERRORS WILL BE AT THE CONTRACTOR'S EXPENSE.
- D. CONTRACTOR IS RESPONSIBLE FOR DETERMINING WHETHER SHORING IS REQUIRED AND FOR DESIGN AND INSTALLATION OF SHORING.
- E. THESE DRAWINGS REPRESENT THE COMPLETED PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FALSE WORK, STAGING, BRACING, SHEETING AND SHORING, ETC.
- F. DEVELOPING AND IMPLEMENTING JOB SITE SAFETY AND CONSTRUCTION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

1.3 SPECIFICATIONS

- A. REFER TO PROJECT SPECIFICATIONS FOR DETAILED REQUIREMENTS FOR MATERIAL AND WORKMANSHIP.
- B. THE STRUCTURAL CONTRACT DOCUMENTS INCLUDE THESE S–SERIES DRAWINGS AND GENERAL NOTES AND SPECIFICATION SECTIONS FOR CAST–IN–PLACE CONCRETE AND CONCRETE REPAIR.

1.4 ELEVATIONS & DIMENSIONS

- A. ALL DIMENSIONS, ELEVATIONS AND CONDITIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK AND PRIOR TO THE SUBMISSIONS OF SHOP DRAWINGS. UPON RECEIPT OF SHOP DRAWINGS, THE ENGINEER HAS THE RIGHT TO ASSUME THAT ALL FIELD DIMENSIONS, ELEVATIONS AND CONDITIONS HAVE BEEN VERIFIED BY THE CONTRACTORS AND THAT THE SHOP DRAWINGS ACCURATELY REFLECT SUCH VERIFICATIONS UNLESS STATED OTHERWISE ON THE SHOP DRAWINGS.

1.5 BUILDING CODES AND REFERENCED STANDARDS

- A. 2008 DISTRICT OF COLUMBIA MUNICIPAL REGULATIONS (DCMR 12, 2008)
- B. 2006 INTERNATIONAL BUILDING CODE (IBC 2006)
- C. 2006 INTERNATIONAL EXISTING BUILDING CODE (IEBC 2006)
- D. MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES (ANSI/ASCE 7–05, 2005)

1.6 DESIGN LOADS

- A. DEAD LOADS: ALL PERMANENT STATIONARY CONSTRUCTION.
- B. FLOOR LIVE LOADS FOR STAIRS AND EXITS: 100 PSF
- C. SNOW LOAD PARAMETERS
 - 1. GROUND SNOW LOAD W/O DRIFT SURCHARGE, PG 30 PSF
 - 2. GROUND SNOW LOAD W/ DRIFT SURCHARGE, PG 25 PSF
 - 3. SNOW EXPOSURE FACTOR, CE 1.00
 - 4. SNOW LOAD IMPORTANCE FACTOR, I 1.00
 - 5. THERMAL FACTOR, CT 1.20

1.7 DEACTIVATION OF ELECTRICAL CONDUIT

- A. PRIOR TO CONDUCTING CONCRETE DEMOLITION LOCATE AND DEACTIVATE ALL ELECTRICAL CIRCUITS EMBEDDED IN CONCRETE. REFER TO E–SERIES DRAWINGS.

PART 2 – CONCRETE WORK

2.1 CONCRETE MIX PROPERTIES

ELEMENT	28 DAY STRENGTH	MAX. W/C	AIR CONTENT
1. STAIR SLABS AND STAIR WALLS	5,000 PSI	0.40	6% +/- 1.5
2. TOPPING SLABS	5,000 PSI	0.40	6% +/- 1.5
3. SLAB–ON–GRADE	5,000 PSI	0.40	6% +/- 1.5

B. PORTLAND CEMENT: ASTM C150, TYPE II.
C. DENSITY: NORMAL WEIGHT

2.2 STEEL REINFORCEMENT

- A. ASTM A615 GRADE 60, DEFORMED.
- B. ASTM A497 WELDED WIRE REINFORCEMENT (USE FLAT SHEETS ONLY).
- C. DO NOT TACK OR SPOT–WELD CROSSING BARS.

2.3 SPLICING OF REINFORCEMENT:

- A. AS SHOWN ON DRAWINGS BUT NOT LESS THAN 50 BAR DIAMETERS FOR SLABS AND BEAM BOTTOM BARS, AND NOT LESS THAN 65 BAR DIAMETERS FOR WALLS AND BEAM TOP STEEL.
- B. LAP W.W.R. 8 IN. OR TWO SQUARES, WHICHEVER IS GREATER.
- C. TIE BARS AND WIRES TOGETHER AT LAP.

2.4 REINFORCEMENT SHOP DRAWINGS

- A. SUBMIT FOR APPROVAL, COMPLETE BENDING AND PLACING DETAILS OF ALL REINFORCEMENT INCLUDING WELDED WIRE REINFORCEMENT, INDICATING POSITION OF SPLICES.
- B. INCLUDE ACCESSORY DRAWINGS.

2.5 MINIMUM CONCRETE CLEAR COVER

- A. PROVIDE 2 IN. CLEAR COVER TO ALL NEW REINFORCEMENT, UON ON THE DRAWINGS.

2.6 POST–INSTALLED ANCHORS

- A. ANCHORING SYSTEM: HILTI HIT–RE 500 EPOXY ADHESIVE ANCHORING SYSTEM
 - 1. FIELD DETERMINE SUBSTRATE SLAB THICKNESS AND SUBMIT INFORMATION TO ENGINEER FOR REVIEW PRIOR TO DRILLING.
 - 2. FOLLOW HILTI INSTALLATION REQUIREMENTS AND RECOMMENDATIONS.
 - 3. PROVIDE STANDARD DEPTH OF EMBEDMENT AS LISTED BY HILTI, UON.
 - 4. DO NOT USE IN AN OVERHEAD APPLICATION.

2.7 EXISTING SURFACE TREATMENT

- A. SEE SPECIFICATIONS FOR CONCRETE SURFACE PREPARATION REQUIREMENTS.

2.8 STANDARD SPECIFICATIONS AND REFERENCE STANDARDS

- A. FOLLOW THE LATEST RECOMMENDATIONS AND SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE:
 - 1. ACI 301 SPECIFICATION FOR STRUCTURAL CONCRETE
 - 2. ACI 302 CONCRETE FLOOR AND SLAB CONSTRUCTION
 - 3. ACI 304 MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE
 - 4. ACI 305 HOT WEATHER CONCRETING
 - 5. ACI 306 COLD WEATHER CONCRETING
 - 6. ACI 315 DETAILING FOR CONCRETE REINFORCING
 - 7. ACI 318 GENERAL DESIGN OF ITEMS NOT OTHERWISE SPECIFIED
 - 8. ACI 347 FORMWORK FOR CONCRETE
 - 9. CRSI MANUAL OF STANDARD PRACTICE

PART 3 – EXCAVATION AND BACKFILL

- 3.1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES, ABOVE AND BELOW GRADE STRUCTURES, ETC., WHETHER INDICATED OR NOT, THAT MAY BE AFFECTED BY THE CONSTRUCTION PROCESS.
- 3.2 ALL SHORING, SHEETING AND DEWATERING SHALL BE THE TOTAL RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR'S ENGINEER, REGISTERED IN THE DISTRICT OF COLUMBIA, SHALL DESIGN THE SHEETING AND SHORING AND PROVIDE SIGNED AND SEALED SUBMITTALS FOR REVIEW.
- 3.3 BACKFILL MATERIAL AND COMPACTION REQUIREMENTS SHALL BE THE TOTAL RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR'S GEOTECHNICAL ENGINEER, REGISTERED IN THE DISTRICT OF COLUMBIA, SHALL SUBMIT A SPECIFICATION FOR BACKFILL MATERIAL AND COMPACTION REQUIREMENTS FOR REVIEW. THE ENGINEER SHALL BE RESPONSIBLE FOR OBSERVING BACKFILLING OPERATIONS, COLLECTING COMPACTION DATA AND SUBMITTING REPORTS TO OWNER.



owner:



4200 Connecticut Avenue, NW
Washington, DC 20008

RENOVATION OF GUEST ROOMS & DRESSING ROOMS AT THE CAMPUS AUDITORIUM, BUILDING 46E, UDC VAN NESS CAMPUS

BID PACKAGE - 1
B - LEVEL PLAZA RESTORATION

architect:



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GENERAL NOTES

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owner:



4200 Connecticut Avenue, NW
Washington, DC 20008

RENOVATION OF GUEST ROOMS &
DRESSING ROOMS AT THE CAMPUS
AUDITORIUM, BUILDING 46E, UDC
VAN NESS CAMPUS

BID PACKAGE - 1
B-LEVEL PLAZA RESTORATION

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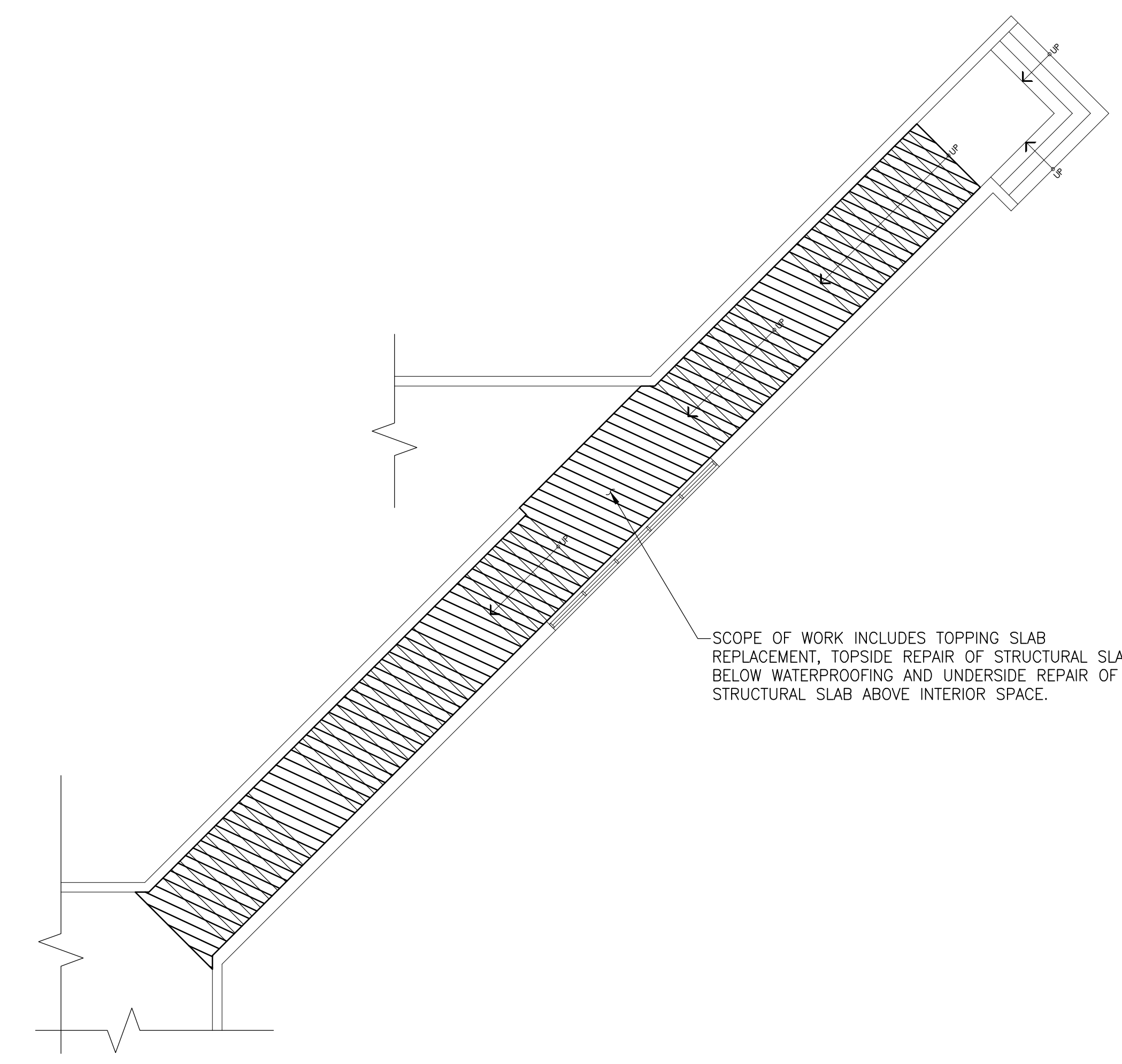
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rev	date	by
Issued for Bidding and Permit	10.31.2012	

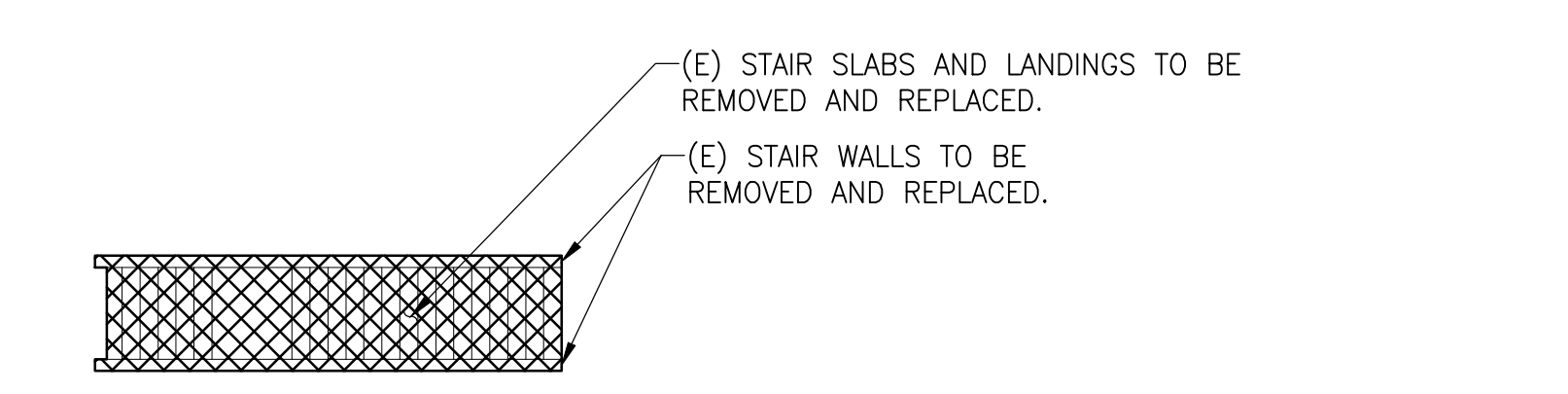
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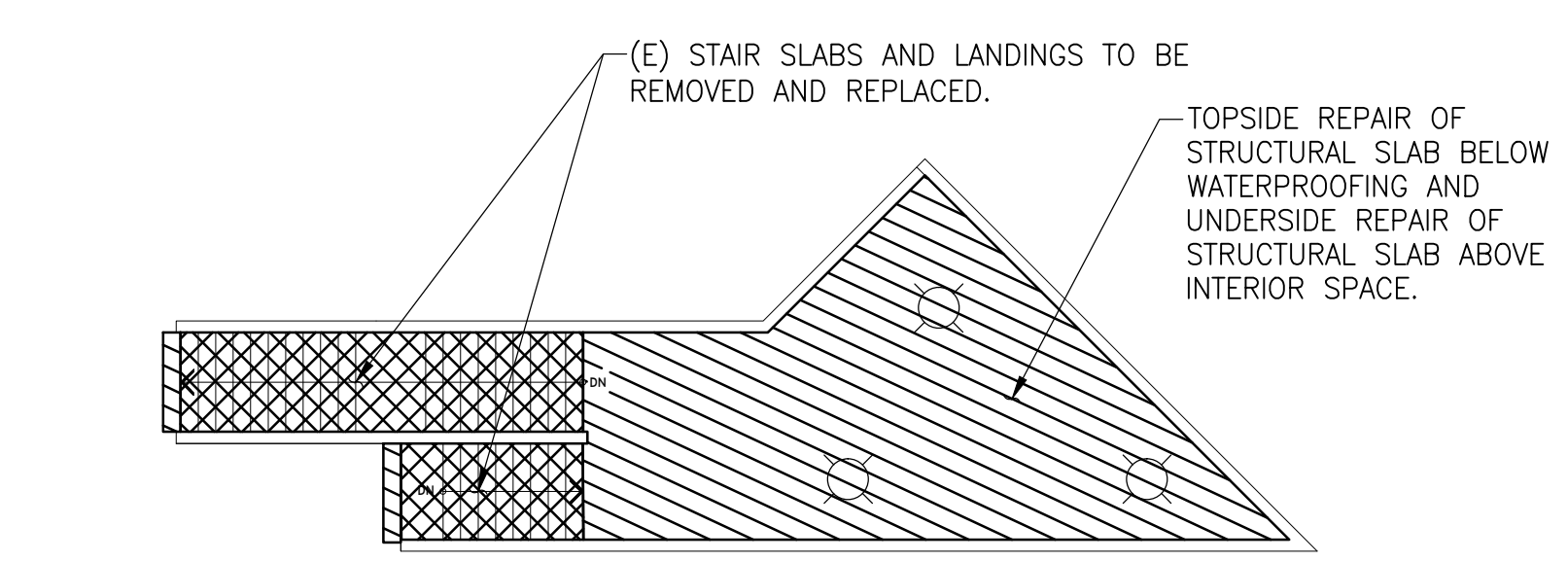
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2 PART PLAN - LOBBY STAIR 3/32" = 1'-0"



3 PART PLAN - C-LEVEL STAIR 3/32" = 1'-0"

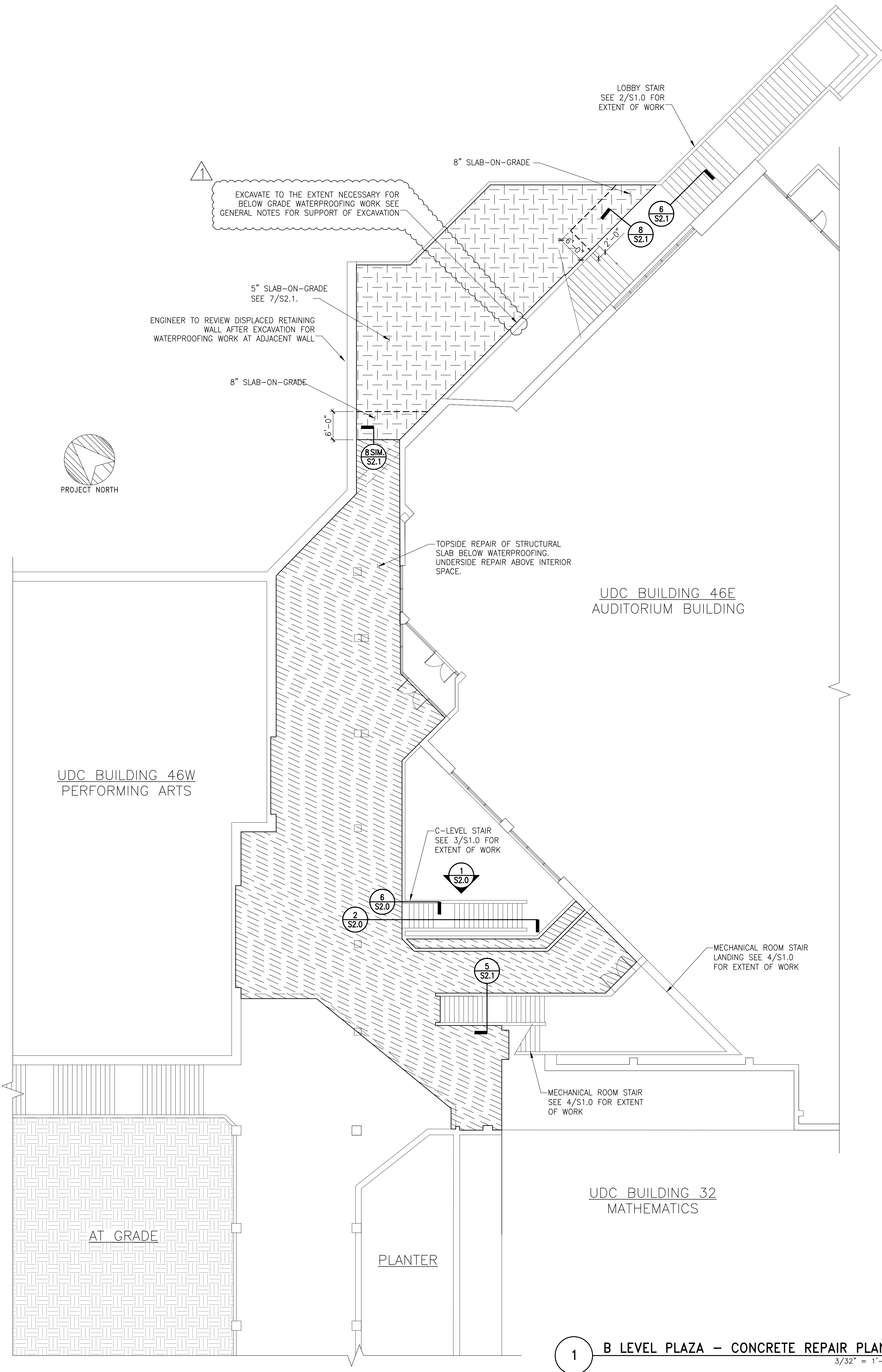


4 PART PLAN - MECHANICAL ROOM STAIR 3/32" = 1'-0"

LEGEND

	EXTENT OF ELEVATED PLAZA DECK CONCRETE REPAIR WORK
	EXTENT OF STAIR REPLACEMENT
	EXTENT OF NEW SLAB-ON-GRADE

- SCOPE OF WORK**
- Slab-on-Grade:**
1. Install new slab-on-grade and gravel base. See R-Series Drawings for plaza paving assembly.
- Lobby Stair:**
2. Remove and replace stair topping slab. See R-Series Drawings for waterproofing repairs.
- C-Level Stair:**
3. Remove and replace stair slabs, stair landings, and stair walls. See R-Series Drawings for waterproofing repairs.
- Mechanical Room Stair:**
4. Remove and replace stair slabs and stair landings. See R-Series Drawings for waterproofing repairs.
- Concrete Repairs:**
5. Use non-destructive methods to locate existing reinforcement as necessary to avoid damaging existing reinforcement.
 6. After removal of existing planters, topping slabs, pavers, setting bed, and waterproofing, visually survey and sound topside and underside of structural slab to identify extent of proposed topside, underside, and full-depth concrete repairs based on extent of unsound concrete. Mark areas for proposed repairs both directly on the structure and graphically on plan drawings for the Engineer to review prior to conducting repairs.
 7. See A-Series Drawings for requirements for replacement of interior finishes removed to conduct concrete repair work.
 8. See specifications for material and workmanship requirements for concrete repair.
 9. Provide unit prices for concrete repair work.
- Retaining Wall:**
10. Excavate to the extent necessary to conduct below grade waterproofing work. See general notes for requirements for excavation work.
 11. After removal of earth to the extent needed for foundation waterproofing engineer to review the condition of the existing displaced retaining wall and design remedial work if needed.
 12. Alternate - Replace the displaced retaining wall. The contractor's engineer, registered in the project's jurisdiction, shall design the replacement retaining wall and provide signed and sealed drawings and calculations for review.



1 B LEVEL PLAZA - CONCRETE REPAIR PLAN 3/32" = 1'-0"



UDC BUILDING 46W
PERFORMING ARTS

UDC BUILDING 46E
AUDITORIUM BUILDING

UDC BUILDING 32
MATHEMATICS

AT GRADE

PLANTER

EXCAVATE TO THE EXTENT NECESSARY FOR
BELOW GRADE WATERPROOFING WORK SEE
GENERAL NOTES FOR SUPPORT OF EXCAVATION

5" SLAB-ON-GRADE
SEE 7/S2.1.

ENGINEER TO REVIEW DISPLACED RETAINING
WALL AFTER EXCAVATION FOR
WATERPROOFING WORK AT ADJACENT WALL

8" SLAB-ON-GRADE

6'-0"

6 SIM
S2.1

TOPSIDE REPAIR OF STRUCTURAL
SLAB BELOW WATERPROOFING.
UNDERSIDE REPAIR ABOVE INTERIOR
SPACE.

C-LEVEL STAIR
SEE 3/S1.0 FOR
EXTENT OF WORK

2
S2.0

6
S2.0

5
S2.1

MECHANICAL ROOM STAIR
LANDING SEE 4/S1.0
FOR EXTENT OF WORK

MECHANICAL ROOM STAIR
SEE 4/S1.0 FOR EXTENT
OF WORK

LOBBY STAIR
SEE 2/S1.0 FOR
EXTENT OF WORK

8" SLAB-ON-GRADE

8
S2.1

6
S2.1

SCOPE OF WORK INCLUDES TOPPING SLAB
REPLACEMENT, TOPSIDE REPAIR OF STRUCTURAL SLAB
BELOW WATERPROOFING AND UNDERSIDE REPAIR OF
STRUCTURAL SLAB ABOVE INTERIOR SPACE.